1982phae.proj..869F

KG
11365
868

HENRY DRAPER MEMORIAL.

No. 50

Discussion of Draper Catalogue

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nasa2phae.proj... 809F

Groups A, ~~B~~, E, EG, HIK, ~~—~~ zigzag 30° eq
Enumerate B,C,D,I,M,6,2. give D.C. No. Photo eqn. Obs. Record Hours

Groups ~ half zigzag. B, 3.75 – 4.24, 4.25 – 4.74, 4.75 – 5.24, 6.75 – 7.23, F
Class A for each 2 hours.

3.75 to 4.24 4.25 to 4.74 4.75 to 5.24 5.25 to 5.74 5.75 to 6.24 6.25 to 6.74

4.0 4.5 5.0 5.5 6.0 15

11 12 14 10 14 6

1 A ✓
2 E, G
3 I
4 H, I, K

} for each 2 hours – 0° – 29° ✓9'
" " 2h 0.0m +0 +29° ✓9'
" " 2h 40m +30° +61 2'
" " 8h +61°3' to pole

1 ✓ 2 ✓ 3 ✓ 4 ✓ 5 ✓ 6 ✓ 16.0 7 ✓ 8

0.0 – 2.39, 2.40 – 5.19, 5.20 – 7.59, 8.0 – 10.39, 10.40 – 13.19, 13.20 – 15.59, ~~15.20~~ – 18.39, 18.40 – 21.19
9
21.20 – 23.59.

7855 9 to dec. ✓ 10170 p. ✓ 5413 91 7716 —
1611 5 . ✓ 9592 9 . 6128,3 .

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ibrary.phae.proj. .hcgi

9580 - See if included in A Grouping. has a dot. Perhaps printer's ink.
5655 R but no rem.
~~5755 See if entered~~ F. O1 K1
6129 F.
✓10154 Used in Grouping? Yes.
✓4210 Should be erased off A. Make note of 8771
7754 See if entered.

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Grouping of A. Stars. $-0°$ to $-30°$.
$0^h - 1^h$.

3.0	3.5	4.0	4.5	5.0	5.5
				.00	(10) 41
				120	841
				433	412
					320
					300
					.35
					610

Dб. 958 } 6.27 R F.
" 959 } 6.27 R F.

Σ+	0	2	0	34	11	1
Σ−	5	3	3	0	4	8
Dif.	5	1	3	+34	+7	−7
Nor.	2	3	3	6	7	7
Mean	−.25	−.03	−.10	+.57	+.10	−.10

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Grouping of A. Stars. −0° to −30°.

0h. − 1h.

6.0	6.5		7.0	7.5
(10) 7 6	2 2 0	6 F.	4 F.	5 F.
. 0 (14)	6 F.	9 F.	2 1 .	
0 5 .	4 14 .	4 1 .	2 0 .	
(13) F.	3 2 .	(11) F.	8 F.	
0 F.	2 3 .	6 F.	(10) F.	
7 7 .	3 0 .	6 7 6	1 F.	
. 7 .	3 2 2		9 F.	
(10) 8 .	1 1 2			
. 1 .	(10) 5 .			
. 5 .	(10) 1 .			
(10) 9 .	4 0 .			
7 3 .	6 3 .			
1 2 1	2 2 .			
8 3 .	(13) F.			
(10) 5 .	3 F. 5			
1 0 0	4 F.			
. 4 .	7 2 .			
7 5 .	0 1 ?			
4 0 1	. 2 .			
7 4 .	9 16 .			
9 7 .	(14) 5 .			
(12)(12) .	7 2 .			
	9 F.			
	8 F.			
	6 0 .			
115 92 20	162 56 5		34 1 .	0 . .
1 2 2	16 15 10		2 0 .	5 . .
+114 +90 +18	+146 +41 −5		+32 +1 .	−5 . .
171 20 5	30 21 5		7 2	1 . .
+.67 +.45 +.36	+.491 +.201 −.10		+.461 +.051 .	−.501 . .

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Grouping of A. Stars. −0° to −30°.

2h. − 3h.

3.0	3.5	4.0	4.5	5.0	5.5
			.42	111	020
			320	.63	101
			.55	110	441
			612	302	800
				923	.23
				012	310
				210	430
				033	86.
				362	112
				621	
				552	
				.63	
				.42	

Σ+	0	5	2	30	24	14	29	18	1
Σ−	9	7	7	0	14	10	0	1	6
Dif	−9↓	−2↓	−5↓	+30↓	+10↓	+4↓	+29↓	+17↓	−5↓
No.	2↓	4↓	4↓	10↓	13↓	13↓	8↓	9↓	8↓
Mean	−.45↓	−.05↓	−.12↓	+.30↓	+.08↓	+.03↓	+.36↓	+.19↓	−.06↓

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Grouping of A. Stars -0° to -30°.

2h. – 3h.

6.0	6.5	7.0	7.5
8 6 .	7 3 .	~~(12) . .~~	
9 7 .	(10) 5 .	7 F .	
(12) 6 .	5 F 4		
(17) (10) .	(14) F .		
(12) (10) .	(12) F .		
9 7 .	7 4 .		
8 7 .	9 F .		
(17) F . .	(12) F .		
6 5 .	(10) F .		
1 5 5	1 1 .		
6 7 .	6 6 .		
1 0 .	6 0 .		
3 2 .	3 5 .		
1 7 1	8 4 .		
. 7 5	3 F .		
. 5 .			
3 1 .			
9 F .			
. 3 (10)			
8 9 .			
0 0 .			

129	99	6	107	28	4	7	.	.
1	5	15	6	0	0	0	.	.
+128√	+94√	-9	+101√	+28√	+4	+7√	.	.
18√	19√	4	15√	8√	1√	1√	.	.
+.71√	+.49√	-.22	+.67√	+.35√	+.40√	+.70√	.	.

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Grouping of A. Stars. −0° to −30°.
4h. − 5h.

3.0	3.5	4.0	4.5	5.0	5.5
	6 8 7	5 2 1	6 8 3	6 2 7	2 2 1 (13) 9.
	R 6 2 3	2 1 2	2 2 0	3 R 2 var.	9 6 2 3 3 3
		0 0 3	6 0 3	2 4 0	4 0 1 (11)(12).
		0 4 3	3 2 2	(11) 6 1	2 3 0 . 6 1
			7 2 0	(10) 9 3	1 3 4 3 5 1
			3 2 1	8 (13) 0	3 2 1 . 6 2
			8 (12) 1	(23) (10).	4 3 2
				1 3 1	4 2 5
				8 7 1	4 1 0
				9 7 1	4 2 3
					7 7 0
					6 4 2
					. 3 0
					(17)(12).
					. 2 9
					. 7 3
					7 (10).
					9 6.
					8 4 2
					3 2 3
					(14)(13).
					5 6 5
					9 (11).
					(11)(12).
					(10)(10).

D6.

2991 } 5.66 R R. ↓
2992 }
3036 R . . .
3175 B R R R ↓
3237 } B R R R ↓
3238 }
3306 B R R R ↓

Σ+	0	0	0		2	1	1		33	24	8		70	59	6		160	170	19
Σ−	12 ↓	10	10		5	6 ↓	8		2	4	2 ↓		8	2	8		13	4	31
Dif.	−12 ↓	−10 ↓	−10 ↓		−3 ↓	−5 ↓	−7 ↓		+31 ↓	+20 ↓	+6 ↓		+62 ↓	+57 ↓	−2 ↓		+147 ↓	+166 ↓	−12 ↓
No.	2 ↓	2 ↓	2 ↓		4 ↓	4 ↓	4 ↓		7 ↓	7 ↓	7 ↓		9 ↓	9 ↓	8 ↓		26 ↓	31 ↓	22 ↓
Means	−.60 ↓	−.50 ↓	−.50 ↓		−.08 ↓	−.12 ↓	−.18 ↓		+.44 ↓	+.29 ↓	+.08 ↓		+.69 ↓	+.63 ↓	−.02 ↓		+.57 ↓	+.54 ↓	−.05 ↓

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Grouping of A. Stars. −0° to −30°.
4 h. — 5 h.

6.0	6.5	7.0	7.5
2 2 3	8 7 1 4 4 4 5 3 .	9 F.	
. 0 1	(16) F . 5 2 4	(10) 7 . 9 F.	2 F.
6 8 .	1 7 . 2 6 . 5 4 0	6 F.	(12) F.
(11) 7 .	8 (12) . 8 6 . 4 3 .	9 6 .	2 (12).
5 8 .	2 7 . 9 4 .	3 F. 4 F.	
8 6 .	7 6 . (12) 6 0	(11) F . (11) (12) .	
6 5 .	(15) F . (12) 7 .	7 F . 6 3 .	
1 4 .	(17) R (10) .	(14) 5 . (13) (10) .	
. 2 4	(10) 3 .	7 3 . . 7 .	
1 1 2	(17) F .	. 4 5 6 3 .	
(11) 7 .	8 F .	1 1 4 8 6 .	
. 5 0	(12) (12) .	8 5 . (17) F .	
(13) F .	9 7 .	4 3 5	
2 R 8 5	(18) (10) .	(12) 9 .	
1 5 .	7 7 2	(16) F .	
8 R 8 .	8 5 .	6 8 .	
8 F .	(19) F .	4 4 .	
7 8 .	6 8 1	9 2 .	
2 7 2	4 6 .	(14) F .	
2 5 .	6 6 .	(16) F .	
(13) 7 .	9 F .	(27) F .	
(12) (10) .	(15) 8 .	(12) (12) .	
(12) 9 .	(13) F .	(10) F .	
. (10) .	6 6 .	(13) (13) .	
8 5 .	5 4 3	(15) F .	

421	288	5
16	15	27
+405 ✓	+273 ✓	−122 ✓
53 ✓	48 ✓	14 ✓
+.76 ✓	+.57 ✓	−.16 ✓

312	123	0
10	10	14
+302 ✓	+113 ✓	−14 ✓
34 ✓	23 ✓	4 ✓
+.89 ✓	+.49 ✓	−.35 ✓

25	12 .
0	0 .
+25 ✓	+12 .
4 ✓	1 ✓ .
+.62 ✓	+1.20 ✓ .

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Grouping of A. Stars. −0° to −30°
6h. – 7h.

3.0	3.5	4.0	4.5	5.0	5.5 3d in column	5.5 1st	5.5 2nd
	.15	.30	640	133	48.	89.	.7.
		131	763	981	(24)(24).	.62	(11)(13).
		151	(15)40	242	503	6829	5.
		.41	.72	.62	79.	963	(13)(11).
			.63	(10)73		7(11)5	781
			.74	470		(13)94	.(11).
				371		871	.(13).
				371		79.	(11) Fr.
				(11)92		.51	.(13).
				(10)33		343	870
				37.		.(11)3	66.
				027		940	(14)(13).
				870		850	88.
				270		55.	473
				.(11).		.(11)7	(13)(13).
				.05		.(12).	(18) Fr.
DC. Mag. Recid.				683		451	(19)(13).
~~3713 R . . .~~				.(12).		844	460
3797 B R R R ✓				~~963~~		.(13).	792
3802 5.68 (24) R. ✓				(11)81		(11)82	(14)(11).
~~3803 R . . .~~				.88		.43	(11)(13).
3939 B . R R ✓				342		.(10).	(10)(10).
4297 } 4298 } 386 . 60 ✓						.82	(20)(12).
						56.	88.
~~4311 R . . .~~						.66.	91
		Σ+	.00	2 15 1	28 34 0	97 131 11	366 453 43
4332 } 4333 } 571	R R	Σ−	.15	0 0 2	0 0 12	0 10 36	0 0 16
		Dif.	.−15 −5	+2 +15 −1	+.28 +34 −12	+97 +121 −25	+366 +453 +27
	R R	No.	.4 1	2 4 4	3 4 6	17 22 19	39 52 25
		Mean	−.10 −.50	+.10 +.38 −.02	+.93 +.57 −.20	+.57 +.55 −.13	+.94 +.87 +.11

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Grouping of A. Stars. −0° to −30°.
6h. − 7h

6.0			6.5		7.0	7.5
1 3 2	(10) F.	(10)(12).	(13) F.	8 6.	2 . .	
9 9.	(13) F.		4 6.	9 F.		
(11)(10).	9 4.		(11) F.	4 2 3		
. 1 2	7 5.		9 6.	(14) 8.		
3 6.	(12) 9.		4 5.	(14) 7 (12)		
4 7.	9 7 2		7 6.	6 (16).		
(13)(10).	. 9 4		9 F.	(13) F.		
5 (10).	(11)(18).		8 F.	9 F.		
9 6.	. (12).		4 F.	0 3.		
5 8.	(12)(16).		1 (11).	3 3.		
6 5.	6 5.		6 6.	6 2.		
9 8.	3 8.		8 4.	8 F.		
9 9.	9 6.		4 4 1			
9 F.	2 8 2		7 F.			
(12)(10).	(13) F.		(10) 7.			
(10)(13).	(14) F.		8 F.			
2 1 4	(11)(12).		7 F.			
(10)(11).	(18)(12).		6 R.			
7 6.	3 4.		(11)(15).			
5 8.	(11) 8.		7 4.			
3 4.	(20) 9.		3 2.			
5 9.	(17)(17).		7 3.			
2 1 2	5 5.		6 3.			
5 3.	8 9.		(14) F.			
6 9.	1 0 5		7 4.			
392 362	8		251 124	0	2 . .	
2 0	15		24 11	16	0 . .	
+390 +362	−7		+227 +113	−16	+2 . .	
48 46	8		37 23	3	1 . .	
+.81 +.79	−.09		+.61 +.49	−.53	+.20 . .	

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Grouping of A. Stars. -0° to -30°
8h. – 9h.

3.0	3.5	4.0	4.5	5.0	5.5
		3 2 1	1 1 1	4 4 2	7 (10)
				5 1	3 8 1
				2 4	5 6 3
				8 4 1	9 9
				1 3 3	3 8
					9 8 0
					2 6 2
					7 3 2
					5 5 1
					9 6 1
					(10)(17)
					4 4 1
					7 7
					(12) 9
					8 6 1
					5 4 0
					4 6
					7 1 0

Σ+	0	0	0	1	1	0	13	18	2	112	117	6
Σ−	3	2	1	0	0	1	0	0	9	0	4	12
Dif.	−3	−2	−1	+1	+1	−1	+13	+18	−7	+112	+113	−6
No.	1	1	1	1	1	1	3	5	5	17	18	12
Mean.	−.30	−.20	−.10	+.10	+.10	−.10	+.43	+.36	−.14	+.66	+.63	−.05

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Grouping of A Stars −0° to −30°.
8h. − 9h.

6.0	6.5	7.0	7.5
42.	85.	6F.	
49.	.13	3F.	
96.		06.	
45.		84.	
413		.32	
541		.53	
33.			
98.			
.9.			
87.			
122			
48.			
553.			
(10) 6.			
50.			
87.			
87.			
64.			
98.			
350			
54.			
07.			
150			
170			
012			

123	136	4
1	0	10
+122 ✓	+136 ✓	−6 ✓
25 ✓	27 ✓	9 ✓
+.49 ✓	+.50 ✓	−.07 ✓

17	18	3
0	0	2
+17 ✓	+18 ✓	+1 ✓
4 ✓	4 ✓	2 ✓
+.42 ✓	+.45 ✓	+.05 ✓

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Grouping of A Stars −0° to −30°

10 h. 11 h.

3.0	3.5	4.0	4.5	5.0	5.5
			~~1 1 1 1 1~~	4 3 2	2 1 3
			2 2 2	2 3 0	5 4 2
			1 5 2	3 2 1	7 3 1
				0 2 4	. 8 3
				1 6 3	. 2 2
				3 3 1	. 3 1
				3 3 1	8 5 .

Σ+	0	5	2	12	11	0	20	25	6
Σ−	3	2	2	6	11	12	2	1	6
Dif.	−3	+3	0	+6	0	−12	+18	+24	0
No.	2	2	2	7	7	7	4	7	6
Mean.	−.15	+.15	.00	+.09	.00	−.17	+.45	+.34	.00

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Grouping of A Stars −0° to −30°.

10h. 11h.

6.0	6.5	7.0	7.5
5 7.	3 3. 7 4.	(12) (17).	
2 2.	4 5. 9 7.		
(12) 3.	7 4.		
6 6.	2 1 1		
5 4 1	0 4.		
5 6.	0 2.	D6.	
6 5.	4 2.	5492 } 6.24 RR.	
9 1 3	5 3.	5493 } RR	
. (10) 6	5 5 5	5494 } RR.	
. 4 4	(11) F.		
(13) 7.	7 4.		
2 2 2	6 6.		
8 5.	1 2.		
7 2 2	2 2.		
(10) 9.	8 2.		
8 7.	4 1.		
. 8 4	7 F.		
3 5.	7 4.		
	0 4.		
	7 4.		
	(14) 7.		
	7 F.		
	(14) (17).		
	(16) F.		
	7 F.		
90 82 9	158 86 0	12 17 .	
11 11 13	6 7 6	0 0 .	
+79 +71 −4	+152 +79 −6	+12 +17 .	
15 18 7	27 22 2	1 1 .	
+.53 +.39 −.06	+.56 +.36 −.30	+1.20 +1.70 .	

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Grouping of A Stars −0° to −30°

12h. − 13h.

3.0	3.5	4.0	4.5	5.0	5.5
	(13) 8 5	(10) 2 2	3 1 2	1 2 4	6 4 2
	4 4 3	5 4 5		2 3 4	(11) 6 .
				. 6 0	4 5 4
					8 8 .
					0 4 3
					(12) 9 .
					. 2 1
					. 7 1
					. 5 2
					. (10) 6

D.M. Magn.

6450 B R R R ✓

Σ+	0	0	0		0	0	0		0	1	0		2	8	4		41	60	16	
Σ−	17	12	8		15	6	7		3.	0	2		1	3	4		0	0	3	
Dif.	−17	−12	−8		−15	−6	−7		−3	+1	−2		+1	+5	0		+41	+60	+13	
No.	2	2	2		2	2	2		1	1	1		2	3	3		6	10	7	
Mean	−.85	−.60	−.40		−.75	−.30	−.35		−.30	+.10	−.20		+.05	+.17	.00		+.68	+.60	+.19	

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Grouping of A Stars −0° to −30°

12h. − 13h.

6.0	6.5	7.0	7.5
2 5.	. (21).		
4 2.	7 F.		
3 1 3	3 4.		
1 2 1	(10) 4.		
7 (12).	7 2 1		
1 2 1			
1 3,			
1 2 2			
6 6.			
2 7.			
5 2.			
3 4.			
(10) 2.			
4 4 1			
. 5 5			
var. 1 R 1			
6 5.			
7 5.			
6 5.			
~~ybw.~~			
~~8 2 1~~			

69	71	7
0	3	6
+69	+68	+1
17	18	6
+.41	+.38	+.02

27	31	1
0	0	0
+27	+31	+1
4	4	1
+.68	+.78	+.10

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Grouping of A Stars −0° to −30°

14h − 15h.

3.0	3.5	4.0	4.5	5.0	5.5
11 0 4	3 3 3		2 2 1	0 2 2	6 5 1
	1 4 2		2 7 6	var. var. R R 3	5 5.
			.1 6	(11) 6 2	(13)(11).
				5 6 0	8 8.
				4 7 3	.8 6
				4 5 0	.3 3
				4 5 0	.0 2
				.9 7	.5 2
				2 8 4	.7 5
					(10) 6.
					7 4 1
					(12)(13).
					8 8.
					8 8.
					9 8 5
					(12)(10).
					1 6 0
					(14)(12).
					5 6 2
					5 6 0
					7 8.

D.O. Magn. Rect

~~7073 R . . .~~ Added to D.O. 7078.

~~6926 R . . .~~

Σ+	0	0	0		1	0	0		4	9	6		30	48	16		130	139	19	
Σ−	11	0	4		3	7	5		0	1	7		0	0	2		0	8	8	
Dif.	−11	0	−4		−2	−7	−5		+4	+8	−1		+30	+48	+14		+130	+131	+11	
N.	1	1	1		2	2	2		2	3	3		7	8	8		16	21	11	
Mean	−1.10	.00	−.40		−.10	−.35	−.25		+.20	+.27	−.03		+.43	+.60	+.18		+.81	+.62	+.10	

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Grouping of A Stars −0° to −30°

14h. − 15h.

6.0	6.5	7.0	7.5
7 6.	7 (17).	2 2.	
8 2 1	4 (15).		
4 (14).	(10) (22).		
. 6 3			
4 5 1			
9 7.			
7 9.			
7 8 4			
. 1 2			
(10) (12).			
5 6.			
(11) 8.			
9 7.			
(11) 5.			
0 4 0			
(15) (18).			
(14) (16).			
. (14).			
2 1 1			
4 (11).			

119 154 8	21 54 .	2 2 .
8 1 4	0 0 .	0 0 .
+1114 +153 +4	+21 +54 .	+2 +2 .
17 19 7	3 3 .	1 1 .
+.65 +.81 +.06	+.70 +1.80 .	+.20 +.20 .

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Grouping of A Stars −0° to −30°
16h. − 17h.

3.0	3.5	4.0	4.5	5.0	5.5
(10) 6 4	3 7 5	5 2 1	6 6 0	. (13) .	. (13) .
		. 4 8	9 1 1	3 2 2	5 7 3
		. 6 9	1 2 0	. 3 2	3 4 2
		2 3 3	. 1 1	. 1 3	9 (14) .
			1 3 0	. 7 2	7 7 4
			. 9 1	3 7 4	. 8 .
				. 4 1	8 (10) .
				0 1 1	2 3 0
					5 3 .
					. 7 3

Σ+	0	0	0	0	0	0	5	2	0	17	21	2	6	37	5	36	76	12
Σ−	10	6	4	3	7	5	2	13	21	0	1	1	0	1	10	3	0	0
Dif.	−10	−6	−4	−3	−7	−5	+3	−11	−21	+17	+20	+1	+6	+36	−5	+33	+76	+12
No.	11	11	11	11	11	11	2	4	4	4	6	6	3	8	7	7	10	5
Mean	−1.00	−.60	−.40	−.30	−.70	−.50	+.15	−.28	−.52	+.42	+.33	+.02	+.20	+.45	−.07	+.47	+.76	+.24

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Grouping of A Stars -0° to -30°
16h. - 17h.

6.0	6.5	7.0	7.5
7 6.	1 1.	2 1 6	
3 5 1	6 4.		
2 2 1	2 3.		
(11) 7.	1 2.		
3 3.	5 2 0		
(11) (10).	8 (14).		
. 5.			
2 8.			
3 4 0			
. 6.			
. 4.			
2 1.			
2 1 2			
. 0 2			
1 1 1			

45	54	2
2	2	5
+43	+52	-3
11	14	6
+.39	+.37	-.05

17	24	0
6	2	0
+11	+22	0
6	6	1
+.18	+.37	.00

2	1	0
0	0	6
+2	+1	-6
1	1	1
+.20	+.10	-.60

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Grouping of A Stars. −0° to −30°
18h–19h

3.0	3.5	4.0	4.5	5.0	5.5
	.13	852	.10	112	442 (14)(14).
	~~362~~		403	941	143 323
				.96	(11)7. 5(10)8
				573	(12)93 ~~37~~
				869	152 ~~8~~
				223	.83.
				112	784
					313
					994
					243
					(14)(10).
					331
					123
					641
					460
					330
D.6.					(11)(11).
					.03
					(12)9.
					var. .R6
					.(13)8
					737
					421
					211
					9(11)0
Σ+	.10	000	010	16 23 10	136 170 45
Σ−	.03	852	401	10 7 16	12 3 18
Dif.	.+1↓ −3↓	−8↓ −5↓ −2↓	−4↓ +1↓ −3↓	+6↓ +16↓ −6↓	+124↓ +167↓ +27↓
No.	.1↓ 1↓	1↓ 1↓ 1↓	1↓ 2↓ 2↓	6↓ 7↓ 7↓	24↓ 27↓ 22↓
Means	.+.10↓ −.30↓	−.80↓ −.50↓ −.20↓	−.40↓ +.05↓ −.15↓	+.10↓ +.23↓ −.09↓	+.52↓ +.62↓ +.12↓

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nasaplace (proj., 0005

Grouping of A Stars. -0° to -30°.
18h. - 19h.

6.0	6.5	7.0	7.5
6 7 3	5 3 .		
4 8 .	3 2 .		
7 4 .	2 2 1		
9 F .	4 1 .		
6 6 .	1 2 .		
(11) 9 .	5 (10) .		
(10) (12) .	(17) F .		
3 1 1	2 3 .		
. 8 .	2 7 .		
(10) 6 .	6 F .		
(11) (16) .	(11) (12) .		
0 1 3	2 4 .		
6 2 .			
~~9 (11) 1~~			

83	80	3
0 ✓	0 ✓	4 ✓
+83	+80 ✓	-1 ✓
12 ✓	12 ✓	3 ✓
+.69 ✓	+.67 ✓	-.03 ✓

49	42 ✓	0
11	4 ✓	1 ✓
+38 ✓	+38 ✓	-1 ✓
12 ✓	10 ✓	1 ✓
+.32 ✓	+.38 ✓	-.10 ✓

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Grouping of A Stars -0° to -30°

20h. - 21h.

3.0	3.5	4.0	4.5	5.0	5.5
	3 6 2		4 3 1	5 2 3	37.
	6 2 2		3 3 1	3 4 1	88.
	5 7 5			1 3 0	(12)(12).
				1 4 1	7 6 5
				1 1 1	(18) 9 3
				(16)(13)(11)	5 3 1
				5 1 1	58.
					3 4 2
					5 3 0
					1 2 4
					3 2 1
					2 1 2
					6 3 2
					1 1 2
					9 (12).
					97.
					4 1 4

Σ+	6	2	2	3 3 1	32 28 13		94 84 12	
Σ−	8	13	7	4 3 1	0 0 5		7 5 14	
Dif.	-2	-11	-5	-1 0 0	+32 +28 +8		+87 +79 -2	
Nb.	3	3	3	2 2 2	7 7 7		17 17 11	
Means	-.07	-.37	-.17	-.05 .00 .00	+.46 +.40 +.11		+.51 +.46 -.02	

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Grouping of A Stars -0° to -30°.

20h. - 21h.

6.0	6.5	7.0	7.5
9 (11).	0 2.		
7 3 1	5 3 2		
0 1 2			
1 1 1			
5 2 3			
5 3 3			
(11) 5.			
4 4 4			
2 1 2			
5 3 2			
5 4.			
(12) 9.			
(14) 6.			
8 (10).			
1 3 5			

78	57	7
11	9	16
+ 67	+ 48	- 9
15	15	9
+.45	+.32	-.10

5	5	2
0	0	0
+5	+5	+2
2	2	1
+.25	+.25	+.20

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Grouping of A Stars -0° to -30°

22h. – 23h.

3.0	3.5	4.0	4.5	5.0	5.5
		1 2 0	0 1 2	6 5 3	5 4 3
		8 6 4	4 2 1	2 1 2	. 7 5
			. 1 3	7 2 1	. 3 1
			(11) 2 1	8 5 3	. 1 1
			1 1 0	1 0 2	7 1 1
				1 5 2	0 1 1
					8 4 2
					4 5 3
					3 1 1
					1 0 2
					6 9 6
					0 0 0
					1 2 2
					5 1 0
					5 0 1
					2 5 4

~~26. 9704 = Defect in plate.~~

Σ+	0	0	0	12	1	4	21	6	6	38	35	24
Σ−	9	8	4	4	6	3	4	12	7	9	9	9
Dif	−9	−8	−4	+8	−5	+1	+17	−6	−1	+29	+26	+15
No.	2	2	2	4	5	5	6	6	6	13	16	16
Mean.	−.45	−.40	−.20	+.20	−.10	+.02	+.28	−.10	−.02	+.22	+.16	+.09

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Grouping of A Stars −0° to −30°
22 h. − 23 h.

6.0	6.5	7.0	7.5
(11) (10).	1 2.		
(10) 7 0	7 6.		
(20) F.	9 (12).		
3 5.	4 2.		
. 4 4	1 1 1		
(10) 5.	1 8 3		
9 8.	4 2.		
6 3.	6 9.		
(15) (18).	5 K.		
9 3 1			
. 7.			
4 3 4			
8 8.			
8 5.			
. 8 2			
5 8.			
9 6.			
9 9.			
(10) 3.			
2 F.			
1 0 0			
3 2 2			
(12) (12).			
. (12) (12)			

161	134	11
3	12	14
+158	+122	−3
20	22	8
+.79	+.55	−.04

26	41	1
12	8	3
+14	+33	−2
9	9	2
+1.6	+.37	−.10

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Grouping of A Stars. +0° – +29° 59′.

0h. – 1h.

