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E.

Standard Stars

on

Spectrum Plates

No. 29.

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" "	1519	112
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" "	1576	120
" "	1564	120
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Book 3

Plate 196. E.

H.P.	No. Ex.	Dec.	Magn.	Obs. Br.	½ Cos δ		Diff.	Resid.	½ Cos δ Diff	½ cos δ Resid	Adopted. Cor ½ cos δ + ratio of abs. Obs Br. cor δ + cor δ.	Diff	Resid
		+73 27						Rej. Cor. cos δ.					
4112	3	+73 35	5.6	6.5	0.7	7.2	23	8 +4	16	2	+.6 7.1	15	8 2
		+54 53											
4232	1	+55 3	5.5	7.1	0.3	7.3	21	8 +2	18	4	+.3 7.3	18	8 5
		+54 57											
4237	1	+55 5	5.0	6.0	0.3	6.3	16	7 -3	13	1	+.3 6.3	13	7 0
		+65 58											
4199	2	+66 6	6.0	6.4	0.5	6.9	14	6 -5	9	5	+.5 6.9	9	6 4
		+75 27											
3996	3	+75 35	5.7	6.4	0.7	7.1	22	8 +3	14	0	+.7 7.1	14	8 1
		+67 0											
4204	2	+67 8	5.1	5.8	0.5	6.3	17	8 -2	12	2	+.5 6.3	12	8 1
		+76 9											
35	3	+76 17	6.2	6.3	0.8	7.3	19	7 0	11	3	+.7 7.2	10	7 3
		+57 46											
4153	1	+57 53	4.8	5.9	0.3	6.2	18	8 -1	14	0	+.3 6.2	14	8 1
		+58 38											
4086	1	+58 47	5.0	5.7	0.4	6.1	14	6 -5	11	3	+.3 6.0	10	7 3
		+78 1											
3986	3	+78 10	5.8	6.4	0.9	7.3	23	8 +4	15	1	+.8 7.2	14	8 1
		+60 31											
4258	1	+60 39	6.0	6.5	0.4	6.9	13	8 -6	9	5	+.4 6.9	9	8 4
		+78 54											
180	3	+79 2	5.6	6.4	0.9	7.3	26	9 +7	17	3	+.8 7.2	16	8 3
		+81 42											
85	3	+81 50	6.3	7.2	(7.0)	8.3	(30)	(+3 +11)	20	6	+1.0 8.0	17	8 4
		+72 27											
4112	2	+73 35	5.6	6.5	0.7	7.2	23	8 +4	16	2	+.6 7.1	15	8 2
		+73 36											
4226	2	+73 45	6.6	6.8	0.7	7.5	16	7 -3	9	5	+.6 7.4	8	7 5

Mean = 19 265 24 - 25 = .35 Mean = 14 204 18 - 24 = -.28 Mean = 13 194 19 - 20 = -.05

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Book 3

Plate 284.a E.

H.P.	No. Ex.	Dec.	Mag.	Obs Br.	½ Cos δ	Diff.	Resid.	½ Cos δ Diff.	½ Cos δ Resid.	Obs Br + Corr.	Corr. Diff.	Resid.
		+59 29										
219	2	+59 37	2.8	4.3	0.4	4.7	22	9	(19 11)	(12)	+.4 4.7	(19) (13)
		+59 49										
266	2	+59 57	5.5	5.8	0.4	6.2	10	3	7 4	0	+.4 6.2	9 3
		+69 52										
260	3	+76 0	5.1	6.3	(5.9) 0.6	6.9	(24)	(11)	(18 10)	(11)	+.5 6.8	(17) (11)
		+49 58										
269	1	+50 5	4.2	5.0	0.2	5.7	20	7	15 7	8	+.2 5.2	10 4
		+59 35										
145	2	+59 43	5.5	5.6	0.4	6.0	8	5	5 3	2	+.4 6.0	3 1
		+50 5										
284	1	+50 12	5.4	6.2	0.2	6.4	13	0	10 2	3	+.2 6.4	10 4
		+71 42										
306	3	+71 50	4.1	4.8	0.6	5.4	20	7	13 5	6	+.6 5.4	13 7
		+63 26										
188	2	+63 33	5.4	5.5	0.4	5.9	10	3	5 3	2	+.4 5.9	5 1
		+63 55										
300	2	+64 2	5.2	5.3	0.4	5.7	10	3	5 3	2	+.4 5.7	5 1
		+64 12										
311	2	+64 19	5.7	5.5	0.5	6.0	7	6	3 5	4	+.4 5.9	2 4
		+54 26										
283	1	+54 33	5.5	5.8	0.3	6.1	19	6	6 2	1	+.3 6.1	6 0
		+64 13										
191	2	+64 21	5.5	5.3	0.5	5.8	7	6	3 5	4	+.4 5.7	2 4
		+74 4										
114	3	+74 12	5.3	5.7	0.7	6.4	18	5	11 3	4	+.7 6.4	11 5
		+74 12										
104	3	+74 20	5.6	5.8	0.7	6.5	16	3	9 1	2	+.7 6.5	9 3
		+65 21										
233	2	+65 29	5.9	5.5	0.5	6.0	5	8	1 2	6	+.5 6.8	1 5
		+65 33										
151	2	+65 41	6.0	5.4	0.5	5.9	4	9	-1 1	8	+.5 5.9	1 7
		+76 35										
~~308~~	~~3~~	~~+76 40~~	~~5.7~~	~~6.0~~	~~0.8~~	~~6.8~~	~~20~~	~~9~~	~~16~~	~~6~~ 7	+.7 6.7	13 7
		+76 9										
35	3	+76 17	6.2	6.3	0.8	7.1	17	4	9 1	2	+.7 7.0	8 2
		+67 18										
257	2	+67 26	5.5	5.4	0.5	5.9	9	4	4 1	3	+.5 5.9	4 2
		+57 27										
177	1	+57 37	5.7	6.0	0.3	6.3	10	3	6 2	1	+.3 6.3	6 0
		+68 0										
184	2	+68 8	5.3	5.1	0.5	5.6	9	4	3 5	4	+.5 5.6	3 3
		+67 58										
290	2	+68 5	5.1	4.8	0.5	5.3	8	5	2 5	5	+.5 5.3	2 4
		+78 54										
180	3	+79 2	5.6	5.6	0.9	6.5	18	5	9 1	2	+.8 6.4	8 2

Mean = 13 282 55-59 = -.52 22 Mean = 8 140 1 139 34-42 = -36 21 Mean = 7 168 1 167 131 37-32 = 20 Mean = 6

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Book 3

Plate 186 a. E.

	H.P.	No. Cx.	Dec.	Mag.	Obs. Br.	½ cos δ	Diff.	Reed.	Diff.	Reed.	Obs. Br. adopted. Cor. δ	Cor. δ	Diff.	Reed.
			+62 8											
√	71	2	+62 16	4.2	5.8	0.4	6.2	24	8	20	8	+.4	6.2	20	8
			+52 15											
√	57	1	+52 23	3.8	6.5	0.3	6.8	12	4	10	2	+.3	6.8	10	2
			+53 22											
√	77	1	+53 30	3.0	5.9	0.3	6.2	15	1	12	0	+.3	6.2	12	0
			+63 27											
√	130	2	+63 36	3.4	6.9	0.4	7.3	24	8	19	7	+.4	7.3	19	7
			+53 43											
√	69	1	+53 50	4.8	5.6	0.3	5.9	14	2	11	1	+.3	5.9	11	1
			+73 36											
	4226	3	+73 45	6.6	6.8	0.7	7.5	16	0	9	3	+.6	7.4	8	4
			+59 10											
√	64	1	+59 18	6.0	6.5	0.4	6.9	12	4	9	3	+.4	6.9	9	3
			+74 4											
√	114	3	+74 12	3.3	6.4	0.7	7.1	25	9	18	6	+.7	7.1	18	6
			+54 57											
	4237	1	+55 5	3.0	5.6	0.3	5.9	12	4	9	3	+.3	5.9	9	3
			+54 26											
√	110	1	+54 34	3.4	5.9	0.3	6.2	11	5	8	4	+.3	6.2	8	4
			+61 20											
√	56	1-2	+61 10	3.4	5.8	0.4	6.2	12	4	8	4	+.4	6.2	8	4
			+65 33											
√	151	2	+65 41	6.0	6.7	0.5	7.2	17	1	12	0	+.5	7.2	12	0
			+65 58											
	4199	2	+66 6	6.0	6.4	0.5	6.9	14	2	9	3	+.5	6.9	9	3
			+67 0											
	4204	2	+67 8	5.1	5.9	0.5	6.4	18	2	13	1	+.5	6.4	13	1
			+62 8											
√	71	1-2	+62 16	4.2	5.1	0.4	5.9	17	1	17	5	+.4	5.5	13	1
			+63 22											
√	1	1-2	+63 31	3.5	5.9	0.4	6.3	13	3	8	4	+.4	6.3	8	4
			+68 0											
√	184	2	+68 8	3.3	6.3	0.5	6.8	21	5	15	3	+.5	6.8	15	3
			+60 31											
	4258	1	+60 39	6.0	6.7	0.4	7.1	15	1	11	1	+.4	7.1	11	1

