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notes
ff 31
f 37
67
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111

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A α or δ, K or L (or both) doubtful; difference rejected.
B " " " " " " " " " corrected.
C " " " " " " " " Completed.

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Star	Epoch	Eph. α	Obs.	α 1900.0	Eph. δ	Obs.	δ 1900.0
8034 8.4	K 23.7		1	22 45 16.76		1	13 13 14.3
22 45 16.95	M_1 45.8		2	45 16.98		2	13 8.0
13 13 12.0	B 55.9		3	45 16.75		3	13 8.8
	St_2 59.7		2	45 16.34		2	13 10.1
	L_4 67.7		1	45 16.91		1	13 11.4
	H 91.2		3	45 16.95		3	13 12.0
	E 07.7		3	45 16.82		3	13 13.9
8035 9.2	H 92.0		4	22 45 35.39		4	13 37 50.2
22 45 35.39							
13 37 50.2	Sk 95.3		2	45 35.58		2	37 49.9
8036 8.4	L_1 98.3	L_1 98.3	2	22 45 58.26	L_1 98.3	2	9 51 10.1
22 45 57.97	L_2 03.8	L_2 03.8	1	45 58.10	L_2 03.8	1	51 [4.8]
9 51 16.4	K 23.7	K 23.7	1	45 58.36	K 23.7	1	51 18.3
	M_1 45.4	M_1 45.4	2	45 58.01	M_1 45.4	2	51 12.9
		L_4 54.6	1	45 58.01	L_4 57.4	3	51 15.9
	St_1 [60.0]	St_1 60.0	2	45 57.90	St_1 60.0	2	51 15.8
	A 81.7	L_5 78.1	3	45 57.94	L_5 78.1	3	51 17.4
	L_4 54.6, 57.4		3				
	L_5 78.1	A 81.7	3	45 57.93	A 81.7	3	51 15.1
	H 89.8	H 89.8	3	45 57.97	H 89.8	3	51 16.4
	Db 93.8	Db 93.8	2	45 57.97	Db 93.8	2	51 17.6
	E 04.0, 03.3	E 04.0	4	45 57.95	E 03.3	3	51 16.7
8038 9.1	A 78.9		2	46 16.43		2	11 7 23.3
22 46 16.14							
11 7 22.2	H 92.1		3	46 16.15		3	7 22.2
8039 8.6	K 23.2		3	22 46 19.59		3	12 33 52.0
22 46 19.72	M_1 45.3		2	46 18.71		2	33 49.9
12 33 53.5	St_2 59.7		2	46 19.29		2	33 48.2
	Sj 62.7		1	46 19.64		1	33 50.8
	H 91.8		3	46 19.72		3	33 53.5

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Zones	α Ep-N	δ	α Bs.-N.	δ	αC-N.	δ	α Adj	δ	Δα	Δδ	
189	-67.5	-67.5	-.19	+2.3	-.45	+2.1	16.50	14.1	-.24	-2.1	✓
	-45.4	-45.4	+.03	-4.0	+.30	+1.4	16.92	9.2	+.18	+2.8	✓
	-35.3	-35.3	-.20	-3.2	-.24	+1.1	16.67	11.2	-.07	+0.8	✓
	-31.5	-31.5	-.61	-1.9	-.21	+1.0	16.44	11.6	-.30	+0.4	✓
	-23.5	-23.5	-.04	-0.6	-.16	+0.7	16.92	12.4	+.18	-0.4	✓
			+.67	-3.1			16.95	12.0	+.21	0.0	✓
	+16.5	+16.5	-.13	+1.9	+.11	-0.5	16.80 / 16.74	13.8 / 12.0	+.06	-1.8	✓
							35.39	50.2	-.08	0.0	✓
	+3.3	+3.3	+.19	-0.3			35.55 / 35.47	50.3 / 50.2	+.08	-0.1	✓
40, 44	-91.5	-91.5	+.29	-6.3	+.33	-2.5	58.32	13.9	+.30	+2.2	✓
	-86.0	-86.0	+.13	-11.6	+.30	-1.3	57.98	[6.1]	-.04	[+10.0]	✓
186	-66.1	-66.1	+.39	+1.9	+.22	+0.2	58.19	16.6	+.17	-0.5	✓
	-44.4	-44.4	+.04	-3.5	+.16	-0.7	57.95	14.1	-.07	+2.0	✓
	-35.2	-32.4	+.04	-0.5	+.12	-0.5	58.02	16.9	.00	-0.8	✓
	-29.8	-29.8	-.07	-0.6	+.10	-0.4	57.96	16.2	-.06	-0.1	✓
	-11.7	-11.7	-.03	+1.0	+.04	-0.2	57.95	18.1	-.07	-2.0	✓
	-8.1	-8.1	-.04	-1.3	+.03	-0.1	57.93	15.1	-.09	+1.0	✓
		-78.8	-.35	+1.5			57.97	16.4	-.05	-0.3	✓
	+4.0	+4.0	.00	+1.2	-.01	+0.1	57.97	17.3	-.05	-1.2	✓
	+14.2	+13.5	-.02	+0.3	-.05	+0.2	57.93 / 58.02	16.6 / 16.1	-.09	-0.5	✓
	-13.2	-13.2	+.29	+1.1			16.43	23.3	+.15	-0.5	✓
							16.14 / 16.28	22.2 / 22.8	-.14	+0.6	✓
{127, 129, 189}	-68.6	-68.6	-.13	-1.5	-.33	-1.4	19.39	52.1	-.18	-0.4	✓
	-46.5	-46.5	+.01	-3.6	-.22	-0.9	18.65	51.1	+.08	+0.6	✓
	-32.1	-32.1	-.43	-5.3	-.15	-0.6	19.39	49.7	-.18	+2.0	✓
	-29.1	-29.1	-.08	-2.7	-.14	-0.6	19.68	51.9	+.11	-0.2	✓
			+.48	+2.0			19.72 / 18.57	53.5 / 51.7	+.15	-1.8	✓

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Star		Epoch		Ep. α	Obs.	α 1900.0	Ep. δ	Obs.	δ 1900.0	zm
8040	8.5	K	22.9		2	22 46 54.53		2	11 29 10.5	127,1
22 46	54.93	M_1	44.9		1	46 54.79		1	29 11.7	
11 29	16.0	St_1	[60.0]		1	46 54.68		1	29 12.3	
		A	73.9		3	46 54.91		3	29 12.9	
		H	92.5		3	46 54.93		3	29 16.0	
8041	8.9	A	67.7		2	22 47 5.09		2	13 5 0.8	
22 47	4.99	L_4	67.7		1	47 4.82		1	4 57.9	
13 5	0.2	H	92.5		3	47 4.99		3	5 0.2	
8042	8.8	K	23.7		2	22 47 14.13		2	10 4 28.8	184,1
22 47	13.90	M_1	45.8 58.4		1	47 14.52		1	4 22.9	
10 4	28.9	St_1	[60.0]		1	47 13.99		1	4 27.8	
		H	90.3		3	47 13.76		3	4 25.0	
					2	47 13.90		2	4 28.9	
8043	7.6	L_1	98.3	L_1 98.3	2	22 47 28.45	L_1 98.3	2	10 35 24.5	40,
22 47	30.00	L_2	03.8	L_2 03.8	1	47 28.58	L_2 03.8	1	35 25.3	
10 35	25.2	K	23.7	K 23.7	1	47 29.22	K 23.7	1	35 29.2	
		R_1	49.0	M_1 45.4	2	47 29.35	M_1 45.4	2	35 24.1	
		L_3	47.9	L_3 47.9	1	47 29.11	L_3 ..	..	..	
		M_1	45.4	R_1 49.0	1	47 29.30	R_1 49.0	1	35 24.8	
		L_4	54.7 56.7	L_4 54.7	1	47 29.27	L_4 56.7	2	35 25.0	
		St_1	[60.0]	St_1 60.0	3	47 29.26	St_1 60.0	3	35 23.7	
		G	78.8	G 78.8	H	47 29.78	G 78.8	H	35 25.6	
		D_1	82.7	D_1 82.7	3	47 29.80	D_1 82.7	3	35 24.1	
		V	86.0	V 86.0	H	47 29.83	V 86.0	H	35 24.2	
		C_1	90.0	H 89.7	2	47 30.00	H 89.7	2	35 25.2	
		H	89.7	C_1 90.0	3	47 29.95	C_1 90.0	3	35 25.6	
		E	05.1; 04.8	E 05.1	3	47 30.17	E 04.8	4	35 25.1	

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Zones	α Ep-H. δ	α Bs.-H. δ	α C-H. δ	α adj	δ	Δα	Δδ
127,129	-69.6 -69.6	-.40 -5.5	-.57 -5.2	54.36	10.8	-.37	+2.3
	+47.6 -47.6	-.14 -4.3	-.39 -3.6	54.73	12.9	.00	+0.2
	-32.5 -32.5	-.25 -3.7	-.27 -2.4	54.74	12.7	+.01	+0.4
	-18.6 -18.6	-.02 -3.1	-.15 -1.4	54.91	12.9	+.18	+0.2
		+.82 +7.5		54.93 / 54.73	16.0 / 13.1	+.20	-2.9
	-24.8 -24.8	+.10 +0.6		5.09	0.8	+.12	-0.8
	-24.8 -24.8	-.17 -2.3		4.83	58.9	-.14	+1.1
	- -			4.99 / 49.7	0.2 / 60.0	+.02	-0.2
184,186	-66.6 -66.6	+.23 -0.1	+.05 -1.7	13.95	27.2	-.07	-0.3
	+44.5 -44.5	+.62 -6.0	+.04 -1.2	14.46	24.1	+.44	+2.8
				13.95	29.1	-.07	-2.2
	-30.3 -30.3	-.14 -3.9	+.02 -0.8	13.82	25.4	-.20	+1.5
		-.08 +2.6		13.90 / 14.02	28.9 / 26.9	-.12	-2.0
40,12	-91.4 -91.4	-1.55 -0.7	-1.56 +3.1	28.44	28.3	-.96	-2.7
	-85.9 -85.9	-1.42 +10.1	-1.37 +2.9	28.46	26.6	-.94	-1.0
186	-66.0 -66.0	-0.78 +4.0	-.95 +2.3	29.05	27.5	-.35	-1.9
	-44.3 -44.3	-0.65 -1.1	-.70 +1.5	29.29	25.3	-.11	+0.3
	-41.8 ..	-0.89 ..	-.66 ..	29.10	..	-.30	..
	-40.7 -40.7	-0.70 -0.4	-.65 +1.4	29.38	24.1	-.02	+1.5
	-35.0 -33.0	-0.73 -0.2	-.56 +1.1	29.28	26.0	-.12	-0.4
	-29.7 -29.7	-0.74 -1.5	-.47 +1.0	29.32	24.3	-.08	+1.3
	-10.9 -10.9	-0.22 +0.4	-.17 +0.4	29.75	26.2	+.35	-0.6
	-7.0 -7.0	-0.20 -1.1	-.11 +0.2	29.71	24.5	+.31	+1.1
	-3.7 -3.7	-0.17 -1.0	-.06 +0.1	29.81	24.3	+.41	+1.3
		-78.7 +1.59 -34		30.00	25.2	+.60	+0.4
	+0.3 +0.3	-0.05 +0.4	.00 0.0	29.88	25.5	+.48	+0.1
	+15.4 +15.1	+.17 -0.1	+.24 -0.5	30.15 / 29.40	25.0 / 25.6	+.75	+0.6

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Star	Epoch	Eph. α	Obs. α 1900.0	Eph. δ	Obs. δ 1900.0	Zone
8044 8.3	L_1 95.7	L_1 95.7	1 22 47 32.57	L_1 95.7	1 13 37 45.6	1
22 47 32.49	K 23.7	K 23.7	1 47 32.97	K 23.7	1 37 49.7	18
13 37 49.8	R_1 47.0	M_1 45.9	1 47 32.66	M_1 45.9	1 37 46.6	
	M_1 45.9	R_1 47.0	1 47 32.84	R_1 47.0	1 37 49.8	
	L_4 54.7	L_4 54.7	1 47 32.72	L_4 54.7	3 37 47.3	
	B 55.9	B 55.9	2 47 32.72	B 55.9	2 37 46.5	
	St_2 59.7	St_2 59.7	2 47 32.47	St_2 59.7	2 37 46.6	
	L_5 78.8	L_5 78.8	1 47 32.58	L_5 78.8	1 37 47.0	
	H 93.2	H 93.2	3 47 32.49	H 93.2	3 37 49.8	
	Sk 97.1	Sk 97.1	3 47 32.51	Sk 97.1	3 37 48.8	
8045 8.9	K 22.9		2 22 47 45.21		2 10 57 41.0	12
22 47 45.10	St_1 [60.0]		2 47 44.70		2 57 42.4	
10 57 41.2	H 88.7		2 47 45.10		2 57 41.2	
8046 9.1	K 22.9		1 22 47 59.15		1 11 34 15.0	12
22 47 58.87	St_1 [60.0]		3 47 58.78		3 34 16.6	
11 34 17.5	H 90.3		2 47 58.87		2 34 17.5	
8047 9.0	K 23.7		1 22 48 8.76		1 9 37 36.3	1
22 48 9.45	St_1 [60.0]		2 48 8.64		2 37 31.1	
9 37 33.3	A 80.8		1 48 9.08		1 37 32.7	
	H 92.5		3 48 9.45		3 37 33.3	
	Db 93.8		2 48 9.44		2 37 29.8	
8048 & 8049 next page						
8050 8.9	K 23.7	K 23.7	1 22 49 0.77		1 13 17 1.6	1
22 49 0.23	Sj 62.7	St_2 59.7	2 48 [41.84]		2 16 55.8	
13 16 57.7	St_2 59.7	Sj 62.7	1 49 0.11		1 16 57.3	
	H 92.4	H 92.4	3 49 0.23		3 16 57.7	

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Zones	α Ep-H. δ	α Bs.-H. δ	α C-H. δ	α Adj	δ	Δα	Δδ
13	-97.5 -97.5	+.08 -4.2	+.13 -2.0	32.62	47.8	+.02	+0.8
189	-69.5 -69.5	+48 -0.1	+.22 -0.3	32.71	49.5	+.07	-0.9
	-47.3 -47.3	+.17 -3.2	+.10 -0.7	32.60	47.8	-.04	+0.8
	-46.2 -46.2	+.35 0.0	+.10 -0.6	32.92	49.1	+.28	-0.5
	-38.5 -38.5	+.23 -2.5	+.08 -0.5	32.73	48.3	+.09	+0.3
	-37.3 -37.3	+.23 -3.3	+.08 -0.5	32.64	48.9	.00	-0.3
	-33.5 -33.5	-.02 -3.2	+.07 -0.5	32,57	48.1	-.07	+0.5
	-14.4 -14.4	+.09 -2.8	+.03 -0.2	32.59	47.7	-.05	+0.9
	-83.5	-.21 +1.4		32,49	49.8	-.15	-1.2
	+3.9 +3.9	+.02 -1.0	-.01 +0.1	32,48 / 32.64	49.2 / 48.6	-.16	-0.6
127,129	-65.8 -65.8	+.11 -0.2	-.06 +0.1	45.04	41.3	+.07	+0.4
	-28.7 -28.7	-.40 +1.2	-.03 +0.1	44.96	42.7	-.21	-1.0
		+.09 -0.2		45,10 / 44.97	41.2 / 41.7	+.13	+0.5
127	-67.4 -67.4	+.28 -2,5	+.04 -2.4	58.91	15.1	+.04	+1.4
	-30.3 -30.3	-.09 -0.9	+.02 -1.1	58.84	16.9	-.03	-0.4
		-.06 +3.6		58.87 / 58.89	17.5 / 16.5	.00	-1.0
186	-68.8 -68.8	-0.69 +3.0	-.86 +1.3	8.59	34.6	-.46	-2.3
	-32.5 -32.5	-.81 -2.2	-.41 +0.6	8.70	31.4	-.35	+0.9
	-11.7 -11.7	-.37 -0.6	-.15 +0.2	9.08	32.7	+.03	-0.4
		+1.25 -1.9		9.45	33.3	+.40	-1.0
	+1.3 +1.3	-.01 -3.5	+.02 .00	9.44 / 9.05	29.5 / 32.3	+.39	+2.8
189	-68.7 -68.7	+.54 +3.9	+.28 +3.7	0.51	1.4	+.21	-2.7
	-32.7 -32.7	-18.39 -1.9	+.13 +1.8	[41.94]	57.3 [4.64] ac		+1.4 Probably wrong
	-29.7 -29.7	-.12 -0.4	+.12 +1.6	0.15	58.4	-.15	+0.3
		-.41 -5.4		0.23 / 0.30	57.7 / 58.7	-.07	+1.0

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Star	Epoch	Ep. α	Obs.	α 1900.0	Ep. δ	Obs.	δ 1900.0	Zone
8048 6.7	L_1 95.7		1	22 48 12.56		1	12 8 49.8	12
22 48 12.88	P 00.0		5	48 12.46		5	8 51.7	
12 8 53.6	K 22.9		1	48 12.82		1	8 52.7	12
	L_3 415.8, 42.4		8	48 12.76		4	8 52.0	
	L_4 54.7, 56.8		1	48 12.62		2	8 54.0	
	St_1 [60.0]		2	48 12.70		2	8 55.4	
	A 77.7		21	48 12.78		21	8 53.7	
31143	G 77.7		5	48 12.86		5	8 54.0	
	L_5 77.7		5	48 12.75		4	8 52.9	
	Sn 80.0		16	48 12.82		26	8 54.4	
	H 89.3		2	48 12.88		2	8 53.6	
	E 99.8		3	48 12.80		3	8 54.4	
8049 8.3	L_1 95.7	L_1 95.7	2	22 48 50.31	L_1 95.7	2	12 43 11.0	13
22 48 50.56	P_{243} 00.0	P 00.0	16	48 50.46	P 00.0	17	43 10.0	
12 43 16.0	K 23.3	K 23.3	2	48 50.80	K 23.3	2	43 13.4	129
12	L_3 51.1, ..	L_3 51.1	3	48 50.49	L_3 ..	..	..	
	L_4 61.2, 60.7	St_2 59.7	2	48 50.45	Wc 56.8	4	43 14.7	
	St_2 59.7	Wc 60.2	4	48 50.55	St_2 59.7	2	43 13.2	
	Wc 60.2, 56.8	L_{41} 61.2	2	48 50.72	L_4 60.7	3	43 12.9	
	A 77.8, 77.8	Q 66.4	3	48 50.54	Q 66.7	3	43 15.2	
	Q 66.4, 66.7	A 77.8	13	48 50.61	A 77.8	13	43 15.7	
31154	G 77.8	G 77.8	5	48 50.67	G 77.8	5	43 14.8	
	L_5 78.4, 78.5	L_5 78.4	7	48 50.71	L_5 78.5	6	43 15.4	
	H 89.5	H 89.5	3	48 50.56	H 89.5	3	43 16.0	
	E 07.8	E 07.8	3	48 50.65	E 07.8	3	43 17.1	

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Zones.	α Ep.−H.	δ.	α Bs.−H.	δ.	αC−H.	δ.	α Adj.	δ	Δα	Δδ
12	-93.6	-93.6	-.32	-3.8	-.37	+0.8	12.51	54.4	-.23	-0.2
	-89.3	-89.3	-.42	-1.9	-.29	+0.2	12.57	55.0	-.17	-0.8
129	-66.4	-66.4	-.06	-0.9	-.16	-0.4	12.72	53.2	-.02	+1.0
	-43.5	-46.9	-.12	-1.6	-.14	+0.1	12.75	52.3	+.01	+1.9
	-34.6	-32.5	-.26	+0.4	-.11	+0.1	12.63	55.0	-.11	-0.8
	-29.3	-29.3	-.18	+1.8	-.10	+0.1	12.76	56.1	+.02	-1.9
	-11.6	-11.6	-.10	+0.1	-.04	+0.0	12.78	53.7	+.04	+0.5
	-11.6	-11.6	-.02	+0.4	-.04	+0.0	12.83	54.6	+.09	-0.4
	-11.6	-11.6	-.13	-0.7	-.04	+0.0	12.76	53.6	+.02	+0.6
	-9.3	-9.3	-.06	+0.8	-.03	+0.0	12.85	54.8	+.11	-0.6
		-80.0	+.33	-0.2			12.88	53.6	+.14	+0.6
	+10.5	+10.5	-.08	+0.8	+.03	-0.0	12.78 / 12.74	54.3 / 54.2	+.04	-0.1
13, 12	-93.8	-93.8	-.25	-5.0	-.25	-1.6	50.31	14.4	-.27	+0.7
	-89.5	-89.5	-.10	-6.0	-.11	-2.2	50.57	13.3	-.01	+1.8
129, 189	-66.2	-66.2	+.24	-2.6	+.06	-2.4	50.62	13.6	+.04	+1.5
	-38.4	..	-.07	..	-.05	- ..	50.48	..	-.10	..
	-29.8	-32.7	-.11	-1.3	-.04	-0.8	50.55	15.5	-.03	-0.4
	-29.3	-29.8	-.01	-2.8	-.04	-0.7	50.55	14.7	-.03	+0.4
	-28.3	-28.8	+.16	-3.1	-.03	-0.7	50.73	13.9	+.15	+1.2
	-23.1	-22.8	-.02	-0.8	-.03	-0.6	50.63	15.8	+.05	-0.7
	-11.7	-11.7	+.05	-0.3	-.01	-0.3	50.61	15.7	+.03	-0.6
	-11.7	-11.7	+.11	-1.2	-.01	-0.3	50.64	15.4	+.06	-0.3
	-11.1	-11.0	+.15	-0.6	-.01	-0.3	50.72	16.1	+.14	-1.0
		-80.0	+.12	+2.5			50.56	16.0	-.02	-0.9
	+18.3	+18.3	+.09	+1.1	+.02	+0.5	50.63 / 50.58	17.0 / 15.1	+.05	-1.9

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Star		Epoch		Eph. α		Obs.	α 1900.0	Eph. δ		Obs.	δ 1900.0	Zn
8051	8.0	K	23.2			3	22 49 15.53			3	10 49 48.5	{127, 18
22 49	15.16	M1	45.4			2	49 15.24			2	49 50.8	
		Sch	58.7			1	49 15.30			1	49 50.3	
10 49	51.7	Nc	70.8, 67.8			3	49 15.10			2	49 49.6	
μ1 μ2		H	89.7			3	49 15.16			3	49 51.7	
8053	8.6	L1	00.9			1	22 49 41.47			1	9 54 25.7	4
22 49	41.32	L2	03.8			1	49 41.57			1	54 34.9	
9 54	25.4	K	23.7			1	49 41.67			1	54 27.5	18
μ1		M1	45.8			1	49 41.59			1	54 23.0	
		L4	54.7			1	49 41.49			1	54 25.0	
		St1	[60.0]			2	49 41.31			2	54 23.3	
		L5	79.7			1	49 41.38			1	54 25.6	
		H	88.8			3	49 41.32			3	54 25.4	
		Db	93.7			2	49 41.37			2	54 25.9	
8054	8.6	K	22.9			2	22 50 12.14			2	10 38 41.5	127,
22 50	11.90	M1	45.4			2	50 12.11			2	38 43.6	
10 38	45.0	St1	[60.0]			3	50 11.81			3	38 48.1	
		Nc	65.8, 68.3			2	50 12.03			2	38 43.4	
		H	89.8			3	50 11.90			3	38 45.0	
8055	9.1	R1	50.0	M1	44.9	1	22 50 17.65	M1	44.9	1	10 11 31.7	
22 50	17.36	M1	44.9	R1	50.0	1	50 17.57	R1	50.0	1	11 39.8	
10 11	36.4	A	81.8	A	81.8	4	50 17.36	A	81.8	4	11 32.9	
		H	89.7	H	89.7	4	50 17.36	H	89.7	4	11 36.4	
8056	8.8	K	22.9			2	22 50 50.60			2	11 35 53.2	127,
22 50	50.35	M1	45.8			1	50 50.92			1	35 48.2	
11 35	54.0	St1	[60.0]			2	50 50.33			2	35 53.5	
		Sj	62.7			1	50 50.32			1	35 52.0	
		H	89.8, 90.1			3	50 50.35			3	35 54.0	

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Zones.	α Eph.−H.	δ	α Obs.−H.	δ	α C−H.	δ	α adj.	δ	Δα	Δδ
{127,129 / 186}	-66.5	-66.5	+.37	−3.2	+.20	−3.6	15.36	48.1	+.15	+2.7
	-44.3	-44.3	+.08	−0.9	+.13	−2.4	15.18	52.0	−.03	−1.2
							15.26	51.6	+.05	−0.8
	-18.9	-21.9	−.06	−2.1	+.06	−1.2	15.10	50.4	−.11	+0.4
			−.30	+5.4			15.16	51.7	−.05	−0.9
							15.21	50.8		
40	-87.9	-87.9	+.15	+0.3	+.18	+3.3	41.50	28.7	+.06	−2.9
	-85.0	-85.0	+.25	+9.5	+.20	+2.0	41.45	36.2	+.01	−0.4
186	-65.1	-65.1	+.35	+2.1	+.18	+.04	41.50	25.8	+.06	0.0
	-43.0	-43.0	+.27	−2.4	+.10	+1.0	41.53	24.2	+.09	+1.6
	-34.1	-34.1	+.17	−0.4	+.08	+0.8	41.50	26.0	+.06	−0.2
	-28.8	-28.8	−.01	−2.1	+.07	+0.7	41.37	23.7	−.07	+2.1
	-9.1	-9.1	+.06	+0.2	+.02	+0.2	41.39	26.3	−.05	−0.5
			−.765	−.24	−2.4		41.32	25.4	−.12	+0.4
	+4.9	+4.9	+.05	+0.5	−.01	−0.1	41.37	25.6	−.07	+0.2
							41.44	25.8		
127,129	-66.9	-66.9	+.24	−3.5	+.07	−3.2	11.97	41.8	+.01	+3.1
	-44.4	-44.4	+.21	−1.4	+.04	−2.1	12.05	44.8	+.09	+0.1
	-29.8	-29.8	−.09	+3.1	+.03	−1.4	11.87	48.5	−.09	−3.6
	-24.0	-21.5	+.13	−1.6	+.02	−1.0	12.03	44.2	+.07	+0.7
			−.10	+4.8			11.90	45.0	−.06	−0.1
							11.96	44.9		
	-44.8	-44.8	+.29	−4.7			17.59	32.9	+.10	+2.4
	-39.7	-39.7	+.21	+3.4			17.65	39.1	+.16	−3.8
	-7.9	-7.9	.00	−3.5			17.36	32.9	−.13	+2.4
							17.36	36.4	−.13	−1.1
							17.49	35.3		
127,129	-66.9	-67.2	+.25	−0.8	+.08	−0.5	50.43	53.5	−.05	−0.7
	-44.0	-44.3	+.57	−5.8	+.05	−0.3	50.86	49.4	+.38	+3.4
	-29.8	-30.1	−.02	−0.5	+.04	−0.2	50.39	53.9	−.09	−1.1
	-27.1	-27.4	−.03	−2.0	+.03	−0.2	50.36	53.1	−.12	−0.3
			−.12	+0.7			50.35	54.0	−.13	−1.2
							50.48	52.8		

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Star		Epoch		Eph. α		Obs. α 1900.0		Eph. δ		Obs. δ 1900.0		
8058	9.0	G	31199 80.7			1	22 51 0.37			1	13 16 17.7	
22 51	0.25											
13 16	18.8	H	92.8, 93.2			3	51 0.25			3	16 18.8	
8059	8.9	M_1	45.4			2	22 51 4.78			1	10 25 49.3	
22 51	4.75											
10 25	58.4	H	93.3			4	51 4.75			4	25 58.4	
8060	9.1	M_1	45.8			1	22 51 10.91			1	10 29 38.3	
22 51	11.58	M_2	86.3			2	51 11.59			2	29 40.0	
10 29	38.4	H	93.2			3	51 11.58			3	29 38.4	
8061	8.5	L_1	98.3	L_1	98.3	2	22 51 34.68	L_1	98.3	2	10 47 46.5	40,
22 51	34.79	K	22.9	K	22.9	2	51 34.75	K	22.9	2	47 47.4	127,
10 47	48.2	M_1	45.4	M_1	45.4	2	51 34.98	M_1	45.4	2	47 47.3	
		L_4	59.2, 57.2	L_4	59.2	2	51 34.66	L_4	57.2	2	47 46.3	
		Wc	73.1, 67.8	Wc	73.1	3	51 34.75	Wc	67.8	2	47 47.5	
		H	93.2	H	93.2	3	51 34.79	H	93.2	3	47 48.2	
		Σ	04.8	Σ	04.8	3	51 34.82	Σ	04.8	3	47 48.3	
8062	8.9	K	22.9			2	22 51 37.36			2	10 56 5.1	127,
22 51	37.07	M_1	45.8			1	51 36.87			1	56 0.6	
10 56	5.6	St_1	[60.0]			2	51 36.76			2	56 7.9	
		H	90.8			3	51 37.07			3	56 5.6	
8063	8.9	H	90.8			3	22 51 40.48			3	13 40 10.9	
22 51	40.48											
13 40	10.9	SK	97.1			3	51 40.62			3	40 9.9	

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Zones	α Ep-H.	δ α Ps.-H.	δ α C-H.	δ	α adj. δ	Δα	Δδ
	-12.1	-12.5 +.12	-1.1		0.34	18.3 +.04	+0.3
					0.25 / 0.30	18.8 +.05 / 18.6	-0.2
	-47.9	-47.9 +.03	-9.1		4.72	50.5 -.02	+3.9
					4.75 / 4.74	58.4 +.01 / 54.4	-4.0
	-47.4	-47.4 -.67	-0.1		10.85	39.5 -.46	-0.2
	-6.9	-6.9 +.01	+1.6		11.51	40.1 +.20	-0.8
					11.58 / 11.31	38.4 +.27 / 39.3	+0.9
40,12	-94.9	-94.9 -.11	-1.7	-.12 +2.1	34.67	50.3 -.06	-1.7
127,129	-70.3	-70.3 -.04	-0.8	-.21 -0.5	34.58	47.7 -.15	+0.9
	-47.8	-47.8 +.19	-0.9	-.10 +0.5	34.92	48.5 +.19	+0.1
	-34.0	-36.0 -.19	-1.9	-.07 +0.4	34.61 / 34.70	47.3 Z.03	+1.3
	-20.1	-25.4 -.04	-0.7	-.04 +0.3	34.75	48.3 +.02	+0.3
		-82.6 +.20	-1.0		34.79	48.2 +.06	+0.4
	+11.6	+11.6 +.03	+0.1	+.02 -0.1	34.80 / 34.73	48.2 +.07 / 48.6	+0.4
127,129	-67.9	-67.9 +.29	-0.5	+.12 -0.2	37.19	5.4 +.22	-0.2
	-45.0	-45.0 -.20	-5.0	+.08 -0.1	36.81	1.8 -.16	+3.4
	-30.8	-30.8 -.31	+2.3	+.06 -0.1	36.82	8.2 -.15	-3.0
		-.18	+0.3		37.07 / 36.97	5.6 +.10 / 5.2	-0.4
					40.48	10.9 -.06	-0.3
	+6.3	+6.3 +.14	-1.0		40.59 / 40.54	10.3 +.05 / 10.6	+0.3

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Star		Epoch		Ep. α	Obs.	α 1900.0		Ep. δ	Obs.	δ 1900.0	
8064	8.7	K	22.9	K 22.9	1	22 52 52.13		K 22.9	1	11 39 58.6	12
22 52	52.10	St,	[60.0]	St, 60.0	2	52 51.82		St, 60.0	2	39 [53.1±]	
11 40	0.2	L_5	78.4	A 78.3	26	52 52.02		A 77.8	11	40 0.0	
		A	78.3, 77.8	L_5 78.4	18	52 52.01		L_5 78.4	15	39 59.0	
	31230	G	78.5	G 78.5	18	52 52.08		G 78.5	18	39 59.5	
		H	93.0	H 93.0	4	52 52.10		H 93.0	4	40 0.2	
		E	05.2, 05.0	E 05.2	6	52 52.18		E 05.0	5	40 0.4	
8065	9.0	M,	44.9		1	22 53 7.48			1	10 48 0.9	
22 53	7.00	M_2	84.7		1	53 7.07			1	48 1.5	
10 48	2.2	H	90.4		3	53 7.00			3	48 2.2	
8066	9.3	B	54.8		1	22 53 14.11			1	12 54 24.1	
22 53	14.00										
12 54	23.3	H	90.4		3	53 14.00			3	54 23.3	
8067	8.6	K	22.9		2	22 53 43.93			2	11 32 50.4	127
22 53	43.90	M,	45.8		1	53 44.31			1	32 51.1	
11 32	54.3	St,	[60.0]		2	53 44.06			2	32 51.5	
	μ 12	H	91.6		4	53 43.90			4	32 54.3	
8069	8.8	Sj	62.7		1	22 54 17.07			1	13 17 40.0	
22 54	17.18										
13 17	41.7	H	90.2		3	54 17.18			3	17 41.7	
8071	8.6	K	22.9		2	22 54 33.68			2	11 25 17.8	127
22 54	33.79	M,	45.4		2	54 34.07			2	25 16.5	
11 25	17.1	H	89.8		3	54 33.79			3	25 17.1	

For 8070 see [illegible]

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	zones	α Eph.-H.δ	α Pos.-H.δ	α C-H.δ	α adj. δ	Δα	Δδ	
6	127	-70.1 -70.1	+.03 -1.6	-.21 -1.5	52.89	58.7 -.13	+1.1	
1±		-33.0 -33.0	-.28 -7.1	-.10 -0.7	[51.88]	[53.5 ±]	..	St, 40 2m
0		-14.7 -15.2	-.08 -0.2	-.04 -0.3	52.02	0.0 -.02 .00	-0.2	
0		-14.6 -14.6	-.09 -1.2	-.04 -0.3	52.02	59.7 -.02 .00	+0.1	
5		-14.5 -14.5	-.02 -0.7	-.04 -0.3	52.05	0.1 +.08 1	-0.3	
			+.30 +2.1		52.10	0.2 +.08 6	-0.4	
4		+12.2 +12.0	+.08 +0.2	+.04 +0.2	52.16 / 52.02 H	0.3 / 59.8 +.14 2 7	-0.5	
9		-45.5 -45.5	+.18 -1.3		7.42	2.1 +.28	-0.1	
5		-5.7 -5.7	+.07 -0.7		6.99	1.6 -.15	+0.4	
					7.00 / 7.14	2.2 -.14 / 2.0	-0.2	
1		-35.6 -35.6	+.11 +0.8		14.03	26.5 +.01	-1.6	
3					14.00 / 14.02	23.3 -.02 / 24.9	+1.6	
4	127,129	-68.7 -68.7	+.03 -3.9	-.14 -3.6	43.76	50.7 -.25	+1.6	
1		-45.8 -45.8	+.11 -3.2	-.09 -2.4	44.25	52.3 +.24	0.0	
5		-31.6 -31.6	+.16 -2.8	-.06 -1.6	44.12	51.9 +.11	+0.4	
3			+.20 +5.2		43.90 / 44.01	54.3 -.11 / 52.3	-2.0	
0		-27.5 -27.5	-.11 -1.7		17.11	41.1 -.03	+0.3	
7					17.18 / 17.14	41.7 +.04 / 41.4	-0.3	
8	127,129	-66.9 -66.9	-.11 +0.7	-.28 +1.0	33.51	18.1 +.26	-0.5	
5		-44.4 -44.4	+.28 -0.6	-.18 9 +0.7	34.01	17.7 +.24	-0.1	
1			+.42 -1.5		33.79 / 33.77	17.1 +.02 / 17.6	+0.5	

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Star	Epoch	Eph. α	Obs.	α 1900.0	Eph. δ	Obs.	δ 1900.0	
8070 7.1	L_1 95.7	L_1 95.7	1	22 54 19.65	L_1 95.7	1	13 36 [14.6]	13
22 54 19.72	P 264. 00.0	P 00.0	5	54 19.64	P 00.0	6 8	36 21.7	
13 36 25.5	K 23.7	K 23.7	1	54 19.97	K 23.7	1	36 27.5	18
	L_4 59.7, 58.3	L_4 59.7	2	54 19.65	L_4 58.3	3	36 24.4	
	B 66.7	St_2 61.7	2	54 19.68	St_2 61.7	2	36 22.9	
	St_2 61.7	Q 65.8	2	54 19.69	B 66.7	1	36 22.5	
	L_5 77.7	B 66.7	1	54 19.71	Q 70.5	4	36 25.4	
	A 77.7	L_5 77.7	6	54 19.78	L_5 77.7	7	36 24.0	
	Q 65.8, 70.5	A 77.7	17	54 19.74	A 77.7	16	36 24.2	
	Sn 77.7	Sn 77.7	7	54 19.81	Sn 77.7	13	36 25.4	
3125H	G 77.8	G 77.8	8	54 19.77	G 77.8	8	36 23.7	
	H 91.5	H 91.5	4	54 19.72	H 91.5	4	13 36 25.5	
	E 99.5	Sk 95.3	2	54 19.74	Sk 95.3	2	36 24.7	
	Sk 95.3	E 99.5	3	54 19.70	E 99.5	3	36 24.0	
8072 8.5	L_1 95.7		1	22 54 53.79		1	11 29 59.4	12
22 54 53.39	K 22.9		2	2 54 53.67		2	30 1.9	127,1
11 30 4.3	M_1 45.4		2	54 53.51		2	29 57.2	
	St_1 [60.0]		2	54 53.23		2	30 4.5	
	L_4 A 67.8		1	54 53.48		1	30 3.2	
	68.0		1	54 53.58		1	30 2.3	
	L_5 78.7		2	54 53.40		2	30 1.9	
	H 90.1		3	54 53.39		3	30 4.3	
For 8073 next page								
8074 7.8	L_1 98.3	L_1 98.3	2	22 55 54.86	L_1 98.3	2	10 5 41.9	40,
22 55 54.55	K 23.7	K 23.7	1	55 54.89	K 23.7	1	5 12.3	18
10 5 16.9	M_1 45.5	M_1 45.5	3	55 54.94	M_1 45.5	3	5 10.8	
	Sch M_1 58.7	Sch M_1 58.7	1	55 54.76	Sch M_1 58.7	1	5 14.0	
	St_1 [60.0]	St_1 60.0	2	55 54.53	St_1 60.0	2	5 13.2	
	L_4 S_j 61.0, 64.2	L_4 S_j 61.0	4	55 54.52				
	S_j 62.8	S_j 62.8	1	55 54.52	S_j 62.8	1	5 13.3	
					L_4 64.2	2	5 14.8	
	M_2 86.8	A 69.7	2	55 54.68	A 69.7	2	5 14.6	
	A 69.7	M_2 86.8	1	55 54.30	M_2 86.8	1	5 16.4	
	E 06.4, 05.8	H 88.8	3	55 54.55	H 88.8	3	5 16.9	
	H 88.8	E 06.4	3	55 54.52	E 05.8	4	5 19.0	