3.0	3.5	4.0	4.5	5.0	5.5
	(10) . 5			0 . 1	3 0 1
	(12) (10) 9			1 . 1	4 . 2
					6 2 1
					7 4 4
					3 . 1
					1 . 1
					8 . 2
					2 1 2
					3 . 1

Dec. 20. May. B. Reid R. R ✓

" 570	4.84	R .		
" 571		R .	2	✓
" 669	5.49	R	1 5	✓
" 670		R		
" 1041	3.95	5	2 3	✓
" 1042				
" 1132	4.09	6	3 1	✓
" 1133				

Σ+	0	0	0	0	.	0	37	6	9
Σ−	22 ✓	10 ✓	14 ✓	1 ✓	:	2	0	1 ✓	6 ✓
Dif	−22 ✓	−10 ✓	−14 ✓	−1 ✓	:	−2 ✓	+37 ✓	+5 ✓	+3 ✓
No.	2 ✓	1 ✓	2 ✓	2 ✓	.	2 ✓	9 ✓	4 ✓	9 ✓
Mean	−1.10 ✓	−1.00 ✓	−.70 ✓	−.05 ✓	.	−.10 ✓	+.41 ✓	+.12 ✓	+.03 ✓

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Grouping of A Stars +0° - +29° 59'

0 h. - 1 h.

6.0	6.5	7.0	7.5
7 7 4	6 . .	2 . .	4 . .
0 . 0	5 3 .	4 2 .	8 . .
0 2 1	6 6 .	7 . .	2 . .
6 . 0	8 1 .	8 2 .	
4 . .	8 . .	(14) . .	
(12) 6 .	4 4 .	(10) . .	
3 . 1	6 . .	(16) . .	
1 . 1	4 . .	(10) . .	
2 . 2	6 2 .	3 . .	
4 . .	1 . .	6 . .	
1 2 1	4 2 .	(10) . .	
2 3 1	4 . .	9 . .	
6 5 .	(17) . .	0 . .	
8 4 .	6 5 .	7 2 .	
5 . 2	(10) . .	5 . .	
7 5 .	9 4 .	5 . .	
5 . 1	8 6 .	4 . .	
3 . 3	5 . .	(10) F .	
7 (10) .	9 5 .	6 . .	
4 3 1	1 . .		
(15) . .	2 3 .		
2 . 2	4 . .		
	7 . .		
	5 F .		
	(16) F .		

89	33	8	283	60	0	132	4	.
15	14	12	4	2	2	4	2	.
+74	+19	-4	+279	+58	-2	+128	+2	.
22	10	14	42	17	1	19	3	.
+.34	+.19	-.03	+.66	+.34	-.20	+.67	+.07	.

2	.	.
12	.	.
-10	.	.
3	.	.
-.33	.	.

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Grouping of A Stars. +0° - +29° 59'
2h. - 3h.

3.0	3.5	4.0	4.5	5.0	5.5
		4 7 3	1 0 0	8 . 0	8 . . (16) . .
		5 . 4	2 2 0	7 . 2	6 . 2 9 . 4
		7 . 2	4 7 6	6 5 3	1 . 1 4 . 1
		6 . 2	3 . 3	1 . 2	7 . 4 (13) . .
		0 . 2	1 . 2	8 5 4	2 . 2 2 3 3
			5 6 . 5	4 3 0	1 . 0 8 0 1
				1 . 1	3 . 3
				5 5 5	4 4 2
				(18) . .	3 1 3
				2 3 1	4 . 4
				8 . 3	3 1 2
					6 3 1
					(17) 8 .
					3 . 2
					8 5 .
D6.					6 . 1
1703 / 1704	4.75	6 2 2 ✓			1 . 1
					1 2 3
1754 / 1755	5.24	8 . 1 ✓			0 . 1
					5 3 2
1991 / 1992	6.46	R . . ✓			2 . 1
		R . :			5 . 1
2154 / 2155	6.23	R . . ✓			(11) . .
		R . .			9 . .
2160	B	R . R ✓			(13) . .
		Σ+ 13 0 0	7 2 0	55 16 15	177 29 30
		Σ− 9 7 13	9 15 16	13 5 6	4 1 15
		Dif. +4 −7 −13	−2 −13 −16	+42 +11 +9	+173 +28 +15
		No. 5 1 5	6 4 6	11 5 10	31 10 23
		Mean. +.08 −.70 −.26	−.03 −.32 −.27	+.38 +.22 +.09	+.56 +.28 +.07

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Grouping of A Stars. +0° - +29° 59'.

2h. - 3h.

6.0		6.5		7.0	7.5
(12) 5.	(18) . .	6 8.	7 . . 6 . .	(12) . .	
(14) 9.	9 . .	4 . .	3 . . (10) . .	(12) . .	
(11) 7.	(13) . .	3 . .	(17) . . 4 . .	(15) . .	
1 . 5	(15) . .	(10) . .	8 . . 52.	5 . .	
0 . 1	(16) . .	(15) . .	6 . . (16) . .	7 . .	
(17) F.	(12) . .	8 5.	8 . . 1 . .	9 . .	
(10) 5 3	(15) . .	9 . .	5 . .	(10) . .	
7 . .	(12) 6 2	0 . .	(10) 1.	4 . .	
0 . 1	2 0 2	(10) . .	3 . .	(12) . .	
8 . .	8 . .	7 . .	1 . .	(14) . .	
4 . .	8 (10).	7 . .	7 . 6	1 . .	
(11) 6.	9 3 2	(10) . .	9 . .	(16) . .	
(12) 7.	7 . .	3 . .	7 . .	(14) . .	
4 . 1	(17) . .	3 . .	6 F.	(12) . .	
7 . .	5 . .	6 7.	4 . 0	2 . .	
9 . .	2 2 5	4 . .	7 . .	8 . .	
4 . .		5 . .	(12) . .	(12) . .	
9 . .		6 . .	(15) . .		
(15) . .		(15) F.	(14) . .		
0 . 2		9 . .	(10) . .		
(11) . .		5 . .	(15) . .		
(18) 8.		4 . .	5 F.		
9 . .		8 . .	(13) . .		
8 . .		1 . .	(14) . .		
(13) . .		9 . .	(11) . .		
389	66 15	415	19 0	164	. .
3	2	11	1	1	. .
+386	+64 + 6	+404	+18 -6	+163	. .
41	12	56	5	17	. .
+.94	+.53 +.06	+.72	+.36 -.30	+.96	. .

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Grouping of A Stars. +0° - +29° 59′
4h. - 5h.

3.0	3.5	4.0	4.5	5.0	5.5
	3 . 4	2 . 2	101	6 . 5	2 . 1	8 . 3
		(13)61	0 . 3	7 . 3	8 . .	561
			0 . 5	3 . 4	76 .	(11) . .
			2 . 1	2 . 2	433	3 . 0
			211	230	9 . 2	88 .
			502	1 . 2	2 . 2	3 . 0
			412	521	6 . 2	450
			6 . 0	542	0 . 1	542
			653	1 . 1	4 . 2	3 . 5
			9 . 1	3 . 2	5 . 2	541
			413	561	4 . 0	3 . 1
				411	112	952
				2 . 3	4 . 1	5 . 0
				1 . 2	8 . 0	2 . 1
				(14)94	872	(15)71
				7 . 1	453	6 . 0
				5 . 1	2 . 2	6 . 3
				4 . 3	1 . 2	950
				360	1 . 0	(10) . .
				4 . 3	331	5 . 3
				550	3 . 1	133
				6 . 1	7 . 0	773
				1 . 2	5 . 4	8 . 3
					033	874
					0 . 1	

Gb. R . . .

~~2700.~~ entered erroneously.

~~Gb. added to 2198.~~

3040 B R . R ✓

3152 } 346 000 ✓
3153 }

3224 } 577 R . . ✓
3225 } R . .

Σ+	0	.	0		15	6	1		30	8	7		83	36	19		234	89	36
Σ−	3	.	4		0	0	2		9	0	15		13	0	25		13	0	37
Dif.	-3	.	-4		+15	+6	-1		+21	+8	-8		+70	+36	-6		+221	+89	-1
No.	1	.	1		2	1	2		11	6	11		23	8	23		49	18	44
Mean	-.30	.	-.40		+.75	+.60	-.05		+.19	+.13	-.07		+.30	+.45	-.03		+.45	+.49	.00

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Grouping of A Stars. +0° - +29° 59'
4h. - 5h.

6.0			6.5			7.0	7.5
8. .	(12) 6.	2. . 0.0	(11) . .	(16) 7.	(14) F.	(15) F.	
4. .	6. .	(10) 6. 622	(12) . ,	8. .	(10) . ,	(14) . .	
1. 3	var. R 31	(13) 9. (13) . .	4 3.	(11) . .	5. .	4 . .	
(10) 3.	(14) . .	7. 3	(10) . .	8 F.	(18) F.	9. .	(12) F.
3 1 5	4. .	9 3. 7. .	(12) . .	2. 0	(16) F.	5 . .	
(12) 7 9	3. 2	35 2	8. .	(10) 4.	0 . .	(14) F.	(12) . .
2. 4	7. 2	4. .	(12) 6.	9 . .	4. .	(15) F.	7 F.
6 5.	(10) 8.	(10) . .	771	7 5.	7. .	6. .	
5. 2	(18) (10) .	8 . .		(11) . .	1. .	(14) F.	
7 6.	9 . .	(12) 4.		8 F.	6 3.		
9. .	7 6.	(11) . .		5 . .	(10) F.		
7. 1	2 0 5	(16) 6.		(18) F.	9 F.		
4. .	3. .	5. 2		4 F.	(13) F.		
(10) . .	4. . 8 5.	8. .		8. .	(14) F.		
2. 2	9. .	9 5 1		4. .	(17) F.		
4. .	9. .	2. .		8 2.	9 F.		
7. .	9 8.	2. 1		(15) F.	7. .		
4. .	(12) 8.	1. 5		(10) . .	(12) . .		
1. .	(11) . .	(15) . .		5 . .	(11) . .		
0 0 3	(10) 9.	(14) . .		5. .	7. .		
(11) 8.	(14) F.	(20) . .		6 2.	(11) . .		
(11) 7.	5. .	1. 2		1 F.	(17) . .		
1. 2	5. .	(12) . .		4 . .	6. .		
(14) 8.	(10) 6 2	(10) . .		(19) (13) .	9 7.		
8. .	6. .	3. .		6 3 1	(13) . .		
605	157	21		547	46	0	60 . .
23	7	46		4	3	1	9 . .
+582 ✓	+150 ✓	−35 ✓		+543 ✓	+43 ✓	−1 ✓	+51 ✓ . .
83 ✓	29 ✓	24 ✓		59 ✓	10 ✓	2 ✓	71 . .
+.70 ✓	+.52 ✓	−.15 ✓		+.92 ✓	+.43 ✓	−.05 ✓	+.73 ✓ . .

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Grouping of A Stars. +0° - +29° 59'
6h. - 7h.

3.0	3.5	4.0	4.5	5.0	5.5
	4 4 3	2 . 1	0 1 2	9 6 1	(10) 3 0
		2 F 4	2 1 3	5 7 2	8 . 0
		1 . 4	4 4 3	1 . 3	5 8 1
		6 . 5		3 5 2	9 (12) 3
				9 . 1	7 . 1
				4 . 1	(16) 8 .
				(12)(11) 5	9 5 2
				(10) . 1	9 9 .
				7 7 0	(11) . .
				1 . 2	(13) . .
				(10) . 3	2 . 4
				7 3 0	7 . 0
					4 . 1
					(14) . .
					9 7 1
					9 9 .
					5 (10) .
					8 . .
					(10) . 1
					6 . 2
					8 7 3
					(15) . 2
					9 9 1
					1 . 1
					4.7 4

D.C.

3734 B R.R

~~3802 (24) R.~~

Σ+	0	0	0	3	.	4	6	6	0	76	39	13	409	192	24
Σ−	4	4	3	8	.	10	0	0	8	2	0	8	3	0	15
Dif.	-4	-4	-3	-5	.	-6	+6	+6	-8	+74	+39	+5	+406	+192	+9
No.	1	1	1	4	.	4	3	3	3	12	6	12	43	24	24
Mean	-.40	-.40	-.30	-.12	.	-.15	+.20	+.20	-.27	+.62	+.65	+.04	+.94	+.80	+.04

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Grouping of A Stars. +0° - +29° 59'.
6h. - 7h.

6.0			6.5			7.0	7.5
(14) 7.	(14)(10).	7. .	(16) F.	(11) 6.	(13). .	7 F.	
(15). .	(10) 9.	7. 3	(11) 6.	(13). .	(16). .	(11) F.	
(10). .	(14). .	(11). .	(14) 6.	8. .	(11). .	(10) F.	
5. .	(14) 8.	(12). .	2. .	(13). .	7. .	(15). .	
(15) F.	(15). .	6. 2	(17). .	1. .	(10). .		
9 9 4	(12) 8.	(12). .	(13). .	(12). .	6. .		
(13) 6.	8. .	(13) F.	(14) F.	(14). .	7. .		
9. .	(10) 7.	(11) F.	(14) F.	7. .	5. .		
0. 0	4 5 1	(15)(11).	2 3 0	(11). .	(18). .		
6. .	8 7.	(10). .	(10) F.	(15). .	(11). .		
(20). .	8 5.	5. .	7 8.	(13). .	3. .		
4. 0	7. .	9. .	(14). .	6 4.			
(17) 8.	(10) 6.	5. .	8 6.	4. 2			
(10). .	(10) 8 3	(11) 6.	6 1 2	6 2.			
(16) 5 2	(18). .	9 8.	6. .	6. .			
6. .	8. .	(12). .	4. .	8. .			
6 8 2	8 6.	(11). .	2 1.	(16) F.			
(18)(12).	9. .	(11). .	2. .	(16). .			
(16). R (cruc.)	9. .	(14). .	4 F.	4. .			
8 9.	4. 6		(16) F.	(12) F.			
(16)(10).	2. 0		8. .	(10) 9.			
9. .	(10). .		(15) 9.	(16). .			
(11) 8.	(15). .		9 F.	(17). .			
(15) 9.	(13). .		9. .	(12). .			
8 5.	1 2 6		(10). .	(12). .			
687	200	14	599	61	0	43 . .	
51	2	15	4	0	4	0 . .	
+682	+198	-1	+595	+61	-4	+43 . .	
68	27	11	61	12	3	4 . .	
+1.00	+.73	-.01	+.98	+.51	-.13	+1.08 . .	

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Grouping of A Stars. +0° - +29° 59′
8 l. - 9 l.

3.0	3.5	4.0	4.5	5.0	5.5
		3 0 1	2 . 1	5 . 0	8 7 .
		8 4 0	3 3 2	3 . 1	3 . 3
		3 2 1	1 1 1		3 . 0
					1 . 1
					5 5 2
					3 5 2
					5 5 0
					4 . 1
					2 1 3
					(15) 7 .
					0 4 1
					1 . 4
					3 . 0

D.M. 4661 } 6.47 R.
4662 } R.

Σ+	14	4	0	3	4	1	8	:	1	50	34	8
Σ−	0	2	2	3	0	3	0	:	0	3	0	9
Dif.	+14	+2	−2	0	+4	−2	+8	:	+1	+47	+34	−1
No.	3	3	3	3	2	3	2	.	2	13	7	11
Mean.	+.47	+.07	−.07	.00	+.20	−.07	+.40	.	+.05	+.36	+.49	−.01

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Grouping of A Stars. +0° - +29° 5-9'
8h.0 - 9h.

6.0		6.5		7.0	7.5
4. .	5. .	(13) F.	5 5.	7. .	
7. .	3 6.	0. .	6. .	7. .	
(13). .	8. .	(10). .	9 4.	6. .	
(13). .	7.2	4. .	3 4 5	1. .	
4. 2	4 5.	1. .	1. 1	3. 4	
3. 3	0 3 0	(16) F.		1. .	
(14). .		1. 1		3. .	
9. .		5. 4		3 1 3	
2 4 1		3. .			
(14). .		6. .			
1 0 3		9. R (Cum.)			
(15) 8.		5. .			
4. 0		(15) 8.			
5. .		9. .			
(14) 9.		6. .			
6. .		(10) 7.			
(17)(10).		7. .			
2. 2		9 F.			
1. 4		7. .			
3. .		5. .			
(11) 6.		3. .			
(15) F.		7. .			
(10) 6.		4. .			
5. .		1. .			
(10). .		(14). .			
226 57 4		176 24 0		22 0 0	
3 0 13		9 4 11		9 1 7	
+22.3 +5.7 -9		+16.7 +20 -11		+13 -1 -7	
31 10 9		29 54 4		8 1 2	
+.72 +.57 -.10		+.58 +.40 -.28		+.16 -.10 -.35	

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Grouping of A. Stars. +0° - +29° 59'
10h. - 11h.

3.0	3.5	4.0	4.5	5.0	5.5
9 . 4	3 . 1	5 2 3	4 4 0	5 . 1	7 . 1
		1 1 0	3 . 0	1 2 0	5 3 0
		3 1 1	2 . 0	1 5 3	2 . 1
				1 4 0	1 1 1
				8 6 0	5 . 1
				6 6 0	6 6 1
				3 1 4	2 . 2
					3 . 1
					5 . 1

D.M.

5279 B. R. R. ✓

5908 B R. R ✓

Σ+ 0 . 0	0 . 0	4 1 1	0 4 0	22 24 4	33 10 7
Σ− 9 . 4	3 . 1	5 3 3	9 0 0	3 0 4	3 0 2
Dif. -9 . -4	-3 . -1	-1 -2 -2	-9 +4 0	+19 +24 0	+30 +10 +5
No. 1 . 1	1 . 1	3 3 3	3 1 3	7 6 7	9 3 9
Mean -.90 . -.40	-.30 . -.10	-.03 -.07 -.07	-.30 +.40 .00	+.27 +.40 .00	+.33 +.33 +.06

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Grouping of A. Stars. +0° - +29° 59'
10h - 11h

6.0	6.5		7.0	7.5
4 4 3	4 . .	3 . .	7 0 .	
(11) 5 0	4 . .	(11) 4 .	9 . .	
7 . 7	5 . .	8 . .	(14) . .	
6 . .	2 3 3	5 . .	7 . .	
3 7 .	0 2 .	7 4 .	6 . .	
7 . .	3 0 .	(17) F.	6 . .	
4 . .	5 2 .	2 . .	1 . .	
6 . .	(12) . .	7 . .	(11) F.	
9 . .	3 . .	5 . .		
(12) 8 .	6 . .	2 3 4		
5 . ,	5 0 .	5 . .		
6 . 0	4 . .	5 3 .		
(12) . .	1 3 .	2 . .		
5 . 2	4 5 7	0 . .		
2 . 1	8 . .	8 4 .		
	9 . .			
	4 . .			
	1 . .			
	9 . .			
	(11) 4 .			
	8 . .			
	(11) 4 .			
	8 . .			
	(15) F.			
	(11) . .			

97	24	10	234	34	3	61	0	.
2	0	3	6	7	11	0	0	.
+95√	+24√	+7√	+228√	+27√	−8√	+61√	0√	.
15√	4√	6√	40√	14√	3√	8√	1√	.
+.63√	+.60√	+.12√	+.57√	+.19√	−.27√	+.76√	.00√	.

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Grouping of A. Stars. +0° - +29° 59'

12 h. - 13 h.

3.0	3.5	4.0	4.5	5.0	5.5
			4 2 2	1 4 1	9 5 1
				0 . 1	1 . 1
				1 1 0	6 . 8
				0 2 1	2 . 4
					4 . 4
					2 . 3
					(16)(12) .
					6 . R†
					0 . 2
					4 2 0
					4 1 2
					4 . 2
					1 3 1
					0 . 2
					0 . 2

Σ+	0	0	0	2	6	2	45	23	8
Σ−	4 ↓	2 ↓	2	0 ↓	1 ↓	1	14	0 ↓	24
Dif.	−4 ↓	−2 ↓	−2 ↓	+2 ↓	+5 ↓	+1 ↓	+31 ↓	+23 ↓	−16 ↓
No.	1 ↓	1 ↓	1 ↓	4	3 ↓	4 ↓	15 ↓	5 ↓	13 ↓
Mean.	−.40 ↓	−.20 ↓	−.20 ↓	+.05 ↓	+.17 ↓	+.02 ↓	+.21 ↓	+.46 ↓	−.12 ↓

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Grouping of A Stars. +0° - +29° 59'.
12 h. - 13 h.

6.0	6.5	7.0	7.5
0 . 3	5 . .	3 . .	
0 . 2	6 . .	3 . .	
5 0 1	1 . .	2 . .	
4 . .	1 . .	0 . .	
4 . .	6 . R*	1 . .	
1 . .	9 . .	1 . .	
7 . 1	(14) . .	4 . .	
0 . 1	1 0 5	5 F .	
2 . .	2 5 .	1 . .	
6 4 4	1 . .	7 F .	
6 4 .	4 1 0	(11) . .	
3 . 1	0 . .		
(10) 7 .	3 . .		
3 . 1	2 . .		
1 1 2	4 . 1		
8 6 .	4 2 0		
(10) . 3	6 F .		
1 . 1	1 . .		
0 4 2	6 . .		
2 5 1	(11) 5 .		
2 . 0	8 . .		
8 2 .	5 . .		
	8 . .		

* H. 6143. + 7 6145. May. Combined in H.C. 52

79 33 16	99 13 0	27 . .
4 0 7	9 0 6	11 . .
+75 +33 +9	+90 +13 -6	+16 . .
22 9 14	23 5 4	11 . .
+.34 +.37 +.06	+.39 +.26 -.15	+.15 . .

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Grouping of A Stars. +0° - +29° 59'

14h - 15h.

3.0	3.5	4.0	4.5	5.0	5.5
		1 1 4	1 2 0	1 5 1	(10) . 0
		2 . 4		0 2 0	5 8 2
		1 . 1		3 4 2	8 3 1
		5 . 0		3 . 1	5 . 0
		5 3 3		3 6 1	8 8 3
				4 . 0	5 6 0
					(10) 2 2
					(13) 7 .
					4 6 1

Dec.

6739 } 6.26 R,, ↓
6740 } R..

6787 } 4.64 8.0 ↓
6788 }

6789 } 4.02 5.2 ↓
6790 }

7053 } 4.05 7.0 ↓
7054 }

7056 B R.R ↓

Σ+	0	0	1	0	2	0	9	17	2	68	40	6
Σ−	14 ↓	4 ↓	11 ↓	1 ↓	0	0	5 ↓	0	3	0 ↓	0 ↓	3 ↓
Dif.	−14 ↓	−4 ↓	−10 ↓	−1 ↓	+2 ↓	0 ↓	+4 ↓	+17 ↓	−1 ↓	+68 ↓	+40 ↓	+3 ↓
No.	5 ↓	2 ↓	5 ↓	1 ↓	1 ↓	1 ↓	6 ↓	4 ↓	6 ↓	9 ↓	7 ↓	8 ↓
Mean.	−.28 ↓	−.20 ↓	−.20 ↓	−.10 ↓	+.20 ↓	.00 ↓	+.07 ↓	+.42 ↓	−.02 ↓	+.76 ↓	+.57 ↓	+.04 ↓

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Grouping of A Stars. +0° - +29° 59'
14h. - 15h.

6.0	6.5	7.0	7.5
8 . .	66 .	(12) . .	
3 5 1	2 . .	7 0 2	
(12) 8 .	0 . .		
0 . 3	2 . 3		
5 . .	5 F .		
9 . .	1 . .		
4 . .	9 . .		
1 5 .	1 . .		
0 . 2	9 F .		
(10) . .	(11) F .		
4 5 .	5 . .		
2 . 2	8 . .		
1 . 1	1 . .		
(11) . .	2 . 1		
2 . 3	4 . .		
(12) . .	1 . R*		
(10) 4 .	5 . .		
2 . 4	3 . .		
	3 . 5		
	6 . .		
	2 . .		

* D.C. 6968. No Magn. in H.C.P.

96	27	7
0	0	9
+96	+27	−2
18	5	7
+.53	+.54	−.03

80	6	6
6	0	3
+74	+6	+3
21	7	3
+.35	+.60	+.10

19	0	0
0	0	2
+19	0	−2
2	11	1
+.95	.00	−.20

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Grouping of A Stars. +0°-+29°59'
16h.-17h.

3.0	3.5	4.0	4.5	5.0	5.5
9.7	7.4	1 3 1	(13) 5 5	4 8 6	7 5 1
		3 0 0	7 3 2	6 3 2	4 6 1
			3 6 0	9.2	4 5 0
			0 6 1	4 5 1	6 4 0
					4 2 1
					7 . 1 .
					3 . 0 .
					1 . 0
					(12) 3 4
					3 . 1

Db.

7362	5.53	R R R	✓
7363		R R R	
7696	5.58	R	
7697		R 32	✓
7866	4.84	6.2	✓
7867			

Σ+	0	0	0	0	0	0	0	7	15	2	17	16	8	51	25	8
Σ−	9	7	7 ↓	7	4	4	3	1	16 ↓	5	6	6	0	3	0	0	1
Dif	-9 ↓	-7 ↓	-7 ↓	-4 ↓	-4 ↓	-3 ✓	-1 ↓	-9 ↓	+10 ✓	-4 ✓	+11 ↓	+16 ✓	+5 ✓	+51 ↓	+25 ↓	+7 ✓
No.	11	11	11	11	2 ↓	2 ↓	2 ↓	41	4 ✓	4 ✓	4 ↓	3 ✓	4 ✓	10 ↓	6 ✓	10 ✓
Mean	-.90	-.70	-.70	-.40	-.20 ✓	-.15 ✓	-.05 ✓	-.22 ↓	+.25 ✓	-.10 ↓	+.28 ↓	+.53 ✓	+.12 ↓	+.51 ↓	+.42 ✓	+.07 ✓

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Grouping of A. Stars. +0° - +29° 59'.

16h. - 17h.

6.0	6.5	7.0	7.5
5..	4..	1..	0..
3.1	1..	0..	
8..	99.	10.	7..
0.0	64.	83.	7..
1.1	(10)..	63.	7..
4.2	(11)..	0.2	
1.0	6..		
02.	3..		
2.1	2.2		
3..	103		
6..	5..		
7..	(10)..		
150	136		
3..	10.		
521	4..		
(12)6.	(12)..		
530	3..		
232	5..		
03	7..		
3..	(13)..		
78.	0..		
62	312		
11	2..		
10	52.		
22	7..		
55	41.		
32			
53.			
02			
03			
90 32 13	144 23 0	21 . .	
17 2 18	6 3 15	0 . .	
+73 +30 -5	+138 +20 -15	+21 . .	
32 9 20	30 11 5	4 . .	
+.23 +.33 -.02	+.46 +.18 -.30	+.52 . .	

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Grouping of A. Stars. +0° - +29° 59'
18h. - 19h.

3.0	3.5	4.0	4.5	5.0	5.5
5 . 4	7 4 2	4 . 0	3 . 2	1 . 2	(12) . .
	2 . 1	5 9 4	1 4 0	1 . 0	5 4 1
	8 6 5	0 . 1	(11) 7 5	4 . 1	3 . 0
			6 7 2	0 1 2	2 4 1
			1 . 1	(10) 5 2	2 . 3
			5 . 0	4 . 1	5 5 3
			8 . 0	1 . 0	
			0 . 0	5 . 0	
			0 . 1	8 9 .	
				1 . 1	
				4 6 R*	
				6 . 1	
				3 . 1	
				0 . 2	
				4 . 2	
				1 5 2	
				3 6 2	
				1 2 4	
				0 4 1	
				6 . 1	
				(14) 7 .	
				8 3 9	
				(13) 7 .	
				4 3 4	
				4 7 5	

D.C.

7910 } 6.57 R
7911 } R 1. ✓

7946 } 5.41 5.2 ✓
7947 }

8461 } 4.51 R
8462 } R 1 4 ✓

*8476

8771 } 2? ✓ R . ✓
8772 } A? 4.31 R . (13)

8907 B R R R ✓

Σ+	0	0	0	0	0	5	9	5	30	18	7	112	75	14
Σ−	5	4	17 ✓	10 ✓	8 ✓	4 ✓	0	0	5	0 ✓	4 ✓	23 ✓	3 ✓	37 ✓
Dif.	−5 ✓	−4 ✓	−17 ✓	−10 ✓	−8 ✓	+1 ✓	+9 ✓	+5 ✓	+25 ✓	+18 ✓	+3 ✓	+89 ✓	+72 ✓	−23 ✓
No.	1 ✓	1 ✓	3 ✓	2 ✓	3 ✓	3 ✓	1 ✓	3 ✓	9 ✓	3 ✓	9 ✓	31 ✓	16 ✓	26 ✓
Mean	−.50 ✓	−.40 ✓	−.57 ✓	−.50 ✓	−.27 ✓	+.03 ✓	+.90 ✓	+.17 ✓	+.28 ✓	+.60 ✓	+.03 ✓	+.29 ✓	+.45 ✓	−.09 ✓

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Grouping of A Stars. +0°-+29° 59′
18h.-19h.

