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**Third Catalogue of Stars
Measured in the Long-Term
Photometry of Variables Project
(1990-1992)**

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Third Catalogue of stars measured in the Long-Term Photometry of Variables Project 1990–1992^{*}

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Summary In this catalogue we present the photometric data in the Stromgren photometric system obtained during the period October 1990 – January 1992 in the framework of the Long-Term Photometry of Variables (LTPV) program at the European Southern Observatory. The catalogue is available in computer readable form at the Centre de Donnees de Strasbourg.

Keywords : Multicolor photometry – Stromgren *uvby* system – variable stars

1. Introduction

For an introduction to the background of the *Long-Term Photometry of Variables (LTPV)* project, we refer to Sterken (1983, 1986), to the *First Catalogue of stars measured in the Long-Term Photometry of Variables project (1982–1986)* (Manfroid et al. 1991) and to the *Second Catalogue of stars measured in the Long-Term Photometry of Variables project (1986–1990)* (Sterken et al. 1993). The present catalogue contains the data resulting from observations collected between October 1, 1990 and February 1, 1992. The presentation of the catalogue is similar to the presentation of the first two catalogues.

Stars are numbered according to their membership in one of 9 pre-defined sections, that each more or less represents a discrete research topic. Each section is headed by a Principal Investigator and a co-investigator. Table 1 lists all sections, and the corresponding investigators. Section 7 consists of all objects which required immediate monitoring due to the occurrence of unexpected events (flares or bursts), or due to exceptional observational configurations (e.g., simultaneous ground-based and space observations).

Table 1. Sections and Principal Investigators

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| <ol style="list-style-type: none"> 1. Pre-main sequence stars (P.S. The, H.R.E. Tjin a Djie) 2. Ap Stars (H. Hensberge, J. Manfroid) 3. Eclipsing binaries (H. Duerbeck, A. Bruch) 4. Be stars (N. Vogt, C. Sterken) 5. Supergiants (B. Wolf, M. de Groot) 6. X-ray sources (M. Burger) 7. Targets of opportunity (C. Sterken) 8. Peculiar late-type stars (A. Jorissen) 9. Wolf-Rayet stars (J.-M. Vreux, J. Manfroid) |
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The responsibility for the scientific value of each sub-program rests entirely with the Principal Investigator, who also assumes responsibility for the admission of data in the catalogue. Specific information on program stars can be obtained from these Principal Investigators. The list of monitored objects contains more than 200 stars. This list is evolving – though at a rather slow pace dictated by the nature of the project – as stars are added or are taken out. Within each group a running number identifies the star (the first stars of group 1 are 1001, 1002. . .). The comparison stars of each object have the same identification as the program star, and they are

prefixed by a letter (A, B. . .); the program-star code is prefixed by the letter P. The correspondence between these codes and common astronomical identifications (HD, HR. . .) is given in Appendix 1, which also contains the coordinates and the spectral types of the observed objects. Appendix 2 lists how frequently each star has been observed within each period indicated in Table 2. About 50% of the stars are observed at a frequency of one measurement per night (throughout the corresponding observing season). The frequency for observing the remaining stars ranges between one measurement every second day to one measurement per month. The majority of objects have negative declinations, but some northern stars have also been observed.

2. The instrumental configuration

The Stromgren *uvby* photometric system was used throughout, because this system is very well suited to the physical interpretation of the results: the intermediate bandwidths make reductions easier (that is, for what concerns extinction determination, but not for the color transformation – see Section 4). The combination of an intermediate-bandwidth filter system and a telescope of modest aperture, of course, puts some constraints on the limiting magnitude of the selected objects (the faintest star is of 10th magnitude), but the advantages of using such a system instead of broadband filters are of higher importance.

All data reported in this catalogue have been obtained with the Danish 50 cm telescope (from December 1987 on, referred to as SAT, *Stromgren Automatic Telescope*, see Florentin Nielsen et al. 1987). The SAT is equipped with a multichannel *uvby* photometer featuring four uncooled EMI9789QB tubes (Florentin Nielsen 1983). The data obtained in that configuration were referred to as *System 7* in the first two catalogues. Departing from the philosophy adopted in these previous catalogues, all data listed here are in the natural (instrumental) SAT system (hereafter identified as *System N*; see Section 4).

3. The observations

The observations were made in periods of about one month length, each period involving a different observer. In some cases two observing runs were grouped in a single period before performing the final reductions. Table 2 lists the relevant information, together with the number of useful nights, and the number of useful observations in each period. The last column indicates the particular instrumental system of each observing run – for this catalogue it is always system *N*.

Table 2. Log of observations. The number of useful data is the number of groups (P, A, B, ...) that have been observed.

Run	Month	$HJD_{\odot} - 2,440,000.$	Useful nights	Useful data	Observers	Telescope
1	October 1990	8166–8200	20	924	N. Vogt, R. Kneer	SAT
2	November 1990	8215–8239	21	700	B. Cunow	SAT
3	December 1990/January 1991	8244–8294	24	1325	M. Niehues, A. Jorissen	SAT
4	June/July 1991	8413–8464	26	778	R. Krenzlin, W. Schönrich	SAT
5	August/September 1991	8486–8530	28	1325	M. Kruijswijk, M. Sevenster	SAT
6	October/November 1991	8531–8578	27	830	M. Naumann, N. Vos	SAT
7	January 1992	8645–8660	14	677	M. de Groot	SAT

Depending on the object and on the accuracy needed, an observation may consist of a simple sequence APB or APA, or of a more extended one like APBPBPA. Because of the long-term nature of the program, multiple observations of a star within a single night were entered in the Table of Appendix 2 as one single independent observation. Some program stars have several identifications, sometimes because they have been taken as comparison stars for other nearby program stars, or, occasionally, because they have been selected by Principal Investigators of different sections. Sometimes, a HR standard star is also a comparison star in some groups. We have listed all measurements with all different identifiers for the following reasons:

- if a star is measured with a single identifier as a comparison star to different program stars, its photometric data appear in the tables corresponding to each of these identifiers, and not only in the table with that single identifier
- if the star is measured with different identifiers, in totally different groups, possibly in different sections, the data have been repetitiously reproduced for the sake of completeness, so that a more complete analysis of the variability of that star can be carried out, or better color indices and magnitudes can be obtained
- the body of material so added is only a small percentage of the total amount of data given in this catalogue.

4. The data reduction

A thorough description of the mathematical methods can be found in Sterken & Manfroid (1992). The algorithm uses every measurement of every constant star and of every standard star. Since the LTPV project involves a large number of measurements of comparison stars, the advantages are obvious. The implementation of this reduction procedure equally facilitated the task of the observer who did not have to comply with a tedious and complicated schedule of extinction measurements.

The adopted procedure allows a continuous updating of the data sets. Every time additional measurements are obtained, the complete set corresponding to the SAT

system is reprocessed.

The only modifications in the reduction procedure, relatively to that described in the First Catalogue (Manfroid et al. 1991) concerns the color transformation.

The color-transformation equation used for the first two catalogues was written as:

$$U_s = MU_0 + K \quad (1)$$

where U is the vector of indices:

$$U = \begin{pmatrix} b - y \\ y \\ m_1 \\ c_1 \end{pmatrix} \quad (2)$$

The suffixes s and 0 denote the standard and instrumental values, respectively. K is the vector of zero-points.

The color-transformation matrix M is

$$M = \begin{pmatrix} m_{11} & 0 & 0 & 0 \\ m_{21} & 1 & 0 & 0 \\ m_{31} & 0 & m_{33} & 0 \\ m_{41} & 0 & 0 & m_{44} \end{pmatrix} \quad (3)$$

For the reductions of the measurements reported in this catalogue, we forced the data to be in the natural system, that is

$$m_{i,j} = \delta_{i,j} \quad (4)$$

This procedure, of course, is only justified when we adopt adequate “standards” in the natural system. Because of the vast amount of data accumulated throughout the LTPV project we do have such standards: the about 400 constant stars having the very best measurements were selected as standards. Part of these already were HR standards, others are very reliable comparison stars). The adopted standard values in the natural system (system N) are the instrumental values of those stars, to which only a zero point correction was applied. The zero point correction is such that by applying the transformation parameters listed in Table 3 of catalogues 1 and 2, one obtains data directly compatible with the ones listed in those catalogues. Of course, for old data it is

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better still to access the complete data base which is constantly updated, and which we plan to have installed at the CDS (up to now, CDS data consist of the original catalogues, with few corrections).

Out of those standards, 75 are present in the list recently published by Olsen (1993). The average differences Olsen minus LTPV computed for these 75 stars are 0.0015 ± 0.0049 , 0.0083 ± 0.0027 , -0.0126 ± 0.0069 and 0.0416 ± 0.0061 , respectively in y , $b - y$, m_1 and c_1 . The individual differences are given in Table 3. Part of the differences is simply due to the somewhat arbitrary choice of zero points. Another part reflects the declination trend mentioned by Olsen (1993), an effect which is marginally detectable in our data: a regression analysis yields coefficients -6.6 ± 2.7 , -5.7 ± 1.3 , -14.1 ± 3.5 , 7.7 ± 3.3 in units of $10^{-5} \text{ mag}^\circ$, respectively for y/δ , $(b - y)/\delta$, m_1/δ and c_1/δ . These gradients are different from the values deduced by Olsen (1993), especially in m_1 , and it is likely that, due to the derivation of our instrumental standards, part of the effect is already corrected. This remaining δ effect has no influence at all on any analysis based on differential LTPV data. The δ effect could be much more important when comparing absolute data obtained at other telescopes. By selecting other standard values, one could repro-

cess the data according to other color-transformation schemes. In particular, it is possible to use the transformations given by Olsen (1993).

The following non-linear transformations (Eqs. 5–7) are also possible and give a good fit to the standard values published by Olsen (1983), and supplemented by a few stars from Olsen (1984). The stars are divided into two subgroups, according to the value of $b - y$ — except for y , which allows a single transformation:

$$y_s = y_0 - 0.001 + 0.013(b - y) \quad (5)$$

Let $r = b - y - 0.41$. For blue stars ($r < 0$), we use

$$\begin{aligned} (b - y)_s &= 0.418 + 0.979r - .089r^2 \\ m_{1,s} &= -0.008 + m_1 + 0.074r + 0.192r^2 \\ c_{1,s} &= .043 + 1.009c_1 + 0.068r - 0.103r^2 \end{aligned} \quad (6)$$

while redder stars ($r \geq 0$) obey

$$\begin{aligned} (b - y)_s &= 0.418 + 1.028r \\ m_{1,s} &= -0.008 + 1.000m_1 + 0.129r \\ c_{1,s} &= .043 + 1.009c_1 + 0.530r \end{aligned} \quad (7)$$

Table 3. Differences between Olsen (1993) instrumental standards and LTPV standards (Olsen minus LTPV, in units of $0^m.0001 \text{ mag}$) for the stars in common between both catalogues.

Star	y	b-y	m ₁	c ₁	Star	y	b-y	m ₁	c ₁	Star	y	b-y	m ₁	c ₁
HR100	7	-5	-3	33	HR3131	7	9	-5	34	HR6141	3	2	-6	43
HR493	7	-1	-19	48	HR3249	6	-1	-13	45	HR6243	7	0	-12	38
HR531	6	-6	-12	42	HR3297	11	10	-18	47	HR6603	8	6	-9	40
HR672	9	-1	-19	46	HR3314	10	7	1	26	HR6930	5	1	-7	33
HR811	7	-3	1	42	HR3454	13	3	3	38	HR7254	5	1	1	26
HR962	9	1	-15	43	HR3459	5	7	-12	42	HR7446	8	0	-11	50
HR1024	9	-1	-21	50	HR3538	10	6	-20	48	HR7447	6	-6	-3	34
HR1030	5	-4	-6	40	HR3759	11	3	-14	39	HR7525	8	3	-15	46
HR1089	8	-1	-22	50	HR3849	7	10	-7	43	HR7602	8	0	-9	40
HR1292	6	-2	-19	47	HR3856	6	9	0	33	HR7773	8	-4	-10	34
HR1409	8	-6	-8	43	HR3901	13	0	-24	45	HR7858	13	-13	-17	38
HR1861	10	3	-11	44	HR4293	8	5	-5	31	HR7936	8	0	-10	40
HR2233	12	1	-21	44	HR4343	6	4	-2	29	HR8060	9	-2	-15	41
HR2236	7	-4	-21	47	HR4515	13	-3	-14	34	HR8181	6	1	-9	42
HR2251	9	1	-18	46	HR4695	13	2	-22	49	HR8313	7	7	-13	50
HR2313	8	2	-19	47	HR4889	7	1	-6	33	HR8431	9	-2	-9	34
HR2622	8	7	-20	45	HR5011	13	1	-21	43	HR8515	0	18	-15	58
HR2779	17	-2	-26	44	HR5168	8	1	-9	36	HR8551	9	0	-18	50
HR2798	12	6	-23	48	HR5270	12	-2	-23	45	HR8729	9	2	-18	47
HR2807	9	10	-18	42	HR5530	8	1	-16	44	HR8826	8	1	-12	41
HR2866	9	8	-18	47	HR5660	5	8	-11	39	HR8848	9	-1	-10	41
HR2880	10	3	-17	43	HR5825	4	2	-10	41	HR8969	6	-5	-9	42
HR2883	8	2	-20	45	HR5868	10	-7	-12	37	HR9072	8	-4	-7	32
HR2918	11	6	-21	46	HR5885	5	6	-4	45	HR9076	8	1	-6	37
HR2927	7	7	-11	36	HR5997	6	3	-11	41	HR9091	9	0	-13	47

5. Accuracy of the data

It is not easy to assign an error bar to absolute photometric measurements (see Manfroid & Heck, 1984). Comparison of magnitudes and color indices obtained for the same stars in different systems can give an idea of the accuracy of the absolute results (such a comparison certainly could give an idea of the incompatibilities between various versions of the *uvby* system, see e.g., Manfroid & Sterken 1987, and Sterken & Manfroid 1987). However, since our goal is not absolute (all-sky) photometry, and since the observations should be used for differential photometry *only*, a most representative parameter of quality of data is the standard deviation of the differences between comparison stars (see also Sterken & Manfroid 1991).

Table 4. Mean value (in units of 0^m0001 mag) of the rms deviations of the differential measurements of comparison stars for individual observing runs. Run #2, with too few observations, was excluded.

Run #	<i>y</i>	<i>b</i> - <i>y</i>	<i>m</i> ₁	<i>c</i> ₁
1	42	17	20	35
3	47	23	36	58
4	52	22	32	59
5	54	23	34	52
6	47	20	35	55
7	45	32	42	55

The mean value of the rms deviations of the differential measurements of comparison stars are listed in Table 4 for individual observing runs. In computing these indices, we have limited ourselves to relatively bright stars ($u, y < 8^m0$) having at least six observations per single observing run. For Table 4, we excluded one run containing fewer than 4 such stars.

6. Results

In Table 5 we give a list of papers based on data given in, or related to, Appendix 3 of this catalogue as well as regarding Appendix 3 of the First and Second catalogues.

Table 5. List of publications based on data obtained during the LTPV project.

1. C. Sterken: Long-Term Photometry of Variables at La Silla. 1983, *The Messenger*, 33, 10
2. O. Stahl, B. Wolf, G. Klare, A. Cassatella, J. Krautter, P. Persi, M. Ferrari-Toniolo: R127: an S Dor type variable intermediate between Of and WN. 1983, *Astron. Astrophys.*, 127, 49

3. H.R.E. Tjin a Djie, L. Remijn, P.S. The: A study of the Herbig Ae-type stars UX Ori and CD-44°3318 based on IUE spectra, and on visual and infrared photometry. 1984, *Astron. Astrophys.*, 134, 273
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5. I. Appenzeller, G. Klare, O. Stahl, B. Wolf, F.-J. Zickgraf: CASPEC and IUE: A Perfect Match. 1984, *The Messenger*, 38, 28
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12. R. Schulte-Ladbeck: AS 338, or how I found my “Pet Symbiotic” 1985, *The Messenger*, 39, 3
13. P.S. The, H.R.E. Tjin A Djie, A. Brown, C. Catala, V. Doazan, J.L. Linsky, R. Mewe, F. Praderie, A. Talavera, C. Zwaan: The bright pre-main sequence star HR5999. 1985, *Irish Astronomical Journal*, 17, 79
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16. H. Hensberge: A Search for Long-Term Photometric Variability in CP-2 stars. 1985, in *Upper Main-sequence Stars with Anomalous Abundances*, Proc. IAU Coll. 90, Eds. C.R. Cowley, M.M. Dworetaky, C. Mégessier. Reidel Publishing Co. p1758
17. P.S. The, P.R. Wesselius, H.R.E. Tjin a Djie, H. Steenman: Studies of the Chamaeleon star-forming region II. The pre-main sequence stars HD 97048 and 97300. 1986, *Astron. Astrophys.*, 155, 347
18. F.-J. Zickgraf, B. Wolf, O. Stahl, C. Leitherer, I. Appenzeller: B[e] supergiants of the Magellanic Clouds. 1986, *Astron. Astrophys.*, 163, 119
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22. C. Sterken: Monitoring variable stars on a long time-baseline. 1986, *Instrumentation and Research Programmes for Small Telescopes*. IAU Symp 118, eds. J.B. Hearnshaw, P.L. Cottrell. p255
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7. The catalogue

The data catalogue is given in Appendix 3. It lists the individual magnitudes and color indices of all program stars and comparison stars (identification, heliocentric Julian date, air mass and four-color data). This printed version of the catalogue is distributed to the libraries of the principal astronomical institutes around the world. We plan to have a computer-readable copy with the full catalogue 1982–1991 available from the Strasbourg Data Centre (CDS).

Appendix 4 contains the average observed V (i.e. y), $b - y$, m_1 and c_1 for each standard star in the natural SAT system. The number of measurements, the standard deviations and the differences between the calculated and the standard values, are also listed.

8. Update to the first catalogues

The CDS will be provided with updated values of the data printed in the first and second catalogues (Manfroid et al. 1991, Sterken et al. 1993). Several misidentifications are corrected, and data of poor quality are taken out.

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Long Term Photometry of Variables

Appendix 1

Stars sorted by right ascension

Long Term Photometry of Variables

This Table lists the program stars and comparison stars that were observed during the period 1990–1992. Whenever possible, common identifications, and also spectral types, have been provided. In order to facilitate the search for a given object, all objects are sorted in ascending order of right ascension. When looking for objects according to their LTPV code, one must also consult Appendix 2.

Description of the table

Column 1	LTPV code. 'P' means a variable star. 'A', 'B', 'C'... are comparison stars (a same star may exist under different LTPV codes).
Column 2	HD number.
Column 3	HR number.
Column 4 and 5	Other identifications.
Column 6 and 7	Coordinates at equinox 2000.
Column 8	Spectral type, taken from various sources in the literature. These spectral types are very approximate indications, and are given for purposes of orientation only. Several faint stars have no identification. Additional information – such as finding charts – can be obtained from the Principal Investigators (Table 1).

Catalogue 1990–1992

Stars sorted by right ascension							
Code	HD	HR	Other identifications		α_{2000}	δ_{2000}	Spectrum
P2029	HD2209			SAO232036	0 25 42	– 50 50 17	F1Sr
A2029	HD2653			SAO232065	0 29 49	– 50 41 56	F5
B2029	HD3562			SAO232120	0 38 1	– 50 44 2	A2
A7069	HD 6178	HR293			1 2 25	– 31 33 6	
P5022	HD 6884		CpD-73 64	R40	1 7 19	– 72 28 2	B8Iae
A5022	HD 6997		CpD-73 65	SAO255745	1 8 8	– 73 0 54	G8III
B5022	HD 7031		CpD-72 85	SAO255746	1 8 40	– 71 50 16	G5w
P7069	HD 7676				1 16 8	– 34 9 4	A5pSrCrEu
B7069	HD 8130				1 17 58	– 36 30 17	
B8009	HD 15248	HR 715	CpD-74 194		2 22 55	– 73 38 51	K0III
P8009	HD 19014		CpD-85 34		2 44 57	– 85 9 39	K5II Ba
A8009	HD 18293	HR 872	CpD-75 204		2 50 31	– 75 4 5	K3III
A2030	HD19733			SAO258323	3 0 11	– 81 5 22	F0
P2030	HD19918			SAO258324	3 0 37	– 81 54 0	A5SrEuCr
B2030	HD22056			SAO258335	3 20 13	– 82 15 51	F0
B6006	HD 21081		CpD-54 545	SAO233083	3 21 42	– 54 1 26	K0III
A6006	HD 21265		CpD-54 550	SAO233102	3 23 26	– 54 9 57	K1IIICN
P6006			CpD-53 567	SAO233120	3 27 0	– 53 33 55	M0
B7063	HD 22560		CoD-35 1298	SAO194397	3 36 32	– 34 47 27	K1III
A7063	HD 22771		CoD-35 1309	SAO194420	3 38 21	– 34 49 43	K3III
P7063			NGC1399		3 38 29	– 35 27 2	B
P7071	HD25631	HR1258			4 3 24	– 20 8 38	B2.5V
B3001	HD 26465		BD-11 821	SAO149430	4 10 45	– 11 19 57	K2
P3001	HD 26750		SAO149466	BM Eri	4 13 26	– 10 22 13	gM5
A3001	HD 26902		BD-10 872	SAO149482	4 14 49	– 10 34 11	K0
A2031	HD28107			SAO216780	4 24 12	– 40 3 10	B9
B2031	HD28358			SAO216803	4 26 37	– 40 31 46	A0
P2031	HD28430			SAO216810	4 27 22	– 40 11 50	A2EuCrSr
A3002	HD 28843	HR1441	BD-03 809		4 32 38	– 3 12 35	B9III
P3002	HD 29248	HR1463	BD-03 834	ν Eri	4 36 20	– 3 21 11	B2III
B3002	HD 30211	HR1520	BD-03 876		4 45 30	– 3 15 18	B5IV
A5002	HD 32858		CpD-69 320		5 0 31	– 69 21 2	A0V
B4001	HD 32249	HR1617	BD-07 948		5 1 27	– 7 10 27	B3V
B5002	HD 33031		CpD-69 321		5 1 37	– 69 29 46	A7V
P5002	HD269006		CpD-71 308	R71	5 2 15	– 71 20 13	pec
P1001	HD293782		UX Ori		5 4 31	– 3 47 19	A3e
A1001	HD 32721		BD-03 999	SAO131749	5 5 7	– 3 40 12	A1V
A5024	HD 33486		CpD-68 311		5 5 9	– 68 5 12	A0IV
B1001	HD 32884		BD-03 1010	SAO131766	5 6 14	– 3 29 6	B8V
A4001	HD 33224	HR1671	BD-08 1037		5 8 21	– 8 39 54	B8V
P4001	HD 33328	HR1679	BD-08 1040		5 9 10	– 8 45 16	B2IVne
A5003	HD 34144		CpD-69 334		5 9 29	– 69 9 35	A4III/IV
P5003	HD269128		CpD-68 326	R81	5 10 25	– 68 46 24	B2.5Iab
B5003	HD 34651		CpD-68 335		5 13 39	– 68 1 16	F0V
P5019	HD269321		CpD-69 352	R85	5 17 59	– 69 16 4	B5Iae
A5004	HD 35293		CpD-68 348		5 18 5	– 68 21 20	A1m
A5019	HD 35293		CpD-68 348		5 18 5	– 68 21 20	A1m
B5004	HD 35294		CpD-68 350		5 18 6	– 68 27 59	G2IV:
B5019	HD 35294		CpD-68 350		5 18 6	– 68 27 59	G2IV:
B5025	HD 35294		CpD-68 350		5 18 6	– 68 27 59	G2IV:
P5004	HD 35343		CpD-69 356	S Dor	5 18 17	– 69 15 0	A0e
B7061	HD 35474		CpD-66 399		5 20 3	– 66 3 32	F2/F3IV/V
P8038	HD 35155		BD-08 1099	SAO132035	5 22 19	– 8 39 59	S
A8038	HD 35369	HR1784	BD-07 1064		5 23 58	– 7 48 28	G8III
P5024	HD269582		HV5495		5 27 50	– 68 59 22	Ofpe
B1046	HD 36251		BD-02 1271		5 30 21	– 2 18 22	G0
P5025	HD269662		CpD-69 387	R110	5 30 43	– 69 2 56	B9:Iab
A1046	HD 36352		BD-02 1275	SAO132201	5 30 57	– 2 41 56	B9
P1046			BD-02 5297	RY Ori	5 32 10	– 2 49 47	F6
B5018	HD 37584		CpD-72 386		5 32 22	– 72 49 58	A3V
A7061	HD 37297	HR1917	CpD-64 456		5 32 57	– 64 13 57	G9III
A5018	HD 37722		CpD-69 396		5 34 46	– 69 28 19	A1V
A5025	HD 37722		CpD-69 396		5 34 46	– 69 28 19	A1V
P1041			BD-05 1324	NV Ori	5 35 32	– 5 33 13	F6.2IIIvar
P1040			BD-05 1329	T Ori	5 35 51	– 5 28 39	A3V

Long Term Photometry of Variables

Stars sorted by right ascension (continued)

Code	HD	HR	Other identifications		α_{2000}	δ_{2000}	Spectrum
B1031	HD 37210		BD-06 1254	SAO132357	5 36 31	- 6 27 14	B9IV-Vp
B1040	HD 37210		BD-06 1254	SAO132357	5 36 31	- 6 27 14	B9IV-Vp
B1041	HD 37210		BD-06 1254	SAO132357	5 36 31	- 6 27 14	B9IV-Vp
B1044	HD 37210		BD-06 1254	SAO132357	5 36 31	- 6 27 14	B9IV-Vp
P5018	HD269858		CpD-69 427	R127	5 36 43	- 69 30 10	pec
P1044	HD 37258		BD-06 1257	V586 Ori	5 37 0	- 6 9 16	A2V
P1031			BD-06 1259	BF Ori	5 37 13	- 6 35 3	A5II-IIIvar
A1045			BD-09 1193	SAO132377	5 37 31	- 9 14 21	A0
A1031	HD 37399		BD-06 1269	SAO132388	5 38 3	- 6 23 36	F5
A1040	HD 37399		BD-06 1269	SAO132388	5 38 3	- 6 23 36	F5
A1041	HD 37399		BD-06 1269	SAO132388	5 38 3	- 6 23 36	F5
A1044	HD 37399		BD-06 1269	SAO132388	5 38 3	- 6 23 36	F5
P1045			V350 Ori		5 40 12	- 9 42 10	A0
B1045	HD 37757		BD-10 1255	SAO150675	5 40 32	- 10 25 59	B9
B8038	HD 37828		BD-11 1258	SAO150685	5 40 56	- 11 11 58	K0
B1036	HD 38155		BD+00 1166	SAO113085	5 43 49	1 3 12	A5
A1036	HD 38203		BD+00 1168	SAO113090	5 44 13	0 57 28	A3
P1036	HD 38238		BD+00 1170	V351 Ori	5 44 19	0 8 36	A7III
A7077	HD39014	HR2015			5 44 45	- 65 44 7	A7V
P7077	HD39844	HR2064		SAO249368	5 49 53	- 66 54 4	B6V
A8050	HD 40399			SAO150980	5 58 1	- 12 48 26	K1III
P8050			BD-10 1334		5 59 7	- 10 52 35	S(red)
B8050	HD 40605			SAO150994	5 59 21	- 12 50 6	K4III
P4002	HD 41335	HR2142	BD-06 1391		6 4 14	- 6 42 32	B2Vne
B7077	HD42525	HR2194			6 6 8	- 66 2 22	A0V
A4002	HD 42690	HR2205	BD-06 1446		6 11 52	- 6 33 0	B2V
P8011	HD 44896		CoD-33 2935		6 22 55	- 33 36 51	K5III Ba
A8011	HD 44956	HR2307	CoD-31 3245		6 23 16	- 31 47 23	G8III
C8008	HD 44951	HR2305	BD-11 1478		6 24 12	- 11 31 45	K3III
B8011	HD 45383	HR2329	CoD-34 2864		6 25 31	- 35 3 47	K3III
A4017	HD 45321	HR2325	BD-04 1510		6 26 36	- 4 35 48	B2.5V
B4017	HD 45418		BD-04 1514		6 27 2	- 4 21 18	B5
B4002	HD 45546	HR2344	BD-04 1526		6 27 58	- 4 45 42	B2V
P4017	HD 45725	HR2356	BD-06 1574		6 28 50	- 7 1 57	B3Ve
B8008	HD 45976	HR2367	BD-09 1493		6 30 12	- 10 4 52	K0
A8008	HD 46184	HR2379	BD-12 1518		6 31 24	- 12 23 27	K3III
P8008	HD 46407	HR2392	BD-11 1520		6 32 48	- 11 9 57	K0III:
A4004	HD 46936	HR2415	CoD-32 3168		6 34 36	- 32 42 56	B8V
A4014	HD 46936	HR2415	CoD-32 3168		6 34 36	- 32 42 56	B8V
A4003	HD 48434	HR2479	BD+04 1414		6 43 39	3 55 57	B0III
P4004	HD 48917	HR2492	CoD-30 3484	10 CMa	6 44 30	- 31 4 11	B2IIIe
B4004	HD 49028	HR2497	CoD-30 3495		6 45 4	- 30 35 8	B8IV
B4014	HD 49028	HR2497	CoD-30 3495		6 45 4	- 30 35 8	B8IV
P4003	HD 49014		BD+10 1262	V505 Mon	6 46 48	10 44 6	B9
B4003	HD 49567	HR2517	BD+01 1531		6 49 4	1 0 8	B3II-III
P4014	HD 50123	HR2545	CoD-31 3717		6 50 24	- 31 42 20	B6Vnpe
B9010	HD 50711		CoD-24 4553		6 53 23	- 24 41 0	A2
A9010	HD 50853	HR2578	CoD-24 4565		6 53 57	- 24 32 18	A1
P9010	HD 50896	HR2583	CoD-23 4553	SAO172546	6 54 14	- 23 55 39	WNS
A1013	HD 52096		CoD-42 2851	SAO218342	6 57 51	- 42 36 19	A6III
P7002			NGC2346		7 7 59	- 0 45 59	
A7002					7 7 59	- 0 45 59	
B7002					7 7 59	- 0 45 59	
B8010	HD 55184	HR2713	BD+05 1580		7 12 8	5 28 30	K0III
P4005	HD 56014	HR2745	CoD-26 4057	27 CMa	7 14 16	- 26 21 6	B3IIIe
P4006	HD 56139	HR2749	CoD-26 4073	28 CMa	7 14 49	- 26 46 19	B2IV-Ve
A4005	HD 56876	HR2774	CoD-26 4140		7 17 49	- 26 47 47	B2IV-V
A4006	HD 56876	HR2774	CoD-26 4140		7 17 49	- 26 47 47	B2IV-V
A8010	HD 56989	HR2778	BD+02 1640		7 19 23	2 44 28	G9III
P1013			CpD-44 1442	NX Pup	7 19 30	- 44 35 7	F0Ipe
B4007	HD 58346	HR2826	BD-22 1855		7 24 18	- 22 54 43	B8
P8040			BD-08 1900		7 25 3	- 8 17 37	S:
B4005	HD 58612	HR2841	CoD-24 5366		7 25 26	- 25 13 0	B7III
B4006	HD 58612	HR2841	CoD-24 5366		7 25 26	- 25 13 0	B7III
P8010	HD 58368		BD+07 1719		7 25 39	7 33 41	K0

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Code	HD	HR	Other identifications		α_{2000}	δ_{2000}		Spectrum
P4007	HD 58978	HR2855	BD-22 1874	FY CMa	7 27 1	- 23 5	6	B0IV:pe
A4007	HD 59136	HR2860	BD-22 1878		7 27 44	- 22 51	29	B5V:
P2004	HD 59256	HR2863	CoD-28 4383		7 28 1	- 29 9	17	B9Vsp
A3004	HD 59438	HR2868	BD-14 1925		7 29 24	- 14 59	40	F7V
A8040	HD 59671		BD-08 1948	SAO134769	7 30 37	- 9 3	18	K0
B8040	HD 59669	HR2876	BD-04 1979	SAO134774	7 30 51	- 5 13	31	K0
P8012	HD 60197		CoD-29 4525		7 32 9	- 29 38	2	K3III
A7057	HD 60165		CoD-22 4654		7 32 21	- 22 49	56	F0
P7057	HD 60219		BD-21 1997	VX Pup	7 32 37	- 21 55	45	F6
B7057	HD 60368		CoD-22 4683		7 33 17	- 22 17	49	G0
P3004	HD 60414	HR2902	BD-14 1971	KQ Pup	7 33 49	- 14 31	22	M2Iabpe+
B1013	HD 60813		CoD-42 3338	SAO218813	7 34 29	- 42 23	52	A5Vms
B3004	HD 60552		BD-13 2101	SAO153083	7 34 30	- 13 52	11	F5
A8012	HD 60666	HR2916	CoD-26 4574		7 34 36	- 27 0	43	K1III
A2004	HD 60863	HR2922	CoD-28 4566		7 35 24	- 28 22	4	B8V
B8012	HD 61409	HR2942	CoD-34 3760		7 37 46	- 35 16	35	K1III
B2004	HD 61672	HR2956	CoD-26 4722		7 39 28	- 26 51	42	B7V
A4018	HD 62623	HR2996	CoD-28 4774		7 43 49	- 28 57	14	A3Iab:
B4018	HD 63028		CoD-23 6155		7 45 53	- 24 15	16	B5V
P4018	HD 63462	HR3034	CoD-25 5081		7 48 6	- 25 56	9	B0V:pe
A8053			BD-04 2097	SAO135135	7 49 11	- 4 39	31	K0
P8051	HD 63733				7 49 45	- 19 0	19	S
B8041	HD 64152	HR3068	BD-20 2235		7 51 44	- 21 10	23	G8III
P8053			BD-04 2121		7 52 23	- 5 6	59	S
B8053				SAO135204	7 52 47	- 3 54	32	K1
A8051	HD 64498			SAO153554	7 53 40	- 16 51	9	K0III
B8051	HD 64612			SAO174756	7 53 57	- 21 1	54	K1III
A8041	HD 64974	HR3096	CoD-30 5275		7 55 15	- 30 55	0	K4III
P8041	HD 65699	HR3123	BD-22 2104		7 59 6	- 23 18	33	K2Iab:
A3005	HD 66740		CoD-26 5458	SAO175094	8 4 2	- 26 58	21	F5V
P3005			CoD-26 5491	LW Pup	8 5 27	- 26 40	56	F5
B3005	HD 67357		CoD-26 5525	SAO175189	8 6 41	- 26 27	37	F5:V:
P4008	HD 68980	HR3237	CoD-35 4349	MX Pup	8 13 31	- 35 53	54	B1.5IIIe
B4008	HD 70060	HR3270	CoD-36 4449		8 18 34	- 36 39	33	A7III
P2003	HD 71066	HR3302	CpD-71 678	κ^2 Vel	8 20 3	- 71 30	15	A0IVmn
A4008	HD 70556	HR3283	CoD-36 4513		8 21 22	- 36 28	58	B2IV-V
A2003	HD 71576	HR3334			8 22 15	- 73 21	36	A0.5IV-V
A3006	HD 71949		CpD-47 2268	SAO219970	8 28 13	- 47 40	20	A7V
B3006	HD 72109		CpD-47 2295	SAO219984	8 29 3	- 48 2	10	B8IV
P3006			CoD-47 4047	AL Vel	8 31 13	- 47 39	52	K0III+
A8036	HD 74543		CpD-73 523	SAO256536	8 38 39	- 74 4	29	K1III
P8052			BD-21 2601		8 49 15	- 21 52	32	S
B2003	HD 76270	HR3544	CpD-72 747		8 49 52	- 72 32	58	Am
A8052	HD 75739			SAO176576	8 51 3	- 22 21	26	K0III
B8052	HD 75944			SAO176608	8 52 24	- 21 29	30	K2III
A3008	HD 80936		CpD-52 2248	SAO236867	9 20 46	- 53 15	13	K0III
P3008	HD 81137		CpD-52 2262	WY Vel	9 22 0	- 52 33	44	M4Ib e
B3028	HD 80991		BD-21 2774		9 22 32	- 22 31	2	K2
B3008	HD 81433		CpD-51 2172		9 23 43	- 52 25	30	A9V
P3028	HD 81410		CoD-23 8347		9 24 50	- 23 49	26	K2
A3028	HD 81904		CoD-23 8402		9 27 59	- 23 40	37	K0
A4019	HD 82747	HR3810	BD-22 2645		9 33 27	- 22 51	45	A0Vn
P4019	HD 83953	HR3858	BD-22 2684		9 41 17	- 23 35	22	B6Ve
P8036	HD 84678		CpD-75 607	CoD-75 446	9 41 55	- 75 39	42	K0p
B4019	HD 84117	HR3862	CoD-23 8646		9 42 16	- 23 55	1	F9IV
B9009	HD 85810		CpD-54 2808		9 52 41	- 55 27	6	B8IV/V
A9009	HD 86000		CpD-54 2842		9 53 59	- 54 50	44	B8/B9IV:
P9009	HD 86161		CpD-57 2420	WR16	9 54 54	- 57 43	31	WN8
B5023	HD 87470		SAO237649		10 2 57	- 58 52	27	A0
A5023	HD 87419		CpD-58 1839	SAO237641	10 3 6	- 58 36	36	F3V
P1014	HD 87643		CpD-58 1865	SAO237672	10 4 31	- 58 39	44	pec
P5023	HD 87643		CpD-58 1865	SAO237672	10 4 31	- 58 39	44	B2pec
A8037	HD 87808	HR3977	BD-16 2974		10 7 10	- 17 8	18	K5III
P8037	HD 88562		BD-15 3003	SAO155816	10 12 30	- 15 53	14	K5
B8037	HD 89033	HR4034	BD-10 3029		10 16 10	- 11 12	4	K0

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Code	HD	HR	Other identifications	α_{2000}	δ_{2000}	Spectrum
B4015	HD 89569	HR4061	CpD-55 3220	10 18 41	- 56 6 34	F6V
P4015	HD 89890	HR4074	CpD-55 3286	10 20 56	- 56 2 26	B3IIIe
P5021	HD 90177		CpD-58 2145	10 22 55	- 59 37 21	B2evar
A8013	HD 90677	HR4107	CpD-54 3651	10 26 51	- 54 52 30	K3II-III
B8013	HD 91437	HR4139	CoD-43 6347	10 32 34	- 44 36 57	G7III
P5005	HD 92207	HR4169	CpD-58 2411	10 37 28	- 58 43 51	A0Iae
A4015	HD 92287	HR4173	CpD-56 3588	10 38 4	- 57 15 14	B3IV
B5005	HD 92399		CpD-58 2462	10 38 46	- 59 15 36	B4/B5III/IV
A5005	HD 92421		CpD-58 2471	10 38 58	- 59 15 59	B8III
P8013	HD 92626		CpD-47 4419	10 40 51	- 48 1 22	G8/K0p
P9003	HD 92740	HR4188	CpD-59 2450	10 41 19	- 59 40 28	WN7+abs
A5006	HD 93010		CpD-60 2203	10 43 10	- 61 9 58	B3III
A5007	HD 93010		CpD-60 2203	10 43 10	- 61 9 58	B3III
A5021	HD 93010		CpD-60 2203	10 43 10	- 61 9 58	B3III
P9002	HD 93131		CpD-59 2548	10 43 53	- 60 6 55	WN7+abs
P9004	HD 93162		CpD-59 2561	10 44 12	- 59 43 2	WN7+abs
P5006	HD 93308	HR4210	CpD-59 2620	10 45 4	- 59 40 54	
B5006	HD 93502	HR4217	CpD-59 2671	10 46 19	- 60 36 2	A0IV
B5007	HD 93502	HR4217	CpD-59 2671	10 46 19	- 60 36 2	A0IV
B5021	HD 93502	HR4217	CpD-59 2671	10 46 19	- 60 36 2	A0IV
B2005	HD 93453		CoD-42 6484	10 46 38	- 43 11 22	A4IV
B3009	HD 94715		CpD-59 2833	10 54 51	- 59 52 34	A0/A1V
P2005	HD 94660	HR4263	CoD-41 6220	10 55 2	- 42 14 54	B8 Si-strong
A2005	HD 94724		CoD-42 6595	10 55 29	- 43 1 5	A0V
P3009	HD 94878		CpD-59 2855	10 56 1	- 60 23 24	Be
A3009	HD305773		CpD-59 2856	10 56 5	- 60 29 29	B3
P5007	HD 94910		CpD-59 2860	10 56 13	- 60 27 4	B2:pe
B9001	HD 96287		CpD-63 1819	11 4 51	- 64 36 48	B9.5V
A9002				11 4 51	- 64 36 48	
B9002	HD 96287		CpD-63 1819	11 4 51	- 64 36 48	B9.5V
B9003	HD 96287		CpD-63 1819	11 4 51	- 64 36 48	B9.5V
B9004	HD 96287		CpD-63 1819	11 4 51	- 64 36 48	B9.5V
P9001	HD 96548		CpD-64 1629	11 6 19	- 65 30 26	WN8
C9001	HD 96568	HR4326	CpD-64 1630	11 6 26	- 64 50 13	A3V
C9002	HD 96568	HR4326	CpD-64 1630	11 6 26	- 64 50 13	A3V
C9004	HD 96568	HR4326	CpD-64 1630	11 6 26	- 64 50 13	A3V
A5008	HD100122		CpD-58 3677	11 30 48	- 58 48 33	G8/K0III+
P5008	HD100261	HR4441	CpD-58 3692	11 31 47	- 59 26 22	G0Ia
B5008	HD100613		CpD-58 3717	11 34 8	- 59 40 44	F3/F5IV/V
B8036	HD100901		CpD-72 1143	11 35 48	- 72 50 25	K0/K1III
B6002	HD101070		CpD-62 2147	11 37 23	- 63 8 49	B0.5IV
A6002	HD102368		CpD-61 2611	11 46 36	- 62 4 38	B0III
P6002	HD102567		CpD-61 2636	11 48 1	- 62 12 15	B1Vne
P3012	HD105998		CpD-58 4151	12 11 59	- 58 46 49	G2Iab
B3012	HD106086		CpD-59 4097	12 12 26	- 60 3 54	A8IV
A3012	HD106552		CpD-58 4192	12 15 34	- 59 10 47	G5V
B2007	HD115967	HR5030	CpD-71 1467	13 22 53	- 72 8 38	B6V
P2007	HD116458	HR5049	CpD-69 1838	13 25 51	- 70 37 29	B9 CrEu
A2007	HD116579	HR5051	CpD-74 1059	13 27 19	- 74 41 20	B9V
B8034	HD117246		BD-17 3862	13 29 29	- 18 43 35	K4III
P8034	HD121447		BD-17 3961	13 55 47	- 18 14 49	Mp
A8034	HD121699	HR5246	BD-22 3687	13 57 29	- 23 1 14	K0
B2026	HD141637	HR5885		15 50 58	- 25 45 4	B3V
A2026	HD142315			15 54 41	- 22 45 56	B9IV
B4009	HD142640	HR5927	BD-13 4290	15 56 14	- 14 23 49	F7V:
P4009	HD142983	HR5941	BD-13 4302	15 58 12	- 14 16 39	B5IIIpe
P2026	HD142990	HR5942		15 58 34	- 24 49 52	B5IV
A4009	HD143333	HR5954	BD-16 4196	16 0 22	- 16 31 35	F8V
A1017	HD143699	HR5967	CoD-38 10832	16 3 25	- 38 36 3	B6IV
A1018	HD143699	HR5967	CoD-38 10832	16 3 25	- 38 36 3	B6IV
P9005	HD143414		CpD-62 5141	16 3 49	- 62 41 29	WN6
P1017	HD144668	HR5999	CoD-38 10893	16 8 34	- 39 6 12	A7IVe
P1018	HD144667	HR6000	CoD-38 10894	16 8 35	- 39 5 28	A1.5III
B1017	HD145191	HR6015	CoD-40 10251	16 11 18	- 41 7 0	F0IV
P1019	HD147084	HR6081	CoD-23 12849	16 20 39	- 24 10 5	A5Iab:

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Code	HD	HR	Other identifications		α_{2000}	δ_{2000}		Spectrum
P1026	HD148605	HR6141	CoD-24 12695	22 Sco	16 30 13	- 25	6 49	B2V
A9006	HD150608	HR6210	CoD-37 10942		16 43 48	- 38	9 17	B9II-III
B2008	HD151726		CoD-38 11244		16 50 46	- 38	15 19	B9V
P2008	HD151771	HR6244	CoD-37 11023		16 51 0	- 37	30 48	B8II/III
P9006	HD151932	HR6249	CoD-41 10972	SAO227328	16 52 20	- 41	51 12	WN7
B7072	HD152042				16 52 56	- 41	33 54	B1Ib
A1034	HD152216		CoD-35 11158	SAO208145	16 53 27	- 35	27 27	F3V
B5010	HD152147		CpD-41 7694		16 53 29	- 42	7 13	B0Ia
B1034	HD152196		CoD-37 11053	SAO208146	16 53 33	- 37	59 15	F3IV
P7075	HD152218				16 53 59	- 41	42 52	O9.5IV
P5010	HD152236	HR6262	CoD-42 11633		16 54 0	- 42	21 40	B1Iape
P7076	HD152248				16 54 9	- 41	49 29	O7Ib
A7072	HD152247				16 54 10	- 41	38 30	O9.5Iab
P7073	BD-41 7133				16 54 12	- 41	50 30	O9III
P7074	BD-41 7742				16 54 18	- 41	50 14	O8V
P7072	HDE326331				16 54 25	- 41	49 55	O9.7Ia
P1034	HD152404		CoD-36 11056	SAO208174	16 54 46	- 36	53 14	F5V
A5010	HD152424		CoD-41 11068		16 55 3	- 42	5 23	B0Ib/II
A2008	HD153072	HR6298	CoD-37 11131		16 58 53	- 37	37 9	A3V
B8039	HD152980	HR6295	CpD-52 10372		16 59 35	- 53	9 36	K4III
P7058	HD326823		CpD-42 7632		17 6 54	- 42	36 34	Oe
P8039	HD154430		CpD-59 6905		17 8 56	- 59	17 4	K1III
A7058	HD155051				17 11 6	- 41	41 50	B0
B9006	HD150608	HR6210	CoD-37 10942		17 12 16	- 39	30 18	A0
A8039	HD155341	HR6384	CpD-56 8098	SAO244539	17 14 13	- 56	53 15	M1/M2II/III+.
A5011	HD160461		CoD-34 11950		17 41 31	- 34	4 23	A1V
P5011	HD160529		CoD-33 12361		17 42 0	- 33	30 11	A3Iae
A3014	HD160627		CoD-26 12252	SAO186630	17 42 5	- 26	50 41	F0V
B5011	HD160575		CoD-35 11827		17 42 19	- 35	48 2	B1/B2II
P1028	HD161114		BD-06 4638	SAO141834	17 43 57	- 6	16 7	Ape
P3014	HD161387		CoD-26 12327	SAO185724	17 46 25	- 26	12 0	K5Ib+
B3014	HD161406		CoD-27 11914	SAO185726	17 46 31	- 27	26 18	K2III:
A9007	HD163868		CoD-33 12700		17 59 57	- 33	24 29	B5Ve
B9007	HD164152		CoD-32 13617		18 1 20	- 32	44 7	B9V
P9007	HD164270		CoD-32 13623	SAO209609	18 1 44	- 32	42 53	WC9
P9008	HD313846		CoD-23 13879	WR108	18 5 26	- 23	0 21	WN9
P2009	HD165040	HR6745	CpD-63 4292		18 8 34	- 63	39 56	A7sp
P8047	HD324924		CoD-37 12227	WX CrA	18 8 51	- 37	19 34	Rvar
B8047	HD165929		CoD-37 12254		18 10 2	- 37	23 8	G8/K0III
B2009	HD165499	HR6761	CpD-62 5797		18 10 27	- 62	0 18	GOV
A8047	HD166083		CoD-37 12268		18 10 43	- 37	15 1	F0IV
P3018	HD168206		BD-11 4593	SAO161325	18 19 8	- 11	37 59	WC
B3017			CpD-66 3305		18 20 12	- 66	12 30	
P3017			CpD-66 3307	AR Pav	18 20 27	- 66	4 47	B1
A3017	HD167559		CpD-66 3311		18 20 44	- 66	7 52	M2/M3
A5012	HD168552		BD-17 5149		18 21 0	- 17	9 7	B3Ib
A5013	HD168552		BD-17 5149		18 21 0	- 17	9 7	B3Ib
P5012	HD168607		BD-16 4829		18 21 15	- 16	22 32	B9Ia
A3018	HD168639		BD-11 4603		18 21 18	- 11	36 22	B9
P5013	HD168625		BD-16 4830		18 21 20	- 16	22 25	B8Ia:
B5012	HD168896		BD-16 4847		18 22 50	- 16	55 31	A2
B5013	HD168896		BD-16 4847		18 22 50	- 16	55 31	A2
A2009	HD168740	HR6871	CpD-63 4406		18 25 32	- 63	1 12	A3V
B1028	HD170058		BD-04 4470	SAO14232	18 27 45	- 3	57 29	
A1028			BD-04 4476	SAO142339	18 29 7	- 4	26 51	B3
A7056	HD171367		BD+03 3746		18 34 27	3	49 50	K0
P7056			BD+04 3804	BQ Ser	18 36 17	4	23 51	F5III
B7056	HD171767		BD+04 3806		18 36 29	4	57 17	K1III
A9008	HD171923		CoD-22 13166		18 38 15	- 22	32 51	A0
B9008	HD172622		CoD-23 14633		18 42 12	- 23	8 1	A0
P4010	HD173219		BD-07 4689		18 44 34	- 7	6 38	B1:V:npe
B5014	HD173278		BD-06 4869	GC25644	18 44 41	- 6	32 11	K5
B4010	HD173673		BD-06 4893	SAO142610	18 46 47	- 6	41 26	B8
A4010	HD173693		BD-07 4700	SAO142612	18 46 56	- 7	34 45	B9
P5014	HD173819	HR7066	BD-05 4760	R Sct	18 47 29	- 5	42 18	K0Ibivar

Long Term Photometry of Variables

Stars sorted by right ascension (continued)

Code	HD	HR	Other identifications	α_{2000}	δ_{2000}	Spectrum
A5014	HD174208	HR7083	BD-06 4922	18 49 42	- 5 54 46	K2Ib
P1024			CoD-37 13024	19 1 41	- 36 52 33	B2
A1024	HD176616		CoD-36 13248	19 2 43	- 36 5 48	A0IV/V+
B1024	HD177123		CoD-38 13316	19 5 0	- 37 57 41	B9IV
P3019	HD177300		CoD-51 11917	19 6 38	- 51 25 5	F8Iab:+
B3019	HD179034		CpD-51 11161	19 13 33	- 50 48 24	F2/F3III
B8055	HD180112			19 15 50	- 16 17 56	K0III
P8055	HD180196		T Sgr	19 16 13	- 16 57 56	S4.5-5.5,8e
A3019	HD179775		CpD-52 11405	19 16 37	- 52 26 16	K0III
A3020	HD180695		BD-16 5256	19 18 8	- 15 56 20	A0
A8055	HD180795			19 18 36	- 17 12 54	K0III
P3020	HD181615	HR7342	BD-16 5283	19 21 44	- 15 57 19	B2Vpe+
B3020	HD181645	HR7344	BD-18 5325	19 21 51	- 18 18 28	G9III:
B4011	HD183227	HR7397	BD+02 3892	19 28 22	2 55 45	B6III
B4012	HD183227	HR7397	BD+02 3892	19 28 22	2 55 45	B6III
A4011	HD183324	HR7400	BD+01 4010	19 29 2	1 56 59	A0V
A4012	HD183324	HR7400	BD+01 4010	19 29 2	1 56 59	A0V
P4011	HD183656	HR7415	BD+03 4043	19 30 33	3 26 36	B5
P4012	HD184279		BD+03 4065	19 33 38	3 45 36	B0.5IV
P8054			BD-21 5435	19 33 58	- 20 56 4	S
B8054	HD184225			19 34 8	- 19 34 13	K2III
A8054	HD184391			19 34 55	- 18 45 56	K1III
A2011	HD185124	HR7460	BD-04 4861	19 37 48	- 4 38 51	F3IV
B2010	HD185691		CoD-37 13308	19 41 50	- 36 53 17	A2/A3V
P3026			HM Sge	19 41 58	16 44 36	M
A3026	HD355719		BD+12 4063	19 44 57	13 2 43	K2
B3026	HD355915		BD+13 4156	19 48 34	13 36 45	K5
P2010	HD187474	HR7552	CoD-40 13514	19 51 51	- 39 52 30	Ap
P2011	HD188041	HR7575	BD-03 4742	19 53 19	- 3 6 56	A5pvar
B2011	HD189359		BD-02 5159	19 59 42	- 1 58 16	A2
A2010	HD189388	HR7639	CoD-41 13807	20 1 27	- 40 48 53	A2.5V
A4013	HD200761	HR8075	BD-17 6174	21 5 57	- 17 14 0	A1V
P2013	HD201601	HR8097	BD+09 4732	21 10 21	10 7 54	F0p
A2013	HD201616	HR8098	BD+09 4735	21 10 32	10 2 48	A2Vs
B2013	HD202275	HR8123	BD+09 4746	21 14 29	10 0 33	F5V+
B4013	HD205289	HR8245	BD-20 6237	21 34 52	- 20 5 11	F1V
P4013	HD205637	HR8260	BD-20 6251	21 37 6	- 19 28 3	B2.5Vpe
A7070	HD214380			22 37 55	- 20 20 37	G
P7070	HD214479			22 38 44	- 20 37 12	dM2e
A2027	HD217172			22 59 14	- 45 11 21	A0
P2027	HD217522			23 1 46	- 44 50 23	A5Sr:CrEu
B2027	HD217595			23 2 26	- 45 18 13	F2
A2028	HD220818			23 27 29	- 61 11 12	F8
P2028	HD222925			23 45 15	- 61 54 37	F8SrEU
B2028	HD223285			23 48 23	- 62 0 28	F5
B2028	HD223285			23 48 23	- 62 0 28	F5

Appendix 2

Log of observations

Long Term Photometry of Variables

Appendix 2 lists the program stars and comparison stars sorted by LTPV codes. The frequency of observation of any star during each observing run is also given.

Description of the table

Column 1	Identification of the star in the LTPV program.
Column 2	First identification (priority to HD number, then HR, then other designations).
Column 3	Second identification.
Column 4	For each star and for each observing run, the number of nights with at least one observation is given. Observations of comparison stars are listed only if they are inside a differential sequence (i.e. APB or APA, APBPBPA...). Isolated measurements are only recorded for the variable stars (P).

Catalogue 1990–1992

Stars observed			
Code	Ident. 1	Ident. 2	Frequency of independent observations (run/number of observations)
P1001	HD293782	UX Ori	1/8 2/7 3/3 5/12 6/3 7/7
A1001	HD 32721	BD-03 999	1/7 2/7 3/3 5/12 6/3 7/7
B1001	HD 32884	BD-03 1010	1/8 2/7 3/3 5/12 6/3 7/6
P1013	CpD-44 1442	NX Pup	1/3 2/5 3/14 6/1 7/3
A1013	HD 52096	CoD-42 2851	1/3 2/5 3/14 6/1 7/3
B1013	HD 60813	CoD-42 3338	6/1 7/1
P1014	HD 87643	CpD-58 1865	1/3 3/6 4/2 7/5
P1017	HD144668	HR5999	4/7 5/13 6/2
A1017	HD143699	HR5967	4/7 5/13 6/2
B1017	HD145191	HR6015	4/1
P1018	HD144667	HR6000	4/7 5/13 6/2
A1018	HD143699	HR5967	4/7 5/13 6/2
P1019	HD147084	HR6081	4/6
P1024	CoD-37 13024	SAO210829	1/9 4/8 5/14 6/8
A1024	HD176616	CoD-36 13248	6/1
B1024	HD177123	CoD-38 13316	1/9 4/8 5/13 6/7
P1026	HD148605	HR6141	4/3 5/4
P1028	HD161114	BD-06 4638	1/2 4/7 5/10
A1028	BD-04 4476	SAO142339	1/2 4/7 5/10
B1028	HD170058	BD-04 4470	4/1
P1031	BD-06 1259	BF Ori	1/5 2/4 3/7 6/8 7/4
A1031	HD 37399	BD-06 1269	1/5 2/4 3/7 6/8 7/4
B1031	HD 37210	BD-06 1254	1/5 2/3 3/7 6/7 7/4
P1034	HD152404	CoD-36 11056	1/1 4/4 5/15 6/2
A1034	HD152216	CoD-35 11158	1/1 4/4 5/15 6/2
B1034	HD152196	CoD-37 11053	1/1 4/4 5/15 6/2
P1036	HD 38238	BD+00 1170	1/2 2/2 3/5 7/1
A1036	HD 38203	BD+00 1168	1/2 2/2 3/5 7/1
B1036	HD 38155	BD+00 1166	1/2 2/2 3/5 7/1
P1040	BD-05 1329	T Ori	1/3 2/4 3/3 6/6 7/5
A1040	HD 37399	BD-06 1269	1/3 2/4 3/3 6/6 7/5
B1040	HD 37210	BD-06 1254	1/3 2/4 3/3 6/6 7/5
P1041	BD-05 1324	NV Ori	1/2 2/4 3/2 6/4 7/6
A1041	HD 37399	BD-06 1269	1/2 2/4 3/2 6/3 7/6
B1041	HD 37210	BD-06 1254	1/2 2/4 3/2 6/4 7/6
P1044	HD 37258	BD-06 1257	1/6 2/3 3/6 6/1 7/5
A1044	HD 37399	BD-06 1269	1/6 2/3 3/6 6/1 7/5
B1044	HD 37210	BD-06 1254	1/6 2/3 3/6 6/1 7/5
P1045	V350 Ori		1/3 2/3 3/1 6/2 7/1
A1045	BD-09 1193	SAO132377	1/3 2/3 3/1 6/2 7/1
B1045	HD 37757	BD-10 1255	1/3 2/3 3/1 6/2 7/1
P1046	BD-02 5297	RY Ori	1/3 2/5 3/2 7/2
A1046	HD 36352	BD-02 1275	1/3 2/5 3/2 7/2
B1046	HD 36251	BD-02 1271	1/3 2/5 3/2 7/1
P2003	HD 71066	HR3302	1/3 2/4 3/7 4/1 6/1 7/1
A2003	HD 71576	HR3334	1/3 2/4 3/7 4/1 6/1 7/1
B2003	HD 76270	HR3544	1/3 2/4 3/7 4/1 6/1 7/1
P2004	HD 59256	HR2863	1/2 2/2 3/4 6/4 7/2
A2004	HD 60863	HR2922	1/2 2/2 3/4 6/4 7/2
B2004	HD 61672	HR2956	1/2 2/2 3/4 6/3 7/2
P2005	HD 94660	HR4263	3/5 4/2 7/2

Long Term Photometry of Variables

Stars observed (continued)			
Code	Ident. 1	Ident. 2	Frequency of independent observations (run/number of observations)
A2005	HD 94724	CoD-42 6595	3/5 4/2 7/2
B2005	HD 93453	CoD-42 6484	3/5 4/2 7/2
P2007	HD116458	HR5049	3/3 4/3 7/1
A2007	HD116579	HR5051	3/3 4/3 7/1
B2007	HD115967	HR5030	3/3 4/3 7/1
P2008	HD151771	HR6244	4/4 5/4 6/1
A2008	HD153072	HR6298	4/4 5/4 6/1
B2008	HD151726	CoD-38 11244	4/4 5/4 6/1
P2009	HD165040	HR6745	1/2 4/5 5/4 6/1
A2009	HD168740	HR6871	1/2 4/5 5/4 6/1
B2009	HD165499	HR6761	1/2 4/5 5/4 6/1
P2010	HD187474	HR7552	1/5 4/4 5/5 6/3
A2010	HD189388	HR7639	1/5 4/4 5/4 6/3
B2010	HD185691	CoD-37 13308	1/5 4/4 5/4 6/3
P2011	HD188041	HR7575	1/4 4/6 5/4 6/3
A2011	HD185124	HR7460	1/4 4/6 5/3 6/3
B2011	HD189359	BD-02 5159	1/4 4/6 5/4 6/3
P2013	HD201601	HR8097	1/3 4/4 5/5 6/2
A2013	HD201616	HR8098	1/3 4/4 5/5 6/2
B2013	HD202275	HR8123	1/3 4/3 5/5 6/2
P2026	HD142990	HR5942	4/5
A2026	HD142315		4/5
B2026	HD141637	HR5885	4/5
P2027	HD217522	SAO231398	4/10 6/19
A2027	HD217172	SAO231380	4/10 6/19
B2027	HD217595	SAO231402	4/10 6/19
P2028	HD222925	SAO255561	4/9 6/19
A2028	HD220818	SAO255490	4/8 6/19
B2028	HD223285	SAO255572	4/9 6/19
P2029	HD22209	SAO232036	4/7 6/21
A2029	HD2653	SAO232065	4/7 6/21
B2029	HD3562	SAO232120	4/7 6/21
P2030	HD19918	SAO258324	6/10
A2030	HD19733	SAO258323	6/10
B2030	HD22056	SAO258335	6/10
P2031	HD28430	SAO216810	4/2 7/9
A2031	HD28107	SAO216780	4/2 7/9
B2031	HD28358	SAO216803	4/2 7/9
P3001	HD 26750	SAO149466	1/2 2/2 3/2 5/5 6/4
A3001	HD 26902	BD-10 872	1/2 2/2 3/2 5/5 6/4
B3001	HD 26465	BD-11 821	1/2 2/2 3/2 5/5 6/4
P3002	HD 29248	HR1463	2/5 3/2
A3002	HD 28843	HR1441	2/5 3/2
B3002	HD 30211	HR1520	2/5 3/2
P3004	HD 60414	HR2902	1/2 2/1 3/2 6/2
A3004	HD 59438	HR2868	1/2 2/1 3/2 6/2
B3004	HD 60552	BD-13 2101	1/2 2/1 3/2 6/1
P3005	CoD-26 5491	LW Pup	1/2 2/4 3/5 6/3 7/1
A3005	HD 66740	CoD-26 5458	1/2 2/4 3/5 6/3 7/1
B3005	HD 67357	CoD-26 5525	1/2 2/4 3/4 6/2 7/1
P3006	CoD-47 4047	AL Vel	1/3 2/3 3/6 7/8

Catalogue 1990–1992

Stars observed (continued)

Code	Ident. 1	Ident. 2	Frequency of independent observations (run/number of observations)
A3006	HD 71949	CpD-47 2268	1/3 2/3 3/6 7/8
B3006	HD 72109	CpD-47 2295	1/3 2/3 3/6 7/8
P3008	HD 81137	CpD-52 2262	1/2 2/2 3/5 4/2 7/3
A3008	HD 80936	CpD-52 2248	1/2 2/2 3/5 4/2 7/3
B3008	HD 81433	CpD-51 2172	1/2 2/2 3/5 4/2 7/3
P3009	HD 94878	CpD-59 2855	3/5 4/1 7/2
A3009	HD305773	CpD-59 2856	3/5 7/1
B3009	HD 94715	CpD-59 2833	3/5 4/1 7/1
P3012	HD105998	CpD-58 4151	3/1 4/2 7/5
A3012	HD106552	CpD-58 4192	3/1 4/2 7/5
B3012	HD106086	CpD-59 4097	3/1 4/2 7/5
P3014	HD161387	CoD-26 12327	1/1 4/4 5/5 6/2
A3014	HD160627	CoD-26 12252	1/1 4/4 5/5 6/1
B3014	HD161406	CoD-27 11914	1/1 4/4 5/5 6/1
P3017	CpD-66 3307	AR Pav	1/1 4/5 5/3 6/1
A3017	HD167559	CpD-66 3311	1/1 4/5 5/3 6/1
B3017	CpD-66 3305		1/1 4/2 5/2 6/1
P3018	HD168206	BD-11 4593	1/1 4/5 5/5 6/2
A3018	HD168639	BD-11 4603	1/1 4/5 5/5 6/1
P3019	HD177300	CoD-51 11917	1/16 4/5 5/14 6/5
A3019	HD179775	CpD-52 11405	1/16 4/5 5/13 6/4
B3019	HD179034	CpD-51 11161	1/16 4/5 5/13 6/4
P3020	HD181615	HR7342	1/2 4/5 5/12 6/3
A3020	HD180695	BD-16 5256	1/2 4/4 5/11 6/3
B3020	HD181645	HR7344	1/2 4/5 5/12 6/2
P3026	HM Sge		1/1 4/3 5/3
A3026	HD355719	BD+12 4063	1/1 4/3 5/3
B3026	HD355915	BD+13 4156	1/1 4/3 5/3
P3028	HD 81410	CoD-23 8347	1/4 2/6 3/14 7/6
A3028	HD 81904	CoD-23 8402	1/4 2/6 3/14 7/6
B3028	HD 80991	BD-21 2774	1/4 2/6 3/14 7/6
P4001	HD 33328	HR1679	1/3 2/5 3/6 5/11 6/11 7/3
A4001	HD 33224	HR1671	1/3 2/5 3/6 5/11 6/11 7/3
B4001	HD 32249	HR1617	1/3 2/5 3/5 5/10 6/11 7/3
P4002	HD 41335	HR2142	1/8 2/7 3/10 6/8 7/4
A4002	HD 42690	HR2205	1/8 2/7 3/10 6/7 7/4
B4002	HD 45546	HR2344	1/8 2/7 3/10 6/8 7/4
P4003	HD 49014	BD+10 1262	1/7 2/11 3/12 6/6 7/5
A4003	HD 48434	HR2479	1/7 2/11 3/12 6/5 7/5
B4003	HD 49567	HR2517	1/7 2/11 3/12 6/5 7/5
P4004	HD 48917	HR2492	1/5 2/2 3/4 6/5 7/2
A4004	HD 46936	HR2415	1/5 2/2 3/4 6/5 7/2
B4004	HD 49028	HR2497	1/5 2/2 3/4 6/5 7/2
P4005	HD 56014	HR2745	1/4 2/4 3/4 6/5 7/1
A4005	HD 56876	HR2774	1/4 2/4 3/4 6/5 7/1
B4005	HD 58612	HR2841	1/4 2/4 3/4 6/4 7/1
P4006	HD 56139	HR2749	2/4 3/4
A4006	HD 56876	HR2774	2/4 3/4
B4006	HD 58612	HR2841	2/4 3/4
P4007	HD 58978	HR2855	1/2 2/2 3/3 6/4 7/2
A4007	HD 59136	HR2860	1/2 2/2 3/3 6/4 7/2

Long Term Photometry of Variables

Stars observed (continued)			
Code	Ident. 1	Ident. 2	Frequency of independent observations (run/number of observations)
B4007	HD 58346	HR2826	1/2 2/2 3/3 6/4 7/2
P4008	HD 68980	HR3237	1/2 2/2 3/3 4/1 6/1 7/2
A4008	HD 70556	HR3283	1/2 2/2 3/3 4/1 6/1 7/2
B4008	HD 70060	HR3270	1/2 2/2 3/3 4/1 6/1 7/2
P4009	HD142983	HR5941	4/6 5/12
A4009	HD143333	HR5954	4/6 5/12
B4009	HD142640	HR5927	4/6 5/12
P4010	HD173219	BD-07 4689	1/9 4/3 5/17 6/2
A4010	HD173693	BD-07 4700	1/9 4/3 5/16 6/2
B4010	HD173673	BD-06 4893	1/8 4/3 5/16 6/2
P4011	HD183656	HR7415	1/7 4/5 5/7 6/4
A4011	HD183324	HR7400	1/7 4/5 5/7 6/3
B4011	HD183227	HR7397	1/7 4/5 5/7 6/4
P4012	HD184279	BD+03 4065	1/6 4/6 5/6 6/3
A4012	HD183324	HR7400	1/6 4/6 5/6 6/2
B4012	HD183227	HR7397	1/6 4/6 5/6 6/3
P4013	HD205637	HR8260	1/6 2/2 4/5 5/8 6/4
A4013	HD200761	HR8075	1/6 2/2 4/5 5/8 6/4
B4013	HD205289	HR8245	1/6 2/2 4/5 5/7 6/4
P4014	HD 50123	HR2545	1/2 2/3 3/3 6/5 7/2
A4014	HD 46936	HR2415	1/2 2/3 3/3 6/5 7/2
B4014	HD 49028	HR2497	1/2 2/3 3/3 6/5 7/2
P4015	HD 89890	HR4074	1/3 2/2 3/3 4/3 7/3
A4015	HD 92287	HR4173	1/3 2/2 3/3 4/3 7/3
B4015	HD 89569	HR4061	1/3 2/2 3/3 4/3 7/3
P4017	HD 45725	HR2356	1/2 2/3 3/1 6/4 7/2
A4017	HD 45321	HR2325	1/2 2/3 3/1 6/4 7/2
B4017	HD 45418	BD-04 1514	1/2 2/3 3/1 6/4 7/2
P4018	HD 63462	HR3034	1/3 2/2 3/3 6/4 7/1
A4018	HD 62623	HR2996	1/3 2/2 3/3 6/4 7/1
B4018	HD 63028	CoD-23 6155	1/3 2/2 3/3 6/4 7/1
P4019	HD 83953	HR3858	1/2 2/2 3/3 4/2 7/1
A4019	HD 82747	HR3810	1/2 2/2 3/3 4/2 7/1
B4019	HD 84117	HR3862	1/2 2/2 3/3 4/2 7/1
P5002	HD269006	CpD-71 308	1/4 2/4 3/3 5/8 6/4 7/3
A5002	HD 32858	CpD-69 320	1/4 2/4 3/3 5/8 6/4 7/3
B5002	HD 33031	CpD-69 321	1/4 2/4 3/3 5/8 6/4 7/3
P5003	HD269128	CpD-68 326	1/18 2/4 3/4 5/7 6/4 7/3
A5003	HD 34144	CpD-69 334	1/15 2/4 3/4 5/5 6/4 7/3
B5003	HD 34651	CpD-68 335	1/16 2/4 3/4 5/6 6/4 7/3
P5004	HD 35343	CpD-69 356	1/3 2/3 3/4 5/7 6/5 7/3
A5004	HD 35293	CpD-68 348	1/3 2/3 3/4 5/7 6/5 7/3
B5004	HD 35294	CpD-68 350	1/3 2/3 3/4 5/7 6/5 7/3
P5005	HD 92207	HR4169	1/2 2/1 3/9 4/3 7/7
A5005	HD 92421	CpD-58 2471	1/2 2/1 3/9 4/2 7/7
B5005	HD 92399	CpD-58 2462	1/2 2/1 3/9 4/3 7/7
P5006	HD 93308	HR4210	3/1 7/7
A5006	HD 93010	CpD-60 2203	3/1 7/7
B5006	HD 93502	HR4217	3/1 7/7
P5007	HD 94910	CpD-59 2860	3/3 4/2 7/4
A5007	HD 93010	CpD-60 2203	3/3 4/1 7/4

Catalogue 1990–1992

Stars observed (continued)			
Code	Ident. 1	Ident. 2	Frequency of independent observations (run/number of observations)
B5007	HD 93502	HR4217	3/3 4/2 7/4
P5008	HD100261	HR4441	3/12 7/8
A5008	HD100122	CpD-58 3677	3/12 7/8
B5008	HD100613	CpD-58 3717	3/12 7/8
P5010	HD152236	HR6262	1/1 4/12 5/17 6/3
A5010	HD152424	CoD-41 11068	1/1 4/11 5/17 6/3
B5010	HD152147	CpD-41 7694	1/1 4/11 5/16 6/3
P5011	HD160529	CoD-33 12361	1/3 4/8 5/13 6/4
A5011	HD160461	CoD-34 11950	1/2 4/8 5/13 6/3
B5011	HD160575	CoD-35 11827	1/3 4/8 5/13 6/3
P5012	HD168607	BD-16 4829	1/5 4/8 5/15 6/2
A5012	HD168552	BD-17 5149	1/5 4/8 5/15 6/2
B5012	HD168896	BD-16 4847	1/5 4/8 5/14 6/2
P5013	HD168625	BD-16 4830	1/4 4/8 5/14 6/2
A5013	HD168552	BD-17 5149	1/4 4/8 5/14 6/2
B5013	HD168896	BD-16 4847	1/4 4/8 5/14 6/2
P5014	HD173819	HR7066	1/2 4/8 5/7 6/2
A5014	HD174208	HR7083	1/2 4/8 5/7 6/1
B5014	HD173278	BD-06 4869	1/2 4/8 5/7 6/2
P5018	HD269858	CpD-69 427	1/5 2/4 3/5 6/8 7/3
A5018	HD 37722	CpD-69 396	1/4 2/4 3/5 6/7 7/3
B5018	HD 37584	CpD-72 386	1/3 2/4 3/5 6/7 7/3
P5019	HD269321	CpD-69 352	1/3 2/7 3/5 5/10 6/8 7/4
A5019	HD 35293	CpD-68 348	1/3 2/7 3/5 5/10 6/7 7/4
B5019	HD 35294	CpD-68 350	1/3 2/7 3/5 5/10 6/8 7/4
P5021	HD 90177	CpD-58 2145	3/5 7/4
A5021	HD 93010	CpD-60 2203	3/5 7/4
B5021	HD 93502	HR4217	3/5 7/4
P5022	HD 6884	CpD-73 64	1/9 2/7 3/2 4/6 5/18 6/9
A5022	HD 6997	CpD-73 65	1/9 2/7 3/2 4/6 5/15 6/8
B5022	HD 7031	CpD-72 85	1/9 2/7 3/2 4/6 5/17 6/8
P5023	HD 87643	CpD-58 1865	1/3 3/6 4/2 7/5
A5023	HD 87419	CpD-58 1839	1/3 3/6 4/2 7/5
B5023	HD 87470	SAO237649	1/3 3/6 4/1 7/5
P5024	HD269582	HV5495	1/4 2/7 3/3 6/2 7/3
A5024	HD 33486	CpD-68 311	1/4 2/7 3/3 6/2 7/3
P5025	HD269662	CpD-69 387	1/2 2/3 3/3 5/4 6/5 7/2
A5025	HD 37722	CpD-69 396	1/2 2/3 3/3 5/4 6/5 7/2
B5025	HD 35294	CpD-68 350	1/2 2/3 3/3 5/4 6/5 7/2
P6002	HD102567	CpD-61 2636	3/5 4/2 7/2
A6002	HD102368	CpD-61 2611	3/5 4/2 7/2
B6002	HD101070	CpD-62 2147	3/5 4/2 7/2
P6006	CpD-53 567	SAO233120	1/7 2/6 3/2 4/2 5/19 6/8 7/3
A6006	HD 21265	CpD-54 550	1/7 2/6 3/2 4/2 5/19 6/8 7/3
B6006	HD 21081	CpD-54 545	1/7 2/6 3/2 4/2 5/19 6/8 7/3
P7002	NGC2346		4/5 5/5
A7002			4/5 5/5
B7002			4/5 5/5
P7056	BD+04 3804	BQ Ser	1/1 4/3 5/13 6/1
A7056	HD171367	BD+03 3746	1/1 4/3 5/12
B7056	HD171767	BD+04 3806	1/1 4/3 5/13

Long Term Photometry of Variables

Stars observed (continued)

Code	Ident. 1	Ident. 2	Frequency of independent observations (run/number of observations)
P7057	HD 60219	BD-21 1997	1/5 2/8 3/16 6/3 7/3
A7057	HD 60165	CoD-22 4654	1/5 2/5 3/16 6/3 7/3
B7057	HD 60368	CoD-22 4683	1/5 2/8 3/16 6/3 7/1
P7058	HD326823	CpD-42 7632	4/2 5/9
A7058	HD155051		4/2 5/9
A7061	HD 37297	HR1917	1/6 2/12 3/15
B7061	HD 35474	CpD-66 399	1/6 2/12 3/15
P7063	NGC1399		2/4 3/2 5/8
A7063	HD 22771	CoD-35 1309	2/4 3/2 5/8
B7063	HD 22560	CoD-35 1298	2/4 3/2 5/8
P7069	HD 7676		1/10 2/18 3/5 4/7 5/22 6/10 7/1
A7069	HD 6178	HR293	1/10 2/18 3/5 4/7 5/22 6/10 7/1
B7069	HD 8130		1/10 2/18 3/5 4/7 5/21 6/10 7/1
P7070	HD214479	SAO191294	4/13 5/20 6/17
A7070	HD214380		4/13 5/18 6/15
P7071	HD25631	HR1258	6/14 7/4
P7072	HDE326331		4/9 6/1
A7072	HD152247		4/9 6/1
B7072	HD152042		4/9 6/1
P7073	BD-41 7133		4/9 6/1
P7074	BD-41 7742		4/9 6/1
P7075	HD152218		4/9 6/1
P7076	HD152248		4/9 6/1
P7077	HD39844	HR2064	6/11 7/3
A7077	HD39014	HR2015	6/10 7/3
B7077	HD42525	HR2194	6/10 7/3
P8008	HD 46407	HR2392	1/3 2/6 3/9 6/6 7/2
A8008	HD 46184	HR2379	1/3 2/6 3/9 6/6 7/2
B8008	HD 45976	HR2367	1/3 2/6 3/9 6/6 7/2
C8008	HD 44951	HR2305	1/3 2/6 3/9 6/6 7/2
P8009	HD 19014	CpD-85 34	1/1 3/3 7/2
A8009	HD 18293	HR 872	1/1 3/3 7/2
B8009	HD 15248	HR 715	1/1 3/3 7/1
P8010	HD 58368	BD+07 1719	1/2 2/2 3/3 6/2 7/1
A8010	HD 56989	HR2778	1/2 2/2 3/3 6/2 7/1
B8010	HD 55184	HR2713	1/2 2/2 3/3 6/2 7/1
P8011	HD 44896	CoD-33 2935	1/3 2/3 3/4 6/5 7/2
A8011	HD 44956	HR2307	1/3 2/3 3/4 6/5 7/2
B8011	HD 45383	HR2329	1/3 2/3 3/4 6/5 7/2
P8012	HD 60197	CoD-29 4525	1/3 2/2 3/3 6/3 7/2
A8012	HD 60666	HR2916	1/3 2/2 3/3 6/3 7/2
B8012	HD 61409	HR2942	1/2 2/2 3/3 6/3 7/2
P8013	HD 92626	CpD-47 4419	3/3 4/2 7/2
A8013	HD 90677	HR4107	3/3 4/2 7/2
B8013	HD 91437	HR4139	3/3 4/2 7/2
P8034	HD121447	BD-17 3961	3/4 4/4
A8034	HD121699	HR5246	3/4 4/4
B8034	HD117246	BD-17 3862	3/3 4/4
P8036	HD 84678	CpD-75 607	1/1 3/4 7/1
A8036	HD 74543	CpD-73 523	1/1 3/4 7/1
B8036	HD100901	CpD-72 1143	1/1 3/4 7/1

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Stars observed (continued)			
Code	Ident. 1	Ident. 2	Frequency of independent observations (run/number of observations)
P8037	HD 88562	BD-15 3003	3/5 7/2
A8037	HD 87808	HR3977	3/5 7/2
B8037	HD 89033	HR4034	3/5 7/2
P8038	HD 35155	BD-08 1099	1/7 2/5 3/7 5/8 6/8 7/1
A8038	HD 35369	HR1784	1/7 2/5 3/7 5/7 6/8 7/1
B8038	HD 37828	BD-11 1258	1/7 2/5 3/7 5/7 6/8 7/1
P8039	HD154430	CpD-59 6905	5/9
A8039	HD155341	HR6384	5/9
B8039	HD152980	HR6295	5/9
P8040	BD-08 1900		1/3 2/4 3/6 6/4 7/1
A8040	HD 59671	BD-08 1948	1/3 2/4 3/6 6/4 7/1
B8040	HD 59669	HR2876	1/3 2/4 3/6 6/4 7/1
P8041	HD 65699	HR3123	2/2 3/4 6/3 7/2
A8041	HD 64974	HR3096	2/2 3/4 6/3 7/2
B8041	HD 64152	HR3068	2/2 3/4 6/3 7/2
P8047	HD324924	CoD-37 12227	4/3 5/9 6/2
A8047	HD166083	CoD-37 12268	4/3 5/9 6/1
B8047	HD165929	CoD-37 12254	4/3 5/9
P8050	BD-10 1334		3/2 6/9 7/1
A8050	HD 40399	SAO150980	3/2 6/9 7/1
B8050	HD 40605	SAO150994	3/2 6/9 7/1
P8051	HD 63733		3/5 6/3 7/2
A8051	HD 64498	SAO153554	3/5 6/3 7/2
B8051	HD 64612	SAO174756	3/5 6/3 7/2
P8052	BD-21 2601		3/4 7/2
A8052	HD 75739	SAO176576	3/4 7/2
B8052	HD 75944	SAO176608	3/4 7/2
P8053	BD-04 2121		3/4 6/4 7/2
A8053	BD-04 2097	SAO135135	3/4 6/4 7/2
B8053	SAO135204		3/4 6/4 7/2
P8054	BD-21 5435	SAO188285	4/8 5/8 6/6
A8054	HD184391	SAO162789	4/8 5/8 6/6
B8054	HD184225	SAO162770	4/7 5/7 6/6
P8055	HD180196	T Sgr	4/4 5/3 6/1
A8055	HD180795	SAO162448	4/4 5/3 6/1
B8055	HD180112	SAO162379	4/4 5/2 6/1
P9001	HD 96548	CpD-64 1629	3/11 4/2 7/5
B9001	HD 96287	CpD-63 1819	3/6 4/2 7/5
C9001	HD 96568	HR4326	3/11 4/2 7/5
P9002	HD 93131	CpD-59 2548	3/12 4/1 7/6
A9002			3/12 4/1
B9002	HD 96287	CpD-63 1819	3/5 4/1 7/6
C9002	HD 96568	HR4326	3/12 4/1 7/6
P9003	HD 92740	HR4188	3/12 4/5 7/6
B9003	HD 96287	CpD-63 1819	3/5 4/5 7/6
P9004	HD 93162	CpD-59 2561	3/12 4/5 7/6
B9004	HD 96287	CpD-63 1819	3/5 4/5 7/6
C9004	HD 96568	HR4326	3/12 4/5 7/6
P9005	HD143414	CpD-62 5141	4/4 5/6
P9006	HD151932	HR6249	1/1 4/7 5/16 6/3
A9006	HD150608	HR6210	1/1 4/7 5/15 6/2

Long Term Photometry of Variables

Stars observed (continued)			
Code	Ident. 1	Ident. 2	Frequency of independent observations (run/number of observations)
B9006	HD150608	HR6210	1/1 4/6 5/16 6/3
P9007	HD164270	CoD-32 13623	1/5 4/5 5/13 6/3
A9007	HD163868	CoD-33 12700	1/5 4/5 5/13 6/3
B9007	HD164152	CoD-32 13617	1/5 4/5 5/13 6/1
P9008	HD313846	CoD-23 13879	1/4 4/1 5/9 6/3
A9008	HD171923	CoD-22 13166	1/4 4/1 5/8 6/2
B9008	HD172622	CoD-23 14633	1/4 4/1 5/9 6/2
P9009	HD 86161	CpD-57 2420	1/2 3/14 4/1 7/5
A9009	HD 86000	CpD-54 2842	1/2 3/13 4/1 7/5
B9009	HD 85810	CpD-54 2808	1/2 3/14 4/1 7/5
P9010	HD 50896	HR2583	1/7 2/17 3/24 6/1 7/5
A9010	HD 50853	HR2578	1/7 2/17 3/24 6/1 7/5
B9010	HD 50711	CoD-24 4553	1/6 2/13 3/24 6/1 7/3
B9010	HD 50711	CoD-24 4553	1/6 2/13 3/24 6/1 7/3

Appendix 3

The catalogue

Long Term Photometry of Variables

The following table lists the individual observations, sorted by date, for each of the program-comparison star groups. Isolated observations of comparison stars – i.e., not within a differential sequence – are also included. Various program stars have common comparison stars. In such cases, the same data may appear in different groups.

Description of the table

Column 1	First character in the LTPV identification. 'P' means a program star. 'A', 'B', 'C'... stands for the associated comparison star
Column 2	JD_{\odot} , the heliocentric Julian time (minus 2 440 000).
Column 3	X , the air mass.
Column 5	V magnitude, i.e. Stromgren y .
Column 6	$b - y$ index.
Column 7	m_1 index.
Column 8	c_1 index.
Column 9	"Sys", the code of the photometric system (see text and Tables 2).

Catalogue 1990-1992

Group 1001 P=HD293782
A=HD 32721 B=HD 32884

Star	JD ₀	X	V	b - y	m ₁	c ₁	Sys	Star	JD ₀	X	V	b - y	m ₁	c ₁	Sys
A	8166.744	1.662	8.437	0.065	0.213	0.928	N	A	8230.596	1.445	8.422	0.061	0.219	0.936	N
P	8166.748	1.617	10.157	0.227	0.172	1.065	N	P	8230.602	1.397	11.245	0.334	0.177	1.080	N
B	8166.752	1.588	7.653	0.008	0.149	0.998	N	B	8230.607	1.379	7.652	0.003	0.157	0.986	N
P	8166.756	1.539	10.154	0.235	0.166	1.078	N	P	8230.611	1.341	11.227	0.341	0.154	1.063	N
B	8166.760	1.515	7.653	0.008	0.150	0.996	N	A	8230.615	1.321	8.421	0.056	0.222	0.934	N
P	8166.763	1.472	10.159	0.228	0.175	1.067	N	P	8230.620	1.296	11.194	0.367	0.135	1.028	N
A	8166.768	1.442	8.424	0.067	0.213	0.931	N	B	8230.623	1.288	7.648	0.002	0.158	0.984	N
A	8168.784	1.310	8.425	0.059	0.223	0.932	N	A	8234.612	1.284	8.406	0.053	0.222	0.934	N
P	8168.789	1.285	10.169	0.226	0.184	1.097	N	P	8234.617	1.260	10.471	0.298	0.145	1.044	N
B	8168.793	1.274	7.650	0.005	0.155	0.991	N	B	8234.622	1.249	7.638	-0.001	0.153	0.995	N
P	8168.797	1.248	10.169	0.226	0.182	1.086	N	P	8234.625	1.226	10.481	0.289	0.166	1.050	N
B	8168.801	1.239	7.650	0.007	0.150	0.997	N	A	8234.630	1.212	8.408	0.058	0.217	0.935	N
P	8168.806	1.217	10.168	0.229	0.177	1.101	N	P	8234.634	1.197	10.487	0.292	0.155	1.065	N
A	8168.810	1.204	8.419	0.062	0.219	0.925	N	B	8234.639	1.191	7.639	0.001	0.154	0.992	N
P	8169.743	1.581	10.171	0.228	0.163	1.084	N	A	8236.602	1.304	8.411	0.056	0.221	0.930	N
B	8169.748	1.555	7.647	0.006	0.154	0.981	N	P	8236.607	1.279	10.840	0.320	0.153	1.027	N
P	8169.752	1.500	10.168	0.229	0.174	1.085	N	B	8236.612	1.266	7.638	-0.002	0.160	0.977	N
B	8169.756	1.478	7.648	0.005	0.158	0.977	N	P	8236.616	1.240	10.834	0.326	0.134	1.060	N
P	8169.761	1.431	10.168	0.228	0.170	1.078	N	A	8236.621	1.226	8.408	0.052	0.229	0.913	N
P	8172.753	1.430	10.126	0.219	0.162	1.044	N	P	8236.625	1.208	10.859	0.303	0.161	1.031	N
B	8172.757	1.412	7.649	0.005	0.148	0.994	N	B	8236.630	1.201	7.639	-0.003	0.158	0.989	N
P	8172.762	1.372	10.114	0.217	0.169	1.026	N	A	8245.609	1.184	8.427	0.060	0.220	0.934	N
A	8172.766	1.348	8.418	0.060	0.215	0.936	N	P	8245.615	1.168	10.279	0.281	0.163	1.054	N
A	8187.699	1.524	8.424	0.060	0.226	0.924	N	B	8245.619	1.164	7.654	0.005	0.153	0.995	N
P	8187.703	1.486	10.345	0.237	0.190	1.110	N	P	8245.623	1.150	10.288	0.275	0.166	1.071	N
B	8187.706	1.480	7.651	0.002	0.161	0.987	N	A	8245.628	1.143	8.429	0.057	0.224	0.932	N
A	8195.701	1.371	8.419	0.060	0.221	0.929	N	P	8245.632	1.135	10.282	0.287	0.152	1.079	N
P	8195.706	1.341	10.907	0.330	0.152	1.072	N	B	8245.636	1.133	7.656	0.003	0.155	0.991	N
B	8195.711	1.322	7.650	0.005	0.152	0.994	N	A	8252.613	1.135	8.424	0.060	0.224	0.932	N
A	8198.728	1.212	8.419	0.062	0.214	0.939	N	P	8252.617	1.127	10.847	0.321	0.167	1.028	N
P	8198.732	1.197	10.533	0.321	0.136	1.153	N	B	8252.622	1.126	7.653	0.003	0.160	0.985	N
B	8198.736	1.192	7.641	0.006	0.151	0.988	N	P	8252.626	1.118	10.823	0.332	0.154	1.045	N
A	8200.656	1.638	8.417	0.063	0.219	0.923	N	A	8252.631	1.116	8.428	0.054	0.238	0.910	N
P	8200.660	1.585	10.713	0.331	0.180	1.107	N	P	8252.635	1.112	10.816	0.318	0.167	1.049	N
B	8200.673	1.481	7.642	0.004	0.159	0.979	N	B	8252.639	1.113	7.649	-0.001	0.163	0.986	N
A	8216.644	1.378	8.417	0.063	0.219	0.933	N	A	8259.589	1.144	8.428	0.063	0.221	0.924	N
P	8216.650	1.338	10.507	0.331	0.159	1.061	N	P	8259.593	1.135	10.418	0.288	0.167	1.057	N
B	8216.655	1.321	7.647	0.006	0.154	0.990	N	B	8259.597	1.134	7.655	0.009	0.154	0.987	N
P	8216.660	1.284	10.513	0.324	0.172	1.055	N	P	8259.600	1.125	10.408	0.303	0.143	1.087	N
A	8216.665	1.266	8.420	0.061	0.221	0.932	N	A	8259.605	1.121	8.432	0.059	0.228	0.923	N
P	8216.670	1.242	10.501	0.337	0.152	1.110	N	P	8259.609	1.116	10.411	0.290	0.171	1.078	N
B	8216.675	1.233	7.648	0.003	0.160	0.980	N	B	8259.614	1.116	7.661	0.004	0.160	0.977	N
A	8216.767	1.118	8.421	0.057	0.224	0.931	N	A	8505.870	1.257	8.414	0.061	0.220	0.927	N
P	8216.772	1.123	10.501	0.337	0.157	1.067	N	P	8505.875	1.238	10.915	0.328	0.119	1.006	N
B	8216.777	1.130	7.650	0.000	0.160	0.991	N	B	8505.880	1.224	7.648	0.002	0.154	0.986	N
P	8216.781	1.135	10.514	0.322	0.170	1.074	N	P	8505.885	1.203	10.916	0.335	0.114	1.007	N
A	8216.786	1.144	8.422	0.056	0.228	0.924	N	B	8505.890	1.193	7.641	0.005	0.152	0.983	N
P	8216.791	1.153	10.513	0.321	0.175	1.061	N	P	8505.894	1.176	10.926	0.324	0.122	1.015	N
B	8216.797	1.166	7.653	-0.002	0.162	0.985	N	A	8505.899	1.165	8.410	0.063	0.215	0.927	N
A	8218.620	1.512	8.418	0.058	0.225	0.918	N	A	8506.821	1.561	8.450	0.058	0.229	0.920	N
P	8218.625	1.467	10.465	0.324	0.156	1.075	N	P	8506.825	1.519	10.983	0.323	0.124	0.981	N
B	8218.629	1.449	7.648	0.001	0.157	0.993	N	B	8506.830	1.489	7.662	0.003	0.161	0.983	N
P	8218.633	1.404	10.477	0.314	0.162	1.071	N	P	8506.834	1.445	10.970	0.316	0.132	0.983	N
A	8218.638	1.381	8.413	0.056	0.227	0.920	N	B	8506.839	1.417	7.640	0.002	0.164	0.980	N
P	8218.642	1.351	10.474	0.313	0.170	1.055	N	P	8506.844	1.377	10.956	0.318	0.126	1.061	N
B	8218.646	1.339	7.644	0.001	0.157	0.989	N	A	8506.849	1.350	8.394	0.061	0.225	0.923	N
A	8223.649	1.253	8.421	0.058	0.222	0.931	N	A	8511.821	1.450	8.432	0.062	0.223	0.923	N
P	8223.654	1.231	10.715	0.333	0.152	1.042	N	P	8511.824	1.418	11.106	0.363	0.099	1.017	N
B	8223.659	1.223	7.648	0.001	0.159	0.983	N	B	8511.829	1.399	7.657	0.006	0.153	0.989	N
P	8223.663	1.202	10.717	0.333	0.147	1.045	N	P	8511.832	1.365	11.129	0.337	0.125	1.008	N
A	8223.668	1.189	8.421	0.060	0.220	0.928	N	B	8511.837	1.349	7.657	0.004	0.157	0.984	N
P	8223.672	1.175	10.717	0.331	0.157	1.008	N	P	8511.841	1.319	11.123	0.342	0.121	1.003	N
B	8223.676	1.170	7.651	-0.001	0.159	0.988	N	A	8511.846	1.297	8.431	0.057	0.226	0.926	N
A	8227.645	1.228	8.420	0.062	0.218	0.927	N	A	8512.809	1.521	8.413	0.062	0.210	0.935	N
P	8227.650	1.208	11.064	0.347	0.149	1.057	N	P	8512.813	1.483	11.045	0.347	0.104	1.032	N
B	8227.654	1.201	7.651	0.006	0.149	0.996	N	B	8512.818	1.461	7.639	0.003	0.149	0.995	N
P	8227.659	1.182	11.080	0.355	0.132	1.031	N	P	8512.821	1.422	11.059	0.324	0.142	0.979	N
A	8227.664	1.171	8.423	0.060	0.222	0.921	N	B	8512.826	1.403	7.641	0.003	0.147	0.998	N
P	8227.668	1.159	11.068	0.355	0.170	0.965	N	P	8512.829	1.368	11.053	0.330	0.125	0.998	N
B	8227.673	1.155	7.655	0.003	0.159	0.977	N	A	8512.834	1.343	8.409	0.059	0.216	0.936	N

Long Term Photometry of Variables

Group 1001 P=HD293782 (continued)
A=HD 32721 B=HD 32884

Star	JD ₀	X	V	b - y	m ₁	c ₁	Sys	Star	JD ₀	X	V	b - y	m ₁	c ₁	Sys
A	8513.771	1.974	8.403	0.059	0.224	0.916	N	B	8529.788	1.359	7.622	0.005	0.149	0.989	N
P	8513.776	1.880	11.305	0.341	0.122	0.997	N	P	8529.792	1.326	11.619	0.372	0.082	1.066	N
B	8513.780	1.834	7.639	0.003	0.153	0.986	N	B	8529.796	1.315	7.623	0.002	0.153	0.984	N
P	8513.784	1.759	11.311	0.357	0.098	0.989	N	P	8529.799	1.287	11.631	0.382	0.083	1.032	N
B	8513.789	1.720	7.651	0.002	0.155	0.986	N	A	8529.804	1.270	8.430	0.058	0.217	0.921	N
P	8513.792	1.657	11.292	0.353	0.126	0.993	N	A	8530.797	1.291	8.402	0.066	0.219	0.927	N
A	8513.797	1.610	8.416	0.060	0.218	0.930	N	P	8530.802	1.263	11.510	0.435	0.069	1.072	N
A	8513.834	1.329	8.434	0.062	0.221	0.930	N	B	8530.806	1.255	7.631	0.012	0.154	0.982	N
P	8513.838	1.306	11.309	0.366	0.093	1.012	N	P	8530.810	1.230	11.506	0.414	0.130	0.939	N
B	8513.843	1.292	7.653	0.007	0.153	0.990	N	B	8530.815	1.221	7.632	0.014	0.148	0.985	N
P	8513.846	1.267	11.330	0.335	0.134	0.974	N	P	8530.819	1.202	11.522	0.391	0.141	1.045	N
B	8513.851	1.256	7.656	0.006	0.154	0.992	N	A	8530.823	1.191	8.410	0.068	0.216	0.928	N
P	8513.862	1.208	11.310	0.352	0.099	1.039	N	A	8536.760	1.408	8.402	0.061	0.218	0.932	N
A	8517.794	1.542	8.419	0.056	0.221	0.932	N	P	8536.768	1.356	11.104	0.378	0.155	1.003	N
P	8517.797	1.502	11.265	0.354	0.104	0.997	N	B	8536.771	1.348	7.635	0.003	0.156	0.981	N
B	8517.802	1.478	7.642	0.003	0.155	0.981	N	P	8536.774	1.322	11.114	0.385	0.117	1.111	N
P	8517.806	1.436	11.267	0.348	0.126	0.966	N	A	8536.778	1.303	8.403	0.062	0.219	0.924	N
B	8517.811	1.415	7.646	0.002	0.155	0.986	N	P	8536.782	1.281	11.110	0.377	0.142	1.115	N
P	8517.814	1.378	11.273	0.359	0.095	1.020	N	B	8536.785	1.276	7.638	0.002	0.158	0.990	N
A	8517.819	1.352	8.416	0.057	0.221	0.929	N	A	8549.730	1.377	8.421	0.057	0.224	0.927	N
A	8517.863	1.176	8.416	0.060	0.219	0.925	N	P	8549.735	1.347	11.133	0.368	0.128	0.990	N
P	8517.871	1.155	11.275	0.353	0.113	0.974	N	B	8549.739	1.335	7.653	0.003	0.155	0.995	N
B	8517.876	1.151	7.648	0.001	0.157	0.983	N	P	8549.747	1.283	11.119	0.380	0.117	1.040	N
P	8517.880	1.139	11.276	0.365	0.087	1.018	N	A	8549.751	1.267	8.424	0.054	0.228	0.925	N
A	8517.885	1.133	8.417	0.060	0.217	0.924	N	A	8550.802	1.126	8.426	0.060	0.220	0.936	N
A	8518.800	1.465	8.438	0.054	0.225	0.923	N	P	8550.807	1.119	11.263	0.380	0.103	1.003	N
P	8518.804	1.432	11.423	0.347	0.113	0.988	N	B	8550.813	1.118	7.653	0.005	0.152	0.994	N
B	8518.808	1.413	7.668	-0.003	0.163	0.981	N	P	8550.817	1.112	11.259	0.353	0.183	0.916	N
P	8518.812	1.377	11.437	0.348	0.101	0.971	N	B	8550.821	1.113	7.654	0.004	0.153	0.999	N
B	8518.817	1.360	7.674	-0.004	0.163	0.983	N	P	8550.825	1.109	11.225	0.391	0.112	0.954	N
P	8518.820	1.329	11.425	0.360	0.101	0.983	N	A	8550.830	1.109	8.426	0.060	0.219	0.945	N
A	8518.825	1.307	8.444	0.054	0.223	0.933	N	A	8645.609	1.142	8.435	0.062	0.214	0.936	N
A	8518.848	1.212	8.442	0.055	0.222	0.928	N	P	8645.616	1.155	11.097	0.355	0.129	1.121	N
P	8518.852	1.198	11.419	0.369	0.093	1.009	N	B	8645.619	1.161	7.645	0.005	0.146	1.000	N
B	8518.857	1.191	7.668	-0.004	0.162	0.985	N	P	8645.622	1.168	11.090	0.355	0.125	1.110	N
P	8518.864	1.166	11.426	0.374	0.084	1.038	N	A	8646.601	1.133	8.428	0.061	0.225	0.917	N
B	8518.868	1.162	7.664	0.001	0.153	0.992	N	P	8646.604	1.137	11.088	0.363	0.116	1.057	N
P	8518.872	1.149	11.445	0.349	0.111	1.002	N	B	8646.607	1.142	7.660	0.000	0.159	0.984	N
A	8518.877	1.142	8.440	0.051	0.230	0.926	N	A	8652.591	1.144	8.417	0.057	0.234	0.914	N
A	8523.785	1.476	8.400	0.061	0.215	0.918	N	P	8652.595	1.150	10.983	0.326	0.170	1.035	N
P	8523.791	1.426	11.546	0.351	0.116	0.989	N	B	8652.597	1.155	7.649	-0.002	0.162	0.986	N
B	8523.795	1.411	7.634	0.002	0.149	0.990	N	P	8652.601	1.163	10.948	0.363	0.112	1.156	N
P	8523.800	1.369	11.536	0.388	0.066	1.090	N	A	8652.604	1.171	8.420	0.057	0.228	0.926	N
P	8523.804	1.358	7.633	0.004	0.148	0.987	N	B	8652.607	1.177	10.966	0.342	0.145	1.059	N
B	8523.808	1.322	11.495	0.431	0.005	0.873	N	P	8652.609	1.185	7.645	0.003	0.163	0.979	N
A	8523.813	1.302	8.404	0.058	0.218	0.929	N	A	8653.575	1.124	8.421	0.059	0.232	0.928	N
A	8523.851	1.168	8.418	0.055	0.219	0.936	N	P	8653.578	1.127	11.066	0.352	0.142	1.002	N
P	8523.857	1.152	11.566	0.390	0.039	1.018	N	B	8653.582	1.134	7.655	0.004	0.160	0.988	N
B	8523.861	1.150	7.645	0.003	0.149	0.987	N	A	8653.589	1.145	8.417	0.060	0.227	0.936	N
P	8523.866	1.136	11.582	0.359	0.133	0.881	N	P	8653.592	1.151	11.028	0.364	0.124	1.018	N
B	8523.870	1.135	7.645	0.001	0.154	0.987	N	B	8653.596	1.159	7.653	0.002	0.165	0.991	N
P	8523.877	1.121	11.579	0.373	0.093	0.934	N	A	8655.567	1.110	8.440	0.057	0.230	0.919	N
A	8523.881	1.118	8.417	0.060	0.217	0.924	N	P	8655.570	1.113	11.153	0.373	0.103	0.963	N
A	8524.830	1.220	8.419	0.062	0.220	0.922	N	B	8655.572	1.116	7.667	0.008	0.158	0.977	N
P	8524.835	1.200	11.361	0.388	0.105	0.933	N	P	8655.573	1.117	11.164	0.359	0.125	1.064	N
B	8524.839	1.195	7.650	0.001	0.160	0.982	N	P	8655.578	1.123	11.185	0.339	0.155	1.050	N
P	8524.844	1.177	11.334	0.397	0.110	0.933	N	A	8655.579	1.126	8.444	0.062	0.223	0.930	N
B	8524.847	1.173	7.648	0.003	0.158	0.983	N	P	8655.581	1.129	11.182	0.341	0.150	1.055	N
P	8524.852	1.157	11.363	0.384	0.106	1.120	N	B	8655.583	1.133	7.676	0.000	0.159	0.998	N
A	8524.857	1.149	8.419	0.061	0.221	0.930	N	A	8656.562	1.108	8.439	0.056	0.228	0.929	N
A	8526.770	1.537	8.422	0.056	0.233	0.911	N	P	8656.566	1.111	11.289	0.346	0.141	1.041	N
P	8526.775	1.490	11.116	0.408	0.061	1.021	N	B	8656.568	1.115	7.661	0.004	0.161	0.980	N
B	8526.779	1.472	7.666	-0.002	0.162	0.985	N	P	8656.575	1.124	11.268	0.363	0.106	1.031	N
P	8526.786	1.410	11.137	0.372	0.118	1.010	N	B	8656.577	1.128	7.662	0.009	0.146	1.003	N
B	8526.790	1.394	7.649	0.002	0.161	0.986	N	P	8656.579	1.131	11.282	0.348	0.145	1.005	N
P	8526.796	1.348	11.138	0.379	0.117	1.119	N	A	8656.583	1.138	8.434	0.061	0.224	0.930	N
A	8526.800	1.326	8.425	0.053	0.234	0.917	N	A	8658.561	1.124	8.405	0.060	0.224	0.920	N
A	8529.777	1.423	8.401	0.059	0.217	0.926	N	P	8658.564	1.127	11.170	0.335	0.147	1.046	N
P	8529.784	1.371	11.606	0.383	0.098	1.085	N								

Catalogue 1990–1992

Group 1013 P=CpD-44 1442
A=HD 52096 B=HD 60813

Star	JD_{\odot}	X	V	$b - y$	m_1	c_1	Sys	Star	JD_{\odot}	X	V	$b - y$	m_1	c_1	Sys
A	8189.795	1.175	7.619	0.132	0.192	0.805	N	P	8285.642	1.037	10.346	0.276	0.078	0.649	N
P	8189.799	1.220	10.322	0.393	0.096	0.557	N	A	8285.647	1.030	7.634	0.128	0.204	0.791	N
A	8189.805	1.146	7.624	0.127	0.197	0.804	N	A	8286.642	1.029	7.620	0.129	0.196	0.804	N
A	8193.713	1.560	7.625	0.131	0.194	0.805	N	P	8286.646	1.036	10.482	0.274	0.060	0.663	N
P	8193.718	1.639	10.346	0.393	0.091	0.586	N	A	8286.651	1.033	7.621	0.131	0.195	0.802	N
A	8193.730	1.434	7.626	0.132	0.188	0.810	N	A	8287.730	1.181	7.610	0.133	0.193	0.804	N
A	8195.789	1.141	7.621	0.131	0.193	0.806	N	P	8287.733	1.152	10.307	0.274	0.067	0.673	N
P	8195.793	1.179	10.384	0.403	0.075	0.525	N	A	8287.738	1.211	7.613	0.130	0.196	0.800	N
A	8195.799	1.116	7.619	0.134	0.188	0.812	N	A	8288.686	1.079	7.610	0.125	0.200	0.809	N
A	8217.773	1.055	7.618	0.129	0.200	0.795	N	P	8288.691	1.071	10.156	0.283	0.082	0.684	N
P	8217.778	1.077	10.854	0.336	0.071	0.540	N	A	8288.696	1.097	7.617	0.129	0.198	0.805	N
A	8217.784	1.044	7.620	0.127	0.201	0.800	N	A	8289.602	1.033	7.607	0.129	0.193	0.810	N
A	8226.722	1.100	7.618	0.130	0.196	0.805	N	P	8289.606	1.050	10.037	0.304	0.073	0.679	N
P	8226.726	1.133	10.590	0.321	0.061	0.609	N	A	8289.610	1.029	7.607	0.131	0.191	0.806	N
A	8226.731	1.082	7.614	0.133	0.188	0.820	N	A	8290.655	1.044	7.620	0.129	0.196	0.808	N
A	8228.679	1.211	7.620	0.132	0.192	0.807	N	P	8290.658	1.044	9.759	0.281	0.080	0.735	N
P	8228.683	1.259	10.426	0.325	0.069	0.667	N	A	8290.662	1.052	7.618	0.134	0.190	0.814	N
A	8228.688	1.177	7.620	0.130	0.194	0.808	N	A	8292.683	1.093	7.622	0.130	0.193	0.811	N
A	8234.766	1.028	7.634	0.136	0.189	0.809	N	P	8292.687	1.082	9.831	0.301	0.070	0.699	N
P	8234.770	1.040	10.282	0.291	0.060	0.653	N	A	8292.691	1.112	7.618	0.133	0.191	0.808	N
A	8234.775	1.027	7.633	0.135	0.190	0.808	N	A	8293.687	1.108	7.621	0.130	0.195	0.811	N
A	8239.811	1.065	7.621	0.131	0.195	0.805	N	P	8293.691	1.093	9.803	0.297	0.085	0.651	N
P	8239.815	1.060	10.391	0.330	0.072	0.648	N	A	8293.695	1.128	7.622	0.130	0.197	0.806	N
A	8239.820	1.080	7.622	0.129	0.199	0.801	N	A	8294.645	1.045	7.619	0.135	0.191	0.804	N
A	8244.711	1.044	7.619	0.133	0.186	0.815	N	P	8294.650	1.045	9.724	0.298	0.074	0.665	N
P	8244.715	1.064	10.193	0.321	0.062	0.637	N	A	8294.655	1.056	7.616	0.139	0.187	0.806	N
A	8244.720	1.036	7.620	0.132	0.190	0.806	N	A	8546.796	1.252	7.626	0.133	0.189	0.816	N
A	8255.704	1.029	7.609	0.126	0.202	0.791	N	P	8546.800	1.304	10.080	0.261	0.070	0.740	N
P	8255.711	1.041	9.555	0.263	0.080	0.774	N	B	8546.804	1.332	7.317	0.113	0.179	1.089	N
A	8255.716	1.027	7.608	0.128	0.195	0.800	N	B	8651.707	1.061	7.292	0.108	0.180	1.092	N
A	8258.731	1.035	7.617	0.129	0.192	0.807	N	P	8651.710	1.091	10.082	0.289	0.074	0.583	N
P	8258.735	1.039	9.529	0.284	0.096	0.611	N	A	8651.713	1.122	7.604	0.134	0.189	0.813	N
A	8258.740	1.042	7.614	0.131	0.193	0.802	N	P	8651.715	1.102	10.095	0.277	0.077	0.601	N
A	8283.642	1.027	7.617	0.136	0.191	0.808	N	A	8651.718	1.135	7.614	0.117	0.214	0.807	N
P	8283.645	1.037	10.068	0.278	0.087	0.761	N	A	8655.700	1.123	7.604	0.136	0.183	0.811	N
A	8283.648	1.028	7.619	0.132	0.197	0.802	N	P	8655.704	1.106	10.317	0.229	0.078	0.705	N
A	8284.713	1.112	7.615	0.132	0.195	0.798	N	A	8655.707	1.140	7.608	0.130	0.192	0.819	N
P	8284.717	1.095	10.214	0.264	0.098	0.692	N	A	8657.652	1.045	7.612	0.131	0.196	0.810	N
A	8284.720	1.129	7.618	0.134	0.188	0.801	N	P	8657.655	1.045	10.510	0.195	0.087	0.670	N
A	8285.638	1.028	7.631	0.128	0.201	0.806	N	A	8657.660	1.055	7.623	0.130	0.195	0.816	N

Long Term Photometry of Variables

Group 1014 P=HD 87643

Star	JD_{\odot}	X	V	$b - y$	m_1	c_1	Sys	Star	JD_{\odot}	X	V	$b - y$	m_1	c_1	Sys
P	8190.831	1.687	9.073	0.586	-0.139	-0.211	<i>N</i>	P	8292.827	1.234	9.140	0.589	-0.162	-0.293	<i>N</i>
P	8195.848	1.490	9.052	0.597	-0.160	-0.230	<i>N</i>	P	8418.525	1.360	8.900	0.606	-0.151	-0.308	<i>N</i>
P	8198.808	1.695	9.196	0.619	-0.173	-0.357	<i>N</i>	P	8430.526	1.516	8.906	0.602	-0.159	-0.245	<i>N</i>
P	8249.733	1.353	8.933	0.582	-0.130	-0.165	<i>N</i>	P	8646.745	1.155	9.066	0.598	-0.178	-0.362	<i>N</i>
P	8256.736	1.283	9.055	0.607	-0.152	-0.250	<i>N</i>	P	8651.767	1.147	8.992	0.596	-0.160	-0.299	<i>N</i>
P	8283.757	1.147	9.159	0.575	-0.133	-0.297	<i>N</i>	P	8654.757	1.161	9.043	0.606	-0.179	-0.347	<i>N</i>
P	8287.771	1.149	9.116	0.576	-0.145	-0.319	<i>N</i>	P	8657.744	1.146	8.817	0.589	-0.144	-0.226	<i>N</i>
P	8289.808	1.185	9.144	0.597	-0.171	-0.370	<i>N</i>	P	8660.813	1.221	8.948	0.609	-0.167	-0.299	<i>N</i>