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Zones	α Eph-H.δ	α Obs.-H.δ	α C-H.δ	α adj.	δ	Δα	Δδ	
13	-95.8 -95.8	-.07 -0.9	-.02 +1.3	19.70	[16.8]	-.03	ab	
	-91.5 -91.5	-.08 -3.8	-.02 +1.7	19.75	25.0	+.02	+0.1	
189	-67.8 -67.8	+.25 +2.0	-.01 +1.8	19.71	27.3	-.02	-2.2	
	-31.8 -33.2	-.07 -1.1	-.01 +0.6	19.66	25.4	-.07	-0.3	
	-29.8 -29.8	-.04 -2.6	-.01 +0.6	19.78	24.4	+.05	+0.7	
	-25.7 -24.8	-.03 -3.0	-.01 +0.5	19.78	24.9	+.05	+0.2	
	-24.8 -21.0	-.01 -0.1	.00 +0.4	19.63	26.0	-.10	-0.9	
	-13.8 -13.8	+.06 -1.5	.00 +0.3	19.79	24.7	+.06	+0.4	
	-13.8 -13.8	+.02 -1.3	.00 +0.3	19.74	24.2	+.01	+0.9	
	-13.8 -13.8	+.09 -0.1	.00 +0.3	19.84	25.9	+.11	-0.8	
	-13.7 -13.7	+.05 -1.8	.00 +0.3	19.74	24.3	+.01	+0.8	
	-81.8	+.02 -1.9		19.72	25.5	-.01	-0.4	
	+3.8 +3.8	+.02 -0.8	.00 -0.1	19.71	25.1	-.02	0.0	
	+8.0 +8.0	-.02 -1.5	.00 -0.2	19.68 / 19.73	23.9 / 25.1	-.05	+1.2	
12	-94.4 -94.4	+.40 -4.9	+.35 -0.3	53.74	4.0	+.29	-1.1	
127,129	-67.2 -67.2	+.28 -2.4	+.11 -2.1	53.50	2.2	+.02	+0.7	
	-44.7 -44.7	+.12 -7.1	+.13 -0.7	53.45	58.4	-.03	+4.5	
	-30.1 -30.1	-.16 +0.2	+.08 -0.5	53.29	49	-.19	-2.0	
	-22.3 -22.3	+.09 -1.1	+.06 -0.3	53.49	4.2	+.01	-1.3	
	-22.1 -22.1	+.19 -2.0	+.06 -0.3	53.58	2.3	+.10	+0.6	
	-11.4 -11.4	+.01 -2.4	+.03 -0.2	53.41	2.6	-.07	+0.3	
	-80.8	-.28 +1.5		53.39 / 53.48	4.3 / 2.9	-.09	-1.4	
40,14	-90.5 -90.5	+.31 -12.0	+.35 -8.2	54.90	8.7	+.28	+5.6	
186	-65.1 -65.1	+.34 -4.6	+.17 -6.3	54.72	10.6	+.10	+3.7	
	-43.3 -43.3	+.39 -6.1	+.14 -4.0	54.88	12.0	+.26	+2.3	
				54.72	12.3	+.10	-1.0	
	-28.8 -28.8	-.02 -3.7	+.10 -2.7	54.59	13.8	-.03	+0.5	
	-27.8	-.03	+.09	54.53	...	-.09		
	-26.0 -26.0	-.03 -3.6	+.09 -2.4	54.56	14.4	-.06	-0.1	
	-24.6	-2.1	-2.3		15.8		-1.5	
	-19.1 -19.1	+.13 -2.3	+.06 -1.8	54.68	14.6	+.06	-0.3	
	-2.0 -2.0	-.25 -0.5	+.01 -0.2	54.22	16.5	-.40	-2.2	
	-77.8	-.33 +9.3		54.55	16.9	-.07	-2.6	
	+17.6 +17.6	-.03 +2.7	.00 +1.6	54.50	18.9	-.13	-4.6	

Mean S 14.3

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Star	Epoch	Eph. α	Obs.	α 1900.0	Eph. δ	Obs. δ 1900.0	
8073 9.5	B 55.7		3	22 54 59.00		3 12 30 55.5	
22 54 59.07							
12 30 57.6	H 92.0		4	54 59.07		4 30 57.6	
8075 8.7	K 23.7		1	22 55 59.59		1 13 20 44.7	18
22 55 59.19							
13 20 42.9	H 90.1		3	55 59.19		3 20 42.9	
8076 8.7	K 22.9		1	22 56 2.43		1 11 46 24.8	12
22 56 2.64	St, [60.0]		2	56 2.18		2 46 25.8	
11 46 24.6	H 89.8		6	56 2.64		6 46 24.6	
8077 9.0 8.42	K 22.9		1	22 56 8.42		1 11 42 1.2	12
22 56 ~~14.38~~	St, [60.0]		2	56 8.45		2 42 1.7	
12 ~~37~~ 41 ~~12.4~~ 59.0	H 94.8		4	56 8.42		4 41 59.0	
8078 8.6	K 22.9		1	22 56 14.86		1 12 37 8.0	12
22 56 14.38	St 61.7		2	56 14.22		2 37 9.1	
12 37 12.4	H 90.4		3	56 14.38		3 37 12.4	
8079 9.0	K 23.7		1	22 56 59.99		1 12 56 42.6	18
22 57 0.03							
12 56 40.3	H 90.4		3	57 0.03		3 56 40.3	
8080 8.8	L, 95.7	L, 95.7	1	22 57 8.90	L, 95.7	1 11 51 4.1	12
22 57 8.82	K 22.9	K 22.9	2	57 9.15	K 22.9	2 50 57.0	127,1
11 50 59.7	St, [60.0]	St, 60.0	2	57 8.83	Wc 58.6	6 50 57.1	
	Wc 65.2, 58.6	Wc 65.2	5	57 8.86	St, 60.0	3 50 57.3	
	Q 68.4, 66.7	Q 68.4	2	57 8.76	Q 66.7	1 50 57.8	
	L5 79.7, 77.3	L5 79.7	1	57 8.95	L5 77.3	2 50 57.9	
	H 92.0	H 92.0	4	57 8.82	H 92.0	4 50 59.7	

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Zones	α Ep-H. δ	α Bs.-H. δ		α C-H. δ		α adj. δ	Δα	Δδ
	-36.3	-36.3	-.07	-2.1		58.92	57.9 -.08	-0.1
						59.07 / 59.00	57.6 +.07 / 57.8	+0.2
189	-66.4	-66.4	+.40	+1.8	+.14 +1.6	59.33	44.5 +.07	-0.8
						59.19 / 59.26	42.9 -.07 / 43.7	+0.8
129	-66.9	-66.9	-.21	+0.2	-.31 +0.7	2.33	25.3 -.07	+0.1
	-29.8	-29.8	-.46	+1.2	-.14 +0.3	2.24	26.2 -.16	-0.8
			+.46	-1.0		2.64 / 2.40	24.6 / 25.4 +.24	+0.8
129	-71.9	-71.9	.00	+2.2	-.10 +2.7	8.32	1.7 -.10	-0.8
	-34.8	-34.8	+.03	+2.7	-.05 +1.3	8.51	2.0 +.09	-1.1
			+.14	-3.8		8.42 / 8.42	59.0 / 0.9 .00	+1.9
127	-67.5	-67.5	+.48	-4.4	+.24 -4.3	14.62	8.1 +.18	+2.3
	-28.7	-28.7	-.16	-3.3	+.10 -1.8	14.32	10.6 -.12	-0.2
			-.36	+6.4		14.38 / 14.44	12.4 / 10.4 -.06	-2.0
189	-66.7	-66.7	-.04	+2.3	-.30 +2.1	59.73	42.4 -.15	-1.0
						0.03 / 59.88	40.3 +.15 / 41.4	+1.1
12	-96.3	-96.3	+.08	+4.4	+.03 +9.0	8.85	8.7 -.04	-8.9
127,129	-69.1	-69.1	+.33	-2.7	+.16 -2.4	8.98	57.3 +.09	+2.5
	-32.0	-33.4	+.01	-2.6	+.04 +1.3	8.89	57.9 .00	+1.9
	-26.8	-32.0	+.04	-2.4	+.03 +1.3	8.86	57.7 -.03	+2.1
	-23.6	-25.3	-.06	-1.9	+.03 +1.0	8.85	58.4 -.04	+1.4
	-12.3	-14.7	+.13	-1.8	+.01 +0.6	8.96	58.6 +.07	+1.2
						8.82	58.7 -.04	+1.3

mean δ 59.8

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Star		Epoch		Ep. α	Obs.	α 1900.0			Ep. δ	Obs.	δ 1900.0		
8081	9.2	K	22.9	K 22.9	2	22	57	9.41	K 22.9	2	11	50	49.5
22	57 9.50	Nc	64.4, 63.3	Nc 64.4	2		57	9.19	Nc 63.3	2		50	49.9
11	50 51.8	H	90.5	H 90.5	4		57	9.50	H 90.5	4		50	51.8
8082	8.3	L_1	95.7	L_1 95.7	1	22	57	18.34	L_1 95.7	1	11	48	10.4
22	57 17.92	K	22.9	K 22.9	2		57	18.51	K 22.9	2		48	10.1
11	48 12.0	St_1	[60.0]	St_1 60.0	1		57	18.04	Nc 55.6	4		48	10.2
		Nc	63.1, 55.6	Nc 63.1	5		57	17.99	St_1 60.0	1		48	10.4
		A	77.4, 76.3	Q 71.9	3		57	18.03	Q 66.7	1		48	10.8
		Q	71.9, 66.7	A 77.4	23		57	18.01	A 76.3	13		48	10.6
		L_5	78.4	G 78.0	18		57	18.00	G 78.0	18		48	10.4
		G	78.0	L_5 78.4	18		57	17.99	L_5 78.4	16		48	9.9
		H	91.8	H 91.8	4		57	17.92	H 91.8	4		48	12.0
		E	07.5	E 07.5	3		57	17.75	E 07.5	3		48	12.1
8083	8.8	M_1	45.8		1	22	57	20.72		1	10	46	48.9
		L_4	67.8		1		57	20.72		1		46	54.4
22	57 20.68	M_2	86.8		1		57	20.58		1		46	51.9
10	46 50.8	H	91.2		3		57	20.68		3		46	50.8
8084	9.1	K	22.9		1	22	57	26.44		1	11	46	38.2
22	57 26.35	St_1	[60.0]		2		57	26.15		2		46	39.5
11	46 40.3	H	92.8		3		57	26.35		3		46	40.3
8085	8.9	A	80.7		5	22	57	27.35		2	13	52	12.3
22	57 27.25	H	92.3		4		57	27.25		4		52	17.8
13	52 17.8	Sk	95.3		2		57	27.19		2		52	15.9

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Zones	α Eph-H.	δ	α Pos.-H.	δ	α C-H.	δ	α adj.	δ	Δα	Δδ
127,129	-67.6	-67.6	-.09	-2.3	-.26	-2.0	9.24	49.8	-.07	+1.0
	-26.1	-27.2	-.31	-1.9	-.10	-0.8	9.19	50.7	-.12	+0.1
			+.38	+3.0			9.50	51.8	+.19	-1.0
							9.31	50.8		
12	-96.1	-96.1	+.42	-1.6	+.37	+3.0	18.29	15.0	+.24	-3.5
127,129	-68.9	-68.9	+.59	-1.9	+.42	-1.6	18.34	10.4	+.29	+1.1
	-31.8	-36.2	+.12	-1.8	+.15	+0.3	18.10	11.0	+.05	+0.5
	-28.7	-31.8	+.07	-1.6	+.14	+0.3	17.99	10.9	-.06	+0.6
	-19.9	-25.1	+.11	-1.2	+.10	+0.2	18.12	11.4	+.07	+0.1
	-14.4	-15.5	+.09	-1.4	+.07	+0.1	18.01	10.6	-.04	+0.9
	-13.8	-13.8	+.08	-1.6	+.07	+0.1	17.97	11.0	-.08	+0.5
	-13.4	-13.4	+.07	-2.1	+.06	+0.1	18.00	10.6	-.05	+0.9
		-82.5	-.48	-0.8			17.92	12.0	-.13	-0.5
	+15.7	+15.7	-.17	+0.1	-.08	-0.1	17.73	12.0	-.32	-0.5
							18.05	11.5		
	-45.4	-45.4	+.04	-1.9			20.66	50.1	+.02	+2.0
	-23.4	-23.4	+.04	+3.6			20.73	55.4	+.09	-3.3
	-4.4	-4.4	-.10	+1.1			20.50	52.0	-.14	+0.1
							20.68	50.8	+.04	+1.3
							20.64	52.1		
127	-69.9	-69.9	+.09	-2.1	-.15	-2.0	26.20	38.3	-.05	+1.2
	-32.8	-32.8	-.20	-0.8	-.07	-1.0	26.21	39.8	-.04	-0.3
			+.21	+2.9			26.35	40.3	+.10	-0.8
							26.25	39.5		
	-11.6	-11.6	+.10	-5.5			27.35	12.3	+.10	+3.2
							27.25	17.8	.00	-2.3
	+3.0	+3.0	-.06	-1.9			27.16	16.3	-.09	-0.8
							27.25	15.5		

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Star	Epoch	Eph. α	Obs. α 1900.0	Eph. δ	Obs. δ 1900.0
8086 8.2	K 23.7		1 22 57 32.87		1 13 24 41.4
22 57 32.78	St_2 61.7		1 57 32.44		1 24 39.8
13 24 39.3	Sj 62.7		1 57 32.75		1 24 38.0
	H 90.3		2 57 32.78		2 24 39.3
8087 8.5	L_1 95.7	L_1 95.7	1 22 57 36.29	L_1 95.7	1 13 52 29.3
22 57 36.34	K 23.7	K 23.7	1 57 36.93	K 23.7	1 52 36.5
13 52 35.1	L_4 59.4, 61.8	L_4 59.4	3 57 36.52	St_2 59.9	2 52 33.4
	St_2 59.9	St_2 59.9	2 57 36.45	L_4 61.8	2 52 33.4
	L_5 78.7	L_5 78.7	2 57 36.43	L_5 78.7	2 52 33.3
	H 90.8	H 90.8	5 57 36.34	H 90.8	5 52 35.1
	Sk 95.3	Sk 95.3	2 57 36.38	Sk 95.3	2 52 34.7
8088 on page 114					
8089 9.3	M_1 45.8		1 22 57 56.82		1 11 33 35.5
22 57 56.28	M_2 86.8		1 57 56.20		1 33 37.0
11 33 37.6	H 91.5, 89.7		4 57 56.28		3 33 37.6
8091 9.1	A 69.6		2 22 58 0.03		2 12 11 30.7
22 57 59.80					
12 11 31.6	H 90.8, 91.2		4 57 59.80		3 11 31.6
8092 8.7	H 91.1		4 22 58 15.78		H 13 53 20.2
22 58 15.78					
13 53 20.2	Sk 95.3		2 58 15.90		2 53 20.6
8093 8.7	K 22.9		2 22 58 41.59		2 12 49 40.5
22 58 41.36	St_2 59.9		2 58 41.37		2 49 36.1
12 49 36.3	G 31.3 31.4, 78.4		3 58 41.48		3 49 30.6
	H 91.8		3 58 41.36		3 49 36.3

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zones	α Σ1 - N.S	α Bs. - N.S	α C - N.S	α adj.	δ	Δα	Δδ
189	-66.6 -66.6	+.09 +2.1	-.17 +1.9	32.61	41.2	-.07	-1.0 ✓
	-28.6 -28.6	-.34 +0.5	-.07 +0.8	32.54	41.3	-.14	-1.1 ✓
	-27.6 -27.6	-.03 -1.3	-.07 +0.8	32.79	39.1	+.11	+1.1 ✓
		+.26 -2.9		32.78	39.3	+.10	+0.9 ✓
				32.68	40.2		
13	-95.1 -95.1	-.05 -5.8	.00 -3.6	36.34	31.5	-.12	+3.0 ✓
189	-67.1 -67.1	+.59 +1.4	+.33 +1.2	36.67	36.3	+.21	-1.8 ✓
	-31.4 -30.9	+.18 -1.7	+.06 -0.5	36.53	34.9	+.07	-0.4 ✓
	-30.9 -29.0	+.11 -1.7	+.06 -0.4	36.55	34.4	+.09	+0.1 ✓
	-12.1 -12.1	+.09 -1.8	+.02 -0.2	36.44	34.0	-.02	+0.5 ✓
		-81.1 -.20	+1.5	36.34	35.1	-.12	-0.6 ✓
	+4.5 +45	+.04 -0.4	-.01 +0.1	36.35	35.1	-.11	-0.6 ✓
				36.46	34.5		
	-45.7 -43.9	+.54 -2.1		56.76	36.7	+.37	+0.4 ✓
	-4.7 -2.9	-.08 -0.6		56.12	37.1	-.27	0.0 ✓
				56.28	37.6	-.11	-0.5 ✓
				56.39	37.1		
	-21.2 -21.6	+.23 -0.9		0.03	30.7	+.11	+0.5 ✓
				59.80	31.6	-.12	-0.4 ✓
				59.92	31.2		
				15.78	20.2	-.04	+0.4 ✓
	+4.2 +4.2	+.12 +0.4		15.87	21.0	+.05	-0.4 ✓
				15.82	20.6		
127,129	-68.9 -68.9	+.23 +4.2	+.06 +4.5	41.42	40.8	.00	-3.1 ✓
	-31.9 -31.9	+.01 -0.2	+.03 +2.1	41.47	37.6	+.05	+0.1 ✓
	-13.4 -13.4	+.12 -0.7	+.01 +0.9	41.45	36.2	+.03	+1.5 ✓
		-.09 -6.5		41.36	36.3	-.06	+1.4 ✓
				41.42	37.7		

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Star		Epoch		Ep. α		Obs.	α 1900.0			Ep. δ		Obs.	δ 1900.0		
8095	8.9	M_1	45.8			1	22	59	9.74			1	10	45	15.3
22	59	10.62	M_2	86.8		1		59	10.59			1		45	18.0
10	45	19.3	H	93.3		4		59	10.62			4		45	19.3
8096	8.1	K	23.2	K	23.2	3	22	59	15.74	K	23.2	3	12	43	2.0
22	59	15.36	St_2	61.7	St_2	61.7	2		59	15.23	St_2	61.7	2		43	2.9
12	43	4.5	Wc	74.1, 65.3	Sj	62.8	1		59	15.42	Sj	62.8	1		43	1.9
			Sj	62.8	Wc	74.1	4		59	15.41	Wc	65.3	2		43	4.5
			A	77.8	A	77.8	11		59	15.45	A	77.8	10		43	3.6
		31356	G	77.8	G	77.8	4		59	15.45	G	77.8	4		43	2.9
			H	90.1	H	90.1	3		59	15.36	H	90.1	3		43	4.5
			E	07.8	E	07.8	3		59	15.38	E	07.8	3		43	4.4
8097	8.6	K	23.7			1	22	59	49.02			1	10	7	26.8
22	59	48.69	M_1	45.4		2		59	48.49			2		7	20.7
10	7	21.0	St_1	[60.0]		2		59	48.51			2		7	20.7
			A	69.8		2		59	48.59			2		7	24.3
			Q	70.5, 70.8		3		59	48.52			2		7	21.8
			V	85.3		4		59	48.47			4		7	20.1
			H	89.8		2		59	48.69			2		7	21.0
8098	8.0	K	22.9			2	23	0	36.04			2	11	25	46.8
23	0	35.72	M_1	45.8		1		0	35.85			1		25	43.6
			8th	58.7		1		0	35.72			1		25	46.2
11	25	47.6	A	67.7		3		0	35.95			3		25	45.9
			H	93.5		4		0	35.72			4		25	47.6

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zones	α Eph-H.	δ.	α Bs.-H.	δ.	α C-H.	δ	α adj.	δ	Δα	Δδ.
	-47.5	-47.5	-.88	-4.0			9.68	16.5	-.59	+1.5
	-6.5	-6.5	-.08	-1.3			10.51	18.1	+.24	-0.1
							10.62	19.3	+.35	-1.3
							10.27	18.0		
{127,129 189}	-66.9	-66.9	+.38	-2.5	+.18	-2.4	15.54	2.1	+.12	+1.7
	-28.4	-28.4	-.13	-1.6	+.08	-1.0	15.33	4.4	-.09	-0.6
	-27.3	-27.3	+.06	-2.6	+.07	-1.0	15.46	3.0	+.04	+0.8
	-16.0	-24.8	+.05	0.0	+.04	-0.9	15.41	5.3	-.01	-1.5
	-12.3	-12.3	+.09	-0.9	+.03	-0.4	15.45	3.6	+.03	+0.2
	-12.3	-12.3	+.09	-1.6	+.03	-0.4	15.42	3.5	.00	+0.3
			-.27	+3.6			15.36	4.5	-.06	-0.7
	+17.7	+17.7	+.02	-0.1	-.05	+0.6	15.36	4.3	-.06	-0.5
							15.42	3.8		
186	-66.1	-66.1	+.33	+5.8	+.16	+4.1	48.85	25.1	+.25	-2.8
	-44.4	-44.4	-.20	-0.3	+.11	+2.8	48.43	21.9	-.17	+0.4
	-29.8	-29.8	-.18	-0.3	+.07	+1.8	48.57	21.1	-.03	+1.2
	-20.0	-20.0	-.10	+3.3	+.05	+1.2	48.59	24.3	-.01	-2.0
	-19.3	-19.0	-.17	+0.8	+.05	+1.2	48.61	22.4	+.01	-0.1
	-4.5	-4.5	-.22	-0.9	+.01	+0.3	48.45	20.2	-.15	+2.1
			-.24	-6.2			48.69	21.0	+.09	+1.3
							48.60	22.3		
127,129	-70.6	-70.6	+.32	-0.8	+.15	-0.5	35.87	47.1	+.07	-0.5
	-47.7	-47.7	+.13	-4.0	+.10	-0.3	35.79	44.8	-.01	+1.8
							35.68	47.5	-.12	-0.9
	-25.8	-25.8	+.23	-1.7	+.05	-0.2	35.95	45.9	+.15	+0.7
			-.21	+0.7			35.72	47.6	-.08	-1.0
							35.80	46.6		

A. H. gives to both rules

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Star	Epoch		Eph. α		Obs.	α 1900.0	Eph. δ		Obs.	δ 1900.0	zn
8099 7.7	L_1	95.7	L_1	95.7	1	23 0 39.92	L_1	95.7	1	10 58 31.7	
23 0 39.99	K	22.9	K	22.9	2	0 40.39	K	22.9	2	58 37.6	127
10 58 38.5	M_1	45.8	M_1	45.8	1	0 40.33	M_1	45.8	1	58 34.7	
	Wc	71.2, 56.0	St,	60.0	2	0 40.06	Wc	56.0	5	58 37.6	
	A	77.8	L_4	67.7	1	0 40.07	St,	60.0	2	58 37.5	
	G	77.8	Wc	71.2	6	0 40.11	L_4	63.3	2	58 37.1	
31374	St,	[60.0]	G	77.8	5	0 40.11	G	77.8	5	58 37.1	
	L_4	67.7, 63.3	A	77.8	11	0 40.13	A	77.8	9	58 37.3	
	L_5	78.0, 78.1	L_5	78.0	7	0 40.08	L_5	78.1	6	58 37.9	
	H	90.4	H	90.4	3	0 39.99	H	90.4	3	58 38.5	
	E	06.8, 06.5	E	06.8	3	0 40.03	E	06.5	4	58 39.2	
8100 9.2	M_1	45.8			1	23 0 48.89			1	10 54 48.4	
23 0 49.23	M_2	86.8			1	0 49.05			1	54 53.8	
10 54 55.8	H	90.4			3	0 49.23			3	54 55.8	
8101 8.9	K	23.7	K	23.7	1	23 0 57.22	K	23.7	1	9 55 48.1	
23 0 56.90	M_1	44.9	M_1	44.9	1	0 56.93	M_1	44.9	1	55 38.4	
9 55 37.8	St,	[60.0]	St,	60.0	2	0 56.54	St,	60.0	2	55 40.1	
	A	81.9	L_5	80.8	1	0 57.00	L_5	80.8	1	55 37.6	
	L_5	80.8	D,	81.7	1	0 57.31	D,	81.7	1	55 37.3	
	M_2	87.9	A	81.9	5	0 57.05	A	81.9	4	55 37.1	
	D,	81.7	M_2	87.9	2	0 57.00	M_2	87.9	2	55 38.6	
	C,	90.1	C,	90.1	4	0 56.94	C,	90.1	4	55 38.4	
	H	92.8	H	92.8	3	0 56.90	H	92.8	3	55 37.8	

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zones.	α Ep-H.	δ	α Bs.-H.	δ	α C-H.	δ	α Adj.	δ	Δα	Δδ	
12	-94.7	-94.7	-.07	-6.8	-.12	-2.2	39.87	36.3	-.22	+1.5	✓
127,129	-67.5	-67.5	+.40	-0.9	+.23	-0.6	40.22	37.9	+.13	-0.1	✓
	-44.6	-44.6	+.34	-3.8	+.03	-0.8	40.27	35.9	+.18	+1.9	✓
	-30.4	-34.4	+.07	-0.9	+.02	-0.6	40.12	38.4	+.03	-0.6	✓
	-22.7	-30.4	+.08	-1.0	+.02	-0.5	40.08	38.1	-.01	-0.3	
	-19.2	-27.1	+.12	-1.4	+.01	-0.5	40.11	38.1	+.02	-0.3	✓
	-12.6	-12.6	+.12	-1.4	+.01	-0.2	40.08	37.7	-.01	+0.1	✓
	-12.6	-12.6	+.14	-1.2	+.01	-0.2	40.13	37.3	+.04	+0.5	✓
	-12.4	-12.3	+.09	-0.6	+.01	-0.2	40.09	38.6	.00	-0.8	✓
		-81.1	-.07	+1.7			39.99	38.5	-.10	-0.7	✓
	+16.4	+16.1	+.04	+0.7	-.01	-0.3	40.01	39.1	-.08	-1.3	✓
							40.09	37.8			
	-44.6	-44.6	-.34	-7.4			48.83	49.6	-.18	+3.5	✓
	-3.6	-3.6	-.18	-2.0			48.97	53.9	-.04	-0.8	✓
							49.23	55.8	+.22	-2.7	✓
							49.01	53.1			
186	-69.1	-69.1	+.32	+10.3	+.15	+8.6	57.05.6	46.4	+.11	-7.0	✓
	-47.9	-47.9	+.03	+0.6	+.11	+5.9	56.87	39.6	-.07	-0.2	✓
	-32.8	-32.8	-.36	+2.3	+.07	+4.1	56.60	40.4	-.34	-1.0	✓
	-12.0	-12.0	+.10	-0.2	+.03	+1.5	57.01	38.3	+.07	+1.1	✓
	-11.1	-11.1	+.41	-0.5	+.02	+1.4	57.22	37.7	+.28	+1.7	✓
	-10.9	-10.9	+.15	-0.7	+.02	+1.4	57.05	37.1	+.11	+2.3	✓
	-4.9	-4.9	+.10	+0.8	+.01	+0.6	56.92	38.7	-.02	+0.7	✓
	-2.7	-2.7	+.04	+0.6	+.01	+0.3	56.87	38.3	-.07	+1.1	✓
			-.22	-12.4			56.90	37.8	-.04	+1.6	✓
							56.94	39.4			

1 degree added to δ's

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Star	Epoch		Eph. α		Obs.	α 1900.0			Eph. δ		Obs.	δ 1900.0		
8103 7.3	K	23.7	K	23.7	1	23	1	3.28	K	23.7	1	10	8	36.9
23 1 3.49	M_1	44.9	M_1	44.9	1		1	3.29	M_1	44.9	1		8	34.0
10 8 39.3	St_1	[60.0]	St_1	60.0	2		1	3.24	St_1	60.0	2		8	36.3
			L_2	63.9	1		1	3.28	L_2	63.9	1		8	38.4
	Q	70.6.72.4	Q	70.6	4		1	3.29	Q	72.4	3		8	38.3
	L_5	80.8	Sn	77.7	11		1	3.34	Sn	77.7	11		8	39.0
	Sn	77.7	L_5	80.8	1		1	3.40	L_5	80.8	1		8	39.3
	H	92.8	H	92.8	3		1	3.49	H	92.8	3		8	39.3
8104 8.9	Sj	62.7			1	23	1	10.16			1	13	1	33.5
23 1 11.00														
13 1 35.7	H	91.8			4		1	11.00			H		1	35.7
8105 8.3	L_1	95.7	L_1	95.7	1	23	1	43.70	L_1	95.7	1	13	15	[44.4]
23 1 44.08	K	23.7	K	23.7	1		1	44.46	K	23.7	1		16	0.0
13 16 3.8	L_4	54.7	L_4	54.7	1		1	44.20	L_4	54.7	1		15	57.0
	St_2	60.0	St_2	60.0	1		1	44.13	St_2	60.0	1		15	58.0
	A	78.4.77.8	A	78.4	19		1	44.12	A	77.8	6		16	1.2
	L_5	78.6	G	78.5	18		1	44.13	G	78.5	18		16	1.1
31397	G	78.5	L_5	78.6	19		1	44.11	L_5	78.6	17		16	1.4
	D_1	81.8	D_1	81.8	1		1	44.43	D_1	81.8	1		16	5.5
	C_2	95.0	H	90.4	3		1	44.08	H	90.4	3		16	3.8
	H	90.4	C_2	95.0	3		1	44.14	C_2	95.0	3		16	3.3
	E	07.8	E	07.8	3		1	44.14	E	07.8	3		16	6.4
8106 8.9	K	22.9			2	23	1	59.99			2	12	23	19.2
	Sch	58.4			1		2	0.03			1		23	18.4
23 1 59.59	St_1	[60.0]			2		1	59.24			2		23	20.2
12 23 20.4	H	92.0			4		1	59.59			4		23	20.4

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Zones	α Ep-H.	δ	α Pos.-H.	δ	α C-H.	δ	α Adj.	δ	Δα	Δδ
186	-69.1	-69.1	-.21	-2.4	-.38	-4.1	3.11	35.2	-.20	+2.7
	-47.9	-47.9	-.20	-5.3	-.26	-2.8	3.22	35.3	-.09	+2.6
	-32.8	-32.8	-.25	-3.0	-.18	-1.9	3.29	37.0	-.02	+0.9
							3.19	37.7	-.12	+0.2
	-22.2	-20.4	-.20	-1.0	-.12	-1.2	3.38	38.9	+.07	-1.0
	-15.1	-15.1	-.15	-0.3	-.08	-0.9	3.37	39.5	+.06	-1.6
	-12.0	-12.0	-.09	0.0	-.07	-0.7	3.41	40.0	+.10	-2.1
			+.55	+5.9			3.49	39.3	+.18	-1.4
							3.31	37.9		
	-29.1	-29.1	-.84	-2.2			10.20	34.6	-.40	+0.6
							11.00	35.7	+.40	-0.5
							10.60	35.2		
13	-94.7	-94.7	-.38	-19.4	-.33	-17.2	43.75	[46.6]	-.37	ab
189	-66.7	-66.7	+.38	-3.8	+.12	-4.0	44.20	59.8	+.08	+2.4
	-35.7	-35.7	+.12	-6.8	-.05	-4.7	44.21	58.0	+.09	+4.2
	-30.4	-30.4	+.05	-5.8	-.04	-4.0	44.22	59.5	+.10	+2.7
	-12.0	-12.6	+.04	-2.6	-.02	-1.7	44.12	1.2	.00	+1.0
	-11.9	-11.9	+.05	-2.7	-.02	-1.6	44.10	1.7	-.02	+0.5
	-11.8	-11.8	+.03	-2.4	-.02	-1.5	44.12	2.1	.00	+0.1
	-8.6	-8.6	+.35	+1.7	-.01	-1.1	44.34	5.9	+.22	-3.7
			-80.7	+.13	+13.1		44.08	3.8	-.04	-1.6
	+4.6	+4.6	+.06	-0.5	+.01	+0.6	44.10	3.6	-.02	-1.4
	+17.4	+17.4	+.06	+2.6	+.02	+2.3	44.12	6.3	.00	-4.1
							44.12	2.2		
127,129	-69.1	-69.1	+.40	-1.2	+.23	-0.9	59.82	19.5	4.15	+0.5
							59.99	19.7	+.32	+0.3
	-32.0	-32.0	-.35	-0.2	+.11	-0.4	59.29	20.5	-.38	-0.5
			-.33	+1.3			59.59	20.4	-.08	-0.4
							59.67	20.0		

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Star	Epoch	Ep. α	Obs.	α 1900.0	Ep. δ	Obs.	δ 1900.0
8107 7.6.	L1 95.7	L1 95.7	1	23 2 10.58	L1 95.7	1	12 20 37.6
23 2 10.21.	K 22.9	K 22.9	2	2 10.51	K 22.9 sch	2	20 48.1
12 20 51.0.	L4 58.8, 58.9 St1 [60.0]	L4 58.8 St1 60.0	1 2	2 10.29 2 10.31	L4 58.9 St1 60.0	1 2	20 48.4 20 49.8
	A 77.9	L5 77.7	1	2 10.11	L5 77.7	1	20 47.7
31406.	G 77.9	G 77.9	5	2 10.35	G 77.9	5	20 49.3
	L5 77.7	A 77.9	10	2 10.31	A 77.9	10	20 48.8
	H 90.4	H 90.4	3	2 10.21	H 90.4	3	20 51.0
	E 07.8	E 07.8	3	2 10.20	E 07.8	3	20 49.4
8108 8.8.	M1 45.4		2	23 2 28.64		2	10 5 51.5
23 2 28.14.							
10 5 55.3.	H 90.1		3	2 28.14		3	5 55.3
8109 8.4.	L1 95.7		1	23 2 29.65		1	10 12 23.6
23 2 29.38.	M1 45.4		2	2 29.82		2	12 22.2
	L4 54.7, 59.2		1	2 29.34		2	12 24.3
10 12 25.9.	L5 78.8		2	2 29.41		2	12 25.5
	H 90.5		3	2 29.38		3	12 25.9
8110 8.7.	L1 95.7		1	23 3 6.32		1	12 8 14.4
23 3 6.76.	K 22.9		2	3 6.65		2	8 23.0
12 8 22.8.	St1 [60.0]		2	3 6.59		2	8 19.7
	Ne 63.6, 66.8		4	3 6.64		2	8 22.2
	H 91.1		3	3 6.76		3	8 22.8
8111 8.7.	L1 95.7		1	23 3 53.54		1	11 14 7.0
23 3 53.91.	K 22.9		1	3 53.86		1	14 11.1
11 14 9.5.	M1 44.9		1	3 54.05		1	14 7.4
	St1 [60.0]		1	3 53.59		1	14 6.5
	Si 62.8		1	3 53.57		1	14 7.8
	L4 67.8		1	3 54.15		1	14 10.1
	L5 80.7		1	3 53.80		1	14 6.4
	H 90.1		3	3 53.91		3	14 9.5

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Zones.	α Ep.-H.	δ	α Bs.-H.	δ	α C-H.	δ	α Adj.	δ	Δα	Δδ	
12	-94.7	-94.7	+.37	-13.4	+.32	-8.8	10.53	42.2	+.24	+6.8	✓
127,129	-67.5	-67.5	+.30	-2.9	+.13	-2.6	10.34	48.4	+.05	+0.6	✓
	-31.6	-31.5	+.08	-2.6	+.09	-2.2	10.39	49.4	+.01	= 2.8	✓
	-30.4	-30.4	+.10	-1.2	+.09	-2.1	10.36	50.4	+.07	= 0.4	✓
	-12.7	-12.7	-.10	-3.3	+.04	-0.9	10.12	48.4	-.17	+0.6	✓
	-12.5	-12.5	+.14	-1.7	+.04	-0.9	10.32	49.9	+.03	-0.9	✓
	-12.5	-12.5	+.10	-2.2	+.04	-0.9	10.31	48.8	+.02	+0.2	✓
		-81.1	-.28	+7.0			10.21	51.0	-.08	-2.0	✓
	+17.4	+17.4	-.01	-1.6	-.05	+1.2	10.18	49.3	-.11	-0.3	✓
							10.29	49.0			
	-44.7	-44.7	+.50	-3.8			28.57	52.8	+.21	+1.2	✓
							28.14	55.3	-.22	-1.3	✓
							28.36	54.0			
14	-94.8	-94.8	+.27	-2.3	+.32	+2.2	29.70	28.1	+.18	-2.3	✓
	-45.1	-45.1	+.44	-3.7	+.15	+1.0	29.75	23.5	+.23	+2.3	✓
	-35.8	-31.3	-.04	-1.6	+.12	+0.7	29.35	25.3	-.17	+0.5	✓
	-11.7	-11.7	+.03	-0.4	+.04	+0.3	29.42	26.2	-.10	-0.4	✓
			-.34	-2.3			29.38	25.9	-.14	-0.1	✓
							29.52	25.8			
12	-95.4	-95.4	-.44	-8.4	-.49	-3.8	6.27	19.0	-.29	+2.6	✓
127,129	-68.2	-68.2	-.11	+0.2	-.28	+0.5	6.48	23.3	-.08	-1.7	✓
	-31.1	-31.1	-.17	-3.1	-.15	-0.6	6.64	20.1	+.08	+1.5	✓
	-27.5	-24.3	-.12	-0.6	-.13	-0.5	6.64	23.0	+.08	-1.4	✓
		-81.8	+.47	+2.0			6.76	22.8	+.20	-1.2	✓
							6.56	21.6			
12	-94.4	-94.4	-.37	-2.5	-.42	+2.1	53.49	11.6	-.31	-2.2	✓
129	-67.2	-67.2	-.05	+1.6	-.15	+2.1	53.76	11.6	-.04	-2.2	✓
	-45.2	-45.2	+.14	-2.1	-.16	+1.2	53.98	8.7	+.18	+0.7	✓
	-30.1	-30.1	-.32	-3.0	-.11	+0.8	53.64	6.9	-.16	+2.5	✓
	-27.3	-27.3	-.34	-1.7	-.10	+0.7	53.61	8.9	-.19	+0.5	✓
	-22.3	-22.3	+.24	+0.6	-.08	+0.6	54.16	11.1	+.36	-1.7	✓
	-9.4	-9.4	-.11	-3.1	+.03	+0.2	53.81	7.1	+.01	+2.3	✓
							53.91	9.5	+.11	-0.1	✓
										53.80	

