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CATALOG OF LUMINOUS STARS IN THE SOUTHERN COAL-SACK ZONE

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RESUMEN

Se compiló un catálogo que incluye a todas las estrellas luminosas en la zona $300° \leqslant 1 \leqslant 308°$, $-10° \leqslant b \leqslant 10°$ y se presenta en la Tabla 1. También se hizo una búsqueda en la literatura de tipos espectrales MK, fotometría *UBV*, índices beta, velocidades radiales y polarimetría para estas estrellas y se presenta en la Tabla 2.

ABSTRACT

A catalog including all the luminous stars in the zone $300° \leqslant 1 \leqslant 308°$, $-10° \leqslant b \leqslant 10°$ was compiled and is presented in Table 1. A search in the literature was also made for MK spectral types, *UBV* photometry, beta indices, radial velocities, and polarimetry for these stars and is presented in Table 2.

Key words: **STARS-EARLY TYPE-PHOTOMETRY-SPECTROSCOPY – RADIAL VELOCITIES – GALACTIC STRUCTURE**

I. INTRODUCTION

The Coal-Sack zone of the Milky-Way, located at galactic longitude 303°, has received particular attention since Rodgers' (1960) study of its absorption. Later Tapia (1975) and more recently Bok, Sim and Hawarden (1977), Smith and Sim (1980) and Jones *et al.* (1980) have concentrated their efforts on certain particular areas of high obscuration. The visual absorption is 1-1.5 mag over most parts of the cloud but can reach to as much as 5 mag in some dense globules.

Searches for emission stars in the Coal-Sack itself were conducted by Hidajat (1962), and by The (1962); more recently by Weaver (1974) and Gómez and Mendoza (1976). No stars associated with the cloud were found.

Houck (1956), Mc Carthy and Miller (1973), Humphreys (1973), Muzzio, Marraco and Feinstein (1974), Muzzio, Feinstein and Orsatti (1976), Muzzio and Orsatti (1977) and Muzzio (1979) have studied the galactic structure behind this nearby dark cloud. The spiral tracers are detected to 5 kpc and the results indicate the presence of a major spiral arm in this direction. At least two clusters lie within the boundaries of the Coal-Sack: NGC 4609 and Hogg 15 (Feinstein and Marraco 1971; Moffat 1974).

During the galactic structure studies carried out at La Plata Observatory (Muzzio *et al.* 1974, 1976, 1977; Muzzio 1979) a catalog of high luminosity stars located behind the Coal-Sack was compiled from a search of related literature. Later, the searches were extended to cover all objective prism surveys in a rectangular area $20° \times 8°$ in galactic coordinates.

The catalog produced was kept updated in Hollerith cards until 1980 when the searches in the literature were finished and the data screened once more for identification errors. The data included in the second part of the catalog is hoped to be complete up to mid 1978.

II. DESCRIPTION OF THE CATALOG

All known OB and high luminosity stars in the galactic longitude interval 300°-308° and with galactic latitudes less than 10° are listed. That makes a total of 770 stars.

The catalog consists of two parts: Table 1, containing the cross-identifications, and Table 2, the observational data.

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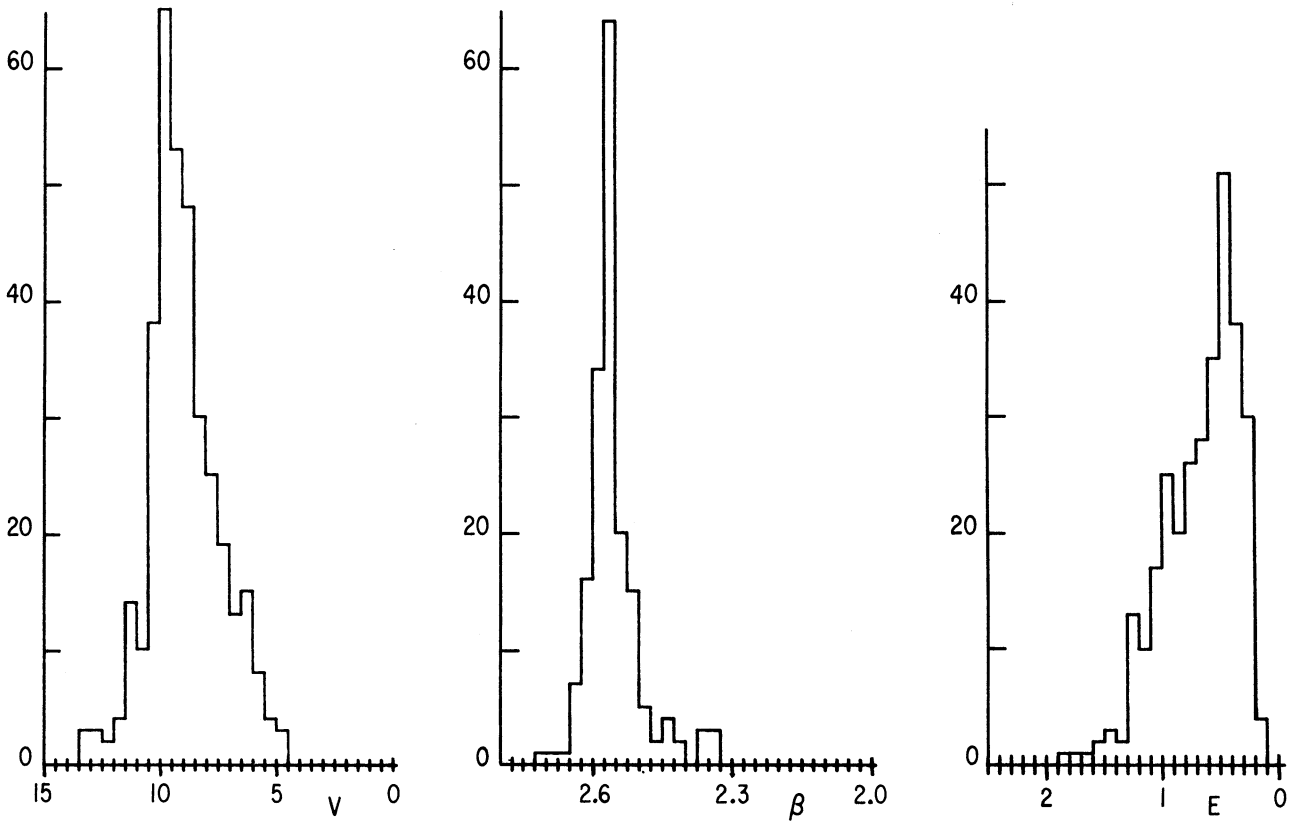

Fig. 1. Distribution of the visual apparent magnitude V. Fig. 2 Distribution of the beta-index. Fig. 3. Distribution of the color excess $E(B-V)$. An intrinsic color index $(B-V)_0 = 0.30$ has been adopted for all the stars.

The layout of Table 1 assigns one line for each star. All the listings of early-type stars in the zone were intercompared and the proper identifications checked with charts and positions whenever available. In addition the Henry Draper and Durchmusterung numbers were added when known. Additional information included in the HD, CPD and early-type listings were also included as it was considered of interest for a proper identification of the stars.

Coordinates are given for the epoch 1980.0; galactic coordinates are taken from the early-type listings or calculated from the equatorial coordinates when not available. The galactic coordinates are given to the hundredths of a degree. Table 1 is arranged in order of increasing galactic longitude.

Table 2 gives all known observational data for the stars listed in Table 1: MK spectra, *UBV* or *UBV*c photometries, radial velocity, H-Beta line photometry and wide band polarimetry.

The first column designates the star and each star may have as many lines as necessary to accommodate the entries of item which is most observed, usually the spectral type or the photometry. Whenever possible the HD designation was preferred but when this was not available the designation was taken from the Cape Photographic Durchmusterung or the LS, KS, Ly or MO number in this order of preference.

The explanation of Table 2 follows: The numbers under the labels Ref correspond to the references in the literature from which the preceeding columns were obtained. These references are listed at the end of Table 2. In addition to the bibliographical reference they include the complete title of the cited work enclosed between quotes (′). This practice provides more information to the reader who seeks additional data and avoids ambiguities on its nature.

The column labelled STAR carries the star's identification. The MK spectral types are labelled SPECTRAL TYPE. The column headed by RV gives the heliocentric radial velocity. The usual symbols V, $B-V$ and $U-B$ are used to indicate the apparent magnitude and the colors in the standard and Cape *UBV* systems. When the color is $(U-B)c$ a c is appended to the $U-B$ value. The percentage of polarization and the position angle in the equatorial system are labelled P(%) and PA respectively. Finally the word BETA is used to indicate the beta-index value.

Everywhere in this table the values are copied as in the original sources with no decimal points or trailing zeros added. This is quite noticeable in the RV and PA columns as some figures are presented as integer values

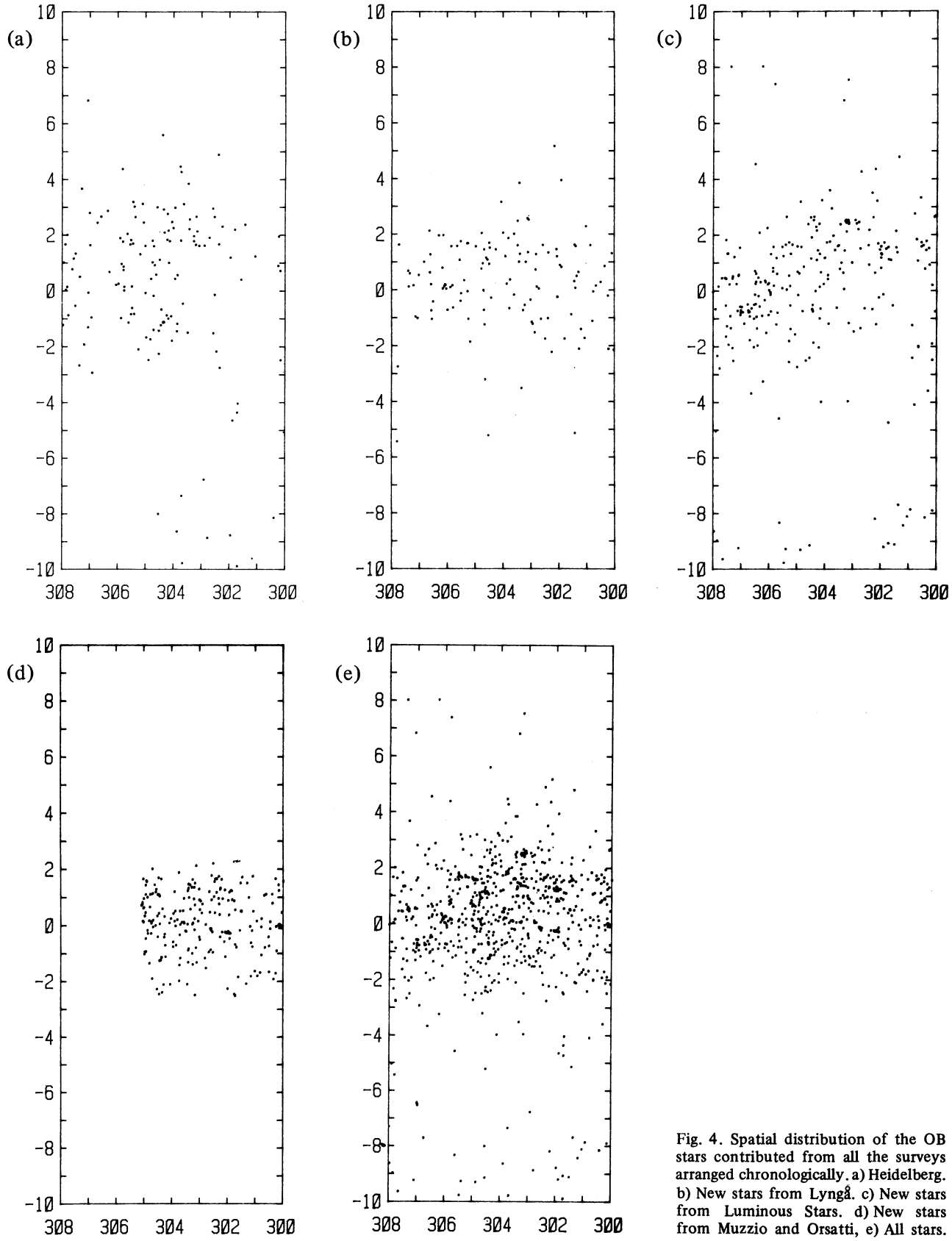

Fig. 4. Spatial distribution of the OB stars contributed from all the surveys arranged chronologically. a) Heidelberg. b) New stars from Lyngå. c) New stars from Luminous Stars. d) New stars from Muzzio and Orsatti, e) All stars.

giving a misleading appearance to these particular columns. The colon stands for low precision values in the sense given in the original sources.

III. STATISTICS

Only one half of the 770 luminous stars listed in Table 1 are listed in Table 2, and of course the fainter stars lack astrophysical data. The overwhelming majority of the entries to Table 2 are labelled with HD numbers, but the column of HD numbers in Table 1 is scarcely populated. Some bright HD stars have up to eight different *UBV* measurements while most of the non-HD stars are missing from Table 2. This situation shows clearly the need of larger telescopes for galactic structure research and at the same time shows the usefulness of listings like the present one in helping to avoid duplication of existing data.

In order to clarify this situation Table 3 contains the information concerning how many times each of the 770 stars has been measured in each particular category of astrophysical data. The headings are self explanatory.

The worst cases are those corresponding to MK spectral types and *UBV* photometry in which the number of stars measured repeatedly is a substantial fraction of the total. On the other hand the polarization and the Beta indices have been measured in a more orderly way: most of the data come from References 53 and 34 in Table 2. The radial velocity measures have not been duplicated frequently, but they are very few.

Figure 1 shows the distribution of the observed apparent magnitude, V. The distribution of the Beta-index is depicted in Figure 2. Assuming $(B - V)_0 = -0.30$ for all the OB stars the color excess $E(B - V)$ distribution is shown in Figure 3. These distributions are peaked at 9.5, 2.57 and 0.40 respectively. With the only exception of some emission stars, that reach Beta values of about 2.35, the peaked distribution of the Beta indices indicates an average absolute magnitude of about -5.0.

Figure 4 shows the contribution of the different surveys to information on the OB stars in the Coal-Sack zone. They are depicted in chronological order of publication. Figure 4*a* is a plot of the spatial location of the Heidelberg (Reference 32) survey. The newly discovered OB stars by Lyngå (Reference 31) are shown in Figure 4*b*. The contribution of new stars by the Luminous Stars Catalog (Reference 23) appears in Figure 4*c*. Figure 4*d* shows the stars added by Muzzio and Orsatti (1977) and finally Figure 4*e* contains all of the 770 stars.

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TABLE 1
CATALOG OF LUMINOUS STARS IN THE COAL-SACK

HD/HDE	m	ST	CPD	m	1980.0 Alpha	Delta	l	b	LS	ST	m	KS	ST	Ly	ST	MO	ST	V	B-V
					12 25 54.6	-61 3 15	299.99	1.57								7	OB-:	13.71	0.70
					12 22 41.4	-64 44 58	300.02	-2.14						124	OB+				
108485	7.6	A0	-59 4237	8.7	12 26 59.7	-59 55 37	300.02	2.70	2681	A2II	7.9								
					12 25 26.5	-62 9 0	300.04	0.47								2	OB-	12.75	0.3:
					12 24 59.6	-62 42 35	300.05	-0.09								1	OB+:	12.6:	0.5:
			-62 2730	9.9	12 24 28.0	-63 21 24	300.05	-0.74	2673	OB-	11.3								
			-59 4239	9.6	12 27 16.1	-59 57 51	300.06	2.67	2682	OB-	10.7								
			-59 4245	9.4	12 27 25.8	-59 58 23	300.08	2.66	2683	OB-	10.2								
			-60 4009	9.5	12 26 33.8	-61 18 40	300.09	1.32	2679	OBce	10.4			129	OB				
			-59 4246	9.4	12 27 29.2	-59 58 51	300.09	2.65	2685	OB	9.7								
					12 25 30.3	-62 39 35	300.10	-0.04								3	OB :	10.55	1.46
					12 25 41.3	-62 35 45	300.11	0.03								5	OB+:	13.7:	0.8:
					12 25 44.3	-62 42 41	300.13	-0.08								6	OB+	12.53	0.40
					12 16 50.9	-70 28 14	300.14	-7.89	IA43	OBl	12.5								
					12 25 58.3	-62 35 18	300.15	0.04								9	OB+	13.11	0.93
					12 26 58.9	-61 22 53	300.15	1.25								13	OB-:	13.70	0.52
					12 27 14.1	-61 11 28	300.16	1.45								14	OB-	12.55	0.37
108002	7.3	B1p	-64 1898	7.2	12 23 48.0	-65 6 3	300.16	-2.48	2668	OB	7.6	694	OB+						
			-64 1901	9.2	12 23 53.4	-65 5 23	300.16	-2.47	2670	OB-	10.9								
					12 24 26.4	-64 31 00	300.16	-1.89	2672	OB-	10.9								
			-61 3190	9.8	12 26 11.7	-62 25 29	300.16	0.21	2678	OB-:	12.0								
108434	9.0	B5	-61 3198	8.8	12 26 43.0	-61 55 5	300.17	0.72	2680	OB	8.8	697	OB						
			-64 1909	9.9	12 23 46.5	-64 43 52	300.21	-2.11						127	OB				
108639	7.86	B0	-60 4047	8.3	12 28 2.2	-60 41 35	300.22	1.95	2687	OB	8.1	699	OB						
					12 26 41.4	-62 25 57	300.23	-0.20						130	OB+	11	OB-	11.76	0.32
					12 25 57.4	-63 32 3	300.23	-0.90								8	OB-	11.39	0.14
			-61 3212	8.8	12 27 29.8	-61 44 34	300.24	0.90	2684	OB	9.7	698	OB						
					12 26 51.3	-62 40 22	300.25	-0.03								12	OB	12.21	0.61
					12 27 38.7	-61 43 1	300.26	0.93	2686	B7Ia	11.9								
					12 25 32.0	-64 19 47	300.26	-1.70								4	OB :	13.05	0.6:
					12 28 18.5	-60 58 29	300.27	1.67								16	OB	12.36	1.08
			-60 4050	9.2	12 28 14.8	-61 6 47	300.28	1.53	2688	OB-	9.7								
			-65 1862	9.9	12 24 5.9	-66 12 40	300.30	-3.58	2671	OB-	10.5								
					12 26 4.2	-64 32 44	300.34	-1.91								10	OB-	13.89	0.74
					12 28 19.1	-61 47 11	300.35	0.86	2690	OB-	11.9			131	OB				
108773	6.82	F0	-60 4070	8.1	12 29 11.8	-60 52 41	300.37	1.78	2696	F3II	7.3								
					12 28 32.7	-61 51 7	300.38	0.80								18	OB	12.6+	1.2+
			-60 4068	10.2	12 29 1.0	-61 11 51	300.38	1.46	2694	OB+	11.9					24	OB0	11.78	0.48
					12 28 51.2	-61 32 13	300.39	1.12								21	OB-	12.03	0.34
					12 19 35.1	-70 45 13	300.40	-8.14	2647	OBnn	10.6	682	OB						
					12 19 34.7	-70 45 10	300.41	-8.14	IA44	OBl	10.1								
					12 28 52.0	-61 51 44	300.42	0.79	2693	OB	11.9					22	OB	11.60	0.80
					12 28 35.5	-62 45 52	300.46	-0.11								19	OB	12.47	0.5:
					12 28 44.7	-62 30 56	300.46	0.14								20	OB-	12.74	0.73
					12 29 58.1	-61 2 15	300.48	1.63	2697	OB-	11.5					26	OB-	11.68	0.57
			-61 3230	9.8	12 29 7.6	-62 22 17	300.49	0.29	2695	OB+	11.3			132	OB+				
					12 28 27.8	-63 22 36	300.50	-0.72								17	OB-	11.60	0.35
					12 27 43.0	-64 18 28	300.50	-1.65								15	OB	11.56	1.86
					12 28 55.4	-63 3 54	300.52	-0.40								23	OB+:	12.69	1.24
			-60 4092	9.1	12 30 31.8	-61 5 1	300.55	1.59	2698	OB-	9.7								
			-60 4096	9.0	12 30 36.1	-60 55 38	300.55	1.74	2700	OB	9.2								
109150	8.4	B3	-58 4355	8.6	12 31 49.9	-59 19 56	300.58	3.34	2704	OB:	8.2								
					12 30 41.1	-61 33 13	300.61	1.12								30	OB	12.21	0.87
					12 29 46.6	-63 26 26	300.65	-0.77								25	OB-	13.65	0.65
108719	9.3	B0	-64 1942	9.1	12 28 49.7	-64 40 33	300.65	-2.01	2691	OB-	11.4								
					12 28 53.5	-64 38 39	300.65	-1.98	2692	OB-	12.4								
					12 30 30.1	-62 30 56	300.66	0.16						133	OB+	27	OB :	11.11	1.03
					12 31 14.7	-61 36 6	300.68	1.08								31	OB+	11.83	0.53
			-61 3264	10.1	12 31 16.0	-61 35 59	300.68	1.08	2702	OB+	11.2								
109164	8.16	B5	-60 4128	8.5	12 32 2.6	-60 50 9	300.72	1.85	2705	OB	8.1								
			-60 4030	9.2	12 32 6.1	-60 50 3	300.72	1.85	2706	OB	9.7								
			-62 2808	9.7	12 31 16.4	-62 43 58	300.76	-0.05	2701	OBle	11.3			135	OB+				
					12 31 30.8	-62 25 58	300.77	0.25								33	OB :	12.34	1.38
					12 30 40.8	-63 43 26	300.77	-1.04								29	OB :	14.42	0.99
					12 31 24.8	-62 43 36	300.78	-0.04								32	OB-	13.19	0.88
108659	8.2	B3	-66 1783	8.1	12 28 21.5	-66 45 1	300.78	-4.08	2689	OB	8.5								
					12 30 48.8	-63 46 56	300.79	-1.11						134	OB				
			-59 4311	9.2	12 33 6.9	-59 55 15	300.79	2.77	2709	OB-	9.7					28	OB-	13.55	0.84
					12 30 38.6	-64 21 9	300.82	-1.67											
109314	9.1	B0	-60 4147	9.0	12 33 7.4	-61 4 41	300.86	1.61	2708	OB-	9.9			137	OB				
			-64 1952	10.0	12 30 36.3	-65 5 4	300.87	-2.40	2699	OB+h	11.4								
			-63 2334	9.8	12 31 29.1	-63 54 52	300.87	-1.23	2703	OB	10.9								
					12 31 33.3	-64 28 41	300.92	-1.79								34	OB-	13.63	0.93
					12 26 2.8	-70 30 54	300.92	-7.85	IA46	A3Ib	12.7								
					12 32 58.9	-62 31 16	300.94	0.17								36	OB+:	12.34	0.90
					12 32 30.4	-64 18 52	301.01	-1.62								35	OB-	12.68	0.72
					12 37 20.4	-70 46 42	301.04	-8.10	IA50	A0Ib	11.9								
			-63 2345	9.5	12 32 59.7	-64 24 57	301.07	-1.72	2707	OB	11.1			136	OB				
					12 34 13.0	-62 10 49	301.07	0.52								40	OB-	12.59	0.47
109505	8.4	B3	-60 4170	8.4	12 34 37.7	-61 27 43	301.07	1.24	2712	OB	8.5	701	OB						
			-59 4330	9.4	12 34 42.7	-60 24 53	301.02	2.29	2713	OB	10.7			141	OB+				
					12 35 2.5	-60 56 34	301.09	1.76								43	OB-	11.87	0.44
					12 33 49.3	-63 26 45	301.10	-0.74								38	OB-:	12.61	1.10 →