6.0			6.5			7.0	7.5
43.	8..	5..	8..	5..	8..	3..	
(13)..	7..	3.1	(10)..	4..	5..	9..	
14.	3.1	5.4	5..	1..	(12)..	(17)..	
6.2	8..	8..	34.	4..	6..	5..	
(12)..	2.4	6..	87.	9.5	7..	0..	
95.	251	5..	(15)..	6..	1..	4..	
(14)..	0.1	284	(10)..	8..		(14)..	
120	56.	(10)..	33.	9..			
(14)..	3.1	6..	45.	(12)..			
4..	728	8..	2..	(15)..			
(17)..	(13)..	0..	9..	4..			
6..	2.2	8..	(10)..	5..			
1.0	7..	4.8	0..	9..			
7..	4..	132	(18)..	(13)..			
3..	250	(14)..	7..	(14)..			
88.	4..	(12)8.	(21) R R (cum. cum.)	(11)..			
6..	8..	(10)..	3..	0..			
66.	1.1	1.3	(12)..	2..			
(10)7.	7..	4.1	(13)..	4..			
8..	9.2	3.4	(10)..	6..			
1..	572	212	2..	1..			
88.	7..		11.	4..			
3..	26.		86.	4..			
7..	5..		6..	8..			
2..	3..		7..	6..			

384	92	25	366	26	0	49	.	.
28	2	29	11	0	5	3	.	.
+356✓	+90✓	−4✓	+355✓	+25✓	−5✓	+46✓	.	.
71✓	18✓	23✓	55✓	6✓	1✓	7✓	.	.
+.50✓	+.50✓	−.02✓	+.65✓	+.42✓	−.50✓	+.66✓	.	.

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Grouping of A Stars. +0° - +29° 59'
20h. - 21h.

3.0	3.5	4.0	4.5	5.0	5.5
		2 2 1	5 . 1	1 3 0	3 . 1
		3 . 2	0 . 1	4 3 2	(12) 9 5
			1 4 5	1 . 1	4 . 3
				8 . 7	5 . 2
				6 3 2	9 8 5
				(12) 8 4	2 5 3
				(11)(11) 8	6 4 2
				5 . .	5 4 2
				1 5 1	1 4 1
				1 . 2	5 . 1
				6 . 1	0 . 0
					3 5 3
					2 . 1
					3 . 2
					6 3 1
					3 1 1
					6 3 2

D6.

9331 } 6.07 R. . ↓
9332 } R. .

Σ+	0	2	3	5	0	2	33	22	16	68	46	23
Σ−	5	0	0	1	4	5	23	11	12	7	0	12
Dif.	−5	+2	+3	+4	−4	−3	+10	+11	+3	+61	+46	+11
No.	2	1	2	3	1	3	11	6	10	17	10	17
Mean.	−.25	+.20	+.15	+.13	−.40	−.10	+.09	+.18	+.03	+.36	+.46	+.06

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1882phae.proj..869F

Grouping of A Stars. +0° - +29° 59'.
20h. - 21h.

6.0	6.5	7.0	7.5
0 4 0	6 . .		
4 . 1	5 . .		
(11) . .	(13) . .		
2 . 7	7 . .		
0 . .	3 . .		
3 . .	3 . 1		
3 . .	0 1 .		
2 . 2	(14) 6 .		
3 2 7	3 . .		
1 . 2	5 . .		
4 . .	4 . .		
9 . .	6 . .		
1 1 4	(13) . .		
2 . 4			
5 . .			
2 3 .			
5 2 1			
0 . 6			
2 . 4			
5 3 2			
4 5 .			
7 . .			

64	18	11
11	2	29
+53	+16	-18
22	7	12
+.24	+.23	-.15

79	6	1
3	1	0
+76	+5	+1
13	2	1
+.58	+.25	+.10

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1882phae.proj..869F

Grouping of A. Stars. +0° - +29° 59′
22h - 23h.

3.0	3.5	4.0	4.5	5.0	5.5
		8 6 4	1 2 0	4.0	2.2
		3 3 2		1.0	1.0
				3.1	8 1 1
				1 4 2	2 4 0
				1.2	7 1 2
				6 4 1	3.1
				4 5 3	8 2,
					9 2 5
					4 3 3

D.G.

10033 B R.R

Σ+	0	0	0		1	0	0		12	4	3		44	10	5	
Σ−	11	9	6		0	2	0		8	9	6		0	3	9	
Dif.	−11	−9	−6		+1	−2	0		+4	−5	−3		+44	+7	−4	
No.	2	2	2		1	1	1		7	3	7		9	6	8	
Mean.	−.55	−.45	−.30		+.10	−.20	.00		+.06	−.17	−.04		+.49	+.12	−.05	

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Grouping of A. Stars. +0° - +29° 59'.
22h - 23h

6.0	6.5	7.0	7.5
8 3.	2.1	(10). .	6 3.	5. .	
3. .	(13)54	8 6.	5 0.	4. .	
(10). .	6 1 1	9. .	4 0.		
2.2		6. .	1. .		
(11) 4.		6. .	4 1.		
(13). .		(15). .			
9. .		(10). .			
7. .		2. .			
(13) 5.		4. .			
8 7.		(12) F.			
(14) F.		(15) F.			
4 6.		(11) F.			
9 4.		4. .			
(13) 6.		2.2			
1.1		6. .			
3.0		(14) 6.			
6. .		6. .			
2.0		(12). .			
7.2		3. .			
8. .		4. .			
1. .		9. .			
3.2		2. .			
2 5 4		(13) 1.			
3 4.		(13). .			
5. .		9. .			
179 50 14		223 17 0		9 . .	
2 0 3		2 0 2		0 . .	
+17✓ +50✓ +11✓		+221✓ +17✓ -2✓		+9✓ . .	
28✓ 11✓ 10✓		30✓ 7✓ 1✓		2✓ . .	
+.63✓ +.45✓ +.11✓		+.74✓ +.24✓ -.20✓		+.45✓ . .	

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Grouping of A Stars. +30° – +61° 2′

0.0 h. – 2 h. 39.9 m.

3.0	3.5	4.0	4.5	5.0	5.5
	7.7	1.3	1.0	3.5	5.3
		(10).7	4.1	4.1	2.2
			2.5	2.2	8.0
			0.1	7.1	7.1
			2.2	2.1	4.2
			3.2	0.2	8.3
				6.2	2.1
				2.0	6.2
				0.1	8.0
				3.1	7.2
				4.1	2.3
				0.1	9.1
				0.2	4.2
				0.0	3.1
					5.1
					5.0
					5.2
					1.0
					6.1
					2.2
					7.1
					2.3
					7.4
					(11).
					5.1

D.C.

~~771 R . . .~~

~~940 R . . .~~

~~1066 R . . .~~

~~1097 R . . .~~

1299 } 6.19 R . . ✓

1300 } R . .

Σ+	0 . 0	1 . 0	2 . 0	30 . 4	121 . 25
Σ−	7 . 9	10 . 12	10 . 11	3 . 16	10 . 13
Dif.	−7 . −9	−9 . −12	−8 . −11	+27 . −12	+111 . +12
No.	1 . 1	2 . 2	6 . 6	14 . 14	25 . 24
Mean.	−.70 . −.90	−.45 . −.60	−.13 . −.18	+.19 . −.30	+.44 . +.05

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Grouping of A Stars. +30° - +61° 2'

0.0h - 2h 39.9m

6.0			6.5						7.0			7.5
			7th	6th	1st	2nd	3d	4th	5th			
7.7	8..	6..	7..	4..	1..	6..	6..	2..	8..	0..	3..	8.. (11)..	5..
(13)..	0.1	(10)..	(12)..	6..	4..	2..	9..	8..	(15)..	(11)..	4..	7.. (11)..	9..
6.1	6..	8..	9..	8..	6..	(10)..	9..	2..	6.5	(11)..	8..	8.. 7..	3..
2.2	(12)..	7..	6..	(18)..	0..	4..	(10)..	2..	7..	4..	(11)..	0.. 7..	(10)..
7..	5..	4..	2..	7..	0..	(13)..	6..	0.2	6..	(14)..	6..	5.. 2..	8..
2.0	7..	2..	5..	8..	4..	7..	6..	2..	(10)..	6..	1..	8.. 8..	8..
2..	8..	(10)..	4..	(13)..	4..	(15)..	2..	6.2	9..	3..	5..	(13).. 9..	6..
5..	(14)..	7..	(13)..	7..	6..	3..	8..	(17)..	9..	7..	1..	4.. (14)..	
9..	4..	1.0	8..	2..	5..	3..	1..	2..	(12)..	6..	5..	1.. 3..	
5..	7..	3..	2..	3..	(10)..	8..	3..	(10)..	5..	7..	8..	4.. 8..	
5..	1.4	7..	(13)..	0..	(13)..	(10)..	5.2	4..	(14)..	8..	6..	2.. (12)..	
3..	3..	(12)..	5..	1..	2..	9..	3..	5..	5..	5..	7..	7.. (14)..	
4..	3.0	(14)..	9..	2..	7..	(11)..	(16)..	0..	9..	9..	8..	5.. (12)..	
2.2	(10)..	(12)..	4..	(12)..	4..	4..	3..	7..	3..	2..	4..	(11).. (12)..	
4..	4..	8..	8..	6..	1.0	(13)..	8..	(11)..	7..	(11)..	1..	2.. (11)..	
5..	(14)..	7..	3..	6..	4..	(16)..	(10)..	7..	(15)..	9..	1..	7.. 9..	
(11)..	9..		8..	(14)..	8..	6..	8..	8..	6..	(14)..	6..	9.. 5..	
3..	(12)..		(10)..	3..	9..	5..	4..	(12)..	(12)..	3..	2..	5.. 4..	
8.1	4..		(15)..	6..	5..	(10)..	9..	9..	3..	7..	8..	4.. 6..	
7..	9..		4..	(15)..	[illegible]	1..	3..	(13)..	5..	5..	5..	6.. 7..	
5..	5..		8..	3..	7..	4..	1..	7..	8..	5..	0..	6.. 9..	
1..	5..		3..	0..	8..	7..	8..	6..	(12)..	9..	(11)..	5.. (10)..	
8..	7..		(11)..	6..	(10)..	9..	2..	(20)..	(10)..	3..	0..	(13).. (10)..	
(10)..	3.1			4..	1..	6..	2..	(12)..	(13)..	3..	1..	9.. 3..	
7..	4..			3..	3..	6..	7..	6..	5..	2..	0..	5..	

cum. cum. R R

423	:	13	1157	:	0	622	:	:	49	:	3..		
0	:	6	20	:	11	15	:	:	0	:			
+423✓	:	+7✓	+1137✓	:	-11✓	+607✓	:	:	+49✓	:			
66✓	:	11✓	172✓	:	5✓	106✓	:	:	7✓	:			
+.64✓		+.06✓	+.66✓		-.22✓	+.61✓			+.70✓				

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Grouping of A Stars. +30° - +61° 2'

2h. 40.0m. – 5h. 19.9m.

3.0	3.5	4.0	4.5	5.0	5.5	6.0
		9.8	6.4	3.1	5.. 1.1	4.. 4.0 3.1
		5 2	2.3	2.2	(13).2 1.3	8.. 7.. 4..
			4.1	6.0	5.2 1.3	8.. 1.2 4..
			0.2	3.3	6.0 4.4	2.. (10).. 6.3
			3.2	(10).0	(10).. (10).4	(13).. 8.. 8..
				4.7	3.1 4.7	7.. 2.0 6.4
				4.1	5.2 (11).3	5.. 3.. 7..
				4.2	8.2 5.0	9.. 2.0 (10)..
				5.6	1.2 6.2	8.. 5.. (10)..
				3.1	8.2 2.2	1.. 8..
				7.1	(10).. 6.1	5.. 8..
				1.1	3.5	7.. (16)..
				1.3	4.1	7.. 8..
				0.2	(14)..	3.. 3..
				7.1	(10)..	6.. (12)..
				2.1	4.1	9.. 3..
				4.1	4.2	9.. 5.1
				(11).2	2.4	5.. 6.1
				9.0	1.2	(10).. 9..
					7.1	(11).. 6..
					(11).3	4.1 6..
					6.0	1.2 7..
					6.2	8.. 1.1
					4.0	6.. (13)..
					6.3	6.. 4.3
					197 · 39	370 · 10

Dc.

~~2980 R . . .~~

3020 } 5.68 R.R ✓
3021 } R.R

Dc. Mg. Reid. var.

1771 B R.R ✓

~~2025 R . . .~~

2055 } 6.38 R.. ✓
2056 } R..

2091 B R.R ✓

~~2165 R . . .~~

2249 B R.R ✓

2335 } 6.27 R.. ✓
2336 } R..

2436 } 6.65 R.. ✓
2437 } R..

2808 } 5.25 ✓ R.R ✓
2809 } R.

2833 B R.R ✓

Σ+ 0 · 0 · +0 | 3 · 0 | 70 · 7 | 197 · 39 | 370 · 10

Σ- 9 2 · 8 | 12 · 12 | 16 · 28 | 182 · 28 | 1 · 9

Dif. -7 -2 · -8 | -9 · -12 | +54 · -21 | +182 · +10 | +369 · +1

No. 1 1 · 2 | 5 · 5 | 19 · 19 | 39 · 37 | 59 · 13

-90 -80

+10 +10

Mean -70 -60 · -85 | -18 · -24 | +.28 · -.11 | +.57 · +.03 | +6.3 · +.01

+1/13

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Grouping of A Stars. +30° - +61° 2′

2h. 40.0m. - 5h. 19.9m.

6.5							7.0				7.5
9.	(12).	2.	4.	4.	4.	5.	6.	3.	4.	(10).	
9.	(11).	(16).	5.	2.	8.	9.	7.	(13).	8.	(10).	
3.	(13).	4.	5.	4.	(10).	(14).	8.	7.	6.	(11).	
6.	5.	8.	(12).	5.	(16).	5.	4.	7.	8.	(12).	
8.	(13).	3.	7.	1.	7.	7.	3.	7.	7.	(16).	
(10).	(10).	(10).	7.	4.	4.	9.	(13).	(11).	(10).	(13).	
7.	5.	(12).	6.	(11).	(15).	(16).	(11).	3.	6.		
5.	0.	8.	7.	3.	(14).	(15).	(10).	(10).	5.		
6.	8.	4.	6.	2.	(11).		6.	4.	6.		
4.	(10).	7.	7.	6.	(11).		9.	7.	9.		
6.8	9.	5.	8.	3.	8.		9.	5.	7.		
(10).	(11).	7.	7.	3.	1.		4.	6.	6.		
(16).	(13).	7.	4.	2.3	8.		4.	(10).	(15).		
6.	(15).	(11).	(15).	5.	9.		7.	9.	(11).		
(15).	(12).	(10).	(10).	7.	7.		1.	(13).	2.		
7.	(15).	7.	(11).	5.	(15).		(12).	(13).	7.		
(10).	(12).	7.	8.	3.	(12).		7.	8.	5.		
4.	4.	5.	3.	6.	(15).		(10).	7.	6.		
6.	4.	1.	2.	4.	8.		8.	(13).	(13).		
5.	6.	8.	7.	7.	(13).		(10).	6.	(13).		
9.	5.	3.	(10).	1.2	(11).		2.	7.	8.		
(10).	4.	7.	0.	4.	5.		1.	7.	5.		
1.	(13).	1.	9.	2.	7.		8.	9.	2.		
9.	(12).	(13).	7.	6.	(11).		4.	7.	7.		
(11).	9.	(11).	8.	5.	(12).		2.	9.	9.		

$\frac{1195}{7}$: $\frac{0}{13}$

$+\sqrt{11885}$: $-\sqrt{13}$

$\sqrt{158}$: $\sqrt{3}$

$+.75$: $-.431$

624 : :

$+\sqrt{624}$: :

$\sqrt{81}$: :

$+.77$: :

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Grouping of A. Stars. +30° - +61° 2'

5h. 20.0m. - 7h. 59.9m.

3.0	3.5	4.0	4.5	5.0	5.5	6.0
	(15) . (14)	7 . 2	4 . 3	2 . 0	3 . 1	8 . . 6 . . 1 . 3
	5 . 8		1 . 0	5 . 2	3 . 2	8 . . 5 . . (10) . .
			3 . 5	6 . 1	3 . 3	4 . 0 6 . . 5 . 6
				1 . 1	4 . 3	7 . . (14) . . 4 . .
				1 . 4	3 . 1	5 . . 8 . . 9 . .
				(12) . 1	6 . 1	9 . . (12) . . 5 . .
				3 . 2		9 . . 3 . 2 5 . .
				3 . 0		0 . 1 (11) . . 4 . .
				1 . 2		6 . . 3 . 5 2 . 1
				7 . 1		8 . . (11) . .
						2 . 1 8 . .
						5 . . 0 . 2
						5 . . 3 . .
						8 . . 4 . 0
						7 . . 7 . .
						(11) . . 5 . 3
						(12) . . (11) . .
						8 . . 5 . 1
						2 . . 6 . .
						4 . . 7 . .
						(10) . . 7 . .
						7 . . 7 . .
						4 . . 1 . 1
						1 . . 7 . .
						9 . . 3 . .

D.C.

3116 6.09 R. . ✓

~~2279 R . . .~~

4247 } B R. R ✓
4248 }

Σ+	0	.	0	0	.	0	7	1	0	36	.	4	22	.	4	264	.	11
Σ−	20	.	22 ✓	7	.	2 ✓	1 ✓	.	8 ✓	5	.	10 ✓	0 ✓	.	7	0	.	15 ✓
Dif	−20 ✓	.	−22 ✓	−7 ✓	.	−2 ✓	+6 ✓	.	−8 ✓	+31 ✓	.	−6 ✓	+22 ✓	.	−3 ✓	+264 ✓	.	−4 ✓
No.	24	.	24 ✓	14 ✓	.	14 ✓	34 ✓	.	34 ✓	104 ✓	.	104 ✓	64 ✓	.	64 ✓	594 ✓	.	134 ✓
Mean	−1.00 ✓		−1.10 ✓	−.70 ✓		−.20 ✓	+.20 ✓		−.27 ✓	+.31 ✓		−.06 ✓	+.37 ✓		−.05 ✓	+.45 ✓		−.03 ✓

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Grouping of A. Stars. +30° - +61° 2'
5h. 20.0m. - 7h. 59.9m.

6.5				7.0	7.5
6	3	(10)	(11)	9	
9.5	6	2	1	(14)	
6	(12)	(14)	(10)	3	
8	7	8	6	1	
(13)	(11)	7	5	0	
(16)	6	7	7	(11)	
8	5	9	3	(11)	
(10)	1	(10)	2	2	
5	5	1	2	7	
(14)	8	4	7	2	
(17)	7	5	4	4	
4	2	2	5	(10)	
(10)	4	4	4	6	
3	7	(15)	9	2	
8	5	1	7	0	
1	3	(11)	3	1	
(16)	(11)	5	9	5	
8	7	4	8		
(18)	9	(14)	7		
7	5	6.0			
(12)	(12)	8			
(14)	5	5.1			
(17)	1.0	(11)			
6	(10)	7			
3	6	(14)			

685	5	86
6	1	2
+679	+4	+84
94	4	17
+.72	+.10	+.49

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Grouping of A Stars. +30° - +61° 2'

8h. 0m.0 - 10h. 39m.9

3.0	3.5	4.0	4.5	5.0	5.5	6.0
	1.1	2.2	3.1	1.2	3.3	6.1 4..
		3.2	4.2	2.4	4.2	2.1 5..
				1.3	2.0	(10).. 1.0
				8.0	3.0	6.. (10)..
				5.3	7.2	6.. 3.1
				5.1	6..	6.. 7..
				3.2	4.2	(11)..
					(11)..	3..
					2.0	9..
					2.4	(12)..
					3.0	7..
					5.1	(12)..
					5.0	(12)..
					1.0	2.1
					3.2	5..
						7.3
						(11)..
						9..
						9..
						6..
						8..
						5..
						6..
						8..
						3.1

Dla Mag. Reid.
4790 B R.R √

Σ+	0	1	2	0	7	0	15	6	58	11	209	2
Σ−	1	0	3	4	0	3	10	9	3	5	3	6 √
Dif	−1 √	+1 √	−1 √	−4 √	+7 √	−3 √	+5 √	−3 √	+55 √	+6 √	+206 √	−4 √
No	1	1	2 √	2 √	2 √	2 √	7 √	7 √	15 √	13 √	32 √	7 √
Mean.	−.10 √	+.10 √	−.05 √	−.20 √	+.35 √	−.15 √	+.07 √	−.04 √	+.37 √	+.05 √	+.64 √	−.06 √

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Grouping of A Stars. +30° - +61° 2'

8h 0.0m - 10h 39.9m

6.5		7.0		7.5
2	5	3	7	
2	9	(13)	4	
1	8	5	3	
8	5	0	(12)	
7	3	0	7	
4	(14)	3.1	(12)	
6	9		1	
8	(11)		(17)	
8	(14)		7	
(11)	4		1	
0	6		9	
9	3		7	
4	(12)		6	
6	(13)		0	
1	9		2	
1	3		8	
1	8		1	
6	5		7.7	
5	(10)		0	
6	3			
2	2			
(11)	4			
(13)	2			
1	6			
5	2			
314	0	104	0	
8	1	7	7	
+306	-1	+97	-7	
56	1	19	1	
+.55	-.10	+.51	-.70	

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Grouping of A Stars. +30° - +61° 2'

10 h. 40.0 m. - 13 h. 19.9 m.

3.0	3.5	4.0	4.5	5.0	5.5	6.0
4 . 3	4 . 3	(15) . (12)	5 . 2	0 . 0	1 . 1	2 . 2
				2 . 0	5 . 0	8 . .
					3 . 3	5 . .
					2 . 1	3 . .
					2 . 0	3 . 3
					(10) . 6	0 . 2
					1 . 1	3 . .
						2 . 3
						4 . .
						0 . 1
						4 . .
						2 . 1
						3 . 2
						4 . .
						3 . 3
						1 . 0
						1 . 4

Dec.

5936 } 6.16 R.
5937 } R. 4 ✓

6267 B R. R ✓

6278 } B R. R ✓
6279 }

6448 } B R. R ✓
6449 }

Σ+	0	0	0	0	0	0	5	2	0	0	4	3	47	4
Σ−	4	3	4	3	15	12	0	0	2	0	20	9	1	17
Dif	-4	-3	-4	-3	-15	-12	+5	+2	-2	0	-16	-6	+46	-13
No.	1	1	1	1	1	1	1	1	2	2	7	7	17	10
Mean.	-.40	-.30	-.40	-.30	-1.50	-1.20	+.50	+.20	-.10	.00	-.23	-.09	+.27	-.13

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1882phae.proj..869F

Grouping of A Stars. +30° - +61° 2'
10h 40m.0 - 13h 19m.9

6.5	7.0	7.5
5..	0..	0..
1..	3..	
4.4	(15)..	
0.0	7..	
	3..	
	0..	
	0..	
	8..	
	2..	
	0..	
	2..	
	2..	
	1..	
	3..	
	7.4	
	8..	
	4..	
	(10)..	
	3..	
1.2		
1.2		
4..		
4..		
7..		
1..		
0.4		
5..		
2.7		
1.4		
4.5		
4.1		
5.3		
1.0		

73 . 11	50 . 0	0 . .
16 . 21	23 . 4	0 . .
+57✓ . −10✓	+27✓ . −4✓	0✓ . .
28✓ . 11✓	19✓ . 1✓	1✓ . .
+.20✓ . −.09✓	+.14✓ . −.40✓	.00✓ . .

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Grouping of A Stars. +30° - +61° 2'

18h 20m - 15h 59.9

3.0	3.5	4.0	4.5	5.0	5.5	6.0
	6.3	1.2	5.3	1.1	0.1	1.0
			2.3	1.2	4.1	4.1
				6.3	4.1	2.4
				1.1	(10).1	8..
				3.1	5.0	8..
				0.1	2.0	3..
				7.1	3.4	0.1
					1.2	6..
					3.1	0..
					4.2	2..
					3.3	3.2
					0.1	2.0
Dlo.					5.2	1..
6566 B R.R ✓					2.3	(13)..
6882 } 6.46 R.. ✓						3..
6883 } R..						6.2
						4.2
						0.0
						1.2

Σ+	0	0		0	2		5	0		2	2		41	16		55	7	
Σ−	6	3		1	0		2	6		17	8		5	6		12	7	
Diff	−6	−3		−1	+2		+3	−6		−15	−6		+36	+10		+43	0	
No.	1	1		1	1		2	2		7	7		14	14		19	10	
Mean.	−.60	−.30		−.10	+.20		+.15	−.30		−.21	−.09		+.26	+.07		+.23	.00	

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Grouping of A Stars. +30° – +61° 2′
13h. 20m. – 15h. 59′.9

	6.5	7.0	7.5
0..	3.1	3..	
1..	6..	2..	
2.1	(11)..	3..	
2.2	5..	(12)..	
2..	2..	4..	
6.5	2..	4..	
0..	4..	1..	
4.0	9..	2..	
3.1	2..	3..	
(11)..	5..	2..	
2..	0..	5..	
9..	3.2	1..	
8..	1..	8.6	
8..		5..	
2..		5..	
1..			
4..			
4..			
0.1			
2..			
4..			
4..			
1.3			
4..			
1..			

116	1
22	15
+94	−15 ✓
38 ✓	9 ✓
+.25 ✓	−.17 ✓

48	0
12	6
+36 ✓	−6 ✓
15 ✓	1 ✓
+.24 ✓	−.60 ✓

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Grouping of A Stars. +30° - +61° 2'
16h. 0.0m. - 18h. 39.9m.

3.0	3.5	4.0	4.5	5.0	5.5	6.0
		4.1	5.1	1.1	1.1	5.1 (10)
			4.2	1.1	0.4	3.1
				3.1	5.6	1.3
				2.0	3.1	4.1
				1.3	0.3	1.1
				2.2	2.5	4.4
					2.6	0.3
					0.1	3.3
					2.0	2.0
					1.0	2.1
					5.0	0.3
						3.3
						4..
						2.1
						2.R*
						3.1
						3.1
						1.0
						2..
						5..
						3..
						6.1
						1..
						1.0
						7..

Db.

7355 } R.R
7356 } 4.37 ↓
7357 } R.R

7569 } 4.36 4.3 ↓
7570 }

*7903

7913 } 6.91 R.. ↓
7914 } R..

~~8117 R...~~

8280 B R.R ↓

~~8296 R...~~

Σ+	0	1	0	0	0	2	12	6	67	10
Σ−	4	0	9	3	10	6	9	21	11	18
Dif.	−4	+1	−9	−3	−10	−4	+3	−15	+56	−8
No.	1	1	2	2	6	6	18	11	26	18
Mean.	−.40	+.10	−.45	−.15	−.17	−.07	+.03	−.14	+.22	−.04

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Grouping of A Stars. +30° - +61° 2′

16h 0.0m - 18h 39.9m

6.5		7.0	8.0	7.5
4..	8..	3.. 5..	7..	8..
2..	5..	5.. 0..	9..	2..
3..	1..	0.. 1..	4..	1..
3..	1..	3.. 1..	2..	6..
1..	2..	7.. 3..		8..
3.5	8..	5.. 0..		2..
2..	1..	4.. 5..		8..
4..	2..	3.. 4..		5..
0.3	2..	4.. 7..		6..
2.1	3..	1.. (16)..		5..
1..	3..	4..		7..
1..	1..	0..		1..
4..	(16)..	4..		0..
2..	(12)..	3..		
2.4	9..	5..		
9..	1..	2..		
3..	5..	0..		
0..	4.2	0..		
4..	(11)..	6..		
2..	1..	2..		
2..	(13)..	1..		
1..		1..		
9..		1..		
2.1		0..		
1..		5..		
152 .	4	81 . .	18 . .	47 . .
24 .	12	30 . .	4 . .	7 . .
+128√ .	−8√	+51√ . .	+14√ . .	+40✓ . .
46√ .	6√	35√ . .	4√ . .	13✓ . .
+.28√ .	−.13√	+.15√ . .	+.35√ . .	+.31✓ . .

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Grouping of A Stars. +30° – +61° 2′
18h 40m.0 – 21h 19m.9

3.0	3.5	4.0	4.5	5.0	5.5	6.0
	3.2	2.3	1.2	3.2	2.2 4.1	2.1 7.. (12).. 8..
	3.3	1.2	1.0	3.0	6.2 2.3	1.2 4.. 9.. 0.4
			0.2	7.1	6.3 (12)..	2.0 9.. 8.. 3..
				3.4	9.5 0.0	5.0 8.. (11).. 8..
				5.2	2.3 2.3	2.2 2.2 4.2 7..
				1.0	0.0 1.1	5.2 6.. 1.3 7.3
				0.1	~~4.1~~ 4.1	3.. 6.. 0.2 1.2
				5.0	3.2 3.3	7.3 7.. 5.. 3..
				3.0	5.1	(10).0 1.0 (11).. 5.1
					4.2	1.1 5.. 9.. 3.1
					7.0	(19).. 0.2 5.. 3..
					1.1	(13).3 3.. 1.3 3..
					2.2	1.2 7.. 5.. (14)..
					4.2	3.4 8.. 5.. 1.2
					4.0	2.1 3.. 8..
					8.3	5.. 9.. 4.0
					1.3	~~5.2~~ 7.. 2.1
					4.1	8.. 0.2 5..
					4.1	2.1 5.. 2..
					4.1	(10).. (10).. 9..
					9..	(10).. 0.1 5..
					5.4	6.3 4.2 8.3
					4.0	3.. 9.. 0.4
					(15)..	5.2 2.3 2.3
					3.1	7.. (14).. 4.4

9220 B R.R ✓
Db.

8354 } 4.54 2.1 ✓
8355 }

8356 } 4.54 1.1 ✓
8357 }

8364 } 4.68 R.R
8365 } R.R ✓

8890 } 5.83 R.. ✓
8891 } R..