Catalogue 1990-1992

Group 1017 P=HR5999 A=HR5967 B=HR6015															
Star	JD _⊙	X	V	b - y	m ₁	c ₁	Sys	Star	JD _⊙	X	V	b - y	m ₁	c ₁	Sys
A	8415.708	1.047	4.905	-0.061	0.110	0.360	N	A	8508.493	1.147	4.896	-0.060	0.108	0.364	N
P	8415.713	1.051	6.902	0.200	0.158	1.003	N	P	8508.494	1.140	6.648	-0.021	0.120	0.516	N
A	8415.715	1.057	4.904	-0.059	0.106	0.367	N	A	8508.495	1.155	4.896	-0.062	0.110	0.362	N
A	8415.723	1.071	4.906	-0.061	0.112	0.356	N	A	8508.497	1.162	4.894	-0.061	0.108	0.364	N
A	8415.730	1.085	4.904	-0.058	0.104	0.369	N	A	8510.522	1.292	4.902	-0.058	0.106	0.367	N
A	8415.733	1.092	4.904	-0.060	0.108	0.363	N	P	8510.523	1.279	6.660	-0.022	0.121	0.518	N
A	8416.647	1.014	4.897	-0.061	0.114	0.355	N	A	8510.525	1.304	4.904	-0.060	0.107	0.368	N
P	8416.651	1.016	6.906	0.189	0.171	0.991	N	A	8510.527	1.316	4.903	-0.058	0.106	0.371	N
A	8438.591	1.013	4.904	-0.060	0.113	0.355	N	A	8511.527	1.334	4.890	-0.061	0.108	0.364	N
P	8438.594	1.015	6.998	0.208	0.166	0.996	N	P	8511.528	1.319	6.644	-0.020	0.116	0.521	N
A	8438.597	1.013	4.901	-0.060	0.117	0.347	N	A	8511.529	1.347	4.888	-0.060	0.107	0.368	N
A	8438.599	1.013	4.902	-0.061	0.116	0.353	N	A	8511.532	1.360	4.889	-0.060	0.106	0.369	N
A	8438.604	1.014	4.900	-0.058	0.111	0.357	N	A	8513.529	1.379	4.906	-0.062	0.108	0.371	N
A	8439.751	1.474	4.908	-0.063	0.109	0.367	N	P	8513.530	1.363	6.658	-0.018	0.113	0.531	N
P	8439.754	1.472	7.071	0.210	0.161	0.985	N	A	8513.534	1.411	4.915	-0.060	0.106	0.370	N
B	8439.758	1.479	5.874	0.152	0.213	0.793	N	A	8513.537	1.432	4.908	-0.061	0.109	0.370	N
A	8460.650	1.227	4.911	-0.064	0.113	0.364	N	A	8518.511	1.358	4.883	-0.060	0.112	0.362	N
P	8460.654	1.231	6.662	-0.022	0.118	0.522	N	P	8518.512	1.341	6.643	-0.022	0.124	0.516	N
A	8460.657	1.262	4.908	-0.062	0.110	0.369	N	A	8518.513	1.371	4.889	-0.061	0.112	0.365	N
A	8460.663	1.289	4.911	-0.063	0.111	0.369	N	A	8518.516	1.385	4.891	-0.062	0.113	0.363	N
A	8462.623	1.150	4.913	-0.060	0.107	0.364	N	A	8519.489	1.252	4.920	-0.064	0.112	0.367	N
P	8462.626	1.148	6.792	0.194	0.158	0.957	N	P	8519.490	1.240	6.675	-0.025	0.122	0.518	N
A	8462.629	1.167	4.914	-0.062	0.111	0.363	N	A	8519.491	1.262	4.918	-0.065	0.115	0.360	N
A	8462.633	1.183	4.914	-0.062	0.112	0.360	N	A	8519.493	1.272	4.917	-0.063	0.111	0.369	N
A	8464.606	1.117	4.927	-0.067	0.111	0.364	N	A	8522.512	1.436	4.910	-0.064	0.111	0.368	N
P	8464.609	1.115	6.683	-0.028	0.123	0.515	N	P	8522.513	1.415	6.666	-0.022	0.119	0.523	N
A	8464.612	1.132	4.923	-0.066	0.113	0.361	N	A	8522.514	1.451	4.913	-0.064	0.113	0.360	N
A	8464.619	1.155	4.938	-0.070	0.116	0.358	N	A	8522.516	1.468	4.912	-0.064	0.112	0.366	N
A	8495.518	1.114	4.900	-0.061	0.113	0.355	N	A	8523.492	1.326	4.910	-0.062	0.112	0.366	N
P	8495.519	1.109	6.658	-0.022	0.123	0.511	N	P	8523.493	1.311	6.669	-0.023	0.122	0.521	N
A	8495.522	1.125	4.899	-0.059	0.110	0.359	N	A	8523.494	1.338	4.911	-0.061	0.110	0.366	N
A	8495.526	1.137	4.899	-0.060	0.110	0.360	N	A	8523.496	1.351	4.914	-0.064	0.114	0.363	N
A	8497.524	1.150	4.891	-0.064	0.117	0.359	N	A	8525.480	1.290	4.901	-0.059	0.107	0.366	N
P	8497.526	1.143	6.646	-0.023	0.120	0.526	N	P	8525.481	1.276	6.658	-0.022	0.121	0.521	N
A	8497.527	1.159	4.896	-0.061	0.110	0.368	N	A	8525.482	1.301	4.902	-0.059	0.108	0.369	N
A	8497.532	1.174	4.893	-0.063	0.111	0.364	N	A	8525.484	1.313	4.903	-0.060	0.109	0.363	N
A	8501.492	1.092	4.898	-0.062	0.110	0.366	N	A	8533.505	1.645	4.917	-0.061	0.108	0.369	N
P	8501.494	1.090	6.654	-0.022	0.120	0.518	N	P	8533.506	1.616	6.680	-0.019	0.115	0.529	N
A	8501.496	1.102	4.896	-0.062	0.109	0.366	N	A	8533.507	1.670	4.921	-0.061	0.105	0.371	N
A	8501.499	1.108	4.895	-0.061	0.109	0.362	N	A	8536.498	1.659	4.938	-0.065	0.111	0.373	N
A	8505.494	1.127	4.920	-0.059	0.118	0.354	N	P	8536.499	1.628	6.694	-0.028	0.127	0.529	N
P	8505.495	1.120	6.674	-0.017	0.119	0.525	N	A	8536.500	1.683	4.931	-0.064	0.110	0.371	N
A	8505.496	1.133	4.917	-0.056	0.111	0.366	N	A	8536.502	1.707	4.930	-0.068	0.113	0.369	N
A	8505.499	1.140	4.919	-0.059	0.114	0.363	N								

Long Term Photometry of Variables

Group 1018 P=HR6000
A=HR5967 B=HR6015

Star	JD ₀	X	V	b - y	m ₁	c ₁	Sys	Star	JD ₀	X	V	b - y	m ₁	c ₁	Sys
A	8415.708	1.047	4.905	-0.061	0.110	0.360	N	P	8501.497	1.097	6.653	-0.026	0.123	0.521	N
A	8415.715	1.057	4.904	-0.059	0.106	0.367	N	A	8501.499	1.108	4.895	-0.061	0.109	0.362	N
A	8415.723	1.071	4.906	-0.061	0.112	0.356	N	A	8505.494	1.127	4.920	-0.059	0.118	0.354	N
A	8415.730	1.085	4.904	-0.058	0.104	0.369	N	A	8505.496	1.133	4.917	-0.056	0.111	0.366	N
A	8415.730	1.085	4.904	-0.058	0.104	0.369	N	P	8505.497	1.126	6.673	-0.018	0.122	0.520	N
P	8415.731	1.083	6.657	-0.019	0.115	0.521	N	A	8505.499	1.140	4.919	-0.059	0.114	0.363	N
A	8415.733	1.092	4.904	-0.060	0.108	0.363	N	A	8508.493	1.147	4.896	-0.060	0.108	0.364	N
A	8415.733	1.092	4.904	-0.060	0.108	0.363	N	A	8508.495	1.155	4.896	-0.062	0.110	0.362	N
A	8417.595	1.063	4.880	-0.064	0.119	0.350	N	P	8508.496	1.147	6.658	-0.022	0.118	0.514	N
A	8417.595	1.063	4.880	-0.064	0.119	0.350	N	A	8508.497	1.162	4.894	-0.061	0.108	0.364	N
P	8417.597	1.067	6.637	-0.023	0.122	0.520	N	A	8510.522	1.292	4.902	-0.058	0.106	0.367	N
A	8417.601	1.053	4.881	-0.063	0.117	0.352	N	A	8510.525	1.304	4.904	-0.060	0.107	0.368	N
A	8417.601	1.053	4.881	-0.063	0.117	0.352	N	P	8510.526	1.290	6.658	-0.017	0.114	0.520	N
A	8438.591	1.013	4.904	-0.060	0.113	0.355	N	A	8510.527	1.316	4.903	-0.058	0.106	0.371	N
A	8438.597	1.013	4.901	-0.060	0.117	0.347	N	A	8511.527	1.334	4.890	-0.061	0.108	0.364	N
A	8438.599	1.013	4.902	-0.061	0.116	0.353	N	A	8511.529	1.347	4.888	-0.060	0.107	0.368	N
P	8438.601	1.015	6.657	-0.019	0.120	0.517	N	P	8511.530	1.331	6.642	-0.018	0.112	0.527	N
A	8438.604	1.014	4.900	-0.058	0.111	0.357	N	A	8511.532	1.360	4.889	-0.060	0.106	0.369	N
A	8438.604	1.014	4.900	-0.058	0.111	0.357	N	A	8513.529	1.379	4.906	-0.062	0.108	0.371	N
P	8455.612	1.066	6.676	-0.026	0.124	0.524	N	A	8513.534	1.411	4.915	-0.060	0.106	0.370	N
A	8455.615	1.079	4.928	-0.065	0.115	0.368	N	P	8513.535	1.394	6.673	-0.022	0.120	0.523	N
A	8455.615	1.079	4.928	-0.065	0.115	0.368	N	A	8513.537	1.432	4.908	-0.061	0.109	0.370	N
P	8455.618	1.077	6.803	0.188	0.168	0.965	N	A	8518.511	1.358	4.883	-0.060	0.112	0.362	N
A	8455.620	1.089	4.921	-0.068	0.119	0.364	N	A	8518.513	1.371	4.889	-0.061	0.112	0.365	N
A	8455.620	1.089	4.921	-0.068	0.119	0.364	N	P	8518.514	1.354	6.638	-0.018	0.121	0.510	N
A	8460.650	1.227	4.911	-0.064	0.113	0.364	N	A	8518.516	1.385	4.891	-0.062	0.113	0.363	N
A	8460.650	1.227	4.911	-0.064	0.113	0.364	N	A	8519.489	1.252	4.920	-0.064	0.112	0.367	N
A	8460.657	1.262	4.908	-0.062	0.110	0.369	N	A	8519.491	1.262	4.918	-0.065	0.115	0.360	N
A	8460.657	1.262	4.908	-0.062	0.110	0.369	N	P	8519.492	1.249	6.676	-0.028	0.127	0.520	N
P	8460.660	1.259	6.802	0.196	0.157	0.983	N	A	8519.493	1.272	4.917	-0.063	0.111	0.369	N
A	8460.663	1.289	4.911	-0.063	0.111	0.369	N	A	8522.512	1.436	4.910	-0.064	0.111	0.368	N
A	8460.663	1.289	4.911	-0.063	0.111	0.369	N	A	8522.514	1.451	4.913	-0.064	0.113	0.360	N
A	8462.623	1.150	4.913	-0.060	0.107	0.364	N	P	8522.515	1.430	6.666	-0.024	0.121	0.521	N
A	8462.629	1.167	4.914	-0.062	0.111	0.363	N	A	8522.516	1.468	4.912	-0.064	0.112	0.366	N
P	8462.631	1.164	6.670	-0.022	0.119	0.520	N	A	8523.492	1.326	4.910	-0.062	0.112	0.366	N
A	8462.633	1.183	4.914	-0.062	0.112	0.360	N	A	8523.494	1.338	4.911	-0.061	0.110	0.366	N
A	8464.606	1.117	4.927	-0.067	0.111	0.364	N	P	8523.495	1.322	6.674	-0.024	0.125	0.512	N
A	8464.612	1.132	4.923	-0.066	0.113	0.361	N	A	8523.496	1.351	4.914	-0.064	0.114	0.363	N
P	8464.615	1.130	6.681	-0.028	0.124	0.511	N	A	8525.480	1.290	4.901	-0.059	0.107	0.366	N
A	8464.619	1.155	4.938	-0.070	0.116	0.358	N	A	8525.482	1.301	4.902	-0.059	0.108	0.369	N
A	8495.518	1.114	4.900	-0.061	0.113	0.355	N	P	8525.483	1.287	6.659	-0.022	0.117	0.531	N
A	8495.522	1.125	4.899	-0.059	0.110	0.359	N	A	8525.484	1.313	4.903	-0.060	0.109	0.363	N
P	8495.524	1.121	6.656	-0.020	0.118	0.520	N	A	8533.505	1.645	4.917	-0.061	0.108	0.369	N
A	8495.526	1.137	4.899	-0.060	0.110	0.360	N	A	8533.507	1.670	4.921	-0.061	0.105	0.371	N
A	8497.524	1.150	4.891	-0.064	0.117	0.359	N	P	8533.508	1.640	6.685	-0.027	0.127	0.517	N
A	8497.527	1.159	4.896	-0.061	0.110	0.368	N	A	8536.498	1.659	4.938	-0.065	0.111	0.373	N
P	8497.530	1.157	6.651	-0.023	0.122	0.513	N	A	8536.500	1.683	4.931	-0.064	0.110	0.371	N
A	8497.532	1.174	4.893	-0.063	0.111	0.364	N	P	8536.501	1.650	6.691	-0.027	0.125	0.517	N
A	8501.492	1.092	4.898	-0.062	0.110	0.366	N	A	8536.502	1.707	4.930	-0.068	0.113	0.369	N
A	8501.496	1.102	4.896	-0.062	0.109	0.366	N								

Catalogue 1990–1992

Group 1019 P=HR6081

Star	JD_{\odot}	X	V	$b - v$	m_1	c_1	Sys	Star	JD_{\odot}	X	V	$b - v$	m_1	c_1	Sys
P	8413.677	1.004	4.551	0.598	0.007	1.532	<i>N</i>	P	8418.695	1.020	4.559	0.598	-0.000	1.552	<i>N</i>
P	8413.855	1.834	4.547	0.599	0.003	1.552	<i>N</i>	P	8429.633	1.004	4.554	0.598	0.004	1.538	<i>N</i>
P	8415.694	1.012	4.563	0.600	-0.004	1.555	<i>N</i>	P	8429.824	2.042	4.552	0.600	-0.004	1.545	<i>N</i>
P	8416.694	1.014	4.550	0.600	-0.001	1.551	<i>N</i>	P	8435.794	1.819	4.555	0.595	0.012	1.531	<i>N</i>

Long Term Photometry of Variables

Group 1024 P=CoD-37 13024
A=HD176616 B=HD177123

Star	JD _⊙	X	V	b - y	m ₁	c ₁	Sys	Star	JD _⊙	X	V	b - y	m ₁	c ₁	Sys
B	8166.598	1.326	7.707	0.067	0.111	0.784	N	B	8493.581	1.013	7.709	0.062	0.119	0.775	N
P	8166.602	1.368	9.304	0.401	-0.013	0.735	N	P	8493.584	1.012	9.280	0.386	-0.009	0.734	N
B	8166.606	1.379	7.705	0.070	0.107	0.784	N	B	8493.589	1.016	7.715	0.064	0.114	0.776	N
B	8168.637	1.691	7.712	0.072	0.106	0.787	N	P	8495.663	1.170	9.277	0.397	-0.010	0.739	N
P	8168.641	1.781	9.396	0.398	0.002	0.748	N	B	8497.660	1.169	7.725	0.068	0.116	0.779	N
B	8168.646	1.799	7.714	0.072	0.108	0.785	N	P	8497.663	1.189	9.295	0.391	-0.007	0.753	N
B	8185.545	1.330	7.708	0.069	0.116	0.770	N	B	8497.668	1.200	7.715	0.068	0.117	0.777	N
P	8185.550	1.380	9.323	0.385	0.012	0.727	N	B	8501.687	1.350	7.697	0.072	0.105	0.794	N
B	8185.556	1.400	7.708	0.068	0.117	0.771	N	P	8501.691	1.390	9.265	0.399	-0.017	0.740	N
B	8187.568	1.563	7.710	0.072	0.107	0.786	N	B	8501.696	1.407	7.698	0.072	0.108	0.784	N
P	8187.575	1.659	9.302	0.400	-0.011	0.740	N	B	8505.644	1.195	7.705	0.066	0.116	0.770	N
B	8187.580	1.680	7.707	0.066	0.112	0.780	N	P	8505.647	1.217	9.270	0.392	-0.004	0.722	N
B	8189.540	1.369	7.712	0.065	0.122	0.768	N	B	8505.652	1.226	7.705	0.066	0.117	0.771	N
P	8189.544	1.412	9.319	0.384	0.008	0.712	N	B	8508.636	1.196	7.709	0.068	0.112	0.780	N
B	8189.547	1.416	7.705	0.073	0.108	0.778	N	P	8508.639	1.219	9.276	0.392	-0.007	0.732	N
B	8191.547	1.458	7.721	0.062	0.126	0.765	N	B	8508.644	1.229	7.710	0.069	0.108	0.781	N
P	8191.551	1.513	9.322	0.392	-0.003	0.744	N	B	8510.668	1.389	7.712	0.068	0.112	0.783	N
B	8191.555	1.525	7.713	0.068	0.114	0.780	N	P	8510.673	1.443	9.275	0.396	-0.011	0.734	N
B	8194.566	1.722	7.714	0.066	0.119	0.773	N	B	8510.677	1.455	7.716	0.067	0.114	0.773	N
P	8194.571	1.825	9.694	0.394	0.001	0.753	N	B	8511.676	1.469	7.719	0.068	0.112	0.781	N
B	8194.577	1.857	7.714	0.066	0.116	0.776	N	P	8511.680	1.520	9.293	0.388	-0.006	0.732	N
B	8196.530	1.439	7.716	0.070	0.114	0.777	N	B	8511.684	1.534	7.723	0.064	0.117	0.775	N
P	8196.535	1.498	9.327	0.400	-0.005	0.739	N	B	8519.633	1.330	7.674	0.069	0.120	0.770	N
B	8196.540	1.519	7.719	0.072	0.113	0.785	N	P	8519.637	1.373	9.224	0.400	-0.011	0.726	N
B	8198.521	1.410	7.713	0.070	0.112	0.792	N	B	8522.629	1.357	7.714	0.067	0.116	0.775	N
P	8198.525	1.464	9.318	0.404	-0.012	0.751	N	P	8522.633	1.401	9.267	0.396	-0.006	0.723	N
B	8198.531	1.484	7.710	0.067	0.116	0.783	N	B	8522.637	1.412	7.715	0.069	0.112	0.777	N
B	8416.873	1.138	7.706	0.070	0.115	0.770	N	B	8524.624	1.360	7.716	0.067	0.115	0.778	N
P	8416.878	1.162	9.289	0.397	-0.010	0.736	N	P	8524.628	1.402	9.281	0.386	-0.003	0.758	N
B	8416.883	1.171	7.704	0.071	0.115	0.774	N	B	8524.632	1.411	7.712	0.067	0.116	0.778	N
B	8418.717	1.062	7.713	0.069	0.114	0.774	N	B	8530.604	1.341	7.697	0.067	0.117	0.774	N
P	8418.721	1.050	9.292	0.394	-0.003	0.717	N	P	8530.608	1.381	9.237	0.390	-0.005	0.724	N
B	8418.725	1.049	7.712	0.070	0.112	0.777	N	B	8530.612	1.391	7.689	0.070	0.115	0.775	N
B	8429.788	1.035	7.714	0.070	0.107	0.780	N	B	8536.599	1.419	7.746	0.068	0.114	0.775	N
P	8429.791	1.040	9.311	0.398	-0.008	0.729	N	P	8536.603	1.474	9.287	0.391	-0.004	0.739	N
B	8429.796	1.046	7.715	0.069	0.111	0.777	N	B	8536.608	1.485	7.747	0.069	0.114	0.781	N
B	8437.662	1.069	7.706	0.072	0.113	0.773	N	B	8539.598	1.479	7.719	0.069	0.114	0.778	N
P	8437.666	1.057	9.312	0.399	-0.004	0.722	N	P	8539.602	1.534	9.267	0.390	0.008	0.726	N
B	8437.672	1.052	7.713	0.071	0.114	0.774	N	B	8539.609	1.569	7.709	0.069	0.120	0.769	N
B	8439.762	1.037	7.707	0.071	0.113	0.777	N	B	8545.579	1.458	7.722	0.077	0.117	0.771	N
P	8439.765	1.041	9.317	0.398	0.000	0.722	N	P	8545.583	1.518	9.292	0.404	-0.006	0.731	N
B	8439.770	1.047	7.712	0.073	0.109	0.777	N	B	8545.588	1.535	7.717	0.081	0.111	0.779	N
B	8460.706	1.039	7.710	0.071	0.111	0.776	N	A	8548.560	1.403	7.628	0.061	0.137	0.989	N
P	8460.711	1.046	9.309	0.395	-0.007	0.738	N	P	8548.565	1.441	9.354	0.389	0.007	0.707	N
B	8460.715	1.051	7.710	0.072	0.109	0.776	N	B	8550.546	1.333	7.726	0.073	0.108	0.786	N
B	8462.737	1.109	7.725	0.065	0.119	0.774	N	P	8550.551	1.379	9.305	0.407	-0.015	0.750	N
P	8462.742	1.125	9.317	0.401	-0.021	0.736	N	B	8550.555	1.388	7.728	0.073	0.110	0.778	N
B	8462.747	1.136	7.723	0.067	0.117	0.778	N	B	8555.547	1.434	7.716	0.072	0.109	0.781	N
B	8464.762	1.207	7.691	0.068	0.116	0.769	N	P	8555.552	1.491	9.286	0.380	0.004	0.746	N
P	8464.766	1.234	9.272	0.401	-0.010	0.731	N	B	8555.558	1.515	7.715	0.072	0.106	0.789	N
B	8464.770	1.241	7.691	0.067	0.119	0.772	N	B	8558.540	1.444	7.713	0.070	0.112	0.779	N
B	8486.614	1.019	7.709	0.075	0.102	0.785	N	P	8558.545	1.504	9.786	0.413	-0.015	0.768	N
P	8486.619	1.022	9.315	0.394	-0.006	0.745	N	B	8558.550	1.518	7.707	0.069	0.114	0.771	N
B	8491.685	1.202	7.716	0.068	0.114	0.786	N	B	8561.504	1.274	7.731	0.071	0.111	0.780	N
P	8491.689	1.228	9.275	0.389	0.000	0.747	N	P	8561.508	1.308	9.388	0.391	-0.001	0.745	N
B	8491.695	1.243	7.714	0.069	0.114	0.781	N	B	8561.512	1.316	7.724	0.071	0.113	0.777	N

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Group 1026 P=HR6141															
Star	JD_{\odot}	X	V	$b - y$	m_1	c_1	Sys	Star	JD_{\odot}	X	V	$b - y$	m_1	c_1	Sys
P	8460.743	1.998	4.788	-0.039	0.090	0.211	<i>N</i>	P	8493.473	1.005	4.806	-0.047	0.095	0.191	<i>N</i>
P	8462.550	1.003	4.803	-0.048	0.104	0.181	<i>N</i>	P	8494.637	1.832	4.795	-0.046	0.087	0.208	<i>N</i>
P	8464.728	1.944	4.790	-0.042	0.090	0.210	<i>N</i>	P	8496.470	1.008	4.793	-0.042	0.091	0.203	<i>N</i>
P	8491.476	1.004	4.815	-0.046	0.093	0.195	<i>N</i>								

Long Term Photometry of Variables

Group 1028 P=HD161114															
A=BD-04 4476								B=HD170058							
Star	JD _⊙	X	V	b - y	m ₁	c ₁	Sys	Star	JD _⊙	X	V	b - y	m ₁	c ₁	Sys
A	8166.494	1.172	10.132	0.406	0.160	0.371	N	P	8491.555	1.115	8.948	0.848	-0.252	0.245	N
P	8166.498	1.289	8.929	0.871	-0.280	-0.102	N	A	8494.553	1.104	10.097	0.383	0.189	0.340	N
A	8166.504	1.203	10.132	0.406	0.169	0.359	N	P	8494.556	1.131	8.926	0.853	-0.261	0.219	N
A	8169.488	1.181	10.134	0.389	0.189	0.340	N	A	8494.563	1.111	10.111	0.385	0.185	0.345	N
P	8169.492	1.305	8.932	0.875	-0.276	-0.132	N	A	8496.546	1.104	10.114	0.397	0.182	0.348	N
A	8169.499	1.213	10.125	0.406	0.181	0.340	N	P	8496.549	1.128	8.915	0.851	-0.264	0.226	N
A	8435.800	1.315	10.143	0.390	0.186	0.370	N	A	8496.556	1.110	10.133	0.391	0.180	0.361	N
P	8435.804	1.547	8.926	0.853	-0.254	0.232	N	A	8501.526	1.102	10.124	0.403	0.173	0.357	N
A	8435.809	1.370	10.134	0.406	0.183	0.356	N	P	8501.530	1.119	8.917	0.853	-0.262	0.212	N
A	8437.752	1.161	10.137	0.400	0.171	0.349	N	A	8501.536	1.106	10.118	0.403	0.173	0.343	N
P	8437.757	1.266	8.902	0.846	-0.241	0.258	N	A	8505.519	1.104	10.145	0.408	0.168	0.362	N
A	8437.762	1.187	10.134	0.400	0.174	0.341	N	P	8505.523	1.127	8.948	0.852	-0.253	0.209	N
A	8439.811	1.459	10.141	0.401	0.170	0.338	N	A	8505.529	1.109	10.139	0.398	0.173	0.361	N
P	8439.817	1.827	8.902	0.840	-0.244	0.234	N	A	8508.503	1.102	10.131	0.404	0.170	0.336	N
A	8439.822	1.556	10.138	0.406	0.171	0.334	N	P	8508.506	1.113	8.913	0.848	-0.259	0.217	N
A	8455.645	1.103	10.135	0.398	0.173	0.351	N	A	8508.512	1.104	10.123	0.402	0.172	0.352	N
P	8455.649	1.105	8.903	0.836	-0.251	0.143	N	A	8510.580	1.265	10.148	0.393	0.182	0.348	N
A	8455.659	1.104	10.122	0.399	0.170	0.346	N	P	8510.583	1.448	8.922	0.845	-0.251	0.244	N
A	8459.649	1.104	10.136	0.399	0.174	0.337	N	A	8510.589	1.307	10.139	0.404	0.160	0.349	N
P	8459.656	1.135	8.874	0.837	-0.251	0.161	N	A	8511.605	1.418	10.117	0.408	0.169	0.351	N
B	8459.662	1.119	8.423	0.396	0.201	0.355	N	P	8511.608	1.723	8.898	0.840	-0.244	0.246	N
A	8461.675	1.138	10.135	0.399	0.172	0.360	N	A	8511.615	1.496	10.126	0.402	0.169	0.353	N
P	8461.680	1.222	8.893	0.831	-0.249	0.159	N	A	8522.557	1.314	10.142	0.396	0.173	0.354	N
A	8461.687	1.164	10.132	0.406	0.160	0.349	N	P	8522.560	1.544	8.926	0.846	-0.251	0.297	N
A	8463.631	1.102	10.132	0.406	0.172	0.345	N	A	8522.567	1.373	10.137	0.404	0.158	0.373	N
P	8463.636	1.118	8.884	0.827	-0.242	0.173	N	A	8524.531	1.226	10.127	0.409	0.160	0.338	N
A	8463.642	1.106	10.132	0.410	0.148	0.390	N	P	8524.535	1.384	8.917	0.851	-0.258	0.297	N
A	8491.552	1.102	10.124	0.397	0.170	0.352	N	A	8524.541	1.263	10.137	0.396	0.182	0.337	N

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Group 1031 P=BD-06 1259
A=HD 37399 B=HD 37210

Star	JD ₀	X	V	b - y	m ₁	c ₁	Sys	Star	JD ₀	X	V	b - y	m ₁	c ₁	Sys
A	8168.829	1.186	8.361	0.284	0.159	0.405	N	P	8578.798	1.093	10.065	0.155	0.209	1.185	N
A	8168.829	1.186	8.361	0.284	0.159	0.405	N	B	8578.802	1.099	8.114	-0.045	0.153	0.565	N
P	8168.833	1.170	9.661	0.109	0.185	1.171	N	B	8578.802	1.099	8.114	-0.045	0.153	0.565	N
B	8168.838	1.157	8.117	-0.033	0.140	0.560	N	A	8646.633	1.121	8.364	0.278	0.168	0.409	N
B	8168.838	1.157	8.117	-0.033	0.140	0.560	N	A	8646.633	1.121	8.364	0.278	0.168	0.409	N
P	8172.796	1.272	9.899	0.119	0.189	1.135	N	P	8646.637	1.129	10.167	0.171	0.199	1.203	N
B	8172.800	1.250	8.116	-0.043	0.145	0.609	N	B	8646.640	1.137	8.125	-0.049	0.153	0.582	N
B	8172.800	1.250	8.116	-0.043	0.145	0.609	N	B	8646.640	1.137	8.125	-0.049	0.153	0.582	N
A	8188.740	1.331	8.359	0.284	0.159	0.407	N	B	8646.644	1.146	8.115	-0.044	0.146	0.597	N
A	8188.740	1.331	8.359	0.284	0.159	0.407	N	B	8646.644	1.146	8.115	-0.044	0.146	0.597	N
P	8188.744	1.303	9.649	0.105	0.204	1.170	N	B	8646.648	1.155	8.119	-0.049	0.155	0.582	N
B	8188.748	1.279	8.133	-0.027	0.138	0.551	N	B	8646.648	1.155	8.119	-0.049	0.155	0.582	N
B	8188.748	1.279	8.133	-0.027	0.138	0.551	N	B	8646.652	1.164	8.356	0.283	0.161	0.401	N
A	8194.803	1.099	8.357	0.287	0.162	0.406	N	A	8646.652	1.164	8.356	0.283	0.161	0.401	N
A	8194.803	1.099	8.357	0.287	0.162	0.406	N	P	8646.654	1.171	10.161	0.169	0.196	1.222	N
P	8194.808	1.092	9.610	0.103	0.207	1.112	N	B	8646.658	1.185	8.118	-0.050	0.156	0.587	N
B	8194.813	1.089	8.125	-0.042	0.159	0.584	N	B	8646.658	1.185	8.118	-0.050	0.156	0.587	N
B	8194.813	1.089	8.125	-0.042	0.159	0.584	N	B	8646.662	1.197	8.114	-0.042	0.145	0.586	N
A	8197.757	1.172	8.356	0.286	0.159	0.403	N	B	8646.662	1.197	8.114	-0.042	0.145	0.586	N
A	8197.757	1.172	8.356	0.286	0.159	0.403	N	B	8646.666	1.212	8.118	-0.049	0.151	0.598	N
P	8197.762	1.154	9.628	0.098	0.196	1.141	N	B	8646.666	1.212	8.118	-0.049	0.151	0.598	N
B	8197.767	1.142	8.127	-0.033	0.141	0.572	N	A	8646.670	1.224	8.357	0.285	0.159	0.415	N
B	8197.767	1.142	8.127	-0.033	0.141	0.572	N	A	8646.670	1.224	8.357	0.285	0.159	0.415	N
P	8215.863	1.280	9.789	0.130	0.162	1.236	N	A	8651.579	1.086	8.370	0.279	0.170	0.397	N
P	8219.683	1.217	10.026	0.135	0.183	1.152	N	A	8651.579	1.086	8.370	0.279	0.170	0.397	N
P	8232.716	1.086	10.094	0.142	0.193	1.203	N	P	8651.582	1.085	9.870	0.129	0.193	1.151	N
P	8239.688	1.090	9.882	0.120	0.199	1.131	N	B	8651.584	1.086	8.143	-0.030	0.141	0.558	N
P	8250.738	1.166	10.071	0.143	0.197	1.147	N	B	8651.584	1.086	8.143	-0.030	0.141	0.558	N
P	8282.615	1.100	9.968	0.161	0.183	1.124	N	B	8651.591	1.090	8.129	-0.022	0.136	0.558	N
P	8285.607	1.101	9.779	0.141	0.189	1.139	N	B	8651.591	1.090	8.129	-0.022	0.136	0.558	N
P	8288.655	1.247	9.750	0.129	0.195	1.117	N	B	8651.594	1.091	8.135	-0.036	0.150	0.555	N
P	8290.649	1.242	9.655	0.126	0.185	1.123	N	B	8651.594	1.091	8.135	-0.036	0.150	0.555	N
P	8292.610	1.137	9.701	0.118	0.200	1.099	N	B	8651.597	1.094	8.126	-0.022	0.136	0.551	N
P	8294.597	1.124	9.641	0.119	0.192	1.106	N	B	8651.597	1.094	8.126	-0.022	0.136	0.551	N
A	8545.810	1.153	8.366	0.279	0.163	0.409	N	P	8651.599	1.094	9.887	0.122	0.206	1.167	N
A	8545.810	1.153	8.366	0.279	0.163	0.409	N	B	8651.601	1.098	8.129	-0.024	0.132	0.558	N
P	8545.813	1.141	9.624	0.102	0.190	1.145	N	B	8651.601	1.098	8.129	-0.024	0.132	0.558	N
B	8545.818	1.132	8.108	-0.049	0.151	0.563	N	B	8651.605	1.102	8.129	-0.030	0.140	0.563	N
B	8545.818	1.132	8.108	-0.049	0.151	0.563	N	B	8651.605	1.102	8.129	-0.030	0.140	0.563	N
A	8549.761	1.292	8.366	0.278	0.171	0.398	N	B	8651.609	1.107	8.139	-0.035	0.152	0.551	N
A	8549.761	1.292	8.366	0.278	0.171	0.398	N	B	8651.609	1.107	8.139	-0.035	0.152	0.551	N
P	8549.766	1.263	9.660	0.099	0.199	1.149	N	B	8651.611	1.110	8.130	-0.034	0.143	0.558	N
A	8558.749	1.237	8.371	0.279	0.164	0.413	N	B	8651.611	1.110	8.130	-0.034	0.143	0.558	N
A	8558.749	1.237	8.371	0.279	0.164	0.413	N	A	8655.587	1.085	8.382	0.283	0.162	0.409	N
P	8558.755	1.212	9.700	0.111	0.190	1.183	N	A	8655.587	1.085	8.382	0.283	0.162	0.409	N
B	8558.759	1.195	8.127	-0.046	0.152	0.596	N	P	8655.590	1.087	9.928	0.128	0.208	1.153	N
B	8558.759	1.195	8.127	-0.046	0.152	0.596	N	B	8655.592	1.090	8.136	-0.035	0.150	0.548	N
A	8561.774	1.135	8.387	0.285	0.158	0.419	N	B	8655.592	1.090	8.136	-0.035	0.150	0.548	N
A	8561.774	1.135	8.387	0.285	0.158	0.419	N	B	8655.598	1.098	8.131	-0.040	0.143	0.585	N
P	8561.779	1.124	10.155	0.157	0.186	1.160	N	B	8655.598	1.098	8.131	-0.040	0.143	0.585	N
B	8561.783	1.117	8.125	-0.036	0.147	0.576	N	B	8655.602	1.103	8.126	-0.038	0.151	0.555	N
B	8561.783	1.117	8.125	-0.036	0.147	0.576	N	B	8655.602	1.103	8.126	-0.038	0.151	0.555	N
A	8566.766	1.126	8.350	0.270	0.169	0.402	N	A	8655.606	1.108	8.379	0.285	0.165	0.409	N
A	8566.766	1.126	8.350	0.270	0.169	0.402	N	A	8655.606	1.108	8.379	0.285	0.165	0.409	N
P	8566.770	1.116	9.768	0.104	0.209	1.231	N	P	8655.607	1.109	9.929	0.129	0.203	1.146	N
B	8566.774	1.110	8.103	-0.045	0.145	0.564	N	B	8655.609	1.116	8.130	-0.044	0.151	0.560	N
B	8566.774	1.110	8.103	-0.045	0.145	0.564	N	B	8655.609	1.116	8.130	-0.044	0.151	0.560	N
A	8572.819	1.099	8.365	0.281	0.165	0.402	N	B	8655.613	1.124	8.121	-0.039	0.145	0.562	N
A	8572.819	1.099	8.365	0.281	0.165	0.402	N	B	8655.613	1.124	8.121	-0.039	0.145	0.562	N
P	8572.825	1.105	9.738	0.116	0.204	1.199	N	B	8655.617	1.132	8.117	-0.038	0.143	0.579	N
B	8572.830	1.114	8.136	-0.040	0.147	0.580	N	B	8655.617	1.132	8.117	-0.038	0.143	0.579	N
B	8572.830	1.114	8.136	-0.040	0.147	0.580	N	A	8655.620	1.137	8.374	0.274	0.177	0.404	N
A	8575.740	1.128	8.359	0.281	0.171	0.401	N	A	8655.620	1.137	8.374	0.274	0.177	0.404	N
A	8575.740	1.128	8.359	0.281	0.171	0.401	N	P	8660.674	1.479	10.055	0.156	0.198	1.171	N
P	8575.744	1.118	9.920	0.158	0.206	1.177	N	B	8660.676	1.503	8.126	-0.033	0.136	0.615	N
B	8575.749	1.111	8.131	-0.029	0.141	0.555	N	B	8660.676	1.503	8.126	-0.033	0.136	0.615	N
B	8575.749	1.111	8.131	-0.029	0.141	0.555	N	A	8660.696	1.697	8.360	0.283	0.150	0.421	N
A	8578.793	1.091	8.365	0.281	0.167	0.405	N	A	8660.696	1.697	8.360	0.283	0.150	0.421	N
A	8578.793	1.091	8.365	0.281	0.167	0.405	N	P	8660.701	1.767	10.046	0.161	0.188	1.222	N

Long Term Photometry of Variables

Group 1034 P=HD152404															
A=HD152216								B=HD152196							
Star	JD _⊙	X	V	b - y	m ₁	c ₁	Sys	Star	JD _⊙	X	V	b - y	m ₁	c ₁	Sys
A	8169.502	1.372	9.361	0.295	0.156	0.376	N	B	8501.520	1.074	9.085	0.292	0.164	0.605	N
P	8169.506	1.388	9.106	0.448	0.189	0.448	N	A	8510.538	1.202	9.375	0.305	0.148	0.377	N
B	8169.511	1.426	9.099	0.288	0.169	0.602	N	P	8510.542	1.214	9.426	0.499	0.206	0.498	N
A	8418.786	1.166	9.373	0.301	0.155	0.363	N	B	8510.547	1.239	9.102	0.282	0.179	0.600	N
P	8418.789	1.175	8.980	0.409	0.194	0.445	N	A	8511.543	1.233	9.367	0.296	0.157	0.383	N
B	8418.801	1.224	9.098	0.287	0.171	0.602	N	P	8511.547	1.246	9.388	0.475	0.198	0.460	N
A	8461.606	1.028	9.377	0.302	0.147	0.370	N	B	8511.552	1.274	9.086	0.286	0.174	0.604	N
P	8461.611	1.035	9.682	0.544	0.188	0.487	N	A	8517.504	1.148	9.388	0.296	0.155	0.376	N
B	8461.615	1.044	9.097	0.292	0.156	0.621	N	P	8517.508	1.159	9.342	0.493	0.196	0.499	N
A	8462.692	1.288	9.391	0.303	0.138	0.385	N	B	8517.513	1.181	9.110	0.285	0.173	0.609	N
P	8462.696	1.304	9.930	0.534	0.203	0.501	N	A	8518.526	1.247	9.350	0.305	0.150	0.367	N
B	8462.701	1.335	9.115	0.289	0.163	0.636	N	P	8518.530	1.260	9.109	0.460	0.196	0.451	N
A	8463.616	1.049	9.387	0.292	0.158	0.384	N	B	8518.535	1.289	9.078	0.289	0.173	0.598	N
P	8463.619	1.056	9.981	0.601	0.170	0.467	N	A	8519.505	1.172	9.396	0.287	0.170	0.352	N
B	8463.623	1.067	9.106	0.286	0.171	0.611	N	P	8519.510	1.187	9.229	0.468	0.205	0.453	N
A	8491.494	1.008	9.399	0.300	0.143	0.392	N	B	8519.515	1.210	9.107	0.285	0.173	0.604	N
P	8491.499	1.012	8.930	0.405	0.185	0.440	N	A	8523.508	1.230	9.382	0.302	0.153	0.374	N
B	8491.505	1.018	9.118	0.288	0.168	0.596	N	P	8523.514	1.251	9.271	0.496	0.191	0.498	N
A	8493.495	1.010	9.383	0.299	0.145	0.381	N	B	8523.519	1.279	9.113	0.287	0.174	0.609	N
P	8493.499	1.015	8.932	0.405	0.182	0.443	N	A	8524.514	1.270	9.377	0.305	0.143	0.373	N
B	8493.520	1.038	9.098	0.277	0.172	0.600	N	P	8524.518	1.288	9.293	0.493	0.195	0.466	N
A	8494.494	1.011	9.374	0.301	0.156	0.367	N	B	8524.524	1.323	9.099	0.286	0.170	0.613	N
P	8494.498	1.016	8.970	0.424	0.185	0.437	N	A	8530.525	1.446	9.407	0.294	0.151	0.380	N
B	8494.533	1.062	9.099	0.277	0.177	0.584	N	P	8530.525	1.446	9.407	0.294	0.151	0.380	N
A	8495.492	1.012	9.375	0.300	0.154	0.377	N	B	8530.529	1.468	9.280	0.484	0.183	0.456	N
P	8495.496	1.017	8.985	0.424	0.187	0.454	N	P	8530.529	1.468	9.280	0.484	0.183	0.456	N
B	8495.501	1.024	9.096	0.288	0.170	0.600	N	B	8530.534	1.507	9.129	0.278	0.176	0.602	N
A	8496.623	1.463	9.373	0.303	0.146	0.379	N	P	8530.534	1.507	9.129	0.278	0.176	0.602	N
P	8496.627	1.480	9.018	0.434	0.185	0.463	N	A	8533.531	1.576	9.405	0.302	0.154	0.370	N
B	8496.632	1.524	9.089	0.290	0.165	0.602	N	P	8533.536	1.601	9.471	0.498	0.182	0.404	N
A	8497.506	1.030	9.373	0.299	0.151	0.380	N	B	8533.541	1.654	9.128	0.284	0.178	0.608	N
P	8497.510	1.036	8.945	0.422	0.180	0.450	N	A	8536.513	1.484	9.414	0.297	0.154	0.382	N
B	8497.516	1.047	9.091	0.287	0.170	0.603	N	P	8536.516	1.501	9.831	0.584	0.185	0.513	N
A	8501.511	1.053	9.371	0.296	0.156	0.369	N	B	8536.521	1.542	9.132	0.285	0.169	0.608	N
P	8501.515	1.061	8.915	0.413	0.186	0.440	N								

Catalogue 1990–1992

Group 1036 P=HD 38238																
A=HD 38203									B=HD 38155							
Star	JD_{\odot}	X	V	$b-y$	m_1	c_1	Sys	Star	JD_{\odot}	X	V	$b-y$	m_1	c_1	Sys	
A	8191.761	1.318	8.640	0.154	0.151	1.125	N	A	8282.627	1.186	8.654	0.147	0.162	1.127	N	
P	8191.765	1.288	9.002	0.206	0.179	0.675	N	P	8282.630	1.181	8.867	0.214	0.180	0.945	N	
B	8191.770	1.281	8.869	0.170	0.188	0.776	N	B	8282.631	1.196	8.879	0.171	0.185	0.787	N	
P	8191.774	1.255	9.000	0.206	0.181	0.667	N	P	8282.633	1.188	8.854	0.207	0.187	0.954	N	
A	8191.781	1.244	8.641	0.150	0.159	1.116	N	A	8282.636	1.203	8.654	0.143	0.173	1.108	N	
P	8191.785	1.221	9.001	0.204	0.178	0.683	N	P	8282.637	1.196	8.837	0.217	0.180	0.947	N	
B	8191.789	1.221	8.873	0.169	0.191	0.767	N	B	8282.639	1.212	8.877	0.171	0.189	0.771	N	
A	8199.689	1.701	8.637	0.155	0.153	1.114	N	A	8285.614	1.179	8.661	0.152	0.164	1.101	N	
P	8199.695	1.616	8.979	0.199	0.182	0.687	N	P	8285.618	1.175	8.927	0.223	0.194	0.910	N	
B	8199.701	1.575	8.871	0.170	0.188	0.764	N	B	8285.620	1.190	8.891	0.170	0.192	0.765	N	
P	8199.708	1.499	8.981	0.204	0.176	0.692	N	P	8285.625	1.187	8.912	0.220	0.186	0.921	N	
A	8199.714	1.467	8.642	0.149	0.161	1.109	N	A	8285.627	1.203	8.666	0.152	0.162	1.094	N	
P	8199.720	1.411	8.987	0.197	0.186	0.681	N	P	8285.632	1.203	8.881	0.225	0.171	0.936	N	
B	8199.727	1.387	8.869	0.167	0.193	0.772	N	B	8285.636	1.225	8.886	0.167	0.191	0.774	N	
A	8219.710	1.232	8.637	0.147	0.162	1.119	N	A	8289.579	1.159	8.645	0.147	0.165	1.113	N	
P	8219.714	1.209	8.984	0.200	0.178	0.694	N	P	8289.583	1.151	8.849	0.215	0.186	0.934	N	
B	8219.719	1.209	8.872	0.166	0.194	0.768	N	B	8289.587	1.164	8.865	0.168	0.191	0.769	N	
P	8219.724	1.189	8.987	0.193	0.191	0.679	N	P	8289.590	1.155	8.841	0.212	0.180	0.956	N	
A	8219.728	1.191	8.635	0.148	0.161	1.114	N	A	8289.593	1.167	8.633	0.150	0.164	1.101	N	
P	8219.732	1.173	8.984	0.194	0.186	0.687	N	P	8289.597	1.162	8.844	0.210	0.186	0.949	N	
B	8219.737	1.178	8.866	0.166	0.194	0.761	N	B	8289.600	1.177	8.864	0.162	0.202	0.758	N	
A	8233.696	1.180	8.639	0.151	0.154	1.123	N	A	8293.616	1.229	8.641	0.152	0.157	1.113	N	
P	8233.706	1.159	8.948	0.227	0.186	0.943	N	P	8293.619	1.228	8.861	0.216	0.186	0.931	N	
B	8233.711	1.165	8.873	0.164	0.192	0.779	N	B	8293.622	1.249	8.877	0.166	0.197	0.758	N	
P	8233.715	1.152	8.966	0.230	0.183	0.944	N	P	8293.624	1.244	8.877	0.220	0.180	0.935	N	
A	8233.720	1.159	8.643	0.151	0.154	1.122	N	A	8293.628	1.266	8.642	0.148	0.161	1.117	N	
P	8233.724	1.149	8.955	0.235	0.179	0.934	N	P	8293.630	1.265	8.890	0.224	0.185	0.920	N	
B	8233.729	1.159	8.869	0.165	0.192	0.767	N	B	8293.633	1.289	8.870	0.171	0.184	0.770	N	
A	8250.618	1.257	8.646	0.147	0.165	1.104	N	A	8651.564	1.165	8.651	0.147	0.166	1.114	N	
P	8250.622	1.232	8.857	0.210	0.187	0.933	N	P	8651.566	1.154	8.867	0.216	0.192	0.943	N	
B	8250.627	1.230	8.868	0.166	0.198	0.755	N	B	8651.568	1.163	8.876	0.175	0.183	0.780	N	
P	8250.631	1.208	8.853	0.215	0.182	0.922	N	P	8651.569	1.152	8.867	0.220	0.183	0.955	N	
A	8250.635	1.208	8.634	0.145	0.165	1.115	N	A	8651.570	1.161	8.655	0.147	0.172	1.104	N	
P	8250.640	1.188	8.841	0.214	0.181	0.917	N	P	8651.572	1.151	8.877	0.221	0.178	0.967	N	
B	8250.644	1.191	8.867	0.163	0.200	0.773	N	B	8651.573	1.161	8.876	0.169	0.198	0.750	N	

Long Term Photometry of Variables

Group 1040 P=BD-05 1329
A=HD 37399 B=HD 37210

Star	JD _⊙	X	V	b - y	m ₁	c ₁	Sys	Star	JD _⊙	X	V	b - y	m ₁	c ₁	Sys
A	8188.717	1.496	8.360	0.284	0.163	0.404	N	A	8259.689	1.115	8.364	0.287	0.158	0.407	N
P	8188.721	1.462	10.820	0.345	0.150	1.208	N	B	8259.697	1.131	8.121	-0.046	0.157	0.570	N
B	8188.727	1.407	8.142	-0.026	0.134	0.563	N	A	8259.709	1.157	8.364	0.287	0.157	0.407	N
A	8188.819	1.089	8.360	0.282	0.164	0.405	N	B	8259.717	1.183	8.118	-0.045	0.151	0.582	N
P	8188.824	1.090	10.882	0.348	0.161	1.180	N	A	8548.765	1.285	8.347	0.279	0.166	0.405	N
B	8188.829	1.079	8.140	-0.031	0.144	0.558	N	P	8548.771	1.262	10.833	0.354	0.210	1.284	N
A	8194.729	1.319	8.370	0.288	0.162	0.403	N	B	8548.775	1.236	8.106	-0.043	0.152	0.607	N
P	8194.734	1.295	10.295	0.305	0.131	1.155	N	P	8548.779	1.227	10.722	0.344	0.153	0.922	N
B	8194.739	1.260	8.125	-0.036	0.146	0.600	N	A	8548.785	1.203	8.338	0.285	0.162	0.403	N
A	8200.710	1.337	8.358	0.284	0.164	0.399	N	P	8548.789	1.192	10.759	0.345	0.183	1.206	N
P	8200.715	1.308	10.228	0.301	0.144	1.163	N	B	8548.793	1.172	8.109	-0.047	0.160	0.601	N
B	8200.720	1.274	8.137	-0.025	0.132	0.571	N	A	8555.735	1.346	8.366	0.287	0.157	0.407	N
A	8219.630	1.555	8.361	0.282	0.166	0.401	N	P	8555.741	1.317	10.546	0.333	0.162	1.182	N
P	8219.634	1.515	10.321	0.312	0.142	1.175	N	B	8555.746	1.285	8.124	-0.034	0.136	0.577	N
B	8219.639	1.467	8.133	-0.036	0.144	0.579	N	P	8555.751	1.270	10.533	0.342	0.135	1.187	N
P	8219.642	1.448	10.322	0.316	0.143	1.197	N	A	8555.755	1.245	8.369	0.288	0.151	0.421	N
A	8219.647	1.412	8.359	0.280	0.171	0.395	N	P	8555.762	1.221	10.521	0.350	0.136	1.117	N
P	8219.651	1.386	10.329	0.308	0.155	1.161	N	B	8555.770	1.187	8.130	-0.034	0.140	0.570	N
B	8219.655	1.349	8.126	-0.035	0.144	0.576	N	A	8574.692	1.306	8.379	0.285	0.168	0.393	N
A	8219.678	1.242	8.356	0.282	0.167	0.402	N	P	8574.696	1.286	10.797	0.363	0.169	1.227	N
B	8219.688	1.199	8.124	-0.035	0.145	0.572	N	B	8574.701	1.256	8.151	-0.025	0.142	0.549	N
A	8226.661	1.230	8.363	0.288	0.159	0.408	N	P	8574.705	1.246	10.788	0.357	0.163	1.138	N
P	8226.666	1.217	9.996	0.273	0.140	1.138	N	B	8574.710	1.219	8.155	-0.025	0.141	0.547	N
B	8226.670	1.195	8.115	-0.043	0.145	0.588	N	A	8574.715	1.205	8.387	0.283	0.165	0.407	N
P	8226.674	1.190	10.004	0.264	0.138	1.140	N	P	8574.722	1.186	10.729	0.352	0.132	0.913	N
A	8226.678	1.172	8.356	0.285	0.154	0.418	N	A	8574.726	1.169	8.386	0.277	0.177	0.400	N
P	8226.684	1.163	10.009	0.262	0.139	1.163	N	A	8575.701	1.248	8.353	0.284	0.162	0.406	N
B	8226.687	1.146	8.109	-0.046	0.153	0.578	N	P	8575.706	1.233	10.285	0.308	0.148	1.189	N
A	8230.675	1.151	8.361	0.283	0.163	0.410	N	B	8575.710	1.207	8.133	-0.027	0.143	0.553	N
P	8230.680	1.145	10.073	0.262	0.165	1.145	N	P	8575.715	1.199	10.285	0.313	0.155	1.193	N
B	8230.685	1.128	8.129	-0.041	0.156	0.560	N	A	8575.719	1.181	8.359	0.281	0.168	0.405	N
P	8230.689	1.128	10.068	0.268	0.150	1.120	N	B	8575.724	1.163	8.136	-0.029	0.144	0.553	N
A	8230.694	1.115	8.359	0.282	0.166	0.404	N	P	8575.732	1.151	10.270	0.305	0.151	1.048	N
P	8230.698	1.114	10.073	0.258	0.161	1.149	N	B	8575.736	1.134	8.135	-0.029	0.140	0.564	N
B	8230.702	1.101	8.126	-0.039	0.148	0.573	N	A	8577.712	1.188	8.361	0.280	0.170	0.403	N
A	8234.720	1.086	8.360	0.282	0.162	0.404	N	P	8577.716	1.179	10.423	0.318	0.157	1.190	N
P	8234.726	1.094	10.411	0.306	0.158	1.198	N	B	8577.721	1.158	8.121	-0.039	0.151	0.559	N
B	8234.730	1.088	8.128	-0.028	0.134	0.564	N	P	8577.725	1.154	10.416	0.325	0.156	1.155	N
P	8234.734	1.098	10.404	0.309	0.146	1.198	N	A	8577.730	1.139	8.363	0.283	0.163	0.407	N
A	8234.739	1.093	8.367	0.284	0.163	0.398	N	P	8577.735	1.134	10.416	0.332	0.149	1.199	N
P	8234.743	1.106	10.424	0.305	0.148	1.227	N	B	8577.739	1.118	8.124	-0.041	0.151	0.565	N
B	8234.747	1.102	8.133	-0.030	0.136	0.569	N	A	8578.730	1.133	8.351	0.284	0.166	0.403	N
A	8244.679	1.089	8.367	0.283	0.160	0.415	N	P	8578.735	1.130	10.515	0.320	0.166	1.177	N
P	8244.684	1.094	10.062	0.261	0.140	1.215	N	B	8578.739	1.114	8.108	-0.047	0.158	0.562	N
B	8244.689	1.085	8.138	-0.024	0.128	0.569	N	P	8578.744	1.115	10.512	0.324	0.169	1.145	N
P	8244.694	1.093	10.068	0.262	0.135	1.215	N	A	8578.748	1.103	8.355	0.281	0.166	0.412	N
A	8244.699	1.086	8.364	0.283	0.160	0.408	N	P	8578.753	1.105	10.505	0.331	0.159	1.102	N
P	8244.704	1.096	10.055	0.267	0.135	1.211	N	B	8578.757	1.093	8.108	-0.046	0.158	0.556	N
B	8244.708	1.091	8.135	-0.026	0.133	0.562	N	P	8646.642	1.152	10.196	0.295	0.125	1.022	N
A	8255.662	1.086	8.361	0.283	0.164	0.405	N	P	8646.660	1.203	10.200	0.298	0.114	1.014	N
P	8255.666	1.094	10.219	0.284	0.153	1.181	N	P	8651.586	1.095	10.354	0.311	0.147	1.208	N
B	8255.671	1.087	8.137	-0.028	0.139	0.562	N	P	8651.603	1.108	10.325	0.310	0.127	1.016	N
P	8255.675	1.097	10.202	0.289	0.150	1.204	N	P	8653.606	1.121	10.376	0.330	0.169	1.299	N
A	8255.680	1.092	8.367	0.284	0.161	0.405	N	P	8653.621	1.148	10.331	0.312	0.137	0.990	N
P	8255.684	1.105	10.210	0.289	0.152	1.202	N	P	8655.595	1.102	10.562	0.345	0.142	1.173	N
B	8255.690	1.102	8.141	-0.024	0.136	0.564	N	P	8655.611	1.129	10.556	0.323	0.144	0.965	N
A	8259.661	1.088	8.366	0.286	0.160	0.412	N	A	8656.593	1.094	8.367	0.280	0.174	0.388	N
P	8259.665	1.098	10.115	0.281	0.150	1.201	N	P	8656.596	1.107	10.443	0.331	0.124	0.957	N
B	8259.669	1.092	8.119	-0.046	0.155	0.578	N	B	8656.598	1.102	8.118	-0.048	0.159	0.569	N
P	8259.673	1.104	10.124	0.274	0.154	1.230	N	B	8656.603	1.109	8.117	-0.043	0.156	0.562	N
A	8259.678	1.100	8.366	0.282	0.166	0.407	N	P	8656.606	1.123	10.495	0.315	0.167	1.169	N
P	8259.682	1.114	10.107	0.280	0.145	1.223	N	B	8656.608	1.119	8.120	-0.047	0.156	0.568	N
B	8259.686	1.111	8.120	-0.047	0.156	0.573	N	A	8656.613	1.126	8.370	0.286	0.162	0.421	N

Catalogue 1990–1992

Group 1041 P=BD-05 1324
A=HD 37399 B=HD 37210

Star	JD_{\odot}	X	V	$b-y$	m_1	c_1	Sys	Star	JD_{\odot}	X	V	$b-y$	m_1	c_1	Sys
A	8190.732	1.349	8.358	0.285	0.162	0.400	N	B	8537.782	1.347	8.163	-0.041	0.150	0.606	N
P	8190.737	1.318	9.984	0.333	0.187	0.700	N	P	8537.787	1.324	9.842	0.288	0.196	0.604	N
B	8190.743	1.281	8.119	-0.032	0.144	0.557	N	P	8537.796	1.280	9.841	0.290	0.182	0.622	N
P	8190.747	1.268	9.976	0.323	0.174	0.632	N	B	8537.800	1.252	8.168	-0.052	0.163	0.596	N
A	8190.751	1.248	8.357	0.285	0.162	0.399	N	A	8545.781	1.248	8.368	0.282	0.157	0.408	N
P	8190.757	1.226	9.969	0.328	0.170	0.620	N	P	8545.785	1.233	9.780	0.292	0.176	0.617	N
B	8190.760	1.206	8.121	-0.030	0.137	0.567	N	B	8545.790	1.210	8.109	-0.047	0.150	0.565	N
A	8196.713	1.383	8.361	0.282	0.165	0.402	N	P	8545.793	1.205	9.781	0.290	0.176	0.607	N
P	8196.719	1.345	9.892	0.315	0.169	0.607	N	A	8545.798	1.186	8.363	0.279	0.166	0.401	N
B	8196.725	1.303	8.128	-0.033	0.138	0.601	N	P	8545.802	1.177	9.781	0.284	0.184	0.619	N
P	8196.730	1.287	9.892	0.311	0.175	0.610	N	B	8545.805	1.160	8.127	-0.053	0.155	0.565	N
A	8196.736	1.256	8.361	0.285	0.160	0.409	N	A	8577.744	1.112	8.367	0.281	0.167	0.402	N
P	8196.742	1.234	9.901	0.302	0.187	0.600	N	P	8577.749	1.111	9.810	0.297	0.196	0.688	N
B	8196.747	1.209	8.125	-0.037	0.147	0.588	N	B	8577.753	1.099	8.122	-0.038	0.144	0.571	N
P	8218.655	1.376	9.910	0.299	0.200	0.708	N	P	8577.758	1.101	9.813	0.297	0.193	0.718	N
P	8218.664	1.324	9.906	0.306	0.195	0.698	N	A	8577.762	1.092	8.361	0.286	0.159	0.405	N
P	8218.674	1.273	9.907	0.303	0.194	0.705	N	P	8577.767	1.095	9.815	0.289	0.207	0.701	N
P	8218.823	1.175	9.897	0.306	0.191	0.720	N	B	8577.771	1.087	8.123	-0.040	0.149	0.561	N
P	8218.831	1.201	9.910	0.298	0.205	0.682	N	A	8578.762	1.090	8.357	0.284	0.161	0.407	N
P	8218.840	1.233	9.906	0.297	0.202	0.712	N	P	8578.767	1.094	9.783	0.292	0.200	0.707	N
P	8227.698	1.124	9.934	0.319	0.176	0.729	N	B	8578.772	1.086	8.110	-0.048	0.159	0.559	N
P	8227.707	1.112	9.929	0.316	0.190	0.700	N	P	8578.776	1.093	9.788	0.293	0.189	0.715	N
P	8227.717	1.101	9.940	0.308	0.201	0.713	N	A	8578.781	1.086	8.362	0.281	0.167	0.402	N
P	8232.646	1.231	9.943	0.305	0.206	0.750	N	P	8578.785	1.094	9.794	0.282	0.212	0.713	N
P	8232.654	1.202	9.949	0.305	0.193	0.767	N	B	8578.789	1.089	8.112	-0.046	0.158	0.559	N
P	8232.662	1.176	9.944	0.307	0.197	0.754	N	P	8646.646	1.161	9.784	0.283	0.167	0.605	N
P	8239.629	1.220	10.022	0.321	0.201	0.719	N	P	8646.664	1.216	9.780	0.289	0.158	0.598	N
P	8239.638	1.192	10.022	0.327	0.192	0.731	N	P	8651.592	1.098	9.795	0.284	0.181	0.657	N
P	8239.647	1.165	10.021	0.327	0.193	0.721	N	P	8651.606	1.112	9.785	0.284	0.178	0.606	N
P	8245.661	1.108	9.890	0.300	0.196	0.704	N	P	8653.611	1.129	9.808	0.277	0.209	0.647	N
P	8245.669	1.100	9.883	0.308	0.190	0.692	N	P	8653.625	1.157	9.790	0.280	0.195	0.600	N
P	8245.677	1.095	9.887	0.301	0.193	0.711	N	P	8655.601	1.109	9.814	0.294	0.169	0.660	N
P	8258.550	1.347	9.921	0.315	0.180	0.712	N	P	8655.615	1.136	9.803	0.289	0.177	0.630	N
P	8258.558	1.303	9.920	0.315	0.193	0.691	N	P	8656.600	1.113	9.816	0.271	0.204	0.598	N
P	8258.567	1.262	9.923	0.305	0.203	0.709	N	P	8656.611	1.133	9.809	0.299	0.166	0.645	N
P	8537.777	1.386	9.838	0.292	0.190	0.618	N	P	8660.687	1.633	9.801	0.292	0.156	0.599	N

Long Term Photometry of Variables

Group 1044 P=HD 37258 A=HD 37399 B=HD 37210															
Star	JD _⊙	X	V	b - y	m ₁	c ₁	Sys	Star	JD _⊙	X	V	b - y	m ₁	c ₁	Sys
A	8168.846	1.140	8.358	0.281	0.167	0.393	N	P	8259.705	1.150	9.606	0.074	0.163	0.982	N
P	8168.851	1.131	9.588	0.065	0.168	0.965	N	P	8259.713	1.172	9.600	0.072	0.168	0.970	N
B	8168.855	1.120	8.119	-0.036	0.142	0.564	N	P	8286.622	1.132	9.595	0.076	0.167	0.944	N
A	8169.799	1.299	8.358	0.286	0.162	0.400	N	P	8286.627	1.143	9.611	0.061	0.180	0.952	N
P	8169.803	1.276	9.603	0.078	0.164	0.970	N	P	8286.634	1.161	9.609	0.066	0.171	0.956	N
B	8169.808	1.252	8.120	-0.045	0.155	0.558	N	P	8288.669	1.321	9.540	0.056	0.168	0.959	N
A	8172.806	1.231	8.353	0.279	0.163	0.407	N	P	8288.675	1.355	9.545	0.057	0.167	0.949	N
P	8172.810	1.213	9.620	0.078	0.163	0.973	N	P	8288.681	1.394	9.538	0.051	0.174	0.961	N
B	8172.815	1.194	8.118	-0.046	0.153	0.598	N	P	8291.590	1.103	9.555	0.062	0.169	0.932	N
A	8188.802	1.111	8.359	0.284	0.156	0.417	N	P	8291.596	1.112	9.554	0.065	0.167	0.937	N
P	8188.806	1.106	9.567	0.063	0.169	0.933	N	P	8291.602	1.121	9.559	0.061	0.169	0.932	N
B	8188.816	1.090	8.137	-0.027	0.137	0.562	N	P	8291.604	1.124	9.566	0.055	0.178	0.931	N
A	8191.749	1.257	8.359	0.284	0.158	0.412	N	P	8293.588	1.108	9.551	0.059	0.170	0.930	N
P	8191.753	1.240	9.582	0.058	0.174	0.935	N	P	8293.594	1.117	9.553	0.060	0.162	0.944	N
B	8191.758	1.217	8.111	-0.038	0.140	0.576	N	P	8293.602	1.131	9.553	0.057	0.170	0.936	N
A	8195.736	1.269	8.357	0.286	0.158	0.413	N	A	8547.787	1.205	8.356	0.282	0.158	0.414	N
P	8195.742	1.243	9.559	0.064	0.163	0.927	N	P	8547.792	1.188	9.607	0.065	0.178	0.969	N
B	8195.747	1.218	8.123	-0.039	0.145	0.612	N	B	8547.796	1.171	8.110	-0.044	0.153	0.591	N
P	8217.739	1.102	9.615	0.074	0.167	0.978	N	P	8547.800	1.165	9.605	0.068	0.173	0.976	N
P	8217.747	1.094	9.615	0.076	0.165	0.972	N	A	8547.805	1.152	8.352	0.280	0.165	0.408	N
P	8217.755	1.090	9.611	0.077	0.169	0.970	N	P	8547.809	1.143	9.604	0.068	0.176	0.964	N
P	8227.752	1.092	9.968	0.152	0.172	0.971	N	B	8547.813	1.131	8.118	-0.047	0.154	0.591	N
P	8227.762	1.099	9.968	0.147	0.180	0.958	N	P	8646.650	1.162	9.552	0.064	0.163	0.935	N
P	8227.772	1.111	9.975	0.140	0.181	0.978	N	P	8646.668	1.221	9.558	0.067	0.157	0.923	N
P	8233.604	1.450	9.626	0.084	0.165	0.948	N	P	8651.596	1.095	9.574	0.053	0.175	0.932	N
P	8233.612	1.392	9.630	0.076	0.175	0.940	N	P	8651.610	1.110	9.563	0.066	0.161	0.950	N
P	8233.620	1.340	9.632	0.072	0.177	0.951	N	P	8653.615	1.128	9.568	0.059	0.182	0.914	N
P	8249.611	1.186	9.652	0.088	0.175	0.983	N	P	8653.629	1.158	9.572	0.063	0.182	0.945	N
P	8249.619	1.162	9.653	0.091	0.168	0.996	N	P	8655.604	1.108	9.603	0.066	0.177	0.952	N
P	8249.628	1.142	9.654	0.090	0.170	0.993	N	P	8655.619	1.137	9.603	0.065	0.173	0.983	N
P	8259.693	1.125	9.607	0.070	0.173	0.964	N	P	8660.693	1.677	9.588	0.059	0.167	0.985	N

Catalogue 1990–1992

Group 1045 P=V350 Ori
A=BD-09 1193 B=HD 37757

Star	JD _⊙	X	V	b - v	m ₁	c ₁	Sys	Star	JD _⊙	X	V	b - v	m ₁	c ₁	Sys
A	8189.735	1.309	10.061	0.090	0.212	0.944	N	P	8239.727	1.069	10.917	0.213	0.174	0.945	N
P	8189.739	1.290	11.002	0.227	0.174	0.969	N	A	8239.732	1.078	10.046	0.097	0.201	0.939	N
B	8189.745	1.257	7.839	0.112	0.247	0.820	N	P	8239.736	1.077	10.934	0.203	0.197	0.942	N
A	8189.811	1.073	10.051	0.091	0.208	0.925	N	B	8239.741	1.078	7.831	0.115	0.242	0.830	N
P	8189.816	1.067	11.001	0.217	0.195	0.956	N	A	8250.583	1.257	10.036	0.089	0.207	0.940	N
B	8189.822	1.058	7.836	0.115	0.241	0.834	N	P	8250.588	1.238	10.950	0.215	0.189	0.908	N
A	8195.751	1.179	10.039	0.095	0.207	0.930	N	B	8250.593	1.210	7.832	0.111	0.242	0.832	N
P	8195.757	1.161	11.199	0.253	0.172	1.015	N	A	8250.597	1.199	10.940	0.224	0.175	0.910	N
B	8195.763	1.139	7.832	0.115	0.238	0.830	N	P	8250.602	1.179	10.044	0.083	0.216	0.943	N
A	8200.724	1.230	10.042	0.094	0.210	0.935	N	P	8250.607	1.165	10.960	0.214	0.202	0.917	N
P	8200.730	1.208	11.043	0.226	0.192	0.973	N	B	8250.612	1.145	7.836	0.113	0.243	0.831	N
B	8200.736	1.181	7.838	0.113	0.241	0.829	N	A	8539.801	1.202	10.025	0.093	0.213	0.919	N
A	8219.840	1.202	10.054	0.085	0.219	0.933	N	P	8539.807	1.185	11.765	0.393	0.128	1.025	N
P	8219.845	1.208	10.941	0.208	0.194	0.956	N	B	8539.811	1.164	7.806	0.118	0.243	0.822	N
B	8219.849	1.218	7.842	0.113	0.238	0.836	N	P	8539.815	1.156	11.778	0.362	0.176	0.929	N
P	8219.854	1.246	10.930	0.220	0.180	0.990	N	A	8539.820	1.142	10.015	0.098	0.210	0.912	N
A	8219.858	1.280	10.054	0.110	0.187	0.949	N	P	8539.824	1.133	11.780	0.365	0.178	0.921	N
P	8219.862	1.288	10.982	0.283	0.107	1.109	N	B	8539.829	1.117	7.806	0.118	0.244	0.819	N
B	8219.867	1.303	7.846	0.122	0.231	0.847	N	A	8548.803	1.124	10.011	0.098	0.209	0.939	N
A	8233.637	1.223	10.041	0.092	0.211	0.927	N	P	8548.811	1.108	11.968	0.417	0.138	1.030	N
P	8233.641	1.207	11.063	0.238	0.181	0.938	N	B	8548.818	1.091	7.810	0.115	0.243	0.828	N
B	8233.647	1.182	7.836	0.114	0.239	0.837	N	P	8548.822	1.089	12.010	0.396	0.178	0.926	N
P	8233.651	1.173	11.069	0.235	0.185	0.928	N	A	8548.826	1.083	10.026	0.092	0.214	0.927	N
A	8233.656	1.155	10.041	0.092	0.210	0.922	N	P	8548.832	1.076	12.024	0.396	0.157	1.022	N
P	8233.662	1.139	11.068	0.223	0.192	0.948	N	B	8548.836	1.067	7.809	0.116	0.245	0.832	N
B	8233.667	1.122	7.838	0.112	0.239	0.843	N	A	8657.588	1.080	10.032	0.089	0.215	0.938	N
A	8239.713	1.066	10.041	0.093	0.208	0.930	N	P	8657.591	1.078	11.030	0.242	0.193	0.989	N
P	8239.717	1.063	10.931	0.210	0.183	0.939	N	B	8657.596	1.084	11.024	0.243	0.201	0.990	N
B	8239.722	1.061	7.830	0.116	0.239	0.830	N	P	8657.598	1.081	7.825	0.114	0.240	0.829	N

Long Term Photometry of Variables

Group 1046 P=BD-02 5297															
A=HD 36352								B=HD 36251							
Star	JD ₀	X	V	b - y	m ₁	c ₁	Sys	Star	JD ₀	X	V	b - y	m ₁	c ₁	Sys
A	8190.715	1.490	9.198	0.013	0.175	0.979	N	A	8230.661	1.217	9.201	0.002	0.183	0.990	N
P	8190.720	1.452	11.078	0.499	0.171	0.456	N	P	8230.665	1.205	11.885	0.610	0.187	0.379	N
B	8190.726	1.407	8.579	0.366	0.172	0.332	N	B	8230.670	1.194	8.580	0.360	0.178	0.339	N
A	8197.785	1.139	9.192	0.012	0.168	0.989	N	A	8238.697	1.119	9.198	0.006	0.181	0.981	N
P	8197.790	1.132	11.405	0.552	0.166	0.415	N	P	8238.702	1.117	12.127	0.560	0.181	0.371	N
B	8197.797	1.129	8.573	0.368	0.169	0.332	N	B	8238.709	1.123	8.578	0.365	0.168	0.351	N
A	8200.742	1.217	9.199	0.006	0.178	0.985	N	P	8238.713	1.118	12.112	0.566	0.175	0.388	N
P	8200.750	1.194	11.213	0.524	0.183	0.429	N	A	8238.718	1.122	9.194	0.009	0.177	0.982	N
B	8200.756	1.181	8.582	0.363	0.169	0.348	N	P	8238.722	1.124	12.118	0.557	0.166	0.416	N
B	8216.741	1.134	8.578	0.363	0.169	0.339	N	B	8238.728	1.135	8.579	0.370	0.160	0.346	N
P	8216.746	1.125	11.370	0.541	0.206	0.421	N	A	8244.604	1.292	9.200	0.013	0.169	0.994	N
A	8216.752	1.121	9.196	0.008	0.172	0.988	N	P	8244.608	1.272	11.499	0.582	0.159	0.490	N
A	8217.661	1.380	9.204	0.008	0.177	0.980	N	B	8244.613	1.253	8.581	0.366	0.166	0.348	N
P	8217.666	1.349	11.453	0.566	0.184	0.484	N	P	8244.618	1.235	11.494	0.579	0.161	0.483	N
B	8217.672	1.321	8.580	0.365	0.172	0.333	N	A	8244.623	1.217	9.204	0.009	0.175	0.990	N
P	8217.678	1.290	11.447	0.569	0.189	0.449	N	P	8244.627	1.205	11.494	0.573	0.168	0.490	N
A	8217.683	1.265	9.198	0.011	0.172	0.982	N	B	8244.632	1.194	8.587	0.356	0.182	0.344	N
P	8217.688	1.246	11.416	0.591	0.160	0.338	N	A	8258.575	1.248	9.202	0.013	0.168	0.997	N
B	8217.693	1.230	8.578	0.364	0.170	0.338	N	P	8258.580	1.231	11.096	0.482	0.200	0.474	N
A	8222.717	1.139	9.197	0.010	0.174	0.979	N	B	8258.585	1.217	8.585	0.370	0.166	0.340	N
P	8222.722	1.132	11.686	0.590	0.165	0.387	N	P	8258.591	1.198	11.085	0.500	0.165	0.544	N
B	8222.728	1.131	8.575	0.367	0.165	0.342	N	A	8258.596	1.184	9.201	0.011	0.180	0.978	N
P	8222.732	1.123	11.668	0.603	0.138	0.367	N	P	8258.600	1.173	11.097	0.486	0.176	0.495	N
A	8222.737	1.121	9.190	0.011	0.172	0.982	N	B	8258.609	1.158	8.585	0.370	0.166	0.342	N
P	8222.742	1.118	11.685	0.577	0.188	0.419	N	A	8651.614	1.157	9.197	0.005	0.182	0.976	N
B	8222.747	1.122	8.576	0.362	0.173	0.341	N	P	8651.620	1.166	12.615	0.660	0.112	0.330	N
A	8230.642	1.289	9.197	0.008	0.174	0.997	N	A	8657.600	1.163	9.185	0.012	0.170	0.991	N
P	8230.647	1.269	11.903	0.594	0.138	0.401	N	P	8657.606	1.171	12.585	0.720	0.130	0.432	N
B	8230.652	1.251	8.577	0.364	0.169	0.343	N	P	8657.613	1.189	12.595	0.692	0.155	0.516	N
P	8230.656	1.233	11.851	0.639	0.121	0.412	N	B	8657.615	1.205	8.566	0.367	0.164	0.345	N

Catalogue 1990-1992

Group 2003 P=HR3302
A=HR3334 B=HR3544

Star	JD ₀	X	V	b-y	m ₁	c ₁	Sys	Star	JD ₀	X	V	b-y	m ₁	c ₁	Sys
A	8188.839	1.546	5.291	0.000	0.149	1.125	N	B	8252.714	1.441	6.092	0.142	0.119	1.431	N
P	8188.842	1.496	5.636	-0.052	0.127	0.724	N	P	8252.717	1.385	5.631	-0.054	0.131	0.727	N
B	8188.843	1.566	6.099	0.142	0.118	1.431	N	A	8252.719	1.425	5.284	0.004	0.147	1.128	N
P	8188.845	1.491	5.636	-0.054	0.134	0.716	N	A	8259.806	1.410	5.292	0.005	0.148	1.130	N
B	8188.847	1.557	6.096	0.144	0.116	1.430	N	P	8259.809	1.372	5.636	-0.047	0.124	0.729	N
P	8188.848	1.483	5.637	-0.054	0.131	0.721	N	B	8259.811	1.379	6.098	0.148	0.114	1.441	N
A	8188.850	1.522	5.288	-0.001	0.151	1.127	N	P	8259.813	1.376	5.634	-0.048	0.125	0.729	N
A	8193.780	1.658	5.290	0.003	0.148	1.133	N	B	8259.815	1.382	6.098	0.149	0.111	1.442	N
P	8193.782	1.617	5.634	-0.051	0.129	0.725	N	P	8259.817	1.381	5.632	-0.048	0.125	0.729	N
B	8193.784	1.705	6.100	0.143	0.119	1.432	N	A	8259.818	1.422	5.287	0.007	0.144	1.134	N
P	8193.786	1.601	5.639	-0.051	0.126	0.729	N	A	8281.727	1.396	5.296	0.010	0.146	1.127	N
B	8193.788	1.688	6.100	0.144	0.118	1.435	N	P	8281.730	1.357	5.641	-0.046	0.127	0.725	N
P	8193.790	1.587	5.636	-0.053	0.132	0.727	N	B	8281.732	1.371	6.106	0.152	0.110	1.441	N
A	8193.792	1.615	5.288	0.004	0.149	1.126	N	P	8281.734	1.359	5.637	-0.042	0.122	0.728	N
A	8197.765	1.672	5.289	0.006	0.146	1.122	N	B	8281.737	1.373	6.104	0.150	0.114	1.436	N
P	8197.767	1.634	5.634	-0.046	0.123	0.725	N	P	8281.739	1.363	5.639	-0.044	0.124	0.729	N
B	8197.769	1.725	6.098	0.146	0.116	1.432	N	A	8281.740	1.404	5.295	0.007	0.148	1.131	N
P	8197.771	1.619	5.637	-0.046	0.122	0.726	N	A	8284.722	1.398	5.287	0.004	0.153	1.121	N
B	8197.772	1.709	6.102	0.145	0.119	1.426	N	P	8284.725	1.358	5.637	-0.050	0.132	0.725	N
P	8197.774	1.605	5.637	-0.048	0.127	0.723	N	B	8284.726	1.372	6.094	0.148	0.117	1.430	N
A	8197.776	1.633	5.291	0.001	0.153	1.119	N	P	8284.728	1.361	5.632	-0.050	0.130	0.725	N
A	8223.835	1.394	5.292	0.005	0.153	1.123	N	B	8284.731	1.373	6.099	0.144	0.120	1.432	N
P	8223.837	1.351	5.640	-0.046	0.127	0.727	N	P	8284.733	1.365	5.634	-0.051	0.132	0.723	N
B	8223.840	1.383	6.102	0.147	0.117	1.434	N	A	8284.734	1.406	5.283	0.004	0.151	1.126	N
P	8223.842	1.349	5.640	-0.048	0.131	0.724	N	A	8287.753	1.435	5.292	0.006	0.151	1.128	N
B	8223.844	1.380	6.102	0.148	0.118	1.431	N	P	8287.755	1.400	5.634	-0.047	0.128	0.726	N
P	8223.848	1.348	5.642	-0.048	0.130	0.725	N	B	8287.756	1.397	6.102	0.146	0.120	1.434	N
A	8223.849	1.390	5.294	0.005	0.150	1.126	N	P	8287.758	1.404	5.640	-0.049	0.130	0.727	N
A	8228.765	1.451	5.290	0.003	0.149	1.132	N	B	8287.759	1.400	6.100	0.148	0.116	1.439	N
P	8228.767	1.406	5.633	-0.048	0.128	0.724	N	P	8287.760	1.408	5.637	-0.047	0.128	0.726	N
B	8228.771	1.457	6.099	0.147	0.115	1.437	N	A	8287.761	1.447	5.291	0.008	0.149	1.126	N
P	8228.773	1.397	5.639	-0.051	0.131	0.724	N	A	8292.705	1.401	5.290	0.007	0.148	1.127	N
B	8228.775	1.448	6.098	0.147	0.114	1.434	N	P	8292.708	1.362	5.641	-0.047	0.129	0.728	N
P	8228.778	1.391	5.634	-0.049	0.130	0.725	N	B	8292.709	1.373	6.106	0.148	0.116	1.431	N
A	8228.780	1.430	5.287	0.005	0.148	1.129	N	P	8292.711	1.365	5.637	-0.045	0.123	0.731	N
A	8232.817	1.392	5.284	0.003	0.150	1.128	N	B	8292.712	1.375	6.096	0.151	0.112	1.438	N
P	8232.820	1.349	5.630	-0.052	0.131	0.727	N	P	8292.714	1.367	5.636	-0.044	0.123	0.732	N
B	8232.822	1.379	6.092	0.146	0.116	1.435	N	A	8292.715	1.409	5.288	0.006	0.148	1.132	N
P	8232.824	1.348	5.630	-0.052	0.132	0.726	N	A	8418.502	1.716	5.300	0.006	0.151	1.133	N
B	8232.826	1.377	6.096	0.143	0.117	1.439	N	P	8418.505	1.714	5.647	-0.048	0.130	0.733	N
P	8232.828	1.347	5.633	-0.051	0.130	0.727	N	B	8418.509	1.655	6.109	0.146	0.119	1.441	N
A	8232.830	1.389	5.281	0.000	0.154	1.125	N	P	8418.511	1.742	5.645	-0.048	0.130	0.731	N
A	8238.753	1.430	5.293	0.006	0.150	1.122	N	B	8418.513	1.670	6.109	0.146	0.118	1.441	N
P	8238.755	1.385	5.638	-0.048	0.128	0.726	N	P	8418.515	1.759	5.646	-0.048	0.129	0.736	N
B	8238.757	1.433	6.104	0.147	0.116	1.437	N	A	8418.516	1.775	5.299	0.006	0.150	1.132	N
P	8238.759	1.380	5.639	-0.048	0.128	0.723	N	A	8558.850	1.471	5.290	0.007	0.145	1.127	N
B	8238.761	1.427	6.103	0.146	0.120	1.433	N	P	8558.851	1.426	5.648	-0.050	0.122	0.737	N
P	8238.763	1.375	5.641	-0.049	0.127	0.727	N	B	8558.853	1.485	6.102	0.147	0.115	1.432	N
A	8238.765	1.416	5.290	0.003	0.153	1.127	N	P	8558.855	1.419	5.638	-0.048	0.126	0.726	N
A	8245.781	1.392	5.289	0.005	0.148	1.130	N	B	8558.857	1.477	6.103	0.147	0.115	1.435	N
P	8245.784	1.349	5.636	-0.049	0.130	0.724	N	P	8558.859	1.413	5.635	-0.046	0.123	0.729	N
B	8245.786	1.379	6.102	0.145	0.118	1.436	N	A	8558.860	1.452	5.296	0.002	0.149	1.130	N
P	8245.789	1.348	5.638	-0.049	0.127	0.728	N	A	8647.732	1.400	5.271	0.008	0.144	1.134	N
B	8245.791	1.377	6.100	0.147	0.115	1.439	N	P	8647.735	1.362	5.630	-0.049	0.126	0.734	N
P	8245.793	1.347	5.635	-0.049	0.128	0.728	N	B	8647.737	1.373	6.095	0.150	0.114	1.440	N
A	8245.794	1.389	5.290	0.004	0.150	1.126	N	P	8647.739	1.365	5.622	-0.045	0.123	0.733	N
A	8252.704	1.444	5.283	0.003	0.150	1.129	N	B	8647.741	1.375	6.085	0.150	0.113	1.435	N
P	8252.707	1.399	5.630	-0.052	0.129	0.726	N	P	8647.743	1.368	5.628	-0.047	0.127	0.728	N
B	8252.709	1.450	6.092	0.143	0.120	1.431	N	A	8647.745	1.410	5.278	0.004	0.149	1.131	N
P	8252.712	1.391	5.629	-0.052	0.129	0.724	N								

Long Term Photometry of Variables

Group 2004 P=HR2863
A=HR2922 B=HR2956

Star	JD ₀	X	V	b - y	m ₁	c ₁	Sys	Star	JD ₀	X	V	b - y	m ₁	c ₁	Sys
A	8187.787	1.365	4.652	-0.053	0.122	0.594	N	A	8281.648	1.009	4.652	-0.052	0.119	0.600	N
P	8187.788	1.323	5.559	-0.016	0.120	1.089	N	A	8292.661	1.006	4.650	-0.054	0.121	0.598	N
B	8187.789	1.379	6.506	-0.037	0.112	0.599	N	P	8292.663	1.010	5.567	-0.022	0.130	1.084	N
P	8187.790	1.311	5.559	-0.019	0.123	1.089	N	B	8292.664	1.007	6.511	-0.042	0.119	0.597	N
B	8187.791	1.363	6.505	-0.039	0.115	0.594	N	P	8292.666	1.013	5.558	-0.017	0.124	1.085	N
P	8187.792	1.298	5.556	-0.019	0.125	1.085	N	B	8292.668	1.009	6.511	-0.038	0.108	0.609	N
A	8187.793	1.326	4.653	-0.055	0.120	0.599	N	P	8292.669	1.016	5.565	-0.021	0.129	1.081	N
A	8196.803	1.164	4.651	-0.053	0.122	0.591	N	A	8292.670	1.013	4.652	-0.054	0.123	0.597	N
P	8196.805	1.139	5.558	-0.017	0.122	1.088	N	P	8539.836	1.256	5.518	-0.014	0.124	1.082	N
B	8196.806	1.167	6.507	-0.035	0.109	0.600	N	P	8539.838	1.244	5.520	-0.014	0.126	1.075	N
P	8196.808	1.129	5.556	-0.016	0.119	1.094	N	P	8539.841	1.231	5.523	-0.012	0.120	1.085	N
B	8196.809	1.156	6.506	-0.038	0.114	0.601	N	A	8539.842	1.252	4.613	-0.049	0.121	0.591	N
P	8196.811	1.119	5.563	-0.020	0.128	1.082	N	A	8549.826	1.203	4.650	-0.053	0.118	0.603	N
A	8196.812	1.131	4.650	-0.053	0.120	0.597	N	P	8549.827	1.176	5.565	-0.022	0.128	1.088	N
A	8218.742	1.171	4.653	-0.055	0.124	0.595	N	B	8549.828	1.210	6.509	-0.037	0.111	0.606	N
P	8218.744	1.143	5.564	-0.021	0.130	1.082	N	P	8549.830	1.166	5.562	-0.020	0.127	1.086	N
P	8218.748	1.131	5.565	-0.022	0.129	1.085	N	B	8549.831	1.198	6.510	-0.040	0.117	0.597	N
B	8218.750	1.157	6.512	-0.039	0.115	0.596	N	P	8549.832	1.157	5.560	-0.022	0.130	1.085	N
P	8218.752	1.118	5.564	-0.020	0.127	1.084	N	A	8549.833	1.173	4.652	-0.054	0.123	0.596	N
A	8218.754	1.131	4.650	-0.053	0.122	0.596	N	A	8562.822	1.096	4.664	-0.051	0.120	0.598	N
A	8228.704	1.220	4.653	-0.054	0.120	0.601	N	P	8562.823	1.079	5.570	-0.015	0.122	1.088	N
P	8228.706	1.187	5.560	-0.020	0.123	1.090	N	B	8562.825	1.098	6.518	-0.034	0.108	0.604	N
B	8228.708	1.221	6.508	-0.038	0.114	0.600	N	P	8562.826	1.073	5.572	-0.017	0.123	1.089	N
P	8228.710	1.172	5.564	-0.020	0.124	1.090	N	B	8562.827	1.092	6.518	-0.032	0.104	0.610	N
B	8228.711	1.204	6.507	-0.038	0.113	0.601	N	P	8562.828	1.068	5.571	-0.016	0.123	1.086	N
P	8228.713	1.160	5.562	-0.021	0.127	1.088	N	A	8562.830	1.077	4.663	-0.049	0.115	0.605	N
A	8228.715	1.175	4.651	-0.055	0.122	0.599	N	A	8575.782	1.112	4.645	-0.055	0.122	0.598	N
A	8244.758	1.003	4.652	-0.055	0.118	0.601	N	P	8575.783	1.094	5.554	-0.021	0.127	1.085	N
P	8244.760	1.001	5.561	-0.022	0.124	1.089	N	B	8575.784	1.118	6.503	-0.036	0.111	0.602	N
B	8244.762	1.004	6.510	-0.039	0.108	0.607	N	P	8575.785	1.089	5.558	-0.019	0.121	1.094	N
P	8244.764	1.000	5.561	-0.022	0.125	1.087	N	B	8575.786	1.110	6.506	-0.035	0.107	0.605	N
B	8244.765	1.002	6.506	-0.037	0.108	0.602	N	P	8575.787	1.083	5.556	-0.020	0.124	1.090	N
P	8244.767	1.000	5.560	-0.020	0.122	1.089	N	A	8575.788	1.094	4.645	-0.055	0.122	0.597	N
A	8244.769	1.000	4.648	-0.054	0.118	0.599	N	A	8651.623	1.020	4.650	-0.054	0.124	0.594	N
A	8255.821	1.102	4.658	-0.057	0.124	0.594	N	P	8651.625	1.012	5.561	-0.021	0.132	1.073	N
P	8255.823	1.121	5.569	-0.023	0.129	1.084	N	B	8651.627	1.020	6.505	-0.042	0.120	0.601	N
B	8255.825	1.106	6.520	-0.040	0.113	0.603	N	P	8651.628	1.010	5.556	-0.020	0.129	1.084	N
P	8255.826	1.132	5.570	-0.025	0.131	1.086	N	B	8651.629	1.018	6.500	-0.035	0.111	0.601	N
B	8255.828	1.116	6.523	-0.046	0.124	0.595	N	P	8651.631	1.008	5.554	-0.020	0.128	1.084	N
P	8255.829	1.141	5.569	-0.024	0.130	1.087	N	A	8651.632	1.011	4.644	-0.056	0.125	0.597	N
A	8255.831	1.130	4.663	-0.060	0.129	0.590	N	A	8656.743	1.161	4.645	-0.055	0.124	0.593	N
A	8281.636	1.020	4.651	-0.053	0.120	0.599	N	P	8656.744	1.183	5.556	-0.024	0.133	1.078	N
P	8281.639	1.012	5.557	-0.018	0.123	1.087	N	B	8656.745	1.161	6.505	-0.038	0.113	0.600	N
B	8281.641	1.019	6.515	-0.037	0.112	0.598	N	P	8656.746	1.195	5.555	-0.022	0.130	1.083	N
P	8281.642	1.009	5.560	-0.019	0.123	1.092	N	B	8656.748	1.171	6.502	-0.039	0.114	0.599	N
B	8281.645	1.015	6.512	-0.034	0.107	0.603	N	P	8656.748	1.203	5.555	-0.019	0.124	1.091	N
P	8281.646	1.006	5.559	-0.016	0.123	1.083	N	A	8656.750	1.189	4.645	-0.056	0.124	0.593	N

Catalogue 1990–1992

Group 2005 P=HR4263
A=HD 94724 B=HD 93453

Star	JD_{\odot}	X	V	$b-y$	m_1	c_1	Sys	Star	JD_{\odot}	X	V	$b-y$	m_1	c_1	Sys
A	8249.794	1.176	6.417	0.030	0.168	0.895	N	P	8291.796	1.028	6.107	-0.086	0.249	0.726	N
P	8249.796	1.167	6.117	-0.088	0.252	0.726	N	B	8291.798	1.036	6.288	0.099	0.213	0.879	N
B	8249.798	1.146	6.296	0.095	0.220	0.874	N	P	8291.799	1.030	6.111	-0.087	0.248	0.731	N
P	8249.800	1.155	6.114	-0.087	0.250	0.729	N	A	8291.801	1.034	6.411	0.030	0.168	0.890	N
B	8249.802	1.135	6.297	0.096	0.219	0.875	N	A	8435.510	1.272	6.424	0.024	0.176	0.894	N
P	8249.803	1.144	6.116	-0.085	0.249	0.724	N	P	8435.514	1.289	6.130	-0.091	0.255	0.729	N
A	8249.805	1.143	6.417	0.034	0.161	0.901	N	B	8435.517	1.336	6.308	0.096	0.220	0.875	N
A	8258.742	1.288	6.406	0.031	0.165	0.896	N	P	8435.519	1.313	6.129	-0.091	0.253	0.727	N
P	8258.744	1.278	6.106	-0.087	0.249	0.724	N	B	8435.521	1.357	6.304	0.095	0.220	0.876	N
B	8258.746	1.245	6.289	0.096	0.212	0.883	N	P	8435.523	1.337	6.128	-0.091	0.254	0.726	N
P	8258.747	1.261	6.107	-0.087	0.248	0.728	N	A	8435.526	1.352	6.425	0.029	0.169	0.889	N
B	8258.749	1.230	6.289	0.096	0.213	0.877	N	A	8438.514	1.331	6.421	0.031	0.169	0.901	N
P	8258.754	1.233	6.112	-0.088	0.247	0.733	N	P	8438.516	1.342	6.124	-0.092	0.259	0.725	N
A	8258.755	1.230	6.410	0.031	0.165	0.894	N	B	8438.520	1.403	6.299	0.099	0.216	0.884	N
A	8281.813	1.029	6.413	0.030	0.166	0.899	N	P	8438.522	1.379	6.126	-0.092	0.256	0.732	N
P	8281.815	1.026	6.113	-0.085	0.247	0.730	N	B	8438.525	1.438	6.305	0.097	0.213	0.892	N
B	8281.817	1.033	6.295	0.095	0.215	0.886	N	P	8438.527	1.412	6.126	-0.091	0.252	0.737	N
P	8281.819	1.027	6.112	-0.086	0.247	0.730	N	A	8438.531	1.434	6.425	0.033	0.164	0.905	N
B	8281.822	1.035	6.293	0.096	0.217	0.872	N	A	8647.814	1.030	6.410	0.028	0.163	0.903	N
P	8281.823	1.029	6.115	-0.088	0.248	0.735	N	P	8647.816	1.027	6.117	-0.094	0.249	0.738	N
A	8281.824	1.032	6.410	0.031	0.166	0.892	N	B	8647.818	1.034	6.288	0.096	0.209	0.879	N
A	8285.838	1.051	6.404	0.029	0.168	0.891	N	P	8647.819	1.028	6.114	-0.090	0.240	0.754	N
P	8285.840	1.051	6.106	-0.090	0.252	0.725	N	B	8647.821	1.036	6.288	0.094	0.213	0.879	N
B	8285.842	1.064	6.282	0.099	0.213	0.873	N	P	8647.822	1.029	6.108	-0.089	0.242	0.746	N
P	8285.843	1.054	6.105	-0.086	0.245	0.729	N	A	8647.823	1.033	6.409	0.029	0.162	0.898	N
B	8285.845	1.069	6.283	0.097	0.215	0.874	N	A	8657.849	1.096	6.406	0.029	0.172	0.885	N
P	8285.847	1.059	6.104	-0.087	0.251	0.719	N	P	8657.852	1.099	6.114	-0.092	0.250	0.742	N
A	8285.848	1.063	6.405	0.028	0.171	0.888	N	B	8657.854	1.121	6.291	0.094	0.218	0.879	N
A	8291.789	1.030	6.404	0.032	0.166	0.897	N	P	8657.855	1.108	6.112	-0.094	0.252	0.740	N
A	8291.791	1.030	6.410	0.030	0.167	0.893	N	B	8657.857	1.129	6.283	0.097	0.215	0.877	N
P	8291.793	1.027	6.110	-0.087	0.248	0.735	N	P	8657.858	1.114	6.109	-0.090	0.247	0.743	N
B	8291.795	1.035	6.282	0.101	0.212	0.879	N	A	8657.860	1.121	6.404	0.030	0.167	0.893	N

Long Term Photometry of Variables

Group 2007 P=HR5049 A=HR5051 B=HR5030															
Star	JD_{\odot}	X	V	$b - y$	m_1	c_1	Sys	Star	JD_{\odot}	X	V	$b - y$	m_1	c_1	Sys
A	8250.841	1.653	6.650	-0.021	0.135	0.804	N	A	8463.475	1.452	6.637	-0.017	0.124	0.813	N
P	8250.843	1.581	5.698	-0.031	0.210	0.833	N	P	8463.476	1.368	5.667	-0.040	0.220	0.850	N
B	8250.844	1.591	6.063	0.085	0.092	0.552	N	B	8463.478	1.403	6.067	0.087	0.086	0.556	N
A	8282.848	1.453	6.624	-0.019	0.122	0.803	N	P	8463.480	1.372	5.672	-0.039	0.219	0.852	N
P	8282.851	1.361	5.670	-0.033	0.207	0.837	N	B	8463.481	1.408	6.070	0.086	0.088	0.552	N
B	8282.852	1.388	6.054	0.082	0.087	0.554	N	P	8463.486	1.382	5.671	-0.040	0.222	0.846	N
A	8290.875	1.421	6.632	-0.021	0.126	0.805	N	A	8463.488	1.469	6.636	-0.016	0.124	0.807	N
P	8290.877	1.329	5.671	-0.033	0.209	0.838	N	A	8648.861	1.439	6.619	-0.015	0.119	0.816	N
B	8290.878	1.361	6.054	0.086	0.085	0.549	N	P	8648.862	1.347	5.659	-0.031	0.206	0.834	N
A	8438.635	1.645	6.638	-0.022	0.131	0.803	N	B	8648.863	1.376	6.051	0.086	0.082	0.547	N
P	8438.638	1.595	5.679	-0.038	0.215	0.840	N	P	8648.865	1.345	5.661	-0.035	0.214	0.830	N
B	8438.641	1.635	6.062	0.085	0.087	0.549	N	B	8648.866	1.374	6.048	0.086	0.083	0.546	N
A	8459.493	1.460	6.664	-0.018	0.126	0.808	N	P	8648.867	1.343	5.661	-0.032	0.209	0.834	N
P	8459.494	1.377	5.700	-0.040	0.220	0.850	N	A	8648.868	1.433	6.632	-0.016	0.116	0.813	N
B	8459.496	1.413	6.086	0.086	0.088	0.547	N								

Catalogue 1990-1992

Group 2008 P=HR6244
A=HR6298 B=HD151726

Star	JD ₀	X	V	b-y	m ₁	c ₁	Sys	Star	JD ₀	X	V	b-y	m ₁	c ₁	Sys
A	8413.767	1.070	6.065	0.097	0.198	0.910	N	P	8495.533	1.069	6.111	0.143	0.043	0.823	N
P	8413.770	1.086	6.134	0.137	0.045	0.822	N	B	8495.535	1.074	7.235	-0.010	0.150	0.926	N
B	8413.772	1.093	7.243	-0.009	0.145	0.931	N	P	8495.536	1.075	6.107	0.144	0.041	0.824	N
P	8413.773	1.095	6.143	0.140	0.039	0.831	N	A	8495.539	1.070	6.055	0.097	0.201	0.912	N
B	8413.775	1.101	7.241	-0.009	0.146	0.936	N	A	8505.501	1.053	6.076	0.100	0.202	0.905	N
P	8413.778	1.106	6.112	0.139	0.040	0.835	N	P	8505.502	1.065	6.128	0.145	0.044	0.825	N
A	8413.780	1.097	6.064	0.098	0.196	0.913	N	B	8505.505	1.071	7.249	-0.005	0.149	0.925	N
A	8434.692	1.041	6.062	0.097	0.201	0.906	N	P	8505.506	1.072	6.139	0.144	0.044	0.823	N
P	8434.697	1.057	6.151	0.142	0.039	0.835	N	B	8505.509	1.079	7.248	-0.005	0.149	0.926	N
B	8434.701	1.067	7.238	-0.008	0.147	0.929	N	P	8505.511	1.082	6.156	0.143	0.045	0.820	N
P	8434.706	1.074	6.108	0.143	0.037	0.835	N	A	8505.513	1.074	6.071	0.099	0.202	0.906	N
B	8434.709	1.081	7.238	-0.006	0.143	0.927	N	A	8511.556	1.276	6.053	0.096	0.201	0.909	N
P	8434.711	1.084	6.109	0.141	0.039	0.832	N	P	8511.557	1.312	6.112	0.138	0.047	0.814	N
A	8434.714	1.079	6.063	0.096	0.202	0.904	N	B	8511.559	1.325	7.233	-0.012	0.151	0.928	N
A	8453.600	1.011	6.056	0.094	0.201	0.910	N	P	8511.561	1.335	6.106	0.142	0.042	0.824	N
P	8453.602	1.013	6.146	0.139	0.041	0.831	N	B	8511.563	1.349	7.234	-0.011	0.151	0.923	N
B	8453.603	1.016	7.239	-0.013	0.154	0.921	N	P	8511.565	1.359	6.154	0.129	0.049	0.813	N
P	8453.605	1.014	6.100	0.138	0.043	0.834	N	A	8511.567	1.336	6.062	0.094	0.203	0.906	N
B	8453.608	1.018	7.235	-0.009	0.146	0.935	N	A	8522.518	1.246	6.067	0.095	0.200	0.916	N
P	8453.609	1.017	6.108	0.137	0.044	0.828	N	P	8522.519	1.278	6.130	0.133	0.054	0.813	N
A	8453.611	1.015	6.061	0.094	0.202	0.912	N	B	8522.521	1.288	7.243	-0.013	0.153	0.933	N
A	8459.625	1.044	6.067	0.094	0.204	0.909	N	P	8522.523	1.295	6.119	0.137	0.051	0.819	N
P	8459.629	1.059	6.111	0.141	0.042	0.823	N	B	8522.526	1.311	7.245	-0.014	0.155	0.921	N
B	8459.632	1.067	7.242	-0.011	0.151	0.934	N	P	8522.527	1.318	6.122	0.138	0.047	0.824	N
P	8459.635	1.070	6.112	0.138	0.046	0.825	N	A	8522.529	1.297	6.072	0.091	0.207	0.905	N
B	8459.638	1.077	7.244	-0.012	0.151	0.928	N	A	8533.511	1.376	6.081	0.096	0.200	0.907	N
P	8459.640	1.081	6.110	0.141	0.040	0.827	N	P	8533.512	1.422	6.141	0.141	0.044	0.827	N
A	8459.643	1.075	6.065	0.095	0.201	0.909	N	B	8533.514	1.437	7.262	-0.013	0.151	0.940	N
A	8495.529	1.052	6.055	0.100	0.197	0.910	N	P	8533.516	1.448	6.170	0.136	0.049	0.813	N
P	8495.530	1.063	6.115	0.144	0.045	0.814	N	B	8533.518	1.461	7.262	-0.010	0.152	0.927	N
B	8495.532	1.069	7.233	-0.011	0.151	0.933	N	P	8533.519	1.474	6.140	0.140	0.044	0.825	N

Long Term Photometry of Variables

Group 2009 P=HR6745 A=HR6871 B=HR6761															
Star	JD ₀	X	V	b - y	m ₁	c ₁	Sys	Star	JD ₀	X	V	b - y	m ₁	c ₁	Sys
A	8185.560	1.650	6.138	0.128	0.164	0.844	N	A	8459.682	1.225	6.137	0.133	0.155	0.845	N
P	8185.563	1.747	4.336	0.111	0.259	0.874	N	P	8459.684	1.252	4.339	0.114	0.258	0.873	N
B	8185.565	1.753	5.472	0.366	0.197	0.297	N	B	8459.686	1.230	5.471	0.370	0.189	0.305	N
P	8185.568	1.786	4.343	0.114	0.256	0.873	N	P	8459.689	1.258	4.340	0.114	0.260	0.872	N
B	8185.570	1.789	5.475	0.366	0.193	0.298	N	B	8459.690	1.236	5.470	0.368	0.192	0.302	N
P	8185.576	1.844	4.342	0.112	0.257	0.875	N	P	8459.691	1.262	4.338	0.115	0.258	0.873	N
A	8185.578	1.769	6.152	0.132	0.161	0.840	N	A	8459.693	1.238	6.132	0.130	0.158	0.855	N
A	8195.524	1.600	6.130	0.127	0.160	0.850	N	A	8486.565	1.201	6.139	0.132	0.150	0.863	N
P	8195.525	1.684	4.330	0.112	0.257	0.875	N	P	8486.569	1.215	4.334	0.115	0.255	0.877	N
B	8195.527	1.679	5.464	0.367	0.191	0.305	N	B	8486.572	1.192	5.468	0.369	0.190	0.301	N
P	8195.529	1.706	4.331	0.112	0.255	0.881	N	P	8486.575	1.218	4.335	0.119	0.249	0.880	N
B	8195.530	1.701	5.463	0.365	0.191	0.306	N	B	8486.577	1.196	5.466	0.370	0.188	0.304	N
P	8195.531	1.724	4.331	0.113	0.252	0.881	N	P	8486.580	1.221	4.336	0.117	0.250	0.884	N
A	8195.533	1.657	6.146	0.134	0.152	0.856	N	A	8486.583	1.207	6.140	0.137	0.148	0.849	N
A	8413.783	1.206	6.145	0.134	0.152	0.855	N	A	8505.546	1.218	6.140	0.134	0.157	0.845	N
P	8413.785	1.224	4.337	0.115	0.255	0.879	N	P	8505.547	1.240	4.334	0.116	0.259	0.870	N
B	8413.787	1.201	5.471	0.370	0.189	0.303	N	B	8505.550	1.219	5.468	0.368	0.195	0.295	N
P	8413.789	1.227	4.338	0.116	0.254	0.876	N	P	8505.551	1.245	4.336	0.117	0.257	0.870	N
B	8413.790	1.205	5.470	0.370	0.187	0.311	N	B	8505.553	1.223	5.467	0.369	0.195	0.294	N
P	8413.792	1.230	4.339	0.115	0.255	0.880	N	P	8505.554	1.249	4.334	0.116	0.258	0.872	N
A	8413.794	1.213	6.148	0.135	0.152	0.850	N	A	8505.556	1.227	6.153	0.136	0.155	0.842	N
A	8416.888	1.429	6.118	0.129	0.158	0.857	N	A	8511.664	1.614	6.155	0.127	0.159	0.846	N
P	8416.889	1.490	4.330	0.115	0.255	0.877	N	P	8511.665	1.696	4.349	0.111	0.252	0.885	N
B	8416.891	1.476	5.462	0.368	0.193	0.302	N	B	8511.667	1.691	5.482	0.364	0.191	0.308	N
P	8416.893	1.504	4.331	0.115	0.255	0.874	N	P	8511.668	1.713	4.350	0.111	0.253	0.881	N
B	8416.894	1.492	5.465	0.367	0.193	0.298	N	B	8511.669	1.709	5.483	0.364	0.190	0.307	N
P	8416.896	1.520	4.330	0.113	0.258	0.873	N	P	8511.670	1.730	4.350	0.112	0.251	0.884	N
B	8416.899	1.512	5.464	0.368	0.193	0.301	N	A	8511.672	1.663	6.150	0.131	0.154	0.855	N
A	8434.717	1.203	6.141	0.134	0.154	0.852	N	A	8525.585	1.425	6.142	0.133	0.151	0.853	N
P	8434.720	1.218	4.337	0.115	0.258	0.872	N	P	8525.585	1.483	4.335	0.115	0.252	0.881	N
B	8434.722	1.196	5.467	0.370	0.190	0.301	N	B	8525.587	1.469	5.469	0.367	0.190	0.306	N
P	8434.724	1.221	4.334	0.115	0.257	0.876	N	P	8525.588	1.495	4.338	0.114	0.253	0.880	N
B	8434.726	1.198	5.466	0.371	0.188	0.304	N	B	8525.590	1.481	5.470	0.368	0.190	0.301	N
P	8434.727	1.223	4.332	0.115	0.256	0.878	N	P	8525.591	1.506	4.334	0.116	0.250	0.878	N
A	8434.729	1.208	6.131	0.134	0.155	0.849	N	A	8525.593	1.457	6.142	0.132	0.152	0.853	N
A	8449.684	1.206	6.132	0.132	0.155	0.855	N	A	8545.530	1.432	6.130	0.131	0.164	0.851	N
P	8449.685	1.223	4.338	0.113	0.261	0.870	N	P	8545.532	1.493	4.339	0.117	0.260	0.875	N
B	8449.687	1.200	5.469	0.369	0.190	0.304	N	B	8545.533	1.478	5.463	0.371	0.197	0.298	N
P	8449.689	1.225	4.336	0.115	0.257	0.874	N	P	8545.535	1.505	4.334	0.116	0.262	0.874	N
B	8449.692	1.204	5.469	0.368	0.192	0.301	N	B	8545.536	1.491	5.463	0.371	0.195	0.303	N
P	8449.693	1.230	4.335	0.115	0.259	0.868	N	P	8545.537	1.519	4.333	0.117	0.259	0.877	N
A	8449.695	1.212	6.124	0.129	0.159	0.854	N	A	8545.539	1.467	6.139	0.133	0.163	0.845	N

Catalogue 1990-1992

Group 210 P=HR7552
A=HR7639 B=HD185691

Star	JD _⊙	X	V	b - y	m ₁	c ₁	Sys	Star	JD _⊙	X	V	b - y	m ₁	c ₁	Sys
A	8166.642	1.348	6.315	0.046	0.204	1.014	N	A	8458.732	1.029	6.302	0.045	0.205	1.006	N
P	8166.643	1.399	5.349	-0.067	0.220	0.877	N	P	8458.734	1.033	5.328	-0.065	0.220	0.870	N
B	8166.645	1.469	7.385	0.038	0.217	0.976	N	B	8458.736	1.035	7.369	0.035	0.221	0.968	N
P	8166.647	1.426	5.348	-0.068	0.224	0.867	N	P	8458.738	1.037	5.349	-0.068	0.227	0.864	N
B	8166.649	1.503	7.383	0.036	0.222	0.965	N	P	8458.741	1.041	5.337	-0.068	0.224	0.868	N
P	8166.651	1.456	5.349	-0.065	0.217	0.875	N	A	8458.743	1.038	6.316	0.049	0.201	1.006	N
A	8166.653	1.418	6.317	0.047	0.201	1.012	N	A	8486.628	1.020	6.320	0.047	0.202	1.006	N
A	8169.644	1.411	6.318	0.046	0.203	1.011	N	P	8486.632	1.018	5.351	-0.066	0.226	0.860	N
P	8169.645	1.470	5.350	-0.069	0.224	0.868	N	B	8486.635	1.014	7.391	0.035	0.225	0.959	N
B	8169.646	1.555	7.385	0.035	0.225	0.961	N	P	8486.640	1.021	5.349	-0.068	0.231	0.848	N
P	8169.648	1.494	5.350	-0.069	0.224	0.871	N	B	8486.642	1.018	7.387	0.039	0.216	0.970	N
B	8169.650	1.585	7.392	0.030	0.229	0.962	N	P	8486.643	1.023	5.352	-0.066	0.226	0.853	N
P	8169.651	1.520	5.350	-0.069	0.222	0.871	N	A	8486.646	1.024	6.322	0.046	0.206	0.998	N
A	8169.653	1.476	6.320	0.045	0.205	1.012	N	A	8494.713	1.194	6.321	0.047	0.206	1.006	N
A	8172.634	1.401	6.321	0.047	0.207	1.003	N	P	8494.715	1.225	5.353	-0.069	0.234	0.853	N
P	8172.634	1.456	5.356	-0.068	0.226	0.869	N	B	8494.718	1.269	7.395	0.032	0.227	0.965	N
B	8172.636	1.539	7.397	0.040	0.219	0.972	N	P	8494.719	1.242	5.351	-0.069	0.234	0.852	N
P	8172.638	1.481	5.356	-0.069	0.226	0.861	N	B	8494.721	1.284	7.392	0.036	0.226	0.958	N
B	8172.640	1.569	7.395	0.035	0.227	0.955	N	P	8494.722	1.256	5.350	-0.067	0.233	0.852	N
P	8172.641	1.507	5.353	-0.066	0.224	0.869	N	A	8494.724	1.236	6.325	0.045	0.209	1.000	N
A	8172.643	1.465	6.324	0.047	0.210	0.995	N	A	8508.648	1.114	6.316	0.045	0.209	1.001	N
A	8186.591	1.377	6.322	0.046	0.196	1.025	N	P	8508.649	1.133	5.347	-0.072	0.240	0.842	N
P	8186.592	1.431	5.356	-0.070	0.223	0.872	N	B	8508.652	1.158	7.388	0.032	0.228	0.961	N
B	8186.593	1.504	7.389	0.037	0.216	0.971	N	P	8508.654	1.146	5.346	-0.070	0.237	0.841	N
P	8186.595	1.451	5.353	-0.070	0.223	0.873	N	B	8508.657	1.174	7.388	0.032	0.229	0.961	N
B	8186.597	1.537	7.382	0.036	0.220	0.977	N	P	8508.659	1.161	5.347	-0.069	0.235	0.848	N
P	8186.598	1.479	5.350	-0.069	0.221	0.873	N	A	8508.661	1.148	6.316	0.047	0.205	1.009	N
A	8186.600	1.440	6.326	0.045	0.202	1.007	N	P	8512.550	1.017	5.481	-0.070	0.235	0.851	N
A	8197.560	1.380	6.323	0.044	0.207	1.009	N	A	8525.654	1.315	6.325	0.046	0.204	1.011	N
P	8197.561	1.438	5.356	-0.068	0.222	0.875	N	P	8525.655	1.362	5.349	-0.068	0.232	0.853	N
B	8197.564	1.523	7.388	0.033	0.228	0.965	N	B	8525.657	1.426	7.388	0.037	0.220	0.974	N
P	8197.567	1.477	5.353	-0.068	0.221	0.876	N	P	8525.658	1.382	5.347	-0.070	0.236	0.845	N
B	8197.569	1.572	7.390	0.033	0.229	0.963	N	B	8525.660	1.450	7.390	0.038	0.221	0.965	N
P	8197.572	1.518	5.349	-0.069	0.224	0.869	N	P	8525.661	1.403	5.347	-0.068	0.235	0.844	N
A	8197.573	1.474	6.321	0.046	0.205	1.010	N	A	8525.663	1.369	6.324	0.044	0.209	0.995	N
A	8413.807	1.026	6.323	0.046	0.204	1.007	N	A	8545.555	1.145	6.321	0.048	0.211	1.000	N
P	8413.809	1.019	5.357	-0.068	0.224	0.872	N	P	8545.556	1.168	5.346	-0.066	0.242	0.836	N
B	8413.815	1.009	7.390	0.038	0.219	0.962	N	B	8545.558	1.195	7.387	0.043	0.221	0.962	N
P	8413.817	1.018	5.356	-0.068	0.223	0.871	N	P	8545.559	1.178	5.350	-0.065	0.241	0.834	N
B	8413.820	1.009	7.392	0.032	0.229	0.959	N	B	8545.561	1.207	7.395	0.042	0.227	0.958	N
P	8413.822	1.017	5.355	-0.068	0.225	0.865	N	P	8545.563	1.189	5.357	-0.067	0.244	0.839	N
A	8413.823	1.021	6.320	0.047	0.205	1.004	N	A	8545.565	1.175	6.331	0.053	0.206	0.998	N
A	8434.733	1.042	6.318	0.046	0.209	0.990	N	A	8561.517	1.165	6.335	0.046	0.206	1.009	N
P	8434.735	1.030	5.345	-0.067	0.226	0.860	N	P	8561.518	1.191	5.354	-0.069	0.238	0.840	N
B	8434.740	1.014	7.380	0.035	0.223	0.966	N	B	8561.520	1.226	7.404	0.032	0.228	0.965	N
P	8434.743	1.024	5.344	-0.067	0.225	0.857	N	P	8561.522	1.207	5.362	-0.072	0.242	0.831	N
B	8434.746	1.011	7.378	0.037	0.219	0.969	N	B	8561.524	1.245	7.402	0.036	0.223	0.967	N
P	8434.747	1.022	5.341	-0.067	0.227	0.858	N	P	8561.526	1.225	5.357	-0.066	0.233	0.843	N
A	8434.749	1.028	6.312	0.048	0.203	1.000	N	A	8561.528	1.206	6.339	0.042	0.211	1.000	N
A	8448.829	1.156	6.319	0.048	0.201	1.013	N	A	8576.514	1.341	6.332	0.041	0.216	0.993	N
P	8448.832	1.185	5.354	-0.066	0.222	0.870	N	P	8576.516	1.391	5.348	-0.070	0.245	0.829	N
B	8448.841	1.247	7.388	0.037	0.219	0.977	N	B	8576.518	1.464	7.390	0.035	0.229	0.957	N
P	8448.843	1.227	5.352	-0.066	0.222	0.871	N	P	8576.520	1.421	5.343	-0.071	0.244	0.832	N
B	8448.848	1.285	7.387	0.036	0.221	0.971	N	P	8576.523	1.506	7.388	0.031	0.233	0.954	N
P	8448.850	1.260	5.354	-0.067	0.221	0.877	N	B	8576.527	1.469	5.338	-0.072	0.248	0.824	N
A	8448.853	1.244	6.322	0.047	0.201	1.013	N	A	8576.530	1.439	6.316	0.044	0.211	1.004	N