TABLE 1 (CONTINUED)

HD/HDE	m	ST	CPD	m	1980.0 Alpha	Delta	l	b	LS	ST	m	KS	ST	Ly	ST	MO	ST	V	B-V
					12 34 12.1	-62 52 39	301.11	-0.17								39	OB :	>12.17	<1.28
					12 34 20.7	-63 18 20	301.15	-0.60								41	OB-	>12.39	<0.8:
					12 33 35.8	-64 30 27	301.15	-1.80								37	OB+:	13.04	0.78
					12 34 55.2	-62 43 51	301.18	-0.02								42	OB+:	13.95	0.76
					12 28 32.4	-71 6 32	301.18	-8.42	IA48	A0II	11.4								
			-63 2356	9.2	12 34 22.3	-64 6 40	301.20	-1.40	2711	OBh	10.7			139	OB+				
					12 35 53.5	-61 42 10	301.23	1.01								45	OB-:	12.41	0.92
					12 34 32.6	-64 48 55	301.27	-2.10						140	OB+				
					12 35 46.0	-62 3 54	301.29	0.65						142	OB				
					12 36 36.8	-61 12 11	301.29	1.52								46	OB	13.15	0.97
					12 35 4.7	-64 46 54	301.32	-2.07								44	OB+	13.50	1.08
			-61 3314	9.4	12 36 38.2	-62 12 46	301.35	0.51	2714	OB	10.5			143	OB				
					12 31 26.5	-70 23 7	301.36	-7.68	IA49	B9II	11.9								
					12 38 26.8	-57 55 17	301.36	4.80	2727	OB	11.9								
			-60 4204	9.6	12 37 26.7	-61 8 36	301.39	1.58	2717	OBh	10.6			146	OB+				
					12 36 55.8	-62 38 32	301.40	0.08	2715	OB+h	11.9			144	OB+				
			-60 4206	9.7	12 37 30.3	-61 20 20	301.41	1.38	2719	OB-l	10.6								
					12 34 10.4	-67 50 55	301.42	-5.13						138	OB+				
			-60 4211	9.3	12 37 46.9	-61 5 53	301.43	1.63	2721	OB	10.3			147	OB				
			-59 4362	9.4	12 38 3.9	-60 20 47	301.43	2.38	2723	OB+	10.4	705	OB						
					12 37 20.3	-62 24 53	301.44	0.32						145	OB+				
			-60 4213	10.0	12 37 55.2	-61 9 45	301.45	1.56	2722	OB	11.2								
			-60 4216	10.0	12 38 14.4	-60 34 42	301.46	2.15	2725	OB-l	11.0								
					12 38 12.5	-60 59 44	301.47	1.73								52	OB-	13.17	0.71
					12 37 48.3	-62 12 51	301.49	0.51								47	OB-	12.49	0.54
					12 31 39.2	-71 48 51	301.49	-9.10	IA66	B7II	11.6								
					12 37 54.5	-62 11 7	301.50	0.54								48	OB+	12.49	1.62
					12 38 4.5	-62 11 55	301.52	0.53								50	OB+	12.93	1.53
					12 38 33.7	-61 12 43	301.53	1.52								53	OB-	12.15	0.79
					12 38 7.6	-62 53 28	301.55	-0.16								51	OB	12.88	1.18
			-63 2380	10.0	12 37 49.1	-63 35 35	301.55	-0.87						148	OB				
109937	9.6	B3	-62 2862	9.0	12 38 8.9	-63 15 6	301.57	-0.52	2724	OB-	9.9								
109978	8.8	B0	-61 3327	8.8	12 38 27.4	-62 19 27	301.57	0.41	2726	OB+c	9.5	706	OB						
					12 37 56.0	-64 33 36	301.61	-1.83								49	OB+	13.00	1.01
			-61 3336	9.5	12 39 22.9	-61 37 23	301.64	1.11	2728	OB	10.6								
					12 38 51.5	-63 29 42	301.67	-0.76								55	OB-	13.72	0.68
			-66 1860	9.2	12 37 37.3	-66 45 38	301.69	-4.03	2718	OB-	10.5	702	OB						
109399	8.0	B0	-72 1275	7.8	12 34 1.4	-72 36 22	301.71	-9.88	2710	OB	8.0	700	OB						
					12 34 27.3	-71 47 21	301.71	-9.06	IA67	A1I	12.7								
			-66 1856	9.6	12 37 27.1	-67 27 13	301.71	-4.72	2716	OB-h	10.9								
109867	6.46	B2	-66 1861	6.7	12 37 39.9	-67 4 58	301.71	-4.35	2720	OB+	6.3	703	OB+						
					12 39 51.4	-62 10 15	301.72	0.57								58	OB+	12.45	0.57
					12 39 23.2	-63 23 49	301.72	-0.66								57	OB-	12.92	0.75
			-61 3342	9.9	12 40 1.3	-61 36 26	301.72	1.13	2729	OB	11.9								
					12 38 36.1	-65 14 14	301.72	-2.50								54	OB-	13.93	0.92
			-60 4233	9.8	12 40 16.5	-61 10 13	301.73	1.57	2730	OB	11.5								
					12 40 14.4	-61 50 40	301.75	0.89								59	OB	12.85	0.93
					12 38 57.3	-65 10 46	301.75	-2.44								56	OB-	12.18	0.77
110040	8.7	K5	-61 3330	10.3	12 39 32.8	-61 54 47	301.79	-1.74						149	OB				
110360	9.41	B0	-59 4396	9.0	12 41 2.6	-60 32 31	301.80	2.20	2732	OB	9.9	708	OB						
					12 40 54.2	-61 13 52	301.81	1.51	2731	OB-	12.2								
					12 40 54.0	-61 48 29	301.83	0.93								60	OB+	12.38	1.23
					12 41 3.6	-61 29 21	301.84	1.25								62	OB-	13.66	0.65
					12 41 31.3	-61 0 36	301.88	1.73	2735	OB	12.2					66	OB	11.96	0.72
					12 36 31.9	-71 55 25	301.88	-9.19	IA68	B9II	11.4								
			-66 1872	9.2	12 39 18.2	-67 22 53	301.88	-4.64				707	OB						
311829		(B0)			12 41 20.9	-61 29 20	301.88	1.26											
311846		(B0)	-61 3349	9.9	12 41 28.6	-61 54 37	301.90	0.83	2734	OB	10.8			150	OB+				
					12 41 3.8	-63 1 3	301.90	-0.27								61	OB+	11.78	1.19
110373	9.0	B8	-62 2892	9.0	12 41 12.7	-62 51 48	301.91	-0.12	2733	OB-	9.9								
110532	6.46	K0	-58 4454	9.8	12 42 23.1	-58 47 37	301.91	3.95	2744	OB	10.6			154	OB				
					12 41 16.7	-63 11 27	301.92	-0.45								63	OB-	14.19	1.04
					12 41 48.6	-61 32 30	301.93	1.20								69	OB-	13.50	0.68
					12 41 29.8	-63 0 22	301.94	-0.26								65	OB :	>12.48	1.3:
					12 41 38.6	-62 21 34	301.94	0.39								67	OB	12.27	0.71
109885	9.2	B5	-70 1502	8.7	12 37 57.4	-71 30 53	301.96	-8.77				704	OB						
110498	9.5	B0	-60 4253	9.2	12 42 4.9	-61 32 19	301.96	1.20	2737	OB-	9.9	709	OB						
					12 41 58.6	-61 50 44	301.96	0.90	2736	OB+l	11.2			151	OB+	70	OB+	10.6:	1.9:
110432	6.00	B1p	-62 2898	6.6	12 41 39.2	-62 56 57	301.97	-0.20											
					12 42 6.9	-61 50 29	301.97	0.91								71	OB+	13.24	1.66
					12 42 10.0	-61 26 26	301.97	1.31	2738	OB	11.9					72	OB-	11.72	0.72
					12 41 47.6	-63 0 16	301.98	-0.26								68	OB+	11.28	1.31
			-60 4255	8.8	12 42 20.9	-61 33 19	301.99	1.19	2740	OB-	12.2								
					12 41 17.9	-64 59 55	301.99	-2.25								64	OB-	11.80	0.68
					12 42 21.9	-61 24 30	301.99	1.34	2741	OB-	11.9								
			-60 4257	9.6	12 42 23.8	-61 9 9	301.99	1.60	2742	OB-	10.6								
			-60 4258	9.6	12 42 25.9	-61 9 19	301.99	1.59	2743	OB	10.7								
					12 42 14.1	-61 55 35	301.99	0.82	2739	OB+	11.9					73	OB	12.37	1.09
					12 42 22.3	-62 59 51	302.04	-0.24						152	OB+	74	OB-:	12.11	0.74
					12 42 21.7	-62 59 37	302.04	-0.25								75	OB-:	11.9:	0.9:
					12 42 49.7	-61 16 13	302.04	1.48	2746	OB	12.2								
311824		B2			12 42 54.3	-61 32 23	302.06	1.21	2747	OB	11.2			155	OB				
					12 42 22.3	-62 59 51	302.05	-0.24						153	OB+	77	OB+	>11.30	<1.0:
					12 42 39.3	-62 58 42	302.07	-0.23	2745	WNh	12.0								
					12 42 23.4	-63 50 59	302.07	-1.10								76	OB+	13.12	1.42 →

TABLE 1 (CONTINUED)

HD/HDE	m	ST	CPD	m	1980.0 Alpha	Delta	l	b	LS	ST	m	KS	ST	Ly	ST	MO	ST	V	B-V
					12 42 45.2	-62 58 19	302.08	-0.22								78	OB+	12.30	1.11
110639	8.4	B0	-60 4259	8.6	12 43 6.3	-61 17 6	302.08	1.47	2748	OB	9.0			156	OB				
					12 43 13.0	-61 28 28	302.09	1.28								80	OB	12.38	0.75
			-60 4263	10.2	12 43 23.1	-61 2 52	302.10	1.70	2750	OB+h	11.2								
					12 42 55.2	-63 18 39	302.11	-0.56								79	OB-	13.56	0.86
110785	9.5	B2	-58 4474	9.2	12 43 59.8	-59 31 37	302.14	3.23	2753	OB-	10.0								
110660	9.9	B0	-63 2407	9.2	12 43 13.4	-63 56 48	302.16	-1.19	2749	OB-	10.4								
			-57 5684	10.0	12 44 29.8	-57 34 38	302.16	5.18	2755	OBle	11.1			158	OB+				
					12 43 48.2	-61 46 56	302.17	0.97								82	OB+	13.29	1.34
					12 43 41.7	-62 58 32	302.19	-0.22								81	OB+	12.00	1.38
					12 40 60.0	-70 55 51	302.19	-8.18	IA51	A0II	12.7								
110878	8.1	F0	-57 5690	8.0	12 44 42.5	-58 23 19	302.20	4.37	2757	F0II	8.2								
110786	7.2	F8	-61 3356	8.6	12 44 3.0	-62 6 27	302.21	0.65	2752	F0Ia	8.2								
311815		B2	-60 4348	10.0	12 44 10.7	-61 6 16	302.21	1.65											
					12 44 31.6	-61 25 5	302.25	1.34								84	OB-	12.63	0.86
			-64 1991	10.0	12 43 43.6	-64 58 27	302.25	-2.22	2751	OB+	11.9			157	OB+				
110863	9.16	B0	-59 4423	8.7	12 44 43.1	-60 26 29	302.25	2.31	2756	OB	9.3	711	OB						
			-60 4282	9.5	12 44 49.2	-60 26 50	302.25	2.31				712	OB						
					12 44 17.3	-63 8 31	302.26	-0.39								83	OB	13.08	1.42
					12 44 35.4	-61 27 11	302.26	1.30								86	OB-:	13.89	1.03
					12 44 54.1	-60 6 43	302.27	2.64	2758	OB	12.2								
					12 44 35.6	-62 21 25	302.28	0.40								85	OB	13.02	0.91
					12 44 48.6	-61 58 40	302.30	0.78								87	OB-	12.71	0.76
			-62 2916	9.6	12 44 32.9	-63 24 36	302.30	-0.65	2754	OB-	11.5								
					12 45 8.6	-61 00 00	302.31	1.76								89	OB-	13.04	0.5:
110972	9.2	B3	-58 4494	9.0	12 45 24.3	-59 14 28	302.31	3.52	2760	OB-	9.7								
					12 45 5.4	-61 46 21	302.32	0.98								88	OB-	13.21	1.14
			-64 1997	8.9	12 44 24.7	-65 30 50	302.34	-2.75				710	OB						
					12 45 32.4	-61 24 32	302.37	1.35	2761	OB	11.9			160	OB+	90	OB-	11.58	0.98
110984	8.9	B0	-60 4285	8.8	12 45 33.6	-61 4 37	302.37	1.68	2762	OB	9.4	713	OB						
			-60 4284	10.2	12 45 35.8	-61 5 15	302.38	1.67											
			-63 2410	10.0	12 45 17.4	-63 46 3	302.39	-1.01	2759	OB	9.4			159	OB				
					12 45 41.7	-61 33 54	302.39	1.19								91	OB-	12.93	1.10
111077	10.2	B	-57 5703	9.2	12 46 17.0	-57 51 47	302.40	4.90	2767	OBle	10.4	715	OB+						
					12 45 54.4	-61 49 15	302.42	0.94	2764	OB+	11.9								
			-59 4446	9.2	12 46 5.7	-60 34 6	302.42	2.19	2765	OB-	11.9								
					12 46 8.0	-61 6 58	302.44	1.64	2766	OB:	12.5								
					12 46 12.1	-61 5 8	302.44	1.67								93	OB-	12.90	0.67
					12 46 6.0	-62 17 21	302.45	0.47								92	OB-	13.41	0.97
111003	9.9	B0	-64 2003	9.2	12 45 47.3	-64 55 58	302.46	-2.17	2763	OB-	10.6	714	OB						
					12 46 25.8	-61 11 28	302.47	1.57								95	OB-	12.56	1.27
					12 46 23.6	-61 43 10	302.48	1.04								94	OB	13.60	1.06
			-63 2412	9.8	12 46 6.6	-64 29 55	302.49	-1.74						161	OB				
					12 46 47.3	-60 32 18	302.51	2.22								98	OB-	11.46	0.31
111124	9.5	B	-62 2928	9.2	12 46 38.3	-62 53 12	302.52	-0.13	2768	OB+h	10.4	716	OB						
					12 46 31.5	-63 41 44	302.52	-0.94								96	OB+	12.01	1.26
111193	8.2	B0	-59 4460	8.1	12 46 59.1	-60 6 2	302.53	2.66	2769	OB	8.5	718	OB						
					12 46 46.5	-62 58 38	302.54	-0.22								97	OB+:	14.18	-0.01
					12 47 11.9	-61 49 45	302.57	0.93								100	OB-	13.26	1.11
			-63 2414	9.4	12 46 48.7	-64 16 49	302.57	-1.51				717	OB						
311973		B			12 47 15.1	-61 8 27	302.57	1.62	2771	OB+h				162	OB+				
					12 47 13.8	-60 58 17	302.57	1.79								102	OB-	13.62	0.61
			-62 2933	9.9	12 47 6.7	-63 22 54	302.58	-0.62	2770	OB-	11.4								
					12 47 15.8	-62 51 30	302.59	-0.10								103	OB	12.02	0.82
					12 47 11.3	-62 54 56	302.59	-0.15								99	OB-	13.14	0.68
			-59 4468	9.5	12 47 31.3	-59 48 3	302.59	2.96	2772	OB	10.7	719	OB						
					12 47 15.3	-63 36 56	302.60	-0.85								101	OB-	13.3:	1.1:
					12 47 30.5	-62 51 32	302.62	-0.10								104	OB :	13.41	0.85
					12 47 38.2	-62 16 16	302.63	0.49								106	OB-	13.36	1.20
					12 46 53.1	-63 46 49	302.64	-1.03						163	OB+	105	OB	11.58	0.91
					12 47 50.4	-61 32 30	302.65	1.22								108	OB-	13.64	0.92
311899		B5	-59 4474	8.6	12 48 0.1	-60 2 11	302.66	2.73											
					12 47 49.8	-63 41 32	302.67	-0.93								107	OB-	>13.67	<0.8:
					12 47 50.9	-62 41 49	302.71	0.06						164	OB	109	OB-	11.48	0.67
111377	9.0	B8	-60 4309	9.0	12 48 25.9	-60 51 21	302.71	1.91	2775	OB-	9.4	721	OB						
			-57 5729	9.7	12 48 33.5	-58 28 51	302.71	4.28	2777	OB	12.8								
111343	9.6	A2	-63 2418	9.2	12 48 13.3	-64 5 38	302.72	-1.33	2774	A2II	10.1								
					12 48 35.6	-61 14 29	302.73	1.52	2776	OB	12.2					110	OB-	12.16	0.99
					12 48 44.6	-64 16 15	302.77	-1.51								111	OB-	12.79	0.93
					12 48 56.3	-62 42 49	302.78	0.05								112	OB-	13.34	0.58
111290	7.7	B2	-71 1389	7.7	12 48 11.2	-71 37 21	302.78	-8.86	2773	OB	8.1	720	OB						
111463	5.96	A2	-59 4483	7.5	12 49 0.2	-60 17 29	302.78	2.47	2779	A5II	7.2								
			-62 2940	10.2	12 48 56.7	-62 38 15	302.79	0.13	2778	OB+	10.9			165	OB+				
					12 49 6.9	-63 54 40	302.81	-1.15								113	OB	13.49	1.25
311999		B	-60 4312	10.2	12 49 10.4	-61 28 34	302.81	1.29	2780	OB	11.2			166	OB				
111505	9.20	B5	-59 4485	8.6	12 49 16.0	-60 33 15	302.81	2.21	2781	OB-	8.7								
312021		B	-61 3378	10.2	12 49 20.7	-62 1 5	302.83	0.74	2782	OB+1	10.8			167	OB+				
			-63 2426	9.5	12 49 30.1	-64 16 15	302.86	-1.51	2783	OB	11.1			168	OB				
111578	9.1	B3	-59 4488	8.6	12 49 44.6	-60 20 18	302.87	2.42	2785	OB-	9.2								
111579	8.9	B2	-60 4320	8.8	12 49 51.2	-61 8 4	302.89	1.63	2786	OB	8.7	723	OB						
					12 49 57.4	-61 59 10	302.90	0.78								114	OB-	12.34	0.78
111558	7.2	B0	-68 1777	7.2	12 49 54.9	-69 32 12	302.91	-6.77	2784	OB	7.5	722	OB						
111613	5.94	A2p	-59 4494	6.9	12 50 5.9	-60 13 14	302.91	2.54	2788	A5I	6.7								
					12 50 8.7	-62 17 53	302.92	0.46								115	OB-	13.99	0.87
			-63 2431	10.0	12 50 9.7	-63 58 10	302.93	-1.21	2787	OB	10.9			169	OB				