9052 R ...

9086 R ...

9194 } R.R
9195 } 5.98 R.R ✓

Z+	0 · 0	1 · 2	1 · 0	30 · 3	129 · 26	45 7 2	48 6
Σ−	6 · 6	2 · 3	1 · 4	0 · 7	11 · 25 ✓	1 7	31
Dif.	−6 ✓ · −5 ✓	−1 ✓ · −1 ✓	0 ✓ · −4 ✓	+30 ✓ · −4 ✓	+118 ✓ · +1 ✓	+435 +440 ✓ +7 ✓	+17 15 ✓
Nb.	2 ✓ · 2 ✓	2 ✓ · 2 ✓	3 ✓ · 3 ✓	9 ✓ · 9 ✓	32 ✓ · 29 ✓	✓ 887 ✓ 1 ✓	40 ✓ 39 ✓
Mean.	+.30 ✓ · −.25 ✓	−.05 ✓ · −.05 ✓	.00 ✓ · −.13 ✓	+.33 ✓ · −.04 ✓	+.37 ✓ · .00 ✓	✓ +.49 ✓ +.70 ✓	+.04 ✓ ✓

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Grouping of A Stars. +30° - +61° 2'

18h 40m.0 - 21h 19m.9

6.5			7.0	7.5
5	1	(16)	5	4
9	(11)	8	6	(11)
2	(11)	6	7	2
1	(16)	3.3	2	4
6	5	2	2	1
8	6	5.7	3	
0	(11)	1	5	
4	4	4	6	
9	9	3	2	
(19)	6	2	6	
3	(12)	1	1	
6	1	2	2	
2	5	2	0	
2	7	2	1	
7	5	5	1	
7	5	6	1	
4	7	1	2	
6	(16)	4	2	
0	(13)	6	6	
4	(10)	1	2	
0	(12)	4		
3	9	5		
1	7	2.1		
7	2	4		
6	0			
388 :		1	37 :	1 :
19 :		10	25 :	21 :
+36 :		-10	+12 :	-20 :
74 :		3	20 :	5 :
+.50 :		-.33	+.06 :	-.40 :

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1882phae.proj..869F

Grouping of A Stars. +30° - +61° 2'
21h 20.0m - 23h 59.9m

3.0	3.5	4.0	4.5	5.0	5.5	6.0		
		1.0	5.4	5.5	4.3	1.6	6..	2.3
		2.1	4.2	8.3	0.2	0.2	1.5	4..
			2.1	2.2	1.2	1.2	2..	0.3
			4.1	5.1	3.0	1..	8..	4..
				5.2	4.3	3.1	(11)..	2.0
				3.0	(14)..	3..	9..	5..
				2.1	4.1	3..	2.5 ~~7.. (10)~~	4..
				5.1	3.0	0.6	(13)..	9..
				0.0	7.2	3.2	2.2	4.0
					4.0	4..	(18)..	3..
					5.1	4..	2.1	5..
Dle.					3.0	(14)..	(10)..	4..
~~10236 R~~					6.4	7..	7..	7..
~~10320 R~~					3.0	1..	7..	6..
					7.2	8..	1.2	7..
					7..	9..	1.3	7..
					9.3	(14)..	7.3	(15)..
					9.2	5..	8..	2.3
					4.3	(16)..	4..	0.1
					3.1	4..	6..	2.1
					5.0	9..	0..	6.2
					4.1	8..	5..	1.2
					6..	3..	7..	
					3.3	1.0	3..	
						6..	6..	

Σ+	1	0	13	3	30	5	107	12	365	14
Σ-	2	1	2	5	5	10	11	21	8	41
Dif.	-2	-1	+11	-2	+25	-5	+96	-9	+357	-27
No.	2	2	4	4	9	9	24	21	72	23
Mean.	-.10	-.05	+.28	-.05	+.28	-.06	+.40	-.04	+.49	-.12

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1882phae.proj..869E

Grouping of A Stars. +30° - +61° 2'
21h 20.0m - 23h 59.9m

6.5				7.0	7.5
1..	8..	8..	9..		1..
0..	(10)..	4..	2..		3..
0.5	7..	3..	(11)..		4..
2..	(17)..	1..	6..		2..
3..	(11)..	9..	8..		0..
0..	5..	5..	(10)..		0..
3..	(14)..	6..	1..		(11)..
3.4	7..	2..	7..		(10)..
6..	4..	(11)..	2..		5..
9..	7..	5..	5..		(11)..
0..	8..	(16)..	2..		6..
7..	9..	5..	9..		(14)..
7..	4..	5..	(10)..		5..
3..	7.3	6..	7..		9..
5..	7..	(11)..	2..		(10)..
5..	4.1	6..	6..		1..
6..	1..	7..	2..		
0..	7..	2..	0..		
2..	9..	8..	5..		
(10)..	3..	1..	(10)..		
0..	2..	5..	4..		
(11)..	1..	(12)..	0..		
2..	9..	6..			
2..	3..	3..			
6..	5..	8..			
511	. 6			87	. .
19	. 7 ✓			5	. .
+492 ✓	. -1/4 ✓			+82 ✓	. .
971 ✓	.			16 ✓	. .
+.51 ✓	. -.02 ✓			+.51 ✓	. .

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1882phae.proj..869F

Grouping of A. Stars. +61° 3' to Pole.

0h. to 8h.

3.0	3.5	4.0	4.5	5.0	5.5	6.0
		7.4	4.3	1.0	1.0 8..	6.. 5.. 8.1
			1.0	3.2	7.0 7..	5.2 4.. 9..
			4.1	3.0	1.0	(10).. 7.. 9..
			3.3	2.2	4.1	7.. (11).. 8..
				3.2	(11).1	2.. 5.. 2.1
				2.2	3.3	5.. 5.. 5..
				1..	1.1	9.. 3.2 (11)..
				1.2	7.0	4.. 2.0 0.0
D6.				2.1	6.0	9.. 8.. 1.4
251	R ...			8.3	6.2	6.. 3..
914	R ...				3.7	6.. 5..
1182	6.61 R.. ✓				7.1	6.. 5..
1193	R ...				(10)..	8.. 7..
1236	R ...				3.2	6.. 5..
1623	R ...				5.2	7.. 3..
+118	R..				5.0	1.. 5..
+119	6.62 R.. ✓				4.3	8.. 9..
4297	R ...				9.2	1.. 0.0
					6.1	2.1 2..
					3.1	8.. 8..
					4.0	5.. 7..
					0.1	7.. 4.1
					6.3	4.. 6..
					1.1	(12).. 8..
					1.0	(15).. 6..
Σ+		0 . 0	4 . 0	23 . 6	120 . 27	341 . 12
Σ−		7 . 4	8 . 7	3 . 8	9 . 5	4 . 0
Dif.		-7 . -4	-4 . -7	+20 . -2	+111 . +22	+337 . +12
No.		1 . 1	4 . 4	10 . 9	27 . 24	59 . 9
Mean.		-.70 . -.40	-.10 . -.18	+.20 . -.02	+.41 . +.09	+.57 . +.13

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1882phae.proj..869F

Grouping of A Stars, +61° 3′ to Pole.

0h. to 8h.

6.5	7.0	7.5	8.0
7.. 9.. 7.. 7.. 9.. 4..	(10).. 8.. (11).. 9.5 5..	(11)..	8..
9.. (16).. (10).. 5.. (13).. 4..	(11).. 5.. (13).. (15).. (15)..	(14)..	(10)..
5.. (11).. 3.. 6.. (10).. (11)..	(10).. (16).. (12).. 1.. 7..	(17)..	7..
5.. (14).. (25).. 4.. 9.. 8..	9.. (18).. 5.. (18).. (12)..	8..	6..
6.. 8.. 8.. 5.. 4.. 1.1	4.. (13).. (12).. 4.. 7..	8..	8..
5.. 9.. 9.. 7.. 7.. 6..	6.. 7.. 4.. 4.. 6..	(15)..	5..
4.. (13).. 5.. 7.. (13).. (10)..	(17).. (15).. (13).. 7.. 2..	5..	6..
8.. 2.. (14).. 1.. 7.. (13)..	1.. (11).. (11).. 8.. 9..	(12)..	
9.. 2.. (11).. 7.. 6.. 2..	(13).. (12).. 1.. (13).. 2..	6..	
3.. (11).. 3.. 7.3 4.. 6..	(15).. (11).. (12).. (11).. 8..	(13)..	
7.. (15).. 6.. (11).. (11).. 3..	9.. (10).. (11).. (11).. 5..	4..	
5.. (10).. 6.. 8.. 4.4 (11)..	(15).. 6.. 6.. (12).. 7..	(15)..	
(12).. (10).. (24).. 1.. 6.. (13)..	4.. 6.. 6.. 8.. (12)..	(19)..	
(16).. 8.. (10).. 5.. 5.. 5..	(13).. 9.. 7.. (15).. 8..	(15)..	
9.. (15).. 5.. (13).. 8.. 6..	(10).. 1.. 8.. 5.. 5..	(11)..	
6.. 8.. 8.. 4.. 3.. 8..	(13).. (16).. (12).. (11).. 6..	4...	
6.. (16).. 9.. 6.. (12).. 8..	(19).. (16).. 7.. 8.. 1.2	(14)...	
8.. (11).. 8.. 8.. 5.. 1..	7.. (15).. (10).. (13)..	(12)..	
(10).. 9.. 4.. 7.. (12).. 5..	(10).. (12).. (16).. 4..	(12)..	
8.. (14).. (11).. 8.. 7.. 2..	(11).. (14).. (17).. (13)..	6..	
7.. (10).. 7.. 9.. 4..	(15).. 6.. 9.. 8..	6..	
(13).. (17).. 9.. (11).. 4..	(12).. (12).. (14).. (13)..		
5.. 8.. 7.. 5.. (14)..	6.. 5.. (11).. (11)..		
6.. (15).. (15).. 8.. 2..	(12).. 8.. 9.. 9..		
(12).. (10).. 4.. 6.. (10)..	(12).. 4.. 2.. 1..		
1160 : 4	1093 : 2	227 . .	44 . .
2 : 4√	13 : 5√	0√ . .	6 . .
+1158√ : 0√	+1080√ : -3√	+227√ . .	+38√ . .
145√ : 3√	117√ : 2√	21√ . .	7√ . .
+.80√ . .00√	+.92√ . -.15√	+1.08√ . .	+.54√ . .

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1882phae.proj..869F

Grouping of A Stars. +61° 3' to Pole.
8h to 16h.

3.0	3.5	4.0	4.5	5.0	5.5	6.0
		7.2	3.1	1.1	3.2	6.. 2.1
		6.4		0.0	3.3	2.. 3..
				7.1	0.1	8.. 6..
					6.0	(10).. 7..
					5.1	2.0 1.1
					8.3	4.6 5..
					5.2	(13).. 3..
					3.4	3.. 2.1
					3.1	1.2
						5..
						2..
						0.1
						1.0
						1.2
						1..
						3.1
						6..
						5.0
						2.6
						2.1
						4.3
						3..
						3..
						5..
						2.1

Dc.

4897 R ...

4899 } 6.30 R.. ✓
4900 } R..

5915 R ...

5994 R ...

6254 } 4.98 R.
6255 } R. 0 ✓

7003 B R.R ✓

Σ+	0	·	0		3	·	1		7	·	1		25	·	11		120	·	22				
Σ−	13	·	6		0	·	0		1	·	1		11	·	6		3	·	4				
Dif.	−13	·	−6	✓	+3	·	+1	✓	+6	·	0	✓	+14	·	+5	✓	+117	·	+18	✓			
No.	2	·	2	✓	1	·	1	✓	3	·	3	✓	9	·	9	✓	33	·	15	✓			
Mean.	−.65	·	−.30	✓	+.30	·	+.10	✓	+.20	·	.00	✓	+.16	·	+.06	✓	+.35	✓	·	+.12	✓		

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1882phae.proj..869F

Grouping of A Stars. +61° 3' to Pole.
8h. to 16h.

6.5		7.0		7.5	8.0
2..	4..	6..	2.. 0..	5..	4..
(11)..	4..	4..	7.. 5..	(10)..	8..
3..	(10)..	3..	8.. (10)..	(12)..	6..
2..	2.4	5..	0.. 6..	(13)..	(2.. 5..
4..	4..	1..	4.. 1..	3..	4..
7..	2..	(20)..	2.. 7..	7..	8..
4..	3..	(11)..	(14).. 2..	4..	5..
0..	(11)..	5..	(15).. 5..	2..	1..
7..	1..	(12)..	9.. (15)..	9..	
(13)..	1..	7..	4.. 3..	(12)..	
4..	5..	7..	0.. 5..	(11)..	
(14)..	3..	7..	1.. (11)..	9..	
2..	4..	3..	2.. 0..	6..	
8..	4.0	(12)..	0.. 6..	6..	
7..	1..	(11)..	7.. 2..	5..	
4..	8..	(11)..	5.. (10)..	9..	
3..		3..	(11).. 3..	(10)..	
8..		(15)..	8.. 6..	(11)..	
3..		7..	(11).. 0..	1..	
4..		9..	(10).. 0..	8..	
3..		(12)..	(11).. 0..	2..	
3..		7..	8.. 5..	7..	
(12)..		6..	8..	8..	
1..		(12)..	8..		
4.0		8..	1..		
191 .	0	448 50 . .		160 . .	335 . .
9 .	4	14 6 . .		10 . .	8 . .
+182 .	−4	+434 . .		+150 . .	+25 . .
41 .	3	72 3 . .		23 . .	8 . .
+.44 .	−.13	+.60 . .		+.65 . .	+.31 . .

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Grouping of A Stars. +61° 3' to Pole.
16h to 0h.

3.0	3.5	4.0	4.5	5.0	5.5	6.0		
	6.3	5.0	4.0	2.0	7.1	4.2	3..	5..
		8.4	7.4	5.7	4.1	1.1	3..	6..
				5.2	7.2	3..	3..	6..
				5.6	1.1	3.5	7..	9..
				8.0	1.2	6..	7..	0..
				3.1	4.2	1.3	4..	7..
					1.5	1.3	5.2	5..
					1.3	4..	7..	5..
					2.2	5..	(12)..	5..
					6.2	3..	(13)..	8.4
					4.1	(10)..	6..	1.2
					0.1	5.2	7..	3..
					3.5	5.1	6..	4.1
					8..	2.1	2.0	
					4.0	4.0	0.0	
					2.1	2..	4..	
					0.0	5..	3..	
					1.2	5..	3..	
					4.1	8..	(10)..	
					6.1	8..	3..	
					4.(13)	8..	7..	
						0.2	7..	
						7..	9..	
						2..	4.2	
						8..	8..	

D.C.

7841 } 6.96 R..
7842 } R..
~~9142 R ...~~
9376 B R.R
~~9379 R ...~~
~~9660 R ...~~
~~9767 R ...~~
~~10079 R ...~~

Σ+	0	0	5	0	4	0	18	0	60	24	304	21
Σ−	6	3	8	4	7	4	10	16	10	22	13	10
Dif.	−6	−3	−3	−4	−3	−4	+8	−16	+50	+2	+291	+11
No.	1	1	2	2	2	2	6	6	21	20	63	17
Mean	−.60	−.30	−.15	−.20	−.15	−.20	+.13	−.27	+.24	+.01	+.46	+.06

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Grouping of A Stars. +61° 3' to Pole.
16h. to 0h.

6.5						7.0				7.5	8.0
0..	8..	9..	6..	(14)..	(15)..	3..	(17)..	(12)..	(10)..	(11)..	9..
(12)..	4..	6..	6..	4..	5..	9..	4..	0..	(13)..	8..	7..
6..	4..	5..	7..	(10)..	(13)..	8..	4..	1.3	9..	3..	7..
1..	1..	3.2	3..	6..	6..	5..	4..	9..	(14)..	2..	2..
5..	3.6	7..	8..	(10)..	(14)..	2..	(10)..	1..	(12)..	1..	3..
4..	(12)..	6..	7..	(12)..	(12)..	(13)..	(15)..	7..	(10)..	2..	6..
2..	4..	7.1	(10)..	5..	9..	2..	7..	(13)..	(11)..	(11)..	2..
1..	(10)..	4..	9..	(14)..	2..	(10)..	7..	2..	(13)..	9..	2..
1..	(12)..	8..	(13)..	8..	5..	4..	(15)..	(11)..	9..	(14)..	5..
4..	(19)..	2..	4..	(11)..	5..	7..	(10)..	3..	(13)..	1..	5..
6..	9..	4..	5..	4..	4..	4..	8..	2..	0..	7..	0..
8..	5..	3..	9..	4..		5..	4..	5..	(10)..	3..	3..
3..	9..	3..	(11)..	(14)..		6..	7..	(12)..	5..	7..	7..
1..	9..	1..	0..	9..		1..	8..	7..	3..	9..	5..
3..	(15)..	7..	4..	8..		3..	0..	(10)..	(12)..	5..	8..
2..	8..	2..	(12)..	8..		(11)..	8..	7..	(12)..	(12)..	
5.6	9..	9..	6..	4..		(10)..	7..	(10)..	7..	(11)..	
(10)..	8..	7..	4..	(18)..		3..	(14)..	3..	(11)..	6..	
8..	5..	6..	9..	4..		1..	(17)..	(10)..		4..	
7..	(11)..	0..	4..	3.7		8..	9..	(15)..		8..	
(13)..	(13)..	5..	7..	3..		3..	0..	8..		(11)..	
9..	6..	4..	6..	5..		4..	(12)..	8..			
4..	(11)..	8..	(13)..	8..		0..	8..	7..			
2..	6.7	1.2	(14)..	6..		7..	2..	(12)..			
(10)..	6..	2..	7..	1..		3..	8..	5..			

902		18				681		3		145	71
18		13				20		0		0	0
+884		+5				+661		+3		+145	+71
136		7				93		1		21	15
+.65		+.07				+.711		+.30		+.69	+.47

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Grouping of E & G Stars. −0° − −30°

0 h. − 1 h.

3.0	3.5	4.0	4.5	5.0	5.5
			(16)	(12)	(10)

Σ+					
Σ−			16	12	10
Dif.			−16	−12	−10
No.			1	1	1
Mean.			−1.60	−1.20	−1.00

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Grouping of E & G Stars. −0° − −30°.
0h. − 1h.

6.0	6.5	7.0	7.5
2 2 1	. (10) (13)	2 (10) .	7 F.
4 1 0	3 3 .	5 6 4	
1 3 .	2 1 .	8 (10) .	
1 1 0	0 3 .	1 F.	
	(10) (13) .	(10) F.	
	0 2 .	9 F.	
	(10) 5 .		
	1 2 .		
	1 3 .		
	. 6 .		
	1 1 .		
	6 5 .		
	1 0 .		
	7 F.		
	7 7 .		
	9 4 .		
	9 F.		
	6 1 .		
	7 F.		
	. 4 6		
	2 1 .		

4	5	1	73	57	6	29	20	.	7	.	.
4	2	.	9	14	13	6	6	4	.	.	.
0✓	+3✓	+1✓	+64✓	+43✓	−7✓	+23✓	+14✓	−4✓	+7✓		
4✓	4✓	3✓	18✓	18✓	2✓	6✓	3✓	1✓	1✓		
.00✓	+.08✓	+.03✓	+.36✓	+.24	−.35✓	+.38✓	+.47✓	−.40✓	+.70✓		

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Grouping of Cand G Stars. −0° − −30°
2h − 3h

3.0	3.5	4.0	4.5	5.0	5.5
				. (11) (10)	. ± 7
					(14) (13) .
					(16) (16) .

Error in Patent.

Σ+	. 11	10	30	29	.
Σ−	.		.	4	7
Diff.	. +11	+10	+30	+25	−7
No.	. 1	1	2	3	1
Mean.	. +1.10	+1.00	+1.50	+.83	−.70

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Grouping of C and G Stars. -0° - -30°.

2h - 3h.

6.0	6.5	7.0	7.5
. 4 6	7 F .		
(11) (11) .	(12) F .		
2 3 1	. 1 2		
4 (14) .	(16) F .		
. 3. 8	(15) F .		
1 5 .	5 4 .		
. 1 2	5 4 .		
1 0 1	2 4 .		
4 1 1	6 6 .		
2 4 5			
1 1 3			

26	40	17	66	19	.
+26	7 +33	10 +7	2 +64	+19	2 -2
8	11	8	8	5	1
+.32	+.30	+.09	+.80	+.38	-.20

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Grouping of E and G Stars. -0°- -30°
4h - 5-h.

3.0	3.5	4.0	4.5	5.0	5.5
				6 5 1	(13) (10) .

Σ+	6	5	1	13	10	.
Σ-	.	.	.	.	.	.
Diff.	+6	+5	+1	+13	+10	.
No.	1	1	1	1	1	.
Mean.	+.60	+.50	+.10	+1.30	+1.00	.

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Grouping of E and G Stars. −0° − −30°
4h − 5h.

6.0	6.5	7.0	7.5
(13) 8 .	(12) (10) .	6 F .	
7 0 .	6 F .	(17) F .	
9 F .	0 3 .		
4 1 2	7 F .		
3 3 2	(11) 8 .		
1 3 1			
6 8 5			
. 1 6			
4 3 1			

42	26	7	36	21	.	23	.	.
5	1	10	.	.	.	.	.	.
+37 ✓	+25 ✓	−3 ✓	+36 ✓	+21 ✓	.	+23 ✓	.	.
8 ✓	8 ✓	6 ✓	5 ✓	3 ✓	.	2 ✓	.	.
+4.6 ✓	+3.1 ✓	−.05 ✓	+7.2 ✓	+7.0 ✓	.	+1.15 ✓	.	.

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Grouping of E and G Stars. −0° − −30°

6h. − 7h.

3.0	3.5	4.0	4.5	5.0	5.5
. 8 (11)				. 8 0	3 9 .
				9 6 3	(10) 9 5
				(17) (18) .	. (13) .
				. 5 1	9 (10) 5
				7 1 7	. 8 .
					(12) 5 .
					(14) 5 .
					. (10) 0
					. (17) .

D.6.

4275 } 5.51 RR R ✓
4276 } RR

4300 5.71 . R . ✓

4301 R . R .

Σ+	.	.	.	26	37	3	48	81	10
Σ−	.	8	11	7	1	8	.	.	.
Diff.	.	−8 ✓	−11 ✓	+19 ✓	+36 ✓	−5 ✓	+48 ✓	+81 ✓	+10 ✓
No.	.	1 ✓	1 ✓	3 ✓	5 ✓	4 ✓	5 ✓	8 ✓	3 ✓
Mean	.	−.80 ✓	−1.10 ✓	+.63 ✓	+.72 ✓	−.12 ✓	+.96 ✓	+1.01 ✓	+.33 ✓

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Grouping of E and G Stars. −0° − −30°.

6h − 7h.

6.0	6.5	7.0	7.5
9 (17) .	(13) F .		
(21) F .	(14) (22) .		
1 5 .	(13) 8 .		
1 1 3	9 F .		
2 5 2	5 (10) .		
5 3 2	3 2 .		
	9 F .		

36	30	.	66	42 .
3	1	7		
+33 ✓	+29 ✓	−7 ✓	+66 ✓	+42 ✓ .
6 ✓	5 ✓	3 ✓	7 ✓	4 ✓ .
+.55 ✓	+.58 ✓	−.23 ✓	+.94 ✓	+1.05 ✓ .

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Grouping of E and G Stars. -0° - -30°
8h - 9h.

3.0	3.5	4.0	4.5	5.0	5.5
		. 6 9			7 (11) (11)
					4 8 3
					. 1 6

Σ+	'	'	'
Σ−	.	6	9
Diff.	.	-6√	-9√
No.	.	1√	1√
Mean	.	-.60√	-.90√

4	8	3
7	12	17
-3√	-4√	-14√
2√	3√	3√
-.15√	-.13√	-.47√

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Grouping of E and G Stars. -0° - -30°.
8 h. - 9 h.

6.0	6.5	7.0	7.5
+ 6 1	5 2 .		
2 4 .	5 5 .		
1 5 .	6 F .		
3 4 .			
9 6 .			
3 6 .			
9 9 .			
(12) (12) .			
5 7 1			
4 3 2			
2 1 .			
.. 1 0			

48	64	1	11	7 .
6	.	3	5	.
+42 ✓	+64 ✓	−2 ✓	+6 ✓	+7 ✓ .
11 ✓	12 ✓	4 ✓	3 ✓	2 ✓ .
+.38 ✓	+.53 ✓	−.05 ✓	+.20 ✓	+.35 ✓ .

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Grouping of E and G Stars. −0° − −30°

10h. − 11h.

3.0	3.5	4.0	4.5	5.0	5.5
					3 2 6
					. 4 6

D.

5766 } 6.59 R F.
5767 } 6.59 R F. ↓

Σ+	.	.	.
Σ−	3	6	12
Diff.	−3 ↓	−6 ↓	−12 ↓
No.	1 ↓	2 ↓	2 ↓
Mean	−.30 ↓	−.30 ↓	−.60 ↓

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Grouping of E and G Stars. $-0° - -30°$
$10^h - 11^h$

6.0	6.5	7.0	7.5
(11) 7.	4 4.	9 (11) R.	
4 5 1	2 3.	1 F.	
. 0 2	8 6.		
4 0 5	5 (15).		
	3 3.		
	6 (13).		
	5 (11).		
	. (15).		
	(13) 5.		
	5 5.		
	6 6.		
	4 F.		
	(10) F.		
	1 F.		
	4 4.		
	3 2.		
	6 4.		
	3 5.		

19 12 .	83 +101 .	10 11 .
. . 8	5 .	. .
+19 ✓ +12 ✓ −8 ✓	+78 ✓ +101 ✓ .	+10 ✓ +11 ✓ .
3 ✓ 4 ✓ 3 ✓	17 ✓ 15 ✓ .	2 ✓ 1 ✓ .
+.63 ✓ +.30 ✓ −.27 ✓	+.46 ✓ +.67 ✓ .	+.50 ✓ +1.10 ✓ .

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Grouping of E and G Stars. -0° - -30°
12h - 13h

3.0 3.5 4.0 4.5 5.0 5.5

Gc.

6258 } 6.43 RR.
6259 } RR.

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Grouping of E and G Stars. -0° - -30°

12h. – 13h.

6.0	6.5	7.0	7.5
0 0 1	6 5 .	(10) F .	
3 3 .	. 6 .	4 F .	
1 0 1	5 8 .	5 7 7	
1 1 .	2 F .	(12)(20) .	
3 1 2	6 3 .	2 F .	
2 1 3	2 5 .		
	. 7 .		
	(10) F .		
	2 2 .		
	6 4 .		
	(11) 1 .		
	(10) F .		
	(11) F .		
	7 F .		
	. 3 .		
	8 F .		
	4 F .		
	2 4 .		
	. 0 7		

Σ+	9	5	.	90	46	.	26	20	.
Σ-	1	1	7	2	2	7	7	7	7
Diff.	+8 ✓	+4 ✓	-7 ✓	+88 ✓	+44 ✓	-7 ✓	+19 ✓	+13 ✓	-7 ✓
No.	6 ✓	6 ✓	4 ✓	15 ✓	12 ✓	1 ✓	5 ✓	2 ✓	1 ✓
Mean	+.13 ✓	+.07 ✓	-.18 ✓	+.59 ✓	+.37 ✓	-.70 ✓	+.38 ✓	+.65 ✓	-.70 ✓

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Grouping of E and G Stars. -0° - -30°

14h - 15h

3.0	3.5	4.0	4.5	5.0	5.5
				. (12) ~~5~~	5 1 6
					. 4 0
					. (14) .

Db.

~~6936 R . . .~~

Σ+	. 12	~~5~~	.	18	.	
Σ−	.	.	5	1	6	
Diff.	. +12 ✓	~~A5~~ ✓	−5 ✓	+17 ✓	−6 ✓	
No.	. 1	1 ✓	1 ✓	3 ✓	2 ✓	
Mean	. +1.20 ✓	+.50 ✓	−.50 ✓	+.57 ✓	−.30 ✓	

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Grouping of E and G Stars. -0° - -30°.

14h - 15h

6.0	6.5	7.0	7.5
8 7 .	5 1 .	2 F .	
. 6 .	2 2 .		
8 8 .	. 5 .		
(13) F .			
6 6 .			
. (10) .			

35	37	.	.	8	.	2	.	.
+35 ✓	+37 ✓	.	7	+8 ✓	.	+2 ✓	.	.
4 ✓	5 ✓	.	1 ✓	3 ✓	.	1 ✓	.	.
+.88 ✓	+.74 ✓	.	-.35*	+.27 ✓	.	+.20 ✓	.	.