Mean = 16 29 21 34 - 30 / 18 = .36

218 30 - 28 = .32 Mean 18 = 12

213 26 - 29 / 18 Mean = 12

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Book 3

Plate 173 E.

	M.P.	No. Ex.	Dec.	Mag.	Obs. Br.	½ cos δ	Diff.	Resid.	½ Cos δ Diff.	½ Cos δ Resid.	Obs. Br. Cor.	Cor. δ	Diff.	Resid.
			+67 18											
√	237	2	+67 26	5.5	6.8	0.5	7.3	23	1	18	3	+.5	7.3	18	3
			+69 58												
√	290	2	+68 5	5.1	5.8	0.5	6.3	18	4	12	3	+.5	6.3	12	3
			+78 54												
√	180	3	+79 2	5.6	6.3	0.9	7.2	25	3	16	1	+.8	7.2	16	1
			+59 49												
√	266	1	+59 57	5.5	6.8	0.4	7.2	20	2	17	2	+.4	7.2	17	2
			+69 52												
√	260	2	+70 0	5.1	5.8	0.6	6.4	19	3	13	2	+.5	6.3	12	3
			+63 42												
√	312	1	+63 49	5.5	6.4	0.4	6.8	18	4	13	2	+.4	6.8	13	2
			+83 26												
√	684	3	+83 31	5.4	5.7	1.2	6.9	27	5	15	0	+1.1	6.8	14	1
			+73 50												
√	493	2	+73 56	4.7	5.5	0.7	6.2	22	0	15	0	+.7	6.2	15	0
										119	6-7 = .16				
				Mean = 22				172	9-13 = .28	8	Mean = 15			117	6-9
									8					8	
												Mean = 15			

Plate 161a. E.

			+51 47												
√	470	1	+51 54	5.1	6.2	0.3	6.5	16	2	14	0	+.3	6.5	14	0
			+71 42												
√	306	3	+71 50	4.1	5.2	0.6	5.8	24	6	17	3	+.6	5.8	17	3
			+54 30												
√	424	1	+54 36	5.6	6.4	0.3	6.7	14	4	11	3	+.3	6.7	11	3
			+65 6												
√	516	2	+65 13	4.8	5.5	0.5	6.0	16	2	12	2	+.4	5.9	11	3
			+55 11												
√	373	1	+55 18	5.2	6.5	0.3	6.8	19	1	16	2	+.3	6.8	16	2
										70	5-5 = .20				
				Mean = 18				89	7-8 = .30	5	Mean = 14			69	5-6
									5					5	
												Mean = 14			

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Book 3

Plate 258 - E.

	M.P.	No. Ex.	Dec.	Mag.	Obs. Br.	½ Cos. δ	Diff.	Reqd.	½ Cos. δ Diff.	½ Cos. δ Reqd.	Obs. Br. Cor'd.	Cor'd.	Diff.	Reqd.
			+65 6											
V	516	2	+65 13	4.8	6.1	0.5	6.6	22	4	18	3	+4	6.5	1.7	3
			+57 31												
V	631	1	+57 36	5.8	6.3	0.3	6.8	14	4	10	3	+3	6.8	10	4
			+58 28												
V	553	1	+58 28	4.8	5.9	0.4	6.3	18	0	13	0	+3	6.2	14	0
			+62 38												
V	639	1	+62 43	4.8	5.8	0.4	6.2	18	0	14	1	+4	6.2	14	0
			+65 6												
V	516	1	+65 13	4.8	5.9	0.5	6.4	20	2	16	1	+4	6.3	15	1
										73					
					Mean = 18			92	$\frac{6-4}{5} = .20$		$\frac{4-6}{5} = .20$			70	$\frac{4-4}{5}$
										Mean = 15				Mean = 14	

Plate 217 a. E.

			+61 29													
V	705	2	+61 33	5.6	6.6	0.4	7.0	18	~~8~~	~~3~~	14	1		+4	7.0	14	1
			+62 38													
V	639	2	+62 43	4.8	6.0	0.4	6.4	20	0	1	16	1		+4	6.4	16	3
			+73 6													
V	918	2	+73 8	5.7	6.6	0.7	7.3	22	~~9~~	1	16	1		+6	7.2	15	2
			+73 45													
V	890	3	+73 47	5.5	6.2	0.7	6.9	21	~~7~~	0	14	1		+6	6.8	13	0
			+73 49													
V	864	3	+73 53	6.0	6.6	0.7	7.3	20	~~8~~	1	13	2		+7	7.3	13	0
			+73 50													
V	493	3	+73 56	4.7	6.1	0.7	6.8	28	8	7	21	6		+7	6.8	11	2
			+57 31									3				
V	631	1	+57 36	5.8	6.7	0.3	7.0	16	~~7~~	5	12		$\frac{8-7}{7} = .21$	+3	7.0	12	1
												106					
					Mean = 21			145	$\frac{11-6}{5}$	$\frac{8-10}{7} = .26$					94	$\frac{6-3}{7}$
											Mean = 15				Mean = 13	

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Book 3

Plate 275 E.

	H.P.	No. Ex.	Dec.	Mag.	Obs. Br.	½ Cos. δ	Diff.	Resid	½ Cos. δ Diff.	Resid	Obs. Corr.	Corr. Diff.	Resid
			+66 4										
V	836	2	+66 8	4.4	3.5	0.5	6.0	21	2	16	4	+.5	6.0	16	4
			+57 24										
V	953	1	+57 26	5.3	6.5	0.3	6.8	19	0	15	3	+.3	6.8	15	3
			+58 45										
V	885	1	+58 48	5.1	5.8	0.4	6.2	14	5	11	1	+.3	6.1	10	2
2			+79 41										
	1209	3	+79 40	6.3	7.0	0.9	7.9	26	7	16	4	+.9	7.9	16	4
			+61 29										
	705	1	+61 33	5.6	6.0	0.4	6.4	12	7	8	4	+.4	6.4	8	4
			+80 54	6.0											
	476	3	+81 0	~~5.8~~	6.4	1.0	7.4	28	~~X~~ 5	14	2	+.9	7.3	13	1
			+73 6												
V	918	2	+73 8	5.7	5.9	0.7	6.6	15	4	9	3	+.6	6.5	8	4
			+63 15												
V	831	1	+63 18	5.9	6.8	0.4	7.2	18	1	13	1	+.4	7.2	13	1
			+73 45												
	890	2	+73 47	5.5	5.8	0.7	6.5	17	2	10	2	+.6	6.2	9	3
			+73 49												
	864	2	+73 53	6.0	6.3	0.7	7.0	17	2	10	2	+.7	7.0	10	2
			+83 26												
	684	3	+83 31	5.4	5.8	1.2	7.0	28	9	16	4	+1.1	6.9	15	3
										138				133	

Mean = 19 — 218 — 25−21 / 11 = 1.90 — Mean = 12 — 18−12 = 27 — 16−13 / 11 — Mean = 12

Plate 341 a. E.