→

TABLE 1 (CONTINUED)

HD/HDE	m	ST	CPD	m	1980.0 Alpha	Delta	l	b	LS	ST	m	KS	ST	Ly	ST	MO	ST'	V	B-V
					12 50 29.2	-61 52 21	302.96	0.89								117	OB-	12.56	0.84
					12 50 27.3	-64 12 52	302.96	-1.45	2789	OB-:	12.4					116	OB-	11.96	0.65
			-63 2432	10.0	12 50 33.8	-63 53 59	302.97	-1.14	2790	OB	11.4			170	OB+				
					12 50 42.3	-63 15 15	302.99	-0.49								119	OB-	13.47	0.73
					12 50 41.1	-62 10 55	302.99	0.58								118	OB+	12.39	1.16
312051		B			12 50 49.8	-63 5 47	303.01	-0.34						171	OB				
312052		B			12 50 49.6	-63 9 8	303.01	-0.39											
					12 50 54.7	-61 50 6	303.01	0.93								120	BI	13.11	1.19
312001		B5	-60 4331	10.2	12 50 54.1	-61 27 7	303.02	1.31											
					12 51 3.9	-61 44 48	303.03	1.02	2791	OB	12.5					121	OB	12.38	1.22
			-64 2049	9.3	12 51 31.9	-64 44 38	303.03	1.02	2792	OB:	12.5								
					12 51 13.9	-62 35 41	303.05	0.17								122	OB	11.81	0.74
			-60 4334	9.4	12 51 25.5	-61 8 23	303.08	1.62	2793	OB-	10.4	724	OB						
312076		B0	-59 4515	9.8	12 51 26.6	-60 13 47	303.08	2.53	2794	OBh	11.2			172	OB				
312075		B0	-59 4514	10.1	12 51 27.0	-60 9 6	303.09	2.61											
					12 51 42.7	-64 4 7	303.10	-1.31								124	OB-	12.76	1.02
					12 51 37.5	-61 24 26	303.10	1.36	2795	OB	11.5			173	OB+	123	OB	11.37	1.03
312002		B	-60 4336	10.2	12 51 40.0	-60 37 6	303.12	2.14											
			-59 4519	9.2	12 51 45.5	-60 10 50	303.12	2.58	2796	OB-	10.6			174	OB				
					12 51 57.1	-63 32 17	303.13	-0.78								125	OB	>11.88	<0.98
					12 52 4.8	-63 54 51	303.14	-1.15	2798	OB+	12.4					126	OB-	11.47	1.07
			-59 4523	9.4	12 51 58.0	-60 19 26	303.15	2.44	2797	OB-	9.7								
111886	8.6	B3	-60 4341	8.6	12 51 59.9	-60 37 46	303.15	2.14				725	OB						
			-59 4525	10.2	12 52 2.0	-60 21 5	303.15	2.41	2799	OB-	9.7								
					12 52 9.0	-61 14 29	303.16	1.52								127	OB-	13.46	1.32
			-59 4527	9.4	12 52 6.9	-60 17 54	303.16	2.46	2800	OB+	10.2								
					12 52 23.4	-65 14 20	303.16	-2.48								130	OB	13.69	0.85
			-66 1982	8.8	12 52 29.8	-66 42 41	303.16	-3.95	2805	B7Ia	11.9								
					12 52 16.4	-62 0 59	303.17	0.75								128	OB-	12.90	0.99
			-59 4528	9.3	12 52 8.7	-60 16 48	303.17	2.48	2802	OB-	10.9								
111904	5.84	B9p	-59 4529	6.5	12 52 9.6	-60 13 7	303.17	2.54	2803	B7II	6.7								
					12 52 24.6	-62 54 26	303.18	-0.14								133	OB+	13.25	1.4:
					12 52 23.3	-62 30 5	303.18	0.26								132	OB-	11.62	0.89
					12 52 18.2	-61 45 2	303.18	1.01	2804	OB+h	11.2			175	OB+	129	OB+	11.02	1.35
111885	9.0	A2	-54 5362	8.6	12 52 0.1	-55 12 53	303.18	7.55	2801	A5II	9.6								
111916	8.9	B3	-59 4538	8.8	12 52 11.6	-60 5 46	303.18	2.67				726	OB						
					12 52 22.0	-61 23 23	303.19	1.37								131	OB-	13.35	1.20
			-59 4540	9.2	12 52 21.0	-60 18 3	303.19	2.46	2806	OBh	10.2								
					12 52 28.5	-61 48 15	303.20	0.96								134	OB-:	13.76	1.22
111934	6.86	B2	-59 4543	7.8	12 52 25.6	-60 14 52	303.20	2.51	2807	OB	7.9								
			-60 4344	9.3	12 52 28.9	-61 6 24	303.20	1.66	2809	OB	10.3	727	OB						
			-59 4544	9.6	12 52 27.1	-60 14 30	303.21	2.52	2808	OB	10.6								
			-62 2952	10.0	12 52 44.0	-63 17 46	303.22	-0.53						176	OB+	135	OB	10.82	1.30
			-59 4549	10.1	12 52 31.7	-60 16 1	303.22	2.50	2810	OB-	11.2								
			-59 4552	8.3	12 52 34.0	-60 17 40	303.22	2.47	2811	OB	8.7								
111952	9.42	B0	-60 4346	8.6	12 52 35.9	-60 37 46	303.22	2.13	2812	OB-	9.7								
111973	6.11	B3	-59 4555	8.7	12 52 36.8	-60 16 1	303.23	2.50	2813	OB	6.7								
			-59 4559	10.1	12 52 40.1	-60 16 9	303.23	2.49	2814	OB+	9.2								
			-59 4560	9.7	12 52 40.8	-60 15 2	303.23	2.51	2815	OB	10.9								
					12 52 55.5	-62 39 48	303.24	0.10								137	OB-	12.82	0.60
					12 53 1.1	-64 8 31	303.24	-1.38								138	OB-	13.11	1.36
			-59 4564	8.8	12 52 45.2	-60 18 28	303.24	2.45	2816	OB-	9.8								
					12 52 53.3	-61 6 48	303.25	1.65								136	OB-	13.75	0.94
111990	7.9	B3	-59 4566	7.5	12 52 47.7	-60 13 32	303.25	2.54	2817	OB-	7.4								
					12 53 6.7	-62 41 53	303.26	0.06								139	OB+:	12.82	1.98
					12 53 11.7	-63 44 24	303.26	-0.98								141	OB-	12.89	0.76
			-59 4570	10.1	12 52 56.2	-60 15 10	303.27	2.51	2818	OB-	11.2								
112027	8.4	B2	-60 4350	8.7	12 53 5.2	-60 58 6	303.27	1.79	2819	OB	9.3	728	OB						
112026	8.4	B5	-60 4351	8.4	12 53 5.8	-60 47 8	303.27	1.97				729	OB						
			-62 2953	10.0	12 52 53.2	-63 28 46	303.28	-0.72						177	OB				
					12 53 7.3	-61 23 11	303.28	1.37								140	OB	13.36	1.23
			-60 4352	9.1	12 53 13.7	-61 18 46	303.29	1.45	2820	OBh	11.9					142	OB+	12.25	1.15
312037		B5	-62 2959	10.0	12 53 32.6	-62 41 32	303.31	0.07	2822	OB	11.5								
					12 53 38.1	-62 9 35	303.33	0.60								143	OB	12.85	1.07
			-65 1030	10.0	12 54 6.0	-66 16 29	303.33	-3.51	2824	OB+	11.4			179	OB+				
					12 53 38.9	-61 18 12	303.34	1.46								144	OB-	13.69	1.05
			-61 3391	8.1	12 53 43.4	-62 6 43	303.34	0.65	2823	OB+r	11.9					145	OB+	>11.55	1.5:
			-55 5272	9.7	12 53 10.4	-55 56 30	303.34	6.82	2821	OB	11.2								
					12 53 59.8	-61 44 53	303.38	1.01								146	OB	12.67	1.19
					12 54 18.5	-63 34 21	303.39	-0.81								149	OB-	13.53	0.87
					12 54 1.8	-61 27 53	303.39	1.30	2826	OB+r	11.2			180	OB+				
312139		B	-60 4355	9.6	12 54 1.2	-61 25 3	303.40	1.34											
					12 54 7.0	-61 16 14	303.40	1.49								147	OB	12.68	1.14
					12 54 17.2	-61 44 43	303.41	1.01	2827	OB	12.2					148	OB-	11.46	1.09
					12 54 32.3	-63 38 3	303.41	-0.87								151	OB	13.51	0.95
					12 54 34.2	-64 3 17	303.41	-1.30								152	OB-	13.01	0.97
112147	8.6	B0	-58 4589	8.7	12 53 56.3	-58 54 34	303.41	3.85	2825	OB+c	9.1			178	OB+				
112168	8.8	A0	-59 4579	8.7	12 54 6.2	-60 11 45	303.42	2.57				730	OB						
312143		B5	-61 3393	9.5	12 54 19.5	-61 44 35	303.42	1.02	2828	OB	10.2			182	OB				
					12 54 19.3	-61 30 43	303.42	1.25								150	OB-	13.12	1.30
					12 54 34.9	-62 42 3	303.43	0.06								153	OB-	13.38	1.04
112181	9.02	B3	-59 4580	8.4	12 54 19.0	-60 32 29	303.43	2.22	2829	OB	8.8	731	OB						
					12 54 58.1	-64 50 39	303.44	-2.09								155	OB-	12.81	0.76
			-59 4581	8.7	12 54 27.2	-60 22 00	303.45	2.39	2830	OB-	9.7								
			-61 3394	9.3	12 54 42.4	-61 57 52	303.46	0.79	2832	OB+	12.5								

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TABLE 1 (CONTINUED)

HD/HDE	m	ST	CPD	m	1980.0 Alpha	Delta	l	b	LS	ST	m	KS	ST	Ly	ST	MO	ST	V	B-V
			-60 4356	10.2	12 54 40.2	-61 9 4	303.47	1.61	2831	OB	10.9			183	OB+	154	OB	10.7:	>1.2
112202	8.9	B9	-58 4593	9.0	12 54 23.5	-58 54 45	303.47	3.85				732	OB+						
			-59 4584	9.6	12 54 32.4	-60 15 51	303.47	2.49						181	OB				
					12 55 2.1	-62 57 24	303.48	-0.20								156	OB-	13.31	1.36
112272	8.1	B0	-63 2454	8.0	12 55 18.8	-64 15 8	303.49	-1.49	2834	OB+	8.4	733	OB						
			-60 4360	10.2	12 54 54.0	-61 6 50	303.50	1.64	2833	OB	11.9								
					12 55 16.2	-62 56 21	303.51	-0.18								157	OB-	13.26	0.81
			-60 4362	10.2	12 55 16.7	-61 8 39	303.54	1.61	2835	OB	11.9								
					12 55 36.3	-62 39 19	303.55	0.10								159	OB-	11.75	0.86
					12 55 31.9	-61 46 36	303.56	0.98								158	OB	12.91	1.53
					12 55 47.2	-62 37 36	303.57	0.13								160	OB-	12.22	0.93
112366	8.4	B2p	-62 2965	8.2	12 55 56.5	-63 21 23	303.57	-0.60	2837	B7I	9.2								
					12 55 52.7	-62 12 56	303.59	0.54								161	OB	12.71	1.14
			-60 4365	9.4	12 55 43.1	-60 44 21	303.60	2.02	2836	OB-	10.2			184	OB				
312170		(B)		9.4	12 56 2.8	-62 54 44	303.60	-0.16						185	OB+				
					12 56 17.6	-62 37 48	303.63	0.13								164	OB+:	13.57	1.77
112364	7.2	B1	-59 4600	7.8	12 55 42.3	-59 37 44	303.63	3.12				734	OB						
					12 56 6.8	-61 17 2	303.64	1.47	2838	OB:	12.2					162	OB :	>11.08	1.2:
					12 56 7.2	-61 17 8	303.64	1.47	2839	OB	11.9					163	OB:	>11.20	1.3:
312174		B2	-62 2971		12 56 41.1	-63 12 21	303.66	-0.45	2842	OB	10.8	736	OB						
112843	9.8	B0	-71 1416	9.0	12 59 49.9	-72 31 21	303.67	-9.77	2865	OB	9.9	747	OB						
					12 56 51.4	-62 42 27	303.69	0.05								166	OB-	13.0:	>0.7:
					12 57 3.7	-63 54 0	303.69	-1.15								167	OB-:	14.25	0.93
					12 56 49.4	-62 13 27	303.70	0.53								165	OB-	11.77	0.94
112471	8.9	B3	-60 4369	8.5	12 56 31.8	-60 46 43	303.70	1.98	2840	OB-	8.7								
					12 57 3.5	-63 4 25	303.71	-0.32								168	OB-	12.30	1.20
			-69 1743	8.3	12 59 13.6	-70 6 12	303.71	-7.35	2859	OB	9.2	745	OB						
			-57 5809	9.2	12 56 17.8	-58 27 44	303.73	4.28				735	OB						
					12 57 28.5	-64 9 3	303.72	-1.40								169	OB-	12.60	0.64
112497	8.5	B3	-60 4372	8.3	12 56 47.5	-60 56 50	303.73	1.81	2843	OB	8.4	738	OB						
					12 57 38.2	-64 43 21	303.73	-1.97								170	OB-	13.01	0.64
312242		B8	-60 4371	8.6	12 56 44.5	-60 50 58	303.74	1.90											
312157		B3	-61 3403	9.8	12 57 12.9	-62 22 18	303.74	0.38	2845	OB	10.9			186	OB				
112484	8.9	B3	-57 5810	8.5	12 56 30.9	-58 16 44	303.76	4.47	2841	OB-	8.9	737	OB						
			-59 4611	9.2	12 56 50.7	-59 47 24	303.76	2.96	2844	OB	9.7								
			-62 2975	9.6	12 57 39.9	-63 23 58	303.77	-0.65	2848	OB	11.1			188	OB				
					12 57 47.1	-62 31 40	303.80	0.22								171	OB-	12.12	0.80
			-60 4377	9.6	12 57 23.7	-60 53 7	303.80	1.87						187	OB				
312243		B2			12 57 33.7	-60 58 44	303.82	1.77	2847	OB-	11.9								
			-58 4617	8.8	12 57 12.7	-59 8 35	303.83	3.61	2846	OB-	9.2								
					12 58 20.2	-63 26 18	303.84	-0.69								173	OB-	13.50	0.84
112661	8.7	B8	-61 3401	9.1	12 58 6.6	-61 10 51	303.85	0.57	2849	OB	10.4	739	OB						
			-61 3402	10.2	12 58 13.6	-62 15 42	303.86	0.00	2850										
312155		B0	-61 3403	9.4	12 58 18.8	-62 31 24	303.86	0.23	2852	OB	10.7			189	OB				
			-63 2473	9.6	12 58 39.3	-63 55 1	303.86	-1.17	2857	OB-	11.2								
			-63 2473	9.6	12 58 40.5	-63 54 42	303.86	-1.17				741	OB						
					12 58 14.0	-62 13 10	303.87	0.53								172	OB-	12.48	0.82
112751	9.3	B2	-63 2474	8.8	12 58 50.4	-64 11 22	303.87	-1.44	2858	OB	10.2	742	OB						
113120	5.96	B3p	-70 1553	6.1	13 1 42.4	-71 22 7	303.87	-8.63	2879	OBh	5.8	756	OB+						
					12 58 30.4	-62 18 49	303.89	0.43	2855	OB-	11.8					175	OB-	11.74	0.63
			-61 3405	10.2	12 58 29.4	-62 10 45	303.89	0.57	2853	OB:	13.5								
					12 58 35.9	-62 34 35	303.90	0.17								177	OB-	13.62	0.91
					12 58 19.7	-61 31 47	303.90	1.22								174	OB-	13.30	1.33
312259		B			12 58 28.1	-61 31 37	303.91	1.22	2854	OB+r	11.5			190	OB				
					12 58 29.7	-61 0 32	303.93	1.74	2856	OB	11.9					176	OB-	11.85	1.26
					12 58 52.8	-62 18 34	303.94	0.44								178	OB	12.38	0.60
112690	8.7	B5	-59 4629	8.8	12 58 12.6	-59 45 23	303.94	2.99	2851	OB	9.4	740	OB						
112785	9.1	B8	-61 3406	9.2	12 58 55.3	-62 18 35	303.94	0.44	2860	OB-	10.3	743	OB						
					12 59 15.3	-63 18 51	303.95	-0.57								179	OB-	14.04	1.07
					12 59 17.7	-63 29 3	303.95	-0.74								180	OB-	12.78	0.44
312228		B5	-60 4379	10.2	12 58 54.8	-60 41 23	303.99	2.06	2862	OBh	11.4			191	OB+				
312258		B	-60 4380	9.9	12 59 7.2	-61 33 9	303.99	1.19	2863	OB+r	11.3								
112784	8.33	B0	-59 4634	8.2	12 58 52.3	-60 29 5	304.00	2.26	2861	OB-	8.3	744	OB						
			-61 3409	9.8	12 59 19.2	-61 34 5	304.01	1.18	2866	OB+	11.9					181	OB	11.39	1.36
					12 59 44.3	-62 28 51	304.03	0.26								182	OB-	11.82	0.72
			-61 3413	10.1	12 59 51.4	-62 29 37	304.04	0.25	2868	OB-	11.4					183	OB-	11.26	0.82
					13 0 43.6	-64 49 50	304.05	-2.09								186	OB-	13.09	0.74
112842	7.13	B5	-59 4640	7.5	12 59 13.8	-60 15 42	304.05	2.48				746	OB						
113016		B2	-63 2485	8.6	13 0 35.8	-64 30 41	304.05	-1.78				752	OB						
112825	9.5	B0	-59 4639	9.2	12 59 10.5	-59 34 42	304.06	3.17	2864	OB	10.1			192	OB				
					13 0 11.7	-62 37 38	304.08	0.11								184	OB-	11.12	1.14
			-63 2484	9.4	13 0 32.1	-63 38 46	304.08	-0.90	2870	OB-	11.0	750	OB						
			-58 4640	9.3	12 59 31.8	-59 29 26	304.11	3.25	2867	OB-	10.2								
			-66 2047	9.5	13 2 12.1	-66 42 7	304.12	-3.97	2889	B9II	10.6								
112953	8.4	B2	-60 4387	9.2	13 0 4.6	-60 56 56	304.13	1.79	2869	OBle	8.8	748	OB						
113014	8.5	B8	-61 3419	8.9	13 0 33.2	-62 4 25	304.14	0.67	2873	OB	9.1								
					13 1 4.6	-63 21 57	304.15	-0.63	2877	OB-	11.9								
113034	9.1	B	-61 3421	9.2	13 0 38.2	-61 43 30	304.16	1.01	2874	OB	9.8	753	OB	193	OB				
112999	7.38	B8	-59 4651	8.1	13 0 20.3	-60 33 41	304.18	2.17				749	OB						
					13 0 38.6	-61 24 39	304.18	1.33	2875	OB+r	11.9					185	OB	11.13	1.89
			-63 2494	10.1	13 1 29.2	-63 43 14	304.18	-0.98	2882	OB-	11.6								
			-63 2495	9.5	13 1 31.8	-63 43 39	304.18	-0.99	2883	OB+c	10.9	757	OB+	195	OB+				
				9.4	13 1 4.7	-62 35 26	304.18	0.15	2878	OB-	11.4					187	OB-	11.11	1.36
113013	9.8	B5	-59 4653		13 0 27.4	-60 19 57	304.20	2.41	2871	OB-	9.1								
					13 2 9.5	-64 45 9	304.21	-2.02	2890	OB:	12.3					193	OB+	11.39	0.76 →