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Grouping of E and G Stars. -0°--30°
16h.-17h.

3.0	3.5	4.0	4.5	5.0	5.5
					. (10) .
					. 4 .
					. 9 .

Σ+	23	
Σ−	.	
Diff.	$+23\sqrt{3}$	
No.	$\sqrt{3}$	
Mean.	$+.77^{\vee}$	

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Grouping of C and G Stars. -0° - -30°
16h. - 17h.

6.0	6.5	7.0	7.5
. 6 .	4 4 .		
2 5 .	2 1 .		
2 5 .	8 6 .		
. 6 .	(10) 7 2		
2 1 .			
. 0 4			

6	23	.	22	17	2
.	.	4	2	1	.
+6 ✓	+23 ✓	-4 ✓	+20 ✓	+16 ✓	+2 ✓
3 ✓	6 ✓	1 ✓	4 ✓	4 ✓	1 ✓
+.20 ✓	+.38 ✓	-.40 ✓	+.50 ✓	+.40 ✓	+.20 ✓

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Grouping of E and G Stars. -0°--30°
18h.-19h.

3.0 3.5 4.0 4.5 5.0 5.5

Σ+
Σ-
Diff.
No.
Mea

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Grouping of E and G Stars −0°--30°.

18h.−19h.

6.0	6.5	7.0	7.5
4 7.	. 8.		
6 3.	1 1.		
1 1 1	1 4.		
3 4.	7 9.		
. (11).	1 3.		
2 2 2	3 4.		
9 (17).	9 7.		
. 8 5	(10)(12).		
. 1 1	(12) 4.		
9 (10).	(11) 4.		
3 1 3	(17) 7.		
8 8.	. (17).		
4 8.			

Σ+	42	79	8	69	72
Σ-	7	2	4	3	.
Diff.	+35	+77	+4	+66	72
No.	10	13	5	10	10
Mean.	+.35	+.59	+.08	+66	+72

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Grouping of E and G Stars. -0° - -30°

20h - 21h.

3.0	3.5	4.0	4.5	5.0	5.5
		(12) (10) 8	8 6 5		

Σ+						
Σ-	12	10	8	8	6	5
Diff.	-12	-10	-8	-8	-6	-5
No.	1	1	1	1	1	1
Mean.	-1.20	-1.00	-.80	-.80	-.60	-.50

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Grouping of E and G Stars. -0°--30°.
20h-21h

6.0	6.5	7.0	7.5
+ (16).			
+ 3	1		

8	19	1
+8 ✓	+19 ✓	+1 ✓
2 ✓	2 ✓	1 ✓
+.40 ✓	+.95 ✓	+.10 ✓

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Grouping of E and G Stars. -0°--30°
22h.-23h.

3.0 3.5 4.0 4.5 5.0 5.5

Σ+
Σ-
Diff.
No.
Mean

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Grouping of E and G Stars. −0° − −30°.

22h. − 23h.

6.0	6.5	7.0	7.5
8 8 4	4 3 .		
4 (17) .	. 1 3		

Σ+	12	25	4		
Σ−				4	4	3
Diff.	+12✓	+25✓	+4✓	−4✓	−4✓	−3✓
Nos.	2✓	2✓	1✓	1✓	2✓	1✓
Mean	+.60✓	+1.25✓	+.40✓	−.40✓	−.20✓	−.30✓

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1882phae.proj..869F

Group of E and G Stars. +0° - +29° 5-9.9
0h - 1h.

3.0 3.5 4.0 4.5 5.0 5.5

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1882phae.proj.:8091

Grouping of E and G Stars. +0° - +29° 59.5′

0h. – 1h.

6.0	6.5	7.0	7.5
3 . 5	(10) . .	3 2 .	
6 . .	(12) . .	2 1 .	
	1 0 .	5 . .	
	0 . .	6 . .	
	6 F .	(13) . .	
	4 3 .	8 F .	
	3 2 .	5 F .	
	4 F .	(13) . .	
	(14) . .	(11) F .	
	8 3 .	2 0 .	
	8 . .	6 . .	
	(11) F .	5 . .	
	3 1 .	4 . .	
	3 . 2	5 . .	
	(10) . .	3 1 .	
	(16) . .	0 . .	
	(10) . .	9 F 6	
	5 . .	(11) . .	
	(13) . .	7 . .	
	3 2 4		
	6 . .		

Σ+	6	.	.	147	4	.	109	4	6
Σ−	3	:	5	3	7	6	9	.	.
Diff.	+3	:	−5	+144	−3	−6	+100	+4	+6
No.	2	:	1	21	6	2	19	4	1
Mean	+.15	.	−.50	+.69	−.05	−.30	+.53	+.10	+.60

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Grouping of E and G Stars. +0° - +29° 59′

2h. - 3h.

3.0	3.5	4.0	4.5	5.0	5.5
					1
					4
					2
					3
					5
					6

Σ+	1	4	2
Σ−	3	5	6
Diff.	−2	−1	−4
No.	2	2	2
Mean	−.10	−.05	−.20

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Grouping of G and G Stars. +0° - +29° 59½'.
2h. - 3h.

6.0	6.5	7.0	7.5
5 1 1	4 . .	(10) . .	
(11) 8 .	(12) . .	9 . .	
(15) 9 .	(11) . .	8 . .	
(22) 5 .	2 . .	6 . .	
8 2 1	(17) 5 .	8 . (10)	
(12) 3 .	(12) 5 .	(11) . .	
0 1 3	6 . .	3 0 .	
5 . .	9 . .		
	(10) . .		
	(12) . .		
	5 6 .		
	(11) . .		
	2 . .		
	(17) 5 .		
	9 1 .		
	(12) 5 .		
	8 . .		
	5 . .		
	5 0 3		
	(11) . .		
	(11) 3 .		
	6 5 .		
	(12) 3 .		
	*(12) . .		

*26. 2708.

78	23	1	221	18	.	+44	0	.
.	1	4	.	.	3	11	.	10
+78	+22	−3	+221	+18	−3	+33	0	−10
8	6	3	24	6	1	7	1	1
+.98	+.37	−.10	+.92	+.30	−.30	+.47	.00	−1.00

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Grouping of E and G Stars. +0° - +29° 59'
4h - 5h

3.0 3.5 · 4.0 4.5 5.0 5.5

(16) · (17)
3 · 4

D.6.

2415 } 6.54 R
2416 } R 1 5 ↓

Σ+	,	,
Σ−	19	21
Diff.	−19↓	−21↓
No.	2↓	2↓
Mean	−.95↓	−1.05↓

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Grouping of E and G Stars. +0° - +29° 59'.

4h - 5h

6.0	6.5	7.0	7.5
5 . .	(15) . .	(13) F .	
2 0 5	(10) . .	6 F .	
5 . .	6 . .		
4 2 2	(11) . .		
8 . .	(12) . .		
	7 2 .		
	8 . .		
	6 4 .		
	2 . .		
	3 5 .		
	3 1 .		
	5 2 .		
	4 3 5		
	(10) . .		
	(13) . .		
	7 . .		
	(12) . .		
	0 1 2		
	7 F .		
	(11) . .		

22	2	'	148	14	'	19	:	:
2	'	7	4	4	7	·	:	:
+20✓	+2✓	-7✓	+144✓	+10✓	-7✓	+19✓	:	:
5✓	2✓	2✓	20✓	7✓	2✓	2✓	:	:
+.40✓	+.10✓	-.35✓	+.72✓	+.14✓	-.35✓	+.95✓	.	.

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Grouping of E and G Stars. +0° - +29° 59'
6h - 7h

3.0	3.5	4.0	4.5	5.0	5.5
					9

Σ+	9	'	'
Σ−	.	.	.
Diff.	+9	.	.
No.	1	.	.
Mean	+9.0	.	.

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Grouping of E and G Stars. +0°-+29°59'

6h-7h.

6.0	6.5	7.0	7.5
(12) F.	(15) F.	6 F.	
(10) 5.	(12) F.	(17). .	
3 . 0	5 4.	(17). .	
1 1 0	7 F.		
8. .	(11). .		
(15) 4.	9. .		
6. .	7. .		
9 8.	(14). .		
(14) F.	9. .		
	(11). .		
	4. .		
	(13). .		
	(14). .		
	6. .		
	6. .		
	(12) 7.		
	2. .		
	3. .		

77	18	0	160	11	.	40	.	.
.	.	.	.	.	.	.	.	.
+76 ✓	+18 ✓	0 ✓	+160 ✓	+11 ✓	.	+40 ✓	.	.
9 ✓	4 ✓	2 ✓	18 ✓	2 ✓	.	3 ✓	.	.
+.84 ✓	+.45 ✓	.00 ✓	+.89 ✓	+.55 ✓	.	+1.33 ✓	.	.

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Grouping of E and G Stars. +0° - +29° 59'
8h - 9h.

3.0	3.5	4.0	4.5	5.0	5.5
			6 6 5		

Σ+			
Σ−	6	6	5
Diff.	−6↓	−6↓	−5↓
No.	1↓	1↓	1↓
Mean.	−60↓	−60↓	−50↓

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1882phae.proj..869F

Grouping of E and G Stars. +0°–+29° 59'.

8h–9h.

6.0	6.5	7.0	7.5
1 . 2	3 . .	7 . .	6 . .
4 . .	(12) . .	2 . .	5 . .
(15) 7 .	5 . .	3 . .	2 . .
(13) 7 .	7 . .	8 . .	
6 0 3	(15) . .	(10) . .	
	7 . .	1 . .	
	3 . .	9 . .	
	6 . .	(10) . .	
	4 . .	(12) . .	
	(12) 7 .	0 . .	
	6 . .	7 . .	
	5 4 .	2 . .	
	1 . .	9 . .	
	5 . 1	3 . .	
	6 3 .	0 . .	
	4 . .		
	(11) . .		
	1 . .		
	5 . .		
	1 . .		
	1 . .		
	2 . .		
	9 7 .		

33	0	.	131	7	1	81	.	.	13	.	.
6	.	5	.	.	.	2	.	.	.	.	.
+27 ✓	0 ✓	−5 ✓	+131 ✓	+7 ✓	+1 ✓	+79 ✓	.	.	+13 ✓	.	.
5 ✓	1 ✓	2 ✓	23 ✓	2 ✓	1 ✓	15 ✓	.	.	3 ✓	.	.
+.57 ✓	.00 ✓	−.25 ✓	+.57 ✓	+.35 ✓	+.10 ✓	+.53 ✓	.	.	+.43 ✓	.	.

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Grouping of E and G Stars. +0° - +29° 59'.
10 h. - 11 h.

3.0	3.5	4.0	4.5	5.0	5.5
			4 5 5		
			(II) 7 7		

Σ+	.	.	.
Σ−	15	12	12
Diff	−15	−12	−12
No.	2	2	2
Mean	−.75	−.60	−.60

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Grouping of E and G Stars. +0° - +29° 59'.

10h - 11h.

6.0	6.5	7.0	7.5
3 . 0	4 1 .	7 . .	
(11) 6 .	0 . .	7 . .	
	4 . 0	(11) . .	
	1 . .	4 . .	
	3 4 .	(10) . .	
	8 3 .	(10) . .	
	4 . .	9 . .	
	8 . .	(11) 5 .	
	9 . .	2 . .	
	8 . .	7 5 .	
	6 . .	7 5 .	
	8 . .	1 . .	
	2 . .	0 . .	
	7 . .		
	(17) 5 .		
	(11) 4 .		
	(11) 5 .		
	4 . .		
	6 . .		
	8 2 7		

14	6	0	~~128~~ 121	17	.	85	. .
.	.	.	8	2	7	1	. .
+14 ✓	+6 ✓	0 ✓	+113 ✓	+15 ✓	-7 ✓	+84 ✓	. .
2 ✓	1 ✓	1 ✓	20 ✓	6 ✓	2 ✓	13 ✓	. .
+.70 ✓	+.60 ✓	.00 ✓	+.56 ✓	+.25 ✓	-.35 ✓	+.65 ✓	. .

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Grouping of E and G Stars. +0° - +29° 59'

12h - 13h

3.0	3.5	4.0	4.5	5.0	5.5
		6 . 9			

Σ+	0	0
Σ-	6	9
Dif.	-6J	-9V
No.	1V	1J
Mean.	-.60V	-.90J

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Grouping of E and G Stars. +0° - +29° 59'

12h. - 13h.

6.0	6.5	7.0	7.5
8 . 8	8 F.	5 . .	
4 3 .	2 . .	7 . .	
3 . 6	8 . .	1 . .	
	8 3 .	(10) . .	
	6 . 2	4 . .	
	7 3 .	4 1 .	
	(11) 3 .	9 F.	
	0 . .	(14) . .	
	3 . .	2 F.	
	2 . .	4 . .	
	2 2 .	5 . .	

7	3	0	51	11	0	53	1	.
8	0	14	6	0	2	12	0	.
-1v	+3v	-14v	+45v	+11v	-2v	+41v	+1v	.
3v	1v	2v	11v	4v	1v	11v	1v	.
-.03v	+.30v	-.70v	+.41v	+.28v	-.20v	+.37v	+.10v	.

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Grouping of E and G Stars. +0° - +29° 59'

14h - 15h.

3.0	3.5	4.0	4.5	5.0	5.5
					5 6 9

Σ+	0	0	0
Σ−	5	6	9
Dif.	−5	−6	−9
No.	1	1	1
Mean	−.50	−.60	−.90

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Grouping of E and G Stars. +0° - +29° 59'.

14h. - 15h.

6.0	6.5	7.0	7.5
1 . 1	1 2 .		
	1 1 1		
	3 2 .		
	(10) . .		
	4 . .		
	7 . .		
	3 . .		

0 . 0	29 5 0
1 . 1	0 0 1
-1 : -1	+29 +5 -1
1 : 1	7 3 1
-.10' . -.10''	+.41' +.17'' -.10'''

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1882phae.proj..869F

Grouping of E and G Stars. +0° - +29° 59'
16 h. - 17 h.

3.0 3.5 4.0 4.5 5.0 5.5

Σ+
Σ−
Dif.
No.
Mean

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1882phae.proj..869F

Grouping of E and G Stars. +0°-+29° 59'.
16h-17h.

6.0	6.5	7.0	7.5
2 1 2	5 2 4	8 . .	
	3 1 .		
	5 6 7		
	0 . .		
	4 . 2		
	5 . .		
	6 . .		
	2 1 .		
	0 . .		
	2 . .		
	1 1 .		
0 1 0	14 3 0	8 . .	
2 0 2	19 8 13	0 . .	
-2 +1 -2	-5 -5 -13	+8 . .	
1 1 1	11 5 3	1 . .	
-.20 +.10 -.20	-.05 -.10 -.43	+.80 . .	

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Grouping of E and G Stars. +0° - +29° 59'
18h. - 19h.

3.0	3.5	4.0	4.5	5.0	5.5
				var. var. R R (11)	3 . 7 (10) . (10) 0 1 3

D.C.

8173 } 6.64 RF.
8174 } RF.
~~8290 R . . .~~

Σ+	0	1	0
Σ−	13	0	20 ✓
Dif	−13 ✓	+1 ✓	−20 ✓
No.	3 ✓	1 ✓	3 ✓
Mean.	−4.3 ✓	+1.0 ✓	−6.7 ✓

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Grouping of E and G Stars. +0° - +29° 59'.
18h. - 19h.

6.0	6.5	7.0	7.5
1 . .	8 F .	(13) . .	
9 . .	5 . .	7 . .	
(12) 8 .	(10) . .		
7 . 2	0 . .		
6 . .	9 . .		
	10 .		
	9 F .		
	3 . 5		
	(14) . .		
	6 . 5		

28	8	0	56	0	0	20	.	.
7	0	2	9	0	10	0	.	.
+21	+8	−2	+47	0	−10	+20	.	.
5	1	1	10	1	2	2	.	.
+.42	+.80	−.20	+.47	.00	−.50	+1.00	.	.

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1882phae.proj,.869F

Grouping of E and G Stars. +0° - +29° 59'
20h. - 21h.

3.0 3.5 4.0 4.5 5.0 5.5

Σ+
Σ−
Dif.
No.
Mean

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1862phae.proj..869F

Grouping of E and G Stars. +0°-+29° 59'. 20h.-21h.

6.0	6.5	7.0	7.5
3 2 4	6 . .		
5 . .	4 . 2		
0 . 3	(16) . 9		
	5 2 .		
	7 . 8		
	6 . .		
	1 . 3		
	2 . .		
	(10) . .		
	(12) . .		

5	0	0
3	2	7
+2 ✓	-2 ✓	-7 ✓
3 ✓	1 ✓	2 ✓
+.04 ✓	-.20 ✓	-.35 ✓

42	2	0
27	0	22
+15 ✓	+2 ✓	-22 ✓
10 ✓	1 ✓	4 ✓
+.15 ✓	+.20 ✓	-.55 ✓

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1882phae.proj..869F

Grouping of E and G Stars. +0°-+29°59'
22h-23h

3.0	3.5	4.0	4.5	5.0	5.5
		(10) . (11)			

Σ+	0	0
Σ−	10	11
Dif.	−10	−11
No.	1	1
Mean	−1.00	−1.10

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Grouping of E and G Stars. +0°-+29°59'.
22h.-23h.

6.0	6.5	7.0	7.5
	0 . .	3 . .	
	7 1 .		
	0 . .		
	8 . .		
	6 . .		
	3 . .		
	(11) . .		
	0 . .		
	3 . 6		
	7 . .		
	8 . .		

50	1	0	3 . .
3	0	6	0 . .
+47✓	+1✓	-6✓	+3✓ . .
11✓	1✓	1✓	1✓ . .
+.43✓	+.10✓	-.601	+.30✓ . .

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Grouping of E and G Stars. +30° - +61° 2'

$0^h.\overset{m}{0.0}$ - $2^h.\overset{m}{39.9}$

3.0	3.5	4.0	4.5	5.0	5.5
				8 . 8	6 . 3

Σ+	0 . 0	6 . 0
Σ-	8 . 8	0 . 3
Dif.	-8 . -8	+6 . -3
N°	1 . 1	1 . 1
Mean	-.80 . -.80	+.60 . -.30

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1882phae.proj..869F

Grouping of E and G Stars. +30° - +61° 2'
0h 0.0m - 2h 39.9m

6.0	6.5	7.0		7.5
(10) . 8	(12) . . 1 . .	(13) . .	4 . .	(11) . .
8 . .	7 . . 9 . .	5 . .	9 . .	(12) . .
8 . .	3 . . 3 . .	(10) . .	9 . .	
4 . .	7 . .	7 . .	(14) . .	
4 . .	(11) . .	6 . .	6 . .	
8 . .	(14) . .	(10) . .	4 . .	
	4 . .	7 . .	4 . .	
	(11) . .	4 . .	(12) . .	
	7 . .	3 . .	4 . .	
	7 . .	2 . .	(10) . .	
	2 . .	9 . .	6 . .	
	0 . .	6 . .	4 . .	
	2 . .	3 . .		
	3 . 8	(11) . .		
	(10) . .	6 . .		
	4 . .	8 . .		
	(11) . .	5 . .		
	3 . .	4 . .		
	5 . .	0 . .		
	(15) . .	8 . .		
	5 . .	2 . .		
	(15) . .	2 . .		
	6 . .	1 . .		
	2 . .	1 . .		
	6 . .	1 . .		
42 : 8	181 : 0	217 : :		23 : :
0 : 0	4 : 8	3 : :		0 : :
+42✓ : +8✓	+177✓ : -8✓	+214✓ : :		+23✓ : :
6✓ : 1✓	28✓ : 1✓	37✓ : :		2✓ : :
+.70✓ . +.80✓	+.63✓ . -.80✓	+.58✓ . .		+1.15✓ . .

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Grouping of E and G Stars. +30° - +61° 2'

2h 40.0m - 5h 19.9m.

3.0	3.5	4.0	4.5	5.0	5.5
		8 . 7		7 . 7	8 . (12)
				7 . 8	8 . 1

Σ+	0	.	0	0	.	0	8	.	1
Σ−	8	.	9	-14	.	-17	8	.	12
Dif.	-8	.	-9	-14	.	-17	0	.	-11
No.	11	.	11	2	.	2	2	.	2
Mean	-.80	.	-.90	-.70	.	-.85	.00	.	-.55

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Grouping of E and G Stars. +30°-+61° 2'
2h 40.0m - 5h 19.9m

6.0	6.5		7.0	7.5
3 . .	0 . .	3 . .	(14) . .	
8 . .	(12) . .	2 . .	4 . .	
1 . 1	2 . .	(11) . .	0 . .	
	4 . .	1 . .	3 . .	
	2 . .	(12) . .	2 . .	
	5 . 7	4 . .	7 . .	
	1 . .	(15) . .	8 . .	
	5 . .	5 . .	3 . .	
	1 . .		(13) . .	
	(11) . .		9 . .	
	9 . .		6 . .	
	(10) . .		9 . .	
	1 . .		2 . .	
	1 . .		6 . .	
	8 . .		7 . .	
	1 . .		8 . .	
	1 . .			
	1 . 0			
	0 . .			
	4 . .			
	4 . .			
	5 . .			
	(11) . .			
	6 . .			
	2 . .			
11 . 1	149 . 0		101 . .	
1 . 0	11 . 7		0 . .	
+10v . +1v	+138v . -7v		+101v . .	
3v . 1v	33v . 2v		16v . .	
+.33v . +.10v	+.41v . -.351		+.63v .	

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1882phae.proj..869F

Grouping of E and G Stars. +30°-+61° 2'
5h 20.0m - 7h 59.9m

3.0	3.5	4.0	4.5	5.0	5.5

D.C.

3079 } 6.54 R . .
3080 } R . .

Σ+
Σ-
Dif
No.
Mean

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Grouping of E and G Stars. +30°-+61°2'.

5h. 20.0m. - 7h. 59.9m.

6.0	6.5	7.0	7.5
9 . .	1 . .	(10) . .	
(19) . .	6 . .	7 . .	
4 . 2	(13) . .	4 . .	
3 . .	(13) . .	9 . .	
(12) . .	(17) . .	(11) . .	
9 . 5	(13) . .	6 . .	
1 . 4	5 . .	(15) . .	
1 . .	0 . .	4 . .	
1 . 2	4 . .	7 . .	
1 . .	(11) . .	7 . .	
	1 . .	4 . .	
	9 . .	2 . .	
	1 . .	6 . .	
	(13) . .	2 . .	
	(11) . .	(10) . .	
	8 . .	7 . .	
	(14) . .	4 . .	
	5 . .	0 . .	
	(10) . .	8 . .	
	(13) . .	(10) . .	
	4 . .		
	2 . .		
	7 . .		
	9 . .		
	5 . .		
59 . 7	191 . .	129 . .	
1 . 6	4 . .	4 . .	
+58√ . +1√	+187√ . .	+125√ . .	
10√ . 4√	25√ . .	20√ . .	
+.58√ . +.02√	+.75√ . .	+.62√ . .	

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1882phae.proj..869F

Grouping of E and G Stars. +30° - +61° 2'
8h 0.0m - 10h 39.9m

3.0	3.5	4.0	4.5	5.0	5.5
					7.7

Σ+	0	0
Σ-	7	7
Dif.	-7 J	-7 V
No.	1 J	1 V
Mean	-.70	-.70 V

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1882phae.proj.:009F

Grouping of G and G Stars. +30° - +61° 2'
8h 0.0m - 10h 39.9m

6.0	6.5		7.0	7.5
4 . .	1 . .	8 . .	1 . .	5 . .
(10) . .	8 . .	(11) . .	5 . .	3 . 3
3 . .	1 . .	5 . .	(11) . .	(18) . .
3 . .	4 . .	8 . .	7 . .	(14) . .
	0 . .	3 . .	(10) . .	(15) . .
	2 . .	6 . .	9 . .	(12) . .
	4 . .	8 . .	9 . .	7 . .
	8 . .	7 . .	1 . .	6 . .
	5 . 3	6 . .	(12) . .	9 . .
	8 . .	1 . .	6 . .	5 . .
	0 . .	2 . .	6 . .	(12) . .
	2 . .	3 . .	(11) . .	7 . .
	9 . .	4 . .	7 . .	5 . .
	4 . .	0 . .	(15) . .	(12) . .
	5 . .	4 . 1	2 . .	2 . .
	(11) . .	4 . .	2 . .	8 . .
	9 . .	1 . .	8 . .	2 . .
	(15) . .		5 . .	5 . .
	9 . .		(16) . .	3 . .
	9 . .		(11) . .	4 . .
	(17) . .		(12) . .	
	(10) . .		2 . .	
	3 . .		8 . .	
	7 . .		(10) . .	
	(12) . .		(13) . .	
20 : :	231 :	0	240 :	0
0 : :	13 :	4	13 :	3
+20✓ : :	+218✓ :	−4✓	+227✓ :	−3✓
4✓ : :	42✓ :	2✓	45✓ :	1✓
+.50' : :	+.52' :	−.20✓	+.50✓ :	−.30✓

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1882phae.proj..869F

Grouping of E and G Stars. +30° - +61° 2'
10h 40.0m - 13h 19.9m

3.0 . 3.5 4.0 4.5 5.0 5.5

6 . 1

DC.

5684 } 4.67 (10) . 9 ✓
5685 }

Σ+	0	.	1
Σ-	6	.	0
Dif.	-6 ✓	.	+1 ✓
No.	15	.	11
Mean.	-.60 ✓	.	+.10 ✓

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1882phae.proj..869F

Grouping of A and G Stars. +30° - +61° 2'
10h. 40.0m - 13h. 19.9m

6.0	6.5	7.0	7.5
	3. .	1. .	5. .
	6. .	6. .	3. .
	2. .	7. .	7. .
	7. .	0. .	
	1. .	7. .	
	2. 1	3. .	
	3. .	5. .	
	5. .	4. .	
	5. .	4. R cum.	
	7. .	5. .	
	3. .	2. .	
	9. .	(12). .	
	7. .	3. .	
	6. .	2. .	
	2. 4	2. .	
	(14). .	2. .	

78 . 0		49 . .	12 . .
4 . 5		12 . .	3 . .
+74 ✓ . -5 ✓		+37 ✓ . .	+9 ✓ . .
16 ✓ . 2 ✓		15 ✓ . .	3 ✓ . .
+.46 ✓ . -.25 ✓		+.25 ✓ . .	+.30 ✓ . .

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1882phae.proj..869F

Grouping of E and G Stars. +30° - +61° 2'
13h. 20m.0 - 15h. 59m.9

3.0 3.5 4.0 4.5 5.0 5.5

DC.
6807 B R.R ✓

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1882phae.proj.. 869E

Grouping of E and G Stars. +30° - +61° 2'.
13h. 20m.0 - 15h 59m.9

6.0	6.5	7.0	7.5
	3 . .	(11) . 7	(13) . (12)
	0 . 1	4 . .	2 . .
	6 . .	3 . .	
	1 . .	7 . .	
	2 . .	3 . .	
	1 . .	3 . .	
		1 . .	
		1 . .	
		0 . .	
		0 . 1	

Σ+	9	.	0	11	.	0	2 . 0
Σ-	4	.	1	22	.	7	13 . 12
Dif.	+5✓	.	-1✓	-11✓	.	-7✓	-11✓ . -12✓
No.	6✓	.	1✓	10✓	.	1✓	2✓ . 1✓
Mean	+.08✓	.	-.10✓	-.11✓	.	-.70✓	-.55✓ . -1.20✓

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1882phae.proj..869F

Grouping of E and G Stars. +30° - +61° 2'.

16h. 0.0m. - 18h. 39.9m.

3.0	3.5	4.0	4.5	5.0	5.5
		.7 . 8			1 . 7

Σ+	0 . 0	0 . 0
Σ−	9 . 8	1 . 7
Dif.	−9 . −8	−1. . −7
No.	1 . 1	1 . 1
Means.	−.90 . −.80	−.10 . −.70

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1882phae.proj.. 869F

Grouping of C and G Stars. +30°-+61° 2'.

$16^{h}\,0.0^{m} - 18^{h}\,39.9^{m}$

6.0	6.5	7.0	7.5	8.0
2.6	2..	4..	2..	0..
2.5	1..	0..	1..	1..
	8..	3..	4..	2..
	9..	0..	3..	5..
	6..	7..	4..	3..
	(18)..	3..	0..	2..
		5..	1..	6..
		3..	6..	1..
		2..	2..	6..
		1..	6..	1..
		1..	3..	(10)..
		0..	6..	8..
		0..	1..	5..
		5..	9..	1..
			5..	
			7..	
			4..	
			2..	
			3..	
			6..	

0 . 0	41 ..	25 ..	28 ..	26 ..
4 . 11	3 ..	9 ..	44 ..	25 ..
-4^{v} . -11^{v}	$+38^{v}$ ..	$+16^{v}$ ..	-19^{v} ..	$+1^{v}$ ..
2^{v} . 2^{v}	6^{v} ..	14^{v} ..	20^{v} ..	14^{v} ..
$-.20^{v}$. $-.55^{v}$	$+.63^{v}$ ..	$+.11^{v}$ ..	$-.10^{v}$ ..	$+.01^{v}$ ..