Long Term Photometry of Variables

Group 2011 P=HR7575
A=HR7460 B=HD189359

Star	JD _⊙	X	V	b - y	m ₁	c ₁	Sys	Star	JD _⊙	X	V	b - y	m ₁	c ₁	Sys
A	8169.608	1.573	5.444	0.268	0.184	0.486	N	B	8449.805	1.259	6.724	0.025	0.198	1.004	N
P	8169.609	1.516	5.655	0.049	0.330	0.719	N	P	8449.807	1.270	5.660	0.049	0.303	0.770	N
B	8169.611	1.513	6.720	0.029	0.194	1.015	N	B	8449.810	1.279	6.728	0.025	0.196	1.008	N
P	8169.613	1.544	5.658	0.051	0.327	0.716	N	P	8449.812	1.293	5.659	0.049	0.303	0.767	N
B	8169.614	1.540	6.725	0.026	0.199	1.006	N	A	8449.813	1.337	5.446	0.267	0.183	0.485	N
P	8169.616	1.574	5.659	0.050	0.328	0.713	N	A	8459.783	1.321	5.443	0.270	0.179	0.489	N
A	8169.617	1.672	5.442	0.268	0.184	0.489	N	P	8459.785	1.296	5.656	0.052	0.300	0.773	N
A	8172.600	1.580	5.448	0.272	0.180	0.484	N	B	8459.787	1.299	6.722	0.028	0.190	1.020	N
P	8172.601	1.518	5.675	0.050	0.324	0.722	N	P	8459.789	1.314	5.655	0.051	0.300	0.770	N
B	8172.603	1.515	6.737	0.026	0.198	1.006	N	B	8459.791	1.316	6.722	0.028	0.192	1.016	N
P	8172.604	1.544	5.673	0.049	0.326	0.720	N	P	8459.792	1.333	5.659	0.051	0.302	0.766	N
B	8172.606	1.541	6.726	0.028	0.198	1.004	N	A	8459.794	1.386	5.446	0.271	0.176	0.491	N
P	8172.607	1.571	5.666	0.052	0.321	0.728	N	A	8493.705	1.419	5.447	0.269	0.186	0.487	N
A	8172.608	1.668	5.445	0.271	0.181	0.487	N	P	8493.707	1.379	5.662	0.044	0.326	0.743	N
A	8188.546	1.479	5.451	0.267	0.187	0.488	N	B	8493.709	1.384	6.722	0.027	0.199	1.012	N
P	8188.548	1.431	5.668	0.049	0.313	0.756	N	P	8493.710	1.402	5.657	0.048	0.322	0.741	N
B	8188.549	1.428	6.729	0.023	0.207	1.006	N	B	8493.712	1.400	6.725	0.028	0.197	1.010	N
P	8188.550	1.451	5.666	0.050	0.313	0.753	N	P	8493.713	1.420	5.652	0.049	0.320	0.746	N
B	8188.552	1.446	6.727	0.027	0.202	1.005	N	A	8493.715	1.494	5.440	0.268	0.187	0.483	N
P	8188.553	1.472	5.666	0.048	0.313	0.757	N	A	8505.691	1.584	5.441	0.263	0.187	0.484	N
A	8188.554	1.549	5.452	0.264	0.189	0.485	N	P	8505.692	1.523	5.658	0.041	0.338	0.711	N
A	8196.516	1.440	5.462	0.269	0.185	0.493	N	B	8505.695	1.525	6.721	0.023	0.200	1.003	N
P	8196.518	1.399	5.670	0.047	0.311	0.763	N	P	8505.696	1.558	5.657	0.041	0.338	0.718	N
B	8196.520	1.402	6.731	0.024	0.200	1.015	N	B	8505.699	1.560	6.725	0.024	0.200	1.015	N
P	8196.523	1.435	5.671	0.044	0.316	0.757	N	P	8505.701	1.599	5.647	0.042	0.335	0.721	N
B	8196.525	1.437	6.734	0.022	0.205	1.003	N	A	8505.702	1.705	5.435	0.264	0.186	0.479	N
P	8196.527	1.462	5.674	0.046	0.312	0.760	N	P	8519.655	1.540	5.613	0.051	0.349	0.684	N
A	8196.528	1.538	5.458	0.266	0.187	0.491	N	B	8519.657	1.540	6.696	0.025	0.203	1.006	N
A	8413.832	1.108	5.451	0.269	0.179	0.485	N	P	8519.659	1.577	5.609	0.050	0.350	0.679	N
P	8413.833	1.117	5.666	0.051	0.305	0.754	N	P	8519.663	1.618	5.600	0.052	0.349	0.684	N
B	8413.836	1.127	6.725	0.029	0.189	1.019	N	A	8530.625	1.630	5.414	0.270	0.184	0.487	N
P	8413.838	1.119	5.663	0.052	0.301	0.764	N	P	8530.626	1.561	5.622	0.055	0.361	0.657	N
B	8413.841	1.130	6.728	0.027	0.191	1.015	N	B	8530.628	1.555	6.691	0.030	0.197	1.010	N
P	8413.844	1.124	5.663	0.050	0.308	0.752	N	P	8530.629	1.588	5.618	0.056	0.360	0.663	N
A	8413.846	1.125	5.447	0.268	0.182	0.491	N	B	8530.631	1.587	6.691	0.033	0.193	1.022	N
A	8415.867	1.181	5.448	0.267	0.185	0.484	N	P	8530.633	1.625	5.620	0.052	0.364	0.662	N
P	8415.869	1.173	5.663	0.049	0.312	0.752	N	A	8530.633	1.728	5.412	0.268	0.189	0.479	N
B	8415.872	1.182	6.727	0.025	0.198	1.011	N	A	8545.543	1.318	5.441	0.274	0.180	0.486	N
P	8415.874	1.186	5.661	0.052	0.306	0.760	N	P	8545.544	1.292	5.643	0.057	0.377	0.619	N
B	8415.875	1.192	6.728	0.022	0.201	1.011	N	B	8545.546	1.294	6.714	0.035	0.190	1.009	N
P	8415.877	1.194	5.662	0.051	0.308	0.754	N	P	8545.548	1.308	5.645	0.059	0.376	0.619	N
A	8415.879	1.218	5.449	0.270	0.180	0.493	N	B	8545.550	1.311	6.717	0.034	0.191	1.010	N
A	8429.850	1.250	5.445	0.270	0.173	0.500	N	P	8545.551	1.327	5.648	0.059	0.375	0.616	N
P	8429.851	1.234	5.661	0.051	0.297	0.767	N	A	8545.552	1.376	5.439	0.273	0.184	0.484	N
B	8429.855	1.246	6.722	0.027	0.189	1.018	N	A	8556.536	1.479	5.466	0.269	0.181	0.488	N
P	8429.857	1.255	5.659	0.051	0.298	0.769	N	P	8556.537	1.430	5.665	0.056	0.384	0.601	N
B	8429.861	1.266	6.721	0.030	0.185	1.023	N	B	8556.538	1.424	6.745	0.024	0.199	1.016	N
P	8429.862	1.278	5.659	0.053	0.294	0.773	N	P	8556.539	1.444	5.665	0.057	0.380	0.610	N
A	8429.865	1.322	5.444	0.270	0.174	0.496	N	B	8556.541	1.441	6.745	0.028	0.195	1.001	N
A	8434.752	1.101	5.442	0.271	0.179	0.484	N	P	8556.542	1.462	5.666	0.057	0.384	0.599	N
P	8434.753	1.118	5.658	0.053	0.297	0.770	N	A	8556.542	1.534	5.458	0.271	0.179	0.491	N
B	8434.757	1.130	6.718	0.031	0.189	1.010	N	A	8566.528	1.687	5.458	0.281	0.183	0.476	N
P	8434.760	1.115	5.658	0.051	0.303	0.756	N	P	8566.530	1.612	5.663	0.068	0.383	0.591	N
B	8434.763	1.127	6.721	0.031	0.187	1.019	N	B	8566.533	1.616	6.740	0.040	0.195	1.009	N
P	8434.765	1.114	5.656	0.052	0.300	0.761	N	P	8566.534	1.657	5.668	0.066	0.386	0.585	N
A	8434.767	1.103	5.446	0.271	0.178	0.489	N	B	8566.537	1.661	6.736	0.038	0.198	1.002	N
A	8449.800	1.271	5.448	0.266	0.183	0.485	N	P	8566.538	1.707	5.662	0.067	0.386	0.589	N
P	8449.802	1.252	5.662	0.048	0.304	0.765	N	A	8566.541	1.854	5.445	0.282	0.184	0.474	N

Catalogue 1990–1992

Group 2013 P=HR8097
A=HR8098 B=HR8123

Star	JD_{\odot}	X	V	$b - y$	m_1	c_1	Sys	Star	JD_{\odot}	X	V	$b - y$	m_1	c_1	Sys
A	8168.653	1.693	6.077	0.013	0.176	1.093	N	P	8491.751	1.543	4.697	0.144	0.261	0.700	N
P	8168.654	1.708	4.710	0.147	0.252	0.713	N	B	8491.753	1.534	4.471	0.315	0.172	0.352	N
B	8168.655	1.685	4.488	0.319	0.168	0.360	N	P	8491.754	1.564	4.697	0.144	0.260	0.698	N
P	8168.656	1.726	4.715	0.146	0.254	0.707	N	A	8491.756	1.576	6.068	0.011	0.178	1.088	N
B	8168.657	1.701	4.483	0.318	0.168	0.359	N	A	8496.747	1.607	6.081	0.007	0.183	1.081	N
P	8168.658	1.743	4.713	0.144	0.257	0.706	N	P	8496.748	1.620	4.712	0.142	0.263	0.700	N
A	8168.659	1.751	6.079	0.013	0.174	1.096	N	B	8496.750	1.608	4.486	0.312	0.176	0.345	N
A	8188.592	1.612	6.077	0.008	0.187	1.083	N	P	8496.751	1.644	4.710	0.144	0.259	0.707	N
P	8188.593	1.627	4.715	0.145	0.262	0.707	N	B	8496.752	1.627	4.484	0.314	0.173	0.348	N
B	8188.595	1.612	4.486	0.314	0.178	0.350	N	P	8496.753	1.666	4.708	0.144	0.261	0.696	N
P	8188.597	1.658	4.715	0.144	0.263	0.712	N	A	8496.755	1.678	6.074	0.008	0.183	1.083	N
B	8188.599	1.645	4.488	0.314	0.178	0.350	N	A	8508.664	1.357	6.083	0.004	0.188	1.079	N
P	8188.600	1.692	4.712	0.143	0.263	0.707	N	P	8508.666	1.363	4.712	0.143	0.262	0.697	N
A	8188.601	1.700	6.081	0.009	0.186	1.081	N	B	8508.667	1.356	4.488	0.314	0.176	0.348	N
A	8196.548	1.495	6.083	0.008	0.183	1.084	N	P	8508.668	1.371	4.711	0.143	0.261	0.703	N
P	8196.550	1.508	4.716	0.142	0.263	0.707	N	B	8508.670	1.364	4.489	0.314	0.176	0.345	N
B	8196.552	1.500	4.488	0.314	0.175	0.353	N	P	8508.671	1.380	4.716	0.143	0.263	0.699	N
P	8196.553	1.531	4.717	0.141	0.263	0.702	N	A	8508.673	1.383	6.083	0.007	0.185	1.077	N
B	8196.555	1.518	4.492	0.314	0.176	0.354	N	A	8513.667	1.416	6.078	0.006	0.182	1.084	N
P	8196.556	1.551	4.713	0.141	0.266	0.697	N	P	8513.668	1.424	4.719	0.142	0.260	0.701	N
A	8196.558	1.558	6.085	0.010	0.182	1.086	N	B	8513.670	1.416	4.488	0.312	0.173	0.347	N
A	8413.925	1.368	6.077	0.008	0.179	1.092	N	P	8513.671	1.436	4.710	0.141	0.261	0.699	N
P	8413.927	1.379	4.710	0.145	0.256	0.712	N	B	8513.673	1.428	4.478	0.312	0.174	0.348	N
A	8434.768	1.367	6.077	0.013	0.174	1.088	N	P	8513.674	1.449	4.704	0.142	0.261	0.700	N
P	8434.771	1.361	4.711	0.147	0.257	0.699	N	A	8513.676	1.455	6.067	0.005	0.183	1.082	N
B	8434.773	1.361	4.482	0.319	0.168	0.351	N	A	8529.655	1.604	6.086	0.011	0.185	1.083	N
P	8434.774	1.350	4.714	0.147	0.255	0.703	N	P	8529.656	1.618	4.712	0.146	0.265	0.693	N
B	8434.776	1.352	4.483	0.317	0.171	0.348	N	B	8529.657	1.603	4.489	0.315	0.177	0.345	N
P	8434.777	1.344	4.712	0.146	0.259	0.696	N	P	8529.658	1.637	4.714	0.146	0.263	0.700	N
A	8434.779	1.337	6.080	0.009	0.182	1.078	N	B	8529.660	1.621	4.487	0.319	0.173	0.353	N
A	8449.815	1.332	6.079	0.009	0.179	1.092	N	P	8529.661	1.657	4.722	0.142	0.268	0.688	N
P	8449.817	1.337	4.713	0.139	0.268	0.696	N	A	8529.662	1.669	6.080	0.013	0.182	1.088	N
B	8449.818	1.331	4.484	0.313	0.177	0.348	N	A	8545.570	1.385	6.080	0.015	0.188	1.076	N
P	8449.820	1.344	4.708	0.142	0.264	0.699	N	P	8545.571	1.393	4.711	0.149	0.267	0.691	N
B	8449.822	1.341	4.487	0.309	0.183	0.342	N	B	8545.573	1.385	4.489	0.323	0.176	0.345	N
P	8449.823	1.354	4.709	0.142	0.263	0.702	N	P	8545.574	1.404	4.719	0.152	0.264	0.692	N
A	8449.825	1.358	6.078	0.007	0.185	1.084	N	B	8545.576	1.395	4.492	0.323	0.176	0.347	N
A	8458.809	1.381	6.053	0.010	0.171	1.103	N	P	8545.577	1.415	4.712	0.151	0.265	0.694	N
P	8458.810	1.389	4.688	0.145	0.251	0.719	N	A	8545.578	1.419	6.083	0.014	0.187	1.082	N
B	8458.812	1.382	4.467	0.314	0.169	0.359	N	A	8562.531	1.422	6.078	0.012	0.179	1.088	N
P	8458.813	1.401	4.695	0.144	0.254	0.709	N	P	8562.532	1.429	4.721	0.147	0.258	0.697	N
B	8458.815	1.392	4.468	0.315	0.167	0.360	N	B	8562.533	1.418	4.489	0.319	0.168	0.359	N
P	8458.816	1.412	4.700	0.143	0.253	0.716	N	P	8562.534	1.437	4.714	0.147	0.258	0.706	N
A	8458.818	1.417	6.058	0.010	0.173	1.101	N	B	8562.536	1.428	4.486	0.319	0.167	0.357	N
A	8491.745	1.505	6.064	0.009	0.180	1.084	N	P	8562.536	1.448	4.712	0.147	0.256	0.705	N
P	8491.748	1.524	4.694	0.146	0.255	0.707	N	A	8562.538	1.451	6.083	0.010	0.180	1.081	N
B	8491.750	1.515	4.472	0.316	0.173	0.349	N								

Long Term Photometry of Variables

Group 2026 P=HR5942 A=HD142315 B=HR5885															
Star	JD_{\odot}	X	V	$b - y$	m_1	c_1	Sys	Star	JD_{\odot}	X	V	$b - y$	m_1	c_1	Sys
A	8460.626	1.185	6.873	0.050	0.111	0.758	N	A	8463.522	1.007	6.870	0.051	0.114	0.744	N
P	8460.629	1.176	5.450	-0.022	0.101	0.260	N	P	8463.523	1.003	5.450	-0.019	0.100	0.259	N
B	8460.632	1.208	4.658	0.006	0.079	0.119	N	B	8463.525	1.003	4.654	0.008	0.079	0.116	N
P	8460.634	1.197	5.447	-0.020	0.098	0.264	N	P	8463.527	1.003	5.453	-0.024	0.108	0.252	N
B	8460.636	1.227	4.657	0.007	0.078	0.120	N	B	8463.530	1.004	4.655	0.007	0.079	0.117	N
P	8460.638	1.216	5.451	-0.023	0.102	0.259	N	P	8463.531	1.004	5.451	-0.020	0.099	0.263	N
A	8460.640	1.248	6.871	0.051	0.112	0.755	N	A	8463.533	1.009	6.870	0.055	0.107	0.750	N
A	8461.526	1.007	6.869	0.051	0.107	0.758	N	A	8464.576	1.067	6.886	0.047	0.109	0.756	N
P	8461.529	1.003	5.454	-0.020	0.098	0.273	N	P	8464.578	1.060	5.456	-0.025	0.099	0.260	N
B	8461.531	1.003	4.649	0.008	0.075	0.121	N	B	8464.580	1.073	4.668	0.004	0.077	0.115	N
P	8461.533	1.004	5.454	-0.022	0.103	0.259	N	P	8464.582	1.068	5.459	-0.026	0.102	0.254	N
B	8461.535	1.004	4.648	0.007	0.076	0.122	N	B	8464.584	1.082	4.679	0.004	0.076	0.120	N
P	8461.537	1.004	5.453	-0.022	0.101	0.266	N	P	8464.586	1.076	5.465	-0.028	0.103	0.253	N
A	8461.539	1.010	6.868	0.051	0.107	0.757	N	A	8464.587	1.092	6.891	0.047	0.109	0.753	N
A	8462.607	1.133	6.877	0.051	0.108	0.757	N	A	8464.590	1.100	6.890	0.049	0.108	0.746	N
P	8462.609	1.124	5.451	-0.021	0.098	0.260	N	P	8464.592	1.091	5.461	-0.027	0.100	0.257	N
B	8462.611	1.146	4.659	0.008	0.076	0.117	N	B	8464.593	1.108	4.674	0.001	0.079	0.118	N
P	8462.613	1.139	5.453	-0.023	0.101	0.256	N	P	8464.597	1.104	5.467	-0.027	0.101	0.251	N
B	8462.615	1.163	4.660	0.007	0.077	0.118	N	B	8464.598	1.123	4.679	0.003	0.077	0.122	N
P	8462.618	1.155	5.451	-0.021	0.098	0.258	N	P	8464.600	1.114	5.469	-0.027	0.098	0.259	N
A	8462.620	1.182	6.882	0.050	0.109	0.759	N	A	8464.602	1.135	6.893	0.046	0.112	0.750	N

Catalogue 1990-1992

Group 2027 P=HD217522
A=HD217172 B=HD217595

Star	JD ₀	X	V	b - y	m ₁	c ₁	Sys	Star	JD ₀	X	V	b - y	m ₁	c ₁	Sys
A	8448.897	1.063	7.306	0.065	0.216	0.918	N	A	8531.661	1.054	7.298	0.065	0.215	0.916	N
P	8448.900	1.062	7.522	0.287	0.235	0.438	N	P	8531.666	1.055	7.520	0.284	0.245	0.420	N
B	8448.903	1.067	7.207	0.285	0.158	0.481	N	B	8531.671	1.062	7.206	0.284	0.162	0.477	N
P	8448.905	1.069	7.523	0.290	0.235	0.429	N	P	8531.675	1.065	7.521	0.287	0.238	0.426	N
B	8448.912	1.079	7.206	0.288	0.156	0.481	N	B	8531.682	1.075	7.205	0.285	0.161	0.476	N
P	8448.915	1.083	7.527	0.286	0.240	0.423	N	P	8531.686	1.079	7.520	0.285	0.241	0.425	N
A	8448.918	1.092	7.307	0.066	0.211	0.930	N	A	8531.691	1.093	7.300	0.066	0.212	0.924	N
A	8449.857	1.040	7.308	0.062	0.224	0.913	N	B	8535.718	1.181	7.221	0.282	0.172	0.464	N
P	8449.861	1.038	7.524	0.286	0.246	0.412	N	P	8535.722	1.191	7.534	0.285	0.243	0.419	N
B	8449.864	1.041	7.205	0.283	0.169	0.463	N	B	8535.726	1.205	7.221	0.285	0.168	0.472	N
P	8449.866	1.040	7.522	0.283	0.247	0.422	N	P	8535.729	1.217	7.533	0.285	0.243	0.421	N
B	8449.871	1.043	7.207	0.279	0.175	0.456	N	A	8535.733	1.241	7.312	0.063	0.220	0.914	N
P	8449.873	1.042	7.525	0.282	0.248	0.410	N	A	8537.659	1.069	7.287	0.065	0.216	0.914	N
A	8449.876	1.047	7.307	0.060	0.223	0.916	N	P	8537.662	1.070	7.505	0.286	0.240	0.421	N
A	8452.781	1.095	7.308	0.047	0.222	0.931	N	B	8537.666	1.077	7.192	0.283	0.171	0.457	N
P	8452.784	1.092	7.535	0.269	0.243	0.448	N	P	8537.669	1.080	7.504	0.286	0.244	0.414	N
B	8452.787	1.090	7.217	0.268	0.166	0.496	N	B	8537.674	1.088	7.193	0.283	0.169	0.466	N
P	8452.790	1.082	7.533	0.268	0.248	0.439	N	P	8537.677	1.093	7.510	0.285	0.247	0.416	N
B	8452.794	1.078	7.223	0.264	0.172	0.489	N	A	8537.681	1.105	7.295	0.066	0.221	0.906	N
P	8452.797	1.071	7.534	0.269	0.246	0.441	N	A	8539.645	1.060	7.325	0.064	0.221	0.916	N
A	8452.800	1.067	7.317	0.044	0.223	0.937	N	P	8539.649	1.060	7.541	0.286	0.245	0.420	N
A	8458.827	1.040	7.308	0.069	0.207	0.923	N	B	8539.653	1.066	7.222	0.282	0.171	0.468	N
P	8458.830	1.038	7.530	0.288	0.238	0.421	N	P	8539.656	1.069	7.538	0.284	0.247	0.420	N
B	8458.833	1.040	7.210	0.285	0.161	0.471	N	B	8539.660	1.076	7.223	0.281	0.170	0.475	N
P	8458.836	1.038	7.528	0.288	0.237	0.424	N	P	8539.663	1.079	7.538	0.285	0.248	0.417	N
B	8458.839	1.041	7.209	0.284	0.160	0.471	N	A	8539.667	1.091	7.320	0.063	0.224	0.913	N
P	8458.842	1.040	7.525	0.286	0.236	0.430	N	A	8545.658	1.104	7.315	0.067	0.219	0.913	N
A	8458.845	1.043	7.309	0.064	0.214	0.919	N	P	8545.661	1.106	7.537	0.288	0.243	0.418	N
A	8459.814	1.042	7.301	0.065	0.216	0.914	N	B	8545.665	1.115	7.218	0.286	0.169	0.466	N
P	8459.817	1.039	7.522	0.285	0.240	0.424	N	P	8545.669	1.121	7.535	0.287	0.247	0.417	N
B	8459.820	1.041	7.203	0.283	0.165	0.470	N	B	8545.673	1.132	7.218	0.286	0.167	0.465	N
P	8459.824	1.038	7.521	0.286	0.240	0.423	N	P	8545.676	1.139	7.536	0.288	0.245	0.416	N
B	8459.827	1.040	7.205	0.281	0.168	0.469	N	A	8545.680	1.156	7.317	0.065	0.222	0.908	N
P	8459.830	1.038	7.520	0.285	0.243	0.417	N	A	8548.616	1.056	7.327	0.062	0.220	0.913	N
A	8459.833	1.040	7.302	0.066	0.216	0.914	N	P	8548.623	1.059	7.543	0.284	0.246	0.414	N
A	8460.802	1.046	7.306	0.062	0.216	0.922	N	B	8548.628	1.066	7.228	0.276	0.175	0.465	N
P	8460.804	1.044	7.527	0.283	0.245	0.423	N	P	8548.632	1.070	7.543	0.282	0.246	0.421	N
B	8460.807	1.045	7.206	0.285	0.161	0.480	N	B	8548.635	1.077	7.228	0.277	0.174	0.462	N
P	8460.810	1.041	7.524	0.283	0.243	0.427	N	P	8548.639	1.081	7.541	0.282	0.244	0.425	N
B	8460.812	1.043	7.209	0.281	0.167	0.475	N	A	8548.643	1.093	7.324	0.059	0.222	0.918	N
P	8460.815	1.039	7.528	0.285	0.245	0.415	N	A	8549.582	1.040	7.311	0.063	0.222	0.919	N
A	8460.817	1.040	7.311	0.061	0.220	0.917	N	B	8549.586	1.038	7.530	0.284	0.251	0.411	N
A	8461.774	1.069	7.307	0.066	0.212	0.918	N	P	8549.590	1.041	7.213	0.282	0.171	0.469	N
P	8461.776	1.066	7.526	0.289	0.235	0.428	N	P	8549.594	1.040	7.535	0.281	0.253	0.413	N
B	8461.779	1.065	7.212	0.285	0.160	0.477	N	B	8549.598	1.044	7.215	0.280	0.173	0.467	N
P	8461.783	1.059	7.527	0.286	0.239	0.423	N	P	8549.601	1.044	7.527	0.289	0.240	0.427	N
B	8461.786	1.059	7.215	0.282	0.165	0.471	N	A	8549.606	1.049	7.311	0.064	0.225	0.906	N
P	8461.788	1.053	7.528	0.289	0.236	0.426	N	A	8550.599	1.047	7.313	0.067	0.217	0.920	N
P	8461.791	1.051	7.532	0.285	0.239	0.426	N	P	8550.603	1.046	7.531	0.288	0.243	0.415	N
A	8462.812	1.040	7.308	0.064	0.217	0.914	N	B	8550.607	1.051	7.213	0.287	0.162	0.476	N
P	8462.815	1.038	7.528	0.286	0.237	0.428	N	P	8550.611	1.053	7.530	0.289	0.241	0.421	N
B	8462.819	1.040	7.209	0.284	0.164	0.469	N	B	8550.615	1.058	7.209	0.286	0.164	0.476	N
P	8462.821	1.038	7.527	0.283	0.245	0.417	N	P	8550.618	1.060	7.525	0.291	0.238	0.422	N
B	8462.824	1.040	7.208	0.287	0.159	0.468	N	A	8550.622	1.069	7.306	0.068	0.217	0.915	N
P	8462.827	1.039	7.527	0.284	0.243	0.415	N	A	8555.605	1.065	7.309	0.063	0.215	0.924	N
A	8462.830	1.041	7.310	0.064	0.217	0.912	N	P	8555.609	1.066	7.526	0.284	0.239	0.432	N
A	8463.809	1.040	7.306	0.066	0.219	0.906	N	B	8555.613	1.073	7.213	0.281	0.165	0.476	N
P	8463.811	1.038	7.525	0.286	0.244	0.413	N	P	8555.617	1.077	7.527	0.284	0.242	0.423	N
B	8463.814	1.040	7.213	0.280	0.172	0.462	N	B	8555.621	1.084	7.208	0.285	0.161	0.473	N
P	8463.816	1.038	7.529	0.283	0.248	0.412	N	P	8555.625	1.089	7.524	0.287	0.240	0.426	N
B	8463.818	1.040	7.214	0.280	0.170	0.470	N	A	8555.629	1.102	7.305	0.066	0.212	0.929	N
P	8463.821	1.038	7.527	0.286	0.239	0.425	N	A	8558.610	1.084	7.299	0.063	0.222	0.910	N
A	8463.823	1.040	7.315	0.059	0.221	0.912	N	P	8558.614	1.086	7.518	0.284	0.247	0.419	N
A	8464.807	1.040	7.294	0.066	0.219	0.912	N	B	8558.618	1.094	7.202	0.281	0.170	0.470	N
P	8464.809	1.038	7.512	0.292	0.237	0.422	N	P	8558.622	1.100	7.518	0.283	0.249	0.419	N
B	8464.812	1.040	7.203	0.283	0.172	0.462	N	B	8558.626	1.109	7.206	0.278	0.171	0.474	N
P	8464.815	1.038	7.517	0.287	0.244	0.419	N	P	8558.630	1.116	7.520	0.284	0.247	0.414	N
B	8464.817	1.040	7.201	0.285	0.169	0.464	N	A	8558.634	1.131	7.302	0.064	0.218	0.919	N
P	8464.820	1.038	7.519	0.283	0.253	0.415	N	A	8562.573	1.052	7.302	0.060	0.223	0.914	N
A	8464.823	1.041	7.298	0.069	0.215	0.916	N	P	8562.577	1.052	7.520	0.281	0.246	0.424	N

Long Term Photometry of Variables

Group 2027 P=HD217522 (continued)
A=HD217172 B=HD217595

Star	JD_{\odot}	X	V	$b - y$	m_1	c_1	Sys	Star	JD_{\odot}	X	V	$b - y$	m_1	c_1	Sys
B	8562.580	1.058	7.202	0.281	0.168	0.471	N	P	8574.537	1.047	7.514	0.286	0.241	0.422	N
P	8562.584	1.060	7.514	0.283	0.244	0.425	N	A	8574.541	1.054	7.299	0.060	0.223	0.910	N
B	8562.588	1.066	7.201	0.280	0.168	0.472	N	A	8575.558	1.077	7.316	0.062	0.218	0.919	N
P	8562.592	1.070	7.516	0.283	0.242	0.429	N	P	8575.561	1.078	7.531	0.284	0.241	0.429	N
A	8562.596	1.080	7.300	0.061	0.218	0.919	N	B	8575.565	1.086	7.213	0.279	0.170	0.468	N
A	8563.567	1.050	7.319	0.057	0.230	0.910	N	P	8575.569	1.091	7.528	0.284	0.241	0.429	N
P	8563.571	1.050	7.535	0.285	0.247	0.417	N	B	8575.573	1.099	7.211	0.280	0.167	0.470	N
B	8563.575	1.055	7.218	0.280	0.173	0.467	N	P	8575.577	1.105	7.525	0.281	0.246	0.423	N
P	8563.579	1.057	7.537	0.280	0.253	0.419	N	A	8575.581	1.119	7.305	0.061	0.219	0.923	N
B	8563.583	1.063	7.219	0.278	0.173	0.470	N	A	8576.587	1.141	7.300	0.061	0.221	0.913	N
P	8563.586	1.066	7.532	0.282	0.249	0.419	N	P	8576.591	1.145	7.520	0.283	0.245	0.419	N
A	8563.591	1.075	7.318	0.060	0.225	0.917	N	B	8576.595	1.156	7.205	0.280	0.168	0.470	N
P	8566.598	1.097	7.577	0.292	0.240	0.418	N	P	8576.599	1.167	7.517	0.284	0.244	0.418	N
P	8566.606	1.113	7.559	0.289	0.242	0.420	N	B	8576.603	1.179	7.201	0.282	0.167	0.467	N
B	8566.610	1.123	7.244	0.284	0.169	0.462	N	P	8576.607	1.191	7.517	0.285	0.241	0.418	N
P	8566.614	1.132	7.558	0.289	0.239	0.420	N	A	8576.611	1.213	7.301	0.063	0.218	0.912	N
A	8566.618	1.148	7.342	0.066	0.218	0.916	N	A	8577.513	1.042	7.313	0.063	0.223	0.913	N
A	8572.549	1.056	7.312	0.064	0.221	0.911	N	P	8577.517	1.041	7.530	0.288	0.243	0.422	N
P	8572.553	1.056	7.531	0.285	0.244	0.423	N	B	8577.521	1.045	7.217	0.281	0.172	0.464	N
B	8572.557	1.062	7.220	0.283	0.168	0.467	N	P	8577.525	1.045	7.529	0.287	0.239	0.428	N
P	8572.561	1.065	7.528	0.287	0.243	0.420	N	B	8577.529	1.050	7.216	0.282	0.172	0.461	N
B	8572.564	1.072	7.216	0.284	0.167	0.475	N	P	8577.533	1.051	7.534	0.282	0.250	0.417	N
P	8572.568	1.076	7.532	0.285	0.246	0.417	N	A	8577.537	1.058	7.315	0.064	0.219	0.919	N
A	8572.573	1.087	7.313	0.067	0.217	0.919	N	A	8578.559	1.092	7.317	0.063	0.219	0.916	N
A	8574.517	1.041	7.297	0.063	0.220	0.921	N	P	8578.563	1.095	7.541	0.279	0.251	0.416	N
P	8574.521	1.039	7.514	0.282	0.251	0.412	N	P	8578.568	1.104	7.538	0.283	0.245	0.421	N
B	8574.525	1.043	7.200	0.281	0.171	0.464	N	B	8578.572	1.113	7.225	0.279	0.171	0.471	N
P	8574.529	1.043	7.516	0.282	0.249	0.414	N	P	8578.575	1.120	7.541	0.282	0.247	0.422	N
B	8574.533	1.047	7.204	0.280	0.174	0.460	N	A	8578.580	1.136	7.326	0.058	0.224	0.918	N

Catalogue 1990–1992

Group 2028 P=HD222925
A=HD220818 B=HD223285

Star	JD_{\odot}	X	V	$b-y$	m_1	c_1	Sys	Star	JD_{\odot}	X	V	$b-y$	m_1	c_1	Sys
A	8449.880	1.178	8.139	0.312	0.162	0.403	N	B	8537.700	1.224	8.517	0.306	0.168	0.440	N
P	8449.884	1.187	9.021	0.393	0.132	0.406	N	P	8537.704	1.231	9.037	0.397	0.130	0.416	N
B	8449.890	1.188	8.503	0.304	0.169	0.427	N	A	8537.709	1.251	8.163	0.313	0.162	0.403	N
A	8452.822	1.198	8.140	0.301	0.165	0.419	N	A	8538.707	1.254	8.147	0.307	0.166	0.405	N
P	8452.825	1.217	9.018	0.390	0.129	0.421	N	P	8538.711	1.247	9.020	0.396	0.129	0.417	N
B	8452.829	1.216	8.496	0.292	0.175	0.447	N	B	8538.716	1.252	8.495	0.306	0.165	0.452	N
P	8452.833	1.208	9.018	0.391	0.125	0.434	N	P	8538.720	1.262	9.017	0.395	0.133	0.410	N
B	8452.840	1.205	8.495	0.297	0.162	0.458	N	B	8538.724	1.269	8.495	0.304	0.164	0.449	N
P	8452.843	1.199	9.024	0.383	0.135	0.432	N	P	8538.728	1.280	9.013	0.395	0.123	0.428	N
A	8452.847	1.180	8.139	0.297	0.165	0.428	N	A	8538.733	1.315	8.125	0.310	0.162	0.407	N
P	8458.877	1.190	9.058	0.398	0.113	0.431	N	A	8539.670	1.201	8.145	0.312	0.163	0.407	N
P	8458.884	1.194	9.064	0.390	0.128	0.415	N	P	8539.674	1.202	9.025	0.395	0.128	0.418	N
B	8458.889	1.196	8.538	0.308	0.154	0.455	N	B	8539.678	1.206	8.507	0.302	0.172	0.447	N
P	8458.892	1.199	9.056	0.397	0.116	0.426	N	P	8539.682	1.210	9.018	0.399	0.125	0.423	N
A	8459.836	1.178	8.139	0.309	0.162	0.405	N	B	8539.687	1.214	8.507	0.302	0.170	0.454	N
P	8459.840	1.190	9.011	0.394	0.133	0.412	N	P	8539.691	1.220	9.017	0.400	0.127	0.414	N
A	8459.845	1.177	8.139	0.308	0.166	0.402	N	A	8539.696	1.237	8.137	0.312	0.163	0.407	N
P	8459.850	1.187	9.013	0.396	0.126	0.419	N	A	8546.621	1.180	8.140	0.313	0.160	0.413	N
B	8459.853	1.188	8.496	0.305	0.162	0.437	N	P	8546.629	1.188	9.021	0.398	0.129	0.414	N
P	8459.856	1.187	9.017	0.392	0.132	0.413	N	B	8546.633	1.190	8.505	0.306	0.164	0.454	N
B	8459.860	1.188	8.496	0.305	0.163	0.446	N	P	8546.638	1.191	9.016	0.403	0.117	0.433	N
A	8460.820	1.183	8.143	0.312	0.157	0.412	N	B	8546.642	1.194	8.509	0.302	0.169	0.447	N
P	8460.824	1.197	9.020	0.396	0.123	0.427	N	P	8546.647	1.196	9.021	0.397	0.125	0.423	N
B	8460.828	1.197	8.501	0.299	0.170	0.440	N	A	8546.651	1.202	8.143	0.311	0.160	0.414	N
P	8460.833	1.192	9.019	0.397	0.125	0.417	N	A	8549.640	1.198	8.142	0.309	0.166	0.404	N
B	8460.837	1.192	8.501	0.302	0.164	0.446	N	P	8549.644	1.201	9.015	0.399	0.124	0.419	N
P	8460.841	1.189	9.017	0.398	0.124	0.419	N	B	8549.649	1.204	8.498	0.304	0.170	0.445	N
A	8460.846	1.177	8.143	0.311	0.159	0.412	N	P	8549.653	1.209	9.016	0.394	0.130	0.420	N
A	8461.795	1.200	8.147	0.310	0.161	0.412	N	B	8549.658	1.213	8.497	0.303	0.169	0.450	N
P	8461.800	1.217	9.031	0.397	0.124	0.419	N	P	8549.662	1.219	9.016	0.393	0.132	0.415	N
B	8461.805	1.215	8.504	0.303	0.164	0.449	N	A	8549.666	1.235	8.134	0.312	0.161	0.405	N
P	8461.810	1.207	9.028	0.399	0.119	0.427	N	A	8550.657	1.223	8.142	0.312	0.157	0.418	N
B	8461.815	1.205	8.508	0.303	0.162	0.442	N	P	8550.661	1.221	9.016	0.401	0.123	0.422	N
P	8461.819	1.199	9.033	0.398	0.121	0.425	N	B	8550.666	1.226	8.499	0.307	0.164	0.448	N
A	8461.825	1.179	8.151	0.313	0.158	0.410	N	P	8550.670	1.234	9.016	0.400	0.127	0.411	N
A	8462.833	1.177	8.144	0.306	0.165	0.403	N	B	8550.675	1.239	8.498	0.307	0.164	0.455	N
P	8462.837	1.188	9.018	0.394	0.131	0.419	N	P	8550.678	1.248	9.013	0.397	0.131	0.415	N
B	8462.841	1.189	8.499	0.299	0.166	0.441	N	A	8550.683	1.274	8.137	0.312	0.163	0.406	N
P	8462.846	1.187	9.023	0.393	0.129	0.413	N	A	8556.647	1.236	8.136	0.315	0.157	0.413	N
B	8462.850	1.188	8.497	0.300	0.168	0.443	N	P	8556.652	1.232	9.015	0.399	0.122	0.422	N
P	8462.854	1.187	9.019	0.396	0.120	0.423	N	B	8556.657	1.237	8.495	0.305	0.167	0.448	N
A	8462.858	1.182	8.139	0.306	0.164	0.407	N	P	8556.661	1.246	9.000	0.402	0.118	0.428	N
A	8463.826	1.178	8.146	0.309	0.169	0.395	N	B	8556.666	1.252	8.498	0.306	0.165	0.448	N
P	8463.830	1.189	9.024	0.396	0.125	0.418	N	P	8556.669	1.262	9.007	0.399	0.122	0.427	N
B	8463.834	1.190	8.503	0.298	0.171	0.440	N	A	8556.674	1.292	8.123	0.316	0.156	0.408	N
P	8463.838	1.187	9.023	0.396	0.124	0.417	N	A	8557.614	1.195	8.138	0.310	0.164	0.405	N
B	8463.841	1.188	8.506	0.300	0.167	0.447	N	P	8557.619	1.198	9.016	0.398	0.125	0.425	N
P	8463.845	1.187	9.025	0.391	0.134	0.425	N	B	8557.623	1.201	8.498	0.306	0.166	0.448	N
A	8463.849	1.180	8.146	0.306	0.166	0.412	N	P	8557.628	1.206	9.018	0.398	0.124	0.425	N
A	8464.827	1.177	8.136	0.319	0.160	0.399	N	B	8557.633	1.210	8.500	0.305	0.165	0.451	N
P	8464.831	1.188	9.024	0.401	0.133	0.414	N	P	8557.637	1.215	9.017	0.395	0.132	0.418	N
B	8464.836	1.189	8.506	0.308	0.163	0.449	N	A	8557.641	1.230	8.137	0.312	0.158	0.416	N
P	8464.840	1.187	9.024	0.408	0.125	0.415	N	A	8562.631	1.236	8.138	0.309	0.158	0.413	N
B	8464.844	1.188	8.510	0.306	0.172	0.439	N	P	8562.635	1.232	9.016	0.394	0.120	0.437	N
P	8464.848	1.187	9.033	0.401	0.129	0.424	N	B	8562.640	1.237	8.499	0.302	0.163	0.448	N
A	8464.852	1.182	8.154	0.316	0.160	0.411	N	P	8562.644	1.247	9.013	0.395	0.127	0.421	N
A	8531.694	1.203	8.134	0.310	0.162	0.414	N	B	8562.649	1.252	8.498	0.301	0.163	0.463	N
P	8531.698	1.204	9.011	0.401	0.114	0.427	N	P	8562.653	1.262	9.014	0.395	0.125	0.425	N
P	8531.715	1.223	9.011	0.395	0.123	0.432	N	A	8562.657	1.292	8.136	0.309	0.161	0.409	N
B	8531.720	1.228	8.498	0.306	0.164	0.453	N	P	8563.626	1.222	9.019	0.391	0.136	0.415	N
A	8535.735	1.299	8.154	0.308	0.171	0.399	N	B	8563.630	1.227	8.500	0.303	0.167	0.445	N
P	8535.739	1.287	9.032	0.393	0.129	0.419	N	P	8563.635	1.235	9.019	0.393	0.130	0.415	N
B	8535.744	1.294	8.511	0.298	0.177	0.436	N	B	8563.639	1.241	8.500	0.303	0.166	0.451	N
P	8535.748	1.308	9.030	0.394	0.136	0.406	N	P	8563.643	1.250	9.021	0.389	0.135	0.417	N
P	8535.753	1.322	9.026	0.394	0.131	0.421	N	A	8563.648	1.276	8.133	0.308	0.167	0.404	N
A	8535.758	1.367	8.143	0.309	0.168	0.404	N	A	8566.653	1.310	8.149	0.312	0.162	0.407	N
A	8537.683	1.210	8.151	0.314	0.160	0.401	N	P	8566.657	1.297	9.026	0.395	0.126	0.427	N
P	8537.687	1.209	9.032	0.399	0.128	0.408	N	B	8566.662	1.306	8.506	0.301	0.170	0.449	N
B	8537.692	1.213	8.512	0.308	0.167	0.435	N	P	8566.667	1.322	9.015	0.396	0.128	0.420	N
P	8537.696	1.219	9.035	0.396	0.134	0.401	N	B	8566.672	1.331	8.493	0.301	0.170	0.443	N

Long Term Photometry of Variables

Group 2028 P=HD222925 (continued)
A=HD220818 B=HD223285

Star	JD_{\odot}	X	V	$b - y$	m_1	c_1	Sys	Star	JD_{\odot}	X	V	$b - y$	m_1	c_1	Sys
P	8566.675	1.347	9.007	0.392	0.126	0.416	N	A	8576.646	1.374	8.134	0.306	0.169	0.404	N
A	8566.680	1.399	8.110	0.304	0.168	0.404	N	P	8576.650	1.356	9.012	0.395	0.129	0.413	N
A	8572.604	1.238	8.142	0.310	0.164	0.413	N	B	8576.655	1.365	8.497	0.301	0.167	0.457	N
P	8572.608	1.233	9.020	0.396	0.128	0.420	N	P	8576.659	1.386	9.015	0.389	0.141	0.404	N
B	8572.613	1.239	8.502	0.304	0.167	0.454	N	B	8576.664	1.396	8.501	0.299	0.171	0.456	N
P	8572.617	1.248	9.016	0.393	0.136	0.417	N	P	8576.668	1.418	9.016	0.396	0.130	0.407	N
B	8572.622	1.254	8.498	0.301	0.170	0.448	N	A	8576.673	1.485	8.135	0.309	0.166	0.403	N
P	8572.626	1.264	9.013	0.395	0.126	0.423	N	A	8577.571	1.210	8.146	0.314	0.157	0.410	N
A	8572.631	1.295	8.132	0.310	0.162	0.409	N	P	8577.576	1.210	9.026	0.395	0.126	0.418	N
A	8574.575	1.205	8.134	0.305	0.169	0.404	N	B	8577.581	1.214	8.509	0.301	0.171	0.450	N
P	8574.580	1.206	9.014	0.390	0.137	0.411	N	P	8577.585	1.221	9.025	0.394	0.133	0.413	N
B	8574.585	1.209	8.499	0.294	0.179	0.443	N	B	8577.590	1.225	8.508	0.301	0.169	0.456	N
P	8574.589	1.215	9.012	0.392	0.132	0.417	N	P	8577.594	1.232	9.027	0.389	0.135	0.416	N
B	8574.594	1.219	8.498	0.297	0.173	0.453	N	A	8577.598	1.253	8.141	0.307	0.166	0.411	N
P	8574.597	1.226	9.013	0.389	0.137	0.418	N	A	8578.620	1.311	8.146	0.310	0.161	0.409	N
A	8574.602	1.245	8.137	0.304	0.169	0.398	N	P	8578.624	1.298	9.027	0.393	0.127	0.421	N
A	8575.615	1.277	8.133	0.305	0.162	0.413	N	B	8578.629	1.306	8.506	0.301	0.173	0.448	N
P	8575.619	1.268	9.007	0.392	0.128	0.427	N	P	8578.633	1.322	9.023	0.396	0.130	0.416	N
P	8575.624	1.279	9.008	0.393	0.127	0.416	N	B	8578.638	1.330	8.507	0.303	0.169	0.443	N
B	8575.629	1.286	8.494	0.298	0.169	0.455	N	P	8578.642	1.347	9.027	0.390	0.133	0.415	N
P	8575.633	1.299	9.007	0.391	0.130	0.415	N	A	8578.646	1.397	8.146	0.307	0.167	0.408	N
A	8575.637	1.338	8.130	0.306	0.163	0.410	N								

Catalogue 1990–1992

Group 2029 P=HD2209
A=HD2653 B=HD3562

Star	JD ₀	X	V	b - y	m ₁	c ₁	Sys	Star	JD ₀	X	V	b - y	m ₁	c ₁	Sys
P	8458.918	1.087	8.404	0.250	0.155	0.484	N	B	8545.647	1.076	7.991	0.095	0.211	0.904	N
B	8458.921	1.082	8.004	0.095	0.199	0.908	N	P	8545.650	1.075	8.394	0.248	0.174	0.464	N
P	8458.925	1.093	8.411	0.247	0.160	0.484	N	A	8545.655	1.074	9.023	0.257	0.168	0.471	N
B	8458.930	1.089	8.008	0.091	0.202	0.909	N	A	8546.707	1.117	9.007	0.253	0.163	0.487	N
P	8458.933	1.102	8.411	0.249	0.158	0.482	N	P	8546.711	1.129	8.372	0.245	0.169	0.479	N
A	8458.937	1.102	9.049	0.262	0.145	0.495	N	B	8546.716	1.121	7.970	0.092	0.207	0.914	N
A	8459.864	1.081	9.013	0.256	0.159	0.485	N	P	8546.719	1.144	8.374	0.242	0.175	0.470	N
P	8459.867	1.079	8.372	0.247	0.168	0.474	N	B	8546.724	1.136	7.970	0.094	0.204	0.914	N
B	8459.871	1.081	7.972	0.090	0.210	0.905	N	P	8546.728	1.162	8.374	0.247	0.166	0.480	N
P	8459.874	1.076	8.374	0.246	0.169	0.467	N	A	8546.732	1.165	9.009	0.260	0.153	0.495	N
B	8459.878	1.077	7.971	0.092	0.206	0.910	N	A	8548.648	1.074	9.030	0.254	0.163	0.483	N
P	8459.882	1.075	8.369	0.250	0.163	0.474	N	P	8548.652	1.076	8.388	0.242	0.177	0.468	N
A	8459.885	1.074	9.014	0.254	0.163	0.485	N	B	8548.657	1.075	7.985	0.088	0.215	0.904	N
A	8460.850	1.090	9.016	0.254	0.163	0.485	N	P	8548.661	1.080	8.387	0.242	0.177	0.465	N
P	8460.854	1.085	8.379	0.243	0.173	0.472	N	B	8548.666	1.077	7.979	0.090	0.214	0.902	N
B	8460.858	1.088	7.978	0.092	0.209	0.909	N	P	8548.670	1.085	8.381	0.242	0.178	0.464	N
P	8460.862	1.080	8.379	0.245	0.173	0.465	N	A	8548.674	1.085	9.018	0.253	0.165	0.485	N
B	8460.866	1.082	7.972	0.093	0.205	0.918	N	A	8549.610	1.086	9.018	0.258	0.165	0.483	N
P	8460.873	1.076	8.384	0.244	0.169	0.482	N	P	8549.614	1.082	8.375	0.248	0.174	0.467	N
A	8461.831	1.108	9.026	0.259	0.152	0.496	N	B	8549.619	1.084	7.975	0.092	0.212	0.910	N
P	8461.836	1.099	8.386	0.249	0.164	0.482	N	P	8549.623	1.078	8.377	0.248	0.168	0.479	N
B	8461.840	1.103	7.986	0.094	0.208	0.908	N	B	8549.628	1.079	7.977	0.092	0.212	0.903	N
P	8461.846	1.089	8.388	0.250	0.163	0.477	N	P	8549.632	1.075	8.376	0.245	0.175	0.470	N
B	8461.851	1.092	7.987	0.096	0.204	0.910	N	A	8549.636	1.074	9.021	0.252	0.166	0.487	N
P	8461.855	1.082	8.392	0.251	0.161	0.488	N	A	8550.627	1.076	9.013	0.259	0.158	0.483	N
A	8461.860	1.080	9.034	0.257	0.162	0.473	N	P	8550.631	1.075	8.375	0.250	0.168	0.475	N
A	8462.862	1.078	9.014	0.253	0.159	0.488	N	B	8550.636	1.075	7.978	0.092	0.210	0.908	N
P	8462.866	1.076	8.375	0.244	0.171	0.470	N	P	8550.640	1.075	8.375	0.247	0.169	0.480	N
B	8462.870	1.077	7.969	0.089	0.212	0.907	N	B	8550.645	1.074	7.975	0.093	0.209	0.904	N
P	8462.874	1.075	8.376	0.243	0.170	0.471	N	P	8550.649	1.077	8.377	0.245	0.169	0.482	N
B	8462.878	1.075	7.970	0.086	0.214	0.905	N	A	8550.653	1.077	9.012	0.258	0.160	0.488	N
P	8462.882	1.075	8.375	0.240	0.176	0.468	N	A	8555.633	1.075	9.010	0.262	0.147	0.503	N
A	8462.886	1.074	9.011	0.252	0.161	0.488	N	P	8555.638	1.078	8.372	0.248	0.165	0.483	N
A	8463.853	1.081	9.014	0.261	0.151	0.495	N	B	8555.642	1.076	7.970	0.094	0.207	0.910	N
P	8463.857	1.079	8.381	0.241	0.175	0.473	N	P	8555.646	1.082	8.374	0.248	0.165	0.481	N
B	8463.860	1.080	7.977	0.090	0.213	0.901	N	B	8555.651	1.079	7.970	0.095	0.204	0.918	N
P	8463.865	1.076	8.377	0.247	0.167	0.472	N	P	8555.655	1.089	8.371	0.251	0.160	0.482	N
B	8463.869	1.076	7.978	0.090	0.212	0.903	N	A	8555.660	1.089	9.010	0.258	0.158	0.493	N
P	8463.873	1.075	8.379	0.246	0.167	0.484	N	A	8556.618	1.074	9.015	0.259	0.163	0.484	N
A	8463.876	1.074	9.022	0.249	0.170	0.480	N	P	8556.622	1.075	8.378	0.247	0.172	0.472	N
A	8464.860	1.076	9.026	0.267	0.150	0.485	N	B	8556.627	1.074	7.975	0.093	0.209	0.912	N
P	8464.864	1.076	8.387	0.257	0.166	0.468	N	P	8556.631	1.077	8.373	0.252	0.166	0.479	N
B	8464.868	1.076	7.990	0.095	0.212	0.902	N	B	8556.636	1.075	7.972	0.092	0.210	0.912	N
P	8464.872	1.075	8.392	0.254	0.165	0.472	N	P	8556.640	1.080	8.372	0.249	0.168	0.478	N
B	8464.876	1.074	7.986	0.103	0.205	0.903	N	A	8556.644	1.080	9.011	0.260	0.158	0.485	N
P	8464.880	1.076	8.391	0.255	0.166	0.471	N	A	8557.585	1.089	9.010	0.258	0.160	0.484	N
A	8535.665	1.077	9.040	0.256	0.169	0.478	N	P	8557.589	1.084	8.370	0.248	0.167	0.477	N
P	8535.669	1.076	8.403	0.246	0.177	0.460	N	B	8557.593	1.087	7.969	0.095	0.207	0.909	N
B	8535.674	1.076	7.999	0.091	0.213	0.902	N	P	8557.598	1.079	8.372	0.249	0.165	0.484	N
P	8535.677	1.075	8.404	0.245	0.171	0.479	N	B	8557.602	1.081	7.969	0.095	0.209	0.906	N
B	8535.682	1.074	8.003	0.090	0.215	0.901	N	P	8557.607	1.076	8.373	0.248	0.167	0.478	N
P	8535.686	1.076	8.409	0.243	0.177	0.470	N	A	8557.611	1.075	9.011	0.260	0.153	0.492	N
A	8535.691	1.075	9.040	0.255	0.165	0.490	N	A	8558.638	1.080	9.007	0.252	0.170	0.481	N
A	8536.666	1.076	9.050	0.255	0.159	0.488	N	P	8558.643	1.086	8.367	0.246	0.170	0.476	N
P	8536.669	1.075	8.410	0.247	0.166	0.475	N	B	8558.647	1.082	7.963	0.091	0.214	0.899	N
B	8536.674	1.075	8.006	0.090	0.210	0.906	N	P	8558.651	1.093	8.367	0.244	0.175	0.470	N
P	8536.678	1.075	8.408	0.247	0.164	0.482	N	B	8558.656	1.089	7.964	0.090	0.214	0.903	N
B	8536.683	1.074	7.993	0.094	0.206	0.910	N	P	8558.660	1.103	8.368	0.243	0.177	0.470	N
P	8536.686	1.077	8.397	0.242	0.175	0.471	N	A	8558.665	1.104	9.009	0.255	0.163	0.483	N
A	8536.691	1.076	9.033	0.254	0.162	0.488	N	A	8562.601	1.074	9.000	0.261	0.150	0.499	N
A	8538.655	1.077	9.028	0.256	0.159	0.492	N	P	8562.605	1.075	8.367	0.246	0.169	0.477	N
P	8538.666	1.075	8.379	0.246	0.168	0.475	N	B	8562.610	1.074	7.964	0.091	0.211	0.908	N
P	8538.674	1.075	8.391	0.242	0.170	0.475	N	P	8562.614	1.077	8.369	0.242	0.174	0.479	N
B	8538.679	1.074	7.983	0.090	0.211	0.907	N	B	8562.619	1.075	7.964	0.091	0.211	0.910	N
P	8538.683	1.077	8.388	0.244	0.169	0.476	N	P	8562.623	1.080	8.365	0.246	0.169	0.482	N
A	8538.687	1.077	9.023	0.256	0.157	0.489	N	A	8562.627	1.080	9.007	0.256	0.158	0.487	N
A	8545.630	1.080	9.023	0.265	0.158	0.478	N	A	8563.595	1.074	9.020	0.258	0.159	0.488	N
P	8545.634	1.078	8.382	0.254	0.166	0.471	N	P	8563.600	1.075	8.380	0.246	0.174	0.467	N
B	8545.638	1.079	7.979	0.096	0.211	0.903	N	B	8563.604	1.074	7.974	0.094	0.210	0.903	N
P	8545.642	1.076	8.380	0.253	0.168	0.469	N	P	8563.609	1.076	8.382	0.245	0.172	0.475	N

Long Term Photometry of Variables

Group 2029 P=HD2209 (continued)
A=HD2653 B=HD3562

Star	JD_{\odot}	X	V	$b - y$	m_1	c_1	Sys	Star	JD_{\odot}	X	V	$b - y$	m_1	c_1	Sys
B	8563.613	1.074	7.977	0.089	0.215	0.904	N	B	8575.598	1.081	7.971	0.087	0.213	0.908	N
P	8563.617	1.079	8.381	0.242	0.176	0.470	N	P	8575.602	1.091	8.374	0.241	0.172	0.475	N
A	8563.622	1.079	9.017	0.254	0.165	0.479	N	B	8575.607	1.087	7.968	0.090	0.209	0.912	N
A	8566.623	1.084	9.053	0.261	0.157	0.486	N	A	8575.611	1.097	9.012	0.251	0.166	0.487	N
P	8566.627	1.092	8.415	0.246	0.171	0.473	N	A	8576.616	1.106	9.010	0.252	0.165	0.477	N
B	8566.632	1.087	8.011	0.093	0.212	0.900	N	P	8576.620	1.117	8.369	0.244	0.172	0.470	N
P	8566.636	1.101	8.409	0.252	0.167	0.470	N	B	8576.625	1.110	7.968	0.090	0.212	0.905	N
B	8566.641	1.096	8.007	0.096	0.211	0.899	N	P	8576.629	1.132	8.369	0.244	0.171	0.473	N
P	8566.645	1.112	8.409	0.250	0.169	0.477	N	B	8576.634	1.124	7.968	0.087	0.216	0.901	N
A	8566.649	1.114	9.044	0.263	0.154	0.484	N	P	8576.638	1.149	8.368	0.245	0.173	0.472	N
A	8572.576	1.074	9.014	0.263	0.149	0.510	N	A	8576.642	1.151	9.008	0.253	0.162	0.488	N
P	8572.579	1.075	8.376	0.250	0.169	0.471	N	A	8577.542	1.080	9.018	0.261	0.154	0.495	N
B	8572.583	1.074	7.976	0.094	0.211	0.903	N	P	8577.546	1.077	8.384	0.246	0.169	0.478	N
P	8572.587	1.077	8.375	0.247	0.170	0.477	N	B	8577.551	1.078	7.982	0.090	0.216	0.903	N
B	8572.592	1.075	7.975	0.091	0.215	0.901	N	P	8577.555	1.075	8.382	0.247	0.170	0.472	N
P	8572.596	1.081	8.377	0.246	0.170	0.478	N	B	8577.559	1.075	7.981	0.091	0.211	0.911	N
A	8572.601	1.081	9.014	0.259	0.156	0.492	N	P	8577.564	1.075	8.383	0.247	0.167	0.480	N
A	8574.546	1.083	9.001	0.254	0.162	0.483	N	A	8577.568	1.074	9.023	0.253	0.167	0.482	N
P	8574.550	1.079	8.363	0.239	0.177	0.473	N	A	8578.585	1.081	9.025	0.260	0.153	0.496	N
B	8574.555	1.081	7.959	0.089	0.215	0.904	N	P	8578.589	1.087	8.391	0.240	0.176	0.476	N
P	8574.559	1.076	8.362	0.246	0.167	0.478	N	B	8578.594	1.084	7.983	0.088	0.214	0.905	N
B	8574.563	1.077	7.962	0.088	0.218	0.895	N	P	8578.598	1.096	8.385	0.243	0.173	0.479	N
P	8574.568	1.075	8.362	0.244	0.174	0.471	N	B	8578.602	1.091	7.980	0.088	0.216	0.904	N
A	8574.572	1.074	9.006	0.251	0.169	0.477	N	A	8578.607	1.102	9.019	0.258	0.157	0.487	N
A	8575.586	1.078	9.014	0.253	0.163	0.479	N	P	8578.612	1.113	8.382	0.242	0.174	0.478	N
P	8575.593	1.084	8.377	0.241	0.174	0.479	N	A	8578.616	1.114	9.021	0.254	0.163	0.482	N

Catalogue 1990–1992

Group 2030 P=HD19918															
A=HD19733 B=HD22056															
Star	JD_{\odot}	X	V	$b - y$	m_1	c_1	Sys	Star	JD_{\odot}	X	V	$b - y$	m_1	c_1	Sys
A	8536.692	1.667	7.933	0.235	0.174	0.584	N	A	8574.632	1.626	7.815	0.223	0.178	0.592	N
P	8536.696	1.689	9.347	0.159	0.247	0.793	N	P	8574.637	1.652	9.371	0.151	0.257	0.777	N
B	8536.701	1.711	8.311	0.270	0.162	0.440	N	B	8574.641	1.671	8.330	0.270	0.157	0.434	N
P	8536.705	1.680	9.354	0.162	0.252	0.770	N	P	8574.646	1.648	9.373	0.157	0.247	0.781	N
B	8536.710	1.701	8.294	0.275	0.158	0.432	N	B	8574.650	1.666	8.333	0.267	0.162	0.427	N
P	8536.714	1.671	9.329	0.153	0.262	0.776	N	P	8574.655	1.645	9.373	0.150	0.266	0.760	N
A	8536.719	1.639	7.853	0.237	0.174	0.573	N	A	8574.659	1.615	7.815	0.228	0.170	0.592	N
A	8546.679	1.651	7.887	0.229	0.173	0.602	N	A	8575.642	1.620	7.790	0.224	0.173	0.593	N
P	8546.683	1.675	9.358	0.162	0.244	0.774	N	P	8575.646	1.647	9.326	0.153	0.249	0.787	N
B	8546.687	1.696	8.314	0.275	0.154	0.433	N	B	8575.650	1.664	8.285	0.266	0.164	0.428	N
P	8546.691	1.668	9.358	0.162	0.244	0.795	N	P	8575.655	1.645	9.332	0.149	0.260	0.781	N
B	8546.695	1.688	8.316	0.272	0.150	0.445	N	B	8575.660	1.661	8.291	0.270	0.156	0.436	N
P	8546.699	1.661	9.355	0.160	0.243	0.797	N	P	8575.664	1.643	9.334	0.154	0.252	0.776	N
A	8546.734	1.615	7.961	0.227	0.172	0.608	N	A	8575.669	1.613	7.836	0.227	0.173	0.594	N
A	8546.734	1.615	7.961	0.227	0.172	0.608	N	A	8576.677	1.614	7.930	0.223	0.178	0.595	N
A	8550.687	1.634	7.800	0.233	0.166	0.587	N	P	8576.681	1.644	9.339	0.153	0.256	0.761	N
P	8550.691	1.659	9.342	0.164	0.239	0.780	N	B	8576.687	1.656	8.298	0.271	0.156	0.428	N
B	8550.695	1.679	8.304	0.273	0.153	0.433	N	P	8576.692	1.646	9.337	0.156	0.248	0.776	N
P	8550.700	1.654	9.343	0.161	0.239	0.785	N	B	8576.696	1.657	8.295	0.269	0.159	0.427	N
B	8550.704	1.673	8.306	0.271	0.151	0.439	N	P	8576.701	1.649	9.336	0.156	0.247	0.780	N
P	8550.709	1.650	9.344	0.161	0.241	0.793	N	A	8576.705	1.622	7.927	0.224	0.174	0.594	N
A	8550.713	1.619	7.818	0.235	0.164	0.587	N	A	8577.638	1.619	7.932	0.225	0.176	0.597	N
A	8557.645	1.655	7.784	0.231	0.170	0.589	N	P	8577.642	1.647	9.348	0.147	0.263	0.784	N
P	8557.649	1.678	9.327	0.156	0.255	0.782	N	B	8577.647	1.663	8.298	0.268	0.158	0.430	N
B	8557.653	1.700	8.286	0.274	0.155	0.432	N	P	8577.652	1.644	9.341	0.152	0.252	0.789	N
P	8557.658	1.670	9.332	0.155	0.254	0.784	N	B	8577.656	1.660	8.295	0.273	0.153	0.436	N
B	8557.662	1.691	8.288	0.274	0.155	0.426	N	P	8577.671	1.643	9.335	0.164	0.238	0.786	N
P	8557.667	1.663	9.334	0.161	0.245	0.795	N	A	8577.688	1.617	7.891	0.225	0.172	0.603	N
A	8557.671	1.631	7.806	0.232	0.171	0.590	N	A	8578.651	1.614	7.886	0.225	0.178	0.589	N
A	8563.652	1.633	7.793	0.227	0.173	0.591	N	P	8578.655	1.643	9.348	0.157	0.259	0.757	N
P	8563.656	1.658	9.333	0.155	0.245	0.788	N	B	8578.660	1.658	8.302	0.272	0.157	0.429	N
B	8563.661	1.678	8.288	0.267	0.164	0.422	N	P	8578.664	1.643	9.348	0.153	0.264	0.759	N
P	8563.665	1.653	9.328	0.162	0.245	0.782	N	B	8578.669	1.657	8.302	0.271	0.161	0.425	N
B	8563.670	1.672	8.291	0.265	0.161	0.434	N	P	8578.674	1.643	9.339	0.161	0.249	0.770	N
P	8563.680	1.647	9.323	0.161	0.246	0.770	N	A	8578.678	1.615	7.837	0.225	0.179	0.587	N
A	8563.685	1.616	7.836	0.224	0.177	0.590	N								

Long Term Photometry of Variables

Group 2031								P=HD28430							
A=HD28107								B=HD28358							
Star	JD_{\odot}	X	V	$b-y$	m_1	c_1	Sys	Star	JD_{\odot}	X	V	$b-y$	m_1	c_1	Sys
A	8461.906	1.321	7.402	-0.029	0.105	0.541	N	B	8653.649	1.297	6.734	0.030	0.179	0.956	N
P	8461.911	1.306	8.256	0.125	0.175	0.969	N	P	8653.651	1.302	8.223	0.117	0.188	0.962	N
B	8461.915	1.281	6.759	0.043	0.164	0.974	N	A	8653.654	1.328	7.373	-0.038	0.121	0.531	N
P	8461.920	1.263	8.261	0.120	0.182	0.968	N	A	8654.611	1.161	7.382	-0.034	0.112	0.520	N
B	8461.924	1.243	6.759	0.042	0.168	0.968	N	P	8654.612	1.158	8.231	0.116	0.189	0.943	N
P	8461.927	1.228	8.259	0.122	0.178	0.969	N	B	8654.614	1.166	6.740	0.029	0.175	0.969	N
A	8461.931	1.203	7.394	-0.027	0.110	0.530	N	P	8654.616	1.169	8.240	0.111	0.192	0.945	N
A	8462.900	1.340	7.362	-0.040	0.115	0.529	N	B	8654.617	1.175	6.742	0.031	0.175	0.965	N
P	8462.913	1.283	8.220	0.113	0.187	0.951	N	P	8654.618	1.177	8.238	0.110	0.193	0.941	N
B	8462.917	1.259	6.729	0.026	0.178	0.959	N	A	8654.620	1.191	7.381	-0.041	0.118	0.530	N
P	8462.921	1.243	8.217	0.115	0.184	0.954	N	A	8655.547	1.039	7.382	-0.032	0.107	0.534	N
B	8462.926	1.223	6.728	0.028	0.175	0.957	N	P	8655.549	1.039	8.236	0.112	0.199	0.943	N
P	8462.930	1.208	8.219	0.111	0.189	0.952	N	B	8655.550	1.041	6.743	0.032	0.177	0.952	N
A	8462.934	1.184	7.368	-0.042	0.114	0.536	N	P	8655.551	1.041	8.237	0.114	0.191	0.945	N
A	8646.559	1.024	7.363	-0.034	0.111	0.532	N	B	8655.552	1.044	6.744	0.031	0.177	0.959	N
P	8646.564	1.026	8.221	0.115	0.194	0.948	N	P	8655.553	1.044	8.238	0.117	0.187	0.957	N
B	8646.568	1.031	6.729	0.036	0.168	0.970	N	A	8655.555	1.048	7.376	-0.032	0.109	0.537	N
P	8646.571	1.032	8.219	0.120	0.186	0.952	N	A	8656.545	1.039	7.385	-0.041	0.118	0.530	N
B	8646.574	1.036	6.733	0.034	0.169	0.972	N	P	8656.547	1.040	8.238	0.109	0.201	0.945	N
P	8646.578	1.039	8.220	0.119	0.188	0.951	N	B	8656.548	1.043	6.737	0.033	0.171	0.962	N
A	8646.583	1.046	7.366	-0.033	0.109	0.538	N	P	8656.550	1.043	8.228	0.121	0.182	0.946	N
A	8647.561	1.028	7.372	-0.036	0.113	0.542	N	B	8656.551	1.046	6.736	0.036	0.169	0.963	N
P	8647.564	1.029	8.227	0.116	0.186	0.958	N	P	8656.552	1.046	8.227	0.118	0.188	0.945	N
B	8647.568	1.033	6.733	0.030	0.179	0.949	N	A	8656.554	1.050	7.375	-0.031	0.104	0.538	N
P	8647.570	1.034	8.229	0.114	0.191	0.950	N	A	8657.567	1.069	7.356	-0.036	0.115	0.529	N
B	8647.572	1.037	6.729	0.035	0.168	0.959	N	P	8657.569	1.069	8.206	0.114	0.196	0.950	N
P	8647.574	1.037	8.218	0.120	0.184	0.948	N	B	8657.570	1.073	6.716	0.032	0.174	0.965	N
A	8647.575	1.040	7.369	-0.034	0.117	0.528	N	P	8657.572	1.075	8.210	0.113	0.193	0.944	N
A	8652.573	1.056	7.359	-0.028	0.104	0.527	N	B	8657.573	1.079	6.714	0.036	0.169	0.961	N
P	8652.575	1.057	8.218	0.112	0.196	0.946	N	P	8657.575	1.080	8.204	0.113	0.197	0.943	N
B	8652.577	1.061	6.723	0.034	0.174	0.954	N	A	8657.577	1.088	7.351	-0.033	0.111	0.534	N
P	8652.579	1.063	8.220	0.111	0.194	0.951	N	A	8658.544	1.040	7.357	-0.036	0.112	0.533	N
B	8652.580	1.067	6.723	0.035	0.171	0.963	N	P	8658.546	1.040	8.198	0.120	0.187	0.950	N
P	8652.582	1.068	8.220	0.110	0.195	0.954	N	B	8658.547	1.043	6.714	0.033	0.171	0.966	N
A	8652.585	1.077	7.357	-0.035	0.115	0.529	N	P	8658.550	1.045	8.202	0.121	0.185	0.939	N
A	8653.631	1.219	7.361	-0.034	0.114	0.534	N	B	8658.551	1.048	6.714	0.031	0.177	0.960	N
P	8653.634	1.221	8.221	0.113	0.197	0.954	N	P	8658.552	1.048	8.203	0.114	0.196	0.944	N
B	8653.636	1.232	6.727	0.030	0.181	0.959	N	A	8658.555	1.054	7.352	-0.036	0.118	0.523	N
P	8653.639	1.244	8.224	0.112	0.195	0.953	N								

Catalogue 1990-1992

Group 3001 P=HD 26750 A=HD 26902 B=HD 26465															
Star	JD _⊙	X	V	b - y	m ₁	c ₁	Sys	Star	JD _⊙	X	V	b - y	m ₁	c ₁	Sys
A	8185.763	1.076	8.088	0.577	0.397	0.250	N	P	8493.867	1.192	7.054	1.285	-0.067	1.027	N
P	8185.773	1.066	7.425	1.334	-0.299	1.279	N	A	8493.869	1.184	8.100	0.589	0.380	0.269	N
B	8185.779	1.055	7.736	0.694	0.599	0.160	N	A	8511.851	1.104	8.099	0.579	0.383	0.275	N
P	8185.784	1.059	7.425	1.331	-0.293	1.261	N	P	8511.855	1.096	7.704	1.359	-0.526	1.459	N
B	8185.789	1.052	7.738	0.694	0.600	0.155	N	B	8511.861	1.077	7.746	0.693	0.599	0.157	N
P	8185.794	1.057	7.426	1.331	-0.295	1.273	N	P	8511.865	1.080	7.696	1.361	-0.530	1.479	N
A	8185.799	1.056	8.092	0.579	0.389	0.259	N	B	8511.869	1.067	7.745	0.690	0.602	0.163	N
A	8197.665	1.268	8.096	0.576	0.391	0.263	N	P	8511.873	1.071	7.697	1.359	-0.527	1.463	N
P	8197.671	1.239	7.491	1.346	-0.378	1.352	N	A	8511.878	1.065	8.110	0.577	0.394	0.248	N
B	8197.681	1.182	7.738	0.692	0.599	0.179	N	A	8513.803	1.240	8.085	0.579	0.386	0.268	N
P	8197.686	1.177	7.489	1.348	-0.378	1.352	N	P	8513.807	1.220	7.730	1.367	-0.561	1.491	N
B	8197.692	1.145	7.736	0.694	0.595	0.159	N	B	8513.812	1.183	7.736	0.693	0.592	0.171	N
P	8197.697	1.142	7.490	1.347	-0.379	1.355	N	P	8513.816	1.183	7.733	1.364	-0.552	1.484	N
A	8197.704	1.126	8.095	0.577	0.387	0.278	N	B	8513.821	1.152	7.737	0.698	0.588	0.169	N
A	8216.602	1.328	8.099	0.580	0.387	0.271	N	P	8513.826	1.152	7.737	1.370	-0.562	1.487	N
P	8216.609	1.289	7.639	1.368	-0.516	1.450	N	A	8513.831	1.138	8.098	0.579	0.388	0.264	N
B	8216.615	1.240	7.739	0.695	0.596	0.163	N	A	8523.738	1.481	8.076	0.578	0.381	0.264	N
P	8216.621	1.231	7.637	1.366	-0.512	1.460	N	P	8523.743	1.438	7.784	1.366	-0.566	1.492	N
B	8216.627	1.191	7.737	0.694	0.598	0.166	N	B	8523.748	1.372	7.724	0.695	0.588	0.167	N
P	8216.632	1.186	7.635	1.367	-0.518	1.447	N	P	8523.754	1.360	7.783	1.368	-0.567	1.504	N
A	8216.637	1.169	8.090	0.579	0.387	0.272	N	B	8523.759	1.308	7.720	0.695	0.588	0.160	N
A	8232.569	1.271	8.107	0.582	0.385	0.268	N	P	8523.763	1.303	7.783	1.369	-0.576	1.491	N
P	8232.573	1.246	7.361	1.324	-0.270	1.245	N	A	8523.768	1.281	8.078	0.578	0.380	0.262	N
B	8232.578	1.209	7.751	0.693	0.602	0.161	N	A	8531.783	1.138	8.082	0.582	0.381	0.268	N
P	8232.583	1.206	7.358	1.324	-0.272	1.258	N	P	8531.787	1.126	7.690	1.355	-0.458	1.401	N
B	8232.587	1.174	7.746	0.694	0.596	0.173	N	B	8531.794	1.102	7.733	0.699	0.589	0.158	N
P	8232.592	1.174	7.354	1.322	-0.267	1.244	N	P	8531.797	1.104	7.689	1.356	-0.457	1.392	N
A	8232.596	1.162	8.099	0.579	0.387	0.267	N	B	8531.803	1.084	7.733	0.698	0.587	0.168	N
A	8255.559	1.096	8.104	0.575	0.397	0.258	N	P	8531.807	1.087	7.694	1.352	-0.450	1.402	N
P	8255.563	1.089	7.297	1.319	-0.236	1.229	N	A	8531.812	1.080	8.092	0.583	0.380	0.266	N
B	8255.575	1.064	7.742	0.689	0.602	0.160	N	A	8547.701	1.295	8.096	0.579	0.392	0.276	N
P	8255.579	1.068	7.295	1.316	-0.237	1.217	N	P	8547.705	1.270	7.634	1.333	-0.376	1.338	N
B	8255.584	1.057	7.740	0.690	0.604	0.161	N	B	8547.710	1.230	7.732	0.692	0.604	0.161	N
P	8255.589	1.061	7.300	1.314	-0.230	1.211	N	P	8547.714	1.229	7.633	1.334	-0.378	1.322	N
A	8255.593	1.058	8.100	0.572	0.397	0.263	N	B	8547.718	1.195	7.734	0.693	0.601	0.160	N
A	8286.586	1.153	8.097	0.577	0.393	0.274	N	P	8547.723	1.193	7.634	1.331	-0.371	1.337	N
P	8286.589	1.167	7.270	1.315	-0.230	1.206	N	A	8547.729	1.173	8.083	0.578	0.388	0.270	N
B	8286.591	1.173	7.742	0.695	0.594	0.160	N	A	8562.670	1.247	8.094	0.581	0.385	0.268	N
P	8286.594	1.184	7.271	1.318	-0.236	1.193	N	P	8562.676	1.218	7.838	1.361	-0.532	1.480	N
B	8286.596	1.189	7.745	0.690	0.602	0.154	N	P	8562.683	1.191	7.838	1.362	-0.532	1.462	N
P	8286.598	1.198	7.271	1.313	-0.227	1.168	N	A	8562.687	1.179	8.094	0.580	0.385	0.262	N
A	8286.600	1.199	8.104	0.571	0.396	0.263	N	B	8562.696	1.135	7.739	0.695	0.591	0.172	N
A	8486.862	1.301	8.095	0.585	0.375	0.275	N	A	8562.699	1.142	8.090	0.587	0.376	0.277	N
P	8486.865	1.281	6.896	1.275	0.035	0.919	N	P	8562.701	1.134	7.837	1.361	-0.538	1.490	N
B	8486.870	1.240	7.743	0.697	0.588	0.172	N	B	8562.706	1.110	7.736	0.695	0.591	0.170	N
P	8486.873	1.242	6.894	1.274	0.035	0.924	N	P	8562.710	1.112	7.839	1.359	-0.528	1.452	N
B	8486.877	1.208	7.745	0.692	0.599	0.161	N	A	8562.714	1.104	8.093	0.579	0.385	0.270	N
P	8486.880	1.211	6.893	1.275	0.034	0.935	N	A	8576.726	1.056	8.085	0.577	0.394	0.256	N
A	8486.884	1.199	8.092	0.583	0.382	0.268	N	P	8576.730	1.058	8.028	1.382	-0.683	1.609	N
A	8493.854	1.247	8.098	0.580	0.390	0.268	N	B	8576.735	1.054	7.734	0.691	0.601	0.156	N
P	8493.856	1.235	7.051	1.288	-0.071	1.024	N	P	8576.740	1.061	8.028	1.383	-0.684	1.590	N
B	8493.859	1.205	7.746	0.696	0.604	0.154	N	B	8576.745	1.060	7.744	0.694	0.597	0.158	N
P	8493.862	1.209	7.049	1.287	-0.067	1.020	N	P	8576.750	1.069	8.032	1.380	-0.681	1.622	N
B	8493.865	1.183	7.745	0.697	0.600	0.149	N	A	8576.754	1.071	8.092	0.575	0.395	0.258	N

Long Term Photometry of Variables

Group 3002 P=HR1463															
A=HR1441 B=HR1520															
Star	JD_{\odot}	X	V	$b - y$	m_1	c_1	Sys	Star	JD_{\odot}	X	V	$b - y$	m_1	c_1	Sys
A	8215.657	1.226	5.816	-0.040	0.094	0.434	N	B	8234.593	1.317	4.010	-0.063	0.082	0.413	N
P	8215.660	1.224	3.964	-0.079	0.065	0.040	N	A	8239.572	1.310	5.738	-0.066	0.117	0.427	N
B	8215.662	1.239	4.028	-0.060	0.083	0.412	N	P	8239.574	1.310	3.937	-0.075	0.061	0.028	N
A	8220.584	1.595	5.730	-0.050	0.101	0.397	N	B	8239.576	1.333	4.020	-0.057	0.082	0.398	N
P	8220.586	1.597	4.008	-0.068	0.056	0.099	N	A	8245.649	1.114	5.808	-0.042	0.100	0.414	N
B	8220.589	1.641	4.020	-0.052	0.072	0.412	N	P	8245.651	1.112	3.848	-0.079	0.062	-0.020	N
A	8228.597	1.335	5.738	-0.065	0.113	0.438	N	B	8245.653	1.113	4.034	-0.059	0.086	0.405	N
P	8228.599	1.337	4.010	-0.073	0.065	0.083	N	A	8256.612	1.113	5.808	-0.041	0.091	0.413	N
B	8228.600	1.366	4.030	-0.055	0.078	0.407	N	P	8256.614	1.112	3.898	-0.079	0.054	0.016	N
A	8234.589	1.293	5.776	-0.046	0.099	0.409	N	B	8256.616	1.114	4.041	-0.060	0.079	0.413	N
P	8234.591	1.294	3.935	-0.082	0.066	0.038	N								

Catalogue 1990–1992

Group 3004 P=HR2902
A=HR2868 B=HD 60552

Star	JD_{\odot}	X	V	$b - y$	m_1	c_1	Sys	Star	JD_{\odot}	X	V	$b - y$	m_1	c_1	Sys
A	8185.836	1.194	6.046	0.308	0.150	0.343	N	B	8249.693	1.120	6.713	0.306	0.182	0.304	N
P	8185.839	1.199	4.894	1.135	0.177	-0.794	N	P	8249.696	1.109	4.940	1.090	0.063	-0.650	N
B	8185.841	1.196	6.711	0.303	0.188	0.289	N	B	8249.698	1.110	6.717	0.304	0.186	0.295	N
P	8185.844	1.179	4.892	1.134	0.184	-0.803	N	P	8249.699	1.100	4.945	1.087	0.069	-0.661	N
B	8185.849	1.168	6.709	0.301	0.194	0.281	N	A	8249.701	1.087	6.077	0.310	0.145	0.354	N
P	8185.851	1.154	4.890	1.136	0.188	-0.812	N	A	8285.588	1.125	6.062	0.308	0.145	0.356	N
A	8185.854	1.131	6.047	0.309	0.146	0.352	N	P	8285.591	1.129	4.977	1.088	0.065	-0.546	N
A	8200.759	1.407	6.049	0.304	0.151	0.352	N	B	8285.592	1.130	6.719	0.305	0.184	0.298	N
P	8200.761	1.419	4.866	1.085	0.086	-0.714	N	P	8285.594	1.118	4.975	1.089	0.063	-0.540	N
B	8200.763	1.416	6.710	0.304	0.183	0.299	N	B	8285.596	1.120	6.722	0.308	0.181	0.302	N
P	8200.765	1.386	4.869	1.086	0.084	-0.710	N	P	8285.597	1.112	4.980	1.089	0.059	-0.529	N
B	8200.767	1.380	6.709	0.303	0.186	0.293	N	A	8285.598	1.098	6.055	0.314	0.141	0.351	N
P	8200.770	1.355	4.866	1.083	0.090	-0.718	N	P	8539.846	1.313	4.871	1.093	0.069	-0.542	N
A	8200.772	1.318	6.051	0.305	0.150	0.349	N	P	8539.850	1.290	4.873	1.092	0.071	-0.547	N
A	8223.798	1.046	6.044	0.308	0.145	0.356	N	P	8539.854	1.268	4.881	1.094	0.066	-0.539	N
P	8223.800	1.049	4.963	1.078	0.049	-0.675	N	A	8539.857	1.235	6.026	0.316	0.138	0.358	N
B	8223.803	1.050	6.709	0.300	0.190	0.292	N	A	8577.800	1.088	6.047	0.307	0.147	0.352	N
P	8223.806	1.044	4.959	1.081	0.044	-0.671	N	P	8577.802	1.095	4.912	1.091	0.077	-0.568	N
B	8223.808	1.046	6.708	0.304	0.185	0.298	N	B	8577.803	1.096	6.710	0.300	0.191	0.296	N
P	8223.810	1.041	4.962	1.079	0.044	-0.667	N	P	8577.804	1.089	4.912	1.092	0.075	-0.568	N
A	8223.812	1.036	6.042	0.309	0.146	0.354	N	B	8577.806	1.090	6.708	0.303	0.186	0.295	N
A	8249.688	1.119	6.050	0.309	0.148	0.347	N	P	8577.807	1.083	4.911	1.091	0.078	-0.568	N
P	8249.690	1.125	4.939	1.090	0.062	-0.649	N	A	8577.809	1.072	6.047	0.310	0.141	0.361	N

Long Term Photometry of Variables

Group 3005 P=CoD-26 5491
A=HD 66740 B=HD 67357

Star	JD_{\odot}	X	V	$b - y$	m_1	c_1	Sys	Star	JD_{\odot}	X	V	$b - y$	m_1	c_1	Sys
A	8187.811	1.340	7.168	0.283	0.162	0.414	N	B	8258.772	1.005	9.871	0.294	0.159	0.379	N
P	8187.815	1.324	9.776	0.433	0.208	0.601	N	A	8283.672	1.004	7.170	0.285	0.164	0.409	N
B	8187.821	1.293	9.861	0.299	0.160	0.381	N	P	8283.675	1.003	9.771	0.434	0.208	0.598	N
A	8194.782	1.421	7.178	0.286	0.164	0.409	N	B	8283.680	1.002	9.875	0.291	0.167	0.379	N
P	8194.787	1.394	9.776	0.445	0.192	0.612	N	A	8289.727	1.052	7.165	0.278	0.170	0.404	N
B	8194.793	1.360	9.873	0.294	0.164	0.404	N	P	8289.731	1.059	9.774	0.428	0.212	0.606	N
A	8220.799	1.053	7.172	0.287	0.157	0.416	N	B	8289.737	1.070	9.854	0.299	0.154	0.385	N
P	8220.806	1.043	9.772	0.444	0.196	0.615	N	A	8294.660	1.001	7.169	0.286	0.160	0.412	N
B	8220.811	1.036	9.870	0.297	0.159	0.386	N	P	8294.664	1.002	9.784	0.441	0.200	0.593	N
A	8228.717	1.257	7.170	0.280	0.168	0.409	N	B	8294.669	1.003	9.872	0.295	0.160	0.391	N
P	8228.721	1.242	9.770	0.439	0.194	0.613	N	A	8535.878	1.228	7.158	0.275	0.174	0.400	N
B	8228.726	1.221	9.860	0.298	0.163	0.387	N	P	8535.883	1.212	9.757	0.436	0.208	0.602	N
A	8235.789	1.012	7.164	0.286	0.159	0.410	N	B	8535.887	1.197	9.840	0.286	0.167	0.371	N
P	8235.793	1.010	9.767	0.442	0.190	0.617	N	A	8545.876	1.129	7.185	0.273	0.168	0.409	N
B	8235.798	1.008	9.866	0.290	0.169	0.382	N	P	8545.881	1.119	9.827	0.464	0.204	0.659	N
A	8238.729	1.104	7.165	0.283	0.168	0.404	N	A	8555.834	1.187	7.182	0.281	0.164	0.416	N
P	8238.734	1.095	9.779	0.432	0.210	0.602	N	P	8555.839	1.173	9.785	0.430	0.216	0.582	N
B	8238.739	1.085	9.867	0.293	0.168	0.374	N	B	8555.843	1.159	9.882	0.293	0.161	0.397	N
A	8249.704	1.092	7.174	0.284	0.163	0.413	N	A	8657.672	1.002	7.178	0.282	0.169	0.404	N
P	8249.709	1.082	10.167	0.607	0.344	0.265	N	P	8657.675	1.003	9.788	0.435	0.195	0.629	N
A	8258.761	1.002	7.173	0.284	0.155	0.425	N	B	8657.678	1.004	9.873	0.300	0.155	0.378	N
P	8258.766	1.003	9.781	0.434	0.198	0.615	N								

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Group 3006 P=CoD-47 4047
A=HD 71949 B=HD 72109

Star	JD _⊙	X	V	b - y	m ₁	c ₁	Sys	Star	JD _⊙	X	V	b - y	m ₁	c ₁	Sys
A	8188.828	1.309	8.761	0.150	0.198	0.783	N	A	8654.724	1.080	8.760	0.142	0.203	0.756	N
P	8188.833	1.300	8.613	0.602	0.125	0.346	N	P	8654.726	1.079	8.618	0.602	0.123	0.357	N
B	8188.837	1.277	8.699	-0.004	0.106	0.549	N	B	8654.728	1.086	8.701	-0.005	0.104	0.556	N
A	8193.796	1.400	8.760	0.150	0.192	0.764	N	A	8655.535	1.408	8.782	0.159	0.197	0.751	N
P	8193.801	1.387	8.602	0.607	0.118	0.347	N	P	8655.538	1.400	8.645	0.609	0.130	0.349	N
B	8193.806	1.352	8.702	-0.003	0.103	0.558	N	B	8655.541	1.380	8.730	-0.007	0.117	0.555	N
A	8198.784	1.397	8.756	0.152	0.192	0.760	N	A	8655.694	1.063	8.757	0.146	0.201	0.748	N
P	8198.790	1.373	8.603	0.609	0.119	0.346	N	P	8655.696	1.062	8.606	0.604	0.129	0.350	N
B	8198.796	1.335	8.711	-0.002	0.107	0.554	N	B	8655.698	1.066	8.692	-0.002	0.097	0.573	N
A	8218.776	1.198	8.755	0.151	0.196	0.752	N	A	8655.846	1.500	8.761	0.151	0.201	0.753	N
P	8218.783	1.183	8.627	0.598	0.111	0.348	N	P	8655.848	1.499	8.614	0.608	0.121	0.371	N
B	8218.788	1.166	8.701	-0.002	0.104	0.554	N	B	8655.852	1.539	8.700	-0.001	0.101	0.557	N
A	8226.793	1.105	8.751	0.145	0.204	0.756	N	A	8656.538	1.378	8.768	0.157	0.190	0.760	N
P	8226.798	1.100	8.639	0.600	0.093	0.359	N	P	8656.541	1.373	8.640	0.607	0.123	0.385	N
B	8226.803	1.092	8.711	-0.007	0.111	0.555	N	B	8656.544	1.351	8.714	-0.002	0.105	0.562	N
A	8233.791	1.080	8.753	0.149	0.197	0.762	N	A	8656.816	1.343	8.755	0.151	0.192	0.757	N
P	8233.797	1.076	8.604	0.602	0.104	0.346	N	P	8656.819	1.347	8.623	0.602	0.138	0.454	N
B	8233.803	1.071	8.703	-0.005	0.108	0.557	N	B	8656.822	1.371	8.699	-0.009	0.111	0.550	N
A	8245.800	1.053	8.765	0.149	0.193	0.762	N	A	8657.537	1.363	8.764	0.157	0.191	0.759	N
P	8245.806	1.053	8.570	0.608	0.117	0.350	N	P	8657.540	1.359	8.864	0.791	0.411	0.203	N
B	8245.812	1.056	8.709	-0.003	0.100	0.563	N	B	8657.543	1.339	8.700	0.002	0.107	0.550	N
A	8256.682	1.172	8.754	0.158	0.192	0.763	N	A	8657.679	1.053	8.770	0.147	0.199	0.761	N
P	8256.687	1.164	8.556	0.617	0.123	0.343	N	P	8657.682	1.053	8.906	0.824	0.487	0.073	N
B	8256.693	1.147	8.692	0.000	0.106	0.557	N	B	8657.684	1.056	8.704	-0.004	0.106	0.549	N
A	8283.685	1.057	8.753	0.152	0.192	0.761	N	A	8658.535	1.362	8.751	0.155	0.193	0.749	N
P	8283.689	1.056	8.607	0.613	0.119	0.418	N	P	8658.538	1.356	8.909	0.837	0.483	0.076	N
B	8283.694	1.056	8.703	-0.001	0.108	0.544	N	P	8658.542	1.337	8.910	0.839	0.471	0.067	N
A	8287.681	1.054	8.746	0.153	0.191	0.751	N	B	8658.543	1.323	8.702	-0.007	0.108	0.554	N
P	8287.686	1.054	8.587	0.608	0.119	0.347	N	A	8658.747	1.122	8.761	0.147	0.198	0.771	N
B	8287.691	1.055	8.695	-0.005	0.108	0.550	N	P	8658.750	1.126	8.918	0.834	0.487	0.081	N
A	8291.758	1.136	8.761	0.152	0.193	0.755	N	B	8658.754	1.138	8.714	-0.012	0.117	0.546	N
P	8291.762	1.141	8.589	0.606	0.123	0.343	N	A	8659.537	1.337	8.766	0.159	0.183	0.771	N
B	8291.765	1.154	8.692	0.000	0.103	0.553	N	P	8659.540	1.330	8.921	0.842	0.469	0.080	N
A	8294.673	1.053	8.745	0.155	0.190	0.754	N	P	8659.545	1.307	8.925	0.836	0.480	0.103	N
P	8294.678	1.053	8.599	0.606	0.119	0.350	N	B	8659.547	1.292	8.710	0.005	0.099	0.562	N
B	8294.682	1.057	8.698	0.002	0.097	0.553	N	A	8660.631	1.072	8.766	0.161	0.182	0.789	N
B	8294.684	1.057	8.701	0.001	0.098	0.554	N	P	8660.635	1.071	8.927	0.839	0.472	0.077	N
P	8647.750	1.078	8.588	0.609	0.126	0.312	N	P	8660.639	1.067	8.926	0.840	0.462	0.113	N
A	8647.752	1.082	8.758	0.150	0.196	0.778	N	B	8660.642	1.066	8.704	0.010	0.089	0.571	N
P	8647.755	1.084	8.582	0.605	0.126	0.344	N	A	8660.793	1.281	8.752	0.148	0.186	0.771	N
B	8647.758	1.092	8.702	-0.011	0.112	0.562	N	P	8660.796	1.283	8.902	0.835	0.461	0.101	N

Long Term Photometry of Variables

Group 3008 P=HD 81137 A=HD 80936 B=HD 81433															
Star	JD _⊙	X	V	b - y	m ₁	c ₁	Sys	Star	JD _⊙	X	V	b - y	m ₁	c ₁	Sys
A	8189.820	1.557	7.027	0.634	0.433	0.255	N	P	8286.771	1.109	8.255	1.455	-0.690	-0.235	N
P	8189.824	1.534	8.487	1.324	-0.665	-0.156	N	B	8286.774	1.110	7.589	0.195	0.186	0.759	N
B	8189.830	1.504	7.588	0.193	0.187	0.754	N	A	8292.757	1.118	7.027	0.633	0.428	0.284	N
A	8197.796	1.571	7.024	0.638	0.426	0.260	N	P	8292.762	1.116	8.250	1.456	-0.693	-0.235	N
P	8197.802	1.536	8.470	1.335	-0.672	-0.149	N	B	8292.766	1.120	7.584	0.196	0.183	0.763	N
B	8197.807	1.508	7.587	0.196	0.180	0.763	N	A	8415.513	1.368	7.040	0.638	0.424	0.283	N
A	8226.807	1.185	7.034	0.632	0.431	0.275	N	P	8415.516	1.376	8.533	1.306	-0.667	-0.122	N
P	8226.812	1.170	8.370	1.397	-0.695	-0.177	N	B	8415.520	1.387	7.599	0.198	0.178	0.780	N
B	8226.818	1.158	7.596	0.193	0.185	0.769	N	A	8439.497	1.700	7.035	0.635	0.427	0.268	N
A	8233.807	1.148	7.031	0.632	0.434	0.271	N	P	8439.501	1.725	8.631	1.247	-0.645	-0.088	N
P	8233.813	1.133	8.344	1.403	-0.682	-0.193	N	B	8439.508	1.780	7.596	0.193	0.185	0.769	N
B	8233.818	1.126	7.590	0.192	0.188	0.764	N	P	8647.761	1.092	8.427	1.319	-0.604	-0.203	N
A	8245.816	1.100	7.029	0.634	0.426	0.279	N	A	8647.762	1.099	7.019	0.636	0.423	0.279	N
P	8245.820	1.093	8.310	1.424	-0.692	-0.206	N	P	8647.765	1.095	8.418	1.339	-0.648	-0.162	N
B	8245.825	1.090	7.588	0.194	0.182	0.765	N	B	8647.769	1.095	7.583	0.195	0.179	0.768	N
A	8256.698	1.265	7.006	0.644	0.425	0.275	N	A	8654.741	1.109	7.024	0.636	0.423	0.290	N
P	8256.703	1.246	8.258	1.445	-0.684	-0.228	N	P	8654.743	1.103	8.398	1.364	-0.679	-0.173	N
B	8256.709	1.232	7.570	0.205	0.184	0.765	N	B	8654.745	1.103	7.583	0.198	0.177	0.750	N
A	8281.744	1.093	7.029	0.641	0.425	0.279	N	A	8658.765	1.130	7.026	0.637	0.428	0.277	N
P	8281.747	1.088	8.257	1.455	-0.703	-0.218	N	P	8658.766	1.126	8.390	1.357	-0.639	-0.198	N
B	8281.749	1.087	7.588	0.196	0.184	0.764	N	P	8658.770	1.131	8.398	1.352	-0.646	-0.183	N
A	8286.767	1.111	7.031	0.632	0.431	0.276	N	B	8658.772	1.131	7.585	0.195	0.186	0.769	N

Catalogue 1990-1992

Group 3009 P=HD 94878																
A=HD305773 B=HD 94715																
Star	JD_{\odot}	X	V	$b-y$	m_1	c_1	Sys	Star	JD_{\odot}	X	V	$b-y$	m_1	c_1	Sys	
A	8249.816	1.240	9.124	0.175	-0.005	-0.012	N	B	8288.870	1.243	9.662	0.079	0.155	1.001	N	
P	8249.821	1.230	8.729	0.539	-0.177	-0.411	N	A	8292.788	1.169	9.117	0.175	-0.007	-0.007	N	
B	8249.825	1.215	9.645	0.070	0.165	0.980	N	P	8292.793	1.169	8.864	0.527	-0.196	-0.538	N	
A	8259.843	1.174	9.117	0.176	-0.011	-0.008	N	B	8292.797	1.165	9.644	0.063	0.171	0.979	N	
P	8259.848	1.170	8.846	0.539	-0.211	-0.565	N	P	8416.593	1.486	8.935	0.518	-0.190	-0.478	N	
B	8259.852	1.162	9.637	0.071	0.160	0.980	N	B	8416.597	1.506	9.661	0.067	0.167	0.979	N	
A	8284.782	1.171	9.107	0.179	-0.009	-0.011	N	A	8657.861	1.249	9.090	0.176	-0.005	-0.020	N	
P	8284.785	1.169	8.785	0.530	-0.181	-0.433	N	P	8657.864	1.255	8.804	0.521	-0.186	-0.429	N	
B	8284.787	1.161	9.634	0.073	0.162	0.965	N	B	8657.868	1.261	9.631	0.067	0.166	0.979	N	
A	8288.861	1.230	9.131	0.181	-0.010	-0.010	N	P	8660.828	1.206	8.864	0.553	-0.221	-0.527	N	
P	8288.865	1.237	8.827	0.546	-0.211	-0.594	N									

Long Term Photometry of Variables

Group 3012 P=HD105998 A=HD106552 B=HD106086															
Star	JD_{\odot}	X	V	$b-y$	m_1	c_1	Sys	Star	JD_{\odot}	X	V	$b-y$	m_1	c_1	Sys
A	8251.830	1.314	8.304	0.421	0.225	0.309	N	P	8656.878	1.185	8.461	0.709	0.334	0.402	N
P	8251.835	1.287	8.317	0.676	0.322	0.288	N	B	8656.880	1.202	6.810	0.136	0.208	0.907	N
B	8251.840	1.287	6.827	0.140	0.210	0.916	N	A	8657.872	1.170	8.278	0.417	0.223	0.312	N
A	8416.632	1.399	8.308	0.407	0.238	0.317	N	P	8657.875	1.171	8.469	0.710	0.332	0.408	N
P	8416.636	1.423	8.219	0.657	0.305	0.327	N	B	8657.877	1.187	6.804	0.140	0.201	0.920	N
B	8416.639	1.446	6.819	0.136	0.211	0.923	N	A	8658.843	1.154	8.297	0.415	0.228	0.307	N
A	8437.576	1.408	8.307	0.411	0.234	0.310	N	P	8658.846	1.151	8.509	0.707	0.330	0.465	N
P	8437.579	1.433	8.251	0.668	0.332	0.364	N	P	8658.849	1.152	8.510	0.702	0.339	0.440	N
B	8437.585	1.467	6.835	0.135	0.209	0.924	N	B	8658.850	1.168	6.826	0.138	0.210	0.912	N
A	8655.805	1.180	8.279	0.424	0.209	0.314	N	A	8660.879	1.187	8.305	0.422	0.221	0.314	N
P	8655.808	1.171	8.441	0.705	0.352	0.338	N	P	8660.881	1.188	8.542	0.706	0.315	0.509	N
B	8655.811	1.185	6.813	0.139	0.203	0.916	N	B	8660.883	1.205	6.824	0.142	0.199	0.925	N
A	8656.875	1.185	8.272	0.427	0.207	0.320	N								

Catalogue 1990–1992

Group 3014 P=HD161387 A=HD160627 B=HD161406															
Star	JD_{\odot}	X	V	$b-y$	m_1	c_1	Sys	Star	JD_{\odot}	X	V	$b-y$	m_1	c_1	Sys
A	8169.527	1.340	8.095	0.243	0.184	0.604	N	B	8486.559	1.010	8.624	1.288	0.670	0.015	N
P	8169.530	1.345	8.609	1.230	0.327	-0.141	N	A	8493.568	1.052	8.100	0.234	0.186	0.598	N
B	8169.535	1.372	8.627	1.287	0.675	-0.022	N	P	8493.572	1.054	8.585	1.222	0.323	-0.175	N
A	8415.782	1.047	8.090	0.241	0.185	0.596	N	B	8493.577	1.063	8.631	1.284	0.674	-0.026	N
P	8415.787	1.052	8.622	1.226	0.311	-0.177	N	A	8505.532	1.049	8.092	0.241	0.191	0.592	N
B	8415.791	1.058	8.629	1.289	0.694	-0.016	N	P	8505.537	1.052	8.587	1.226	0.329	-0.166	N
A	8438.769	1.194	8.089	0.240	0.185	0.599	N	B	8505.542	1.061	8.628	1.282	0.702	0.025	N
P	8438.776	1.212	8.600	1.228	0.326	-0.164	N	A	8517.585	1.404	8.097	0.246	0.177	0.596	N
B	8438.783	1.242	8.623	1.281	0.691	-0.049	N	P	8517.590	1.423	8.605	1.224	0.332	-0.157	N
A	8449.664	1.014	8.093	0.239	0.190	0.587	N	B	8517.596	1.461	8.630	1.298	0.655	0.048	N
P	8449.671	1.019	8.598	1.226	0.323	-0.206	N	A	8525.515	1.154	8.090	0.241	0.183	0.597	N
B	8449.678	1.026	8.625	1.283	0.687	-0.030	N	P	8525.520	1.161	8.589	1.223	0.330	-0.195	N
A	8459.668	1.061	8.097	0.241	0.187	0.586	N	B	8525.524	1.174	8.626	1.287	0.681	0.077	N
P	8459.674	1.067	8.595	1.227	0.325	-0.178	N	P	8539.523	1.386	8.674	1.217	0.345	-0.173	N
B	8459.679	1.078	8.625	1.286	0.680	0.045	N	A	8550.513	1.599	8.117	0.247	0.182	0.593	N
A	8486.551	1.007	8.095	0.240	0.182	0.596	N	P	8550.518	1.624	8.614	1.230	0.325	-0.207	N
P	8486.555	1.008	8.573	1.230	0.326	-0.154	N	B	8550.523	1.662	8.652	1.284	0.709	0.140	N

Long Term Photometry of Variables

Group 3017 P=CpD-66 3307
A=HD167559 B=CpD-66 3305

Star	JD_{\odot}	X	V	$b-y$	m_1	c_1	Sys	Star	JD_{\odot}	X	V	$b-y$	m_1	c_1	Sys
A	8190.521	1.571	9.108	1.105	0.625	0.301	N	A	8460.669	1.265	9.084	1.109	0.627	0.307	N
P	8190.527	1.600	10.843	0.433	0.078	-0.439	N	P	8460.675	1.270	10.687	0.474	0.105	-0.548	N
B	8190.534	1.638	10.048	0.531	0.231	0.380	N	A	8495.574	1.267	9.088	1.098	0.585	0.131	N
A	8418.730	1.250	9.110	1.102	0.633	0.321	N	P	8495.579	1.271	10.835	0.502	0.126	-0.679	N
P	8418.736	1.248	10.495	0.456	0.063	-0.474	N	A	8495.593	1.289	9.084	1.101	0.627	0.137	N
B	8418.741	1.250	10.050	0.535	0.226	0.384	N	A	8507.558	1.286	9.077	1.113	0.634	0.403	N
A	8429.833	1.413	9.103	1.106	0.627	0.303	N	P	8507.565	1.296	10.913	0.499	0.127	-0.664	N
P	8429.837	1.424	10.496	0.433	0.093	-0.408	N	B	8507.571	1.309	10.036	0.539	0.230	0.387	N
B	8429.846	1.456	10.056	0.527	0.235	0.411	N	A	8522.589	1.460	9.106	1.113	0.612	0.325	N
A	8437.824	1.453	9.091	1.101	0.642	0.334	N	P	8522.595	1.479	10.974	0.503	0.112	-0.661	N
P	8437.829	1.470	10.524	0.453	0.102	-0.536	N	B	8522.602	1.510	11.941	0.064	0.122	1.039	N
A	8437.837	1.502	9.087	1.099	0.639	0.332	N	A	8539.551	1.495	9.135	1.110	0.637	0.281	N
A	8449.773	1.397	9.092	1.109	0.604	0.349	N	P	8539.560	1.529	11.075	0.503	0.108	-0.700	N
P	8449.777	1.410	10.642	0.472	0.086	-0.535	N	B	8539.568	1.568	11.980	0.047	0.172	0.983	N

Catalogue 1990-1992

Group 3018 P=HD168206
A=HD168639

Star	JD_{\odot}	X	V	$b-y$	m_1	c_1	Sys	Star	JD_{\odot}	X	V	$b-y$	m_1	c_1	Sys
A	8189.521	1.701	9.846	0.255	0.045	0.871	N	P	8491.573	1.066	9.211	0.171	0.694	-0.425	N
P	8189.527	1.798	9.191	0.187	0.671	-0.409	N	A	8496.518	1.053	9.861	0.250	0.043	0.876	N
A	8189.533	1.872	9.842	0.259	0.033	0.881	N	P	8496.522	1.051	9.198	0.184	0.674	-0.418	N
A	8418.749	1.050	9.842	0.268	0.010	0.900	N	A	8496.528	1.050	9.851	0.255	0.029	0.895	N
P	8418.752	1.050	9.208	0.259	0.524	-0.339	N	A	8505.559	1.106	9.852	0.256	0.029	0.905	N
A	8418.759	1.053	9.851	0.252	0.029	0.891	N	P	8505.564	1.119	9.213	0.206	0.625	-0.378	N
A	8438.823	1.466	9.864	0.250	0.034	0.886	N	A	8505.569	1.129	9.850	0.261	0.016	0.906	N
P	8438.827	1.523	9.199	0.170	0.694	-0.417	N	A	8517.602	1.467	9.849	0.265	0.018	0.886	N
A	8438.832	1.557	9.852	0.262	0.016	0.912	N	P	8517.607	1.525	9.195	0.188	0.660	-0.396	N
A	8449.756	1.235	9.851	0.260	0.020	0.902	N	A	8517.612	1.564	9.866	0.262	0.013	0.918	N
P	8449.760	1.264	9.204	0.284	0.471	-0.300	N	A	8524.548	1.249	9.846	0.262	0.020	0.905	N
A	8449.769	1.302	9.848	0.255	0.031	0.894	N	P	8524.552	1.278	9.192	0.203	0.633	-0.386	N
A	8459.699	1.133	9.856	0.257	0.025	0.897	N	A	8524.557	1.295	9.854	0.259	0.020	0.900	N
P	8459.705	1.153	9.193	0.176	0.683	-0.415	N	P	8539.534	1.429	9.303	0.277	0.486	-0.311	N
A	8459.710	1.164	9.848	0.265	0.013	0.886	N	P	8539.542	1.501	9.297	0.273	0.491	-0.309	N
A	8463.661	1.077	9.851	0.258	0.028	0.892	N	A	8550.528	1.659	9.890	0.246	0.041	0.882	N
P	8463.666	1.086	9.198	0.184	0.665	-0.404	N	P	8550.531	1.723	9.212	0.186	0.678	-0.418	N
A	8463.674	1.100	9.856	0.256	0.032	0.870	N	A	8550.536	1.760	9.874	0.258	0.026	0.900	N
A	8491.569	1.060	9.850	0.257	0.048	0.868	N								

Long Term Photometry of Variables

Group 3019 P=HD177300
A=HD179775 B=HD179034

Star	JD ₀	X	V	b - y	m ₁	c ₁	Sys	Star	JD ₀	X	V	b - y	m ₁	c ₁	Sys
A	8166.616	1.405	6.754	0.608	0.460	0.254	N	A	8194.529	1.366	6.750	0.606	0.464	0.251	N
P	8166.619	1.457	7.217	0.351	0.135	1.172	N	P	8194.535	1.426	7.210	0.349	0.145	1.142	N
B	8166.623	1.450	8.075	0.285	0.178	0.893	N	B	8194.540	1.426	8.076	0.279	0.189	0.877	N
P	8166.627	1.506	7.217	0.346	0.143	1.170	N	P	8194.545	1.490	7.211	0.348	0.147	1.143	N
B	8166.631	1.499	8.071	0.287	0.178	0.890	N	B	8194.551	1.492	8.076	0.282	0.183	0.888	N
P	8166.634	1.561	7.216	0.349	0.143	1.169	N	P	8194.556	1.564	7.212	0.350	0.147	1.141	N
A	8166.638	1.536	6.752	0.613	0.454	0.263	N	A	8194.561	1.553	6.754	0.605	0.465	0.247	N
A	8168.611	1.409	6.753	0.614	0.453	0.262	N	A	8195.538	1.422	6.750	0.609	0.463	0.247	N
P	8168.614	1.463	7.238	0.360	0.144	1.149	N	P	8195.544	1.497	7.207	0.349	0.144	1.152	N
B	8168.618	1.454	8.076	0.289	0.178	0.874	N	B	8195.549	1.499	8.081	0.283	0.185	0.889	N
P	8168.622	1.514	7.240	0.360	0.139	1.156	N	P	8195.554	1.572	7.212	0.349	0.144	1.158	N
B	8168.626	1.506	8.082	0.287	0.175	0.897	N	B	8195.560	1.580	8.083	0.284	0.182	0.891	N
P	8168.630	1.570	7.238	0.360	0.142	1.146	N	P	8195.566	1.663	7.212	0.351	0.141	1.155	N
A	8168.633	1.544	6.756	0.612	0.458	0.250	N	A	8195.571	1.651	6.758	0.609	0.466	0.246	N
A	8169.618	1.463	6.754	0.617	0.457	0.259	N	A	8196.558	1.572	6.764	0.607	0.466	0.250	N
P	8169.620	1.521	7.249	0.359	0.151	1.130	N	P	8196.563	1.669	7.207	0.345	0.147	1.159	N
B	8169.624	1.514	8.079	0.286	0.180	0.892	N	B	8196.569	1.674	8.086	0.282	0.185	0.897	N
P	8169.627	1.569	7.252	0.359	0.146	1.132	N	P	8196.574	1.767	7.207	0.343	0.147	1.151	N
B	8169.631	1.562	8.086	0.279	0.186	0.891	N	B	8196.580	1.779	8.085	0.285	0.182	0.896	N
P	8169.634	1.623	7.251	0.360	0.147	1.127	N	P	8196.585	1.887	7.201	0.346	0.140	1.159	N
A	8169.637	1.593	6.757	0.612	0.458	0.249	N	A	8196.590	1.862	6.758	0.609	0.464	0.250	N
A	8172.609	1.459	6.767	0.613	0.455	0.259	N	A	8197.523	1.376	6.761	0.609	0.468	0.242	N
P	8172.611	1.517	7.292	0.369	0.156	1.093	N	P	8197.528	1.438	7.198	0.344	0.142	1.159	N
B	8172.615	1.511	8.095	0.291	0.180	0.895	N	B	8197.534	1.439	8.082	0.283	0.182	0.892	N
P	8172.619	1.569	7.277	0.372	0.154	1.093	N	P	8197.539	1.504	7.197	0.346	0.140	1.160	N
B	8172.623	1.564	8.094	0.284	0.185	0.878	N	B	8197.544	1.507	8.082	0.285	0.182	0.884	N
P	8172.626	1.628	7.282	0.373	0.150	1.106	N	P	8197.550	1.579	7.193	0.346	0.139	1.157	N
A	8172.630	1.600	6.757	0.612	0.460	0.247	N	A	8197.555	1.567	6.757	0.610	0.461	0.247	N
A	8186.552	1.368	6.762	0.610	0.462	0.248	N	A	8198.536	1.459	6.758	0.606	0.469	0.253	N
P	8186.556	1.417	7.283	0.373	0.153	1.087	N	P	8198.541	1.536	7.190	0.344	0.138	1.171	N
B	8186.559	1.407	8.084	0.283	0.181	0.897	N	B	8198.546	1.539	8.088	0.283	0.184	0.894	N
P	8186.568	1.490	7.287	0.373	0.151	1.099	N	P	8198.552	1.618	7.187	0.342	0.138	1.167	N
B	8186.579	1.526	8.086	0.285	0.179	0.888	N	B	8198.557	1.624	8.080	0.282	0.182	0.898	N
P	8186.582	1.584	7.280	0.374	0.150	1.092	N	P	8198.563	1.710	7.183	0.340	0.141	1.168	N
A	8186.585	1.559	6.762	0.608	0.456	0.261	N	A	8198.568	1.692	6.753	0.608	0.462	0.252	N
A	8188.564	1.465	6.760	0.607	0.467	0.241	N	A	8199.539	1.496	6.764	0.610	0.464	0.253	N
P	8188.568	1.529	7.269	0.365	0.160	1.092	N	P	8199.544	1.582	7.191	0.346	0.130	1.181	N
B	8188.571	1.517	8.085	0.281	0.187	0.883	N	B	8199.550	1.586	8.086	0.290	0.176	0.896	N
P	8188.575	1.581	7.269	0.364	0.162	1.091	N	P	8199.555	1.668	7.185	0.342	0.134	1.180	N
B	8188.579	1.570	8.080	0.281	0.188	0.879	N	B	8199.560	1.674	8.082	0.286	0.180	0.895	N
P	8188.582	1.634	7.265	0.369	0.155	1.086	N	P	8199.565	1.766	7.177	0.342	0.133	1.175	N
A	8188.585	1.607	6.755	0.605	0.467	0.245	N	A	8199.571	1.749	6.761	0.611	0.462	0.256	N
A	8189.551	1.412	6.752	0.608	0.466	0.241	N	A	8460.720	1.119	6.756	0.610	0.459	0.254	N
P	8189.555	1.467	7.255	0.364	0.157	1.097	N	P	8460.723	1.126	7.257	0.363	0.156	1.092	N
B	8189.559	1.458	8.077	0.282	0.189	0.873	N	B	8460.726	1.119	8.085	0.283	0.183	0.891	N
P	8189.563	1.513	7.254	0.363	0.161	1.089	N	P	8460.731	1.140	7.255	0.367	0.151	1.087	N
B	8189.566	1.503	8.079	0.279	0.191	0.872	N	B	8460.734	1.132	8.089	0.280	0.188	0.880	N
P	8189.570	1.561	7.253	0.363	0.159	1.087	N	P	8460.737	1.152	7.258	0.364	0.155	1.090	N
A	8189.574	1.547	6.752	0.605	0.470	0.241	N	A	8460.740	1.152	6.761	0.610	0.459	0.251	N
A	8190.542	1.380	6.757	0.607	0.464	0.248	N	A	8461.729	1.137	6.755	0.612	0.453	0.258	N
P	8190.549	1.446	7.252	0.361	0.152	1.113	N	P	8461.733	1.149	7.250	0.367	0.146	1.106	N
B	8190.555	1.453	8.082	0.284	0.180	0.894	N	B	8461.737	1.143	8.081	0.284	0.180	0.891	N
P	8190.560	1.518	7.254	0.362	0.148	1.115	N	P	8461.741	1.166	7.248	0.369	0.144	1.099	N
B	8190.567	1.525	8.081	0.283	0.181	0.893	N	B	8461.744	1.159	8.086	0.279	0.185	0.886	N
P	8190.572	1.601	7.253	0.361	0.149	1.118	N	P	8461.748	1.183	7.251	0.366	0.147	1.104	N
A	8190.578	1.591	6.756	0.607	0.462	0.248	N	A	8461.753	1.185	6.758	0.609	0.457	0.256	N
A	8191.560	1.486	6.758	0.610	0.460	0.253	N	A	8462.752	1.191	6.765	0.611	0.461	0.248	N
P	8191.565	1.565	7.245	0.358	0.152	1.120	N	P	8462.757	1.215	7.262	0.365	0.158	1.089	N
B	8191.569	1.563	8.084	0.282	0.184	0.896	N	B	8462.761	1.208	8.094	0.279	0.184	0.896	N
P	8191.574	1.640	7.244	0.359	0.150	1.120	N	P	8462.764	1.238	7.264	0.364	0.156	1.090	N
B	8191.579	1.644	8.080	0.282	0.186	0.889	N	B	8462.768	1.230	8.089	0.283	0.182	0.898	N
P	8191.584	1.727	7.243	0.360	0.150	1.123	N	P	8462.771	1.260	7.262	0.363	0.156	1.092	N
A	8191.589	1.705	6.755	0.607	0.465	0.252	N	A	8462.775	1.256	6.762	0.608	0.464	0.246	N
A	8193.575	1.638	6.748	0.609	0.463	0.250	N	A	8463.718	1.128	6.761	0.609	0.461	0.252	N
P	8193.580	1.743	7.219	0.353	0.149	1.133	N	P	8463.721	1.137	7.256	0.366	0.153	1.090	N
B	8193.585	1.744	8.075	0.281	0.187	0.878	N	B	8463.724	1.130	8.084	0.287	0.177	0.885	N
P	8193.589	1.840	7.223	0.353	0.149	1.129	N	P	8463.727	1.147	7.255	0.371	0.146	1.094	N
B	8193.594	1.844	8.076	0.284	0.183	0.887	N	B	8463.730	1.139	8.085	0.285	0.181	0.895	N
P	8193.599	1.953	7.223	0.353	0.149	1.134	N	P	8463.732	1.158	7.255	0.367	0.151	1.097	N
A	8193.604	1.916	6.757	0.610	0.464	0.247	N	A	8463.734	1.157	6.760	0.610	0.459	0.259	N