TABLE 1 (CONTINUED)

HD/HDE	m	ST	CPD	m	1980.0 Alpha	Delta	l	b	LS	ST	m	KS	ST	Ly	ST	MO	ST	V	B-V
113012	8.3	B5	-59 4654	8.3	13 0 27.9	-59 58 7	304.21	2.77	2872	OBce	8.1	751	OB						
312253		B3	-60 4390	9.2	13 0 49.3	-60 53 42	304.22	1.84	2876	OB	10.3	754	OB						
					13 1 53.6	-63 50 11	304.22	-1.10								191	OB-	11.63	0.57
					13 1 47.1	-63 25 26	304.23	-0.69								189	OB-	12.96	0.80
			-63 2501	9.4	13 1 56.7	-63 36 28	304.24	-0.87	2888	OB	11.0	760	OB						
					13 1 48.3	-63 1 36	304.25	-0.29								190	OB-	11.82	0.78
113013	9.8	B5	-59 4653	8.8	13 1 12.1	-61 16 51	304.25	1.46	2880	OB+r	11.0								
			-60 4392	10.0	13 1 13.1	-61 16 46	304.25	1.46						194	OB+				
					13 1 41.8	-62 24 13	304.26	0.33								188	OB-	13.81	0.80
					13 2 2.0	-63 7 46	304.27	-0.40								192	OB	13.43	0.85
					13 2 58.7	-64 49 42	304.29	-2.10								197	OB-	12.27	0.47
			-59 4670	9.6	13 1 15.4	-60 33 48	304.29	2.17	2881	OB-	10.7								
					13 1 37.3	-61 37 13	304.29	1.11	2886	OB-:	12.2								
			-59 4675	9.1	13 1 26.2	-60 26 7	304.31	2.30	2884	OB-	10.7								
113163	7.72	B0	-60 4396	8.4	13 1 33.3	-60 38 7	304.32	2.10	2885	OB-	8.3	758	OB						
			-63 2511	9.5	13 2 56.4	-63 51 7	304.33	-1.12	2893	OB	11.0	761	OB						
					13 2 13.1	-62 7 32	304.33	0.61								195	OB	12.40	0.99
					13 3 35.5	-65 6 42	304.34	-2.38								208	OB+	13.18	0.90
			-59 4679	9.5	13 1 32.1	-59 47 40	304.35	2.93				759	OB						
					13 3 11.8	-63 51 29	304.36	-1.13								200	OB-	11.77	0.26
			-63 2512	9.2	13 3 12.3	-63 49 30	304.36	-1.10	2897	OB	10.7	762	OB	198	OB				
			-63 2513	9.2	13 3 18.9	-63 51 13	304.37	-1.13	2898	OB	10.5	763	OB	200	OB+				
					13 3 17.0	-63 51 7	304.37	-1.12								202	OB-:	12.1:	0.1:
					13 2 8.8	-61 3 35	304.37	1.67								194	OB	11.74	1.79
			-59 4684	9.4	13 1 48.3	-60 4 20	304.38	2.66	2887	OB-	10.3								
					13 3 29.6	-63 56 48	304.39	-1.22								205	OB-	12.79	0.48
113109	8.8	B5	-56 5541	8.6	13 0 48.8	-57 7 41	304.39	5.60				755	OB						
					13 3 51.3	-64 34 48	304.40	-1.85	2909	OB	11.8					211	OB-	11.93	0.33
					13 3 32.8	-63 57 47	304.40	-1.24								207	OB+	12.14	0.88
			-59 4688	9.1	13 2 1.0	-60 11 38	304.40	2.54	2891	OB	10.0								
312287		B0	-62 2992	9.8	13 3 17.9	-62 59 34	304.42	-0.27	2899	OB	11.0			199	OB+				
					13 3 30.7	-63 27 7	304.42	-0.73	2904	OB	13.2								
113432	9.3	B5	-62 2993	8.9	13 3 33.2	-63 23 2	304.43	-0.66	2906	OBle	9.5	766	OB						
					13 3 30.9	-63 13 18	304.43	-0.50	2905	OB-	12.5					206	OB-	12.25	0.74
					13 3 13.8	-62 39 27	304.43	0.07								201	OB+	13.55	1.14
					13 2 49.2	-61 39 53	304.43	1.06								196	OB	13.18	1.59
					13 3 58.1	-63 57 54	304.44	-1.24								213	OB-	12.67	0.46
					13 4 37.5	-65 9 27	304.45	-2.44								216	OB-	13.56	0.63
113511	9.3	B0	-63 2519	8.8	13 4 3.7	-63 56 35	304.45	-1.22	2912	OB	9.3	767	OB	204	OB				
					13 3 46.4	-63 23 55	304.45	-0.67	2908	OB-	12.1								
					13 3 45.4	-63 22 30	304.45	-0.65	2907	OB-	12.1					209	OB-	12.14	0.70
					13 3 0.4	-61 37 50	304.45	1.10								199	OB+	11.49	1.54
					13 3 21.9	-62 16 37	304.46	0.45								203	OB	12.11	0.81
			-60 4407	9.2	13 2 49.1	-60 48 35	304.47	1.92	2892	OB	10.3								
			-60 4408	9.8	13 3 0.5	-61 12 31	304.47	1.52	2895	OB+	10.9			196	OB+				
					13 2 56.6	-61 0 56	304.47	1.71								198	OB-	11.89	1.05
			-60 4412	9.5	13 3 5.4	-61 1 42	304.49	1.70	2896	OB	10.7			197	OB+				
312256		B			13 3 20.8	-61 33 52	304.49	1.16	2900	OB	10.2								
113422	8.4	B0	-61 3439	8.6	13 3 21.9	-61 36 13	304.49	1.12	2901	OB	8.5	765	OB	201	OB+				
312267		B5	-61 3440	9.6	13 3 22.7	-61 46 59	304.49	0.94	2903	OB-	10.3			202	OB				
					13 4 7.7	-63 6 28	304.50	-0.39								214	OB-	12.29	0.95
					13 3 27.3	-61 36 6	304.50	1.12								204	BI :	13.78	1.18
113347	8.5	A2	-59 4700	8.6	13 2 50.7	-60 4 57	304.50	2.64	2894	FOII	8.1								
			-67 2190	9.6	13 7 1.6	-67 55 33	304.52	-5.21	2934	OB	10.5			218	OB				
			-64 2161	9.2	13 5 14.8	-64 58 23	304.52	-2.25	2919	OBce	10.0	773	OB						
113606	9.0	B2	-63 2527	8.6	13 4 46.3	-64 8 8	304.52	-1.42	2914	OB+	9.7	768	OB	207	OB+				
					13 3 55.0	-62 22 11	304.52	0.35								212	OB+	12.94	1.20
113659	8.1	B2	-64 2160	8.0	13 4 57.2	-64 58 44	304.53	-2.26											
			-71 1435	9.7	13 10 11.9	-71 50 00	304.53	-9.13	IA69	OB-c	10.5								
113708	6.7	B5	-64 2163	7.8	13 5 30.7	-65 6 17	304.54	-2.39	2921	OB	9.0								
114200	9.62	Bp	-70 1567	8.0	13 9 28.3	-70 42 10	304.54	-8.00	2949	OB+	8.7	786	OB+						
					13 3 43.8	-61 24 35	304.55	1.31								210	OB+:	12.56	1.82
			-61 3442	9.8	13 3 53.2	-61 38 3	304.55	1.09	2911	OB-	11.0			203	OB				
			-60 4425	9.8	13 3 51.4	-61 30 47	304.57	1.21											
					13 4 38.2	-62 42 48	304.58	0.01								218	OB-	13.15	0.65
113421	10.0	B0	-59 4711	8.9	13 3 18.3	-59 43 2	304.58	3.01	2902	OB-	9.5	764	OB						
			-60 4430	9.7	13 4 15.8	-61 33 33	304.60	1.16	2913	OB	10.6			205	OB+				
			-59 4715	9.2	13 3 42.2	-60 19 25	304.60	2.40	2910	OB-	10.0								
					13 4 10.0	-61 15 18	304.61	1.46								215	OB+:	13.21	1.93
113605	10.0	B8	-61 3445	9.0	13 4 42.8	-62 7 48	304.62	0.59	2916	OB-h	10.1	769	OB						
			-65 2163	9.2	13 6 55.0	-65 54 20	304.64	-3.20	2935	OB	10.3			217	OB				
			-63 2539	9.2	13 6 0.1	-63 56 45	304.66	-1.23	2929	OB-	10.7			215	OB				
113904	5.64	Oap	-64 2183	6.1	13 6 48.3	-65 11 55	304.67	-2.49	2933	WCh	6.6								
					13 5 22.5	-62 45 27	304.67	-0.04								221	OB+	12.58	1.76
					13 5 16.8	-62 31 7	304.67	0.20								220	OB-:	13.84	0.94
			-61 3446	9.2	13 4 58.3	-61 47 8	304.67	0.93	2918	OB-	10.1	771	OB	208	OB-				
			-60 4432	9.8	13 4 40.9	-61 15 24	304.67	1.46	2915	OB+	10.6			206	OB+				
			-62 3008	9.5	13 5 51.0	-63 25 17	304.68	-0.71	2928	OB	10.7			213	OB				
					13 4 55.9	-61 34 8	304.68	1.15								219	OB+:	13.28	1.74
					13 4 35.8	-60 40 55	304.69	2.03								217	OB-	11.94	0.87
					13 6 41.7	-64 36 12	304.70	-1.89								232	OB-	13.08	0.29
			-62 3006	9.4	13 5 41.8	-62 42 43	304.70	0.00	2926	OB	11.1			212	OB				
			-60 4434	9.3	13 4 50.5	-61 6 1	304.70	1.61	2917	OB	10.2	770	OB						
113754	10.5	B0	-62 3007	9.2	13 5 48.2	-62 53 4	304.71	-0.17	2927	OB	10.1	775	OB						
			-63 2544	9.2	13 6 29.2	-64 5 43	304.71	-1.39	2932	OB-	10.4	777	OB	216	OB+				

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TABLE 1 (CONTINUED)

HD/HDE	m	ST	CPD	m	1980.0 Alpha	Delta	l	b	LS	ST	m	KS	ST	Ly	ST	MO	ST	V	B-V
					13 5 45.3	-62 33 23	304.72	0.15								223	OB-	12.17	0.59
			-61 3450	9.4	13 5 22.8	-61 45 2	304.72	0.96	2922	OB-	10.4			210	OB-				
					13 5 53.9	-62 37 23	304.73	0.09								224	OB-	13.65	0.79
					13 6 10.0	-62 58 48	304.74	-0.27								227	OB+	12.26	1.28
			-60 4438	9.2	13 5 13.0	-60 54 24	304.75	1.81	2920	OB-h	10.0	772	OB						
			-61 3452	9.2	13 5 33.4	-61 40 37	304.75	1.03	2923	OB	9.7	774	OB	211	OB+				
113742	10.1	B5	-61 3454	9.0	13 5 38.0	-61 50 16	304.75	0.87	2925	OB-	9.1								
			-60 4437	10.1	13 4 53.8	-60 39 38	304.76	2.05						209	OB				
			-61 3456	9.9	13 5 53.1	-61 56 31	304.77	0.77						214	OB				
					13 5 43.3	-61 35 12	304.77	1.12								222	OB-:	13.80	1.20
					13 6 1.6	-62 2 3	304.78	0.67								225	OB	13.49	1.05
					13 6 51.5	-63 25 13	304.79	-0.72	2936	OBh	11.8					233	OB	11.67	0.74
					13 7 15.6	-64 2 51	304.80	-1.34								237	OB-	13.09	0.84
			-61 3462	9.0	13 6 17.4	-62 15 51	304.80	0.44	2931	OB	10.0	776	OB						
					13 6 32.7	-62 31 30	304.81	0.18								229	OB-	12.4:	0.8:
			-63 2565	9.3	13 7 41.4	-64 25 51	304.82	-1.73	2943	OB-	10.6	781	OB			226	OB+	11.22	1.48
					13 6 2.3	-61 7 48	304.84	1.58	2930	OB	11.8								
114954	10.0	F8	-71 1446	9.9	13 14 33.4	-71 58 7	304.86	-9.29	IA70	F2II	9.9								
					13 7 13.7	-62 58 25	304.86	-0.27								236	OB-	13.26	0.41
					13 7 15.1	-62 51 24	304.87	-0.16								238	OB+	13.79	0.97
					13 6 33.0	-61 40 49	304.87	1.02								230	OB-	13.00	1.06
113741	9.1	B8	-58 4687	9.0	13 5 31.3	-59 30 37	304.87	3.20	2924	OB-	10.0								
114169	9.6	B3	-64 2212	9.0	13 8 51.4	-65 9 35	304.89	-2.47				783	OB						
					13 6 29.0	-61 7 58	304.89	1.57								228	OB-:	>12.29	0.6:
					13 6 35.7	-61 5 24	304.91	1.61								231	OB	11.78	0.80
			-61 3469	9.0	13 7 5.4	-62 4 18	304.91	0.63	2937	OB-	9.6								
					13 8 8.2	-63 36 52	304.92	-0.92								248	OB :	13.72	1.16
					13 7 57.4	-63 8 37	304.93	-0.45								246	OB-	13.57	0.44
					13 7 2.9	-61 35 1	304.93	1.12								235	OB-	12.21	0.79
					13 6 49.9	-61 14 49	304.93	1.45								234	OB-	12.61	0.92
					13 7 30.2	-62 13 30	304.94	0.47								240	OB-	11.80	0.58
					13 7 56.9	-62 50 1	304.95	-0.14	2945	OB-	11.4					245	OB-	11.69	0.3:
114199	9.7	B0	-63 2579	9.1	13 9 1.5	-64 21 00	304.97	-1.66	2948	OB	9.7	784	OB						
					13 8 32.9	-63 36 42	304.97	-0.92								253	OB+	12.49	1.10
					13 7 46.1	-62 21 7	304.97	0.34								242	OB+	11.8:	1.6:
					13 7 49.4	-62 20 58	304.97	0.35								243	OB+	11.58	1.85
			-60 4460	9.6	13 7 5.3	-61 7 39	304.97	1.57	2938	OB-	10.6			219	OB				
			-64 2226	9.7	13 9 53.2	-65 24 25	304.98	-2.72	2955	OB-	10.7								
					13 8 44.4	-63 42 15	304.98	-1.01								255	OB-	13.70	0.53
			-61 3472	9.1	13 7 42.1	-62 0 34	304.98	0.69	2944	OB-	9.6								
			-60 4463	8.8	13 7 10.7	-61 5 42	304.98	1.60	2939	OB	9.1								
114122	9.9	B0	-62 3028	8.8	13 8 17.0	-62 45 53	305.00	-0.07	2946	OB+	9.7	782	OB						
					13 7 54.7	-62 2 34	305.00	0.65								244	OB	13.40	1.11
					13 7 41.2	-61 43 41	305.00	0.97								241	OB+	12.84	1.64
					13 8 18.2	-62 33 49	305.01	0.13								251	OB-	13.16	0.34
114011	9.0	B0	-60 4466	8.8	13 7 27.5	-61 4 48	305.01	1.62	2940	OB	9.7	778	OB	220	OB				
					13 8 5.2	-62 3 52	305.02	0.63								247	OB-	11.42	0.58
					13 7 27.8	-61 1 39	305.02	1.67								239	OB-	11.38	0.76
					13 8 31.0	-62 31 8	305.04	0.17								252	OB-	13.14	0.39
					13 8 16.9	-61 55 27	305.05	0.77								250	OB-	12,68	0.84
					13 8 9.7	-61 51 14	305.05	0.84								249	OB-	13.59	0.57
			-63 2593	9.2	13 9 49.5	-64 14 12	305.06	-1.55	2954	OB	10.8								
114026	8.46	B2	-59 4769	8.4	13 7 29.0	-60 13 54	305.07	2.46	2942	OB-	8.5	779	OB						
					13 8 35.1	-61 57 15	305.09	0.73								254	OB-	12.50	0.52
114024	10.5	B	-59 4766	9.2	13 7 25.6	-59 33 38	305.11	3.13	2941	OB	10.3	780	OB						
			-60 4480	9.1	13 8 36.5	-61 1 31	305.16	1.66	2947	OB-	9.4								
			-63 2609	9.7	13 11 1.4	-64 31 27	305.17	-1.85						224	OB+				
114213	8.9	B3	-60 4485	8.9	13 9 5.1	-61 21 58	305.19	1.32	2950	OB	9.5	785	OB						
			-63 2613	9.8	13 11 8.4	-64 1 53	305.22	-1.36	2969	OB	11.8					256	OB-:	11.41	0.44
			-60 4488	9.8	13 9 19.4	-61 21 19	305.22	1.33	2951	OB-	12.1								
114461	6.40	F0	-62 3046	7.3	13 10 35.8	-63 11 48	305.23	-0.52	2964	F0II	7.2								
			-61 3491	10.1	13 10 13.3	-62 29 47	305.24	0.18	2960	OB-	11.9								
114516	8.9	B8	-63 2612	8.7	13 11 4.5	-63 42 20	305.24	-1.03	2967	OB-	9.0			225	OB				
			-60 4489	10.1	13 9 21.5	-60 59 55	305.25	1.68	2952	OB-h	11.4			221	OB+				
			-64 2264	9.4	13 11 58.0	-64 45 33	305.25	-2.09				792	OB						
114478	9.6	B0	-62 3048	8.6	13 10 40.6	-62 42 34	305.27	-0.04	2965	OB	9.6			223	OB				
			-63 4627	9.5	13 11 57.4	-64 27 24	305.27	-1.79	2975	OB-	11.3								
					13 12 31.7	-65 11 59	305.27	-2.54	2979	W(N)	13.4								
					13 9 36.5	-60 56 19	305.28	1.74	2953	OB-	10.4								
			-60 4490	9.2	13 9 37.5	-60 59 40	305.28	1.68						222	OB				
			-61 3492	10.1	13 10 18.8	-62 7 24	305.28	0.55	2961	OB	11.4								
			-62 3058	10.0	13 11 22.0	-62 36 42	305.36	0.05	2970	OB-	11.5								
			-59 4798	9.6	13 9 43.9	-60 0 55	305.37	2.66	2956	OB-	9.6								
114341	8.7	B0	-59 4801	8.8	13 9 46.4	-60 1 0	305.37	2.66	2957	OB-	9.3	787	OB						
					13 21 9.3	-71 53 5	305.38	-9.26	IA71	A0II	12.0								
			-61 3502	9.7	13 11 23.4	-62 18 54	305.39	0.35	2971	OB	11.0			226	OB+				
114340	8.0	B0	-59 4804	8.5	13 9 48.4	-59 38 25	305.40	3.03	2958	OB+	8.9	788	OB						
114489	7.3	F0	-60 4508	8.1	13 10 39.0	-61 0 39	305.40	1.66	2966	F2Ib	7.3								
114737	8.1	B2	-62 3079	8.0	13 12 27.3	-63 28 50	305.41	-0.82	2981	OB	8.4	796	OB						
114394	8.4	B3	-58 4723	8.1	13 10 5.3	-59 28 15	305.45	3.20	2959	OB-	8.6	789	OB						
114530	9.5	B8	-60 4512	8.7	13 10 58.8	-60 57 53	305.45	1.70	2968	OB-	9.2	790	OB						
					13 22 47.3	-72 21 55	305.45	-9.76	IA98	OB-	11.0								
			-60 4520	8.1	13 11 30.4	-61 24 24	305.48	1.25	2973	OB	11.8								
114800	7.8	B0	-62 3090	7.8	13 12 53.5	-63 16 3	305.48	-0.61	2986	OBce	8.3	798	OB						
			-61 3512	9.1	13 12 23.5	-62 29 31	305.49	0.16	2978	OB-	10.4	794	OB						