Ex mic. 9

Mean 9.4

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Star	Epoch	Ep. α	Obs.	α 1900.0	Ep. δ	Obs.	δ 1900.0	Zone
8112 8.7	L, 95.7	L, 95.7	1	23 4 [7.20]	L, 95.7	1	9 43 43.2	1
23 4 5.64	K 23.7	K 23.7	1	4 [6.38]	K 23.7	1	43 44.5	18
9 43 42.3	M, 45.8	M, 45.8	1	4 5.31	M, 45.8	1	43 38.6	
$\delta b_1^2 \cdot K^2$	B 66.9	B 66.9	4	4 5.55	B 66.9	4	43 43.2	
	Q 72.4, 74.3	Q 72.4	2	4 5.32	Q 74.3	2	43 37.3	
	M_2^2 86.3	D_1 81.8	2	4 5.90	D_1 81.8	2	43 42.2	
	D_1^2 81.8	M_2 86.3	2	4 5.59	M_2 86.3	2	43 43.4	
	C_1 89.8	C_1 89.8	3	4 5.67	C_1 89.8	3	43 44.0	
	D_2 96.9	H 92.8	3	4 5.64	H 92.8	3	43 42.3	
	H 92.8	Db 93.8	2	4 5.57	Db 93.8	2	43 44.0	
	Db 93.8	D_2 96.9	2	4 5.75	D_2 96.9	2	43 44.1	
8113 8.8	K 23.7	K 23.7	1	23 4 13.14	K 23.7	1	13 9 42.6	18
23 4 12.63	St_2 57.9	St_2 57.9	2	4 12.55	Wc 54.9	2	9 40.4	
13 9 38.5	Wc 64.8, 54.9	Sj 62.7	1	4 12.82	St_2 57.9	2	9 40.0	
μ^{12}	Sj 62.7	Wc 64.8	2	4 12.65	Sj 62.7	1	9 38.7	
	H 93.0	H 93.0	4	4 12.63	H 93.0	4	9 38.5	
8114 9.0	D_1 81.7		1	23 4 18.54		1	11 42 50.0	
23 4 18.14								
11 42 51.7	H 91.1		3	4 18.14		3	42 51.7	
8115 9.1	K ~~22.9~~ 23.3	K ~~22.9~~ 23.3	2	23 4 25.37	K ~~22.9~~ 23.3	2	12 35 16.0	127,
23 4 24.86	St_2 57.9	St_2 57.9	2	4 24.79	St_2 57.9	2	35 17.8	
12 35 19.1	Wc 61.4, 67.9	Wc 61.4	2	4 24.90	Wc 67.9	2	35 16.7	
μ^{12}	H 93.2	H 93.2	3	4 24.86	H 93.2	3	35 19.1	

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Zones.	α Ep.−H.	δ α Pos.−H.	δ	α C.−H.	δ	α Adj.	δ	Δα	Δδ	
14	−97.1	−97.1	+1.56	+0.9	+1.61	+5.4	[7.25]	47.7 [ab +1.70]	−4.6	✓
186	−69.1	−69.1	+0.74	+2.2	+.57	+0.5	[6.21] c	42.8 [ab +0.66]	+0.3 c	✓
	−47.0	−47.0	−0.33	−3.7	+.62	+1.6	5.24	39.9 −.31	+3.2	✓ A
	−25.9	−25.9	−0.09	+0.9	+.34	+0.9	5.47	45.7 −.08	−2.6	✓ A
	−20.4	−18.5	−0.32	−5.0	+.27	+0.6	5.41	37.9 −.14	+5.2	✓ A
	−11.0	−11.0	+0.26	−0.1	+.14	+0.4	5.81	42.6 +.26	+0.5	✓ A
	−6.5	−6.5	−0.05	+1.1	+.09	+0.2	5.51	43.5 −.04	−0.4	✓ A
	−3.0	−3.0	+0.03	+1.7	+.04	+0.1	5.61	43.9 +.06	−0.8	✓ A
		−83.1	−1.31	−3.5			5.64	42.3 +.09	+0.8	✓
	+1.0	+1.0	−0.07	+1.7	−.01	0.0	5.57	43.7 +.02	−0.6	✓ A
	+4.1	+4.1	+0.11	+1.8	−.05	−0.1	5.65 / 5.55	43.8 / 43.1 +.10	−0.7	✓ A
189	−69.3	−69.3	+.51	+4.1	+.25	+3.9	12.88	42.4 +.15	−1.7	✓
	−35.1	−38.1	−.08	+1.9	+.13	+2.1	12.64	41.2 −.09	−0.5	✓
	−30.3	−35.1	+.19	+1.5	+.11	+2.0	12.86	41.5 +.13	−0.8	✓
	−28.2	−30.3	+.02	+0.2	+.10	+1.7	12.65	39.8 −.08	+0.9	✓
			−.36	−5.6			12.63 / 12.43	38.5 / 40.7 −.10	+2.2	✓
	−9.4	−9.4	+.40	−1.7			18.45	50.4 +.15	+0.6	✓
							18.14 / 18.30	51.7 / 51.0 −.16	−0.7	✓
127, 189	−69.9	−69.9	+.51	−3.1	+.26	−3.1	25.12	16.0 +.18	+2.0	✓
	−35.3	−35.3	−.07	−1.3	+.13	−1.6	24.88	19.3 −.06	−1.3	✓
	−31.8	−25.3	+.04	−2.4	+.12	−1.1	24.90	17.5 −.04	+0.5	✓
			−.37	+4.4			24.86 / 24.94	19.1 / 18.0 −.08	−1.6	✓

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Star	Epoch	Eph. α	Obs. α 1900.0	Eph. δ	Obs. δ 1900.0	Zone
8116 8.7	K 23.3 ~~22.9~~		2 23 4 31.36		2 12 37 49.4	127,1
23 4 30.92	St_2 57.9		2 4 31.01		2 37 45.7	
12 37 45.4	Nc 61.7, 59.5		3 4 31.05		6 37 43.9	
	H 90.8		2 4 30.92		2 37 45.4	
8117 8.4	L_1 ~~95.7~~		1 23 4 43.40		1 11 3 31.2	12
23 4 43.82	K 22.9		1 4 43.65		1 3 35.3	12
11 3 34.4	M_1 45.8		1 4 43.60		1 3 29.9	
	St_1 [60.0]		1 4 43.84		1 3 34.2	
	H 90.9		2 4 43.82		2 3 34.4	
8119 8.6	K 23.7		1 23 5 11.07		1 13 51 8.4	18
23 5 10.58	M_1 45.8		1 5 [11.53]		1 51 8.2	
13 51 7.2	St_2 57.9		2 5 10.65		2 51 7.1	
	Q 65.5, 61.3		3 5 10.63		2 51 7.7	
	H 90.6		3 5 10.58		3 51 7.2	
	Sk 95.3		2 5 10.61		2 51 7.6	
8120 8.8	K 23.7		1 23 5 26.76		1 13 ~~54~~ 51.3	18
23 5 26.26	St_2 58.9		4 5 26.26		4 54 45.5	
13 54 46.4	Q 64.0, 64.8		4 5 26.29		3 54 46.3	
	H 93.3		2 5 26.26		2 54 46.4	
	Sk 95.3		2 5 26.34		2 54 46.4	
8121 8.8	K 23.7		1 23 5 58.25		1 9 44 58.0	18
23 5 57.67	R_1 49.0		1 5 57.60		1 44 57.8	
9 44 56.5	St_1 [60.0]		1 5 57.92		1 44 53.8	
	H 91.1		3 5 57.67		3 44 56.5	
	Db 94.1		3 5 57.74		3 44 56.5	

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zones	α Ep.−H.	δ	α Bs.−H.	δ	α G.−H.	δ	α adj.	δ	Δα	Δδ	
127,189	−67.5	−67.5	+.44	+4.0	+.19	+4.0	31.11		49.4	+.07	−2.7	✓
	−32.9	−32.9	+.09	+0.3	+.09	+1.9	31.10		47.2	+.06	−0.5	✓
	−29.1	−31.3	+.13	−1.5	+.08	+1.8	31.05		44.7	+.01	+2.0	✓
			−.28	−5.9			30.92		45.4	−.12	+1.3	✓
							31.04		46.7			
12	−95.2	−95.2	−.42	−3.2	−.47	+1.4	43.35		35.8	−.28	−1.4	✓
129	−68.0	−68.0	−.17	+0.9	−.27	+1.4	43.55		35.8	−.08	−1.4	✓
	−45.1	−45.1	−.22	−4.5	−.20	+0.8	43.53		31.2	−.18	+3.2	✓
	−30.9	−30.9	+.02	−0.2	−.14	+0.5	43.89		34.6	+.26	−0.2	✓
			−81.6	+.45	−1.7		43.82		34.4	+.19	0.0	✓
							43.63		34.4			
189	−66.9	−66.9	+.49	+1.2	+.23	+1.6	10.81		8.2	~~+.12~~ −.01	+0.1	✓
	−44.8	−44.8	+.95	+1.0	+.15	+0.7	[11.46]		9.5	~~+.64~~ ab	−1.2	✓
	−32.7	−32.7	+.07	−0.1	+.11	+0.5	10.74		8.6	~~+.05~~ −.08	−0.3	✓
	−25.1	−29.3	+.05	+0.5	+.09	+0.4	10.72		8.3	~~+.03~~ −.10	0.0	
			−.34	−1.5			10.58		7.2	~~−.11~~ −.24	+1.1	✓
	+4.7	+4.7	+.03	+0.4	−.02	−0.1	10.58		8.0	~~−.11~~ −.24	+0.3	✓
							10.69 82		8.3			
189	−69.6	−69.6	+.50	+4.9	+.24	+4.7	26.50		51.1	+.14	−3.5	✓
	−34.4	−34.4	.00	−0.9	+.12	+2.3	26.35		47.0	−.01	+0.6	✓
	−29.3	−28.5	+.03	−0.1	+.10	+1.9	26.38		46.9	+.02	+0.7	✓
			−.34	−6.8			26.26		46.4	−.10	+1.2	✓
	+2.0	+2.0	+.08	0.0	−.01	−0.1	26.31		46.8	−.05	+0.8	✓
							26.36		47.6			
186	−67.4	−67.4	+.58	+1.5	+.41	−0.2	58.08		56.3	+.25	−0.2	✓
	−42.1	−42.1	−.07	+1.3	+.26	−0.1	57.68		57.1	−.15	−1.0	✓
	−31.1	−31.1	+.25	−2.7	+.19	−0.1	57.97		54.2	+.14	+1.9	✓
			−.61	+0.3			57.67		56.5	−.16	−0.4	✓
	+3.0	+3.0	+.07	0.0	−.02	0.0	57.74		56.2	−.09	−0.1	✓
							57.83		56.1			

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Star	Epoch	Eph. α	Obs. α 1900.0	Eph. δ	Obs. δ 1900.0	Zo
8122 8.5	L_1 95.7		1 23 6 8.50		1 13 14 31.3	13
23 6 8.58	L_4 62.5, 63.4		7 6 8.68		7 14 41.0	
13 14 42.4	H 93.4		3 6 8.58		3 14 42.4	
μ ?						
8124 8.8	K 22.9		1 23 6 16.26		1 11 3 1.6	12
23 6 15.98	A 78.3, 77.8		22 6 15.97		11 3 3.9	
11 3 5.3	G 31472 78.5		18 6 16.03		18 11 3 3.6	
μ 12	L_5 78.7		14 6 15.97		12 3 3.7	
	H 91.8		3 6 15.98		3 3 5.3	
	E 08.2, 08.1		4 6 15.89		3 3 5.0	
8125 7.4	L_1 95.7	L_1 95.7	2 23 6 45.87	L_1 95.7	2 12 28 30.5	13,
23 6 45.79	K 22.9	K 22.9	2 6 46.02	K 22.9	1 28 31.3	127,
12 28 35.5	L_3 48.8	L_3 48.8	3 6 45.67	L_3 48.8	1 28 32.3	
μ 12	L_4 57.0, 57.3	L_4 57.0	1 6 45.62	L_4 57.3	2 28 33.2	
	A 77.8	Q 66.8	3 6 45.61	Q 63.8	2 28 33.2	
	Q 66.8, 63.8	A 77.8	10 6 45.73	G 77.8	10 28 32.6	
31477	G 77.8	G 77.8	10 6 45.82	A 77.8	9 28 33.0	
31478	L_5 80.0	L_5 80.0	3 6 45.65	L_5 80.0	3 28 32.7	
	H 93.3	H 93.3	4 6 45.79	H 93.3	4 28 35.5	
	E 03.8, 04.2	E 03.8	3 6 45.77	E 04.2	5 28 34.5	
8126 8.6	K 22.9		1 23 7 24.68		1 10 52 47.1	12
23 7 23.74	L_1 [60.0]		1 7 24.10		1 52 47.4	
10 52 47.8	H 90.9		2 7 23.74		2 52 47.8	
μ ?						

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Zones	α Eph.−H.	δ	α Bs.−H.	δ	α C.−N.	δ	α adj.	δ	Δα	Δδ
13	−97.7	−97.7	−.08	−11.1	−.03	−8.9	8.55	33.5	−.06	+5.8
	−30.9	−30.0	+.10	−1.4	−.01	−2.7	8.69	42.0	+.08	−2.7
			+.03	+9.1			8.58	42.4	−.03	−3.1
							8.61	39.3		
129	−68.9	−68.9	+.28	−3.7	+.18	−3.2	16.16	2.1	+.17	+2.0
	−13.5	−14.0	−.01	−1.4	+.04	−0.6	15.97	3.9	−.02	+0.2
	−13.3	−13.3	+.05	−1.7	+.03	−0.6	16.00	4.2	+.01	−0.1
	−13.1	−13.1	−.01	−1.6	+.03	−0.6	15.98	4.4	−.01	−0.3
			−.26	+4.6			15.98	5.3	−.01	−1.2
	+16.4	+16.3	−.09	−0.3	−.04	+0.7	15.87	4.9	−.12	−0.8
							15.99	4.1		
13,12	−97.6	−97.6	+.08	−5.0	+.08	−1.6	45.87	33.9	+.13	−0.3
127,129	−70.4	−70.4	+.23	−4.2	+.06	−3.9	46.85	31.6	+.11	+2.0
	−44.5	−44.5	−.12	−3.2	+.04	−1.5	45.66	32.6	−.08	+1.0
	−36.3	−36.0	−.17	−2.3	+.03	−1.2	45.63	34.2	−.11	−0.6
	−26.5	−29.5	−.18	−2.3	+.02	−1.0	45.70	33.8	−.04	−0.2
	−15.5	−15.5	−.06	−2.9	+.01	−0.5	45.73	33.2	−.01	+0.4
	−15.5	−15.5	+.03	−2.5	+.01	−0.5	45.79	33.0	+.05	+0.6
	−13.3	−13.3	−.14	−2.8	+.01	−0.4	45.66	33.4	−.08	+0.2
		−84.0	−.08	+3.3			45.79	35.5	+.05	−1.9
	+10.5	+10.9	−.02	−1.0	−.01	+0.4	45.75	34.4	+.01	−0.8
							45.74	33.6		
127	−68.0	−68.0	+.94	−0.7	+.70	−0.6	24.44	47.2	+.33	+0.4
	−30.9	−30.9	+.36	−0.4	+.32	−0.3	24.15	47.8	+.04	−0.2
			−1.03	+0.9			23.74	47.8	−.37	−0.2
							24.11	47.6		

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Star		Epoch	Ep. α	Obs.	α 1900.0	Ep. δ	Obs.	δ 1900.0	Zone
8127	8.5	L_1 95.7		1	23 7 34.03		1	13 21 57.7	1
23 7	34.34	K 23.7		1	7 34.68		1	22 4.5	18
13 21	59.8	St 57.9		2	7 34.33		2	21 58.0	
		L_4 L_5^2 58.8		1	7 34.38		1	21 57.5	
		L_5 78.8		2	7 34.35		2	21 58.9	
		H 91.5		3	7 34.34		3	21 59.8	
8128	8.8	K 23.7		1	23 7 35.69		1	13 8 24.4	18
23 7	35.35	St 57.9		2	7 35.26		2	8 24.9	
13 8	26.5	L_1^2 62.7		1	7 35.17		1	8 21.5	
		H 91.2		3	7 35.35		3	8 26.5	
8129	7.9	P 12 00.0	L_1 98.3	2	23 7 45.66	L_1 98.3	2	10 6 45.6	14,
23 7	45.91	L_1 98.3	P 00.0	4	7 45.60	P 00.0	4	6 50.4	
10 6	50.7	K 23.7	K 23.7	1	7 46.26	K 23.7	1	6 52.3	18
		M_1 45.8	Sch M_1 45.8	1	7 45.95	M_1 45.8	1	6 47.7	
			Sch L_4 58.7 60.7	2	7 45.90	Sch L_4 58.7 60.4	3	6 49.4	
		Q 72.6, 67.9	Q 72.6	4	7 45.81	Q 67.9	2	6 50.1	
	31500	G 77.8	Sn 77.7	16	7 45.82	Sn 77.7	26	6 50.7	
		L_4 60.7 L_5 60.4 78.8	G 77.8	4	7 45.83	G 77.8	4	6 49.2	
		V 84.3	L_5 78.8	2	7 45.96	L_5 78.8	2	6 49.8	
		Sn 77.7	V 84.3	4	7 45.93	V 84.3	4	6 50.6	
		H 91.8	H 91.8	4	7 45.91	H 91.8	4	6 50.7	
		E 04.3, 05.4	E 04.3	4	7 45.96	E 05.4	3	6 50.3	
8130	9.0	K 23.7		1	23 7 55.78		1	13 12 41.3	18
23 7	55.66	St 57.9		2	7 55.58		2	12 35.3	
13 12	34.1	H^2 91.4		3	7 55.66		3	12 34.1	

pi?

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Zones	α Eph.-H.	δ	α Bs.-H.	δ	α C.-H.	δ	α adj.	δ	Δα	Δδ
13	-95.8	-95.8	-.31	-2.1	-.26	+0.1	34.08	59.9	-.26	+0.4
189	-67.8	-67.8	+.34	+4.7	+.08	+4.5	34.42	4.3	+.08	-4.0
	-33.6	-33.6	-.01	-1.8	-.04	+0.9	34.42	59.5	+.08	+0.8
	-32.7	-32.7	+.04	-2.3	-.04	+0.9	34.39	58.5	+.05	+1.8
	-12.7	-12.7	+.01	-0.9	-.01	+0.4	34.36	59.6	+.02	+0.7
		-81.8	+.11	-2.8			34.34	59.8	.00	+0.5
							34.37	0.3		
189	-67.5	-67.5	+.34	-2.1	+.08	-2.3	35.43	24.2	+.09	+0.7
	-33.3	-33.3	-.09	-1.6	+.04	-1.1	35.35	26.4	+.01	-1.5
	-28.5	-28.5	-.18	-5.0	+.03	-1.0	35.21	22.6	-.13	+2.3
			-.12	+3.4			35.35	26.5	+.01	-1.6
							35.34	24.9		
14,40	-93.5	-93.5	-.25	-5.1	-.21	-1.3	45.70	49.4	-.18	+1.1
	-91.8	-91.8	-.31	+0.3	-.02	-0.8	45.71	53.6	-.17	-3.1
186	-68.1	-68.1	+.35	+1.6	+.18	-0.1	46.09	50.6	+.21	-0.1
	-46.0	-46.0	+.04	-3.0	-.01	-0.4	45.88	49.0	.00	+1.5
	-31.1	-31.4	-.01	-1.3	-.01	-0.3	45.91	50.4	-.01	+0.5
	-19.2	-23.9	-.10	-0.6	.00	-0.2	45.90	50.7	+.03	+0.1
									+.02	-0.2
	-14.1	-14.1	-.09	0.0	.00	-0.1	45.85	51.2	-.03	-0.7
	-14.0	-14.0	-.08	-1.5	.00	-0.1	45.80	49.8	-.08	+0.7
	-13.0	-13.0	+.05	-0.9	.00	-0.1	45.97	50.5	+.09	0.0
	-7.5	-7.5	+.02	-0.1	.00	-0.1	45.91	50.7	+.03	-0.2
		-80.8	+.02	+0.9			45.91	50.7	+.03	-0.2
	+12.5	+13.6	+.05	-0.4	.00	+0.1	45.94	50.2	+.06	+0.3
							45.88	50.5		
189	-67.7	-67.7	+.12	+7.2	-.14	+7.0	55.52	41.1	-.10	-3.8
	-33.5	-33.5	-.08	+1.2	-.07	+3.4	55.67	36.8	+.05	+0.5
			+.21	-10.3			55.66	34.1	+.04	+3.2
							55.62	37.3		

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Star		Epoch		Ep. α		Obs. α 1900.0		Ep. δ		Obs. δ 1900.0		Zone
8133	8.8	K	22.9	K	22.9	2	23 8 16.91	K	22.9	2	10 28 34.2	127,1
23 8	16.86	St,	[60.0]	St,	60.0	2	8 16.72	Wc	54.8	2	28 29.0	
10 28	27.8	Wc	60.3, 54.8	Wc	60.3	2	8 16.96	St,	60.0	2	28 27.5	
		L4 H	62.8 90.3	H	90.3	2	8 16.86	L4 H	62.8 90.3	1 2	28 28.5 28 27.8	
8134	8.9	Sj	62.8			1	23 8 22.80			1	11 9 35.3	
23 8	22.93											
11 9	36.9	H	89.8			3	8 22.93			3	9 36.9	
8135	8.0	L,	95.7			1	23 8 29.33			1	10 51 40.3	12
23 8	28.95	K	22.9			2	8 29.11			2	51 43.4	127,12
10 51	45.6	M,	45.8			1	8 29.22			1	51 41.4	
		St,	[60.0]			2	8 28.96			2	51 48.9	
		H	91.3			2	8 28.95			2	51 45.6	
8136	8.9	K	22.9			2	23 8 47.23			2	11 2 55.5	127,1
23 8	46.44	St,	[60.0]			1	8 46.94			1	2 53.7	
11 2	57.8	H	92.3			4	8 46.44			4	2 57.8	
8137	8.7	K	22.9			2	23 9 17.30			2	11 0 19.5	127,1
23 9	17.38	M,	45.8			1	9 17.45			1	0 14.5	
11 0	20.1	St,	[60.0]			1	9 17.33			1	0 21.7	
		H	90.4			3	9 17.38			3	0 20.1	
8139	8.1	K	23.7			1	23 9 28.95			1	10 13 55.8	18
		Sch	58.7			1	9 28.60			1	13 55.5	
23 9	28.95											
10 13	56.3	H	88.8			3	9 28.95			3	13 56.3	

For 8138 see next page.

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Zones	α Eph − H.	δ	α Pos. − H.	δ	α C − H.	δ	α adj.	δ	Δα	Δδ
127,129	−67.4	−67.4	+.05	+6.4	−.12	+6.7	16.74	34.5	−.09	−4.3
	−30.3	−35.5	−.14	+1.2	−.05	+3.5	16.77	29.8	−.06	+0.7
	−30.0	−30.3	+.10	−0.3	−.05	+3.0	16.96	29.4	+.13	+0.8
		−27.5		+0.7				29.5		+0.7
			+.18	−9.9	—	+2.7	16.86	27.8	+.03	+2.7
							16.83	30.2		
								29.9		
	−27.0	−27.0	−.13	+1.6			22.84	36.4	−.04	+0.2
							22.93	36.9	+.05	−0.3
							22.88	36.6		
12	−95.6	−95.6	+.38	−5.3	+.33	−0.7	29.28	44.9	+.21	+0.4
127,129	−68.4	−68.4	+.16	−2.2	−.01	−1.9	28.94	43.7	−.13	+1.3
	−45.5	−45.5	+.27	−4.2	+.09	−0.7	29.15	42.7	+.08	+2.6
	−31.8	−31.3	+.01	+3.3	+.06	−0.5	29.01	49.4	−.06	−4.1
		−82.0	+.20	+1.6			28.95	45.6	−.12	−0.3
							29.07	45.3		
127,129	−69.4	−69.4	+.79	−2.3	+.62	−2.0	47.06	55.8	+.23	+0.1
	−32.3	−32.3	+.50	−4.1	+.29	−0.9	46.99	54.0	+.16	+1.9
			+.89	+2.9			46.44	57.8	−.39	−1.9
							46.83	55.9		
127,129	−67.5	−67.5	−.08	−0.6	−.25	−0.3	17.13	19.8	−.19	−0.4
	−44.6	−44.6	+.07	−5.6	−.17	−0.2	17.38	15.8	+.06	+3.6
	−30.4	−30.4	−.05	+1.6	−.11	−0.1	17.38	22.1	+.06	−2.7
			+.37	+0.4			17.38	20.1	+.06	−0.7
							17.32	19.4		
186	−65.1	−65.1	.00	−0.5	−.17	−2.2	28.78	54.1	+.02	+1.6
							28.56	56.8	−.20	−1.1
		H =	+.26	+3.4			28.95	56.3	4.19	−0.6
							28.76	55.7		

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Star	Epoch	Ep. α	Obs.	α 1900.0	Ep. δ	Obs.	δ 1900.0	Zone
8138 6.4	L_1 95.7		1	23 9 27.68		1	11 13 48.7	12
23 9 27.49	K 22.9		2	9 27.88		2	13 54.9	127,12
11 13 56.5	L_3 46.8, 48.8		4	9 27.53		1	13 54.9	
	L_4 61.8		3	9 27.48		3	13 55.0	
	L_4 A 62.0 75.6		1 9	9 27.72 9 27.50		1 9	13 57.1 13 55.5	
31528,	G 77.9		5	9 27.51		5	13 55.7	
	L_5 77.9		2	9 27.36		2	13 56.6	
	H 90.8		3	9 27.49		3	13 56.5	
	E 99.5		4	9 27.44		4	13 57.0	
81411 9.0	H 89.7		2	23 10 7.53		2	13 54 8.6	
10 7.53								
23 9 ~~56.48~~								
54 8.6								
17 ~~28 33.4~~	Sk 95.3		2	10 7.65		2	54 8.3	
8142 7.9	L_1 95.7	L_1 95.7	1	23 10 8.02	L_1 95.7	1	12 6 28.8	12
95								
23 10 ~~7.53~~	A 77.9	L_4 59.4	2	10 7.90	L_4 59.1	4	6 31.6	
12 6 35.7								
~~13 54 8.6~~	G 31535, 77.8	G 77.8	5	10 8.00	G 77.8	5	6 35.2	
	59.4, 59.1							
	L_4 L_5 79.7	A 77.9	13	10 8.02	A 77.9	14	6 35.1	
		L_5 79.7	1	10 7.84	L_5 79.7	1	6 34.9	
	H 90.5	H 90.5	6	10 7.95	H 90.5	6	6 35.7	
	E 03.8	E 03.8	3	10 7.94	E 03.8	3	6 36.0	
81414 8.1	L_1 95.7	L_1 95.7	1	23 10 23.19	L_1 95.7	1	12 10 38.6	12
23 10 23.29	K 22.9	K 22.9	1	10 23.25	K 22.9	1	10 35.6	129
		L_4 "		"	L_4 59.7	1	10 37.9	
12 10 38.5	St, [60.0]	St, [60.0]	1	10 23.25	St, 60.0	1	10 37.4	
	L_4 " 59.7							
	L_5 79.7	L_5 79.7	1	10 23.22	L_5 79.7	1	10 37.4	
	H 95.5, 97.5	H 95.5	4	10 23.29	H 97.5	3	10 38.5	
8145 8.8	K 22.9		2	23 10 33.83		2	11 35 20.6	127,1
23 10 33.22	Wc 64.7, 55.5		2	10 33.35		3	35 20.0	
11 35 20.8	H 90.1		3	10 33.22		3	35 20.8	

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Zones	α Eph.−H.d.	δ Eph.−H.d.	α Bs.−H.d.	δ Bs.−H.d.	α C.−H.d.	α Adj.	δ	Δα	Δδ
12	−95.1	−95.1	+.19	−7.8	+.14	−3.2	27.63	53.3	+.11	+2.6 ✓
127,129	−67.9	−67.9	+.39	−1.6	+.22	−1.3	27.71	55.2	+.19	+0.7 ✓
	+44.0	−42.0	+.04	−1.6	+.10	−1.2	27.52	55.2	−.00	+0.7 ✓
	−29.0	−29.0	−.01	−1.5	+.06	−0.8	27.49	56.0	−.03	−0.1 ✓
							27.63	56.4	+.11	−0.5 ✓
	−15.2	−15.2	+.01	−1.6	+.03	−0.4	27.50	55.5	−.02	+0.4 ✓
	−12.9	−12.9	+.02	−0.8	+.03	−0.4	27.48	56.3	−.04	−0.4 ✓
	−12.9	−12.9	−.13	+0.1	+.03	−0.4	27.37	57.3	−.15	−1.4 ✓
		−81.5	−.22 ✓	+2.8 ✓			27.49	56.5	−.03	−0.6 ✓
	+8.7	+8.7	−.05	+0.5	−.02	+0.2	27.42 / 27.52	56.9 / 55.9	−.10	−1.0 ✓
							7.53	8.6	−.05	0.0 ✓
	+5.6	+5.6	+.12	−0.3			7.62 / 7.58	8.7 / 8.6	+.04	−0.1 ✓
12	−94.8	−94.8	+.07	−6.9	+.02	−2.3	7.97	33.4	+.03	+1.9 ✓
	−31.1	−31.4	−.05	−1.1	+.01	−0.8	7.91	35.6	−.03	−0.3 ✓
	−12.7	−12.7	+.05	−0.5	.00	−0.3	7.97	35.8	+.03	−0.5 ✓
	−12.6	−12.6	+.07	−0.6	.00	−0.3	8.02	35.1	+.08	+0.2 ✓
	−10.8	−10.8	−.11	−0.8	.00	−0.3	7.85	35.5	−.09	−0.6 ✓
			−.02 ✓	+2.4 ✓			7.95	35.7	+.01	−0.4 ✓
	+13.3	+13.3	−.01	+0.3	.00	+0.3	7.92 / 7.94	35.9 / 35.3	−.02	−0.6 ✓
12	−99.8	−99.8	−.10	+0.1	−.15	+4.7	23.14	43.2	−.08	−4.4 ✓
129	−72.6	−72.6	−.04	−2.9	−.14	−2.4	23.15	36.1	−.07	+2.7 ✓
	...	−35.8	...	−0.6	...	+0.5	...	38.9	...	−0.1 ✓
	−35.5	−35.5	−.04	−1.1	−.06	+0.5	23.30	37.9	+.08	+0.9 ✓
	−15.8	−15.8	−.07	−1.1	−.03	+0.2	23.23	38.1	+.01	+0.7 ✓
		−86.2	+.17 ✓	−1.3 ✓			23.29 / 23.22	38.5 / 38.8	+.07	+0.3 ✓
127,129	−67.2	−67.2	+.61	−0.2	+.44	+0.1	33.66	20.9	+.25	−0.1 ✓
	+25.4	−34.6	+.13	−0.8	+.17	.00	33.35	20.8	−.06	0.0 ✓
			−.65 ✓	−0.1 ✓			33.22 / 33.41	20.8 / 20.8	−.19	0.0 ✓

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Star		Epoch		Ep. α		Obs.	α 1900.0		Ep. δ		Obs.	δ 1900.0	
8146	9.4	L_1	95.7	L_1	95.7	1	23	10 34.43	L_1	95.7	1	9	37 18.8
23 10	36.42	K	23.7	K	23.7	1		10 34.95	K	23.7	1		37 23.5
9 37	23.6	M_1	45.8	M_1	45.8	1		10 35.62	M_1	45.8	1		37 22.3
		~~Hc~~	~~48.3 65.9~~	~~Hc~~	~~48.3~~	~~H~~		~~10 37.94~~	Q	65.8	1		37 23.5
		Q	65.1, 65.8	Q	65.1	3		10 35.66	~~Hc~~	~~65.9~~	~~2~~		~~37 56.0~~
		G	78.8	G	78.8	2		10 36.28	G	78.8	2		37 23.3
		M_2	88.3	M_2	88.3	2		10 36.51	M_2	88.3	2		37 24.7
		H	89.8	H	89.8	3		10 36.42	H	89.8	3		37 23.6
		Db	93.8	Db	93.8	2		10 36.51	Db	93.8	2		37 25.4
8147	7.3	L_1	95.7	L_1	95.7	1	23	10 37.98	L_1	95.7	1	13	43 44.0
23 10	38.21	K	23.7	K	23.7	1		10 38.23	K	23.7	1		43 46.9
13 43	44.6	M_1	45.8 ~~58.7~~	M_1	45.8	1		10 38.27	M_1	45.8	1		43 44.9
		St_2	57.9	St_2	57.9	2		10 37.88	St_2	57.9	2		43 44.3
		Lj_4	62.7	Lj_4	62.7	1		10 38.14	L_4	58.7	1		43 42.1
		L_5	79.3	L_5	79.3	2		10 38.16	Lj_5	62.7	1		43 41.4
		H	91.1	H	91.1	3		10 38.21	L_5	79.3	2		43 43.7
		Sk	95.3	Sk	95.3	2		10 38.20	H	91.1	3		43 44.6
		E	07.1	E	07.1	3		10 38.27	Sk	95.3	2		43 44.1
									E	07.1	3		43 44.8
8149	8.8	Lj_4	62.8			1	23	10 42.18			1	10	54 44.0
23 10	42.39												
10 54	44.8	H	91.5			3		10 42.39			3		54 44.8
8150	8.6	M_1	45.8			1	23	11 8.56			1	10	5 13.0
23 11	8.36	M_2	88.4			2		11 8.25			2		5 21.0
10 5	20.0	H	88.8			3		11 8.36			3		5 20.0

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Zones	α Zh.−Tr.	δ	α Bs.−H.	δ	α C.−H.	δ	α adj	δ	Δα	Δδ
14	-94.1	-94.1	-1.99	-4.8	-1.94	-0.3	34.48	23.3	+.29	+0.5
186	-66.1	-66.1	-1.47	-0.1	-1.64	-1.8	34.78	21.8	-.99	+2.0
	-44.0	-44.0	-0.80	-1.3	-.99	-0.6	35.55	23.6	-.22	+0.2
		-24.0		-0.1		-0.3	...	24.1	..	-0.3
	-24.7		-.76		-.55		35.75	...	-.02	
	-11.0	-11.0	-.14	-0.3	-.25	-0.1	36.25	23.9	+.48	-0.1
	-1.5	-1.5	+.09	+1.1	-.03	0.0	36.43	24.8	+.66	-1.0
		-80.1	+2.24	+1.3			36.42	23.6	+.65	+0.2
	+4.0	+4.0	+.09	+1.8	+.09	+0.1	36.51 / 35.77	25.1 / 23.8	+.74	-1.3
13	-95.4	-95.4	-.23	-0.6	-.18	+1.6	38.03	46.2	-.10	-1.3
189	-67.4	-67.4	+.02	+2.3	-.24	+2.1	37.97	46.7	-.16	-1.8
	-45.3	-45.3	+.06	+0.3	-.12	+1.0	38.20	46.2	+.07	-1.3
		-33.2		-0.3	—	+.08	...	45.8	..	-0.9
	-33.2	-32.4	-.33	-2.5	-.09	+0.7	37.97	43.1	-.16	+1.8
	-28.4	-28.4	-.07	-3.2	-.07	+0.7	38.18	42.5	+.05	+2.4
	-11.8	-11.8	-.05	-0.9	-.03	+0.3	38.17	44.4	+.04	+0.2
		-81.4	+.26	-2.3			38.21	44.6	+.08	+0.3
	+4.2	+4.2	-.01	-0.5	+.01	-0.1	38.17	44.5	+.04	+0.4
	+16.0	+16.0	+.06	+0.2	+.04	-0.4	38.25 / 38.13	44.7 / 44.9	+.12	+0.2
	-28.7	-28.7	-.21	-0.8			42.22	45.1	-.08	-0.1
							42.39 / 42.30	44.8 / 45.0	+.09	+0.2
	-43.0	-43.0	+.20	-7.0			8.49	14.3	+.15	+4.2
	-0.4	-0.4	-.11	+1.0			8.17	21.1	-.17	-2.6
							8.36 / 8.37	20.0 / 18.5	+.02	-1.5