			+53 21												
V	921	1	+53 4	6.2	6.9	0.3	7.2	13	2	10	0	+.3	7.2	10	0
			+73 6												
V	918	3	+73 8	5.7	6.1	0.7	6.8	17	2	11	1	+.6	6.7	10	0
			+73 49												
V	864	3	+73 53	6.0	6.3	0.7	7.0	17	2	10	0	+.7	7.0	10	0
			+66 4												
V	836	2	+66 8	4.4	5.4	0.5	5.9	20	5	15	5	+.5	5.9	15	5
			+57 24												
V	953	1	+57 26	5.3	5.9	0.3	6.2	13	2	9	1	+.3	6.2	9	1
			+57 57												
V	937	1	+57 59	6.3	6.5	0.3	6.8	9	6	5	5	+.3	6.8	5	5
			+58 45												
V	885	1	+58 48	5.1	6.0	0.4	6.4	16	1	13	3	+.3	6.3	12	2
										73				71	

Mean = 15 — 105 — 10−10 / 7 = 2.8 — Mean = 10 — 9−6 / 2 = 2.1 — 7−6 / 7 — Mean = 10

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Book 3

Plate 165 E.

	H.P.	No. Ex.	Dec.	Mag.	Obs. Br	½ Cos. δ	Diff.	Reid.	½ Cos. δ Diff.	½ Cos. δ Reid.	Obs. Br. Corr. δ Cor.	Diff.	Reid.
			+59 3										
2	1168	1	+59 3	4.3	5.6	0.4 6.0	20	3	17	2	+.3 5.9	16	2
			+79 41										
2	1209	3	+79 40	6.3	6.9	0.9 7.8	25	2	15	0	+.9 7.8	15	1
			+79 52										
2	1477	3	+79 48	5.3	5.9	0.9 6.8	23	2	15	0	+.9 6.8	15	1
			+73 6										
V	918	2	+73 8	3.7	6.3	0.7 7.0	19	4	13	2	+.6 6.9	12	2
			+83 26										
V	684	3	+83 31	5.4	5.9	1.2 7.1	29	6	17	2	+1.1 7.0	16	2
			+73 43										
V	890	2	+73 47	3.5	6.0	0.7 6.7	19	4	12	3	+.6 6.6	11	3
									89			85	
									4-5 = .15			6-5	
									6			6	
			Mean = 23				137		10-11 = .35	Mean = 15		Mean = 14	
									6				

Plate 185 E.

			+56 59										
2	1237	1	+56 58	3.8	7.0	0.3 7.3	19	5	15	0	+.4 7.4	16	1
			+67 44										
2	1270	2	+67 42	4.9	5.9	0.5 6.4	21	3	15	0	+.5 6.4	15	0
			+69 22										
V	1155	2	+69 22	4.7	5.4	0.6 6.0	18	6	13	2	+.5 5.9	12	3
			+79 41										
2	1209	3	+79 40	6.3	6.6	0.9 7.5	22	2	12	3	+.9 7.5	12	3
			+79 52										
2	1477	3	+79 48	5.3	5.6	0.9 6.5	22	2	12	3	+.9 6.5	12	3
			+83 26										
V	684	3	+83 31	5.4	5.9	1.2 7.1	29	5	17	2	+1.1 7.0	16	1
			+85 45										
V	863	3	+85 48	6.4	6.9	1.4 8.3	33	9	19	4	+1.3 8.2	18	3
			+84 45										
2	1632	3	+84 40	6.2	6.8	1.4 8.2	32	8	20	5	+1.2 8.0	18	3
									123			119	
									11-8 = .25			8-7	
									8			8	
			Mean = 24				196		22-18 = .50	Mean = 15		Mean = 15	
									8				

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Plate 166 a. E.

	H.P.	Ex.	No.	Dec.	Mag.	Obs. Br.	½ Obs δ	Diff.	Resid.	½ Diff.	Cos. δ Resid.	Obs. Br. Cor.	δ Corr.	Diff.	Resid.
				+55 33											
2	1378	1		+55 30	5.2	6.8	0.3	7.1	22	1	19	4	+.3	7.1	19	3
				+66 37												
2	1385	2		+66 34	6.2	7.5	0.5	8.0	23	2	18	3	+.5	8.0	18	2
				+56 59												
2	1237	1		+56 58	5.8	6.8	0.3	7.1	17	4	13	2	+.3	7.1	13	3
				+67 44												
2	1270	2		+67 42	4.9	5.9	0.5	6.4	21	1	15	0	+.5	6.4	15	1
				+69 3												
2	1279	2		+69 1	5.1	5.8	0.6	6.4	18	3	13	2	+.5	6.3	12	4
				+59 34												
2	1261	1		+59 33	4.7	5.8	0.4	6.2	18	3	15	0	+.4	6.2	15	1
				+79 42												
2	1225	3		+79 41	5.5	5.8	0.9	6.7	22	1	12	3	+.9	7.7	22	6
				+79 41												
2	1209	3		+79 40	6.3	6.8	0.9	7.7	24	3	14	1	+.9	7.7	14	2
				+79 52												
2	1477	3		+79 48	5.3	6.0	0.9	6.9	26	5	16	1	+.9	6.9	16	0
									191		135	8−8 = 18			144	11−11
					Mean = 21				12−10 = 2.4			9 Mean = 15				9
									9							Mean = 16

Plate 353 E.

				+78 7												
2	1215	3		+78 5	5.7	6.9	0.9	7.8	29	9	(21)	(10)	(13)	+.8	7.7	(20) (12)
				+69 3												
2	1279	2		+69 1	5.1	5.4	0.6	6.0	14	6	9	2	1	+.5	5.9	8 1
				+79 52												
2	1477	3		+79 48	5.3	4.8	0.9	5.7	14	6	4	1	4	+.9	5.7	4 4
				+79 41												
2	1209	3		+79 40	6.3	5.8	0.9	6.7	14	6	4	1	4	+.9	6.7	4 4
				+84 59												
2	1816	3		+84 57	5.6	5.9	1.3	7.2	29	9	16	1	8	+1.2	7.1	15 7
									100		54	11−6				31
					Mean = 20				18−18 = 7.2		33 Mean = 11.8	9−8 = 2.2				7−8
									5			4				4
																Mean = 10.8

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Plate 167 E.

H.P.	No. Ex.	Dec.	Mag.	Obs Br ½cos δ			Diff.	Reed.	½cos δ Diff.	½cos δ Reed.	Obs.Br. Cord.	Cord Cord	Diff.	Reed.
		+60 42												
1490	1	+60 39	6.0	6.8	0.4	7.3	16	6	12	3	+4	7.2	12	3
		+80 37											7	
1435	3	+80 34	6.4	7.2	1.0	8.2	28	6	18	3	+7	8.1	18	2
		+65 21												
1580	1	+65 26	5.6	6.7	0.5	7.2	21	1	16	1	+5	7.2	16	1
									46					
		Mean = 2.2					65	6-7/3 = .43		4-3/3 = 2.3			45	
										Mean = 15			15	

Plate 446 a. E.

H.P.	No. Ex.	Dec.	Mag.	Obs Br ½cos δ			Diff.	Reed.	½cos δ Diff.	½cos δ Reed.	Obs.Br. Cord.	Cord Cord	Diff.	Reed.
		+65 38												
1566	2	+65 33	5.3	5.4	0.5	5.9	11	1	6	0	+5	5.9	6	0
		+66 37												
1383	2	+66 34	6.2	6.0	0.5	6.5	8	2	3	3	+5	6.5	3	3
		+67 13												
1601	2	+67 8	6.0	5.8	0.5	6.3	8	2	3	3	+5	6.3	3	3
		+59 2												
1441	1	+58 59	4.9	5.4	0.4	5.8	12	2	9	3	+3	5.7	8	2
		+60 42												
1490	1	+60 39	6.0	6.4	0.4	6.8	12	2	8	2	+4	6.8	8	2
									29					
		Mean = 10					51	5-4/5 = .18		5-6/5 = 2.2			28	4-6/5
										Mean = 6				Mean = 6

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Book 3

Plate 458. E.