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TABLE 1 (CONTINUED)

HD/HDE	m	ST	CPD	m	1980.0 Alpha	Delta	l	b	LS	ST	m	KS	ST	Ly	ST	MO	ST	V	B-V
			-62 3086	9.6	13 12 42.7	-62 46 42	305.50	-0.12	2984	OB-	10.7			230	OB				
			-60 4518	9.4	13 11 25.4	-60 54 45	305.51	1.75	2972	OBh	10.5			227	OB+				
			-60 4519	9.2	13 11 29.9	-60 49 33	305.52	1.83				791	OB						
			-60 4523	9.2	13 11 40.6	-61 4 29	305.52	1.58	2974	OB-	10.7								
114792	7.2	F5	-61 3516	8.1	13 12 44.4	-62 32 53	305.52	0.10	2985	F8Ib	7.9								
			-62 3092	9.7	13 13 3.7	-63 2 24	305.52	-0.39	2987	OB-	11.2			231	OB				
114886	6.96	B3	-62 3096	7.3	13 13 26.2	-63 28 29	305.52	-0.83	2989	OB	7.0	799	OB+						
			-60 4528	8.5	13 11 51.1	-60 59 00	305.55	1.67	2976	OB-	8.9	793	OB						
			-61 3510	9.2	13 12 15.3	-61 34 9	305.55	1.08	2977	OB-	10.0			228	OB				
115034	9.1	B2	-63 2662	8.7	13 14 0.6	-63 46 31	305.61	-1.13				801	OB						
					13 22 30.3	-70 54 55	305.61	-8.32	IA52	OB	12.2								
					13 17 58.6	-67 11 11	305.63	-4.57	3025	OB-	12.3								
			-60 4539	9.8	13 12 37.4	-61 3 56	305.64	1.58	2983	OB+	10.8			229	OB+				
			-60 4535	9.2	13 12 25.4	-60 36 1	305.65	2.05	2982	OB-	10.4	797	OB						
					13 14 56.6	-63 24 37	305.69	-0.78	2999	B6I	11.4								
			-61 3531	9.8	13 13 59.2	-62 1 35	305.71	0.61	2992	OB-	10.3								
			-60 4549	10.2	13 13 40.4	-61 27 47	305.73	1.18	2990	OB	11.8								
					13 15 35.7	-63 49 36	305.73	-1.20	3006	OB+	11.6								
115071	8.1	B2	-61 3544	8.1	13 14 47.0	-62 28 42	305.76	0.15	2998	OB-	8.2	805	OB						
			-62 3111	9.3	13 14 56.6	-62 36 30	305.77	0.02				806	OB						
115042	10.2	B0	-61 3539	9.0	13 14 27.2	-61 45 34	305.79	0.87	2995	OB+	9.5	803	OB						
			-61 3540	9.4	13 14 29.8	-61 53 1	305.79	0.75	2996	OB	10.5	802	OB						
			-62 3121	9.6	13 15 40.4	-63 15 14	305.79	-0.63	3007	OB	11.1			234	OB				
114441	7.1	B0	-54 5472	7.4	13 10 16.4	-55 15 00	305.80	7.40	2962	OB-	8.4								
			-60 4551	9.0	13 13 53.0	-60 51 41	305.81	1.77	2991	OB	10.0	800	OB						
			-61 3549	9.5	13 15 7.8	-62 27 13	305.81	0.17	3003	OB:	11.2			233	OB+				
			-61 3550	9.6	13 15 13.1	-62 26 6	305.82	0.19	3004	OB:	12.5								
114733	9.0	B0	-57 5952	9.0	13 12 15.0	-58 15 24	305.83	4.38	2980	OB-	9.7	795	OB						
			-60 4553	9.2	13 14 16.0	-61 2 60	305.84	1.58	2993	OB-	10.0								
			-60 4557	9.8	13 14 25.0	-61 3 25	305.85	1.57	2994	OB+	11.0			232	OB+				
			-61 3547	10.0	13 14 58.9	-61 48 33	305.85	0.82	3001	OB-	10.3								
					13 15 6.4	-61 55 45	305.85	0.70	3002	OB-h	11.4								
115114	10.2	B0	-61 3546	9.0	13 14 58.5	-61 39 25	305.86	0.97	3000	OB+l	9.9	807	OB						
115363	8.5	B0	-63 2684	8.3	13 16 47.6	-63 34 55	305.88	-0.97	3014	OB+	8.6	809	OB						
			-61 3558	9.4	13 15 55.9	-62 30 59	305.89	0.10						235	OB-				
			-60 4558	8.8	13 14 36.3	-60 43 14	305.91	1.90	2997	OB+	9.6	804	OB						
			-60 4564	9.0	13 15 13.7	-61 18 14	305.93	1.32	3005	OB-	10.0								
115400	7.5	F5	-62 3137	8.0	13 17 0.7	-63 20 37	305.93	-0.73	3016	F5II	8.1								
					13 16 26.2	-62 40 00	305.94	-0.05	3009	OB-	12.1								
					13 16 32.5	-62 44 49	305.94	-0.13	3012	OB-	11.6								
115316	10.2	B2	-61 3566	9.0	13 16 26.3	-62 20 55	305.97	0.26	3010	OB	9.7	808	OB	236	OB				
					13 16 50.8	-62 34 35	305.99	0.03	3015	OB-	11.4								
115484	9.9	B2	-62 3147	9.2	13 17 30.7	-63 19 3	305.99	-0.71	3023	OB-	10.2			243	OB				
			-61 3569	8.9	13 16 42.5	-62 19 48	306.00	0.28	3013	WCh	13.3								
			-62 2148	9.8	13 17 49.7	-63 27 53	306.01	-0.86	3028	OB	11.6								
			-62 3141	9.6	13 17 12.1	-62 33 24	306.03	0.05	3018	OB-h	10.9			238	OB				
					13 17 4.2	-62 22 2	306.04	0.24	3017	WR	13.5								
115223	8.2	A0	-59 4878	8.9	13 15 35.2	-60 21 4	306.06	2.26	3008	A0I	8.1								
115455	8.3	B2	-61 3575	8.4	13 17 16.9	-62 23 10	306.06	0.22	3019	OB	9.0	810	OB	239	OB+				
			-61 3576	9.0	13 17 20.2	-62 25 22	306.06	0.18						240	OB				
			-61 3579	9.3	13 17 23.6	-62 24 28	306.07	0.19	3021	OB-	11.4			241	OB				
			-61 3581	9.2	13 17 26.6	-62 23 46	306.08	0.20	3022	OB-	10.7			242	OB				
			-63 2704	9.9	13 19 10.1	-64 5 33	306.09	-1.50	3034	OB-	11.3								
			-61 3587	9.5	13 17 45.5	-62 27 52	306.11	0.13	3027	OB-	10.9			246	OB				
115514		G5	-61 3585	9.0	13 17 39.7	-62 16 38	306.12	0.32	3024	F8	9.4								
			-60 4571	9.4	13 16 26.0	-60 38 1	306.14	1.97	3011	OBh	10.3			237	OB				
			-61 3589	9.8	13 17 48.9	-62 13 18	306.14	0.37	3029	F5Ib	10.7								
			-62 2161	9.4	13 18 32.1	-62 55 7	306.15	-0.33	3032	OB-	10.8								
			-61 3598	9.4	13 18 15.2	-62 32 26	306.16	0.05	3031	OBle	10.9			247	OB+				
115533	10.5	B0	-61 3586	9.2	13 17 42.8	-61 47 25	306.17	0.80	3026	OB-	9.7			244	OB				
115746	9.6	B2	-62 3174	9.0	13 19 15.0	-63 18 14	306.20	-0.72											
					13 22 9.7	-65 48 00	306.20	-3.24	3054	OB-	12.9								
114855	8.4	G0	-54 5489	8.7	13 12 54.9	-54 35 8	306.24	8.03	2988	F9Ib	8.8								
					13 19 55.8	-63 27 57	306.24	-0.89	3039	OB	12.8								
					13 17 43.5	-60 37 28	306.30	1.96						245	OB+				
115704	8.5	B0	-61 3608	8.6	13 18 53.5	-61 54 9	306.30	0.68	3033	OB	8.6	812	OB	248	OB+				
			-61 3612	10.1	13 19 15.2	-62 15 4	306.30	0.32	3035	OB	11.4								
115922	9.9	F5	-62 3189	9.2	13 20 21.4	-63 7 47	306.33	-0.56	3042	F4II	10.1								
			-59 4900	9.8	13 17 58.2	-60 29 49	306.34	2.09	3030	OB-	10.3								
			-59 4894	9.2	13 17 24.6	-59 42 28	306.36	2.88				811	OB						
					13 20 16.5	-62 44 36	306.37	-0.18	3040	OB+	12.1								
			-61 3618	9.6	13 19 47.3	-62 5 9	306.38	0.48	3037	OB-	10.7								
					13 22 29.3	-64 30 10	306.40	-1.95	3056	OB-	11.6								
			-63 2729	9.9	13 22 1.1	-63 53 27	306.42	-1.34	3053	OB-	11.1								
					13 21 41.6	-63 28 12	306.44	-0.92	3051	OB	11.4								
			-61 3624	9.0	13 20 17.3	-61 56 21	306.46	0.62	3041	OB	10.7								
					13 20 34.5	-62 13 53	306.46	0.33	3045	OB	11.4								
					13 21 32.1	-63 1 23	306.47	-0.47	3049	OB	12.8								
			-61 3629	10.1	13 20 47.1	-62 17 48	306.48	0.26	3046	OB-	11.2								
115473		Oa	-57 5981	8.6	13 17 11.9	-58 1 57	306.50	4.55	3020	WCh	10.0								
			-61 3626	9.8	13 20 30.8	-61 50 46	306.50	0.71	3044	OB	10.7								
					13 21 23.2	-62 40 32	306.50	-0.13	3048	OB	11.6								
116121	9.6	B3	-62 3209	8.6	13 21 44.2	-62 57 12	306.51	-0.41						253	OB				
			-62 3217	10.1	13 22 2.7	-63 2 19	306.53	-0.49	3055	OB+	11.4								
					13 22 35.6	-63 31 50	306.53	-0.99	3057	OB	12.1								

→

TABLE 1 (CONTINUED)

HD/HDE	m	ST	CPD	m	1980.0 Alpha	Delta	l	b	LS	ST	m	KS	ST	Ly	ST	MO	ST	V	B-V
116420	9.1	F5	-63 2741	9.1	13 23 46.6	-64 32 13	306.53	-2.01	3061	F3II	10.2								
			-63 2736	9.6	13 22 47.7	-63 34 44	306.55	-1.04	3058	OB+	11.0			255	OB+				
			-62 3225	8.6	13 22 39.8	-63 16 5	306.57	-0.73						254	OB				
			-61 3639	9.6	13 21 42.4	-62 20 15	306.58	0.21	3052	OB+	10.9			252	OB+				
115805	10.3	B	-59 4914	9.1	13 19 30.3	-59 53 9	306.60	2.67	3036	OB	10.0	813	OB						
			-60 4617	9.4	13 20 48.1	-61 16 19	306.60	1.28						250	OB-				
116119	7.2	B0	-61 3638	8.4	13 21 36.2	-61 54 29	306.62	0.63	3050	B6Ib	8.5			251	OB				
					13 22 56.5	-63 9 14	306.62	-0.62	3060	OB	11.8								
116849	9.4	B0	-63 2335	10.0	13 26 43.5	-66 10 34	306.62	-3.67	3083	OBce	9.7								
115937	9.0	B	-59 4923	9.0	13 20 18.2	-60 24 58	306.64	2.13	3043	OB-	9.7			249	OB				
					13 23 48.7	-63 26 6	306.68	-0.91	3064	OB+	11.8								
					13 24 47.4	-64 16 13	306.68	-1.76	3070	OB	11.1								
					13 23 42.8	-63 16 35	306.69	-0.75	3062	OB	11.4								
116003	7.0	B5	-59 4926	7.7	13 20 43.9	-60 5 25	306.73	2.45				315	OB						
					13 24 5.3	-63 16 48	306.73	-0.76	3067	OB+	11.8								
					13 24 4.9	-63 12 18	306.74	-0.69	3066	OB-	12.1								
			-62 3242	10.0	13 24 4.2	-62 59 54	306.76	-0.48	3065	OB	11.3								
116328	8.6	B2	-60 4643	8.5	13 22 58.2	-61 30 23	306.83	1.01						256	OB-				
			-63 2756	9.6	13 25 57.0	-63 39 27	306.88	-1.17	3076	OB	12.3								
117111	7.61	B0	-64 2428	7.9	13 28 31.7	-65 23 53	306.91	-2.93	3097	OB-c	8.0	824	OB						
					13 25 51.7	-63 15 13	306.93	-0.76	3075	OB	11.4								
116796	8.7	B2	-62 3271	8.4	13 26 11.4	-63 26 7	306.94	-0.95	3079	OB	9.2	820	OB						
					13 25 57.1	-63 3 39	306.97	-0.57	3077	OB	11.8								
116438	7.9	B2	-60 4651	8.4	13 23 40.7	-60 52 1	306.99	1.64	3063	OB-	8.7	817	OB						
					13 26 21.0	-63 10 23	307.00	-0.69	3081	OB-	12.4								
116282	10.2	B0	-59 4951	9.0	13 22 38.2	-59 42 21	307.01	2.80	3059	OBce	9.9	816	OB						
					13 26 35.1	-63 14 58	307.01	-0.77	3084	OB-	12.1								
			-61 3692	9.6	13 25 8.1	-61 57 1	307.02	0.54	3072	OB+r	10.7			257	OB+				
					13 26 45.5	-63 20 10	307.02	-0.86	3086	OB-	12.5								
					13 26 29.4	-63 2 26	307.03	-0.56	3082	OB-	11.8								
			-60 4658	9.4	13 24 10.8	-60 56 31	307.04	1.55	3069	OB-	10.7								
116781	8.8	Bp	-62 3270	8.1	13 26 4.3	-62 32 41	307.05	-0.06	3078	OBce	7.9	819	OB+						
			-62 3280	9.6	13 27 17.2	-63 28 59	307.06	-1.01	3088	OB-	11.0			259	OB				
117024	7.4	B3	-63 2778	7.5	13 27 6.1	-63 46 19	307.06	-1.30				821	OB						
115842	6.20	B0	-55 5504	6.8	13 19 33.3	-55 41 44	307.08	6.83	3038	OB+	6.3	814	OB						
					13 25 32.7	-61 54 14	307.08	0.58	3073	OB+	12.1								
					13 42 11.9	-71 34 58	307.08	-9.23	IA72	OB1	12.3								
					13 25 39.7	-61 56 4	307.09	0.55	3074	OB+	12.1								
			-62 3283	9.8	13 27 29.2	-63 10 41	307.12	-0.71	3090	OB-	12.4								
			-62 3290	9.9	13 27 58.6	-63 24 18	307.14	-0.95	3094	OB+	10.9			260	OB+				
			-61 3712	9.9	13 26 35.5	-62 12 58	307.16	0.25	3085	OB-:	11.8								
117326	9.5	B5	-63 2789	9.0	13 29 45.6	-64 21 17	307.20	-1.92				827	OB						
			-61 3726	9.4	13 27 6.8	-62 17 41	307.21	0.17	3087	OB-	10.9			258	OB+				
			-60 4678	9.1	13 26 10.8	-61 14 50	307.24	1.22	3080	OB-	10.0								
			-64 2462	9.6	13 31 19.0	-64 55 15	307.27	-2.50	3111	WCh	13.4								
116491	8.6	B8	-58 4858	8.4	13 23 54.4	-58 48 47	307.29	3.67	3068	OB-	9.0	818	OB						
					13 27 24.0	-61 55 34	307.29	0.53	3089	OB	11.4								
117000	7.2	G0	-61 3732	8.3	13 27 34.6	-61 59 58	307.30	0.45	3091	F5I	7.8								
117473	9.4	F0	-63 2802	9.7	13 30 54.6	-64 27 56	307.30	-2.04	3108	OB-	11.2								
			-62 3301	9.4	13 29 14.7	-63 1 41	307.34	0.60						264	OB				
			-61 3736	9.0	13 27 60.0	-61 56 18	307.36	0.51				822	OB	261	OB				
			-63 2801	9.3	13 30 24.4	-63 45 22	307.36	-1.33	3105	OB	11.4								
			-53 5566	9.6	13 20 37.2	-54 28 53	307.37	8.02	3047	OB	9.9								
117707	9.6	B0	-64 2468	9.0	13 32 28.5	-65 4 33	307.37	-2.67	3118	OB	10.0	834	OB						
117134	9.1	B3	-61 3741	9.0	13 28 37.6	-62 18 42	307.38	0.12						263	OB				
					13 30 2.0	-63 19 25	307.38	-0.90	3104	OB+	11.4								
			-61 3738	10.1	13 28 8.8	-61 45 0	307.40	0.69						262	OB-				
			-61 3742	9.6	13 28 43.2	-62 11 27	307.41	0.24	3098	F0II	10.0								
			-63 2812	9.5	13 31 58.9	-64 19 32	307.44	-1.92	3113	OB-	11.4								
			-60 4697	9.4	13 27 48.1	-61 5 58	307.46	1.34	3092	OB-	10.7								
			-60 4704	10.0	13 27 57.9	-61 5 49	307.48	1.34	3095	OB+h	10.7								
					13 31 36.4	-63 39 41	307.50	-1.26	3112	OB-	11.3								
			-60 4708	9.0	13 28 14.5	-61 5 21	307.51	1.34	3096	OB-	10.1	823	OB						
117460	8.3	B0	-62 3326	7.7	13 30 42.0	-62 56 25	307.52	-0.53	3106	OB-	7.0	830	OB						
117058	9.34	A2	-60 4700	8.6	13 27 48.9	-60 36 17	307.53	1.83	3093	A5	9.4								
117297		O3	-61 3753	9.6	13 29 32.3	-61 58 41	307.53	0.44	3101	WC	10.9								
					13 32 22.1	-64 1 30	307.53	-1.63	3117	WCh	13.5								
			-62 3334	10.1	13 30 54.3	-62 55 38	307.54	-0.52	3109	OB	12.3								
			-61 3758	10.1	13 29 48.6	-61 56 13	307.57	0.47	3102	OB-	11.1								
			-60 4718	9.0	13 29 2.3	-61 15 13	307.58	1.16	3100	OB-	9.9	826	OB						
117357	9.1	B0	-61 3760	8.9	13 29 55.0	-61 37 46	307.63	0.78	3103	OB	9.7	828	OB						
					13 50 16.4	-71 51 25	307.64	-9.63	IA73	B9II	12.6								
			-61 3765	9.8	13 30 45.5	-61 56 19	307.68	0.46	3107	OB-	10.7								
			-60 4731	9.4	13 29 38.1	-60 45 59	307.73	1.63						265	OB				
					13 36 15.6	-65 6 21	307.76	-2.77	3130	OB	11.8								
117856	7.5	B0	-62 3374	7.6	13 33 21.0	-63 13 57	307.77	-0.87	3120	OB-	7.5	836	OB						
					13 36 18.7	-65 4 33	307.77	-2.74	3131	OB	11.6			271	OB+				
			-67 2347	9.4	13 41 15.2	-67 43 5	307.79	-5.43						277	OB+				
117688		Oc	-61 3791	9.6	13 32 8.7	-62 12 50	307.80	0.16	3114	WNh	11.6								
			-59 5011	9.4	13 29 52.8	-60 22 16	307.81	2.01				829	OB						
117704	8.7	B2	-61 3793	8.6	13 32 15.9	-62 12 55	307.81	0.15	3116	OB-	9.2	833	OB	268	OB-				
			-64 2489	9.7	13 36 18.4	-64 38 54	307.84	-2.32	3132	OB-	10.0								
			-70 1686	9.4	13 50 37.3	-71 9 28	307.84	-8.96	IA74	B7Ib	12.9								
117797		Oe	-61 3804	9.4	13 32 50.8	-62 18 53	307.86	0.04	3119	OB	9.5	835	OB						
117490	8.1	B	-60 4744	8.4	13 30 48.6	-60 42 43	307.88	1.67	3110	OBce	8.7	831	OB	266	OB+				