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Star			Epoch		Ep. α		Obs.	α 1900.0		Ep. δ		Obs.	δ 1900.0		Zone
8148		4.7	L_1	95.7	L_1	95.7	2	23	10 36.80	L_1	95.7	2	9	37 52.5	14,
23	10	38.89	P_{22}	00.0	P	00.0	14		10 36.82	P	00.0	14		37 52.1	
9	37	58.4	K	23.7	K	23.7	1		10 37.39	K	23.7	1		38 0.2	18
			L_3	43.9, 38.8	L_3	43.9	8		10 37.81	L_3	38.8	3		37 56.5	
			M_1	45.8	M_1	45.8	1		10 38.20	M_1	45.8	1		37 55.3	
			Wc	48.3, 65.9	Wc	48.3	11		10 37.94						
			L_4	57.4, 58.2	L_4	57.4	3		10 38.01	L_4	58.2	2		37 56.0	
			St_1	[60.0]	St_1	60.0	2		10 38.00	St_1	60.0	2		37 54.9	
			Q	61.8, 60.0	Q	61.8	5		10 38.18	Q	60.0	7		37 56.2	
										Wc	65.9	2		37 56.0	
			A	78.4, 77.8	L_5	77.9	18		10 38.57	A	77.8	8		37 56.5	
			L_5	77.9, 77.8	A	78.4	24		10 38.60	L_5	77.8	16		37 56.5	
			G	78.6	G	78.6	18		10 38.63	G	78.6	18		37 56.8	
			V	85.4	V	85.4	4		10 38.78	V	85.4	4		37 56.1	
			C_1	90.0	C_1	90.0	3		10 38.91	C_1	90.0	3		37 58.8	
			H	90.4	H	90.4	2		10 38.89	H	90.4	2		37 58.4	
			Ht	93.8	Ht	93.8	2		10 38.98	Ht	93.8	2		37 57.7	
			E	02.1, 02.8	E	02.1	4		10 39.19	E	02.8	3		37 57.8	
8151		8.2	K	22.9			2	23	11 14.65			2	10	45 13.1	127,
23	11	15.09	St_1	[60.0]			2		11 14.80			2		45 14.6	
10	45	17.8	H	89.8			3		11 15.09			3		45 17.8	
8152		9.0	K	23.7			1	23	11 30.44			1	12	30 52.4	189
23	11	29.94	St	57.9			1		11 29.95			1		30 52.9	
12	30	52.4	H^2	90.4			3		11 29.94			3		30 52.4	
8153		8.2	K	22.9			2	23	11 52.33			2	10	54 57.7	127,
23	11	51.89	M_1	45.8			1		11 52.56			1		54 54.8	
10	54	58.2	St_1	[60.0]			2		11 52.11			2		54 57.5	
			H	90.1			3		11 51.89			3		54 58.2	

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Zones	α H.-N.	δ H.-N.	α Pos.-N.	δ G.-N.	α Adj.	δ	Δα	Δδ
14,40	-94.7	-94.7	-2.09	-5.9	-2.05	-2.1	36,84	56.3 [E1.37]		+0.7
	-90.4	-90.4	-2.07	-6.3	-2.08	-1.1	36,93	55.3 [E1.28]		+1.7
186	-66.7	-66.7	-1.50	+1.8	-1.67	+0.1	37.22	58.5	-.99	-1.5
	-46.5	-51.6	-1,08	-1.9	-1.07	-0.6	37.80	56.8	-.41	+0.2
	-44.6	-44.6	-0.69	-3.1	-1.03	-0.5	38,13	56.6	-.08	+0.4
	-42.1		-0.95		-0.97		37.94		-.27	
	-33.0	-32.2	-0.88	-2.1	-0.76	-0.4	38.02	57.0	-.19	0.0
	-30.4	-30.4	-0.89	-3.5	-0.70	-0.4	38.05	55.6	-.16	+1.4
	-28.6	-30,4	-0.71	-2.2	-0.66	-0.4	38.27	56.8	+.06	+0.2
		-24.5		-2.1	"	-0.3		56.8		+0.2
	-12.6	-12.6	-.32	-1.9	-0.29	-0.2	38.58	56.5	+.37	+0.5
	-12.0	-12.6	-.29	-1.9	-.28	-0.2	38.60	57.5	+.39	-0.5
	-11.8	-11.8	-.26	-1.6	-.27	-0.1	38.60	57.4	+.39	-0.4
	-5.0	-5.0	-.11	-2.3	-.12	-0.1	38.76	56.2	+.55	+0.8
	-0.4	-0.4	+.02	+0.4	-.01	-0.0	38.85	58.7	+.64	-1.7
		-80.7	+2.30	+1.2						
							38.89	58.4	+.68	-1.4
	+3.4	+3.4	+.09	-0.7	+.08	+0.0	38.98	57.4	+.77	-0.4
	+11.7	+2.4	+.30	-0.6	+.27	+0.1	39.17	57.4	+.96	-0.7
							38.21	57.0		
127,129	-66.9	-66.9	-.44	-4.7	-.61	-4.4	14.48	13.4	-.33	+2.0
	-29.8	-29.8	-.29	-3.2	-.27	-2.0	14.85	15.1	+.04	+0.3
			+.91	+6.6						
							15.09	17.8	+.28	-2.4
							14.81	15.4		
189	-66.7	-66.7	+.50	0.0	+.24	-0.2	30.18	52.2	+.13	+0.8
	-32.5	-32.5	+.01	+0.5	+.12	-0.1	30.04	54.4	-.01	-1.4
			-.36	+0.3						
							29.94	52.4	+.11	+0.6
							30.05	53.0		
127,129	-67.2	-67.2	+.44	-0.5	+.27	-0.2	52.16	58.0	-.02	-0.4
	-44.3	-44.3	+.67	-3.4	+.18	-0.1	52.49	56.1	+.31	+1.5
	-30.1	-30.1	+.22	-0.7	+.12	-0.1	52.16	58.0	-.02	-0.4
			-.40	+0.3						
							51.89	58.2	+.29	-0.6
							52.18	57.6		

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Star			Epoch		Ep. α		Obs. α 1900.0				Ep. δ		Obs. δ 1900.0			
8154	6.9	L1	95.7		L1	95.7	1	23	12	26.66	L1	95.7	1	12	15	27.7
23	12	26.89	K	22.9	K	22.9	1		12	27.04	K	22.9	1		15	33.2
			L4	58.9, 58.8	L4	58.9	1		12	26.70	L4	58.8	2		15	33.2
12	15	34.3	St1	[60.0]	St1	60.0	2		12	26.69	St1	60.0	2		15	33.9
			Nc	71.5, 54.8	Nc	71.5	6		12	26.89	Nc	54.8	2		15	33.2
			A	77.8	A	77.8	11		12	26.85	A	77.8	10		15	33.0
		31577	G	77.8	G	77.8	5		12	26.82	G	77.8	5		15	32.8
			L5	77.8	L5	77.8	3		12	26.83	L5	77.8	3		15	33.6
			H	89.1	H	89.1	3		12	26.89	H	89.1	3		15	34.3
			E	03.8	E	03.8	3		12	26.86	E	03.8	4		15	33.6
8155	8.2	K	23.7		K	23.7	1	23	12	31.03	K	23.7	1	13	20	30.4
23	12	30.89	St2	59.0	St2	59.0	3		12	30.66	St2	59.0	2		20	24.5
13	20	26.3	Nc	63.8, 67.4	Nc	63.8	2		12	30.79	Q	63.1	3		20	25.4
			Q	65.4, 63.1	Q	65.4	4		12	30.65	Nc	67.4	2		20	25.8
			H	89.8	H	89.8	3		12	30.89	H	89.8	3		20	26.3
8156	8.0	H	90.1				3	23	12	39.79			3	13	46	25.8
23	12	39.79														
13	46	25.8	SK	95.3			2		12	39.78			2		46	24.7
8157	8.2	K	22.9				2	23	12	39.33			2	11	48	39.0
23	12	39.81	St1	[60.0]			2		12	39.20			2		48	36.3
11	48	39.9	H	90.1			3		12	39.81			3		48	39.9
8159	9.1	K	23.7				1	23	13	35.76			1	12	41	35.3
23	13	35.59														
12	41	34.9	H	90.8, 90.4			4		13	35.59			3		41	34.9

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Zones.	α Eph.−H.δ.	α Obs.−H.δ.	α C.−H.δ.	α Adj.	δ	Δα	Δδ
12	−93.4 −93.4	−.23	−6.6 −.28	−2.0	26.61	32.3	−.20	+1.4
129	−66.2 −66.2	+.15	−1.1 +.05	−.6	26.94	33.7	+.13	0.0
	−30.2 −30.3	−.19	−1.1 −.04	−0.5	26.71	34.2	−.10	−0.5
	−29.1 −29.1	−.20	−0.4 −.04	−0.5	26.74	34.6	−.07	−0.9
	−17.6 −34.3	.00	−1.1 −.02	−0.5	26.89	34.0	+.08	−0.3
	−11.3 −11.3	−.04	−1.3 −.02	−0.2	26.85	33.0	+.04	+0.7
	−11.3 −11.3	−.07	−1.5 −.02	−0.2	26.79	33.4	−.02	+0.3
	−11.3 −11.3	−.06	−0.7 −.02	−0.2	26.84	34.3	+.03	−0.6
	−79.8	+.14	+1.6		26.89	34.3	+.08	−0.6
	+14.7 +14.7	−.03	−0.7 +.02	+0.2	26.84 / 26.81	33.5 / 33.7	+.03	+0.2
189	−66.1 −66.1	+.14	+4.1 −.12	+3.9	30.77	30.2	−.02	−3.3
	−30.8 −30.8	−.23	−1.8 −.06	+1.8	30.75	26.0	−.04	+0.9
	−26.0 −26.7	−.10	−0.9 −.05	+1.6	30.79	26.0	.00	+0.9
	−24.4 −22.4	−.24	−1.0 −.04	+1.3	30.74	26.1	−.05	+0.8
		+.18	−5.9		30.89 / 30.79	26.3 / 26.9	+.10	+0.6
					39.79	25.8	+.02	−0.4
	+5.2 +5.2	−.01	−1.1		39.75 / 39.77	25.1 / 25.4	−.02	+0.3
127, 129	−67.2 −67.2	−.48	−0.9 −.65	−0.6	39.16	39.3	−.25	−0.6
	−30.1 −30.1	−.61	−3.6 −.29	−0.3	39.25	36.8	−.16	+1.9
		+.97	+0.9		39.81 / 39.41	39.9 / 38.7	+.40	−1.2
189	−67.1 −66.7	+.17	+0.4 −.09	+0.2	35.50	35.1	−.04	−0.1
					35.59 / 35.54	34.9 / 35.0	+.05	+0.1

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Star	Epoch	Ep. α	Obs.	α 1900.0	Ep. δ	Obs.	δ 1900.0	Zon
8158 4.9	L1 98.3	L1 98.3	2	23 12 42.59	L1 98.3	2	9 43 37.9	40
23 12 42.39	P 33 00.0	P 00.0	6	12 42.50	P 00.0	6	43 37.6	
9 43 44.0	K 23.7	K 23.7	1	12 42.72	K 23.7	1	43 42.8	18
	R1 49.0	M1 45.8	2	12 42.54	L3 37.7	1	43 44.7	
↓	L3 46.1, 37.7	L3 46.1	11	12 42.33	M1 45.8	2	43 41.2	
	M1 45.8	R1 49.0	1	12 42.37	R1 49.0	1	43 42.7	
	L4 56.8	Nc 51.6	10	12 42.42	L4 56.8	2	43 42.1	
	St1 [60.0]	L4 56.8	2	12 42.28	St1 60.0	2	43 42.9	
↓	Nc 51.6, 64.5	St1 60.0	2	12 42.15	Nc 64.5	6	43 41.2	
↓	Q 60.2, 66.8	Q 60.2	5	12 42.33	Q 66.8	4	43 42.3	
	L5 78.8	L5 78.8	2	12 42.34	L5 78.8	2	43 41.7	
	V 85.3	G 79.6	4	12 42.30	G 79.6	4	43 41.6	
31585	G 79.6	Sn 80.0	6	12 42.32	Sn 80.0	8	43 42.6	
	Sn 80.0	V 85.3	4	12 42.28	V 85.3	4	43 40.2	
	H 90.4	H 90.4	3	12 42.39	H 90.4	3	43 44.0	
	Db 93.7	Db 93.7	2	12 42.36	Db 93.7	2	43 42.4	
	E 99.8	E 99.8	3	12 42.40	E 99.8	3	43 43.1	
8160 8.6	K 22.9		1	23 13 41.45		1	12 20 47.0	1
23 13 40.94	St1 [60.0]		1	13 41.15		1	20 50.1	
12 20 48.6	Sj 62.8		1	13 40.79		1	20 47.5	
	H 91.6		4	13 40.94		4	20 48.6	
8163 9.4	Sj 62.8		1	23 13 49.67		1	9 36 21.6	
23 13 49.87	H 89.8		3	13 49.87		3	36 23.9	
9 36 23.9	Db 93.7		2	13 49.88		2	36 23.4	

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Zones.	α Ep.-H.	δ	α Bs.-H.	δ	α C.-H.	δ	α Adj.	δ	$\Delta\alpha$	$\Delta\delta$
40,14	-92.1	-92.1	+.20	-6.1	+.24	-2.3	42.63	41.7	+.23	+0.8
	-90.4	-90.4	+.11	-6.4	+.23	-3.0	42.61	40.7	+.21	+1.8
186	-66.7	-66.7	+.33	-1.2	+.16	-2.9	42.55	41.1	+.15	+1.4
	-44.6	-52.7	+.15	+0.7	+.11	-1.7	42.47	45.0	+.07	-2.5
	-44.3	-44.6	-.06	-2.8	+.11	-1.5	42.32	42.5	-.08	0.0
	-41.4	-41.4	-.02	-1.3	+.10	-1.4	42.45	42.0	+.05	+0.5
	-38.8	-33.6	+.03	-1.9	+.10	-1.1	42.42	43.1	+.02	-0.6
	-33.6	-30.4	-.11	-1.1	+.08	-1.0	42.29	43.6	-.11	-1.1
	-30.4	-25.9	-.24	-2.8	+.08	-0.9	42.20	42.0	-.20	+0.5
	-30.2	-23.6	-.06	-1.7	+.08	-0.8	42.42	42.9	+.02	-0.4
	-11.6	-11.6	-.05	-2.3	+.03	-0.4	42.35	42.4	-.05	+0.1
	-10.8	-10.8	-.09	-2.4	+.03	-0.4	42.27	42.2	-.13	+0.3
	-10.4	-10.4	-.07	-1.4	+.03	-0.3	42.35	43.1	-.05	-0.6
	-5.1	-5.1	-.11	-3.8	+.01	-0.2	42.26	40.3	-.14	+2.2
		-79.4	-.25	+3.3			42.39	44.0	-.01	-1.5
	+3.3	+3.3	-.03	-1.6	-.01	+0.1	42.36	42.1	-.04	+0.4
	+9.4	+9.4	+.01	-0.9	-.02	+0.3	42.38	43.0	-.02	-0.5
							42.40	42.5		
127	-68.7	-68.7	+.51	-1.6	+.27	-1.5	41.21	47.1	+.17	+1.6
	-31.6	-31.6	+.21	+1.5	+.12	-0.7	41.20	50.5	+.16	-1.8
	-28.8	-28.8	-.15	-1.1	+.11	-0.6	40.83	48.6	-.21	+0.1
			-.39	+2.2			40.94	48.6	-.10	+0.1
							41.04	48.7		
	-27.0	-27.0	-.20	-2.3			49.71	22.7	-.11	+0.5
							49.87	23.9	+.05	-0.7
	+3.9	+3.9	+.01	-0.5			49.88	23.1	+.06	+0.1
							49.82	23.2		

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Star	Epoch	Ep. α	Obs.	α 1900.0	Ep. δ	Obs.	δ 1900.0
8161 5.7	L_1 98.3	L_1 98.3	2	23 13 45.33	L_1 98.3	2	10 9 23.0
23 13 45.55	P_{40} 00.0	P 00.0	5	13 45.34	P 00.0	6	9 22.8
10 9 26.5	K 23.7	K 23.7	1	13 45.66	K 23.7	1	9 28.3
	R_1 49.0	M_1 45.8	2	13 45.54	L_3 43.3	8	9 26.9
	L_3 46.5, 43.3	L_3 46.5	25	13 45.46	M_1 45.8	2	9 26.0
	M_1 45.8	R_1 49.0	2	13 45.53	R_1 49.0	2	9 23.4
	L_4 55.1, 56.8	Wc 50.6	17	13 45.48	Wc 52.2	11	9 26.7
	St$_1$ [60.0]	L_4 55.1	2	13 45.43	L_4 56.8	2	9 27.8
	Sch	Sch 58.7	1	13 45.62 Sch	58.7	1	9 26.5
	Wc 50.6, 52.2	St$_1$ 60.0	2	13 45.37	St$_1$ 60.0	2	9 25.6
31601	G 77.8	Q 65.7	3	13 45.44	Q 63.4	3	9 26.9
	Q 65.7, 63.4	G 77.8	5	13 45.56	G 77.8	5	9 25.9
	A 77.8	A 77.8	7	13 45.52	A 77.8	8	9 25.6
	L_5 77.8	L_5 77.8	1	13 45.49	L_5 77.8	1	9 27.1
	H 88.8	Sn 80.0	2	13 45.49	Sn 80.0	H	9 27.2
	V 85.8	V 85.8	4	13 45.63	V 85.8	4	9 25.8
	Sn 80.0	H 88.8	3	13 45.55	H 88.8	3	9 26.5
	E_0 02.7, 03.1	E_0 02.7	6	13 45.61	E_0 03.1	7	9 27.0
8162 7.6	L_1 95.7	L_1 95.7	1	23 13 49.22	L_1 95.7	1	12 42 58.1
23 13 48.98	K 23.2	K 23.2	3	23 13 49.33	K 23.2	3	12 43 3.1
12 43 3.2	L_3 40.8, ..	L_3 40.8	1	13 48.98	L_3 ..	..	..
	L_4 61.8, 58.3	St$_2$ 57.9	2	13 49.10	St$_2$ 57.9	2	43 2.9
31603	G 77.8	L_4 61.8	1	13 49.09	L_4 58.3	2	43 1.5
	St$_2$ 57.9	G 77.8	5	13 49.12	G 77.8	5	43 1.9
	A 77.8	A 77.8	11	13 49.11	A 77.8	7	43 2.5
	L_5 79.8	L_5 79.8	1	13 49.04	L_5 79.8	1	43 2.0
	H 89.1	H 89.1	3	13 48.98	H 89.1	3	43 3.2
	E 08.1	E_0 08.1	3	13 49.07	E_0 08.1	3	43 2.2

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Zones	α Eph.−N.	δ α Bs.−N.	δ	α C.−N.	δ	α Adj	δ	Δα	Δδ
40,14	−90.5	−90.5	−.22	−3.5	−.18	+0.3	45.37	26.8	−.14	−0.1 ✓
	−88.8	−88.8	−.21	−3.7	−.13	+0.3	45.45	25.9	−.06	+0.8 ✓
186	−65.1	−65.1	+.11	+1.8	−.06	+0.1	45.49	26.6	−.02	+0.1 ✓
	−43.0	−45.5	−.01	+0.4	−.06	+0.1	45.47	27.2	−.04	−0.5 ✓
	−42.3	−43.0	−.09	−0.5	−.06	+0.1	45.45	27.3	−.06	−0.6 ✓
	−39.8	−39.8	−.02	−3.1	−.06	+0.1	45.61	22.7	+.10	+4.0 ✓
	−38.2	−36.6	−.07	+0.2	−.06	+0.1	45.48	27.5	−.03	−0.8 ✓
	−33.7	−32.0	−.12	+1.3	−.05	+0.1	45.44	28.8	−.07	−2.1 ✓
							45.58	27.8	+.04	−1.1 ✓
	−28.8	−28.8	−.18	−0.9	−.04	+0.1	45.42	26.3	−.09	+0.4 ✓
	−23.1	−25.4	−.11	+0.4	−.03	+0.1	45.53	27.5	+.02	−0.8 ✓
	−11.0	−11.0	+.01	−0.6	−.02	+0.0	45.53	26.5	+.02	+0.2 ✓
	−11.0	−11.0	−.03	−0.9	−.02	+0.0	45.52	25.6	+.01	+1.1 ✓
	−11.0	−11.0	−.06	+0.6	−.02	+0.0	45.50	27.8	−.01	−1.1 ✓
	−8.8	−8.8	−.06	+0.7	−.01	+0.0	45.52	27.7	+.01	−1.0 ✓
	−3.0	−3.0	+.08	−0.7	−.00	+0.0	45.61	25.9	+.10	+0.8 ✓
	−77.8		+.15	−0.3			45.55	26.5	+.04	+0.2 ✓
	+13.9	+14.3	+.06	+0.5	+.02	0.0	45.59	26.9	+.08	−0.2 ✓
							45.51	26.4		
12	−93.4	−93.4	+.24	−5.1	+.19	−0.5	49.17	2.7	+.09	+0.2 ✓
{127,129,189}	−65.9	−65.9	+.35	−0.1	+.15	0.0	49.13	3.2	+.05	−0.3 ✓
	−48.3	"	.00	"	+.10	"	48.97	"	−.11	" ✓
	−31.2	−31.2	+.12	−0.3	+.07	−0.1	49.19	4.4	+.11	−1.5 ✓
	−27.3	−30.8	+.11	−1.7	+.06	−0.1	49.10	2.5	+.02	+0.4 ✓
	−11.3	−11.3	+.14	−1.3	+.02	−0.0	49.09	2.5	+.01	+0.4 ✓
	−11.3	−11.3	+.13	−0.7	+.02	−0.0	49.11	2.5	+.03	+0.4 ✓
	−9.3	−9.3	+.06	−1.2	+.02	−0.0	49.05	2.7	−.03	+0.2 ✓
	−79.6		−.21	+0.3			48.98	3.2	−.10	−0.3 ✓
	+19.0	+19.0	+.09	−1.0	−.04	+0.1	49.05	2.1	−.03	+0.8 ✓
							49.08	2.9		

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Star		Epoch		Ep. α		Obs.	α 1900.0		Ep. δ		Obs.	δ 1900.0		Zone
8164	8.9	H	92.0			4	23 13 50.58				4	13 38 5.4		
23	13 50.58													
13	38 5.4	St	95.3			2	13 50.60				2	38 4.1		
8165	8.5	L_1	95.7	L_1	95.7	1	23 14 27.35		L_1	95.7	1	10 13 21.3		1
23	14 27.19	K	23.7	K	23.7	1	14 27.55		K	23.7	1	13 27.0		18
10	13 25.7	M	45.8	M	45.8	1	14 27.44		M	45.8	1	13 25.9		
		L_4	59.9, 59.1	L_4	59.9	1	14 27.15		L_4	59.1	3	13 25.0		
		St	[60.0]	St	[60.0]	1	14 27.38		St	[60.0]	1	13 26.9		
		Q	65.1, 68.5	Q	65.1	3	14 27.10		Q	68.5	3	13 26.1		
		L_5	79.8	L_5	79.8	1	14 27.00		L_5	79.8	1	13 24.9		
		H	90.1	H	90.1	3	14 27.19		H	90.1	3	13 25.7		
8166	8.7	K	22.9			1	23 15 15.40				1	11 21 55.9		12
23	15 14.77	St	[60.0]			2	15 14.84				2	22 1.0		
11	22 2.0	H	91.3, 92.1			4	15 14.77				4	22 2.0		
8167	7.8	L_1	95.7	L_1	95.7	1	23 15 40.09		L_1	95.7	1	11 4 42.7		1
23	15 40.39	K	22.9	K	22.9	2	15 40.37		K	22.9	2	4 ~~53.0~~ 47.0		127,1
11	4 47.9	M	45.8	M	45.8	1	15 40.48		M	45.8	1	4 41.3		
		St	[60.0]	St	60.0	2	15 40.28		St	60.0	2	4 44.9		
				L_4	67.8	1	15 40.54		L_4	67.8	1	4 46.7		
		A	75.5, 75.3	A	75.3	17	15 40.45		A	75.3	16	4 47.0		
31639		L_4G	67.8, 77.8	G	77.8	5	15 40.37		G	77.8	5	4 46.9		
		L_5	77.8	L_5	77.8	3	15 40.39		L_5	77.8	3	4 47.6		
		H	90.1	H	90.1	3	15 40.39		H	90.1	3	4 47.9		
		E	05.5	E	05.5	3	15 40.49		E	05.5	3	4 48.1		
8168	8.4	K	23.7			1	23 16 1.28				1	13 22 41.7		18
23	16 0.85	St_2	57.9			2	16 0.65				2	22 38.7		
13	22 39.4	Q	66.9, 65.8			2	16 0.87				2	22 39.7		
		H	89.8			3	16 0.85				3	22 39.4		

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zones	α Ep-H.	δ	α Bs.-H.	δ	α C.-H.	δ	α Adj.	δ	Δα	Δδ
							50.58	5.4	.00	−0.4
	+3.3	+3.3	+.02	−1.3			50.57	4.5	−.01	+0.5
							50.58	5.0		
14	−94.4	−94.4	+.16	−4.4	+.21	+0.1	27.40	25.8	+.19	+0.6
186	−66.4	−66.4	+.36	+1.3	+.19	−0.4	27.38	25.3	+.17	+1.1
	−44.3	−44.3	+.25	+0.2	+.11	−0.1	27.37	27.2	+.16	−0.8
	−30.2	−31.0	−.04	−0.7	+.08	−0.1	27.16	26.0	−.44	−1.8
	−30.1	−30.1	+.19	+1.2	+.08	−0.1	27.43	27.3	+.22	+0.4
									−.05	−0.9
	−25.0	−21.6	−.09	+0.4	+.06	−0.0	27.19	26.7	−.02	−0.3
	−10.3	−10.3	−.19	−0.8	+.03	−0.0	27.01	25.6	−.20	+0.8
	−80.4		−.25	+0.2			27.19	25.7	−.02	+0.7
							27.21	26.4		
127	−68.4	−69.2	+.63	−6.1	+.39	−6.0	15.16	56.0	+.22	+3.8
	−31.3	−32.1	+.07	−1.0	+.18	−2.8	14.89	1.4	−.05	−1.6
			−.57	+8.7			14.77	2.0	−.17	−2.2
							14.94	59.8		
12	−94.4	−94.4	−.30	−5.2	−.35	−0.6	40.04	47.3	−.32	+0.2
127,129	−67.2	−67.2	−.02	+5.1	−.19	+5.4	40.20	53.3	−.16	−5.8
	−44.3	−44.3	+.09	−6.6	−.15	+1.3	40.41	42.6	+.05	+4.9
	−30.1	−30.1	−.11	−3.0	−.10	+0.9	40.33	45.5	−.03	+2.8
	−22.3	−22.3	+.15	−1.2	−.07	+0.2	40.55	47.7	+.19	−0.2
	−14.6	−14.8	+.06	−0.9	−.05	+0.4	40.45	47.0	+.09	+0.5
	−12.3	−12.3	−.02	−1.0	−.04	+0.4	40.34	47.5	−.02	0.0
	−12.3	−12.3	.00	−0.3	−.04	+0.4	40.40	48.3	+.04	−0.8
	−80.8		+.33	−3.0			40.39	47.9	+.03	−0.4
	+15.4	+15.4	+.10	+0.2	+.05	−0.5	40.47	48.0	+.11	−0.5
							40.36	47.5		
189	−66.1	−66.1	+.43	+2.3	+.17	+2.1	1.02	41.5	+.13	−1.1
	−31.9	−31.9	−.20	−0.7	+.08	+1.0	0.74	40.2	−.15	+0.2
	−22.9	−24.0	+.02	+0.3	+.06	+0.8	0.96	40.3	+.07	+0.1
			−.26	−3.2			0.85	39.4	−.04	+1.0
							0.89	40.4		

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Star			Epoch		Ep. α	Obs.	α 1900.0			Ep. δ	Obs.	δ 1900.0			Zone
8169	7.6.	L_1	95.7			1.	23	16	1.58.		1.	13	49	3.6.	1
23	16	1.70.	K	23.7.		1.		16	1.91.		1.		49	5.6.	18
13	49	3.2.	L_3	41.8, ..		3.		16	1.73.	..	..			..	
			M_1	45.8.		1.		16	1.87.		1.		48	56.1.	
			L_4	56.9		1.		16	1.65.		1.		49	1.8.	
			St_2	57.9.		2.		16	1.72.		2.		49	2.1.	
			L_5	78.8		2.		16	1.84.		2.		49	1.9.	
			H	90.1.		3.		16	1.70.		3.		49	3.2.	
			Sk	95.3.		2.		16	1.82.		2.		49	2.2.	
8170	8.6.	K	22.9.			2.	23	16	31.68.		2.	11	24	27.8.	127,
23	16	31.75.	St_1	[60.0].		2.		16	31.60.		2.		24	26.7.	
11	24	31.0.	H	89.7, 88.7		3.		16	31.75.		2.		24	31.0.	
8171	7.4.	L_1	95.7.			1.	23	16	38.43.		1.	12	59	43.2.	
23	16	38.77.	L_3	43.7.		2.		16	38.94.		4.		59	50.2.	
12	59	49.3.	L_4	.. 59.7.	..	..			..		1.		59	48.4.	
			Q	~~46.2~~ ~~63.8~~, 63.0		4.		16	38.79		4.		59	49.2.	
			L_5	79.8.		4.		16	38.78.		4.		59	49.2.	
			H	90.4.		3.		16	38.77.		3.		59	49.3.	
			E	07.1.		3.		16	38.75.		3.		59	48.9.	
8172	7.6.	L_1	95.7.			1.	23	16	39.42.		1.	10	18	30.5.	1
23	16	39.37.	M_1	45.8.		2.		16	39.68.		2.		18	31.4.	
			Schw	58.7.		1.		16	39.44.		1.		18	33.0.	
10	18	33.2.	L_2	62.8.		1.		16	39.36.		1.		18	30.5.	
			L_5	80.8.		3.		16	39.30.		3.		18	31.7.	
			H	89.5.		3.		16	39.37.		3.		18	33.2.	
			E	07.9.		3.		16	39.31.		3.		18	33.6.	

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Zones	α Ep-H.	δ	α Pos.-H.	δ	α G.-H.	δ	α adj.	δ	Δα	Δδ
13	-94.4	-94.4	-.12	+0.4	-.07	+2.6	1.63	5.8	-.10	-2.9
189	-66.4	-66.4	+.21	+2.4	-.05	+2.2	1.65	5.4	+.08	-2.5
	-48.3	"	+.03	"	-.03	"	1.72	"	-.01	"
	-44.3	-44.3	+.17	-7.1	-.03	+1.3	1.80	57.4	+.07	+5.5
	-33.2	-33.2	-.05	-1.4	-.02	+1.0	1.66	2.8	-.07	+0.1
	-32.2	-32.2	+.02	-1.1	-.02	+1.0	1.81	3.6	+.08	-0.7
	-11.3	-11.3	+.14	-1.3	-.01	+0.3	1.85	2.6	+.12	+0.3
		-80.4	+.07	-3.0			1.70	3.2	-.03	-0.3
	+5.2	+5.2	+.12	-1.0	.00	-0.2	1.79 / 1.73	2.6 / 2.9	+.06	+0.3
127, 129	-66.8	-65.8	-.07	-3.2	-.24	-2.9	31.51	28.1	-.13	+0.6
	-29.7	-28.7	-.15	-4.3	-.11	-1.3	31.65	27.1	+.01	+1.6
			+.36	+4.4			31.75 / 31.64	31.0 / 28.7	+.11	-2.3
13	-94.7	-94.7	-.34	-6.1	-.29	-3.9	38.48	45.4	-.28	+3.6
	-46.7	-46.7	+.17	+0.9	-.14	+1.9	38.93	50.5	+.18	-1.5
	"	-30.7	"	-0.9	"	-1.3	...	49.4	"	-0.4
	-24.2	-27.4	-.45	-0.1	-.08	-1.1	38.88	49.8	+.12	-0.8
	-10.6	-10.6	+.01	-0.1	-.03	-0.4	38.79	49.9	+.03	-0.9
			+.31	+4.1			38.77	49.3	+.01	-0.3
	+16.7	+16.7	-.02	-0.4	+.05	+0.7	38.73 / 38.76	48.8 / 49.0	+.03	+0.2
14	-93.8	-93.8	+.05	-2.7	+.10	+1.8	39.47	35.0	+.06	-1.8
	-43.7	-43.7	+.31	-1.8	+.05	+0.8	39.61	32.7	+.20	+0.5
							39.40	34.3	-.01	-1.1
	-26.7	-26.7	-.01	-2.7	+.03	+0.5	39.40	31.6	-.01	+1.6
	-8.7	-8.7	-.07	-1.5	+.01	+0.2	39.31	32.4	-.10	+0.8
			-.11	-1.9			39.37	33.2	-.04	0.0
	+18.4	+18.4	-.06	+0.4	-.02	-0.3	39.29 / 39.41	33.5 / 33.2	-.12	-0.3

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Star		Epoch		Ep. α	Obs.	α 1900.0		Ep. δ	Obs.	δ 1900.0		Zone
8175	8.7	L_1	95.7		1	23 17 18.09			1	13 20 40.4		13
23 17	18.74	S_j	62.7		1	17 18.60			1	20 39.1		
13 20	41.8	H	89.8		4	17 18.74			4	20 41.8		
8176	8.1	L_1	95.7	L_1 95.7	1	23 17 46.87		L_1 95.7	1	11 19 30.9		12
23 17	49.64	P_{6H}	00.0	P 00.0	4	17 47.36		P 00.0	4	19 33.4		
11 19	15.3	K	22.9	K 22.9	2	17 48.03		K 22.9	2	19 32.8		127,1
		L_{4H}	54.6, 54.9	Sch L_4 54.6 587	1	17 17 48.53		L_4 54.9	1	19 24.0		
		St_1	[60.0]	Wc 58.8	4	17 48.74		Wc 55.5	3	19 23.8		
								Sch 58.7	1	19 19.3		
		Wc	58.8, 55.5	St_1 60.0	2	17 48.78		St_1 60.0	2	19 25.8		
		A	78.3, 77.8	A 78.3 77.8	23	17 49.32		A 77.8	9	19 17.5		
	31680	G	78.5	G 78.5	17	17 49.32		G 78.5	17	19 17.3		
		L_5	78.6, 78.5	L_5 78.6	18	17 49.28		L_5 78.5	16	19 17.2		
		C_1	90.0	H 89.5	3	17 49.64		H 89.5	3	19 15.3		
		H	89.5	C_1 90.0	3	17 49.74		C_1 90.0	3	19 16.8		
		E	07.8	E 07.8	3	17 50.16		E 07.8	3	19 10.6		
8177	8.1	L_1	95.7	L_1 95.7	1	23 18 6.30		L_1 95.7	1	9 55 57.6		1
23 18	6.03	K	23.7	K 23.7	1	18 6.43		K 23.7	1	56 1.8		18
9 56	0.0	L_3	48.8	M_1 45.8	2	18 6.05		M_1 45.8	2	55 58.3		
		M_1	45.8	L_3 48.8	3	18 6.08		L_3 48.8	1	55 59.8		
		L_4	64.8, 61.9	Sch 58.7 St_1 60.0	1 2	18 6.24 5.99		Sch 58.7 St_1 60.0	1 2	55 58.0 56 2.7		
		SA_1	[60.0]	S_j 63.0	1	18 5.93		L_4 61.9	6	55 59.4		
		S_j	63.0	L_4 64.8	4	18 6.11		S_j 63.0	1	55 59.7		
		A	77.8	A 77.8	10	18 6.04		A 77.8	11	56 0.0		
		L_5	78.7	G 77.8	5	18 6.08		G 77.8	5	56 0.0		
	31686	G	77.8	L_5 78.7	2	18 6.05		L_5 78.7	2	56 0.6		
		H	89.8	H 89.8	3	18 6.03		H 89.8	3	56 0.0		
		E	07.8	E 07.8	3	18 5.98		E 07.8	3	56 1.2		

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Zones.	α Zh.−H.	δ	α Bs.−H.	δ	αG.−H.	δ	α adj.	δ	Δα	Δδ
13	-94.1	-94.1	-.65	-1.4	-.60	+0.8	18.14	42.6	+.37	-1.1
	-27.1	-27.1	-.14	-2.7	-.17	+0.2	18.64	40.2	+.13	+1.3
			+.64	-0.8			18.74	41.8	+.23	-0.3
							18.51	41.5		
12	-93.8	-93.8	-2.77	+15.6	-2.82	+20.2	46.82	35.5	[-1.98]	[+2.6]
	-89.5	-89.5	-2.28	+18.1	-2.57	+21.2	47.47	36.5	[-1.33]	[+3.6]
127,129	-66.6	-66.6	-1.61	+17.5	-1.78	+17.8	47.86	33.1	-.94	[+0.2]
	-34.9	-34.6	-1.11	+8.7	-1.00	+8.2	48.54	25.0	-.26	-2.1
	-30.7	-34.0	-0.90	+8.5	-0.88	+8.1	48.74	24.6	-.08	+2.3
								20.6	-.06	
	-29.5	-29.5	-0.86	+10.5	-0.85	+7.0	48.83	26.3	+.03	-3.4
	-11.2	-11.7	-0.32	+2.2	-0.32	+2.8	49.32	17.5	+.52	+5.4
	-11.0	-11.0	-0.32	+2.0	-0.32	+2.6	49.29	17.9	+.49	+5.0
	-10.9	-11.0	-0.36	+1.9	-0.31	+2.6	49.29	17.9	+.49	+5.0
		-80.2	+2.87	-23.7			49.64	15.3	+.84	+7.6
	+0.5	+0.5	+.10	+1.5	+.01	-0.1	49.68	16.7	+.88	+6.2
	+18.3	+18.3	+0.52	-4.7	+.53	-4.3	50.14	10.5	[+1.34]	[+12.4]
							48.80	22.9		
14	-94.1	-94.1	+.27	-2.4	+32	+2.1	6.35	2.1	+.26	+1.4
186	-66.1	-66.1	+40	+1.8	+.23	+0.1	6.26	0.0	+.17	+0.6
	-44.0	-44.0	+.02	-1.7	+.15	+0.6	5.98	59.6	-.11	+1.1
	-41.0	-41.0	+.05	-0.2	+.14	+0.6	6.07	0.1	-.02	+0.6
							6.20	59.3	+.11	+1.4
	-29.8	-29.8	-.04	+2.7	+.10	+0.4	6.04	3.2	-.05	-2.5
	-26.8	-27.9	-.10	-0.6	+.09	+0.4	5.97	0.4	-.12	+0.3
	-25.0	-26.8	+.08	-0.3	+.08	+0.4	6.12	0.8	+.03	-0.1
	-12.0	-12.0	+.01	0.0	+.04	+0.2	6.04	0.0	-.05	+0.7
	-12.0	-12.0	+.05	0.0	+.04	+0.2	6.05	0.6	-.04	+0.1
	-11.1	-11.1	+.02	+0.6	+.04	+0.2	6.06	1.3	-.03	-0.6
		-80.1	-.34	-1.4			6.03	0.0	-.06	+0.7
	+18.0	+18.0	-.05	+1.2	-.06	-0.3	5.96	1.1	-.13	-0.4
							6.09	0.7		