Catalogue 1990-1992

Group 3019 P=HD177300 (continued)
A=HD179775 B=HD179034

Star	JD ₀	X	V	b-y	m ₁	c ₁	Sys	Star	JD ₀	X	V	b-y	m ₁	c ₁	Sys
A	8464.777	1.282	6.737	0.612	0.459	0.250	N	B	8505.673	1.328	8.065	0.283	0.186	0.878	N
P	8464.780	1.318	7.229	0.370	0.144	1.100	N	P	8505.676	1.368	7.162	0.334	0.138	1.204	N
B	8464.784	1.313	8.064	0.289	0.177	0.894	N	B	8505.680	1.361	8.069	0.280	0.185	0.884	N
P	8464.788	1.353	7.232	0.370	0.144	1.096	N	P	8505.683	1.404	7.163	0.331	0.141	1.191	N
B	8464.791	1.343	8.067	0.289	0.180	0.874	N	A	8505.687	1.390	6.746	0.606	0.466	0.244	N
P	8464.794	1.385	7.236	0.375	0.138	1.103	N	A	8510.682	1.441	6.761	0.606	0.467	0.242	N
A	8464.798	1.374	6.747	0.617	0.452	0.265	N	P	8510.685	1.498	7.177	0.337	0.133	1.212	N
A	8486.660	1.137	6.757	0.611	0.458	0.255	N	B	8510.689	1.491	8.083	0.283	0.180	0.892	N
P	8486.663	1.147	7.174	0.351	0.139	1.158	N	P	8510.692	1.546	7.178	0.337	0.136	1.200	N
B	8486.666	1.140	8.079	0.287	0.175	0.893	N	B	8510.696	1.539	8.080	0.286	0.182	0.882	N
P	8486.670	1.162	7.172	0.357	0.128	1.169	N	P	8510.700	1.601	7.176	0.338	0.134	1.204	N
B	8486.672	1.152	8.078	0.286	0.178	0.883	N	A	8510.704	1.579	6.758	0.609	0.458	0.256	N
P	8486.675	1.175	7.167	0.357	0.127	1.170	N	A	8513.679	1.469	6.746	0.605	0.464	0.254	N
A	8486.679	1.175	6.754	0.611	0.460	0.250	N	P	8513.682	1.534	7.249	0.340	0.131	1.204	N
P	8490.681	1.219	7.182	0.346	0.135	1.168	N	B	8513.687	1.531	8.111	0.280	0.182	0.891	N
B	8490.682	1.206	8.107	0.287	0.176	0.875	N	P	8513.690	1.595	7.169	0.338	0.136	1.198	N
P	8490.683	1.227	7.183	0.347	0.131	1.182	N	B	8513.695	1.593	8.073	0.283	0.182	0.889	N
B	8490.685	1.214	8.103	0.282	0.177	0.894	N	P	8513.699	1.663	7.165	0.338	0.135	1.197	N
P	8490.686	1.236	7.179	0.347	0.133	1.172	N	A	8513.703	1.639	6.753	0.606	0.463	0.245	N
A	8490.688	1.226	6.772	0.612	0.452	0.261	N	A	8523.627	1.346	6.766	0.613	0.458	0.256	N
P	8491.702	1.305	7.156	0.350	0.132	1.182	N	P	8523.630	1.392	7.184	0.351	0.132	1.162	N
B	8491.703	1.289	8.085	0.286	0.184	0.873	N	B	8523.634	1.382	8.087	0.284	0.180	0.896	N
P	8491.704	1.315	7.166	0.345	0.133	1.187	N	P	8523.637	1.429	7.178	0.351	0.129	1.168	N
B	8491.706	1.298	8.086	0.289	0.182	0.886	N	B	8523.641	1.419	8.082	0.284	0.182	0.883	N
P	8491.707	1.326	7.159	0.347	0.135	1.189	N	P	8523.644	1.469	7.174	0.350	0.134	1.157	N
A	8491.708	1.308	6.761	0.610	0.466	0.256	N	A	8523.648	1.451	6.757	0.610	0.462	0.250	N
A	8493.647	1.148	6.767	0.610	0.461	0.266	N	A	8524.637	1.410	6.761	0.605	0.466	0.251	N
P	8493.648	1.157	7.151	0.333	0.147	1.177	N	P	8524.643	1.480	7.171	0.353	0.130	1.156	N
B	8493.649	1.146	8.076	0.276	0.186	0.886	N	B	8524.648	1.481	8.078	0.286	0.181	0.893	N
P	8493.650	1.163	7.151	0.334	0.146	1.181	N	P	8524.651	1.533	7.170	0.352	0.130	1.162	N
B	8493.652	1.152	8.070	0.281	0.182	0.888	N	B	8524.654	1.522	8.080	0.285	0.179	0.891	N
P	8493.653	1.169	7.150	0.336	0.140	1.180	N	P	8524.657	1.578	7.173	0.349	0.132	1.158	N
A	8493.655	1.165	6.752	0.606	0.462	0.248	N	A	8524.661	1.555	6.756	0.607	0.463	0.257	N
A	8494.693	1.282	6.771	0.611	0.468	0.251	N	P	8530.653	1.685	7.145	0.363	0.135	1.133	N
P	8494.694	1.308	7.161	0.339	0.140	1.190	N	A	8536.611	1.453	6.793	0.608	0.463	0.245	N
B	8494.696	1.292	8.084	0.285	0.177	0.901	N	P	8536.616	1.524	7.240	0.357	0.144	1.114	N
P	8494.697	1.320	7.160	0.343	0.135	1.187	N	B	8536.620	1.520	8.110	0.280	0.188	0.889	N
B	8494.699	1.303	8.080	0.277	0.199	0.886	N	P	8536.624	1.585	7.225	0.361	0.141	1.110	N
P	8494.700	1.332	7.156	0.344	0.136	1.183	N	B	8536.629	1.582	8.106	0.278	0.189	0.882	N
A	8494.701	1.315	6.763	0.607	0.470	0.239	N	P	8536.633	1.653	7.223	0.359	0.141	1.110	N
A	8495.669	1.213	6.753	0.610	0.461	0.241	N	A	8536.637	1.629	6.781	0.607	0.464	0.245	N
P	8495.672	1.236	7.150	0.340	0.138	1.183	N	P	8548.583	1.529	7.278	0.350	0.133	1.110	N
B	8495.676	1.229	8.078	0.283	0.183	0.883	N	A	8550.561	1.393	6.771	0.615	0.459	0.251	N
P	8495.679	1.260	7.149	0.342	0.135	1.185	N	P	8550.565	1.453	7.203	0.360	0.123	1.130	N
B	8495.683	1.253	8.075	0.286	0.180	0.885	N	B	8550.570	1.448	8.092	0.288	0.185	0.885	N
P	8495.686	1.286	7.150	0.341	0.137	1.189	N	P	8550.574	1.506	7.204	0.360	0.124	1.132	N
A	8495.689	1.278	6.753	0.609	0.463	0.250	N	B	8550.578	1.501	8.095	0.291	0.178	0.898	N
A	8496.687	1.280	6.754	0.607	0.465	0.251	N	P	8550.582	1.566	7.204	0.359	0.123	1.136	N
P	8496.689	1.312	7.148	0.335	0.143	1.180	N	A	8550.587	1.549	6.771	0.615	0.461	0.238	N
B	8496.693	1.305	8.077	0.281	0.183	0.892	N	A	8556.544	1.395	6.757	0.611	0.461	0.251	N
P	8496.697	1.344	7.146	0.337	0.137	1.187	N	P	8556.548	1.451	7.183	0.350	0.115	1.161	N
B	8496.701	1.337	8.076	0.283	0.180	0.885	N	B	8556.553	1.448	8.082	0.290	0.179	0.893	N
P	8496.704	1.378	7.151	0.338	0.140	1.174	N	P	8556.557	1.504	7.182	0.350	0.115	1.156	N
A	8496.707	1.365	6.752	0.610	0.458	0.252	N	B	8556.561	1.500	8.080	0.289	0.181	0.890	N
A	8497.671	1.235	6.769	0.610	0.461	0.251	N	P	8556.565	1.562	7.184	0.351	0.114	1.160	N
P	8497.674	1.261	7.204	0.338	0.138	1.183	N	A	8556.570	1.546	6.759	0.615	0.461	0.250	N
B	8497.678	1.254	8.111	0.284	0.184	0.886	N	A	8558.553	1.476	6.746	0.610	0.466	0.241	N
P	8497.681	1.287	7.169	0.340	0.137	1.189	N	P	8558.557	1.546	7.166	0.343	0.114	1.163	N
B	8497.685	1.281	8.095	0.282	0.186	0.889	N	B	8558.562	1.542	8.071	0.283	0.181	0.885	N
P	8497.688	1.316	7.156	0.338	0.138	1.193	N	P	8558.566	1.611	7.166	0.344	0.112	1.172	N
A	8497.691	1.307	6.766	0.608	0.464	0.250	N	B	8558.571	1.611	8.068	0.286	0.178	0.888	N
A	8505.667	1.300	6.745	0.605	0.468	0.245	N	P	8558.574	1.685	7.162	0.343	0.115	1.174	N
P	8505.669	1.335	7.161	0.334	0.137	1.197	N	A	8558.579	1.664	6.743	0.612	0.459	0.252	N

Long Term Photometry of Variables

Group 3020 P=HR7342 A=HD180695 B=HR7344															
Star	JD_{\odot}	X	V	$b-y$	m_1	c_1	Sys	Star	JD_{\odot}	X	V	$b-y$	m_1	c_1	Sys
A	8188.556	1.539	7.819	0.052	0.114	0.896	N	P	8496.722	1.577	4.611	0.089	0.118	0.114	N
P	8188.558	1.537	4.529	0.095	0.116	0.089	N	B	8496.724	1.565	5.838	0.636	0.464	0.310	N
B	8188.561	1.530	5.848	0.639	0.467	0.309	N	A	8501.581	1.038	7.811	0.056	0.098	0.917	N
A	8194.520	1.388	7.806	0.052	0.107	0.898	N	P	8501.583	1.037	4.577	0.090	0.132	0.117	N
P	8194.522	1.387	4.499	0.097	0.107	0.084	N	B	8501.586	1.030	5.841	0.637	0.463	0.315	N
B	8194.525	1.382	5.833	0.634	0.468	0.313	N	A	8508.551	1.031	7.825	0.054	0.109	0.897	N
A	8415.814	1.035	7.812	0.056	0.103	0.911	N	P	8508.553	1.030	4.544	0.100	0.104	0.100	N
P	8415.816	1.035	4.591	0.100	0.116	0.116	N	B	8508.555	1.022	5.836	0.640	0.461	0.319	N
B	8415.819	1.028	5.840	0.641	0.462	0.320	N	A	8511.689	1.717	7.826	0.052	0.107	0.899	N
P	8439.900	1.840	4.606	0.098	0.107	0.113	N	P	8511.692	1.712	4.575	0.099	0.102	0.104	N
B	8439.902	1.826	5.855	0.632	0.475	0.290	N	B	8511.694	1.705	5.850	0.638	0.462	0.309	N
A	8448.770	1.108	7.809	0.057	0.102	0.907	N	A	8518.660	1.603	7.821	0.051	0.112	0.902	N
P	8448.772	1.106	4.581	0.096	0.120	0.144	N	P	8518.663	1.603	4.587	0.094	0.124	0.111	N
B	8448.776	1.106	5.839	0.639	0.461	0.319	N	B	8518.665	1.597	5.851	0.636	0.466	0.306	N
A	8458.713	1.051	7.788	0.055	0.099	0.917	N	A	8522.645	1.564	7.814	0.055	0.107	0.907	N
P	8458.715	1.049	4.491	0.104	0.079	0.097	N	P	8522.648	1.561	4.539	0.100	0.103	0.106	N
B	8458.716	1.041	5.814	0.641	0.454	0.325	N	B	8522.650	1.554	5.840	0.637	0.466	0.304	N
A	8459.760	1.173	7.805	0.060	0.102	0.895	N	A	8525.622	1.431	7.814	0.057	0.102	0.910	N
P	8459.763	1.172	4.507	0.102	0.089	0.090	N	P	8525.624	1.426	4.488	0.101	0.088	0.100	N
B	8459.765	1.168	5.841	0.637	0.466	0.318	N	B	8525.626	1.419	5.844	0.639	0.460	0.313	N
A	8486.698	1.225	7.816	0.057	0.098	0.906	N	A	8530.617	1.509	7.786	0.059	0.103	0.908	N
P	8486.701	1.225	4.559	0.100	0.103	0.106	N	P	8530.619	1.506	4.525	0.101	0.101	0.119	N
B	8486.704	1.224	5.842	0.640	0.455	0.312	N	B	8530.622	1.505	5.819	0.640	0.467	0.310	N
P	8491.722	1.444	4.553	0.097	0.102	0.100	N	A	8539.592	1.510	7.846	0.047	0.120	0.894	N
B	8491.727	1.455	5.836	0.638	0.467	0.307	N	P	8539.593	1.501	4.551	0.095	0.119	0.101	N
A	8493.667	1.177	7.794	0.053	0.113	0.880	N	B	8539.596	1.494	5.867	0.637	0.469	0.305	N
P	8493.669	1.173	4.567	0.097	0.098	0.098	N	A	8555.540	1.454	7.823	0.058	0.104	0.907	N
B	8493.671	1.166	5.841	0.635	0.462	0.316	N	P	8555.544	1.462	4.583	0.099	0.113	0.132	N
A	8495.705	1.417	7.804	0.052	0.115	0.899	N	A	8562.508	1.358	7.816	0.062	0.096	0.915	N
P	8495.708	1.418	4.593	0.094	0.111	0.101	N	P	8562.510	1.359	4.637	0.094	0.133	0.126	N
B	8495.710	1.416	5.836	0.631	0.472	0.303	N	B	8562.514	1.359	5.842	0.640	0.463	0.312	N
A	8496.720	1.583	7.825	0.054	0.104	0.908	N								

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Group 3026 P=HM Sge															
A=HD355719							B=HD355915								
Star	JD_{\odot}	X	V	$b - y$	m_1	c_1	Sys	Star	JD_{\odot}	X	V	$b - y$	m_1	c_1	Sys
A	8188.516	1.582	9.220	0.679	0.462	0.254	N	A	8452.777	1.497	9.198	0.678	0.456	0.227	N
P	8188.522	1.768	12.794	-0.765	1.981	-1.924	N	A	8497.591	1.353	9.203	0.671	0.454	0.259	N
B	8188.534	1.729	9.164	0.804	0.590	0.199	N	P	8497.597	1.445	12.837	-0.784	2.013	-1.948	N
A	8418.877	1.541	9.227	0.672	0.459	0.257	N	B	8497.603	1.370	9.154	0.800	0.589	0.163	N
P	8418.880	1.687	12.830	-0.785	1.981	-1.864	N	A	8507.624	1.489	9.205	0.670	0.460	0.263	N
B	8418.886	1.595	9.157	0.795	0.582	0.192	N	P	8507.630	1.639	12.796	-0.749	1.935	-1.828	N
A	8439.772	1.372	9.214	0.675	0.461	0.249	N	B	8507.636	1.554	9.150	0.801	0.576	0.210	N
P	8439.779	1.481	12.805	-0.743	1.945	-1.897	N	A	8530.561	1.495	9.225	0.692	0.432	0.317	N
B	8439.784	1.403	9.169	0.798	0.597	0.173	N	A	8530.562	1.503	9.239	0.672	0.448	0.264	N
A	8452.753	1.408	9.196	0.678	0.449	0.276	N	P	8530.568	1.654	12.838	-0.762	1.944	-1.859	N
P	8452.761	1.536	12.745	-0.714	1.913	-1.914	N	B	8530.572	1.560	9.184	0.795	0.578	0.249	N
B	8452.772	1.479	9.139	0.809	0.573	0.201	N								

Long Term Photometry of Variables

Group 3028 P=HD 81410															
A=HD 81904								B=HD 80991							
Star	JD _⊙	X	V	b - y	m ₁	c ₁	Sys	Star	JD _⊙	X	V	b - y	m ₁	c ₁	Sys
A	8189.846	1.485	8.008	0.584	0.397	0.260	N	P	8284.776	1.026	7.314	0.624	0.419	0.179	N
P	8189.850	1.433	7.382	0.625	0.434	0.155	N	B	8284.779	1.034	8.488	0.623	0.432	0.240	N
B	8189.855	1.390	8.497	0.619	0.440	0.245	N	A	8285.749	1.007	8.003	0.586	0.388	0.278	N
A	8190.846	1.464	8.013	0.585	0.391	0.259	N	P	8285.752	1.008	7.301	0.625	0.423	0.169	N
P	8190.851	1.403	7.348	0.628	0.413	0.175	N	B	8285.756	1.014	8.488	0.615	0.440	0.250	N
B	8190.856	1.362	8.494	0.622	0.434	0.244	N	A	8286.744	1.006	8.008	0.586	0.388	0.269	N
A	8197.824	1.501	8.007	0.586	0.388	0.269	N	P	8286.748	1.008	7.323	0.620	0.426	0.173	N
P	8197.829	1.435	7.384	0.630	0.422	0.165	N	B	8286.752	1.013	8.496	0.618	0.439	0.240	N
B	8197.835	1.392	8.494	0.615	0.444	0.234	N	A	8287.697	1.027	8.005	0.582	0.388	0.275	N
A	8200.802	1.643	8.012	0.586	0.390	0.263	N	P	8287.700	1.021	7.352	0.625	0.423	0.170	N
P	8200.808	1.557	7.451	0.633	0.428	0.155	N	B	8287.704	1.019	8.488	0.623	0.430	0.260	N
B	8200.814	1.502	8.495	0.626	0.426	0.252	N	A	8289.743	1.008	8.002	0.584	0.390	0.262	N
A	8218.845	1.096	8.009	0.584	0.384	0.286	N	P	8289.746	1.011	7.440	0.627	0.428	0.173	N
P	8218.851	1.075	7.321	0.617	0.419	0.189	N	B	8289.750	1.018	8.486	0.618	0.434	0.257	N
B	8218.857	1.063	8.495	0.630	0.436	0.266	N	A	8290.705	1.012	8.005	0.583	0.394	0.273	N
A	8226.843	1.053	8.015	0.587	0.383	0.286	N	P	8290.709	1.008	7.437	0.632	0.425	0.163	N
P	8226.848	1.041	7.449	0.633	0.423	0.169	N	B	8290.713	1.008	8.490	0.620	0.433	0.257	N
B	8226.852	1.035	8.499	0.622	0.436	0.262	N	A	8291.771	1.043	8.003	0.591	0.379	0.282	N
A	8228.786	1.210	8.008	0.585	0.381	0.282	N	P	8291.775	1.053	7.389	0.633	0.411	0.168	N
P	8228.792	1.176	7.348	0.627	0.421	0.164	N	B	8291.779	1.067	8.489	0.622	0.432	0.254	N
B	8228.798	1.154	8.491	0.621	0.426	0.236	N	A	8292.780	1.065	8.006	0.589	0.381	0.282	N
A	8233.825	1.053	8.012	0.585	0.387	0.283	N	P	8292.784	1.077	7.343	0.624	0.416	0.184	N
P	8233.829	1.041	7.333	0.623	0.417	0.189	N	B	8292.787	1.092	8.490	0.625	0.425	0.266	N
B	8233.834	1.035	8.500	0.620	0.434	0.253	N	A	8294.734	1.011	8.008	0.585	0.384	0.276	N
A	8235.801	1.092	8.009	0.588	0.379	0.281	N	P	8294.738	1.015	7.300	0.617	0.413	0.185	N
P	8235.806	1.075	7.334	0.630	0.408	0.185	N	B	8294.742	1.022	8.495	0.617	0.438	0.249	N
B	8235.811	1.064	8.488	0.623	0.428	0.257	N	A	8646.731	1.011	8.011	0.588	0.384	0.265	N
A	8238.806	1.063	8.008	0.586	0.385	0.275	N	P	8646.734	1.008	7.358	0.627	0.417	0.163	N
P	8238.811	1.049	7.463	0.635	0.423	0.166	N	B	8646.735	1.009	8.491	0.626	0.431	0.246	N
B	8238.816	1.042	8.495	0.616	0.435	0.260	N	A	8651.754	1.010	7.991	0.594	0.374	0.309	N
A	8245.831	1.009	8.010	0.586	0.383	0.285	N	P	8651.756	1.012	7.407	0.633	0.421	0.154	N
P	8245.836	1.006	7.328	0.624	0.416	0.179	N	B	8651.758	1.017	8.490	0.617	0.438	0.259	N
B	8245.840	1.007	8.496	0.619	0.433	0.260	N	A	8654.732	1.003	8.014	0.586	0.389	0.269	N
A	8255.731	1.144	8.003	0.582	0.385	0.285	N	P	8654.733	1.003	7.301	0.619	0.412	0.180	N
P	8255.736	1.121	7.301	0.615	0.417	0.176	N	B	8654.735	1.006	8.494	0.619	0.428	0.255	N
B	8255.740	1.108	8.489	0.622	0.426	0.259	N	A	8655.728	1.003	8.003	0.581	0.386	0.290	N
A	8259.835	1.016	8.006	0.589	0.379	0.277	N	P	8655.730	1.003	7.272	0.619	0.411	0.183	N
P	8259.839	1.021	7.322	0.627	0.412	0.186	N	B	8655.732	1.006	8.488	0.619	0.434	0.246	N
B	8259.843	1.030	8.491	0.626	0.420	0.269	N	A	8656.771	1.039	8.002	0.584	0.390	0.267	N
A	8282.701	1.041	8.012	0.586	0.390	0.273	N	P	8656.772	1.044	7.270	0.616	0.407	0.179	N
P	8282.703	1.034	7.312	0.625	0.411	0.178	N	B	8656.774	1.047	7.267	0.613	0.424	0.166	N
B	8282.706	1.031	8.502	0.616	0.440	0.256	N	A	8656.775	1.055	8.486	0.617	0.434	0.251	N
A	8283.710	1.025	8.008	0.589	0.377	0.281	N	P	8658.759	1.032	8.007	0.588	0.382	0.282	N
P	8283.712	1.020	7.321	0.627	0.412	0.185	N	B	8658.761	1.038	7.318	0.624	0.415	0.186	N
B	8283.714	1.019	8.497	0.617	0.432	0.269	N	A	8658.765	1.049	8.496	0.620	0.430	0.263	N
A	8284.774	1.022	8.006	0.583	0.389	0.258	N								

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Group 4001 P=HR1679																
A=HR1671								B=HR1617								
Star	JD ₀	X	V	b - y	m ₁	c ₁	Sys	Star	JD ₀	X	V	b - y	m ₁	c ₁	Sys	
A	8187.693	1.524	5.828	-0.031	0.112	0.649	N	B	8512.854	1.201	4.800	-0.075	0.088	0.246	N	
P	8187.693	1.519	4.290	-0.071	0.063	0.066	N	A	8517.822	1.287	5.826	-0.034	0.111	0.647	N	
B	8187.695	1.484	4.806	-0.076	0.094	0.245	N	P	8517.823	1.284	4.257	-0.069	0.060	0.049	N	
A	8195.671	1.542	5.825	-0.026	0.103	0.648	N	B	8517.825	1.266	4.799	-0.078	0.092	0.240	N	
P	8195.673	1.530	4.289	-0.066	0.053	0.065	N	A	8522.808	1.290	5.823	-0.030	0.108	0.652	N	
B	8195.675	1.494	4.798	-0.075	0.090	0.240	N	P	8522.809	1.287	4.262	-0.069	0.065	0.042	N	
A	8199.669	1.469	5.826	-0.032	0.108	0.650	N	B	8522.811	1.270	4.800	-0.077	0.096	0.235	N	
P	8199.670	1.459	4.285	-0.069	0.058	0.056	N	A	8524.796	1.330	5.828	-0.033	0.111	0.648	N	
B	8199.672	1.427	4.797	-0.076	0.088	0.244	N	P	8524.797	1.326	4.274	-0.070	0.062	0.053	N	
A	8216.694	1.129	5.831	-0.034	0.116	0.647	N	B	8524.798	1.307	4.805	-0.078	0.093	0.241	N	
P	8216.696	1.125	4.277	-0.072	0.069	0.051	N	A	8526.803	1.262	5.830	-0.034	0.118	0.642	N	
B	8216.698	1.123	4.793	-0.079	0.097	0.237	N	P	8526.805	1.257	4.273	-0.069	0.069	0.041	N	
A	8222.634	1.288	5.828	-0.028	0.105	0.656	N	B	8526.807	1.241	4.796	-0.079	0.101	0.229	N	
P	8222.636	1.279	4.279	-0.070	0.064	0.054	N	A	8529.812	1.195	5.844	-0.037	0.111	0.645	N	
B	8222.638	1.259	4.806	-0.078	0.094	0.247	N	P	8529.813	1.192	4.300	-0.078	0.066	0.045	N	
A	8227.604	1.389	5.839	-0.026	0.107	0.653	N	A	8535.761	1.362	5.829	-0.031	0.114	0.643	N	
P	8227.605	1.381	4.289	-0.066	0.059	0.061	N	P	8535.762	1.358	4.276	-0.067	0.060	0.055	N	
B	8227.607	1.356	4.810	-0.074	0.092	0.242	N	B	8535.764	1.336	4.804	-0.077	0.096	0.232	N	
A	8232.612	1.263	5.836	-0.029	0.109	0.652	N	A	8538.757	1.342	5.827	-0.029	0.102	0.656	N	
P	8232.614	1.256	4.281	-0.067	0.062	0.052	N	P	8538.758	1.338	4.294	-0.072	0.060	0.059	N	
B	8232.616	1.239	4.812	-0.077	0.094	0.247	N	B	8538.759	1.317	4.797	-0.077	0.088	0.245	N	
A	8238.610	1.201	5.830	-0.031	0.110	0.648	N	A	8545.761	1.225	5.835	-0.032	0.110	0.647	N	
P	8238.612	1.194	4.275	-0.069	0.060	0.051	N	P	8545.762	1.222	4.289	-0.072	0.066	0.050	N	
B	8238.614	1.184	4.811	-0.077	0.093	0.244	N	B	8545.764	1.211	4.810	-0.078	0.093	0.238	N	
A	8245.756	1.233	5.825	-0.030	0.104	0.662	N	A	8549.719	1.396	5.824	-0.035	0.116	0.647	N	
P	8245.758	1.238	4.270	-0.073	0.067	0.049	N	P	8549.725	1.362	4.276	-0.073	0.066	0.052	N	
B	8245.760	1.289	4.797	-0.080	0.095	0.242	N	B	8549.727	1.338	4.805	-0.079	0.095	0.241	N	
A	8256.668	1.085	5.820	-0.025	0.107	0.652	N	A	8555.682	1.577	5.832	-0.028	0.101	0.657	N	
P	8256.670	1.086	4.262	-0.064	0.061	0.053	N	P	8555.683	1.566	4.282	-0.068	0.055	0.067	N	
B	8256.672	1.108	4.797	-0.073	0.094	0.240	N	B	8555.686	1.522	4.809	-0.075	0.085	0.256	N	
A	8281.559	1.071	5.823	-0.030	0.109	0.654	N	A	8558.680	1.513	5.839	-0.032	0.111	0.647	N	
P	8281.565	1.069	4.263	-0.068	0.064	0.049	N	P	8558.681	1.508	4.287	-0.068	0.058	0.062	N	
B	8281.566	1.080	4.798	-0.077	0.095	0.240	N	B	8558.683	1.473	4.813	-0.075	0.088	0.243	N	
A	8285.651	1.260	5.834	-0.030	0.109	0.654	N	A	8561.737	1.159	5.827	-0.029	0.106	0.651	N	
P	8285.654	1.270	4.285	-0.073	0.070	0.051	N	P	8561.739	1.155	4.283	-0.068	0.062	0.052	N	
A	8288.592	1.104	5.817	-0.035	0.108	0.657	N	B	8561.741	1.149	4.798	-0.075	0.088	0.245	N	
P	8288.594	1.106	4.260	-0.072	0.063	0.046	N	A	8566.696	1.268	4.267	-0.075	0.070	0.050	N	
B	8288.596	1.133	4.789	-0.079	0.088	0.248	N	P	8566.698	1.256	5.806	-0.037	0.117	0.641	N	
A	8292.544	1.069	5.827	-0.031	0.110	0.654	N	P	8566.699	1.253	4.266	-0.076	0.069	0.054	N	
P	8292.546	1.069	4.276	-0.069	0.064	0.053	N	B	8566.700	1.239	4.781	-0.085	0.101	0.236	N	
B	8292.548	1.083	4.806	-0.077	0.095	0.243	N	A	8572.695	1.200	5.826	-0.032	0.110	0.651	N	
A	8493.884	1.298	5.839	-0.030	0.112	0.650	N	P	8572.696	1.198	4.272	-0.072	0.066	0.055	N	
P	8493.885	1.293	4.236	-0.056	0.053	0.040	N	B	8572.698	1.189	4.798	-0.079	0.097	0.237	N	
B	8493.887	1.272	4.807	-0.073	0.091	0.241	N	A	8575.680	1.226	5.815	-0.034	0.115	0.649	N	
A	8494.836	1.666	5.819	-0.031	0.106	0.651	N	P	8575.682	1.222	4.262	-0.072	0.069	0.045	N	
P	8494.837	1.654	4.207	-0.059	0.047	0.034	N	B	8575.683	1.211	4.791	-0.077	0.093	0.246	N	
B	8494.840	1.599	4.798	-0.078	0.091	0.241	N	A	8578.701	1.133	5.825	-0.030	0.110	0.646	N	
A	8495.846	1.533	5.846	-0.030	0.107	0.651	N	P	8578.703	1.130	4.282	-0.070	0.066	0.054	N	
P	8495.847	1.520	4.263	-0.057	0.053	0.024	N	B	8578.704	1.128	4.799	-0.079	0.098	0.235	N	
B	8495.849	1.482	4.829	-0.079	0.092	0.246	N	A	8646.610	1.100	5.827	-0.031	0.106	0.659	N	
A	8501.876	1.232	5.852	-0.031	0.107	0.652	N	P	8646.611	1.100	4.275	-0.068	0.062	0.052	N	
P	8501.877	1.228	4.236	-0.063	0.052	0.044	N	B	8646.612	1.125	4.805	-0.067	0.082	0.243	N	
B	8501.879	1.215	4.821	-0.078	0.094	0.238	N	A	8652.612	1.138	5.825	-0.035	0.118	0.639	N	
A	8505.864	1.237	5.822	-0.032	0.110	0.642	N	P	8652.612	1.138	4.269	-0.071	0.067	0.053	N	
P	8505.866	1.232	4.225	-0.066	0.062	0.027	N	B	8652.614	1.171	4.797	-0.080	0.099	0.236	N	
B	8505.868	1.219	4.802	-0.079	0.096	0.235	N	A	8656.614	1.166	5.832	-0.033	0.114	0.651	N	
A	8512.851	1.215	5.823	-0.030	0.103	0.657	N	P	8656.615	1.169	4.288	-0.070	0.067	0.051	N	
P	8512.852	1.212	4.258	-0.062	0.052	0.044	N	B	8656.617	1.207	4.808	-0.079	0.101	0.236	N	

Long Term Photometry of Variables

Group 4002 P=HR2142															
A=HR2205								B=HR2344							
Star	JD ₀	X	V	b - y	m ₁	c ₁	Sys	Star	JD ₀	X	V	b - y	m ₁	c ₁	Sys
A	8169.818	1.316	5.066	-0.086	0.090	0.206	N	B	8281.576	1.153	5.057	-0.076	0.090	0.224	N
P	8169.820	1.280	5.299	0.027	0.029	-0.011	N	A	8283.666	1.154	5.067	-0.084	0.089	0.199	N
B	8169.820	1.391	5.068	-0.077	0.093	0.220	N	P	8283.668	1.172	5.272	0.030	0.026	-0.014	N
A	8172.821	1.261	5.046	-0.086	0.086	0.209	N	B	8283.669	1.151	5.062	-0.077	0.096	0.208	N
P	8172.823	1.231	5.259	0.026	0.027	0.001	N	A	8285.660	1.153	5.068	-0.083	0.091	0.203	N
B	8172.823	1.325	5.046	-0.078	0.091	0.218	N	P	8285.663	1.176	5.265	0.032	0.025	-0.012	N
A	8187.759	1.371	5.069	-0.082	0.085	0.214	N	B	8285.665	1.154	5.064	-0.078	0.097	0.211	N
P	8187.760	1.330	5.284	0.033	0.022	-0.023	N	A	8287.654	1.151	5.051	-0.086	0.087	0.210	N
B	8187.761	1.460	5.059	-0.075	0.092	0.221	N	P	8287.655	1.168	5.238	0.030	0.026	-0.027	N
A	8189.746	1.421	5.069	-0.087	0.097	0.200	N	B	8287.657	1.148	5.047	-0.080	0.095	0.215	N
P	8189.747	1.375	5.276	0.029	0.029	-0.027	N	A	8289.546	1.130	5.089	-0.081	0.085	0.207	N
B	8189.748	1.518	5.064	-0.079	0.102	0.206	N	P	8289.547	1.115	5.264	0.034	0.025	-0.017	N
A	8191.738	1.462	5.059	-0.083	0.085	0.207	N	B	8289.549	1.165	5.065	-0.073	0.092	0.219	N
P	8191.739	1.410	5.272	0.032	0.020	-0.010	N	A	8292.552	1.105	5.064	-0.083	0.088	0.206	N
B	8191.740	1.569	5.059	-0.074	0.087	0.216	N	P	8292.554	1.096	5.277	0.030	0.031	-0.002	N
A	8193.709	1.703	5.061	-0.082	0.086	0.203	N	B	8292.555	1.133	5.061	-0.075	0.092	0.216	N
P	8193.710	1.619	5.293	0.031	0.021	-0.002	N	A	8294.605	1.100	5.065	-0.082	0.084	0.210	N
B	8193.711	1.855	5.062	-0.076	0.092	0.218	N	P	8294.607	1.108	5.252	0.034	0.021	-0.017	N
A	8196.703	1.678	5.056	-0.081	0.083	0.206	N	B	8294.610	1.108	5.060	-0.075	0.088	0.223	N
P	8196.704	1.600	5.285	0.032	0.020	-0.008	N	A	8531.849	1.214	5.060	-0.082	0.083	0.212	N
B	8196.705	1.829	5.059	-0.075	0.089	0.214	N	P	8531.851	1.189	5.269	0.035	0.016	-0.010	N
A	8198.713	1.515	5.070	-0.079	0.080	0.216	N	B	8531.852	1.267	5.057	-0.076	0.089	0.222	N
P	8198.715	1.456	5.291	0.033	0.022	-0.006	N	A	8538.830	1.214	5.056	-0.085	0.089	0.205	N
B	8198.716	1.630	5.063	-0.072	0.085	0.222	N	P	8538.832	1.191	5.280	0.030	0.024	-0.016	N
A	8218.681	1.354	5.057	-0.084	0.087	0.208	N	B	8538.834	1.262	5.049	-0.073	0.085	0.226	N
P	8218.683	1.310	5.268	0.029	0.024	-0.012	N	A	8545.819	1.190	5.057	-0.090	0.090	0.199	N
B	8218.686	1.419	5.056	-0.077	0.093	0.214	N	P	8545.820	1.169	5.284	0.023	0.026	-0.023	N
A	8223.679	1.291	5.055	-0.085	0.089	0.202	N	B	8545.821	1.240	5.063	-0.082	0.093	0.210	N
P	8223.681	1.253	5.270	0.030	0.024	-0.019	N	A	8548.848	1.099	5.256	0.032	0.030	-0.015	N
B	8223.683	1.352	5.061	-0.078	0.094	0.214	N	P	8548.849	1.138	5.026	-0.074	0.101	0.204	N
A	8227.724	1.114	5.057	-0.083	0.086	0.199	N	B	8558.788	1.178	5.065	-0.083	0.086	0.206	N
P	8227.729	1.099	5.281	0.029	0.026	-0.021	N	A	8558.790	1.157	5.287	0.029	0.022	-0.009	N
B	8227.731	1.138	5.057	-0.077	0.095	0.209	N	P	8558.792	1.221	5.070	-0.076	0.089	0.221	N
A	8230.738	1.089	5.055	-0.086	0.092	0.198	N	B	8558.784	1.166	5.056	-0.081	0.087	0.202	N
P	8230.741	1.085	5.272	0.026	0.030	-0.012	N	A	8561.785	1.148	5.273	0.032	0.022	-0.010	N
B	8230.743	1.110	5.058	-0.080	0.098	0.213	N	P	8561.787	1.209	5.057	-0.075	0.093	0.214	N
A	8232.744	1.085	5.054	-0.086	0.092	0.202	N	B	8575.762	1.129	5.066	-0.082	0.085	0.214	N
P	8232.746	1.083	5.280	0.026	0.029	-0.006	N	A	8575.764	1.115	5.266	0.031	0.019	-0.009	N
B	8232.748	1.102	5.057	-0.079	0.097	0.211	N	P	8575.766	1.162	5.056	-0.077	0.093	0.216	N
A	8234.750	1.085	5.064	-0.083	0.087	0.203	N	B	8577.774	1.102	5.066	-0.085	0.091	0.204	N
P	8234.752	1.087	5.291	0.031	0.021	0.012	N	A	8577.775	1.094	5.279	0.028	0.028	0.002	N
B	8234.754	1.099	5.071	-0.076	0.092	0.215	N	P	8577.776	1.131	5.059	-0.076	0.089	0.223	N
A	8238.822	1.271	5.044	-0.086	0.092	0.197	N	B	8651.655	1.146	5.048	-0.084	0.088	0.208	N
P	8238.824	1.305	5.289	0.026	0.030	-0.005	N	A	8651.657	1.164	5.262	0.028	0.025	-0.001	N
B	8238.826	1.258	5.054	-0.081	0.100	0.208	N	P	8651.660	1.147	5.051	-0.078	0.095	0.216	N
A	8245.736	1.095	5.062	-0.081	0.083	0.213	N	B	8655.631	1.108	5.065	-0.081	0.087	0.202	N
P	8245.738	1.102	5.281	0.030	0.023	-0.009	N	A	8655.632	1.119	5.277	0.032	0.022	-0.019	N
B	8245.740	1.105	5.056	-0.076	0.091	0.215	N	P	8655.634	1.110	5.061	-0.074	0.090	0.215	N
A	8255.640	1.129	5.063	-0.082	0.088	0.210	N	B	8657.617	1.106	5.057	-0.084	0.091	0.200	N
P	8255.641	1.115	5.268	0.029	0.032	-0.001	N	A	8657.618	1.115	5.254	0.029	0.025	-0.003	N
B	8255.643	1.164	5.057	-0.076	0.096	0.212	N	P	8657.620	1.112	5.051	-0.080	0.100	0.207	N
A	8258.672	1.085	5.050	-0.083	0.083	0.206	N	B	8659.573	1.085	5.071	-0.076	0.091	0.201	N
P	8258.673	1.083	5.249	0.033	0.019	-0.003	N	A	8659.574	1.083	5.300	0.034	0.026	0.010	N
B	8258.675	1.104	5.051	-0.075	0.086	0.219	N	P	8659.579	1.085	5.058	-0.077	0.086	0.214	N
A	8281.571	1.124	5.058	-0.081	0.084	0.215	N	B	8659.581	1.084	5.282	0.036	0.023	0.011	N
P	8281.574	1.109	5.262	0.033	0.020	0.005	N	A	8659.583	1.101	5.057	-0.072	0.093	0.217	N

Catalogue 1990-1992

Group 4003 P=HD 49014
A=HR2479 B=HR2517

Star	JD ₀	X	V	b-y	m ₁	c ₁	Sys	Star	JD ₀	X	V	b-y	m ₁	c ₁	Sys
A	8187.762	1.732	5.866	0.077	0.010	-0.077	N	P	8258.679	1.189	7.205	0.029	0.049	0.417	N
P	8187.763	1.698	7.246	0.029	0.046	0.415	N	B	8258.681	1.171	6.150	-0.042	0.075	0.319	N
B	8187.765	1.660	6.172	-0.041	0.080	0.324	N	A	8259.629	1.320	5.880	0.079	0.006	-0.074	N
A	8188.733	2.155	5.863	0.075	0.012	-0.073	N	P	8259.631	1.295	7.318	0.033	0.045	0.462	N
P	8188.734	2.104	7.214	0.027	0.053	0.401	N	B	8259.633	1.275	6.164	-0.037	0.076	0.314	N
B	8188.735	2.065	6.173	-0.045	0.082	0.327	N	A	8287.648	1.215	5.863	0.071	0.008	-0.073	N
A	8189.749	1.825	5.886	0.074	0.018	-0.086	N	P	8287.650	1.196	7.205	0.029	0.052	0.382	N
P	8189.751	1.780	7.241	0.022	0.062	0.407	N	B	8287.653	1.177	6.157	-0.046	0.078	0.329	N
B	8189.753	1.737	6.179	-0.046	0.088	0.320	N	A	8288.641	1.209	5.861	0.071	0.005	-0.065	N
A	8190.761	1.651	5.884	0.075	0.008	-0.072	N	P	8288.643	1.190	7.194	0.031	0.047	0.391	N
P	8190.763	1.617	7.195	0.034	0.045	0.401	N	B	8288.646	1.172	6.146	-0.050	0.081	0.318	N
B	8190.764	1.589	6.171	-0.040	0.077	0.322	N	A	8289.718	1.518	5.873	0.074	0.003	-0.065	N
A	8191.742	1.895	5.881	0.077	0.003	-0.076	N	P	8289.721	1.495	7.267	0.027	0.046	0.447	N
P	8191.743	1.853	7.259	0.032	0.043	0.427	N	B	8289.723	1.469	6.154	-0.049	0.080	0.321	N
B	8191.745	1.818	6.176	-0.042	0.075	0.326	N	A	8290.668	1.276	5.874	0.075	0.007	-0.071	N
A	8197.821	1.243	5.877	0.073	0.011	-0.078	N	P	8290.670	1.256	7.282	0.027	0.051	0.429	N
P	8197.823	1.222	7.183	0.033	0.046	0.408	N	B	8290.671	1.234	6.158	-0.045	0.078	0.326	N
B	8197.824	1.204	6.176	-0.046	0.078	0.330	N	A	8291.740	1.790	5.871	0.075	0.005	-0.065	N
A	8200.839	1.203	5.885	0.075	0.009	-0.079	N	P	8291.742	1.759	7.565	0.047	0.038	0.287	N
P	8200.841	1.183	7.258	0.030	0.048	0.468	N	B	8291.744	1.711	6.160	-0.042	0.075	0.327	N
B	8200.842	1.165	6.174	-0.045	0.081	0.325	N	A	8292.618	1.199	5.877	0.075	0.007	-0.066	N
A	8218.737	1.334	5.884	0.074	0.005	-0.064	N	P	8292.621	1.181	7.324	0.031	0.051	0.391	N
P	8218.739	1.307	7.194	0.026	0.053	0.407	N	B	8292.623	1.162	6.161	-0.043	0.077	0.329	N
B	8218.742	1.283	6.182	-0.047	0.084	0.325	N	A	8293.712	1.559	5.869	0.075	0.007	-0.073	N
A	8219.753	1.266	5.873	0.073	0.009	-0.072	N	P	8293.715	1.535	7.248	0.031	0.049	0.423	N
P	8219.756	1.243	7.176	0.025	0.051	0.409	N	B	8293.717	1.505	6.161	-0.041	0.075	0.328	N
B	8219.759	1.221	6.163	-0.046	0.081	0.316	N	A	8294.626	1.211	5.870	0.073	0.010	-0.074	N
A	8226.716	1.329	5.867	0.076	0.005	-0.072	N	P	8294.629	1.193	7.215	0.030	0.042	0.438	N
P	8226.719	1.303	7.224	0.027	0.047	0.427	N	B	8294.631	1.174	6.164	-0.041	0.074	0.323	N
B	8226.721	1.280	6.162	-0.042	0.076	0.321	N	A	8535.861	1.349	5.859	0.071	0.011	-0.082	N
A	8227.801	1.202	5.877	0.070	0.013	-0.080	N	P	8535.863	1.322	7.228	0.018	0.062	0.627	N
P	8227.803	1.184	7.185	0.027	0.050	0.403	N	B	8535.867	1.294	6.160	-0.055	0.093	0.310	N
B	8227.805	1.165	6.163	-0.045	0.077	0.321	N	A	8545.823	1.412	5.889	0.066	0.011	-0.082	N
A	8228.674	1.551	5.876	0.075	0.005	-0.067	N	P	8545.824	1.387	7.338	0.015	0.056	0.473	N
P	8228.676	1.517	7.196	0.036	0.048	0.367	N	A	8547.846	1.287	5.884	0.071	0.008	-0.070	N
B	8228.678	1.489	6.172	-0.045	0.076	0.339	N	P	8547.847	1.265	7.220	0.023	0.051	0.418	N
A	8230.752	1.210	5.881	0.072	0.010	-0.077	N	B	8547.848	1.246	6.183	-0.046	0.077	0.336	N
P	8230.754	1.190	7.298	0.027	0.053	0.486	N	P	8548.851	1.246	7.177	0.034	0.048	0.418	N
B	8230.756	1.171	6.167	-0.047	0.080	0.328	N	B	8548.852	1.227	6.131	-0.039	0.080	0.328	N
A	8232.724	1.251	5.870	0.074	0.006	-0.063	N	A	8549.810	1.425	5.880	0.073	0.010	-0.075	N
P	8232.727	1.229	7.222	0.034	0.047	0.438	N	P	8549.811	1.401	7.294	0.024	0.047	0.435	N
B	8232.729	1.209	6.169	-0.046	0.078	0.334	N	B	8549.812	1.378	6.184	-0.047	0.077	0.339	N
A	8234.781	1.202	5.892	0.080	0.004	-0.070	N	A	8556.851	1.217	5.875	0.075	0.002	-0.062	N
P	8234.783	1.183	7.260	0.039	0.045	0.404	N	P	8556.853	1.197	7.205	0.023	0.057	0.386	N
B	8234.786	1.165	6.191	-0.039	0.072	0.343	N	B	8556.855	1.179	6.174	-0.048	0.083	0.329	N
A	8235.833	1.328	5.864	0.075	0.001	-0.065	N	A	8651.663	1.235	5.879	0.068	0.015	-0.072	N
P	8235.835	1.306	7.238	0.027	0.046	0.423	N	P	8651.666	1.218	7.305	0.026	0.056	0.422	N
B	8235.837	1.283	6.173	-0.044	0.073	0.332	N	B	8651.670	1.200	6.164	-0.044	0.077	0.327	N
A	8238.858	1.521	5.864	0.071	0.012	-0.074	N	A	8654.627	1.182	5.905	0.071	0.012	-0.072	N
P	8238.860	1.493	7.294	0.040	0.044	0.351	N	P	8654.629	1.164	7.260	0.030	0.048	0.405	N
B	8238.862	1.462	6.164	-0.046	0.077	0.337	N	B	8654.631	1.147	6.188	-0.047	0.082	0.331	N
A	8239.784	1.222	5.878	0.072	0.014	-0.084	N	A	8655.625	1.183	5.880	0.075	0.010	-0.077	N
P	8239.786	1.203	7.238	0.026	0.055	0.389	N	P	8655.627	1.165	7.230	0.032	0.048	0.384	N
B	8239.788	1.183	6.177	-0.046	0.081	0.325	N	B	8655.630	1.148	6.186	-0.043	0.075	0.333	N
A	8245.750	1.201	5.875	0.073	0.008	-0.071	N	A	8656.624	1.184	5.888	0.071	0.017	-0.079	N
P	8245.752	1.182	7.243	0.029	0.046	0.442	N	P	8656.626	1.166	7.254	0.036	0.049	0.411	N
B	8245.754	1.163	6.171	-0.046	0.077	0.338	N	B	8656.629	1.149	6.184	-0.048	0.088	0.317	N
A	8252.677	1.236	5.872	0.074	0.011	-0.073	N	A	8659.567	1.225	5.905	0.080	0.014	-0.080	N
P	8252.679	1.215	7.197	0.033	0.056	0.401	N	P	8659.570	1.205	7.293	0.042	0.050	0.411	N
B	8252.680	1.197	6.179	-0.045	0.084	0.326	N	B	8659.572	1.185	6.192	-0.034	0.075	0.333	N
A	8258.677	1.209	5.870	0.072	0.012	-0.079	N								

Long Term Photometry of Variables

Group 4004 P=HR2492 A=HR2415 B=HR2497															
Star	JD ₀	X	V	b-y	m ₁	c ₁	Sys	Star	JD ₀	X	V	b-y	m ₁	c ₁	Sys
A	8168.856	1.099	5.622	-0.030	0.112	0.868	N	P	8294.616	1.004	5.237	-0.006	0.037	-0.087	N
P	8168.856	1.118	5.146	-0.001	0.043	-0.049	N	B	8294.619	1.005	6.538	-0.043	0.116	0.495	N
B	8168.857	1.117	6.534	-0.049	0.120	0.503	N	A	8535.843	1.121	5.615	-0.034	0.118	0.859	N
A	8169.813	1.248	5.631	-0.028	0.111	0.868	N	P	8535.845	1.138	5.262	-0.020	0.042	-0.060	N
P	8169.814	1.280	5.173	0.008	0.032	-0.057	N	B	8535.846	1.135	6.522	-0.044	0.118	0.482	N
B	8169.815	1.277	6.543	-0.046	0.118	0.493	N	A	8535.850	1.103	5.613	-0.032	0.111	0.868	N
A	8172.816	1.197	5.619	-0.032	0.113	0.870	N	A	8545.826	1.096	5.628	-0.037	0.118	0.860	N
P	8172.817	1.224	5.140	0.005	0.035	-0.060	N	P	8545.827	1.112	5.236	-0.025	0.048	-0.045	N
B	8172.818	1.221	6.531	-0.046	0.120	0.483	N	B	8545.828	1.109	6.540	-0.053	0.123	0.491	N
A	8185.800	1.129	5.627	-0.031	0.123	0.853	N	A	8545.831	1.082	5.620	-0.033	0.111	0.864	N
P	8185.802	1.147	5.214	0.005	0.038	-0.085	N	A	8556.786	1.125	5.625	-0.031	0.113	0.875	N
B	8185.804	1.142	6.537	-0.048	0.129	0.478	N	P	8556.788	1.141	5.209	-0.002	0.033	-0.074	N
A	8194.857	1.003	5.631	-0.026	0.113	0.872	N	B	8556.791	1.134	6.534	-0.043	0.116	0.489	N
P	8194.858	1.003	5.226	0.010	0.030	-0.074	N	A	8556.795	1.099	5.621	-0.029	0.112	0.869	N
B	8194.860	1.002	6.545	-0.039	0.118	0.494	N	A	8566.817	1.015	5.621	-0.039	0.116	0.865	N
A	8222.781	1.003	5.626	-0.033	0.118	0.871	N	P	8566.818	1.019	5.267	-0.019	0.040	-0.074	N
P	8222.784	1.003	5.226	-0.005	0.037	-0.072	N	B	8566.821	1.016	6.529	-0.056	0.123	0.497	N
B	8222.786	1.002	6.534	-0.046	0.123	0.486	N	A	8566.825	1.009	5.622	-0.039	0.116	0.867	N
A	8233.756	1.002	5.620	-0.030	0.112	0.870	N	A	8576.832	1.004	5.640	-0.034	0.115	0.870	N
P	8233.759	1.001	5.270	-0.006	0.034	-0.054	N	P	8576.834	1.001	5.261	-0.019	0.045	-0.060	N
B	8233.765	1.000	6.530	-0.047	0.118	0.492	N	B	8576.835	1.001	6.543	-0.048	0.121	0.486	N
A	8245.741	1.005	5.625	-0.030	0.112	0.873	N	A	8576.838	1.007	5.633	-0.033	0.118	0.863	N
P	8245.743	1.002	5.202	0.004	0.031	-0.063	N	A	8647.683	1.049	5.613	-0.027	0.109	0.876	N
B	8245.745	1.002	6.538	-0.048	0.122	0.493	N	P	8647.685	1.040	5.228	-0.008	0.034	-0.063	N
A	8258.683	1.003	5.621	-0.030	0.110	0.873	N	B	8647.687	1.043	6.526	-0.044	0.118	0.493	N
P	8258.686	1.003	5.220	0.001	0.028	-0.084	N	A	8647.691	1.064	5.619	-0.030	0.112	0.879	N
B	8258.688	1.002	6.532	-0.045	0.118	0.487	N	A	8656.730	1.293	5.613	-0.030	0.112	0.874	N
A	8285.668	1.039	5.630	-0.031	0.119	0.862	N	P	8656.732	1.270	5.252	-0.014	0.045	-0.065	N
P	8285.670	1.032	5.222	0.007	0.035	-0.098	N	B	8656.735	1.281	6.526	-0.043	0.117	0.494	N
B	8285.674	1.036	6.538	-0.042	0.119	0.492	N	A	8656.739	1.342	5.627	-0.036	0.121	0.868	N
A	8294.613	1.007	5.631	-0.030	0.114	0.870	N								

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Group 4005 P=HR2745																
A=HR2774 B=HR2841																
Star	JD_{\odot}	X	V	$b-y$	m_1	c_1	Sys	Star	JD_{\odot}	X	V	$b-y$	m_1	c_1	Sys	
A	8187.825	1.131	6.444	-0.060	0.098	0.383	N	A	8250.666	1.104	6.445	-0.064	0.107	0.376	N	
P	8187.826	1.119	4.475	-0.077	0.068	0.047	N	P	8250.667	1.094	4.464	-0.072	0.062	0.055	N	
B	8187.828	1.141	5.804	-0.031	0.091	0.724	N	B	8250.669	1.114	5.796	-0.032	0.096	0.720	N	
A	8188.748	1.584	6.451	-0.060	0.098	0.383	N	A	8250.670	1.091	6.447	-0.062	0.103	0.383	N	
P	8188.749	1.554	4.482	-0.074	0.061	0.056	N	B	8250.673	1.101	5.786	-0.030	0.094	0.717	N	
B	8188.750	1.630	5.794	-0.032	0.091	0.722	N	A	8281.671	1.003	6.448	-0.061	0.099	0.387	N	
A	8194.851	1.030	6.453	-0.058	0.100	0.383	N	P	8281.674	1.006	4.469	-0.074	0.062	0.055	N	
P	8194.853	1.025	4.486	-0.068	0.062	0.051	N	B	8281.677	1.005	5.800	-0.031	0.090	0.731	N	
B	8194.854	1.035	5.802	-0.026	0.092	0.722	N	A	8286.723	1.101	6.447	-0.061	0.102	0.384	N	
A	8199.729	1.498	6.444	-0.063	0.103	0.382	N	P	8286.725	1.115	4.468	-0.074	0.066	0.052	N	
P	8199.730	1.469	4.454	-0.074	0.062	0.054	N	B	8286.729	1.105	5.794	-0.031	0.096	0.723	N	
B	8199.731	1.536	5.789	-0.028	0.089	0.725	N	A	8292.626	1.001	6.450	-0.058	0.097	0.386	N	
A	8216.845	1.003	6.448	-0.063	0.105	0.375	N	P	8292.627	1.001	4.455	-0.073	0.063	0.051	N	
P	8216.848	1.005	4.471	-0.076	0.067	0.052	N	B	8292.631	1.003	5.801	-0.031	0.094	0.722	N	
B	8216.851	1.004	5.797	-0.033	0.096	0.720	N	A	8539.831	1.254	6.411	-0.059	0.106	0.372	N	
A	8216.854	1.006	6.450	-0.065	0.109	0.371	N	P	8539.833	1.237	4.407	-0.068	0.061	0.047	N	
B	8216.859	1.008	5.798	-0.032	0.096	0.717	N	A	8548.853	1.086	6.421	-0.055	0.098	0.388	N	
A	8223.725	1.146	6.443	-0.060	0.099	0.377	N	P	8548.855	1.076	4.417	-0.070	0.063	0.055	N	
P	8223.727	1.133	4.460	-0.075	0.062	0.051	N	B	8548.856	1.094	5.766	-0.028	0.096	0.723	N	
B	8223.729	1.155	5.791	-0.031	0.092	0.719	N	A	8556.798	1.199	6.442	-0.059	0.097	0.384	N	
A	8223.731	1.125	6.448	-0.064	0.104	0.374	N	P	8556.799	1.183	4.422	-0.076	0.062	0.051	N	
B	8223.735	1.135	5.792	-0.033	0.096	0.717	N	B	8556.801	1.211	5.790	-0.030	0.087	0.729	N	
A	8232.775	1.006	6.444	-0.063	0.104	0.378	N	A	8566.826	1.042	6.436	-0.068	0.100	0.378	N	
P	8232.777	1.004	4.480	-0.075	0.067	0.050	N	P	8566.827	1.036	4.431	-0.085	0.067	0.044	N	
B	8232.779	1.008	5.791	-0.033	0.094	0.724	N	B	8566.829	1.048	5.790	-0.043	0.097	0.718	N	
A	8232.782	1.003	6.444	-0.063	0.104	0.384	N	A	8574.792	1.066	6.446	-0.063	0.101	0.384	N	
B	8232.786	1.005	5.795	-0.035	0.098	0.716	N	P	8574.793	1.059	4.435	-0.077	0.064	0.045	N	
A	8239.797	1.010	6.447	-0.060	0.099	0.383	N	B	8574.794	1.074	5.796	-0.035	0.093	0.727	N	
P	8239.799	1.013	4.455	-0.076	0.068	0.045	N	A	8651.672	1.011	6.437	-0.059	0.098	0.382	N	
B	8239.801	1.010	5.797	-0.033	0.099	0.715	N	P	8651.674	1.015	4.442	-0.073	0.064	0.046	N	
A	8239.804	1.015	6.451	-0.063	0.103	0.383	N	B	8651.677	1.012	5.786	-0.032	0.094	0.723	N	
B	8239.808	1.016	5.799	-0.033	0.097	0.717	N									

Long Term Photometry of Variables

Group 4006 P=HR2749 A=HR2774 B=HR2841															
Star	JD_{\odot}	X	V	$b - y$	m_1	c_1	Sys	Star	JD_{\odot}	X	V	$b - y$	m_1	c_1	Sys
A	8216.845	1.003	6.448	-0.063	0.105	0.375	N	P	8239.806	1.020	4.060	-0.074	0.088	0.323	N
A	8216.854	1.006	6.450	-0.065	0.109	0.371	N	A	8250.666	1.104	6.445	-0.064	0.107	0.376	N
P	8216.856	1.009	4.061	-0.074	0.085	0.328	N	A	8250.670	1.091	6.447	-0.062	0.103	0.383	N
A	8223.725	1.146	6.443	-0.060	0.099	0.377	N	P	8250.672	1.083	3.984	-0.060	0.076	0.269	N
A	8223.731	1.125	6.448	-0.064	0.104	0.374	N	A	8281.671	1.003	6.448	-0.061	0.099	0.387	N
P	8223.733	1.113	4.061	-0.075	0.083	0.331	N	P	8281.675	1.006	4.064	-0.071	0.079	0.334	N
A	8232.775	1.006	6.444	-0.063	0.104	0.378	N	A	8286.723	1.101	6.447	-0.061	0.102	0.384	N
A	8232.782	1.003	6.444	-0.063	0.104	0.384	N	P	8286.727	1.116	4.058	-0.074	0.088	0.323	N
P	8232.784	1.002	4.055	-0.078	0.091	0.321	N	A	8292.626	1.001	6.450	-0.058	0.097	0.386	N
A	8239.797	1.010	6.447	-0.060	0.099	0.383	N	P	8292.629	1.001	4.062	-0.073	0.086	0.328	N
A	8239.804	1.015	6.451	-0.063	0.103	0.383	N								

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Group 4007 P=HR2855
A=HR2860 B=HR2826

Star	JD_{\odot}	X	V	$b-y$	m_1	c_1	Sys	Star	JD_{\odot}	X	V	$b-y$	m_1	c_1	Sys
A	8187.794	1.313	5.984	-0.026	0.100	0.657	N	P	8292.674	1.030	5.583	0.009	0.017	-0.136	N
P	8187.795	1.304	5.596	0.008	0.019	-0.130	N	B	8292.676	1.034	6.206	-0.034	0.110	0.728	N
B	8187.797	1.285	6.208	-0.033	0.108	0.725	N	P	8292.678	1.034	5.582	0.009	0.016	-0.132	N
P	8187.798	1.289	5.599	0.007	0.016	-0.123	N	B	8292.679	1.040	6.214	-0.035	0.111	0.726	N
B	8187.799	1.272	6.215	-0.035	0.110	0.727	N	P	8292.681	1.039	5.584	0.008	0.018	-0.133	N
P	8187.800	1.276	5.594	0.009	0.016	-0.125	N	A	8292.682	1.040	5.981	-0.024	0.098	0.660	N
A	8187.801	1.273	5.984	-0.027	0.102	0.655	N	A	8535.868	1.180	5.964	-0.032	0.108	0.647	N
A	8196.760	1.396	5.977	-0.022	0.103	0.649	N	P	8535.870	1.172	5.625	0.005	0.021	-0.131	N
P	8196.761	1.378	5.584	0.006	0.025	-0.143	N	B	8535.872	1.157	6.197	-0.044	0.126	0.706	N
B	8196.763	1.354	6.208	-0.032	0.112	0.719	N	P	8535.873	1.159	5.627	0.004	0.026	-0.139	N
P	8196.765	1.355	5.585	0.006	0.021	-0.132	N	A	8535.874	1.156	5.970	-0.031	0.108	0.645	N
B	8196.766	1.334	6.206	-0.033	0.113	0.720	N	A	8547.825	1.229	5.977	-0.024	0.096	0.663	N
P	8196.767	1.336	5.585	0.007	0.022	-0.137	N	P	8547.826	1.221	5.647	0.008	0.017	-0.118	N
A	8196.769	1.331	5.977	-0.022	0.101	0.651	N	B	8547.828	1.207	6.205	-0.034	0.110	0.727	N
A	8218.762	1.106	5.985	-0.027	0.105	0.650	N	P	8547.829	1.209	5.645	0.010	0.016	-0.121	N
P	8218.763	1.098	5.611	0.009	0.017	-0.121	N	B	8547.830	1.195	6.203	-0.034	0.112	0.721	N
B	8218.766	1.088	6.212	-0.036	0.114	0.723	N	P	8547.831	1.198	5.649	0.010	0.015	-0.117	N
P	8218.768	1.087	5.607	0.010	0.017	-0.122	N	A	8547.833	1.194	5.978	-0.025	0.100	0.656	N
B	8218.769	1.079	6.212	-0.036	0.115	0.721	N	A	8561.850	1.041	5.976	-0.025	0.101	0.653	N
P	8218.771	1.079	5.608	0.007	0.021	-0.124	N	P	8561.852	1.038	5.651	0.011	0.015	-0.125	N
A	8218.773	1.076	5.985	-0.026	0.103	0.653	N	B	8561.853	1.034	6.204	-0.031	0.104	0.734	N
A	8228.692	1.278	5.985	-0.025	0.099	0.661	N	P	8561.854	1.035	5.651	0.009	0.017	-0.123	N
P	8228.694	1.265	5.628	0.009	0.015	-0.117	N	B	8561.856	1.031	6.226	-0.036	0.114	0.721	N
B	8228.696	1.247	6.212	-0.036	0.113	0.725	N	P	8561.856	1.032	5.657	0.008	0.019	-0.131	N
P	8228.698	1.246	5.632	0.006	0.019	-0.120	N	A	8561.858	1.031	5.977	-0.023	0.096	0.665	N
B	8228.699	1.230	6.212	-0.036	0.113	0.727	N	A	8575.774	1.136	5.977	-0.025	0.098	0.660	N
P	8228.701	1.231	5.634	0.008	0.020	-0.126	N	P	8575.775	1.130	5.674	0.007	0.021	-0.129	N
A	8228.702	1.227	5.987	-0.025	0.098	0.662	N	B	8575.776	1.122	6.204	-0.034	0.109	0.726	N
A	8250.685	1.082	5.977	-0.023	0.098	0.654	N	P	8575.777	1.124	5.672	0.008	0.018	-0.124	N
P	8250.686	1.076	5.623	0.010	0.016	-0.137	N	B	8575.778	1.114	6.202	-0.035	0.114	0.717	N
B	8250.688	1.069	6.208	-0.035	0.113	0.720	N	P	8575.779	1.116	5.670	0.009	0.019	-0.129	N
P	8250.690	1.069	5.625	0.011	0.015	-0.140	N	A	8575.780	1.115	5.980	-0.030	0.105	0.654	N
B	8250.691	1.063	6.209	-0.034	0.108	0.728	N	A	8652.733	1.124	5.972	-0.025	0.101	0.654	N
P	8250.692	1.063	5.621	0.013	0.012	-0.135	N	P	8652.734	1.128	5.630	0.005	0.022	-0.122	N
A	8250.694	1.062	5.981	-0.026	0.101	0.658	N	B	8652.735	1.139	6.200	-0.036	0.115	0.720	N
A	8284.743	1.132	5.981	-0.026	0.101	0.653	N	P	8652.736	1.134	5.631	0.005	0.024	-0.128	N
P	8284.745	1.140	5.580	0.010	0.014	-0.131	N	B	8652.737	1.146	6.198	-0.037	0.118	0.712	N
B	8284.746	1.152	6.206	-0.036	0.113	0.716	N	P	8652.738	1.141	5.631	0.005	0.023	-0.127	N
P	8284.749	1.154	5.577	0.008	0.018	-0.138	N	A	8652.739	1.143	5.973	-0.027	0.105	0.651	N
B	8284.750	1.166	6.203	-0.037	0.117	0.711	N	A	8659.697	1.078	5.970	-0.023	0.100	0.649	N
P	8284.752	1.166	5.578	0.008	0.016	-0.134	N	P	8659.701	1.088	5.658	0.007	0.021	-0.124	N
A	8284.754	1.171	5.973	-0.022	0.093	0.663	N	B	8659.702	1.097	6.198	-0.037	0.114	0.722	N
A	8292.672	1.027	5.983	-0.026	0.101	0.659	N								

Long Term Photometry of Variables

Group 4008 P=HR3237															
A=HR3283								B=HR3270							
Star	JD_{\odot}	X	V	$b-y$	m_1	c_1	Sys	Star	JD_{\odot}	X	V	$b-y$	m_1	c_1	Sys
A	8187.802	1.448	5.182	-0.077	0.080	0.165	N	B	8282.738	1.030	4.437	0.119	0.209	0.826	N
P	8187.803	1.404	4.887	-0.026	0.036	-0.126	N	A	8292.703	1.020	5.180	-0.078	0.086	0.158	N
B	8187.804	1.418	4.445	0.116	0.210	0.830	N	P	8292.705	1.026	4.808	-0.004	0.024	-0.158	N
A	8198.777	1.419	5.182	-0.074	0.076	0.165	N	B	8292.706	1.026	4.439	0.116	0.213	0.829	N
P	8198.779	1.368	4.904	-0.027	0.038	-0.131	N	A	8413.485	1.403	5.181	-0.073	0.075	0.187	N
B	8198.780	1.380	4.444	0.120	0.206	0.830	N	P	8413.488	1.467	4.679	0.002	0.025	-0.113	N
A	8226.769	1.111	5.187	-0.079	0.085	0.164	N	B	8413.491	1.458	4.438	0.120	0.207	0.845	N
P	8226.771	1.091	4.874	-0.026	0.036	-0.121	N	A	8558.844	1.151	5.189	-0.079	0.084	0.162	N
B	8226.773	1.096	4.441	0.117	0.210	0.830	N	P	8558.846	1.128	4.778	0.007	0.020	-0.181	N
A	8238.770	1.042	5.187	-0.078	0.083	0.158	N	B	8558.848	1.133	4.444	0.116	0.210	0.831	N
P	8238.772	1.031	4.710	0.002	0.027	-0.182	N	A	8646.694	1.009	5.180	-0.075	0.073	0.177	N
B	8238.774	1.035	4.441	0.118	0.208	0.828	N	P	8646.695	1.007	4.809	-0.005	0.020	-0.146	N
A	8255.719	1.051	5.169	-0.081	0.085	0.156	N	B	8646.696	1.009	4.437	0.122	0.197	0.845	N
P	8255.721	1.039	4.835	-0.027	0.040	-0.140	N	A	8654.707	1.020	5.189	-0.078	0.084	0.157	N
B	8255.722	1.043	4.432	0.112	0.215	0.821	N	P	8654.708	1.023	4.703	0.003	0.032	-0.164	N
A	8282.734	1.024	5.185	-0.078	0.084	0.159	N	B	8654.710	1.024	4.442	0.117	0.211	0.824	N
P	8282.736	1.031	4.670	0.019	0.022	-0.189	N								

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Group 4009 P=HR5941															
A=HR5954								B=HR5927							
Star	JD_{\odot}	X	V	$b-y$	m_1	c_1	Sys	Star	JD_{\odot}	X	V	$b-y$	m_1	c_1	Sys
A	8429.773	1.635	5.455	0.323	0.168	0.407	N	A	8508.489	1.194	5.447	0.320	0.174	0.403	N
P	8429.775	1.715	4.956	-0.025	0.086	0.953	N	P	8508.490	1.221	4.933	-0.019	0.081	1.005	N
B	8429.779	1.787	6.319	0.310	0.162	0.485	N	B	8508.491	1.232	6.309	0.311	0.165	0.468	N
A	8460.588	1.082	5.462	0.320	0.177	0.398	N	A	8510.514	1.358	5.454	0.323	0.175	0.394	N
P	8460.589	1.102	4.971	-0.021	0.090	0.981	N	P	8510.515	1.398	4.930	-0.017	0.082	0.991	N
B	8460.592	1.110	6.323	0.309	0.170	0.465	N	B	8510.518	1.438	6.314	0.311	0.168	0.469	N
A	8461.511	1.031	5.457	0.319	0.176	0.399	N	A	8511.523	1.452	5.437	0.323	0.170	0.399	N
P	8461.512	1.040	4.948	-0.025	0.087	0.993	N	P	8511.524	1.501	4.925	-0.022	0.087	0.999	N
B	8461.514	1.038	6.319	0.308	0.170	0.469	N	B	8511.525	1.523	6.301	0.307	0.172	0.461	N
A	8462.601	1.130	5.465	0.323	0.170	0.399	N	A	8517.489	1.325	5.465	0.324	0.174	0.395	N
P	8462.603	1.155	4.972	-0.019	0.086	0.982	N	P	8517.490	1.364	4.959	-0.021	0.088	0.997	N
B	8462.605	1.165	6.323	0.314	0.164	0.467	N	B	8517.492	1.383	6.331	0.310	0.170	0.457	N
A	8463.513	1.028	5.461	0.324	0.172	0.399	N	A	8518.507	1.485	5.434	0.325	0.171	0.399	N
P	8463.514	1.037	4.943	-0.022	0.087	0.987	N	P	8518.508	1.536	4.912	-0.018	0.082	1.007	N
B	8463.518	1.035	6.323	0.310	0.168	0.465	N	B	8518.510	1.561	6.297	0.314	0.168	0.469	N
A	8464.563	1.057	5.476	0.320	0.172	0.400	N	A	8519.484	1.330	5.474	0.317	0.179	0.397	N
P	8464.566	1.077	4.980	-0.027	0.090	0.966	N	P	8519.485	1.370	4.966	-0.026	0.089	0.999	N
B	8464.570	1.087	6.353	0.304	0.171	0.467	N	B	8519.486	1.387	6.338	0.305	0.176	0.464	N
A	8497.533	1.255	5.443	0.321	0.176	0.397	N	A	8522.507	1.593	5.458	0.324	0.167	0.405	N
P	8497.534	1.287	4.932	-0.023	0.087	0.984	N	P	8522.508	1.660	4.943	-0.020	0.083	1.014	N
B	8497.536	1.307	6.310	0.308	0.170	0.469	N	B	8522.510	1.690	6.326	0.307	0.172	0.462	N
A	8501.485	1.115	5.451	0.321	0.177	0.398	N	A	8523.486	1.425	5.473	0.321	0.177	0.390	N
P	8501.487	1.138	4.940	-0.018	0.087	1.017	N	P	8523.488	1.483	4.951	-0.023	0.090	1.013	N
B	8501.490	1.150	6.317	0.304	0.177	0.463	N	B	8523.490	1.506	6.329	0.311	0.170	0.464	N
A	8505.490	1.167	5.468	0.327	0.174	0.395	N	A	8525.475	1.383	5.458	0.323	0.171	0.398	N
P	8505.491	1.192	4.975	-0.015	0.093	0.984	N	P	8525.476	1.428	4.947	-0.026	0.091	1.020	N
B	8505.492	1.201	6.341	0.311	0.177	0.457	N	B	8525.477	1.447	6.319	0.309	0.168	0.468	N

Long Term Photometry of Variables

Group 4010 P=HD173219															
A=HD173693 B=HD173673															
Star	JD _⊙	X	V	b - y	m ₁	c ₁	Sys	Star	JD _⊙	X	V	b - y	m ₁	c ₁	Sys
A	8166.570	1.439	7.227	0.198	0.044	1.291	N	A	8494.663	1.356	7.224	0.191	0.052	1.281	N
P	8166.572	1.477	7.845	0.228	-0.047	-0.136	N	P	8494.665	1.390	7.843	0.227	-0.044	-0.133	N
B	8166.574	1.492	7.659	0.057	0.072	0.589	N	B	8494.669	1.412	7.674	0.052	0.080	0.589	N
A	8168.564	1.442	7.228	0.196	0.049	1.290	N	A	8495.642	1.259	7.222	0.193	0.055	1.281	N
P	8168.567	1.480	7.856	0.227	-0.045	-0.134	N	P	8495.645	1.286	7.832	0.224	-0.035	-0.133	N
B	8168.569	1.494	7.661	0.054	0.078	0.590	N	B	8495.649	1.303	7.652	0.052	0.084	0.575	N
A	8169.576	1.573	7.229	0.191	0.056	1.279	N	A	8496.677	1.502	7.224	0.193	0.050	1.281	N
P	8169.578	1.617	7.830	0.229	-0.043	-0.140	N	P	8496.680	1.553	7.850	0.225	-0.041	-0.137	N
B	8169.581	1.637	7.670	0.046	0.090	0.575	N	B	8496.683	1.582	7.657	0.051	0.078	0.587	N
A	8186.524	1.534	7.235	0.198	0.044	1.293	N	P	8497.652	1.357	7.860	0.222	-0.036	-0.128	N
P	8186.528	1.591	7.859	0.230	-0.047	-0.126	N	B	8497.656	1.377	7.664	0.050	0.086	0.583	N
B	8186.531	1.613	7.665	0.058	0.073	0.594	N	A	8501.643	1.355	7.241	0.198	0.050	1.289	N
A	8192.508	1.543	7.240	0.197	0.050	1.289	N	P	8501.647	1.398	7.889	0.231	-0.048	-0.120	N
P	8192.512	1.606	7.875	0.229	-0.048	-0.111	N	B	8501.652	1.427	7.679	0.046	0.086	0.580	N
A	8193.519	1.692	7.215	0.192	0.053	1.287	N	A	8505.622	1.297	7.232	0.192	0.054	1.273	N
P	8193.523	1.775	7.878	0.229	-0.046	-0.096	N	P	8505.625	1.330	7.864	0.231	-0.048	-0.131	N
B	8193.527	1.811	7.652	0.053	0.081	0.592	N	B	8505.629	1.348	7.662	0.047	0.087	0.572	N
A	8194.509	1.604	7.222	0.192	0.049	1.292	N	A	8507.613	1.280	7.210	0.196	0.047	1.287	N
P	8194.513	1.682	7.828	0.223	-0.040	-0.132	N	P	8507.616	1.309	7.824	0.228	-0.043	-0.130	N
B	8194.516	1.708	7.653	0.049	0.082	0.583	N	B	8507.619	1.326	7.642	0.053	0.079	0.595	N
A	8195.513	1.681	7.221	0.192	0.052	1.276	N	A	8508.619	1.332	7.228	0.195	0.051	1.284	N
P	8195.517	1.766	7.845	0.229	-0.048	-0.113	N	P	8508.622	1.363	7.846	0.230	-0.045	-0.133	N
B	8195.520	1.802	7.651	0.052	0.080	0.586	N	A	8513.637	1.578	7.221	0.192	0.051	1.278	N
A	8197.511	1.734	7.235	0.195	0.054	1.285	N	P	8513.640	1.638	7.807	0.225	-0.041	-0.151	N
P	8197.515	1.821	7.862	0.226	-0.041	-0.131	N	B	8513.643	1.665	7.654	0.052	0.076	0.590	N
B	8197.518	1.856	7.661	0.058	0.077	0.586	N	A	8519.573	1.251	7.214	0.190	0.060	1.275	N
A	8461.715	1.175	7.228	0.191	0.051	1.288	N	P	8519.576	1.281	7.838	0.221	-0.035	-0.136	N
P	8461.719	1.199	7.831	0.226	-0.045	-0.132	N	B	8519.580	1.296	7.643	0.050	0.085	0.581	N
B	8461.724	1.214	7.663	0.048	0.081	0.587	N	A	8522.608	1.541	7.229	0.195	0.048	1.290	N
A	8462.723	1.213	7.236	0.194	0.052	1.285	N	P	8522.611	1.597	7.855	0.228	-0.042	-0.135	N
P	8462.727	1.241	7.829	0.231	-0.044	-0.139	N	B	8522.614	1.618	7.668	0.050	0.080	0.578	N
B	8462.732	1.258	7.670	0.056	0.073	0.595	N	A	8523.614	1.634	7.238	0.192	0.055	1.282	N
A	8463.695	1.137	7.230	0.190	0.057	1.281	N	P	8523.617	1.702	7.872	0.229	-0.040	-0.140	N
P	8463.699	1.154	7.834	0.230	-0.050	-0.130	N	B	8523.620	1.727	7.674	0.053	0.081	0.583	N
B	8463.703	1.164	7.659	0.051	0.081	0.583	N	A	8525.596	1.513	7.227	0.195	0.047	1.289	N
A	8463.707	1.169	7.228	0.195	0.050	1.276	N	P	8525.599	1.565	7.845	0.233	-0.054	-0.131	N
P	8463.709	1.183	7.834	0.224	-0.039	-0.140	N	B	8525.602	1.585	7.667	0.051	0.080	0.581	N
B	8463.710	1.187	7.665	0.048	0.084	0.576	N	A	8530.592	1.611	7.208	0.196	0.049	1.279	N
A	8490.665	1.305	7.219	0.192	0.050	1.274	N	P	8530.595	1.670	7.851	0.229	-0.039	-0.142	N
P	8490.668	1.334	7.873	0.233	-0.049	-0.127	N	B	8530.599	1.706	7.642	0.051	0.081	0.588	N
B	8490.672	1.354	7.651	0.052	0.079	0.581	N	A	8537.580	1.701	7.226	0.190	0.063	1.269	N
A	8491.669	1.341	7.220	0.192	0.054	1.273	N	P	8537.582	1.756	7.815	0.229	-0.037	-0.164	N
P	8491.671	1.374	7.862	0.230	-0.045	-0.130	N	B	8537.585	1.786	7.653	0.053	0.081	0.573	N
B	8491.675	1.396	7.658	0.055	0.073	0.593	N	A	8538.569	1.608	7.267	0.194	0.055	1.281	N
A	8493.632	1.197	7.226	0.185	0.058	1.281	N	P	8538.575	1.702	7.888	0.231	-0.039	-0.151	N
P	8493.635	1.218	7.856	0.219	-0.038	-0.127	N	B	8538.580	1.759	7.696	0.053	0.088	0.566	N
B	8493.639	1.231	7.654	0.047	0.080	0.586	N								

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Group 4011 P=HR7415
A=HR7400 B=HR7397

Star	JD ₀	X	V	b - y	m ₁	c ₁	Sys	Star	JD ₀	X	V	b - y	m ₁	c ₁	Sys
A	8166.590	1.528	5.788	0.046	0.178	1.001	N	B	8493.692	1.506	5.855	0.053	0.071	0.594	N
P	8166.592	1.562	6.050	0.052	0.060	0.791	N	A	8493.693	1.492	5.798	0.044	0.186	0.998	N
B	8166.594	1.588	5.839	0.059	0.058	0.602	N	B	8493.697	1.548	5.848	0.058	0.068	0.595	N
A	8168.593	1.600	5.802	0.045	0.182	0.997	N	B	8493.700	1.575	5.843	0.060	0.065	0.597	N
P	8168.594	1.636	6.045	0.049	0.066	0.775	N	A	8493.703	1.579	5.791	0.046	0.186	0.994	N
B	8168.596	1.662	5.844	0.063	0.057	0.601	N	A	8497.711	1.785	5.784	0.047	0.183	0.995	N
A	8168.598	1.652	5.794	0.047	0.178	1.004	N	P	8497.715	1.872	6.135	0.056	0.066	0.763	N
B	8168.600	1.707	5.851	0.061	0.060	0.603	N	B	8497.718	1.913	5.831	0.057	0.068	0.595	N
B	8168.603	1.735	5.845	0.060	0.062	0.598	N	A	8501.588	1.182	5.793	0.044	0.181	0.999	N
A	8168.605	1.733	5.803	0.048	0.177	1.007	N	P	8501.590	1.203	6.088	0.049	0.063	0.791	N
A	8169.596	1.658	5.801	0.043	0.186	0.995	N	B	8501.592	1.201	5.833	0.056	0.065	0.597	N
P	8169.597	1.699	6.069	0.054	0.058	0.809	N	A	8501.594	1.189	5.780	0.043	0.184	0.988	N
B	8169.600	1.733	5.847	0.057	0.066	0.599	N	B	8501.599	1.212	5.845	0.056	0.069	0.586	N
A	8172.595	1.743	5.835	0.047	0.181	1.001	N	B	8501.605	1.223	5.838	0.058	0.063	0.594	N
P	8172.596	1.784	6.079	0.058	0.059	0.792	N	A	8501.611	1.220	5.795	0.045	0.182	0.996	N
B	8172.597	1.811	5.853	0.064	0.060	0.603	N	A	8508.557	1.173	5.796	0.047	0.176	1.006	N
A	8187.544	1.673	5.801	0.046	0.178	0.997	N	P	8508.559	1.192	6.085	0.054	0.057	0.810	N
B	8187.547	1.742	5.847	0.054	0.067	0.588	N	B	8508.561	1.188	5.845	0.061	0.058	0.598	N
B	8187.550	1.779	5.845	0.053	0.067	0.591	N	A	8508.562	1.176	5.790	0.045	0.182	0.994	N
A	8187.553	1.781	5.793	0.042	0.182	0.999	N	B	8508.565	1.191	5.843	0.061	0.057	0.600	N
P	8187.555	1.840	6.076	0.047	0.062	0.788	N	B	8508.569	1.196	5.852	0.057	0.065	0.593	N
B	8187.556	1.868	5.841	0.057	0.063	0.593	N	A	8508.572	1.186	5.803	0.045	0.182	0.995	N
A	8191.542	1.759	5.795	0.044	0.180	0.999	N	A	8518.638	1.620	5.789	0.043	0.185	0.994	N
P	8191.544	1.804	6.094	0.052	0.061	0.761	N	P	8518.639	1.661	6.087	0.050	0.062	0.837	N
B	8191.545	1.828	5.851	0.058	0.063	0.593	N	B	8518.641	1.681	5.849	0.056	0.066	0.591	N
A	8197.506	1.558	5.804	0.047	0.181	1.000	N	A	8518.643	1.670	5.801	0.046	0.180	1.000	N
P	8197.508	1.597	6.130	0.065	0.055	0.742	N	B	8518.645	1.733	5.852	0.054	0.070	0.593	N
B	8197.510	1.613	5.852	0.060	0.063	0.599	N	B	8518.648	1.766	5.851	0.055	0.068	0.588	N
A	8415.843	1.212	5.797	0.045	0.183	0.996	N	A	8518.651	1.773	5.806	0.041	0.188	0.991	N
P	8415.844	1.234	6.064	0.051	0.058	0.860	N	A	8525.571	1.310	5.798	0.046	0.179	0.999	N
B	8415.846	1.234	5.851	0.059	0.064	0.598	N	P	8525.572	1.333	6.076	0.051	0.056	0.853	N
A	8415.850	1.229	5.803	0.047	0.180	0.998	N	B	8525.574	1.338	5.848	0.060	0.060	0.597	N
B	8415.854	1.256	5.852	0.059	0.064	0.596	N	A	8525.575	1.324	5.799	0.044	0.183	0.989	N
A	8438.840	1.462	5.810	0.040	0.189	0.990	N	B	8525.577	1.355	5.847	0.057	0.062	0.600	N
P	8438.842	1.498	6.079	0.047	0.069	0.818	N	B	8525.580	1.369	5.843	0.060	0.060	0.597	N
B	8438.844	1.516	5.855	0.054	0.068	0.600	N	A	8525.583	1.364	5.794	0.041	0.186	0.991	N
A	8438.849	1.526	5.804	0.039	0.189	0.992	N	P	8539.579	1.650	6.128	0.044	0.067	0.860	N
B	8438.854	1.597	5.857	0.053	0.070	0.590	N	B	8539.584	1.710	5.886	0.055	0.069	0.592	N
A	8448.781	1.292	5.796	0.050	0.169	1.012	N	B	8539.587	1.745	5.885	0.052	0.073	0.584	N
P	8448.782	1.318	6.077	0.059	0.043	0.831	N	B	8539.590	1.774	5.876	0.054	0.069	0.595	N
B	8448.787	1.333	5.845	0.061	0.054	0.614	N	A	8549.535	1.486	5.816	0.045	0.184	0.990	N
B	8448.791	1.354	5.846	0.062	0.053	0.605	N	P	8549.538	1.529	6.082	0.049	0.064	0.854	N
A	8448.793	1.346	5.800	0.050	0.170	1.018	N	B	8549.539	1.547	5.864	0.060	0.065	0.595	N
B	8448.802	1.412	5.845	0.064	0.050	0.606	N	A	8549.542	1.543	5.807	0.047	0.182	0.997	N
A	8455.750	1.251	5.788	0.041	0.182	0.999	N	B	8549.547	1.612	5.863	0.061	0.062	0.600	N
P	8455.751	1.274	6.062	0.049	0.059	0.828	N	B	8549.551	1.651	5.868	0.057	0.067	0.589	N
B	8455.754	1.282	5.837	0.057	0.063	0.595	N	A	8549.554	1.653	5.817	0.047	0.182	0.993	N
A	8455.760	1.287	5.800	0.045	0.180	0.995	N	A	8557.502	1.420	5.823	0.049	0.177	1.005	N
A	8458.719	1.199	5.775	0.043	0.182	1.003	N	P	8557.504	1.451	6.114	0.050	0.063	0.848	N
P	8458.721	1.220	6.059	0.050	0.058	0.837	N	B	8557.506	1.463	5.872	0.058	0.067	0.591	N
B	8458.722	1.218	5.827	0.057	0.062	0.605	N	A	8557.509	1.463	5.828	0.046	0.180	0.997	N
A	8490.712	1.577	5.781	0.047	0.178	0.989	N	B	8557.512	1.507	5.877	0.056	0.065	0.593	N
P	8490.714	1.621	6.033	0.053	0.055	0.849	N	A	8557.515	1.506	5.827	0.042	0.185	0.985	N
B	8490.716	1.644	5.820	0.065	0.055	0.598	N	A	8566.509	1.687	5.794	0.057	0.178	0.997	N
A	8493.688	1.457	5.795	0.044	0.184	1.002	N	P	8566.511	1.732	6.064	0.059	0.062	0.846	N
P	8493.689	1.487	6.135	0.053	0.064	0.799	N	B	8566.512	1.760	5.834	0.073	0.057	0.600	N

Long Term Photometry of Variables

Group 4012 P=HD184279
A=HR7400 B=HR7397

Star	JD ₀	X	V	b - y	m ₁	c ₁	Sys	Star	JD ₀	X	V	b - y	m ₁	c ₁	Sys
A	8166.590	1.528	5.788	0.046	0.178	1.001	N	A	8434.866	1.582	5.790	0.044	0.181	1.000	N
P	8166.593	1.563	6.889	0.130	-0.027	0.009	N	A	8434.866	1.582	5.790	0.044	0.181	1.000	N
B	8166.594	1.588	5.839	0.059	0.058	0.602	N	A	8438.840	1.462	5.810	0.040	0.189	0.990	N
A	8168.593	1.600	5.802	0.045	0.182	0.997	N	B	8438.844	1.516	5.855	0.054	0.068	0.600	N
P	8168.595	1.635	6.889	0.132	-0.025	0.004	N	A	8438.849	1.526	5.804	0.039	0.189	0.992	N
B	8168.596	1.662	5.844	0.063	0.057	0.601	N	A	8438.849	1.526	5.804	0.039	0.189	0.992	N
A	8168.598	1.652	5.794	0.047	0.178	1.004	N	P	8438.851	1.557	6.986	0.132	-0.025	0.039	N
A	8168.598	1.652	5.794	0.047	0.178	1.004	N	B	8438.854	1.597	5.857	0.053	0.070	0.590	N
P	8168.599	1.676	6.889	0.131	-0.026	0.010	N	B	8438.854	1.597	5.857	0.053	0.070	0.590	N
B	8168.600	1.707	5.851	0.061	0.060	0.603	N	A	8448.781	1.292	5.796	0.050	0.169	1.012	N
B	8168.600	1.707	5.851	0.061	0.060	0.603	N	B	8448.787	1.333	5.845	0.061	0.054	0.614	N
P	8168.602	1.702	6.888	0.130	-0.027	0.007	N	B	8448.791	1.354	5.846	0.062	0.053	0.605	N
B	8168.603	1.735	5.845	0.060	0.062	0.598	N	B	8448.791	1.354	5.846	0.062	0.053	0.605	N
B	8168.603	1.735	5.845	0.060	0.062	0.598	N	A	8448.793	1.346	5.800	0.050	0.170	1.018	N
P	8168.604	1.730	6.889	0.134	-0.031	0.012	N	A	8448.793	1.346	5.800	0.050	0.170	1.018	N
A	8168.605	1.733	5.803	0.048	0.177	1.007	N	P	8448.799	1.392	6.981	0.141	-0.040	0.053	N
A	8168.605	1.733	5.803	0.048	0.177	1.007	N	B	8448.802	1.412	5.845	0.064	0.050	0.606	N
A	8169.596	1.658	5.801	0.043	0.186	0.995	N	B	8448.802	1.412	5.845	0.064	0.050	0.606	N
P	8169.599	1.699	6.893	0.127	-0.020	0.001	N	A	8455.750	1.251	5.788	0.041	0.182	0.999	N
B	8169.600	1.733	5.847	0.057	0.066	0.599	N	B	8455.754	1.282	5.837	0.057	0.063	0.595	N
A	8187.544	1.673	5.801	0.046	0.178	0.997	N	P	8455.756	1.290	6.989	0.135	-0.032	0.033	N
A	8187.544	1.673	5.801	0.046	0.178	0.997	N	A	8455.760	1.287	5.800	0.045	0.180	0.995	N
P	8187.545	1.704	6.893	0.128	-0.021	-0.007	N	A	8459.768	1.370	5.791	0.046	0.178	1.003	N
B	8187.547	1.742	5.847	0.054	0.067	0.588	N	A	8459.768	1.370	5.791	0.046	0.178	1.003	N
B	8187.547	1.742	5.847	0.054	0.067	0.588	N	P	8459.770	1.394	6.984	0.133	-0.028	0.037	N
P	8187.549	1.742	6.892	0.129	-0.025	-0.001	N	B	8459.772	1.412	5.846	0.059	0.061	0.596	N
B	8187.550	1.779	5.845	0.053	0.067	0.591	N	B	8459.772	1.412	5.846	0.059	0.061	0.596	N
B	8187.550	1.779	5.845	0.053	0.067	0.591	N	P	8459.774	1.417	6.982	0.139	-0.035	0.039	N
P	8187.551	1.775	6.897	0.129	-0.025	0.003	N	B	8459.775	1.435	5.852	0.059	0.059	0.602	N
A	8187.553	1.781	5.793	0.042	0.182	0.999	N	B	8459.775	1.435	5.852	0.059	0.059	0.602	N
A	8187.553	1.781	5.793	0.042	0.182	0.999	N	P	8459.779	1.449	6.982	0.137	-0.032	0.039	N
B	8187.556	1.868	5.841	0.057	0.063	0.593	N	A	8459.781	1.447	5.802	0.045	0.181	0.995	N
A	8193.507	1.472	5.791	0.044	0.184	1.003	N	A	8459.781	1.447	5.802	0.045	0.181	0.995	N
A	8193.507	1.472	5.791	0.044	0.184	1.003	N	A	8492.713	1.639	5.788	0.047	0.178	1.001	N
P	8193.509	1.500	6.882	0.129	-0.025	-0.004	N	A	8492.713	1.639	5.788	0.047	0.178	1.001	N
B	8193.511	1.524	5.838	0.055	0.067	0.600	N	P	8492.714	1.665	6.988	0.139	-0.033	0.035	N
B	8193.511	1.524	5.838	0.055	0.067	0.600	N	B	8492.716	1.706	5.843	0.060	0.059	0.602	N
P	8193.513	1.529	6.874	0.130	-0.026	0.002	N	B	8492.716	1.706	5.843	0.060	0.059	0.602	N
B	8193.514	1.552	5.843	0.056	0.067	0.598	N	P	8492.717	1.702	6.989	0.136	-0.031	0.035	N
B	8193.514	1.552	5.843	0.056	0.067	0.598	N	B	8492.719	1.746	5.844	0.056	0.065	0.594	N
P	8193.516	1.554	6.879	0.129	-0.024	0.005	N	B	8492.719	1.746	5.844	0.056	0.065	0.594	N
A	8193.517	1.553	5.787	0.042	0.182	1.005	N	P	8492.721	1.743	6.991	0.134	-0.028	0.042	N
A	8193.517	1.553	5.787	0.042	0.182	1.005	N	A	8492.723	1.757	5.792	0.046	0.178	0.999	N
A	8198.509	1.603	5.792	0.039	0.188	0.996	N	A	8492.723	1.757	5.792	0.046	0.178	0.999	N
A	8198.509	1.603	5.792	0.039	0.188	0.996	N	A	8493.688	1.457	5.795	0.044	0.184	1.002	N
P	8198.511	1.636	6.890	0.133	-0.028	0.010	N	B	8493.692	1.506	5.855	0.053	0.071	0.594	N
B	8198.512	1.671	5.844	0.057	0.067	0.601	N	A	8493.693	1.492	5.798	0.044	0.186	0.998	N
B	8198.512	1.671	5.844	0.057	0.067	0.601	N	A	8493.693	1.492	5.798	0.044	0.186	0.998	N
P	8198.514	1.672	6.885	0.124	-0.021	-0.003	N	P	8493.694	1.514	6.999	0.135	-0.024	0.040	N
B	8198.516	1.707	5.843	0.057	0.065	0.597	N	B	8493.697	1.548	5.848	0.058	0.068	0.595	N
B	8198.516	1.707	5.843	0.057	0.065	0.597	N	B	8493.697	1.548	5.848	0.058	0.068	0.595	N
P	8198.517	1.705	6.885	0.126	-0.022	-0.006	N	P	8493.699	1.552	6.994	0.131	-0.019	0.039	N
A	8198.519	1.710	5.803	0.044	0.184	0.999	N	B	8493.700	1.575	5.843	0.060	0.065	0.597	N
A	8198.519	1.710	5.803	0.044	0.184	0.999	N	B	8493.700	1.575	5.843	0.060	0.065	0.597	N
A	8415.843	1.212	5.797	0.045	0.183	0.996	N	P	8493.701	1.572	6.997	0.136	-0.025	0.041	N
B	8415.846	1.234	5.851	0.059	0.064	0.598	N	A	8493.703	1.579	5.791	0.046	0.186	0.994	N
A	8415.850	1.229	5.803	0.047	0.180	0.998	N	A	8493.703	1.579	5.791	0.046	0.186	0.994	N
A	8415.850	1.229	5.803	0.047	0.180	0.998	N	A	8501.588	1.182	5.793	0.044	0.181	0.999	N
P	8415.852	1.252	6.992	0.136	-0.028	0.064	N	B	8501.592	1.201	5.833	0.056	0.065	0.597	N
B	8415.854	1.256	5.852	0.059	0.064	0.596	N	A	8501.594	1.189	5.780	0.043	0.184	0.988	N
B	8415.854	1.256	5.852	0.059	0.064	0.596	N	A	8501.594	1.189	5.780	0.043	0.184	0.988	N
A	8434.852	1.470	5.786	0.043	0.184	0.994	N	P	8501.596	1.212	6.980	0.137	-0.030	0.053	N
A	8434.852	1.470	5.786	0.043	0.184	0.994	N	B	8501.599	1.212	5.845	0.056	0.069	0.586	N
P	8434.855	1.503	6.971	0.135	-0.028	0.038	N	B	8501.599	1.212	5.845	0.056	0.069	0.586	N
B	8434.858	1.536	5.836	0.059	0.062	0.596	N	P	8501.603	1.222	6.986	0.138	-0.031	0.054	N
B	8434.858	1.536	5.836	0.059	0.062	0.596	N	B	8501.605	1.223	5.838	0.058	0.063	0.594	N
P	8434.860	1.545	6.972	0.133	-0.024	0.034	N	B	8501.605	1.223	5.838	0.058	0.063	0.594	N
B	8434.862	1.571	5.836	0.059	0.062	0.594	N	P	8501.608	1.232	6.979	0.136	-0.028	0.048	N
B	8434.862	1.571	5.836	0.059	0.062	0.594	N	A	8501.611	1.220	5.795	0.045	0.182	0.996	N
P	8434.863	1.573	6.968	0.136	-0.026	0.032	N	A	8501.611	1.220	5.795	0.045	0.182	0.996	N

Catalogue 1990-1992

Group 4012 P-HD184279 (continued)
A=HR7400 B=HR7397

Star	JD ₀	X	V	b-y	m ₁	c ₁	Sys	Star	JD ₀	X	V	b-y	m ₁	c ₁	Sys
A	8508.557	1.173	5.796	0.047	0.176	1.006	N	P	8525.582	1.371	6.996	0.132	-0.026	0.054	N
B	8508.561	1.188	5.845	0.061	0.058	0.598	N	A	8525.583	1.364	5.794	0.041	0.186	0.991	N
A	8508.562	1.176	5.790	0.045	0.182	0.994	N	A	8525.583	1.364	5.794	0.041	0.186	0.991	N
A	8508.562	1.176	5.790	0.045	0.182	0.994	N	P	8539.583	1.674	7.069	0.131	-0.021	0.058	N
P	8508.563	1.198	7.013	0.134	-0.027	0.073	N	B	8539.584	1.710	5.886	0.055	0.069	0.592	N
B	8508.565	1.191	5.843	0.061	0.057	0.600	N	B	8539.584	1.710	5.886	0.055	0.069	0.592	N
B	8508.565	1.191	5.843	0.061	0.057	0.600	N	P	8539.586	1.703	7.062	0.132	-0.022	0.052	N
P	8508.567	1.201	7.021	0.134	-0.023	0.060	N	B	8539.587	1.745	5.885	0.052	0.073	0.584	N
B	8508.569	1.196	5.852	0.057	0.065	0.593	N	B	8539.587	1.745	5.885	0.052	0.073	0.584	N
B	8508.569	1.196	5.852	0.057	0.065	0.593	N	P	8539.588	1.736	7.062	0.129	-0.017	0.053	N
P	8508.570	1.204	7.020	0.133	-0.022	0.060	N	B	8539.590	1.774	5.876	0.054	0.069	0.595	N
A	8508.572	1.186	5.803	0.045	0.182	0.995	N	B	8539.590	1.774	5.876	0.054	0.069	0.595	N
A	8508.572	1.186	5.803	0.045	0.182	0.995	N	A	8549.535	1.486	5.816	0.045	0.184	0.990	N
A	8518.638	1.620	5.789	0.043	0.185	0.994	N	B	8549.539	1.547	5.864	0.060	0.065	0.595	N
A	8518.641	1.681	5.849	0.056	0.066	0.591	N	A	8549.542	1.543	5.807	0.047	0.182	0.997	N
A	8518.643	1.670	5.801	0.046	0.180	1.000	N	A	8549.542	1.543	5.807	0.047	0.182	0.997	N
A	8518.643	1.670	5.801	0.046	0.180	1.000	N	P	8549.544	1.575	7.031	0.132	-0.022	0.058	N
P	8518.644	1.695	7.013	0.132	-0.022	0.036	N	B	8549.547	1.612	5.863	0.061	0.062	0.600	N
B	8518.645	1.733	5.852	0.054	0.070	0.593	N	B	8549.547	1.612	5.863	0.061	0.062	0.600	N
B	8518.645	1.733	5.852	0.054	0.070	0.593	N	P	8549.549	1.617	7.032	0.134	-0.023	0.057	N
P	8518.647	1.726	7.011	0.135	-0.026	0.039	N	B	8549.551	1.651	5.868	0.057	0.067	0.589	N
B	8518.648	1.766	5.851	0.055	0.068	0.588	N	B	8549.551	1.651	5.868	0.057	0.067	0.589	N
B	8518.648	1.766	5.851	0.055	0.068	0.588	N	P	8549.552	1.646	7.036	0.133	-0.018	0.045	N
P	8518.650	1.763	7.011	0.132	-0.018	0.032	N	A	8549.554	1.653	5.817	0.047	0.182	0.993	N
A	8518.651	1.773	5.806	0.041	0.188	0.991	N	A	8549.554	1.653	5.817	0.047	0.182	0.993	N
A	8518.651	1.773	5.806	0.041	0.188	0.991	N	A	8557.502	1.420	5.823	0.049	0.177	1.005	N
A	8525.571	1.310	5.798	0.046	0.179	0.999	N	B	8557.506	1.463	5.872	0.058	0.067	0.591	N
B	8525.574	1.338	5.848	0.060	0.060	0.597	N	P	8557.507	1.464	7.080	0.130	-0.021	0.075	N
A	8525.575	1.324	5.799	0.044	0.183	0.989	N	A	8557.509	1.463	5.828	0.046	0.180	0.997	N
A	8525.575	1.324	5.799	0.044	0.183	0.989	N	A	8557.509	1.463	5.828	0.046	0.180	0.997	N
P	8525.576	1.345	6.990	0.137	-0.031	0.056	N	P	8557.511	1.487	7.058	0.137	-0.030	0.091	N
B	8525.577	1.355	5.847	0.057	0.062	0.600	N	B	8557.512	1.507	5.877	0.056	0.065	0.593	N
B	8525.577	1.355	5.847	0.057	0.062	0.600	N	B	8557.512	1.507	5.877	0.056	0.065	0.593	N
P	8525.579	1.358	6.991	0.138	-0.033	0.056	N	P	8557.513	1.506	7.058	0.132	-0.021	0.086	N
B	8525.580	1.369	5.843	0.060	0.060	0.597	N	A	8557.515	1.506	5.827	0.042	0.185	0.985	N
B	8525.580	1.369	5.843	0.060	0.060	0.597	N	A	8557.515	1.506	5.827	0.042	0.185	0.985	N

Long Term Photometry of Variables

Group 4013 P=HR8260
A=HR8075 B=HR8245

Star	JD ₀	X	V	b - y	m ₁	c ₁	Sys	Star	JD ₀	X	V	b - y	m ₁	c ₁	Sys
A	8166.657	1.261	4.084	-0.011	0.163	1.063	N	A	8458.822	1.113	4.080	-0.013	0.167	1.060	N
P	8166.660	1.162	4.538	-0.067	0.068	0.318	N	P	8458.823	1.058	4.589	-0.068	0.071	0.278	N
B	8166.661	1.169	5.697	0.268	0.159	0.419	N	B	8458.824	1.061	5.702	0.269	0.156	0.423	N
P	8166.691	1.311	4.541	-0.064	0.063	0.319	N	A	8493.718	1.092	4.089	-0.013	0.175	1.048	N
B	8166.692	1.324	5.700	0.270	0.156	0.426	N	P	8493.719	1.044	4.453	-0.057	0.076	0.214	N
A	8168.711	1.801	4.094	-0.014	0.162	1.062	N	A	8497.723	1.136	4.087	-0.012	0.171	1.050	N
P	8168.713	1.521	4.547	-0.069	0.065	0.324	N	P	8497.724	1.073	4.484	-0.073	0.080	0.205	N
B	8168.714	1.538	5.701	0.268	0.160	0.418	N	B	8497.727	1.079	5.703	0.266	0.162	0.422	N
A	8169.657	1.307	4.088	-0.016	0.172	1.054	N	A	8505.705	1.151	4.080	-0.018	0.176	1.039	N
P	8169.659	1.191	4.547	-0.072	0.075	0.308	N	P	8505.706	1.083	4.460	-0.076	0.077	0.200	N
B	8169.660	1.199	5.705	0.264	0.164	0.413	N	B	8505.708	1.088	5.699	0.264	0.164	0.407	N
A	8185.528	1.041	4.088	-0.016	0.179	1.039	N	A	8510.723	1.297	4.087	-0.011	0.164	1.060	N
P	8185.536	1.020	4.542	-0.074	0.080	0.314	N	P	8510.725	1.183	4.459	-0.075	0.075	0.208	N
B	8185.539	1.022	5.704	0.268	0.161	0.421	N	B	8510.726	1.193	5.697	0.267	0.159	0.420	N
A	8193.611	1.465	4.089	-0.017	0.173	1.056	N	A	8511.724	1.316	4.100	-0.015	0.170	1.052	N
P	8193.613	1.302	4.550	-0.078	0.079	0.308	N	P	8511.725	1.196	4.467	-0.073	0.074	0.219	N
B	8193.616	1.323	5.700	0.267	0.161	0.416	N	B	8511.727	1.206	5.711	0.264	0.164	0.417	N
A	8199.578	1.342	4.089	-0.014	0.170	1.054	N	A	8517.661	1.117	4.085	-0.014	0.174	1.041	N
P	8199.580	1.215	4.557	-0.076	0.076	0.320	N	P	8517.663	1.061	4.459	-0.076	0.081	0.203	N
B	8199.581	1.226	5.700	0.266	0.165	0.412	N	B	8517.664	1.065	5.698	0.267	0.161	0.411	N
A	8216.524	1.308	4.092	-0.012	0.169	1.056	N	A	8522.681	1.249	4.087	-0.013	0.171	1.049	N
P	8216.528	1.197	4.547	-0.076	0.077	0.322	N	P	8522.682	1.149	4.468	-0.070	0.078	0.208	N
B	8216.531	1.215	5.704	0.268	0.162	0.416	N	B	8522.684	1.158	5.699	0.267	0.163	0.409	N
A	8223.528	1.479	4.095	-0.010	0.167	1.055	N	A	8529.663	1.260	4.086	-0.013	0.172	1.050	N
P	8223.530	1.313	4.556	-0.076	0.077	0.317	N	P	8529.665	1.157	4.520	-0.072	0.076	0.265	N
B	8223.533	1.332	5.708	0.268	0.161	0.419	N	B	8529.666	1.165	5.697	0.270	0.162	0.409	N
A	8415.858	1.024	4.086	-0.011	0.172	1.047	N	A	8539.615	1.169	4.122	-0.015	0.176	1.046	N
P	8415.859	1.029	4.493	-0.074	0.080	0.219	N	P	8539.616	1.094	4.552	-0.073	0.079	0.257	N
B	8415.861	1.024	5.700	0.267	0.165	0.411	N	B	8539.618	1.099	5.735	0.266	0.166	0.410	N
A	8429.887	1.081	4.084	-0.015	0.173	1.049	N	A	8545.595	1.158	4.098	-0.009	0.175	1.043	N
P	8429.887	1.038	4.471	-0.072	0.069	0.229	N	P	8545.597	1.088	4.516	-0.066	0.075	0.250	N
B	8429.891	1.043	5.700	0.271	0.152	0.423	N	B	8545.598	1.093	5.710	0.271	0.167	0.411	N
A	8438.857	1.071	4.092	-0.015	0.176	1.040	N	A	8562.538	1.131	4.084	-0.012	0.170	1.052	N
P	8438.863	1.037	4.471	-0.076	0.083	0.209	N	P	8562.540	1.069	4.505	-0.073	0.078	0.235	N
B	8438.865	1.039	5.704	0.265	0.165	0.418	N	B	8562.541	1.073	5.693	0.269	0.160	0.420	N
A	8448.860	1.149	4.086	-0.010	0.164	1.058	N	A	8572.512	1.135	4.090	-0.012	0.174	1.044	N
P	8448.862	1.083	4.469	-0.070	0.070	0.235	N	P	8572.514	1.073	4.566	-0.067	0.078	0.243	N
B	8448.865	1.092	5.697	0.273	0.150	0.432	N	B	8572.516	1.078	5.717	0.264	0.172	0.399	N

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Group 4014 P=HR2545
A=HR2415 B=HR2497

Star	JD _⊙	X	V	b - y	m ₁	c ₁	Sys	Star	JD _⊙	X	V	b - y	m ₁	c ₁	Sys
A	8188.767	1.223	5.623	-0.032	0.115	0.867	N	A	8545.826	1.096	5.628	-0.037	0.118	0.860	N
A	8188.767	1.223	5.623	-0.032	0.115	0.867	N	B	8545.828	1.109	6.540	-0.053	0.123	0.491	N
P	8188.776	1.231	5.773	0.136	0.025	0.248	N	P	8545.829	1.116	5.800	0.126	0.032	0.241	N
B	8188.778	1.207	6.533	-0.047	0.118	0.496	N	A	8545.831	1.082	5.620	-0.033	0.111	0.864	N
B	8188.778	1.207	6.533	-0.047	0.118	0.496	N	A	8556.786	1.125	5.625	-0.031	0.113	0.875	N
A	8198.716	1.355	5.629	-0.027	0.109	0.877	N	A	8556.786	1.125	5.625	-0.031	0.113	0.875	N
A	8198.716	1.355	5.629	-0.027	0.109	0.877	N	B	8556.791	1.134	6.534	-0.043	0.116	0.489	N
P	8198.717	1.426	5.735	0.152	0.027	0.240	N	B	8556.791	1.134	6.534	-0.043	0.116	0.489	N
B	8198.719	1.393	6.540	-0.045	0.118	0.498	N	P	8556.793	1.137	5.758	0.150	0.025	0.253	N
B	8198.719	1.393	6.540	-0.045	0.118	0.498	N	A	8556.795	1.099	5.621	-0.029	0.112	0.869	N
A	8219.809	1.004	5.623	-0.032	0.116	0.873	N	A	8556.795	1.099	5.621	-0.029	0.112	0.869	N
P	8219.811	1.001	5.744	0.142	0.033	0.234	N	A	8566.817	1.015	5.621	-0.039	0.116	0.865	N
B	8219.813	1.001	6.535	-0.048	0.124	0.493	N	B	8566.821	1.016	6.529	-0.056	0.123	0.497	N
A	8223.683	1.180	5.625	-0.031	0.116	0.864	N	P	8566.823	1.019	5.713	0.152	0.036	0.208	N
P	8223.685	1.218	5.695	0.160	0.032	0.227	N	A	8566.825	1.009	5.622	-0.039	0.116	0.867	N
B	8223.687	1.196	6.532	-0.048	0.122	0.491	N	A	8566.825	1.009	5.622	-0.039	0.116	0.867	N
A	8234.755	1.002	5.632	-0.027	0.111	0.870	N	A	8576.832	1.004	5.640	-0.034	0.115	0.870	N
P	8234.757	1.003	5.748	0.146	0.026	0.246	N	B	8576.835	1.001	6.543	-0.048	0.121	0.486	N
B	8234.759	1.001	6.539	-0.044	0.118	0.495	N	P	8576.836	1.001	5.790	0.133	0.035	0.238	N
A	8249.854	1.349	5.631	-0.029	0.114	0.871	N	A	8576.838	1.007	5.633	-0.033	0.118	0.863	N
P	8249.855	1.295	5.733	0.149	0.027	0.225	N	A	8576.838	1.007	5.633	-0.033	0.118	0.863	N
B	8249.857	1.330	6.539	-0.043	0.118	0.488	N	A	8647.683	1.049	5.613	-0.027	0.109	0.876	N
A	8285.668	1.039	5.630	-0.031	0.119	0.862	N	B	8647.687	1.043	6.526	-0.044	0.118	0.493	N
P	8285.672	1.028	5.763	0.143	0.034	0.245	N	P	8647.689	1.040	5.769	0.139	0.026	0.244	N
B	8285.674	1.036	6.538	-0.042	0.119	0.492	N	A	8647.691	1.064	5.619	-0.030	0.112	0.879	N
A	8292.654	1.048	5.632	-0.033	0.116	0.876	N	A	8647.691	1.064	5.619	-0.030	0.112	0.879	N
P	8292.656	1.033	5.746	0.147	0.034	0.243	N	A	8656.730	1.293	5.613	-0.030	0.112	0.874	N
B	8292.658	1.042	6.543	-0.048	0.123	0.494	N	B	8656.735	1.281	6.526	-0.043	0.117	0.494	N
A	8535.843	1.121	5.615	-0.034	0.118	0.859	N	P	8656.736	1.268	5.734	0.153	0.030	0.215	N
B	8535.846	1.135	6.522	-0.044	0.118	0.482	N	A	8656.739	1.342	5.627	-0.036	0.121	0.868	N
P	8535.848	1.142	5.728	0.144	0.035	0.218	N	A	8656.739	1.342	5.627	-0.036	0.121	0.868	N
A	8535.850	1.103	5.613	-0.032	0.111	0.868	N								