	Th. P.	Ex.	No.	Dec.	Mag.	Obs. Br.	½ los. δ	Diff.	Reid	½ Cos δ Diff.	Reid	Obs. Br. Cord.	Cord. Diff.	Reid.
				+67 13										
2	1601	2		+67 8	6.0	6.3	0.5	7.0	15	2	10	2	+.5 7.0	10 2
				+59 55 30										
2	1650	1		+59 X	6.1	6.7	0.4	7.1	13	4	10	2	+.4 7.1	10 2
				+79 52										
2	1477	3		+79 48	5.3	5.7	0.9	6.6	23	6	13	1	+.9 6.6	13 1
				+60 0										
2	1530	1		+59 56	5.4	6.4	0.4	6.8	18	1	14	2	+.4 6.8	14 2
											47	3-4		47 3-4
						Mean = 17			69	7-6 = .32	3-4 = .18	Mean = 12		Mean = 12
										4	4			

Plate 441 a. E.

				+52 42										
2	1715	1		+52 36	4.6	5.9	0.3	6.2	18	1	16	4	+.3 6.2	16 4
				+74 8										
2	1573	3		+74 3	6.3	6.9	0.7	7.6	20	3	13	1	+.7 7.6	13 1
				+54 51										
2	1644	1		+54 45	5.6	6.4	0.3	6.7	14	3	11	1	+.3 6.7	11 1
				+67 13										
2	1601	2		+67 8	6.0	6.4	0.5	6.9	14	3	9	3	+.5 6.9	9 3
				+59 55 30										
2	1650	1		+59 X	6.1	6.9	0.4	7.3	15	2	12	0	+.4 7.3	12 0
				+79 52										
2	1477	2		+79 48	5.3	5.6	0.9	6.5	22	5	12	0	+.9 6.5	12 0
											73	5-4		73 5-4
						Mean = 17			103	9-8 = .28	7.3	5-4 = .15	Mean = 12	Mean = 12
										6		6		

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Book 3

Plate 495 E.

H.P.	No. Ex.	Dec.	Mag.	Obs. Br.	½ Cos. δ		Diff.	Read?	½ Cos. δ Diff.	½ Cos. δ Read.	Obs. Br. Corrd.	Corrd.	Diff.	Read
		+81 56												
1982	3	+81 47	6.1	5.8	.21	6.9	18	3	8	0	+1	06.8	7	1
		+65 49												
1807	1	+65 42	5.7	6.1	.05	6.6	14	1	9	1	+5	6.6	9	1
		+65 34												
1890	1	+65 46	6.3	6.6	.05	7.1	13	2	8	0	+5	7.1	8	0
			Mean = 15				45	3-3/3 = .20	25	1-0/3 = .03			24	
									Mean = 8			Mean 8		

Plate 435 E.

		+73 32												
1668	1	+73 26	5.8	5.9	.07	6.6	15	1	8	2	+.6	6.3		
		+66 18												
1829	1	+66 10	5.0	5.8	.05	6.3	18	2	13/21	3	+.5	6.3		
			Mean = 16				33	2-1/2 = .15		3-2/2 = .25				
										Mean = 10				

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Book 3

Plate 508 a. E.

	M.P.	No. Cx.	Dec.	Mag.	Obs. Br.	½ Cos. δ	Diff.	Read.	Diff.	Read.	Obs Br. Cord.	+ Cord.	Diff.	Read.
			+65 56											
✓	1890	2	+65 46	6.3	6.8	0.5	7.3	15	1	10	2	+5	7.3	11	1
			+66 18												
✓	1829	2	+66 10	5.0	6.2	0.5	6.7	22	6	17	5	+5	6.7	17	6
			+57 57												
✓	1881	1	+57 49	5.7	6.5	0.3	6.8	15	1	11	1	+3	6.8	11	0
			+69 2												
✓	1945	2	+68 54	6.6	6.8	0.6	7.4	13	3	8	4	+4	7.2	6	5
								65		46				44	66

Mean = 16 $\frac{6-5}{4} = .28$ Mean = 12 $\frac{5-7}{4} = .30$ Mean = 11 $\frac{}{4}$

Plate 500 a. E.

			+65 8												
	1966	2	+64 59	5.9	6.6	0.5	7.1	16	1	12	1	+4	7.0	11	1
			+66 18												
	1829	2	+66 10	5.0	6.0	0.5	6.5	20	3	15	2	+5	6.5	15	3
			+57 57												
	1881	1	+57 49	5.7	6.5	0.3	6.8	15	2	11	2	+3	6.8	11	1
								51		38				137	

Mean = 17 $\frac{3-3}{3} = .20$ $\frac{2-3}{3} = .17$ Mean = 13 $\frac{}{12}$

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Book 3

Plate 509. a. E.

	H.P.	Ex.	No.	Dec	Mag.	Obs. Br.	½ Cos δ		Diff.	Read.	Diff.	Read.	Obs Br. + Cor. δ	Cor. δ	Diff.	Read.
				+63 32												
3	2159	2		+63 22	6.0	6.8	0.4	7.2	17	5	12	6	+4	7.2	12	5
				+54 30												
4	2036	1		+54 22	2.3	4.3	0.3	4.6	26	4	23	5	+3	4.6	23	6
				+64 37												
3	2107	2		+64 29	6.3	7.5	0.5	8.0	21	1	17	1	+4	7.9	16	1
				+70 35												
3	2135	2		+70 27	3.8	5.0	0.6	5.6	24	2	18	0	+6	5.6	18	1
									88	6-6/4 = .30	70	5-7/4 = .30			69	7-6/4
				Mean = 22							Mean = 18				Mean = 17	

Plate 546 E.

				+57 50												
	2077	1		+57 42	3.4	5.5	0.3	5.8	28	5	24	5	+3	5.8	24	5
				+59 12												
	2122	1		+59 4	5.6	6.6	0.4	7.0	17	6	14	5	+4	7.0	14	5
				+70 35												
	2135	2		+70 27	3.8	5.0	0.6	5.6	24	1	18	1	+6	5.6	18	1
									69	6-6/3 = .10	56	5-6/3 = .37			56	
				Mean = 23							Mean = 19				19	

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Book 3

Plate 536. a. E.

H.P.	No. Ex.	Dec.	Mag	Obs Br.	½ Cos δ	Diff.	Read.		½ Cos δ	Diff.	Read.	Obs Br. Corr	Corr	Diff.	Read.
		+62 12													
3	2348	2 +62 5	6.1	7.0	0.4	7.4	17	3	13	X	3	+.4	7.2	13	3
		+52 46													
3	2325	1 +52 38	5.9	6.6	0.3	6.9	12	2	10	X	0	+.3	6.9	10	0
		+54 26													
3	2362	1 +54 19	5.5	6.3	0.3	6.6	14	0	11	X	1	+.3	6.6	11	1
		+54 5 3													
3	2198	1 +54 45	5.7	6.7	0.3	7.0	16	2	13	X	3	+.3	7.0	13	3
		+65 4													
3	2381	2 +64 57	3.6	4.2	0.5	4.7	15	1	11	X	1	+.4	4.6	10	0
		+55 10													
3	2337	1 +55 2	5.6	6.2	0.3	6.5	12	2	9	X	1	+.3	6.5	9	1
	2264	+55 41													
3	2265	1 +55 33	2.4	4.4	(4.3) 0.3	4.7	(26	12)	(23)	X	(13)	+.3	4.7	(23)	(13)
		+36 6													
3	2298	1 +55 38	5.5	5.8	0.3	6.1	9	X5	6	X	4	+.3	6.1	6	4
		+75 59													
3	2084	3 +75 31	5.4	5.8	0.8	6.6	19	5	12	X	2	+.7	6.5	11	1
		+56 44													
3	2191	1 +56 37	1.8	4.0	(B. 4.0) 0.3	4.3	(29	15)	(25)	X3	(15)	+.3	4.3	(25)	(15)
		+69 10													
3	2250	2 +69 2	6.1	6.0	0.6	6.6	10	4	5	X	5	+.5	6.5	4	6
		+59 15													
3	2350	1 +59 8	6.3	6.8	0.4	7.2	12	2	9	X	1	+.4	7.2	9	1
		+70 35													
3	2135	2 +70 27	3.8	4.1	0.6	4.7	15	1	9	X	1	+.6	4.7	9	1
				Mean = 14			151	12-15 / 11 = 24	+56		10-12 / 11 = 20			153 / 105	8-13 / 11
									308		Mean = ~~12~~ 10				Mean = ~~18~~ 10

Plate 550 E.