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Star	Epoch	Ep. α	Obs. α 1900.0	Ep. δ	Obs. δ 1900.0	Zone
8178 8.7	K 23.7		1 23 19 6.11		1 13 20 (10.1)	18
23 19 5.69	St_2 57.9		2 19 5.63		2 19 58.9	
13 19 56.8	Q 73.2, 68.2		3 19 5.62		1 19 59.3	
K.	H 89.5		4 19 5.69		4 19 56.8	
8180 8.0	K 22.9		2 23 20 36.08		2 11 42 19.6	127,1
23 20 36.17	St_1 [60.0]		2 20 36.16		2 42 20.8	
11 42 19.4	H 88.8		4 20 36.17		4 42 19.4	
8181 7.8	L_1 95.7	L_1 95.7	1 23 21 7.49	L_1 95.7	1 13 30 0.7	1
23 21 7.27	P_{79} 00.0	P 00.0	4 21 7.37	P 00.0	4 30 0.6	
13 30 2.7	K 23.7	K 23.7	1 21 7.55	K 23.7	1 30 4.9	18
	St_2 57.9	St_2 57.9	2 21 7.23	St_2 57.9	2 30 3.5	
	L_4 59.8, 61.0	L_4 59.8	3 21 7.28	L_4 61.0	4 30 1.8	
	S_j 62.7	S_j 62.7	1 21 7.28	S_j 62.7	1 30 2.7	
	G 81.9	G 79.3	4 21 7.32	G 79.3	4 30 1.3	
31742	G 79.3	A 81.9	1 21 7.30	A 81.9	1 30 0.4	
	H 93.0	H 93.0	4 21 7.27	H 93.0	4 30 2.7	
8183 8.5	L_1 95.7	L_1 95.7	1 23 21 25.05	L_1 95.7	1 10 34 57.4	1
23 21 24.99	K 23.7	K 23.7	1 21 25.19	K 23.7	1 35 2.6	18
10 35 3.2	M_1 45.8	M_1 45.8	1 21 25.24	M_1 45.8	1 35 3.8	
	L_4 56.8, 54.7	L_4 56.8	2 21 24.91	L_4 54.7	1 35 1.2	
	St_1 [60.0]	St_1 60.0	2 21 25.00	Wc 54.8	2 35 3.0	
	Wc 60.8, 54.8	Wc 60.8	2 21 24.91	St_1 60.0	2 35 5.3	
	S_j 63.0	S_j 63.0	1 21 24.78	S_j 63.0	1 35 2.9	
	A 78.3, 77.8	A 78.3	27 21 24.99	A 77.8	11 35 2.2	
31751	G 78.5	G 78.5	17 21 24.98	G 78.5	17 35 3.0	
	L_5 78.5	L_5 78.5	20 21 24.94	L_5 78.5	18 35 2.1	
	H 89.5	H 89.5	3 21 24.99	H 89.5	3 35 3.2	
	E 06.2	E 06.2	3 21 24.98	E 06.2	3 35 3.7	

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Zones	α Ep.−H.	δ	α Bs.−H.	δ	α C.−H.	δ	α adj.	δ	Δα	Δδ
189	−65.8	−65.8	+.42	(+13.3)	+.16	+13.1	5.85	[9.9]	+.11	
	−31.6	−31.6	−.06	+2.1	+.08	+6.3	5.72	0.4	−.02	−1.4
	−16.3	−21.3	−.07	+2.5	+.04	+4.2	5.71	59.9	−.03	−0.9
			−.24	−19.9			5.69	56.8	−.05	+2.2
							5.74	59.0		
127,129	−65.9	−65.9	−.09	+0.2	−.26	+0.5	35.91	19.9	−.19	+0.3
	−28.8	−28.8	−.01	+1.4	−.11	+0.2	36.21	21.3	+.11	−1.1
			+.39	−0.8			36.17	19.44	−.07	+0.8
							36.10	20.2		
93	−97.3	−97.3	+.22	−2.0	+.27	+0.2	7.54	2.9	+.20	+0.2
	−93.0	−93.0	+.10	−2.1	+.16	+1.2	7.48	3.7	+.14	−0.6
189	−69.3	−69.3	+.28	+2.2	+0.2	+2.0	7.29	4.7	−.05	−1.6
	−35.1	−35.1	−.04	+0.8	+.06	+0.5	7.32	5.0	−.02	−1.9
	−33.2	−32.6	+.01	−0.9	+.06	+0.4	7.29	2.8	−.05	+0.3
	−30.3	−30.3	+.01	0.0	+.05	+0.4	7.32	3.8	−.02	−0.7
	−13.7	−13.7	+.05	−1.4	+.02	+0.2	7.29	1.9	−.05	+1.2
	−11.1	−11.1	+.03	−2.3	+.02	+0.1	7.30	0.4	−.04	+2.7
		−83.3	−.17	−1.3			7.27	2.7	−.07	+0.4
							7.34	3.1		
14	−93.8	−93.8	+.06	−5.8	+.11	−1.3	25.10	1.9	+.11	+1.3
186	−65.8	−65.8	+.20	−0.6	+.03	−2.3	25.02	0.9	+.03	+2.3
	−43.7	−43.7	+.25	+0.6	+.04	−1.0	25.17	5.1	+.18	−1.9
	−32.7	−34.8	−.08	−2.0	+.03	−0.8	24.92	2.2	−.07	+1.0
	−29.5	−34.7	+.01	−0.2	+.03	−0.8	25.05	3.8	+.06	−0.6
	−28.7	−29.5	−.08	+2.1	+.03	−0.7	24.91	5.7	−.08	−2.5
	−26.5	−26.5	−.21	−0.3	+.02	−0.6	24.82	4.0	−.17	−0.8
	−11.2	−11.7	.00	−1.0	+.01	−0.3	24.99	2.2	.00	+1.0
	−11.0	−11.0	−.01	−0.2	+.01	−0.3	24.95	3.6	−.04	−0.4
	−11.0	−11.0	−.05	−1.1	+.01	−0.3	24.95	2.8	−.04	+0.4
		−79.8	−.09	+2.3			24.99	3.2	.00	0.0
	+16.7	+16.7	−.01	+0.5	−.02	+0.4	24.96	3.6	−.03	−0.4
							24.99	3.2		

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Star	Epoch		Ep. α	Obs.	α 1900.0	Ep. δ	Obs.	δ 1900.0	Zon
8182	8.4.	M_1	45.8	1.	23 21 7.68		1.	11 13 57.6	
23 21 7.82		M_2	84.8	1.	21 7.90		1.	13 59.4	
11 14 0.0		H	89.8	3.	21 7.82		3.	14 0.0	
8184	8.4.	L_1	95.7	1.	23 21 33.66		1.	11 34 55.5	1
23 21 33.90		K	22.9	2.	21 34.11		2.	34 57.1	127,1
			54.7				1.	34 54.0	
11 34 59.7		L_4 St$_1$	[60.0]	2.	21 33.98		2.	34 58.9	
		L_5	80.8	1.	21 33.86		1.	35 0.1	
		H	89.8	3.	21 33.90		3.	34 59.7	
8185	8.9.	K	22.9	2.	23 21 42.76		2.	11 28 52.1	127,1
23 21 42.38		St$_1$	[60.0]	2.	21 42.51		2.	28 52.8	
11 28 52.9		H	90.1	3.	21 42.38		3.	28 52.9	
8187	7.7.	L_1	95.7	L_1 95.7	1.	23 22 14.31	L_1 95.7	1.	13 28 40.8	1
23 22 13.97		P_{85}	00.0	P 00.0	4.	22 14.26	P 00.0	4.	28 41.5	
13 28 48.2		K	23.7	K 23.7	1.	22 14.36	K 23.7	1.	28 45.8	18
		St	57.9	St 57.9	2.	22 13.98	St 57.9	2.	28 46.2	
		L_4^2	60.8, 61.8	L_4^2 60.8	2.	22 14.03	L_4^2 61.8	1.	28 44.9	
		S_1	62.7	S_1 62.7	1.	22 14.08	S_1 62.7	1.	28 46.0	
		G	79.9	Sn 77.7	4.	22 14.03	Sn 77.7	10.	28 46.3	
		L_5	78.8	L_5 78.8	1.	22 14.07	L_5 78.8	1.	28 45.2	
		Sn	77.7	G 79.9	3.	22 14.00	G 79.9	3.	28 45.7	
		H	90.2	H 90.2	3.	22 13.97	H 90.2	3.	28 48.2	
8191	7.5.	L_1	95.7		1.	23 22 55.36		1.	12 45 39.7	13
23 22 55.46		K	23.3		2.	22 55.84		2.	45 45.6	129,1
12 45 46.4		St$_2$	57.9		2.	22 55.39		2.	45 42.5	
		L_4	58.6, 58.7		1.	22 55.33		2.	45 43.7	
		S_1	62.8		1.	22 55.33		1.	45 43.1	
		H	89.4		3.	22 55.46		3.	45 46.4	

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Zones.	α Ep.−H.	δ	α Bs.−H.	δ	α C.−N.	δ	α Adj.	δ	Δα	Δδ
	−44.0	−44.0	−.14	−2.4			7.61	58.9	−.14	+0.6
	−5.0	−5.0	+.08	−0.6			7.81	59.5	+.06	0.0
							7.82	0.0	+.07	−0.5
							7.75	59.5		
12	−94.1	−94.1	−.24	−4.2	−.29	+0.4	33.61	0.1	−.26	−1.4
127,129	−66.9	−66.9	+.21	−2.6	+.04	−2.3	33.94	57.4	+.07	+1.3
	"	−35.1	"	−5.7	"	−0.4	"	55.0		+3.7
	−29.8	−29.8	+.08	−0.8	−.05	−0.4	34.03	59.3	+.16	−0.6
	−9.0	−9.0	−.04	+0.4	−.01	−0.1	33.87	0.8	.00	−2.1
		−80.5	+.16	+1.2			33.90	59.7	+.03	−1.0
							33.87	58.7		
127,129	−67.2	−67.2	+.38	−0.8	+.21	−0.5	42.59	52.4	+.08	+0.4
	−30.1	−30.1	+.13	−0.1	+.09	−0.2	42.56	53.1	+.05	−0.3
			−.31	+0.7			42.38	52.9	−.13	−0.1
							42.51	52.8		
13	−94.5	−94.5	+.34	−7.4	+.39	−5.2	14.36	43.0	+.24	+3.1
	−90.2	−90.2	+.29	−6.7	+.29	+1.3 −5.0	14.37	44.6	+.25	+1.5
189	−66.5	−66.5	+.39	+7.6	+.13	+7.4	14.10	55.6	−.02	+0.5
	−32.3	−32.3	+.01	−2.0	+.10	+0.5 −1.8	14.07	47.7	−.05	−1.6
	−28.4	−28.4	+.06	−3.3	+.09	+0.4 −1.6	14.04	45.9	−.08	+0.2
	−27.5	−27.5	+.11	−2.2	+.09	+0.4 −1.5	14.12	47.1	.00	−1.0
	−12.5	−12.5	+.06	−1.9	+.04	+0.2 −0.7	14.07	46.9	−.05	−0.8
	−11.4	−11.4	+.10	−3.0	+.04	+0.2 −0.6	14.08	45.9	−.04	+0.2
	−10.3	−10.3	+.03	−2.5	+.03	+0.1 −0.6	13.97	46.3	−.15	−0.2
	−94.5 δ	−80.5 α	−.32	−7.11 +3.5			13.97	48.2	−.15	−2.1
							14.12	46.1		
13	−93.7	−93.7	−.10	−6.7	−.05	−4.5	55.41	41.9	−.04	+2.6
129,189	−66.1	−66.1	+.38	−0.8	+.20	−0.6	55.66	45.8	+.21	−1.3
	−31.5	−31.5	−.07	−3.9	+.03	−1.0	55.48	44.0	+.03	+0.5
	−30.8	−30.7	−.13	−2.7	+.03	−1.0	55.34	44.7	−.11	−0.2
	−26.6	−26.6	−.13	−3.3	+.02	−0.9	55.37	44.2	−.08	+0.3
		−79.9	−.09	+3.2			55.46	46.4	+.01	−1.9
							55.45	44.5		

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Star		Epoch		Eph. α	Obs.	α 1900.0		Eph. δ	Obs.	δ 1900.0		Zone
8190	6.9	L_1	95.7	L_1 95.7	1	23 22 52.56		L_1 95.7	1	11 59 52.0		12
23 22 52.81		P_{90}	00.0	P 00.0	12	22 52.52		P 00.0	13	59 55.1		
12 0 0.4		K	22.9	K 22.9	2	22 52.84		K 22.9	2	59 56.4		127,1
		L_4	55.8, 55.0									
		St_1	[60.0]	L_4 55.8	1	22 52.57		Wc 54.8	2	59 59.5		
		Wc	68.9, 54.8	St_1 60.0	2	22 52.69		L_4 55.0	3	59 57.7		
		A	77.8	Wc 68.9	3	22 52.70		St_1 60.0	2	59 55.6		
		Q	70.8, 68.8	Q 70.8	3	22 52.70		Q 68.8	5	59 58.0		
31770		G	77.9	L_5 77.8	4	22 52.79		L_5 77.8	4	59 58.7		
		L_5	77.8	A 77.8	14	22 52.82		A 77.8	13	59 58.2		
		H	88.8	G 77.9	5	22 52.87		G 77.9	5	11 59 58.3		
		E	02.5	H 88.8	3	22 52.81		H 88.8	3	12 0 0.4		
				E 02.5	3	22 53.00		E 02.5	3	11 59 58.8		
8192	8.6	K	23.7		1	23 23 22.94			1	13 33 3.8		18
23 23 22.74		St_2	57.9		2	23 22.68			2	33 1.4		
13 33 3.1		Fj	62.7		1	23 22.74			1	33 1.6		
		H	89.8		3	23 22.74			3	33 3.1		
8193	8.8	K	23.3	K 23.3	2	23 23 41.53		K 23.3	2	10 39 7.6		127,1
23 23 41.19		St_1	[60.0]	St_1 60.0	2	23 41.29		Wc 56.1	3	39 5.9		
10 39 6.9		Wc	64.4, 56.1	Fj 62.8	1	23 41.18		St_1 60.0	2	39 8.1		
		Fj	62.8	Wc 64.4	2	23 41.24		Fj 62.8	1	39 3.9		
		H	89.1	H 89.1	3	23 41.19		H 89.1	3	39 6.9		
8196	8.3	L_1	95.7	L_1 95.7	1	23 24 45.91		L_1 95.7	1	13 25 31.6		1
23 24 45.93		K	23.7	K 23.7	1	24 46.18		K 23.7	1	25 38.4		18
13 25 37.9		St_2	57.9	St_2 57.9	2	24 45.66		St_2 57.9	2	25 39.1		
		Fj	62.7	Fj 62.7	1	24 45.68		L_4^2 61.4	2	25 33.7		
		L_4	63.3, 61.4	L_4 63.3	2	24 45.85		Fj 62.7	1	25 36.5		
		L_5	78.8	L_5 78.8	2	24 45.92		L_5 78.8	2	25 36.0		
		H	92.2	H 92.2	5	24 45.93		H 92.2	5	25 37.9		

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Zones.	α Sp-H.	δ	α Pos-H.	δ	α C.-H.	δ	α Adj.	δ	Δα	Δδ
12	-93.1	-93.1	-.25	-8.4	-.30	-3.8	52.51	56.6	-.23	+1.8
	-88.8	-88.8	-.29	-5.3	-.25	-4.2	52.63	58.2	-.11	+0.2
127,129	-65.9	-65.9	+.03	-4.0	-.14	-3.7	52.67	56.7	-.07	+1.7
	-33.0	-34.0	-.24	-0.9	-.09	-1.6	52.58	0.3	-.16	-1.9
	-28.8	-33.8	-.12	-2.7	-.08	-1.6	52.74	58.7	.00	-0.3
	-19.9	-28.8	-.11	-4.8	-.06	-1.4	52.70	56.3	-.04	+2.1
	-18.0	-20.0	-.11	-2.4	-.05	-0.9	52.79	58.6	+.05	-0.2
	-11.0	-11.0	-.02	-1.7	-.03	-0.5	52.80	59.4	+.06	-1.0
	-11.0	-11.0	+.01	-2.2	-.03	-.05	52.82	58.2	+.08	+0.2
	-10.9	-10.9	+.06	-2.1	-.03	-0.5	52.84	58.9	+.10	-0.5
		-79.5	+.28	+4.7			52.81	0.4	+.07	-2.0
	+13.7	+13.7	+.19	-1.6	+.04	+0.6	52.98	58.7	+.24	-0.3
							52.74	58.4		
189	-66.1	-66.1	+.20	+0.7	-.06	+0.5	22.68	3.6	-.06	-0.5
	-31.9	-31.9	-0.6	-1.7	-.03	+0.3	22.77	2.9	+.03	+0.2
	-27.1	-27.1	.00	-1.5	-.02	+0.2	22.78	2.7	+.04	+0.4
			+.09	-0.8			22.74	3.1	.00	0.0
							22.74	3.1		
127,186	-65.8	-65.8	+.34	+0.7	+.14	-0.1	41.33	6.8	+.07	0.0
	-29.1	-33.6	+.10	-1.0	+.06	-0.1	41.34	6.7	+.08	+0.1
	-26.3	-29.1	-.01	+1.2	+.06	-0.1	41.22	8.5	-.04	-1.7
	-24.7	-26.3	+.05	-3.0	+.05	-0.1	41.24	5.0	-.02	+1.8
			-.21	+0.2			41.19	6.9	-.07	-0.1
							41.26	6.8		
13	-96.5	-96.5	-.02	-6.3	+.03	-4.1	45.96	33.8	+.09	+3.3
189	-68.5	-68.5	+.25	+0.5	-.01	+0.3	45.92	38.2	+.05	-1.1
	-34.3	-34.3	-.27	+1.2	.00	-0.8	45.75	40.6	-.12	-3.5
	-29.5	-30.8	-.25	-4.2	.00	-0.7	45.72	34.7	-.15	+2.4
	-28.9	-29.5	-.08	-1.4	.00	-0.7	45.86	37.6	-.01	-0.5
	-13.4	-13.4	-.01	-1.9	.00	-0.3	45.93	36.7	+.06	+0.4
		-82.5	-.01	+2.3			45.93	37.9	+.06	-0.8
							45.87	37.1		

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Star		Epoch	Ep. α	Obs. α 1900.0		Ep. δ	Obs. δ 1900.0	
8194 7.0	L_1	95.7	L_1 95.7	1	23 23 50.86	L_1 95.7	1	9 48 52.8
23 23 50.24	K	23.7	K 23.7	1	23 50.73	K 23.7	1	48 59.5
9 48 59.1	R_1	49.0	M_1 45.8	2	23 50.80	M_1 45.8	2	48 57.0
	M_1	45.8	R_1 49.0	1	23 50.50	R_1 49.0	1	48 55.8
	L_4 58.6, 61.5		L_4 58.6	5	23 50.51	St_1 60.0	2	48 56.3
	St_1	[60.0]	St_1 60.0	2	23 50.55	L_4 61.5	3	48 58.1
	A	77.8	A 77.8	14	23 50.35	A 77.8	11	48 57.8
31787	G	77.8	G 77.8	5	23 50.38	G 77.8	5	48 57.2
	L_5	77.9	L_5 77.9	1	23 50.27	L_5 77.9	1	48 59.5
	V	86.0	V 86.0	4	23 50.39	V 86.0	4	48 57.8
	H	91.8	H 91.8	4	23 50.24	H 91.8	4	48 59.1
	E	06.5	Db 93.7	2	23 50.30	Db 93.7	2	48 58.3
	Db	93.7	E 06.5	3	23 50.28	E 06.5	3	48 59.3
8197 8.9	K	23.7	K 23.7	1	23 24 50.55	K 23.7	1	12 27 24.2
23 24 50.45	St_1	[60.0]	St_2 57.9	2	24 50.54	St_2 57.9	2	27 24.1
12 27 26.9	St_2	57.9	St_1 60.0	2	24 50.40	St_1 60.0	2	27 21.8
	H	90.8	H 90.8	4	24 50.45	H 90.8	4	27 26.9
8198 8.7	K	22.9		1	23 25 4.24		1	11 0 1.4
23 25 3.70	L_3	43.7		3	25 3.97		6	0 2.0
11 0 5.9	L_4	.. ..		..	..		..	..
	St_1	[60.0]		2	25 3.83		2	0 3.3
	H	89.8		3	25 3.70		3	0 5.9
8199 8.8	M_1	45.9		1	23 25 33.82		1	13 51 17.8
23 25 33.65	M_2	84.8		1	25 33.83		1	51 19.6
13 51 19.4	H	89.8		3	25 33.65		3	51 19.4
	SK	95.3		2	25 33.85		2	51 18.5

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Zones.	α Ep - H.	δ.	α Pos. - H.	δ.	α C. - H.	δ.	α adj.	δ	Δα	Δδ.
14	-96.1	-96.1	+.62	-6.3	+67	-1.8	50.91	57.3	+.44	+0.8
186	-68.1	-68.1	+.49	+0.4	+.32	-1.3	50.56	57.8	+.09	+0.3
	-46.0	-46.0	+.56	-2.1	+.28	-0.9	50.73	58.3	+.26	-0.2
		-42.8		-3.3	"	-0.8		55.1		+3.0
	-42.8	-31.8	+.26	-2.8	+.26	-0.6	50.58	57.0	+.11	+1.1
	-33.2		+.27		+.20	"	50.52	"	+.05	
	-31.8	-30.3	+.31	-1.0	+.19	-0.6	50.60	59.1	+.02	-1.0
									+.13	
	-14.0	-14.0	+.11	-1.3	+.08	-0.3	50.35	57.8	-.12	+0.3
	-14.0	-14.0	+.14	-1.9	+.08	-0.3	50.35	57.8	-.12	+0.3
	-13.9	-13.9	+.03	+0.4	+.08	-0.3	50.28	0.2	-.19	-2.1
	-5.8	-5.8	+.15	-1.3	+.03	-0.1	50.37	57.9	-.10	+0.2
		-82.1	-.60	+1.9			50.24	59.1	-.23	-1.0
	+1.9	+1.9	+.06	-0.8	-.01	0.0	50.30	58.0	-.17	+0.1
	+14.7	+14.7	+.04	+0.2	-.09	+0.3	50.26	59.2	-.21	-1.1
							50.47	58.1		
189	-67.1	-67.1	+.10	-2.7	-.16	-2.9	50.29	24.0	-.17	+0.6
	-32.9	-32.9	+.09	-2.8	-.08	-1.4	50.63	25.6	+.17	-1.0
	-30.8	-30.8	-.05	-5.1	-.07	-1.3	50.45	22.1	-.01	+2.5
			+.24	+4.3			50.45	26.9	-.01	-2.3
							50.46	24.6		
127	-66.9	-66.9	+.54	-4.5	+.30	-4.4	4.00	1.5	+.12	+1.9
	-46.1	-46.1	+.27	-3.9	+.21	-3.0	3.96	2.3	+.08	+1.1
	"	"	"	"	"		"	"		
	-29.8	-29.8	+.13	-2.6	+.13	-2.0	3.88	3.7	.00	-0.3
			-.45	+6.6			3.70	5.9	-.18	-2.5
							3.88	3.7		
	-43.9	-43.9	+.17	-1.6			33.75	19.1	+.01	+0.2
	-5.0	-5.0	+.18	+0.2			33.74	19.7	.00	-0.4
							33.65	19.4	-.09	-0.1
	+5.5	+5.5	+.20	-0.9			33.82	18.9	+.08	+0.4
							33.74	19.3		

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Star	Epoch	Ep. α	Obs. α 1900.0	Ep. δ	Obs. δ 1900.0	zone
8200 8.9	K 23.3	K 23.3	2 23 25 40.95	K 23.3	2 10 42 24.8	127,1
23 25 40.70	St, [60.0]	Sch 58.7	1 25 40.99	~~Sch 58.7~~	~~4 42 26.1~~	
10 42 26.1	Nc 59.4, 55.5	Nc 59.4	4 25 40.68	Nc 55.5	3 42 26.4	
	H 90.8	St, 60.0	2 25 40.70	Sch 58.7	1 42 26.1	
		H 90.8	4 25 40.70	St, 60.0	2 42 28.0	
				H 90.8	4 42 26.1	
8201 8.1	L, 95.7		1 23 26 5.17		1 12 44 39.8	13
23 26 5.65	K 23.3		2 26 5.79		2 44 53.0	129a,
	L4 63.4, 64.4		3 26 5.66		3 44 47.2	
12 44 48.1	L5 78.8		2 26 5.65		2 44 46.6	
	H 90.8		4 26 5.65		4 44 48.1	
8202 8.7	K 22.9		1 23 26 39.31		1 11 24 57.8	12
23 26 38.86	St, [60.0]		4 26 38.93		4 24 59.0	
11 24 59.6	Sj 62.8		1 26 38.91		1 24 57.4	
	H 88.8		3 26 38.86		3 24 59.6	
8203 8.1	L, 95.7		2 23 26 39.87		2 12 29 58.2	13,
23 26 39.57	P 106 00.0		6 26 40.00		7 29 59.6	
12 30 2.1	K 22.9		1 26 39.71		1 30 1.3	129
	R, 44.0		3 26 39.44		3 30 3.7	
	St 57.9		2 26 39.65		2 29 59.7	
	L4 Q2 61.8, 58.9		3 26 39.78		5 30 1.2	
	69.5, 67.0		6 26 39.64		4 30 1.6	
318H5	G 80.6		5 26 39.65		5 30 1.3	
	H 89.3		4 26 39.57		4 30 2.1	
8204 8.4	K 22.9		1 23 26 45.51		1 11 32 46.3	127
23 26 45.21	R, 45.0		2 26 45.32		2 32 44.1	
11 32 47.8	St, [60.0]		2 26 45.36		2 32 44.8	
2 31846	G 77.8		5 26 45.29		5 32 45.5	
P	H 90.4		3 26 45.21		3 32 47.8	

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Zones	α Ep-H.	δ α Bs.=H.	δ	α C.-H.	δ	α adj.	δ	Δα	Δδ
127,186	-67.5	-67.5	+.25	-1.3	+.05	-2.1	40.75	24.0	-.01	+2.6 ✓
							40.94	24.4	+.18	
	-31.4	-35.3	-.02	+0.3	+.02	-1.1	40.68	27.2	-.08	-0.6 ✓
								27.4		-0.8 ✓
	-30.8	-30.8	.00	+1.9	+.02	-1.0	40.75	28.3	-.01	-1.7 ✓
			-.07	+3.1			40.70	26.1	-.06	+0.5 ✓
							40.76	26.6		
13	-95.1	-95.1	-.48	-8.3	-.43	-6.1	5.22	42.0	-.34	+5.7 ✓
129α,189	-67.5	-67.5	+.14	+4.9	-.04	+4.7	5.61	53.8		
								53.2	+.05	-5.1 ✓
	-27.4	-26.4	+.01	-0.9	-.08	-0.2	5.67	48.2	+.11	-0.5 ✓
	-12.0	-12.0	.00	-1.5	-.03	-0.1	5.66	47.3	+.10	+0.4 ✓
		-81.3	+.29	+0.9			5.65	48.1	+.09	-0.4 ✓
							5.56	47.7		
127	-65.9	-65.9	+.45	-1.8	+.21	-1.7	39.07	57.9	+.11	+0.9 ✓
	-28.8	-28.8	+.07	-0.6	+.09	-0.7	38.98	59.4	+.02	-0.6 ✓
	-26.0	-26.0	+.05	-2.2	+.08	-0.7	38.95	58.5	-.01	+0.3 ✓
			-.32	+2.6			38.86	59.6	-.10	-0.8 ✓
							38.96	58.8		
13,12	-93.6	-93.6	+.30	-3.9	+.30	-0.5	39.87	1.6	+.14	+0.5 ✓
	-89.3	-89.3	+.43	-2.5	+.19	-0.4	40.11	2.7	+.38	-0,6 ✓
129	-66.4	-66.4	+.14	-0.8	+.04	-0.3	39.61	1.8	-.12	+0.3 ✓
	-45.3	-45.3	-.13	+1.6	+.10	-0.2	39.52	3.0	-.21	-0.9 ✓
	-31.4	-31.4	+.08	-2.4	+.07	-0.2	39.74	1.2	+.01	+0.9 ✓
	-27.5	-30.4	+.21	-0.9	+.06	-0.2	39.79	2.2	+.06	-0.1 ✓
	-19.8	-22.3	+.07	-0.5	+.04	-0.1	39.73	2.2	.00	-0.1 ✓
	-8.7	-8.7	+.08	-0.8	+.02	-0.0	39.62	1.9	-.11	+0.2 ✓
		-80.0	-.21	+0.5			39.57	2.1	-.16	0.0 ✓
							39.73	2.1		
127	-67.5	-67.5	+.30	-1.5	+.06	-1.4	45.27	46.4	-.04	-0.6 ✓
	-45.4	-45.4	+.11	-3.7	+.04	-1.0	45.40	43.4	+.09	+2.4 ✓
	-30.4	-30.4	+.15	-3.0	+.03	-0.6	45.41	45.2	+.10	+0.6 ✓
	-12.6	-12.6	+.08	-2.3	+.01	-0.3	45.26	46.1	-.05	-0.3 ✓
			-.09	+2.1			45.21	47.8	-.10	-2.0 ✓
							45.31	45.8		

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Star		Epoch		Ep. α		Obs. α 1900.0			Ep. δ		Obs. δ 1900.0		
8206	9.1.	G 31849	80.8			3	23	26 58.67			3	12 31 27.5	
23	26 58.58.												
12	31 26.6.	H	93.8			4		26 58.58			4	31 26.6	
8207	7.1.	L_1	95.7	L_1	95.7	1	23	27 1.65	L_1	95.7	1	12 5 44.2	1
23	27 1.56.	P_{109}	00.0	P	00.0	9		27 1.80	P	00.0	9	5 42.4	
12	5 46.2.	R_1	45.0	L_3	40.4	3		27 1.54	L_3	..	..	..	
		L_3	40.4 ..	R_1	45.0	2		27 1.39	R_1	45.0	2	5 46.1	
		L_4	61.3	L_4	61.3	2		27 1.54	L_4	61.3	2	5 44.8	
	31851	G	78.8	Sn	77.7	5		27 1.45	Sn	77.7	10	5 46.5	
		D_1	83.7	G	78.8	3		27 1.56	G	78.8	3	5 45.4	
		D_2	96.7	D_1	83.7	2		27 1.59	D_1	83.7	2	5 46.4	
		H	90.1	H	90.1	3		27 1.56	H	90.1	3	5 46.2	
		Sn	77.7	D_2	96.7	4		27 1.58	D_2	96.7	4	5 45.9	
8210	9.0.	K	22.9	K	22.9	1	23	27 11.09	K	22.9	1	11 42 19.2	12
23	27 10.96.	t_1	[60.0]	t_1	60.0	2		27 10.45	t_1	60.0	2	42 17.5	
11	42 18.9.	A	[79.0]	A	[79.0]	1		27 11.30	A	[79.0]	1	42 16.1	
		D_1	83.8	D_1	83.8	1		27 10.94	D_1	83.8	1	(42 23.1	
		D_2	96.9	H	91.8	3		27 10.96	H	91.8	3	42 18.9	
		H	91.8	D_2	96.9	4		27 10.98	D_2	96.9	4	42 19.4	
8211	8.3.	R_1	44.0			1	23	27 11.13			1	13 50 49.0	
23	27 11.14	H	91.0			4		27 11.14			4	50 47.9	
13	50 47.9	Sk	97.1			3		27 11.17			3	50 47.3	

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	zones.	α Ep−H.	δ.	α Obs−H.	δ.	α C.−H.	δ	α adj.	δ	Δα	Δδ.	
		−13.0	−13.0	+.09	+0.9			58.64	28.1	+.03	−0.7	✓
								58.58 / 58.61	26.6 / 27.4	−.03	+0.8	✓
	12	−94.4	−94.4	+.09	−2.0	+.04	+2.6	1.60	48.8	+.04	−2.4	✓
		−90.1	−90.1	+.24	−3.8	+.04	+2.5	1.91	45.5	+.35	+0.9	✓
		−49.7	"	−.02	"	+.02	"	1.53	...	−.03	"	✓
		−45.1	−45.1	−.17	−0.1	+.02	+1.3	1.47	45.4	−.09	+1.0	✓
		−28.8	−28.8	−.02	−1.4	+.01	+0.8	1.55	45.8	−.01	+0.6	✓
		−12.4	−12.4	−.11	+0.3	+.00	+0.3	1.49	47.1	−.07	−0.7	✓
		−11.3	−11.3	.00	−0.8	+.00	+0.3	1.53	46.0	−.03	+0.4	✓
		−6.4	−6.4	+.03	+0.2	+.00	+0.2	1.50	46.8	−.06	−0.4	✓
				−.04	−2.8			1.56	46.2	.00	+0.2	✓
		+6.6	+6.6	+.02	−0.3	.00	−0.2	1.48 / 1.56	45.6 / 46.4	−.08	+0.8	✓
	127	−68.9	−68.9	+.13	+0.3	−.11	+0.4	10.85	19.3	−.04	−1.1 / 0.2	✓
		−31.8	−31.8	−.51	−1.4	−.05	+0.2	10.50	17.8	−.39	+ 0.4 / 1.3	✓
		−12.8	−12.8	+.34	−2.8	−.02	+ 0.1	11.30	16.1	+.41	+ 2.1 / 3.0	✓
		−8.0	−8.0	−.02	+4.2	−.01	+ 0.0	10.85	23.5	−.04	[ad 4.4]	✓
				+.16	−0.6			10.96	18.9	+.07	−0.7 + 0.2	✓
		+5.1	+5.1	+.02	+0.5	+.01	0.0	10.88 / 10.89	19.1 / 18.2	−.01	−0.9 / 0.0	✓
		−47.0	−47.0	−.01	+1.1			11.21	48.3	+.05	−0.3	✓
								11.14	47.9	−.02	+ 0.1	✓
		+6.1	+6.1	+.03	−0.6			11.14 / 11.16	47.7 / 48.0	−.02	+0.3	✓

D, 43' computed value

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Star		Epoch		Ep. α	Obs.	α 1900.0		Ep. δ	Obs.	δ 1900.0	
8212	7.5	L_1	95.7	L_1 95.7	1	23 27	14.59	L_1 95.7	1	11 32	59.6
23 27	14.98	K	22.9	K 22.9	1	27	15.38	K 22.9	1	33	4.6
11 33	3.2	R_1	45.0	R_1 45.0	2	27	15.26	R_1 45.0	2	33	3.5
		M_1	45.8	M_1 45.8	1	27	15.11	M_1 45.8	1	33	6.0
		St_1	[60.0]	St_1 60.0	2	27	15.01	St_1 60.0	2	33	1.2
		L_H	67.8, 61.8	L_H 67.8	1	27	15.14	L_H 61.8	2	33	3.6
		A	77.8	A 77.8	19	27	14.97	A 77.8	17	33	3.0
	31854	G	77.8	G 77.8	4	27	14.99	G 77.8	4	33	2.5
		L_5	77.8	L_5 77.8	5	27	14.97	L_5 77.8	5	33	3.0
		H	91.3	H 91.3	4	27	14.98	H 91.3	4	33	3.2
		E	05.5, 05.1	E 05.5	3	27	14.98	E 05.1	4	33	3.7
8213	8.7	A	[79.0]		1	23 27	28.17		1	11 52	52.6
23 27	27.29	D_1	84.7		1	27	27.31		1	52	49.9
11 52	53.8	H	91.2		3	27	27.29		3	52	53.8
8214	8.2	L_1	95.7	L_1 95.7	1	23 27	46.29	L_1 95.7	1	9 42	37.7
23 27	45.84	K	23.7	K 23.7	1	27	46.28	K 23.7	1	42	45.1
9 42	41.5	R_1	49.0	M_1 45.8	2	27	46.18	M_1 45.8	2	42	39.1
		M_1	45.8	R_1 49.0	1	27	45.90	R_1 49.0	1	42	48.2
		L_H	54.8	L_H		27		L_H 54.8	6	42	40.0
		St_1	[60.0]	Sch L_H 58.7	1	27	45.79	Sch 58.7	1	42	37.6
		L_5	79.9	St_1 60.0	2	27	46.16	St_1 60.0	2	42	42.9
		V	83.6	L_5 79.9	3	27	45.85	L_5 79.9	1	42	41.5
		H	90.8	V 83.6	4	27	45.92	V 83.6	4	42	40.8
		Db	93.7	H 90.8	2	27	45.84	H 90.8	2	42	41.5
				Db 93.7	2	27	45.78	Db 93.7	2	42	41.4
8216	8.5	L_1	95.7		1	23 27	54.26		1	9 55	12.2
23 27	54.25	K	23.7		1	27	54.50		1	55	12.1
9 55	10.6	St_1	[60.0]		3	27	53.86		3	55	11.0
		H	92.8		4	27	54.25		4	55	10.6