Long Term Photometry of Variables

Group 4015 P=HR4074 A=HR4173 B=HR4061															
Star	JD_{\odot}	X	V	$b-y$	m_1	c_1	Sys	Star	JD_{\odot}	X	V	$b-y$	m_1	c_1	Sys
A	8191.847	1.716	5.901	-0.038	0.088	0.338	N	A	8418.535	1.298	5.913	-0.042	0.100	0.341	N
P	8191.850	1.605	4.499	-0.038	0.084	0.432	N	P	8418.537	1.339	4.495	-0.038	0.091	0.434	N
B	8191.852	1.579	5.800	0.308	0.162	0.396	N	B	8418.539	1.356	5.812	0.302	0.176	0.396	N
A	8196.853	1.573	5.895	-0.041	0.098	0.335	N	A	8431.508	1.330	5.897	-0.047	0.108	0.327	N
P	8196.855	1.482	4.510	-0.039	0.094	0.430	N	B	8431.514	1.407	5.833	0.301	0.176	0.392	N
B	8196.857	1.466	5.812	0.308	0.171	0.395	N	P	8431.524	1.446	4.535	-0.042	0.098	0.431	N
A	8200.839	1.593	5.900	-0.042	0.095	0.337	N	A	8437.511	1.413	5.925	-0.046	0.097	0.349	N
P	8200.841	1.502	4.500	-0.041	0.095	0.421	N	P	8437.513	1.480	4.501	-0.040	0.086	0.446	N
B	8200.843	1.485	5.807	0.305	0.167	0.398	N	B	8437.516	1.507	5.819	0.305	0.167	0.404	N
A	8228.848	1.232	5.894	-0.044	0.094	0.340	N	A	8646.772	1.138	5.888	-0.036	0.086	0.351	N
P	8228.851	1.190	4.480	-0.037	0.083	0.435	N	P	8646.774	1.120	4.490	-0.033	0.079	0.431	N
B	8228.853	1.184	5.799	0.307	0.163	0.403	N	B	8646.776	1.120	5.797	0.301	0.170	0.398	N
A	8238.839	1.195	5.879	-0.042	0.092	0.336	N	A	8646.818	1.137	5.892	-0.037	0.089	0.342	N
P	8238.841	1.161	4.478	-0.041	0.093	0.418	N	P	8646.819	1.133	4.475	-0.029	0.069	0.445	N
B	8238.843	1.156	5.796	0.306	0.163	0.399	N	B	8646.820	1.136	5.798	0.309	0.157	0.401	N
A	8252.745	1.353	5.894	-0.038	0.086	0.343	N	A	8651.781	1.131	5.898	-0.041	0.093	0.346	N
P	8252.748	1.293	4.490	-0.039	0.083	0.441	N	P	8651.785	1.121	4.480	-0.038	0.089	0.429	N
B	8252.749	1.282	5.793	0.305	0.166	0.400	N	B	8651.787	1.123	5.782	0.307	0.167	0.398	N
A	8258.847	1.132	5.892	-0.037	0.092	0.330	N	A	8656.833	1.194	5.906	-0.045	0.096	0.341	N
P	8258.849	1.119	4.499	-0.035	0.087	0.427	N	P	8656.834	1.205	4.492	-0.039	0.085	0.429	N
B	8258.851	1.120	5.805	0.312	0.163	0.399	N	P	8656.836	1.209	4.504	-0.043	0.092	0.421	N
A	8282.858	1.184	5.887	-0.042	0.091	0.342	N	A	8656.838	1.203	5.888	-0.041	0.093	0.341	N
P	8282.862	1.201	4.484	-0.041	0.090	0.426	N	P	8656.839	1.215	4.486	-0.038	0.084	0.432	N
B	8282.863	1.209	5.789	0.307	0.163	0.403	N	B	8656.841	1.223	5.787	0.305	0.167	0.393	N

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Group 4017 P=HR2356 A=HR2325 B=HD 45418															
Star	JD_{\odot}	X	V	$b-y$	m_1	c_1	Sys	Star	JD_{\odot}	X	V	$b-y$	m_1	c_1	Sys
A	8188.781	1.308	6.172	-0.062	0.104	0.333	N	P	8538.863	1.144	3.891	-0.045	0.069	0.165	N
P	8188.782	1.282	3.854	-0.047	0.068	0.172	N	B	8538.865	1.162	6.476	-0.054	0.100	0.376	N
B	8188.783	1.298	6.492	-0.056	0.102	0.376	N	A	8558.794	1.212	6.175	-0.060	0.102	0.340	N
A	8195.766	1.306	6.171	-0.059	0.101	0.337	N	P	8558.795	1.189	4.054	-0.049	0.060	0.192	N
P	8195.768	1.271	3.862	-0.045	0.064	0.180	N	B	8558.797	1.206	6.507	-0.058	0.107	0.372	N
B	8195.770	1.288	6.494	-0.053	0.093	0.386	N	A	8566.787	1.168	6.142	-0.071	0.106	0.335	N
A	8222.750	1.128	6.163	-0.061	0.101	0.335	N	P	8566.788	1.146	4.098	-0.052	0.066	0.175	N
P	8222.753	1.105	3.854	-0.051	0.072	0.179	N	B	8566.790	1.165	6.473	-0.066	0.104	0.380	N
B	8222.755	1.124	6.500	-0.058	0.108	0.374	N	A	8574.760	1.183	6.174	-0.064	0.110	0.330	N
A	8230.745	1.108	6.173	-0.062	0.106	0.341	N	P	8574.761	1.161	4.043	-0.045	0.072	0.174	N
P	8230.747	1.088	3.845	-0.051	0.076	0.166	N	B	8574.763	1.179	6.501	-0.058	0.112	0.368	N
B	8230.749	1.108	6.499	-0.060	0.112	0.368	N	A	8647.676	1.164	6.158	-0.061	0.100	0.344	N
A	8239.749	1.103	6.172	-0.061	0.107	0.327	N	P	8647.678	1.142	3.911	-0.039	0.065	0.207	N
P	8239.751	1.083	3.883	-0.049	0.076	0.176	N	B	8647.681	1.176	6.489	-0.056	0.103	0.378	N
B	8239.753	1.106	6.492	-0.057	0.107	0.370	N	A	8656.632	1.114	6.150	-0.057	0.100	0.343	N
A	8250.676	1.125	6.165	-0.063	0.110	0.327	N	A	8656.636	1.121	6.143	-0.062	0.109	0.331	N
P	8250.678	1.104	3.882	-0.045	0.069	0.173	N	P	8656.638	1.102	4.271	-0.037	0.073	0.173	N
B	8250.680	1.123	6.491	-0.057	0.110	0.368	N	B	8656.639	1.128	6.482	-0.055	0.109	0.374	N
A	8538.861	1.170	6.139	-0.064	0.106	0.326	N								

Long Term Photometry of Variables

Group 4018 P=HR3034
A=HR2996 B=HD 63028

Star	JD _⊙	X	V	b - y	m ₁	c ₁	Sys	Star	JD _⊙	X	V	b - y	m ₁	c ₁	Sys
A	8187.806	1.283	3.949	0.170	0.044	1.113	N	B	8284.770	1.181	6.730	-0.053	0.087	0.394	N
P	8187.807	1.305	4.489	0.033	0.013	-0.246	N	A	8290.681	1.012	3.956	0.171	0.043	1.125	N
B	8187.809	1.294	6.739	-0.053	0.087	0.396	N	P	8290.684	1.014	4.501	0.033	0.015	-0.243	N
A	8194.776	1.355	3.955	0.176	0.039	1.112	N	B	8290.686	1.019	6.738	-0.055	0.091	0.391	N
P	8194.778	1.378	4.512	0.035	0.013	-0.238	N	A	8545.844	1.194	3.979	0.163	0.045	1.125	N
B	8194.780	1.368	6.747	-0.050	0.089	0.393	N	P	8545.845	1.211	4.504	0.028	0.010	-0.235	N
A	8199.732	1.613	3.944	0.173	0.038	1.128	N	B	8545.847	1.205	6.739	-0.060	0.091	0.387	N
P	8199.734	1.660	4.492	0.035	0.009	-0.238	N	A	8555.827	1.156	3.976	0.169	0.042	1.141	N
B	8199.736	1.646	6.735	-0.052	0.087	0.389	N	P	8555.830	1.165	4.500	0.033	0.008	-0.226	N
A	8223.813	1.007	3.954	0.170	0.047	1.112	N	B	8555.832	1.158	6.745	-0.053	0.085	0.402	N
P	8223.815	1.009	4.506	0.035	0.010	-0.238	N	A	8562.843	1.060	3.975	0.174	0.042	1.126	N
B	8223.818	1.009	6.741	-0.055	0.091	0.393	N	P	8562.844	1.067	4.509	0.042	0.002	-0.232	N
A	8234.798	1.001	3.964	0.176	0.044	1.100	N	B	8562.846	1.064	6.753	-0.051	0.087	0.396	N
P	8234.801	1.003	4.509	0.040	0.007	-0.240	N	A	8576.841	1.011	3.984	0.167	0.045	1.107	N
B	8234.803	1.004	6.742	-0.048	0.088	0.389	N	P	8576.842	1.014	4.503	0.030	0.015	-0.237	N
A	8252.669	1.126	3.957	0.172	0.045	1.094	N	B	8576.843	1.014	6.745	-0.058	0.091	0.397	N
P	8252.671	1.136	4.509	0.034	0.007	-0.226	N	A	8654.703	1.034	3.965	0.170	0.043	1.131	N
B	8252.673	1.131	6.735	-0.052	0.087	0.399	N	P	8654.705	1.033	4.489	0.038	0.007	-0.244	N
A	8284.765	1.155	3.949	0.171	0.042	1.110	N	B	8654.706	1.040	6.738	-0.055	0.086	0.399	N
P	8284.768	1.161	4.498	0.034	0.006	-0.229	N								

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Group 4019 P=HR3858															
A=HR3810								B=HR3862							
Star	JD_{\odot}	X	V	$b-y$	m_1	c_1	Sys	Star	JD_{\odot}	X	V	$b-y$	m_1	c_1	Sys
A	8190.839	1.569	5.922	0.008	0.171	1.054	N	A	8282.741	1.008	5.916	0.010	0.166	1.063	N
P	8190.840	1.600	4.770	-0.046	0.086	0.393	N	P	8282.744	1.008	4.767	-0.047	0.088	0.397	N
B	8190.842	1.586	4.919	0.331	0.174	0.323	N	B	8282.745	1.007	4.915	0.329	0.177	0.328	N
A	8197.811	1.684	5.919	0.010	0.164	1.062	N	A	8290.808	1.115	5.921	0.009	0.167	1.066	N
P	8197.813	1.724	4.770	-0.046	0.085	0.392	N	P	8290.810	1.103	4.773	-0.045	0.085	0.403	N
B	8197.814	1.708	4.920	0.331	0.172	0.327	N	B	8290.812	1.104	4.916	0.329	0.175	0.329	N
A	8226.855	1.040	5.923	0.010	0.169	1.065	N	A	8415.529	1.473	5.929	0.007	0.171	1.065	N
P	8226.857	1.044	4.774	-0.048	0.095	0.393	N	P	8415.531	1.439	4.777	-0.050	0.089	0.416	N
B	8226.859	1.042	4.923	0.328	0.179	0.331	N	B	8415.533	1.446	4.929	0.326	0.180	0.329	N
A	8234.848	1.023	5.925	0.010	0.171	1.057	N	A	8438.484	1.679	5.932	0.004	0.178	1.058	N
P	8234.849	1.025	4.765	-0.047	0.092	0.390	N	P	8438.486	1.623	4.789	-0.050	0.094	0.414	N
B	8234.851	1.023	4.922	0.329	0.181	0.322	N	B	8438.487	1.632	4.933	0.322	0.187	0.322	N
A	8255.724	1.187	5.912	0.006	0.168	1.064	N	A	8656.806	1.110	5.921	0.008	0.170	1.064	N
P	8255.726	1.200	4.761	-0.051	0.091	0.398	N	P	8656.808	1.099	4.782	-0.052	0.097	0.419	N
B	8255.727	1.195	4.911	0.326	0.177	0.331	N	B	8656.809	1.100	4.920	0.328	0.181	0.319	N

Long Term Photometry of Variables

Group 5002 P=HD269006															
A=HD 32858 B=HD 33031															
Star	JD ₀	X	V	b - y	m ₁	c ₁	Sys	Star	JD ₀	X	V	b - y	m ₁	c ₁	Sys
A	8169.716	1.572	8.756	0.018	0.174	0.987	N	A	8495.834	1.529	8.773	0.016	0.176	0.974	N
P	8169.721	1.582	10.766	0.095	0.013	-0.077	N	P	8495.839	1.549	10.811	0.075	0.045	-0.104	N
B	8169.729	1.529	8.129	0.148	0.193	0.898	N	B	8495.844	1.502	8.154	0.147	0.195	0.903	N
A	8185.807	1.307	8.752	0.019	0.179	0.967	N	A	8501.863	1.404	8.766	0.021	0.168	0.989	N
P	8185.813	1.346	10.799	0.081	0.037	-0.084	N	P	8501.867	1.434	10.804	0.086	0.031	-0.092	N
B	8185.819	1.308	8.129	0.148	0.196	0.894	N	B	8501.873	1.387	8.149	0.149	0.192	0.906	N
A	8191.648	1.600	8.753	0.018	0.176	0.980	N	A	8512.839	1.391	8.747	0.018	0.171	0.988	N
P	8191.653	1.611	10.728	0.087	0.035	-0.116	N	P	8512.843	1.422	10.761	0.094	0.013	-0.079	N
B	8191.658	1.567	8.124	0.150	0.192	0.899	N	B	8512.848	1.377	8.125	0.151	0.184	0.910	N
A	8197.641	1.565	8.753	0.016	0.181	0.976	N	A	8518.829	1.378	8.783	0.017	0.175	0.976	N
P	8197.648	1.572	10.759	0.094	0.028	-0.124	N	P	8518.833	1.410	10.820	0.076	0.038	-0.078	N
B	8197.654	1.522	8.129	0.149	0.197	0.893	N	B	8518.838	1.366	8.153	0.145	0.193	0.904	N
A	8215.628	1.447	8.750	0.020	0.176	0.981	N	A	8523.819	1.372	8.741	0.013	0.180	0.982	N
P	8215.639	1.457	10.872	0.085	0.036	-0.042	N	P	8523.824	1.403	10.841	0.084	0.019	-0.055	N
B	8215.645	1.410	8.127	0.149	0.189	0.915	N	B	8523.828	1.360	8.121	0.146	0.188	0.907	N
A	8222.662	1.342	8.757	0.023	0.168	0.989	N	A	8530.776	1.420	8.725	0.024	0.173	0.989	N
P	8222.667	1.376	10.836	0.094	0.026	-0.061	N	P	8530.781	1.448	10.798	0.099	0.023	-0.085	N
B	8222.673	1.334	8.126	0.155	0.186	0.904	N	B	8530.785	1.404	8.108	0.156	0.190	0.906	N
A	8230.574	1.484	8.761	0.022	0.173	0.985	N	A	8538.742	1.450	8.735	0.018	0.175	0.987	N
P	8230.578	1.505	10.696	0.089	0.038	-0.102	N	P	8538.746	1.477	10.805	0.086	0.023	-0.086	N
B	8230.584	1.459	8.131	0.150	0.194	0.906	N	B	8538.751	1.432	8.110	0.148	0.193	0.900	N
A	8238.589	1.390	8.760	0.017	0.179	0.984	N	A	8546.748	1.386	8.757	0.023	0.170	0.989	N
P	8238.594	1.420	10.653	0.091	0.026	-0.104	N	P	8546.752	1.417	10.727	0.095	0.013	-0.087	N
B	8238.601	1.373	8.129	0.152	0.192	0.903	N	B	8546.757	1.373	8.132	0.153	0.187	0.913	N
A	8255.593	1.320	8.753	0.021	0.173	0.984	N	A	8561.720	1.363	8.745	0.026	0.163	0.989	N
P	8255.598	1.356	10.729	0.102	0.013	-0.080	N	P	8561.724	1.396	10.795	0.104	0.002	-0.073	N
B	8255.604	1.316	8.122	0.151	0.197	0.896	N	B	8561.729	1.353	8.121	0.153	0.187	0.906	N
A	8284.565	1.306	8.765	0.019	0.179	0.973	N	A	8572.679	1.383	8.744	0.022	0.173	0.978	N
P	8284.569	1.347	10.782	0.096	0.030	-0.090	N	P	8572.682	1.415	10.787	0.089	0.020	-0.077	N
B	8284.573	1.312	8.135	0.148	0.201	0.898	N	B	8572.687	1.372	8.122	0.148	0.196	0.902	N
A	8290.566	1.314	8.759	0.026	0.173	0.979	N	A	8647.582	1.310	8.756	0.025	0.167	0.984	N
P	8290.569	1.355	10.772	0.091	0.025	-0.089	N	P	8647.590	1.354	10.772	0.083	0.034	-0.093	N
B	8290.570	1.356	10.777	0.102	0.003	-0.080	N	B	8647.598	1.323	8.128	0.153	0.187	0.903	N
P	8290.572	1.357	10.774	0.081	0.042	-0.085	N	A	8654.658	1.482	8.743	0.016	0.178	0.980	N
B	8290.574	1.322	8.130	0.154	0.192	0.897	N	P	8654.660	1.520	10.743	0.089	0.016	-0.085	N
A	8486.888	1.440	8.750	0.021	0.174	0.982	N	P	8654.663	1.527	10.730	0.097	0.004	-0.068	N
P	8486.892	1.469	10.723	0.100	0.018	-0.082	N	B	8654.665	1.502	8.119	0.145	0.194	0.901	N
B	8486.895	1.427	8.127	0.150	0.189	0.909	N	A	8659.596	1.358	8.753	0.017	0.182	0.986	N
A	8493.873	1.431	8.750	0.022	0.182	0.970	N	P	8659.599	1.398	10.755	0.088	0.037	-0.093	N
P	8493.877	1.459	10.799	0.089	0.018	-0.075	N	P	8659.603	1.405	10.742	0.102	0.019	-0.090	N
B	8493.882	1.414	8.141	0.151	0.195	0.909	N	B	8659.606	1.375	8.126	0.146	0.198	0.904	N

Catalogue 1990-1992

Group 5003 P=HD269128
A=HD 34144 B=HD 34651

Star	JD _⊙	X	V	b - y	m ₁	c ₁	Sys	Star	JD _⊙	X	V	b - y	m ₁	c ₁	Sys
P	8166.714	1.634	10.451	0.101	-0.002	-0.042	N	B	8228.587	1.468	8.409	0.206	0.172	0.629	N
B	8166.720	1.613	8.402	0.204	0.169	0.634	N	A	8236.563	1.482	9.382	0.119	0.178	1.001	N
A	8168.743	1.502	9.408	0.120	0.160	0.965	N	P	8236.569	1.461	10.379	0.089	0.026	-0.082	N
P	8168.747	1.486	10.519	0.086	0.017	-0.023	N	B	8236.575	1.440	8.404	0.207	0.170	0.634	N
B	8168.752	1.466	8.408	0.206	0.167	0.636	N	A	8249.542	1.440	9.361	0.116	0.181	0.980	N
P	8169.703	1.649	10.536	0.081	0.022	-0.011	N	P	8249.547	1.423	10.490	0.082	0.029	-0.054	N
B	8169.708	1.627	8.407	0.202	0.171	0.630	N	B	8249.552	1.405	8.384	0.204	0.174	0.622	N
A	8172.715	1.564	9.373	0.120	0.174	0.998	N	A	8258.625	1.301	9.393	0.116	0.180	1.006	N
P	8172.719	1.547	10.572	0.087	0.018	0.005	N	P	8258.629	1.294	10.493	0.093	0.009	-0.024	N
P	8186.864	1.309	10.462	0.104	0.024	-0.011	N	B	8258.634	1.280	8.397	0.209	0.165	0.635	N
A	8187.668	1.601	9.379	0.120	0.172	0.995	N	A	8284.576	1.304	9.394	0.116	0.189	0.984	N
B	8187.672	1.584	10.429	0.076	0.026	-0.064	N	P	8284.582	1.299	10.850	0.086	0.036	0.134	N
P	8187.679	1.557	8.405	0.199	0.176	0.620	N	B	8284.587	1.287	8.404	0.208	0.170	0.633	N
A	8188.673	1.575	9.370	0.123	0.172	0.990	N	A	8290.606	1.344	9.386	0.121	0.171	1.010	N
P	8188.677	1.556	10.421	0.077	0.032	-0.071	N	P	8290.611	1.344	10.575	0.088	0.020	0.079	N
B	8188.683	1.532	8.397	0.205	0.172	0.617	N	B	8290.616	1.334	8.403	0.206	0.174	0.625	N
A	8189.703	1.472	9.371	0.114	0.187	0.975	N	A	8494.844	1.524	9.392	0.114	0.181	1.026	N
P	8189.707	1.455	10.419	0.081	0.025	-0.069	N	P	8494.848	1.507	10.526	0.085	0.026	-0.036	N
B	8189.712	1.435	8.398	0.201	0.176	0.620	N	B	8494.853	1.487	8.402	0.202	0.171	0.636	N
A	8190.652	1.635	9.379	0.117	0.174	0.996	N	P	8496.842	1.510	10.515	0.088	0.020	-0.046	N
P	8190.658	1.606	10.430	0.083	0.024	-0.072	N	B	8496.848	1.485	8.413	0.205	0.167	0.631	N
B	8190.665	1.579	8.400	0.201	0.172	0.623	N	A	8501.884	1.371	9.407	0.123	0.169	1.018	N
A	8191.663	1.564	9.389	0.118	0.176	1.002	N	P	8501.888	1.358	10.434	0.089	0.015	-0.058	N
P	8191.668	1.543	10.444	0.097	-0.002	-0.034	N	B	8501.895	1.337	8.418	0.205	0.170	0.631	N
B	8191.673	1.523	8.399	0.209	0.167	0.629	N	A	8510.865	1.361	9.371	0.123	0.173	0.995	N
A	8192.646	1.625	9.387	0.113	0.178	1.001	N	P	8510.869	1.349	10.664	0.083	0.022	0.127	N
P	8192.651	1.599	10.466	0.087	0.022	-0.064	N	B	8510.874	1.331	8.398	0.204	0.173	0.624	N
B	8192.657	1.576	8.398	0.205	0.168	0.625	N	A	8517.776	1.541	9.372	0.121	0.175	1.004	N
A	8193.632	1.677	9.405	0.117	0.188	0.993	N	P	8517.781	1.522	10.331	0.082	0.021	-0.013	N
P	8193.639	1.642	10.512	0.080	0.029	-0.045	N	B	8517.787	1.496	8.401	0.204	0.165	0.631	N
B	8193.645	1.617	8.408	0.207	0.179	0.617	N	A	8523.834	1.354	9.381	0.115	0.173	0.990	N
A	8194.683	1.467	9.395	0.120	0.178	0.996	N	P	8523.838	1.341	10.339	0.089	0.019	-0.082	N
P	8194.690	1.445	10.522	0.090	0.020	-0.044	N	B	8523.843	1.324	8.394	0.204	0.167	0.626	N
B	8194.701	1.409	8.410	0.208	0.170	0.626	N	P	8529.822	1.342	10.498	0.084	0.018	-0.066	N
A	8195.635	1.637	9.383	0.122	0.177	0.990	N	A	8537.744	1.468	9.416	0.123	0.184	0.995	N
P	8195.641	1.606	10.525	0.076	0.037	-0.045	N	P	8537.748	1.451	10.486	0.102	0.015	-0.100	N
B	8195.648	1.581	8.402	0.206	0.171	0.628	N	B	8537.753	1.432	8.437	0.203	0.185	0.615	N
A	8196.649	1.563	9.381	0.113	0.182	0.997	N	A	8545.764	1.369	9.374	0.124	0.175	0.994	N
P	8196.656	1.537	10.504	0.090	0.018	-0.040	N	P	8545.770	1.355	10.488	0.083	0.018	-0.059	N
B	8196.662	1.513	8.398	0.203	0.175	0.620	N	B	8545.774	1.337	8.406	0.198	0.179	0.630	N
A	8198.628	1.629	9.382	0.112	0.182	0.997	N	A	8561.740	1.339	9.372	0.128	0.168	0.998	N
P	8198.635	1.600	10.470	0.086	0.029	-0.047	N	P	8561.744	1.328	10.418	0.081	0.026	-0.073	N
B	8198.641	1.575	8.399	0.205	0.171	0.627	N	B	8561.749	1.312	8.393	0.210	0.162	0.637	N
A	8199.619	1.657	9.381	0.120	0.170	1.003	N	A	8572.696	1.359	9.370	0.123	0.177	0.998	N
P	8199.626	1.626	10.457	0.083	0.034	-0.054	N	P	8572.700	1.347	10.486	0.083	0.024	-0.047	N
B	8199.640	1.565	8.399	0.205	0.169	0.634	N	B	8572.705	1.330	8.396	0.204	0.175	0.623	N
A	8200.630	1.596	9.393	0.114	0.182	0.997	N	A	8647.605	1.318	9.381	0.119	0.176	0.996	N
P	8200.637	1.567	10.434	0.090	0.032	-0.074	N	P	8647.615	1.320	10.400	0.080	0.022	-0.072	N
B	8200.643	1.543	8.418	0.213	0.161	0.634	N	B	8647.620	1.309	8.394	0.204	0.174	0.621	N
A	8215.782	1.314	9.383	0.119	0.175	0.995	N	A	8654.667	1.485	9.379	0.111	0.180	0.997	N
P	8215.790	1.312	10.531	0.083	0.029	0.087	N	P	8654.671	1.489	10.563	0.086	0.016	-0.017	N
B	8215.797	1.304	8.399	0.207	0.164	0.639	N	B	8654.674	1.480	8.387	0.207	0.169	0.617	N
A	8223.584	1.531	9.385	0.115	0.185	0.985	N	A	8659.607	1.362	9.380	0.116	0.184	0.993	N
P	8223.591	1.504	10.302	0.081	0.037	-0.071	N	P	8659.612	1.362	10.799	0.092	0.014	0.133	N
B	8223.596	1.484	8.393	0.205	0.171	0.625	N	P	8659.617	1.371	10.807	0.078	0.032	0.122	N
A	8228.577	1.508	9.397	0.121	0.180	0.995	N	B	8659.619	1.357	8.393	0.209	0.167	0.633	N
P	8228.583	1.487	10.363	0.089	0.025	-0.070	N								

Long Term Photometry of Variables

Group 5004 P=HD 35343															
A=HD 35293								B=HD 35294							
Star	JD _⊙	X	V	b - y	m ₁	c ₁	Sys	Star	JD _⊙	X	V	b - y	m ₁	c ₁	Sys
A	8186.680	1.565	9.253	0.098	0.238	0.911	N	P	8512.876	1.347	9.685	0.207	-0.026	-0.221	N
P	8186.684	1.559	9.343	0.205	-0.011	-0.037	N	B	8512.882	1.325	8.411	0.449	0.249	0.478	N
B	8186.691	1.523	8.410	0.450	0.248	0.481	N	A	8518.881	1.305	9.280	0.093	0.249	0.894	N
A	8193.651	1.607	9.259	0.099	0.247	0.900	N	P	8518.886	1.318	9.724	0.210	-0.026	-0.236	N
P	8193.657	1.593	9.368	0.211	-0.014	-0.048	N	B	8518.891	1.299	8.441	0.446	0.253	0.482	N
B	8193.677	1.504	8.416	0.446	0.252	0.483	N	A	8522.816	1.391	9.246	0.099	0.246	0.897	N
A	8199.646	1.558	9.249	0.097	0.245	0.901	N	B	8522.825	1.372	8.401	0.451	0.249	0.476	N
P	8199.653	1.542	9.353	0.204	-0.009	-0.057	N	A	8522.831	1.359	9.246	0.103	0.237	0.894	N
B	8199.660	1.508	8.408	0.448	0.249	0.470	N	P	8522.836	1.366	9.704	0.205	-0.020	-0.235	N
A	8215.805	1.314	9.248	0.099	0.241	0.901	N	B	8522.841	1.344	8.407	0.449	0.247	0.484	N
P	8215.813	1.340	9.345	0.208	-0.003	-0.037	N	A	8530.827	1.331	9.252	0.114	0.222	0.922	N
B	8215.820	1.336	8.404	0.450	0.251	0.473	N	B	8530.836	1.321	8.406	0.458	0.246	0.476	N
A	8226.594	1.478	9.254	0.104	0.239	0.906	N	A	8530.844	1.310	9.254	0.103	0.247	0.899	N
P	8226.600	1.475	9.357	0.204	0.000	-0.048	N	P	8530.849	1.321	9.708	0.217	-0.033	-0.224	N
B	8226.605	1.446	8.415	0.452	0.250	0.473	N	B	8530.854	1.303	8.415	0.456	0.249	0.475	N
A	8233.564	1.516	9.245	0.107	0.237	0.911	N	A	8539.748	1.445	9.214	0.101	0.252	0.885	N
P	8233.571	1.503	9.368	0.207	-0.005	-0.060	N	P	8539.756	1.438	9.673	0.214	-0.035	-0.231	N
B	8233.576	1.476	8.414	0.448	0.253	0.479	N	B	8539.761	1.411	8.377	0.454	0.245	0.498	N
A	8244.580	1.383	9.247	0.102	0.244	0.907	N	B	8539.776	1.378	8.370	0.451	0.255	0.469	N
P	8244.587	1.386	9.378	0.202	-0.005	-0.060	N	A	8548.691	1.557	9.286	0.088	0.257	0.879	N
B	8244.592	1.362	8.410	0.448	0.255	0.481	N	P	8548.696	1.550	9.742	0.206	-0.036	-0.267	N
A	8258.639	1.286	9.241	0.103	0.236	0.911	N	B	8548.700	1.521	8.436	0.446	0.253	0.463	N
B	8258.647	1.290	8.399	0.447	0.250	0.484	N	A	8555.693	1.480	9.241	0.106	0.238	0.899	N
A	8258.653	1.289	9.243	0.097	0.241	0.905	N	P	8555.698	1.476	9.740	0.201	-0.028	-0.254	N
P	8258.659	1.308	9.368	0.219	-0.024	-0.013	N	B	8555.703	1.449	8.411	0.447	0.249	0.489	N
B	8258.664	1.296	8.399	0.450	0.251	0.481	N	A	8563.705	1.387	9.243	0.104	0.237	0.900	N
A	8284.591	1.293	9.253	0.103	0.248	0.891	N	P	8563.710	1.392	9.750	0.202	-0.025	-0.282	N
P	8284.595	1.312	9.403	0.218	-0.014	-0.082	N	B	8563.715	1.369	8.407	0.446	0.257	0.475	N
B	8284.604	1.304	8.413	0.450	0.250	0.473	N	A	8572.715	1.326	9.247	0.094	0.250	0.905	N
A	8290.619	1.341	9.248	0.103	0.239	0.904	N	P	8572.719	1.338	9.736	0.205	-0.022	-0.265	N
P	8290.631	1.376	9.410	0.214	-0.014	-0.062	N	B	8572.723	1.318	8.405	0.446	0.257	0.480	N
B	8290.635	1.370	8.411	0.446	0.251	0.489	N	A	8572.733	1.306	9.245	0.096	0.247	0.912	N
A	8494.858	1.485	9.255	0.097	0.246	0.907	N	A	8647.638	1.335	9.230	0.097	0.245	0.904	N
B	8494.885	1.410	8.425	0.450	0.252	0.491	N	P	8647.643	1.358	9.620	0.170	-0.006	-0.243	N
A	8494.893	1.389	9.270	0.104	0.237	0.925	N	B	8647.647	1.351	8.391	0.446	0.249	0.485	N
P	8494.896	1.398	9.701	0.207	-0.030	-0.227	N	A	8647.654	1.363	9.233	0.099	0.248	0.906	N
B	8494.901	1.374	8.418	0.449	0.257	0.474	N	A	8654.679	1.492	9.235	0.107	0.232	0.891	N
A	8496.881	1.404	9.263	0.106	0.232	0.917	N	P	8654.683	1.516	9.597	0.185	-0.021	-0.258	N
P	8496.885	1.409	9.685	0.205	-0.027	-0.236	N	B	8654.686	1.514	8.395	0.457	0.236	0.470	N
B	8496.892	1.382	8.423	0.449	0.250	0.490	N	B	8654.692	1.537	8.405	0.444	0.249	0.485	N
A	8506.861	1.388	9.207	0.102	0.249	0.897	N	A	8654.695	1.543	9.236	0.095	0.254	0.896	N
P	8506.865	1.394	9.658	0.205	-0.013	-0.243	N	B	8659.622	1.364	8.405	0.450	0.253	0.483	N
B	8506.871	1.369	8.368	0.450	0.257	0.472	N	P	8659.625	1.385	9.611	0.180	-0.015	-0.248	N
A	8512.857	1.362	9.248	0.104	0.236	0.915	N	A	8659.629	1.378	9.251	0.099	0.247	0.899	N
B	8512.866	1.347	8.411	0.449	0.252	0.480	N	B	8659.639	1.402	8.401	0.452	0.247	0.486	N
A	8512.872	1.337	9.256	0.098	0.238	0.924	N								

Catalogue 1990-1992

Group 5005 P=HR4169
A=HD 92421 B=HD 92399

Star	JD _⊙	X	V	b - y	m ₁	c ₁	Sys	Star	JD _⊙	X	V	b - y	m ₁	c ₁	Sys
A	8198.847	1.588	7.753	-0.014	0.107	0.454	N	A	8294.822	1.198	7.740	-0.014	0.105	0.451	N
P	8198.849	1.565	5.522	0.427	-0.021	0.355	N	P	8294.825	1.198	5.438	0.424	-0.024	0.313	N
B	8198.851	1.562	6.536	-0.030	0.095	0.374	N	B	8294.827	1.206	6.506	-0.034	0.093	0.367	N
A	8200.845	1.570	7.739	-0.018	0.112	0.447	N	P	8435.480	1.291	5.439	0.418	-0.015	0.340	N
P	8200.847	1.548	5.516	0.424	-0.020	0.357	N	B	8435.482	1.298	6.517	-0.037	0.101	0.363	N
B	8200.848	1.547	6.502	-0.036	0.097	0.368	N	A	8437.520	1.463	7.761	-0.026	0.116	0.456	N
A	8239.843	1.204	7.737	-0.016	0.110	0.447	N	P	8437.521	1.474	5.450	0.415	-0.018	0.348	N
P	8239.845	1.194	5.450	0.419	-0.019	0.340	N	B	8437.523	1.483	6.532	-0.037	0.101	0.376	N
B	8239.847	1.198	6.505	-0.034	0.096	0.369	N	A	8438.492	1.360	7.746	-0.021	0.119	0.446	N
A	8252.805	1.211	7.748	-0.015	0.109	0.446	N	P	8438.494	1.364	5.443	0.417	-0.015	0.345	N
P	8252.807	1.200	5.468	0.425	-0.022	0.345	N	B	8438.495	1.372	6.514	-0.034	0.103	0.365	N
B	8252.809	1.204	6.523	-0.030	0.094	0.374	N	A	8647.806	1.154	7.732	-0.018	0.104	0.459	N
A	8258.686	1.583	7.726	-0.017	0.106	0.457	N	P	8647.807	1.149	5.487	0.416	-0.020	0.347	N
P	8258.689	1.561	5.466	0.420	-0.028	0.345	N	B	8647.809	1.155	6.506	-0.030	0.087	0.371	N
B	8258.690	1.562	6.494	-0.037	0.095	0.367	N	A	8651.879	1.269	7.744	-0.014	0.101	0.458	N
A	8285.791	1.153	7.722	-0.014	0.107	0.447	N	P	8651.881	1.271	5.498	0.421	-0.020	0.353	N
P	8285.794	1.148	5.418	0.421	-0.020	0.346	N	B	8651.882	1.277	6.514	-0.030	0.090	0.381	N
B	8285.795	1.154	6.503	-0.034	0.095	0.371	N	A	8654.751	1.174	7.734	-0.015	0.103	0.447	N
A	8287.789	1.154	7.729	-0.010	0.104	0.449	N	P	8654.752	1.167	5.483	0.423	-0.028	0.346	N
P	8287.791	1.148	5.428	0.423	-0.018	0.337	N	B	8654.754	1.173	6.511	-0.031	0.090	0.371	N
B	8287.792	1.154	6.501	-0.032	0.097	0.360	N	A	8656.842	1.230	7.713	-0.014	0.104	0.448	N
A	8289.827	1.186	7.739	-0.011	0.104	0.453	N	P	8656.843	1.229	5.468	0.422	-0.024	0.335	N
P	8289.829	1.184	5.425	0.428	-0.026	0.337	N	B	8656.845	1.237	6.489	-0.033	0.090	0.368	N
B	8289.831	1.192	6.523	-0.031	0.097	0.373	N	A	8657.749	1.157	7.745	-0.021	0.114	0.448	N
A	8290.780	1.154	7.735	-0.019	0.112	0.448	N	P	8657.751	1.149	5.484	0.423	-0.024	0.335	N
P	8290.784	1.149	5.415	0.424	-0.023	0.325	N	B	8657.753	1.155	6.521	-0.035	0.099	0.370	N
B	8290.785	1.155	6.502	-0.035	0.096	0.367	N	A	8658.783	1.157	7.742	-0.019	0.110	0.456	N
A	8292.815	1.181	7.730	-0.014	0.107	0.447	N	P	8658.785	1.152	5.486	0.424	-0.021	0.323	N
P	8292.818	1.180	5.416	0.427	-0.028	0.321	N	B	8658.787	1.159	6.504	-0.029	0.094	0.369	N
B	8292.819	1.186	6.512	-0.033	0.095	0.378	N	A	8660.819	1.197	7.726	-0.013	0.100	0.455	N
A	8293.740	1.160	7.740	-0.015	0.107	0.451	N	P	8660.821	1.195	5.483	0.422	-0.026	0.333	N
P	8293.743	1.151	5.433	0.426	-0.024	0.315	N	B	8660.822	1.201	6.501	-0.034	0.090	0.373	N
B	8293.745	1.157	6.515	-0.033	0.097	0.371	N								

Long Term Photometry of Variables

Group 5006 P=HR4210															
A=HD 93010							B=HR4217								
Star	JD _⊙	X	V	b - y	m ₁	c ₁	Sys	Star	JD _⊙	X	V	b - y	m ₁	c ₁	Sys
A	8290.734	1.195	6.622	0.040	0.075	0.336	N	C	8648.806	1.158	9.008	0.170	-0.015	-0.136	N
C	8290.744	1.168	9.001	0.176	-0.024	-0.134	N	P	8648.807	1.159	5.793	0.592	-0.189	-0.355	N
C	8290.751	1.165	5.837	0.560	-0.159	-0.311	N	C	8648.808	1.158	9.005	0.170	-0.014	-0.134	N
P	8290.755	1.161	9.005	0.169	-0.016	-0.141	N	B	8648.811	1.171	6.261	0.010	0.184	0.990	N
P	8290.758	1.162	5.833	0.564	-0.159	-0.315	N	A	8651.796	1.177	6.611	0.044	0.065	0.348	N
C	8290.760	1.159	9.006	0.171	-0.021	-0.136	N	B	8651.806	1.172	6.260	0.007	0.192	0.987	N
P	8290.762	1.160	5.833	0.566	-0.160	-0.321	N	C	8651.817	1.167	9.021	0.162	-0.008	-0.139	N
C	8290.764	1.158	9.000	0.173	-0.017	-0.149	N	P	8651.820	1.170	5.802	0.591	-0.185	-0.354	N
P	8290.766	1.159	5.834	0.564	-0.158	-0.322	N	C	8651.822	1.170	9.016	0.156	0.005	-0.146	N
C	8290.768	1.157	9.006	0.169	-0.018	-0.138	N	P	8651.823	1.173	5.799	0.592	-0.185	-0.356	N
B	8290.770	1.169	6.267	0.007	0.193	0.984	N	C	8651.825	1.173	9.014	0.168	-0.014	-0.135	N
A	8290.787	1.178	6.620	0.043	0.071	0.335	N	P	8651.826	1.175	5.799	0.591	-0.183	-0.355	N
B	8290.792	1.171	6.269	0.007	0.194	0.978	N	C	8651.828	1.176	9.010	0.170	-0.012	-0.134	N
A	8645.819	1.179	6.617	0.046	0.060	0.359	N	B	8651.830	1.189	6.265	0.008	0.188	0.988	N
B	8645.825	1.174	6.266	0.009	0.189	0.988	N	C	8654.796	1.175	9.006	0.167	-0.020	-0.139	N
A	8645.832	1.186	6.613	0.048	0.060	0.352	N	P	8654.798	1.177	5.795	0.594	-0.191	-0.358	N
P	8645.835	1.169	5.793	0.600	-0.203	-0.339	N	C	8654.800	1.176	9.015	0.162	-0.010	-0.139	N
C	8645.841	1.173	9.007	0.177	-0.028	-0.125	N	B	8654.802	1.191	6.261	0.006	0.190	0.990	N
P	8645.844	1.178	5.791	0.598	-0.197	-0.345	N	P	8654.806	1.181	5.801	0.588	-0.182	-0.361	N
C	8645.846	1.178	9.017	0.165	-0.014	-0.130	N	C	8654.808	1.181	9.014	0.167	-0.012	-0.132	N
P	8645.848	1.181	5.797	0.592	-0.190	-0.349	N	P	8654.810	1.184	5.797	0.591	-0.183	-0.368	N
C	8645.850	1.182	9.013	0.169	-0.018	-0.131	N	B	8654.815	1.199	6.264	0.007	0.193	0.978	N
P	8645.850	1.184	5.797	0.594	-0.195	-0.340	N	A	8655.855	1.267	6.616	0.036	0.077	0.329	N
C	8645.852	1.185	9.005	0.175	-0.026	-0.124	N	P	8655.856	1.250	5.794	0.592	-0.184	-0.363	N
B	8645.854	1.198	6.264	0.007	0.188	0.996	N	C	8655.858	1.252	9.003	0.180	-0.028	-0.141	N
A	8647.771	1.184	6.618	0.039	0.072	0.346	N	P	8655.861	1.259	5.798	0.592	-0.184	-0.362	N
C	8647.781	1.160	9.011	0.175	-0.025	-0.131	N	C	8655.863	1.263	9.007	0.178	-0.031	-0.125	N
P	8647.785	1.160	5.798	0.593	-0.190	-0.353	N	P	8655.865	1.268	5.796	0.591	-0.181	-0.365	N
C	8647.787	1.158	9.016	0.167	-0.020	-0.127	N	C	8655.867	1.271	9.010	0.168	-0.013	-0.139	N
P	8647.789	1.159	5.799	0.593	-0.190	-0.356	N	P	8655.869	1.278	5.795	0.592	-0.184	-0.361	N
C	8647.791	1.157	9.013	0.174	-0.026	-0.131	N	B	8655.871	1.291	6.260	0.006	0.195	0.980	N
P	8647.793	1.158	5.795	0.593	-0.187	-0.357	N	A	8657.764	1.176	6.630	0.036	0.077	0.338	N
C	8647.794	1.156	9.020	0.165	-0.015	-0.133	N	C	8657.765	1.157	9.018	0.176	-0.025	-0.137	N
B	8647.802	1.169	6.270	0.003	0.197	0.977	N	P	8657.768	1.158	5.811	0.594	-0.188	-0.353	N
A	8648.793	1.176	6.621	0.043	0.069	0.345	N	C	8657.771	1.156	9.024	0.169	-0.020	-0.126	N
C	8648.796	1.156	9.022	0.159	-0.001	-0.141	N	P	8657.772	1.158	5.807	0.593	-0.185	-0.359	N
P	8648.799	1.158	5.797	0.594	-0.188	-0.358	N	C	8657.774	1.156	9.018	0.177	-0.030	-0.124	N
C	8648.800	1.156	9.015	0.168	-0.015	-0.142	N	P	8657.775	1.158	5.807	0.594	-0.183	-0.365	N
P	8648.801	1.158	5.799	0.591	-0.187	-0.359	N	C	8657.776	1.156	9.020	0.171	-0.023	-0.128	N
C	8648.803	1.157	9.003	0.180	-0.026	-0.146	N	B	8657.778	1.169	6.268	0.009	0.193	0.981	N
P	8648.805	1.159	5.796	0.595	-0.192	-0.358	N								

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Group 5007 P=HD 94910 A=HD 93010 B=HR4217															
Star	JD _⊙	X	V	b - y	m ₁	c ₁	Sys	Star	JD _⊙	X	V	b - y	m ₁	c ₁	Sys
A	8249.807	1.248	6.631	0.038	0.080	0.338	N	A	8645.819	1.179	6.617	0.046	0.060	0.359	N
P	8249.809	1.253	7.709	0.426	-0.056	-0.214	N	P	8645.823	1.169	6.985	0.528	-0.131	-0.303	N
B	8249.813	1.235	6.277	0.007	0.196	0.984	N	B	8645.825	1.174	6.266	0.009	0.189	0.988	N
A	8249.840	1.199	6.630	0.039	0.079	0.335	N	B	8645.825	1.174	6.266	0.009	0.189	0.988	N
B	8249.847	1.187	6.276	0.008	0.193	0.980	N	A	8645.832	1.186	6.613	0.048	0.060	0.352	N
A	8282.815	1.180	6.624	0.037	0.075	0.342	N	B	8645.854	1.198	6.264	0.007	0.188	0.996	N
P	8282.818	1.169	7.693	0.425	-0.062	-0.198	N	A	8651.796	1.177	6.611	0.044	0.065	0.348	N
B	8282.820	1.174	6.263	0.005	0.197	0.981	N	A	8651.796	1.177	6.611	0.044	0.065	0.348	N
A	8290.734	1.195	6.622	0.040	0.075	0.336	N	P	8651.803	1.168	6.997	0.526	-0.131	-0.308	N
B	8290.770	1.169	6.267	0.007	0.193	0.984	N	B	8651.806	1.172	6.260	0.007	0.192	0.987	N
A	8290.787	1.178	6.620	0.043	0.071	0.335	N	B	8651.806	1.172	6.260	0.007	0.192	0.987	N
P	8290.790	1.167	7.700	0.421	-0.049	-0.221	N	B	8651.830	1.189	6.265	0.008	0.188	0.988	N
B	8290.792	1.171	6.269	0.007	0.194	0.978	N	B	8654.802	1.191	6.261	0.006	0.190	0.990	N
A	8416.603	1.594	6.638	0.043	0.067	0.356	N	P	8654.804	1.186	6.998	0.519	-0.128	-0.320	N
A	8416.603	1.594	6.638	0.043	0.067	0.356	N	B	8654.815	1.199	6.264	0.007	0.193	0.978	N
P	8416.606	1.554	7.333	0.473	-0.095	-0.232	N	A	8660.826	1.224	6.607	0.038	0.068	0.345	N
B	8416.609	1.614	6.345	0.006	0.195	0.987	N	A	8660.826	1.224	6.607	0.038	0.068	0.345	N
B	8416.609	1.614	6.345	0.006	0.195	0.987	N	B	8660.848	1.255	6.298	0.017	0.184	0.997	N
P	8417.580	1.439	7.275	0.467	-0.086	-0.234	N	B	8660.848	1.255	6.298	0.017	0.184	0.997	N
B	8417.583	1.488	6.209	0.002	0.206	0.977	N	P	8660.874	1.300	6.981	0.520	-0.131	-0.328	N
B	8417.583	1.488	6.209	0.002	0.206	0.977	N	A	8660.876	1.341	6.618	0.047	0.065	0.346	N
A	8645.819	1.179	6.617	0.046	0.060	0.359	N	A	8660.876	1.341	6.618	0.047	0.065	0.346	N

Long Term Photometry of Variables

Group 5008 P=HR4441
A=HD100122 B=HD100613

Star	JD_{\odot}	X	V	$b-y$	m_1	c_1	Sys	Star	JD_{\odot}	X	V	$b-y$	m_1	c_1	Sys
A	8252.811	1.269	7.663	0.517	0.281	0.279	N	A	8294.815	1.151	7.647	0.515	0.275	0.289	N
P	8252.821	1.253	5.170	0.667	0.438	0.634	N	P	8294.817	1.159	5.063	0.624	0.356	0.762	N
B	8252.826	1.247	7.264	0.286	0.182	0.550	N	B	8294.818	1.162	7.262	0.288	0.176	0.551	N
A	8281.842	1.149	7.647	0.514	0.277	0.284	N	P	8645.870	1.169	5.186	0.664	0.407	0.687	N
P	8281.849	1.158	5.081	0.632	0.397	0.727	N	A	8645.872	1.164	7.639	0.523	0.264	0.290	N
B	8281.850	1.161	7.243	0.290	0.174	0.550	N	P	8645.873	1.172	5.192	0.664	0.406	0.677	N
A	8282.807	1.153	7.643	0.514	0.278	0.285	N	B	8645.875	1.175	7.245	0.287	0.175	0.562	N
P	8282.809	1.160	5.079	0.631	0.392	0.730	N	A	8648.874	1.174	7.642	0.516	0.275	0.289	N
B	8282.811	1.162	7.253	0.282	0.182	0.548	N	P	8648.875	1.182	5.198	0.667	0.418	0.660	N
A	8283.843	1.151	7.646	0.515	0.279	0.280	N	B	8648.877	1.185	7.249	0.287	0.175	0.563	N
P	8283.846	1.159	5.080	0.629	0.391	0.730	N	P	8648.878	1.186	5.203	0.666	0.417	0.663	N
B	8283.846	1.161	7.257	0.280	0.188	0.546	N	B	8648.880	1.188	7.249	0.287	0.165	0.571	N
A	8285.814	1.148	7.634	0.514	0.280	0.276	N	P	8648.881	1.189	5.191	0.669	0.414	0.665	N
P	8285.816	1.155	5.055	0.629	0.385	0.741	N	A	8648.883	1.185	7.645	0.517	0.273	0.296	N
B	8285.818	1.158	7.242	0.287	0.180	0.540	N	A	8651.833	1.150	7.638	0.521	0.267	0.299	N
A	8287.812	1.148	7.655	0.514	0.287	0.279	N	P	8651.835	1.158	5.197	0.669	0.430	0.644	N
P	8287.814	1.155	5.073	0.631	0.377	0.752	N	B	8651.837	1.161	7.248	0.287	0.181	0.542	N
B	8287.815	1.158	7.261	0.291	0.182	0.547	N	A	8654.818	1.163	7.635	0.518	0.274	0.270	N
A	8288.873	1.191	7.662	0.525	0.274	0.280	N	P	8654.821	1.171	5.191	0.669	0.438	0.635	N
P	8288.875	1.201	5.084	0.632	0.373	0.759	N	B	8654.822	1.174	7.247	0.284	0.178	0.548	N
B	8288.876	1.203	7.278	0.293	0.177	0.553	N	A	8655.799	1.163	7.634	0.513	0.281	0.269	N
A	8289.842	1.160	7.644	0.515	0.281	0.279	N	P	8655.801	1.171	5.183	0.670	0.437	0.644	N
P	8289.844	1.168	5.064	0.629	0.368	0.763	N	B	8655.803	1.174	7.239	0.284	0.179	0.549	N
B	8289.845	1.170	7.261	0.290	0.180	0.542	N	A	8656.855	1.192	7.640	0.511	0.284	0.279	N
A	8290.795	1.149	7.640	0.516	0.279	0.282	N	P	8656.857	1.200	5.184	0.670	0.439	0.637	N
P	8290.799	1.156	5.056	0.622	0.370	0.756	N	B	8656.859	1.204	7.247	0.286	0.175	0.552	N
B	8290.801	1.158	7.250	0.286	0.184	0.544	N	A	8657.782	1.153	7.635	0.519	0.270	0.286	N
A	8291.868	1.197	7.627	0.521	0.274	0.288	N	P	8657.784	1.159	5.180	0.670	0.444	0.634	N
P	8291.870	1.206	5.045	0.625	0.365	0.762	N	B	8657.785	1.162	7.246	0.284	0.181	0.546	N
B	8291.872	1.208	7.240	0.290	0.178	0.546	N	A	8658.837	1.164	7.644	0.515	0.273	0.293	N
A	8292.837	1.162	7.631	0.520	0.271	0.290	N	P	8658.839	1.172	5.183	0.674	0.445	0.633	N
P	8292.839	1.171	5.051	0.624	0.362	0.760	N	B	8658.841	1.175	7.254	0.287	0.180	0.551	N
B	8292.840	1.173	7.245	0.293	0.169	0.556	N								

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Group 5010 P=HR6262
A=HD152424 B=HD152147

Star	JD_{\odot}	X	V	$b-y$	m_1	c_1	Sys	Star	JD_{\odot}	X	V	$b-y$	m_1	c_1	Sys
A	8169.521	1.479	6.293	0.372	-0.049	-0.107	N	P	8496.618	1.410	4.731	0.443	-0.088	-0.106	N
P	8169.522	1.491	4.727	0.445	-0.088	-0.106	N	B	8496.620	1.425	7.267	0.361	-0.043	-0.111	N
B	8169.523	1.507	7.264	0.360	-0.039	-0.112	N	A	8497.500	1.041	6.296	0.368	-0.047	-0.110	N
A	8415.737	1.050	6.285	0.373	-0.059	-0.103	N	P	8497.501	1.043	4.719	0.443	-0.086	-0.106	N
P	8415.739	1.054	4.719	0.445	-0.092	-0.101	N	B	8497.504	1.045	7.261	0.359	-0.036	-0.121	N
B	8415.741	1.056	7.262	0.359	-0.038	-0.118	N	A	8501.505	1.059	6.278	0.369	-0.051	-0.109	N
P	8416.662	1.038	4.723	0.444	-0.086	-0.107	N	P	8501.506	1.063	4.721	0.447	-0.090	-0.109	N
B	8416.664	1.035	7.261	0.361	-0.036	-0.119	N	B	8501.508	1.065	7.252	0.362	-0.047	-0.103	N
A	8429.716	1.075	6.292	0.370	-0.056	-0.102	N	A	8506.508	1.087	6.295	0.370	-0.051	-0.115	N
P	8429.718	1.079	4.741	0.447	-0.092	-0.100	N	P	8506.509	1.092	4.743	0.445	-0.092	-0.108	N
B	8429.719	1.082	7.263	0.363	-0.045	-0.109	N	A	8510.533	1.184	6.304	0.370	-0.050	-0.109	N
A	8435.812	1.579	6.305	0.368	-0.042	-0.121	N	P	8510.534	1.191	4.726	0.445	-0.085	-0.112	N
P	8435.813	1.596	4.719	0.441	-0.080	-0.112	N	B	8510.536	1.198	7.270	0.359	-0.035	-0.113	N
A	8436.679	1.049	6.277	0.370	-0.053	-0.102	N	A	8511.537	1.211	6.283	0.370	-0.050	-0.109	N
P	8436.681	1.053	4.689	0.444	-0.088	-0.103	N	P	8511.538	1.217	4.730	0.444	-0.086	-0.108	N
B	8436.682	1.054	7.245	0.363	-0.046	-0.104	N	B	8511.540	1.226	7.248	0.359	-0.033	-0.121	N
A	8437.675	1.047	6.313	0.370	-0.048	-0.111	N	A	8512.501	1.109	6.277	0.372	-0.052	-0.106	N
P	8437.676	1.050	4.696	0.446	-0.086	-0.113	N	P	8512.502	1.114	4.757	0.446	-0.088	-0.101	N
B	8437.678	1.052	7.283	0.359	-0.039	-0.108	N	B	8512.504	1.119	7.271	0.361	-0.039	-0.105	N
A	8438.688	1.069	6.300	0.373	-0.047	-0.120	N	A	8517.498	1.139	6.325	0.368	-0.045	-0.112	N
P	8438.689	1.073	4.695	0.447	-0.083	-0.121	N	P	8517.499	1.144	4.753	0.443	-0.085	-0.107	N
B	8438.691	1.076	7.257	0.357	-0.031	-0.123	N	B	8517.501	1.150	7.283	0.354	-0.031	-0.118	N
A	8439.678	1.058	6.304	0.371	-0.050	-0.112	N	A	8518.537	1.297	6.287	0.372	-0.050	-0.111	N
P	8439.679	1.062	4.703	0.449	-0.086	-0.119	N	P	8518.538	1.306	4.713	0.446	-0.087	-0.105	N
B	8439.681	1.064	7.248	0.364	-0.038	-0.121	N	B	8518.540	1.315	7.269	0.355	-0.028	-0.116	N
A	8461.591	1.033	6.320	0.369	-0.051	-0.106	N	A	8519.499	1.158	6.310	0.366	-0.046	-0.107	N
P	8461.599	1.040	4.756	0.445	-0.089	-0.106	N	P	8519.500	1.164	4.754	0.439	-0.081	-0.107	N
B	8461.602	1.042	7.268	0.364	-0.048	-0.108	N	B	8519.502	1.170	7.295	0.353	-0.029	-0.117	N
A	8462.682	1.239	6.311	0.370	-0.049	-0.107	N	A	8523.502	1.207	6.304	0.370	-0.045	-0.119	N
P	8462.686	1.258	4.757	0.446	-0.091	-0.102	N	P	8523.503	1.214	4.758	0.443	-0.083	-0.111	N
B	8462.688	1.269	7.262	0.358	-0.030	-0.121	N	B	8523.505	1.222	7.258	0.358	-0.033	-0.119	N
A	8463.609	1.055	6.314	0.370	-0.049	-0.110	N	A	8524.508	1.239	6.297	0.373	-0.057	-0.102	N
P	8463.610	1.059	4.745	0.443	-0.085	-0.108	N	P	8524.509	1.247	4.770	0.444	-0.091	-0.100	N
B	8463.612	1.060	7.272	0.359	-0.040	-0.109	N	B	8524.510	1.255	7.270	0.365	-0.046	-0.116	N
A	8464.636	1.109	6.299	0.364	-0.044	-0.118	N	A	8530.519	1.385	6.338	0.364	-0.054	-0.104	N
P	8464.638	1.115	4.727	0.439	-0.084	-0.108	N	A	8530.519	1.385	6.338	0.364	-0.054	-0.104	N
B	8464.639	1.119	7.263	0.356	-0.036	-0.117	N	P	8530.520	1.395	4.747	0.438	-0.088	-0.109	N
A	8491.489	1.026	6.306	0.374	-0.058	-0.111	N	P	8530.520	1.395	4.747	0.438	-0.088	-0.109	N
P	8491.490	1.027	4.756	0.445	-0.090	-0.110	N	B	8530.522	1.407	7.300	0.354	-0.037	-0.122	N
B	8491.492	1.026	7.284	0.364	-0.049	-0.105	N	B	8530.522	1.407	7.300	0.354	-0.037	-0.122	N
A	8493.490	1.027	6.302	0.364	-0.049	-0.103	N	A	8533.525	1.486	6.305	0.371	-0.053	-0.103	N
P	8493.490	1.029	4.716	0.440	-0.084	-0.116	N	P	8533.526	1.498	4.713	0.446	-0.091	-0.109	N
B	8493.492	1.028	7.270	0.360	-0.045	-0.108	N	B	8533.528	1.516	7.298	0.357	-0.035	-0.110	N
A	8494.488	1.028	6.296	0.371	-0.050	-0.111	N	A	8536.508	1.422	6.338	0.365	-0.046	-0.111	N
P	8494.489	1.029	4.716	0.447	-0.086	-0.115	N	P	8536.509	1.433	4.740	0.439	-0.085	-0.101	N
B	8494.491	1.029	7.252	0.369	-0.048	-0.114	N	B	8536.510	1.445	7.307	0.353	-0.032	-0.108	N
A	8495.486	1.028	6.316	0.370	-0.051	-0.109	N	A	8537.522	1.547	6.292	0.372	-0.046	-0.117	N
P	8495.487	1.030	4.723	0.444	-0.082	-0.121	N	P	8537.523	1.560	4.688	0.450	-0.089	-0.108	N
B	8495.489	1.030	7.255	0.363	-0.039	-0.116	N	B	8537.524	1.576	7.262	0.359	-0.028	-0.118	N
A	8496.617	1.400	6.291	0.372	-0.057	-0.103	N								

Long Term Photometry of Variables

Group 5011 P=HD160529
A=HD160461 B=HD160575

Star	JD ₀	X	V	b - y	m ₁	c ₁	Sys	Star	JD ₀	X	V	b - y	m ₁	c ₁	Sys
A	8166.525	1.259	7.518	0.101	0.139	1.141	N	A	8495.542	1.023	7.514	0.103	0.137	1.140	N
P	8166.528	1.273	6.742	0.941	-0.176	0.273	N	P	8495.545	1.025	6.657	0.952	-0.172	0.314	N
B	8166.531	1.284	7.608	0.325	-0.024	0.031	N	B	8495.548	1.032	7.601	0.324	-0.025	0.037	N
A	8169.538	1.386	7.514	0.100	0.142	1.132	N	A	8496.558	1.050	7.517	0.101	0.138	1.134	N
P	8169.540	1.400	6.730	0.942	-0.176	0.262	N	P	8496.562	1.055	6.662	0.953	-0.175	0.321	N
B	8169.543	1.413	7.613	0.321	-0.021	0.041	N	B	8496.567	1.067	7.620	0.324	-0.022	0.033	N
P	8172.537	1.442	6.743	0.941	-0.177	0.266	N	A	8497.555	1.049	7.518	0.100	0.142	1.130	N
B	8172.541	1.456	7.616	0.322	-0.022	0.030	N	P	8497.559	1.054	6.665	0.953	-0.176	0.321	N
A	8413.861	1.290	7.517	0.101	0.137	1.138	N	B	8497.562	1.063	7.614	0.325	-0.028	0.038	N
P	8413.864	1.308	6.728	0.950	-0.177	0.314	N	A	8508.515	1.035	7.514	0.097	0.145	1.129	N
B	8413.867	1.320	7.605	0.320	-0.022	0.036	N	P	8508.519	1.040	6.709	0.952	-0.179	0.287	N
A	8415.745	1.008	7.514	0.103	0.137	1.136	N	B	8508.523	1.048	7.604	0.318	-0.016	0.027	N
P	8415.748	1.009	6.725	0.952	-0.177	0.314	N	A	8510.592	1.298	7.518	0.106	0.134	1.136	N
B	8415.751	1.014	7.608	0.326	-0.027	0.032	N	P	8510.596	1.318	6.730	0.953	-0.179	0.291	N
A	8416.667	1.053	7.511	0.102	0.141	1.129	N	B	8510.599	1.332	7.608	0.321	-0.020	0.030	N
P	8416.670	1.049	6.721	0.953	-0.176	0.325	N	A	8511.631	1.617	7.520	0.098	0.140	1.135	N
B	8416.672	1.048	7.604	0.322	-0.019	0.027	N	P	8511.634	1.656	6.734	0.950	-0.178	0.289	N
A	8429.722	1.019	7.518	0.104	0.130	1.148	N	B	8511.638	1.674	7.621	0.315	-0.018	0.033	N
P	8429.723	1.019	6.740	0.959	-0.180	0.369	N	A	8518.560	1.247	7.505	0.101	0.142	1.134	N
B	8429.726	1.025	7.609	0.325	-0.030	0.037	N	P	8518.563	1.264	6.766	0.947	-0.171	0.301	N
A	8436.685	1.006	7.503	0.103	0.135	1.140	N	B	8518.567	1.277	7.602	0.323	-0.024	0.035	N
P	8436.686	1.006	6.730	0.957	-0.176	0.374	N	A	8519.520	1.108	7.526	0.098	0.143	1.131	N
B	8436.689	1.011	7.602	0.323	-0.025	0.038	N	P	8519.523	1.117	6.783	0.945	-0.171	0.312	N
A	8437.680	1.006	7.516	0.103	0.137	1.135	N	B	8519.526	1.127	7.613	0.322	-0.023	0.033	N
P	8437.682	1.005	6.743	0.959	-0.171	0.359	N	A	8523.523	1.155	7.531	0.098	0.143	1.131	N
B	8437.684	1.010	7.612	0.319	-0.016	0.025	N	P	8523.526	1.165	6.803	0.945	-0.172	0.309	N
A	8438.693	1.015	7.517	0.102	0.142	1.126	N	B	8523.530	1.175	7.630	0.323	-0.023	0.040	N
P	8438.695	1.016	6.745	0.954	-0.163	0.345	N	A	8524.572	1.423	7.520	0.097	0.142	1.135	N
B	8438.698	1.021	7.611	0.325	-0.023	0.029	N	P	8524.575	1.448	6.794	0.942	-0.173	0.314	N
A	8439.683	1.010	7.514	0.101	0.144	1.121	N	B	8524.579	1.462	7.617	0.320	-0.023	0.038	N
P	8439.685	1.010	6.741	0.957	-0.171	0.366	N	A	8533.553	1.471	7.549	0.098	0.147	1.126	N
B	8439.688	1.015	7.609	0.324	-0.022	0.030	N	P	8533.556	1.497	6.807	0.938	-0.170	0.288	N
A	8491.518	1.003	7.531	0.100	0.139	1.134	N	B	8533.560	1.517	7.636	0.323	-0.023	0.040	N
P	8491.521	1.003	6.665	0.952	-0.178	0.340	N	A	8536.548	1.502	7.546	0.096	0.140	1.143	N
B	8491.525	1.007	7.635	0.321	-0.022	0.029	N	P	8536.550	1.523	6.798	0.932	-0.175	0.295	N
A	8493.533	1.010	7.520	0.097	0.141	1.136	N	B	8536.553	1.531	7.639	0.315	-0.019	0.029	N
P	8493.534	1.010	6.661	0.946	-0.171	0.329	N	P	8538.539	1.471	6.835	0.941	-0.174	0.308	N
B	8493.536	1.015	7.622	0.316	-0.019	0.032	N	A	8546.529	1.584	7.502	0.103	0.134	1.143	N
A	8494.565	1.051	7.519	0.102	0.135	1.135	N	P	8546.533	1.628	6.709	0.941	-0.178	0.304	N
P	8494.566	1.053	6.658	0.951	-0.173	0.313	N	B	8546.537	1.645	7.595	0.321	-0.024	0.045	N
B	8494.569	1.059	7.607	0.322	-0.025	0.033	N								

Catalogue 1990-1992

Group 5012 P=HD168607
A=HD168552 B=HD168896

Star	JD ₀	X	V	b - y	m ₁	c ₁	Sys	Star	JD ₀	X	V	b - y	m ₁	c ₁	Sys
A	8166.550	1.327	8.082	0.293	0.001	0.103	N	B	8493.606	1.103	8.480	0.125	0.197	0.971	N
P	8166.555	1.362	8.220	1.237	-0.284	0.011	N	A	8493.609	1.112	8.086	0.281	0.008	0.107	N
B	8166.565	1.423	8.477	0.136	0.186	0.977	N	B	8493.615	1.129	8.481	0.122	0.202	0.961	N
A	8168.545	1.329	8.072	0.294	0.000	0.096	N	A	8494.642	1.250	8.076	0.296	-0.009	0.111	N
P	8168.550	1.364	8.209	1.230	-0.277	0.013	N	P	8494.645	1.268	8.220	1.229	-0.270	-0.039	N
B	8168.560	1.426	8.475	0.134	0.189	0.975	N	B	8494.649	1.279	8.503	0.127	0.194	0.965	N
A	8169.560	1.454	8.082	0.294	0.000	0.100	N	A	8494.672	1.446	8.093	0.292	-0.006	0.117	N
P	8169.563	1.491	8.203	1.231	-0.276	0.016	N	B	8494.680	1.505	8.484	0.134	0.185	0.984	N
B	8169.573	1.573	8.472	0.137	0.186	0.977	N	A	8495.599	1.100	8.074	0.292	0.003	0.094	N
A	8172.557	1.506	8.069	0.292	-0.001	0.101	N	P	8495.602	1.114	8.220	1.238	-0.281	-0.016	N
P	8172.560	1.547	8.161	1.229	-0.272	-0.020	N	B	8495.608	1.122	8.469	0.136	0.186	0.977	N
B	8172.570	1.637	8.469	0.135	0.190	0.970	N	A	8495.611	1.136	8.073	0.293	0.001	0.095	N
A	8186.533	1.673	8.088	0.299	-0.008	0.107	N	B	8495.624	1.177	8.471	0.134	0.191	0.972	N
P	8186.538	1.756	8.178	1.244	-0.282	0.001	N	A	8496.638	1.258	8.083	0.291	-0.004	0.107	N
B	8186.546	1.833	8.484	0.133	0.191	0.980	N	P	8496.642	1.282	8.228	1.230	-0.269	-0.002	N
A	8413.874	1.295	8.078	0.295	-0.006	0.103	N	B	8496.647	1.300	8.474	0.129	0.195	0.975	N
P	8413.878	1.323	8.161	1.237	-0.287	-0.007	N	A	8496.650	1.327	8.078	0.289	0.004	0.098	N
B	8413.881	1.334	8.471	0.139	0.182	0.980	N	B	8496.659	1.378	8.472	0.132	0.187	0.984	N
A	8413.890	1.399	8.081	0.294	-0.004	0.108	N	A	8497.614	1.163	8.076	0.294	0.000	0.093	N
B	8413.898	1.454	8.473	0.137	0.180	0.984	N	P	8497.617	1.181	8.233	1.236	-0.277	-0.027	N
A	8415.757	1.023	8.079	0.291	0.003	0.096	N	B	8497.622	1.193	8.472	0.136	0.185	0.980	N
P	8415.761	1.027	8.156	1.228	-0.270	-0.013	N	A	8497.626	1.211	8.088	0.287	0.005	0.097	N
B	8415.764	1.025	8.475	0.133	0.191	0.968	N	B	8497.634	1.248	8.473	0.133	0.188	0.976	N
A	8415.769	1.027	8.081	0.290	0.001	0.102	N	A	8501.613	1.205	8.069	0.291	0.002	0.099	N
B	8415.776	1.031	8.473	0.133	0.190	0.975	N	P	8501.617	1.230	8.274	1.233	-0.275	-0.003	N
A	8416.724	1.037	8.075	0.290	0.006	0.096	N	B	8501.623	1.249	8.470	0.130	0.193	0.970	N
P	8416.727	1.037	8.146	1.232	-0.273	-0.008	N	A	8501.628	1.277	8.066	0.293	-0.005	0.103	N
B	8416.731	1.033	8.469	0.134	0.194	0.962	N	B	8501.637	1.325	8.465	0.130	0.189	0.980	N
A	8416.738	1.027	8.071	0.294	0.001	0.098	N	A	8505.583	1.136	8.077	0.293	-0.002	0.100	N
B	8416.745	1.025	8.466	0.135	0.193	0.968	N	P	8505.587	1.152	8.334	1.238	-0.273	0.003	N
A	8429.729	1.025	8.081	0.299	-0.012	0.104	N	B	8505.592	1.162	8.477	0.131	0.191	0.977	N
P	8429.732	1.030	8.292	1.241	-0.279	0.015	N	A	8505.595	1.178	8.077	0.294	-0.002	0.101	N
B	8429.736	1.029	8.477	0.137	0.184	0.975	N	B	8505.604	1.210	8.479	0.134	0.188	0.970	N
A	8429.739	1.032	8.082	0.294	-0.006	0.106	N	A	8508.579	1.150	8.080	0.293	-0.001	0.101	N
B	8429.747	1.038	8.475	0.140	0.175	0.987	N	P	8508.582	1.167	8.412	1.235	-0.278	0.023	N
A	8436.692	1.024	8.057	0.291	-0.001	0.111	N	B	8508.588	1.179	8.482	0.134	0.188	0.976	N
P	8436.695	1.026	8.295	1.234	-0.276	0.049	N	A	8508.591	1.197	8.080	0.294	-0.003	0.104	N
B	8436.700	1.024	8.462	0.134	0.185	0.985	N	B	8508.600	1.231	8.472	0.138	0.184	0.974	N
A	8436.703	1.023	8.062	0.292	0.000	0.102	N	A	8512.521	1.045	8.078	0.291	0.001	0.098	N
B	8436.710	1.026	8.463	0.132	0.188	0.980	N	P	8512.525	1.053	8.357	1.228	-0.276	0.025	N
A	8437.687	1.024	8.073	0.292	0.002	0.097	N	B	8512.530	1.057	8.475	0.131	0.192	0.976	N
P	8437.690	1.027	8.306	1.234	-0.274	0.050	N	A	8512.533	1.064	8.076	0.291	-0.002	0.107	N
B	8437.694	1.024	8.472	0.139	0.184	0.976	N	A	8517.617	1.535	8.105	0.289	-0.001	0.101	N
A	8437.697	1.023	8.076	0.293	0.000	0.100	N	P	8517.622	1.597	8.338	1.245	-0.295	0.047	N
B	8437.705	1.025	8.475	0.136	0.188	0.970	N	B	8517.626	1.621	8.504	0.142	0.176	0.998	N
A	8438.700	1.024	8.075	0.294	0.002	0.098	N	A	8519.619	1.608	8.048	0.284	0.009	0.097	N
P	8438.703	1.028	8.299	1.230	-0.264	0.035	N	P	8519.623	1.664	8.198	1.237	-0.280	0.039	N
B	8438.708	1.027	8.480	0.133	0.192	0.966	N	A	8524.596	1.519	8.105	0.286	0.000	0.104	N
A	8438.711	1.029	8.080	0.292	0.004	0.093	N	P	8524.600	1.570	8.212	1.236	-0.275	0.033	N
B	8438.718	1.034	8.478	0.133	0.194	0.968	N	B	8524.605	1.600	8.478	0.132	0.190	0.981	N
A	8439.690	1.023	8.072	0.298	-0.005	0.103	N	A	8524.610	1.668	8.104	0.282	0.006	0.101	N
P	8439.693	1.026	8.285	1.238	-0.281	0.061	N	B	8524.619	1.777	8.476	0.132	0.192	0.979	N
B	8439.698	1.025	8.473	0.137	0.184	0.977	N	A	8525.529	1.144	8.081	0.288	0.006	0.094	N
A	8439.701	1.025	8.076	0.293	0.004	0.091	N	P	8525.532	1.160	8.205	1.236	-0.277	0.028	N
B	8439.708	1.029	8.473	0.136	0.189	0.976	N	A	8525.537	1.171	8.476	0.135	0.185	0.980	N
A	8490.634	1.167	8.047	0.305	0.005	0.095	N	B	8525.541	1.188	8.076	0.294	-0.005	0.102	N
P	8490.637	1.181	8.187	1.238	-0.279	-0.043	N	B	8525.549	1.220	8.476	0.131	0.188	0.979	N
B	8490.641	1.188	8.471	0.138	0.183	0.978	N	A	8537.543	1.386	8.053	0.293	0.007	0.083	N
B	8490.648	1.220	8.469	0.135	0.189	0.964	N	P	8537.547	1.419	8.132	1.245	-0.277	-0.025	N
A	8491.636	1.185	8.058	0.294	0.005	0.097	N	B	8537.551	1.441	8.455	0.135	0.196	0.961	N
P	8491.639	1.200	8.199	1.232	-0.276	-0.030	N	A	8537.554	1.478	8.061	0.291	0.007	0.094	N
B	8491.643	1.208	8.477	0.129	0.194	0.977	N	B	8537.563	1.543	8.466	0.133	0.196	0.965	N
A	8491.645	1.224	8.076	0.291	0.002	0.103	N	A	8556.499	1.461	8.109	0.300	-0.009	0.104	N
B	8491.652	1.252	8.473	0.132	0.188	0.978	N	P	8556.503	1.506	8.148	1.224	-0.277	-0.045	N
A	8493.600	1.089	8.083	0.286	0.001	0.099	N	B	8556.507	1.529	8.496	0.133	0.191	0.972	N
P	8493.602	1.099	8.207	1.233	-0.280	-0.028	N	A	8556.516	1.628	8.088	0.294	0.000	0.100	N

Long Term Photometry of Variables

Group 5013 P=HD168625																
A=HD168552 B=HD168896																
Star	JD ₀	X	V	b - y	m ₁	c ₁	Sys	Star	JD ₀	X	V	b - y	m ₁	c ₁	Sys	
A	8166.550	1.327	8.082	0.293	0.001	0.103	N	P	8490.644	1.210	8.441	1.098	-0.225	0.123	N	
P	8166.560	1.398	8.401	1.101	-0.221	0.144	N	B	8490.648	1.220	8.469	0.135	0.189	0.964	N	
B	8166.565	1.423	8.477	0.136	0.186	0.977	N	B	8490.648	1.220	8.469	0.135	0.189	0.964	N	
A	8168.545	1.329	8.072	0.294	0.000	0.096	N	A	8491.636	1.185	8.058	0.294	0.005	0.097	N	
P	8168.555	1.401	8.411	1.112	-0.231	0.135	N	B	8491.643	1.208	8.477	0.129	0.194	0.977	N	
B	8168.560	1.426	8.475	0.134	0.189	0.975	N	A	8491.645	1.224	8.076	0.291	0.002	0.103	N	
A	8169.560	1.454	8.082	0.294	0.000	0.100	N	A	8491.645	1.224	8.076	0.291	0.002	0.103	N	
P	8169.568	1.539	8.413	1.107	-0.228	0.148	N	P	8491.648	1.242	8.416	1.106	-0.230	0.123	N	
B	8169.573	1.573	8.472	0.137	0.186	0.977	N	B	8491.652	1.252	8.473	0.132	0.188	0.978	N	
A	8172.557	1.506	8.069	0.292	-0.001	0.101	N	B	8491.652	1.252	8.473	0.132	0.188	0.978	N	
P	8172.565	1.599	8.405	1.109	-0.234	0.142	N	A	8493.600	1.089	8.083	0.286	0.001	0.099	N	
B	8172.570	1.637	8.469	0.135	0.190	0.970	N	B	8493.606	1.103	8.480	0.125	0.197	0.971	N	
A	8413.874	1.295	8.078	0.295	-0.006	0.103	N	A	8493.609	1.112	8.086	0.281	0.008	0.107	N	
B	8413.881	1.334	8.471	0.139	0.182	0.980	N	A	8493.609	1.112	8.086	0.281	0.008	0.107	N	
A	8413.890	1.399	8.081	0.294	-0.004	0.108	N	P	8493.612	1.123	8.416	1.094	-0.211	0.116	N	
A	8413.890	1.399	8.081	0.294	-0.004	0.108	N	B	8493.615	1.129	8.481	0.122	0.202	0.961	N	
P	8413.894	1.435	8.406	1.101	-0.224	0.143	N	B	8493.615	1.129	8.481	0.122	0.202	0.961	N	
B	8413.898	1.454	8.473	0.137	0.180	0.984	N	A	8494.642	1.250	8.076	0.296	-0.009	0.111	N	
B	8413.898	1.454	8.473	0.137	0.180	0.984	N	B	8494.649	1.279	8.503	0.127	0.194	0.965	N	
A	8415.757	1.023	8.079	0.291	0.003	0.096	N	A	8494.672	1.446	8.093	0.292	-0.006	0.117	N	
B	8415.764	1.025	8.475	0.133	0.191	0.968	N	A	8494.672	1.446	8.093	0.292	-0.006	0.117	N	
A	8415.769	1.027	8.081	0.290	0.001	0.102	N	P	8494.675	1.479	8.428	1.106	-0.232	0.133	N	
A	8415.769	1.027	8.081	0.290	0.001	0.102	N	B	8494.680	1.505	8.484	0.134	0.185	0.984	N	
P	8415.773	1.032	8.395	1.104	-0.227	0.130	N	B	8494.680	1.505	8.484	0.134	0.185	0.984	N	
B	8415.776	1.031	8.473	0.133	0.190	0.975	N	A	8495.599	1.100	8.074	0.292	0.003	0.094	N	
B	8415.776	1.031	8.473	0.133	0.190	0.975	N	B	8495.608	1.122	8.469	0.136	0.186	0.977	N	
A	8416.724	1.037	8.075	0.290	0.006	0.096	N	A	8495.611	1.136	8.073	0.293	0.001	0.095	N	
B	8416.731	1.033	8.469	0.134	0.194	0.962	N	A	8495.611	1.136	8.073	0.293	0.001	0.095	N	
A	8416.738	1.027	8.071	0.294	0.001	0.098	N	P	8495.619	1.166	8.441	1.109	-0.216	0.107	N	
A	8416.738	1.027	8.071	0.294	0.001	0.098	N	B	8495.624	1.177	8.471	0.134	0.191	0.972	N	
P	8416.741	1.028	8.384	1.104	-0.224	0.133	N	B	8495.624	1.177	8.471	0.134	0.191	0.972	N	
B	8416.745	1.025	8.466	0.135	0.193	0.968	N	A	8496.638	1.258	8.083	0.291	-0.004	0.107	N	
B	8416.745	1.025	8.466	0.135	0.193	0.968	N	B	8496.647	1.300	8.474	0.129	0.195	0.975	N	
A	8429.729	1.025	8.081	0.299	-0.012	0.104	N	A	8496.650	1.327	8.078	0.289	0.004	0.098	N	
B	8429.736	1.029	8.477	0.137	0.184	0.975	N	A	8496.650	1.327	8.078	0.289	0.004	0.098	N	
A	8429.739	1.032	8.082	0.294	-0.006	0.106	N	P	8496.654	1.356	8.455	1.110	-0.229	0.124	N	
A	8429.739	1.032	8.082	0.294	-0.006	0.106	N	B	8496.659	1.378	8.472	0.132	0.187	0.984	N	
P	8429.742	1.037	8.407	1.102	-0.225	0.132	N	B	8496.659	1.378	8.472	0.132	0.187	0.984	N	
B	8429.747	1.038	8.475	0.140	0.175	0.987	N	A	8497.614	1.163	8.076	0.294	0.000	0.093	N	
B	8429.747	1.038	8.475	0.140	0.175	0.987	N	B	8497.622	1.193	8.472	0.136	0.185	0.980	N	
A	8436.692	1.024	8.057	0.291	-0.001	0.111	N	A	8497.626	1.211	8.088	0.287	0.005	0.097	N	
B	8436.700	1.024	8.462	0.134	0.185	0.985	N	A	8497.626	1.211	8.088	0.287	0.005	0.097	N	
A	8436.703	1.023	8.062	0.292	0.000	0.102	N	P	8497.629	1.233	8.457	1.105	-0.222	0.140	N	
A	8436.703	1.023	8.062	0.292	0.000	0.102	N	B	8497.634	1.248	8.473	0.133	0.188	0.976	N	
P	8436.706	1.027	8.415	1.103	-0.232	0.150	N	B	8497.634	1.248	8.473	0.133	0.188	0.976	N	
B	8436.710	1.026	8.463	0.132	0.188	0.980	N	A	8501.613	1.205	8.069	0.291	0.002	0.099	N	
B	8436.710	1.026	8.463	0.132	0.188	0.980	N	B	8501.623	1.249	8.470	0.130	0.193	0.970	N	
A	8437.687	1.024	8.073	0.292	0.002	0.097	N	A	8501.628	1.277	8.066	0.293	-0.005	0.103	N	
B	8437.694	1.024	8.472	0.139	0.184	0.976	N	A	8501.628	1.277	8.066	0.293	-0.005	0.103	N	
A	8437.697	1.023	8.076	0.293	0.000	0.100	N	P	8501.631	1.303	8.408	1.098	-0.216	0.124	N	
A	8437.697	1.023	8.076	0.293	0.000	0.100	N	B	8501.637	1.325	8.465	0.130	0.189	0.980	N	
P	8437.700	1.027	8.417	1.101	-0.219	0.142	N	B	8501.637	1.325	8.465	0.130	0.189	0.980	N	
B	8437.705	1.025	8.475	0.136	0.188	0.970	N	A	8505.583	1.136	8.077	0.293	-0.002	0.100	N	
B	8437.705	1.025	8.475	0.136	0.188	0.970	N	B	8505.592	1.162	8.477	0.131	0.191	0.977	N	
A	8438.700	1.024	8.075	0.294	0.002	0.098	N	A	8505.595	1.178	8.077	0.294	-0.002	0.101	N	
B	8438.708	1.027	8.480	0.133	0.192	0.966	N	A	8505.595	1.178	8.077	0.294	-0.002	0.101	N	
A	8438.711	1.029	8.080	0.292	0.004	0.093	N	P	8505.599	1.197	8.395	1.102	-0.224	0.141	N	
A	8438.711	1.029	8.080	0.292	0.004	0.093	N	B	8505.604	1.210	8.479	0.134	0.188	0.970	N	
P	8438.714	1.034	8.411	1.102	-0.222	0.145	N	B	8505.604	1.210	8.479	0.134	0.188	0.970	N	
B	8438.718	1.034	8.478	0.133	0.194	0.968	N	A	8508.579	1.150	8.080	0.293	-0.001	0.101	N	
B	8438.718	1.034	8.478	0.133	0.194	0.968	N	B	8508.588	1.179	8.482	0.134	0.188	0.976	N	
A	8439.690	1.023	8.072	0.298	-0.005	0.103	N	A	8508.591	1.197	8.080	0.294	-0.003	0.104	N	
B	8439.698	1.025	8.473	0.137	0.184	0.977	N	A	8508.591	1.197	8.080	0.294	-0.003	0.104	N	
A	8439.701	1.025	8.076	0.293	0.004	0.091	N	P	8508.595	1.217	8.379	1.103	-0.227	0.133	N	
A	8439.701	1.025	8.076	0.293	0.004	0.091	N	B	8508.600	1.231	8.472	0.138	0.184	0.974	N	
P	8439.704	1.030	8.416	1.107	-0.219	0.104	N	B	8508.600	1.231	8.472	0.138	0.184	0.974	N	
B	8439.708	1.029	8.473	0.136	0.189	0.976	N	A	8512.521	1.045	8.078	0.291	0.001	0.098	N	
B	8439.708	1.029	8.473	0.136	0.189	0.976	N	B	8512.530	1.057	8.475	0.131	0.192	0.976	N	
A	8490.634	1.167	8.047	0.305	0.005	0.095	N	A	8512.533	1.064	8.076	0.291	-0.002	0.107	N	
B	8490.641	1.188	8.471	0.138	0.183	0.978	N	A	8512.533	1.064	8.076	0.291	-0.002	0.107	N	

Catalogue 1990–1992

Group 5013 P=HD168625 (continued)
A=HD168552 B=HD168896

Star	JD_{\odot}	X	V	$b-y$	m_1	c_1	Sys	Star	JD_{\odot}	X	V	$b-y$	m_1	c_1	Sys
P	8512.537	1.073	8.376	1.104	-0.231	0.140	N	A	8525.541	1.188	8.076	0.294	-0.005	0.102	N
A	8518.607	1.467	8.094	0.285	0.005	0.095	N	P	8525.544	1.207	8.390	1.107	-0.232	0.139	N
A	8518.607	1.467	8.094	0.285	0.005	0.095	N	B	8525.549	1.220	8.476	0.131	0.188	0.979	N
P	8518.612	1.519	8.381	1.107	-0.217	0.111	N	B	8525.549	1.220	8.476	0.131	0.188	0.979	N
B	8518.617	1.551	8.471	0.132	0.196	0.969	N	A	8537.543	1.386	8.053	0.293	0.007	0.083	N
B	8518.617	1.551	8.471	0.132	0.196	0.969	N	B	8537.551	1.441	8.455	0.135	0.196	0.961	N
A	8524.596	1.519	8.105	0.286	0.000	0.104	N	A	8537.554	1.478	8.061	0.291	0.007	0.094	N
B	8524.605	1.600	8.478	0.132	0.190	0.981	N	A	8537.554	1.478	8.061	0.291	0.007	0.094	N
A	8524.610	1.668	8.104	0.282	0.006	0.101	N	P	8537.558	1.518	8.382	1.098	-0.217	0.127	N
A	8524.610	1.668	8.104	0.282	0.006	0.101	N	B	8537.563	1.543	8.466	0.133	0.196	0.965	N
P	8524.614	1.737	8.394	1.104	-0.226	0.128	N	B	8537.563	1.543	8.466	0.133	0.196	0.965	N
B	8524.619	1.777	8.476	0.132	0.192	0.979	N	A	8556.499	1.461	8.109	0.300	-0.009	0.104	N
B	8524.619	1.777	8.476	0.132	0.192	0.979	N	B	8556.507	1.529	8.496	0.133	0.191	0.972	N
A	8525.529	1.144	8.081	0.288	0.006	0.094	N	P	8556.511	1.587	8.430	1.104	-0.224	0.140	N
B	8525.537	1.171	8.476	0.135	0.185	0.980	N	A	8556.516	1.628	8.088	0.294	0.000	0.100	N
A	8525.541	1.188	8.076	0.294	-0.005	0.102	N								

Long Term Photometry of Variables

Group 5014 P=HR7066
A=HR7083 B=HD173278

Star	JD _⊙	X	V	b - y	m ₁	c ₁	Sys	Star	JD _⊙	X	V	b - y	m ₁	c ₁	Sys
A	8168.583	1.627	5.962	1.037	0.684	-0.005	N	P	8460.697	1.139	4.901	0.835	0.430	0.618	N
P	8168.585	1.669	4.954	0.809	0.447	0.593	N	B	8460.700	1.140	6.710	1.244	0.784	-0.052	N
B	8168.588	1.709	6.711	1.248	0.791	-0.070	N	A	8491.678	1.412	5.952	1.032	0.689	-0.010	N
A	8189.509	1.465	5.964	1.033	0.693	-0.011	N	P	8491.679	1.436	5.519	0.915	0.461	0.668	N
P	8189.512	1.504	5.821	1.011	0.619	0.745	N	B	8491.682	1.457	6.728	1.252	0.801	-0.082	N
B	8189.516	1.545	6.716	1.245	0.802	-0.085	N	A	8494.684	1.530	5.980	1.035	0.688	-0.009	N
A	8416.754	1.096	5.951	1.035	0.698	-0.002	N	P	8494.687	1.570	5.533	0.899	0.432	0.648	N
P	8416.756	1.095	5.962	1.011	0.518	0.583	N	B	8494.690	1.614	6.720	1.246	0.806	-0.087	N
B	8416.758	1.087	6.701	1.238	0.793	-0.067	N	A	8505.633	1.372	5.961	1.034	0.696	-0.007	N
A	8429.749	1.093	5.966	1.037	0.691	0.008	N	P	8505.636	1.408	5.244	0.805	0.339	0.500	N
P	8429.750	1.096	5.966	0.940	0.387	0.631	N	B	8505.641	1.444	6.728	1.242	0.818	-0.082	N
B	8429.752	1.092	6.730	1.245	0.778	-0.070	N	A	8510.657	1.724	5.964	1.033	0.693	-0.014	N
A	8434.681	1.126	5.962	1.034	0.689	-0.005	N	P	8510.660	1.793	5.223	0.828	0.363	0.436	N
P	8434.682	1.123	5.749	0.927	0.410	0.549	N	B	8510.665	1.867	6.737	1.246	0.804	-0.057	N
B	8434.684	1.110	6.748	1.247	0.788	-0.073	N	A	8518.623	1.592	5.957	1.037	0.697	0.000	N
A	8436.712	1.090	5.951	1.036	0.687	0.024	N	P	8518.629	1.684	5.135	0.871	0.490	0.374	N
P	8436.714	1.091	5.625	0.910	0.415	0.554	N	B	8518.634	1.747	6.701	1.245	0.799	-0.081	N
B	8436.716	1.085	6.737	1.245	0.784	-0.060	N	A	8522.617	1.650	5.966	1.036	0.690	-0.005	N
A	8437.707	1.091	5.964	1.038	0.694	-0.002	N	P	8522.621	1.720	5.161	0.907	0.548	0.372	N
P	8437.711	1.091	5.576	0.905	0.419	0.549	N	B	8522.625	1.782	6.720	1.244	0.813	-0.120	N
B	8437.732	1.094	6.747	1.244	0.793	-0.088	N	A	8524.562	1.278	5.960	1.034	0.694	-0.005	N
A	8438.720	1.091	5.964	1.036	0.701	-0.013	N	P	8524.566	1.307	5.192	0.923	0.572	0.380	N
P	8438.722	1.094	5.512	0.892	0.433	0.514	N	B	8524.570	1.330	6.724	1.246	0.807	-0.053	N
B	8438.724	1.089	6.749	1.241	0.800	-0.091	N	P	8539.573	1.719	5.845	0.988	0.517	0.641	N
A	8439.710	1.090	5.960	1.034	0.700	-0.002	N	B	8539.575	1.757	6.767	1.239	0.813	-0.103	N
P	8439.712	1.092	5.448	0.887	0.428	0.531	N	A	8555.514	1.544	5.972	1.038	0.691	0.008	N
B	8439.713	1.086	6.750	1.244	0.801	-0.116	N	P	8555.518	1.601	6.498	0.967	0.228	1.024	N
A	8460.695	1.129	5.963	1.034	0.689	-0.002	N	B	8555.522	1.654	6.725	1.250	0.800	-0.043	N

Catalogue 1990-1992

Group 5018 P=HD269858
A=HD 37722 B=HD 37584

Star	JD_{\odot}	X	V	$b-y$	m_1	c_1	Sys	Star	JD_{\odot}	X	V	$b-y$	m_1	c_1	Sys
A	8168.759	1.513	8.899	0.038	0.161	1.068	N	P	8290.555	1.308	8.884	0.266	0.028	0.285	N
P	8168.771	1.479	8.938	0.263	-0.007	0.328	N	B	8290.560	1.377	8.344	0.060	0.221	0.929	N
P	8186.925	1.377	8.847	0.268	0.013	0.318	N	A	8531.813	1.388	8.892	0.046	0.154	1.073	N
A	8189.716	1.487	8.884	0.038	0.166	1.054	N	P	8531.820	1.377	8.994	0.271	0.042	0.277	N
P	8189.720	1.479	8.822	0.256	0.026	0.296	N	B	8531.827	1.427	8.342	0.056	0.221	0.936	N
B	8189.727	1.520	8.332	0.049	0.232	0.920	N	A	8536.816	1.358	8.872	0.049	0.156	1.074	N
A	8193.812	1.308	8.886	0.034	0.171	1.058	N	P	8536.821	1.354	8.970	0.277	0.045	0.269	N
P	8193.816	1.308	8.809	0.260	0.024	0.314	N	B	8536.826	1.411	8.328	0.061	0.223	0.931	N
B	8193.823	1.377	8.331	0.052	0.226	0.931	N	A	8548.705	1.561	8.919	0.031	0.175	1.061	N
A	8197.705	1.438	8.887	0.042	0.160	1.064	N	A	8548.719	1.510	8.910	0.039	0.159	1.069	N
P	8197.710	1.429	8.816	0.269	0.013	0.314	N	P	8548.724	1.498	9.021	0.267	0.058	0.266	N
B	8197.715	1.472	8.330	0.057	0.219	0.929	N	B	8548.729	1.531	8.352	0.049	0.228	0.932	N
A	8217.709	1.333	8.883	0.039	0.165	1.057	N	A	8558.718	1.434	8.888	0.043	0.157	1.071	N
P	8217.716	1.329	8.826	0.265	0.020	0.313	N	A	8558.732	1.401	8.882	0.041	0.165	1.063	N
B	8217.721	1.390	8.334	0.050	0.229	0.926	N	P	8558.736	1.396	9.012	0.271	0.053	0.269	N
A	8227.776	1.327	8.881	0.038	0.163	1.057	N	B	8558.741	1.445	8.329	0.058	0.218	0.937	N
P	8227.780	1.330	8.822	0.264	0.025	0.315	N	A	8562.771	1.327	8.892	0.048	0.158	1.058	N
B	8227.785	1.406	8.327	0.048	0.227	0.926	N	A	8562.784	1.316	8.897	0.045	0.159	1.070	N
A	8232.665	1.337	8.889	0.038	0.166	1.066	N	P	8562.788	1.315	9.036	0.277	0.042	0.284	N
P	8232.670	1.333	8.817	0.263	0.018	0.311	N	B	8562.793	1.381	8.349	0.058	0.215	0.946	N
B	8232.675	1.394	8.333	0.052	0.227	0.932	N	P	8566.752	1.337	8.991	0.258	0.054	0.274	N
A	8239.652	1.331	8.883	0.042	0.162	1.058	N	A	8572.767	1.311	8.880	0.036	0.170	1.058	N
P	8239.656	1.328	8.820	0.264	0.016	0.319	N	A	8572.801	1.309	8.874	0.043	0.162	1.059	N
B	8239.661	1.390	8.329	0.055	0.224	0.924	N	P	8572.805	1.310	9.041	0.269	0.048	0.262	N
A	8255.608	1.331	8.881	0.045	0.158	1.069	N	B	8572.810	1.383	8.326	0.055	0.222	0.933	N
P	8255.616	1.325	10.546	0.041	0.029	-0.063	N	A	8576.796	1.311	8.889	0.042	0.165	1.055	N
B	8255.622	1.387	8.326	0.055	0.228	0.924	N	P	8576.800	1.312	9.063	0.265	0.049	0.264	N
A	8284.639	1.348	8.887	0.040	0.161	1.077	N	B	8576.805	1.386	8.341	0.052	0.226	0.934	N
P	8284.648	1.360	8.839	0.272	0.013	0.312	N	A	8652.645	1.368	8.886	0.036	0.166	1.068	N
B	8284.651	1.435	8.330	0.054	0.221	0.936	N	P	8652.650	1.375	9.026	0.257	0.035	0.215	N
A	8286.602	1.317	8.891	0.040	0.167	1.058	N	B	8652.652	1.450	8.326	0.050	0.225	0.938	N
P	8286.606	1.319	8.861	0.268	0.013	0.314	N	A	8656.675	1.479	8.877	0.038	0.164	1.059	N
B	8286.609	1.393	8.335	0.055	0.227	0.925	N	P	8656.678	1.484	9.037	0.249	0.028	0.215	N
A	8288.599	1.319	8.875	0.038	0.161	1.068	N	B	8656.680	1.559	8.317	0.054	0.216	0.940	N
P	8288.604	1.322	8.839	0.264	0.017	0.295	N	A	8659.649	1.415	8.879	0.049	0.159	1.062	N
B	8288.609	1.397	8.317	0.047	0.231	0.926	N	P	8659.653	1.421	9.043	0.265	0.018	0.221	N
A	8288.616	1.334	8.870	0.036	0.164	1.064	N	B	8659.657	1.498	8.333	0.050	0.224	0.944	N
A	8290.551	1.308	8.900	0.047	0.161	1.059	N								

Long Term Photometry of Variables

Group 5019 P=HD269321
A=HD 35293 B=HD 35294

Star	JD_{\odot}	X	V	$b-y$	m_1	c_1	Sys	Star	JD_{\odot}	X	V	$b-y$	m_1	c_1	Sys
A	8190.693	1.495	9.245	0.098	0.241	0.896	N	P	8501.904	1.350	10.519	0.181	0.003	0.000	N
A	8190.693	1.495	9.245	0.098	0.241	0.896	N	B	8501.910	1.327	8.427	0.448	0.253	0.479	N
P	8190.699	1.493	10.621	0.173	0.021	0.003	N	B	8501.910	1.327	8.427	0.448	0.253	0.479	N
B	8190.705	1.462	8.405	0.444	0.250	0.477	N	A	8510.888	1.321	9.245	0.103	0.237	0.907	N
B	8190.705	1.462	8.405	0.444	0.250	0.477	N	A	8510.888	1.321	9.245	0.103	0.237	0.907	N
A	8194.707	1.408	9.260	0.099	0.250	0.895	N	P	8510.892	1.333	10.545	0.181	0.008	-0.028	N
A	8194.707	1.408	9.260	0.099	0.250	0.895	N	B	8510.898	1.312	8.426	0.444	0.257	0.486	N
P	8194.712	1.409	10.623	0.185	0.011	0.022	N	B	8510.898	1.312	8.426	0.444	0.257	0.486	N
B	8194.718	1.383	8.417	0.450	0.255	0.471	N	A	8512.857	1.362	9.248	0.104	0.236	0.915	N
B	8194.718	1.383	8.417	0.450	0.255	0.471	N	A	8512.857	1.362	9.248	0.104	0.236	0.915	N
A	8198.692	1.416	9.243	0.100	0.246	0.892	N	P	8512.861	1.371	10.552	0.184	0.000	-0.015	N
A	8198.692	1.416	9.243	0.100	0.246	0.892	N	B	8512.866	1.347	8.411	0.449	0.252	0.480	N
P	8198.699	1.415	10.604	0.183	0.008	0.022	N	B	8512.866	1.347	8.411	0.449	0.252	0.480	N
B	8198.705	1.388	8.412	0.447	0.252	0.483	N	A	8512.872	1.337	9.256	0.098	0.238	0.924	N
B	8198.705	1.388	8.412	0.447	0.252	0.483	N	B	8512.882	1.325	8.411	0.449	0.249	0.478	N
A	8216.698	1.316	9.245	0.100	0.242	0.895	N	A	8517.828	1.394	9.244	0.100	0.242	0.913	N
P	8216.706	1.324	10.603	0.180	0.007	0.043	N	A	8517.828	1.394	9.244	0.100	0.242	0.913	N
B	8216.711	1.305	8.405	0.449	0.253	0.474	N	P	8517.832	1.400	12.141	0.073	0.029	0.682	N
B	8216.729	1.293	8.406	0.444	0.256	0.472	N	B	8517.839	1.372	8.409	0.445	0.257	0.470	N
A	8219.587	1.577	9.252	0.099	0.251	0.891	N	B	8517.839	1.372	8.409	0.445	0.257	0.470	N
P	8219.593	1.561	10.617	0.174	0.017	0.036	N	A	8522.816	1.391	9.246	0.099	0.246	0.897	N
B	8219.598	1.532	8.413	0.449	0.255	0.472	N	A	8522.816	1.391	9.246	0.099	0.246	0.897	N
A	8223.601	1.482	9.240	0.100	0.242	0.907	N	P	8522.820	1.396	10.534	0.188	-0.001	-0.010	N
P	8223.607	1.478	10.616	0.178	0.017	0.009	N	B	8522.825	1.372	8.401	0.451	0.249	0.476	N
B	8223.612	1.450	8.403	0.442	0.257	0.473	N	B	8522.825	1.372	8.401	0.451	0.249	0.476	N
A	8227.573	1.544	9.249	0.105	0.237	0.886	N	A	8522.831	1.359	9.246	0.103	0.237	0.894	N
P	8227.578	1.537	10.660	0.185	0.002	0.000	N	B	8522.841	1.344	8.407	0.449	0.247	0.484	N
B	8227.583	1.508	8.417	0.449	0.256	0.481	N	A	8525.811	1.383	9.248	0.097	0.245	0.897	N
B	8227.634	1.370	8.407	0.446	0.246	0.488	N	A	8525.811	1.383	9.248	0.097	0.245	0.897	N
A	8231.581	1.477	9.253	0.097	0.249	0.893	N	P	8525.816	1.389	10.532	0.173	0.003	-0.010	N
P	8231.585	1.476	10.672	0.173	0.019	-0.006	N	B	8525.820	1.366	8.411	0.448	0.251	0.471	N
B	8231.591	1.448	8.404	0.447	0.256	0.473	N	B	8525.820	1.366	8.411	0.448	0.251	0.471	N
A	8234.592	1.421	9.233	0.098	0.237	0.904	N	A	8526.810	1.379	9.253	0.097	0.251	0.895	N
P	8234.596	1.424	10.647	0.178	0.001	0.016	N	A	8526.810	1.379	9.253	0.097	0.251	0.895	N
B	8234.601	1.399	8.392	0.441	0.254	0.476	N	P	8526.815	1.385	10.505	0.193	-0.012	-0.014	N
B	8234.709	1.289	8.408	0.449	0.251	0.471	N	B	8526.820	1.362	8.411	0.447	0.260	0.468	N
A	8238.613	1.351	9.256	0.095	0.248	0.905	N	B	8526.820	1.362	8.411	0.447	0.260	0.468	N
P	8238.618	1.359	10.661	0.176	0.012	0.031	N	A	8530.827	1.331	9.252	0.114	0.222	0.922	N
B	8238.623	1.337	8.414	0.443	0.255	0.484	N	A	8530.827	1.331	9.252	0.114	0.222	0.922	N
A	8249.556	1.407	9.235	0.099	0.244	0.895	N	P	8530.831	1.342	10.497	0.172	0.016	-0.012	N
P	8249.561	1.410	10.648	0.170	0.019	-0.018	N	B	8530.836	1.321	8.406	0.458	0.246	0.476	N
B	8249.567	1.385	8.390	0.445	0.254	0.473	N	B	8530.836	1.321	8.406	0.458	0.246	0.476	N
A	8258.639	1.286	9.241	0.103	0.236	0.911	N	A	8530.844	1.310	9.254	0.103	0.247	0.899	N
P	8258.643	1.304	10.583	0.178	0.006	0.016	N	B	8530.854	1.303	8.415	0.456	0.249	0.475	N
B	8258.647	1.290	8.399	0.447	0.250	0.484	N	A	8535.811	1.334	9.226	0.097	0.254	0.884	N
A	8258.653	1.289	9.243	0.097	0.241	0.905	N	A	8535.811	1.334	9.226	0.097	0.254	0.884	N
B	8258.664	1.296	8.399	0.450	0.251	0.481	N	P	8535.816	1.343	10.475	0.170	0.023	-0.021	N
A	8284.591	1.293	9.253	0.103	0.248	0.891	N	B	8535.822	1.321	8.393	0.446	0.259	0.474	N
P	8284.601	1.317	10.631	0.164	0.023	0.019	N	B	8535.822	1.321	8.393	0.446	0.259	0.474	N
B	8284.604	1.304	8.413	0.450	0.250	0.473	N	A	8539.748	1.445	9.214	0.101	0.252	0.885	N
A	8287.581	1.293	9.243	0.104	0.234	0.903	N	B	8539.761	1.411	8.377	0.454	0.245	0.498	N
P	8287.586	1.312	10.638	0.159	0.025	0.025	N	P	8539.770	1.405	10.460	0.182	-0.005	0.010	N
B	8287.592	1.302	8.409	0.446	0.253	0.473	N	B	8539.776	1.378	8.370	0.451	0.255	0.469	N
A	8290.619	1.341	9.248	0.103	0.239	0.904	N	B	8539.776	1.378	8.370	0.451	0.255	0.469	N
P	8290.625	1.366	10.585	0.175	0.016	0.003	N	A	8546.761	1.367	9.255	0.101	0.245	0.900	N
B	8290.635	1.370	8.411	0.446	0.251	0.489	N	A	8546.761	1.367	9.255	0.101	0.245	0.900	N
A	8494.858	1.485	9.255	0.097	0.246	0.907	N	P	8546.767	1.373	10.551	0.186	-0.006	-0.003	N
A	8494.858	1.485	9.255	0.097	0.246	0.907	N	B	8546.771	1.351	8.417	0.448	0.253	0.485	N
P	8494.878	1.439	10.515	0.182	-0.005	-0.013	N	B	8546.771	1.351	8.417	0.448	0.253	0.485	N
B	8494.885	1.410	8.425	0.450	0.252	0.491	N	A	8558.682	1.488	9.239	0.107	0.233	0.909	N
B	8494.885	1.410	8.425	0.450	0.252	0.491	N	A	8558.682	1.488	9.239	0.107	0.233	0.909	N
A	8494.893	1.389	9.270	0.104	0.237	0.925	N	P	8558.686	1.488	10.603	0.175	0.021	-0.014	N
B	8494.901	1.374	8.418	0.449	0.257	0.474	N	B	8558.691	1.461	8.404	0.451	0.253	0.471	N
A	8495.855	1.485	9.279	0.093	0.254	0.906	N	B	8558.691	1.461	8.404	0.451	0.253	0.471	N
A	8495.855	1.485	9.279	0.093	0.254	0.906	N	A	8562.720	1.362	9.254	0.108	0.233	0.911	N
P	8495.859	1.485	10.526	0.178	0.010	-0.047	N	A	8562.720	1.362	9.254	0.108	0.233	0.911	N
B	8495.865	1.456	8.436	0.448	0.255	0.468	N	P	8562.726	1.367	10.642	0.174	0.011	0.023	N
B	8495.865	1.456	8.436	0.448	0.255	0.468	N	B	8562.731	1.344	8.416	0.449	0.249	0.484	N
A	8501.899	1.340	9.268	0.099	0.244	0.901	N	B	8562.731	1.344	8.416	0.449	0.249	0.484	N
A	8501.899	1.340	9.268	0.099	0.244	0.901	N	P	8566.704	1.387	10.614	0.162	0.025	0.022	N

Catalogue 1990–1992

Group 5019 P=HD269321 (continued)
A=HD 35293 B=HD 35294

Star	JD_{\odot}	X	V	$b-y$	m_1	c_1	Sys	Star	JD_{\odot}	X	V	$b-y$	m_1	c_1	Sys
B	8566.713	1.357	8.372	0.441	0.255	0.473	N	A	8652.656	1.395	9.243	0.098	0.242	0.897	N
B	8566.713	1.357	8.372	0.441	0.255	0.473	N	P	8652.663	1.426	10.485	0.179	0.015	-0.013	N
A	8572.715	1.326	9.247	0.094	0.250	0.905	N	B	8652.667	1.423	8.408	0.449	0.253	0.481	N
A	8572.715	1.326	9.247	0.094	0.250	0.905	N	B	8652.667	1.423	8.408	0.449	0.253	0.481	N
B	8572.723	1.318	8.405	0.446	0.257	0.480	N	A	8654.679	1.492	9.235	0.107	0.232	0.891	N
P	8572.728	1.327	10.674	0.172	0.016	0.038	N	B	8654.686	1.514	8.395	0.457	0.236	0.470	N
A	8572.733	1.306	9.245	0.096	0.247	0.912	N	P	8654.689	1.537	10.484	0.180	0.001	0.018	N
A	8572.733	1.306	9.245	0.096	0.247	0.912	N	B	8654.692	1.537	8.405	0.444	0.249	0.485	N
A	8576.755	1.287	9.247	0.101	0.243	0.901	N	B	8654.692	1.537	8.405	0.444	0.249	0.485	N
A	8576.755	1.287	9.247	0.101	0.243	0.901	N	A	8654.695	1.543	9.236	0.095	0.254	0.896	N
P	8576.759	1.303	10.678	0.165	0.014	0.075	N	A	8654.695	1.543	9.236	0.095	0.254	0.896	N
B	8576.764	1.288	8.414	0.445	0.254	0.484	N	B	8659.622	1.364	8.405	0.450	0.253	0.483	N
B	8576.764	1.288	8.414	0.445	0.254	0.484	N	A	8659.629	1.378	9.251	0.099	0.247	0.899	N
A	8647.638	1.335	9.230	0.097	0.245	0.904	N	P	8659.633	1.401	10.531	0.174	0.016	-0.014	N
B	8647.647	1.351	8.391	0.446	0.249	0.485	N	P	8659.637	1.411	10.522	0.168	0.033	-0.029	N
P	8647.651	1.372	10.475	0.166	0.033	-0.015	N	B	8659.639	1.402	8.401	0.452	0.247	0.486	N
A	8647.654	1.363	9.233	0.099	0.248	0.906	N	B	8659.639	1.402	8.401	0.452	0.247	0.486	N
A	8652.656	1.395	9.243	0.098	0.242	0.897	N								

Long Term Photometry of Variables

Group 5021 P=HD 90177 A=HD 93010 B=HR4217																
Star	JD_{\odot}	X	V	$b-y$	m_1	c_1	Sys	Star	JD_{\odot}	X	V	$b-y$	m_1	c_1	Sys	
P	8249.844	1.165	7.435	0.848	-0.186	-0.086	<i>N</i>	A	8651.812	1.183	6.621	0.038	0.076	0.338	<i>N</i>	
P	8258.695	1.477	7.442	0.833	-0.179	-0.120	<i>N</i>	A	8654.788	1.193	6.621	0.041	0.071	0.337	<i>N</i>	
P	8285.778	1.157	7.486	0.816	-0.175	-0.141	<i>N</i>	P	8654.794	1.183	7.350	0.830	-0.182	-0.129	<i>N</i>	
P	8289.821	1.197	7.519	0.821	-0.178	-0.143	<i>N</i>	A	8654.805	1.201	6.621	0.038	0.073	0.344	<i>N</i>	
P	8293.732	1.162	7.537	0.814	-0.172	-0.163	<i>N</i>	A	8654.811	1.205	6.624	0.034	0.079	0.336	<i>N</i>	
A	8645.809	1.176	6.607	0.045	0.065	0.346	<i>N</i>	P	8654.813	1.201	7.350	0.830	-0.178	-0.128	<i>N</i>	
P	8645.813	1.164	7.353	0.829	-0.181	-0.135	<i>N</i>	A	8656.863	1.290	6.623	0.035	0.075	0.338	<i>N</i>	
B	8645.815	1.170	6.265	0.004	0.190	1.001	<i>N</i>	P	8656.870	1.330	7.351	0.825	-0.181	-0.123	<i>N</i>	
P	8651.810	1.174	7.354	0.824	-0.175	-0.131	<i>N</i>	B	8656.873	1.302	6.263	0.002	0.196	0.983	<i>N</i>	