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1882phae.proj..869F

Grouping of E and G Stars. +30° - +61° 2'
18h. 40m.0 - 21h. 19m.9

3.0 3.5 4.0 4.5 5.0 5.5

var.
R . 3

Σ+
Σ−
Dif.
No.

Mean

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Grouping of E and G Stars. +30°-+61° 2'
18h 40m.0 - 21h 19m.9

6.0	6.5	7.0	7.5
7 . .	5 . .	(12) . 8	
2 . .	(11) . .	1 . .	
8 . .	1 . .		
7 . .	4 . .		
7 . .	(13) . .		
5 . .	(11) . .		
5 . .	3 . 8		
6 . .	6 . .		
2 . 4	8 . .		
	1 . .		
	(10) . 7		

47 : 0	59 : 0	1 : 0
2 : 4	14 : 17	12 : 8
+45v : -4v	+45v : -14v	-11v : -8v
9v : 1v	11v : 2v	2v : 1v
+.50v : -.40v	+.41v : -.85v	-.55v : -.80v

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1882phae.proj..869F

Grouping of E and G Stars. +30° - +61° 2'
21h 20m.0 - 23h 5-9m.9

3.0	3.5	4.0	4.5	5.0	5.5
					7 . (11)

Σ+	0	0
Σ−	7	11
Dif.	−7 J	−11 J
No	1 v	1 v
Mean	−.70 J	−1.10 J

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1882phae.proj. 869F

Grouping of E and G Stars. +30° - +61° 2'.

21h. 20.0m - 23h. 59.9m

6.0	6.5	7.0	7.5
1 . 5	8 . .	2 . .	
(15) . .	3 . .	9 . .	
	4 . .	5 . .	
	(12) . .	3 . .	
	1 . .	0 . .	
	9 . .	2 . .	
	8 . .	6 . .	
	(10) . .	9 . .	

15 . 0	55 . .	28 . .
1 . 5	0 . .	8 . .
+14v . −5v	+55v . .	+20v . .
2v . 1v	8v . .	8v . .
+70v . −50v	+69v . .	+25v . .

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1882phae.proj .869F

Grouping of E and G Stars. + 61° 3' to Pole.
0 h. to 8 h.

3.0	3.5	4.0	4.5	5.0	5.5	6.0
						3 . .

96.

~~313 R . . .~~

2799 } 7.31 R . .
2800 } R . .

3	Σ+
0	Σ−
+3√	Dif
1√	No.
+30′	Mean

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1882phae.proj.:869F

Grouping of E and G Stars. +61° 3' to Pole.
0h. to 8h.

6.5	7.0		7.5 (141)
3 . .	1 . .	(13) . .	8 . .
(13) . .	(15) . .	5 . .	(10) . .
(14) . .	(12) . .	9 . .	(10) . .
3 . .	5 . .	5 . .	9 . .
5 . .	(16) . .	2 . .	7 . .
8 . .	2 . .	(12) . .	(12) . .
3 . .	(18) . .	7 . .	(16) . .
4 . .	(14) . .	3 . .	(11) . .
1 . 4	6 . .	5 . .	7 . .
(17) . .	5 . .	0 . .	1 . .
6 . .	3 . .	(10) . .	8 . .
6 . .	8 . .	0 . .	(10) . .
(13) . .	1 . .	7 . .	9 . .
8 . .	9 . .	(12) . .	
(12) . .	(10) . .	8 . .	
4 . .	4 . .	0 . .	
1 . .	(12) . .	4 . .	
	4 . .	(18) . .	
	1 . .		
	4 . .		
	6 . .		
	(13) . .		
	(12) . .		
	3 . .		
	(15) . .		
119 : 0	314 : .		132 : .
2 : 4	5 : .		0 : .
+117 : -4	+309 : .		+132 : .
17 : 1	43 : .		14 : .
+.69 : -.40	+.72 : .		+.94 : .

~~* 26. 10487~~

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Grouping of E and G Stars. +61° 3' to Pole.
8h. to 16h.

3.0	3.5	4.0	4.5	5.0	5.5	6.0
					3 : 1	

06.

1	5108	7.96	R..	↓
2	5115	R	R..	✓
2	5561	R	...	
	5809	7.74	R..	↓
	5812	R	R..	∨
	6946	6.93	R..	↓
	6947		R..	

Σ+	3	1
Σ−	0	0
Dif.	+3✓	+1✓
No	1✓	1✓
Mean	+.30↓	+.10↓

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1882phae.proj..869F

Grouping of E and G Stars. +61° 3′ to Pole.
8h. to 16h.

6.5	7.0	7.5	8.0
5 . .	4 . . (12) . . 8 . .	8 . . 6 . . 3 . .	(11) . .
(12) . .	3 . . 9 . . 4 . .	6 . . 9 . . (11) . .	7 . .
	0 . . (11) . . 6 . .	1 . . 9 . . (10) . .	6 . .
	7 . . 3 . . 2 . .	5 . . (13) . . 4 . .	(12) . .
	(10) . . 2 . . 8 . .	7 . . 9 . . 8 . .	4 . .
	(15) . . 0 . . 2 . .	(13) . . 3 . . (11) . .	5 . .
	3 . . 3 . .	(10) . . (11) . . 8 . .	(12) . .
	9 . . 4 . .	5 . . (14) . . 5 . .	(12) . .
	(13) . . 2 . .	9 . . 5 . . (10) . .	(10) . .
	(11) . . 2 . .	7 . . (11) . .	
	5 . . 0 . .	(12) . . (12) . .	
	7 . . 1 . .	7 . . 1 . .	
	5 . . 2 . .	8 . . 2 . .	
	7 . . 2 . .	(13) . . (15) . .	
	3 . . (11) . .	0 . . 3 . .	
	(10) . . 0 . .	9 . . 3 . .	
	6 . . 4 . .	(10) . . 9 . .	
	(10) . . 7 . .	9 . . (10) . .	
	8 . . 3 . .	6 . . 6 . .	
	3 . . 5 . .	9 . . 3 . .	
	(12) . . 7 . .	9 . . (12) . .	
	3 . . 2 . .	(12) . . 8 . .	
	0 . . 1 . .	9 . . 8 . .	
	2 . . 4 . .	8 . . 4 . .	
	(11) . . 1 . .	9 . . (10) . .	
17 : :	259 : :	446 : :	79 : :
0 : :	36 : :	21 : :	0 : :
+17✓ : :	+223✓ : :	+425✓ : :	+7✓ : :
2✓ : :	56✓ : :	59✓ : :	9✓ : :
+.85✓ : :	+.40✓ : :	+.72✓ : :	+.88✓ : :

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1882phae.proj..869F

Grouping of E and G Stars. +61° ♂ to Pole.
16h to 0h.

3.0	3.5	4.0	4.5	5.0	5.5	6.0
						1 . 1
						1 . 1
						8 . .
						(13) . -

Σ+	23	:	1
Σ−	0	:	1
Dif.	+23√	:	0√
No	4√	:	2√

Mean +.58√ : .00√

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1882phae.proj..869P

Grouping of E and G Stars. +61° 3′ to Pole.
16h. to 0h.

6.5	7.0		7.5	8.0
1 . .	3 . .	(14) . .	5 . .	5 . .
6 . .	2 . .	(11) . .	8 . .	
7 . .	(10) . .	(14) . .	8 . .	
8 . 4	5 . .	7 . .	(11) . .	
5 . .	7 . .	(18) . .	1 . .	
	2 . .	(16) . .	4 . .	
	(12) . .	(14) . .	2 . .	
	5 . .	(17) . .	0 . .	
	(17) . .	(10) . .	4 . .	
	(13) . .		2 . .	
	2 . .		(10) . .	
	(15) . .		5 . .	
	5 . .		5 . .	
	(15) . .		3 . .	
	4 . .		(10) . .	
	9 . .		(12) . .	
	(17) . .		6 . .	
	6 . .			
	8 . .			
	2 . .			
	8 . .			
	9 . .			
	7 . .			
	(17) . .			
	(14) . .			

18 : 0	325 : :	91 : :	5 : :
9 : 4	10	5 : :	0 : :
+9✓ : −4✓	+315✓ : :	+86✓ : :	+5✓ : :
5✓ : 1✓	34✓ : :	17✓ : :	1✓ : :
+.18✓ : −.40✓	+.93✓ : :	+.51✓ : :	+.50✓ : :

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List of B Stars in D.C.

	D.C. No.	Phot. Magn.	Recid. DM.	U.A.	K.P.		D.C. No.	Magn. Phot.	DM.	U.A.	K.P.				
MC	✓ 220	4.66	2	.	5	A 1	3120	B.	R	R	R	D	3	↓	M
M	↓ 390	4.69	0	.	3	B 1	3124	4.55.	4	5	1	D	3	↓	M
M	✓ 840	6.05	6	.	.	B 1	3137	5.48.	2	.	2	b	3	✓	M
M	✓ 947	4.34	2	.	1	B 1	3148	5.19.	7	.	2	b	3	✓	M
M	✓ 1018	5.33	4	.	2	B 1	3150	4.54.	5	5	1	b	3	↓	M
M	↓ 1050	6.59	(12)	.	.	A 1	3166	4.56.	1	9	0	D	3	↓	M
M	✓ 1532	4.14	4	1	0	D 2	3168	B.	R	R	R	D	3	↓	M
M	↓ 1797	5.61	9	.	.	B 2	3207	4.59.	4	4	1	b	3	↓	M
M	↓ 1848	4.89	4	.	1	A 1	3236	4.91.	(13)	8	2	D	3	↓	M
M	✓ 1924	6.46	7	.	.	b 2	3429	4.94.	7	7	1	D	3	↓	M
M	↓ 1949	6.72.	8	.	.	B 2	3507	4.42.	4	3	2	b	4	↓	M
M	↓ 2238	5.26.	9	.	2	B 2	3517	4.80.	4	(10)	2	D	4	↓	M
M	✓ 2283	3.83.	var. R	.	2	b 2	3571	6.37.	6	.	.	b	4	✓	M
M	↓ 2634	4.25.	5	.	2	b 3	3610	3.45.	.	2	4	D	4	↓	M
M	↓ 2665	3.94.	4	1	4	D 3	3630	B.	R	R	R	D	4	↓	M
M	↓ 2706	3.97.	0	3	0	b 3	3667	4.71.	7	7	3	D	4	↓	M
M	✓ 2719	6.86.	(11)	.	.	B 2	3673	3.99.	R	2	1	D	4	↓	M
M	↓ 2726	4.02.	5	3	1	b 3	3674		R						
M	↓ 2797	4.87.	0	4	2	D 3	3733	5.06.	(10)	.	0	B	3	↓	M
M	↓ 2902	6.71.	9	.	.	B 2	3925	6.20.	8	.	.	B	3	↓	M
M	↓ 3009	4.63.	2	5	0	D 3	4087	4.04.	.	2	3	D	4	↓	M
M	↓ 3035	3.93.	2	5	4	D 3	4162	4.96.	(10)	7	1	D	4	↓	M
M	↓ 3037	4.84.	2	6	2	b 3	4181	3.54.	.	6	(11)	D	4	↓	M
M	↓ 3038	B.	R	R	R	b 3	4432	6.39.	4	.	.	B	3	↓	M
M	↓ 3049	5.81.	(12)	9	.	b 3	4483	4.31.	2	8.	1	D	5	↓	M
M	↓ 3055	5.22.	8	.	2	b 3	5392	6.09.	6	3	.	D	6	✓	M
M	↓ 3058	4.79.	(10)	.	0	b 3	6006	6.34.	0	4	.	D	7	✓	M
M	✓ 3060	4.48.	8	5	2	b 3	6436	5.81.	7	3	1	b	7	✓	M

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1882phae.proj..869P

List of B Stars in D.C.

D.C. No.	Phot. Magn.	Reid. Diff.	U.A.	H.P.		
N	7002	4.68.	7 .	3	B 6	
N	7045	4.40.	2 .	1	B 6	
N	7089 / 7090	4.80.	5 .	0	B 6	
N	7173	4.84.	2	6	0 D 8	
N	7176	3.53.	.	1	4 D 8	
N	7182	2.98.	(10)	6	5 D 8	
N	7204 / 7205	3.03.	R R / R R		1 D 8	
M	7239	4.28.	2	2	1 D 9	
N	7285	3.83.	3	.	1 B 7	
M	7298 / 7299	4.96.	. R / . R		2 D 9	
M	7521	5.72.	2	(10)	1 b 9	
N	7528	4.81.	2	.	1 B 7	
M	7539	4.76.	2	3	3 D 9	
M	7543	3.43.	.	2	0 D 9	
N	7670	3.90.	1	.	0 B 7	
N	7762	6.32.	2	.	1 B 7	
M	7846	4.21.	2	0	2 b 9	
M	7852	6.77.	7	.	. A 3	
M	7878	5.19.	0	.	1 b 9	
M	7952	4.30.	1	.	2 b 10	
N	8229	5.88.	(6)	.	. B 7	
M	8442	2.77.	.	4	5 D 10	
M	8535	5.21.	4	.	2 B 8	
M	8579	5.21.	0	.	0 B 8	
M	8627	4.40.	1	.	1 B 8	

D.C. No.	Phot. Magn.	Reid. Diff.	U.A.	H.P.		
M	8717	4.87.	3 .	0	b 10	
M	8784	4.64	0 .	2	B 8	
M	8916	5.05.	7 .	0	b 10	
M	8980	5.22.	6 .	0	B 8	
M	9023	5.13.	1 .	2	b 11	
M	9265	4.67.	7 .	1	B 8	
M	9363	4.39.	2 .	0	B 8	
M	9386	5.43.	1 .	1	A 3	
M	9498	4.70.	4 .	2	B 9	
M	9525	4.19.	3 .	2	B 9	
N	9754	5.94.	(11)	.	.	b 12
M	9822	4.52.	5 .	1	B 9	
M	9867	4.93.	1 .	1	B 9	
M	9881	5.16.	1 .	1	B 9	
M	9987	5.05.	3 .	1	B 9	
M	10125	6.10.	9	.	.	B 9
M	10183	5.05.	7 .	2	B 9	
M	10321	5.83.	5 .	2	A 3	
M	10414	6.56.	(12)	.	.	A 3

48 − 81

~~81 + 48~~

77 = −.04

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List of C Stars in D.C.

D.C. No.	Phot. Magn.	Dm.	Reid U.A.	Reid H.P.	
2131	6.60 v.	1	.	.	B 2.
2410	6.34 v.	8	.	.	B 2.
2503	6.98 v.	(14)	.	.	A 1.
2517	6.09.	1	.	1	A 1.
2959	6.74 v.	(17)	.	.	A 1.
3229	6.01.	(10)	.	.	B 3.
3365	6.38 v.	6	.	.	A 1.
5020	6.93 v.	(16)	.	.	A 2.
6634	7.47 v.	7	.	.	A 2.
7665	7.56 v.	2	.	.	B 7.
7763	7.28 v.	2	.	.	B 7.
8197	7.15 v.	7	.	.	B 7.
8216	6.13.	(14)	4	.	C 10.

No.	1	C	0 - 1
"	3	D	0 - 6
"	4	L	0 - 54
"	1	O	2 - 0
R "	4	Q	0 - 43
	13		2 - 104

$\frac{104}{13} = 8$

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List of D Stars in D.C.

D.C. No.	Phot. Mag.	Dm.	Reed. H.A.		H.P.
3163	4.83.	8	2	4	D 3.
3164	4.88.	1	3	0	D 3.
4876	5.01.	0	.	2	A 2.

0-6
3

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List of 6 Stars in D.C.

D.C. No.	Phot. Magn.	Reid. Diff.	H.A.	Decl.
6860	4.09.	(20) .	(20)	A 2.
7082	6.28.	(13) .	(10)	A 2.
8649	4.69.	(13) .	(15)	A 3.
9460	5.09.	(10) :	7	B 9.
			0 - 54	
			4	

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List of M stars in D.C.

D.C. No.	Phot. Magn.	Revid. Dml.	U.A.	H.P.		D.C. No.	Phot. Magn.	Revid. Dml.	U.A.	H.P.		
142	6.79	(13)	3	D 1		4847	6.12	9	8	A 2		N
357	6.29	(13)	6	C 1		5214	6.40	1	4	A 2		N
452	6.26	3	9	C 1		5242	6.23	(12)	(10)	(12)	C 5	M
488	6.31	3	7	C 1		5345	4.88	(18)		(18)	B 4	N
1114	5.47	(14)	(16)	(17)	D 1	5658	5.98	(10)		(11)	C 6	N
1321	5.49	R var.	R var.	R var.	D 2	5785	5.42	(21)		(13)	A 2	N
1478	6.10	5	5	B 1		5844	6.26	2	4	8	C 6	N
1643	5.82	(16)		(10)	B 2	5969	6.86	7			A 2	N
1694	6.24	6	6	A 1		6154	6.29	(16)		(10)	A 2	N
1731	4.63	(21)	(22)	(19)	C 2	6264	6.01	7	8	(10)	D 7	N
1748	5.19	R var.		(15)	B 2	6271	5.36	(24)	(19)	(17)	C 7	N
2070	6.66	(17)		(15)	A 1	6299	6.27	(15)		(13)	C 7	N
2141	6.08	(16)		(15)	A 1	6408	6.14	9	7	(11)	C 7	N
2266	5.04	(20)	(22)	(20)	D 2	6455	6.28	(11)	6	8	D 7	N
2633	6.05	(15)	(14)	(15)	D 3	6460	6.67	7	6		A 2	N
3361	B	R	R	R	C 3	6482	6.03	5	9	(11)	D 7	N
3391	5.63	8		(11)	B 3	6536	6.07	6		(13)	B 6	N
3535	5.01	(18)		(15)	C 4	6573	5.64	(14)	(14)	(15)	C 7	N
3615	4.85	(18)		(16)	C 4	6593	6.05	(12)		(13)	A 2	N
3882	5.45	(14)	(10)	(12)	D 4	6651	6.30	(13)	7	(11)	D 8	N
3886	5.37			(15) (14)	D 4	6672	6.49	(12)		(12)	A 2	N
3932	6.80	(18)		(15)	A 1	6799	6.60	8		(17)	C 8	N
4032	5.64	9		(10)	B 3	6880	6.12	(16)		(13)	A 2	N
4081	6.03	5		7	A 1	6897	5.21			(17) (20)	D 8	N
4174	4.88	9		9	C 4	7129	5.86	(19)	(15)	(17)	C 8	N
4263	5.57	(14)		(14)	C 4	7132	6.56	R var.		R var.	C 8	N
4553	5.67	7		(13)	B 4	7259	4.53	(15)	(18)	(17)	D 9	M
4800	5.91	8		9	A 2	7293	6.50	(13)		(14)	B 7	N

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List of M Stars in D.C.

	D.C. No.	Phot. Magn.	Dill.	Recib. Ua.	H.P.		
N	7294	6.50	(12)	(15)	B 7	✓	
	~~7298~~ 7299	~~4.96~~	R	R	~~D 9~~		
M	7316	3.62		(22)	(25) D 9	✓	
N	7321	6.41	(15)	(13)	B 7	✓	
N	7369	6.50	(15)	(13)	B 7	✓	
M	7464	6.18	(14)	(11)	C 9	✓	
M	7513	4.83	var. R	(16)	C 9	✓	
N	7552	7.05	(15)	(12)	B 7	✓	
N	8004	6.43	(14)	(15)	B 7	✓	
M	8079	6.17	2	(14)	C 10	✓	
N	8108	6.63	(15)	(15)	B 7	✓	
M	8458	5.87	(14)	(14)	B 8	✓	
M	8475	5.63	var. R	(12)	B 8	✓	
M	8698	5.62	(12)	(11)	A 3	✓	
M	8746	7.40	9	9	A 3	✓	
M	8759	5.67	(15)	(10)	C 10	✓	
M	8826	6.25	(13)		A 3	✓	
M	8895	5.44	(14)	(17)	C 10	✓	
M	9013	6.31	(13)	9	A 3	✓	
M	9136	6.37	5	6	A 3	✓	
M	9513	6.04	var. R	(21)	B 9	✓	
M	9618	6.41	5	(10)	A 3	✓	
M	9841	5.81	5		B 9	✓	
M	9866	5.76	2	2	B 9	✓	
N	9927	5.21	(12)	(10) (11)	D 12	✓	
N	9946	5.41	(12)	(18) (16)	D 12	✓	
N	10027	4.80	var. R	(22)	C 12	✓	

D.C. No.	Phot. Magn.	Recib. Dill.	Ua.	H.P.		
10056	5.50	2	1	1	C 12	✓ N
10083	5.77	8	(17)	(16)	D 12	✓ N
10107	6.14	(12)		(12)	B 9	✓ M
10155	5.91	6		7	A 3	✓ M
10371	6.21	(12)		(10)	C 12	✓ N
10426	6.80	var. R		var. R	B 9	✓ M

O - 991

80 = +1.24

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List of O Stars in D.M.

D.M. No.	Phot. Magn.	Recid. D.M.	U.A.	H.P.
3889	6.18.	(10)	2	D 4.

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List of 2 Stars in D.C.

D.C. No.	Phot. Magn.	Diff.	Result. R.A.	N.P.D.	
466	B.	R.	R	B 1.	
4357	4.81.	.	(13)	(14) D 4.	
6749	5.69.	7	.	(14) A 2.	
8771	Combined with 8772, an A star and entered on page 46.				610.
9103	5.48.	2	.	6 B 8.	
9130	8.16.	4	.	9 B 8.	

0-43
4

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Count of Dunér Stars III b.

A	1	2	M	6	1	1		D	1	.	
"	2	2		"	2	.		"	2	.	
"	3	2	M	"	3	4	M	"	3	2	M
B	1	2	M	"	4	4	M	"	4	2	M
"	2	3	M	"	5	1	M	"	5	1	M
"	3	2	M	"	6	.		"	6	2	
"	4	.		"	7	1		"	7	.	
"	5	1		"	8	.		"	8	.	
"	6	1		"	9	.	M	"	9	3	M
"	7	2		"	10	1	M	"	10	3	M
"	8	8	M	"	11	.	M	"	11	1	
"	9	3	M	"	12	1		"	12	.	

M 43
N ~~14~~ 12
55

Count of Dunér Stars III a.

A	1	9	M	6	1	5		D	1	5	
"	2	14		"	2	6		"	2	7	
"	3	15	M	"	3	6	M	"	3	14	M
B	1	7	M	"	4	12	M	"	4	6	M
	2	3	M	"	5	9	M	"	5	3	M
	3	4	M	"	6	8		"	6	3	
	4	9		"	7	13		"	7	8	
	5	9/10		"	8	9		"	8	2	
	6	10		"	9	12	M	"	9	5	M
	7	19		"	10	13	M	"	10	11	M
	8	20	M	"	11	12	M	"	11	3	
	9	9	M	"	12	9		"	12	17	

M 150 ~~14~~
N 147
297

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Count of B Stars.

	No.							
A	1	3	/	C	1	.	D	1	.
"	2	.		"	2	2	"	2	1
"	3	4	//	"	3	13	"	3	10
B	1	4		"	4	2	/	"	4	8 *
"	2	5	///	"	5	.	"	5	1
"	3	3	/	"	6	.	"	6	1
"	4	.		"	7	1	"	7	1	/
"	5	.		"	8	.	"	8	4 *
"	6	3 *		"	9	3	"	9	4 *
"	7	5	/	"	10	3	"	10	1
"	8	7		"	11	1	"	11	.
"	9	8		"	12	1	"	12	.

Count of M Stars.

A	1	5	//	C	1	3	///	D	1	2	1
"	2	10	⧻	"	2	1		"	2	2	
"	3	7	⧻/	"	3	1		"	3	1	
B	1	1		"	4	4		"	4	2	
"	2	2		"	5	1		"	5	.	
"	3	2		"	6	2	/	"	6	.	
"	4	2		"	7	4	/	"	7	3	1
"	5	.		"	8	3	//	"	8	2	1
"	6	1		"	9	2		"	9	2	
"	7	7	⧻//	"	10	3		"	10	.	
"	8	2		"	11	.		"	11	.	
"	9	5	/	"	12	3		"	12	3	

* Double Star counted as one contained in each group marked with an asterick

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Count of C, D, Le, Q, and 2 Stars.

			C		D	
A 1	4	III	1	.	1	.
" 2	6	III	" 2	.	" 2	.
" 3	1		" 3	.	" 3	2
B 1	1		" 4	.	" 4	2
" 2	2	II	" 5	.	" 5	.
" 3	1		" 6	.	" 6	.
" 4	.		" 7	.	" 7	.
" 5	.		" 8	.	" 8	.
" 6	.		" 9	.	" 9	.
" 7	3	III	" 10	2	" 10	.
" 8	2		" 11	.	" 11	.
" 9	1		" 12	.	" 12	.

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The Milky Way passes through the regions A 1, 2, 3. B 1, 2, 3, 8, 9.
C 3, 4, 5, 9, 10, 11. D 3, 4, 5, 9, 10.

	No.	Σ+	Σ−
A	1619	116	756
F	381	0	1098
G & G	164	0	489
K III & K	1150	0	749
B	77	48	81
M	80	0	991
Misc	13	2	104
	3484	166 - 1168	
		3484 · -32	

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Grouping of B Stars according to Magn. in Regions M and N.

M.

B	𝍸 III	8	8 ✓
4.0	𝍸 III	8	16 ✓
4.5	𝍸 𝍷 𝍸 𝍷 I	21	37 ✓
5.0	𝍸 𝍷 𝍸 𝍷 IIII	24	61 ✓
5.5	𝍸 I	6	67 ✓
6.0	𝍸	5	72 ✓
6.5	𝍸 I	6	78 ✓
7.0	II	2	80 ✓
All			

N.

B	III	3	3 ✓
4.0	III	4	7 ✓
4.5	II	2	9 ✓
5.0	III	3	12 ✓
5.5			12 ✓
6.0	IIII	4	16 ✓
6.5	III	3	19 ✓
7.0			19 ✓
All.			

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A 1 - 3

B. 1-2-3-8-9.

C 3-4-5-9-10-11

D. 3-4-5-9-10

Milky Way.

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1

~ 44 2. − 30° 17.0

− 30 9

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Grouping of M Stars according to Magn. in Regions M and N.

M.

B	II	2	2
4.0			2
4.5			2
5.0	⧸⧸⧸⧸	5	7
5.5	⧸⧸⧸⧸ IIII	9	16
6.0	⧸⧸⧸⧸ ⧸⧸⧸⧸ ⧸⧸⧸⧸	15	31
6.5	⧸⧸⧸⧸	5	36
7.0	II	2	38
All			
7.5	I		

N.

B			..
4.0			..
4.5	II	2	2
5.0	⧸⧸⧸⧸	5	7
5.5	⧸⧸⧸⧸ III	8	15
6.0	⧸⧸⧸⧸ ⧸⧸⧸⧸ II	12	27
6.5	⧸⧸⧸⧸ ⧸⧸⧸⧸ ⧸⧸⧸⧸ IIII	19	46
7.0	III	3	49
All.			

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Grouping of M. Stars according to

M

B	4.0	4.5	5.0	5.5	6.0
R R R		(15) (18) (17)	var. R · (15)	8 · (11)	5 · 5
· (22) (25)			(18) · (15)	(14) (10) (12)	(16) · (10)
			(18) · (16)	· (15) (14)	6 · 6
			9 · 9	9 · (10)	(16) · (15)
			var. R · (16)	(14) · (14)	(15) (14) (15)
				var. R · (12)	5 · 7
				(12) · (11)	(12) (10) (12)
				(15) · (10)	(14) · (11)
				(14) · (17)	2 · (14)
					(14) · (14)
					var R · (21)
					5 · ·
					2 · 2
					(12) · (12)
					6 · 7

Σ+	·	·	·	·	·	·	·	·	·	7	·	·
Σ-	·	22	25	15	18	17	45	·	40	86	25	99	123	24	130
Dif.	·	-22	-25	-15	-18	-17	-45	·	-40	-86	-25	-99	-116	-24	-130
No.	·	1	1	1	1	1	3	·	3	7	2	8	14	2	13
Mean	·	-2.20	-2.50	-1.50	-1.80	-1.70	-1.50	·	-1.33	-1.23	-1.25	-1.24	-.83	-1.20	-1.00

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to Magn. (in Milky Way.)

6.5	7.0	7.5
(17) · (15)	(18) · (15)	9 · 9
(13) · ·	var. R · var. R	
(13) · 9		
5 · 6		
5 · (10)		

13 · ·	· · ·	· · ·
40 · 40	18 · 15	9 · 9
−27✓ · −40✓	−18✓ · −15✓	−9 · −9
5 · ✓ 4✓	1✓ · 1✓	1✓ · 1✓
−.54✓ · −1.00✓	−1.80✓ · −1.50✓	−.90✓ · −.90✓

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Grouping of M Stars according to N.