See Book 37 p 100.

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Book 3

Plate 355 a. E.

H.P.	No. Ex.	Dec.	Mag.	Obs. Br.	½ Cos δ	Diff. Read.		½ Cos δ Diff. Read.		Cor. δ	Obs. Br. + Cor. δ	Diff. Read.	
		+54 39											
3	2447	1 +54 32	5.6	6.5	0.3	6.8	15 2	12	1	+.3	6.8	12	1
		+65 4											
3	2381	2 +64 57	3.6	4.7	0.5	5.2	20 3	16	3	+.4	5.1	15	2
		+66 29											
3	2528	2 +66 23	6.0	6.7	0.5	7.2	17 0	12	1	+.5	7.2	12	1
		+60 46											
3	2518	1 +60 41	5.8	6.6	0.4	7.0	16 1	12	1	+.4	7.0	12	1
		Mean = 17					68	52				51	
							3-3/4 = .15	3-3/4 = .15	Mean = 1.3			2-3/11	Mean = 13

Plate 360. E.

		+68 11											
3	2717	2 +68 8	5.4	5.8	0.5	6.3	15 3	9	2	+.5	6.3	9	2
		+62 33											
3	2564	1 +62 27	5.7	6.2	0.4	6.6	13 5	9	2	+.4	6.6	9	2
		+73 46											
3	2746	2 +73 41	6.0	6.4	0.7	7.1	18 0	11	0	+.6	7.0	10	1
		+84 120											
3	2189	3 +84 4	5.0	5.2	1.2	6.4	27 9	14	3	+1.2	6.4	14	3
		+76 16											
3	2739	2 +76 11	5.5	5.9	0.8	6.7	20 2	12	1	+.7	6.6	11	0
		+66 29											
3	2528	1 +66 23	6.0	6.8	0.5	7.3	18 0	13	2	+.5	7.3	13	2
		Mean = 18					111	68				66	
							11-8/6 = 3.2	6-4/6 = 1.7	Mean = N			5-6/11	Mean = 11

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Book 3

Plate 587 E.

	H.P.	No. Ex.	Dec.	Mag.	Obs. Br.	½ Cos. δ	Diff.	Read	½ Cos. δ Diff.	½ Cos. δ Read	Obs Br + Cor. δ	Cor. δ	Diff.	Read
			+77 45											
3	2833	3	+77 42	5.7	6.9	0.8	7.7	27	4	18	1	+.8	7.7	18	1
			+68 11												
3	2717	2	+68 8	5.4	6.8	0.5	7.3	25	2	19	2	+.5	7.3	19	2
			+61 8												
3	2789	1	+61 5	6.0	6.8	0.4	7.2	16	7	12	5	+.4	7.2	12	5
			+63 3												
3	2887	1	+63 1	5.5	6.9	0.4	7.3	23	0	18	1	+.4	7.3	18	1
			+76 16												
3	2739	2	+76 11	5.5	6.4	0.8	7.2	25	2	17	0	+.7	7.1	16	1
										84	$\frac{4-5}{5}$ = .18				83 $\frac{4-6}{5}$
			Mean = 23					116	$\frac{8-7}{5}$ = .30	Mean = 17					Mean = 17

Plate 601 a. E.

			+63 3												
3	2887	2	+63 1	5.5	7.1	0.4	7.5	25	1	20	2	+.4	7.5	20	2
3	2946	1	+55 15	4.8	6.6	0.3	6.9	24	2	21	3	+.3	6.9	21	3
	2947		+55 16	4.9											
3	2888	2	+65 54	3.3	5.0	0.5	5.5	27	1	22	4	+.5	5.5	22	4
			+76 16												
3	2739	3	+76 11	5.5	6.5	0.8	7.3	26	0	18	0	+.7	7.2	17	1
			+77 11												
3	2724	3	+77 7	5.7	6.7	0.8	7.5	26	0	18	0	+.8	7.5	18	0
			+77 43												
3	2805	3	+77 41	6.2	7.2	0.8	8.0	27	1	18	0	+.8	8.0	18	0
			+58 48												
3	2730	1	+58 46	6.6	7.3	(7.2)	7.7	(14	12)	11	7	+.3	7.6	10	8
										128	$\frac{9-7}{7}$ = .23				126 $\frac{9-9}{7}$
			Mean = 26					135	$\frac{2-3}{6}$ = .08	Mean = 18					Mean = 18

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Plate 617 E.

H.P.	No. Ex.	Dec.	Mag.	Obs Br.	½ Cos. δ	Diff.	Resid.	½ Cos. δ Diff.	½ Cos. δ Resid.	Obs Br. Cor'd	Cor'd Diff.
		+71 14									
3120	2	+71 16	4.2	4.9	0.6	5.5	19	5	13	-3	+6 5.6	13
		+83 10									
3378	3	+83 14	6.3	7.0	1.2	8.2	30	6	19	+3	+1.1 8.1	18
			Mean = 24				49	$\frac{6-5}{2}$ = .55	32	$\frac{3-3}{2}$ = .30		
									Mean = 16			

Plate 628 a. E.

H.P.												
		+52 4										
3155	1	+52 3	5.8	7.1	0.3	7.4	18	2	16	0	+.3 7.4	16 0
		+62 24										
3153	2	+62 23	5.5	6.7	0.4	7.1	20	0	16	0	+.4 7.1	16 0
		+52 49										
3187	1	+52 52	5.8	7.1	0.3	7.4	18	2	16	0	+.3 7.4	16 0
		+53 12										
3268	1	+53 14	5.4	6.9	0.3	7.2	21	1	18	2	+.3 7.2	18 2
		+55 24										
3166	1	+55 23	5.2	5.9	0.3	6.2	13	7	10	6	+.3 6.2	10 6
		+65 26										
3345	2	+65 29	4.6	5.9	0.5	6.4	23	3	18	2	+.5 6.4	18 2
		+79 18										
3371	3	+79 22	5.9	6.6	0.9	7.5	25	5	16	0	+.9 7.5	16 0
		+71 14										
3120	2	+71 16	4.2	5.5	0.6	6.1	25	5	19	3	+.6 6.1	19 3
			Mean = 20				163	$\frac{14-11}{8}$ = .31	129	$\frac{7-6}{8}$ = .16		129 $\frac{7-6}{8}$
									Mean = 16			Mean = 16

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Plate 682. E.

H.P.	Ex.	No.	Dec.	Mag.	Obs Rx	½ cos δ		Diff.	Recid.	½ Cos. δ Diff.	Recid.	Obs Rx Cord.	Cor. δ	Diff.	Recid
			+77 16												
3545	3		+77 21	4.4	5.2	0.8	6.2	26	2	18	1	+.8	6.2	18	0
			+71 14												
3120	2		+71 16	4.2	5.2	0.6	5.8	22	2	16	3	+.6	5.8	16	2
			+75 16												
3211	2		+75 17	5.6	6.3	0.7	7.2	24	0	16	3	+.7	7.2	16	2
			+85 23												
3968	3		+85 30	5.4	6.5	1.4	7.9	(38	14)	25	6	+1.3	7.8	24	6
										75				74	6-11/4
				Mean = 2.41				72	2-2/3 = .13	6-7/4 = .32	Mean = 19			Mean 18	

Plate 742 a. E.

			+54 57												
3556			+55 1	5.7	6.4	0.3	6.7	13	3	10	1	+.3	6.7	10	1
			+75 16												
3211			+75 17	5.6	6.2	0.7	6.9	21	5	13	2	+.7	6.9	13	2
			+57 8												
3455			+57 12	5.1	5.9	0.3	6.2	15	1	11	0	+.3	6.2	11	0
										34				34	
				Mean = 16				49	5-4/3 = .30	2-1/3 = .10				11	
										Mean = 11					

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Book 3

a.

Plate 693 E.