Catalogue 1990-1992

Group 5022 P=HD 6884
A=HD 6997 B=HD 7031

Star	JD _⊙	X	V	b - y	m ₁	c ₁	Sys	Star	JD _⊙	X	V	b - y	m ₁	c ₁	Sys
A	8166.666	1.406	9.084	0.549	0.335	0.259	N	P	8459.909	1.370	10.247	0.168	0.032	0.281	N
P	8166.671	1.388	10.240	0.164	0.020	0.237	N	B	8459.914	1.356	8.564	0.514	0.223	0.321	N
B	8166.677	1.371	8.559	0.519	0.210	0.337	N	A	8463.881	1.387	9.103	0.539	0.348	0.261	N
A	8168.727	1.385	9.095	0.549	0.336	0.257	N	P	8463.886	1.372	10.253	0.164	0.033	0.303	N
P	8168.732	1.375	10.237	0.160	0.025	0.240	N	B	8463.891	1.357	8.572	0.516	0.220	0.323	N
B	8168.738	1.363	8.571	0.518	0.215	0.332	N	A	8486.735	1.492	9.085	0.549	0.331	0.279	N
A	8169.673	1.393	9.087	0.546	0.339	0.270	N	P	8486.739	1.473	10.261	0.180	0.020	0.292	N
P	8169.679	1.377	10.229	0.158	0.025	0.239	N	B	8486.742	1.456	8.559	0.517	0.212	0.325	N
B	8169.684	1.361	8.560	0.519	0.215	0.331	N	A	8493.784	1.395	9.120	0.551	0.334	0.287	N
A	8172.697	1.382	9.096	0.546	0.335	0.258	N	P	8493.788	1.380	10.323	0.172	0.037	0.274	N
P	8172.701	1.370	10.223	0.157	0.031	0.258	N	B	8493.793	1.364	8.583	0.518	0.214	0.338	N
B	8172.706	1.356	8.571	0.521	0.210	0.336	N	A	8494.769	1.405	9.109	0.542	0.348	0.254	N
A	8185.650	1.384	9.091	0.545	0.345	0.244	N	P	8494.773	1.389	10.299	0.170	0.037	0.280	N
P	8185.657	1.370	10.177	0.164	0.032	0.245	N	B	8494.779	1.372	8.558	0.516	0.220	0.320	N
B	8185.663	1.356	8.564	0.516	0.214	0.323	N	A	8495.791	1.388	9.109	0.540	0.350	0.253	N
A	8188.622	1.421	9.092	0.541	0.343	0.261	N	P	8495.795	1.373	10.332	0.175	0.017	0.292	N
P	8188.628	1.405	10.180	0.163	0.030	0.239	N	B	8495.800	1.358	8.581	0.514	0.221	0.326	N
B	8188.635	1.388	8.565	0.512	0.223	0.311	N	A	8497.727	1.450	9.086	0.545	0.337	0.295	N
A	8191.634	1.384	9.088	0.542	0.343	0.265	N	P	8497.731	1.431	10.319	0.171	0.028	0.293	N
P	8191.639	1.370	10.175	0.168	0.033	0.234	N	B	8497.737	1.411	8.597	0.519	0.219	0.321	N
B	8191.643	1.356	8.561	0.515	0.219	0.330	N	A	8505.783	1.382	9.086	0.540	0.338	0.259	N
A	8194.585	1.410	9.092	0.546	0.342	0.255	N	P	8505.787	1.370	10.300	0.165	0.026	0.319	N
P	8194.591	1.391	10.190	0.161	0.033	0.252	N	B	8505.793	1.356	8.559	0.515	0.221	0.321	N
B	8194.598	1.372	8.565	0.515	0.220	0.326	N	A	8508.709	1.431	9.095	0.547	0.341	0.257	N
A	8198.576	1.407	9.094	0.538	0.350	0.261	N	P	8508.713	1.413	10.364	0.163	0.040	0.315	N
P	8198.582	1.389	10.187	0.154	0.046	0.261	N	B	8508.719	1.393	8.575	0.516	0.220	0.325	N
B	8198.589	1.371	8.567	0.511	0.228	0.320	N	A	8510.790	1.384	9.081	0.550	0.334	0.264	N
A	8216.538	1.397	9.092	0.551	0.332	0.272	N	P	8510.794	1.374	10.308	0.163	0.038	0.312	N
P	8216.544	1.380	10.266	0.181	0.025	0.263	N	B	8510.800	1.362	8.560	0.516	0.219	0.319	N
B	8216.550	1.363	8.564	0.519	0.220	0.321	N	A	8511.760	1.383	9.100	0.549	0.337	0.258	N
A	8219.534	1.394	9.091	0.550	0.336	0.256	N	P	8511.764	1.370	10.316	0.173	0.029	0.319	N
P	8219.539	1.378	10.279	0.183	0.030	0.256	N	B	8511.769	1.356	8.577	0.518	0.219	0.326	N
B	8219.544	1.362	8.567	0.515	0.226	0.321	N	A	8512.792	1.387	9.082	0.549	0.331	0.266	N
A	8219.550	1.385	9.100	0.546	0.351	0.255	N	P	8512.796	1.377	10.297	0.167	0.030	0.336	N
P	8219.555	1.372	10.283	0.179	0.026	0.263	N	B	8512.801	1.366	8.558	0.521	0.204	0.338	N
B	8219.561	1.357	8.562	0.521	0.216	0.317	N	A	8517.696	1.416	9.080	0.540	0.334	0.269	N
A	8223.538	1.386	9.109	0.545	0.351	0.251	N	P	8517.700	1.399	10.290	0.164	0.038	0.336	N
P	8223.543	1.372	10.309	0.176	0.033	0.260	N	B	8517.705	1.381	8.567	0.516	0.215	0.338	N
B	8223.548	1.357	8.569	0.520	0.216	0.332	N	A	8518.691	1.405	10.307	0.164	0.037	0.345	N
A	8227.536	1.383	9.108	0.548	0.348	0.261	N	B	8518.696	1.387	8.579	0.516	0.219	0.331	N
P	8227.541	1.370	10.313	0.199	0.009	0.266	N	P	8522.725	1.372	10.268	0.179	0.027	0.327	N
B	8227.546	1.356	8.579	0.522	0.218	0.329	N	B	8522.730	1.357	8.558	0.521	0.216	0.325	N
A	8230.555	1.385	9.113	0.549	0.348	0.264	N	A	8523.679	1.416	9.096	0.550	0.348	0.246	N
P	8230.562	1.376	10.338	0.175	0.025	0.290	N	P	8523.684	1.398	10.274	0.183	0.011	0.354	N
B	8230.567	1.364	8.573	0.516	0.221	0.328	N	B	8523.688	1.381	8.566	0.512	0.216	0.333	N
A	8233.548	1.385	9.099	0.554	0.341	0.246	N	A	8524.695	1.397	9.102	0.543	0.353	0.256	N
P	8233.552	1.375	10.346	0.167	0.041	0.268	N	P	8524.700	1.382	10.280	0.169	0.030	0.330	N
B	8233.557	1.363	8.564	0.518	0.214	0.334	N	B	8524.705	1.365	8.568	0.515	0.214	0.334	N
A	8239.542	1.390	9.101	0.545	0.346	0.257	N	A	8525.681	1.408	9.104	0.549	0.336	0.264	N
P	8239.547	1.381	10.355	0.171	0.038	0.251	N	P	8525.685	1.391	10.279	0.179	0.019	0.341	N
B	8239.552	1.370	8.566	0.518	0.217	0.330	N	B	8525.690	1.374	8.569	0.518	0.214	0.322	N
A	8245.547	1.407	9.109	0.549	0.341	0.240	N	A	8529.700	1.386	9.101	0.551	0.347	0.229	N
P	8245.552	1.401	10.354	0.177	0.026	0.244	N	P	8529.705	1.372	10.289	0.176	0.030	0.327	N
B	8245.557	1.392	8.576	0.515	0.223	0.324	N	B	8529.710	1.357	8.565	0.520	0.219	0.307	N
A	8256.547	1.446	9.124	0.531	0.353	0.252	N	P	8530.692	1.376	10.218	0.182	0.032	0.309	N
P	8256.552	1.446	10.314	0.167	0.017	0.246	N	A	8535.776	1.432	9.087	0.542	0.342	0.266	N
B	8256.557	1.440	8.580	0.513	0.210	0.336	N	P	8535.780	1.427	10.257	0.175	0.036	0.297	N
A	8415.894	1.582	9.096	0.548	0.339	0.261	N	B	8535.786	1.422	8.547	0.511	0.229	0.312	N
P	8415.898	1.557	10.297	0.181	0.025	0.324	N	A	8538.632	1.424	9.099	0.554	0.329	0.268	N
B	8415.902	1.539	8.570	0.519	0.215	0.335	N	P	8538.635	1.406	10.289	0.178	0.034	0.285	N
A	8418.919	1.494	9.090	0.541	0.346	0.258	N	B	8538.640	1.388	8.576	0.518	0.216	0.334	N
P	8418.922	1.475	10.293	0.177	0.029	0.331	N	A	8545.716	1.396	9.104	0.551	0.343	0.261	N
B	8418.928	1.453	8.564	0.515	0.219	0.319	N	P	8545.719	1.388	10.293	0.170	0.033	0.300	N
A	8429.941	1.410	9.095	0.540	0.337	0.265	N	B	8545.724	1.377	8.583	0.516	0.222	0.322	N
P	8429.944	1.394	10.310	0.226	-0.031	0.320	N	A	8549.675	1.383	9.084	0.547	0.340	0.269	N
B	8429.949	1.377	8.559	0.486	0.226	0.319	N	P	8549.680	1.372	10.270	0.180	0.024	0.294	N
A	8448.930	1.384	9.095	0.547	0.333	0.271	N	B	8549.684	1.359	8.557	0.518	0.213	0.328	N
P	8448.934	1.370	10.258	0.190	0.005	0.301	N	A	8555.589	1.418	9.087	0.545	0.341	0.257	N
B	8448.944	1.356	8.569	0.509	0.216	0.325	N	P	8555.593	1.401	10.285	0.178	0.030	0.288	N
A	8459.905	1.383	9.087	0.547	0.339	0.265	N	B	8555.600	1.381	8.569	0.517	0.222	0.331	N

Long Term Photometry of Variables

Group 5022 P=HD 6884 (continued)															
A=HD 6997 B=HD 7031															
Star	JD_{\odot}	X	V	$b-y$	m_1	c_1	Sys	Star	JD_{\odot}	X	V	$b-y$	m_1	c_1	Sys
A	8561.677	1.401	9.097	0.543	0.331	0.295	N	P	8572.523	1.432	10.240	0.184	0.027	0.285	N
P	8561.681	1.393	10.271	0.176	0.028	0.290	N	B	8572.529	1.411	8.560	0.524	0.214	0.325	N
B	8561.686	1.384	8.564	0.514	0.218	0.334	N	A	8578.535	1.408	9.096	0.547	0.342	0.264	N
P	8566.554	1.411	10.327	0.177	0.043	0.291	N	P	8578.539	1.391	10.262	0.173	0.029	0.281	N
A	8572.519	1.451	9.086	0.556	0.350	0.231	N	B	8578.544	1.374	8.580	0.515	0.219	0.327	N

Catalogue 1990–1992

Group 5023 P=HD 87643															
A=HD 87419								B=HD 87470							
Star	JD_{\odot}	X	V	$b-y$	m_1	c_1	Sys	Star	JD_{\odot}	X	V	$b-y$	m_1	c_1	Sys
A	8190.827	1.709	8.148	0.269	0.165	0.425	N	A	8292.822	1.226	8.145	0.275	0.154	0.442	N
P	8190.831	1.687	9.073	0.586	-0.137	-0.213	N	P	8292.827	1.234	9.140	0.589	-0.160	-0.295	N
B	8190.836	1.645	9.100	0.108	0.132	1.338	N	B	8292.832	1.250	9.102	0.109	0.131	1.348	N
A	8195.842	1.516	8.159	0.269	0.167	0.430	N	A	8418.522	1.351	8.159	0.271	0.165	0.440	N
P	8195.848	1.490	9.052	0.597	-0.159	-0.230	N	P	8418.525	1.360	8.900	0.606	-0.150	-0.308	N
B	8195.853	1.461	9.111	0.111	0.130	1.340	N	B	8418.530	1.384	9.113	0.106	0.140	1.335	N
A	8198.802	1.732	8.166	0.270	0.165	0.438	N	A	8430.523	1.506	8.161	0.274	0.162	0.446	N
P	8198.808	1.695	9.196	0.619	-0.171	-0.359	N	P	8430.526	1.516	8.906	0.602	-0.158	-0.245	N
B	8198.814	1.646	9.121	0.114	0.124	1.340	N	A	8646.743	1.156	8.148	0.272	0.159	0.444	N
A	8249.729	1.366	8.174	0.269	0.167	0.435	N	P	8646.745	1.155	9.066	0.598	-0.177	-0.362	N
P	8249.733	1.353	8.932	0.583	-0.129	-0.167	N	B	8646.750	1.154	9.102	0.109	0.126	1.361	N
B	8249.738	1.335	9.109	0.115	0.127	1.337	N	A	8651.766	1.146	8.140	0.271	0.167	0.421	N
A	8256.732	1.292	8.129	0.285	0.162	0.441	N	P	8651.767	1.147	8.992	0.596	-0.159	-0.299	N
P	8256.736	1.283	9.055	0.607	-0.151	-0.250	N	B	8651.769	1.150	9.093	0.113	0.121	1.344	N
B	8256.741	1.268	9.083	0.121	0.130	1.342	N	A	8654.756	1.160	8.145	0.275	0.156	0.431	N
A	8283.754	1.147	8.146	0.274	0.161	0.429	N	P	8654.757	1.161	9.043	0.606	-0.177	-0.349	N
P	8283.757	1.147	9.159	0.575	-0.131	-0.299	N	B	8654.759	1.164	9.097	0.111	0.126	1.343	N
B	8283.761	1.149	9.101	0.110	0.129	1.344	N	A	8657.741	1.146	8.149	0.272	0.161	0.433	N
A	8287.766	1.147	8.151	0.270	0.166	0.425	N	P	8657.744	1.146	8.817	0.589	-0.142	-0.228	N
P	8287.771	1.149	9.116	0.576	-0.143	-0.321	N	B	8657.747	1.149	9.105	0.110	0.127	1.348	N
B	8287.776	1.153	9.102	0.109	0.140	1.325	N	A	8660.811	1.218	8.138	0.273	0.157	0.440	N
A	8289.804	1.180	8.154	0.269	0.169	0.427	N	P	8660.813	1.221	8.948	0.609	-0.165	-0.301	N
P	8289.808	1.185	9.144	0.597	-0.169	-0.372	N	B	8660.816	1.231	9.097	0.116	0.114	1.367	N
B	8289.813	1.197	9.102	0.114	0.126	1.349	N								

Long Term Photometry of Variables

Group 5024 P=HD269582
A=HD 33486

Star	JD ₀	X	V	b-y	m ₁	c ₁	Sys	Star	JD ₀	X	V	b-y	m ₁	c ₁	Sys
A	8187.731	1.392	7.860	-0.014	0.140	0.838	N	A	8234.676	1.284	7.871	-0.001	0.134	0.848	N
P	8187.736	1.430	12.223	-0.189	0.312	-0.191	N	P	8234.680	1.306	12.027	-0.045	0.196	-0.196	N
A	8187.740	1.376	7.859	-0.012	0.139	0.843	N	A	8234.684	1.282	7.870	-0.007	0.138	0.850	N
P	8187.745	1.411	12.090	-0.069	0.218	-0.183	N	P	8234.688	1.302	12.033	-0.063	0.218	-0.203	N
A	8187.749	1.361	7.863	-0.013	0.138	0.846	N	A	8234.691	1.281	7.864	-0.006	0.136	0.851	N
P	8187.752	1.398	12.091	-0.074	0.231	-0.208	N	A	8239.575	1.402	7.867	-0.010	0.143	0.838	N
A	8187.755	1.351	7.860	-0.012	0.139	0.843	N	P	8239.581	1.443	12.016	-0.055	0.209	-0.193	N
A	8191.706	1.403	7.863	-0.009	0.138	0.847	N	A	8239.584	1.381	7.866	-0.008	0.138	0.839	N
P	8191.711	1.445	12.084	-0.051	0.192	-0.177	N	P	8239.588	1.423	12.022	-0.072	0.230	-0.206	N
A	8191.716	1.380	7.862	-0.008	0.139	0.841	N	A	8239.592	1.364	7.865	-0.009	0.140	0.843	N
P	8191.721	1.420	12.107	-0.077	0.229	-0.209	N	P	8239.598	1.400	12.021	-0.072	0.228	-0.230	N
A	8191.725	1.362	7.860	-0.009	0.139	0.845	N	A	8239.602	1.346	7.863	-0.006	0.137	0.845	N
P	8191.729	1.401	12.119	-0.097	0.250	-0.201	N	A	8284.608	1.311	7.871	-0.011	0.140	0.849	N
A	8191.733	1.348	7.859	-0.009	0.138	0.842	N	P	8284.616	1.319	12.010	-0.008	0.215	-0.215	N
A	8196.668	1.474	7.855	-0.009	0.136	0.846	N	A	8284.619	1.324	7.860	-0.006	0.136	0.843	N
P	8196.675	1.513	12.077	-0.113	0.257	-0.183	N	P	8284.623	1.326	12.003	-0.039	0.188	-0.178	N
A	8196.679	1.439	7.860	-0.010	0.136	0.848	N	A	8284.625	1.334	7.869	-0.012	0.141	0.854	N
P	8196.685	1.482	12.089	-0.106	0.236	-0.172	N	P	8284.631	1.335	12.012	-0.063	0.212	-0.230	N
A	8196.688	1.414	7.860	-0.012	0.142	0.844	N	A	8284.634	1.349	7.860	-0.006	0.138	0.848	N
P	8196.693	1.457	12.068	-0.082	0.203	-0.176	N	A	8287.616	1.332	7.854	-0.012	0.138	0.848	N
A	8196.696	1.394	7.862	-0.011	0.139	0.850	N	P	8287.622	1.334	11.972	-0.037	0.171	-0.136	N
A	8200.674	1.423	7.858	-0.011	0.143	0.842	N	A	8287.624	1.346	7.854	-0.013	0.138	0.844	N
P	8200.680	1.464	12.051	-0.078	0.209	-0.180	N	P	8287.629	1.344	11.987	-0.062	0.202	-0.178	N
A	8200.683	1.398	7.857	-0.007	0.136	0.842	N	A	8287.632	1.360	7.854	-0.014	0.139	0.846	N
P	8200.689	1.439	12.031	-0.066	0.221	-0.210	N	P	8287.636	1.354	12.023	-0.075	0.246	-0.202	N
A	8200.692	1.378	7.858	-0.006	0.135	0.844	N	A	8287.639	1.374	7.849	-0.010	0.135	0.845	N
P	8200.697	1.418	12.079	-0.083	0.241	-0.213	N	A	8291.671	1.492	7.865	-0.003	0.133	0.847	N
A	8200.700	1.362	7.860	-0.010	0.141	0.840	N	P	8291.676	1.469	11.996	-0.068	0.189	-0.190	N
A	8217.619	1.447	7.864	-0.012	0.144	0.840	N	A	8291.679	1.520	7.869	-0.011	0.139	0.851	N
P	8217.626	1.486	11.994	-0.048	0.197	-0.201	N	P	8291.683	1.491	12.011	-0.077	0.190	-0.176	N
A	8217.630	1.415	7.861	-0.007	0.140	0.833	N	A	8291.686	1.546	7.864	-0.004	0.131	0.848	N
P	8217.635	1.458	11.972	-0.035	0.196	-0.237	N	P	8291.690	1.514	12.007	-0.075	0.179	-0.156	N
A	8217.639	1.393	7.865	-0.011	0.146	0.834	N	A	8291.692	1.574	7.862	-0.009	0.136	0.851	N
P	8217.644	1.433	12.000	-0.059	0.214	-0.208	N	A	8538.775	1.362	7.844	-0.010	0.138	0.845	N
A	8217.650	1.370	7.860	-0.011	0.143	0.840	N	P	8538.786	1.385	11.808	-0.009	0.130	-0.210	N
A	8220.616	1.430	7.863	-0.008	0.137	0.848	N	A	8538.792	1.332	7.846	-0.009	0.139	0.845	N
P	8220.621	1.475	11.982	-0.032	0.181	-0.196	N	P	8538.798	1.363	11.804	-0.011	0.129	-0.210	N
A	8220.630	1.396	7.860	-0.006	0.136	0.848	N	P	8538.812	1.342	11.794	0.044	0.071	-0.213	N
P	8220.635	1.437	12.017	-0.072	0.225	-0.212	N	A	8538.819	1.300	7.844	-0.011	0.140	0.847	N
A	8220.638	1.377	7.864	-0.004	0.133	0.845	N	A	8547.748	1.365	7.850	-0.006	0.134	0.850	N
P	8220.644	1.415	11.990	-0.048	0.202	-0.184	N	P	8547.757	1.395	11.767	-0.004	0.116	-0.172	N
A	8220.647	1.359	7.853	-0.005	0.134	0.846	N	A	8547.763	1.339	7.843	-0.007	0.139	0.839	N
A	8226.621	1.377	7.863	-0.004	0.132	0.849	N	A	8547.772	1.326	7.844	-0.010	0.141	0.841	N
P	8226.626	1.418	11.973	-0.086	0.261	-0.238	N	P	8547.776	1.359	11.759	-0.009	0.150	-0.212	N
A	8226.634	1.352	7.868	-0.006	0.135	0.849	N	A	8547.780	1.315	7.845	-0.009	0.140	0.840	N
P	8226.639	1.389	11.974	-0.048	0.183	-0.196	N	A	8652.668	1.446	7.864	-0.010	0.134	0.867	N
A	8226.643	1.337	7.869	-0.002	0.130	0.849	N	P	8652.674	1.432	11.690	0.049	0.091	-0.166	N
P	8226.647	1.372	11.960	-0.042	0.200	-0.218	N	A	8652.677	1.473	7.856	-0.005	0.129	0.856	N
A	8226.651	1.325	7.873	-0.005	0.134	0.847	N	P	8652.680	1.448	11.687	0.064	0.089	-0.191	N
A	8228.611	1.388	7.861	-0.005	0.135	0.846	N	A	8652.682	1.491	7.862	-0.009	0.136	0.848	N
P	8228.617	1.427	11.960	-0.071	0.239	-0.229	N	P	8652.687	1.467	11.669	0.075	0.058	-0.168	N
A	8228.622	1.364	7.861	-0.009	0.141	0.838	N	A	8652.689	1.516	7.857	-0.005	0.133	0.845	N
P	8228.627	1.403	11.940	-0.062	0.244	-0.260	N	A	8656.648	1.439	7.852	-0.007	0.135	0.848	N
A	8228.631	1.349	7.858	-0.008	0.133	0.856	N	P	8656.653	1.429	11.759	0.015	0.126	-0.188	N
P	8228.637	1.381	11.913	-0.039	0.211	-0.232	N	A	8656.657	1.464	7.853	-0.008	0.137	0.841	N
A	8228.640	1.333	7.852	-0.009	0.136	0.848	N	P	8656.661	1.447	11.744	0.023	0.124	-0.219	N
A	8231.596	1.404	7.852	-0.011	0.142	0.839	N	A	8656.663	1.483	7.853	-0.012	0.143	0.830	N
P	8231.601	1.448	11.993	-0.060	0.221	-0.226	N	P	8656.667	1.462	11.755	0.000	0.132	-0.195	N
A	8231.604	1.386	7.855	-0.012	0.148	0.830	N	A	8656.669	1.502	7.842	-0.005	0.135	0.840	N
P	8231.608	1.428	12.003	-0.069	0.216	-0.190	N	A	8659.659	1.477	7.871	-0.012	0.143	0.839	N
A	8231.611	1.370	7.850	-0.011	0.145	0.837	N	P	8659.663	1.453	11.693	0.044	0.077	-0.166	N
P	8231.616	1.409	11.981	-0.068	0.237	-0.231	N	A	8659.667	1.505	7.855	-0.004	0.130	0.860	N
A	8231.619	1.355	7.855	-0.011	0.142	0.842	N	A	8659.680	1.554	7.852	-0.009	0.143	0.840	N
A	8234.668	1.288	7.867	-0.004	0.136	0.843	N	P	8659.686	1.529	11.669	0.055	0.104	-0.201	N
P	8234.673	1.311	12.021	-0.040	0.206	-0.206	N	A	8659.689	1.591	7.861	-0.012	0.141	0.844	N

Catalogue 1990-1992

Group 5025 P=HD269662															
A=HD 37722								B=HD 35294							
Star	JD _⊙	X	V	b-y	m ₁	c ₁	Sys	Star	JD _⊙	X	V	b-y	m ₁	c ₁	Sys
A	8188.698	1.552	8.883	0.039	0.165	1.052	N	P	8522.856	1.345	9.851	0.380	0.306	0.635	N
A	8188.698	1.552	8.883	0.039	0.165	1.052	N	B	8522.861	1.316	8.410	0.447	0.253	0.471	N
P	8188.702	1.522	9.920	0.353	0.300	0.667	N	A	8530.876	1.314	8.902	0.047	0.159	1.076	N
B	8188.709	1.466	8.407	0.444	0.253	0.468	N	A	8530.876	1.314	8.902	0.047	0.159	1.076	N
A	8195.712	1.433	8.882	0.042	0.164	1.050	N	P	8530.881	1.303	9.880	0.389	0.324	0.621	N
A	8195.712	1.433	8.882	0.042	0.164	1.050	N	B	8530.886	1.288	8.428	0.453	0.247	0.491	N
P	8195.718	1.406	9.906	0.361	0.284	0.705	N	A	8538.760	1.469	8.870	0.043	0.160	1.081	N
B	8195.726	1.362	8.406	0.451	0.250	0.477	N	A	8538.760	1.469	8.870	0.043	0.160	1.081	N
A	8216.717	1.328	8.883	0.042	0.160	1.064	N	P	8538.766	1.439	9.849	0.386	0.339	0.577	N
A	8216.717	1.328	8.883	0.042	0.160	1.064	N	B	8538.770	1.397	8.391	0.446	0.257	0.469	N
P	8216.723	1.313	9.906	0.361	0.290	0.731	N	A	8548.705	1.561	8.919	0.031	0.175	1.061	N
A	8227.623	1.438	8.890	0.041	0.164	1.061	N	A	8548.705	1.561	8.919	0.031	0.175	1.061	N
A	8227.623	1.438	8.890	0.041	0.164	1.061	N	P	8548.710	1.527	9.899	0.391	0.345	0.522	N
P	8227.629	1.410	9.917	0.357	0.301	0.653	N	B	8548.715	1.473	8.428	0.445	0.256	0.472	N
A	8227.776	1.327	8.881	0.038	0.163	1.057	N	A	8548.719	1.510	8.910	0.039	0.159	1.069	N
A	8234.697	1.309	8.892	0.042	0.161	1.072	N	A	8558.718	1.434	8.888	0.043	0.157	1.071	N
A	8234.697	1.309	8.892	0.042	0.161	1.072	N	A	8558.718	1.434	8.888	0.043	0.157	1.071	N
P	8234.704	1.299	9.938	0.372	0.310	0.682	N	P	8558.723	1.409	9.869	0.399	0.347	0.568	N
A	8250.563	1.432	8.878	0.036	0.170	1.052	N	B	8558.728	1.369	8.403	0.447	0.258	0.466	N
A	8250.563	1.432	8.878	0.036	0.170	1.052	N	A	8558.732	1.401	8.882	0.041	0.165	1.063	N
P	8250.567	1.407	9.960	0.369	0.350	0.554	N	A	8562.771	1.327	8.892	0.048	0.158	1.058	N
A	8283.613	1.319	8.894	0.044	0.166	1.060	N	A	8562.771	1.327	8.892	0.048	0.158	1.058	N
A	8283.613	1.319	8.894	0.044	0.166	1.060	N	P	8562.776	1.313	9.890	0.396	0.345	0.639	N
P	8283.620	1.319	9.929	0.390	0.339	0.576	N	B	8562.780	1.294	8.419	0.449	0.251	0.484	N
A	8288.599	1.319	8.875	0.038	0.161	1.068	N	A	8562.784	1.316	8.897	0.045	0.159	1.070	N
A	8288.616	1.334	8.870	0.036	0.164	1.064	N	A	8572.767	1.311	8.880	0.036	0.170	1.058	N
A	8288.616	1.334	8.870	0.036	0.164	1.064	N	A	8572.767	1.311	8.880	0.036	0.170	1.058	N
P	8288.624	1.340	9.904	0.381	0.350	0.634	N	P	8572.774	1.300	9.880	0.390	0.352	0.532	N
A	8513.875	1.365	8.892	0.042	0.158	1.073	N	B	8572.779	1.288	8.401	0.443	0.257	0.486	N
A	8513.875	1.365	8.892	0.042	0.158	1.073	N	A	8572.801	1.309	8.874	0.043	0.162	1.059	N
P	8513.881	1.345	9.859	0.373	0.289	0.634	N	A	8655.651	1.418	8.881	0.036	0.166	1.061	N
B	8513.886	1.316	8.420	0.446	0.252	0.484	N	A	8655.651	1.418	8.881	0.036	0.166	1.061	N
A	8517.891	1.330	8.895	0.038	0.164	1.063	N	P	8655.654	1.422	9.961	0.423	0.385	0.470	N
A	8517.891	1.330	8.895	0.038	0.164	1.063	N	B	8655.657	1.439	8.397	0.450	0.248	0.478	N
P	8517.896	1.315	9.874	0.370	0.317	0.675	N	P	8659.642	1.397	9.957	0.427	0.377	0.499	N
B	8517.902	1.294	8.425	0.440	0.258	0.471	N	P	8659.647	1.409	9.952	0.432	0.371	0.461	N
A	8522.849	1.367	8.885	0.042	0.161	1.066	N	A	8659.649	1.415	8.879	0.049	0.159	1.062	N
A	8522.849	1.367	8.885	0.042	0.161	1.066	N	A	8659.649	1.415	8.879	0.049	0.159	1.062	N

Long Term Photometry of Variables

Group 6002 P=HD102567															
A=HD102368								B=HD101070							
Star	JD _⊙	X	V	b-y	m ₁	c ₁	Sys	Star	JD _⊙	X	V	b-y	m ₁	c ₁	Sys
A	8250.808	1.359	7.621	0.102	0.011	-0.084	N	B	8291.810	1.202	8.942	0.088	0.016	-0.051	N
P	8250.812	1.351	8.893	0.283	-0.066	-0.362	N	P	8291.813	1.189	8.878	0.276	-0.069	-0.365	N
B	8250.816	1.329	8.959	0.095	0.017	-0.058	N	B	8291.817	1.203	8.942	0.093	0.008	-0.060	N
P	8250.821	1.325	8.898	0.282	-0.066	-0.358	N	P	8291.820	1.189	8.874	0.276	-0.062	-0.374	N
B	8250.825	1.308	8.978	0.091	0.018	-0.053	N	A	8291.822	1.188	7.594	0.101	0.005	-0.081	N
P	8250.829	1.303	8.925	0.277	-0.062	-0.358	N	A	8437.527	1.337	7.623	0.098	0.007	-0.074	N
A	8250.832	1.292	7.637	0.099	0.012	-0.082	N	P	8437.532	1.351	8.983	0.269	-0.065	-0.384	N
A	8259.778	1.379	7.609	0.101	-0.003	-0.067	N	B	8437.538	1.404	8.964	0.086	0.019	-0.057	N
P	8259.781	1.373	8.882	0.282	-0.075	-0.358	N	A	8439.606	1.748	7.618	0.091	0.015	-0.073	N
B	8259.785	1.348	8.950	0.090	0.011	-0.053	N	P	8439.609	1.763	8.936	0.266	-0.066	-0.380	N
P	8259.790	1.345	8.889	0.276	-0.069	-0.355	N	B	8439.615	1.868	8.950	0.087	0.019	-0.053	N
B	8259.794	1.324	8.948	0.090	0.015	-0.052	N	P	8439.621	1.855	8.931	0.268	-0.066	-0.382	N
P	8259.799	1.318	8.890	0.276	-0.067	-0.361	N	B	8439.624	1.944	8.956	0.083	0.019	-0.049	N
A	8259.802	1.306	7.611	0.105	-0.004	-0.070	N	P	8439.627	1.910	8.935	0.263	-0.060	-0.384	N
A	8281.853	1.189	7.602	0.100	0.006	-0.076	N	A	8439.632	1.968	7.605	0.100	0.005	-0.074	N
P	8281.855	1.191	8.883	0.283	-0.083	-0.361	N	A	8648.815	1.193	7.603	0.099	0.001	-0.071	N
B	8281.861	1.209	8.945	0.087	0.016	-0.055	N	P	8648.818	1.194	9.016	0.249	-0.077	-0.345	N
P	8281.862	1.194	8.885	0.274	-0.059	-0.384	N	B	8648.820	1.204	8.936	0.097	-0.001	-0.052	N
B	8281.864	1.212	8.944	0.093	0.002	-0.045	N	P	8648.822	1.193	9.025	0.241	-0.067	-0.355	N
P	8281.866	1.195	8.890	0.271	-0.071	-0.358	N	B	8648.824	1.203	8.932	0.099	-0.001	-0.042	N
A	8281.869	1.196	7.604	0.100	0.003	-0.075	N	P	8648.826	1.191	9.026	0.242	-0.066	-0.357	N
A	8286.778	1.217	7.609	0.105	-0.002	-0.074	N	A	8648.827	1.189	7.601	0.096	0.007	-0.076	N
P	8286.783	1.214	8.883	0.278	-0.070	-0.362	N	A	8655.783	1.219	7.597	0.099	0.006	-0.088	N
B	8286.786	1.217	8.941	0.093	0.011	-0.056	N	P	8655.789	1.217	8.983	0.237	-0.048	-0.378	N
P	8286.789	1.209	8.886	0.276	-0.067	-0.367	N	B	8655.791	1.225	8.931	0.089	0.010	-0.054	N
B	8286.792	1.212	8.947	0.084	0.022	-0.057	N	P	8655.792	1.215	8.978	0.247	-0.058	-0.380	N
P	8286.795	1.203	8.887	0.271	-0.056	-0.380	N	B	8655.794	1.224	8.938	0.083	0.011	-0.047	N
A	8286.799	1.198	7.611	0.100	0.004	-0.073	N	P	8655.795	1.213	8.979	0.246	-0.058	-0.383	N
A	8291.803	1.189	7.594	0.101	0.004	-0.074	N	A	8655.797	1.210	7.602	0.097	0.002	-0.073	N
P	8291.807	1.190	8.877	0.275	-0.065	-0.365	N								

Catalogue 1990-1992

Group 6006 P=CpD-53 567
A=HD 21265 B=HD 21081

Star	JD ₀	X	V	b-y	m ₁	c ₁	Sys	Star	JD ₀	X	V	b-y	m ₁	c ₁	Sys
A	8168.662	1.399	8.593	0.697	0.569	0.202	N	A	8238.584	1.111	8.595	0.694	0.575	0.217	N
P	8168.667	1.382	9.067	1.152	0.296	0.588	N	A	8245.574	1.106	8.595	0.699	0.575	0.188	N
B	8168.672	1.344	8.370	0.561	0.351	0.276	N	P	8245.578	1.100	9.006	1.129	0.342	0.533	N
P	8168.678	1.334	9.069	1.145	0.302	0.609	N	B	8245.583	1.101	8.368	0.560	0.352	0.267	N
B	8168.683	1.301	8.368	0.561	0.357	0.253	N	P	8245.587	1.097	9.003	1.135	0.331	0.493	N
P	8168.688	1.292	9.073	1.141	0.296	0.651	N	B	8245.592	1.101	8.365	0.560	0.353	0.263	N
A	8168.693	1.270	8.594	0.694	0.576	0.195	N	P	8245.596	1.097	9.003	1.136	0.320	0.540	N
A	8172.662	1.346	8.601	0.702	0.562	0.205	N	A	8245.600	1.103	8.594	0.697	0.572	0.196	N
P	8172.667	1.331	9.057	1.145	0.321	0.661	N	A	8256.575	1.104	8.604	0.695	0.568	0.194	N
B	8172.672	1.300	8.382	0.560	0.356	0.265	N	P	8256.580	1.099	9.075	1.123	0.279	0.502	N
P	8172.678	1.291	9.055	1.149	0.312	0.635	N	B	8256.585	1.108	8.375	0.553	0.354	0.255	N
B	8172.683	1.264	8.373	0.562	0.352	0.267	N	P	8256.589	1.104	9.075	1.122	0.287	0.536	N
P	8172.688	1.256	9.055	1.145	0.316	0.602	N	B	8256.595	1.115	8.371	0.555	0.352	0.262	N
A	8172.693	1.237	8.602	0.697	0.567	0.212	N	P	8256.600	1.112	9.070	1.121	0.300	0.555	N
A	8185.691	1.159	8.594	0.692	0.587	0.191	N	A	8256.604	1.124	8.596	0.694	0.580	0.178	N
P	8185.697	1.147	9.116	1.149	0.283	0.667	N	A	8462.940	1.143	8.591	0.694	0.584	0.216	N
B	8185.704	1.136	8.372	0.558	0.361	0.258	N	P	8462.944	1.136	8.998	1.161	0.404	1.002	N
A	8188.606	1.412	8.592	0.693	0.581	0.185	N	B	8462.948	1.130	8.376	0.566	0.360	0.291	N
P	8188.612	1.392	9.104	1.146	0.303	0.659	N	A	8463.908	1.199	8.599	0.695	0.575	0.187	N
B	8188.618	1.349	8.370	0.556	0.362	0.252	N	P	8463.912	1.192	8.995	1.131	0.346	0.510	N
A	8191.621	1.304	8.590	0.694	0.578	0.186	N	B	8463.916	1.179	8.374	0.555	0.355	0.267	N
P	8191.625	1.292	9.053	1.146	0.334	0.611	N	P	8463.919	1.175	8.999	1.126	0.350	0.485	N
B	8191.630	1.265	8.366	0.557	0.361	0.254	N	B	8463.923	1.164	8.370	0.560	0.347	0.267	N
A	8194.653	1.185	8.590	0.695	0.584	0.178	N	P	8463.927	1.160	8.997	1.128	0.352	0.554	N
P	8194.660	1.172	9.014	1.149	0.349	0.616	N	A	8463.931	1.154	8.600	0.690	0.580	0.196	N
B	8194.666	1.157	8.366	0.560	0.358	0.256	N	A	8486.812	1.305	8.594	0.700	0.567	0.194	N
A	8197.625	1.234	8.592	0.693	0.584	0.187	N	P	8486.815	1.298	9.050	1.154	0.307	0.598	N
P	8197.631	1.221	9.000	1.142	0.352	0.617	N	B	8486.818	1.276	8.369	0.563	0.349	0.263	N
B	8197.637	1.199	8.366	0.560	0.359	0.261	N	P	8486.820	1.278	9.057	1.147	0.320	0.592	N
A	8215.665	1.103	8.595	0.694	0.575	0.195	N	B	8486.823	1.260	8.371	0.561	0.352	0.268	N
P	8215.672	1.097	9.029	1.144	0.325	0.553	N	P	8486.828	1.253	9.056	1.142	0.327	0.643	N
B	8215.679	1.101	8.367	0.555	0.357	0.268	N	A	8486.832	1.237	8.596	0.696	0.580	0.200	N
P	8215.685	1.097	9.029	1.143	0.328	0.569	N	A	8493.819	1.222	8.604	0.697	0.564	0.198	N
B	8215.691	1.104	8.368	0.559	0.350	0.269	N	P	8493.821	1.216	9.061	1.151	0.312	0.634	N
P	8215.696	1.101	9.030	1.141	0.330	0.627	N	B	8493.826	1.198	8.380	0.563	0.351	0.275	N
A	8215.702	1.110	8.596	0.690	0.578	0.205	N	P	8493.829	1.195	9.074	1.147	0.327	0.587	N
A	8226.561	1.194	8.597	0.695	0.579	0.194	N	B	8493.834	1.180	8.393	0.560	0.364	0.255	N
P	8226.566	1.184	9.000	1.135	0.336	0.582	N	P	8493.837	1.178	9.067	1.148	0.313	0.566	N
B	8226.570	1.170	8.367	0.560	0.354	0.258	N	A	8493.841	1.170	8.604	0.703	0.566	0.190	N
P	8226.575	1.164	9.003	1.123	0.366	0.567	N	A	8494.795	1.286	8.606	0.712	0.571	0.195	N
B	8226.580	1.152	8.368	0.559	0.359	0.265	N	P	8494.798	1.281	9.038	1.148	0.319	0.539	N
P	8226.585	1.147	9.004	1.123	0.354	0.540	N	B	8494.802	1.258	8.365	0.556	0.355	0.260	N
A	8226.589	1.141	8.596	0.696	0.575	0.189	N	P	8494.805	1.256	9.042	1.132	0.342	0.591	N
A	8228.546	1.218	8.611	0.698	0.578	0.196	N	B	8494.809	1.236	8.362	0.557	0.358	0.263	N
P	8228.551	1.206	9.033	1.134	0.349	0.485	N	P	8494.812	1.235	9.040	1.139	0.335	0.601	N
B	8228.555	1.190	8.379	0.559	0.359	0.267	N	A	8494.816	1.221	8.591	0.696	0.574	0.207	N
P	8228.560	1.185	9.024	1.138	0.340	0.558	N	A	8495.804	1.249	8.610	0.690	0.579	0.197	N
B	8228.564	1.171	8.376	0.560	0.355	0.262	N	P	8495.808	1.239	9.056	1.142	0.332	0.594	N
P	8228.569	1.166	9.022	1.138	0.329	0.645	N	B	8495.814	1.216	8.383	0.557	0.360	0.259	N
A	8228.573	1.158	8.603	0.693	0.585	0.207	N	P	8495.818	1.211	9.055	1.144	0.339	0.626	N
A	8231.550	1.188	8.606	0.690	0.588	0.196	N	B	8495.822	1.196	8.385	0.559	0.356	0.266	N
P	8231.555	1.177	9.045	1.144	0.313	0.541	N	P	8495.826	1.191	9.067	1.142	0.327	0.573	N
B	8231.560	1.164	8.372	0.560	0.358	0.258	N	A	8495.831	1.178	8.613	0.692	0.579	0.204	N
P	8231.564	1.159	9.046	1.137	0.326	0.607	N	A	8497.761	1.395	8.596	0.698	0.574	0.209	N
B	8231.569	1.148	8.378	0.559	0.362	0.246	N	P	8497.765	1.386	9.024	1.141	0.343	0.574	N
P	8231.573	1.144	9.046	1.134	0.316	0.581	N	B	8497.771	1.345	8.373	0.561	0.351	0.264	N
A	8231.577	1.138	8.598	0.696	0.577	0.202	N	P	8497.774	1.342	9.027	1.142	0.339	0.612	N
A	8234.551	1.169	8.578	0.690	0.579	0.189	N	B	8497.780	1.308	8.397	0.559	0.353	0.257	N
P	8234.556	1.158	9.053	1.136	0.290	0.643	N	P	8497.784	1.304	9.102	1.143	0.325	0.599	N
B	8234.561	1.147	8.354	0.550	0.362	0.264	N	A	8501.795	1.227	8.594	0.697	0.571	0.205	N
P	8234.566	1.141	9.052	1.137	0.293	0.588	N	P	8501.799	1.218	9.003	1.140	0.354	0.561	N
B	8234.571	1.132	8.353	0.553	0.356	0.267	N	B	8501.805	1.197	8.369	0.558	0.358	0.256	N
P	8234.576	1.127	9.054	1.131	0.300	0.591	N	P	8501.809	1.192	9.004	1.137	0.360	0.560	N
A	8234.581	1.124	8.581	0.687	0.578	0.210	N	B	8501.816	1.173	8.369	0.561	0.350	0.267	N
A	8238.556	1.141	8.604	0.700	0.567	0.190	N	P	8501.821	1.167	9.003	1.139	0.361	0.611	N
P	8238.561	1.133	9.102	1.143	0.273	0.637	N	A	8501.826	1.157	8.601	0.694	0.578	0.199	N
B	8238.566	1.126	8.377	0.561	0.357	0.253	N	A	8505.813	1.162	8.587	0.690	0.586	0.187	N
P	8238.570	1.121	9.101	1.144	0.283	0.591	N	P	8505.817	1.154	8.998	1.139	0.351	0.513	N
B	8238.575	1.116	8.377	0.558	0.359	0.262	N	B	8505.823	1.142	8.362	0.554	0.360	0.248	N
P	8238.580	1.112	9.098	1.144	0.276	0.611	N	P	8505.827	1.138	8.998	1.139	0.350	0.577	N

Long Term Photometry of Variables

Group 6006 P=CpD-53 567 (continued)
A=HD 21265 B=HD 21081

Star	JD ₀	X	V	b - y	m ₁	c ₁	Sys	Star	JD ₀	X	V	b - y	m ₁	c ₁	Sys
B	8505.832	1.129	8.364	0.555	0.359	0.253	N	B	8525.714	1.272	8.373	0.560	0.351	0.270	N
P	8505.836	1.125	9.002	1.147	0.343	0.575	N	P	8525.718	1.266	9.036	1.140	0.333	0.577	N
A	8505.842	1.121	8.589	0.688	0.583	0.191	N	A	8525.723	1.247	8.597	0.700	0.570	0.194	N
A	8508.723	1.438	8.600	0.696	0.576	0.209	N	A	8529.715	1.237	8.593	0.690	0.579	0.196	N
P	8508.727	1.427	9.054	1.154	0.316	0.598	N	P	8529.720	1.226	9.028	1.139	0.344	0.612	N
B	8508.732	1.384	8.366	0.563	0.349	0.264	N	B	8529.725	1.207	8.362	0.560	0.353	0.270	N
P	8508.736	1.380	9.055	1.149	0.324	0.620	N	P	8529.730	1.201	9.022	1.145	0.336	0.559	N
B	8508.741	1.343	8.367	0.560	0.354	0.263	N	B	8529.734	1.185	8.361	0.559	0.354	0.260	N
P	8508.745	1.338	9.053	1.149	0.322	0.581	N	P	8529.738	1.180	9.019	1.136	0.340	0.589	N
A	8508.751	1.310	8.592	0.695	0.576	0.199	N	A	8529.742	1.171	8.578	0.692	0.578	0.188	N
A	8510.836	1.114	8.596	0.693	0.584	0.177	N	P	8530.705	1.263	8.996	1.141	0.340	0.600	N
P	8510.840	1.108	9.085	1.149	0.314	0.647	N	B	8530.710	1.240	8.330	0.557	0.356	0.267	N
B	8510.845	1.106	8.368	0.556	0.365	0.248	N	P	8530.714	1.236	8.998	1.143	0.330	0.609	N
P	8510.848	1.102	9.081	1.150	0.308	0.636	N	B	8530.719	1.216	8.333	0.560	0.350	0.270	N
B	8510.852	1.103	8.366	0.554	0.363	0.256	N	P	8530.722	1.212	9.001	1.138	0.342	0.563	N
P	8510.856	1.099	9.079	1.154	0.302	0.661	N	A	8530.727	1.199	8.560	0.693	0.581	0.185	N
A	8510.861	1.102	8.590	0.695	0.576	0.203	N	A	8536.727	1.164	8.586	0.695	0.585	0.180	N
A	8511.791	1.172	8.603	0.699	0.576	0.188	N	P	8536.731	1.156	9.093	1.152	0.298	0.618	N
P	8511.795	1.164	9.105	1.157	0.299	0.654	N	B	8536.736	1.146	8.353	0.559	0.358	0.265	N
B	8511.800	1.152	8.383	0.555	0.364	0.267	N	P	8536.740	1.141	9.078	1.153	0.296	0.640	N
P	8511.804	1.148	9.107	1.154	0.293	0.683	N	B	8536.745	1.133	8.345	0.561	0.356	0.256	N
B	8511.808	1.140	8.379	0.557	0.362	0.260	N	P	8536.749	1.129	9.077	1.153	0.285	0.661	N
P	8511.812	1.136	9.105	1.153	0.300	0.569	N	A	8536.753	1.126	8.570	0.697	0.573	0.192	N
A	8511.818	1.130	8.605	0.692	0.584	0.171	N	P	8539.719	1.163	8.591	0.698	0.581	0.183	N
A	8513.740	1.301	8.581	0.693	0.575	0.198	N	P	8539.723	1.155	9.119	1.156	0.288	0.629	N
P	8513.744	1.291	9.100	1.154	0.291	0.626	N	B	8539.728	1.145	8.367	0.563	0.357	0.257	N
B	8513.749	1.264	8.355	0.559	0.354	0.262	N	P	8539.732	1.141	9.116	1.159	0.280	0.724	N
P	8513.753	1.259	9.096	1.158	0.277	0.642	N	P	8539.739	1.130	9.112	1.161	0.281	0.623	N
B	8513.758	1.235	8.360	0.553	0.362	0.263	N	A	8539.744	1.127	8.589	0.698	0.574	0.176	N
P	8513.762	1.231	9.103	1.150	0.299	0.671	N	A	8545.729	1.125	8.605	0.702	0.577	0.164	N
A	8513.767	1.215	8.584	0.696	0.567	0.217	N	P	8545.733	1.118	9.112	1.152	0.304	0.647	N
A	8517.709	1.385	8.594	0.693	0.582	0.221	N	B	8545.738	1.114	8.380	0.558	0.360	0.257	N
P	8517.713	1.375	9.100	1.151	0.301	0.600	N	P	8545.742	1.110	9.112	1.155	0.301	0.681	N
B	8517.718	1.339	8.362	0.559	0.356	0.262	N	B	8545.746	1.108	8.380	0.557	0.363	0.257	N
P	8517.721	1.336	9.100	1.156	0.294	0.650	N	P	8545.750	1.104	9.115	1.157	0.296	0.702	N
B	8517.725	1.308	8.366	0.558	0.357	0.260	N	A	8545.755	1.106	8.606	0.692	0.574	0.211	N
P	8517.729	1.305	9.101	1.147	0.298	0.626	N	A	8550.738	1.107	8.590	0.696	0.575	0.215	N
A	8517.734	1.282	8.587	0.694	0.576	0.195	N	P	8550.743	1.101	9.093	1.146	0.322	0.542	N
A	8518.770	1.175	8.607	0.694	0.580	0.212	N	B	8550.747	1.102	8.369	0.558	0.356	0.263	N
P	8518.774	1.168	9.108	1.145	0.310	0.554	N	P	8550.752	1.098	9.086	1.152	0.315	0.583	N
B	8518.779	1.156	8.385	0.552	0.368	0.254	N	B	8550.756	1.100	8.368	0.559	0.354	0.281	N
P	8518.783	1.152	9.110	1.151	0.312	0.627	N	P	8550.761	1.096	9.090	1.150	0.312	0.559	N
B	8518.787	1.143	8.385	0.552	0.367	0.257	N	A	8550.765	1.102	8.594	0.692	0.584	0.191	N
P	8518.790	1.139	9.115	1.143	0.315	0.594	N	A	8561.692	1.118	8.585	0.699	0.576	0.175	N
A	8518.795	1.134	8.614	0.690	0.588	0.190	N	P	8561.696	1.111	9.058	1.156	0.329	0.612	N
A	8522.735	1.235	8.585	0.697	0.577	0.179	N	B	8561.700	1.110	8.364	0.562	0.356	0.260	N
P	8522.740	1.225	9.043	1.149	0.327	0.553	N	P	8561.704	1.105	9.054	1.159	0.320	0.585	N
B	8522.745	1.205	8.366	0.560	0.354	0.272	N	B	8561.708	1.105	8.364	0.558	0.359	0.263	N
P	8522.749	1.199	9.048	1.146	0.318	0.527	N	P	8561.712	1.101	9.057	1.155	0.323	0.651	N
B	8522.754	1.184	8.368	0.557	0.361	0.249	N	A	8561.717	1.103	8.592	0.690	0.578	0.209	N
P	8522.758	1.178	9.044	1.145	0.322	0.608	N	P	8566.570	1.417	9.166	1.161	0.322	1.063	N
A	8522.763	1.168	8.588	0.697	0.571	0.205	N	P	8566.578	1.377	9.140	1.169	0.297	0.605	N
A	8523.694	1.380	8.592	0.696	0.574	0.182	N	B	8566.583	1.343	8.402	0.567	0.363	0.249	N
P	8523.698	1.367	9.037	1.145	0.331	0.532	N	P	8566.587	1.338	9.149	1.162	0.306	0.625	N
B	8523.703	1.333	8.370	0.559	0.354	0.272	N	A	8566.591	1.316	8.629	0.708	0.573	0.194	N
P	8523.707	1.327	9.041	1.144	0.321	0.577	N	A	8572.637	1.149	8.590	0.696	0.580	0.211	N
B	8523.712	1.298	8.368	0.556	0.360	0.250	N	P	8572.642	1.141	9.103	1.152	0.318	0.662	N
P	8523.716	1.292	9.038	1.146	0.330	0.561	N	B	8572.646	1.133	8.369	0.558	0.356	0.271	N
A	8523.721	1.271	8.593	0.692	0.572	0.169	N	P	8572.651	1.128	9.105	1.153	0.316	0.619	N
A	8524.750	1.184	8.592	0.701	0.564	0.195	N	B	8572.655	1.122	8.369	0.558	0.359	0.264	N
P	8524.754	1.175	9.037	1.143	0.347	0.565	N	P	8572.660	1.117	9.107	1.154	0.315	0.606	N
B	8524.759	1.162	8.369	0.559	0.356	0.264	N	A	8572.664	1.116	8.595	0.694	0.579	0.215	N
P	8524.764	1.157	9.036	1.144	0.330	0.628	N	A	8576.539	1.426	8.595	0.691	0.582	0.184	N
B	8524.768	1.147	8.371	0.557	0.357	0.262	N	P	8576.544	1.411	9.084	1.159	0.323	0.643	N
P	8524.772	1.142	9.046	1.136	0.336	0.626	N	B	8576.549	1.373	8.367	0.560	0.358	0.249	N
A	8524.777	1.136	8.598	0.695	0.571	0.194	N	P	8576.553	1.366	9.085	1.147	0.333	0.662	N
A	8525.696	1.347	8.596	0.695	0.578	0.195	N	B	8576.558	1.331	8.364	0.562	0.352	0.261	N
P	8525.700	1.335	9.039	1.140	0.336	0.692	N	P	8576.563	1.325	9.080	1.159	0.319	0.653	N
B	8525.705	1.304	8.370	0.558	0.354	0.267	N	A	8645.568	1.167	8.599	0.698	0.568	0.200	N
P	8525.709	1.298	9.036	1.134	0.349	0.606	N	P	8645.576	1.173	9.180	1.150	0.299	0.606	N

Catalogue 1990–1992

Group 6006 P=CpD-53 567 (continued)															
								A=HD 21265 B=HD 21081							
Star	JD_{\odot}	X	V	$b-y$	m_1	c_1	Sys	Star	JD_{\odot}	X	V	$b-y$	m_1	c_1	Sys
P	8645.587	1.199	9.149	1.152	0.296	0.589	N	A	8653.563	1.205	8.600	0.693	0.588	0.217	N
B	8645.591	1.223	8.367	0.559	0.348	0.270	N	A	8657.542	1.182	8.597	0.689	0.585	0.201	N
P	8645.595	1.220	9.111	1.154	0.284	0.623	N	P	8657.545	1.178	9.010	1.144	0.355	0.597	N
A	8653.537	1.151	8.598	0.702	0.578	0.163	N	B	8657.547	1.195	8.364	0.557	0.360	0.254	N
P	8653.544	1.155	9.066	1.159	0.325	0.541	N	P	8657.550	1.189	9.001	1.153	0.357	0.614	N
B	8653.547	1.171	8.374	0.555	0.360	0.270	N	B	8657.552	1.207	8.361	0.559	0.355	0.248	N
P	8653.553	1.171	9.065	1.154	0.327	0.570	N	P	8657.554	1.198	9.006	1.155	0.341	0.631	N
B	8653.556	1.190	8.371	0.557	0.363	0.258	N	A	8657.557	1.217	8.594	0.695	0.587	0.190	N
P	8653.559	1.185	9.068	1.151	0.325	0.722	N								

Long Term Photometry of Variables

Group 7002 P=NGC2346

Star	JD_{\odot}	X	V	$b - v$	m_1	c_1	Sys	Star	JD_{\odot}	X	V	$b - v$	m_1	c_1	Sys
A	8418.548	1.321	6.263	-0.015	0.160	0.958	N	A	8511.510	1.374	6.242	-0.015	0.158	0.963	N
P	8418.550	1.258	9.429	-0.142	0.708	-0.167	N	P	8511.513	1.490	9.403	-0.133	0.671	-0.130	N
B	8418.553	1.324	6.507	0.126	0.233	0.838	N	B	8511.517	1.383	6.485	0.128	0.234	0.827	N
A	8460.552	1.198	6.264	-0.019	0.163	0.953	N	P	8511.519	1.519	9.403	-0.131	0.667	-0.129	N
B	8460.560	1.205	6.508	0.128	0.229	0.836	N	A	8511.523	1.418	6.247	-0.015	0.157	0.961	N
A	8460.568	1.208	6.266	-0.017	0.156	0.964	N	A	8513.502	1.363	6.283	-0.016	0.162	0.958	N
P	8460.571	1.244	9.447	-0.160	0.730	-0.163	N	B	8513.508	1.372	6.519	0.128	0.232	0.835	N
B	8460.575	1.215	6.508	0.125	0.234	0.835	N	A	8513.514	1.405	6.266	-0.018	0.161	0.963	N
P	8460.578	1.256	9.447	-0.159	0.728	-0.167	N	P	8513.516	1.533	9.423	-0.152	0.711	-0.156	N
A	8460.582	1.221	6.267	-0.020	0.163	0.958	N	B	8513.520	1.415	6.511	0.122	0.237	0.832	N
A	8461.542	1.196	6.257	-0.017	0.152	0.971	N	P	8513.523	1.565	9.415	-0.153	0.711	-0.146	N
B	8461.550	1.202	6.503	0.125	0.225	0.848	N	A	8513.527	1.454	6.262	-0.019	0.160	0.965	N
A	8461.557	1.202	6.256	-0.018	0.155	0.967	N	A	8518.483	1.348	6.248	-0.016	0.159	0.963	N
P	8461.560	1.233	9.424	-0.172	0.747	-0.176	N	B	8518.489	1.356	6.491	0.127	0.236	0.828	N
B	8461.563	1.209	6.501	0.125	0.227	0.842	N	A	8518.494	1.385	6.244	-0.014	0.161	0.955	N
P	8461.568	1.245	9.422	-0.167	0.736	-0.163	N	P	8518.497	1.505	9.437	-0.173	0.754	-0.172	N
A	8461.572	1.214	6.258	-0.018	0.152	0.971	N	B	8518.500	1.394	6.483	0.132	0.231	0.829	N
A	8462.565	1.210	6.265	-0.019	0.161	0.957	N	P	8518.503	1.535	9.426	-0.164	0.744	-0.175	N
B	8462.573	1.219	6.503	0.127	0.231	0.836	N	A	8518.506	1.430	6.238	-0.014	0.158	0.961	N
A	8462.582	1.228	6.264	-0.017	0.159	0.956	N	A	8522.479	1.373	6.262	-0.016	0.158	0.963	N
P	8462.585	1.280	9.425	-0.175	0.734	-0.141	N	B	8522.487	1.388	6.504	0.123	0.238	0.830	N
B	8462.588	1.236	6.509	0.126	0.233	0.834	N	A	8522.493	1.422	6.262	-0.014	0.150	0.973	N
P	8462.593	1.298	9.418	-0.168	0.729	-0.145	N	P	8522.496	1.557	9.425	-0.156	0.726	-0.168	N
A	8462.597	1.250	6.265	-0.015	0.155	0.961	N	B	8522.499	1.431	6.504	0.124	0.234	0.835	N
A	8463.536	1.196	6.262	-0.018	0.160	0.962	N	P	8522.502	1.590	9.427	-0.158	0.729	-0.172	N
B	8463.544	1.202	6.505	0.125	0.234	0.833	N	A	8522.505	1.472	6.263	-0.017	0.158	0.962	N
A	8463.552	1.202	6.266	-0.022	0.166	0.957	N	A	8524.479	1.389	6.262	-0.015	0.157	0.967	N
P	8463.554	1.233	9.441	-0.183	0.769	-0.183	N	B	8524.484	1.395	6.504	0.127	0.232	0.839	N
B	8463.558	1.209	6.511	0.121	0.237	0.838	N	A	8524.489	1.428	6.265	-0.015	0.155	0.966	N
P	8463.560	1.241	9.437	-0.176	0.755	-0.167	N	P	8524.492	1.564	9.447	-0.151	0.721	-0.162	N
A	8463.564	1.212	6.262	-0.018	0.158	0.963	N	B	8524.495	1.436	6.508	0.123	0.235	0.837	N
A	8511.498	1.334	6.245	-0.015	0.159	0.959	N	P	8524.498	1.599	9.445	-0.149	0.719	-0.166	N
B	8511.504	1.342	6.484	0.126	0.233	0.842	N	A	8524.501	1.478	6.262	-0.018	0.157	0.964	N

Catalogue 1990-1992

Group 7056 P-BD+04 3804
A=HD171367 B=HD171767

Star	JD_{\odot}	X	V	$b-y$	m_1	c_1	Sys	Star	JD_{\odot}	X	V	$b-y$	m_1	c_1	Sys
A	8166.509	1.319	7.623	0.714	0.431	0.297	N	A	8497.638	1.497	7.614	0.707	0.434	0.287	N
P	8166.514	1.342	9.267	1.006	-0.044	1.006	N	P	8497.642	1.528	9.574	1.073	-0.007	0.785	N
B	8166.518	1.368	6.714	0.691	0.586	0.210	N	B	8497.648	1.586	6.705	0.684	0.598	0.194	N
A	8461.701	1.298	7.623	0.708	0.426	0.313	N	A	8505.608	1.442	7.635	0.710	0.433	0.283	N
P	8461.705	1.320	9.369	1.037	-0.039	0.872	N	P	8505.612	1.469	9.771	1.133	0.033	0.636	N
B	8461.710	1.347	6.711	0.689	0.582	0.213	N	B	8505.617	1.520	6.719	0.688	0.592	0.199	N
A	8462.707	1.333	7.634	0.705	0.443	0.268	N	A	8507.599	1.423	7.615	0.709	0.433	0.298	N
P	8462.712	1.359	9.671	1.127	-0.007	0.742	N	P	8507.603	1.449	9.340	1.026	-0.039	0.920	N
B	8462.717	1.394	6.723	0.687	0.594	0.196	N	B	8507.608	1.497	6.700	0.689	0.589	0.200	N
A	8463.681	1.254	7.629	0.708	0.431	0.293	N	P	8508.608	1.506	9.542	1.079	-0.008	0.755	N
P	8463.685	1.271	9.727	1.118	-0.011	0.678	N	B	8508.614	1.561	6.722	0.691	0.590	0.200	N
B	8463.690	1.293	6.716	0.685	0.596	0.193	N	A	8519.557	1.379	7.623	0.706	0.437	0.288	N
A	8486.589	1.205	7.637	0.710	0.431	0.293	N	P	8519.562	1.409	9.493	1.040	-0.004	0.840	N
P	8486.593	1.215	9.398	1.041	-0.040	0.898	N	B	8519.567	1.448	6.709	0.684	0.599	0.191	N
B	8486.596	1.228	6.713	0.692	0.586	0.205	N	A	8522.572	1.527	7.633	0.705	0.442	0.262	N
A	8491.655	1.498	7.622	0.705	0.429	0.288	N	P	8522.577	1.568	9.598	1.103	-0.001	0.693	N
P	8491.659	1.529	9.365	1.043	-0.038	0.903	N	B	8522.582	1.624	6.718	0.689	0.592	0.203	N
B	8491.665	1.588	6.707	0.689	0.587	0.198	N	A	8523.563	1.483	7.626	0.711	0.434	0.289	N
A	8493.619	1.326	7.616	0.695	0.434	0.264	N	P	8523.568	1.518	9.732	1.127	0.023	0.698	N
P	8493.623	1.347	9.734	1.112	0.018	0.738	N	B	8523.573	1.570	6.715	0.691	0.592	0.200	N
B	8493.629	1.383	6.706	0.680	0.594	0.204	N	A	8530.540	1.460	7.655	0.706	0.429	0.289	N
A	8495.628	1.396	7.614	0.708	0.435	0.270	N	A	8530.540	1.460	7.655	0.706	0.429	0.289	N
P	8495.632	1.421	9.450	1.063	-0.011	0.863	N	P	8530.544	1.492	9.533	1.057	0.001	0.746	N
B	8495.638	1.466	6.702	0.688	0.597	0.192	N	P	8530.544	1.492	9.533	1.057	0.001	0.746	N
A	8496.663	1.689	7.623	0.703	0.435	0.273	N	B	8530.549	1.536	6.734	0.683	0.589	0.199	N
P	8496.667	1.733	9.712	1.125	0.020	0.684	N	B	8530.549	1.536	6.734	0.683	0.589	0.199	N
B	8496.672	1.818	6.713	0.683	0.598	0.186	N	P	8538.530	1.550	9.656	1.098	-0.007	0.667	N

Long Term Photometry of Variables

Group 7057 P=HD 60219																
A=HD 60165								B=HD 60368								
Star	JD ₀	X	V	b - y	m ₁	c ₁	Sys	Star	JD ₀	X	V	b - y	m ₁	c ₁	Sys	
A	8189.765	1.523	10.374	0.025	0.191	0.986	N	A	8283.606	1.065	8.598	0.228	0.186	0.578	N	
P	8189.769	1.494	8.449	0.460	0.226	0.647	N	P	8283.610	1.060	8.419	0.456	0.211	0.679	N	
B	8189.776	1.439	8.342	0.397	0.224	0.242	N	B	8283.614	1.052	8.333	0.408	0.208	0.256	N	
A	8190.800	1.254	10.361	0.039	0.167	1.004	N	A	8284.757	1.170	8.586	0.226	0.177	0.599	N	
P	8190.804	1.238	8.438	0.435	0.212	0.671	N	P	8284.759	1.182	8.164	0.357	0.188	0.833	N	
B	8190.810	1.211	8.337	0.399	0.221	0.237	N	B	8284.761	1.188	8.330	0.392	0.227	0.241	N	
A	8191.837	1.105	10.360	0.040	0.164	1.023	N	A	8286.577	1.116	8.605	0.225	0.187	0.588	N	
P	8191.841	1.096	8.253	0.404	0.190	0.808	N	P	8286.581	1.110	8.562	0.481	0.230	0.628	N	
B	8191.847	1.081	8.332	0.401	0.216	0.248	N	B	8286.584	1.100	8.350	0.393	0.228	0.246	N	
A	8194.741	1.646	10.375	0.038	0.182	0.980	N	A	8287.717	1.076	8.584	0.230	0.177	0.590	N	
P	8194.749	1.579	8.111	0.349	0.178	0.911	N	P	8287.721	1.087	8.163	0.372	0.181	0.896	N	
B	8194.755	1.516	8.346	0.403	0.217	0.248	N	B	8287.726	1.096	8.323	0.404	0.209	0.248	N	
A	8197.843	1.053	10.364	0.032	0.173	1.020	N	A	8288.745	1.169	8.598	0.225	0.184	0.600	N	
P	8197.849	1.046	8.116	0.362	0.185	0.917	N	P	8288.750	1.190	8.313	0.416	0.201	0.758	N	
B	8197.855	1.036	8.334	0.399	0.217	0.247	N	B	8288.754	1.205	8.340	0.398	0.223	0.233	N	
P	8219.801	1.031	8.439	0.458	0.218	0.665	N	A	8289.624	1.016	8.581	0.228	0.176	0.595	N	
B	8219.805	1.026	8.334	0.396	0.224	0.241	N	P	8289.628	1.015	8.316	0.419	0.207	0.741	N	
P	8223.788	1.034	8.441	0.450	0.217	0.675	N	B	8289.633	1.012	8.317	0.402	0.210	0.254	N	
B	8223.793	1.027	8.332	0.400	0.215	0.248	N	A	8290.690	1.039	8.593	0.219	0.194	0.583	N	
P	8226.784	1.029	8.591	0.481	0.240	0.596	N	P	8290.694	1.048	8.464	0.440	0.220	0.679	N	
B	8226.789	1.023	8.339	0.398	0.215	0.256	N	B	8290.699	1.055	8.332	0.400	0.215	0.246	N	
A	8228.746	1.084	8.597	0.222	0.183	0.602	N	A	8291.747	1.210	8.589	0.228	0.178	0.591	N	
P	8228.752	1.073	8.419	0.444	0.213	0.686	N	P	8291.750	1.229	8.130	0.378	0.182	0.884	N	
B	8228.757	1.063	8.332	0.400	0.215	0.250	N	B	8291.753	1.240	8.332	0.397	0.218	0.250	N	
A	8230.848	1.033	8.594	0.223	0.186	0.587	N	A	8292.587	1.054	8.596	0.227	0.183	0.593	N	
P	8230.853	1.042	8.289	0.397	0.194	0.792	N	P	8292.591	1.049	8.529	0.479	0.230	0.624	N	
B	8230.858	1.048	8.336	0.399	0.220	0.245	N	B	8292.596	1.041	8.340	0.399	0.219	0.250	N	
A	8233.775	1.017	8.592	0.220	0.190	0.591	N	A	8293.655	1.012	8.594	0.225	0.186	0.586	N	
P	8233.779	1.016	7.924	0.298	0.169	1.081	N	P	8293.658	1.016	8.098	0.344	0.177	0.911	N	
B	8233.783	1.012	8.335	0.396	0.222	0.246	N	P	8293.660	1.017	8.094	0.345	0.176	0.923	N	
A	8235.818	1.015	8.586	0.229	0.175	0.602	N	B	8293.662	1.017	8.334	0.397	0.218	0.244	N	
P	8235.823	1.021	8.421	0.438	0.205	0.680	N	B	8293.665	1.019	8.337	0.395	0.224	0.242	N	
B	8235.827	1.025	8.329	0.402	0.211	0.248	N	A	8294.720	1.138	8.589	0.225	0.179	0.592	N	
A	8238.794	1.007	8.594	0.223	0.187	0.591	N	P	8294.726	1.159	8.357	0.437	0.206	0.720	N	
P	8238.798	1.011	8.458	0.453	0.221	0.663	N	B	8294.729	1.169	8.334	0.399	0.214	0.250	N	
B	8238.803	1.012	8.334	0.403	0.211	0.247	N	A	8547.835	1.199	8.589	0.225	0.184	0.595	N	
A	8249.675	1.126	8.634	0.226	0.187	0.584	N	P	8547.837	1.194	8.229	0.395	0.193	0.796	N	
P	8249.679	1.116	8.401	0.446	0.209	0.696	N	B	8547.842	1.175	8.329	0.401	0.212	0.250	N	
B	8249.684	1.103	8.345	0.401	0.217	0.249	N	A	8548.857	1.109	8.569	0.229	0.182	0.606	N	
A	8255.746	1.007	8.595	0.217	0.196	0.579	N	P	8548.860	1.106	8.376	0.446	0.221	0.686	N	
P	8255.751	1.010	8.282	0.422	0.201	0.763	N	B	8548.862	1.099	8.303	0.402	0.223	0.241	N	
B	8255.756	1.011	8.334	0.399	0.214	0.253	N	A	8549.845	1.141	8.596	0.225	0.185	0.597	N	
A	8258.824	1.155	8.612	0.226	0.185	0.590	N	P	8549.849	1.132	8.307	0.394	0.196	0.772	N	
P	8258.828	1.175	8.388	0.432	0.206	0.723	N	B	8549.853	1.118	8.336	0.398	0.222	0.241	N	
B	8258.832	1.188	8.348	0.406	0.212	0.251	N	A	8654.636	1.007	8.606	0.221	0.192	0.592	N	
A	8281.693	1.015	8.606	0.219	0.191	0.588	N	P	8654.638	1.008	8.602	0.476	0.242	0.580	N	
P	8281.696	1.020	8.342	0.416	0.200	0.767	N	B	8654.644	1.006	8.342	0.393	0.231	0.235	N	
B	8281.699	1.021	8.334	0.402	0.206	0.263	N	A	8655.665	1.010	8.594	0.223	0.186	0.582	N	
A	8282.710	1.036	8.589	0.224	0.194	0.576	N	P	8655.668	1.013	8.101	0.362	0.182	0.923	N	
P	8282.713	1.042	8.115	0.366	0.176	0.890	N	A	8657.634	1.007	8.596	0.224	0.189	0.575	N	
B	8282.715	1.045	8.333	0.398	0.222	0.243	N	P	8657.637	1.009	8.327	0.408	0.209	0.750	N	

Catalogue 1990-1992

Group 7058 P-HD326823
A=HD155051

Star	JD_{\odot}	X	V	$b-y$	m_1	c_1	Sys	Star	JD_{\odot}	X	V	$b-y$	m_1	c_1	Sys
A	8418.810	1.216	7.886	0.417	-0.098	0.031	N	A	8507.495	1.052	7.901	0.415	-0.091	0.034	N
P	8418.813	1.242	9.007	0.720	-0.208	-0.060	N	A	8510.551	1.208	7.884	0.416	-0.092	0.017	N
A	8418.816	1.241	7.889	0.414	-0.095	0.025	N	P	8510.556	1.242	9.076	0.720	-0.204	-0.072	N
A	8455.629	1.038	7.919	0.409	-0.087	0.028	N	A	8510.561	1.248	7.883	0.419	-0.098	0.023	N
P	8455.632	1.048	9.069	0.721	-0.202	-0.072	N	A	8511.569	1.301	7.887	0.415	-0.091	0.023	N
A	8455.638	1.048	7.921	0.411	-0.092	0.035	N	P	8511.574	1.341	9.134	0.722	-0.210	-0.062	N
A	8491.508	1.026	7.911	0.418	-0.095	0.017	N	A	8511.578	1.349	7.886	0.418	-0.097	0.028	N
P	8491.511	1.032	9.033	0.731	-0.217	-0.068	N	A	8517.518	1.161	7.898	0.419	-0.100	0.027	N
A	8491.515	1.029	7.911	0.419	-0.098	0.023	N	P	8517.522	1.186	9.035	0.728	-0.220	-0.051	N
A	8493.524	1.040	7.887	0.409	-0.091	0.027	N	A	8517.526	1.190	7.897	0.416	-0.093	0.022	N
P	8493.527	1.049	9.105	0.726	-0.222	-0.049	N	A	8522.531	1.267	7.906	0.417	-0.098	0.037	N
A	8493.531	1.047	7.889	0.411	-0.093	0.028	N	P	8522.535	1.301	9.004	0.718	-0.195	-0.075	N
A	8495.506	1.030	7.871	0.416	-0.091	0.019	N	A	8522.539	1.306	7.910	0.415	-0.097	0.040	N
P	8495.510	1.039	9.088	0.726	-0.205	-0.056	N	A	8525.488	1.141	7.880	0.418	-0.100	0.035	N
A	8495.516	1.038	7.869	0.419	-0.095	0.021	N	P	8525.492	1.164	9.065	0.726	-0.206	-0.064	N
A	8507.487	1.043	7.904	0.416	-0.092	0.033	N	A	8525.496	1.165	7.882	0.417	-0.097	0.025	N
P	8507.490	1.053	9.141	0.723	-0.204	-0.056	N								

Long Term Photometry of Variables

Group 7063 P=NGC1399															
A=HD 22771 B=HD 22560															
Star	JD_{\odot}	X	V	$b-y$	m_1	c_1	Sys	Star	JD_{\odot}	X	V	$b-y$	m_1	c_1	Sys
A	8217.567	1.224	8.842	0.777	0.675	0.176	N	A	8501.832	1.080	8.853	0.770	0.669	0.178	N
P	8217.575	1.190	11.592	0.628	0.395	0.215	N	P	8501.842	1.061	12.938	0.655	0.315	0.033	N
B	8217.581	1.162	8.864	0.603	0.434	0.261	N	B	8501.848	1.046	8.885	0.604	0.428	0.262	N
A	8218.556	1.264	8.839	0.783	0.660	0.158	N	A	8505.847	1.034	8.838	0.771	0.663	0.166	N
P	8218.563	1.230	11.630	0.638	0.393	0.175	N	P	8505.855	1.025	11.655	0.617	0.402	0.155	N
B	8218.570	1.197	8.864	0.604	0.430	0.266	N	B	8505.861	1.017	8.853	0.604	0.424	0.260	N
A	8220.591	1.111	8.833	0.778	0.666	0.182	N	A	8510.806	1.083	8.831	0.777	0.666	0.165	N
P	8220.598	1.093	11.575	0.644	0.366	0.161	N	P	8510.818	1.060	11.852	0.628	0.409	0.158	N
B	8220.603	1.077	8.855	0.605	0.422	0.282	N	B	8510.827	1.041	8.861	0.605	0.425	0.265	N
A	8232.551	1.131	8.855	0.775	0.673	0.157	N	A	8512.739	1.324	8.856	0.781	0.673	0.163	N
P	8232.556	1.117	11.604	0.618	0.407	0.109	N	P	8512.747	1.276	11.691	0.652	0.344	0.194	N
B	8232.561	1.098	8.872	0.602	0.435	0.268	N	B	8512.756	1.231	8.866	0.616	0.418	0.269	N
A	8259.560	1.005	8.850	0.777	0.681	0.139	N	A	8517.756	1.179	8.844	0.771	0.671	0.150	N
P	8259.566	1.006	11.642	0.651	0.364	0.141	N	P	8517.764	1.151	11.927	0.626	0.375	0.160	N
B	8259.572	1.005	8.862	0.611	0.422	0.271	N	B	8517.771	1.124	8.857	0.605	0.423	0.268	N
P	8282.561	1.058	11.644	0.642	0.390	0.135	N	A	8525.740	1.158	8.841	0.775	0.663	0.199	N
A	8282.568	1.071	8.847	0.774	0.671	0.178	N	P	8525.748	1.132	11.566	0.628	0.369	0.105	N
B	8282.573	1.085	8.864	0.606	0.423	0.273	N	B	8525.754	1.111	8.870	0.600	0.435	0.259	N
A	8496.809	1.190	8.842	0.776	0.671	0.176	N	A	8529.756	1.081	8.826	0.777	0.667	0.165	N
P	8496.818	1.158	11.858	0.614	0.393	0.192	N	P	8529.764	1.065	11.548	0.652	0.380	0.100	N
B	8496.824	1.133	8.860	0.608	0.423	0.261	N	B	8529.770	1.051	8.849	0.598	0.440	0.247	N

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Group 7069 P=HD 7676
A=HR293 B=HD 8130

Star	JD_{\odot}	X	V	b - y	m_1	c_1	Sys	Star	JD_{\odot}	X	V	b - y	m_1	c_1	Sys
A	8166.697	1.006	5.517	0.033	0.207	1.035	N	P	8233.542	1.004	8.421	0.129	0.308	0.558	N
P	8166.699	1.013	8.424	0.142	0.318	0.495	N	B	8233.545	1.008	7.460	0.023	0.167	1.026	N
B	8166.704	1.014	8.640	0.299	0.153	0.383	N	A	8234.539	1.004	5.501	0.026	0.210	1.034	N
A	8168.717	1.002	5.516	0.031	0.208	1.039	N	P	8234.543	1.004	8.383	0.076	0.270	0.765	N
P	8168.719	1.004	8.400	0.077	0.288	0.740	N	B	8234.546	1.008	7.441	0.021	0.161	1.031	N
B	8168.724	1.008	8.645	0.295	0.157	0.388	N	A	8236.551	1.015	5.529	0.034	0.206	1.038	N
A	8169.664	1.028	5.510	0.029	0.208	1.037	N	P	8236.554	1.012	8.418	0.064	0.280	0.781	N
P	8169.666	1.039	8.391	0.081	0.291	0.713	N	B	8236.558	1.017	7.469	0.025	0.161	1.032	N
B	8169.671	1.038	8.633	0.302	0.144	0.395	N	A	8238.545	1.015	5.523	0.032	0.210	1.029	N
A	8172.652	1.033	5.526	0.033	0.204	1.033	N	P	8238.548	1.012	8.427	0.136	0.315	0.511	N
P	8172.654	1.045	8.421	0.115	0.280	0.641	N	B	8238.552	1.017	7.468	0.023	0.165	1.030	N
B	8172.659	1.043	8.649	0.298	0.150	0.385	N	A	8239.558	1.033	5.515	0.032	0.207	1.031	N
A	8185.673	1.002	5.517	0.031	0.205	1.036	N	P	8239.561	1.027	8.407	0.080	0.268	0.773	N
P	8185.678	1.004	8.404	0.065	0.272	0.786	N	B	8239.564	1.031	7.462	0.024	0.162	1.026	N
B	8185.685	1.010	8.641	0.294	0.158	0.378	N	A	8244.544	1.034	5.527	0.032	0.207	1.042	N
A	8188.663	1.003	5.518	0.030	0.205	1.042	N	P	8244.549	1.030	8.412	0.085	0.270	0.756	N
P	8188.666	1.006	8.402	0.078	0.273	0.758	N	B	8244.554	1.036	7.469	0.025	0.162	1.034	N
B	8188.671	1.012	8.641	0.298	0.150	0.386	N	A	8245.562	1.073	5.523	0.031	0.204	1.039	N
A	8190.625	1.010	5.517	0.028	0.212	1.035	N	P	8245.566	1.061	8.400	0.086	0.295	0.696	N
P	8190.628	1.018	8.405	0.064	0.280	0.777	N	B	8245.569	1.065	7.464	0.023	0.161	1.032	N
B	8190.635	1.019	8.644	0.292	0.159	0.384	N	A	8252.597	1.264	5.517	0.031	0.209	1.040	N
A	8192.634	1.002	5.509	0.031	0.207	1.034	N	P	8252.599	1.227	8.418	0.086	0.277	0.732	N
P	8192.638	1.007	8.415	0.135	0.313	0.516	N	B	8252.604	1.232	7.463	0.023	0.165	1.031	N
B	8192.643	1.009	8.635	0.293	0.154	0.391	N	A	8256.562	1.163	5.537	0.025	0.202	1.034	N
A	8194.607	1.015	5.508	0.029	0.208	1.041	N	P	8256.565	1.139	8.418	0.064	0.286	0.744	N
P	8194.611	1.022	8.389	0.084	0.299	0.690	N	B	8256.570	1.144	7.477	0.019	0.158	1.027	N
B	8194.617	1.021	8.631	0.295	0.155	0.387	N	A	8259.573	1.242	5.521	0.034	0.205	1.038	N
A	8197.612	1.005	5.513	0.031	0.210	1.035	N	P	8259.575	1.208	8.411	0.104	0.265	0.717	N
P	8197.616	1.011	8.422	0.141	0.322	0.491	N	B	8259.579	1.210	7.465	0.028	0.158	1.037	N
B	8197.621	1.013	8.640	0.295	0.157	0.388	N	A	8415.922	1.183	5.519	0.031	0.209	1.036	N
A	8216.574	1.001	5.520	0.033	0.206	1.040	N	P	8415.925	1.208	8.422	0.099	0.292	0.656	N
P	8216.578	1.004	8.411	0.070	0.270	0.780	N	B	8415.928	1.206	7.461	0.025	0.165	1.026	N
B	8216.584	1.008	7.458	0.028	0.161	1.028	N	A	8437.922	1.033	5.512	0.032	0.206	1.037	N
A	8218.539	1.015	5.518	0.033	0.207	1.034	N	P	8437.924	1.046	8.407	0.101	0.276	0.684	N
P	8218.543	1.023	8.416	0.113	0.286	0.644	N	B	8437.929	1.046	7.454	0.027	0.160	1.028	N
B	8218.549	1.023	7.461	0.025	0.164	1.029	N	A	8438.909	1.050	5.519	0.031	0.210	1.028	N
A	8219.524	1.029	5.515	0.031	0.209	1.038	N	P	8438.911	1.064	8.400	0.081	0.285	0.726	N
P	8219.528	1.039	8.395	0.079	0.281	0.750	N	B	8438.916	1.064	7.465	0.024	0.167	1.015	N
B	8219.532	1.041	7.459	0.022	0.168	1.029	N	A	8439.857	1.188	5.519	0.032	0.209	1.036	N
A	8220.524	1.025	5.504	0.035	0.202	1.043	N	P	8439.860	1.214	8.400	0.077	0.303	0.706	N
P	8220.528	1.035	8.386	0.081	0.300	0.699	N	B	8439.864	1.206	7.457	0.029	0.159	1.027	N
B	8220.532	1.036	7.446	0.028	0.157	1.032	N	A	8459.918	1.002	5.514	0.032	0.206	1.031	N
A	8222.638	1.101	5.518	0.029	0.209	1.037	N	P	8459.922	1.004	8.395	0.084	0.302	0.678	N
P	8222.642	1.086	8.423	0.134	0.317	0.517	N	B	8459.926	1.008	7.457	0.026	0.158	1.030	N
B	8222.645	1.090	7.463	0.024	0.161	1.028	N	A	8462.890	1.003	5.517	0.028	0.210	1.028	N
A	8223.555	1.001	5.517	0.033	0.205	1.034	N	P	8462.893	1.008	8.421	0.127	0.313	0.544	N
P	8223.559	1.004	8.412	0.120	0.287	0.619	N	B	8462.898	1.011	7.459	0.020	0.164	1.026	N
B	8223.563	1.008	7.457	0.024	0.163	1.024	N	A	8463.897	1.001	5.520	0.032	0.204	1.041	N
A	8226.547	1.001	5.513	0.031	0.209	1.032	N	P	8463.900	1.005	8.408	0.077	0.274	0.763	N
P	8226.550	1.004	8.400	0.070	0.263	0.798	N	B	8463.905	1.008	7.463	0.023	0.165	1.021	N
B	8226.557	1.008	7.459	0.024	0.164	1.029	N	A	8486.748	1.130	5.523	0.032	0.203	1.033	N
A	8227.553	1.002	5.526	0.036	0.205	1.036	N	P	8486.751	1.152	8.412	0.074	0.259	0.784	N
P	8227.556	1.004	8.438	0.124	0.305	0.570	N	A	8486.797	1.026	5.523	0.034	0.201	1.040	N
B	8227.560	1.007	7.466	0.030	0.158	1.035	N	P	8486.800	1.036	8.412	0.077	0.259	0.778	N
A	8228.535	1.002	5.528	0.035	0.207	1.039	N	A	8493.799	1.007	5.530	0.035	0.207	1.028	N
P	8228.538	1.006	8.431	0.128	0.300	0.582	N	P	8493.801	1.014	8.424	0.115	0.288	0.633	N
B	8228.542	1.010	7.471	0.028	0.163	1.028	N	B	8493.806	1.016	7.475	0.027	0.160	1.032	N
A	8229.535	1.001	5.514	0.036	0.205	1.037	N	A	8494.785	1.015	5.507	0.030	0.204	1.037	N
P	8229.538	1.005	8.399	0.080	0.274	0.766	N	P	8494.787	1.025	8.391	0.079	0.272	0.753	N
B	8229.542	1.009	7.458	0.026	0.163	1.032	N	B	8494.791	1.027	7.452	0.025	0.157	1.025	N
A	8230.546	1.002	5.527	0.032	0.209	1.039	N	A	8495.740	1.086	5.520	0.029	0.208	1.037	N
P	8230.550	1.004	8.409	0.084	0.305	0.684	N	P	8495.742	1.105	8.400	0.078	0.306	0.689	N
B	8230.553	1.008	7.471	0.027	0.164	1.026	N	B	8495.747	1.099	7.463	0.023	0.163	1.023	N
A	8231.539	1.001	5.522	0.030	0.213	1.027	N	A	8496.797	1.004	5.517	0.034	0.202	1.038	N
P	8231.542	1.004	8.415	0.064	0.276	0.790	N	P	8496.799	1.010	8.407	0.067	0.263	0.806	N
B	8231.545	1.007	7.471	0.021	0.170	1.023	N	B	8496.806	1.011	7.460	0.028	0.157	1.029	N
A	8232.538	1.001	5.523	0.033	0.207	1.041	N	A	8497.752	1.048	5.519	0.035	0.203	1.039	N
P	8232.541	1.004	8.428	0.114	0.298	0.610	N	P	8497.755	1.062	8.420	0.128	0.301	0.557	N
B	8232.544	1.007	7.468	0.024	0.165	1.033	N	B	8497.759	1.061	7.459	0.025	0.165	1.021	N
A	8233.538	1.002	5.519	0.031	0.210	1.033	N	A	8501.766	1.015	5.521	0.032	0.205	1.035	N

Long Term Photometry of Variables

Group 7069 P=HD 7676 (continued)
A=HR293 B=HD 8130

Star	JD _⊙	X	V	b - y	m ₁	c ₁	Sys	Star	JD _⊙	X	V	b - y	m ₁	c ₁	Sys
P	8501.769	1.023	8.411	0.066	0.267	0.796	N	B	8526.767	1.017	7.450	0.026	0.164	1.026	N
B	8501.776	1.023	7.466	0.026	0.157	1.028	N	A	8529.747	1.011	5.525	0.033	0.197	1.058	N
A	8505.720	1.069	5.510	0.029	0.206	1.034	N	P	8529.750	1.009	8.394	0.094	0.273	0.702	N
P	8505.723	1.084	8.388	0.082	0.301	0.681	N	B	8529.754	1.014	7.441	0.023	0.158	1.033	N
B	8505.733	1.070	7.450	0.020	0.164	1.024	N	A	8530.732	1.004	5.484	0.034	0.200	1.040	N
A	8508.685	1.144	5.516	0.033	0.204	1.039	N	P	8530.734	1.004	8.368	0.081	0.286	0.722	N
P	8508.687	1.165	8.424	0.138	0.315	0.511	N	B	8530.738	1.008	7.434	0.023	0.161	1.027	N
B	8508.699	1.136	7.465	0.024	0.161	1.033	N	A	8537.649	1.038	5.479	0.035	0.202	1.037	N
A	8510.754	1.006	5.513	0.032	0.205	1.039	N	P	8537.652	1.051	8.373	0.071	0.262	0.794	N
P	8510.757	1.013	8.398	0.083	0.306	0.675	N	B	8537.655	1.053	7.433	0.026	0.163	1.018	N
B	8510.760	1.016	7.455	0.025	0.160	1.035	N	A	8546.610	1.063	5.513	0.034	0.204	1.037	N
A	8511.776	1.001	5.531	0.032	0.208	1.033	N	P	8546.613	1.078	8.395	0.087	0.296	0.690	N
P	8511.778	1.004	8.416	0.067	0.274	0.787	N	B	8546.619	1.075	7.458	0.026	0.164	1.024	N
B	8511.783	1.007	7.468	0.028	0.157	1.033	N	A	8555.581	1.073	5.525	0.032	0.205	1.044	N
A	8512.730	1.022	5.521	0.038	0.202	1.032	N	P	8555.584	1.089	8.415	0.084	0.265	0.767	N
P	8512.733	1.032	8.421	0.102	0.281	0.668	N	B	8555.588	1.089	7.468	0.026	0.159	1.034	N
B	8512.737	1.033	7.467	0.029	0.160	1.028	N	A	8556.608	1.023	5.521	0.032	0.208	1.042	N
A	8513.710	1.047	5.507	0.031	0.205	1.038	N	P	8556.610	1.034	8.407	0.083	0.303	0.692	N
P	8513.712	1.060	8.415	0.138	0.320	0.492	N	B	8556.615	1.034	7.464	0.024	0.166	1.031	N
B	8513.717	1.059	7.455	0.021	0.167	1.016	N	A	8557.572	1.080	5.519	0.031	0.208	1.037	N
A	8517.686	1.071	5.510	0.032	0.206	1.029	N	P	8557.575	1.098	8.407	0.067	0.283	0.774	N
P	8517.689	1.087	8.410	0.088	0.272	0.722	N	B	8557.579	1.095	7.463	0.024	0.161	1.035	N
B	8517.694	1.085	7.451	0.028	0.157	1.026	N	A	8558.602	1.023	5.509	0.032	0.206	1.040	N
A	8518.753	1.001	5.526	0.023	0.217	1.027	N	P	8558.605	1.033	8.412	0.094	0.285	0.685	N
P	8518.755	1.004	8.429	0.139	0.322	0.483	N	B	8558.609	1.035	7.457	0.025	0.164	1.022	N
B	8518.759	1.008	7.465	0.020	0.167	1.026	N	A	8562.565	1.065	5.520	0.030	0.212	1.029	N
A	8522.769	1.013	5.516	0.032	0.206	1.032	N	P	8562.567	1.081	8.397	0.068	0.286	0.757	N
P	8522.771	1.011	8.417	0.086	0.272	0.717	N	B	8562.571	1.081	7.454	0.023	0.162	1.033	N
B	8522.775	1.015	7.459	0.023	0.161	1.031	N	A	8563.723	1.154	5.515	0.030	0.206	1.035	N
A	8523.727	1.002	5.513	0.033	0.200	1.039	N	P	8563.726	1.132	8.417	0.099	0.280	0.676	N
P	8523.729	1.008	8.420	0.145	0.317	0.476	N	B	8563.730	1.137	7.456	0.025	0.160	1.028	N
B	8523.733	1.011	7.453	0.027	0.153	1.035	N	A	8577.698	1.209	5.519	0.029	0.208	1.038	N
A	8524.738	1.001	5.519	0.030	0.204	1.041	N	P	8577.701	1.181	8.402	0.072	0.287	0.742	N
P	8524.740	1.004	8.411	0.092	0.265	0.731	N	B	8577.705	1.185	7.461	0.021	0.164	1.030	N
B	8524.744	1.007	7.463	0.025	0.156	1.037	N	A	8578.550	1.019	5.526	0.029	0.211	1.032	N
A	8525.730	1.001	5.518	0.031	0.204	1.040	N	P	8578.554	1.028	8.419	0.069	0.271	0.782	N
P	8525.732	1.005	8.397	0.085	0.284	0.723	N	B	8578.557	1.030	7.472	0.021	0.167	1.028	N
B	8525.736	1.008	7.458	0.028	0.151	1.039	N	A	8646.547	1.466	5.516	0.045	0.192	1.045	N
A	8526.761	1.016	5.511	0.029	0.213	1.029	N	P	8646.549	1.400	8.422	0.136	0.281	0.607	N
P	8526.763	1.013	8.397	0.070	0.293	0.734	N	B	8646.551	1.389	7.472	0.029	0.152	1.046	N

Catalogue 1990-1992

Group 7070 P=HD214479
A=HD214380

Star	JD_{\odot}	X	V	$b-y$	m_1	c_1	Sys	Star	JD_{\odot}	X	V	$b-y$	m_1	c_1	Sys
A	8418.820	1.206	9.197	0.324	0.170	0.342	N	A	8519.696	1.051	9.213	0.318	0.184	0.317	N
P	8418.824	1.191	9.044	1.001	0.411	0.035	N	P	8519.701	1.058	9.108	1.001	0.405	0.018	N
B	8418.830	1.163	10.208	0.360	0.175	0.382	N	B	8519.706	1.070	10.240	0.360	0.174	0.399	N
A	8429.871	1.019	9.187	0.324	0.166	0.353	N	A	8522.688	1.051	9.193	0.316	0.185	0.335	N
P	8429.875	1.017	9.055	0.996	0.413	0.024	N	P	8522.693	1.058	9.045	0.993	0.436	-0.003	N
B	8429.882	1.014	10.204	0.362	0.175	0.383	N	B	8522.698	1.070	10.198	0.371	0.162	0.397	N
A	8437.853	1.018	9.194	0.325	0.173	0.341	N	A	8523.656	1.018	9.194	0.316	0.180	0.341	N
P	8437.861	1.013	9.054	0.991	0.420	0.020	N	P	8523.661	1.020	9.058	0.998	0.401	0.022	N
B	8437.867	1.012	10.201	0.359	0.174	0.390	N	B	8523.666	1.026	10.208	0.364	0.181	0.343	N
A	8438.893	1.023	9.195	0.320	0.180	0.338	N	A	8524.674	1.039	9.195	0.316	0.185	0.337	N
P	8438.900	1.028	9.064	0.999	0.410	-0.018	N	P	8524.679	1.044	9.060	0.992	0.423	0.042	N
B	8438.906	1.037	10.218	0.356	0.181	0.381	N	B	8524.684	1.054	10.207	0.356	0.174	0.399	N
A	8439.789	1.115	9.197	0.322	0.176	0.345	N	A	8525.669	1.036	9.193	0.317	0.178	0.340	N
P	8439.796	1.097	9.055	0.993	0.420	-0.030	N	P	8525.674	1.041	9.043	0.995	0.414	0.014	N
B	8439.802	1.081	10.224	0.356	0.174	0.384	N	B	8525.679	1.051	10.203	0.366	0.164	0.396	N
A	8448.877	1.035	9.188	0.327	0.163	0.359	N	A	8526.747	1.295	9.188	0.318	0.179	0.344	N
P	8448.882	1.039	9.045	0.992	0.422	0.031	N	P	8526.752	1.318	9.042	0.989	0.404	-0.067	N
B	8448.892	1.056	10.211	0.353	0.186	0.389	N	B	8526.757	1.357	10.213	0.351	0.189	0.363	N
A	8452.858	1.025	9.202	0.304	0.171	0.378	N	A	8529.670	1.054	9.192	0.324	0.173	0.341	N
P	8452.861	1.027	9.044	0.983	0.409	0.049	N	P	8529.674	1.060	9.053	0.987	0.421	-0.029	N
A	8458.852	1.036	9.188	0.329	0.159	0.357	N	A	8529.680	1.072	10.214	0.355	0.182	0.378	N
P	8458.857	1.041	9.048	0.988	0.420	0.005	N	P	8530.676	1.071	9.160	0.321	0.177	0.340	N
B	8458.864	1.055	10.225	0.350	0.183	0.388	N	B	8530.680	1.078	9.018	0.987	0.430	0.014	N
A	8459.798	1.016	9.187	0.318	0.176	0.342	N	A	8530.686	1.093	10.173	0.358	0.182	0.380	N
P	8459.803	1.013	9.047	0.992	0.393	-0.064	N	P	8531.646	1.028	9.197	0.323	0.175	0.336	N
B	8459.810	1.012	10.205	0.356	0.185	0.351	N	B	8531.651	1.032	9.053	0.996	0.414	0.030	N
A	8460.787	1.021	9.200	0.319	0.182	0.334	N	A	8538.617	1.020	9.224	0.320	0.181	0.343	N
P	8460.792	1.017	9.061	0.991	0.424	0.022	N	P	8538.621	1.022	9.082	0.990	0.422	-0.006	N
B	8460.798	1.014	10.210	0.358	0.191	0.349	N	B	8538.629	1.031	10.238	0.354	0.186	0.367	N
A	8461.758	1.052	9.195	0.327	0.167	0.339	N	A	8539.632	1.039	9.231	0.318	0.184	0.344	N
P	8461.763	1.044	9.049	0.988	0.425	0.008	N	P	8539.636	1.042	9.083	0.994	0.423	0.020	N
B	8461.769	1.035	10.208	0.363	0.163	0.405	N	B	8539.641	1.053	10.234	0.360	0.176	0.387	N
A	8462.797	1.013	9.201	0.326	0.169	0.353	N	A	8545.602	1.024	9.201	0.326	0.178	0.342	N
P	8462.802	1.012	9.056	0.993	0.415	0.015	N	P	8545.607	1.027	9.075	0.995	0.426	-0.018	N
B	8462.808	1.012	10.204	0.365	0.173	0.366	N	B	8545.613	1.036	10.214	0.367	0.177	0.371	N
A	8463.791	1.014	9.190	0.325	0.170	0.355	N	P	8547.592	1.019	9.056	0.992	0.407	0.023	N
P	8463.796	1.012	9.049	0.992	0.394	-0.098	N	B	8547.597	1.024	10.217	0.349	0.182	0.400	N
B	8463.804	1.012	10.200	0.365	0.174	0.378	N	P	8549.570	1.012	9.062	0.995	0.362	-0.143	N
P	8493.732	1.014	9.031	0.991	0.346	-0.119	N	B	8549.576	1.014	10.223	0.352	0.195	0.364	N
P	8495.736	1.019	9.057	0.985	0.425	0.028	N	A	8555.567	1.018	9.214	0.316	0.180	0.337	N
A	8496.733	1.020	9.164	0.317	0.191	0.343	N	P	8555.571	1.020	9.075	0.992	0.419	0.009	N
P	8496.737	1.022	9.040	0.991	0.416	0.022	N	B	8555.577	1.026	10.220	0.349	0.192	0.361	N
A	8496.744	1.030	9.187	0.316	0.182	0.345	N	A	8556.579	1.032	9.210	0.320	0.181	0.335	N
A	8497.699	1.014	9.188	0.317	0.187	0.352	N	P	8556.583	1.036	9.083	0.987	0.414	-0.013	N
P	8497.703	1.012	9.050	0.997	0.413	-0.003	N	B	8556.589	1.045	10.224	0.356	0.188	0.372	N
A	8497.710	1.012	9.198	0.329	0.164	0.345	N	A	8557.541	1.012	9.193	0.322	0.172	0.348	N
A	8501.717	1.019	9.194	0.312	0.185	0.345	N	P	8557.545	1.012	9.062	0.991	0.420	-0.013	N
P	8501.722	1.020	9.045	0.996	0.411	-0.001	N	A	8557.552	1.014	9.186	0.321	0.179	0.341	N
A	8501.729	1.028	9.199	0.317	0.179	0.333	N	A	8558.588	1.053	9.197	0.311	0.187	0.357	N
P	8505.712	1.023	9.186	0.318	0.179	0.339	N	P	8558.592	1.058	9.060	0.989	0.401	-0.055	N
A	8505.716	1.025	9.036	0.983	0.422	-0.030	N	B	8558.597	1.071	10.215	0.349	0.195	0.379	N
A	8505.731	1.045	9.181	0.315	0.178	0.347	N	A	8562.546	1.018	9.183	0.320	0.179	0.348	N
A	8508.676	1.012	9.199	0.317	0.183	0.335	N	P	8562.550	1.019	9.060	0.991	0.423	0.058	N
P	8508.680	1.012	9.043	0.992	0.418	0.032	N	B	8562.555	1.025	10.199	0.360	0.180	0.405	N
A	8508.697	1.018	9.227	0.321	0.174	0.348	N	A	8563.555	1.027	9.211	0.317	0.182	0.351	N
A	8510.730	1.068	9.185	0.316	0.179	0.351	N	P	8563.559	1.030	9.084	0.984	0.437	-0.037	N
P	8510.734	1.075	9.053	0.993	0.422	0.012	N	B	8563.564	1.037	10.225	0.352	0.186	0.382	N
B	8510.749	1.114	10.214	0.354	0.187	0.368	N	A	8572.536	1.034	9.202	0.313	0.182	0.356	N
A	8511.746	1.114	9.200	0.322	0.179	0.349	N	P	8572.540	1.038	9.069	0.994	0.413	0.014	N
P	8511.750	1.124	9.077	0.993	0.415	0.025	N	B	8572.546	1.048	10.216	0.359	0.178	0.378	N
B	8511.759	1.156	10.215	0.368	0.171	0.371	N	A	8574.609	1.275	9.179	0.320	0.178	0.334	N
A	8512.713	1.047	9.186	0.327	0.170	0.357	N	P	8574.613	1.296	9.056	0.990	0.409	0.030	N
P	8512.717	1.052	9.054	0.994	0.412	0.002	N	B	8574.620	1.343	10.213	0.357	0.178	0.393	N
B	8512.725	1.068	10.212	0.354	0.181	0.378	N	A	8576.574	1.146	9.180	0.324	0.168	0.348	N
A	8513.651	1.016	9.197	0.317	0.181	0.330	N	P	8576.579	1.160	9.052	0.992	0.417	0.055	N
P	8513.655	1.014	9.043	0.991	0.419	0.006	N	B	8576.584	1.182	10.204	0.357	0.177	0.408	N
B	8513.663	1.012	10.196	0.354	0.188	0.376	N	A	8577.617	1.379	9.188	0.323	0.171	0.349	N
A	8518.674	1.021	9.197	0.316	0.183	0.326	N	P	8577.621	1.405	9.042	0.992	0.428	-0.029	N
P	8518.679	1.024	9.043	0.997	0.425	0.017	N	B	8577.626	1.454	10.215	0.352	0.197	0.368	N
B	8518.684	1.031	10.206	0.359	0.174	0.385	N	A	8578.519	1.035	9.197	0.315	0.184	0.346	N

Long Term Photometry of Variables

**Group 7070 P=HD214479 (continued)
A=HD214380**

Star	JD_{\odot}	X	V	$b-y$	m_1	c_1	Sys	Star	JD_{\odot}	X	V	$b-y$	m_1	c_1	Sys
P	8578.524	1.039	9.065	0.985	0.428	0.004	N	B	8578.530	1.050	10.222	0.358	0.178	0.374	N

Catalogue 1990–1992

Group 7071 P=HR1258

Star	JD_{\odot}	X	V	$b - y$	m_1	c_1	Sys	Star	JD_{\odot}	X	V	$b - y$	m_1	c_1	Sys
A	8535.794	1.030	6.664	0.121	0.222	0.850	N	A	8557.682	1.155	6.665	0.129	0.216	0.855	N
P	8535.797	1.030	6.477	-0.075	0.093	0.203	N	P	8557.683	1.149	6.488	-0.072	0.093	0.213	N
B	8535.799	1.030	7.723	0.008	0.185	1.019	N	B	8557.686	1.143	7.730	0.010	0.184	1.028	N
A	8537.736	1.155	6.662	0.124	0.229	0.837	N	A	8558.674	1.174	6.666	0.123	0.221	0.854	N
P	8537.739	1.143	6.511	-0.071	0.098	0.201	N	P	8558.676	1.167	6.504	-0.076	0.093	0.217	N
B	8537.742	1.138	7.723	0.009	0.190	1.018	N	B	8558.679	1.161	7.724	0.008	0.189	1.016	N
A	8538.738	1.138	6.661	0.125	0.215	0.858	N	A	8563.694	1.072	6.658	0.123	0.220	0.853	N
P	8538.740	1.132	6.474	-0.075	0.091	0.208	N	P	8563.696	1.069	6.478	-0.074	0.092	0.210	N
B	8538.742	1.129	7.723	-0.007	0.181	1.029	N	B	8563.698	1.068	7.716	0.009	0.184	1.026	N
A	8539.712	1.231	6.664	0.128	0.221	0.854	N	A	8574.627	1.186	6.656	0.120	0.226	0.852	N
P	8539.714	1.221	6.480	-0.072	0.100	0.205	N	P	8574.630	1.176	6.468	-0.072	0.093	0.207	N
B	8539.716	1.217	7.719	0.010	0.190	1.025	N	B	8574.633	1.170	7.716	0.003	0.195	1.013	N
A	8546.744	1.063	6.661	0.124	0.218	0.862	N	A	8577.634	1.132	6.661	0.120	0.225	0.856	N
P	8546.746	1.061	6.478	-0.073	0.091	0.216	N	P	8577.636	1.126	6.473	-0.076	0.097	0.207	N
B	8546.748	1.061	7.719	0.009	0.182	1.032	N	B	8577.638	1.123	7.722	0.007	0.186	1.029	N
A	8549.695	1.186	6.650	0.124	0.219	0.858	N	A	8646.591	1.081	6.665	0.124	0.215	0.869	N
P	8549.697	1.177	6.465	-0.075	0.091	0.217	N	P	8646.595	1.103	6.483	-0.074	0.094	0.212	N
B	8549.701	1.169	7.713	0.008	0.182	1.031	N	B	8646.596	1.107	7.723	0.007	0.182	1.035	N
A	8550.771	1.015	6.665	0.122	0.224	0.854	N	A	8655.542	1.033	6.679	0.126	0.216	0.860	N
P	8550.772	1.017	6.478	-0.076	0.098	0.212	N	P	8655.543	1.044	6.489	-0.071	0.092	0.212	N
B	8550.775	1.018	7.725	0.007	0.188	1.019	N	B	8655.545	1.048	7.737	0.011	0.185	1.015	N
A	8555.666	1.245	6.665	0.125	0.216	0.861	N	A	8656.556	1.062	6.672	0.127	0.217	0.858	N
P	8555.669	1.231	6.480	-0.071	0.088	0.217	N	P	8656.557	1.074	6.490	-0.073	0.091	0.215	N
B	8555.671	1.226	7.724	0.011	0.177	1.037	N	B	8656.558	1.079	7.732	0.011	0.180	1.023	N
A	8556.681	1.167	6.654	0.127	0.217	0.859	N	A	8659.557	1.086	6.648	0.130	0.213	0.866	N
P	8556.683	1.159	6.473	-0.073	0.094	0.211	N	P	8659.558	1.103	6.466	-0.069	0.090	0.215	N
B	8556.686	1.153	7.721	0.009	0.185	1.019	N	B	8659.561	1.111	7.711	0.015	0.178	1.037	N

Long Term Photometry of Variables

Group 7072								P=HDE32633							
A=HD152247								B=HD152042							
Star	JD_{\odot}	X	V	$b-y$	m_1	c_1	Sys	Star	JD_{\odot}	X	V	$b-y$	m_1	c_1	Sys
A	8429.660	1.024	7.185	0.227	-0.026	-0.096	N	A	8462.637	1.098	7.191	0.230	-0.026	-0.100	N
P	8429.665	1.025	7.447	0.211	-0.005	-0.102	N	P	8462.640	1.104	7.438	0.211	-0.006	-0.103	N
B	8429.675	1.028	8.194	0.176	-0.014	-0.032	N	B	8462.641	1.110	8.209	0.168	0.000	-0.043	N
A	8429.680	1.031	7.177	0.234	-0.035	-0.091	N	A	8462.649	1.127	7.192	0.227	-0.023	-0.100	N
P	8436.615	1.031	7.672	0.210	-0.011	-0.119	N	B	8462.657	1.151	8.208	0.172	-0.006	-0.033	N
A	8436.625	1.025	7.180	0.232	-0.032	-0.096	N	A	8462.665	1.175	7.193	0.229	-0.025	-0.097	N
A	8436.639	1.023	7.181	0.230	-0.031	-0.088	N	B	8462.671	1.200	8.210	0.172	-0.004	-0.040	N
B	8436.643	1.024	8.215	0.169	-0.010	-0.037	N	A	8463.568	1.024	7.183	0.227	-0.025	-0.096	N
A	8437.624	1.025	7.185	0.227	-0.023	-0.100	N	P	8463.571	1.025	7.436	0.209	0.002	-0.115	N
P	8437.628	1.025	7.429	0.210	0.005	-0.124	N	B	8463.573	1.025	8.194	0.175	-0.008	-0.039	N
B	8437.636	1.023	8.196	0.174	-0.005	-0.043	N	A	8463.581	1.028	7.182	0.228	-0.022	-0.106	N
A	8437.655	1.029	7.183	0.231	-0.026	-0.102	N	B	8463.588	1.033	8.197	0.172	-0.005	-0.041	N
B	8437.658	1.031	8.196	0.174	-0.004	-0.043	N	A	8463.594	1.037	7.184	0.230	-0.026	-0.106	N
A	8438.608	1.031	7.179	0.233	-0.027	-0.106	N	B	8463.599	1.043	8.200	0.171	-0.001	-0.047	N
P	8438.611	1.030	7.530	0.209	0.006	-0.136	N	A	8464.644	1.128	7.185	0.222	-0.021	-0.104	N
B	8438.629	1.023	8.192	0.176	-0.007	-0.042	N	P	8464.647	1.137	7.430	0.206	0.001	-0.116	N
A	8439.644	1.027	7.173	0.229	-0.021	-0.110	N	B	8464.650	1.148	8.198	0.171	-0.007	-0.041	N
P	8439.653	1.032	7.489	0.216	-0.003	-0.123	N	A	8464.658	1.171	7.186	0.222	-0.020	-0.106	N
B	8439.674	1.032	8.193	0.172	-0.001	-0.045	N	B	8464.666	1.200	8.201	0.166	-0.003	-0.038	N
A	8461.622	1.065	7.185	0.227	-0.029	-0.094	N	A	8464.673	1.226	7.186	0.224	-0.021	-0.103	N
P	8461.627	1.073	7.428	0.216	-0.013	-0.101	N	B	8464.681	1.262	8.195	0.171	-0.011	-0.029	N
B	8461.631	1.082	8.198	0.172	-0.011	-0.029	N	A	8536.524	1.547	7.217	0.225	-0.024	-0.093	N
A	8461.642	1.102	7.179	0.232	-0.035	-0.095	N	P	8536.526	1.565	7.575	0.211	0.000	-0.111	N
B	8461.651	1.127	8.197	0.173	-0.015	-0.026	N	B	8536.528	1.597	8.218	0.176	-0.013	-0.032	N
A	8461.659	1.146	7.184	0.225	-0.024	-0.101	N	A	8536.537	1.676	7.203	0.233	-0.034	-0.092	N
B	8461.665	1.168	8.198	0.171	-0.012	-0.028	N	B	8536.545	1.769	8.218	0.174	-0.010	-0.036	N

Catalogue 1990–1992

Group 7073 P-BD-41 71

Star	JD_{\odot}	X	V	$b - y$	m_1	c_1	Sys	Star	JD_{\odot}	X	V	$b - y$	m_1	c_1	Sys
P	8429.684	1.035	7.892	0.205	-0.017	-0.076	N	P	8461.639	1.097	7.891	0.202	-0.016	-0.075	N
P	8436.618	1.029	8.077	0.201	-0.014	-0.078	N	P	8462.646	1.119	7.899	0.198	-0.002	-0.092	N
B	8436.621	1.026	8.237	0.176	-0.017	-0.034	N	P	8463.578	1.028	7.898	0.198	-0.001	-0.091	N
P	8437.642	1.025	7.891	0.201	-0.004	-0.092	N	P	8464.655	1.162	7.902	0.189	0.004	-0.089	N
P	8438.616	1.027	7.888	0.199	0.000	-0.092	N	P	8536.532	1.625	7.912	0.201	-0.012	-0.080	N
P	8439.657	1.035	7.882	0.200	-0.004	-0.088	N								

Long Term Photometry of Variables

Group 7074 P=BD-41 77

Star	JD_{\odot}	X	V	$b - y$	m_1	c_1	Sys	Star	JD_{\odot}	X	V	$b - y$	m_1	c_1	Sys
P	8429.693	1.043	8.231	0.241	-0.027	-0.052	N	P	8439.660	1.038	8.240	0.243	-0.021	-0.063	N
A	8429.799	1.367	7.178	0.233	-0.036	-0.089	N	P	8461.647	1.116	8.246	0.242	-0.027	-0.057	N
P	8429.803	1.390	8.258	0.241	-0.025	-0.058	N	P	8462.653	1.139	8.248	0.240	-0.020	-0.064	N
B	8429.811	1.432	8.221	0.168	-0.009	-0.034	N	P	8463.585	1.031	8.240	0.241	-0.022	-0.062	N
P	8436.629	1.025	8.258	0.241	-0.024	-0.066	N	P	8464.662	1.184	8.244	0.238	-0.019	-0.067	N
P	8437.646	1.026	8.332	0.242	-0.021	-0.067	N	P	8536.541	1.714	8.299	0.236	-0.017	-0.049	N
P	8438.619	1.026	8.418	0.244	-0.016	-0.062	N								