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zones	α Sp.-H.δ.	α Bs.-H.δ.	α C.-H.δ.	α Adj. δ	Δα	Δδ
12	-95.6 -95.6	-.39 -3.6	-.44 +1.0	14.54	4.2 -.47	-0.4
127	-68.4 -68.4	+.40 +1.4	+.16 +1.5	15.14	4.7 +.13	-0.9
	-46.3 -46.3	+.28 +0.3	-.08 +0.7	15.34	2.8 +.33	+1.0
	-45.5 -45.5	+.13 +2.8	-.08 +0.7	15.04	7.3 +.03	-3.5
	-31.3 -31.3	+.03 -2.0	-.05 +0.5	15.06	1.8 +.05	+2.0
	-23.5 -29.5	+.16 +0.4	-.04 +0.4	15.15	4.6 +.14	-0.8
	-13.5 -13.5	-.01 -0.2	-.02 +0.2	14.97	3.0 -.04	+0.8
	-13.5 -13.5	+.01 -0.7	-.02 +0.2	14.96	3.1 -.05	+0.7
	-13.5 -13.5	-.01 -0.2	-.02 +0.2	14.98	3.7 -.03	+0.1
	-82.0	+.17 -1.5		14.98	3.2 -.03	+0.6
	+14.2 +13.8	.00 +0.5	+.02 -0.2	14.96 / 15.01	3.6 -.05 / 3.8	+0.2
	-12.2 -12.2	+.88 -1.2		28.17	52.6 +.61	-0.4
	-6.5 -6.5	+.02 -3.9		27.22	50.3 -.34	+1.9
				27.29 / 27.56	53.8 -.24 / 52.2	-1.6
14	-95.1 -95.1	+.45 -3.8	+.50 +0.7	46.34	42.2 +.35	-0.6
186	-67.1 -67.1	+.44 +3.6	+.27 +1.9	46.11	43.4 +.12	-1.8
	-45.0 -45.0	+.34 -2.4	+.21 +0.7	46.11	40.4 +.12	+1.2
	-41.8 -41.8	+.06 +1.7	+.20 +0.7	45.98	42.5 -.01	-0.9
	.. -36.0	.. -1.5	.. +0.6	... / 45.74	41.0 .. / 38.9 -.25	+0.6 / +2.7
	-30.8 -30.8	+.32 +1.4	+.14 +0.5	46.21	43.4 +.22	-1.8
	-10.9 -10.9	+.01 0.0	+.05 +0.2	45.86	42.2 -.13	-0.6
	-7.2 -7.2	+.08 -0.7	+.03 +0.1	45.90	40.9 -.09	+0.7
	-81.1	+.47 -1.6		45.84	41.5 -.15	+0.1
	+2.9 +2.9	-.06 -0.1	-.01 -0.0	45.78 / 45.99	41.1 -.21 / 41.6	+0.5
14	-97.1 -97.1	+.01 +1.6	+.06 +6.1	54.31	16.7 +.11	-4.4
186	-69.1 -69.1	+.25 +1.5	+.08 -0.2	54.33	10.4 +.13	+1.9
	-32.8 -32.8	-.39 +0.4	+.03 +1.1	53.91	11.4 -.29	+0.9
	-83.1	-.08 -3.5		54.25 / 54.20	10.6 +.05 / 12.3	+1.7

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Star		Epoch		Eph. α		Obs.	α 1900.0			Eph. δ		Obs.	δ 1900.0			Zo
8215	8.2	K	22.9			2	23	27	48.00			2	12	32	19.7	127
23	27	47.72	R,	44.0		1		27	47.29			1		32	21.0	
12	32	24.1	St,	[60.0]		2		27	47.51			2		32	21.6	
			St$_2$	60.0		1		27	47.60			1		32	24.3	
			Q	66.9, 68.1		3		27	47.58			3		32	23.1	
			H	89.8		2		27	47.72			2		32	24.1	
8217	8.8	L,	95.7	L,	95.7	1	23	28	0.25	L,	95.7	1	10	1	6.5	
23	28	0.15	K	23.7	K	23.7	1		28	0.34	K	23.7	1		1	9.2	
10	1	2.4	St,	[60.0]	St,	60.0	2		28	0.19	St,	60.0	2		1	8.9	
			L$_4$	60.2	L$_4$	60.2	2		28	0.10	L$_4$	60.2	2		1	2.9	
			A	81.9	L$_5$	78.8	1		28	0.19	L$_5$	78.8	1		1	4.7	
			L$_5$	78.8	A	81.9	2		28	0.38	A	81.9	2		1	3.4	
			H	92.8	H	92.8	3		28	0.15	H	92.8	3		1	2.4	
8218	7.5	L,	95.7	L,	95.7	1	23	28	2.61	L,	95.7	1	13	9	37.9	
23	28	2.78	K	23.7	K	23.7	1		28	3.44	K	23.7	1		9	41.4	
			L$_4$	58.8	L$_4$	"	"		"	"	L$_4$	58.8	2		9	36.9	
13	9	39.0	St$_2$	59.0	St$_2$	59.0	3		28	2.84	St$_2$	59.0	3		9	38.4	
			Sj	62.7	Sj	62.7	1		28	2.57	Sj	62.7	1		9	39.3	
			L$_5$	81.8	L$_5$	818	2		28	2.72	L$_5$	81.8	2		9	38.1	
			H	88.8	H	88.8	3		28	2.78	H	88.8	3		9	39.0	
8219	8.9	L,	95.7			1	23	28	9.81			1	13	13	1.9	
23	28	11.09	K	23.7		1		28	10.64			1		13	7.4	
13	13	4.8	St$_2$	58.0		2		28	10.58			2		13	6.8	
			H	90.4		3		28	11.09			3		13	4.8	

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Zones	α Ep−H.	δ	α Bs.−H.	δ	α G.−H.	δ	α adj.	δ	Δα	Δδ
127,129	66.9	−66.9	+.28	−4.4	+.11	−4.1	47.83		20.0	+.19	+2.7	
	45.8	−45.8	−.43	−3.1	+.07	−2.8	47.37		20.3	−.27	+2.4	
	29.8	−29.8	−.21	−2.5	+.05	−1.8	47.56		22.1	−.08	+ 0.6	
	29.8	−29.8	−.12	+0.2	+.05	−1.8	47.69		25.8	+.05	− 3.1	
	22.9	−21.7	−.14	−1.0	+.04	−1.3	47.67		23.7	+.03	− 1.0	
			−.16	+6.1			47.72		24.1	+.08	− 1.4	
							47.64		22.7			
14	97.1	−97.1	+.10	+4.1	+.15	+8.6	0.30		11.0	+.08	−4.9	
186	69.1	−69.1	+.19	+6.8	+.02	+5.1	0.17		7.5	−.05	− 1.4	
	32.8	−32.8	+.04	+6.5	+.03	+2.7	0.24		9.3	+.02	−3.2	
	32.6	−32.6	−.05	+0.5	+.03	+2.7	0.11		3.9	−.11	+2.2	
	14.0	−14.0	+.04	+2.3	+.01	+1.1	0.20		5.4	−.02	+0.7	
	10.9	−10.9	+.23	+1.0	+.01	+0.9	0.38		3.4	+.16	+2.7	
			−83.1	−.10	−8.2		0.15		2.4	−.07	+3.7	
							0,22		6.1			
13	93.1	−93.1	−.17	−1.1	−.12	+1.1	2.66		40.1	−.16	− 0.5	
189	65.1	−65.1	+.66	+2.4	+.40	+2.2	3.18		41.2	+.36	∓ 1.6	
	"	−30.0	"	−2.1	"	+0.6	"		37.9		∓ 1.7	
	29.8	−29.8	+.06	−0.6	+.05	+0.6	2.93		39.9	+.11	− 0,3	
	26.1	−26.1	−.21	+0.3	+.05	+0.5	2.61		40.4	−.21	− 0.8	
	7.0	−7.0	−.06	−0.9	+.01	+0.1	2.73		38.8	−.09	+ 0,8	
			−79.1	−.18	−2.1		2.78		39.0	−.04	+ 0,6	
							2,82		39.6			
13	94.7	−94.7	−1.28	−2.9	−1.23	−0.7	9.86		4.1	−.64	+2.0	
189	66.7	−66.7	−.45	+2.6	−.71	+2.4	10.38		7.2	−.12	− 1.1	
	32.4	−32.4	−.51	+2.0	−.39	+0.4	10.67		8.3	+.17	−2.2	
			−80.7	+1.20	−1.1		11.09		4.8	+.59	+1.3	
							10,50		6.1			

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Star		Epoch		Eph. α	Obs.	α 1900.0			Eph. δ	Obs.	δ 1900.0			Zone
8221	8.5	L,	95.7		1	23	29	8.71		1	10	15	34.8	14
23	29	8.75 K	23.7		1		29	8.88		1		15	45.5	1
10	15	42.5 ll,	45.8		2		29	8.97		2		15	40.9	
		Sch	58.7		2		29	8.84		2		15	36.5	
		St,	[60.0]		2		29	8.74		2		15	42.0	
		L4 A	61.4, 62.6		7		29	8.71		5		15	42.1	
		A	70.7		1		29	8.87		..			..	
		H	92.4		3		29	8.75		3		15	42.5	
8223	8.5	K	23.7		1	23	29	23.55		1	12	52	45.7	18
23	29	23.28 Sj	62.8		1		29	23.28		1		52	40.6	
12	52	44.8 H	93.9		4		29	23.28		4		52	44.8	
8225	8.7	K	22.9		1	23	29	40.50		1	11	8	28.1	1
23	29	39.97 St,	[60.0]		3		29	40.20		3		8	29.3	
11	8	33.4 H	93.1		3		29	39.97		3		8	33.4	
8226	9.0	K	22.9		1	23	29	41.81		1	11	9	10.0	1
23	29	41.66 St,	[60.0]		1		29	41.89		1		9	[29.7]	
11	9	14.6 H	91.7		2		29	41.66		2		9	14.6	
8228	8.1	L,	95.7		1	23	30	1.77		1	12	7	47.3	1
23	30	1.46 K	22.9		1		30	1.66		1		7	46.8	12
12	7	51.4 R,	44.0		3		30	1.14		3		7	50.1	
		L4	54.7		1		30	1.40		..			..	
		St,	[60.0]		2		30	1.25		2		7	47.5	
		H	89.9		2		30	1.46		2		7	51.4	
8229	8.1	L,	95.7		1	23	30	5.60		1	10	14	27.6	11
23	30	5.78 K	23.7		1		30	6.06		1		14	25.0	18
10	14	29.3 ll,	45.8		2		30	6.16		2		14	27.1	
		Sch	58.7		1		30	5.84		1		14	22.7	
		Sj,	62.8		1		30	5.73		1		14	25.0	
		H	91.5		3		30	5.78		3		14	29.3	

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Zones.	α Eq.-H.	δ	α As.-H.	δ	α C.-H.	δ	α Adj.	δ	Δα	Δδ
14	-96.7	-96.7	-.04	-7.7	+.01	-3.2	8.76	39.3	-.03	+2.3
186	-68.7	-68.7	+.13	+3.0	-.04	+1.3	8.71	43.8	-.08	-2.2
	-46.6	-46.6	+.22	-1.6	-.01	-0.5	8.90	42.2	+.11	-0.6
							8.79	37.8	.00	+3.8
	-32.4	-32.4	-.01	-0.5	-.01	-0.4	8.79	42.4	.00	-0.8
	-31.0	-29.8	-.04	-0.4	-.01	-0.3	8.72	43.1	-.07	-1.5
	-21.7	-21.7	+.12	"	-.00	-0.2	8.87		+.08	"
		-82.7	+.02	+~~2.3~~ 1.1			8.75	42.5	-.04	-0.9
							8.79	41.6		
189	-70.2	-70.2	+.27	+0.9	+.01	+0.7	23.29	45.5	+.01	-1.5
	-31.1	-31.1	.00	-4.2	.00	+0.3	23.32	41.7	+.02	+2.3
			-.01	-1.0			23.28	44.8	-.02	-0.8
							23.30	44.0		
129	-70.2	-70.2	+.53	-5.3	+.43	-4.8	40.40	28.6	+.19	+2.0
	-33.1	-33.1	+.23	-4.1	+.20	-2.3	40.25	29.7	+.04	+0.9
			-.61	+6.8			39.97	33.4	-.24	-2.8
							40.21	30.6		
129	-68.8	-68.8	+.15	-4.6	+.05	-4.1	41.41	10.5	-.06	+2.1
	-31.7	-31.7	+.23	+15.1	+.02	-1.9	41.94	[30.0]	+.17	ab
			-.07	+6.0			41.66	14.6	-.11	-2.0
							41.77	12.6		
12	-94.2	-94.2	+.31	-4.1	+.26	+0.5	1.72	51.9	+.30	-2.4
127	-67.0	-67.0	+.20	-4.6	-.04	-4.5	1.42	46.9	.00	+2.6
	-45.9	-45.9	-.32	-1.3	+.06	-1.1	1.22	49.4	-.20	+0.1
	-35.2	"	-.06	"	+.05	"	1.41	"	-.01	"
	-29.9	-29.9	-.21	-3.9	+.04	-0.7	1.30	48.0	-.12	+1.5
		-80.6	-.14	+2.5			1.46	51.4	+.04	-1.9
							1.42	49.5		
14	-95.8	-95.8	-.18	-1.7	-.13	+2.8	5.65	32.1	-.18	-4.9
186	-67.8	-67.8	+.28	-4.3	+.11	-6.0	5.89	23.3	+.06	+3.9
	-45.7	-45.7	+.38	-2.2	.00	-0.9	6.09	28.4	+.26	-1.2
							5.82	24.0	-.05	+3.2
	-28.7	-28.7	-.05	-4.3	.00	-0.6	5.77	26.1	-.06	+1.1
		-81.8	+.01	+2.0			5.78	29.3	-.05	-2.1
							5.83	27.2		

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Star		Epoch		Ep. α		Obs. α 1900.0		Ep. δ		Obs. δ 1900.0		Zone
8230	8.0	K	22.9	K	22.9	2	23 30 17.20	K	22.9	2	11 6 28.2	127
23 30	17.10	St,	[60.0]	St,	60.0	2	30 17.21	St,	60.0	2	6 27.3	
11 6	28.4	A	77.9	G	77.8	5	30 17.18	G	77.8	5	6 27.5	
	31915	G	77.8	L_5	77.8	4	30 17.11	L_5	77.8	4	6 28.3	
		L_5	77.8	A	77.9	14	30 17.16	A	77.9	12	6 27.7	
		H	90.3	H	90.3	2	30 17.10	H	90.3	2	6 28.4	
		E	04.8	E	04.8	3	30 17.17	E	04.8	3	6 28.4	
8231	7.9	L_1	95.7			1	23 30 46.88			2	11 14 [53.7]	
23 30	46.92	K	22.9			2	30 47.19			2	14 27.1	127
11 14	26.6	M,	45.8			1	30 47.36			1	14 31.6	
		L_4 St,	57.9 [60.0]			1 2	30 47.01 30 46.88			1 2	14 25.6 14 24.9	
		A	[79.0]			1	30 47.12			1	14 27.2	
		L_5	79.5			3	30 46.94			3	14 26.1	
		H	93.8			H	30 46.92			H	14 26.6	
8232	8.7	K	22.9			2	23 30 50.13			2	11 15 15.2	127
23 30	49.81	L_4 St,	57.9 [60.0]			1 2	30 50.18 30 49.87			2	15 12.8	
11 15	13.5	H	93.2			3	30 49.81			3	15 13.5	
8233	7.8	L_1	95.7			1	23 32 10.01			1	13 53 27.0	
23 32	9.94	K	23.7			1	32 10.17			1	53 34.2	
13 53	29.8	R_1	44.0			2	32 9.73			2	53 31.8	
		St_2 L_4	58.9 63.3, 61.4			4 2	32 9.88 32 10.00			4 2	53 30.1 53 30.5	
		H	89.8			2	32 9.94			2	53 29.8	
		SK	97.2			3	32 10.02			3	53 29.5	
8234	9.1	K	22.9			1	23 32 13.23			1	12 6 22.3	
23 32	13.61	St,	[60.0]			1	32 13.33			1	6 31.7	
12 6	26.9	H	90.1			3	32 13.61			3	6 26.9	

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Zones.	α Ep-H.	δ	α Bs.-H.	δ	α C.-H.	δ	α Adj.	δ	Δα	Δδ
127,129	-67.4	-67.4	+.10	-0.2	-.07	+0.1	17.03	28.5	-.11	-0.2
	-30.3	-30.3	+.11	-1.1	-.03	0.0	17.26	27.8	+.12	+0.5
	-12.5	-12.5	+.08	-0.9	-.01	0.0	17.15	28.1	+.01	+0.2
	-12.5	-12.5	+.01	-0.1	-.01	0.0	17.12	29.0	-.02	-0.7
	-12.4	-12.4	+.06	-0.7	-.01	0.0	17.16	27.7	+.02	+0.6
			+.10	-0.1			17.10	28.4	-.04	-0.1
	+14.5	+14.5	+.07	0.0	+.01	0.0	17.15 / 17.14	28.3 / 28.3	+.01	0.0
12	-98.1	-98.1	-.04	+27.1	-.09	+31.7	46.83	[58.3]	-.18	ab c
127,129	-70.9	-70.9	+.27	+0.5	+.10	+0.8	47.02	27.4	+.01	+0.2
	-48.0	-48.0	+.44	+5.0	.00	+9.2 +0.5	47.29	32.9	+.28	-5.3
	-35.9	-35.9	+.09	-1.0	.00	+6.9 +0.4	47.02	26.6	+.01	+1.0
	-33.8	-33.8	-.04	-1.7	.00	+6.5 +0.4	46.93	25.4	-.08	+2.2
	-14.8	-14.8	+.20	+0.6	.00	+2.8 +0.2	47.12	27.2	+.11	+0.4
	-14.3	-14.3	+.02	-0.5	.00	+2.7 +0.2	46.95	26.8	-.06	+0.8
	-70.9 δ	-84.5 α	-.01	-19.2 -1.1			46.92 / 47.01	26.6 / 27.6	-.09	+1.0
127,129	-70.3	-70.3	+.32	+1.7	+.15	+2.0	49.96	15.5	-.01	-1.4
	-35.3	-35.3	+.37	..	+.07	+1.0	50.19	..	+.22	..
	-33.2	-33.2	+.06	-0.7	+.07	+0.9	49.92	13.2	-.05	+0.9
			-.21	-2.8			49.81 / 49.97	13.5 / 14.1	-.16	+0.6
13	-94.1	-94.1	+.07	-2.8	+12	-0.6	10.06	29.2	+.10	+1.8
189	-66.1	-66.1	+.23	+4.4	-.03	+4.2	9.91	34.0	-.05	-3.0
	-45.8	-45.8	-.21	+2.0	+.03	+1.0	9.81	31.1	-.15	-0.1
	-30.9	-30.9	-.06	+0.3	+.02	+0.7	9.97	31.6	+.01	-0.6
	-26.5	-28.4	+.06	+0.7			10.02	31.5	+.06	-0.5
		-80.1	-.06	-2.2	+.02	+0.6	9.94	29.8	-.02	+1.2
	+7.4	+7.4	+.08	-0.3	.00	-0.2	9.99 / 9.96	29.9 / 31.0	+.03	+1.1
127	-67.2	-67.2	-.38	-4.6	-.62	-4.5	12.99	22.4	-.34	+4.7
	-30.1	-30.1	-.28	+4.8	-.28	-2.0	13.38	32.0	+.05	-4.9
			+.92	+6.7			13.61 / 13.33	26.9 / 27.1	+.28	+0.2

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Star	Epoch	Eph. α	Obs.	α 1900.0	Eph. δ	Obs.	δ 1900.0
8235 6.1	L_1 95.7	L_1 95.7	1	23 32 28.25	L_1 95.7	1	13 36 55.3
23 32 28.46	P_{133} 00.0	P 00.0	7	32 28.22	P 00.0	8	36 52.2
13 36 53.0	K 23.7	K 23.7	1	32 28.73	K 23.7	1	37 0.0
	R_1 44.0	R_1 44.0	3	32 28.15	R_1 44.0	3	36 55.3
	L_3 51.8, ..	L_3 51.8	1	32 28.47	L_3 ..	..	..
	L_4 55.3, 58.7	L_4 55.3	2	32 28.40	L_4 58.7	1	36 52.8
	St_2 58.9	St_2 58.9	3	32 28.40	St_2 58.9	3	36 54.8
	Q 75.5, 74.8	Q 75.5	3	32 28.41	Q 74.8	3	36 53.2
31957	G 77.8	Sn 77.7	3	32 28.38	Sn 77.7	4	36 54.2
	L_5 80.7	G 77.8	4	32 28.49	G 77.8	4	36 52.7
	Sn 77.7	L_5 80.7	1	32 28.24	L_5 80.7	1	36 54.4
	H 90.1	H 90.1	3	32 28.46	H 90.1	3	36 53.0
	Sk 95.3	Sk 95.3	2	32 28.48	Sk 95.3	2	36 51.8
8236 9.0	K 23.7		1	23 32 30.72		1	12 45 18.8
23 32 30.28	St_2 58.0		1	32 30.06		1	45 18.6
12 45 18.8	H_2 91.1		3	32 30.28		3	45 18.8
8237 8.4	L_1 95.7	L_1 95.7	1	23 32 32.72	L_1 95.7	1	10 31 35.7
23 32 32.16	K 23.2	K 23.2	3	32 32.50	K 23.2	3	31 41.3
10 31 40.8	R_1 46.0	M_1 45.8	2	32 32.71	M_1 45.8	2	31 41.4
	M_1 45.8	R_1 46.0	1	32 31.94	R_1 46.0	1	31 45.8
	L_4 58.9	L_4 58.9	1	32 32.19	L_4 58.9	1	31 40.0
	St_1 [60.0]	St_1 60.0	2	32 32.31	St 60.0	2	31 40.9
	Sj 62.8	Sj 62.8	2	32 32.16	Sj 62.8	2	31 38.8
	Q 72.2, 72.3	Q 72.2	3	32 32.16	Q 72.3	2	31 40.6
	L_5 79.7	L_5 79.7	1	32 32.16	L_5 79.7	1	31 41.1
	H 90.1	H 90.1	3	32 32.16	H 90.1	3	31 40.8

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zones	α 24-H.	δ	α Bs.-H.	δ	α C.-H.	δ	α adj.	δ	Δα	Δδ
13	-94.4	-94.4	-.21	+2.3	-.16	+4.5	28.30	57.5	-.10	-2.5
	-90.1	-90.1	-.24	-0.8	-.08	+6.3	28.33	55.2	-.07	-0.2
189	-66.4	-66.4	+.27	+7.0	+.01	+6.8	28.47	59.8	+.07	-4.8
	-46.1	-46.1	-.31	+2.3	-.04	+3.2	28.23	54.6	-.17	+0.4
	-38.3	..	+.01	..	-.03	..	28.46	...	+.06	..
	-34.8	-31.4	-.06	-0.2	-.03	+2.2	28.42	53.8	+.02	+1.2
	-31.2	-31.2	-.06	+1.8	-.03	+2.2	28.49	56.3	+.09	-1.3
	-14.6	-15.3	-.05	+0.2	-.01	+1.1	28.50	53.8	+.10	+1.2
	-12.4	-12.4	-.08	+1.2	-.01	+0.9	28.42	54.8	+.02	+0.2
	-12.3	-12.3	+.03	-0.3	-.01	+0.9	28.46	53.6	+.06	+1.4
	-9.4	-9.4	-.22	+1.4	-.01	+0.7	28.25	55.1	-.15	-0.1
	-80.4		+.09	-7.0			28.46	53.0	+.06	+2.0
	+5.2	+5.2	+.02	-1.2	+.00	-0.4	28.45 / 28.40	52.2 / 55.0	+.05	+2.8
189	-67.4	-67.4	+.44	0.0	+.18	-0.2	30.46	18.6	+.16	+0.6
	-33.1	-33.1	-.22	-0.2	+.07	-0.1	30.15	20.1	-.15	-0.9
			-.27	+0.3			30.28 / 30.30	18.8 / 19.2	-.02	+0.4
14	-94.4	-94.4	+.56	-5.1	+.61	-0.6	32.77	40.2	+.49	+1.3
{127,129,186}	-66.9	-66.9	+.34	+0.5	-.17	+0.1	32.33	40.9	+.05	+0.6
	-44.3	-44.3	+.55	+0.6	+.12	-0.1	32.63	42.7	+.35	-1.2
	-44.1	-44.1	-.22	+5.0	+.12	-0.1	32.02	45.1	-.26	-3.6
	-31.2	-31.2	+.03	-0.8	+.08	-0.1	32.21 (32.00)	41.0	-.28	-0.3
	-30.1	-30.1	+.15	+0.1	+.08	-0.1	32.36	41.3	-.07 / +.08	+0.5 / +0.2
	-27.3	-27.3	.00	-2.0	+.07	-0.1	32.20	39.9	-.08	+1.6
	-17.9	-17.8	.00	-0.2	+.05	-0.1	32.25	41.2	-.03	+0.3
	-10.4	-10.4	.00	+0.3	+.03	-0.0	32.17	41.8	-.11	-0.3
	-80.6		-.27	+0.3			32.16 / 32.28	40.8 / 41.5	-.12	+0.7

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Star	Epoch	Ep. α	Obs. α 1900.0	Ep. δ	Obs. δ 1900.0	Zone
8239 8.7	K 22.9		1 23 33 56.16		1 12 6 1.7	127
23 33 56.14	St$_1$ [60.0]		2 33 56.20		2 6 5.1	
12 6 10.1	H 90.4		3 33 56.14		3 6 10.1	
8240 8.8	K 23.3		2 23 34 5.31		2 10 32 13.0	129,1
23 34 5.27	St$_1$ [60.0]		2 34 5.12		2 32 15.3	
10 32 15.3	A 80.6		3 34 5.28		3 32 14.1	
	H 90.8		3 34 5.27		3 32 15.3	
8241 9.3	B 62.8	B 62.8	2 23 34 5.86	B 62.8	2 12 51 48.2	
23 34 5.98	C$_1$ 91.1	H 90.8	2 34 5.98	H 90.8	2 51 48.5	
12 51 48.5	H 90.8	C$_1$ 91.1	4 34 6.27	C$_1$ 91.1	4 51 50.4	
8242 8.7	K 23.3		2 23 34 23.55		2 12 30 23.7	127,1
23 34 23.57	St$_2$ 57.9		2 34 23.38		2 30 24.1	
12 30 26.9	H 90.4		3 34 23.57		3 30 26.9	
8243 9.2	K 22.9		1 23 34 44.91		1 11 28 47.7	12
23 34 44.88						
11 28 48.4	H 90.1		3 34 44.88		3 28 48.4	
8244 8.9	Sj 63.0		1 23 35 19.00		1 10 46 52.3	
23 35 19.25	A 84.0		1 35 19.15		1 46 52.5	
10 46 52.8	H 92.0		4 35 19.25		4 46 52.8	
8245 8.8	K 23.7	K 23.7	1 23 35 20.12	K 23.7	1 13 30 6.4	180
23 35 19.62	B 62.8	St$_2$ 57.9	2 35 19.65	St$_2$ 57.9	2 30 6.4	
13 30 7.7	St$_2$ 57.9	Sj 62.7	1 35 19.80	Sj 62.7	1 30 4.2	
	Sj 62.7	B 62.8	2 35 19.73	B 62.8	2 30 4.6	
	H 90.8	H 90.8	3 35 19.62	H 90.8	3 30 7.7	

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Zones	α Ep.−H.	δ	α Rs.−H.	δ	α C.−H.	δ	α adj.	δ	Δα	Δδ
127	−67.5	−67.5	+.02	−8.4	−.22	−8.3	55.92		1.8 −.18	+4.0
	−30.4	−30.4	+.06	−5.0	−.10	−3.7	56.25		5.5 +.15	+0.3
			+.33	+12.3			56.14		10.1 +.04	−4.3
							56.10		5.8	
129,186	−67.5	−67.5	+.04	−2.3	−.10	−2.9	5.23		12.4 −.01	+2.0
	−30.8	−30.8	−.15	0.0	−.05	−1.3	5.17		15.7 −.07	−1.3
	−10.2	−10.2	+.01	−1.2	−.02	−0.4	5.28		14.1 +.04	+0.3
			+.15	+4.3			5.27		15.3 +.03	−0.9
							5.24		14.4	
	−28.0	−28.0	−.12	−0.3			5.78		50.7 −.21	−0.9
							5.98		48.5 −.01	+1.3
	+0.3	+0.3	+.29	+1.9			6.22		50.3 +.23	−0.5
							5.99		49.8	
127,189	−67.1	−67.1	−.02	−3.2	−.27	−3.2	23.30		23.7 −.15	+1.7
	−32.5	−32.5	−.19	−2.8	−.13	−1.6	23.47		25.6 +.02	−0.2
			+.40	+4.8			23.57		26.9 +.12	−1.5
							23.45		25.4	
127	−67.2	−67.2	+.03	−0.7	−.21	−0.6	44.67		47.8 −.11	+0.3
							44.88		48.4 +.10	−0.3
							44.98		48.1	
	−29.0	−29.0	−.25	−0.5			19.04		53.4 −.11	−0.5
	−8.0	−8.0	−.10	−0.3			19.15		52.5 .00	+0.4
							19.25		52.8 +.10	+0.1
							19.15		52.9	
189	−67.1	−67.1	+.50	−1.3	+.24	−1.5	19.86		6.2 +.12	+0.6
	−32.9	−32.9	+.03	−1.3	+.12	−0.7	19.74		7.9 .00	−1.1
	−28.1	−28.1	+.18	−3.5	+.10	−0.6	19.84		5.3 +.10	+1.5
	−28.0	−28.0	+.11	−3.1	+.10	−0.6	19.65		7.1 −.09	−0.3
			−.36	+2.2			19.62		7.7 −.12	−0.9
							19.74		7.8	

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Star	Epoch	Eph. α	Obs.	α 1900.0	Eph. δ	Obs.	δ 1900.0	Zon
8246 8.7	K 22.9		1	23 35 49.79		1	12 1 29.1	129
23 35 49.47	St$_1$ [60.0]		3	35 49.66		3	1 31.5	
12 1 31.2	H 90.8		3	35 49.47		3	1 31.2	
8247 6.4	L$_1$ 95.7	L$_1$ 95.7	1	23 35 58.21	L$_1$ 95.7	1	12 14 4.8	12
23 35 58.36	P$_{153}$ 00.0	P 00.0	10	35 57.99	P 00.0	10	14 4.9	
12 14 7.9	K 22.9	K 22.9	2	35 58.26	K 22.9	2	14 6.6	127,1
	L$_3$ 51.8, 39.6	L$_3$ 51.8	1	35 58.14	L$_3$ 39.6	1	14 7.9	
	L$_4$ 57.3, 56.3	L$_4$ 57.3	2	35 58.18	L$_4$ 56.3	4	14 6.3	
	St$_1$ [60.0]	St$_1$ 60.0	2	35 58.26	St$_1$ 60.0	2	14 9.1	
	Sj 62.8	Sj 62.8	1	35 58.25	Sj 62.8	1	14 4.7	
	2 71.9, 68.8	2 71.9	4	35 58.27	2 68.8	2	14 6.5	
320 1H	G 78.8	Sn 77.6	10	35 58.31	Sn 77.6	18	14 7.7	
	Sn 77.6	G 78.8	3	35 58.33	G 78.8	3	14 6.9	
	H 90.8	H 90.8	3	35 58.36	H 90.8	3	14 7.9	
8249 8.8	K 23.7		1	23 36 18.68		1	12 30 48.3	18
23 36 18.25	St$_2$ 57.9		2	36 18.12		2	30 47.6	
12 30 46.4	H 90.8		3	36 18.25		3	30 46.4	
8250 7.8	L$_1$ 95.7		1	23 37 38.45		1	11 52 55.5	12
23 37 38.11	P$_{161}$ 00.0		2	37 38.68		3	52 51.9	
11 52 59.4	K 22.9		2	37 38.60		2	52 55.8	127,1
	R 49.0		1	37 38.14		1	52 59.0	
	L$_H$ 54.7		1	37 38.33		1	52 55.6	
	St$_1$ [60.0]		2	37 38.40		2	52 58.4	
	L$_5$ 78.8		2	37 38.29		2	52 56.8	
	H 90.9		2	37 38.11		2	52 59.4	

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Zones	α Eph.−H.δ.	δ Pos.−H.δ.	α C.−H. δ	α adj.	δ adj.	Δα	Δδ	
129	−67.9 −67.9	+.32 −2.1	+.22 −1.6	49.69	29.6	+.07	+1.3	✓
	−30.8 −30.8	+.19 +0.3	+.10 −0.7	49.71	31.9	+.09	−1.0	✓
		−.32 +2.4		49.47 / 49.62	31.2 / 30.9	−.15	−0.3	✓
12	−95.1 −95.1	−.15 −3.1	−.20 +1.5	58.16	9.4	−.08	−1.6	✓
	−90.8 −90.8	−.37 −3.0	−.26 +0.3	58.00	7.9	−.23	−0.4	✓
127,129	−67.9 −67.9	−.10 −1.3	−.27 −1.0	58.09	6.9	−.14	+0.9	✓
	−39.0 −51.2	+.26 0.0	−.11 +0.2	58.67	8.2	−.10	−0.4	✓
	−33.5 −34.5	−.18 −1.6	−.10 +0.1	58.20	7.3	−.03	+0.5	✓
	−30.8 −30.8	−.10 +1.2	−.09 +0.1	58.31	9.8	+.08	−2.0	✓
	−28.0 −28.0	−.11 −3.2	−.08 +0.1	58.29	5.8	+.06	+2.0	✓
	−18.9 −22.0	−.09 −1.4	−.05 +0.1	58.36	7.1	+.13	+0.7	✓
	−13.2 −13.2	−.05 −0.2	−.04 +0.0	58.35	8.3	+.12	−0.5	✓
	−12.0 −12.0	−.03 −1.0	−.03 +0.0	58.30	7.5	+.07	+0.3	✓
		−81.5 +.29 −0.3		58.36 / 58.23	7.9 / 7.8	+.13	−0.1	✓
189	−67.1 −67.1	+.43 +1.9	+.17 +1.7	18.42	48.1	+.13	−1.9	✓
	−32.9 −32.9	−.13 −3.8	+.08 +0.8	18.21	44.1	−.08	+2.1	✓
		−.25 −2.5		18.25 / 18.29	46.4 / 46.2	−.04	−0.2	✓
12	−95.2 −95.2	+.34 −3.9	+.29 +0.7	38.40	0.1	+.02	−2.4	✓
	−90.9 −90.9	+.57 −7.5	+.34 −1.5	38.79	54.9	+.41	+2.8	✓
127,129	−68.0 −68.0	+.49 −3.6	+.32 −3.3	38.43	56.1	+.05	+1.6	✓
	−41.9 −41.9	+.03 −0.4	+.16 −0.7	38.22	58.3	−.16	−0.6	✓
	−36.2 −36.2	+.22 −3.8	+.13 −0.6	38.35	56.6	−.03	+1.1	✓
	−30.9 −30.9	+.29 −1.0	+.11 −0.5	38.45	59.0	+.07	−1.3	✓
	−12.1 −12.1	+.18 −2.6	+.04 −0.2	38.30	57.5	−.08	+0.2	✓
		−81.6 −.37 +1.6		38.11 / 38.38	59.4 / 57.7	−.27	−1.7	✓

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Star	Epoch	Ep. α	Obs. α 1900.0	Ep. δ	Obs. δ 1900.0	Zone
8251 8.8	K 23.3		2 23 38 2.28		2 12 45 55.6	129,18
23 38 1.14	St_2 57.9		2 38 1.35		2 46 1.5	
12 46 8.7	S_j 62.7		2 38 1.44		2 46 2.2	
μ^2 μ^1	H 91.3		2 38 1.14		2 46 8.7	
8252 8.8	L_1 95.7		1 23 38 15.49		1 9 35 34.1	1A
23 38 15.30	K 23.7		1 38 15.45		1 35 48.2	18
9 35 46.0	Sch 58.7		1 38 15.41		1 35 42.7	
μ_1^2	St_1 [60.0]		2 38 15.31		2 35 44.9	
μ^1	L_4 61.4, 63.5		8 38 15.32		5 35 45.7	
	L_5 76.3		2 38 15.23		2 35 45.9	
	H 91.8		2 38 15.30		2 35 46.0	
	Db 93.8		2 38 15.26		2 35 46.7	
8254 9.0	K 22.9		1 23 38 26.69		1 10 54 36.9	127
23 38 26.37	St_1 [60.0]		2 38 26.54		2 54 39.7	
10 54 38.5	H 92.8		3 38 26.37		3 54 38.5	
μ^2 μ^1						
8255 8.8	D_2 97.0	H 93.2	3 23 38 27.16	H 93.2	3 10 13 43.8	
23 38 27.16						
10 13 43.8	H 93.2	D_2 97.0	4 38 27.27	D_2 97.0	4 13 42.4	
8256 9.0	K 23.7	K 23.7	1 23 38 39.56	K 23.7	1 13 34 26	18
23 38 38.90	St_2 57.9	St_2 57.9	2 38 39.10	St_2 57.9	2 33 59.0	
13 33 58.7	A 84.0	L_5 77.8	5 38 39.04	L_5 77.8	5 33 58.7	
μ^2 μ^1	L_5 77.8	A 84.0	2 38 39.03	A 84.0	2 33 58.7	
	H 90.8	H 90.8	2 38 38.90	H 90.8	2 33 58.7	

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Zones	α Eph.-H. δ	α Obs.-H. δ	α C.-H. δ	α adj.	δ	Δα	Δδ
129,189	-68.0 -68.0	+1.14 −3.1	+0.96 −2.9	2.10	55.8	+.56	+6.9
	-33.4 -33.4	+.21 −7.2	+.47 −1.4	1.44	3.6	−.10	−0.3
	-28.6 -28.6	+.30 −6.5	+.40 −1.2	1.48	3.3	−.06	−0.6
		−1.41 +4.3		1.14 / 1.54	8.7 / 2.7	−.40	−6.0
14	-96.1 -96.1	+.19 ~~−1.9~~	+.24	15.54	38.6	+.20	+6.4
186	-68.1 -68.1	+.15 +2.2	−.02 +0.5	15.28 / 15.36	46.5 / 44.0	−.06 / +.02	−1.5 / +1.0
	-31.8 -31.8	+.01 −1.1	+.04 +0.2	15.36	45.3	+.02	−0.3
	-30.4 -28.3	+.02 −0.3	+.04 +0.2	15.34	46.7	.00	−1.7
	-15.5 -15.5	−.07 −0.1	+.02 +0.1	15.24	46.6	−.10	−1.6
	~~82.1~~ 68.1	−.13 −0.7		15.30	46.0	−.04	−1.0
	+2.0 +2.0	−.04 +0.7	.00 0.0	15.26 / 15.34	46.4 / 45.0	−.08	−1.4
127	-69.9 -69.9	+.32 −1.6	+.08 −1.5	26.45	37.0	−.02	+4.5
	-32.8 -32.8	+.17 +1.2	+.04 −0.7	26.59	40.0	+.12	−1.5
		−.11 +2.1		26.37 / 26.47	38.5 / 38.5	−.10	0.0
				27.16	43.8	.00	−0.8
	+3.8 +3.8	+.11 −1.4		27.17 / 27.16	42.1 / 43.0	+.01	+0.9
189	-67.1 -67.1	+.66 +3.9	+.40 +3.7	39.30	2.4	+.21	−2.5
	-32.9 -32.9	+.20 +0.3	+.20 +.18	39.19	0.5	+.10	−0.6
	-13.0 -13.0	+.14 0.0	+.08 +0.7	39.05	59.4	−.04	+0.5
	-6.8 -6.8	+.13 0.0	+.04 +0.4	39.03	58.7	−.06	+1.2
		−.60 −.55		38.90 / 39.09	58.7 / 59.9	−.19	+1.2