H.P.	No. Ex.	Dec.	Mag.	Obs. Br.	½ Cos δ	Diff.	Recid.	½ Cos δ	Diff.	Recid.	Corr'd Obs. Br.	½ Cos δ	Diff.	Recid.
		+61 48												
u	3563	2 +61 52	5.6	6.9	0.4	7.3	22	4	16	4	+.4	7.3	17	3
		+75 21				7.5								
u	3702	3 +75 27	6.3	6.8	0.7	~~7.4~~	20	2	12	0	+.6	7.4	11	1
		+56 18				7.2								
u	3469	1 +56 22	6.1	6.9	0.3	~~6.3~~	14	4	11	1	+.3	7.2	11	1
		+57 8				6.4								
u	3455	1 +57 12	5.1	6.1	0.3	~~0.3~~	17	1	13	1	+.3	6.4	13	1
		+77 16				5.4								
u	3545	3 +77 21	4.4	4.6	0.8	~~0.8~~	18	0	10	2	+.8	5.4	10	2
		+77 32				7.0								
u	3733	3 +77 38	5.8	6.2	0.8	~~0.8~~	21	3	12	0	+.8	7.0	12	0
		+59 19				7.0								
u	3457	1 +59 23	6.0	6.6	0.4	~~0.4~~	13	5	10	2	+.4	7.0	10	2
									84				84	6

Mean = 18

125 — 9−10 / 7 = .27 — 5−5 / 7 = .14 — Mean = 12 — 6−6 / 7 — Mean = 12

Plate 800 E.

H.P.	No. Ex.	Dec.	Mag.	Obs. Br.	½ Cos δ	Diff.	Recid.	½ Cos δ	Diff.	Recid.	Corr'd Obs. Br.	½ Cos δ	Diff.	Recid.
		+79 18												
u	3371	3 +79 22	5.9	7.0	0.9	7.9	29	1	20	8 1	+.9	7.9	20	2
		+60 4												
u	3641	1 +60 10	6.2	7.0	(6.5) 0.4	7.4	(16	12)	12	5 7	+.4	7.4	12	6
		+59 53												
u	3447	2 +59 58	3.9	6.5	(6.4) 0.6	7.1	(38	10)	(32)	12 (13)	+.5	7.0	(31)	(13)
		+69 56												
b	3798	2 +70 2	3.4	5.2	0.6	5.8	30	2	24	4 5	+.5	5.7	23	5
		+70 51												
u	3728	2 +70 57	6.0	6.9	0.6	7.5	21	7	13	5 4	+.6	7.5	15	3
		+61 48												
u	3563	1 +61 52	5.6	7.0	0.4	7.4	22	6	18	5 1	+.4	7.4	18	0
		+83 10												
u	3378	3 +83 14	6.3	6.9	1.2	8.1	29	1	18	5 1	+1.1	8.0	17	1
		+74 26												
u	3614	2 +74 33	5.1	7.0	0.7	7.7	33	5	26	8 7	+.7	7.7	26	8
		+85 23												
u	3968	3 +85 30	5.4	5.8	1.4	7.2	31	3	18	5 1	+1.3	7.1	17	1
									+83					

Mean = 28 — 195 — 12−13 / 7 = .36 — 151 — 13−14 / 8 = .31 — Mean = 8.19 — 179 — 5−11 / 8 — 148 — Mean = 8.18

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Book A3

Plate 696 E.

	H.P.	Ex.	Dec.	Mag.	Obs. Br.	½ los δ	Diff.	Read.	½ los δ Diff.	½ los δ Read.	Cord. Obs. Br. +cor. δ	Diff.	Read.
			+77 16										
4	3545	3	+77 21	4.4	5.5	0.8 6.3	27	6	19	+ 3	+8 6.3	19	3
			+59 22										
u	3736	1	+59 30	5.5	6.7	0.4 7.1	19	2	16	0	+4 7.1	16	0
			+69 56										
u	3798	2	+70 2	3.4	4.5	0.6 5.1	23	2	17	1	+5 5.0	16	0
			+61 48										
4	3536	1	+21 14	5.6	6.4	0.4 6.8	16	5	12	4	+4 6.8	12	4
									64			63	3-4
				Mean: 21			85	8-7 = 38		4-4 = 20			4
								4		4			
										Mean: 16		Mean: 16	

Plate 803 a. E.

			+52 19										
4	3797	1	+52 26	5.9	7.1	0.3 7.4	17	3	15	1	+3 7.4	15	0
			+52 58										
u	3730	1	+53 4	5.7	6.9	0.3 7.1	18	2	14	2	+3 7.2	15	0
			+72 60										
4	3876	3	+73 8	6.6	7.1	0.7 7.8	18	2	12	4	+6 7.7	11	4
			+64 17										
4	3764	2	+64 22	5.3	6.4	0.5 6.9	20	0	16	0	+4 6.8	15	0
			+74 26										
4	3614	3	+74 33	5.1	6.3	0.7 7.0	26	6	19	3	+7 7.0	19	4
			+55 7										
u	3870	1	+55 14	5.5	6.7	0.3 7.0	18	2	15	1	+3 7.0	15	0
			+65 28										
4	3882	2	+65 33	6.2	6.9	0.5 7.4	17	3	12	4	+5 7.4	12	3
			+66 10										
u	3796	2	+66 17	5.4	6.4	0.5 6.9	20	0	15	1	+5 6.9	15	0
			+56 31										
u	3711	1	+56 11	5.9	6.7	0.3 7.0	14	6	11	5	+3 7.0	11	4
			+77 32										
4	3733	3	+77 38	5.8	6.3	0.8 7.1	22	2	13	3	+8 7.1	13	2
			+77 16										
4	3545	3	+77 21	4.4	5.3	0.8 6.1	25	5	17	1	+8 6.1	17	2
			+59 22										
4	3736	1	+59 30	5.5	6.8	0.4 7.2	20	0	17	1	+4 7.2	17	2
			+59 49										
4	3801	1	+59 56	5.4	6.8	0.4 7.2	21	1	18	2	+4 7.2	18	3
			+69 56										
u	3798	2	+70 2	3.4	4.5	0.6 5.1	23	3	17	1	+5 5.0	16	1
			+61 25										
4	3819	1	+61 32	4.8	6.7	0.4 7.1	27	7	23	7	+4 7.1	23	8
									234			232	20-13
				Mean: 20			306	24-18 = 28		15-21 = 24			15
								15		15			
										Mean: 16		Mean: 15	

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Plate 720. a. E. ½ Coz. 8.

No. H.P.	No. Ex.	Dec.	Mag	Obs Br.	½ Cos δ	Diff.	Read	Diff.	Read	Obs Br. Coord. + Cor δ.	Diff.	Read
		+53 38										
3730	1	+53 4	5.7	6.9	0.3	7.2	18	2	13	0	+3 7.2	15 1
		+72 60										
3876	3	+73 8	6.6	7.5	0.7	8.2	22	2	16	1	+6 8.1	15 0
		+53 23										
3748	1	+53 30	6.0	7.3	0.3	7.6	19	1	16	1	+3 7.6	16 1
		+64 17										
3764	2	+64 22	5.3	6.3	0.5	6.8	19	1	13	0	+4 6.7	14 1
		+74 26										
3814	3	+74 33	5.1	6.0	0.7	6.7	23	3	16	1	+7 6.7	16 1
		+55 7										
3870	1	+55 14	5.5	6.4	0.3	6.7	15	5	12	3	+3 6.7	12 3
		+66 10										
3796	2	+66 17	5.4	6.3	0.5	6.8	19	1	14	1	+5 6.8	14 1
		+56 5										
3711	1	+56 11	5.9	6.6	0.3	6.9	13	7	10	5	+3 6.9	10 5
		+77 32										
3733	3	+77 38	5.8	6.2	0.8	7.0	21	1	12	3	+3 6.3	7 8
		+59 29										
3736	1	+59 30	5.5	6.8	0.4	7.2	20	0	17	2	+4 7.2	17 2
		+69 25										
3731	2	+69 32	5.5	6.9	0.6	7.4	25	5	19	4	+5 7.4	19 4
		+59 49										
3801	1	+59 56	5.4	6.7	0.4	7.1	20	0	17	2	+4 7.1	17 2
		+60 26										
3855	1	+60 34	4.5	6.3	0.4	6.7	26	6	22	7	+4 6.7	22 7
							260	17-17/13 = .26	201	18-12/13 = .23		194 17-18/13
							Mean = 20		Mean = 15			Mean = 15

Plate 753. E.