TABLE 1 (CONTINUED)

HD/HDE	m	ST	CPD	m	1980.0 Alpha	Delta	l	b	LS	ST	m	KS	ST	Ly	ST	MO	ST	V	B-V
119078		Oa	-66 2299	9.0	13 41 46.8	-67 18 1	307.89	-5.03	3149	WCh	11.6								
					13 34 16.1	-62 59 14	307.91	-0.65	3124	OB-	11.4								
117687	9.0	B	-60 4759	8.9	13 32 9.4	-61 20 30	307.94	1.02	3115	OB-	9.3	832	OB	267	OB				
118198	8.5	B2	-63 2856	8.3	13 35 36.4	-63 32 38	307.96	-1.22	3127	OB-c	9.1	840	OB						
					13 51 6.9	-70 47 36	307.96	-8.62	IA53	AlII	12.9								
					13 34 6.9	-62 21 45	308.00	-0.03	3123	OB	11.4								

Notes to Table 1:

Column	*Heading*	*Explanation*
1	HD/HDE	The Henry Draper number or from its extensions.
2	m	The HD photovisual magnitude.
3	ST	The Harvard spectral type.
4	CPD	The Cape Photographic Durchmunsterung zone and number.
5	m	The CPD Photographic Magnitude.
6, 7, 8	Alpha	The right ascension (1980) in hours, minutes and seconds.
9, 10, 11	Delta	The declination (1980) in degrees, minutes and seconds. Both coordinates were taken from references 23, 50 or Muzzio and Orsatti (1977) (to a tenth of second of time in RA and to a second of arc in declination). If the star is not in these references then from references 31 or 32 (to a tenth of minute of time in RA only). In a few cases the positions given by Ref. 1 were employed.
12, 13	l, b	Galactic longitude and latitude. They were taken from the same sources of the equatorial coordinates. When the source was Ref. 1 they were computed from this data.
14	LS	The Luminous Stars for the Southern Hemisphere (Ref. 23) number (four figure). In a few cases stars from table Ia in Ref. 50 were included here. They are coded IA followed by a two figure number in the table.
15	ST	The spectral classification either from Ref. 23 or 50. (The only superposition is on star IA44=2647.) Our listing only takes the first four characters of the spectral class excluding parenthesis. When the spectral classification is a MK type it is listed in full in Table 2.
16	m	The photographic magnitude in Ref. 23 or 50.
17	KS	The Heidelberg (Klare and Szeidl, Ref. 32) number.
18	ST	The Heidelberg (Ref. 32) spectral classification.
19	Ly	The Lyngå (Ref. 31) number.
20	ST	The Lyngå (Ref. 31) spectral classification.
21	MO	The Muzzio and Orsatti (1977) number.
22	ST	The spectral classification from Muzzio and Orsatti (1977).
23	V	The V photographic magnitude from Muzzio and Orsatti (1977).
24	B–V	The B–V photographic color index from Muzzio and Orsatti (1977).

TABLE 2

THE EXISTING ASTROPHYSICAL DATA FOR STARS IN TABLE 1

STAR	SPECTRAL TYPE	Ref	RV	Ref	V	B-V	U-B	Ref	P(%)	PA	Ref	BETA	Ref
MO 192					13.46	0.83	0.04	87					
MO 195					12.56	0.86	-0.20	87					
MO 201					13.53	1.06	0.21	87					
MO 203					12.36	0.65	-0.13	87					
MO 212					13.04	0.97	0.12	87					
MO 221					12.73	1.53	0.44:	87					
MO 225					13.53	0.79	-0.03	87					
MO 227					12.37	1.31	0.36:	87					
MO 238					13.79	1.03	0.12	87					
MO 242					11.96	1.40	0.25	87					
MO 243					11.58	1.66	0.49	87					
MO 244					13.37	1.02	-0.06	87					
Ly 152					12.19	0.87	-0.12	29					
LS IA45	A5 Ib	50											
LS IA46	A3 Ib	50											
LS IA48	A0 II	50											
LS IA49	B9 II	50											
LS IA50	A0 Ib	50											
LS IA51	A0 II	50											
LS IA53	A1 II	50											
LS IA66	B7 II	50											
LS IA67	A1 Iab	50											
LS IA71	A0 II	50											
LS IA73	B9 II	50											
LS 2647									2.52	102.9	34		
LS 2686	B7 Ia	23											
LS 2868					11.49	0.57	-0.27	87					
LS 2873					9.04	0.32	-0.54	87				2.608	87
LS 2878					11.31	1.00	0.19	87					
LS 2899					10.65	0.92	-0.20	87					
LS 2916					9.72	0.32	-0.46	87				2.519	87
LS 2926					10.27	0.63	-0.38	87				2.603	87
LS 2927					9.48	0.61	-0.46	87				2.578	87
LS 2931					9.16	0.54	-0.42	87				2.586	87
LS 2937					9.84	0.30	-0.61	87				2.606	87
LS 2944					9.87	0.32	-0.60	87				2.591	87
LS 2945					11.72	0.52	-0.41	87					
LS 2946					8.58	0.56	-0.46	87				2.556	87
LS 3006					11.40	0.65	0.11	86					
LS 3040					11.88	0.89	-0.29	86					
LS 3045					11.32	0.29	-0.54	86					
LS 3062					11.65	0.63	-0.45	86				2.576	86
LS 3064			-16.2	86	11.72	0.76	-0.34	86					
LS 3067					12.15	0.61	-0.31	86					
LS 3073					11.85	1.02	-0.13	86					
LS 3074					11.73	1.17	-0.10	86					
LS 3089					11.57	0.64	-0.30	86					
108002	B1 Iab	2	- 2	3	6.93	0.11	-0.65	2	0.83	96.2	34		
108002	B1 Ib	3			6.93	0.13		4					
108002	B2 Ia-ab	33			6.93	0.12	-0.76	63					
108002	B1.5Ib	65			6.94	0.12	-0.74	86					
108639	B0 III:p?	5	V	45	7.80	0.07		11	1.87	94.4	34	2.572	53
108639	B0 III:p?	6			7.81	0.10	-0.83	20					
108639	B1 III	33			7.81	0.08	-0.80	53					
108639	B0	56			7.81	0.07		56					
108639	B0 III	65											
108639	B0.2III	74											
108434	B3 V	22			8.94	0.12	-0.47	22	1.47	102.6	34	2.619	53
108434	B2/3II-III	33			8.93	0.20	-0.50	53					
108434	B2 IV-Vn	65											
108485	A2 II	23											
108485	A2 II	33											
108659	B5 Ib	2	- 3	2	7.32	0.32	-0.32	2					
108659	B5 Iab-Ib	33											
108719	B1/3	33			8.41	0.21	-0.63	77				2.565	77
108773	F3 II	23			6.67	0.45		11					
108773	F0 Ib	33			6.68	0.45	0.40	20					
108773	F0	56			6.67	0.43		56					
108773							0.36	61					
109150	K0 III-IV	33											
109164	B2 II	33			7.83	0.05		11					
109164	B5	56			7.92	0.04		56					

TABLE 2 (CONTINUED)

STAR	SPECTRAL TYPE	Ref	RV	Ref	V	B-V	U-B	Ref	P(%)	PA	Ref	BETA	Ref
109314	B5	33											
109399	B0.5Ib	2	-45	2	7.67	-0.01	-0.74	2	2.19	111.0	34	2.570	53
109399	B1 Ib	5	-50	6	7.67	0.04	-0.80	14				2.568	78
109399	B0.5V:	6	-59.0	68	7.61	0.00	-0.86	53					
109399	B0.5III	33	-50	83	7.62	0.01	-0.86	76					
109399	B0.7II	65											
109399	B0.5Ib	68											
109399	B0.5III	76											
109505	B2 II	33			8.01	0.24	-0.67	53	1.78	106.4	34	2.585	53
109505	B1 II-III	65											
109867	B1 Ia	7	-15.5	2	6.24	0.06	-0.87	11	0.50	105.7	34	2.556	53
109867	B0.5Ik	10	-16	10	6.28	0.05	-0.83	53	0.84	109.4	36	2.542	79
109867	B0.5/1Iab	33	-16.0	66	6.24	0.05		56					
109867	B2	56			6.24	0.06		66					
109867	B1 Ib	65			6.28	0.05	-0.83	86					
109867	B0.7Ib	74											
109885	B2 III	33	-29.0	83	9.03	0.13	-0.67	53	3.62	109.3	34	2.623	53
109885	B2 III	65			9.00	0.15	-0.68	76				2.616	78
109885	B3 V	76											
109937	B2/3III	33											
109978	O9.5III	2	-7	6	8.84	0.41	-0.54	2	2.34	105.5	34	2.575	53
109978	O9 IV	5			8.81	0.41	-0.61	53					
109978	O9 III	6			8.80	0.42	-0.64	86					
109978	O9 III	33											
109978	O8 III	65											
110040	K5	33											
110360	O8	2	-19 V	6	9.33	0.18	-0.800	1	2.31	91.3	34	2.595	53
110360	O7	5			9.30	0.19	-0.68	2	1.4	90	35		
110360	O7.5	6			9.32	0.17	-0.80	53					
110360	O7/8	33											
110360	O6.5V	65											
110373	B7/9	33			10.42	0.17	-0.44	29					
110432	B1 p	49	V	49	5.29	0.25	1.20c	38	1.76	81	41	2.371	81
110432	B2: pe	7	22.0	46	5.41	0.26	-0.77	14	2.0	76	35	2.39:	79
110432	B ne	73	9.0	73	5.30	0.27	-0.82	59					
110432	O/B e	33	44.0	66	5.29	0.25		66					
110498	B0.5III	16			9.66	0.49	1.34c	11	2.65	85.4	34	2.611	53
110498	B0.5III	33			9.66	0.49	1.35c	16					
110498					9.67	0.49	-0.48	53					
110498					9.66	0.47	1.35c	57					
110532	K0/1III	33			6.38	1.08		11					
110532	K0	56			6.37	1.07	2.11c	38					
110532					6.40	1.10		56					
110639	B1 Ib	2	-5.7	2	8.43	0.68	-0.30	1	3.5	89	35		
110639	B1 Ib-II	5			8.46	0.69	-0.25	2					
110639	B1 Ib-II	33											
110660	B1 V	5	-26	6	9.94	0.53	-0.30	1	2.9	72	35		
110660	B2 V:	6			9.89	0.56	-0.35	86					
110660	B3/5	33											
110785	B2 V	6	-26	6	9.96	0.06	-0.76	86					
110785	B2 V	16											
110785	B3/5II	33											
110786	F0 Ia	23			7.68	1.25	0.49	22					
110786	A3/4Ib	33											
110863	B1 Vp	5	-31 :	6	8.99	0.33	-0.56	1	2.45	92.6	34	2.548	53
110863	B2 V	6			9.03	0.30	-0.51	53	2.9	93	35		
110863	B2 V	16											
110863	B2 II-III	33											
110878	F0 Ia	23											
110878	A8/9III	33											
110972	B3	33											
110984	B0 IV	5			8.98	0.48	-0.44	1	5.23	90.4	34	2.590	53
110984	B1 II/III	33			8.94	0.47	-0.48	53	5.3	88	35		
110984									5.46	89.9	85		
111003	B3/5II-III	33			9.85	0.36	-0.46	53	2.24	75.6	34	2.613	53
111077	(B) e	33			10.35	0.27	-0.63	53	3.31	60.5	34	2.391	53
111124	B1/3(I)	33			9.07	0.71	-0.35	1	0.52	34.6	34	2.487	53
111124					9.30	0.64	-0.41	17	1.2	22	35		
111124					9.32	0.72	-0.38	27					
111124					9.40	0.70	-0.38	28					
111124					9.37	0.71	-0.35	53					
111193	O9	22			7.95	0.22	-0.68	1	3.39	82.0	34	2.576	53
111193	A2/3IV	33			7.96	0.22	-0.63	22	3.4	80	35		
111193					7.98	0.22	-0.71	53					

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TABLE 2 (CONTINUED)

STAR	SPECTRAL TYPE	Ref	RV	Ref	V	B-V	U-B	Ref	P(%)	PA	Ref	BETA	Ref
111290	B1 Ib-II	33	- 4.0	83	7.77	0.00-0.79		53	1.58	106.5	34	2.586	53
111290	B1 III	76			7.76	0.01-0.79		76				2.595	78
111343	A2 II	23											
111343	A2 III	33											
111377	B2/5II-III	33			9.55	0.13-0.69		53	2.37	93.2	34	2.602	53
111463	A5 II	23			6.78	0.37	0.04	14					
111463	A3 II	33			6.66	0.35	0.24	22					
111463					6.72	0.35		62					
111505	B2/3III	33											
111558	B8 Ia	5	-30	3	7.31	0.14-0.39		2	1.10	92.5	34	2.579	53
111558	B7 Ib	33	-28	42	7.28	0.12		18					
111558	B8 Iab	37	-34.7	68	7.25	0.11-0.47		53					
111558	B7 Ia	55			7.25	0.13-0.46		63					
111558	B8 Ia	68			7.24	0.12-0.46		86					
111558	B8 Ia	72											
111578	B2/3II	33											
111579	B2 Ib-II	33			9.10	0.66-0.29		1	6.02	100.6	34	2.577	53
111579					9.11	0.66-0.32		53	5.5	103	35		
111579									6.25	102.9	85		
111613	A2 Iab	7	-22.0	43	5.73	0.37		7	2.92	81.4	36		
111613	A1 Ia	12	-20	47	5.72	0.39	1.44c	11	2.96	81.3	41		
111613	A1 Ia	13	-20	48	5.76	0.30-0.11		13	2.92	82.1	85		
111613	A5 Iab	23	-20.0	84	5.74	0.45-0.06		14					
111613	B9.5Iab	33			5.76	0.40		18					
111613	A1 Ia	37			5.75	0.32		19					
111613	A2 p	56			5.71	0.37		56					
111613					5.73	0.39-0.06		58					
111885	B7 II	23											
111885	B2 Ib-II	33											
111886	B3 III-V	33			9.22	0.07-0.64		53	2.26	84.3	34	2.637	53
111886	B1.5Vn	65											
111904	B9 Ia	7	-20.4	15	5.76	0.32		7	2.75	73.9	36		
111904	B9 Ib	9	-15.0	43	5.75	0.35	1.39c	11	2.87	72.8	41		
111904	B9 Ia	12	-23	45	5.76	0.24-0.40		13					
111904	B9 Ia	13	-16	48	5.80	0.39-0.30		14					
111904	B9 Ia-Iab	15			5.77	0.34		18					
111904	B7 II	23			5.76	0.24-0.40		67					
111904	B9 Iab	33											
111904	B9 Ia	37											
111904	B9 Iab	39											
111904	B9 Ia	55											
111904	B8 p	67											
111916	B3	33			9.30	0.28-0.63		53	2.95	80.9	34	2.599	53
111916	B1 II	65											
111934	B2 Ib:	15	-17	45	6.90	0.24-0.66		63					
111934	B1.5Ib	39	-20	48									
111952	B3 Vn	6	-23.0	6	9.46	0.06-0.67		1					
111952	B2/5	33											
111973	B5 Ia	7	-14.2	15	5.93	0.23		7	2.63	74.6	41	2.559	79
111973	B3 Iab	12	-10	45	5.90	0.17-0.63		13					
111973	B3 Iab	13	- 1.3	46	6.00	0.27-0.54		14					
111973	B3 Iab	15	-12	48	5.93	0.25		18					
111973	B3 Ia	19			5.94	0.22		19					
111973	B5 II-Ib	24			5.93	0.23		66					
111973	B2/3Ia	33											
111973	B5 Ia	39											
111990	B2 Ik	10	- 6	10	6.78	0.26	1.29c	11	2.87	73.3	41		
111990	B3 Ib	15	-29.2	15									
111990	B1/2Ib	33											
111990	B2 Ib	39											
112026	B0/1IV	33			8.68	0.02-0.78		1	2.10	82.7	34	2.602	53
112026	B0.5III	65			8.70	0.02-0.81		53					
112027	B1 Ib	33			9.12	0.58-0.27		1	2.01	53.3	34	2.599	53
112027	B1 II	65			9.24	0.61-0.28		53	2.4	53	35		
112147	B0: IV:pe	5	-29 :	6	9.14	0.26-0.82		1					
112147	B3 pe	6											
112147	B3 pe	16											
112147	B e	33											
112168	B9 V	33			9.16	0.12-0.21		53	2.18	72.0	34	2.746	53
112168	B8 Vn	65											
112181	B1 Vn	16			8.79	0.11	1.22c	16	2.06	82.4	34	2.597	53
112181	B2/3II-III	33			8.81	0.09-0.71		53					
112181	B1 IIIn	65											
112202	B3/5V	33			10.03	0.14-0.51		53	2.78	97.2	34	2.644	53