Catalogue 1990-1992

Group 7075 P=HD152218

Star	JD_{\odot}	X	V	$b-y$	m_1	c_1	Sys	Star	JD_{\odot}	X	V	$b-y$	m_1	c_1	Sys
P	8429.698	1.048	7.613	0.213	-0.025	-0.084	N	P	8461.656	1.139	7.698	0.213	-0.027	-0.084	N
P	8436.632	1.024	7.618	0.213	-0.028	-0.078	N	P	8462.662	1.167	7.620	0.213	-0.024	-0.083	N
P	8437.649	1.027	7.615	0.215	-0.025	-0.082	N	P	8463.592	1.036	7.619	0.210	-0.017	-0.091	N
P	8438.623	1.025	7.603	0.215	-0.020	-0.094	N	P	8464.670	1.215	7.612	0.211	-0.023	-0.087	N
P	8439.666	1.043	7.606	0.215	-0.021	-0.090	N	P	8537.531	1.642	7.605	0.212	-0.013	-0.095	N

Long Term Photometry of Variables

Group 7076 P=HD152248

Star	JD_{\odot}	X	V	$b - y$	m_1	c_1	Sys	Star	JD_{\odot}	X	V	$b - y$	m_1	c_1	Sys
P	8429.702	1.053	6.089	0.171	0.021	-0.127	N	P	8439.669	1.047	6.061	0.167	0.033	-0.144	N
A	8429.704	1.054	7.180	0.229	-0.029	-0.092	N	P	8461.662	1.157	6.161	0.166	0.028	-0.138	N
B	8429.708	1.062	8.197	0.172	-0.010	-0.034	N	P	8462.668	1.187	6.083	0.167	0.034	-0.146	N
P	8436.635	1.024	6.070	0.169	0.023	-0.125	N	P	8463.597	1.041	6.085	0.164	0.039	-0.153	N
P	8437.652	1.029	6.058	0.168	0.032	-0.144	N	P	8464.677	1.243	6.098	0.165	0.031	-0.145	N
P	8438.626	1.025	6.274	0.171	0.032	-0.148	N	P	8537.535	1.683	6.275	0.167	0.038	-0.153	N

Catalogue 1990-1992

Group 7077 P=HR2064
A=HR2015 B=HR2194

Star	JD _⊙	X	V	b-y	m ₁	c ₁	Sys	Star	JD _⊙	X	V	b-y	m ₁	c ₁	Sys
A	8536.845	1.267	4.330	0.126	0.192	0.946	N	P	8556.839	1.261	5.092	-0.057	0.108	0.542	N
P	8536.846	1.288	5.103	-0.052	0.110	0.535	N	B	8556.840	1.248	5.696	-0.015	0.163	0.957	N
B	8536.847	1.287	5.702	-0.008	0.158	0.958	N	P	8556.842	1.260	5.092	-0.055	0.108	0.538	N
P	8536.849	1.285	5.098	-0.050	0.107	0.538	N	B	8556.844	1.247	5.693	-0.014	0.158	0.962	N
B	8536.850	1.283	5.707	-0.013	0.166	0.957	N	P	8556.845	1.261	5.088	-0.055	0.105	0.544	N
P	8536.852	1.282	5.099	-0.050	0.106	0.537	N	A	8556.847	1.242	4.315	0.122	0.192	0.948	N
A	8536.853	1.259	4.330	0.126	0.191	0.946	N	A	8563.777	1.261	4.326	0.124	0.193	0.945	N
P	8537.806	1.347	5.157	-0.060	0.109	0.533	N	P	8563.778	1.282	5.098	-0.052	0.106	0.537	N
P	8537.808	1.342	5.155	-0.059	0.105	0.536	N	B	8563.780	1.278	5.705	-0.013	0.164	0.949	N
P	8537.811	1.337	5.164	-0.060	0.107	0.531	N	P	8563.781	1.279	5.104	-0.053	0.107	0.537	N
A	8538.821	1.292	4.319	0.121	0.189	0.953	N	B	8563.783	1.275	5.707	-0.013	0.161	0.957	N
P	8538.821	1.314	5.090	-0.057	0.107	0.543	N	P	8563.784	1.277	5.103	-0.052	0.104	0.541	N
B	8538.823	1.317	5.693	-0.017	0.162	0.959	N	A	8563.786	1.254	4.330	0.124	0.193	0.943	N
P	8538.824	1.310	5.089	-0.057	0.107	0.542	N	A	8575.748	1.258	4.329	0.119	0.196	0.947	N
B	8538.825	1.313	5.687	-0.016	0.160	0.958	N	P	8575.749	1.278	5.100	-0.056	0.107	0.546	N
P	8538.826	1.306	5.085	-0.056	0.105	0.542	N	B	8575.752	1.273	5.701	-0.013	0.160	0.958	N
A	8538.828	1.281	4.318	0.121	0.190	0.949	N	P	8575.753	1.276	5.099	-0.055	0.107	0.542	N
A	8546.774	1.339	4.342	0.125	0.188	0.951	N	A	8575.754	1.253	4.331	0.120	0.194	0.950	N
P	8546.775	1.362	5.118	-0.054	0.106	0.543	N	A	8577.774	1.242	4.336	0.121	0.197	0.941	N
B	8546.776	1.373	5.719	-0.013	0.159	0.961	N	P	8577.775	1.262	5.108	-0.058	0.111	0.537	N
P	8546.777	1.356	5.116	-0.054	0.106	0.542	N	B	8577.776	1.250	5.716	-0.017	0.165	0.955	N
B	8546.778	1.366	5.722	-0.014	0.157	0.969	N	P	8577.780	1.261	5.110	-0.059	0.111	0.541	N
P	8546.780	1.350	5.113	-0.054	0.104	0.546	N	B	8577.781	1.249	5.718	-0.017	0.167	0.953	N
A	8546.782	1.322	4.337	0.122	0.190	0.953	N	P	8577.782	1.261	5.111	-0.057	0.107	0.546	N
A	8548.836	1.248	4.331	0.122	0.196	0.948	N	A	8577.785	1.242	4.340	0.119	0.196	0.943	N
P	8548.836	1.269	5.101	-0.055	0.112	0.538	N	A	8652.614	1.258	4.327	0.122	0.197	0.941	N
B	8548.838	1.261	5.704	-0.013	0.165	0.955	N	P	8652.615	1.275	5.100	-0.053	0.107	0.534	N
P	8548.839	1.267	5.101	-0.055	0.113	0.533	N	B	8652.617	1.254	5.705	-0.015	0.166	0.955	N
B	8548.840	1.259	5.707	-0.016	0.169	0.954	N	P	8652.619	1.278	5.107	-0.056	0.110	0.539	N
P	8548.841	1.266	5.099	-0.054	0.111	0.538	N	B	8652.623	1.258	5.703	-0.014	0.161	0.960	N
A	8548.843	1.245	4.326	0.123	0.197	0.943	N	P	8652.625	1.283	5.094	-0.053	0.106	0.538	N
A	8549.771	1.328	4.341	0.119	0.197	0.942	N	A	8652.626	1.270	4.326	0.124	0.191	0.951	N
P	8549.772	1.349	5.111	-0.059	0.112	0.539	N	A	8655.706	1.492	4.314	0.122	0.190	0.948	N
B	8549.774	1.358	5.714	-0.017	0.164	0.958	N	P	8655.707	1.499	5.085	-0.055	0.103	0.542	N
P	8549.775	1.343	5.114	-0.057	0.110	0.539	N	B	8655.709	1.453	5.692	-0.015	0.159	0.954	N
B	8549.777	1.350	5.716	-0.017	0.165	0.956	N	P	8655.711	1.510	5.087	-0.055	0.102	0.544	N
P	8549.778	1.337	5.111	-0.056	0.109	0.539	N	B	8655.712	1.463	5.694	-0.015	0.159	0.956	N
A	8549.780	1.310	4.340	0.119	0.198	0.942	N	P	8655.713	1.518	5.089	-0.055	0.102	0.539	N
A	8555.710	1.450	4.336	0.123	0.184	0.958	N	A	8655.714	1.523	4.320	0.123	0.187	0.950	N
P	8555.711	1.472	5.105	-0.055	0.100	0.552	N	A	8657.659	1.349	4.341	0.120	0.197	0.943	N
B	8555.713	1.497	5.711	-0.014	0.156	0.962	N	P	8657.660	1.362	5.116	-0.055	0.107	0.545	N
P	8555.714	1.461	5.108	-0.055	0.099	0.555	N	B	8657.661	1.327	5.717	-0.011	0.160	0.959	N
B	8555.716	1.484	5.711	-0.012	0.153	0.966	N	P	8657.663	1.368	5.109	-0.054	0.109	0.536	N
P	8555.718	1.450	5.111	-0.055	0.099	0.553	N	B	8657.664	1.332	5.721	-0.015	0.166	0.958	N
A	8555.719	1.418	4.338	0.123	0.184	0.959	N	P	8657.664	1.371	5.119	-0.056	0.109	0.541	N
A	8556.837	1.241	4.316	0.123	0.191	0.947	N	A	8657.666	1.368	4.343	0.122	0.194	0.943	N

Long Term Photometry of Variables

Group 8008 P=HR2392
A=HR2379 B=HR2367 C=HR2305

Star	JD_{\odot}	X	V	$b-y$	m_1	c_1	Sys	Star	JD_{\odot}	X	V	$b-y$	m_1	c_1	Sys
A	8188.754	1.404	5.141	0.754	0.695	0.158	N	A	8259.728	1.075	5.144	0.756	0.690	0.164	N
P	8188.756	1.414	6.269	0.647	0.612	-0.181	N	P	8259.732	1.087	6.267	0.648	0.596	-0.168	N
B	8188.758	1.399	5.901	0.838	0.635	0.126	N	B	8259.736	1.105	5.897	0.839	0.634	0.123	N
C	8188.760	1.342	5.192	0.731	0.610	0.181	N	C	8259.739	1.110	5.193	0.731	0.610	0.178	N
B	8188.762	1.371	5.898	0.837	0.636	0.122	N	B	8259.743	1.119	5.896	0.838	0.634	0.126	N
P	8188.764	1.357	6.269	0.646	0.613	-0.184	N	P	8259.747	1.117	6.265	0.644	0.605	-0.179	N
A	8188.766	1.326	5.140	0.753	0.693	0.164	N	A	8259.750	1.120	5.138	0.753	0.694	0.160	N
A	8193.753	1.335	5.142	0.752	0.696	0.154	N	A	8281.651	1.055	5.140	0.758	0.688	0.167	N
P	8193.757	1.329	6.268	0.646	0.610	-0.184	N	P	8281.654	1.064	6.267	0.646	0.601	-0.186	N
B	8193.762	1.304	5.901	0.838	0.633	0.127	N	B	8281.655	1.074	5.902	0.838	0.631	0.122	N
C	8193.767	1.243	5.190	0.729	0.609	0.183	N	C	8281.656	1.072	5.195	0.732	0.610	0.180	N
B	8193.771	1.254	5.898	0.836	0.637	0.120	N	B	8281.659	1.079	5.900	0.839	0.634	0.124	N
P	8193.776	1.231	6.268	0.643	0.616	-0.190	N	P	8281.660	1.071	6.270	0.645	0.603	-0.179	N
A	8193.780	1.200	5.140	0.751	0.697	0.160	N	A	8281.662	1.067	5.145	0.756	0.691	0.166	N
A	8197.723	1.475	5.146	0.756	0.686	0.166	N	A	8283.573	1.092	5.153	0.757	0.691	0.167	N
P	8197.727	1.464	6.269	0.650	0.601	-0.176	N	P	8283.575	1.099	6.276	0.648	0.599	-0.175	N
B	8197.733	1.423	5.900	0.840	0.635	0.114	N	B	8283.576	1.100	5.905	0.840	0.633	0.129	N
C	8197.737	1.345	5.191	0.732	0.607	0.179	N	C	8283.578	1.080	5.204	0.734	0.613	0.173	N
B	8197.741	1.362	5.899	0.840	0.634	0.115	N	B	8283.579	1.095	5.906	0.840	0.634	0.124	N
P	8197.746	1.329	6.268	0.646	0.607	-0.179	N	P	8283.580	1.089	6.274	0.647	0.604	-0.181	N
A	8197.751	1.285	5.143	0.755	0.691	0.163	N	A	8283.581	1.077	5.151	0.756	0.696	0.160	N
A	8218.720	1.175	5.143	0.752	0.698	0.160	N	A	8285.707	1.214	5.140	0.752	0.700	0.153	N
P	8218.723	1.176	6.273	0.644	0.607	-0.178	N	P	8285.709	1.229	6.265	0.644	0.602	-0.176	N
B	8218.725	1.171	5.898	0.834	0.641	0.124	N	B	8285.711	1.256	5.898	0.836	0.637	0.118	N
C	8218.727	1.141	5.199	0.727	0.618	0.172	N	C	8285.712	1.269	5.196	0.731	0.613	0.181	N
P	8218.729	1.158	5.896	0.837	0.637	0.123	N	B	8285.715	1.277	5.895	0.836	0.636	0.118	N
B	8218.732	1.146	6.277	0.643	0.609	-0.177	N	P	8285.716	1.265	6.265	0.642	0.604	-0.178	N
A	8218.734	1.130	5.143	0.754	0.694	0.161	N	A	8285.718	1.268	5.140	0.751	0.701	0.155	N
A	8222.758	1.064	5.138	0.752	0.697	0.161	N	A	8287.568	1.081	5.149	0.755	0.692	0.168	N
P	8222.762	1.067	6.267	0.641	0.611	-0.188	N	P	8287.569	1.089	6.275	0.639	0.612	-0.181	N
B	8222.766	1.069	5.894	0.834	0.639	0.120	N	B	8287.570	1.092	5.906	0.837	0.636	0.120	N
C	8222.769	1.054	5.189	0.729	0.612	0.178	N	C	8287.571	1.074	5.199	0.732	0.610	0.184	N
B	8222.773	1.064	5.896	0.836	0.637	0.126	N	B	8287.572	1.088	5.906	0.836	0.640	0.102	N
P	8222.777	1.056	6.267	0.647	0.600	-0.170	N	P	8287.573	1.082	6.271	0.640	0.610	-0.185	N
A	8222.780	1.047	5.141	0.751	0.699	0.161	N	A	8287.574	1.072	5.146	0.752	0.699	0.155	N
A	8227.808	1.065	5.139	0.752	0.694	0.158	N	A	8289.653	1.088	5.130	0.754	0.693	0.160	N
P	8227.810	1.075	6.265	0.647	0.599	-0.170	N	P	8289.654	1.096	6.251	0.646	0.595	-0.179	N
B	8227.813	1.088	5.895	0.835	0.638	0.115	N	B	8289.655	1.109	5.881	0.836	0.631	0.124	N
C	8227.815	1.088	5.189	0.730	0.606	0.184	N	C	8289.656	1.111	5.184	0.731	0.610	0.182	N
B	8227.817	1.094	5.897	0.837	0.634	0.120	N	B	8289.657	1.114	5.885	0.837	0.634	0.131	N
P	8227.819	1.087	6.267	0.646	0.599	-0.174	N	P	8289.660	1.107	6.255	0.644	0.601	-0.179	N
A	8227.821	1.084	5.138	0.752	0.692	0.165	N	A	8289.661	1.103	5.134	0.756	0.690	0.161	N
A	8232.760	1.045	5.139	0.753	0.697	0.170	N	A	8291.654	1.101	5.151	0.756	0.694	0.158	N
P	8232.763	1.052	6.264	0.643	0.606	-0.172	N	P	8291.656	1.110	6.274	0.646	0.605	-0.192	N
B	8232.766	1.060	5.894	0.835	0.637	0.131	N	B	8291.657	1.124	5.912	0.834	0.644	0.100	N
C	8232.768	1.052	5.193	0.731	0.611	0.186	N	C	8291.658	1.128	5.206	0.732	0.608	0.188	N
B	8232.770	1.061	5.894	0.833	0.638	0.135	N	B	8291.659	1.130	5.909	0.837	0.634	0.117	N
P	8232.772	1.054	6.262	0.642	0.609	-0.176	N	P	8291.660	1.121	6.273	0.650	0.596	-0.174	N
A	8232.774	1.048	5.139	0.750	0.701	0.161	N	A	8291.661	1.117	5.154	0.754	0.698	0.149	N
A	8235.719	1.068	5.145	0.756	0.690	0.172	N	A	8293.637	1.080	5.146	0.753	0.697	0.161	N
P	8235.723	1.071	6.268	0.648	0.600	-0.170	N	P	8293.639	1.089	6.271	0.641	0.611	-0.192	N
B	8235.727	1.072	5.902	0.840	0.630	0.133	N	B	8293.641	1.104	5.902	0.837	0.636	0.128	N
C	8235.731	1.056	5.197	0.731	0.612	0.179	N	C	8293.644	1.107	5.193	0.730	0.607	0.189	N
B	8235.735	1.065	5.900	0.840	0.631	0.132	N	B	8293.646	1.112	5.898	0.836	0.639	0.118	N
P	8235.739	1.057	6.270	0.647	0.603	-0.174	N	P	8293.648	1.105	6.265	0.642	0.605	-0.176	N
A	8235.743	1.048	5.143	0.755	0.694	0.161	N	A	8293.649	1.103	5.141	0.753	0.696	0.165	N
A	8239.755	1.048	5.141	0.754	0.696	0.165	N	A	8538.845	1.158	5.129	0.751	0.697	0.155	N
P	8239.759	1.057	6.264	0.645	0.607	-0.179	N	P	8538.847	1.164	6.259	0.645	0.605	-0.182	N
B	8239.764	1.068	5.899	0.835	0.640	0.123	N	B	8538.850	1.157	5.882	0.837	0.634	0.120	N
C	8239.768	1.067	5.193	0.729	0.615	0.181	N	C	8538.852	1.129	5.185	0.730	0.611	0.179	N
B	8239.772	1.076	5.899	0.837	0.637	0.123	N	B	8538.854	1.145	5.880	0.833	0.642	0.110	N
P	8239.776	1.072	6.264	0.645	0.606	-0.175	N	P	8538.858	1.132	6.249	0.646	0.602	-0.176	N
A	8239.779	1.070	5.141	0.754	0.696	0.163	N	A	8549.784	1.296	5.148	0.753	0.697	0.157	N
A	8252.682	1.057	5.141	0.754	0.696	0.160	N	P	8549.788	1.294	6.275	0.646	0.606	-0.180	N
P	8252.687	1.062	6.268	0.644	0.612	-0.191	N	C	8549.790	1.248	5.202	0.728	0.620	0.145	N
B	8252.691	1.064	5.903	0.837	0.642	0.114	N	B	8549.793	1.270	5.903	0.838	0.635	0.119	N
C	8252.694	1.052	5.197	0.731	0.615	0.180	N	C	8549.796	1.221	5.201	0.727	0.618	0.170	N
B	8252.698	1.061	5.901	0.839	0.638	0.121	N	B	8549.800	1.236	5.905	0.837	0.637	0.122	N
P	8252.703	1.053	6.267	0.644	0.611	-0.182	N	P	8549.804	1.217	6.273	0.645	0.608	-0.181	N
A	8252.706	1.045	5.139	0.754	0.693	0.165	N	A	8549.807	1.188	5.146	0.752	0.697	0.157	N

Catalogue 1990–1992

Group 8008 P=HR2392 (continued)
A=HR2379 B=HR2367 C=HR2305

Star	JD_{\odot}	X	V	$b-y$	m_1	c_1	Sys	Star	JD_{\odot}	X	V	$b-y$	m_1	c_1	Sys
A	8561.803	1.105	5.138	0.754	0.696	0.158	N	A	8578.806	1.046	5.148	0.751	0.701	0.163	N
P	8561.807	1.108	6.263	0.648	0.607	-0.181	N	P	8578.810	1.053	6.276	0.642	0.617	-0.187	N
B	8561.811	1.103	5.892	0.839	0.636	0.126	N	B	8578.814	1.059	5.906	0.834	0.643	0.131	N
C	8561.814	1.080	5.192	0.731	0.613	0.174	N	C	8578.818	1.052	5.201	0.727	0.615	0.183	N
B	8561.818	1.090	5.894	0.841	0.633	0.130	N	B	8578.823	1.061	5.905	0.835	0.644	0.122	N
P	8561.822	1.080	6.267	0.648	0.604	-0.171	N	P	8578.828	1.056	6.274	0.643	0.615	-0.184	N
A	8561.826	1.066	5.137	0.754	0.696	0.157	N	A	8578.832	1.052	5.146	0.751	0.699	0.163	N
A	8566.792	1.101	5.129	0.744	0.696	0.165	N	A	8652.634	1.055	5.131	0.755	0.693	0.156	N
P	8566.795	1.104	6.255	0.638	0.607	-0.178	N	P	8652.636	1.063	6.261	0.646	0.608	-0.182	N
B	8566.800	1.099	5.888	0.830	0.634	0.125	N	B	8652.638	1.073	5.895	0.836	0.640	0.117	N
C	8566.803	1.077	5.185	0.723	0.607	0.191	N	C	8652.639	1.070	5.192	0.731	0.612	0.175	N
B	8566.807	1.088	5.888	0.826	0.641	0.122	N	B	8652.641	1.076	5.895	0.835	0.639	0.113	N
P	8566.811	1.077	6.256	0.636	0.609	-0.180	N	P	8652.642	1.068	6.259	0.647	0.607	-0.185	N
A	8566.815	1.063	5.129	0.744	0.696	0.160	N	A	8652.644	1.064	5.130	0.753	0.695	0.152	N
A	8574.765	1.113	5.149	0.752	0.698	0.161	N	A	8655.644	1.069	5.144	0.756	0.692	0.159	N
P	8574.769	1.114	6.272	0.645	0.612	-0.189	N	P	8655.646	1.077	6.270	0.645	0.608	-0.182	N
B	8574.774	1.108	5.904	0.836	0.643	0.114	N	B	8655.648	1.090	5.897	0.838	0.634	0.124	N
C	8574.778	1.083	5.194	0.729	0.612	0.180	N	C	8655.648	1.090	5.193	0.731	0.610	0.174	N
B	8574.782	1.093	5.899	0.834	0.645	0.115	N	B	8655.650	1.095	5.897	0.838	0.634	0.121	N
P	8574.786	1.082	6.265	0.641	0.614	-0.183	N	P	8655.652	1.088	6.268	0.647	0.606	-0.183	N
A	8574.790	1.068	5.138	0.750	0.701	0.159	N	A	8655.653	1.084	5.147	0.753	0.697	0.159	N

Long Term Photometry of Variables

Group 8009 P=HD 19014
A=HR 872 B=HR 715

Star	JD_{\odot}	X	V	$b - y$	m_1	c_1	Sys	Star	JD_{\odot}	X	V	$b - y$	m_1	c_1	Sys
A	8196.787	1.498	4.719	0.796	0.762	0.104	N	B	8286.554	1.536	5.995	0.651	0.522	0.268	N
P	8196.791	1.816	8.180	1.064	0.948	-0.291	N	A	8291.543	1.528	4.735	0.800	0.763	0.113	N
B	8196.798	1.527	5.981	0.651	0.522	0.266	N	P	8291.547	1.831	8.185	1.066	0.955	-0.289	N
A	8283.552	1.504	4.743	0.801	0.761	0.107	N	B	8291.551	1.561	5.993	0.652	0.526	0.266	N
P	8283.556	1.819	8.196	1.064	0.923	-0.319	N	A	8652.532	1.488	4.743	0.800	0.769	0.103	N
B	8283.558	1.525	5.995	0.655	0.526	0.259	N	P	8652.535	1.810	8.207	1.073	0.959	-0.187	N
P	8283.560	1.822	8.196	1.071	0.954	-0.225	N	B	8652.538	1.503	5.990	0.655	0.527	0.270	N
A	8283.563	1.524	4.741	0.799	0.766	0.101	N	A	8659.546	1.551	4.750	0.796	0.774	0.086	N
A	8286.550	1.515	4.737	0.798	0.762	0.117	N	P	8659.549	1.841	8.212	1.074	0.942	-0.299	N
P	8286.553	1.823	8.180	1.050	0.885	-0.459	N								

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Group 8010 P=HD 58368															
A=HR2778								B=HR2713							
Star	JD ₀	X	V	b-y	m ₁	c ₁	Sys	Star	JD ₀	X	V	b-y	m ₁	c ₁	Sys
A	8189.837	1.299	5.879	0.639	0.482	0.149	N	P	8252.788	1.299	7.984	0.587	0.542	0.022	N
P	8189.840	1.385	7.979	0.593	0.538	0.022	N	A	8252.792	1.244	5.884	0.642	0.489	0.156	N
B	8189.846	1.291	6.136	0.687	0.538	0.127	N	A	8284.692	1.216	5.878	0.643	0.475	0.159	N
A	8196.816	1.327	5.881	0.645	0.469	0.154	N	P	8284.695	1.287	7.978	0.592	0.533	0.014	N
P	8196.821	1.415	7.983	0.590	0.542	0.012	N	B	8284.698	1.281	6.135	0.690	0.528	0.132	N
B	8196.826	1.314	6.144	0.690	0.530	0.133	N	A	8289.674	1.208	5.876	0.646	0.465	0.162	N
A	8222.803	1.189	5.883	0.641	0.473	0.163	N	P	8289.678	1.280	7.978	0.592	0.530	0.031	N
P	8222.807	1.260	7.979	0.588	0.540	0.025	N	B	8289.681	1.275	6.142	0.687	0.531	0.137	N
B	8222.812	1.218	6.142	0.690	0.528	0.138	N	A	8556.806	1.460	5.879	0.642	0.469	0.156	N
P	8222.816	1.253	7.981	0.592	0.533	0.029	N	P	8556.810	1.565	7.977	0.590	0.534	0.011	N
B	8222.821	1.218	6.143	0.689	0.530	0.137	N	B	8556.816	1.423	6.148	0.688	0.527	0.133	N
P	8222.825	1.250	7.984	0.592	0.535	0.031	N	P	8556.822	1.485	7.984	0.588	0.536	0.021	N
A	8222.828	1.181	5.879	0.641	0.476	0.152	N	B	8556.827	1.369	6.144	0.685	0.532	0.133	N
A	8230.795	1.181	5.878	0.640	0.478	0.158	N	P	8556.831	1.432	7.976	0.587	0.541	0.011	N
P	8230.798	1.251	7.974	0.588	0.540	0.017	N	A	8556.835	1.306	5.874	0.639	0.478	0.140	N
B	8230.803	1.219	6.130	0.687	0.532	0.133	N	A	8574.826	1.204	5.880	0.640	0.485	0.154	N
P	8230.807	1.250	7.973	0.589	0.537	0.013	N	P	8574.830	1.277	7.975	0.587	0.541	0.026	N
B	8230.811	1.224	6.127	0.687	0.532	0.127	N	B	8574.834	1.226	6.130	0.685	0.536	0.128	N
P	8230.814	1.252	7.972	0.590	0.536	0.023	N	P	8574.838	1.265	7.975	0.585	0.544	0.014	N
A	8230.818	1.187	5.880	0.638	0.484	0.154	N	B	8574.843	1.220	6.129	0.683	0.535	0.132	N
A	8252.765	1.194	5.884	0.645	0.484	0.158	N	P	8574.846	1.256	7.967	0.587	0.541	0.027	N
P	8252.770	1.266	7.984	0.590	0.540	0.027	N	A	8574.850	1.181	5.874	0.640	0.483	0.155	N
B	8252.775	1.256	6.139	0.689	0.530	0.138	N	A	8657.625	1.181	5.874	0.638	0.477	0.150	N
P	8252.779	1.281	7.982	0.591	0.539	0.016	N	P	8657.627	1.253	7.968	0.590	0.539	0.021	N
B	8252.784	1.277	6.141	0.687	0.532	0.130	N	B	8657.630	1.218	6.128	0.687	0.534	0.135	N

Long Term Photometry of Variables

Group 8011									P=HD 44896						
A=HR2307									B=HR2329						
Star	JD _⊙	X	V	b-y	m ₁	c ₁	Sys	Star	JD _⊙	X	V	b-y	m ₁	c ₁	Sys
A	8185.733	1.434	6.316	0.533	0.353	0.255	N	P	8287.563	1.028	7.254	0.978	1.066	-0.404	N
P	8185.739	1.382	7.240	0.976	1.071	-0.411	N	A	8287.564	1.025	6.312	0.529	0.353	0.269	N
B	8185.745	1.349	6.231	0.812	0.781	0.131	N	A	8291.645	1.042	6.319	0.532	0.351	0.259	N
A	8193.685	1.683	6.323	0.530	0.356	0.257	N	P	8291.648	1.048	7.261	0.982	1.069	-0.417	N
P	8193.691	1.606	7.248	0.978	1.062	-0.398	N	B	8291.650	1.050	6.230	0.811	0.776	0.120	N
B	8193.696	1.562	6.231	0.809	0.784	0.126	N	A	8531.856	1.093	6.311	0.535	0.348	0.267	N
A	8198.648	2.029	6.316	0.532	0.350	0.255	N	P	8531.860	1.084	7.243	0.982	1.062	-0.389	N
P	8198.653	1.910	7.242	0.977	1.065	-0.421	N	B	8531.864	1.079	6.214	0.813	0.773	0.136	N
B	8198.659	1.832	6.227	0.811	0.775	0.130	N	A	8538.835	1.099	6.299	0.527	0.359	0.262	N
A	8218.702	1.135	6.310	0.530	0.354	0.267	N	P	8538.838	1.091	7.230	0.979	1.066	-0.405	N
P	8218.707	1.118	7.253	0.978	1.068	-0.408	N	B	8538.842	1.087	6.204	0.809	0.776	0.139	N
B	8218.712	1.109	6.222	0.809	0.784	0.125	N	A	8546.785	1.198	6.317	0.532	0.351	0.270	N
A	8227.845	1.095	6.313	0.525	0.360	0.255	N	P	8546.788	1.181	7.255	0.982	1.061	-0.395	N
P	8227.850	1.107	7.247	0.978	1.067	-0.400	N	B	8546.793	1.171	6.222	0.812	0.774	0.132	N
B	8227.854	1.116	6.221	0.809	0.778	0.126	N	A	8561.791	1.060	6.307	0.535	0.350	0.263	N
A	8238.744	1.001	6.311	0.529	0.354	0.257	N	P	8561.795	1.053	7.246	0.979	1.064	-0.385	N
P	8238.748	1.004	7.240	0.979	1.061	-0.404	N	B	8561.799	1.050	6.219	0.814	0.778	0.133	N
B	8238.753	1.007	6.224	0.809	0.778	0.131	N	A	8574.742	1.092	6.330	0.531	0.354	0.258	N
A	8255.692	1.001	6.308	0.528	0.355	0.251	N	P	8574.745	1.083	7.276	0.977	1.079	-0.435	N
P	8255.696	1.003	7.245	0.974	1.065	-0.405	N	B	8574.752	1.073	6.230	0.808	0.785	0.125	N
B	8255.701	1.006	6.214	0.808	0.776	0.129	N	A	8647.662	1.029	6.299	0.531	0.351	0.269	N
A	8283.582	1.018	6.317	0.535	0.353	0.251	N	P	8647.666	1.035	7.233	0.976	1.074	-0.421	N
P	8283.584	1.017	7.262	0.976	1.085	-0.408	N	B	8647.669	1.040	6.208	0.809	0.778	0.119	N
B	8283.585	1.019	6.226	0.815	0.770	0.138	N	A	8656.640	1.034	6.301	0.531	0.355	0.266	N
A	8287.557	1.035	6.314	0.528	0.361	0.252	N	P	8656.643	1.038	6.311	0.531	0.357	0.266	N
P	8287.559	1.033	7.254	0.976	1.076	-0.407	N	B	8656.644	1.042	7.249	0.981	1.060	-0.392	N
B	8287.560	1.035	6.225	0.811	0.780	0.114	N	A	8656.646	1.045	6.222	0.818	0.767	0.140	N

Catalogue 1990-1992

Group 8012 P=HD 60197															
A=HR2916								B=HR2942							
Star	JD_{\odot}	X	V	$b-y$	m_1	c_1	Sys	Star	JD_{\odot}	X	V	$b-y$	m_1	c_1	Sys
A	8187.766	1.541	5.771	0.614	0.470	0.233	N	B	8284.704	1.027	6.565	0.675	0.559	0.189	N
P	8187.769	1.480	7.744	1.021	1.007	-0.293	N	A	8289.663	1.004	5.762	0.613	0.467	0.239	N
B	8187.772	1.457	6.572	0.672	0.564	0.182	N	P	8289.665	1.005	7.714	1.021	1.018	-0.329	N
A	8194.760	1.436	5.778	0.620	0.463	0.241	N	B	8289.669	1.010	6.573	0.673	0.560	0.179	N
P	8194.766	1.368	7.722	1.022	1.013	-0.337	N	A	8547.814	1.291	5.753	0.614	0.466	0.243	N
B	8194.771	1.335	6.576	0.679	0.559	0.180	N	P	8547.818	1.253	7.725	1.021	1.022	-0.338	N
A	8199.739	1.507	5.766	0.614	0.466	0.242	N	B	8547.822	1.238	6.560	0.674	0.559	0.186	N
P	8199.743	1.438	7.713	1.020	1.004	-0.331	N	A	8555.782	1.361	5.775	0.615	0.464	0.247	N
A	8222.848	1.006	5.764	0.611	0.472	0.241	N	P	8555.786	1.308	7.733	1.027	1.003	-0.317	N
P	8222.852	1.008	7.703	1.021	1.009	-0.319	N	B	8555.791	1.287	6.580	0.673	0.561	0.185	N
B	8222.857	1.014	6.571	0.673	0.564	0.186	N	A	8562.832	1.072	5.774	0.618	0.462	0.247	N
A	8230.836	1.012	5.766	0.610	0.472	0.230	N	P	8562.836	1.058	7.721	1.026	1.017	-0.317	N
P	8230.839	1.015	7.718	1.020	1.007	-0.337	N	B	8562.840	1.058	6.581	0.678	0.557	0.187	N
B	8230.843	1.020	6.574	0.667	0.567	0.179	N	A	8646.674	1.001	5.757	0.618	0.462	0.238	N
A	8249.660	1.171	5.758	0.614	0.469	0.238	N	P	8646.675	1.000	7.726	1.016	1.022	-0.303	N
P	8249.663	1.144	7.724	1.021	1.019	-0.319	N	B	8646.676	1.005	6.568	0.673	0.564	0.181	N
B	8249.668	1.139	6.572	0.675	0.561	0.187	N	A	8656.751	1.200	5.761	0.611	0.469	0.249	N
A	8284.699	1.021	5.761	0.611	0.471	0.237	N	P	8656.753	1.210	7.706	1.019	1.025	-0.316	N
P	8284.701	1.024	7.726	1.021	1.016	-0.285	N	B	8656.755	1.198	6.564	0.674	0.562	0.182	N

Long Term Photometry of Variables

Group 8013 P=HD 92626															
A=HR4107								B=HR4139							
Star	JD_{\odot}	X	V	$b-y$	m_1	c_1	Sys	Star	JD_{\odot}	X	V	$b-y$	m_1	c_1	Sys
A	8249.781	1.219	5.545	0.938	0.851	-0.062	N	B	8415.562	1.333	5.910	0.546	0.373	0.266	N
P	8249.786	1.188	7.071	0.788	0.815	-0.427	N	A	8435.484	1.296	5.551	0.935	0.829	-0.061	N
B	8249.790	1.146	5.900	0.544	0.376	0.263	N	P	8435.486	1.228	7.083	0.785	0.818	-0.412	N
A	8284.826	1.134	5.548	0.941	0.837	-0.056	N	B	8435.489	1.251	5.912	0.541	0.385	0.250	N
P	8284.829	1.075	7.075	0.785	0.819	-0.421	N	A	8646.832	1.131	5.555	0.941	0.827	-0.050	N
B	8284.832	1.066	5.906	0.544	0.378	0.259	N	P	8646.834	1.071	7.075	0.792	0.800	-0.408	N
A	8289.834	1.166	5.551	0.943	0.833	-0.060	N	B	8646.835	1.060	5.924	0.548	0.371	0.261	N
P	8289.838	1.105	7.076	0.790	0.808	-0.417	N	A	8657.755	1.108	5.547	0.936	0.834	-0.073	N
B	8289.841	1.103	5.905	0.548	0.371	0.268	N	P	8657.759	1.057	7.075	0.787	0.814	-0.421	N
A	8415.554	1.350	5.538	0.934	0.817	-0.068	N	B	8657.762	1.036	5.917	0.549	0.372	0.259	N
P	8415.557	1.289	7.082	0.790	0.807	-0.401	N								

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Group 8034 P=HD121447
A=HR5246 B=HD117246

Star	JD_{\odot}	X	V	$b-y$	m_1	c_1	Sys	Star	JD_{\odot}	X	V	$b-y$	m_1	c_1	Sys
A	8283.833	1.169	6.104	0.851	0.749	0.112	N	A	8418.675	1.249	6.130	0.856	0.744	0.131	N
P	8283.835	1.178	7.823	1.077	1.158	-0.657	N	A	8437.592	1.128	6.121	0.856	0.743	0.127	N
B	8283.838	1.109	6.855	0.848	0.723	0.134	N	P	8437.596	1.167	7.826	1.074	1.161	-0.662	N
P	8283.839	1.164	7.830	1.072	1.169	-0.688	N	P	8437.606	1.208	7.827	1.077	1.152	-0.678	N
A	8283.840	1.142	6.113	0.856	0.738	0.117	N	B	8437.610	1.324	6.868	0.852	0.717	0.139	N
A	8286.852	1.084	6.106	0.856	0.740	0.109	N	P	8437.613	1.242	7.829	1.070	1.165	-0.695	N
P	8286.854	1.093	7.815	1.076	1.174	-0.758	N	A	8437.617	1.227	6.122	0.856	0.744	0.127	N
B	8286.858	1.049	6.846	0.850	0.715	0.124	N	A	8453.561	1.178	6.104	0.852	0.747	0.121	N
A	8288.878	1.027	6.140	0.862	0.739	0.118	N	P	8453.565	1.226	7.813	1.077	1.150	-0.675	N
P	8288.881	1.037	7.845	1.092	1.147	-0.682	N	P	8453.572	1.261	7.824	1.080	1.146	-0.717	N
A	8293.828	1.097	6.112	0.859	0.736	0.123	N	B	8453.575	1.393	6.834	0.855	0.712	0.143	N
P	8293.832	1.103	7.809	1.077	1.158	-0.720	N	P	8453.579	1.299	7.808	1.079	1.139	-0.687	N
B	8293.835	1.056	6.853	0.851	0.714	0.137	N	A	8453.583	1.280	6.100	0.854	0.741	0.131	N
P	8293.838	1.088	7.812	1.075	1.146	-0.685	N	A	8460.521	1.109	6.128	0.857	0.744	0.129	N
A	8293.841	1.068	6.116	0.856	0.736	0.122	N	P	8460.524	1.143	7.841	1.080	1.140	-0.639	N
A	8418.654	1.156	6.133	0.856	0.745	0.114	N	B	8460.527	1.226	6.854	0.852	0.711	0.142	N
P	8418.657	1.195	7.815	1.076	1.149	-0.714	N	P	8460.531	1.167	7.842	1.077	1.161	-0.713	N
B	8418.660	1.300	6.859	0.847	0.724	0.132	N	B	8460.533	1.257	6.861	0.851	0.715	0.147	N
P	8418.663	1.223	7.814	1.078	1.149	-0.703	N	P	8460.537	1.191	7.837	1.081	1.141	-0.664	N
B	8418.666	1.339	6.855	0.852	0.717	0.142	N	A	8460.542	1.181	6.130	0.859	0.740	0.132	N
P	8418.670	1.256	7.814	1.076	1.146	-0.710	N								

Long Term Photometry of Variables

Group 8036 P=HD 84678															
A=HD 74543								B=HD100901							
Star	JD_{\odot}	X	V	$b-y$	m_1	c_1	Sys	Star	JD_{\odot}	X	V	$b-y$	m_1	c_1	Sys
A	8193.826	1.561	6.804	0.624	0.457	0.305	N	P	8283.803	1.470	8.961	0.911	0.829	-0.479	N
P	8193.830	1.708	8.981	0.913	0.857	-0.420	N	B	8283.806	1.381	6.508	0.692	0.593	0.183	N
B	8193.834	2.056	6.513	0.689	0.597	0.173	N	A	8288.775	1.471	6.812	0.628	0.459	0.298	N
P	8193.839	1.678	8.975	0.911	0.838	-0.492	N	P	8288.779	1.461	8.985	0.910	0.826	-0.445	N
B	8193.845	1.987	6.518	0.687	0.599	0.165	N	B	8288.783	1.386	6.522	0.695	0.598	0.162	N
P	8193.849	1.646	8.986	0.903	0.834	-0.469	N	A	8294.743	1.447	6.807	0.633	0.443	0.313	N
A	8193.854	1.497	6.810	0.624	0.459	0.298	N	P	8294.747	1.451	8.975	0.910	0.828	-0.427	N
A	8250.741	1.434	6.802	0.623	0.460	0.296	N	B	8294.751	1.398	6.515	0.695	0.592	0.175	N
P	8250.745	1.527	8.972	0.901	0.833	-0.500	N	A	8657.717	1.417	6.813	0.629	0.457	0.305	N
B	8250.750	1.680	6.520	0.691	0.602	0.173	N	P	8657.721	1.445	8.975	0.912	0.821	-0.448	N
P	8250.754	1.511	8.977	0.902	0.835	-0.484	N	B	8657.725	1.440	6.515	0.694	0.599	0.176	N
B	8250.759	1.644	6.525	0.690	0.605	0.164	N	P	8657.728	1.445	8.983	0.905	0.849	-0.472	N
P	8250.764	1.497	8.982	0.901	0.842	-0.463	N	B	8657.731	1.431	6.518	0.695	0.594	0.182	N
A	8250.769	1.412	6.809	0.627	0.459	0.299	N	P	8657.734	1.446	8.979	0.904	0.838	-0.448	N
A	8283.799	1.489	6.803	0.625	0.450	0.320	N	A	8657.737	1.433	6.807	0.629	0.458	0.305	N

Catalogue 1990-1992

Group 8037 P=HD 88562															
A=HR3977								B=HR4034							
Star	JD_{\odot}	X	V	$b-y$	m_1	c_1	Sys	Star	JD_{\odot}	X	V	$b-y$	m_1	c_1	Sys
A	8249.753	1.268	5.558	0.900	0.869	0.081	N	B	8288.800	1.076	6.081	0.656	0.503	0.207	N
P	8249.758	1.274	8.535	0.851	0.788	-0.126	N	A	8294.759	1.028	5.545	0.902	0.864	0.075	N
B	8249.763	1.304	6.071	0.654	0.505	0.199	N	P	8294.763	1.033	8.534	0.852	0.784	-0.109	N
A	8258.705	1.433	5.555	0.899	0.863	0.079	N	B	8294.766	1.058	6.068	0.655	0.498	0.213	N
P	8258.709	1.443	8.530	0.855	0.783	-0.118	N	A	8646.762	1.028	5.545	0.899	0.864	0.077	N
B	8258.713	1.485	6.063	0.655	0.500	0.202	N	P	8646.767	1.032	8.529	0.853	0.779	-0.081	N
A	8283.813	1.053	5.539	0.897	0.868	0.072	N	B	8646.770	1.056	6.070	0.652	0.505	0.191	N
P	8283.816	1.058	8.531	0.849	0.793	-0.134	N	A	8653.858	1.230	5.535	0.894	0.872	0.070	N
B	8283.818	1.083	6.055	0.651	0.502	0.205	N	P	8653.864	1.251	8.510	0.857	0.784	-0.113	N
A	8288.791	1.042	5.559	0.899	0.871	0.066	N	B	8653.867	1.294	6.051	0.649	0.507	0.200	N
P	8288.795	1.048	8.547	0.853	0.785	-0.106	N								

Long Term Photometry of Variables

Group 8038 P=HD 35155															
A=HR1784								B=HD 37828							
Star	JD ₀	X	V	b-y	m ₁	c ₁	Sys	Star	JD ₀	X	V	b-y	m ₁	c ₁	Sys
A	8168.813	1.195	4.129	0.565	0.390	0.273	N	P	8281.591	1.071	6.840	1.146	0.713	0.016	N
P	8168.815	1.175	6.891	1.141	0.682	-0.154	N	A	8281.594	1.078	4.127	0.566	0.392	0.269	N
B	8168.818	1.186	6.865	0.716	0.338	0.316	N	A	8284.559	1.078	4.136	0.567	0.391	0.274	N
P	8168.822	1.155	6.892	1.138	0.686	-0.154	N	P	8284.560	1.071	6.852	1.144	0.727	0.004	N
A	8168.825	1.158	4.135	0.563	0.394	0.267	N	B	8284.562	1.061	6.868	0.717	0.343	0.314	N
A	8172.775	1.318	4.121	0.564	0.388	0.273	N	P	8284.564	1.070	6.844	1.144	0.732	-0.021	N
P	8172.778	1.288	6.902	1.133	0.641	-0.316	N	A	8284.566	1.076	4.136	0.566	0.394	0.267	N
B	8172.781	1.312	6.858	0.712	0.339	0.323	N	A	8286.563	1.075	4.138	0.566	0.388	0.276	N
P	8172.784	1.254	6.900	1.129	0.643	-0.355	N	P	8286.565	1.069	6.852	1.144	0.725	-0.053	N
A	8172.788	1.253	4.128	0.562	0.392	0.266	N	B	8286.566	1.055	6.873	0.714	0.341	0.320	N
A	8185.862	1.082	4.131	0.562	0.397	0.267	N	A	8288.557	1.075	4.130	0.561	0.395	0.266	N
P	8185.868	1.083	6.943	1.142	0.660	-0.104	N	P	8288.559	1.069	6.849	1.143	0.724	-0.024	N
B	8185.871	1.058	6.860	0.714	0.343	0.312	N	B	8288.562	1.054	6.861	0.713	0.340	0.298	N
P	8185.876	1.093	6.941	1.143	0.663	-0.115	N	P	8288.564	1.069	6.848	1.144	0.720	-0.013	N
A	8185.880	1.103	4.131	0.562	0.398	0.262	N	A	8288.566	1.075	4.126	0.560	0.397	0.260	N
A	8187.708	1.493	4.131	0.566	0.394	0.263	N	A	8291.560	1.076	4.137	0.568	0.387	0.271	N
P	8187.711	1.442	6.922	1.142	0.655	-0.228	N	P	8291.563	1.071	6.855	1.143	0.725	-0.045	N
B	8187.714	1.495	6.865	0.714	0.345	0.309	N	B	8291.565	1.052	6.872	0.713	0.343	0.312	N
P	8187.717	1.402	6.921	1.139	0.661	-0.219	N	P	8291.567	1.073	6.854	1.144	0.718	-0.048	N
B	8187.720	1.438	6.867	0.713	0.346	0.309	N	A	8291.569	1.080	4.139	0.565	0.392	0.268	N
P	8187.723	1.357	6.923	1.140	0.659	-0.200	N	A	8294.564	1.083	4.130	0.568	0.385	0.279	N
A	8187.725	1.362	4.134	0.565	0.393	0.265	N	P	8294.567	1.080	6.842	1.142	0.711	-0.039	N
A	8191.692	1.567	4.132	0.566	0.386	0.269	N	B	8294.570	1.056	6.865	0.713	0.344	0.319	N
P	8191.695	1.512	6.902	1.141	0.673	-0.157	N	P	8294.572	1.085	6.841	1.145	0.708	-0.030	N
B	8191.698	1.558	6.865	0.715	0.340	0.308	N	A	8294.574	1.092	4.128	0.566	0.389	0.266	N
P	8191.703	1.443	6.904	1.143	0.674	-0.102	N	A	8496.857	1.513	4.131	0.567	0.387	0.265	N
A	8191.706	1.441	4.134	0.565	0.388	0.270	N	P	8496.860	1.465	6.880	1.133	0.685	-0.258	N
A	8195.677	1.612	4.131	0.567	0.389	0.259	N	B	8496.865	1.493	6.871	0.714	0.341	0.314	N
P	8195.680	1.553	6.905	1.144	0.675	-0.141	N	P	8496.870	1.391	6.881	1.134	0.677	-0.250	N
B	8195.685	1.581	6.866	0.717	0.339	0.308	N	A	8496.873	1.385	4.136	0.565	0.392	0.262	N
P	8195.691	1.450	6.907	1.146	0.678	-0.126	N	P	8506.877	1.213	6.799	1.135	0.712	-0.169	N
A	8195.695	1.439	4.129	0.566	0.390	0.264	N	P	8506.887	1.178	6.805	1.133	0.716	-0.182	N
A	8198.665	1.650	4.130	0.563	0.391	0.264	N	A	8512.884	1.148	4.127	0.567	0.384	0.274	N
P	8198.668	1.586	6.935	1.139	0.652	-0.276	N	P	8512.887	1.131	6.802	1.136	0.737	-0.148	N
B	8198.681	1.538	6.859	0.717	0.336	0.310	N	B	8512.892	1.132	6.862	0.710	0.340	0.318	N
P	8198.688	1.416	6.933	1.142	0.658	-0.179	N	P	8512.896	1.112	6.802	1.135	0.742	-0.163	N
A	8198.692	1.406	4.128	0.566	0.386	0.274	N	A	8512.900	1.114	4.127	0.566	0.385	0.275	N
A	8215.738	1.086	4.133	0.563	0.392	0.266	N	A	8517.843	1.244	4.126	0.561	0.391	0.270	N
P	8215.743	1.075	6.896	1.137	0.677	-0.181	N	P	8517.846	1.218	6.819	1.134	0.719	-0.180	N
B	8215.749	1.064	6.862	0.715	0.339	0.322	N	B	8517.852	1.226	6.860	0.711	0.340	0.320	N
P	8215.753	1.070	6.892	1.137	0.677	-0.176	N	P	8517.856	1.183	6.822	1.134	0.721	-0.196	N
A	8215.758	1.075	4.129	0.566	0.387	0.274	N	A	8517.860	1.181	4.125	0.565	0.387	0.269	N
A	8219.658	1.272	4.130	0.562	0.395	0.264	N	A	8522.866	1.130	4.128	0.568	0.387	0.270	N
P	8219.661	1.242	6.849	1.138	0.716	-0.063	N	P	8522.868	1.115	6.878	1.142	0.691	-0.137	N
B	8219.666	1.254	6.863	0.711	0.347	0.316	N	B	8522.873	1.114	6.866	0.714	0.342	0.319	N
P	8219.671	1.203	6.849	1.139	0.712	-0.075	N	P	8522.878	1.098	6.883	1.136	0.700	-0.167	N
A	8219.674	1.203	4.132	0.564	0.391	0.276	N	A	8522.881	1.101	4.132	0.564	0.393	0.263	N
A	8227.609	1.443	4.141	0.568	0.389	0.265	N	A	8524.811	1.313	4.127	0.563	0.395	0.266	N
P	8227.612	1.400	6.856	1.142	0.682	-0.178	N	P	8524.814	1.283	6.893	1.141	0.701	-0.138	N
B	8227.616	1.429	6.865	0.718	0.338	0.309	N	B	8524.818	1.302	6.865	0.713	0.342	0.314	N
P	8227.621	1.340	6.853	1.140	0.695	-0.172	N	P	8524.823	1.241	6.896	1.139	0.708	-0.094	N
A	8227.624	1.338	4.133	0.567	0.388	0.266	N	A	8524.826	1.241	4.131	0.564	0.394	0.261	N
A	8232.618	1.296	4.137	0.567	0.389	0.269	N	A	8526.824	1.224	4.134	0.565	0.391	0.271	N
P	8232.621	1.264	6.851	1.142	0.710	-0.093	N	P	8526.827	1.202	6.904	1.142	0.687	-0.146	N
B	8232.625	1.284	6.868	0.713	0.341	0.319	N	B	8526.831	1.212	6.866	0.717	0.341	0.319	N
P	8232.629	1.229	6.851	1.143	0.716	-0.062	N	P	8526.836	1.170	6.903	1.139	0.691	-0.147	N
A	8232.632	1.230	4.135	0.565	0.393	0.266	N	A	8526.839	1.172	4.132	0.565	0.394	0.260	N
A	8238.633	1.168	4.133	0.566	0.387	0.274	N	A	8530.859	1.103	4.132	0.573	0.384	0.271	N
P	8238.636	1.148	6.827	1.142	0.713	-0.151	N	P	8530.861	1.091	6.910	1.148	0.675	-0.147	N
B	8238.640	1.153	6.867	0.716	0.340	0.320	N	B	8530.865	1.087	6.866	0.721	0.333	0.326	N
P	8238.645	1.127	6.827	1.141	0.718	-0.133	N	P	8530.870	1.081	6.910	1.146	0.685	-0.139	N
A	8238.648	1.128	4.130	0.565	0.391	0.264	N	A	8530.873	1.086	4.133	0.571	0.390	0.263	N
A	8249.575	1.277	4.115	0.564	0.388	0.266	N	A	8535.827	1.139	4.131	0.562	0.390	0.266	N
P	8249.578	1.248	6.939	1.145	0.654	-0.011	N	P	8535.831	1.122	6.901	1.137	0.689	-0.127	N
B	8249.583	1.263	6.856	0.714	0.339	0.316	N	B	8535.835	1.122	6.864	0.708	0.347	0.309	N
P	8249.587	1.210	6.940	1.142	0.664	-0.017	N	P	8535.839	1.105	6.899	1.139	0.692	-0.126	N
A	8249.590	1.212	4.114	0.563	0.391	0.264	N	A	8535.842	1.108	4.124	0.564	0.391	0.259	N
A	8281.585	1.075	4.127	0.566	0.392	0.268	N	A	8539.784	1.251	4.112	0.568	0.395	0.257	N
P	8281.588	1.070	6.835	1.149	0.714	0.027	N	P	8539.786	1.225	6.829	1.144	0.703	-0.117	N
B	8281.589	1.052	6.859	0.716	0.339	0.326	N	B	8539.791	1.236	6.844	0.715	0.350	0.308	N

Catalogue 1990–1992

Group 8038 P=HD 35155 (continued)
A=HR1784 B=HD 37828

Star	JD_{\odot}	X	V	$b-y$	m_1	c_1	Sys	Star	JD_{\odot}	X	V	$b-y$	m_1	c_1	Sys
P	8539.795	1.191	6.828	1.141	0.717	-0.140	N	P	8566.723	1.191	6.794	1.128	0.711	-0.157	N
A	8539.799	1.191	4.106	0.567	0.397	0.260	N	B	8566.728	1.200	6.851	0.706	0.348	0.311	N
A	8547.732	1.433	4.124	0.566	0.391	0.271	N	P	8566.732	1.163	6.798	1.126	0.710	-0.178	N
P	8547.734	1.394	6.749	1.132	0.739	-0.211	N	A	8566.736	1.163	4.116	0.559	0.395	0.262	N
B	8547.739	1.420	6.858	0.710	0.348	0.311	N	A	8572.740	1.115	4.131	0.564	0.390	0.267	N
P	8547.743	1.336	6.747	1.132	0.737	-0.209	N	P	8572.742	1.101	6.780	1.131	0.711	-0.194	N
A	8547.746	1.336	4.122	0.564	0.391	0.269	N	B	8572.746	1.100	6.869	0.711	0.343	0.322	N
A	8558.705	1.413	4.146	0.565	0.391	0.267	N	P	8572.751	1.089	6.779	1.127	0.694	-0.279	N
P	8558.707	1.377	6.887	1.131	0.684	-0.185	N	B	8572.755	1.084	6.869	0.713	0.342	0.319	N
B	8558.712	1.402	6.876	0.711	0.340	0.318	N	A	8572.758	1.088	4.132	0.562	0.393	0.266	N
P	8558.716	1.323	6.886	1.131	0.689	-0.167	N	A	8576.772	1.075	4.134	0.564	0.392	0.269	N
A	8558.719	1.323	4.140	0.563	0.392	0.271	N	P	8576.774	1.069	6.804	1.129	0.708	-0.239	N
A	8562.738	1.189	4.147	0.565	0.395	0.259	N	B	8576.778	1.053	6.866	0.714	0.344	0.319	N
P	8562.741	1.169	6.856	1.133	0.701	-0.199	N	P	8576.782	1.071	6.805	1.128	0.712	-0.219	N
B	8562.745	1.175	6.870	0.714	0.339	0.320	N	A	8576.786	1.078	4.131	0.565	0.391	0.268	N
P	8562.749	1.144	6.855	1.136	0.700	-0.184	N	A	8652.548	1.080	4.133	0.569	0.389	0.270	N
A	8562.753	1.144	4.139	0.570	0.380	0.282	N	P	8652.550	1.072	6.819	1.128	0.650	-0.341	N
A	8566.721	1.213	4.116	0.560	0.388	0.281	N	B	8652.553	1.063	6.869	0.719	0.339	0.323	N

Long Term Photometry of Variables

Group 8039 P=HD154430															
A=HR6384								B=HR6295							
Star	JD_{\odot}	X	V	$b-y$	m_1	c_1	Sys	Star	JD_{\odot}	X	V	$b-y$	m_1	c_1	Sys
A	8486.532	1.133	6.089	1.251	0.390	-0.111	N	B	8510.574	1.385	4.030	0.870	0.833	0.070	N
P	8486.539	1.165	8.717	0.959	0.854	-0.132	N	A	8511.582	1.406	6.114	1.252	0.379	-0.088	N
B	8486.544	1.116	4.026	0.870	0.826	0.083	N	P	8511.586	1.460	8.717	0.958	0.869	-0.228	N
A	8494.538	1.158	6.089	1.248	0.394	-0.154	N	B	8511.591	1.494	4.030	0.868	0.834	0.063	N
P	8494.542	1.193	8.770	0.960	0.882	-0.251	N	A	8517.531	1.277	6.101	1.256	0.392	-0.062	N
B	8494.547	1.154	4.033	0.870	0.834	0.074	N	P	8517.535	1.322	8.725	0.959	0.861	-0.215	N
A	8497.542	1.175	6.089	1.247	0.395	-0.156	N	B	8517.539	1.317	4.036	0.869	0.834	0.074	N
P	8497.546	1.213	8.715	0.956	0.882	-0.246	N	A	8522.543	1.373	6.089	1.251	0.405	-0.086	N
B	8497.551	1.179	4.028	0.868	0.834	0.076	N	P	8522.548	1.427	8.724	0.960	0.867	-0.278	N
A	8507.500	1.155	6.130	1.250	0.376	-0.149	N	B	8522.551	1.442	4.036	0.865	0.836	0.069	N
P	8507.504	1.190	8.727	0.962	0.873	-0.207	N	A	8525.501	1.255	6.078	1.252	0.408	-0.116	N
B	8507.509	1.151	4.031	0.869	0.835	0.073	N	P	8525.505	1.301	8.725	0.956	0.883	-0.241	N
A	8510.565	1.325	6.120	1.251	0.381	-0.090	N	B	8525.510	1.289	4.028	0.870	0.833	0.076	N
P	8510.569	1.374	8.721	0.959	0.875	-0.231	N								

Catalogue 1990-1992

Group 8040 P=BD-08 1900
A=HD 59671 B=HR2876

Star	JD _⊙	X	V	b - y	m ₁	c ₁	Sys	Star	JD _⊙	X	V	b - y	m ₁	c ₁	Sys
A	8190.778	1.541	7.567	0.799	0.663	0.079	N	B	8255.805	1.186	6.234	0.710	0.574	0.117	N
P	8190.782	1.481	9.958	1.345	1.331	-0.926	N	P	8255.808	1.179	9.814	1.350	1.248	-0.811	N
B	8190.786	1.529	6.233	0.715	0.569	0.121	N	A	8255.813	1.179	7.574	0.793	0.664	0.079	N
P	8190.792	1.404	9.959	1.333	1.324	-0.904	N	A	8283.718	1.125	7.569	0.793	0.662	0.086	N
A	8190.796	1.388	7.569	0.798	0.660	0.086	N	P	8283.722	1.150	9.987	1.340	1.439	-0.778	N
A	8196.831	1.161	7.572	0.797	0.663	0.087	N	B	8283.726	1.178	6.232	0.706	0.575	0.127	N
P	8196.836	1.141	9.935	1.342	1.239	-0.848	N	P	8283.728	1.167	9.985	1.333	1.353	-0.563	N
B	8196.842	1.164	6.236	0.713	0.571	0.128	N	A	8283.731	1.160	7.560	0.799	0.656	0.098	N
P	8196.847	1.116	9.943	1.327	1.282	-0.795	N	A	8286.691	1.091	7.560	0.796	0.658	0.109	N
A	8196.853	1.106	7.575	0.799	0.659	0.085	N	P	8286.696	1.111	9.993	1.339	1.477	-1.403	N
A	8200.776	1.363	7.573	0.796	0.660	0.091	N	B	8286.701	1.139	6.226	0.709	0.573	0.124	N
P	8200.781	1.316	9.927	1.332	1.363	-1.408	N	A	8289.642	1.067	7.551	0.795	0.657	0.066	N
B	8200.788	1.338	6.235	0.709	0.575	0.122	N	P	8289.646	1.072	9.983	1.353	1.450	-0.380	N
P	8200.794	1.253	9.929	1.335	1.317	-0.994	N	B	8289.651	1.096	6.218	0.710	0.567	0.145	N
A	8200.799	1.235	7.568	0.797	0.662	0.076	N	A	8293.701	1.153	7.566	0.794	0.657	0.081	N
A	8217.843	1.066	7.562	0.791	0.664	0.082	N	P	8293.706	1.187	9.997	1.350	1.389	-0.754	N
P	8217.849	1.074	9.914	1.340	1.406	-0.630	N	B	8293.711	1.218	6.233	0.710	0.575	0.128	N
B	8217.853	1.098	6.228	0.705	0.583	0.114	N	A	8546.809	1.501	7.587	0.800	0.654	0.092	N
A	8217.865	1.076	7.565	0.800	0.673	0.119	N	P	8546.813	1.446	9.910	1.366	1.454	-0.586	N
A	8226.738	1.203	7.566	0.792	0.659	0.083	N	B	8546.816	1.500	6.253	0.714	0.568	0.123	N
P	8226.743	1.180	9.930	1.338	1.302	-0.442	N	P	8546.819	1.401	9.910	1.355	1.450	-0.668	N
B	8226.747	1.210	6.230	0.712	0.565	0.135	N	A	8555.806	1.340	7.584	0.792	0.665	0.080	N
P	8226.750	1.158	9.923	1.333	1.359	-0.949	N	P	8555.811	1.300	9.887	1.350	1.444	-0.945	N
A	8226.755	1.148	7.564	0.795	0.659	0.087	N	B	8555.815	1.340	6.247	0.711	0.570	0.126	N
A	8230.773	1.090	7.561	0.793	0.663	0.082	N	P	8555.820	1.256	9.873	1.346	1.506	-0.270	N
P	8230.778	1.084	9.946	1.336	1.303	-0.537	N	A	8555.825	1.244	7.577	0.795	0.660	0.078	N
B	8230.782	1.109	6.230	0.709	0.574	0.128	N	A	8561.829	1.168	7.558	0.801	0.650	0.090	N
P	8230.786	1.078	9.936	1.336	1.419	-1.201	N	P	8561.834	1.149	9.852	1.363	1.436	-0.765	N
A	8230.790	1.072	7.564	0.792	0.662	0.083	N	B	8561.840	1.171	6.231	0.709	0.574	0.133	N
A	8233.732	1.161	7.559	0.798	0.654	0.082	N	P	8561.844	1.125	9.848	1.355	1.481	-0.334	N
P	8233.740	1.136	9.946	1.338	1.323	-0.349	N	A	8561.848	1.117	7.561	0.797	0.658	0.080	N
B	8233.745	1.162	6.228	0.708	0.573	0.122	N	A	8574.798	1.156	7.560	0.793	0.668	0.074	N
P	8233.748	1.117	9.949	1.329	1.384	-0.391	N	P	8574.802	1.141	9.856	1.353	1.674	0.282	N
A	8233.753	1.110	7.560	0.794	0.656	0.093	N	B	8574.806	1.169	6.230	0.705	0.582	0.123	N
A	8244.727	1.103	7.563	0.794	0.656	0.103	N	P	8574.810	1.123	9.849	1.354	1.474	-0.632	N
P	8244.732	1.095	9.907	1.344	1.354	-0.605	N	B	8574.815	1.148	6.227	0.708	0.578	0.124	N
B	8244.736	1.121	6.227	0.711	0.567	0.126	N	A	8574.820	1.106	7.559	0.790	0.667	0.084	N
P	8244.740	1.086	9.905	1.347	1.331	-0.155	N	A	8651.723	1.157	7.558	0.796	0.668	0.052	N
A	8244.744	1.079	7.565	0.793	0.655	0.096	N	P	8651.728	1.193	9.909	1.345	1.401	-1.005	N
A	8255.796	1.128	7.572	0.795	0.658	0.097	N	B	8651.731	1.221	6.214	0.707	0.574	0.116	N
P	8255.800	1.157	9.818	1.334	1.317	-0.798	N								

Long Term Photometry of Variables

Group 8041 P=HR3123															
A=HR3096 B=HR3068															
Star	JD_{\odot}	X	V	$b-y$	m_1	c_1	Sys	Star	JD_{\odot}	X	V	$b-y$	m_1	c_1	Sys
A	8228.837	1.001	6.414	0.885	0.846	0.074	N	A	8290.730	1.076	6.414	0.885	0.847	0.063	N
P	8228.841	1.007	5.077	0.668	0.496	0.181	N	A	8536.887	1.148	6.408	0.890	0.833	0.043	N
B	8228.844	1.015	5.604	0.570	0.424	0.255	N	P	8536.888	1.172	5.064	0.675	0.480	0.176	N
P	8228.845	1.009	5.075	0.668	0.498	0.174	N	B	8536.890	1.156	5.605	0.572	0.433	0.245	N
A	8228.848	1.006	6.414	0.885	0.849	0.075	N	P	8536.891	1.160	5.063	0.673	0.485	0.169	N
A	8234.807	1.001	6.429	0.892	0.845	0.068	N	A	8536.893	1.128	6.412	0.890	0.846	0.066	N
P	8234.811	1.006	5.089	0.675	0.495	0.170	N	A	8547.857	1.150	6.405	0.886	0.833	0.062	N
B	8234.814	1.011	5.621	0.575	0.423	0.253	N	P	8547.860	1.168	5.070	0.668	0.493	0.169	N
P	8234.816	1.006	5.088	0.677	0.492	0.178	N	B	8547.862	1.150	5.606	0.570	0.428	0.260	N
A	8234.819	1.001	6.427	0.893	0.840	0.077	N	P	8547.864	1.152	5.071	0.668	0.490	0.180	N
A	8256.716	1.021	6.398	0.896	0.843	0.072	N	A	8547.867	1.118	6.407	0.885	0.833	0.061	N
P	8256.721	1.027	5.057	0.680	0.491	0.172	N	A	8558.828	1.149	6.418	0.886	0.835	0.071	N
B	8256.724	1.023	5.597	0.576	0.434	0.232	N	P	8558.832	1.165	5.081	0.669	0.493	0.173	N
P	8256.727	1.019	5.061	0.682	0.492	0.172	N	B	8558.835	1.145	5.616	0.567	0.434	0.246	N
A	8256.730	1.008	6.399	0.903	0.833	0.087	N	P	8558.837	1.146	5.080	0.670	0.492	0.169	N
A	8281.720	1.018	6.425	0.887	0.844	0.073	N	A	8558.841	1.109	6.416	0.885	0.837	0.058	N
P	8281.722	1.024	5.077	0.670	0.490	0.177	N	A	8647.725	1.027	6.394	0.882	0.840	0.061	N
B	8281.723	1.037	5.616	0.567	0.437	0.255	N	P	8647.728	1.034	5.058	0.669	0.496	0.173	N
P	8281.726	1.029	5.075	0.668	0.494	0.173	N	B	8647.730	1.049	5.593	0.565	0.437	0.254	N
A	8281.728	1.027	6.426	0.884	0.851	0.066	N	P	8647.731	1.038	5.062	0.667	0.495	0.180	N
A	8286.703	1.015	6.418	0.887	0.846	0.067	N	A	8647.732	1.036	6.393	0.881	0.836	0.062	N
P	8286.705	1.021	5.069	0.670	0.493	0.169	N	P	8653.808	1.428	5.074	0.663	0.503	0.161	N
B	8286.707	1.034	5.602	0.568	0.434	0.248	N	P	8653.811	1.455	5.068	0.669	0.497	0.172	N
A	8290.723	1.060	6.412	0.887	0.848	0.069	N	B	8653.814	1.542	5.603	0.568	0.437	0.238	N
P	8290.726	1.070	5.069	0.671	0.490	0.177	N	P	8653.817	1.499	5.071	0.667	0.494	0.165	N
B	8290.728	1.093	5.603	0.566	0.438	0.242	N	A	8653.819	1.486	6.404	0.882	0.834	0.059	N
P	8290.730	1.079	5.068	0.668	0.498	0.163	N								

Catalogue 1990–1992

Group 8047 P=HD324924
A=HD166083 B=HD165929

Star	JD_{\odot}	X	V	$b-y$	m_1	c_1	Sys	Star	JD_{\odot}	X	V	$b-y$	m_1	c_1	Sys
A	8418.838	1.163	9.135	0.209	0.187	0.625	N	P	8501.545	1.030	10.734	0.860	0.267	-0.160	N
P	8418.842	1.181	10.717	0.845	0.270	-0.170	N	B	8501.551	1.036	9.482	0.600	0.410	0.250	N
B	8418.846	1.192	9.493	0.596	0.416	0.260	N	P	8501.555	1.042	10.742	0.859	0.266	-0.186	N
P	8418.850	1.210	10.734	0.858	0.263	-0.193	N	B	8501.561	1.049	9.487	0.598	0.418	0.232	N
B	8418.856	1.233	9.500	0.596	0.412	0.241	N	P	8501.566	1.059	10.740	0.861	0.256	-0.165	N
P	8418.860	1.255	10.746	0.851	0.279	-0.200	N	A	8501.574	1.071	9.181	0.226	0.180	0.593	N
A	8418.865	1.275	9.145	0.206	0.187	0.643	N	A	8507.515	1.017	9.194	0.223	0.186	0.595	N
A	8449.710	1.053	9.141	0.213	0.180	0.646	N	P	8507.520	1.021	10.659	0.861	0.269	-0.149	N
P	8449.714	1.063	10.887	0.861	0.270	-0.154	N	B	8507.526	1.026	9.482	0.605	0.411	0.252	N
B	8449.723	1.080	9.485	0.601	0.412	0.251	N	P	8507.530	1.031	10.657	0.869	0.260	-0.174	N
P	8449.727	1.091	10.883	0.857	0.284	-0.193	N	B	8507.535	1.037	9.477	0.601	0.415	0.260	N
B	8449.736	1.112	9.483	0.606	0.408	0.241	N	P	8507.539	1.043	10.666	0.855	0.267	-0.160	N
P	8449.741	1.126	10.888	0.858	0.269	-0.166	N	A	8507.545	1.049	9.185	0.227	0.173	0.603	N
A	8449.750	1.149	9.121	0.208	0.188	0.642	N	A	8510.626	1.371	9.171	0.221	0.178	0.615	N
A	8455.665	1.020	9.138	0.200	0.191	0.651	N	P	8510.630	1.407	10.648	0.851	0.264	-0.190	N
P	8455.671	1.026	10.902	0.843	0.301	-0.177	N	B	8510.635	1.430	9.493	0.594	0.420	0.254	N
B	8455.676	1.030	9.490	0.593	0.419	0.269	N	P	8510.639	1.466	10.654	0.858	0.252	-0.161	N
P	8455.680	1.037	10.885	0.845	0.279	-0.163	N	B	8510.644	1.506	9.493	0.600	0.410	0.240	N
B	8455.689	1.049	9.499	0.594	0.417	0.252	N	P	8510.648	1.548	10.650	0.857	0.269	-0.184	N
P	8455.695	1.058	10.905	0.867	0.279	-0.217	N	A	8510.652	1.573	9.173	0.220	0.178	0.615	N
A	8455.699	1.063	9.134	0.197	0.192	0.665	N	A	8517.550	1.122	9.135	0.215	0.193	0.611	N
A	8491.591	1.052	9.130	0.201	0.183	0.664	N	P	8517.554	1.138	10.649	0.871	0.224	-0.077	N
P	8491.597	1.064	10.812	0.859	0.262	-0.183	N	B	8517.560	1.154	9.492	0.603	0.413	0.247	N
B	8491.604	1.075	9.486	0.604	0.402	0.247	N	P	8517.565	1.175	10.660	0.875	0.222	-0.098	N
P	8491.609	1.088	10.809	0.875	0.244	-0.126	N	B	8517.570	1.190	9.496	0.607	0.405	0.259	N
B	8491.615	1.102	9.494	0.598	0.412	0.267	N	P	8517.575	1.214	10.657	0.871	0.219	-0.103	N
P	8491.620	1.117	10.817	0.861	0.286	-0.218	N	A	8517.581	1.233	9.163	0.224	0.168	0.633	N
A	8491.627	1.131	9.120	0.210	0.175	0.650	N	A	8519.584	1.273	9.139	0.224	0.183	0.600	N
A	8494.598	1.080	9.193	0.227	0.175	0.591	N	P	8519.589	1.308	10.657	0.857	0.259	-0.138	N
P	8494.604	1.098	10.828	0.862	0.249	-0.168	N	B	8519.594	1.329	9.484	0.601	0.423	0.232	N
B	8494.610	1.110	9.495	0.598	0.408	0.261	N	P	8519.599	1.366	10.708	0.930	0.216	-0.114	N
P	8494.614	1.124	10.834	0.858	0.283	-0.211	N	P	8519.608	1.431	10.607	0.885	0.208	-0.086	N
P	8494.628	1.166	10.823	0.853	0.261	-0.054	N	A	8519.613	1.456	9.176	0.228	0.167	0.606	N
A	8494.633	1.181	9.209	0.222	0.180	0.599	N	A	8523.578	1.302	9.163	0.220	0.171	0.638	N
A	8496.485	1.030	9.172	0.230	0.167	0.623	N	P	8523.583	1.340	10.734	0.859	0.272	-0.088	N
P	8496.489	1.025	10.826	0.847	0.299	-0.224	N	B	8523.588	1.363	9.504	0.604	0.417	0.243	N
B	8496.495	1.021	9.487	0.599	0.416	0.266	N	P	8523.593	1.403	10.738	0.870	0.237	-0.203	N
P	8496.499	1.017	10.822	0.854	0.278	-0.157	N	B	8523.598	1.429	9.516	0.604	0.422	0.270	N
B	8496.503	1.016	9.488	0.597	0.418	0.252	N	A	8523.608	1.505	9.213	0.209	0.180	0.655	N
P	8496.507	1.013	10.814	0.843	0.313	-0.248	N	A	8536.581	1.590	9.173	0.200	0.197	0.640	N
A	8496.513	1.011	9.173	0.224	0.182	0.599	N	P	8536.586	1.654	10.737	0.865	0.230	-0.170	N
A	8501.541	1.024	9.177	0.225	0.180	0.600	N	P	8548.549	1.623	10.869	0.861	0.245	-0.179	N

Long Term Photometry of Variables

Group 8050 P=BD-10 1334															
A=HD 40399								B=HD 40605							
Star	JD _⊙	X	V	b - y	m ₁	c ₁	Sys	Star	JD _⊙	X	V	b - y	m ₁	c ₁	Sys
A	8288.569	1.048	8.566	0.650	0.544	0.209	N	A	8558.778	1.129	8.577	0.650	0.544	0.223	N
P	8288.575	1.057	9.590	1.870	1.694	-0.817	N	P	8558.783	1.133	9.505	1.934	1.575	-2.973	N
B	8288.579	1.044	7.018	0.888	0.825	0.115	N	B	8558.786	1.110	7.027	0.883	0.830	0.103	N
A	8291.573	1.043	8.584	0.649	0.549	0.202	N	A	8562.802	1.062	8.585	0.656	0.543	0.230	N
P	8291.578	1.054	9.620	1.882	1.641	-1.644	N	P	8562.807	1.069	9.508	1.913	1.654	-1.414	N
B	8291.581	1.043	7.035	0.891	0.824	0.102	N	B	8562.810	1.054	7.036	0.895	0.815	0.143	N
A	8531.836	1.173	8.579	0.647	0.541	0.217	N	A	8566.778	1.081	8.563	0.646	0.546	0.206	N
P	8531.841	1.171	9.632	1.872	1.557	-0.999	N	P	8566.783	1.087	9.456	1.889	1.576	-1.221	N
B	8531.846	1.142	7.019	0.890	0.815	0.116	N	B	8566.786	1.070	7.013	0.881	0.822	0.120	N
A	8536.857	1.082	8.568	0.656	0.545	0.229	N	A	8572.834	1.056	8.587	0.649	0.548	0.201	N
P	8536.861	1.089	9.598	1.886	1.569	-1.159	N	P	8572.838	1.072	9.454	1.888	1.553	-1.453	N
B	8536.866	1.070	7.016	0.891	0.819	0.114	N	B	8572.842	1.065	7.053	0.892	0.816	0.123	N
A	8545.835	1.079	8.577	0.644	0.549	0.207	N	A	8576.814	1.049	8.580	0.650	0.551	0.213	N
P	8545.840	1.085	9.582	1.889	1.564	-2.077	N	P	8576.826	1.070	9.394	1.883	1.613	-1.019	N
B	8545.844	1.067	7.029	0.884	0.825	0.099	N	B	8576.831	1.064	7.026	0.885	0.824	0.112	N
A	8550.778	1.203	8.579	0.650	0.550	0.186	N	A	8652.556	1.063	8.578	0.656	0.543	0.202	N
P	8550.782	1.203	9.598	1.889	1.634	-1.647	N	P	8652.559	1.071	9.716	1.919	1.514	-1.628	N
B	8550.786	1.176	7.035	0.888	0.823	0.111	N	B	8652.563	1.056	7.025	0.892	0.825	0.112	N

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Group 8051 P=HD 63733 A=HD 64498 B=HD 64612															
Star	JD _⊙	X	V	b-y	m ₁	c ₁	Sys	Star	JD _⊙	X	V	b-y	m ₁	c ₁	Sys
A	8282.681	1.024	8.020	0.631	0.458	0.254	N	P	8536.871	1.242	7.924	1.077	0.876	-0.067	N
P	8282.684	1.017	7.943	1.077	0.899	-0.083	N	B	8536.875	1.226	8.386	0.748	0.594	0.153	N
B	8282.686	1.011	8.409	0.744	0.599	0.156	N	A	8547.848	1.239	8.008	0.628	0.464	0.236	N
A	8285.733	1.087	8.005	0.630	0.463	0.247	N	P	8547.850	1.202	7.957	1.065	0.904	-0.059	N
P	8285.738	1.095	7.953	1.071	0.911	-0.054	N	B	8547.854	1.190	8.384	0.748	0.594	0.152	N
B	8285.741	1.088	8.390	0.746	0.599	0.160	N	A	8558.805	1.316	8.019	0.627	0.466	0.234	N
A	8288.714	1.065	8.013	0.624	0.465	0.263	N	P	8558.808	1.266	7.971	1.067	0.898	-0.047	N
P	8288.717	1.067	7.979	1.075	0.880	-0.011	N	B	8558.811	1.254	8.405	0.749	0.593	0.171	N
B	8288.721	1.063	8.397	0.743	0.600	0.165	N	A	8647.706	1.033	8.016	0.635	0.447	0.265	N
A	8291.721	1.097	8.013	0.624	0.465	0.252	N	P	8647.709	1.031	7.930	1.074	0.887	-0.019	N
P	8291.725	1.104	7.966	1.078	0.881	-0.023	N	A	8647.712	1.039	7.999	0.624	0.470	0.234	N
B	8291.728	1.097	8.397	0.742	0.602	0.185	N	B	8647.714	1.026	8.382	0.743	0.596	0.178	N
A	8294.706	1.081	8.006	0.626	0.462	0.246	N	A	8655.722	1.085	8.002	0.629	0.460	0.242	N
P	8294.710	1.088	7.932	1.073	0.893	-0.057	N	P	8655.723	1.087	7.909	1.067	0.915	-0.032	N
B	8294.714	1.083	8.389	0.750	0.583	0.195	N	B	8655.726	1.079	8.382	0.749	0.592	0.156	N
A	8536.867	1.293	7.998	0.634	0.458	0.242	N								

Long Term Photometry of Variables

Group 8052 P=BD-21 2601															
A=HD 75739								B=HD 75944							
Star	JD _⊙	X	V	b - y	m ₁	c ₁	Sys	Star	JD _⊙	X	V	b - y	m ₁	c ₁	Sys
A	8282.689	1.025	8.108	0.702	0.388	0.235	N	P	8292.732	1.033	9.911	1.157	0.825	0.193	N
P	8282.693	1.021	9.890	1.159	0.875	0.043	N	B	8292.737	1.038	8.353	0.860	0.627	0.165	N
B	8282.697	1.020	8.364	0.859	0.649	0.141	N	A	8653.827	1.314	8.092	0.689	0.407	0.245	N
A	8286.710	1.008	8.093	0.700	0.393	0.238	N	P	8653.838	1.397	9.898	1.150	0.853	0.131	N
P	8286.714	1.009	9.915	1.155	0.801	-0.079	N	B	8653.842	1.416	8.350	0.848	0.648	0.149	N
B	8286.720	1.010	8.356	0.860	0.641	0.148	N	A	8656.760	1.070	8.094	0.692	0.405	0.241	N
A	8289.758	1.059	8.090	0.694	0.392	0.259	N	P	8656.762	1.078	9.913	1.155	0.853	0.093	N
P	8289.764	1.075	9.914	1.149	0.871	-0.079	N	P	8656.766	1.088	9.911	1.149	0.866	0.203	N
B	8289.770	1.085	8.353	0.850	0.648	0.157	N	B	8656.768	1.088	8.348	0.853	0.649	0.149	N
A	8292.728	1.025	8.095	0.698	0.394	0.230	N								

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Group 8053 P-BD-04 2121
A-BD-04 2097

Star	JD_{\odot}	X	V	$b-y$	m_1	c_1	Sys	Star	JD_{\odot}	X	V	$b-y$	m_1	c_1	Sys
A	8282.672	1.102	7.583	0.617	0.433	0.236	N	A	8545.850	1.368	7.587	0.617	0.431	0.219	N
P	8282.675	1.098	9.077	1.191	0.435	0.525	N	P	8545.854	1.349	9.198	1.206	0.292	0.727	N
B	8282.679	1.108	8.590	0.667	0.511	0.227	N	B	8545.859	1.341	8.611	0.667	0.507	0.213	N
A	8285.722	1.156	7.571	0.615	0.440	0.195	N	A	8550.794	1.766	7.574	0.619	0.434	0.195	N
P	8285.726	1.155	9.101	1.190	0.414	0.536	N	A	8550.831	1.406	7.588	0.621	0.435	0.216	N
B	8285.731	1.178	8.572	0.671	0.499	0.226	N	P	8550.835	1.390	9.086	1.202	0.369	0.613	N
A	8288.728	1.195	7.577	0.619	0.434	0.203	N	B	8550.839	1.379	8.595	0.668	0.498	0.225	N
P	8288.733	1.197	9.152	1.200	0.367	0.693	N	A	8558.815	1.375	7.585	0.622	0.435	0.206	N
B	8288.739	1.231	8.583	0.669	0.508	0.228	N	P	8558.819	1.354	9.029	1.195	0.449	0.632	N
A	8291.701	1.146	7.579	0.618	0.435	0.210	N	B	8558.824	1.346	8.594	0.668	0.499	0.228	N
P	8291.705	1.146	9.194	1.208	0.316	0.581	N	A	8647.717	1.129	7.558	0.619	0.434	0.219	N
B	8291.711	1.170	8.583	0.667	0.501	0.225	N	P	8647.721	1.128	9.342	1.218	0.170	0.860	N
P	8291.715	1.168	9.198	1.200	0.324	0.621	N	B	8647.725	1.145	8.559	0.673	0.495	0.237	N
A	8291.719	1.190	7.574	0.619	0.433	0.213	N	A	8653.786	1.523	7.572	0.614	0.442	0.200	N
A	8536.878	1.346	7.555	0.625	0.429	0.218	N	P	8653.789	1.524	9.356	1.217	0.179	0.729	N
P	8536.881	1.335	9.361	1.237	0.176	0.903	N	B	8653.793	1.584	8.579	0.664	0.517	0.183	N
B	8536.885	1.330	8.566	0.674	0.495	0.209	N								

Long Term Photometry of Variables

Group 8054 P=BD-21 5435															
A=HD184391								B=HD184225							
Star	JD ₀	X	V	b-y	m ₁	c ₁	Sys	Star	JD ₀	X	V	b-y	m ₁	c ₁	Sys
A	8415.883	1.128	8.141	0.709	0.555	0.211	N	A	8511.698	1.631	8.154	0.705	0.555	0.242	N
P	8415.886	1.131	9.313	1.157	0.264	0.611	N	P	8511.702	1.656	9.096	1.152	0.411	0.534	N
B	8415.890	1.148	8.119	0.919	0.730	0.149	N	B	8511.709	1.759	8.141	0.912	0.741	0.128	N
A	8418.893	1.195	8.144	0.705	0.557	0.222	N	A	8519.667	1.538	8.116	0.709	0.559	0.218	N
P	8418.896	1.200	9.322	1.163	0.255	0.665	N	P	8519.672	1.571	8.915	0.959	0.355	0.028	N
A	8429.897	1.379	8.158	0.732	0.595	0.188	N	A	8522.655	1.503	8.144	0.704	0.559	0.225	N
P	8429.900	1.389	9.160	1.157	0.357	0.556	N	P	8522.659	1.530	9.197	1.177	0.353	0.525	N
B	8429.905	1.443	8.119	0.922	0.717	0.153	N	B	8522.666	1.613	8.130	0.916	0.732	0.159	N
A	8437.782	1.040	8.145	0.704	0.562	0.200	N	A	8525.631	1.376	8.145	0.707	0.556	0.228	N
P	8437.789	1.042	9.135	1.162	0.374	0.543	N	P	8525.635	1.394	9.214	1.179	0.308	0.667	N
B	8437.796	1.058	8.125	0.917	0.735	0.160	N	B	8525.641	1.457	8.134	0.919	0.736	0.151	N
A	8439.845	1.231	8.151	0.704	0.560	0.217	N	A	8530.636	1.538	8.108	0.708	0.558	0.226	N
P	8439.851	1.253	9.153	1.160	0.371	0.617	N	P	8530.640	1.559	9.181	1.183	0.316	0.615	N
B	8439.858	1.298	8.139	0.917	0.729	0.157	N	B	8530.646	1.645	8.093	0.919	0.737	0.138	N
A	8448.810	1.186	8.146	0.708	0.551	0.225	N	A	8537.612	1.497	8.137	0.704	0.563	0.216	N
P	8448.814	1.192	9.261	1.173	0.298	0.629	N	P	8537.616	1.521	9.145	1.170	0.376	0.613	N
B	8448.822	1.237	8.126	0.920	0.730	0.146	N	B	8537.621	1.583	8.127	0.918	0.748	0.140	N
A	8455.764	1.098	8.152	0.695	0.561	0.216	N	A	8546.562	1.318	8.138	0.704	0.558	0.214	N
P	8455.768	1.100	9.318	1.173	0.273	0.650	N	P	8546.567	1.336	9.055	1.164	0.422	0.542	N
B	8455.773	1.122	8.133	0.913	0.733	0.131	N	B	8546.572	1.378	8.134	0.920	0.745	0.142	N
A	8460.773	1.171	8.145	0.709	0.545	0.249	N	A	8557.518	1.244	8.156	0.711	0.557	0.232	N
P	8460.778	1.182	9.285	1.172	0.276	0.695	N	P	8557.522	1.256	9.141	1.164	0.373	0.541	N
B	8460.783	1.206	8.129	0.914	0.740	0.119	N	B	8557.527	1.289	8.141	0.915	0.742	0.129	N
A	8493.674	1.143	8.137	0.703	0.561	0.241	N	A	8562.518	1.321	8.143	0.707	0.558	0.218	N
P	8493.678	1.149	9.223	1.183	0.306	0.692	N	P	8562.522	1.335	9.216	1.169	0.321	0.560	N
B	8493.685	1.181	8.132	0.913	0.721	0.132	N	B	8562.526	1.373	8.129	0.915	0.739	0.139	N
A	8495.714	1.372	8.139	0.702	0.563	0.213	N	A	8566.518	1.399	8.180	0.717	0.560	0.214	N
P	8495.719	1.388	9.219	1.164	0.352	0.667	N	P	8566.522	1.413	9.331	1.174	0.289	0.680	N
B	8495.725	1.454	8.145	0.909	0.747	0.130	N	B	8566.526	1.460	8.170	0.925	0.740	0.183	N
A	8501.701	1.395	8.141	0.710	0.557	0.229	N	A	8575.511	1.563	8.175	0.705	0.561	0.196	N
P	8501.705	1.413	9.123	1.170	0.367	0.573	N	P	8575.515	1.587	9.262	1.171	0.283	0.606	N
B	8501.711	1.473	8.132	0.917	0.735	0.135	N	B	8575.520	1.661	8.164	0.920	0.740	0.157	N

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Group 8055 P=HD180196															
A=HD180795								B=HD180112							
Star	JD_{\odot}	X	V	$b - y$	m_1	c_1	Sys	Star	JD_{\odot}	X	V	$b - y$	m_1	c_1	Sys
A	8415.825	1.039	8.351	0.689	0.518	0.228	N	A	8496.597	1.034	8.353	0.688	0.518	0.217	N
P	8415.830	1.049	9.923	1.306	0.121	-0.398	N	P	8496.607	1.048	11.727	0.876	-0.232	0.388	N
B	8415.836	1.062	8.455	0.705	0.506	0.213	N	B	8496.613	1.060	8.455	0.709	0.491	0.228	N
A	8429.909	1.606	8.349	0.691	0.505	0.232	N	A	8507.640	1.216	8.336	0.688	0.514	0.223	N
P	8429.913	1.670	10.293	1.316	-0.032	-0.256	N	P	8507.644	1.248	12.020	0.758	-0.169	0.431	N
B	8429.920	1.786	8.459	0.709	0.489	0.228	N	A	8525.608	1.314	8.361	0.689	0.516	0.230	N
A	8437.802	1.107	8.350	0.690	0.519	0.225	N	P	8525.613	1.362	12.154	0.590	-0.017	0.639	N
P	8437.810	1.133	10.963	0.631	0.334	0.273	N	B	8525.617	1.403	8.460	0.704	0.504	0.225	N
B	8437.818	1.166	8.451	0.711	0.496	0.229	N	A	8538.588	1.438	8.388	0.687	0.525	0.226	N
A	8448.750	1.059	8.349	0.695	0.503	0.232	N	P	8538.596	1.520	10.999	0.629	0.337	0.295	N
P	8448.754	1.070	10.712	1.267	-0.243	-0.011	N	B	8538.602	1.595	8.486	0.704	0.512	0.208	N
B	8448.762	1.091	8.453	0.712	0.490	0.232	N								

Long Term Photometry of Variables

Group 9001 P=HD 96548
A=HR4326 B=HD 96287 C=HR4326

Star	JD_{\odot}	X	V	$b-y$	m_1	c_1	Sys	Star	JD_{\odot}	X	V	$b-y$	m_1	c_1	Sys
C	8256.744	1.460	6.374	0.074	0.191	1.104	N	C	8290.862	1.286	6.388	0.059	0.189	1.105	N
P	8256.747	1.456	7.684	-0.130	0.615	-0.269	N	C	8291.849	1.270	6.385	0.056	0.191	1.115	N
B	8256.751	1.430	7.210	0.027	0.146	0.915	N	C	8291.855	1.279	6.384	0.057	0.194	1.102	N
C	8282.768	1.248	6.389	0.053	0.198	1.101	N	C	8291.862	1.290	6.382	0.059	0.190	1.106	N
C	8282.777	1.240	6.387	0.057	0.191	1.103	N	P	8291.862	1.301	7.683	-0.157	0.632	-0.272	N
C	8282.785	1.235	6.385	0.057	0.190	1.112	N	C	8291.865	1.295	6.383	0.055	0.195	1.105	N
C	8282.791	1.232	6.384	0.058	0.190	1.102	N	C	8416.619	1.615	6.386	0.056	0.196	1.097	N
C	8282.866	1.260	6.391	0.054	0.198	1.097	N	P	8416.621	1.635	7.755	-0.143	0.627	-0.279	N
P	8282.868	1.273	7.705	-0.148	0.614	-0.272	N	B	8416.624	1.650	7.226	0.007	0.153	0.914	N
B	8282.869	1.262	7.231	0.005	0.154	0.903	N	C	8418.556	1.382	6.393	0.058	0.194	1.107	N
C	8283.780	1.236	6.383	0.056	0.193	1.103	N	P	8418.558	1.397	7.774	-0.162	0.649	-0.272	N
C	8283.785	1.233	6.382	0.054	0.194	1.101	N	B	8418.566	1.415	7.233	0.010	0.150	0.921	N
C	8283.791	1.230	6.387	0.052	0.202	1.094	N	B	8418.579	1.462	7.238	0.007	0.154	0.918	N
C	8283.797	1.228	6.389	0.055	0.196	1.096	N	C	8647.827	1.229	6.395	0.055	0.190	1.108	N
C	8283.827	1.230	6.378	0.052	0.202	1.087	N	P	8647.830	1.241	7.783	-0.165	0.648	-0.276	N
P	8283.828	1.241	7.723	-0.147	0.616	-0.294	N	B	8647.832	1.228	7.241	0.002	0.149	0.924	N
B	8283.830	1.229	7.225	0.002	0.156	0.909	N	C	8654.825	1.257	6.378	0.056	0.190	1.106	N
C	8284.841	1.240	6.395	0.057	0.193	1.104	N	P	8654.828	1.270	7.682	-0.138	0.595	-0.279	N
P	8284.843	1.252	7.689	-0.153	0.625	-0.270	N	B	8654.831	1.260	7.223	0.007	0.150	0.911	N
B	8284.845	1.241	7.236	0.006	0.159	0.899	N	C	8654.834	1.264	6.385	0.057	0.188	1.100	N
C	8284.849	1.247	6.398	0.056	0.196	1.097	N	C	8654.838	1.268	6.385	0.053	0.192	1.107	N
C	8284.856	1.254	6.398	0.057	0.194	1.105	N	B	8654.840	1.268	7.217	0.010	0.149	0.900	N
C	8284.862	1.262	6.404	0.056	0.197	1.101	N	B	8655.751	1.260	7.231	0.001	0.158	0.902	N
C	8285.848	1.249	6.382	0.056	0.194	1.100	N	C	8655.754	1.261	6.390	0.051	0.197	1.100	N
P	8285.849	1.261	7.675	-0.132	0.596	-0.278	N	C	8655.761	1.256	6.385	0.055	0.191	1.100	N
B	8285.851	1.250	7.220	0.008	0.154	0.905	N	B	8655.763	1.250	7.229	0.008	0.148	0.904	N
C	8285.860	1.263	6.384	0.054	0.195	1.103	N	C	8655.769	1.252	6.390	0.051	0.195	1.099	N
C	8285.866	1.271	6.380	0.056	0.191	1.107	N	B	8655.771	1.247	7.232	0.000	0.156	0.913	N
C	8286.821	1.231	6.393	0.051	0.200	1.107	N	C	8655.776	1.249	6.388	0.062	0.180	1.106	N
C	8286.828	1.235	6.391	0.055	0.197	1.097	N	P	8655.778	1.259	7.709	-0.151	0.624	-0.286	N
C	8286.836	1.241	6.389	0.056	0.195	1.099	N	B	8655.780	1.244	7.229	0.006	0.150	0.905	N
C	8286.843	1.246	6.390	0.055	0.195	1.104	N	C	8657.804	1.231	6.401	0.058	0.187	1.105	N
C	8286.845	1.249	6.384	0.059	0.190	1.099	N	P	8657.806	1.242	7.677	-0.150	0.618	-0.269	N
P	8286.847	1.261	7.717	-0.147	0.614	-0.277	N	B	8657.808	1.229	7.243	0.006	0.150	0.910	N
B	8286.850	1.252	7.230	0.005	0.155	0.908	N	C	8657.812	1.235	6.398	0.056	0.191	1.097	N
C	8287.829	1.238	6.406	0.060	0.197	1.097	N	B	8657.818	1.236	7.237	0.004	0.153	0.913	N
C	8287.836	1.243	6.406	0.063	0.194	1.097	N	C	8657.821	1.241	6.396	0.055	0.191	1.107	N
C	8287.842	1.249	6.407	0.058	0.198	1.098	N	P	8657.823	1.253	7.673	-0.158	0.632	-0.279	N
P	8287.845	1.262	7.709	-0.127	0.589	-0.275	N	B	8657.825	1.242	7.241	0.000	0.159	0.907	N
C	8287.848	1.255	6.407	0.062	0.190	1.106	N	C	8657.828	1.247	6.392	0.055	0.193	1.107	N
C	8288.825	1.237	6.409	0.059	0.195	1.100	N	B	8657.832	1.249	7.237	0.003	0.154	0.915	N
C	8288.832	1.241	6.411	0.062	0.188	1.113	N	C	8657.835	1.254	6.399	0.057	0.189	1.104	N
C	8288.838	1.247	6.409	0.057	0.195	1.107	N	B	8658.796	1.226	7.245	0.007	0.154	0.904	N
P	8288.839	1.259	7.746	-0.161	0.647	-0.281	N	P	8658.799	1.240	7.652	-0.120	0.569	-0.268	N
C	8288.843	1.252	6.408	0.057	0.198	1.101	N	C	8658.800	1.230	6.398	0.057	0.189	1.109	N
C	8289.859	1.277	6.403	0.058	0.194	1.109	N	B	8658.803	1.229	7.240	0.006	0.155	0.905	N
C	8289.868	1.291	6.407	0.061	0.192	1.107	N	C	8658.809	1.234	6.401	0.058	0.194	1.106	N
C	8289.874	1.302	6.406	0.062	0.189	1.109	N	B	8658.812	1.234	7.238	0.010	0.149	0.911	N
P	8289.876	1.316	7.698	-0.134	0.605	-0.274	N	P	8658.814	1.248	7.647	-0.118	0.568	-0.273	N
C	8289.879	1.313	6.401	0.061	0.191	1.092	N	C	8658.815	1.239	6.400	0.056	0.193	1.104	N
C	8290.835	1.250	6.386	0.056	0.192	1.105	N	B	8658.818	1.238	7.237	0.014	0.146	0.917	N
C	8290.842	1.257	6.390	0.052	0.201	1.098	N	C	8658.821	1.243	6.398	0.060	0.189	1.104	N
C	8290.858	1.279	6.392	0.052	0.199	1.100	N	B	8658.825	1.245	7.247	0.005	0.156	0.906	N
P	8290.859	1.292	7.659	-0.142	0.611	-0.284	N								

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Group 9002 P-HD 93131
B-HD 96287 C-HR4326

Star	JD_{\odot}	X	V	$b-y$	m_1	c_1	Sys	Star	JD_{\odot}	X	V	$b-y$	m_1	c_1	Sys
A	8251.796	1.337	7.239	0.008	0.148	0.915	N	A	8287.834	1.239	7.253	0.007	0.159	0.906	N
C	8251.797	1.338	6.397	0.055	0.197	1.100	N	C	8287.836	1.243	6.406	0.063	0.194	1.097	N
P	8251.800	1.241	6.472	-0.086	0.317	-0.246	N	P	8287.837	1.198	6.474	-0.083	0.324	-0.250	N
A	8251.806	1.313	7.232	0.009	0.153	0.903	N	A	8287.841	1.245	7.245	0.011	0.155	0.902	N
C	8251.807	1.316	6.398	0.055	0.194	1.106	N	C	8287.842	1.249	6.407	0.058	0.198	1.098	N
P	8251.810	1.222	6.473	-0.088	0.321	-0.248	N	A	8287.847	1.251	7.246	0.013	0.151	0.907	N
A	8251.815	1.295	7.241	0.007	0.153	0.910	N	C	8287.848	1.255	6.407	0.062	0.190	1.106	N
C	8251.817	1.297	6.404	0.056	0.196	1.104	N	A	8288.824	1.233	7.248	0.013	0.146	0.918	N
P	8251.819	1.207	6.479	-0.085	0.316	-0.242	N	C	8288.825	1.237	6.409	0.059	0.195	1.100	N
A	8251.825	1.277	7.239	0.014	0.145	0.915	N	P	8288.827	1.188	6.483	-0.086	0.320	-0.240	N
C	8251.827	1.280	6.402	0.059	0.193	1.098	N	A	8288.830	1.238	7.247	0.012	0.153	0.909	N
A	8282.764	1.247	7.225	0.009	0.152	0.909	N	C	8288.832	1.241	6.411	0.062	0.188	1.113	N
C	8282.768	1.248	6.389	0.053	0.198	1.101	N	P	8288.833	1.196	6.481	-0.087	0.326	-0.246	N
P	8282.770	1.171	6.466	-0.095	0.329	-0.244	N	A	8288.836	1.243	7.249	0.010	0.154	0.905	N
A	8282.776	1.237	7.224	0.009	0.151	0.902	N	C	8288.838	1.247	6.409	0.057	0.195	1.107	N
C	8282.777	1.240	6.387	0.057	0.191	1.103	N	A	8288.841	1.248	7.246	0.010	0.153	0.916	N
P	8282.779	1.167	6.462	-0.092	0.329	-0.250	N	C	8288.843	1.252	6.408	0.057	0.198	1.101	N
A	8282.784	1.231	7.227	0.008	0.149	0.919	N	C	8289.858	1.273	7.241	0.013	0.147	0.913	N
C	8282.785	1.235	6.385	0.057	0.190	1.112	N	A	8289.859	1.277	6.403	0.058	0.194	1.109	N
P	8282.787	1.164	6.461	-0.090	0.324	-0.247	N	P	8289.861	1.247	6.470	-0.085	0.318	-0.236	N
A	8282.790	1.228	7.229	0.006	0.150	0.917	N	A	8289.866	1.287	7.249	0.015	0.148	0.917	N
C	8282.791	1.232	6.384	0.058	0.190	1.102	N	C	8289.868	1.291	6.407	0.061	0.192	1.107	N
C	8282.866	1.260	6.391	0.054	0.198	1.097	N	P	8289.869	1.266	6.480	-0.084	0.320	-0.242	N
B	8282.869	1.262	7.231	0.005	0.154	0.903	N	A	8289.872	1.298	7.253	0.013	0.150	0.914	N
A	8283.777	1.234	7.227	0.006	0.155	0.906	N	C	8289.874	1.302	6.406	0.062	0.189	1.109	N
C	8283.780	1.236	6.383	0.056	0.193	1.103	N	A	8289.877	1.307	7.252	0.017	0.145	0.922	N
P	8283.781	1.165	6.464	-0.091	0.329	-0.254	N	C	8289.879	1.313	6.401	0.061	0.191	1.092	N
A	8283.784	1.230	7.219	0.007	0.154	0.909	N	A	8290.834	1.246	7.227	0.004	0.154	0.914	N
C	8283.785	1.233	6.382	0.054	0.194	1.101	N	C	8290.835	1.250	6.386	0.056	0.192	1.105	N
P	8283.787	1.163	6.463	-0.092	0.326	-0.247	N	P	8290.837	1.209	6.461	-0.085	0.311	-0.240	N
A	8283.790	1.227	7.224	0.011	0.151	0.904	N	A	8290.841	1.253	7.226	0.006	0.155	0.910	N
C	8283.791	1.230	6.387	0.052	0.202	1.094	N	C	8290.842	1.257	6.390	0.052	0.201	1.098	N
P	8283.792	1.163	6.468	-0.092	0.326	-0.248	N	P	8290.843	1.219	6.462	-0.087	0.318	-0.247	N
A	8283.796	1.225	7.228	0.006	0.159	0.900	N	A	8290.855	1.273	7.233	0.006	0.156	0.906	N
C	8283.797	1.228	6.389	0.055	0.196	1.096	N	C	8290.858	1.279	6.392	0.052	0.199	1.100	N
C	8283.827	1.230	6.378	0.052	0.202	1.087	N	A	8290.861	1.282	7.229	0.010	0.151	0.908	N
B	8283.830	1.229	7.225	0.002	0.156	0.909	N	C	8290.862	1.286	6.388	0.059	0.189	1.105	N
C	8284.841	1.240	6.395	0.057	0.193	1.104	N	A	8291.848	1.266	7.226	0.008	0.155	0.907	N
B	8284.845	1.241	7.236	0.006	0.159	0.899	N	C	8291.849	1.270	6.385	0.056	0.191	1.115	N
A	8284.847	1.243	7.236	0.006	0.155	0.910	N	P	8291.851	1.237	6.466	-0.093	0.328	-0.243	N
C	8284.849	1.247	6.398	0.056	0.196	1.097	N	A	8291.854	1.276	7.226	0.010	0.144	0.928	N
P	8284.851	1.205	6.480	-0.089	0.323	-0.248	N	C	8291.855	1.279	6.384	0.057	0.194	1.102	N
A	8284.855	1.251	7.238	0.008	0.155	0.909	N	P	8291.857	1.250	6.465	-0.091	0.329	-0.250	N
C	8284.856	1.254	6.398	0.057	0.194	1.105	N	A	8291.860	1.286	7.221	0.013	0.146	0.913	N
P	8284.858	1.216	6.483	-0.088	0.318	-0.233	N	C	8291.862	1.290	6.382	0.059	0.190	1.106	N
A	8284.861	1.259	7.241	0.006	0.159	0.912	N	A	8291.863	1.291	7.225	0.008	0.153	0.910	N
C	8284.862	1.262	6.404	0.056	0.197	1.101	N	C	8291.865	1.295	6.383	0.055	0.195	1.105	N
C	8285.848	1.249	6.382	0.056	0.194	1.100	N	A	8293.801	1.228	7.234	0.012	0.146	0.909	N
B	8285.851	1.250	7.220	0.008	0.154	0.905	N	C	8293.802	1.231	6.394	0.058	0.191	1.108	N
A	8285.858	1.258	7.224	0.008	0.150	0.912	N	P	8293.804	1.179	6.479	-0.093	0.329	-0.243	N
C	8285.860	1.263	6.384	0.054	0.195	1.103	N	A	8293.807	1.231	7.234	0.011	0.149	0.906	N
P	8285.861	1.227	6.459	-0.089	0.322	-0.245	N	C	8293.809	1.235	6.386	0.060	0.191	1.103	N
A	8285.865	1.268	7.221	0.009	0.151	0.912	N	P	8293.810	1.185	6.473	-0.090	0.327	-0.245	N
C	8285.866	1.271	6.380	0.056	0.191	1.107	N	A	8293.813	1.235	7.229	0.013	0.149	0.903	N
A	8286.820	1.228	7.230	0.008	0.152	0.900	N	C	8418.556	1.382	6.393	0.058	0.194	1.107	N
C	8286.821	1.231	6.393	0.051	0.200	1.107	N	B	8418.566	1.415	7.233	0.010	0.150	0.921	N
P	8286.823	1.179	6.468	-0.090	0.324	-0.246	N	A	8418.569	1.424	7.236	0.009	0.152	0.915	N
A	8286.826	1.231	7.230	0.008	0.151	0.906	N	P	8418.571	1.445	6.459	-0.088	0.322	-0.238	N
C	8286.828	1.235	6.391	0.055	0.197	1.097	N	B	8418.579	1.462	7.238	0.007	0.154	0.918	N
P	8286.829	1.185	6.467	-0.090	0.323	-0.245	N	B	8646.796	1.227	7.225	0.013	0.138	0.919	N
A	8286.834	1.237	7.227	0.011	0.149	0.909	N	B	8646.796	1.227	7.225	0.013	0.138	0.919	N
C	8286.836	1.241	6.389	0.056	0.195	1.099	N	P	8646.799	1.163	6.465	-0.079	0.303	-0.226	N
P	8286.837	1.194	6.467	-0.089	0.321	-0.242	N	B	8646.803	1.225	7.225	0.015	0.143	0.908	N
A	8286.841	1.242	7.237	0.005	0.152	0.917	N	B	8646.803	1.225	7.225	0.015	0.143	0.908	N
C	8286.843	1.246	6.390	0.055	0.195	1.104	N	P	8646.805	1.163	6.461	-0.082	0.309	-0.235	N
C	8286.845	1.249	6.384	0.059	0.190	1.099	N	B	8646.809	1.224	7.219	0.018	0.140	0.912	N
B	8286.850	1.252	7.230	0.005	0.155	0.908	N	B	8646.809	1.224	7.219	0.018	0.140	0.912	N
A	8287.828	1.234	7.246	0.011	0.157	0.901	N	P	8646.812	1.165	6.475	-0.091	0.319	-0.235	N
C	8287.829	1.238	6.406	0.060	0.197	1.097	N	C	8652.762	1.242	6.396	0.059	0.194	1.099	N
P	8287.831	1.190	6.478	-0.087	0.326	-0.248	N	C	8652.762	1.242	6.396	0.059	0.194	1.099	N

Long Term Photometry of Variables

Group 9002 P=HD 93131 (continued)
B=HD 96287 C=HR4326

Star	JD _⊙	X	V	b - y	m ₁	c ₁	Sys	Star	JD _⊙	X	V	b - y	m ₁	c ₁	Sys
B	8652.763	1.237	7.240	0.010	0.151	0.906	N	C	8655.761	1.256	6.385	0.055	0.191	1.100	N
B	8652.763	1.237	7.240	0.010	0.151	0.906	N	P	8655.763	1.180	6.464	-0.089	0.317	-0.244	N
P	8652.766	1.167	6.475	-0.087	0.317	-0.245	N	B	8655.763	1.250	7.229	0.008	0.148	0.904	N
C	8652.771	1.236	6.405	0.057	0.195	1.100	N	B	8655.763	1.250	7.229	0.008	0.148	0.904	N
C	8652.771	1.236	6.405	0.057	0.195	1.100	N	C	8655.769	1.252	6.390	0.051	0.195	1.099	N
B	8652.772	1.231	7.253	0.015	0.141	0.914	N	C	8655.769	1.252	6.390	0.051	0.195	1.099	N
B	8652.772	1.231	7.253	0.015	0.141	0.914	N	B	8655.771	1.247	7.232	0.000	0.156	0.913	N
P	8652.774	1.164	6.474	-0.084	0.313	-0.239	N	B	8655.771	1.247	7.232	0.000	0.156	0.913	N
C	8652.777	1.232	6.401	0.058	0.197	1.101	N	C	8655.776	1.249	6.388	0.062	0.180	1.106	N
C	8652.777	1.232	6.401	0.058	0.197	1.101	N	B	8655.780	1.244	7.229	0.006	0.150	0.905	N
B	8652.778	1.228	7.257	0.004	0.161	0.906	N	C	8657.804	1.231	6.401	0.058	0.187	1.105	N
B	8652.778	1.228	7.257	0.004	0.161	0.906	N	B	8657.808	1.229	7.243	0.006	0.150	0.910	N
P	8652.779	1.163	6.473	-0.086	0.320	-0.246	N	P	8657.811	1.182	6.480	-0.091	0.323	-0.248	N
C	8652.784	1.229	6.404	0.060	0.192	1.100	N	C	8657.812	1.235	6.398	0.056	0.191	1.097	N
C	8652.784	1.229	6.404	0.060	0.192	1.100	N	B	8657.818	1.236	7.237	0.004	0.153	0.913	N
B	8652.785	1.225	7.241	0.019	0.141	0.919	N	C	8657.821	1.241	6.396	0.055	0.191	1.107	N
B	8652.785	1.225	7.241	0.019	0.141	0.919	N	B	8657.825	1.242	7.241	0.000	0.159	0.907	N
C	8654.825	1.257	6.378	0.056	0.190	1.106	N	P	8657.828	1.202	6.472	-0.093	0.322	-0.242	N
B	8654.831	1.260	7.223	0.007	0.150	0.911	N	C	8657.828	1.247	6.392	0.055	0.193	1.107	N
B	8654.831	1.260	7.223	0.007	0.150	0.911	N	B	8657.832	1.249	7.237	0.003	0.154	0.915	N
P	8654.833	1.214	6.456	-0.084	0.309	-0.239	N	C	8657.835	1.254	6.399	0.057	0.189	1.104	N
C	8654.834	1.264	6.385	0.057	0.188	1.100	N	B	8658.796	1.226	7.245	0.007	0.154	0.904	N
C	8654.834	1.264	6.385	0.057	0.188	1.100	N	C	8658.800	1.230	6.398	0.057	0.189	1.109	N
C	8654.838	1.268	6.385	0.053	0.192	1.107	N	P	8658.803	1.177	6.466	-0.085	0.315	-0.247	N
C	8654.838	1.268	6.385	0.053	0.192	1.107	N	B	8658.803	1.229	7.240	0.006	0.155	0.905	N
B	8654.840	1.268	7.217	0.010	0.149	0.900	N	B	8658.803	1.229	7.240	0.006	0.155	0.905	N
B	8654.840	1.268	7.217	0.010	0.149	0.900	N	C	8658.809	1.234	6.401	0.058	0.194	1.106	N
B	8655.751	1.260	7.231	0.001	0.158	0.902	N	B	8658.812	1.234	7.238	0.010	0.149	0.911	N
B	8655.751	1.260	7.231	0.001	0.158	0.902	N	C	8658.815	1.239	6.400	0.056	0.193	1.104	N
P	8655.753	1.184	6.471	-0.091	0.321	-0.245	N	P	8658.817	1.192	6.470	-0.086	0.314	-0.240	N
C	8655.754	1.261	6.390	0.051	0.197	1.100	N	B	8658.818	1.238	7.237	0.014	0.146	0.917	N
C	8655.754	1.261	6.390	0.051	0.197	1.100	N	C	8658.821	1.243	6.398	0.060	0.189	1.104	N
C	8655.761	1.256	6.385	0.055	0.191	1.100	N	B	8658.825	1.245	7.247	0.005	0.156	0.906	N