B	4.0	4.5	5.0	5.5	6.0
		(21) (22) (19)	(20) (22) (20)	(14) (16) (17)	8 · 9
			(18) · (18)	var. var. var.	9 · 8
			· (17) (20)	7 · (13)	(10) · (11)
			(12) (10) (11)	(21) · (13)	7 8 (10)
			var.	(24) (19) (17)	9 7 (11)
			R · (22)	(14) (14) (15)	5 9 (11)
				(12) (18) (16)	6 · (13)
				2 1 1	(12) · (13)
					(16) · (13)
					(19) (15) (17)
					8 (17) (16)
					(12) · (10)

Σ+	·	·	·	·	·	·	·	·	·	·	·
Σ−	21	22	19	50	49	69	94	68	92	121	56	142
Dif.	-21	-22	-19	-50	-49	-69	-94	-68	-92	-121	-56	-142
No	1	1	1	3	3	4	7	5	7	12	5	12
Mean.	-2.10	-2.20	-1.90	-1.67	-1.63	-1.72	-1.34	-1.36	-1.31	-1.01	-1.12	-1.18

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Magns. (not in Milky Way.)

6.5			7.0			7.5
(13)	·	6	(13)	3	·	
3	·	9	7	·	·	
3	·	7	(15)	·	(12)	
1	·	4				
2	4	8				
(16)	·	(10)				
(15)	·	(13)				
(11)	6	8				
7	·	6				
(13)	(7)	(11)				
(12)	·	(12)				
8	·	(17)				
var. R	·	var. R				
(13)	·	(14)				
(12)	·	(15)				
(15)	·	(13)				
(15)	·	(13)				
(14)	·	(15)				
(15)	·	(15)				

3	·	·	7	·	·
185	17	196	28	3	12
-182✓	-17✓	-196✓	-21✓	-3✓	-12✓
18✓	3✓	18✓	3✓	1✓	1✓
-1.01✓	-.57✓	-1.09✓	-.70✓	-.30✓	-1.20✓

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Grouping of B Stars in [illegible]

M

B	4.0	4.5	5.0	5.5	6.0
R R R	4 1 4	2 . 5	4 . 1	4 . 2	6 . .
R R R	0 3 0	0 . 3	0 4 2	9 . .	(12) 9 .
R R R	5 3 1	2 . 1	2 6 2	9 . 2	8 . .
. 2 4	2 5 4	5 . 2	8 . 2	2 . 2	9 . .
R R R	R	2 5 0	(10) . 0	2 (10) 1	5 . 2
. 6 (11)	R 2 1	8 5 2	7 . 2	1 . 1	
. 2 0	. 2 3	4 5 1	(13) 8 2		
. 4 5	2 0 2	5 5 1	7 7 1		
	3 . 2	1 9 0	4 (10) 2		
		4 4 1	(10) . 0		
		4 3 2	(10) 7 1		
		7 7 3	. R 2		
		2 8 1	. R		
		2 2 1	2 3 3		
		1 . 2	0 . 1		
		1 . 1	4 . 2		
		0 . 2	0 . 0		
		7 . 1	3 . 0		
		2 . 0	7 . 0		
		4 . 2	6 . 0		
		5 . 1	1 . 2		
			1 . 1		
			1 . 1		
			3 . 1		
			7 . 2		

Σ+	2 0	3 3 6	60 53 16	102 45 14	25 10 7	40 9 2
Σ−	12 20	13 11 10	8 . 16	8 . 14	2 . 1	. .
Dif	−10 −20	−10 −8 −4	+52 +53 0	+94 +45 0	+23 +10 +6	+40 +9 +2
No	4 4	6 6 7	21 10 21	23 7 23	6 1 5	5 1 1
Mean	−.25 −.50	−.17 −.13 −.06	+.25 +.53 .00	+.41 +.64 .00	+.38 +1.00 +.12	+.80 +.90 +.20

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Milky Way according to Magn.

	6.5	7.0	7.5
(12)	. .	(11) . .	
8	. .	7 . .	
9	. .		
6	. .		
4	. .		
(12)	. .		

51	:	.	
+51	:	.	:
6	.	:	:
+85	:	.	:

18	:	.	
+18	:	:	:
2	.	:	:
+90	:	.	:

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Grouping of B Stars not in

N

B	4.0	4.5	5.0	5.5	6.0
. 1 4	4 1 0	7 . 3	5 . 0		6 3 .
(10) 6 5	(R var. . 2)	2 . 1	2 6 0		7 3 1
R R	3 . 1		2 . 1		(16) . .
R R 1	1 . 0				(11) . .
Σ+ . . .	1 . 1	. . .	4 6 1		40 6 .
Σ- 10 7 9	7 1 .	9 . 4	5 . .		. . 1
Dif. -10 -7 -9	-6 -1 +1	-9 . -4	-1 +6 +1		+40 +6 -1
No. 1 2 2	3 1 3	2 . 2	3 1 3		4 2 1
Mean -1.00 -.35 -.45	-.20 -.10 +.03	-.45 . -.20	-.03 +.60 +.03		+1.00 +.30 -.10

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Milky Way, according to Magn.

6.5	7.0	7.5
7 . .		
0 4 .		
2 . 1		

9	4	1
.	.	.
+9	+4	+1
3	1	1
+.30	+.40	+.10

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Class A

B	2.0	2.5	3.0	3.5	4.0	4.5	5.0	5.5	6.0	6.5	7.0
	700	814	516	310	511	522	115	201	222	1221	
		323	900	430	323	023	114	012	121	702	
		412	910	302	202	112	320	002	010	421	
			820	610	714	202	031	110	011	322	
			730	210	612	202	311	321	421	122	
			410	800	414	322	202	323	101		
			310	311	221	212	012	022	140		
			402	143	210	022	121	121	012		
			321	201	211	012	121	102	101		
			511	512	212	023	002	122	022		
			400	111	302	431	223	102	131		
			313	200	532	053	011	302	620		
				110	121	211	212	010	012		
				300	750	101	132	251	221		
				522	124	331	001	110	122		
				441	513	112	230	243	462		
				212	122	210	221	300			
				310	111	302	332	343			
				410	012	422	011	212			
				303	121	204	500	110			
				201	221	300	112	010			
				224	010	212	221	221			
				511	1214	021	332	021			
				201	110	122	110	440			
				213	222	224	102	012			
					252	111	223	000			
					322	122	111	111			
					210	253	210	002			
						401	322	212	210		

1-3	4-5	7-5	1-12	11-15	1-25	37-8	37-13	37-9	37-19	28-13	40-5	36-5	33-3	3-28	15-4	2-6	1-7
3	3	12	12	25	25	29	29	29	28	29	32	24	29	16	16	5	5

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Class A.

2.0	2.5	3.0	3.5	4.0	4.5	5.0	5.5	6.0	6.5	7.0
				0 0 2 0 9 4	1 1 2	0 2 2				
				1 2 3 0 3 1	1 2 2	4 1 2				
				0 0 3 0 2 1	2 2 2	1 1 0				
				1 0 1 4 4 2	1 3 1	1 0 2				
				5 1 3 2 4 1	0 2 2	1 2 0				
				2 3 2 6 1 0	1 1 0	1 0 1				
				1 0 2 2 2 1	1 3 1	0 1 1				
				3 1 2 3 1 1	0 4 3	0 0 2				
				0 1 0 2 2 1	3 3 1	4 2 1				
				2 2 1 0 0 0	3 2 1	1 2 1				
				1 1 3 0 1 0	0 3 1	2 2 2				
				0 1 0 1 2 1	1 1 2	4 1 0				
				1 1 5 2 2 0	2 2 0	1 1 1				
				2 1 0 0 2 0	2 0 0	3 1 0				
				2 1 1 R 0 0	0 0 0	0 0 3				
				5 2 2 0 2 2	0 1 3	0 2 1				
				4 0 2 0 1 1	0 1 1	1 3 1				
				0 1 1 1 2 0	8 2 1	1 2 1				
				0 1 2 0 2 1	4 1 4	2 0 1				
				1 1 1 1 0 3	4 1 0	0 1 2				
					2 2 2 3 1	3 1 3	2			
					7 2 2 0 0	2 4 1	1			
					1 2 2 1 0	2 0 1	2			
					1 1 2 1 2	2 6 4	2			
					0 1 3 1 2	1 1 4	2			
					1 1 2 2 1	1 1 4	2			
					3 1 2 3 1	2 1 0	2			
					1 1 3 1 3	1 0 1	1			
					4 1 1 0	1 1				
					2 0 1 1	1 0				
				10-10	6-30	38-16	25-45	35-12	34-8	11-31	30-8
				20	24	30	30	30	30	28	28

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Class A.

2.0	2.5	3.0	3.5	4.0	4.5	5.0	5.5	6.0	6.5	7.0
					200	015				
					202	611				
					212	110				
					012	124				
					122	041				
					210	221				
					103	212				
					111	312				
					302	200				
						021				
						242				
						411				
						210				
						001				
						411				
						001				
						221				
						000				
						002				
						310				
						113				
						342				
						411				
						020				
						101				
						351				
						102				
						221				
						221				
						112				
						211				
						122				
						001				
						412				
						0-6/9	11-3/9	11-36/34	28-18/34	

B. H.

Mag.	Σ+	Σ−	Δ	±	No.	Mean.
2.0	-					
2.5	1	3	-2	3	=	-.07
3.0	7	5	+2	12	=	+.02
3.5	11	15	-4	25	=	-.02
4.0	47	18	+29	49	=	+.06
4.5	75	31	+44	68	=	+.06
5.0	74	61	+13	93	=	+.01
5.5	47	36	+11	57	=	+.02
6.0	3	28	-25	16	=	-1.6
6.5	2	6	-4	5	=	-.08
7.0						

O. H.

Magn.	Σ+	Σ−	Δ	±	No	Mean
2.0						
2.5	4	5	-1	3	=	-.03
3.0	1	12	-11	12	=	-.09 / -.05 X
3.5	1	25	-24	25	=	-.10 / -.11 X
4.0	43	43	0	49	=	.00
4.5	73	37	+36	68	=	+.05
5.0	102	31	+71	93	=	+.08
5.5	63	11	+52	57	=	+.09
6.0	15	4	+11	16	=	+.07
6.5	1	7	-6	5	=	-1.2
7.0						

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Class B.

2.0	2.5	3.0	3.5	4.0	4.5	5.0	5.5	6.0	6.5	7.0
			2 1 2	0 1 1	3 1 2	1 0 1	2 0 2		1 3 0	
			4 0 2	1 2 2	4 1 2	0 2 2	2 2 0			
			0 2 6	0 1 2	2 5 1	0 0 2				
					2 1 3	1 0 2	0 4 1			
					3 3 1	1 0 2				
					2 0 2	1 0 1				
					1 0 2	0 0 1				
					1 2 2	0 0 5				
					0 1 1	2 2 0				
					2 1 3	1 2 1				
					1 2 2	1 2 1	2			

BH

Magn.	Σ +	Σ −	Σ ±	No.	Mean
3.5	0	3	−3	3	= −1.0
4.0	4	1	+3	4	= +1.0
4.5	10	6	+4	11	= +0.4
5.0	7	4	+3	11	= +0.3
5.5	0	2	−2	2	= −1.0
6.5	0	3	−3	1	= −3.0

0−3 / 3 | 2−3 / 3 | 4−1 / 4 | 6−2 / 4 | 10−6 / 11 | 17−3 / 11 | 7−4 / 11 | 16−2 / 11 | 0−2 / 2 | 2−0 / 2

BH

Magn.	Σ +	Σ −	Σ ±	No.	Mean
3.5	2	8	−6	3	= −2.0
4.0	6	2	+4	4	= +1.0
4.5	17	3	+14	11	= +1.3
5.0	16	2	+14	11	= +1.3
5.5	2	0	+2	2	= +1.0
6.5	0	0	0	1	= (0)

Class F.

2.0	2.5	3.0	3.5	4.0	4.5	5.0	5.5	6.0	6.5	7.0
			7 4 1	8 0 2	11 2 2	6 0 1	2 1 2	3 1 2	14 1 2	
			6 1 0	4 2 0	4 0 3	1 1 4	6 1 0	11 0 1		
			7 1 0	2 0 1	5 3 4	4 0 1	2 1 1			
			7 0 2	6 0 0	4 1 2	6 1 2	2 1 2			
			5 4 2	10 3 2	2 1 2	2 2 1	2 1 2			
			8 0 2	6 1 2	9 2 2	2 3 2	5 1 0			
				8 2 1	8 0 1	4 0 0	4 0 2			
				5 1 2	7 1 1	2 1 0	5 1 0			
				7 0 2	3 1 1	4 1 0	4 2 2			
				4 1 3	6 2 3	5 3 0	3 1 0			
				8 1 0	8 2 0	6 1 0	11 1 3			
				4 1 2	6 2 2	4 1 2	5 4 4			
				6 2 1	1 1 0	4 1 1	1 0 0			
					8 1 1	2 2 2	1 3 2			

1−9 / 13 | 2−5 / 13 | 10−4 | 4−14 | 0−1 / 2 | 2−1 / 2

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Class A

O.H.	2.0	2.5	3.0	3.5	4.0	4.5	5.0	5.5	6.0	6.5	7.0
						504	400	302			
						322	912	531			
						622	803				
						820	512				
						710	1011				
							913				

Magn.	Σ+	Σ−	Σ±	No	Mean
3.5	1	9	−8	6	= −1.3
4.0	10	4	+6	13	= +.05
4.5	20	6	+14	19	= +.07
5.0	12	9	+3	20	= +.02
	4	17	−13	16	= −.08
5.5	9	1	1	2	= +.5
6.0	0	1	−1	2	= −.05
6.5	1	0	1	+1	= +1.0

20−6 23−9 12−9 16−11 0−3 3−0
19 19 20 20 2 2

O.H.

Magn.	Σ+	Σ−	Σ±	No	Mean
3.5	2	5	−3	6	= −.05
4.0	4	14	−10	18	= −.08
4.5	23	9	+14	19	= +.07
5.0	16	11	+5	20	= +.02
5.5	17	6	+11	16	= +.07
6.0	2	1	+1	2	= +.05
6.5	2	0	+2	1	= +2.0

Class E, G.

	2.0	2.5	3.0	3.5	4.0	4.5	5.0	5.5	6.0	6.5	7.0
			902	711	910	900	821	711	422		
			814		1117	021	711	622			
			900		810	1034	1143	501			
					911		1102	1022			
					821		311	1203			
					500			131			
								1722			
								412			

0−1 0−6 3−3 2−1 0−3 2−4 6−2 7−1 10−1 12−2
3 3 6 6 3 3 5 5 8 8

B.H.

Magn.	Σ+	Σ−	Σ±	No.	Mean.
3.0	0	1	−1	3	= −.03
3.5	1	0	+1	1	= +1.0
4.0	3	3	0	6	= .00
4.5	0	3	−3	3	= −1.0
5.0	6	2	+4	5	= +.08
5.5	10	1	+9	8	= +1.1
6.0	0	2	−2	1	= −2.0

O.H.

Magn.	Σ+	Σ−	Σ±	No	Mean
3.0	0	6	−6	3	= −2.0
3.5	0	1	−1	1	= −1.0
4.0	2	1	+1	6	= +.02
4.5	2	4	−2	3	= −.07
5.0	7	1	+6	5	= +1.2
5.5	12	2	+10	8	= +1.3
6.0	2	0	+3	1	= +2.0

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Class K. J. K.

2.0	2.5	3.0	3.5	4.0	4.5	5.0	5.5	6.0	6.5	7.0
			901	1803	723	1412	1121	1302	1210	1522
				9112	2400	422	801	7301	1012	1442
				903	7311	1411	501	10001	10000	1202
				6031	8312	8122	1522	1312	1531	
				3212	7200	1214	511	1322	1424	
				2101	922	13000	624	1402	1020	
				1510	9022	721	1322	1021	1140	
				1421	7022	1114	1016	112	1312	
				1210	6042	8122	9001	1411	1220	
				1310	1521	6220	1310	611	411	
				911	812	1111	1000	412	1252	
				813	10000	810	2022	1010	1032	
				1122	7082	1002	7201	1010	1442	
				1101	1321	1122	7101	1122	1214	
					1101	1001	1112	1101		
					9101	1011	7211	1210		
					7101	612	1322	1122		
					1212	1110	421	1222		
					9022	1021	1201	1322		
					1511	1020	701	1243		
					7101	1012	3137	12		
					1710	821	9021	1361		
					1040	711	1120	1010		
					1011	702	561	1610		
					1212	721	622	1634		
					1202	822	1510	1421		
					1900	1613	801	442		
					2020	611	512	1211		
					1201	601	920	1131		

6-5 7-12 22-9 34-5 15-18 20-22 21-15 24-15 33-16 29-10 9-21 13-7 6-0 6-0

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Class K. I. K

2.0 2.5 3.0 3.5 4.0 4.5 5.0 5.5 6.0 6.5 7.0

10 2 11 0 1 8 3 1 10 3 2
9 1 2 14 1 3 14 2 0 13 0 2
3 1 1 15 1 3 15 2 1
10 0 1 8 4 3 11 2 1
8 2 2 12 0 2
14 0 1 9 0 1
8 1 2 6 3 2
16 5 1 13 0 2
9 1 1 14 1 3
16 2 2 7 2 0
10 0 2 6 2 2
7 2 1 11 2 2
7 3 1 17 1 1
7 0 1 6 1 0
12 1 2 14 1 4
8 4 0 9 3 1
12 2 0 10 2 2
8 1 1 5 1 0
7 0 1 19 1 3
6 6 2 10 1 0
14 0 4 11 2 1
13 2 1 16 1 5
7 3 1 10 0 0
12 2 2 11 1 1
10 1 3 9 1 2
9 2 0
5 2 1

B.H.

Magn.	Σ+	Σ−	Σ±	No	Mean
3.5	6	6	4	74	= .00
4.0	22	9	13	39	= +.007
4.5	23	10	13	31	= +.04
5.0	36	41	5	56	= −.008
5.5	31	41	10	54	= −.02
6.0	33	23	10	33	= +.03
6.5	9	21	12	14	= −.09
7.0	6	0	6	3	= +.20

O.H.

Magn.	Σ1	Σ−	Σ±	No	Mean
3.5	0	1	−1	1	= −1.0
4.0	7	12	−5	14	= −.04
4.5	34	9	+25	31	= +.08
5.0	42	38	+4	56	= +.007
5.5	50	25	+30	57	= +.06
6.0	34	11	+23	33	= +.07
6.5	13	7	+6	14	= +.04
7.0	6	0	+6	3	= +.20

1-1 0-4 21-23 22 16 10-26 31-10 0-7 5-1
3 2 37 27 25

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Class M.

2.0	2.5	3.0	3.5	4.0	4.5	5.0	5.5	6.0	6.5	7.0
BH			3 5 2	2 1 9	1 0 1	9 0 2	1 5 2	2 1 1	2 0 1	1 5 1	0
					7 1 1	6 3 2	1 4 1	2 1 5	1 0 3	1	
					9 2 0	8 0 0	1 3 3	3 1 7	2 0 2		
					1 8 1	0 1 3	1 3 2	1 5 5	1		
					1 6 1	2 1 9	1 3 1	7 0 3	1 3 1	1	
					2 2 3	1 1 5	1 2 1	6 3 1	1 3 1	2	
						1 7 1	1 2 0	2 1 5	1 2 1		
					1-0	0-3	4-8	4-3	3-3	5-8	8-2	9-3	11-3	4-5	
					2	3	6	6	7	7	7	7	7	7	

OH

Mag.	Σ+	Σ−	Σ±	No	Mean
3.5	1	0	+1	1	=+1.0
4.0	0	0	0	1	=.00
4.5	0	3	−3	2	=−1.5
5.0	4	3	+1	6	=+.02
5.5	5	8	−3	7	=−.04
6.0	9	3	+6	7	=+.09
6.5	4	5	−1	7	=−.01

BH

Mag.	Σ+	Σ−	Σ±	No	Mean
3.5	2	0	+2	1	=+2.0
4.0	0	1	−1	1	=−1.0
4.5	1	0	+1	2	=+.05
5.0	4	8	−4	6	=−.07
5.5	3	3	0	7	=.00
6.0	8	2	+6	7	=+.09
6.5	11	3	+8	7	=+1.1

Misc.

2.0	2.5	3.0	3.5	4.0	4.5	5.0	5.5	6.0	6.5	7.0
		9 0 0		9 3 1		2 2 2				

BH

Mag.	Σ+	Σ−	Σ±	No	Mean
2.5	0	0	0	1	=.00
4.0	0	3	3	1	=3.0
5.0	2	0	2	1	=2.0

OH.

Mag.	Σ+	Σ−	Σ±	No	Mean
2.5	0	0	0	1	=.00
4.0	0	1	1	1	=1.0
5.0	2	0	2	1	=2.0

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Class A.

Grouping of H. P. Stars, according to D.C.

6.5					7.0	7.5	F.
0	5	4	0	1	5		
0	0	4	5	5	2		
2	1	7	2	2	4		
2	2	4	5	4	3		
5	1	5	3	2	7		
2	3	1	1	2	4		
2	(12)	5	2	3	2		
2	0	3	3	1	6		
2	2	0	6	7	6		
5	1	0	4	1	3		
6	1	1	2	3			
4	4	0	1				
8	5	4	0				
3	2	0	2				
6	1	1	1				
0	3	2	6				
0	1	1	2				
3	3	5	5				
2	5	0	6				
1	1	1	3				
0	7	3	7				
5	0	1	7				
4	4	3	2				
4	2	1	1				
5	2	1	1				
Σ+ 76					5		
Σ− 230					37		
Diff. −154					− 32		
No. ~~+35−4~~ 111					10		
Mean. −.14					−.32		

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Grouping of H. P. Reid, Class A. according to H. P.

6.5	7.0	7.5	F.
6 1 3 1 1	5	(14)	
0 1 4 3 4	4	7	
7 3 4 1 2	5	7	
0 4 1 5 1	2	3	
2 0 4 4 1	5		
7 3 0 3 2	6		
2 1 0 3 2	1		
2 4 1 1 2	5		
3 1 3 0 2	(13)		
5 1 1 2 4			
3 6 0 6 4			
3 4 4 1 3			
5 1 0 1 1			
0 3 5 4 6			
0 3 1 2 3			
1 3 2 4 1			
5 1 1 2 2			
0 7 0 2 3			
4 7 1 4 4			
4 1 4 1 4			
1 6 2 1 2			
2 0 1 8 3			
2 2 1 5			
4 2 0 7			
0 4 4 3			
237	46	31	
78	+ 46	+ 31	
+ 1159	9	4	
122	+ 51	+ 78	
+ 13			

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Grouping of H.P. Reid, Class A, according to Dec.

B	4.0	4.5	5.0	5.5	6.0
5 4	3 1 1	0	5	0	(14)
9 7	4 0 3			1	6
9 3	9 1 0			1	7
7 2	3 2 2			3	1
3 4	4 3 1			2	0
# 3	2 2 0			0	1
4 2	2 0 2				0
(14) 2	2 (12) 5				2
8 5	8 1 3				2
5	2 2 #				0
3	1 2 1				
1	2 5 2				
4	1 4 2				
1	3 2 4				
3	3 2 4				
3	1 4 0				
5	0 4 0				
3	4 0 2				
3	2 1 4				
3	1 0 1				
4	1 3				
2	4 1				
5	5 8				
4	1 1				
3	1 9				
5+ 3	~~18~~ 19				
5- 140	139				
Diff. -137	-142				
No. 33	69				
Mean. -4.1	-2.1				

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Grouping of H.P. Resid. Class A. according to H.P.

B.	4.0	4.5	5.0	5.5	6.0
5 (12) 4	5 1 1	5		0	1
3 4 2	3 1 0	0		1	0
9 1 5	2 0 9			1	1
4 3 3	4 1 3			0	0
9 3 2	5 2 1				2
9 5 4	7 0 2				2
3 3 5	6 1 2				3
8 5 2	6 2 2				2
2 4 4	2 2 5				0
7 3	4 2 4				
3 4	2 3 0				
2 3	2 2 0				
4 4	2 4 1				
3 2	2 0 3				
3 3	3 1 1				
(14) 8	5 0				
8 9	5 6				
2 5	1 1				
5 4	7 1				
4 3	1 5				
5 4	0 1				
3 7	1 2				
1 3	1 1				
3 3	5 0				
2 2	8 2				
1	11				
-258	163				
-257	-142				
59	65				
-44	-22				

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Grouping of H. P. Reid. Class E & G, according to H. P. -0° to -30°

0h - 1h.

	B.	4.0	4.5	5.0	5.5	6.0	6.5	7.0	7.5	F.
	(10)			(13)		1	4	6		
						0				
						0				
Σ+						1		6		
Σ−	10			13			4			
Diff.	-10			-13		+1	-4	+6		
No.	1			1		3	1	1		
Mean.	-1.00			-1.30		+.03	-.40	+.60		

2h - 3h.

	B.	4.0	4.5	5.0	5.5	6.0	6.5	7.0	7.5	F.
			7		1	2	6	8		
					1	1				
					5	(10)				
						2				
						3				
Σ+						13	6	8		
Σ−			7		7	5				
Diff.			-7		-7	+8	+6	+8		
No.			1		3	5	1	1		
Mean.			-.70		-.23	+.16	+.60	+.80		

4h - 5h.

	B.	4.0	4.5	5.0	5.5	6.0	6.5	7.0	7.5	F.
					1	2	5			
					2	1				
					6	1				
Σ+					1	2	5			
Σ−					8	2				
Diff.					-7	0	+5			
No.					3	3	1			
Mean.					-.23	.00	+.50			

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Grouping of H.P. Reid, Class. 6 & 7. according to H.P. -0° to -30°.

6 h. - 7 h.

B.	4.0	4.5	5.0	5.5	6.0	6.5	7.0	7.5	F.
(11)		1	0	3	5				
		7		0	5				
				3					
				2					
				2					
Σ+	.	.	0	3	10				
Σ	11	8	.	7	.				
Diff.	-11	-8	0	-4	+10				
No.	1	2	1	5	2				
Mean.	-1.10	-.40	.00	-.08	+.50				

8 h. - 9 h.

B.	4.0	4.5	5.0	5.5	6.0	6.5	7.0	7.5	F.
9		(11)	6	1	1				
					3				
					2				
					0				
Σ+	.	.	.	.	4				
Σ-	9	11	6	1	2				
Diff.	-9	-11	-6	-1	+2				
No.	1	1	1	1	4				
Mean.	-.90	-1.10	-.60	-.10	+.05				

10 h. - 11 h.

B.	4.0	4.5	5.0	5.5	6.0	6.5	7.0	7.5	F.
			6	1					
			6	2					
				5					
Σ+			.	.					
Σ-			12	8					
Diff.			-12	-8					
No.			2	3					
Mean.			-.60	-.27					

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Grouping of H. P. Rmd. Klein E + L according to H. P. -0° to -30°.

12h - 13h

B.	H.0	H.5	5.0	5.5	6.0	6.5	7.0	7.5	F.
				2	1				
				7	1				
					7				
					3				
Σ+				9	12				
Σ-									
Diff.				-9	-12				
No.				2	4				
Mean.				-.45	-.30				

14h - 15h

B.	H.0	H.5	5.0	5.5	6.0	6.5	7.0	7.5	F.
			6	0					
				5					
Σ+				5					
Σ-			6						
Diff.			-6	+5					
No.			1	2					
Mean.			-.60	+.25					

16h - 17h

B.	H.0	H.5	5.0	5.5	6.0	6.5	7.0	7.5	F.
					4	2			
Σ+						2			
Σ-					4				
Diff.					-4	+2			
No.					1	1			
Mean.					-.40	+.20			

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Grouping of H. P. Reid. Class E + G. according to H.P. $-0° \& -30°$.

$18^h - 19^h$

B.	4.0	4.5	5.0	5.5	6.0	6.5	7.0	7.5	F.
				3	1	5			
					2				
					1				
$\Sigma+$				.	3	5			
$\Sigma-$				3	1	.			
Diff.				−3	+2	+5			
No.				1	3	1			
Mean.				−.30	+.07	+.50			

$20^h - 21^h$

B.	4.0	4.5	5.0	5.5	6.0	6.5	7.0	7.5	F.
8	5				1				
$\Sigma+$	.	.			1				
$\Sigma-$	8	5			.				
Diff.	−8	−5			+1				
No.	1	1			1				
Mean.	−.80	−.50			+.10				

$22^h - 23^h$

B.	4.0	4.5	5.0	5.5	6.0	6.5	7.0	7.5	F.
					3	8			
$\Sigma+$					.	8			
$\Sigma-$					3	.			
Diff.					−3	+8			
No.					1	1			
Mean.					−.30	+.80			

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Grouping of H.P. Stars. Class E+G. according to H.P. +0° - +29° 59'

0h. - 1h.

B.	4.0	4.5	5.0	5.5	6.0	6.5	7.0	7.5	F.
				5	2			6	
					4				
Σ+				5	6			6	
Σ−									
Diff.				-5	-6			+6	
No.				1	2			1	
Mean.				-.50	-.30			+.60	

2h. - 3h.