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TABLE 2 (CONTINUED)

STAR	SPECTRAL TYPE	Ref	RV	Ref	V	B-V	U-B	Ref	P(%)	PA	Ref	BETA	Ref
112202	B2.5V	65											
112272	B0.5Ia	5	38	6	7.37	0.79	-0.30	1	0.31	40.9	34	2.547	53
112272	B0.5I	6			7.52	0.84	-0.26	2.	1.1	55	35		
112272	B0.5Ia	8			7.35	0.80		4					
112272	B1 Ia-ab	33			7.36	0.79	-0.28	53					
112272	B0.5Ia	65			7.38	0.83	-0.33	86					
112364	B0.5Ib	2	-16	2	7.45	0.20	-0.62	2	4.04	76.7	34	2.591	53
112364	B1 I	8	-19.0:	73	7.39	0.20	-0.69	53					
112364	B1 III	33			7.36	0.22	-0.71	59					
112364	B1 Ib	65			7.36	0.22	-0.71	73					
112364	B1 Ib	73											
112366	B9 Ia:-Iab	2	-7 V	2	7.55	0.76	-0.01	1					
112366	B2 Ia	9			7.61	0.74	0.01	2					
112366	B7 Iab	23											
112366	B6 Iab-b	33											
112471	B1 II-III	33											
112484	B2 II-III	33	-57 V	42	9.05	0.04	1.22c	16	1.48	84.6	34	2.606	53
112484	B2 V	42			9.03	0.04	-0.74	53					
112484	B1 Vn	65											
112497	B1/2II-III	33			8.47	0.42	-0.46	1	2.25	90.5	34	2.602	53
112497					8.46	0.40	-0.48	53					
112661	B0/1III-IV	33			9.21	0.66	-0.27	53	1.84	74.1	34	2.601	53
112661	B2 IVn	65											
112690	B1/3(III)	33			9.00	0.21	-0.68	53	3.68	78.0	34	2.597	53
112751	B2 Ib-II	33			9.29	0.41	-0.48	53	2.51	77.4	34	2.606	53
112784	O9.5III	5	-28	6	8.28	0.06	-0.83	1	2.25	82.5	34	2.593	53
112784	B0 II	6	-34.7	68	8.28	0.06	-0.83	53	1.8	84	35		
112784	O9.5III	33			8.27	0.06	-0.82	86					
112784	O9.5III	68											
112785	B8	33			9.70	0.51	-0.42	53	1.08	139.6	34	2.623	53
112825	B1.5IVe	6	-5	6									
112825	B1/2IV-V	33											
112842	B3 Ib:	2	-22	10	7.04	0.23	1.32c	11	2.53	82.5	34	2.602	53
112842	B5 I	10			7.05	0.22	-0.44	53					
112842	B4 II	33			7.11	0.20		56					
112842	B5	56			7.04	0.22	1.32c	57					
112843	B2 III:	6	-43	6	9.56	0.10	-0.71	53	1.00	110.1	34	2.597	53
112843	B1/2II-III	33			9.53	0.10	-0.71	76				2.563	78
112843	B2 II	65			9.54	0.10	-0.70	86					
112843	B2 III:	76											
112953	B0/1Ib-II	33			8.91	0.77	-0.19	1	3.81	86.4	34	2.576	53
112953					8.89	0.75	-0.22	53	4.6	81	35		
112999	B6 III(n)	33			7.38	0.07	-0.45	53	1.82	78.3	34	2.596	53
113012	B0 Ib	16	-18	42	8.13	0.11	1.20c	11	3.55	83.5	34	2.590	53
113012	B0 III	33	-24.0	68	8.14	0.11	1.20c	57					
113012	B0 Ib	68			8.14	0.12	-0.79	86					
113013	B2 III	33											
113014	B2 III	33											
113016	B2 V:	6	6 :	6	9.50	0.20	-0.58	53	2.09	88.7	34	2.610	53
113016	B1/2III-V	33											
113034	B1 I:	1	-23	2	9.24	1.07	0.02	1	4.65	82.2	34	2.587	53
113034	B1 Ib-II:	2			9.30	1.07	0.03	2	4.6	80	35		
113034	B0/1(III)	33			9.24	1.01	-0.06	53					
113109	B2/3IV	33			9.17	0.04	-0.68	53	0.52	74.7	34	2.620	53
113120	B1.5Vne	37	-47	66	6.13	-0.02	-0.86	53	1.06	112.5	34	2.462	81
113120	B2/5(V)ne	33	V	46	6.02	0.05	-0.88	11				2.471	79
113120	B1.5IIIne	7			6.02	0.03		7				2.467	53
113120	B1 Vne	55			6.0:	0.05		66					
113120	B1.5IIIne	65											
113120	B1 Vne	72											
113163	B5 IV	5			7.81	0.28	-0.58	1	2.37	90.1	34	2.577	53
113163	B1 III	33			7.83	0.16	-0.53	14	2.4	88	35		
113163					7.79	0.29	-0.59	53					
113347	F0 II	23											
113347	A8 III-IV	33											
113421	B1 III:	5	-27	42	9.37	0.20	-0.56	1	3.46	85.9	34	2.607	53
113421	B0.5III	16			9.34	0.20	1.26c	16					
113421	B0 Vn	33			9.34	0.21	-0.67	53					
113421					9.35	0.21	-0.71	86					
113422	B1 Ia	5	-17	42	8.28	0.83	-0.25	1	5.44	83.1	34	2.575	53
113422	B1/2Ia-ab	33			8.23	0.86	-0.17	2	5.7	82	35		
113422	B1 Ia	42			8.25	0.83		4	5.87	82.0	85		
113422					8.23	0.81	-0.23	53					
113432	B1 Ib:	2	-13.9	2	8.87	0.78	-0.22	1	2.68	95.1	34	2.583	53

TABLE 2 (CONTINUED)

STAR	SPECTRAL TYPE	Ref	RV	Ref	V	B-V	U-B	Ref	P(%)	PA	Ref	BETA	Ref
113432	B1 Iab-b	33			8.86	0.80	-0.16	2					
113432					8.84	0.77	-0.21	53					
113511	B0 III:	5			9.08	0.45	-0.54	1	3.57	88.7	34	2.591	53
113511	B0 IV-V	33			9.05	0.46	-0.53	53	1.9:	70	35		
113605	B2/3ne	33			9.67	0.33	-0.46	53	1.71	80.2	34	2.518	53
113606	B2 IV	31			8.63	0.46	-0.55	53	2.27	79.6	34	2.582	53
113606	O9.5III	33											
113659	O9 IV	5											
113659	O8/9(III)	33											
113708	B0.5III:k	10	-17	10	8.15	-0.02	1.17c	11					
113708	B1/2IIIn	33											
113741	B3/5	33											
113742	B1/2(III)	33			9.17	0.38	-0.48	1					
113754	O6/7	33			9.46	0.61	-0.46	1	4.03	72.8	34	2.558	53
113754					9.50	0.63	-0.43	53	4.6	71	35		
113904	B0 I:+WR	5	-21.0V	43	5.45	0.04		1				2.539	79
113904	O9 f	64			5.50	-0.02		66					
113904	O9 II	71											
114011	B1 Ib	2	-28	6	9.29	0.76	-0.13	1	0.34	84.1	34	2.596	53
114011	B0.5III	6			9.24	0.74	-0.20	53					
114011	B3/5Ib-II	33			9.24	0.76	-0.23	86					
114011	B2 Ib	65											
114024	B0.5Ia	16	-70	42	9.78	0.27	1.26c	16	2.01	82.6	34	2.589	53
114024	O9.5	33	-76.0	68	9.82	0.24	-0.64	22				2.601	86
114024	B0.5Ia	68			9.80	0.27	-0.69	53					
114024	B0.5Ib	70			9.72	0.29	-0.65	70					
114024					9.82	0.24	-0.70	86					
114026	B1/2IV-V	33			8.26	0.09	-0.78	53	1.80	79.7	34	2.608	53
114026	B0.5V:n	65											
114122	B0 III	33	-54.3	54	8.57	0.59	-0.46	40	2.64	83.6	34	2.567	53
114122	B1 Iab	40	-13.0	75	8.59	0.57	-0.44	53	2.7	84	35	2.567	86
114122	B0.5Iab	65			8.58	0.62	-0.42	70					
114122	B0.5Ia-Iab	70			8.57	0.59	-0.49	86					
114122	B IIab	75											
114169	B1/2III	33			9.64	-0.03	-0.81	53	1.35	86.7	34	2.616	53
114169	B1 Vn	65											
114199	B1 Ia	33			9.47	0.31	-0.64	53	2.05	84.4	34	2.582	53
114200	B0/2(V)e	33			8.50	0.09	-0.91	53	1.40	95.7	34	2.381	53
114200	B1 IIIne	65			8.46	0.10	-0.90	76					
114200	B5 Ve	76											
114213	B1 I(b)	16	-31 :	42	8.98	0.91	1.53c	16	2.67	144.1	34	2.579	53
114213	B1 Ib	33			8.99	0.93	-0.03	53					
114213	B1 Iab	65			8.91	0.94	-0.03	70					
114213	B1 Ib	70			8.97	0.96	-0.08	86					
114340	B1 Ia+	5	-45	6	8.08	0.55	-0.55	1	4.81	74.3	34	2.532	53
114340	B1 I	6	-50.1	68	8.07	0.61		4	5.0	74	35	2.539	86
114340	O9	22	-44.7	86	8.09	0.51	-0.47	22					
114340	F2 Ib-II	23			8.03	0.54	-0.50	53					
114340	B1 Ia	33			7.99	0.55	-0.43	70					
114340	B1 Ia0	68			8.02	0.54	-0.52	86					
114340	B0.5Ia+	70											
114341	B0 III:nn	1			9.04	0.13	-0.73	53	2.57	81.9	34	2.594	53
114341	B0 III:nn	33							2.3	78	35		
114394	B1 III	33			8.22	0.22	-0.70	22	2.99	81.8	34	2.596	53
114394					8.21	0.12	-0.76	53					
114441	B2 IVpe	5	-8.0:	6	8.03	0.13	-0.76	76					
114441	B2 V:ne	6											
114441	B2 Vnne	33											
114441	B2 V:ne	76											
114461	F0 II	23			6.32	0.44	1.63c	11					
114461	A8 II-III	33					0.35	61					
114478	B1 II	5	-64.8	54	8.70	0.47	-0.50	1	1.6	71	35	2.582	86
114478	B1 Ib-II	33	6.0	75	8.68	0.49	-0.52	40					
114478	B1 Ib	40			8.63	0.53	-0.43	70					
114478	B1 Ia-Iab:	70			8.67	0.48	-0.54	86					
114478	B IIb	75											
114489	F2 Ib-II	23			6.74	0.46	1.62c	11					
114489	A9/F0II	33											
114516	B0 (Ve)	33											
114530	O9.5III	33			9.08	0.32	-0.62	53	1.51	86.8	34	2.599	53
114530	B0 I	70			9.08	0.57	0.13	70					
114733	B0.5V	6	-46	6	9.51	0.28	-0.55	53	4.36	76.9	34	2.621	53
114733	B2/3III	33			9.52	0.27	-0.53	86					
114733	B1.5IIIn	65											

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TABLE 2 (CONTINUED)

STAR	SPECTRAL TYPE	Ref	RV	Ref	V	B-V	U-B	Ref	P(%)	PA	Ref	BETA	Ref
114737	O9 V	5			8.01	0.19	-0.76	53	1.85	80.0	34	2.590	53
114737	O9 (III)	33											
114737	O9 III	71											
114792	F8 Ib	23			6.80	0.90	1.85c	11					
114792	F5/6Ib	33											
114800	B2 Vpe	5	-28 :	6	7.9:	0.11	-0.84	1	0.72	109.4	34	2.448	53
114800	B ne	6			8.00	0.12	-0.83	53					
114800	B2 III-Vne	33											
114855	F9 Ib-II	23											
114855	F5 Ia-ab	33											
114886	O9 V:	5	-11 V	10	6.87	0.12	1.22c	11	1.75	72.5	34	2.582	53
114886	O9 Vk	10	-63.5	82	6.88	0.12	-0.80	53				2.583	86
114886	B1/2Ib-II	33			6.88	0.11	-0.82	86					
114886	O9 II-III	71											
114954	A8/F0(III)	33											
114954	F2 II	50											
115034	B1 V	6	- 7 :	6	8.80	0.09	-0.78	53	2.34	80.1	34	2.604	53
115034	B1/2V	33											
115042	B0	33	-21.3	86	9.06	0.80	-0.27	27	4.65	68.8	34	2.546	53
115042	B1 Ia	70			9.10	0.76	-0.26	53				2.556	86
115042					9.07	0.80	-0.22	70					
115042					9.06	0.79	-0.32	86					
115071	O9 Vn	26	- 9.5	82	6.64	0.22	-0.74	26	1.87	83.0	34	2.592	53
115071	O9/B0V	33			7.96	0.24	-0.69	53					
115114	B e	33			9.79	0.32	-0.60	53	3.98	75.9	34	2.380	53
115114	B0 e	70			9.65	0.40	-0.56	70					
115223	A0 Iab	23			8.66	0.59	0.30	70					
115223	A0 Ib-II	33											
115223	A0 II	70											
115316	B1 V	16	-22.9	54	9.32	0.24	1.26c	16	1.89	81.1	34	2.582	53
115316	B0 IIIn	26	-37.6	86	9.29	0.23	-0.75	26				2.575	86
115316	B3/6III-IV	33			9.31	0.23	-0.72	40					
115316					9.35	0.22	-0.69	53					
115316					9.33	0.22	-0.71	86					
115363	B1 Ia+	5	-71	6	7.83	0.61	-0.43	1	2.85	61.7	34	2.529	53
115363	B2 I	6			7.79	0.61		4	3.1	58	35	2.528	86
115363	B1 Ia	33			7.77	0.62	-0.44	53					
115363	B1 Ia+	70			7.78	0.16	-0.47	86					
115400	F5 II	23			6.80	0.74	1.76c	11					
115400	F2 Ib	33			6.82	0.83	0.49	70					
115400	F5 Iab	70											
115455	B1 V	16	-22.9	54	7.99	0.21	-0.78	25	2.29	73.0	34	2.588	53
115455	O9 V	26	-38	75	7.95	0.19	-0.82	26				2.590	86
115455	B0 IV	31			7.99	0.22	-0.77	40					
115455	O8	33			8.01	0.21	-0.75	53					
115455	O8	40			7.98	0.20	-0.77	86					
115455	O8 V	54											
115455	O7.5III(f)	71											
115455	O8	75											
115473	WC	33											
115484	B5 Ib-II	33											
115514	F8 Ib-II	23											
115514	F5 Iab-b	33											
115533	B2/5(Ib-II)	33	-21.6	86	10.09	0.08	-0.74	86					
115704	B0.5Iab	33			8.15	0.47	-0.56	53	3.99	74.0	34	2.550	53
115704	B0.5Ia-Iab	70			8.05	0.49	-0.47	70	3.5	74	35	2.526	86
115704					8.08	0.47	-0.59	86					
115746	B2/4III-V	33			9.62	0.25	-0.54	86	2.3	60	35		
115805	B1: Vnne	16			9.71	0.35	1.28c	16	2.16	27.9	34	2.601	53
115805					9.77	0.27	-0.70	86					
115805	B1: Vnne	33			9.75	0.28	-0.69	53				2.590	86
115842	B0.5Iab	5	- 2.0	10	6.01	0.29		7	0.47	111.0	34	2.537	53
115842	B0.5I	8	- 3.7	66	6.01	0.30	1.25c	11	0.24	129.3	36	2.528	79
115842	B0.5Ia	7	- 4	49	6.01	0.30	-0.71	86				2.545	81
115842	B0 I	10	- 8.0	68	6.05	0.31	-0.69	53				2.531	86
115842	B0.5Ia-ab	33			6.01	0.29	1.25c	57					
115842	B0.5Ia	65			6.02	0.30		66					
115922	F4 II	23											
115922	F0 III	33											
115937	B1/2Ib-II	33	-47.5	86	10.00	0.26	-0.60	86					
116003	B1 II	33	- 9.0	73	6.91	0.01	-0.84	53	0.91	77.3	34	2.578	53
116003	B1 II	65			6.92	0.02	-0.83	63					
116003	B1 III:	70			7.23	-0.28	-0.73	70					
116003	B1 II	73			6.92	0.02	-0.83	73					

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TABLE 2 (CONTINUED)