		+77 32										
3733	3	+77 38	5.8	6.2	0.8	7.0	21	2	12	0	+8 7.0	12 0
		+78 1										
3986	3	+78 10	5.8	6.2	0.9	7.1	21	2	13	1	+8 7.0	12 0
		+69 9										
3995	2	+69 16	6.0	6.6	0.6	7.2	17	2	12	0	+5 7.1	11 1
*		+69 56										
3798	2	+70 2	3.4	5.0	0.6	5.6	28	9	(22	(10)	+5 5.5	21 9
		+60 26										
3855	1	+60 34	4.5	5.7	0.4	6.1	20	1	16	4	+4 6.1	16 4
		+79 43										
3804	3	+79 48	7.4	6.9	0.9	7.8	14	5	4	8	+9 7.8	4 8
		+61 25										
3819	1	+61 32	4.8	5.9	0.4	6.3	19	0	15	3	+4 6.3	15 3
		+61 35										
3909	1	+61 42	5.2	6.0	0.4	6.4	16	3	12	0	+4 6.4	12 0
		+81 59										
3883	3	+82 5	5.6	5.8	1.1	6.9	23	4	13	1	+10 6.8	12 0
		+72 60										
3876	2	+73 8	6.6	6.5	0.7	7.2	12	7	6	6	+6 7.1	5 7
		+83 10										
3378	3	+83 14	6.3	6.3	1.2	7.5	23	4	12	0	+11 7.4	11 1
		+75 27										
3996	2	+75 35	5.7	6.2	0.7	6.9	20	1	12	0	+7 6.9	12 0
		+66 10										
3796	1	+66 17	5.4	6.3	0.5	6.8	19	0	14	2	+5 6.8	14 2
							253	23-17/13 = .31	163	11-14/12 = .21		157 18-17/13
							Mean = 19.		141 Mean = 12			Mean = 12

* Second measure of this star is 4.2

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Plate 774 E.

	No. H.P.	No. Ex.	Dec.	Mag.	Obs. Br.	½ Cos. δ	Diff.	Reed.	½ Cos. δ Diff.	½ Cos. δ Reed.	Cor. δ	Obs. Br. + Cor. δ	Diff.	Reed.
			+57 18											
4	3894	1	+57 26	5.5	7.0	0.3	7.3	22	4	18	1	+.3	7.3	18	2
			+77 32												
4	3733	3	+77 38	5.8	6.8	0.8	7.6	27	1	18	1	+.8	7.6	18	2
			+78 4												
4	3992	3	+78 12	5.4	6.6	0.9	7.5	29	3	21	2	+.8	7.4	20	4
			+58 42												
4	3929	1	+58 49	5.3	6.8	0.4	7.2	22	4	19	0	+.3	7.1	18	2
			+69 56												
4	3798	2	+70 21	3.4	5.1	0.6	5.7	29	3	23	4	+.5	5.6	22	6
			+61 25												
4	3819	1	~~+82 31~~	4.8	6.5	0.4	7.1	25	1	23	4	+.4	6.9	11	5
			+82 23												
4	4230	3	+82 31	6.3	6.9	1.1	8.0	28	2	17	2	+1.0	7.0	7	9
			+83 10												
4	3378	3	~~+61 32~~	6.3	6.9	1.2	8.1	29	3	18	1	+1.1	8.0	17	1
			+66 10												
4	3796	1	+66 17	5.4	6.6	0.5	7.1	22	4	17	2	+.5	7.1	17	1
			Mean = 26					233	12−13 / 9 = .28	174	10−7 / 9 = .19			148	18−14 / 9
										Mean = 19					Mean = 16

Plate 795 a. E.

			+53 39												
4	4032	1	+53 47	6.0	6.3	0.3	6.8	11	2	8	3	+.3	6.8	8	1
			+72 60												
4	3876	3	+73 8	6.6	6.8	0.7	7.5	15	2	9	2	+.6	7.4	8	1
			+75 27												
4	3996	3	+75 35	5.7	5.7	0.7	6.4	3	8	17	6	+.7	6.4	7	2
			+56 7												
4	3926	1	+56 15	5.4	6.6	0.3	6.9	18	3	15	4	+.3	6.9	15	6
			+77 32												
4	3733	3	+77 38	5.8	5.7	0.8	6.5	16	3	7	4	+.8	6.5	7	2
			+69 34												
4	4150	2	+69 42	5.7	6.0	0.6	6.6	14	1	9	2	+.5	6.5	8	1
			Mean = 13					79	11−10 / 6 = .35	65	10−11 / 6 = .35			53	6−7 / 6
										Mean = 11					Mean = 9

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Plate 787 a. E.

No. Ph. P.	No. Ex	Dec.	Mag.	Obs Br.	½ Cos δ	Diff.	Read.	Diff.	Read	Obs Br. Cor. δ	+ Cord.	Diff	Read
		+73 27											
4112	3	+73 33	5.6	6.7	07	7.4	25	4	18	1	+7	7.4	18 3
		+53 39											
4032	1	+53 47	6.6	7.1	0.3	7.4	17	4	14	3	+.3	7.4	14 2
		+64 28											
3974	2	+64 31	5.6	6.8	0.5	7.3	21	0	17	0	+.4	7.2	16 0
		+63 55											
3903	2	+64 3	4.4	6.0	0.4	6.4	25	4	20	3	+.4	6.4	20 4
		+58 38											
4086	1	+58 47	5.0	6.1	0.4	6.5	18	3	15	2	+.3	6.4	14 3
							106		84				82

Mean = 21 $\frac{8-7}{5} = .30$ Mean = 17 $\frac{4-5}{5} = .18$ $\frac{6-4}{5}$ Mean = 16

Plate 928 E.

		+65 58											
4199	2	+66 6	6.0	6.5	0.5	7.0	15	1	10	2	+.5	7.0	10 2
		+76 9											
35	3	+76 17	6.2	6.2	0.8	7.0	16	2	8	0	+.7	6.9	7 1
		+67 0											
4204	2	+67 8	5.1	5.7	0.5	6.2	16	2	11	3	+.5	6.2	11 3
		+57 46											
4153	1	+57 53	4.8	5.5	0.3	5.8	14	0	10	2	+.3	5.8	10 2
		+58 38											
4086	1	+58 47	5.0	5.6	0.4	6.0	13	1	10	2	+.3	5.9	9 1
		+60 31											
4258	1	+60 39	6.0	6.2	0.4	6.6	10	4	6	2	+.4	6.6	6 2
		+63 24											
1	1	+63 31	5.5	5.9	0.4	6.3	13	1	8	0	+.4	6.3	8 0
		+73 36											
4226	2	+73 45	6.6	6.4	0.7	7.1	12	2	5	3	+.6	7.0	4 4
12		+73 27	5.6										
4189	2	+73 33	6.0	5.7	0.7	6.4	15	1	8	0	+.6	6.3	7 1
		+85 23											
3968	3	+85 30	5.4	4.7	1.4	6.1	20	6	7	1	+1.3	6.0	6 2
							144		83				78

Mean = 14 $\frac{12-8}{10} = .20$ Mean = 8 $\frac{9-6}{10} = .15$ $\frac{8-10}{10}$ Mean = 8

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Book 3

Plate 834 E.

	No. M.P.	No. Ex.	Dec.	Mag.	Obs. Br.			Diff.	Resid.	½ Cos δ. Diff.	Resid.	Obs.Br. Cor.δ	+Cor.δ	Diff.	Resid.
	4204		+67 0	5.1											
H	~~35~~	2	+67 8	6.2	6.5	0.5	7.0	24	2	19	4	+.5	7.0	19	4
			+57 46												
4	4153	1	+57 53	4.8	6.4	0.3	6.7	23	1	19	4	+.3	6.7	19	4
			+58 38												
4	4086	1	+58 47	5.0	6.2	0.4	6.6	19	3	16	1	+.3	6.5	15	0
			+61 29												
4	4253	1	+61 37	6.1	7.1	0.4	7.5	18	4	14	1	+.4	7.5	14	1
			+73 27												
4	4112	2	+73 35	5.6	6.4	0.7	7.1	22	0	13	0	+.6	7.0	14	1
			+63 22												
√	1	1	+63 31	5.5	6.7	0.4	7.1	21	1	16	1	+.4	7.1	16	1
			+73 36												
4	4226	2	+73 45	6.6	6.8	0.7	7.5	16	6	9	6	+.6	7.4	8	7
			+85 23												
4	3968	3	+85 30	5.4	5.5	1.4	6.9	28	6	15	0	+1.3	6.8	14	1
			+76 9												
V	35	2	+76 17	6.2	6.9	0.8	7.7	23	1	15	0	+.7	7.6	14	1
								194		138	10-7 = .19			133	9-11
								Mean = 22		9	Mean = 15			9	Mean = 13
									10-14 = 27						
									9						

Plate 738 a. E.