B.	4.0	4.5	5.0	5.5	6.0	6.5	7.0	7.5	F.
			6	1	2	1			
				3	(10)				
					3				
Σ+					2	1			
Σ−			6	4	13				
Diff.			-6	-4	-11	+1			
No.			1	2	3	1			
Mean.			-.60	-.20	-.37	+.10			

4h. - 5h.

B.	4.0	4.5	5.0	5.5	6.0	6.5	7.0	7.5	F.
	(17)		4	5	2	2			
					5				
Σ+									
Σ−	17		4	5	7	2			
Diff.	-17		-4	-5	-7	-2			
No.	1		1	1	2	1			
Mean.	-1.70		-.40	-.50	-.35	-.20			

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Grouping of H.P. Stars, Class E & G according to H.P. +0°- +29°59'. +0°-+29°59'

6h. – 7h.

B.	4.0	4.5	5.0	5.5	6.0	6.5	7.0	7.5	F.
					0				
					0				
					0				
					0				
					1				
					.00				

8h. – 9h.

B.	4.0	4.5	5.0	5.5	6.0	6.5	7.0	7.5	F.
	5			3	2	1			
	.			.	.	1			
	5			3	2	.			
	-5			-3	-2	+1			
	1			1	1	1			
	.50			.30	.20	+.10			

10h. – 11h.

B.	4.0	4.5	5.0	5.5	6.0	6.5	7.0	7.5	F.
7	5			7	0	0			
	.			.	0	0			
	7			7	.	.			
	-5			-7	0	0			
	1			1	1	1			
	.50			.70	.00	.00			

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Grouping of H.P. Stars, Class E and G according to H.P. +0°-+29°59'.

12h.-13h.

B.	+0	+5	5.0	5.5	6.0	6.5	7.0	7.5	F.
7			8	6		2			
Σ+									
Σ-	9		8	6		2			
Diff.	-9		-8	-6		-2			
No.	1		1	1		1			
Mean.	-.90		-.80	-.60		-.20			

14h.-15h.

B.	+0	+5	5.0	5.5	6.0	6.5	7.0	7.5	F.
		9			1	1			
Σ+									
Σ-		9			1	1			
Diff.		-9			-1	-1			
No.		1			1	1			
Mean.		-.90			-.10	-.10			

16h.-17h.

B.	+0	+5	5.0	5.5	6.0	6.5	7.0	7.5	F.
					4				
					7				
					2				
					2				
Σ+									
Σ-					15				
Diff.					-15				
No.					4				
Mean.					+3.75				

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Grouping of H.P. Stars, Class E & G according to H.P. +0°-+29° 59'

18h.-19h.

B.	4.0	4.5	5.0	5.5	6.0	6.5	7.0	7.5	F.
	(11)	7		3	5				
		(10)			5				
					2				
	11	17		3	12				
	-11	-17		-3	-12				
	1	2		1	3				
	-110	-.85		-.30	-.40				

20h.-21h.

B.	4.0	4.5	5.0	5.5	6.0	6.5	7.0	7.5	F.
				4	2				
				3	9				
					8				
					3				
				7	22				
				-7	-22				
				2	4				
				-.35	-.55				

22h.-23h.

B.	4.0	4.5	5.0	5.5	6.0	6.5	7.0	7.5	F.
	(11)				6				

11	6
-11	-6
1	1
-110	-.60

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Grouping of L.P. Reid. Class E+G according to L.P. +30° – +61° 2'

$0^h\ 0.0^m$ – $2^h\ 39.9^m$

B.	H.0	H.5	5.0	5.5	6.0	6.5	7.0	7.5	F.
	8		3	8		8			
Σ+						8			
Σ−	8		3	8					
Diff.	−8		−3	−8		+8			
No.	1		1	1		1			
Mean.	−.80		−.30	−.80		+.80			

$2^h\ 40.0^m$ – $5^h\ 19.9^m$

B.	H.0	H.5	5.0	5.5	6.0	6.5	7.0	7.5	F.
9	9	(12)		7	1	0			
	8			1					
Σ+				1	1	0			
Σ−	9	17	12	7					
Diff.	−9	−17	−12	−6	+1	0			
No.	1	2	1	2	1	1			
Mean.	−.90	−.85	−1.20	−.30	+.10	.00			

$5^h\ 20.0^m$ – $7^h\ 59.9^m$

B.	H.0	H.5	5.0	5.5	6.0	6.5	7.0	7.5	F.
				4	2	5			
				2					
Σ+					2	5			
Σ−				6					
Diff.				−6	+2	+5			
No.				2	1	1			
Mean.				−.30	+.20	+.50			

$8^h\ 0.0^m$ – $10^h\ 39.9^m$

B.	H.0	H.5	5.0	5.5	6.0	6.5	7.0	7.5	F.
			7		3	3			
						1			
Σ+									
Σ−			7		3	4			
Diff.			−7		−3	−4			
No.			1		1	2			
Mean.			−.70		−.30	−.20			

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Grouping of H.P. Rsid. Clusters 8 & 9. according to H.P. +30° - +61° 2'.

$10^h\ 40.0^m - 13^h\ 19.9^m$

B.	4.0	4.5	5.0	5.5	6.0	6.5	7.0	7.5	F.
					1	4			
					1				
					1	4			
					0	-4			
					20	1			
					.00	-40			

$13\ 20.0 - 15\ 59.9$

R.	4.0	4.5	5.0	5.5	6.0	6.5	7.0	7.5	F.
					(12)	7			
						1			
					-12	8			
					-12	-8			
					1	2			
					-120	-40			

$16^h\ 0.0^m - 18^h\ 39.9^m$

C.	4.0	4.5	5.0	5.5	6.0	6.5	7.0	7.5	F.
8			7	6					
				5					
8			7	11					
-8			-7	-11					
1			1	2					
-.80			-.70	-.55					

$18\ 40.0 - 21\ 19.9$

B.	4.0	4.5	5.0	5.5	6.0	6.5	7.0	7.5	F.
3				8	8				
				9	4				
3				17	12				
-3				-17	-12				
1				2	2				
-.30				-.85	-.60				

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Grouping of H.P. Reid. Class E+G according to H.P. +~~61~~° + 30° - + 61° 2'
21h. 20.0m - 0h 0.0m

B.	4.0	4.5	5.0	5.5	6.0	6.5	7.0	7.5	F.
		(11)		5					
Σ+		.		,					
Σ−		11		5					
Diff.		-11		-5					
No.		1		1					
Mean.		-1.10		-.50					

Grouping of H.P. Reid. Class E+G according to H.P. +61° 3' to Pole.
0h. to 8h.

B.	4.0	4.5	5.0	5.5	6.0	6.5	7.0	7.5	F.
					4				
Σ+					,				
Σ−					4				
Diff.					-4				
No.					1				
Mean.					-.40				

8h. to 16h.

B	4.0	4.5	5.0	5.5	6.0	6.5	7.0	7.5	F.
					1				
Σ+					1				
Σ−					.				
Diff.					+1				
No.					1				
Mean.					+1.0				

16h. to 0h.

B.	4.0	4.5	5.0	5.5	6.0	6.5	7.0	7.5	F.
					1				
					1				
					4				
Σ+					1				
Σ−					5				
Diff.					-4				
No.					3				
Mean.					-.13				

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Grouping of H.P. Resid. of H, I & K Stars according to H.P. -0 to -30

0h – 1h.

B.	4.0	4.5	5.0	5.5	6.0	6.5	7.0	7.5	F
(14)	(12)	(14)	(12)	(12)	7	8	2		
(18)	(11)		7	2	7	1	6		
(14)			(10)	4	3	2			
			6	8	4	0			
				4	2	1			
				4	0	0			
				5	4				
				7	4				
				3	4				
				4	3				
					4				
					5				
					3				
Σ+					6	1	6		
Σ- 46	-23	14	35	53	44	11	2		
Diff. -46	-23	-14	-35	-53	-38	-10	+4		
No. 3	2	1	4	10	13	6	2		
Mean -1.53	-1.15	-1.40	-.88	-.53	-.29	-.17	+.20		

2h – 3h.

B.	4.0	4.5	5.0	5.5	6.0	6.5	7.0	7.5	F
(11)	(17)	(14)	(10)	3	17	0	1		
(11)	9		6	1	14	2			
				5	25	1			
				5	14	1			
				7	75	3			
					1				
					2				
Σ+					2	3	1		
Σ- 22	26	14	16	21	38	4			
Diff. -22	-26	-14	-16	-21	-36	-1	+1		
No. 2	2	1	2	5	12	5	1		
Mean -110	-130	-140	-80	-.42	-.30	-.02	+.10		

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Grouping of H.P. Reid of H, I, and K Stars, according to H.P. -0° to -30°

4h. - 5h.

B.	4.0	4.5	5.0	5.5	6.0	6.5	7.0	7.5	F.
(15)	(17)	7	(12) (11)	7	7 5 2	2			
(11)	(13)	(10)	(10) (10)	2	6 1	2			
	8	(10)	6	3	5 4				
			8	2	3 4				
			(10)		4 6				
Σ+					1	4			
Σ-	26	38	27	67	14	46			
Diff.	-26	-38	-27	-67	-14	-45	+4		
No.	2	3	3	7	4	11	2		
Mean.	-1.30	-1.27	-.90	-.96	-.35	-.41	+.20		

6h. - 7h.

B.	4.0	4.5	5.0	5.5	6.0	6.5	7.0	7.5	F.
(19)	(13)	7	9 6	7 (11)	4				
	7		(11) 8	3 3	0				
	7		9 9	7 3					
			5	5 1					
			5	3					
			7	7					
Σ+									
Σ-	19	27	7	69	50	4			
Diff.	-19	-27	-7	-69	-50	-4			
No.	1	3	1	9	10	2			
Mean.	-1.90	-.90	-.70	-.77	-.50	-.20			

8h. - 9h.

B	4.0	4.5	5.0	5.5	6.0	6.5	7.0	7.5	F.
(22)	(11)	7	6 5	6 8	5				
		7	6 6	6	0				
		(11)	7 4	2					
		(11)	8 8	3					
			6 8	(10)					
Σ+									
Σ-	22	11	36	64	35	5			
Diff.	-22	-11	-36	-64	-35	-5			
No.	1	1	4	10	6	2			
Mean.	-2.20	-1.10	-.90	-.64	-.58	-.25			

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Grouping of H.P. Resid. of H, I and K Stars according to H.P. -0° to -30°

10h - 11h

B	4.0	4.5	5.0	5.5	6.0	6.5	7.0	7.5	F.
(14)	(10)	6	6 5	5	6	0			
	(14)		6	5	4				
	(13)		(16)	4	6				
	8		7		5				
			6						
Σ+						0			
Σ-	14	45	6	46	14	21			
Diff.	-14	-45	-6	-46	-14	-21	0		
No.	1	4	1	6	3	4	1		
Mean.	-1.40	-1.12	-.60	-.77	-.47	-.52	.00		

12h - 13h

B.	4.0	4.5	5.0	5.5	6.0	6.5	7.0	7.5	F.
(15)		9	8	3 7	2 5	0			
(14)			(10)	6	2 1	1			
(12)			8	8	3	4			
			(10)	7	2				
			5	5	7				
				(10)	5				
Σ+						4			
Σ-	41	9	41	46	27	1			
Diff.	-41	-9	-41	-46	-27	+3			
No.	3	1	5	7	8	3			
Mean.	-1.37	-.90	-.82	-.66	-.34	+1.0			

14h - 15h

B.	4.0	4.5	5.0	5.5	6.0	6.5	7.0	7.5	F.
(13)	8	(11)	7 8	6	2 2	3			
	(12)	8	9	3	5 1	45			
		47	4	6	2 5				
			4	5	7				
			5	6	1				
Σ+									
Σ-	13	20	19	37	26	25	3		
Diff.	-13	-20	-19	-37	-26	-25	-3		
No.	1	2	2	6	5	7	1		
Mean.	-1.30	-1.00	-.95	-.62	-.52	-.38	-.36	-.30	

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Grouping of H.P. Reid. of H. I, and K Stars according to H.P. -0° to -30°.

16h. - 17h.

B	4.0	4.5	5.0	5.5	6.0	6.5	7.0	7.5	F.
(10)		7	7	2 8	1	5			
9		6	8	0	¾	2			
		6	9	1					
		6	7	5					
			6	1					
Σ+						5			
Σ-	19	25	37	17	1	2			
Diff.	-19	-25	-37	-17	-1	+3			
No.	2	4	5	6	1	2			
Mean.	-.95	-.62	-.74	-.28	-.10	+.15			

18h. - 19h.

B.	4.0	4.5	5.0	5.5	6.0	6.5	7.0	7.5	F.
(12)	(10)	9	1 9	1 6 6	7 2				
(14)	(12)	(14)	(10) 9	8 3	3				
(14)	(11)	4	8 3	6 3	5				
(10)			6 8	6 3	2				
			4 6	4 2	2				
			8	4 7	1				
Σ+				1	3				
Σ-	50	33	27	72	58	21			
Diff.	-50	-33	-27	-72	-57	-18			
No.	4	3	3	11	13	7			
Mean.	-1.25	-1.10	-.90	-.65	-.44	-.26			

20h. - 21h.

B.	4.0	4.5	5.0	5.5	6.0	6.5	7.0	7.5	F.
(11)	(11)	9 6	9	8	1				
	(10)	(10)			0				
		(11)							
		(10)							
		5							
Σ+					1				
Σ-	11	21	51	9	8				
Diff.	-11	-21	-51	-9	-8	+1			
No.	1	2	6	1	1	1			
Mean.	-1.10	-1.55	-.85	-.90	-.80	+.10			

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Grouping of H. P. Reid. of H, I, and K Stars according to Ha P. -0° to -30°
22h. - 23h.

B.	H.0	H.5	5.0	5.5	6.0	6.5	7.0	7.5	F.
(12)	(10)	(11)	(11)	5	2	2			
(13)		9	4	0	0				
		(12)	(12)	7	3				
		(16)	4	5	2				
		(13)	7	7	5				
			(11)	5	0				
				4	1				
				6	2				
					2				
					4				
					2				
					4				
Σ+					25				
Σ-	25	10	61	49	39	2			
Diff.	-25	-10	-61	-49	-39	-23	-2		
No.	2	1	5	6	8	12	1		
Mean	-1.25	-1.00	-1.22	-.82	-.49	-.19	-.20		

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Grouping of H.P. Revd. of H, I, and K Stars according to H.P. +0° - +29° 59'

0h - 1h.

B.	4.0	4.5	5.0	5.5	6.0	6.5	7.0	7.5	F.
(13)		7 (10)	(12)	1 7	4 1	0 2			
		9 (11)	8	8 4	7 6	1 2			
		(10) (12)	7	(10) 8	5 4	1 3			
		8 (11)		8	6 1	4 0			
		(11) 7		8	7	1			
Σ+		96	27	53	41	13			
Σ−	13								
Diff.	-13	-96	-27	-53	-41	-12			
No.	1	10	3	8	9	9			
Mean.	-1.30	-.96	-.90	-.66	-.46	-.13			

2h - 3h.

B	4.0	4.5	5.0	5.5	6.0	6.5	7.0	7.5	F.
(21)	(10)	7 8	7	7 2	3 5	2			
		(11)	9	8	1 3	2			
		8		7	3 6				
		(11)		7	0 5				
		8		(12)	4 0				
Σ+		53	16	43	30	4			
Σ−	21								
Diff.	-21	-53	-16	-43	-30	-4			
No.	1	6	2	6	10	2			
Mean.	-2.10	-.88	-.80	-.72	-.30	-.20			

4h - 5h.

B.	4.0	4.5	5.0	5.5	6.0	6.5	7.0	7.5	F.
(11)	9	(13) 7	5	(10) 6	1 1	1			
(29)	(10)	9	6	9 4	6 5	4			
		(11)	6	8 5	1 4	2			
		(14)	5	(11)	6 1				
		9	9	6	2				
Σ+		63	31	59	27	7			
Σ−	40								
Diff.	-40	-63	-31	-59	-27	+7			
No.	2	6	5	8	9	3			
Mean.	-2.00	-1.05	-.62	-.74	-.30	+.23			

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Grouping of H.P. Reid of H, I, and K Stars according to H.P. +0° - +29°59'

6h. - 7h.

	B.	4.0	4.5	5.0	5.5	6.0	6.5	7.0	7.5	F.
	(15)	9	6	6 7 (12)	3	1 1	0			
	(10)	(14)	(10)	(10) 7 7	9	5				
			8	7 7	4	6				
			(10)	9 9	6	3				
				(10) (10)		5				
Σ+							0			
Σ-	25	23	84	101	22	21				
Diff.	-25	-23	-34	-101	-22	-21	0			
No.	2	2	4	12	4	6	1			
Mean.	-1.25	-1.15	-.85	-.84	-.55	-.35	.00			

8h. - 9h.

	B.	4.0	4.5	5.0	5.5	6.0	6.5	7.0	7.5	F.
	(11)	(13)	(13)	7	(10)	6 3	8			
	(12)	6	(10)	8	1	6	1			
		(13)	(10)	8	5	4	0			
			(14)	8	(10)	(11)				
				(10)	6	2				
				9		1				
Σ+							1			
Σ-	23	32	47	50	32	32	8			
Diff.	-23	-32	-47	-50	-32	-31	-7			
No.	2	3	4	6	5	7	8			
Mean.	-1.15	-1.07	-1.18	-.83	-.64	-.44	-.23			

10h. - 11h.

	B	4.0	4.5	5.0	5.5	6.0	6.5.	7.0	7.5	F.
		(12)	(14)	8	6 7	4 4				
				(10)	2 4	6 6				
				3	4 4	6 2				
					4	7 2				
					9	4				
Σ+										
Σ-		12	14	21	40	41				
Diff.		-12	-14	-21	-40	-41				
No.		1	1	3	8	9				
Mean.		-1.20	-1.40	-.70	-.50	-.46				

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Grouping of H.P. Resid. of Hy I, and K Stars according to H.P. +0°-+29° 59'

12h. – 13h.

B.	+0	+.5	5.0	5.5	6.0	6.5	7.0	7.5	F.
(17)		7	3 (15) (14)	6 8 7	+5	3	0		
			6 (10)	(11) 8	6 6	6			
			7 (10)	(12) 6	+3				
			7	(10) (10)	+7				
			8	(12) 3	1 5				
Σ+							0		
Σ-	17	7	66	93	+5	9			
Diff.	-17	-7	-66	-93	-+5	-9	0		
No.	1	1	8	11	10	2	1		
Mean.	-1.70	-.70	-.82	-.85	-.+5	-.+5	.00		

14h. – 15h.

B.	+0	+.5	5.0	5.5	6.0	6.5	7.0	7.5	F.
(13)	(15)	6	8 (13)	6 7	4 6	3			
		(11)	(11)	5 5	4	3			
			8	5 4	7	6			
			8	9 8	7				
			(12)	5					
			4	6					
Σ+									
Σ-	15	15	17	64	60	2X8	3 9		
Diff.	-15	-15	-17	-64	-60	-2X8	-16		
No.	1	1	2	7	10	X5	3		
Mean.	-1.50	-1.50	-.85	-.91	-.60	.56 -.00	-.20		

16h. – 17h.

B.	+0	+.5	5.0	5.5	6.0	6.5	7.0	7.5	F.
(14)	9	(13)	(10)	2 (10)	8 5	3			
(12)	(10)	(16)	(10)	5 8	7 8				
(13)		(16)	(10)	(10) 6	4				
9		(14)	(14)	9 7	8				
				(12)	7				
Σ+									
Σ-	48	9	59	44	69	47	3		
Diff.	-48	-9	-59	-44	-69	-47	-3		
No.	4	1	4	4	9	7	1		
Mean.	-1.20	-.90	-1.48	-1.10	-.77	-.67	-3.0		

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Grouping of H.P. Resid. of H, I, K Stars according to H.P. +0° -+29° 59'

18h - 19h

B	4.0	4.5	5.0	5.5	6.0	6.5	7.0	7.5	F.
(19)	(10)	(11)	7 9	9 6 2	4 6	2			
(17)	(12)		7	7 3 6	6				
	(13)		9	8 8 3	3				
	8		7	6 7	1				
			8	8 7	2				
36	43	11	47	80	22	2			
-36	-43	-11	-47	-80	-22	-2			
2	4	1	6	13	6	1			
-.180	-1.08	-1.10	-.78	-.62	-.37	-.20			

20h - 21h

B.	4.0	4.5	5.0	5.5	6.0	6.5	7.0	7.5	F
9		(10)	(12)	6 2	2	0			
(20)		(10)	(11)	7	6				
		(11)	(12)	7	4				
				5	3				
				(10)					
				7					
				2					
29		31	35	42	15	0			
-29		-31	-35	-40	-15	0			
2		3	3	7	4	1			
-1.45		-1.03	-1.17	-.57	-.38	.00			

22h - 23h

B.	4.0	4.5	5.0	5.5	6.0	6.5	7.0	7.5	F.
(10)	(11)	(15)	(11)	6	5 4	2	0		
	(12)	9	8	5	5 5	0			
		(12)	7	4	3	0			
		(14)	9	9	7				
				9	1				
10	23	50	35	33	30	2	0		
-10	-23	-50	-35	-33	-30	-2	0		
1	2	4	4	5	7	3	1		
-1.00	-1.15	-1.25	-.88	-.66	-.43	-.07	.00		

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Grouping of H.P. Resid. of H, I and K Stars according to H.P. + 30.0 t - 61.2'

0h. m. 0 - 2h. m. 39.9

B.	4.0	4.5	5.0	5.5	6.0	6.5	7.0	7.5	F.
(14)			5 7	(11) 8 8	2 3	2			
(17)			7 6	5 8	4 3	0			
(24)			4 (10)	7 6	1 5	1			
(14)			(10) (13)	3 5	4 3	2			
			(10)	8 5	7	2			
Σ+			72	74	32 29	2 3			
Σ- -69									
Diff. -69			-72	-74	-26	-3			
No. 4			9	11	9	5			
Mean. -1.72			-.80	-.67	-.29	-.06			

2h. m. 40.0 - 5h. m. 19.9

B.	4.0	4.5	5.0	5.5	6.0	6.5	7.0	7.5	F.
(22)	(15)	9	8 8	9	7 4	1			
	(11)	(14)	6 (10)	7	(10)	7			
	(10)		8 7	6	4	0			
	(10)		(13) 7	5	5				
	(13)		(11)		1				
			7		4				
Σ+									
Σ- 22	59	23	85	27	35	8			
Diff. -22	-59	-23	-85	-27	-35	-8			
No. 1	5	2	10	4	7	3			
Mean. -2.20	-1.18	-1.15	-.85	-.68	-.50	-.27			

5h. m. 20.0 - 7h. m. 59.9

B	4.0	4.5	5.0	5.5	6.0	6.5	7.0	7.5	F
	(10)	9	(10) (10)	7 9 (10)	6 (10)	3			
	(10)	8	(16)	6 6 (10)	1 7	3			
			8	3 8 (10)	3 7				
			(12)	9 8 (12)	4				
			(10)	7 8	3				
Σ+									
Σ-	20	17	66	113	41	3 3			
Diff.	-20	-17	-66	-113	-41	0			
No.	2	2	6	14	8	2			
Mean.	-1.00	-.85	-1.10	-.81	-.51	.00			

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1882phae.proj..869F

Grouping of H.P. Reids of H, I, and K Stars according to H.P. +30° - +61° 2'

8h 0.0m - 10h 39.9m

B	4.0	4.5	5.0	5.5	6.0	6.5	7.0	7.5	F.
(16)		9	6	6 7 7	6 3 7				
		7	6	5 3 8	4 2 8				
		9		5 7 7	7 5 6				
				2 7	4 7				
				5 (11)	4 4				
	16	25	12	80	67 73				
	-16	-25	-12	-80	-67 -73				
	1	3	2	13	13 14				
	-1.60	-.83	-.60	-.62	-.52				

10h 40.0m - 13h 19.9m

B	4.0	4.5	5.0	5.5	6.0	6.5	7.0	7.5	F.
	(11)		7	7 7	5 7 7 5				
	(14)		9	8 9	4 6 7 8				
	(10)		(10)	7 (15)	1 8				
			6	(11)	(15) 6				
			(12)	6	7 8				
				(10)	5 (11)				
	35		44 55	80	97	13			
	-35		-44 -55	-80	-97	-13			
	3		5 6	9	14	2			
	-1.17		-.88 -92	-.89	-.69	-.65			

13h 20.0m - 15h 59.9m

B	4.0	4.5	5.0	5.5	6.0	6.5	7.0	7.5	F.
(14)		(12)	(12)	9 8 (14)	8 8 9 5 2				
(10)			8	9 6	(10) (10) 7 6 3				
(12)			8	(10) (10)	6 8 3 8				
(16)			(14)	(10) 6	6 8 9 5				
				9 9	7 4 9 1				
	52	12	42	100	112	30			
	-52	-12	-42	-100	-112	-30			
	4	1	4	11	15	7			
	-1.30	-1.20	-1.05	-.91	-.75	-.43			

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1882phae.proj..869F

Grouping of H.P. Recid. of Hg, I, and K Stars according to H.P. +30°0′ - +61°2′

16h 0.0m - 18h 39.9m

B	4.0	4.5	5.0	5.5	6.0	6.5	7.0	7.5	F
9	(14)	(13)	9	(15) 9	8 7 (12) (10)	8 6			
(16)	(15)	(12)	(13)	(11)	6 7 (10)	4 7			
(12)			7	9	7 1 7	7 (11)			
(20)				8	(12) 7	4 5			
				8	8 7	6 9			
Σ+									
Σ- 57	29	25	29	60	119	57-62			
Diff. -57	-29	-25	-29	-60	-119	-57-62			
No. 4	2	2	3	6	16	8 9			
Mean. -1.42	-1.45	-1.25	-.97	-1.00	-.74	-.71 -.69			

18h 40.0m - 21h 19.9m

B	4.0	4.5	5.0	5.5	6.0	6.5	7.0	7.5	F
(11)	(10)	(10)	9 7	6 4	5 5	1			
(19)	(11)	(14)	8 8	(11) 8	6 8	4			
	(14)	(12)	(11) 9	7 (10)	7 4	1			
	(14)	(12)	6 (17)	7	6 8	2			
			8 (12)	2	5	3			
			(11) (12)	9	5	2			
Σ+									
Σ- 30	49	48	118	64	59	2 11			
Diff. -30	-49	-48	-118	-64	-59	-9			
No. 2	4	4	12	9	10	6			
Mean. -1.50	-1.22	-1.20	-.98	-.71	-.59	-.15			

21h 20.0m - 0h 0.0m

B	4.0	4.5	5.0	5.5	6.0	6.5	7.0	7.5	F
(17)	(16)	(13)	(10) (10)	(10) 7 7	7 2	2			
	(10)	(10)	(10) 9	(14) 9	5 4				
		(15)	(12) 5	(10) 7	5 2				
		(11)	(13)	(11) 6	1 4				
			7	9 9	6				
Σ+									
Σ- 17	26	49	76	99	36	2			
Diff. -17	-26	-49	-76	-99	-36	+2			
No. 1	2	4	8	11	9	1			
Mean. -1.70	-1.30	-1.22	-.95	-.90	-.40	+.20			

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1882phae.proj..869E

Grouping of H. P. Recid. of H. I. and K Stars according to N.P. +61° 3' to Pole.

0 h. to 8 h.

B	H.0	H.5	5.0	5.5	6.0	6.5	7.0	7.5	F.
		(13)	8	3 7	3 2 2	3 2	2		
		(12)		5 (11)	4 8 5	8			
				5 7	4 9 5	0			
				(10) 9	7 7 5	4			
				5 8	4 6	3			
		25	8	70	71	20	2		
		-25	-8	-70	-71	-20	-2		
		2	1	10	14	6	1		
		-1.25	-.80	-.70	-.51	-.33	-.20		

8 h. to 16 h.

B	4.0	4.5	5.0	5.5	6.0	6.5	7.0	7.5	F.
(13)		9	8 (12)	5 6	5 5 7 2	4	4		
(21)		7	7	4 8	5 5 (10)	2 1	5		
			(12)	7 7	6 8 6	1 1			
			8	4 (11)	2 3 8	2 4			
			(10)	4	4 1	5			
			(10)	4	4 4	2			
		34	16	67	60	82	24	9	
		-34	-16	-67	-60	-81	-24	-9	
		2	2	7	10	16	10	2	
		-1.70	-.80	-.96	-.60	-.51	-.24	-.45	

16 h. to 0 h.

B	4.0	4.5	5.0	5.5	6.0	6.5	7.0	7.5	F.
(13)	(11)	4	(10) 6	(11) 5 9	7 4 6	4			
(14)		8	8 (11)	5 8	7 7 3				
(15)		(12)	(10) 9	7 5	7 3 3				
		(10)	8 7	5 (10)	5 7 2				
			(13)	5 4	4 5 2				
		42	11	34	82	74	72	4	
		-42	-11	-34	-82	-74	-72	-4	
		3	1	4	9	11	15	1	
		-1.40	-.110	-.85	-.91	-.67	-.48	-.40	

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