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Star		Epoch		Ep. α		Obs.	α 1900.0	Ep. δ		Obs.	δ 1900.0	Zone
8257	8.7	K	23.7			1	23 39 0.63			1	13 44 39.0	189
23 39	0.48	St_2	57.9			2	39 0.42			2	44 36.9	
13 44	37.6	A	81.8			7	39 0.61			7	44 37.2	
		H	91.4			2	39 0.48			2	44 37.6	
		Sk	95.3			2	39 0.67			2	44 38.6	
8259	8.9	K	23.7	K	23.7	1	23 39 34.87	K	23.7	1	9 54 18.5	186
23 39	34.31	St_1	[60.0]	St_1	60.0	2	39 34.39	St_1	60.0	2	54 14.8	
9 54	14.5	Q	69.8, 67.9	Q	69.8	4	39 34.25	Q	67.9	1	54 14.8	
		H	92.1	H	92.1	4	39 34.31	H	92.1	4	54 14.5	
		Db	93.8	Db	93.8	2	39 34.35	Db	93.8	2	54 15.1	
8262	7.9	L_1	95.7			1	23 41 8.65			1	13 55 10.1	18
23 41	8.73	P_{180}	00.0			3	41 8.98			3	55 5.0	
13 55	11.8	K	23.7			1	41 9.03			1	55 15.2	18
		[illegible]	61.9, 62.3			6	41 8.73			7	55 11.1	
	321 H	G	80.8			4	41 8.80			4	55 11.3	
		H	90.1			3	41 8.73			3	55 11.8	
		Sk	95.3			2	41 8.78			2	55 11.4	
8263	8.6	A	77.8			1	23 41 24.44			1	13 18 37.8	
23 41	24.56											
13 18	37.5	H	89.6			3	41 24.56			3	18 37.5	
8264	9.1	K	22.9			1	23 41 44.84			1	12 18 21.4	729
23 41	44.53	St_1	[60.0]			3	41 44.53			3	18 25.5	
12 18	25.6	H	89.2			3	41 44.53			3	18 25.6	

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zones	α Ep − H.S.	δ Ep − H.S.	α Rs. − H.S.	δ Rs. − H.S.	α C − H.S.	δ C − H.S.	α adj.	δ adj.	Δα	Δδ	
189	−67.7	−67.7	+.15	+1.4	−.11	+1.2	0.37		38.8	−.15	−0.6	✓
	−33.5	−33.5	−.06	−0.7	−.05	+0.6	0.51		38.4	−.01	−0.2	✓
	−9.6	−9.6	+.13	−0.4	−.02	+0.2	0.61		37.2	+.09	+1.0	✓
			+.16	−1.8			0.48		37.6	−.04	+0.6	✓
	+3.9	+3.9	+.19	+1.6	+.01	−0.1	0.64		39.0	+.12	−0.8	✓
							0.52		38.2			
186	−68.4	−68.4	+.56	+4.0	+.39	+2.3	34.70		16.8	+.27	−1.5	✓
	−32.1	−32.1	+.08	+0.3	+.18	+1.1	34.44		15.1	+.01	+0.2	✓
	−22.3	−24.2	−.06	+0.3	+.13	+0.8	34.34		15.4	−.09	−0.1	✓
			−.57	−3.4			34.31		14.5	−.12	+0.8	✓
	+1.7	+1.7	+.04	+0.6	−.01	−0.1	34.35		14.8	−.08	+0.5	✓
							34.43		15.3			
13	−94.4	−94.4	−.08	−1.7	−.03	+0.5	8.70		12.3	−.09	−0.5	✓
	−90.1	−90.1	+.25	−6.8	+.01	+2.1	9.09		7.9	+.30	+3.9	✓
189	−66.4	−66.4	+.30	+3.4	+.04	+3.2	8.77		15.0	−.02	−3.2	✓
	−28.2	−27.8	.00	−0.7	.00	+0.6	8.75		12.1	−.04	−0.3	✓
	−9.3	−9.3	+.07	−0.5	.00	+0.2	8.77		11.9	−.02	−0.1	✓
	−80.4		−.01	−2.3			8.73		11.8	−.06	0.0	✓
	+5.2	+5.2	+.05	−0.4	.00	−0.1	8.75		11.8	−.04	0.0	✓
							8.79		11.8			
	−11.8	−11.8	−.12	+0.3			24.44		37.8	−.06	−0.2	✓
							24.56		37.5	+.06	+0.1	✓
							24.50		37.6			
729	−66.3	−66.3	+.31	−4.2	+.21	−3.7	44.74		21.9	+.13	+2.5	✓
	−29.2	−29.2	.00	−0.1	+.09	−1.6	44.57		25.8	−.04	−1.4	✓
			−.32	+5.6			44.53		25.6	−.08	−1.2	✓
							44.61		24.4			

α Ep given to tenths only

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Star			Epoch	Ep. α	Obs.	α 1900.0			Ep. δ	Obs.	δ 1900.0			Zone
8265		5.8	L_1 95.7	L_1 95.7	1	23	42	7.72	L_1 95.7	1	12	27	39.0	12
23	42	6.98	P 185 00.0	P 00.0	13		42	7.34	P 00.0	13		27	40.7	
12	27	50.5	K ~~22.9~~ 23.2	K ~~22.9~~ 23.2	3		42	7.65	K ~~22.9~~ 23.2	3		27	45.8	27,12 189
			L_3 46.2, 47.3	L_3 46.2	5		42	7.14	L_3 47.3	2		27	45.8	
			L_4 54.7, 54.8	L_4 54.7	1		42	6.99	L_4 54.8	2		27	47.1	
			St_1 [60.0]	St_2 57.9	2		42	6.89	St_2 57.9	2		27	46.7	
			St_2 57.9	St_1 60.0	2		42	6.98	St_1 60.0	2		27	45.2	
			Sj 62.8	Sj 62.8	2		42	7.15	Q 61.9	2		27	47.8	
			Q 65.1, 61.9	Q 65.1	3		42	7.07	Sj 62.8	2		27	46.4	
			32134 G 77.9	Sn 77.7	8		42	6.94	Sn 77.7	12		27	48.9	
			~~L_5~~ 78.8	G 77.9	5		42	7.03	G 77.9	5		27	49.7	
			H 90.1	L_5 78.8	2		42	7.00	L_5 78.8	2		27	48.5	
			C_2 95.0	H 90.1	3		42	6.98	H 90.1	3		27	50.5	
			Sn 77.7	C_2 95.0	3		42	6.94	C_2 95.0	3		27	50.8	
8266		8.5	K 23.7		1	23	42	11.94		1	10	21	36.0	186
23	42	11.20	R 49.0		1		42	11.37		1		21	42.0	
10	21	43.8	St_1 [60.0]		2		42	11.35		2		21	38.6	
			A ~~91.3~~		5		42	11.22		~~5~~ 4		21	~~40.6~~ 42.7	
			H 90.5		3		42	11.20		3		21	43.8	
8268		8.2	K 23.7		1	23	42	29.63		1	10	26	19.4	186
23	42	29.70	St_1 [60.0]		2		42	29.45		2		29	14.7	
10	29	14.2	L_4 61.7		..		..	..		1		29	13.8	
			Sj 63.0		1		42	29.51		1		29	14.6	
			Q 68.9, 72.3		2		42	29.43		2		29	14.9	
			H 89.6		4		42	29.70		4		29	14.2	
8269		8.5	A [84.0]		1	23	42	40.76		1	11	7	41.0	
23	42	40.79												
11	7	3.5	H 93.1		3		42	40.79		3		7	3.5	

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Zones	α Eph.-H.d.	α Bs.-H.d.	α C.-H.d.	α adj.	δ	Δα	Δδ	
12	-94.4 -94.4	+.74	-11.5 +.69	-6.9	7.67	43.6	+.53	+4.1 ✓
	-90.1 -90.1	+.36	-9.8 +.65	-6.4	7.45	43.6	+.31	+4.1 ✓
(127,129,189)	-66.9 -66.9	+.67	-4.7 +.47	-4.6	7.45	45.9	+.31	+1.8 ✓
	-43.9 -42.8	+.16	-4.7 +.32	-3.0	7.13	46.1	-.01	+1.6 ✓
	-35.4 -35.3	+.01	-3.4 +.25	-2.5	7.01	48.1	-.13	-0.4 ✓
	-32.2 -32.2	-.09	-3.8 +.23	-2.3	6.98	48.2	-.16	-0.5 ✓
	-30.1 -30.1	.00	-5.3 +.22	-2.1	7.02	45.9	-.12	+1.8 ✓
	-27.3 -28.2	+.17	-2.7 +.20	-2.0	7.19	48.4 ~~62.5~~	+.05	-0.7 ✓
	-25.0 -27.3	+.09	-4.1 +.18	-1.9	7.16	47.5	+.02	+0.2 ✓
	-12.4 -12.4	-.04	-1.6 +.09	-0.9	6.98	49.5	-.16	-1.8 ✓
	-12.2 -12.2	+.05	-0.8 +.09	-0.9	7.00	50.3	-.14	-2.6 ✓
	-11.3 -11.3	+.02	-2.0 +.08	-0.8	7.01	49.2	-.13	-1.5 ✓
	-80.6	-.72	+7.1		6.98	50.5	-.16	-2.8 ✓
	+4.9 +4.9	-.04	+0.3 +.04	-0.3	6.90 / 7.14	~~50.9~~ 47.7	-.24	-3.2 ✓
186	-66.8 -66.8	+.74	-7.8 +.57	-9.5	11.77	34.3	+.36	+5.5 ✓
	-41.5 -41.5	+.17	-1.8 +.35	-5.9	11.45	41.3	+.04	-1.5 ✓
	-30.5 -30.5	+.15	-5.2 +.26	-4.3	11.39	39.0	-.02	+0.8 ✓
	-9.7 -9.7	+.02	-3.2 +.08	-1.4	11.22	42.7 40.6	-.19	-0.8 ✓ Dec. of 6338 adj. mean taken: A 6338 10" out
		-.85	+14.2 ✓		11.20 / 11.41	43.8 / 39.8 40.2	-.21	-3.6 -4.0 ✓
186	-65.9 -65.9	-.07	-2' 54.8 -.24	(-56.5)	29.46	[17.7]	-.08	ac -2.2 ✓ Note: "Scale div"
	-29.6 -29.6	-.25	+0.5 -.11		29.49	15.2 14.8	-.05	-0.1 +~~0.2~~ +0.3 ✓
	-27.9		-0.4					
	-26.6 -26.6	-.19	+0.4 -.10		29.55	15.7	+.01	~~-0.6~~ ✓
	-20.7 -17.3	-.27	+0.7 -.07		29.52	15.5	-.02	-0.4 ~~0.0~~ ✓
		+.36			29.70 / 29.54	14.2 / 15.5	+.16	+0.9 ~~+1.8~~ ✓
	-9.1 -9.1	-.03	+0.5		40.76	4.0	-.02	-0.2 ✓
					40.79 / 40.78	3.5 / 3.8	+.01	+0.3 ✓

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Star		Epoch	Ep. α	Obs. α 1900.0	Ep. δ	Obs. δ 1900.0	Zone
8270	8.7	L_1	95.7	1 23 43 15.32		1 9 48 8.5	14
23 43	15.46	K	23.7	1 43 15.57		1 48 21.1	186
9 48	20.9	H	90.5	3 43 15.46		3 48 20.9	
		Db	93.7	2 43 15.49		2 48 21.7	
8271	8.4	L_1	95.7	1 23 43 19.14		1 12 3 51.3	12
23 43	18.86	K	22.9	2 43 19.23		2 3 53.5	127,12
12 3	52.0	St	[60.0]	2 43 18.78		2 3 51.3	
		L_4 1	63.4	2 43 18.90		2 3 52.0	
		H	90.1	3 43 18.86		3 3 52.0	
8272	8.6	K	22.9	1 23 43 30.68		1 12 19 42.8	127
23 43	30.53	L_5	77.8	5 43 30.51		5 19 46.5	
12 19	49.1	H	89.1	3 43 30.53		3 19 49.1	
8273	8.8	K	22.9	1 23 43 42.08		1 12 0 47.0	129
23 43	41.68						
12 0	49.9	H	89.8	2 43 41.68		2 0 49.9	
8274	8.6	L_1	95.7	1 23 44 6.76		1 13 5 [25.7]	13
23 44	6.51	K	23.7	1 44 6.84		1 51 37.7	189
13 51	38.0	St	57.9	2 44 6.51		2 51 39.3	
		L_4 2	63.5, 64.8	3 44 6.67		3 51 34.1	
		L_5	77.8 8.7	1 44 6.54		1 51 35.1	
		H	92.8	3 44 6.51		3 51 38.0	
		St	95.3	2 44 6.46		2 51 36.2	
8275	8.8	K	23.7	1 23 44 20.84		1 10 7 10.7	186
		Sch	58.7	1 44 20.90		1 7 2.9	
23 44	20.86	St	[60.0]	2 44 21.05		2 7 4.7	
10 7	6.3	Sj	62.8	1 44 20.65		1 7 3.7	
		H	91.2	3 44 20.86		3 7 6.3	

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Zones	α Ep.-H.	δ	α Bs.-H.	δ	α C.-H.	δ	α adj.	δ	Δα	Δδ	
14	-94.8	-94.8	-.14	-12.4	-.09	-7.9	15.37	13.0	-.06	+5.7	
186	-66.8	-66.8	+.11	+0.2	-.06	-1.5	15.40	19.4	-.03	-0.7	
		-80.8	+.09	+5.8			15.46	20.9	+.03	-2.2	
	+3.2	+3.2	+.03	+0.8	.00	+0.2	15.49	21.4	+.06	-2.7	
							15.43	18.7			
12	-94.4	-94.4	+.28	-0.7	+.23	+3.9	19.09	55.9	+.14	-2.6	
127,129	-67.2	-67.2	+.37	+1.5	+.20	+1.8	19.06	53.8	+.11	-0.5	
	-30.1	-30.1	-.08	-0.7	+.08	+1.1	18.82	51.7	-.13	+1.6	
	-26.7	-26.7	+.04	0.0	+.07	+0.9	18.92	53.0	-.03	+0.3	
		-80.8	-.27	-3.5			18.86	52.0	-.09	+1.3	
							18.95	53.3			
127	-66.2	-66.2	+.15	-6.3	-.09	-6.2	30.44	42.9	-.06	+3.5	
	-11.3	-11.3	-.02	-2.6	-.02	-1.1	30.52	47.2	+.02	-0.8	
			+.14	+9.4			30.53	49.1	+.03	-2.7	
							30.50	46.4			
129	-66.9	-66.9	+.40	-2.9	+.30	-2.4	41.98	47.5	+.15	+1.2	
							41.68	49.9	-.15	-1.2	
							41.83	48.4			
13	-97.1	-97.1	+.25	+12.3	+.30	-10.1	6.81	27.9	+.21	+8.1	B
189	-69.1	-69.1	+.33	-0.3	+.07	-0.5	6.58	37.5	-.02	-1.5	
	-34.9	-34.9	.00	+1.3	+.08	-2.2 (0.2)	6.60	40.8	.00	-4.8	
	-29.3	-28.6	+.16	-3.9	+.06	-1.8 (0.2)	6.69	35.1	+.09	+0.9	
	-14.1	-14.1	+.03	-2.9	+.03	-0.9	6.55	35.8	-.05	+0.2	B
	-69.1 δ	-83.1 α	-.22	+6.4 (+0.7)			6.51	38.0	-.09	-2.0	
	+2.5	+2.5	-.05	-1.8	-.01	+0.2	6.43	36.6	-.17	-0.6	B
							6.60	34.3 / 36.6			
186	-67.5	-67.5	-.02	+4.4	-.19	+2.7	20.67	9.0	-.16	-3.1	
							20.85	4.2	+.02	+1.7	
	-31.2	-31.2	+.19	-1.6	-.09	+1.2	21.09	5.1	+.26	+0.8	
	-28.4	-28.4	-.21	-2.6	-.08	+1.1	20.69	4.8	-.14	+1.1	
			+.28	-4.0			20.86	6.3	+.03	-0.4	
							20.83	5.9			

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Star		Epoch		Ep. α		Obs.	α 1900.0		Ep. δ		Obs.	δ 1900.0	
8277	7.4	L_1	95.7			1	23 44 58.27				1	11 39 21.3	
23 44 57.79		K	22.9			2	44 58.59				2	39 29.3	
11 39 30.2		LH St_1	57.9 [60.0]			1	44 58.14				1	39 28.1	
						2	44 58.08				2	39 30.1	
μ?	32183.	G	78.8			3	44 57.95				3	39 29.2	
		L_5	78.8			2	44 57.96				2	39 29.4	
		H	91.8			3	44 57.79				3	39 30.2	
8278	8.9	R_1	49.0			1	23 45 1.98				1	10 6 59.7	
23 45 1.70		Sch	58.7			1	45 1.76				1	6 55.7	
10 6 56.9		H	90.9			2	45 1.70				2	6 56.9	
8280	7.2	L_1	95.7	L_1	95.7	1	23 45 22.00		L_1	95.7	1	13 39 56.9	
23 45 21.62		K	23.7	K	23.7	1	45 22.19		K	23.7	1	40 2.1	
13 39 57.9		R_1	49.0	R_1	49.0	1	46 21.44		R_1	49.0	1	39 [14.0]	
		LH St_2	54.7 57.9	LH St_2	54.7 57.9	1	45 21.49		LH St_2	54.7 57.9	1	39 57.3	
R_1^2						2	45 21.58				2	39 59.1	
		S_j	62.7	S_j	62.7	1	45 21.85		S_j	62.7	1	39 58.4	
		L_5	79.8	L_5	79.8	2	45 21.67		L_5	79.8	2	39 59.5	
		D_2	97.0	H	93.8	3	45 21.62		H	93.8	3	39 57.9	
		H	93.8	Sk	95.3	2	45 21.61		Sk	95.3	2	39 59.5	
		Sk	95.3	D_2	97.0	2	45 21.63		D_2	97.0	2	39 58.6	
8281	8.7	K	22.9			1	23 45 33.29				1	12 9 48.2	
23 45 32.81		St_1	[60.0]			2	45 32.79				2	9 51.5	
12 9 50.1		S_j	62.8			1	45 32.81				1	9 48.3	
		H	91.5			3	45 32.81				3	9 50.1	
8282	8.5	K	23.7			1	23 45 46.63				1	13 22 40.7	
23 45 46.20		St_2	57.9			2	45 46.00				2	22 41.6	
13 22 38.7		A	81.9			4	45 46.28				4	22 38.7	
		H	91.8			3	45 46.20				3	22 38.7	

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Zones	α Zp - H.	δ	α Bs. - H.	δ	α C - H.	δ	α adj.	δ	$\Delta\alpha$	$\Delta\delta$	
12	-96.1	-96.1	+.48	-8.9	+.43	-4.3	58.22	25.9	+.13	+3.5	✓
127, 129	-68.9	-68.9	+.80	-0.9	+.63	-0.6	58.42	29.6	+.33	-0.2	✓
	-33.9	-33.9	+.35	-2.1	+.22	-1.0	58.16	29.1	+.07	+0.3	✓
	-31.8	-31.8	+.29	-0.1	+.20	-1.0	58.12	30.8	+.03	-1.4	✓
	-13.0	-13.0	+.16	-1.0	+.08	-0.4	57.96	29.8	-.13	-0.4	✓
	-13.0	-13.0	+.17	-0.8	+.08	-0.4	57.97	30.1	-.12	-0.7	✓
	-82.5	-.64	+3.0				57.79	30.2	-.30	-0.8	✓
							58.09	29.4			
	-41.9	-41.9	+.28	+2.8			2.06	59.0	+.24	-1.4	✓
							1.71	57.0	-.11	+0.6	✓
							1.70	56.9	-.12	+0.7	✓
							1.82	57.6			
13	-98.1	-98.1	+.38	-1.0	+.43	+1.2	22.05	59.1	+.35	+0.4	✓
189	-70.1	-70.1	+.57	+4.2	+.31	+4.0	21.93	1.9	+.29	-2.4	✓
	-48.8	-48.8	(-.18	-43.9)	(+.21	+1.5)	[21.52]	[3.3]	[-.18]	[-13.8]	✓
	-39.1	-39.1	-.13	-0.6	+.17	+1.2	21.51	58.3	-.21	+1.2	✓
	-35.9	-35.9	-.04	+1.2	+.16	+1.1	21.67	0.6	-.05	-1.1	✓
	-31.1	-31.1	+.23	+0.5	+.14	+1.0	21.89	59.5	+.17	0.0	✓
	-14.0	-14.0	+.05	+1.6	+.06	+0.4	21.68	0.2	-.02	-0.7	✓
	-84.1	-.44	-3.1				21.62	57.9	-.08	+1.6	✓
	+1.5	+1.5	-.01	+1.6	-.01	-0.0	21.58	59.9	-.12	-0.4	✓
	+3.2	+3.2	+.01	+0.7	-.01	-0.1	21.53	58.2	-.17	+1.3	✓
							21.70	59.5			
129	-68.6	-68.6	+.48	-1.9	+.38	-1.4	33.19	48.7	+.27	+1.3	✓
	-31.5	-31.5	-.02	+1.4	+.17	-0.6	32.83	51.9	-.09	-1.9	✓
	-28.7	-28.7	.00	-1.8	+.16	-0.6	32.85	49.4	-.07	+0.6	✓
			-.55	+2.0			32.81	50.1	-.11	-0.1	✓
							32.92	50.0			
189	-68.1	-68.1	+.43	+2.0	+.17	+1.8	46.37	40.5	+.13	-1.2 -0.3	✓
	-33.9	-33.9	-.20	+2.9	+.08	+0.9	46.09	[43.1]	-.15	[-2.9]	✓
	-9.9	-9.9	+.08	0.0	+.02	+0.3	46.28	38.7	+.04	+0.6 +1.5	✓
			-.25	-2.6			46.20	38.7	-.04	+0.6 +1.5	
							46.24	40.2			

note: "error 1m"

10' added 1889

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Star		Epoch		Ep. α	Obs.	α 1900.0		Ep. δ	Obs.	δ 1900.0		Z
8283	8.6	K	22.9		1	23 47	0.90		1	12 16	29.4	12
23 47	1.12	St,	[60.0]		3	47	1.07		3	16	34.2	
12 16	33.7	H	92.3		4	47	1.12		4	16	33.7	
8284	9.4	R,	49.0		1	23 47	8.99		1	10 19	36.7	
23 47	8.94											
10 19	37.9	H	88.8		3	47	8.94		3	19	37.9	
8285	8.6	K	23.7		1	23 47	14.55		1	10 6	26.5	1
23 47	14.76	R,	49.0		1	47	14.39		1	6	29.1	
		Sch	58.7		2	47	14.61		2	6	27.6	
10 6	31.4	St,	[60.0]		2	47	14.54		2	6	29.4	
		Sj	62.8		1	47	14.38		1	6	27.0	
		H	91.1		3	47	14.76		3	6	31.4	
8287	8.9	H	92.4		3	23 47	37.04		3	9 42	5.4	
23 47	37.04											
9 42	5.4	Db	96.3		4	47	37.07		4	42	5.4	
8288	8.7	K	23.7		1	23 47	37.23		1	10 7	1.1	1
23 47	37.29	R	49.0		1	47	37.39		1	7	3.8	
		Sch	58.7		1	47	37.15		1	7	0.8	
10 7	2.9	St,	[60.0]		2	47	37.27		2	7	1.1	
		H	93.5		3	47	37.29		3	7	2.9	
8289	8.0	K	23.2		3	23 47	39.48		3	12 34	19.5	127, 18
23 47	38.98	St,	[60.0]		2	47	39.03		2	34	18.2	
12 34	21.9	Sj	62.8		1	47	38.96		1	34	16.9	
		H	91.5		3	47	38.98		3	34	21.9	

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Zones.	α Ep.-H.	δ	α Obs.-H.	δ	α C-H	δ	α adj.	δ	Δα	Δδ	
129	-69.4	-69.4	-.22	-4.3	-.32	-3.8	0.80		29.9	-.21	+2.8	✓
	-32.3	-32.3	-.05	+0.5	-.15	-1.8	1.11		34.6	+.10	-1.9	✓
			+.46	+5.5			1.12		33.7	+.11	-1.0	✓
							1.01		32.7			
	-39.8	-39.8	+.05	-1.2			9.07		36.0	+.07	+1.0	✓
							8.94	✓	37.9	-.06	-0.9	✓
							9.00		37.0			
186	-67.4	-67.4	-.21	-4.9	-.38	-6.6	14.38	✓	24.8	-.15	+3.7	✓
	-42.1	-42.1	-.37	-2.3	-.24	-4.1	14.47	✓	28.4	-.06	+0.1	✓
							14.56	✓	28.3	+.03	+0.2	✓
	-31.1	-31.1	-.22	-2.0	-.17	-3.0	14.58	✓	29.8	+.05	-1.3	✓
	-28.3	-28.3	-.38	-4.4	-.16	-2.8	14.42	✓	28.1	-.11	+0.4	✓
			+.56	+9.8			14.76	✓	31.4	+.23	-2.9	✓
							14.53		28.5			
							37.04	✓	5.4	-.02	-0.2	✓
	+3.9	+3.9	+.03	0.0			37.07		5.1	+.01	+0.1	✓
							37.06		5.2			
186	-69.8	-69.8	-.06	-1.8	-.23	-3.5	37.06	✓	59.4	-.19	+2.4	✓
	-44.5	-44.5	+.10	+0.9	-.15	-2.2	37.47	✓	3.1	+.22	-1.3	✓
							37.10	✓	2.1	-.15	-0.3	✓
	-33.5	-33.5	-.02	-1.8	-.11	-1.7	37.31	✓	1.5	+.06	+0.3	✓
			+.33	+5.0			37.29	✓	2.9	+.04	-1.1	✓
							37.25		1.8			
{127, 129, 189}	-68.3	-68.3	+.50	-2.4	+.30	-2.3	39.28	✓	19.6	+.20	0.0	✓
	-31.5	-31.5	+.05	-3.7	+.14	-1.1	39.07	✓	18.7	-.01	+0.9	✓
	-28.7	-28.7	-.02	-5.0	+.13	-1.0	39.00	✓	18.0	-.08	+1.6	✓
			-.44	+3.4			38.98	✓	21.9	-.10	-2.3	✓
							39.08		19.6			

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Star	Epoch	Eph. α	Obs. α 1900.0	Eph. δ	Obs. δ 1900.0	zon
8290 8.8	L, 95.7		1 23 47 46.16		1 11 22 27.5	12
23 47 46.19	K 22.9		2 47 46.43		2 22 25.3	127,1
11 22 24.5	St, [60.0]		2 47 46.04		2 22 26.0	
	A [79.9]		3 47 46.33		3 22 25.2	
	H 94.8		3 47 46.19		3 22 24.5	
8291 7.3	L, 95.7		1 23 48 2.75		1 11 33 52.1	12
23 48 4.15	K 22.9		2 48 3.62		2 33 55.5	127,1
11 34 5.8	St, [60.0]		2 48 3.79		2 34 2.8	
	L4 648.628		2 48 3.84		3 34 2.0	
	L5 78.7		1 48 3.94		1 34 2.7	
	H 93.5		3 48 4.15		3 34 5.8	
8292 8.7	Sj 63.0		1 23 48 4.23		1 10 0 28.4	
23 48 4.21						
10 0 28.3	H 91.8		3 48 4.21		3 0 28.3	
8293 8.8	K 23.7		1 23 48 2182		1 12 30 23.8	18
23 48 21.27	St2 57.9		2 48 21.19		2 30 20.3	
12 30 21.9	Sj 62.7		1 48 21.48		1 30 20.1	
	Q 72.2, 70.9		3 48 21.34		1 30 21.1	
	H 90.8		3 48 21.27		3 30 21.9	
8295 9.0	K 22.9		1 23 48 43.82		1 12 7 33.2	12
23 48 43.38						
12 7 37.1	H 92.8		3 48 43.38		3 7 37.1	
8296 m 1.100						
8297 8.6	K 23.7		1 23 48 57.13		1 9 56 49.4	18
23 48 57.27	L4 588 ..		1 48 57.5		.. ..	
9 56 52.9	H 91.8		3 48 57.27		3 56 52.9	

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zones.	α 2h-H.	δ	α Bs.-H.	δ	α G.-H.	δ	α adj	δ adj	$\Delta\alpha$	$\Delta\delta$	
12	-99.1	-99.1	-.03	+3.0	-.08	+7.6	46.11	32.1	-.08	-5.3	✓
127,129	-71.9	-71.9	+.24	+0.8	+.07	+1.1	46.26	25.6	+.07	+1.2	✓
	-34.8	-34.8	-.15	+1.5	.00	+1.8	46.08	26.4	-.11	+0.4	✓
	-14.9	-14.9	+.14	+0.7	.00	+0.8	46.33	25.2	+.14	+1.6	✓
		-85.5	+.01	-5.1			46.19	24.5	.00	+2.3	✓
							46.19	26.8			
12	-97.8	-97.8	-1.40	-13.7	-1.35	-9.1	2.70	56.7	-.96	+4.7	✓
127,129	-70.6	-70.6	-0.53	-10.3	-.70	-10.0	3.45	55.8	-.21	+5.6	✓
	-33.5	-33.5	-0.36	-3.0	-.41	-3.8	3.83	3.5	+1.7	-2.1	✓
	-28.7	-30.7	-0.31	-3.8	-.35	-3.5	3.86	3.0	+.20	-1.6	✓
	-14.8	-14.8	-0.21	-3.1	-.18	-1.7	3.95	3.4	+.29	-2.0	✓
		-84.2	+1.22	+11.3			4.15	5.8	+.49	-4.6	✓
							3.66	1.4			
	-28.8	-28.8	+.02	+0.1			4.27	29.5	+.03	-0.6	✓
							4.21	28.3	-.03	+0.6	✓
							4.24	28.9			
189	-67.1	-67.1	+.55	+1.9	+.29	+1.7	21.56	23.6	+.15	-1.6	✓
	-32.9	-32.9	-.08	-1.6	+.14	+0.8	21.28	21.8	+.13	+0.2	✓
	-28.1	-28.1	+.21	-1.8	+.12	+0.7	21.52	21.2	+.11	+0.8	✓
	-18.6	-19.9	+.07	-0.8	+.08	+0.5	21.43	21.7	+.02	+0.3	✓
			-.43	-2.5			21.27	21.9	-.14	+0.1	✓
							21.41	22.0			
127	-69.9	-69.9	+.44	-3.9	+.20	-3.8	43.58	33.3	+.10	+1.9	✓
							43.38	37.1	-.10	-1.9	✓
							43.48	35.2			
186	-68.1	-68.1	-.14	-3.5	-.31	-5.2	56.96	47.7	-.31°	+2.6	✓
	-33.0	..	+.29	..	-.15	..	57.58	..	+.31°	..	✓
			+.46	+7.6			57.27	52.9	+.01 .00	-2.6	✓
							57.27	50.3			

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Star		Epoch	Eph. α	Obs. α 1900.0	Eph. δ	Obs. δ 1900.0	Zone
8296	8.1	L_1 95.7		1 23 48 54.56		1 9 50 40.0	1
23 48 54.37		K 23.7		1 48 54.66		1 50 48.4	18
9 50 47.0		St, 56.8, 58.8 [60.0]		2 48 54.41		3 50 44.7	
				2 48 54.19		2 50 45.8	
		A 79.5		5 48 54.27		1 45.7 ~~37.3~~	
		L_5 79.8		1 48 53.93		1 50 45.8	
		H 89.1		4 48 54.37		4 50 47.0	
		Db 93.7, 96.7		2 48 54.37		3 50 46.9	
8298	6.9	L_1 95.7	L_1 95.7	1 23 49 54.33	L_1 95.7	1 10 0 58.2	1
23 49 55.11		K 23.7	K 23.7	1 49 55.13	K 23.7	1 1 5.9	18
10 1 3.0		R_1 50.0	L_3 48.8	3 49 55.05	L_3 48.8	1 1 2.2	
		L_3 48.8	R_1 50.0	1 49 55.10	R_1 50.0	1 1 2.7	
		L_4 57.9, 58.7	L_4 57.9	4 49 54.97	L_4 58.7	2 1 1.9	
			Sch 58.7	1 49 55.15	Sch 58.7	1 1 2.7	
		St, [60.0]	St, 60.0	3 49 55.12	St, 60.0	3 1 1.9	
		Sj 62.8	Sj 62.8	1 49 55.06	Sj 62.8	1 1 0.9	
		Q 67.5, 70.1	Q 67.5	3 49 54.98	Q 70.1	3 1 3.4	
32264		G 78.4	G 78.4	5 49 55.10	G 78.4	5 1 2.1	
		V 85.3	V 85.3	4 49 55.09	V 85.3	4 1 1.3	
		H 90.0	H 90.0	4 49 55.11	H 90.0	4 1 3.0	
8299	8.6	K 23.7		1 23 50 19.05		1 12 30 40.3	18
23 50 18.89		St_2 57.9		4 50 18.60		4 30 38.7	
12 30 39.2		Sj 62.8		1 50 18.71		1 30 37.2	
		Q 71.6, 70.9		3 50 18.75		1 30 39.0	
		H 91.5		4 50 18.89		4 30 39.2	
8300	8.7	K 22.9		2 23 50 30.03		2 11 20 48.5	17,18
23 50 29.74		St, [60.0]		2 50 29.71		2 20 47.9	
11 20 49.8		H 90.1		3 50 29.74		3 20 49.8	

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Zones	α Eph − H.	δ	α Bs. − H.	δ	α G − H.	δ	α Adj.	δ	Δα	Δδ
14	−93.4	−93.4	+.19	−7.0	+.24	−2.5	54.61	44.5	+.27	+0.6
186	−65.4	−65.4	+.29	+1.4	+.12	−0.3	54.49	46.7	+.15	−1.6
	−32.3	−30.3	+.04	−2.3	+.07	−0.5	54.43	45.7	+.09	+0.4 −0.6
	−29.1	−29.1	−.18	−1.2	+.07	−0.5	54.23	46.3	−.11	−1.2
								45.7		+0.4
	−9.6	−9.6	−.10	−9.7	+.02	−0.2	54.27	37.3	−.07	+7.8
	−9.3	−9.3	−.44	−1.2	+.02	−0.2	53.94	46.5	−.40	−1.4
		−79.4	−.23	+1.8			54.37	47.0	+.03	−1.9
	+4.6	+7.6	.00	−0.1	−.01	+0.1	54.37	46.6	+.03	−1.5
							54.34	48.1		
								46.1		
14	−94.3	−94.3	−.78	−4.8	−.73	−0.3	54.38	2.7	−.64	+0.1
186	−66.3	−66.3	+.02	+2.9	−.15	+1.2	54.96	4.2	−.06	−1.4
	−41.2	−41.2	−.06	−0.8	−.23	+0.2	55.04	2.5	+.02	+0.3
	−40.0	−40.0	−.01	−0.3	−.22	+0.2	55.18	2.0	+.16	+0.8
	−32.1	−31.3	−.14	−1.1	−.18	+0.2	54.99	2.9	−.03	−0.1
							55.16	4.0	+.08	−1.2
	−30.0	−30.0	+.01	−1.1	−.16	+0.2	55.16	2.6	+.14	+0.2
	−27.2	−27.2	−.05	−2.1	−.15	+0.2	55.10	2.0	+.08	+0.8
	−22.5	−19.9	−.13	+0.4	−.12	+0.1	55.07	4.0	+.05	−1.2
	−11.6	−11.6	−.01	−0.9	−.06	+0.1	55.07	2.7	+.05	+0.1
	−4.7	−4.7	−.02	−1.7	−.03	+0.0	55.07	1.4	+.05	+1.4
		−80.3	+.55	−0.6			55.11	3.0	+.09	−0.2
							55.02	2.8		
189	−67.8	−67.8	+.16	+1.1	−.10	+0.9	18.79	40.1	+.00	−0.6
	−33.6	−33.6	−.29	−0.5	−.05	+0.4	18.69	40.2	−.10	−0.7
	−28.7	−28.7	−.18	−2.0	−.04	+0.4	18.75	38.3	−.04	+1.2
	−19.9	−20.6	−.14	−0.2	−.03	+0.3	18.84	39.6	+.05	−0.1
			+.15	−1.3			18.89	39.2	+.10	+0.3
							18.79	39.5		
127, 129	−67.2	−67.2	+.29	−1.3	+.12	−1.0	29.86	48.8	+.08	+0.2
	−30.1	−30.1	−.03	−1.9	+.05	−0.5	29.75	48.3	−.03	+0.7
			−.18	+1.5			29.74	49.8	−.04	−0.8
							29.78	49.0		