Catalogue 1990-1992

Group 9003 P=HR4188
B=HD 96287

Star	JD_{\odot}	X	V	$b-y$	m_1	c_1	Sys	Star	JD_{\odot}	X	V	$b-y$	m_1	c_1	Sys
P	8251.801	1.229	6.376	-0.011	0.315	-0.240	N	P	8291.858	1.252	6.352	-0.004	0.303	-0.235	N
P	8251.811	1.212	6.375	-0.009	0.312	-0.240	N	P	8293.805	1.176	6.374	-0.005	0.311	-0.239	N
P	8251.821	1.197	6.384	-0.003	0.306	-0.235	N	P	8293.811	1.183	6.375	-0.006	0.312	-0.243	N
P	8282.772	1.164	6.361	-0.006	0.303	-0.234	N	P	8415.576	1.438	6.380	-0.005	0.303	-0.229	N
P	8282.780	1.160	6.359	-0.004	0.302	-0.239	N	P	8415.618	1.681	6.395	-0.004	0.300	-0.226	N
P	8282.788	1.158	6.358	-0.002	0.295	-0.229	N	P	8418.582	1.504	6.385	-0.005	0.303	-0.226	N
P	8283.782	1.159	6.360	-0.011	0.318	-0.248	N	P	8435.497	1.343	6.372	-0.004	0.306	-0.241	N
P	8283.788	1.158	6.361	-0.008	0.313	-0.248	N	P	8438.502	1.393	6.371	-0.004	0.311	-0.242	N
P	8283.793	1.158	6.364	-0.011	0.316	-0.243	N	P	8438.538	1.575	6.386	-0.003	0.303	-0.235	N
P	8284.852	1.205	6.372	-0.005	0.307	-0.237	N	P	8439.584	1.962	6.403	-0.004	0.306	-0.237	N
P	8284.858	1.215	6.373	-0.003	0.307	-0.240	N	P	8646.800	1.158	6.380	-0.005	0.295	-0.212	N
P	8285.863	1.228	6.358	-0.005	0.305	-0.234	N	P	8646.806	1.158	6.369	0.008	0.284	-0.227	N
P	8286.824	1.177	6.345	-0.004	0.307	-0.240	N	P	8646.813	1.160	6.373	0.002	0.289	-0.225	N
P	8286.831	1.184	6.346	-0.005	0.306	-0.237	N	P	8652.767	1.160	6.380	0.002	0.294	-0.235	N
P	8286.839	1.193	6.347	-0.007	0.309	-0.238	N	P	8652.780	1.158	6.400	0.006	0.289	-0.231	N
P	8287.832	1.189	6.380	-0.006	0.315	-0.242	N	P	8654.836	1.214	6.357	0.004	0.284	-0.229	N
P	8287.839	1.197	6.385	-0.004	0.313	-0.240	N	P	8655.755	1.177	6.386	-0.005	0.299	-0.235	N
P	8288.828	1.186	6.381	-0.001	0.303	-0.236	N	B	8655.758	1.254	7.223	0.015	0.137	0.912	N
P	8288.834	1.195	6.381	-0.001	0.302	-0.235	N	P	8655.768	1.173	6.383	-0.004	0.299	-0.235	N
P	8289.862	1.249	6.381	0.003	0.298	-0.233	N	P	8657.817	1.185	6.380	-0.001	0.295	-0.230	N
P	8289.870	1.268	6.391	0.000	0.301	-0.231	N	P	8657.831	1.204	6.383	-0.004	0.299	-0.233	N
P	8290.838	1.209	6.368	-0.006	0.304	-0.236	N	P	8658.806	1.177	6.381	0.000	0.296	-0.230	N
P	8290.845	1.220	6.366	-0.003	0.300	-0.233	N	P	8658.821	1.193	6.385	-0.004	0.302	-0.235	N
P	8291.852	1.239	6.350	-0.001	0.298	-0.231	N								

Long Term Photometry of Variables

Group 9004 P=HD 93162
B=HD 96287 C=HR4326

Star	JD_{\odot}	X	V	$b-y$	m_1	c_1	Sys	Star	JD_{\odot}	X	V	$b-y$	m_1	c_1	Sys
P	8251.804	1.229	8.088	0.305	0.083	-0.219	N	P	8415.624	1.705	8.110	0.304	0.081	-0.214	N
P	8251.813	1.212	8.089	0.305	0.087	-0.223	N	C	8415.627	1.647	6.414	0.054	0.193	1.106	N
P	8251.823	1.197	8.101	0.310	0.084	-0.227	N	P	8418.590	1.538	8.078	0.304	0.080	-0.212	N
P	8282.774	1.164	8.076	0.301	0.084	-0.222	N	C	8418.593	1.518	6.398	0.056	0.194	1.110	N
P	8282.781	1.161	8.076	0.303	0.078	-0.214	N	P	8435.502	1.354	8.040	0.290	0.087	-0.206	N
P	8282.789	1.159	8.076	0.297	0.093	-0.229	N	C	8435.506	1.374	6.391	0.052	0.201	1.080	N
P	8283.783	1.160	8.073	0.295	0.091	-0.226	N	P	8438.507	1.406	8.070	0.302	0.092	-0.232	N
P	8283.789	1.158	8.067	0.302	0.083	-0.225	N	C	8438.510	1.413	6.394	0.056	0.199	1.098	N
P	8283.794	1.158	8.071	0.302	0.086	-0.228	N	P	8438.545	1.601	8.090	0.303	0.087	-0.220	N
P	8284.853	1.204	8.079	0.308	0.077	-0.218	N	C	8438.548	1.567	6.405	0.057	0.195	1.103	N
P	8284.861	1.216	8.080	0.308	0.079	-0.218	N	P	8439.589	1.991	8.078	0.301	0.087	-0.222	N
P	8285.864	1.226	8.059	0.302	0.084	-0.221	N	C	8439.592	1.857	6.398	0.055	0.192	1.110	N
P	8286.825	1.176	8.069	0.307	0.078	-0.221	N	C	8646.798	1.230	6.378	0.058	0.187	1.100	N
P	8286.833	1.185	8.067	0.306	0.077	-0.213	N	P	8646.802	1.158	8.044	0.311	0.071	-0.213	N
P	8286.840	1.193	8.070	0.304	0.079	-0.216	N	C	8646.803	1.228	6.387	0.067	0.178	1.108	N
P	8287.833	1.188	8.084	0.310	0.080	-0.218	N	P	8646.808	1.159	8.047	0.311	0.061	-0.201	N
P	8287.840	1.196	8.087	0.309	0.080	-0.219	N	C	8646.809	1.227	6.391	0.063	0.179	1.113	N
P	8288.829	1.186	8.082	0.310	0.077	-0.219	N	P	8646.817	1.161	8.038	0.313	0.063	-0.209	N
P	8288.835	1.194	8.084	0.309	0.073	-0.211	N	P	8652.768	1.161	8.088	0.304	0.087	-0.225	N
P	8289.863	1.248	8.096	0.303	0.082	-0.211	N	P	8652.776	1.159	8.089	0.302	0.089	-0.218	N
P	8289.871	1.266	8.095	0.310	0.076	-0.212	N	P	8652.781	1.158	8.101	0.304	0.088	-0.220	N
P	8290.839	1.208	8.067	0.308	0.075	-0.220	N	P	8654.839	1.217	8.061	0.307	0.074	-0.214	N
P	8290.849	1.224	8.070	0.306	0.080	-0.221	N	P	8655.760	1.176	8.075	0.305	0.078	-0.215	N
P	8291.853	1.237	8.078	0.305	0.081	-0.219	N	P	8655.770	1.174	8.078	0.305	0.075	-0.212	N
P	8291.859	1.250	8.083	0.300	0.087	-0.218	N	P	8657.821	1.188	8.078	0.308	0.072	-0.209	N
P	8293.806	1.176	8.073	0.309	0.075	-0.217	N	P	8657.834	1.207	8.091	0.299	0.087	-0.222	N
P	8293.812	1.182	8.068	0.314	0.068	-0.211	N	P	8658.811	1.180	8.086	0.310	0.079	-0.223	N
P	8415.583	1.459	8.078	0.305	0.079	-0.217	N	P	8658.824	1.196	8.090	0.305	0.083	-0.216	N
C	8415.588	1.463	6.398	0.056	0.193	1.107	N								

Catalogue 1990–1992

Group 9005 P=HD143414 A=HR5951 B=HD144481															
Star	JD_{\odot}	X	V	$b - y$	m_1	c_1	Sys	Star	JD_{\odot}	X	V	$b - y$	m_1	c_1	Sys
P	8460.556	1.202	10.053	-0.432	0.961	-0.268	N	P	8513.510	1.392	10.070	-0.435	0.968	-0.268	N
P	8460.564	1.207	10.056	-0.432	0.963	-0.266	N	P	8518.485	1.356	10.035	-0.443	0.993	-0.282	N
P	8461.547	1.199	10.061	-0.453	0.996	-0.268	N	P	8518.491	1.374	10.034	-0.440	0.983	-0.271	N
P	8461.554	1.202	10.067	-0.459	1.000	-0.262	N	P	8522.483	1.385	10.072	-0.437	0.968	-0.260	N
P	8462.569	1.215	10.063	-0.444	0.983	-0.278	N	P	8522.490	1.410	10.077	-0.436	0.965	-0.261	N
P	8462.577	1.223	10.062	-0.445	0.985	-0.277	N	P	8524.481	1.398	10.063	-0.450	1.007	-0.278	N
P	8463.540	1.198	10.075	-0.447	0.983	-0.261	N	P	8524.487	1.417	10.088	-0.460	1.015	-0.281	N
P	8463.548	1.202	10.070	-0.439	0.974	-0.263	N	P	8530.500	1.550	10.066	-0.448	0.991	-0.277	N
P	8511.500	1.342	10.046	-0.442	0.980	-0.267	N	P	8530.500	1.550	10.066	-0.448	0.991	-0.277	N
P	8511.506	1.360	10.047	-0.443	0.985	-0.277	N	P	8530.506	1.581	10.068	-0.451	0.988	-0.258	N
P	8513.504	1.371	10.053	-0.430	0.968	-0.265	N	P	8530.506	1.581	10.068	-0.451	0.988	-0.258	N

Long Term Photometry of Variables

Group 9006 P=HR6249															
A=HR6210								B=HR6210							
Star	JD ₀	X	V	b - y	m ₁	c ₁	Sys	Star	JD ₀	X	V	b - y	m ₁	c ₁	Sys
A	8169.513	1.494	6.064	-0.016	0.127	0.677	N	P	8497.494	1.086	6.455	0.038	0.445	-0.291	N
B	8169.515	1.362	5.675	0.009	0.191	1.005	N	B	8497.500	1.022	5.663	0.009	0.188	1.003	N
P	8169.516	1.458	6.467	0.040	0.441	-0.279	N	A	8501.501	1.053	6.052	-0.016	0.121	0.681	N
B	8169.518	1.377	5.674	0.009	0.192	1.004	N	P	8501.502	1.057	6.455	0.030	0.446	-0.279	N
P	8169.519	1.476	6.471	0.035	0.447	-0.283	N	B	8501.504	1.034	5.665	0.009	0.187	1.005	N
A	8169.520	1.547	6.063	-0.016	0.123	0.685	N	P	8506.505	1.085	6.501	0.034	0.448	-0.297	N
A	8418.600	1.105	6.068	-0.012	0.120	0.678	N	B	8506.507	1.057	5.703	0.008	0.190	0.993	N
P	8418.602	1.124	6.471	0.034	0.452	-0.291	N	A	8510.529	1.193	6.061	-0.014	0.122	0.680	N
B	8418.604	1.152	5.680	0.010	0.190	0.998	N	P	8510.530	1.182	6.459	0.035	0.451	-0.289	N
A	8437.769	1.366	6.065	-0.015	0.119	0.693	N	B	8510.532	1.137	5.672	0.010	0.188	1.002	N
P	8437.772	1.345	6.463	0.037	0.439	-0.279	N	A	8511.533	1.223	6.047	-0.016	0.126	0.670	N
B	8437.775	1.288	5.675	0.008	0.190	1.005	N	P	8511.535	1.208	6.430	0.039	0.441	-0.283	N
A	8438.745	1.249	6.064	-0.016	0.125	0.674	N	B	8511.537	1.160	5.663	0.009	0.190	0.998	N
P	8438.748	1.242	6.468	0.034	0.450	-0.292	N	A	8517.495	1.142	6.073	-0.015	0.122	0.676	N
B	8438.750	1.192	5.675	0.009	0.189	0.998	N	P	8517.496	1.136	6.470	0.036	0.446	-0.293	N
A	8461.584	1.020	6.061	-0.014	0.117	0.682	N	B	8517.498	1.099	5.685	0.009	0.188	1.004	N
P	8461.586	1.030	6.461	0.039	0.436	-0.276	N	A	8518.518	1.241	6.041	-0.014	0.126	0.672	N
A	8462.675	1.236	6.073	-0.010	0.117	0.680	N	P	8518.519	1.224	6.440	0.037	0.452	-0.296	N
P	8462.677	1.226	6.480	0.031	0.457	-0.289	N	B	8518.521	1.174	5.652	0.010	0.192	0.995	N
B	8462.680	1.179	5.685	0.012	0.185	1.005	N	A	8519.495	1.161	6.079	-0.019	0.127	0.676	N
A	8463.603	1.045	6.068	-0.017	0.126	0.674	N	P	8519.496	1.153	6.475	0.034	0.446	-0.285	N
P	8463.605	1.051	6.479	0.035	0.446	-0.289	N	B	8519.498	1.113	5.685	0.007	0.192	0.997	N
B	8463.607	1.030	5.678	0.010	0.189	0.999	N	A	8523.498	1.216	6.071	-0.013	0.121	0.677	N
A	8464.625	1.090	6.061	-0.016	0.118	0.685	N	P	8523.499	1.202	6.454	0.041	0.438	-0.280	N
P	8464.626	1.091	6.476	0.033	0.445	-0.292	N	B	8523.501	1.155	5.679	0.012	0.187	1.002	N
B	8464.628	1.061	5.673	0.003	0.193	0.998	N	A	8524.503	1.251	6.063	-0.013	0.118	0.684	N
A	8491.484	1.013	6.078	-0.015	0.121	0.671	N	P	8524.504	1.233	6.477	0.033	0.447	-0.282	N
P	8491.485	1.024	6.473	0.035	0.445	-0.291	N	B	8524.506	1.182	5.675	0.010	0.186	1.001	N
B	8491.488	1.017	5.691	0.008	0.188	0.999	N	A	8530.514	1.406	6.095	-0.020	0.118	0.682	N
A	8493.486	1.015	6.068	-0.019	0.125	0.672	N	A	8530.514	1.406	6.095	-0.020	0.118	0.682	N
P	8493.487	1.026	6.459	0.032	0.448	-0.291	N	P	8530.516	1.377	6.503	0.028	0.451	-0.285	N
B	8493.489	1.016	5.678	0.006	0.190	0.999	N	P	8530.516	1.377	6.503	0.028	0.451	-0.285	N
A	8494.484	1.016	6.058	-0.013	0.119	0.681	N	B	8530.518	1.308	5.706	0.003	0.190	0.995	N
P	8494.486	1.026	6.448	0.039	0.441	-0.280	N	B	8530.518	1.308	5.706	0.003	0.190	0.995	N
B	8494.488	1.016	5.668	0.010	0.189	1.000	N	A	8533.521	1.529	6.084	-0.012	0.118	0.682	N
A	8495.482	1.016	6.059	-0.018	0.127	0.678	N	P	8533.522	1.477	6.468	0.036	0.445	-0.285	N
P	8495.484	1.027	6.462	0.034	0.449	-0.289	N	B	8533.524	1.395	5.695	0.007	0.192	1.002	N
B	8495.486	1.016	5.668	0.009	0.189	1.000	N	A	8536.504	1.460	6.089	-0.016	0.120	0.682	N
A	8496.614	1.434	6.064	-0.013	0.118	0.683	N	P	8536.505	1.418	6.491	0.031	0.448	-0.285	N
P	8496.615	1.396	6.477	0.036	0.446	-0.281	N	B	8536.507	1.343	5.706	0.006	0.188	1.005	N
B	8496.617	1.324	5.679	0.009	0.191	0.995	N	P	8537.519	1.543	6.448	0.041	0.440	-0.290	N
A	8497.492	1.027	6.048	-0.011	0.117	0.680	N	B	8537.521	1.452	5.651	0.012	0.191	0.992	N

Catalogue 1990-1992

Group 9007 P=HD164270
A=HD163868 B=HD164152

Star	JD _⊙	X	V	b - y	m ₁	c ₁	Sys	Star	JD _⊙	X	V	b - y	m ₁	c ₁	Sys
A	8166.576	1.514	7.336	0.054	0.045	0.161	N	A	8494.572	1.040	7.364	0.055	0.042	0.125	N
P	8166.579	1.535	9.066	-0.357	0.904	-0.109	N	P	8494.576	1.044	9.074	-0.374	0.924	-0.097	N
B	8166.584	1.587	8.887	0.062	0.122	0.954	N	B	8494.581	1.053	8.887	0.061	0.125	0.946	N
A	8168.570	1.517	7.324	0.060	0.040	0.133	N	A	8495.550	1.017	7.375	0.057	0.039	0.137	N
P	8168.573	1.535	9.061	-0.365	0.910	-0.086	N	P	8495.552	1.017	9.054	-0.359	0.903	-0.099	N
B	8168.578	1.586	8.885	0.066	0.117	0.953	N	B	8495.557	1.023	8.884	0.061	0.126	0.951	N
A	8169.581	1.655	7.343	0.054	0.047	0.117	N	A	8496.569	1.045	7.368	0.054	0.043	0.147	N
P	8169.584	1.678	9.137	-0.420	1.007	-0.126	N	P	8496.572	1.047	9.098	-0.395	0.976	-0.120	N
B	8169.589	1.743	8.887	0.062	0.127	0.949	N	B	8496.578	1.059	8.892	0.061	0.124	0.953	N
A	8172.574	1.663	7.352	0.055	0.043	0.152	N	A	8497.564	1.042	7.355	0.054	0.043	0.140	N
P	8172.576	1.686	9.083	-0.375	0.935	-0.097	N	P	8497.567	1.044	9.057	-0.375	0.927	-0.091	N
B	8172.581	1.752	8.886	0.071	0.116	0.954	N	B	8497.572	1.053	8.890	0.057	0.129	0.950	N
A	8191.507	1.530	7.387	0.050	0.051	0.195	N	A	8508.525	1.030	7.223	0.085	0.034	0.092	N
P	8191.511	1.561	9.088	-0.389	0.951	-0.084	N	P	8508.528	1.031	9.091	-0.377	0.929	-0.099	N
B	8191.517	1.625	8.898	0.062	0.124	0.971	N	B	8508.533	1.039	8.881	0.063	0.121	0.953	N
P	8191.522	1.679	9.079	-0.378	0.933	-0.087	N	A	8510.601	1.278	7.235	0.088	0.032	0.089	N
B	8191.528	1.750	8.894	0.057	0.133	0.962	N	P	8510.604	1.286	9.070	-0.370	0.913	-0.077	N
P	8191.533	1.817	9.072	-0.376	0.939	-0.101	N	B	8510.609	1.316	8.894	0.062	0.124	0.950	N
A	8191.537	1.882	7.376	0.052	0.044	0.192	N	A	8511.640	1.581	7.210	0.090	0.027	0.078	N
A	8418.606	1.282	7.363	0.062	0.043	0.158	N	P	8511.643	1.600	9.072	-0.376	0.914	-0.091	N
P	8418.609	1.276	9.078	-0.367	0.921	-0.106	N	B	8511.648	1.656	8.895	0.059	0.123	0.952	N
B	8418.613	1.253	8.893	0.063	0.122	0.959	N	A	8518.570	1.233	7.217	0.087	0.035	0.077	N
A	8438.790	1.215	7.297	0.074	0.036	0.093	N	P	8518.573	1.245	9.076	-0.360	0.909	-0.109	N
P	8438.794	1.228	9.019	-0.347	0.871	-0.067	N	B	8518.578	1.269	8.892	0.059	0.127	0.952	N
B	8438.799	1.255	8.894	0.061	0.125	0.952	N	A	8519.529	1.098	7.238	0.092	0.026	0.065	N
A	8439.829	1.467	7.287	0.074	0.039	0.084	N	P	8519.532	1.103	9.087	-0.376	0.949	-0.124	N
P	8439.832	1.490	9.061	-0.360	0.897	-0.081	N	B	8519.537	1.118	8.890	0.057	0.131	0.946	N
B	8439.837	1.534	8.897	0.059	0.129	0.955	N	A	8523.532	1.141	7.274	0.086	0.028	0.061	N
A	8463.648	1.025	7.344	0.066	0.037	0.086	N	P	8523.535	1.147	9.096	-0.388	0.950	-0.101	N
P	8463.652	1.028	9.116	-0.408	0.989	-0.107	N	B	8523.540	1.164	8.901	0.060	0.127	0.956	N
B	8463.656	1.034	8.891	0.061	0.128	0.943	N	A	8524.582	1.399	7.269	0.083	0.027	0.065	N
A	8464.688	1.109	7.328	0.058	0.044	0.086	N	P	8524.585	1.417	9.075	-0.367	0.923	-0.107	N
P	8464.692	1.117	9.078	-0.375	0.916	-0.093	N	B	8524.589	1.454	8.893	0.059	0.123	0.960	N
B	8464.696	1.130	8.890	0.055	0.131	0.945	N	A	8536.555	1.454	7.311	0.068	0.033	0.083	N
A	8491.528	1.003	7.371	0.057	0.042	0.135	N	P	8536.558	1.469	9.127	-0.387	0.951	-0.107	N
P	8491.530	1.002	9.054	-0.326	0.846	-0.082	N	B	8536.562	1.508	8.921	0.054	0.132	0.946	N
B	8491.534	1.002	8.907	0.062	0.124	0.957	N	A	8538.544	1.416	7.369	0.070	0.047	0.071	N
A	8493.538	1.005	7.343	0.055	0.044	0.107	N	P	8538.547	1.430	9.105	-0.342	0.883	-0.085	N
P	8493.541	1.005	9.060	-0.373	0.917	-0.089	N	A	8548.513	1.396	7.383	0.061	0.039	0.105	N
B	8493.545	1.007	8.896	0.051	0.133	0.947	N	P	8548.517	1.416	9.164	-0.384	0.933	-0.099	N

Long Term Photometry of Variables

Group 9008 P=HD313846
A=HD171923 B=HD172622

Star	JD _⊙	X	V	b - y	m ₁	c ₁	Sys	Star	JD _⊙	X	V	b - y	m ₁	c ₁	Sys
A	8166.536	1.161	9.897	0.278	0.183	0.788	N	P	8497.580	1.074	9.911	0.559	0.143	-0.181	N
P	8166.540	1.290	9.894	0.574	0.131	-0.188	N	B	8497.586	1.036	9.109	0.162	0.051	0.548	N
B	8166.546	1.190	9.113	0.167	0.047	0.546	N	A	8510.614	1.239	9.898	0.277	0.188	0.764	N
A	8168.530	1.162	9.888	0.281	0.180	0.792	N	P	8510.617	1.399	9.907	0.556	0.150	-0.193	N
P	8168.535	1.292	9.884	0.572	0.131	-0.205	N	B	8510.623	1.269	9.123	0.161	0.052	0.538	N
B	8168.541	1.192	9.104	0.169	0.042	0.549	N	A	8511.652	1.530	9.893	0.276	0.188	0.774	N
A	8169.548	1.251	9.907	0.284	0.185	0.796	N	P	8511.656	1.852	9.912	0.567	0.138	-0.194	N
P	8169.551	1.418	9.894	0.569	0.134	-0.189	N	B	8511.662	1.589	9.123	0.161	0.046	0.549	N
B	8169.557	1.282	9.117	0.169	0.039	0.549	N	A	8519.543	1.078	9.886	0.275	0.193	0.768	N
A	8172.545	1.283	9.892	0.271	0.190	0.789	N	P	8519.547	1.158	9.870	0.570	0.132	-0.198	N
P	8172.548	1.464	9.885	0.565	0.134	-0.187	N	B	8519.552	1.094	9.103	0.163	0.049	0.545	N
B	8172.554	1.316	9.112	0.161	0.049	0.540	N	A	8523.545	1.115	9.902	0.278	0.178	0.801	N
A	8438.804	1.193	9.895	0.274	0.190	0.772	N	P	8523.549	1.216	9.912	0.567	0.141	-0.189	N
P	8438.809	1.338	9.908	0.567	0.125	-0.173	N	B	8523.555	1.134	9.125	0.161	0.053	0.546	N
B	8438.815	1.224	9.118	0.164	0.050	0.549	N	A	8530.576	1.347	9.917	0.268	0.191	0.771	N
A	8491.538	1.013	9.914	0.271	0.188	0.799	N	P	8530.580	1.570	9.944	0.555	0.144	-0.191	N
P	8491.543	1.008	9.917	0.573	0.121	-0.173	N	B	8530.586	1.392	9.125	0.155	0.056	0.543	N
B	8491.548	1.008	9.079	0.183	0.041	0.540	N	A	8536.567	1.403	9.928	0.268	0.195	0.771	N
P	8493.559	1.021	9.895	0.563	0.141	-0.208	N	P	8536.571	1.660	9.934	0.562	0.136	-0.192	N
B	8493.565	1.008	9.097	0.159	0.054	0.542	N	B	8536.577	1.456	9.146	0.154	0.055	0.539	N
A	8494.585	1.029	9.873	0.266	0.202	0.763	N	A	8538.556	1.367	9.927	0.283	0.185	0.783	N
P	8494.588	1.074	9.905	0.564	0.149	-0.212	N	P	8538.559	1.596	9.949	0.570	0.139	-0.213	N
B	8494.595	1.036	9.105	0.161	0.051	0.541	N	B	8538.565	1.404	9.147	0.170	0.046	0.542	N
A	8497.577	1.029	9.893	0.269	0.197	0.766	N	P	8548.532	1.600	9.961	0.577	0.121	-0.210	N

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Group 9009								P=HD 86161							
A=HD 86000								B=HD 85810							
Star	JD_{\odot}	X	V	$b-y$	m_1	c_1	Sys	Star	JD_{\odot}	X	V	$b-y$	m_1	c_1	Sys
A	8194.813	1.678	8.151	0.004	0.144	0.605	N	P	8287.806	1.174	8.281	0.043	0.488	-0.299	N
P	8194.819	1.644	8.321	0.047	0.482	-0.290	N	B	8287.810	1.160	7.952	-0.015	0.113	0.542	N
B	8194.823	1.596	7.970	-0.017	0.118	0.541	N	A	8288.814	1.165	8.150	0.004	0.142	0.613	N
P	8194.828	1.583	8.323	0.051	0.478	-0.288	N	P	8288.817	1.196	8.289	0.040	0.489	-0.291	N
B	8194.835	1.518	7.972	-0.018	0.118	0.542	N	B	8288.821	1.185	7.969	-0.023	0.121	0.545	N
P	8194.839	1.512	8.325	0.044	0.488	-0.299	N	A	8290.812	1.171	8.132	0.000	0.140	0.611	N
A	8194.844	1.468	8.154	0.006	0.139	0.610	N	P	8290.815	1.203	8.294	0.034	0.497	-0.297	N
A	8198.820	1.550	8.146	0.008	0.133	0.616	N	B	8290.818	1.191	7.952	-0.029	0.123	0.547	N
P	8198.824	1.537	8.303	0.044	0.479	-0.280	N	A	8292.803	1.165	8.128	0.003	0.135	0.616	N
B	8198.828	1.494	7.966	-0.017	0.114	0.546	N	P	8292.807	1.197	8.278	0.052	0.470	-0.288	N
P	8198.832	1.492	8.298	0.047	0.475	-0.278	N	B	8292.811	1.186	7.943	-0.021	0.115	0.549	N
B	8198.836	1.451	7.965	-0.022	0.115	0.552	N	A	8293.749	1.110	8.133	0.005	0.135	0.606	N
P	8198.840	1.452	8.306	0.043	0.476	-0.279	N	P	8293.754	1.141	8.285	0.039	0.490	-0.299	N
A	8198.844	1.412	8.145	0.003	0.135	0.616	N	B	8293.758	1.121	7.950	-0.018	0.114	0.540	N
P	8249.721	1.369	8.313	0.049	0.477	-0.292	N	A	8294.783	1.142	8.136	0.005	0.135	0.608	N
B	8249.725	1.329	7.981	-0.023	0.121	0.540	N	P	8294.787	1.175	8.307	0.033	0.506	-0.298	N
A	8259.822	1.107	8.131	0.001	0.137	0.609	N	B	8294.791	1.161	7.954	-0.018	0.112	0.546	N
P	8259.825	1.136	8.285	0.040	0.481	-0.290	N	A	8415.541	1.399	8.145	-0.003	0.140	0.616	N
B	8259.828	1.113	7.949	-0.024	0.117	0.544	N	P	8415.545	1.429	8.258	0.060	0.449	-0.279	N
A	8281.766	1.107	8.135	0.000	0.147	0.603	N	B	8415.548	1.439	7.957	-0.024	0.117	0.547	N
P	8281.769	1.136	8.256	0.052	0.469	-0.290	N	A	8415.592	1.734	8.155	-0.004	0.140	0.625	N
B	8281.771	1.113	7.953	-0.021	0.113	0.548	N	P	8415.595	1.753	8.276	0.049	0.462	-0.278	N
A	8282.755	1.108	8.125	0.002	0.139	0.608	N	B	8415.598	1.800	7.962	-0.022	0.115	0.548	N
P	8282.758	1.136	8.242	0.046	0.476	-0.302	N	A	8651.759	1.108	8.125	0.000	0.141	0.605	N
B	8282.759	1.113	7.947	-0.028	0.124	0.543	N	P	8651.761	1.137	8.280	0.028	0.494	-0.290	N
A	8283.818	1.149	8.123	-0.002	0.140	0.608	N	B	8651.763	1.115	7.945	-0.031	0.129	0.544	N
P	8283.821	1.180	8.263	0.033	0.490	-0.286	N	A	8654.746	1.119	8.125	0.003	0.133	0.611	N
B	8283.823	1.164	7.940	-0.025	0.119	0.541	N	P	8654.747	1.150	8.284	0.040	0.474	-0.292	N
A	8284.834	1.182	8.141	-0.003	0.148	0.602	N	B	8654.749	1.126	7.947	-0.023	0.111	0.547	N
P	8284.836	1.212	8.287	0.041	0.492	-0.295	N	A	8655.742	1.119	8.121	-0.001	0.140	0.610	N
B	8284.839	1.200	7.958	-0.026	0.126	0.535	N	P	8655.745	1.150	8.268	0.047	0.477	-0.291	N
A	8285.807	1.141	8.124	-0.004	0.142	0.606	N	B	8655.748	1.126	7.943	-0.026	0.119	0.541	N
P	8285.809	1.172	8.253	0.037	0.492	-0.305	N	A	8656.848	1.277	8.130	0.001	0.135	0.614	N
B	8285.811	1.154	7.938	-0.026	0.124	0.532	N	P	8656.851	1.309	8.271	0.043	0.484	-0.288	N
A	8286.812	1.152	8.131	0.001	0.140	0.613	N	B	8656.853	1.302	7.943	-0.022	0.115	0.539	N
P	8286.815	1.183	8.260	0.044	0.471	-0.286	N	A	8658.777	1.131	8.132	-0.002	0.144	0.612	N
B	8286.819	1.171	7.947	-0.020	0.116	0.539	N	P	8658.779	1.160	8.283	0.035	0.500	-0.302	N
A	8287.803	1.144	8.138	0.002	0.143	0.604	N	B	8658.782	1.143	7.949	-0.022	0.119	0.543	N

Long Term Photometry of Variables

Group 9010 P=HR2583
A=HR2578 B=HD 50711 C=HR2576

Star	JD ₀	X	V	b - y	m ₁	c ₁	Sys	Star	JD ₀	X	V	b - y	m ₁	c ₁	Sys
A	8169.822	1.296	6.248	0.002	0.161	1.093	N	A	8216.802	1.008	6.238	0.001	0.166	1.089	N
P	8169.823	1.295	6.632	-0.794	1.685	-0.935	N	P	8216.804	1.008	6.668	-0.798	1.693	-0.926	N
A	8172.824	1.242	6.224	0.001	0.161	1.094	N	A	8216.807	1.006	6.239	0.002	0.164	1.093	N
P	8172.825	1.240	6.670	-0.815	1.726	-0.944	N	P	8216.809	1.006	6.668	-0.799	1.692	-0.921	N
B	8172.827	1.229	7.438	0.098	0.209	1.025	N	A	8216.810	1.005	6.244	0.000	0.169	1.082	N
A	8187.777	1.276	6.235	0.002	0.162	1.092	N	A	8217.696	1.288	6.234	0.003	0.164	1.088	N
P	8187.778	1.273	6.679	-0.809	1.718	-0.937	N	P	8217.698	1.277	6.661	-0.807	1.716	-0.943	N
B	8187.780	1.258	7.446	0.099	0.216	1.011	N	A	8217.700	1.262	6.235	0.001	0.166	1.088	N
P	8187.782	1.254	6.678	-0.806	1.712	-0.935	N	P	8217.702	1.256	6.662	-0.808	1.715	-0.940	N
B	8187.784	1.241	7.447	0.098	0.217	1.017	N	A	8217.704	1.243	6.238	0.000	0.166	1.087	N
P	8187.785	1.235	6.685	-0.810	1.723	-0.947	N	P	8217.706	1.238	6.661	-0.808	1.716	-0.944	N
A	8187.786	1.227	6.237	0.003	0.161	1.088	N	A	8217.707	1.226	6.234	0.004	0.161	1.088	N
A	8187.834	1.066	6.232	0.000	0.162	1.094	N	A	8217.868	1.047	6.234	0.000	0.166	1.085	N
P	8187.835	1.066	6.676	-0.808	1.714	-0.941	N	P	8217.870	1.051	6.668	-0.808	1.710	-0.933	N
B	8187.837	1.061	7.444	0.100	0.210	1.023	N	A	8217.872	1.053	6.235	0.001	0.164	1.089	N
P	8187.838	1.060	6.678	-0.809	1.716	-0.940	N	A	8218.687	1.321	6.240	0.001	0.163	1.094	N
B	8187.841	1.054	7.444	0.096	0.218	1.011	N	P	8218.690	1.312	6.641	-0.799	1.693	-0.921	N
P	8187.842	1.052	6.675	-0.809	1.715	-0.935	N	A	8218.691	1.297	6.236	0.001	0.165	1.089	N
A	8187.843	1.048	6.236	0.000	0.163	1.094	N	P	8218.693	1.292	6.651	-0.801	1.695	-0.921	N
A	8190.765	1.298	6.231	0.004	0.160	1.092	N	A	8218.695	1.278	6.237	0.000	0.166	1.093	N
P	8190.766	1.295	6.683	-0.805	1.711	-0.942	N	P	8218.697	1.272	6.646	-0.801	1.696	-0.927	N
B	8190.768	1.281	7.445	0.099	0.215	1.014	N	A	8218.698	1.258	6.240	0.004	0.157	1.102	N
P	8190.769	1.276	6.681	-0.803	1.707	-0.939	N	A	8218.795	1.009	6.237	0.000	0.162	1.099	N
B	8190.772	1.258	7.444	0.099	0.216	1.010	N	P	8218.797	1.009	6.636	-0.799	1.689	-0.928	N
P	8190.774	1.253	6.683	-0.804	1.707	-0.935	N	A	8218.799	1.007	6.234	-0.001	0.166	1.091	N
A	8190.775	1.244	6.235	0.003	0.161	1.091	N	P	8218.801	1.008	6.633	-0.797	1.685	-0.925	N
A	8193.734	1.467	6.240	0.003	0.157	1.098	N	A	8218.803	1.006	6.235	0.000	0.163	1.095	N
P	8193.736	1.459	6.707	-0.824	1.743	-0.941	N	P	8218.805	1.006	6.634	-0.798	1.688	-0.930	N
B	8193.739	1.431	7.450	0.098	0.215	1.012	N	A	8218.807	1.004	6.234	0.001	0.165	1.089	N
P	8193.742	1.412	6.708	-0.823	1.743	-0.942	N	A	8219.689	1.296	6.239	0.001	0.166	1.088	N
B	8193.745	1.385	7.445	0.099	0.214	1.016	N	P	8219.691	1.287	6.660	-0.816	1.728	-0.940	N
P	8193.748	1.370	6.708	-0.827	1.747	-0.944	N	B	8219.694	1.267	7.445	0.099	0.215	1.018	N
A	8193.749	1.353	6.240	0.001	0.160	1.097	N	P	8219.697	1.256	6.657	-0.816	1.730	-0.943	N
A	8196.772	1.190	6.234	0.001	0.165	1.097	N	B	8219.700	1.238	7.445	0.097	0.219	1.015	N
P	8196.773	1.186	6.596	-0.783	1.669	-0.934	N	P	8219.702	1.229	6.658	-0.818	1.733	-0.945	N
B	8196.776	1.173	7.439	0.100	0.219	1.011	N	A	8219.704	1.216	6.236	0.000	0.163	1.096	N
P	8196.779	1.165	6.598	-0.783	1.665	-0.928	N	A	8219.817	1.004	6.256	0.000	0.165	1.096	N
B	8196.781	1.153	7.438	0.102	0.216	1.010	N	P	8219.819	1.005	6.667	-0.820	1.735	-0.944	N
P	8196.784	1.144	6.599	-0.785	1.666	-0.925	N	B	8219.822	1.006	7.440	0.098	0.218	1.016	N
A	8196.786	1.136	6.230	0.003	0.163	1.096	N	P	8219.824	1.007	6.662	-0.817	1.730	-0.939	N
A	8200.822	1.030	6.237	0.002	0.162	1.092	N	B	8219.827	1.008	7.444	0.100	0.215	1.016	N
P	8200.824	1.029	6.652	-0.818	1.733	-0.943	N	P	8219.830	1.010	6.666	-0.820	1.733	-0.940	N
B	8200.827	1.024	7.448	0.099	0.215	1.017	N	A	8219.831	1.010	6.234	0.001	0.163	1.100	N
P	8200.829	1.022	6.654	-0.820	1.736	-0.944	N	A	8222.696	1.217	6.237	0.003	0.159	1.104	N
B	8200.832	1.018	7.448	0.099	0.213	1.017	N	P	8222.698	1.213	6.621	-0.784	1.665	-0.921	N
P	8200.835	1.017	6.652	-0.816	1.731	-0.943	N	B	8222.700	1.198	7.448	0.099	0.215	1.016	N
A	8200.836	1.014	6.237	0.002	0.163	1.089	N	P	8222.703	1.188	6.621	-0.785	1.667	-0.924	N
A	8215.720	1.192	6.238	0.003	0.157	1.104	N	B	8222.706	1.174	7.446	0.101	0.214	1.017	N
P	8215.723	1.184	6.631	-0.797	1.690	-0.925	N	P	8222.709	1.165	6.623	-0.787	1.672	-0.926	N
A	8215.725	1.173	6.238	0.003	0.157	1.101	N	A	8222.711	1.156	6.237	0.002	0.162	1.097	N
P	8215.727	1.168	6.634	-0.800	1.696	-0.930	N	A	8222.831	1.016	6.237	0.000	0.163	1.097	N
A	8215.729	1.158	6.236	0.003	0.159	1.101	N	P	8222.833	1.018	6.617	-0.793	1.684	-0.931	N
P	8215.731	1.154	6.634	-0.799	1.693	-0.926	N	B	8222.835	1.021	7.440	0.102	0.212	1.019	N
A	8215.733	1.144	6.236	0.001	0.159	1.098	N	P	8222.838	1.024	6.618	-0.794	1.683	-0.923	N
A	8215.830	1.004	6.239	0.004	0.158	1.093	N	B	8222.841	1.027	7.443	0.099	0.214	1.021	N
P	8215.832	1.006	6.654	-0.808	1.713	-0.938	N	P	8222.844	1.031	6.620	-0.794	1.684	-0.927	N
A	8215.834	1.006	6.242	0.003	0.154	1.111	N	A	8222.846	1.033	6.236	0.004	0.159	1.100	N
P	8215.836	1.007	6.655	-0.808	1.713	-0.940	N	A	8223.690	1.234	6.235	0.002	0.161	1.094	N
A	8215.838	1.007	6.240	0.002	0.159	1.096	N	P	8223.691	1.229	6.666	-0.804	1.696	-0.924	N
P	8215.840	1.009	6.654	-0.808	1.713	-0.940	N	B	8223.694	1.212	7.446	0.100	0.213	1.018	N
A	8215.841	1.009	6.241	0.001	0.163	1.091	N	P	8223.697	1.202	6.664	-0.802	1.694	-0.924	N
A	8216.679	1.419	6.237	0.001	0.163	1.097	N	B	8223.700	1.186	7.444	0.098	0.219	1.007	N
P	8216.681	1.409	6.662	-0.793	1.682	-0.913	N	P	8223.703	1.177	6.666	-0.805	1.696	-0.923	N
A	8216.683	1.389	6.238	-0.001	0.168	1.087	N	A	8223.705	1.167	6.235	0.000	0.164	1.095	N
P	8216.684	1.382	6.663	-0.795	1.684	-0.912	N	A	8223.822	1.011	6.234	0.004	0.162	1.093	N
A	8216.686	1.364	6.237	0.002	0.162	1.092	N	P	8223.824	1.013	6.665	-0.799	1.695	-0.927	N
P	8216.688	1.357	6.659	-0.794	1.684	-0.917	N	B	8223.827	1.015	7.446	0.099	0.215	1.017	N
A	8216.690	1.340	6.236	0.004	0.159	1.096	N	P	8223.829	1.018	6.669	-0.803	1.698	-0.920	N
A	8216.798	1.011	6.242	-0.003	0.171	1.087	N	B	8223.832	1.020	7.445	0.100	0.216	1.015	N
P	8216.800	1.010	6.665	-0.795	1.688	-0.922	N	P	8223.835	1.023	6.666	-0.798	1.691	-0.920	N

Catalogue 1990-1992

Group 9010 P=HR2583 (continued)
A=HR2578 B=HD 50711 C=HR2576

Star	JD _⊙	X	V	b-y	m ₁	c ₁	Sys	Star	JD _⊙	X	V	b-y	m ₁	c ₁	Sys
A	8223.836	1.024	6.236	0.002	0.163	1.093	N	A	8232.851	1.099	6.230	0.000	0.161	1.095	N
A	8226.697	1.165	6.232	0.002	0.161	1.096	N	A	8233.675	1.178	6.228	0.005	0.156	1.099	N
P	8226.699	1.161	6.626	-0.799	1.692	-0.924	N	P	8233.677	1.174	6.637	-0.791	1.679	-0.922	N
B	8226.702	1.148	7.440	0.102	0.209	1.023	N	B	8233.680	1.161	7.439	0.100	0.212	1.019	N
P	8226.705	1.141	6.623	-0.798	1.694	-0.933	N	P	8233.683	1.153	6.641	-0.791	1.676	-0.918	N
B	8226.708	1.129	7.443	0.101	0.210	1.019	N	B	8233.685	1.142	7.441	0.099	0.213	1.021	N
P	8226.711	1.122	6.622	-0.797	1.691	-0.930	N	P	8233.688	1.134	6.637	-0.789	1.672	-0.915	N
A	8226.712	1.115	6.232	0.003	0.158	1.103	N	A	8233.691	1.123	6.234	0.001	0.161	1.095	N
A	8226.827	1.023	6.240	0.003	0.160	1.096	N	A	8233.839	1.076	6.242	0.000	0.167	1.091	N
P	8226.829	1.026	6.636	-0.801	1.695	-0.931	N	P	8233.841	1.081	6.632	-0.786	1.670	-0.917	N
B	8226.832	1.029	7.449	0.097	0.217	1.019	N	B	8233.844	1.087	7.452	0.098	0.216	1.023	N
P	8226.835	1.033	6.636	-0.800	1.696	-0.931	N	P	8233.847	1.095	6.637	-0.789	1.672	-0.912	N
B	8226.838	1.037	7.449	0.101	0.212	1.019	N	B	8233.850	1.103	7.452	0.099	0.214	1.022	N
P	8226.840	1.042	6.633	-0.795	1.690	-0.927	N	P	8233.852	1.111	6.636	-0.789	1.674	-0.921	N
A	8226.842	1.043	6.242	0.002	0.162	1.094	N	A	8233.854	1.114	6.242	0.000	0.166	1.094	N
A	8227.674	1.260	6.244	0.006	0.159	1.094	N	A	8234.653	1.271	6.232	0.004	0.159	1.096	N
P	8227.675	1.255	6.690	-0.804	1.711	-0.939	N	P	8234.655	1.265	6.669	-0.814	1.734	-0.950	N
B	8227.678	1.239	7.451	0.101	0.213	1.013	N	B	8234.658	1.247	7.449	0.101	0.216	1.012	N
P	8227.681	1.228	6.690	-0.807	1.715	-0.942	N	P	8234.661	1.235	6.663	-0.808	1.727	-0.950	N
B	8227.684	1.213	7.451	0.102	0.211	1.009	N	B	8234.663	1.219	7.447	0.100	0.217	1.015	N
P	8227.686	1.203	6.691	-0.806	1.710	-0.938	N	P	8234.666	1.209	6.672	-0.816	1.735	-0.951	N
A	8227.688	1.193	6.241	0.005	0.155	1.099	N	A	8234.668	1.198	6.242	0.004	0.164	1.092	N
A	8227.829	1.028	6.235	-0.001	0.166	1.090	N	A	8234.832	1.066	6.245	0.005	0.158	1.098	N
P	8227.830	1.031	6.684	-0.809	1.709	-0.933	N	P	8234.834	1.071	6.684	-0.815	1.736	-0.952	N
B	8227.833	1.034	7.443	0.098	0.218	1.013	N	B	8234.837	1.077	7.449	0.101	0.213	1.014	N
P	8227.836	1.039	6.684	-0.808	1.706	-0.934	N	P	8234.840	1.084	6.686	-0.820	1.740	-0.953	N
B	8227.838	1.043	7.443	0.098	0.217	1.013	N	B	8234.843	1.091	7.449	0.099	0.216	1.015	N
P	8227.841	1.048	6.678	-0.804	1.701	-0.933	N	P	8234.846	1.099	6.683	-0.816	1.736	-0.948	N
A	8227.843	1.050	6.233	0.002	0.161	1.092	N	A	8234.847	1.103	6.238	0.004	0.158	1.093	N
A	8228.647	1.414	6.232	0.003	0.156	1.099	N	A	8235.698	1.087	6.234	0.005	0.157	1.103	N
P	8228.649	1.408	6.657	-0.794	1.685	-0.922	N	P	8235.700	1.083	6.675	-0.796	1.695	-0.926	N
B	8228.652	1.383	7.440	0.101	0.212	1.017	N	B	8235.703	1.075	7.447	0.103	0.209	1.021	N
P	8228.654	1.368	6.654	-0.792	1.683	-0.921	N	P	8235.706	1.070	6.675	-0.797	1.694	-0.923	N
B	8228.657	1.344	7.444	0.100	0.212	1.014	N	B	8235.709	1.062	7.447	0.103	0.210	1.020	N
P	8228.660	1.330	6.659	-0.795	1.687	-0.925	N	P	8235.712	1.057	6.678	-0.800	1.699	-0.928	N
A	8228.661	1.315	6.232	0.003	0.160	1.096	N	A	8235.714	1.052	6.237	0.004	0.163	1.089	N
A	8228.817	1.018	6.231	0.001	0.161	1.099	N	A	8235.837	1.084	6.234	0.005	0.152	1.101	N
P	8228.819	1.021	6.658	-0.800	1.700	-0.937	N	P	8235.839	1.089	6.671	-0.797	1.687	-0.925	N
B	8228.822	1.024	7.438	0.100	0.211	1.021	N	B	8235.842	1.097	7.444	0.103	0.206	1.022	N
P	8228.826	1.028	6.660	-0.800	1.699	-0.941	N	P	8235.845	1.105	6.671	-0.796	1.688	-0.926	N
B	8228.829	1.032	7.440	0.098	0.215	1.018	N	B	8235.848	1.113	7.447	0.099	0.211	1.020	N
P	8228.832	1.036	6.665	-0.806	1.706	-0.934	N	P	8235.850	1.121	6.677	-0.799	1.691	-0.924	N
A	8228.834	1.039	6.233	-0.002	0.167	1.091	N	A	8235.852	1.125	6.239	0.004	0.155	1.104	N
A	8230.718	1.072	6.235	0.000	0.166	1.090	N	A	8238.662	1.179	6.241	0.002	0.161	1.093	N
P	8230.719	1.070	6.647	-0.807	1.709	-0.940	N	P	8238.663	1.175	6.672	-0.801	1.698	-0.930	N
B	8230.722	1.063	7.443	0.099	0.215	1.016	N	B	8238.666	1.162	7.447	0.100	0.215	1.010	N
P	8230.726	1.057	6.643	-0.804	1.705	-0.940	N	P	8238.669	1.154	6.674	-0.803	1.702	-0.932	N
B	8230.729	1.050	7.440	0.099	0.218	1.011	N	B	8238.672	1.142	7.447	0.100	0.212	1.016	N
P	8230.733	1.044	6.645	-0.804	1.705	-0.937	N	P	8238.675	1.134	6.675	-0.805	1.702	-0.930	N
A	8230.735	1.040	6.235	0.000	0.165	1.093	N	A	8238.676	1.126	6.242	0.002	0.160	1.093	N
A	8230.819	1.026	6.236	-0.003	0.170	1.086	N	A	8238.827	1.078	6.234	0.002	0.159	1.097	N
P	8230.821	1.029	6.645	-0.803	1.701	-0.939	N	P	8238.828	1.082	6.680	-0.808	1.712	-0.942	N
B	8230.823	1.032	7.447	0.094	0.225	1.000	N	B	8238.831	1.089	7.440	0.100	0.211	1.020	N
P	8230.826	1.037	6.649	-0.806	1.708	-0.942	N	P	8238.834	1.097	6.678	-0.807	1.710	-0.938	N
B	8230.829	1.040	7.446	0.096	0.217	1.008	N	B	8238.837	1.104	7.436	0.100	0.211	1.019	N
P	8230.832	1.046	6.652	-0.806	1.705	-0.937	N	P	8238.839	1.112	6.679	-0.810	1.714	-0.940	N
A	8230.834	1.048	6.237	-0.002	0.168	1.086	N	A	8238.841	1.116	6.233	0.002	0.158	1.100	N
A	8232.682	1.163	6.239	-0.001	0.164	1.098	N	A	8239.694	1.070	6.229	0.002	0.163	1.094	N
P	8232.684	1.159	6.667	-0.801	1.701	-0.929	N	P	8239.696	1.069	6.675	-0.801	1.706	-0.947	N
B	8232.686	1.147	7.446	0.100	0.210	1.022	N	B	8239.698	1.062	7.441	0.098	0.218	1.007	N
P	8232.689	1.139	6.670	-0.804	1.704	-0.929	N	P	8239.701	1.058	6.672	-0.797	1.697	-0.933	N
B	8232.692	1.128	7.445	0.099	0.211	1.027	N	B	8239.704	1.052	7.443	0.100	0.212	1.019	N
P	8232.695	1.121	6.668	-0.802	1.702	-0.931	N	P	8239.706	1.048	6.675	-0.799	1.700	-0.938	N
A	8232.696	1.114	6.236	0.000	0.160	1.100	N	A	8239.708	1.044	6.230	0.002	0.164	1.092	N
A	8232.836	1.063	6.229	-0.001	0.162	1.096	N	A	8239.825	1.080	6.237	0.002	0.167	1.084	N
P	8232.838	1.068	6.668	-0.810	1.717	-0.936	N	P	8239.827	1.085	6.675	-0.799	1.701	-0.937	N
B	8232.841	1.074	7.438	0.096	0.214	1.024	N	B	8239.830	1.092	7.447	0.100	0.215	1.013	N
P	8232.844	1.080	6.668	-0.808	1.713	-0.931	N	P	8239.832	1.099	6.676	-0.802	1.707	-0.946	N
B	8232.846	1.087	7.436	0.099	0.211	1.022	N	B	8239.835	1.107	7.448	0.099	0.217	1.013	N
P	8232.850	1.095	6.665	-0.809	1.719	-0.939	N	P	8239.838	1.115	6.678	-0.802	1.703	-0.938	N

Long Term Photometry of Variables

Group 9010 P=HR2583 (continued)
A=HR2578 B=HD 50711 C=HR2576

Star	JD _⊙	X	V	b - y	m ₁	c ₁	Sys	Star	JD _⊙	X	V	b - y	m ₁	c ₁	Sys
A	8239.839	1.118	6.236	0.003	0.163	1.090	N	A	8252.662	1.064	6.228	0.003	0.160	1.096	N
A	8244.658	1.133	6.242	0.005	0.154	1.109	N	A	8252.793	1.088	6.243	0.000	0.169	1.087	N
P	8244.660	1.130	6.684	-0.809	1.714	-0.926	N	P	8252.794	1.093	6.617	-0.777	1.650	-0.915	N
B	8244.663	1.118	7.452	0.100	0.211	1.026	N	B	8252.797	1.099	7.448	0.096	0.223	1.006	N
P	8244.666	1.111	6.686	-0.810	1.717	-0.928	N	P	8252.799	1.106	6.617	-0.779	1.651	-0.917	N
B	8244.668	1.102	7.449	0.103	0.207	1.028	N	B	8252.802	1.113	7.442	0.097	0.218	1.012	N
P	8244.671	1.096	6.686	-0.812	1.719	-0.928	N	P	8252.804	1.120	6.619	-0.781	1.653	-0.917	N
A	8244.673	1.088	6.243	0.002	0.161	1.096	N	A	8252.805	1.123	6.237	0.000	0.166	1.089	N
A	8244.772	1.016	6.234	0.001	0.159	1.100	N	A	8255.643	1.089	6.242	0.002	0.169	1.087	N
P	8244.773	1.018	6.680	-0.817	1.722	-0.926	N	P	8255.644	1.088	6.695	-0.810	1.723	-0.942	N
B	8244.776	1.021	7.443	0.098	0.210	1.025	N	B	8255.647	1.081	7.447	0.098	0.221	1.013	N
P	8244.779	1.024	6.678	-0.813	1.717	-0.926	N	P	8255.649	1.077	6.693	-0.808	1.719	-0.945	N
B	8244.782	1.027	7.442	0.100	0.204	1.029	N	B	8255.651	1.070	7.446	0.100	0.217	1.015	N
P	8244.785	1.032	6.684	-0.816	1.720	-0.933	N	P	8255.654	1.066	6.693	-0.810	1.719	-0.934	N
A	8244.787	1.033	6.232	0.001	0.159	1.099	N	A	8255.655	1.062	6.239	0.002	0.167	1.085	N
A	8245.684	1.058	6.240	0.006	0.155	1.103	N	A	8255.768	1.052	6.236	0.002	0.162	1.092	N
P	8245.685	1.057	6.634	-0.795	1.684	-0.925	N	P	8255.769	1.055	6.696	-0.812	1.722	-0.943	N
B	8245.688	1.051	7.445	0.101	0.213	1.016	N	B	8255.773	1.062	7.446	0.097	0.217	1.011	N
P	8245.691	1.047	6.628	-0.791	1.679	-0.923	N	P	8255.776	1.067	6.697	-0.809	1.717	-0.944	N
B	8245.693	1.042	7.445	0.100	0.214	1.018	N	B	8255.779	1.075	7.448	0.095	0.221	1.010	N
P	8245.696	1.039	6.633	-0.794	1.681	-0.922	N	P	8255.782	1.082	6.694	-0.813	1.718	-0.938	N
A	8245.697	1.035	6.238	0.004	0.160	1.098	N	A	8255.783	1.084	6.236	0.001	0.161	1.094	N
A	8245.769	1.016	6.234	0.002	0.159	1.102	N	A	8256.638	1.095	6.238	0.005	0.158	1.094	N
P	8245.770	1.018	6.629	-0.797	1.683	-0.923	N	P	8256.639	1.093	6.606	-0.763	1.628	-0.914	N
B	8245.773	1.020	7.442	0.100	0.209	1.025	N	B	8256.642	1.085	7.446	0.102	0.215	1.015	N
P	8245.776	1.024	6.631	-0.798	1.686	-0.927	N	P	8256.645	1.081	6.617	-0.768	1.636	-0.918	N
B	8245.779	1.027	7.443	0.099	0.212	1.023	N	B	8256.647	1.073	7.447	0.102	0.216	1.014	N
P	8245.781	1.030	6.631	-0.797	1.685	-0.927	N	P	8256.650	1.069	6.617	-0.769	1.638	-0.917	N
A	8245.783	1.032	6.234	0.002	0.160	1.098	N	A	8256.651	1.064	6.239	0.008	0.158	1.100	N
A	8249.643	1.139	6.233	0.003	0.163	1.095	N	A	8258.611	1.164	6.246	0.007	0.161	1.087	N
P	8249.644	1.136	6.639	-0.800	1.704	-0.946	N	P	8258.612	1.163	6.690	-0.800	1.710	-0.942	N
B	8249.647	1.125	7.437	0.099	0.218	1.011	N	B	8258.615	1.152	7.450	0.106	0.210	1.012	N
P	8249.650	1.118	6.634	-0.797	1.699	-0.945	N	P	8258.617	1.145	6.692	-0.801	1.712	-0.948	N
B	8249.653	1.108	7.436	0.098	0.219	1.008	N	B	8258.620	1.135	7.447	0.106	0.210	1.010	N
P	8249.655	1.102	6.640	-0.799	1.703	-0.946	N	P	8258.622	1.129	6.687	-0.801	1.709	-0.945	N
A	8249.657	1.096	6.230	0.003	0.163	1.091	N	A	8258.623	1.122	6.243	0.006	0.155	1.097	N
A	8249.768	1.026	6.237	0.002	0.163	1.090	N	A	8258.776	1.086	6.238	0.004	0.158	1.102	N
P	8249.769	1.029	6.659	-0.807	1.713	-0.943	N	P	8258.777	1.090	6.683	-0.807	1.714	-0.947	N
B	8249.772	1.032	7.445	0.099	0.215	1.015	N	B	8258.780	1.096	7.441	0.102	0.209	1.020	N
P	8249.775	1.036	6.652	-0.801	1.704	-0.939	N	P	8258.782	1.104	6.682	-0.806	1.713	-0.951	N
B	8249.778	1.041	7.444	0.099	0.217	1.016	N	B	8258.785	1.110	7.443	0.099	0.214	1.020	N
P	8249.780	1.045	6.656	-0.805	1.710	-0.944	N	P	8258.787	1.118	6.680	-0.803	1.710	-0.942	N
A	8249.782	1.047	6.233	0.003	0.162	1.093	N	A	8258.788	1.121	6.243	0.000	0.164	1.087	N
A	8250.653	1.100	6.232	0.000	0.169	1.090	N	A	8259.634	1.085	6.239	0.009	0.156	1.094	N
P	8250.654	1.099	6.639	-0.799	1.696	-0.927	N	P	8259.635	1.084	6.703	-0.810	1.726	-0.945	N
B	8250.656	1.091	7.436	0.099	0.218	1.013	N	B	8259.637	1.077	7.453	0.104	0.212	1.014	N
P	8250.658	1.087	6.639	-0.800	1.697	-0.932	N	P	8259.652	1.049	6.703	-0.810	1.724	-0.943	N
B	8250.661	1.079	7.437	0.099	0.218	1.009	N	B	8259.654	1.044	7.450	0.103	0.212	1.020	N
P	8250.663	1.076	6.641	-0.800	1.697	-0.931	N	P	8259.656	1.041	6.698	-0.807	1.722	-0.946	N
A	8250.664	1.071	6.234	0.000	0.169	1.087	N	A	8259.657	1.038	6.237	0.009	0.159	1.089	N
A	8250.785	1.057	6.238	0.001	0.164	1.094	N	A	8259.757	1.051	6.231	0.004	0.158	1.098	N
P	8250.786	1.060	6.663	-0.810	1.719	-0.943	N	P	8259.758	1.054	6.689	-0.810	1.722	-0.947	N
B	8250.788	1.065	7.455	0.097	0.218	1.014	N	B	8259.761	1.059	7.444	0.097	0.219	1.006	N
P	8250.791	1.070	6.675	-0.810	1.719	-0.941	N	P	8259.763	1.064	6.690	-0.811	1.724	-0.951	N
B	8250.793	1.076	7.443	0.101	0.216	1.013	N	B	8259.765	1.069	7.444	0.098	0.217	1.008	N
P	8250.795	1.081	6.661	-0.808	1.718	-0.940	N	P	8259.768	1.074	6.686	-0.812	1.723	-0.945	N
A	8250.796	1.083	6.240	-0.001	0.170	1.084	N	A	8259.769	1.076	6.233	0.002	0.161	1.086	N
A	8251.775	1.045	6.233	0.000	0.166	1.089	N	A	8260.578	1.293	6.245	-0.006	0.176	1.079	N
P	8251.777	1.049	6.671	-0.807	1.714	-0.941	N	P	8260.580	1.291	6.632	-0.796	1.693	-0.952	N
B	8251.780	1.054	7.442	0.096	0.219	1.013	N	B	8260.582	1.275	7.452	0.093	0.229	0.996	N
P	8251.782	1.059	6.674	-0.811	1.719	-0.944	N	P	8260.585	1.264	6.635	-0.800	1.698	-0.955	N
B	8251.785	1.065	7.441	0.097	0.218	1.012	N	B	8260.587	1.249	7.455	0.092	0.230	0.995	N
P	8251.788	1.071	6.680	-0.810	1.716	-0.940	N	P	8260.589	1.238	6.635	-0.796	1.693	-0.955	N
A	8251.790	1.073	6.238	-0.001	0.165	1.094	N	A	8260.591	1.229	6.246	-0.004	0.173	1.080	N
A	8252.650	1.092	6.231	0.001	0.162	1.095	N	A	8281.597	1.039	6.228	0.007	0.160	1.096	N
P	8252.651	1.091	6.623	-0.782	1.652	-0.907	N	P	8281.599	1.036	6.656	-0.801	1.703	-0.932	N
B	8252.654	1.083	7.441	0.096	0.222	1.007	N	B	8281.601	1.032	7.435	0.105	0.212	1.016	N
P	8252.656	1.079	6.623	-0.783	1.656	-0.915	N	P	8281.603	1.031	6.655	-0.800	1.699	-0.926	N
B	8252.658	1.072	7.438	0.096	0.221	1.009	N	B	8281.605	1.027	7.442	0.099	0.213	1.024	N
P	8252.661	1.068	6.623	-0.784	1.660	-0.919	N	P	8281.607	1.026	6.655	-0.796	1.694	-0.926	N

Catalogue 1990-1992

Group 9010 P=HR2583 (continued)
A=HR2578 B=HD 50711 C=HR2576

Star	JD_{\odot}	X	V	$b-y$	m_1	c_1	Sys	Star	JD_{\odot}	X	V	$b-y$	m_1	c_1	Sys
A	8281.608	1.023	6.230	0.007	0.159	1.093	N	A	8284.801	1.660	6.234	0.001	0.162	1.089	N
A	8281.754	1.232	6.240	0.002	0.159	1.107	N	A	8285.555	1.106	6.254	0.003	0.167	1.090	N
P	8281.756	1.245	6.664	-0.802	1.704	-0.930	N	P	8285.556	1.105	6.679	-0.797	1.703	-0.934	N
B	8281.757	1.252	7.443	0.101	0.210	1.024	N	B	8285.557	1.101	7.467	0.101	0.214	1.024	N
P	8281.759	1.259	6.674	-0.810	1.714	-0.937	N	P	8285.558	1.099	6.677	-0.799	1.705	-0.935	N
B	8281.761	1.270	7.450	0.098	0.215	1.004	N	B	8285.559	1.095	7.464	0.103	0.214	1.011	N
P	8281.763	1.280	6.671	-0.802	1.702	-0.927	N	P	8285.560	1.094	6.676	-0.798	1.706	-0.936	N
A	8281.765	1.291	6.243	0.000	0.162	1.104	N	A	8285.561	1.090	6.253	0.004	0.165	1.095	N
A	8282.546	1.161	6.242	0.008	0.157	1.101	N	A	8285.676	1.034	6.240	0.002	0.169	1.079	N
P	8282.549	1.154	6.694	-0.810	1.722	-0.933	N	P	8285.677	1.037	6.671	-0.803	1.711	-0.937	N
B	8282.551	1.145	7.455	0.098	0.221	1.011	N	B	8285.678	1.038	7.453	0.094	0.227	1.000	N
P	8282.553	1.141	6.695	-0.812	1.724	-0.934	N	P	8285.679	1.041	6.670	-0.806	1.714	-0.935	N
B	8282.555	1.131	7.451	0.101	0.219	1.014	N	B	8285.680	1.042	7.446	0.103	0.213	1.013	N
P	8282.556	1.130	6.691	-0.809	1.721	-0.936	N	P	8285.682	1.044	6.672	-0.803	1.712	-0.945	N
A	8282.557	1.123	6.243	0.004	0.165	1.090	N	A	8285.682	1.045	6.244	0.000	0.169	1.084	N
A	8282.640	1.004	6.246	0.002	0.165	1.090	N	A	8285.799	1.673	6.220	0.005	0.155	1.102	N
P	8282.643	1.005	6.680	-0.803	1.702	-0.931	N	P	8285.800	1.694	6.670	-0.818	1.732	-0.938	N
B	8282.644	1.004	7.449	0.104	0.210	1.016	N	B	8285.801	1.703	7.426	0.099	0.210	1.022	N
P	8282.645	1.005	6.681	-0.803	1.699	-0.927	N	P	8285.802	1.720	6.665	-0.816	1.732	-0.946	N
B	8282.647	1.005	7.448	0.104	0.209	1.021	N	B	8285.803	1.730	7.427	0.104	0.206	1.012	N
P	8282.648	1.005	6.670	-0.798	1.698	-0.934	N	P	8285.804	1.748	6.672	-0.818	1.731	-0.939	N
A	8282.649	1.005	6.238	0.002	0.168	1.086	N	A	8285.805	1.753	6.225	0.000	0.161	1.091	N
A	8282.748	1.216	6.232	0.004	0.156	1.099	N	A	8286.544	1.131	6.249	0.002	0.165	1.096	N
P	8282.750	1.228	6.644	-0.789	1.668	-0.917	N	P	8286.545	1.129	6.649	-0.789	1.672	-0.912	N
B	8282.751	1.233	7.443	0.097	0.214	1.017	N	B	8286.546	1.125	7.456	0.101	0.219	1.011	N
P	8282.752	1.239	6.649	-0.792	1.671	-0.916	N	P	8286.547	1.123	6.645	-0.784	1.667	-0.915	N
B	8282.753	1.246	7.441	0.100	0.212	1.012	N	B	8286.548	1.119	7.455	0.100	0.221	1.013	N
P	8282.754	1.251	6.650	-0.791	1.669	-0.924	N	P	8286.549	1.116	6.640	-0.781	1.661	-0.905	N
A	8282.756	1.255	6.233	0.002	0.157	1.097	N	A	8286.550	1.112	6.249	0.005	0.160	1.098	N
A	8283.547	1.150	6.257	0.005	0.166	1.098	N	A	8286.678	1.043	6.235	0.000	0.167	1.089	N
P	8283.548	1.146	6.633	-0.782	1.669	-0.916	N	P	8286.680	1.046	6.616	-0.776	1.643	-0.908	N
B	8283.549	1.141	7.464	0.100	0.222	1.017	N	B	8286.681	1.047	7.448	0.097	0.221	1.007	N
P	8283.550	1.139	6.632	-0.784	1.670	-0.917	N	P	8286.682	1.050	6.615	-0.776	1.645	-0.909	N
B	8283.552	1.132	7.464	0.104	0.219	1.014	N	B	8286.683	1.051	7.444	0.094	0.226	1.005	N
P	8283.553	1.130	6.633	-0.782	1.672	-0.922	N	P	8286.684	1.054	6.616	-0.778	1.648	-0.912	N
A	8283.554	1.125	6.263	0.005	0.172	1.087	N	A	8286.685	1.054	6.233	0.002	0.165	1.092	N
A	8283.652	1.007	6.238	0.007	0.153	1.102	N	A	8286.804	1.779	6.237	0.006	0.155	1.103	N
P	8283.654	1.009	6.611	-0.784	1.673	-0.940	N	P	8286.806	1.805	6.603	-0.771	1.639	-0.901	N
B	8283.655	1.009	7.439	0.104	0.213	1.018	N	B	8286.806	1.816	7.444	0.098	0.217	1.014	N
P	8283.657	1.011	6.609	-0.783	1.668	-0.928	N	P	8286.808	1.836	6.601	-0.773	1.640	-0.894	N
B	8283.658	1.011	7.447	0.093	0.227	1.002	N	B	8286.809	1.847	7.444	0.102	0.212	1.016	N
P	8283.659	1.012	6.610	-0.782	1.666	-0.931	N	P	8286.810	1.868	6.604	-0.773	1.640	-0.902	N
A	8283.661	1.012	6.236	0.001	0.165	1.089	N	A	8286.811	1.874	6.233	0.004	0.160	1.091	N
A	8283.768	1.346	6.233	0.002	0.158	1.097	N	A	8287.549	1.106	6.239	0.001	0.163	1.096	N
P	8283.770	1.361	6.622	-0.798	1.694	-0.944	N	P	8287.551	1.104	6.629	-0.797	1.689	-0.927	N
B	8283.771	1.369	7.447	0.096	0.213	1.016	N	B	8287.551	1.101	7.446	0.100	0.218	1.004	N
P	8283.773	1.380	6.620	-0.800	1.694	-0.939	N	P	8287.553	1.099	6.629	-0.797	1.692	-0.931	N
B	8283.774	1.386	7.449	0.094	0.218	1.010	N	B	8287.553	1.095	7.445	0.100	0.220	1.008	N
P	8283.775	1.393	6.620	-0.797	1.693	-0.941	N	P	8287.555	1.093	6.632	-0.799	1.693	-0.932	N
A	8283.776	1.402	6.231	0.001	0.162	1.092	N	A	8287.555	1.089	6.241	0.003	0.162	1.093	N
A	8284.549	1.133	6.241	0.006	0.162	1.095	N	A	8287.707	1.115	6.232	-0.002	0.166	1.094	N
P	8284.550	1.131	6.669	-0.803	1.706	-0.928	N	P	8287.708	1.120	6.633	-0.804	1.708	-0.942	N
B	8284.551	1.127	7.455	0.100	0.216	1.016	N	B	8287.709	1.123	7.438	0.096	0.222	1.004	N
P	8284.552	1.125	6.667	-0.798	1.701	-0.929	N	P	8287.710	1.127	6.632	-0.807	1.712	-0.940	N
B	8284.553	1.121	7.455	0.100	0.221	1.015	N	B	8287.711	1.129	7.438	0.100	0.210	1.024	N
P	8284.554	1.119	6.668	-0.796	1.697	-0.927	N	P	8287.712	1.133	6.628	-0.804	1.706	-0.939	N
A	8284.555	1.114	6.246	0.004	0.164	1.096	N	A	8287.713	1.135	6.228	0.002	0.161	1.092	N
A	8284.679	1.035	6.234	0.001	0.166	1.085	N	A	8287.797	1.718	6.241	0.007	0.158	1.093	N
P	8284.680	1.038	6.659	-0.807	1.709	-0.930	N	P	8287.798	1.740	6.657	-0.803	1.716	-0.940	N
B	8284.681	1.039	7.441	0.101	0.212	1.015	N	B	8287.799	1.750	7.458	0.101	0.216	1.018	N
P	8284.682	1.041	6.659	-0.807	1.712	-0.941	N	P	8287.800	1.768	6.662	-0.805	1.712	-0.933	N
B	8284.683	1.042	7.440	0.098	0.221	1.006	N	B	8287.801	1.777	7.448	0.102	0.218	1.010	N
P	8284.686	1.048	6.654	-0.802	1.706	-0.937	N	P	8287.802	1.796	6.660	-0.805	1.717	-0.932	N
A	8284.688	1.050	6.237	-0.001	0.170	1.085	N	A	8287.803	1.800	6.246	0.004	0.167	1.086	N
A	8284.794	1.590	6.232	0.001	0.160	1.092	N	A	8288.549	1.100	6.234	0.002	0.162	1.096	N
P	8284.796	1.609	6.653	-0.805	1.709	-0.931	N	P	8288.550	1.099	6.666	-0.811	1.715	-0.932	N
B	8284.796	1.616	7.441	0.100	0.214	1.009	N	B	8288.551	1.095	7.440	0.097	0.221	1.007	N
P	8284.798	1.631	6.658	-0.806	1.710	-0.934	N	P	8288.552	1.093	6.665	-0.812	1.718	-0.937	N
B	8284.798	1.639	7.442	0.099	0.214	1.013	N	B	8288.553	1.090	7.439	0.101	0.213	1.017	N
P	8284.800	1.655	6.657	-0.805	1.708	-0.931	N	P	8288.554	1.088	6.671	-0.813	1.720	-0.941	N

Long Term Photometry of Variables

Group 9010 P=HR2583 (continued)
A=HR2578 B=HD 50711 C=HR2576

Star	JD_{\odot}	X	V	$b - y$	m_1	c_1	Sys	Star	JD_{\odot}	X	V	$b - y$	m_1	c_1	Sys
A	8288.555	1.084	6.234	0.003	0.163	1.084	N	A	8291.736	1.285	6.236	0.001	0.161	1.099	N
A	8288.702	1.107	6.235	-0.004	0.171	1.088	N	A	8291.781	1.652	6.232	0.002	0.159	1.102	N
P	8288.703	1.112	6.663	-0.803	1.703	-0.938	N	P	8291.782	1.674	6.672	-0.812	1.724	-0.941	N
B	8288.704	1.114	7.441	0.097	0.215	1.022	N	B	8291.783	1.682	7.448	0.094	0.219	1.026	N
P	8288.705	1.118	6.663	-0.801	1.698	-0.928	N	P	8291.784	1.699	6.674	-0.813	1.723	-0.940	N
B	8288.706	1.121	7.443	0.097	0.215	1.014	N	B	8291.785	1.707	7.437	0.103	0.210	1.014	N
P	8288.707	1.125	6.663	-0.804	1.700	-0.927	N	P	8291.786	1.725	6.669	-0.808	1.718	-0.936	N
A	8288.708	1.126	6.232	0.000	0.163	1.095	N	A	8291.787	1.729	6.239	0.000	0.162	1.092	N
A	8288.807	1.900	6.244	0.005	0.161	1.096	N	A	8292.536	1.108	6.241	0.003	0.163	1.091	N
P	8288.808	1.932	6.678	-0.798	1.699	-0.925	N	P	8292.538	1.102	6.675	-0.807	1.717	-0.947	N
B	8288.809	1.943	7.454	0.102	0.216	1.012	N	B	8292.538	1.098	7.447	0.105	0.210	1.021	N
P	8288.810	1.967	6.683	-0.796	1.700	-0.926	N	P	8292.540	1.096	6.679	-0.809	1.719	-0.945	N
B	8288.811	1.979	7.451	0.105	0.212	1.003	N	B	8292.541	1.093	7.448	0.100	0.215	1.011	N
P	8288.812	2.005	6.679	-0.796	1.699	-0.925	N	P	8292.542	1.091	6.677	-0.808	1.717	-0.940	N
A	8288.813	2.010	6.245	0.010	0.156	1.099	N	A	8292.543	1.087	6.241	0.002	0.162	1.097	N
A	8289.536	1.130	6.263	0.008	0.157	1.097	N	A	8292.695	1.120	6.237	0.001	0.164	1.092	N
P	8289.537	1.128	6.713	-0.799	1.706	-0.933	N	P	8292.696	1.125	6.666	-0.804	1.711	-0.942	N
B	8289.538	1.124	7.480	0.099	0.219	1.010	N	B	8292.697	1.127	7.441	0.102	0.214	1.015	N
P	8289.539	1.121	6.713	-0.802	1.707	-0.932	N	P	8292.698	1.132	6.667	-0.805	1.710	-0.942	N
B	8289.540	1.117	7.473	0.104	0.211	1.020	N	B	8292.699	1.134	7.448	0.097	0.218	1.011	N
P	8289.541	1.115	6.711	-0.801	1.704	-0.929	N	P	8292.700	1.138	6.672	-0.809	1.716	-0.945	N
A	8289.542	1.110	6.268	0.003	0.162	1.096	N	A	8292.701	1.140	6.240	0.000	0.167	1.087	N
A	8289.683	1.068	6.232	0.002	0.164	1.087	N	A	8292.770	1.567	6.233	0.007	0.154	1.097	N
P	8289.685	1.072	6.691	-0.812	1.721	-0.939	N	P	8292.771	1.585	6.672	-0.806	1.713	-0.944	N
B	8289.685	1.074	7.444	0.099	0.216	1.019	N	B	8292.772	1.592	7.447	0.100	0.212	1.015	N
P	8289.687	1.077	6.686	-0.810	1.716	-0.936	N	P	8292.773	1.606	6.665	-0.801	1.708	-0.941	N
B	8289.688	1.079	7.443	0.097	0.221	1.002	N	B	8292.774	1.614	7.452	0.098	0.217	1.002	N
P	8289.689	1.082	6.683	-0.806	1.713	-0.939	N	P	8292.775	1.629	6.667	-0.803	1.709	-0.939	N
A	8289.690	1.083	6.237	-0.004	0.170	1.086	N	A	8292.776	1.633	6.239	0.003	0.158	1.098	N
A	8289.781	1.598	6.234	0.001	0.161	1.099	N	A	8293.546	1.072	6.246	0.003	0.164	1.090	N
P	8289.783	1.616	6.683	-0.809	1.714	-0.920	N	P	8293.548	1.069	6.709	-0.818	1.740	-0.951	N
B	8289.783	1.625	7.439	0.106	0.206	1.015	N	B	8293.549	1.065	7.453	0.100	0.218	1.012	N
P	8289.785	1.640	6.686	-0.807	1.713	-0.927	N	P	8293.551	1.062	6.710	-0.819	1.740	-0.951	N
B	8289.785	1.648	7.439	0.105	0.208	1.017	N	B	8293.553	1.058	7.453	0.101	0.215	1.015	N
P	8289.787	1.664	6.687	-0.810	1.712	-0.921	N	P	8293.555	1.056	6.708	-0.817	1.738	-0.954	N
A	8289.788	1.669	6.240	-0.002	0.162	1.097	N	A	8293.556	1.051	6.248	0.001	0.167	1.088	N
A	8290.538	1.116	6.250	0.005	0.168	1.087	N	A	8293.718	1.220	6.242	-0.001	0.169	1.084	N
P	8290.539	1.114	6.642	-0.770	1.650	-0.917	N	P	8293.720	1.231	6.702	-0.818	1.736	-0.949	N
B	8290.540	1.110	7.461	0.104	0.218	1.011	N	B	8293.721	1.238	7.450	0.099	0.216	1.008	N
P	8290.541	1.108	6.639	-0.770	1.652	-0.925	N	P	8293.723	1.247	6.701	-0.818	1.736	-0.947	N
B	8290.542	1.104	7.461	0.099	0.224	1.006	N	B	8293.725	1.254	7.453	0.096	0.218	1.012	N
P	8290.543	1.102	6.637	-0.768	1.648	-0.923	N	P	8293.727	1.264	6.703	-0.820	1.741	-0.951	N
A	8290.544	1.098	6.249	0.006	0.163	1.091	N	A	8293.728	1.269	6.248	-0.002	0.169	1.081	N
A	8290.672	1.051	6.234	0.001	0.167	1.086	N	A	8294.545	1.067	6.234	0.003	0.163	1.091	N
P	8290.674	1.055	6.617	-0.780	1.666	-0.934	N	P	8294.547	1.065	6.609	-0.781	1.663	-0.921	N
B	8290.674	1.056	7.444	0.103	0.207	1.023	N	P	8294.551	1.057	6.616	-0.785	1.668	-0.920	N
P	8290.676	1.059	6.615	-0.780	1.661	-0.926	N	B	8294.558	1.044	7.441	0.101	0.210	1.020	N
B	8290.677	1.060	7.440	0.100	0.217	1.009	N	P	8294.560	1.041	6.613	-0.784	1.670	-0.929	N
P	8290.678	1.063	6.615	-0.781	1.662	-0.928	N	A	8294.562	1.037	6.621	0.005	0.159	1.090	N
A	8290.679	1.064	6.234	0.002	0.164	1.086	N	A	8294.768	1.608	6.247	0.010	0.152	1.104	N
A	8290.774	1.549	6.236	0.004	0.158	1.095	N	P	8294.770	1.635	6.624	-0.786	1.674	-0.922	N
P	8290.775	1.566	6.620	-0.790	1.683	-0.931	N	B	8294.772	1.652	7.450	0.102	0.213	1.009	N
B	8290.776	1.573	7.441	0.100	0.211	1.020	N	P	8294.773	1.671	6.631	-0.788	1.676	-0.924	N
P	8290.777	1.587	6.623	-0.791	1.684	-0.927	N	B	8294.776	1.702	7.455	0.100	0.212	1.020	N
B	8290.778	1.595	7.449	0.094	0.221	1.007	N	P	8294.777	1.720	6.629	-0.786	1.675	-0.925	N
P	8290.779	1.610	6.625	-0.793	1.683	-0.927	N	A	8294.780	1.742	6.243	0.006	0.156	1.101	N
A	8290.780	1.613	6.234	0.001	0.161	1.096	N	A	8549.813	1.155	6.251	-0.001	0.171	1.084	N
A	8291.539	1.104	6.250	0.004	0.164	1.089	N	P	8549.814	1.155	6.686	-0.810	1.725	-0.938	N
P	8291.540	1.103	6.660	-0.802	1.713	-0.945	N	B	8549.817	1.144	7.451	0.099	0.217	1.012	N
B	8291.541	1.099	7.468	0.095	0.231	0.993	N	P	8549.818	1.139	6.684	-0.812	1.729	-0.942	N
P	8291.542	1.097	6.654	-0.799	1.714	-0.953	N	B	8549.822	1.126	7.447	0.098	0.220	1.011	N
B	8291.543	1.094	7.457	0.102	0.218	1.003	N	P	8549.824	1.122	6.690	-0.812	1.730	-0.943	N
P	8291.544	1.092	6.656	-0.801	1.714	-0.945	N	A	8549.826	1.113	6.237	0.003	0.162	1.096	N
A	8291.545	1.088	6.244	0.005	0.164	1.088	N	A	8651.694	1.072	6.227	0.000	0.164	1.090	N
A	8291.730	1.252	6.235	0.004	0.160	1.091	N	P	8651.696	1.078	6.665	-0.805	1.714	-0.940	N
P	8291.731	1.261	6.670	-0.812	1.724	-0.947	N	A	8651.700	1.086	6.223	-0.001	0.163	1.102	N
B	8291.732	1.265	7.447	0.093	0.221	1.015	N	P	8651.701	1.091	6.669	-0.807	1.713	-0.941	N
P	8291.734	1.272	6.668	-0.813	1.727	-0.949	N	A	8651.702	1.092	6.222	0.001	0.163	1.094	N
B	8291.734	1.276	7.448	0.093	0.223	1.011	N	P	8651.703	1.095	6.668	-0.808	1.715	-0.937	N
P	8291.736	1.283	6.670	-0.812	1.722	-0.940	N	A	8651.705	1.099	6.228	-0.002	0.168	1.090	N

Catalogue 1990-1992

Group 9010 P=HR2583 (continued)
A=HR2578 B=HD 50711 C=HR2576

Star	JD_{\odot}	X	V	$b-y$	m_1	c_1	Sys	Star	JD_{\odot}	X	V	$b-y$	m_1	c_1	Sys
A	8654.650	1.014	6.235	0.003	0.161	1.094	N	P	8657.642	1.018	6.688	-0.813	1.721	-0.942	N
P	8654.651	1.016	6.699	-0.806	1.714	-0.945	N	B	8657.645	1.021	7.436	0.099	0.215	1.014	N
A	8654.652	1.017	6.239	0.002	0.164	1.092	N	P	8657.647	1.023	6.684	-0.814	1.726	-0.946	N
P	8654.654	1.019	6.702	-0.806	1.712	-0.939	N	B	8657.649	1.024	7.439	0.095	0.217	1.022	N
A	8654.655	1.020	6.239	0.001	0.166	1.090	N	P	8657.650	1.025	6.686	-0.812	1.721	-0.941	N
P	8654.656	1.021	6.700	-0.806	1.714	-0.944	N	A	8657.651	1.027	6.233	-0.001	0.167	1.090	N
A	8654.657	1.022	6.236	0.001	0.163	1.092	N	A	8658.651	1.030	6.232	-0.001	0.170	1.095	N
A	8655.673	1.050	6.229	0.000	0.165	1.085	N	P	8658.671	1.064	6.680	-0.803	1.703	-0.936	N
P	8655.675	1.053	6.672	-0.808	1.716	-0.941	N	B	8658.673	1.068	7.432	0.100	0.213	1.014	N
B	8655.677	1.057	7.437	0.099	0.212	1.017	N	P	8658.675	1.072	6.683	-0.802	1.702	-0.935	N
P	8655.678	1.060	6.668	-0.806	1.716	-0.946	N	B	8658.677	1.078	7.435	0.096	0.219	1.016	N
B	8655.681	1.065	7.440	0.098	0.215	1.014	N	P	8658.679	1.083	6.681	-0.799	1.699	-0.935	N
P	8655.682	1.068	6.673	-0.810	1.723	-0.951	N	A	8658.681	1.087	6.231	0.000	0.165	1.094	N
A	8655.684	1.071	6.228	0.000	0.162	1.096	N	B	8658.682	1.091	7.439	0.095	0.219	1.015	N
A	8657.641	1.016	6.225	0.002	0.163	1.093	N								

Long Term Photometry of Variables

Appendix 4

Standard stars

Long Term Photometry of Variables

This Table lists the reduced data (mean values and their standard deviations) for the stars used as "instrumental standards". This Table allows reprocessing of the data according to other transformation schemes. The differences between observed and instrumental standard values are also given. Since these standards were derived from almost the same set of observations, the differences are minute.

Description of the table

Column 1	HR number or LTPV identification.
Column 2	n , number of measurements used in the reduction.
Column 3	V magnitude, i.e. Stromgren y .
Column 4	$\sigma(y)$, standard deviation of y .
Column 5	$b - y$ index.
Column 6	$\sigma(b - y)$, standard deviation of $b - y$.
Column 7	m_1 index.
Column 8	$\sigma(m_1)$, standard deviation of m_1 .
Column 9	c_1 index.
Column 10	$\sigma(c_1)$, standard deviation of c_1 .
Column 11	$\delta(y)$, difference between observed and standard y .
Column 12	$\delta(b - y)$, difference between observed and standard $b - y$.
Column 13	$\delta(m_1)$, difference between observed and standard m_1 .
Column 14	$\delta(c_1)$, difference between observed and standard c_1 .

Catalogue 1990-1992

Standard stars System N
SAT 50 cm telescope

Star	n	$\nu(V)$	$\sigma(\nu)$	$b - \nu$	$\sigma(b - \nu)$	m_1	$\sigma(m_1)$	c_1	$\sigma(c_1)$	$\delta\nu$	$\delta(b - \nu)$	δm_1	δc_1
B4006	26	5.797	0.006	-0.032	0.004	0.095	0.005	0.718	0.005	0.001	0.000	-0.001	0.000
HR3893	51	6.236	0.010	0.298	0.005	0.174	0.006	0.378	0.008	0.001	0.001	-0.001	0.001
HR2313	69	5.874	0.012	0.351	0.005	0.179	0.006	0.354	0.007	0.000	0.000	0.000	-0.001
A1013	469	7.617	0.008	0.133	0.004	0.190	0.006	0.804	0.007	0.000	0.001	0.000	0.000
A7003	186	6.122	0.006	-0.091	0.003	0.070	0.004	-0.048	0.006	0.001	0.000	0.000	0.002
B7003	93	6.448	0.006	-0.061	0.003	0.101	0.004	0.381	0.007	0.001	0.000	-0.001	0.002
HR2622	77	6.291	0.011	0.352	0.005	0.197	0.006	0.366	0.008	0.000	0.000	-0.001	0.000
HR3297	40	5.605	0.012	0.304	0.004	0.152	0.006	0.357	0.013	0.000	0.001	0.000	0.001
HR2388	88	5.817	0.012	0.495	0.005	0.310	0.006	0.452	0.011	0.001	0.000	0.000	0.000
HR7254	120	4.111	0.013	0.014	0.005	0.187	0.008	1.056	0.013	0.000	0.000	0.000	0.000
HR1662	87	6.164	0.011	0.389	0.004	0.191	0.006	0.311	0.008	0.000	0.000	-0.001	0.001
HR2251	51	5.706	0.015	0.374	0.005	0.197	0.007	0.308	0.007	0.000	0.000	0.000	0.000
HR1861	78	5.347	0.010	-0.067	0.005	0.072	0.006	0.014	0.008	0.000	0.001	-0.001	0.003
HR2779	12	5.917	0.008	0.324	0.005	0.184	0.005	0.437	0.004	0.000	0.000	0.000	0.000
A8010	74	5.879	0.009	0.639	0.005	0.476	0.007	0.154	0.009	0.000	0.001	0.000	-0.001
A4007	108	5.983	0.007	-0.026	0.003	0.102	0.004	0.654	0.006	0.000	0.000	0.000	0.000
B4007	107	6.210	0.007	-0.035	0.003	0.113	0.004	0.722	0.006	0.000	0.001	0.000	0.001
A8012	145	5.765	0.006	0.614	0.003	0.467	0.004	0.241	0.007	0.000	0.001	0.000	-0.003
HR870	82	5.967	0.008	0.297	0.003	0.187	0.005	0.468	0.008	0.001	0.000	0.000	0.000
A1009	22	7.392	0.009	0.001	0.004	0.165	0.005	1.102	0.005	0.000	0.000	-0.001	0.000
B1009	21	7.223	0.010	-0.045	0.003	0.094	0.004	0.218	0.004	0.000	0.000	0.000	0.000
HR1672	77	5.425	0.010	0.127	0.004	0.266	0.005	0.801	0.006	0.000	0.000	0.000	0.001
HR3538	85	6.003	0.012	0.402	0.005	0.241	0.007	0.288	0.009	0.000	0.001	-0.001	-0.001
A1011	18	7.026	0.005	0.061	0.003	0.127	0.005	1.368	0.005	0.000	0.000	0.000	0.000
B1011	62	6.448	0.007	-0.018	0.004	0.102	0.005	0.830	0.004	0.000	0.000	0.000	0.000
HR3410	39	4.151	0.010	-0.002	0.004	0.156	0.007	1.094	0.006	0.001	0.000	0.002	-0.001
A2004	93	4.652	0.007	-0.055	0.003	0.122	0.004	0.598	0.005	0.001	0.000	0.000	0.001
B2004	91	6.509	0.006	-0.038	0.003	0.113	0.005	0.599	0.005	0.000	0.000	0.000	0.001
A3004	36	6.049	0.010	0.307	0.003	0.147	0.004	0.354	0.005	0.001	0.000	0.000	0.000
B3004	35	6.711	0.007	0.302	0.002	0.186	0.004	0.297	0.006	0.000	0.000	0.000	0.000
HR2786	28	5.285	0.009	0.578	0.003	0.396	0.005	0.327	0.008	0.000	0.000	0.000	0.000
HR3759	45	4.596	0.013	0.284	0.005	0.176	0.006	0.419	0.008	0.002	0.000	0.000	0.000
A3005	53	7.172	0.008	0.282	0.004	0.165	0.005	0.410	0.006	0.001	0.001	0.000	0.000
A4008	60	5.184	0.006	-0.078	0.003	0.085	0.004	0.163	0.008	0.000	0.001	0.001	0.002
B4008	57	4.440	0.007	0.116	0.003	0.213	0.004	0.827	0.006	0.000	0.000	0.000	-0.001
A3007	33	7.240	0.006	-0.017	0.004	0.121	0.006	0.750	0.005	0.001	0.000	-0.001	0.001
B3007	34	7.369	0.009	-0.016	0.005	0.136	0.006	0.861	0.005	0.000	0.000	-0.001	0.001
HR4293	103	4.383	0.011	0.050	0.004	0.186	0.007	1.109	0.010	0.001	0.000	0.000	0.000
HR3131	87	4.620	0.012	0.040	0.005	0.171	0.006	1.113	0.008	0.000	0.001	0.000	0.001
HR813	20	4.274	0.012	0.176	0.006	0.200	0.007	0.732	0.008	0.000	0.000	-0.001	0.000
B7010	72	6.440	0.006	0.365	0.004	0.185	0.005	0.354	0.005	0.001	0.000	0.000	0.000
HR8551	152	4.783	0.007	0.623	0.003	0.453	0.005	0.260	0.008	0.000	0.000	-0.001	0.000
HR2880	24	5.249	0.010	0.122	0.004	0.183	0.005	1.175	0.006	0.001	0.001	-0.001	0.001
HR4889	91	4.262	0.010	0.116	0.004	0.195	0.007	0.952	0.008	0.000	0.000	0.000	0.000
HR3454	70	4.300	0.009	-0.085	0.005	0.083	0.008	0.255	0.009	0.000	0.001	0.001	0.001
HR3459	70	4.624	0.010	0.500	0.004	0.322	0.005	0.383	0.008	0.000	0.000	0.000	-0.001
HR2000	41	6.162	0.006	0.539	0.004	0.352	0.006	0.288	0.011	0.000	0.000	0.000	0.000
HR2236	16	6.368	0.014	0.292	0.005	0.159	0.007	0.443	0.014	0.001	0.000	-0.001	0.001
HR4515	52	4.851	0.011	0.079	0.006	0.207	0.007	0.914	0.008	-0.001	0.000	-0.001	0.001
HR1024	96	6.201	0.009	0.439	0.006	0.210	0.005	0.252	0.010	0.000	0.000	0.000	0.000
HR2866	18	5.861	0.013	0.301	0.004	0.168	0.006	0.357	0.006	0.000	0.000	0.000	0.000
C4001	52	6.338	0.006	-0.026	0.002	0.084	0.003	0.165	0.004	0.000	0.000	0.000	0.001
A9010	647	6.238	0.007	0.002	0.004	0.163	0.004	1.092	0.006	0.000	0.000	-0.001	0.000
A9009	510	8.131	0.008	0.005	0.006	0.136	0.007	0.610	0.006	0.000	0.000	0.000	0.000
B9009	511	7.946	0.009	-0.019	0.006	0.114	0.007	0.542	0.006	0.000	0.000	-0.001	0.001
A4015	120	5.892	0.014	-0.039	0.005	0.091	0.005	0.339	0.007	0.001	0.000	0.000	0.001
B4015	109	5.795	0.012	0.309	0.005	0.163	0.005	0.399	0.005	0.000	0.000	0.000	0.000
A2018	229	5.199	0.007	-0.032	0.005	0.145	0.006	1.007	0.005	0.000	0.001	-0.001	0.001
HR4695	120	4.957	0.012	0.698	0.006	0.526	0.007	0.311	0.010	0.000	0.000	0.000	-0.001
C9010	169	6.533	0.008	0.031	0.004	0.204	0.004	0.988	0.005	0.000	0.000	0.000	0.000
B7026	25	5.359	0.006	-0.072	0.003	0.104	0.003	0.350	0.003	0.000	0.000	-0.001	0.001
B8031	57	4.000	0.005	0.754	0.003	0.677	0.004	0.164	0.006	0.000	0.001	-0.001	-0.001
A2003	171	5.288	0.008	0.009	0.007	0.146	0.006	1.129	0.005	0.000	0.000	0.000	0.000
B2003	172	6.098	0.008	0.151	0.007	0.112	0.006	1.435	0.006	0.000	0.000	0.000	0.001
B3008	60	7.587	0.008	0.197	0.005	0.181	0.005	0.765	0.006	0.001	0.000	-0.001	0.000
A5006	639	6.624	0.010	0.040	0.004	0.071	0.006	0.348	0.010	0.001	0.000	0.000	0.000
B5006	86	6.266	0.009	0.012	0.005	0.190	0.005	0.983	0.006	0.001	0.000	0.000	0.001
HR3677	63	5.854	0.013	0.504	0.006	0.330	0.005	0.442	0.010	0.001	0.001	0.000	-0.001
A8009	59	4.729	0.011	0.798	0.005	0.763	0.007	0.105	0.008	0.001	0.000	0.000	-0.001
B8009	52	5.983	0.013	0.654	0.006	0.520	0.008	0.265	0.007	0.000	0.001	-0.001	0.000

Long Term Photometry of Variables

Standard stars System N (continued)
SAT 50 cm telescope

Star	n	$\nu(V)$	$\sigma(\nu)$	$b - \nu$	$\sigma(b - \nu)$	m_1	$\sigma(m_1)$	c_1	$\sigma(c_1)$	δy	$\delta(b - \nu)$	δm_1	δc_1
A5005	196	7.733	0.009	-0.014	0.007	0.106	0.007	0.450	0.006	0.001	0.000	0.000	0.000
B5005	197	6.507	0.009	-0.030	0.006	0.092	0.006	0.379	0.008	0.001	0.000	0.000	0.000
B8013	43	5.905	0.008	0.549	0.005	0.374	0.005	0.270	0.008	0.000	0.000	0.000	0.000
A2005	129	6.411	0.008	0.033	0.004	0.164	0.005	0.895	0.006	0.000	0.000	0.000	0.000
B2005	129	6.293	0.009	0.099	0.004	0.214	0.005	0.878	0.006	0.000	0.000	0.000	0.000
HR2685	18	6.091	0.012	0.432	0.005	0.239	0.005	0.353	0.008	0.000	0.000	0.000	0.000
C9001	487	6.399	0.010	0.057	0.006	0.192	0.005	1.107	0.008	0.001	0.000	0.000	0.000
B9001	473	7.239	0.009	0.008	0.007	0.150	0.006	0.913	0.008	0.001	0.000	0.000	0.001
A1015	43	7.565	0.008	0.433	0.004	0.014	0.006	0.794	0.007	0.000	0.000	0.001	0.000
B5008	162	7.249	0.009	0.291	0.007	0.175	0.007	0.551	0.008	0.000	0.001	0.000	0.000
A3010	31	7.609	0.011	0.057	0.005	0.171	0.006	0.984	0.008	0.001	0.000	-0.001	0.001
HR5165	22	5.561	0.008	0.491	0.008	0.280	0.006	0.356	0.010	0.000	0.000	0.000	-0.001
A6002	77	7.600	0.011	0.107	0.008	-0.004	0.009	-0.076	0.007	0.000	0.000	0.000	0.000
A2019	137	4.699	0.006	-0.025	0.003	0.110	0.004	0.959	0.005	0.000	0.000	0.000	0.001
HR3739	30	6.064	0.012	0.452	0.005	-0.019	0.006	1.316	0.009	0.000	0.000	0.001	0.000
HR3901	65	6.430	0.010	0.354	0.005	0.192	0.006	0.374	0.008	-0.001	0.000	-0.001	0.000
B7011	63	6.068	0.007	0.259	0.002	0.174	0.004	0.655	0.005	0.000	0.000	0.000	0.000
HR5011	58	5.188	0.013	0.361	0.007	0.199	0.007	0.343	0.009	0.000	0.000	-0.001	0.001
HR2024	41	5.955	0.011	0.598	0.005	0.205	0.008	0.281	0.012	0.001	0.001	0.000	-0.001
B3012	38	6.816	0.009	0.141	0.005	0.203	0.006	0.919	0.006	0.001	0.000	0.000	0.000
HR913	156	6.200	0.010	0.366	0.005	0.213	0.005	0.350	0.008	0.000	0.000	0.000	0.000
A2006	22	5.989	0.004	-0.024	0.002	0.121	0.003	0.715	0.002	0.000	0.000	-0.001	0.000
B2006	22	6.156	0.003	-0.001	0.002	0.149	0.003	0.998	0.003	0.000	0.000	0.000	0.001
HR3849	58	5.073	0.013	-0.067	0.007	0.109	0.006	0.419	0.010	0.001	0.001	0.000	0.001
A6001	78	8.225	0.009	0.055	0.007	0.102	0.007	0.676	0.009	0.001	0.000	0.000	0.000
A3021	39	6.348	0.011	0.539	0.005	0.308	0.007	0.285	0.009	-0.001	-0.001	0.000	-0.001
HR5825	69	4.642	0.010	0.262	0.004	0.166	0.006	0.422	0.007	0.000	0.000	0.000	0.001
HR5072	13	4.969	0.012	0.433	0.007	0.239	0.009	0.310	0.009	0.000	0.000	0.000	-0.001
A2007	41	6.625	0.014	-0.012	0.007	0.120	0.007	0.806	0.009	0.000	0.000	0.000	0.001
B2007	101	6.055	0.010	0.089	0.005	0.081	0.005	0.553	0.006	0.000	0.000	0.000	0.000
A6015	33	6.274	0.006	0.333	0.002	0.186	0.005	0.433	0.007	0.000	0.000	0.000	0.000
A3013	33	5.907	0.009	0.037	0.005	0.150	0.006	1.064	0.007	0.001	0.000	0.000	0.000
B3013	31	4.784	0.013	-0.035	0.006	0.121	0.007	0.626	0.008	0.001	0.000	0.000	0.000
HR5660	75	4.912	0.010	0.238	0.005	0.150	0.006	1.334	0.009	0.000	0.000	0.000	0.000
C8008	165	5.197	0.009	0.729	0.004	0.612	0.005	0.182	0.008	0.000	0.001	-0.001	-0.001
A6024	44	5.201	0.010	-0.071	0.005	0.116	0.007	0.270	0.007	0.001	0.000	-0.001	0.001
HR1321	74	6.941	0.013	0.417	0.005	0.244	0.007	0.256	0.010	0.000	0.000	-0.001	0.000
HR5270	95	6.192	0.010	0.626	0.005	0.116	0.007	0.382	0.011	0.000	0.000	0.001	0.000
HR4343	80	4.472	0.011	0.004	0.005	0.168	0.008	1.187	0.010	-0.001	0.000	0.000	0.000
HR6581	103	4.255	0.010	0.037	0.005	0.178	0.009	1.104	0.012	0.001	0.000	0.000	0.000
HR2668	45	6.844	0.010	0.463	0.004	0.299	0.008	0.231	0.010	0.000	0.000	0.000	0.000
HR2807	27	6.231	0.011	0.418	0.004	0.235	0.005	0.525	0.009	0.000	0.000	-0.001	0.000
B6024	43	7.943	0.010	0.176	0.006	0.214	0.008	1.000	0.010	0.000	0.000	0.000	0.000
C6024	19	8.485	0.012	0.059	0.006	0.113	0.008	0.747	0.008	0.000	0.000	0.000	0.000
HR6141	40	4.799	0.009	-0.044	0.005	0.095	0.006	0.202	0.010	0.000	-0.001	0.000	0.001
HR5868	70	4.421	0.012	0.371	0.007	0.198	0.009	0.327	0.011	0.001	0.000	0.000	0.000
HR5997	62	4.311	0.010	0.505	0.005	0.313	0.007	0.339	0.008	0.000	0.000	0.000	0.000
B8039	70	4.028	0.008	0.870	0.003	0.830	0.005	0.070	0.007	0.000	0.000	0.000	-0.001
HR3249	97	3.506	0.012	0.890	0.004	0.828	0.005	0.080	0.008	-0.001	0.000	-0.001	-0.001
HR6930	74	4.693	0.010	0.039	0.003	0.157	0.005	1.200	0.007	0.001	0.000	0.000	0.001
A7034	88	5.902	0.005	0.267	0.004	0.153	0.007	0.447	0.007	0.000	0.000	0.001	0.000
HR7446	126	4.956	0.010	0.087	0.005	-0.014	0.006	-0.049	0.008	0.000	0.000	0.000	0.001
HR6027	16	4.005	0.009	0.075	0.004	0.062	0.011	0.127	0.010	0.001	0.000	0.000	0.001
HR8060	76	4.860	0.010	0.080	0.003	0.204	0.004	0.936	0.008	0.000	0.000	0.000	0.001
HR7377	28	3.370	0.011	0.187	0.004	0.184	0.009	0.679	0.010	0.000	0.000	0.000	0.000
HR4802	45	3.869	0.014	0.018	0.005	0.160	0.010	1.089	0.012	0.000	0.000	0.001	0.000
A4010	137	7.228	0.007	0.194	0.003	0.051	0.004	1.281	0.007	0.001	0.000	0.000	0.000
HR2667	56	5.551	0.010	0.383	0.004	0.192	0.005	0.275	0.008	0.000	0.000	0.000	-0.001
A7043	104	5.074	0.009	0.434	0.003	0.265	0.005	0.285	0.007	0.001	0.000	0.000	-0.001
B7043	113	5.055	0.009	-0.030	0.004	0.130	0.006	0.888	0.007	0.000	0.000	0.000	0.000
D7043	57	6.298	0.009	-0.016	0.003	0.127	0.006	1.013	0.007	0.001	0.000	0.000	0.000
A8038	203	4.131	0.008	0.565	0.003	0.391	0.004	0.269	0.007	0.000	0.000	0.000	-0.001
HR3314	56	3.902	0.013	-0.017	0.004	0.157	0.008	1.034	0.012	0.000	0.000	0.001	0.000
B9010	433	7.446	0.007	0.100	0.004	0.215	0.005	1.013	0.007	0.001	0.000	-0.001	0.000
A1035	46	7.121	0.007	0.240	0.004	0.160	0.006	0.480	0.007	0.000	0.000	0.000	0.000
A5021	57	6.625	0.007	0.039	0.003	0.074	0.004	0.338	0.006	0.001	0.000	0.000	0.001
B5021	52	6.271	0.007	0.006	0.004	0.196	0.004	0.983	0.005	0.000	0.001	0.000	0.001
A5007	72	6.625	0.008	0.039	0.003	0.073	0.004	0.342	0.008	0.000	-0.001	-0.001	0.002
B8041	64	5.603	0.007	0.568	0.003	0.428	0.006	0.245	0.007	0.001	0.000	0.001	-0.001
A7054	54	5.442	0.006	0.563	0.002	0.393	0.003	0.298	0.006	0.000	0.001	0.000	-0.001

Catalogue 1990–1992

Standard stars System N (continued)
SAT 50 cm telescope

Star	n	$\gamma(V)$	$\sigma(\gamma)$	$b - \gamma$	$\sigma(b - \gamma)$	m_1	$\sigma(m_1)$	c_1	$\sigma(c_1)$	$\delta\gamma$	$\delta(b - \gamma)$	δm_1	δc_1
B1013	40	7.304	0.007	0.110	0.005	0.181	0.005	1.085	0.010	0.000	0.000	0.000	0.000
B1045	129	7.834	0.011	0.115	0.005	0.239	0.005	0.830	0.009	0.001	0.000	-0.001	0.000
A5024	212	7.860	0.007	-0.008	0.003	0.136	0.004	0.847	0.008	0.001	0.000	-0.001	0.001
A4019	27	5.923	0.006	0.008	0.004	0.170	0.004	1.061	0.004	0.000	0.000	0.000	0.000
B4019	27	4.921	0.008	0.329	0.003	0.178	0.004	0.329	0.005	0.000	0.000	0.000	0.000
B4017	47	6.495	0.011	-0.057	0.004	0.106	0.004	0.375	0.007	0.001	0.001	0.000	0.001
B4018	51	6.740	0.009	-0.055	0.003	0.091	0.004	0.395	0.006	0.000	0.000	0.000	0.002
A4020	11	6.012	0.014	0.036	0.004	0.209	0.003	0.977	0.005	0.000	0.000	0.000	0.000
A9005	189	6.258	0.008	-0.016	0.003	0.156	0.004	0.962	0.005	0.000	0.000	0.000	0.001
B9005	175	6.501	0.008	0.127	0.003	0.230	0.004	0.834	0.005	0.001	0.000	0.000	0.000
A9006	205	6.063	0.009	-0.015	0.003	0.122	0.004	0.678	0.006	0.001	0.000	0.000	0.001
B9006	210	5.673	0.009	0.009	0.003	0.189	0.004	1.001	0.006	0.000	0.000	0.000	0.001
A7058	103	7.891	0.011	0.417	0.004	-0.096	0.006	0.026	0.007	0.000	0.000	0.000	0.000
HR6603	110	2.752	0.012	0.692	0.004	0.629	0.006	0.210	0.010	0.000	0.000	0.000	-0.001
B4012	60	5.850	0.011	0.057	0.002	0.065	0.004	0.596	0.005	0.000	0.000	0.000	0.001
A1049	26	5.619	0.009	0.155	0.003	0.191	0.003	0.792	0.004	0.001	0.000	-0.001	0.000
HR7525	110	2.695	0.013	0.909	0.004	0.849	0.007	-0.022	0.010	0.000	0.001	-0.001	-0.001
HR7447	20	4.365	0.012	-0.016	0.003	0.089	0.005	0.580	0.006	0.001	0.000	-0.001	0.000
A7061	101	5.334	0.009	0.614	0.003	0.473	0.004	0.210	0.006	0.001	0.000	-0.001	-0.001
B7061	98	7.504	0.009	0.252	0.004	0.165	0.005	0.561	0.007	0.001	0.000	0.000	0.000
C9004	33	6.397	0.010	0.056	0.004	0.193	0.005	1.106	0.008	0.001	0.000	0.000	0.001
A6025	36	8.405	0.006	0.011	0.003	0.161	0.004	1.014	0.005	0.000	0.000	0.000	0.000
A1048	14	8.181	0.013	0.121	0.010	0.162	0.006	1.105	0.007	0.000	0.000	0.000	0.000
A7069	128	5.517	0.008	0.032	0.002	0.205	0.004	1.036	0.005	0.000	0.000	-0.001	0.000
A3003	13	5.795	0.004	-0.032	0.001	0.095	0.002	0.720	0.005	0.000	0.000	0.000	0.000
A9002	45	7.235	0.010	0.009	0.003	0.152	0.004	0.910	0.006	0.001	0.000	0.000	0.000
A7002	40	6.263	0.013	-0.017	0.003	0.158	0.003	0.963	0.005	0.000	0.000	0.000	0.001
B7002	25	6.506	0.013	0.125	0.003	0.232	0.003	0.836	0.005	0.001	0.000	0.000	0.001
A6026	40	6.862	0.012	0.017	0.003	0.188	0.007	1.010	0.009	0.000	0.000	0.000	0.001
B6026	40	7.507	0.010	0.114	0.003	0.087	0.006	0.977	0.014	0.001	0.000	0.000	0.000
A7072	23	7.185	0.010	0.228	0.003	-0.025	0.005	-0.100	0.007	0.000	0.000	0.001	0.000
B7072	22	8.200	0.009	0.172	0.003	-0.007	0.005	-0.038	0.007	0.000	0.000	0.000	0.001
A2027	212	7.307	0.008	0.063	0.003	0.218	0.004	0.915	0.007	0.001	0.000	0.000	0.000
B2027	217	7.208	0.008	0.282	0.003	0.165	0.005	0.468	0.007	0.001	0.000	0.000	0.000
B2029	187	7.973	0.010	0.092	0.003	0.210	0.004	0.906	0.005	0.000	0.000	0.000	0.000
A2026	91	6.871	0.009	0.051	0.003	0.109	0.004	0.755	0.007	0.000	0.000	0.000	0.001
B2026	91	4.650	0.009	0.009	0.003	0.078	0.004	0.123	0.011	0.000	0.000	0.000	0.001
A2031	147	7.365	0.009	-0.036	0.003	0.113	0.005	0.531	0.006	0.000	0.000	0.000	0.000
B2031	147	6.726	0.009	0.032	0.003	0.173	0.004	0.961	0.006	0.000	0.000	0.000	0.001
A7071	42	6.659	0.009	0.124	0.003	0.219	0.005	0.856	0.007	0.000	0.000	0.000	0.000
B7071	41	7.720	0.008	0.008	0.003	0.184	0.005	1.025	0.006	0.001	0.000	-0.001	0.000
A7077	39	4.330	0.008	0.122	0.002	0.193	0.004	0.946	0.005	0.000	0.000	0.000	-0.001
B7077	40	5.707	0.008	-0.015	0.002	0.162	0.004	0.958	0.004	0.000	0.000	0.000	0.001
A8057	36	4.871	0.010	0.628	0.003	0.493	0.004	0.243	0.007	-0.001	0.000	-0.001	-0.001
A5027	99	8.227	0.007	0.021	0.003	0.086	0.005	0.366	0.006	-0.001	0.000	0.000	0.001
B9002	26	7.236	0.011	0.008	0.005	0.150	0.006	0.912	0.007	0.000	0.000	-0.001	0.000
A6027	36	4.637	0.009	-0.070	0.002	0.111	0.006	0.310	0.009	0.001	0.000	0.000	0.001
B2025	54	6.157	0.009	0.427	0.003	0.228	0.004	0.812	0.008	0.001	0.000	0.000	0.000
C9002	22	6.396	0.009	0.055	0.003	0.194	0.003	1.103	0.004	0.000	0.000	0.000	0.001
HR4204	15	5.751	0.003	0.056	0.001	0.064	0.002	0.331	0.004	0.001	0.000	0.000	0.000
HR4196	13	4.757	0.006	-0.054	0.002	0.100	0.002	0.384	0.003	0.001	0.000	0.000	0.000
B9003	19	7.236	0.009	0.007	0.004	0.150	0.006	0.912	0.005	0.000	0.000	0.000	0.001
A7078	12	8.081	0.009	0.293	0.002	-0.003	0.003	0.103	0.004	0.000	0.000	0.000	0.000
B8057	17	5.963	0.008	0.620	0.003	0.479	0.005	0.234	0.010	0.000	0.000	-0.001	0.000
A7080	11	7.511	0.007	0.110	0.002	0.144	0.003	1.128	0.006	0.000	0.000	0.000	0.000
B7081	37	6.476	0.013	0.386	0.003	0.207	0.004	0.260	0.006	0.000	0.001	0.000	0.000
C9003	12	6.399	0.010	0.055	0.004	0.195	0.004	1.102	0.004	0.000	0.001	-0.001	0.000
B9004	12	7.242	0.010	0.006	0.003	0.153	0.005	0.916	0.006	0.000	0.000	-0.001	0.000
A2038	28	6.759	0.008	0.291	0.003	0.136	0.004	0.457	0.006	0.001	0.000	0.000	0.000
B2038	29	6.141	0.009	0.247	0.002	0.165	0.003	0.569	0.005	0.001	0.000	0.000	0.000
A1069	34	4.559	0.011	-0.017	0.004	0.131	0.004	1.001	0.008	0.001	0.000	0.000	0.000
B1069	34	4.898	0.009	0.317	0.003	0.151	0.004	0.355	0.006	0.001	0.000	0.001	-0.001
C1069	34	6.456	0.007	0.259	0.003	0.151	0.004	0.470	0.006	0.001	0.000	0.001	0.000
A1068	13	8.147	0.009	0.099	0.004	0.150	0.003	0.954	0.007	0.000	0.000	0.000	0.000
A1074	14	6.637	0.006	0.275	0.002	0.156	0.003	0.513	0.004	0.000	0.000	0.000	0.000
A1064	13	5.539	0.009	0.049	0.002	0.220	0.003	0.959	0.005	0.001	0.000	-0.001	0.000
B1064	13	7.415	0.008	0.290	0.002	0.154	0.004	0.374	0.004	0.000	0.000	0.000	0.000