STAR	SPECTRAL TYPE	Ref	RV	Ref	V	B-V	U-B	Ref	P(%)	PA	Ref	BETA	Ref
116119	B9 I	10	-22	10	7.91	0.71	1.49c	11	2.9	76	35		
116119	B6 Ib	23			7.91	0.69	1.49c	57					
116119	B9.5Ia	33			7.87	0.71-0.05		70					
116119	A0 Ia	70			7.89	0.73-0.08		86					
116121	O9/B0(V)	33			9.22	0.04-0.76		86					
116282	B0 IV	6	-39 V	6	9.66	0.41-0.60		53	0.54	79.6	34	2.577	53
116282	B0 IV	33	-35.8	86	9.68	0.39-0.63		86					
116328	B2 V	6	-32.0:	6									
116328	B3 II	33											
116420	F3 II	23											
116420	F0 II	33											
116438	B1 III	33			8.09	0.19-0.65		53	0.57	97.0	34	2.584	53
116438					8.08	0.20-0.65		86					
116491	B3 III	33			8.80	0.12-0.64		53	1.21	71.2	34	2.627	53
116781	O9/B1(I)e	33			7.45	0.16-0.91		53	1.46	80.7	34	2.352	53
116796	O9 III	1			8.48	0.08-0.88		27	1.74	76.6	34	2.588	53
116796	O9 II	33			8.42	0.09-0.75		70				2.588	86
116796	B0 V:	70			8.46	0.06-0.89		86					
116849	B1: V:pe	5	-36 :	6									
116849	B1 Vpe	6											
116849	B1 Vpe	33											
117000	F5 Iab	23			6.62	1.08	0.52	70					
117000	F0/2Ia	33											
117000	F2 Ia	70											
117024	B2	10	-12	10	7.11	0.05	1.24c	11	1.74	75.2	34	2.579	53
117024	B2 Ib	33			7.09	0.05-0.71		27					
117024	B1.5Iab	70			7.12	0.04-0.72		53					
117024	B1.5Iab	70			7.11	0.06	1.24c	57					
117024					7.08	0.09-0.62		70					
117024					7.12	0.04-0.72		86					
117058	A5 Ib-II	23											
117058	A3 II-III	33											
117111	B1 Vpe	5	-19 :	6	7.68	0.11-0.76		53	0.86	78.8	34	2.451	53
117111	B0 Vne	6							1.4	70	35		
117111	B2 Ve	8											
117111	B2 (V)ne	33											
117134	B0/1(IIIn)	33											
117297	WC	33											
117326	B2 II	33			9.55	0.12-0.65		53	1.04	81.8	34	2.612	53
117326					9.53	0.15-0.66		86					
117357	B0 Vne	6	-24 :	6	8.98	0.26-0.74		53	3.04	74.2	34	2.503	53
117357	O9.5/B0V	33	-38.7	86									
117460	B2 II-III	1	-16.2	73	7.13	0.05-0.66		53	2.12	78.7	34	2.603	53
117460	B2 III	8			7.49	0.07-0.66		86					
117460	B0/1(III)	33											
117460	B2 III	73											
117473	A8/9V	33											
117490	O9/B0V(n)	33			8.92	0.05-0.84		53	1.53	59.8	34	2.669	53
117490	O9 III:	70			8.89	0.03-0.77		70					
117687	B2 Ib-II	33			9.35	0.13-0.72		53	1.96	67.7	34	2.607	53
117688	WN	33											
117704	B1/2III	33	-77.9	54	8.90	0.22-0.62		40	1.93	88.4	34	2.635	53
117704	B1 III	40	-21	75	8.92	0.20-0.58		53					
117704	B1 II	75											
117707	B0.5I	6	-30	6	9.44	0.53		4	2.18	60.3	34	2.545	53
117707	B0.5I	8	-40.7	86	9.41	0.56-0.44		53	2.4	58	35		
117707	B1 Ia	33			9.38	0.60-0.38		70					
117707	B0.5Ia:	70											
117797	O8.5	6	-25 V	6	9.19	0.50-0.56		40	1.72	68.3	34	2.548	53
117797	O6	8	-19.5	54	9.20	0.48-0.54		53				2.539	86
117797	B1/2III	33	-35.0	75									
117797	O8 f	40											
117797	O8 Vf	54											
117797	O8 f	75											
117856	B0 Ib	5	-20 :	42	7.36	0.20-0.72		1	1.35	95.6	34	2.582	53
117856	B0/1III	33			7.42	0.21-0.71		53					
117856	B0 Ib	42			7.35	0.22-0.62		70					
117856	B0 Ib	70											
118198	O9/9.5III	33	-14.4	86	8.49	0.19-0.76		53	2.97	86.4	34	2.590	53
118198	O9.5II-III	71											
119078	O8 f	33											
311815	B5 V	16			10.85	0.48-0.22		1					
311815					10.77	0.47	1.43c	16					
311846					10.31	1.16	0.09	1					

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TABLE 2 (CONTINUED)

STAR	SPECTRAL TYPE	Ref	RV	Ref	V	B-V	U-B	Ref	P(%)	PA	Ref	BETA	Ref
311884					10.71	0.86	-0.16	29					
311973					10.97	0.85	-0.21	1					
311999	O9.5V:	1			10.84	0.65	-0.27	1	2.9	94	35		
311999	O9.5V	40			10.74	0.68	-0.33	40					
312001					10.93	0.66	-0.07	1					
312002					11.61	0.84	0.10	1					
312021					10.54	1.02	-0.19	1					
312051					11.24	0.72	-0.02	1	3.0	53	35		
312052					11.50	0.52	-0.01	1	2.6	57	35		
312139					10.75	1.14	0.07	1					
312155									1.6	43	35		
312174					9.81	0.74	-0.27	53	1.10	56.8	34	2.613	53
312174					9.82	0.73	-0.29	1					
312253					9.88	0.42	-0.41	1	3.01	86.3	34	2.628	53
312253					9.91	0.43	-0.42	53					
312256					9.75	0.80	-0.18	1	4.0	100	35		
312256									5.37	94.3	85		
312258					10.40	1.28	0.21	1	6.4	88	35		
312259					10.50	1.20	0.14	1	5.5	90	35		
312267	B2 V	31											
312287					10.70	0.95	-0.22	1					
-53 5566					10.80	0.14	-0.58	86				2.618	86
-56 5541	B2 IV	65											
-57 5809					10.52	0.16	-0.57	53	0.84	87.8	34	2.578	53
-58 4723	B0.5IVn	65											
-58 4858	B2 IV	65											
-59 4239					10.74	0.13	-0.40	77				2.643	77
-59 4245					10.26	0.16	-0.35	77				2.663	77
-59 4246					10.42	0.14	-0.35	77				2.648	77
-59 4330	O9.5Iab	2			10.28	0.46	-0.49	2					
-59 4362					10.05	0.10	-0.75	53	1.86	93.0	34	2.518	53
-59 4423	B2 III:nep	65											
-59 4459	B3 II:	2	-22	15	8.88	0.14	-0.39	2					
-59 4459	M2/3Iab	15											
-59 4460	B0.5Ia	65											
-59 4468	B2: Vnne	16			10.26	0.22	1.32c	16	2.51	72.0	34	2.465	53
-59 4468					10.34	0.20	-0.66	53					
-59 4528			-27.0	15									
-59 4552	B0.5/B1	15											
-59 4564	B0.5/B1II-III	15											
-59 4629	B1 II	65											
-59 4634	O9.5III	65											
-59 4640	B5 Ib	65											
-59 4651	B6 V	65											
-59 4654	B0.2Ib	65											
-59 4679					10.23	0.31	-0.32	53	3.06	88.6	34	2.556	53
-59 4684					10.41	0.18	1.28c	16					
-59 4711	B0.5V:n	65											
-59 4801	B0.5IVnn	65											
-59 4804	B1 Ia	65											
-59 4894					10.25	0.04	-0.70	53	1.17	75.1	34	2.649	53
-59 4914					9.77	0.27	-0.70	86					
-59 4951	O9 IVn	65											
-59 5011					10.68	0.12	-0.54	53	0.86	56.8	34	2.653	53
-60 4204	B2 V e	2			10.32	0.54	-0.24	2					
-60 4258					8.76	0.24	-0.66	86					
-60 4282					10.26	0.40	-0.42	53	4.99	78.4	34	2.619	53
-60 4285	B0 III	65											
-60 4309	B1 IVn	65											
-60 4312	O9.5V	40	- 7.8	54	10.74	0.68	-0.33	40					
-60 4312	O9.5V	75	-17.0	75									
-60 4334					10.43	0.32	-0.45	53	2.11	86.0	34	2.661	53
-60 4344					9.91	0.45	-0.46	53	3.38	85.5	34	2.642	53
-60 4372	B1 II	65											
-60 4390					9.91	0.43	-0.42	53				2.628	53
-60 4396	B1 II	65											
-60 4412	B0 Ib	2			10.29	0.74	-0.23	2					
-60 4434					9.59	0.91	-0.16	53	3.11	92.4	34	2.596	53
-60 4438					10.09	0.37	-0.47	53	2.38	92.8	34	2.485	53
-60 4460					10.58	0.46	-0.47	1					
-60 4463					8.90	0.60	-0.35	1					
-60 4480	B2 Vn	16	-21.2	15	9.55	0.23	1.31c	16					
-60 4480	B1 V	70			9.58	0.27	-0.58	70					
-60 4480					9.58	0.23	-0.60	1					

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TABLE 2 (CONTINUED)

STAR	SPECTRAL TYPE	Ref	RV	Ref	V	B-V	U-B	Ref	P(%)	PA	Ref	BETA	Ref
-60 4512	B0 IV	65											
-60 4518	B1 ne	76			10.40	0.38-0.49		76					
-60 4518					10.44	0.35-0.53		86					
-60 4519					9.98	0.22-0.45		53	1.47	103.1	34	2.661	53
-60 4520			-18.2	86	11.57	0.38-0.31		86				2.585	86
-60 4528	B1 III	42	-19	42	8.74	0.23	1.26c	11	1.57	52.6	34	2.583	53
-60 4528	B1 III	65			8.76	0.22-0.65		53					
-60 4535					10.33	0.23-0.54		53	0.92	81.6	34	2.657	53
-60 4539					10.49	0.74-0.38		86				2.579	86
-60 4549												2.657	86
-60 4551	B1 IIIne	65			9.83	0.54-0.39		53	1.71	97.3	34	2.529	53
-60 4551					9.78	0.55-0.44		86				2.532	86
-60 4558	O6.5If	65	-37.8	86	9.49	0.55-0.50		53	1.85	76.9	34	2.544	53
-60 4558	O6 f	76			9.50	0.58-0.44		76				2.563	86
-60 4558					9.49	0.55-0.53		86					
-60 4571					10.12	0.56-0.39		86				2.526	86
-60 4651	B1 II-III	65											
-60 4678					9.76	0.35-0.43		86					
-60 4697					10.45	0.27-0.52		25				2.561	77
-60 4697					10.49	0.21-0.47		77					
-60 4703					10.85	0.74-0.30		77					
-60 4704					10.82	0.79-0.32		25				2.433	86
-60 4704					10.79	0.79-0.32		86					
-60 4708	B1.5V:ne	65			10.01	0.25-0.53		53	1.42	72.6	34	2.560	53
-60 4708					10.10	0.20-0.52		77				2.572	77
-60 4718	B1.5Vn	65			10.08	0.30-0.46		53	1.49	83.4	34	2.599	53
-60 4744	O9 Vnn	65											
-60 4759	B1.5II	65											
-61 3212	B2 IVne	65			9.43	0.21-0.58		53	2.16	107.1	34	2.596	53
-61 3230	O7	2			10.47	0.73-0.30		2					
-61 3439	B1 Iabp	65											
-61 3442					10.78	0.99	0.02	1					
-61 3445	B2 Vpe	65											
-61 3446	B1 III	31			10.12	0.53-0.37		53	1.92	108.0	34	2.633	53
-61 3450					10.16	0.59-0.37		1					
-61 3452	O9.5II	2			11.28	0.77-0.29		1	3.26	68.4	34	2.587	53
-61 3452					9.28	0.78-0.22		2					
-61 3452					9.28	0.75-0.27		53					
-61 3462	B0.5II	65			9.20	0.56-0.40		53	2.26	88.5	34	2.588	53
-61 3469	B1 V	22			9.87	0.34-0.51		22					
-61 3472	B1.5V	22			9.90	0.34-0.48		22					
-61 3492					10.94	0.83-0.24		86				2.588	86
-61 3502			-34.0	86	10.32	0.75-0.29		86				2.587	86
-61 3512	B1 III	65			10.03	0.35-0.52		53	2.35	73.0	34	2.598	53
-61 3539	B1 Ia	65											
-61 3540					10.18	0.26-0.53		53	1.11	86.4	34	2.625	53
-61 3540					10.27	0.23-0.59		86				2.643	86
-61 3542	O9.5II	2			9.28	0.78-0.22		2					
-61 3544	B0.5Vn	65											
-61 3546	B1 III:ne	65											
-61 3549	O9 III	26			10.06	1.08-0.11		26				2.561	86
-61 3549					10.13	1.07-0.14		86					
-61 3558	B1 Vn	26			10.24	0.30-0.52		26					
-61 3566	B0.5IV	65											
-61 3575	O7 V	65											
-61 3576	B1 Vn	26	-19.9	54	11.46	0.38-0.27		25					
-61 3576	B1 Vn	31	-34 :	75	9.48	0.23-0.71		26					
-61 3576	B0.5V	40			9.48	0.29-0.67		40					
-61 3576	B0.5V	75											
-61 3579	B2 V	26	-37	25	10.53	0.22-0.65		25					
-61 3579	B2 V	31	-26.1	54	10.44	0.25-0.71		26					
-61 3579	B2 V	40			10.46	0.24-0.67		40					
-61 3579	B2 V	75											
-61 3581	B0: V	26	-22.9	54	10.12	0.25-0.65		21					
-61 3581	B3 V	31	-74	75	10.14	0.25-0.60		25					
-61 3581	B2 V	40			10.09	0.27-0.66		26					
-61 3581	B2 V	75			10.18	0.24-0.61		40					
-61 3587	B1 V	26			10.73	0.28-0.58		26					
-61 3587	O9.5V	31			10.72	0.30-0.54		40					
-61 3589	F5 Ib	23											
-61 3598	B2 Ib	26			10.28	0.83-0.17		26					
-61 3598	B5 Iap	31			10.30	0.84-0.44		40					
-61 3598					10.29	0.83-0.16		86					
-61 3608	B0.5Ia	65											

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TABLE 2 (CONTINUED)

STAR	SPECTRAL TYPE	Ref	RV	Ref	V	B-V	U-B	Ref	P(%)	PA	Ref	BETA	Ref
-61 3612					10.20	0.81	-0.33	86				2.591	86
-61 3624					10.44	0.45	-0.51	86				2.608	86
-61 3626			-18.6	86	10.86	0.18	-0.52	86				2.554	86
-61 3639	B1 Ia	76			10.07	0.83	-0.18	76					
-61 3639					10.10	0.85	-0.29	86					
-61 3692	A0 Ia	70			9.69	1.32	0.24	21				2.563	86
-61 3692					9.68	1.33	0.30	76					
-61 3692					9.67	1.34	0.19	86					
-61 3712					11.42	0.09	-0.46	30					
-61 3726	B0.5Ia-Iab	76			10.30	0.46	-0.47	76					
-61 3736	B2 IVe	65			9.94	0.21	-0.64	53	2.77	88.9	34	2.503	53
-61 3742	F0 II	23											
-61 3760	B0.5IIIne	65											
-61 3793	B1 V	65											
-62 2148					11.59	0.56	-0.22	86					
-62 2940					10.61	0.93	-0.05	17					
-62 2940					10.55	1.05	0.01	28					
-62 2993	B1 Ib	65											
-62 3006					10.24	0.63	-0.35	1					
-62 3008					10.31	0.50	-0.43	1					
-62 3079	O9 IV	65											
-62 3090	B2 IVne	65											
-62 3096	O9 IIIn	65											
-62 3111					10.20	0.19	-0.62	53	2.29	73.7	34	2.634	53
-62 3121					10.66	0.50	-0.39	86					
-62 3141					10.65	0.49	-0.46	26					
-62 3217			-29.5	86	11.63	0.39	-0.63	86					
-62 3242					11.18	0.58	-0.43	86					
-62 3270	B0 IIIne	65											
-62 3271	O9 V	65											
-62 3280					10.95	0.26	-0.62	27					
-62 3280					10.83	0.30	-0.41	86					
-62 3290			-31.7	86	10.84	0.31	-0.37	27				2.529	86
-62 3290					10.63	0.93	-0.21	86					
-62 3326	B2.5II	65											
-62 3374	O9.5III	65											
-63 2356	B2 Ve	2			10.40	0.21	-0.50	2					
-63 2414					10.52	0.31	-0.50	53	2.12	81.9	34	2.621	53
-63 2473					10.52	0.58	-0.34	53	1.82	70.7	34	2.641	53
-63 2474	B1.5II	65											
-63 2484					10.49	0.33	-0.57	53	1.88	76.3	34	2.629	53
-63 2485	B1 IV:n	65											
-63 2495					10.04	0.74	-0.44	53	2.55	75.5	34	2.366	53
-63 2501					10.09	0.54	-0.43	53	0.35	86.9	34	2.591	53
-63 2511					10.38	0.60	-0.36	53	3.79	95.9	34	2.592	53
-63 2512	B2 III	31			9.91	0.50	-0.48	25	3.52	93.3	34	2.588	53
-63 2512	B0.5IV	65			9.92	0.50	-0.48	53					
-63 2513	B0: III	2			9.83	0.65	-0.27	2	4.67	96.4	34	2.605	53
-63 2513	O8	31			9.80	0.65	-0.38	25					
-63 2513	B0.5IV:	65			9.73	0.64	-0.36	53					
-63 2519	B0 III	65											
-63 2527	O9 Ib	65											
-63 2539	B2 V	31											
-63 2544	B0.5Iab:	2			9.97	0.46	-0.38	2	2.07	73.7	34	2.565	53
-63 2544					9.97	0.49	-0.46	53					
-63 2565					10.15	0.12	-0.68	53	1.62	93.3	34	2.594	53
-63 2593					10.27	0.25	0.04	86					
-63 2613					10.40	0.36	-0.41	86				2.678	86
-63 2662	B0.5Vn	65											
-63 2684	B1 Ia	65											
-63 2736			-13.5V	86	10.14	0.75	-0.39	86				2.545	86
-63 2756					11.14	0.56	0.12	27					
-63 2778	B2 II	65											
-63 2789	B2 III	65											
-63 2856	O9.5Ib	65											
-64 1997	B2 III	65			9.73	0.15	-0.64	53	1.07	78.1	34	2.635	53
-64 2161					8.06	0.01	-0.88	53	1.57	92.0	34	2.584	53
-64 2264					10.64	0.06	-0.38	53	0.94	84.4	34	2.706	53
-64 2428	B2 IIIne	65											
-64 2468	B1 Ia	65											
-66 1860					10.30	0.10	-0.69	53	2.53	113.4	34	2.609	53
-66 1872					10.40	0.06	-0.67	53	1.68	82.8	34	2.609	53
-66 1982	B7 Ia:	23											
-66 2047	B9 II	23											

→

TABLE 2 (CONTINUED)

STAR	SPECTRAL TYPE	Ref	RV	Ref	V	B-V	U-B	Ref	P(%)	PA	Ref	BETA	Ref
-68 1777	B9 Ib	65											
-69 1743	B0.5IIIn	65	-31	: 83	9.45	0.02	-0.79	53	0.88	96.7	34	2.573	53
-70 1686	B7 Ib	50											

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TABLE 3

NUMBER OF TIMES THAT EACH OF THE 770 OB STARS OF TABLE 1 APPEARS IN TABLE 2

No.	ST	RV	*UBV*	Pol.	BETA
0	471	579	443	537	519
1	166	161	216	205	227
2	65	20	53	24	22
3	25	4	26	4	1
4	25	6	19	0	1
5	6	0	7	0	0
6	6	0	4	0	0
7	3	0	0	0	0
8	2	0	2	0	0
9	0	0	0	0	0
10	0	0	0	0	0
11	1	0	0	0	0

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