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Star		Epoch	Ep. α	Obs.	α 1900.0	Ep. δ	Obs.	δ 1900.0	
8301	8.0	L_1	95.7	1	23 50 35.64		1	9 36 50.5	
23 50 35.93		K	23.7	1	50 36.10		1	36 57.8	
9 37 0.4		L_4 St_1	58.9 [60.0]	1	50 35.88		2	36 57.4	
				2	50 35.80		2	36 56.5	
		L_5	76.4	2	50 35.88		2	37 0.1	
		D_1	83.8	1	50 36.01		1	37 0.1	
		H	90.2	3	50 35.93		3	37 0.4	
		Db	93.8	2	50 35.95		2	37 1.2	
8302	6.4	L_1	95.7	L_1 95.7	1	23 50 38.15	L_1 95.7	1	13 47 19.5
23 50 37.64		K	23.7	K 23.7	1	50 38.01	K 23.7	1	42 25.8
13 42 26.1		M_1	45.9	M_1 45.9	1	50 37.95	M_1 45.9	1	42 22.1
		St_2	57.9	St 57.9	2	50 37.61	St 57.9	2	42 22.6
		L_4^2	67.8	L_4^2 67.8	1	50 37.66	L_4^2 67.8	1	42 25.1
		G	74.6	G 74.6	10	50 37.63	G 74.6	10	42 23.9
		L_5	79.9	Sn 77.6	4	50 37.58	Sn 77.6	9	42 25.7
		Sn	77.6	L_5 79.9	1	50 37.59	L_5 79.9	1	42 24.0
		H	90.5	H 90.5	3	50 37.64	H 90.5	3	42 26.1
		Sk	95.3	Sk 95.3	2	50 37.54	Sk 95.3	2	42 26.0
8303	8.7	K	22.9		2	23 50 48.38		2	11 25 17.5
23 50 48.14		St_1	[60.0]		2	50 48.07		2	25 21.0
11 25 19.8		H	90.6		3	50 48.14		3	25 19.8
8304	9.0	H	91.1		3	23 50 52.50		3	11 46 58.4
23 50 52.50									
11 46 58.4		C_2	96.0		5	50 52.67		5	47 0.5
8305	8.1	K	23.7		1	23 50 52.87		1	13 2 34.3
23 50 52.76		St_2	57.9		2	50 52.52		2	2 32.8
13 2 35.1		Sj	62.7		1	50 52.64		1	2 33.0
		H	90.8		3	50 52.76		3	2 35.1

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zones	α Ep−H.	δ	α Pos.−H.	δ	α C.−H.	δ	α Adj.	δ	Δα	Δδ	
14	−94.5	−94.5	−.29	−9.9	−.24	−5.4	35.69	55.0	−.19	+3.6	✓
186	−66.5	−66.5	+.17	−2.6	.00	−4.3	35.93	56.1	+.05	+2.5	✓
	−31.3	−31.3	−.05	−3.0	−.05	−1.9	35.90	58.4	+.02	+0.2	✓
	−30.2	−30.2	−.13	−3.9	−.05	−1.8	35.84	57.0	−.04	+1.6	✓
	−13.8	−13.8	−.05	−0.3	−.02	−0.8	35.89	0.8	+.01	−2.2	✓
	−6.4	−6.4	+.08	−0.3	−.01	−0.4	35.92	0.5	+.04	−1.9	✓
		−80.5	+.15	+6.0			35.93	0.4	+.05	−1.8	✓
	+3.6	+3.6	+.02	+0.8	+.01	+0.2	35.95 / 35.88	0.9 / 58.6	+.07	−2.3	✓
13	−94.8	−94.8	+.51	−6.6	+.56	−4.4	38.20	21.7	+.48	[+3.2] ac	✓
189	−66.8	−66.8	+.37	−0.3	+.11	−0.5	37.75	25.6	+.03	−0.4	✓
	−44.6	−44.6	+.31	−4.0	+.18	−0.3 +1.3	37.86	23.4	+.14	+1.8	✓ B
	−32.6	−32.6	−.03	−3.5	+.13	−0.2 −1.0	37.70	24.1	−.02	+1.1 +0.8	✓
	−22.7	−22.7	+.02	−1.0	+.09	−0.2 −0.7	37.68	26.1	−.04	−0.9 −1.3	✓
	−15.9	−15.9	−.01	−2.2	+.07	−0.1 −0.5	37.60	24.5	−.12	+0.7	✓ B
	−12.9	−12.9	−.06	−0.4	+.05	−0.1 −0.4	37.62	26.3	−.10	−1.4	✓ B
	−10.6	−10.6	−.05	−2.1	+.04	−0.1 −0.3	37.60	24.7	−.12	+0.5	✓ B
	−66.8 δ	−80.8 α	−.41	+0.7 +3.0			37.64	26.1	−.08	−0.9 −1.2	✓
	+4.8	+4.8	−.10	−0.1	−.02	+0.1	37.51 / 37.72	26.4 / 24.9 25.2	−.21	−1.5	✓ B
127, 129	−67.7	−67.7	+.24	−2.3	+.07	−2.0	48.21	17.8	+.06	+1.9	✓
	−30.6	−30.6	−.07	+1.2	+.03	−0.9	48.11	21.4	−.04	−1.7	✓
			−.10	+3.0			48.14 / 48.15	19.8 / 19.7	−.01	−0.1	✓
							52.50	58.4	−.06	+1.1	✓
	+4.9	+4.9	+.17	+2.1			52.63 / 52.56	0.6 / 59.5	+.07	−1.1	✓
189	−67.1	−67.1	+.11	−0.8	−.15	−1.0	52.61	34.1	−.05	+0.3	✓
	−32.9	−32.9	−.24	−2.3	−.07	−0.5	52.61	34.3	−.05	+0.1	✓
	−28.1	−28.1	−.12	−2.1	−.06	−0.4	52.68	34.1	+.02	+0.3	✓
			+.22	+1.5			52.76 / 52.66	35.1 / 34.4	+.10	−0.7	✓

note: Pg 42

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Star		Epoch	Eph. α	Obs.	α 1900.0	Eph. δ	Obs.	δ 1900.0	Zone
8306	8.1	L_1	95.7	1	23 51 17.17		1	10 2 57.7	1
23 51	15.31	K	23.7	1	51 16.08		1	3 11.9	18
10 3	14.6	R	49.0	2	51 16.13		2	3 13.3	
		Sch	58.7	1	51 16.09		1	3 11.8	
		St_1	[60.0]	2	51 16.05		2	3 10.9	
		L_4	61.4	3	51 15.65		3	3 12.3	
		S_1	63.0	1	51 15.81		1	3 11.9	
		D_2	69.1, 70.1	4	51 15.62		3	3 13.1	
		C_1	90.0	4	51 15.38		4	3 15.9	
		H	91.1	4	51 15.31		4	3 14.6	
8307	8.8	K	22.9	1	23 51 39.85		1	10 34 59.7	1
23 51	39.37	St_1	[60.0]	2	51 39.35		2	35 1.8	
10 35	2.4	H	89.8	3	51 39.37		3	35 2.4	
8308	8.6	L_1	95.7	L_1 95.7	1	23 51 57.97	L_1 95.7	1	13 31 4.7	1
23 51	57.76	K	23.7	K 23.7	1	51 57.78	K 23.7	1	31 12.1	
13 31	6.1	L_4	54.9, 58.8	L_4 54.9	1	51 57.66	St_2 57.9	2	31 7.8	
		St_2	57.9	St_2 57.9	2	51 57.66	L_4 58.8	2	31 5.2	
		A	84.6	L_5 79.8	1	51 57.67	L_5 79.8	1	31 5.3	
		L_5	79.8	A 84.6	1	51 57.76	A 84.6	1	31 5.1	
		M_2	84.8	M_2 84.8	1	51 57.87	M_2 848	1	31 5.3	
		H	89.4	H 89.4	3	51 57.76	H 89.4	3	31 6.1	
8309	8.2	L_1	95.7	L_1 95.7	1	23 52 19.82	L_1 95.7	1	10 11 39.8	1
23 52	22.15	K	23.7	K 23.7	1	52 20.30	K 23.7	1	11 50.5	1
10 11	59.8	R	49.0	R 49.0	1	52 21.02	R 49.0	1	11 57.1	
		L_4	58.7	L_4 58.7	2	52 21.22	L_4 58.7	2	11 53.4	
		St_1	[60.0]	St_1 [60.0]	2	52 21.30	St_1 60.0	2	11 51.4	
		S_1	62.8	S_1 62.8	1	52 21.14	S_1 62.8	1	11 52.8	
		D_2	96.8	C_1 90.0	3	52 22.34	C_1 90.0	3	12 0.2	
		C_1	90.0	H 90.1	3	52 22.15	H 90.1	3	11 59.8	
		H	90.1	D_2 96.8	4	52 22.57	D_2 96.8	4	12 0.8	

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zones.	α Sp − H.S.	α Bs. − H.S.	α C − H.S.	α adj.	δ	Δα	Δδ
14	−95.4 −95.4	+1.86 −16.9	+1.91 −12.4	[17.22]	2.2	[11.29]	+9.8
186	−67.4 −67.4	+0.77 −2.7	+.60 −4.4	15.91	10.2	+.12 −.02	+1.8
	−42.1 −42.1	+.82 −1.3	+.65 −4.3	16.21	12.6	+.42 +.28	−0.6
				16.04	13.1	+.28 +.11	−1.1
	−31.1 −31.1	+.74 −3.7	+.48 −3.2	16.08	11.4	+.39 +.15	+0.6
	−29.7 −29.7	+.34 −2.3	+.46 −3.1	15.67	13.3	−.12 −.26	−1.3
	−28.1 −28.1	+.50 −2.7	+.43 −2.9	15.85	13.0	+.06 −.08	−1.6
	−22.0 −21.0	+.31 −1.5	+.34 −2.2	15.71	13.7	+.08 −.22	−1.7
	−1.1 −1.1	+.07 +1.3	+.02 −0.1	15.32 (3)	15.8	−.46 −.61	−3.8
	−81.4	−1.54	+10.3	15.31	14.6	−.48 −.62	−2.6
				15.73.79	12.0		
129	−66.9 −66.9	+.48 −2.7	+.38 −2.2	39.75	0.2	+.25	+1.4
	−29.8 −29.8	−.02 −0.6	+.17 −1.0	39.38	(2) 5.2	−.12	−0.6
		−.57	+3.3	39.37	2.4	−.13	−0.8
				39.50	2.6 (1)		
13	−93.7 −93.7	+.21 −1.4	+.26 +.08	58.02	6.9	+.28	+0.2
189	−65.7 −65.7	+.02 +6.0	−.24 +5.8	57.52	11.9	−.22	−4.8
	−34.5 −31.5	−.10 +1.7	+.04 +1.3	57.68	9.2	−.06	−2.1
	−31.5 −30.6	−.10 −0.9	+.04 +1.3	57.75	6.2	+.01	+0.9
	−9.6 −9.6	−.09 −0.8	+.01 +0.4	57.68	6.0	−.06	+1.1
	−4.8 −4.8	.00 −1.0	+.01 +0.2	57.76	5.1	+.02	+2.0
	−4.6 −4.6	+.11 −0.8	+.01 +0.2	57.78	5.4	+.04	+1.7
	−79.7	−.18	−4.1	57.76	6.1	+.02	+1.0
				57.74	7.1		
14	−94.4 −94.4	−2.33 −20.0	−2.28 −15.5	19.87	44.3	[1.44]	[16.1]
186	−66.4 −66.4	−1.85 −9.3	−2.02 −11.0	20.13	48.8	[1.18]	+5.6
	−41.1 −41.1	−1.13 −2.7	−1.10 −6.8	21.10	56.4	−.21	−2.0
	−31.4 −31.4	−.93 −6.4	−.84 −5.2	21.24	54.4	−.07	0.0
	−30.1 −30.1	−.85 −8.4	−.80 −5.0	21.33	51.9	+.02	+2.5
	−27.3 −27.3	−1.01 −7.0	−.73 −4.5	21.18	53.9	−.13	+0.5
	−0.1 −0.1	+.19 +0.4	−.00 −.00	22.29	0.1	+.98	−5.7
	−80.4	+2.67	+16.5	22.15	59.8	+.84	−5.4
	+6.7 +6.7	+.42 +1.0	+.18 +1.1	22.47	0.4	[1.16]	−6.0
				21.31	54.4		

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Star	Epoch		Eph. α	Obs.	α 1900.0	Eph. δ	Obs.	δ 1900.0	Zn
8310 8.2	L,	95.7		1	23 53 9.06		1	12 0 40.5	12
23 53 8.69	K	22.9		2	53 9.33		2	0 46.1	127,
	sch	58.7		1	53 9.09		1	0 46.4	
12 0 50.9	St,	[60.0]		2	53 8.72		2	0 49.2	
μ² μ	H	91.6		4	53 8.69		4	0 50.9	
8311 8.4	Sj	62.7		1	23 53 25.94		1	13 1 25.5	
23 53 25.93									
13 1 25.8	H	90.4		3	53 25.93		3	1 25.8	
8312 8.6	L,	95.7		1	23 53 31.91		1	12 14 41.2	1
23 53 32.02	K	22.9		2	53 32.00		2	14 45.1	127,
	L4	54.6, 58.7		1	53 31.95		1	14 44.1	
12 14 46.0	St,	[60.0]		2	53 32.05		2	14 45.0	
	D,	83.7		2	53 32.12		2	14 45.7	
	H	91.1		3	53 32.02		3	14 46.0	
8313 8.5	L,	95.7		1	23 53 45.25		1	13 20 13.1	1
23 53 45.23	K	23.7		1	53 45.29		1	20 18.3	18
13 20 10.5	St₂	57.9		2	53 45.06		2	20 10.3	
	Q	71.4, 72.3		2	53 45.06		2	20 11.4	
	H	90.4		3	53 45.23		3	20 10.5	
8314 8.3	L,	95.7	L,	95.7	1	23 53 54.61	L,	95.7	1	12 29 27.3	1
23 53 54.58	K	23.2 ~~22.9~~	K	23.2 ~~22.9~~	3	53 54.46	K	23.2 ~~22.9~~	3	29 31.5	127,
	L4	54.7, 58.8	L4	54.7	1	53 54.38					18
12 29 35.8	St₂	57.9	St₂	57.9	2	53 54.42	St₂	57.9	2	29 32.6	
							L4	58.8	1	29 33.9	
μ¹²	Sj	62.8	Sj	62.8	1	53 54.76	Sj	62.8	1	29 32.4	
	H	91.1	H	91.1	3	53 54.58	H	91.1	3	29 35.8	
8315 8.7	ll,	45.9			1	23 54 17.09			1	13 52 9.5	
23 54 17.06	ll₂	84.8			1	54 17.14			1	52 13.1	
13 52 15.0	H	90.8			3	54 17.06			3	52 15.0	
	St	95.3			2	54 17.13			2	52 13.1	

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Zones.	α Σh − H.	δ	α Bs. − H.	δ	α C. − H.	δ	α adj.	δ	Δα	Δδ	
12	−95.9	−95.9	+.37	−10.4	+.32	−5.8	9.01		45.1	+.08	+2.9	✓
127,129	−68.7	−68.7	+.64	−4.8	+.47	−4.5	9.16		46.4	+.23	+1.6	✓
							9.04		47.7	+.11	+0.3	✓
	−31.6	−31.6	+.03	−1.7	+.15	−2.0	8.75		49.7	−.18	−1.7	✓
	−82.3	−.48	+6.3				8.69		50.9	−.24	−2.9	✓
							8.93		48.0			
	−27.7	−27.7	+.01	−0.3			25.98		26.6	+.02	−0.4	✓
							25.93		25.8	−.03	+0.4	✓
							25.96		26.2			
12	−95.4	−95.4	−.11	−4.8	−.16	−0.2	31.86		45.8	−.12	−0.2	✓
δ 127,129	−68.2	−68.2	−.02	−0.9	−.12	−0.6	31.83	90	45.4	−.08	+0.2	✓
	−36.5	−32.4	−.07	−1.9	−.06	−0.2	31.97		45.1	−.01	+0.5	✓
	−31.1	−31.1	+.03	−1.0	−.05	−0.2	32.08		45.4	+.10	+0.2	✓
	−7.4	−7.4	+.10	−0.3	−.01	0.0	32.03		46.1	+.05	−0.5	✓
	−81.8		+.17	+0.5			32.02		46.0	+.04	−0.4	✓
							31.98		45.6			
13	−94.7	−94.7	+.02	+2.6	+.07	+4.8	45.30		15.3	+.13	−1.8	✓
189	−66.7	−66.7	+.06	+7.8	−.20	+7.6	45.03		18.1	−.14	−4.6	✓
	−32.5	−32.5	−.17	−0.2	−.03	+2.5	45.15		11.7	−.02	+1.8	✓
	−19.6	−18.1	−.17	+0.9	−.02	+1.4	45.15		12.0	−.02	+1.5	✓
	−80.7		+.08	−7.7			45.23		10.5	+.06	+3.0	✓
							45.17		13.5			
12	−95.4	−95.4	+.03	−8.5	−.02	−3.9	54.56		31.9	+.04	+1.7	✓
127,129	−67.9	−67.9	−.12	−4.3	−.32	−4.2	54.26		31.6	−.26	+2.0	✓
189	−36.4		−.20		−.08		54.40			−.12		
	−33.2	−33.2	−.16	−3.2	−.07	−1.7	54.51		34.0	−.01	−0.4	✓
		−32.3		−1.9		−1.6			38.9		−1.3	✓
	−28.3	−28.3	+.18	−3.4	−.06	−1.4	54.80		33.5	7.28	+0.1	✓
	−81.6		+.21	+5.0			54.58		35.8	+.06	−2.2	✓
							54.52		33.46			
	−44.9	−44.9	+.03	−5.5			17.00		10.8	−.05	+2.3	✓
	−6.0	−6.0	+.08	−1.9			17.05		13.2	.00	−0.1	✓
							17.06		15.0	+.01	−1.9	✓
	+4.5	+4.5	+.07	−1.9			17.10		13.5	+.05	−2.4	✓

Mean 13.1 / 12.6 17.05

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Star	Epoch	Eph. α	Obs. α 1900.0	Eph. δ	Obs. δ 1900.0	Zo
8316 9.0	R, 49.0		1 23 54 19.13		1 12 54 20.3	
23 54 18.88						
12 54 10.6	H 92.5		4 54 18.88		4 54 10.6	
8317 8.9	K 23.7		1 23 54 48.77		1 13 29 25.0	1
23 54 48.43	H_2 57.9		2 54 48.48		2 29 21.5	
13 29 23.8	H 90.4		3 54 48.43		3 29 23.8	
8318 9.0	H 90.4		3 23 55 15.77		3 9 38 52.5	
23 55 15.77						
9 38 52.5	D6 94.4		2 55 15.73		2 38 53.2	
8319 8.0	L_1 95.7		1 23 55 16.28		1 11 1 10.5	1
23 55 16.20	K 22.9		2 55 16.68		2 1 14.8	127,
11 1 12.9	L_4 " 59.2	"	" "		1 1 12.2	
	H_1 [60.0]		3 55 16.26		3 1 13.6	
	L_3 62.8		1 55 16.11		1 1 [3.7]	
	L_5 81.8		1 55 16.20		1 1 12.6	
	H 92.5		3 55 16.20		3 1 12.9	
8321 8.8	L_1 95.7		1 23 55 42.47		1 13 22 44.7	1
23 55 43.69	K 23.7		1 55 43.08		1 22 50.5	18
13 22 57.6	H_2 57.9		2 55 43.25		2 22 52.5	
	L_4 " 58.8	"	" "		1 22 51.8	
μ μ'	Q 73.9 68.9		2 55 43.34		1 22 54.4	
	L_5 79.8		1 55 43.59		1 22 53.8	
	H 90.8		3 55 43.69		3 22 57.6	
8322 8.5	L_1 95.7		1 23 55 45.10		1 12 22 31.2	12
23 55 47.55	K 22.9		2 55 45.85		2 22 35.5	127,1
	Sch 58.9		1 55 46.69		1 22 38.3	
12 22 41.5	H_1 [60.0]		2 55 46.78		2 22 39.3	
μ μ'	H 91.8		4 55 47.55		4 22 41.5	

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Zones	α Ep − H. S.	δ Bs. − H. S.	α C − H. S.		α adj. δ	Δα	Δδ.	
	−43.5 −43.5	+.25	+9.7		19.21	19.6 +.17	−4.5	✓
					18.88	10.6 −.16	+4.5	✓
					19.04	15.1		
189	−66.7 −66.7	+.34	+1.2	+.08 +1.0	48.51	24.8 +.01	−1.0	✓
	−32.5 −32.5	+.05	−2.3	+.04 +0.5	48.57	22.9 +.07	+0.9	✓
		−.12	−1.5		48.43	23.8 −.07	0.0	✓
					48.50	23.8		
					15.77	52.5 +.02	+0.2	✓
	+4.6 +4.6	−.04	+0.7		15.73	52.9 −.02	−0.2	✓
					15.75	52.7		
12	−96.8 −96.8	+.08	−2.4	+.03 +2.2	16.23	15.1 −.03	−1.1	✓
127, 129	−69.6 −69.6	+.48	+1.9	+.31 +2.2	16.51	15.1 +.25	−1.1	✓
	.. −32.8	..	−0.7	.. +0.9	...	13.2 ..	+0.8	✓
	−32.5 −32.5	+.06	+0.7	+.06 +0.8	16.29	14.1 +.03	−0.1	✓
	−29.7 −29.7	−.09	−9.2	+.06 +0.8	16.15	[4.8] −.11	[+9.2] ab	✓
	−10.7 −10.7	.00	−0.3	+.02 +0.3	16.21	13.3 −.05	+0.7	✓
	−83.2	−.20	−2.6		16.20	12.9 −.06	+1.1	✓
					16.26	14.0		
13	−95.1 −95.1	−1.22	−12.9	−1.17 −10.7	42.52	46.9 −.71	+6.1	✓
189	−67.1 −67.1	−.61	−7.1	−.87 −7.3	42.82	50.3 −.41	+2.7	✓
	−32.9 −32.9	−.44	−5.1	−.41 −0.4	43.34	53.9 +.11	−0.9	✓
	.. −32.0	..	−5.8	−0.4	...	52.8	+0.2	✓
	−16.9 −21.9	−.35	−3.2	−.21 −0.2	43.43	55.0 +.20	−2.0	✓
	−11.0 −11.0	−.10	−3.8	−.14 −0.1	43.60	54.5 +.37	−1.5	✓
	−81.1	+1.26	+1.18		43.69	57.6 59.8 +.46	−4.6	✓
					43.23	53.30		
12	−96.1 −96.1	−2.45	−10.3	−2.50 −5.7	44.05	35.8 [−1.30] −2.10	+2.7	✓
127, 129	−68.9 −68.9	−1.70	−6.0	−1.87 −5.7	45.68	35.8 −.47	+2.7	✓
					46.64	39.6 +.49	−1.1	✓
	−31.8 −31.8	−0.77	−2.2	−0.84 −2.2	46.81	39.7 +.66	−1.2	✓
	−82.5	+2.65	+6.9		47.55	41.5 [+1.40]	−3.0	✓
					46.85	38.5		

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Star		Epoch		Ep. α	Obs. α 1900.0	Ep. δ	Obs. δ 1900.0	
8323	8.9.	K	22.9.		1. 23 55 52.13.		1. 11 29 22.3.	20
23 55	51.98.	St_1	[60.0].		2. 55. 52.08.		2. 29 24.1.	12
11. 29	28.3.	H	92.1.		4. 55 51.98.		4. 29 28.3.	
8324	8.5.	L_1	95.7.		1. 23 56 5.25.		1. 12 31 6.8.	12
23 56	4.96.	K	23.2.		3. 56 5.50.		3. 31 12.4.	(127,1
12 31	15.6.	St_2	57.9.		2. 56 4.92.		2. 31 14.5.	189
		H	90.6.		3. 56 4.96.		3. 31 15.6.	
8325	8.7.	R_1	49.0.		1. 23 56 12.07.		1. 12 54 11.8.	
23 56	11.97.	S_1	62.7.		1. 56 11.80.		1. 53 12.5.	
12 53	12.9.	D_1	84.8.		1. 56 12.13.		1. 53 10.8.	
		H	90.5.		3. 56 11.97.		3. 53 12.9.	
8326	8.7.	K	23.7.		1. 23 56 25.05.		1. 9 59 14.7.	18
23 56	24.96.	R_1	49.0.		1. 56 24.87.		1. 59 17.1.	
9 59	14.0.	St_1	[60.0].		2. 56 24.95.		2. 59 15.8.	
		H	92.0.		4. 56 24.96.		4. 59 14.0.	
8327	8.9.	S_1	62.7.		1. 23 56 49.83.		1. 13 6 22.7.	
23 56	49.82.	M_2	84.8.		1. 56 50.01.		1. 6 20.9.	
13 6	20.7.	H	90.5.		3. 56 49.82.		3. 6 20.7.	
8328	8.7.	L_1	95.7.		1. 23 57 7.16.		1. 12 31 6.5.	12
23 57	6.88.	K	23.2.		3. 57 7.33.		3. 31 15.7.	(127,12
12 31	18.3.	St_2	58.7.		5. 57 6.83.		4. 31 13.7.	189
		H	89.5.		3. 57 6.88.		3. 31 18.3.	

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Zones	α Ep − H. δ.	α Bs. − H. δ.	α G − H. δ.	α adj. δ	Δα	Δδ	
129	−69.2 −69.2	+.15 −6.0	+.05 −5.5	52.03	22.8 +.01	+2.4	✓
	−32.1 −32.1	+.10 −4.2	+.02 −2.5	52.11	24.4 +.07	+0.8	✓
		−.07 +7.9		51.98	28.3 −.06	−3.1	✓
				52.04	25.2		
12	−94.9 −94.9	+.29 −8.8	+.24 −4.2	5.20	11.4 +.08	+2.4	✓
(127,129,189)	−67.4 −67.4	+.54 −3.2	+.34 −3.1	5.30	12.5 +.18	+1.3	✓
	−32.7 −32.7	−.04 −1.1	+.12 −1.5	5.01	15.9 −.11	−2.1	✓
	−81.2	−.36 +4.5		4.96	15.6 −.16	−1.8	✓
				5.12	13.8		
	−41.5 −41.5	+.10 −1.1		12.15	[11.7] +.15	[+1.1] ac	✓
	−27.8 −27.8	−.17 −0.4		11.84	13.6 −.16	−1.2 0	✓
	−5.7 −5.7	+.16 −2.1		12.04	11.2 +.04	+1.8 11	✓
				11.97	12.9 −.03	−0.3 3	✓
				12.00	12.2		
186	−68.3 −68.3	+.09 +0.7	−.08 −1.0	24.88	13.0 −.06	+1.9	✓
	−43.0 −43.0	−.09 +3.1	−.05 −0.6	24.95	16.4 +.01	−1.5	✓
	−32.0 −32.0	−.01 +1.8	−.04 −0.5	24.98	16.2 +.04	−1.3	✓
		+.12 +1.5		24.96	14.0 +.02	+0.9	✓
				24.94	14.9		
	−27.8 −27.8	+.01 +2.0		49.87	23.8 .00	−2.0	✓
	−5.7 −5.7	+.19 +0.2		49.92	21.0 +.05	+0.8	✓
				49.82	20.7 −.05	+1.1	✓
				49.87	21.8		
12	−93.8 −93.8	+.28 −11.8	+.23 −7.2	7.11	11.1 +.10	+4.0	✓
(127,129,189)	−66.3 −66.3	+.45 −2.6	+.25 −2.5	7.13	15.8 +.12	−0.7	✓
	−30.8 −30.8	−.05 −4.6	+.09 −1.9	6.92	15.1 −.09	0.0	✓
	−80.0	−.30 +6.1		6.88	18.3 −.13	−3.2	✓
				7.01	15.1		

Wrong sum.

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Star		Epoch	Ep. α	Obs. α 1900.0	Ep. δ	Obs. δ 1900.0	Zone
8329	8.6	L_1 95.7		1 23 57 9.79		1 9 43 46.7	1
23 57	9.45	K 23.7		1 57 9.29		1 43 54.8	19
9 43	54.2	R 45.0		1 57 9.68		1 43 54.9	
		L_4 St 55.8, 57.7		1 57 9.54		2 43 52.2	
		St [60.0]		2 57 9.71		2 43 53.1	
		L_5 79.9		1 57 9.59		1 43 53.0	
		V 84.3		4 57 9.60		4 43 51.7	
		H 90.5		3 57 9,45		3 43 54.2	
		Db 94.4		2 57 9.55		2 43 53.3	
8331	9.0	K 22.9		1 23 58 9.13		1 11 33 2.3	12
23 58	8,70	St [60.0]		2 58 8.86		2 33 5.6	
11 33	5.0	H 92.4		4 58 8.70		4 33 5.0	
8332	8.2	L_1 95.7	L_1 95.7	1 23 58 13.38	L_1 95.7	1 12 29 49.2	12
23 58	13.29	K 23.2	K 23.2	3 58 13.54	K 23.2	3 29 66.7	[12?, 19
12 30	2.8	L_4 St 56.8, 58.8	L_4 56.8	2 58 13.34			
		St_2 57.9	St_2 57.9	2 58 13.23	St_2 57.9	2 29 56.0	
		Schsj 58.7	Schsj 58.7	1 58 13.25	L_4 58.8	3 29 58.7	59.5
		Sj 62.8	Sj 62.8	1 58 13.34	Sj 62.8	1 29 57.2	
		M_2 84.8	M_2 84.8	1 58 13.19	M_2 84.8	1 30 1.3	
		H 92.9	H 92.9	3 58 13.29	H 92.9	3 30 2.8	
8333	8.8	K 23.7		1 23 58 25.73		1 13 47 4.7	18
23 58	25.24	St_2 57.9		2 58 24.99		2 47 1.8	
13 47	2.3	H 91.2		3 58 25.24		3 47 2.3	
		Sk 95.3		2 58 25.22		2 47 1.8	
8334	8.8	Sj 63.0		1 23 59 11.70		1 9 48 23.9	
23 59	11.80	H 92.3		3 59 11.80		3 48 23.8	
9 48	23.8	Db 94.3		2 59 11.85		2 48 24.6	

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Zone	α Eph−H.	δ α Obs.−H.	δ α C−H.	δ	α adj.	δ	Δα	Δδ	
14	−94.8 −94.8	+.34 −7.5	+.39	−3.0	9.84	51.2	+.26	+1.9	✓
186	−66.8 −66.8	−.16 +0.6	−.33	−1.1	9.12	53.1	−.46	0.0	✓
	−45.5 −45.5	+.23 +0.7	+.02	−1.1	9.76	54.2	+.18	−1.1	✓
	−34.7 −32.8	+.09 −2.0	+.01	−0.8	9.56	53.2	−.02	−0.1	✓
	−30.5 −30.5	+.26 −1.1	+.01	−0.8	9.74	53.5	+.16	−0.4	✓
	−10.6 −10.6	+.14 −1.2	+.00	−0.3	9.60	53.7	+.02	−0.6	✓
	−6.2 −6.2	+.15 −2.5	+.00	−0.2	9.58	51.8	.00	+1.3	✓
	−80.8	−.04 +2.5			9.45	54.2	−.13	−1.1	✓
	+3.9 +3.9	+.10 −0.9	00	+0.1	9.55 / 9.58	53.0 / 53.1	−.03	+0.1	✓
129	−69.5 −69.5	+.43 −2.7	+.33	−2.2	9.03	2.8	+.16	+1.8	✓
	−32.4 −32.4	+.16 +0.6	+.15	−1.0	8.89	5.9	+.02	−1.3	✓
		−.47 +3.2			8.70 / 8.87	5.0 / ~~4.6~~	−.17	−0.4	✓
12	−97.2 −97.2	+.09 −13.6	+.04	−9.0	13.33	53.8	+.04	+5.2	✓
{127,129 199	−69.7 −69.7	+.25 −6.1	+.06	−5.4	13.35	57.4	+.06	+1.6	✓
	−36.1	+.05	+.02	..	13.36		+.07	..	✓
	−35.0 −35.0	−.06 −6.8	+.02	−3.0	13.32	57.4	+.03	+1.6	✓
	−34.1	−4.1		−2.9	13.20	0.8	−.09	−1.8	✓
	−30.1 −30.1	+.05 −5.6	+.02	−2.6	13.38	58.3	+.09	−0.7 / +0.7	✓
	−8.1 −8.1	−.10 −1.5	+.00	−0.7	13.10	1.4	−.19	−2.4	✓
	−83.4	−.06 +8.6			13.29 / 13.29	2.8 / 51.4 / 59.0	.00	−3.8	✓
189	−67.5 −67.5	+.49 +2.4	+.23	+2.2	25.47	4.5	+.23	−1.5	✓
	−33.3 −33.3	−.25 −0.5	+.11	+1.1	25.08	3.2	−.16	−0.2	✓
		−.34 −3.3			25.24	2.3	.00	+0.7	✓
	+4.1 +4.1	−.02 −0.5	−.01	−0.1	25.19 / 25.24	2.2 / 3.0	−.05	+0.8	✓
	−29.3 −29.3	−.10 +0.1			11.74	25.0	−.06	−0.6	✓
					11.80	23.8	.00	+0.6	✓
	+2.0 +2.0	+.05 +0.8			11.85 / 11.80	24.3 / 24.4	+.05	+0.1	✓

adj δ Δδ
α_4 59.7 ✓ −0.7 ✓
Sh 0.8 ✓ −1.8 ✓

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Star	Epoch	Eph. α	Obs.	α 1900.0	Eph. δ	Obs.	δ 1900.0	Zone
8335 8.6	K 22.9		1	23 59 21.12		1	11 44 38.4	127
23 59 20.66	St, [60.0]		2	59 20.69		2	44 41.3	
11 44 44.8	H 90.5		3	59 20.66		3	44 44.8	
8336 4.7	L1 95.7	L1 95.7	1	23 59 23.43	L1 95.7	1	11 3 46.9	1.
23 59 23.03	P266 00.0	P 00.0	5	59 23.14	P 00.0	5	3 53.4	
11 3 57.6	K 23.2	K 23.2	3	59 23.34	K 23.2	3	3 58.5	(127, 19.
	L3 41.9, "	L3 41.9	5	59 22.98	L3 "	"	"	
	L4 55.8	L4 55.8	1	59 23.00	L4 55.8	1	3 54.8	
	St, [60.0]	St, 60.0	2	59 23.02	St 60.0	2	3 57.8	
	63.9	63.9	1	59 23.09	L1 63.9	1	4 1.0	
32417, 3rd	G 78.8	G 78.8	3	59 22.99	G 78.8	3	3 57.2	
	L5 79.8	Sn 78.9	2	59 23.02	Sn 78.9	2	3 57.8	
	Sn 78.9	L5 79.8	1	59 22.87	L5 79.8	1	3 57.3	
	H 93.8	H 93.8	3	59 23.03	H 93.8	3	3 57.6	
8337 8.8	K 23.7		1	23 59 27.74		1	12 50 16.9	18
23 59 27.45	St2 57.9		2	59 27.39		2	50 13.9	
12 50 15.9	Sj 62.7		1	59 27.33		1	50 13.8	
	H 91.2		3	59 27.45		3	50 15.9	
8088 8.9		Sch 58.7	1	22 57 51.92		1	10 6 29.4	
22 57 51.64								
10 6 32.3		H 88.8	3	57 51.64		3	10 6 32.3	

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Zones	α Ep-H.	δ	α Bs.-H.	δ	α C-H.	δ	α adj.	δ	Δα	Δδ	
127	-67.6	-67.6	+.16	-6.4	+.22	-6.3	20.88	38.5	+.13	+3.2	✓
	-30.5	-30.5	+.03	-3.5	+.10	-2.8	20.72	41.7	-.03	0.0	✓
			-.33	+9.3			20.66	44.8	-.09	-3.1	✓
							20.75	41.7			
12	-98.1	-98.1	+.40	-10.7	+.35	-6.1	23.38	51.5	+.31	+5.8	✓
	-93.8	-93.8	+.11	-4.2	+.26	-2.5	23.25	56.1	+.18	+1.2	✓
(127,129,199)	-70.6	-70.6	+.31	+0.9	+.12	+1.6	23.15	59.2	+.08	-1.9	✓
	-51.9	..	-.05	..	+.15	..	22.97	...	-.10	..	✓
	-38.0	-38.0	-.03	-2.8	+.11	-1.0	23.02	55.8	-.05	+1.5	✓
	-33.8	-33.8	-.01	+0.2	+.09	-0.9	23.05	58.5	-.02	-1.2	✓
							23.00	0.3	-.07	-3.0	✓
	-15.0	-15.0	-.04	-0.4	+.04	-0.4	22.96	57.8	-.11	-0.5	✓
	-14.9	-14.9	-.01	+0.2	+.04	-0.4	23.06	58.4	-.01	-1.1	✓
	-14.0	-14.0	-.16	-0.3	+.04	-0.4	22.88	58.0	-.19	-0.7	✓
	-84.4		-.28	+2.7			23.03	57.6	-.04	-0.3	✓
							23.07	57.3			
189	-67.5	-67.5	+.29	+1.0	+.03	+0.8	27.48	16.7	+.04	-1.0	✓
	-33.3	-33.3	-.06	-2.0	+.01	+0.4	27.48	15.3	+.04	+0.4	✓
	-28.5	-28.5	-.12	-2.1	+.01	+0.3	27.37	14.9	-.07	+0.8	✓
			-.04	-1.2			27.45	15.9	+.01	-0.2	✓
							27.44	15.7			
							51.88	30.7	+.12	+0.8	✓
							51.64	32.3	-.12	-0.8	✓
							51.76	31.5			

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Star	Epoch	Ep. α	Obs. α 1900.0	Ep. δ	Obs. δ 1900.0

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Star	Epoch	Ep. α	Obs. α 1900.0	Ep. δ	Obs. δ 1900.0

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Star	Epoch	Ep. α	Obs. α 1900.0	Ep. δ	Obs. δ 1900.0

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Nb 0
Sk 0
St_1 0
Nc 0
D_1 0
D_2 0
B 0
V 0
Q 0
G 0
M_1 0
L_2 0
L_4 0 (63 inserted)
L_3 0
P 0
C_1 0
C_2 0
S_2 0
A 0
M_2 0
L_5 0
R_1 0
R_2 no stars -
St_2 0
Sj 0
K 0
L_1 0
E 2 { 2 2532
50 2661

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Omitted; [entered letters in 4]

8034 L4
8036 L4
8041 ~ 8044 L4
8053 L4
8070 L4
8072 "
8087 " > 8088
8099 "

8309 L4
8312 L4
8314 L4
8319 L4
8321 "
8329 " Inserted on p 112 & brought forward to 1900.0;
8332 "

63

8105 "
8107 "
8109 "
8111 "
8127 "
8129 "
8142 "
8144 "
8147 L4
8154 L4
8165 L4
8167 "
8176 " > 8181
8183 " > 8184
8187 "
8190 "
8194 "
8196 "
8201 "
8212 "
8214 " > 8217
8218 " > 8221
8231 " 8228
8237 " 8232 8233
8250 "
8252 " 8262 8268
8280 " > 8277 8271 8274
8291 " > 8296
8301 " 8297
8302 " 8306

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