			+56 17												
4	3598	1	+56 22	6.3	7.0	0.3	7.3	13	1	10	3	+.3	7.3	10	3
			+77 16												
4	3543	3	+77 21	4.4	4.3	0.8	5.1	15	3	7	0	+.8	5.1	7	0
	3345		+65 26												
4	~~3480~~	2	+65 29	4.6	4.8	0.5	5.3	12	0	7	0	+.8	5.6	10	3
			+75 16												
4	3211	3	+75 17	5.6	5.3	0.7	6.0	12	0	4	3	+.7	6.0	4	3
			+157 8												
4	3445	1	+8 57 12	5.1	5.4	0.3	5.7	10	2	6	1	+.3	5.7	6	1
								62		34	3-4 = .18			37	6-2
								Mean = 12	4-2 = .12		Mean = 7				Mean = 7
									5						

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Book 3

Plate 770. a. E.

No. H.P.	No. Ex.	Dec.	Mag	Obs Br.	½ Cos δ		Diff.	Reed.	Diff.	Reed.	Obs. Br + corr.	δ	Diff.	Reed.
		+75 21												
4 3703	3	+75 27	6.3	6.9	0.7	7.6	21	1	13	3	+.7	7.6	13	3
		+75 19												
4 3218	3	+75 17	5.6	6.4	0.7	7.1	23	1	15	1	+.7	7.1	1.5	1
		+56 18												
4 3469	1	+56 22	6.1	7.4	0.3	7.7	19	3	16	0	+.3	7.7	1.6	0
		+66 23												
4 3359	2	+66 28	6.2	7.5	0.5	8.0	23	1	18	2	+.5	8.0	1.8	2
		+77 32												
4 3733	3	+77 38	5.8	6.8	0.8	7.6	27	3	18	2	+.8	7.6	18	2
		+59 19												
4 3457	1	+59 23	6.0	6.9	0.4	7.3	16	6	13	3	+.4	7.3	13	3
									93					

Mean = 2.2 — 139 — 7-10/6 = 2.8 — 7-4/6 = .18 — Mean = 1.6 — 93 4-7/6 — Mean = 1.6

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E Book No 12.

Obs. Plate 929.

No. H.P.	D.M. Dec.	Mag	Br.	½ Cos δ		Diff.	Read.	Diff.	Read.	Obs. Br. Cor.d	+ Cor.d	Diff.	Read.
1	177 +57 +77 14	5.7 6.0	6.2	0.8	7.0	12	1	13	6	+8	7.0	13	6
1	64 +59 10	6.0	6.1	0.4	6.5	8	3	5	2	+4	6.5	5	2
1	145 +59 35	5.5	5.9	0.4	6.3	11	0	8	1	+4	6.3	8	1
1	318 +80 36	6.0	5.2	1.0	6.2	12	1	2	5	+9	6.1	1	6
1	56 +61 2	4.8	5.5	0.4	5.9	15	4	11	4	+4	5.9	11	4
1	188 +63 26	5.4	5.7	0.4	6.1	12	1	7	0	+3.4	6.1	7	0
4	4226 +73 36	6.6	6.3	0.7	7.0	11	0	4	3	+6	6.9	3	4
1	191 +64 13	5.5	5.7	0.5	6.2	11	0	7	0	+4	6.1	6	1
1	151 +65 33	6.0	6.1	0.5	6.6	11	0	6	1	+5	6.6	6	1
								63					
		Mean = 11				103	7-3 = .11		11-11 = 24			60	11-10
							9		9				9

Plate 829. E. Mean = 7 Mean = 7

1	57 +52 15	5.8	6.9	0.3	7.2	16	3	14	0	+3	7.2	14	0
1	82 +53 6	3.7	5.4	0.3	5.7	23	4	20	6	+3	5.7	20	6
1	77 +53 22	5.0	6.2	0.3	6.5	18	1	15	1	+3	6.5	15	1
1	130 +63 37	5.4	6.5	0.4	6.9	20	1	15	1	+4	6.9	15	1
1	69 +53 43	4.8	6.2	0.3	6.5	20	1	17	3	+3	6.5	17	3
4	4226 +73 36	6.6	6.9	0.7	7.6	17	2	10	4	+6	7.5	9	5
1	114 +74 4	5.3	6.0	0.7	6.7	21	2	14	0	+7	6.7	14	0
1	110 +54 26	5.4	6.5	0.3	6.8	17	2	14	0	+3	6.8	14	0
1	151 +65 33	6.0	6.7	0.5	7.2	17	2	12	2	+5	7.2	12	2
1	184 +68 0	5.3	6.2	0.5	6.7	20	1	14	0	+5	6.7	14	0
1	145 +59 35	5.5	6.7	0.4	7.1	19	0	16	2	+4	7.1	16	2
4	4258 +60 31	6.0	6.7	0.4	7.1	16	3	11	3	+4	7.1	11	3
								172					
		Mean = 19				224	9-13 = 18		13-9 = 18			171	13-10
							12		12				12

Mean = 14 Mean = 14

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Book 12
Plate 843

E.

No. H.P.	Dec.	Mag.	Obs Br.	½ Cos δ	Diff.	Read.	Diff.	Read.	Obs Br. Corr.	δ Corr.	Diff.	Read.
57	+52 15	5.8	6.5	03	6.8	12	1	10	2	+3	6.8	10	2
1	+63 22	5.5	6.3	04	6.7	17	2	12	0	+4	6.7	12	0
114	+74 4	5.3	6.2	07	6.9	23	4	16	4	+7	6.9	16	4
4237	+54 57	5.0	6.0	03	6.3	16	3	13	1	+3	6.3	13	1
35	+76 9	6.2	6.3	08	7.1	17	2	9	3	+7	7.0	8	4
14	+56 21	6.7	6.7 (6.7)	03	7.0	(6 | 13)	3	9	+3	7.0	3	9
3986	+78 1	5.8	6.4	09	7.3	23	4	15	3	+8	7.2	14	2
180	+78 54	5.6	6.1	09	7.0	23	4	14	2	+8	6.9	13	1
64	+59 10	6.0	6.7							+4	7.1	11	1
78	+59 31	5.6	6.6	04	7.0	17	2	14	2	+4	7.0	14	2
4115	+70 6	5.5	6.4	06	7.0	21	2	15	3	+6	7.0	15	3
								14	2	+4	7.0	16	4
56	+61 2	5.4	6.4	04	6.8	18	1	135	17−14 / 11 = 2.8			143	17−16 / 11
			Mean = 19			187	14−17 / 10 = 31		Mean = 12				Mean = 12

Plate 950 E.

55	+57 13	5.4	6.2	03	6.5	13	0	11	3	+3	6.5	11	4
56	+61 2	5.4	5.8	04	6.2	12	1	8	0	+4	6.2	8	1
57	+52 15	5.8	6.2	03	6.5	9	4	7	1	+3	6.5	7	1
1	+63 22	5.5	5.7	04	6.1	11	2	6	2	+4	6.1	6	1
4226	+73 36	6.6	6.4	07	7.1	12	1	5	3	+6	7.0	4	3
4112	+73 27	5.6	5.7	07	6.4	15	2	9	1	+6	6.3	7	0
69	+53 43	4.8	5.5	03	5.8	13	0	10	2	+3	5.8	10	3
114	+74 4	5.3	5.6	07	6.3	17	4	10	2	+7	6.3	10	3
4237	+54 57	5.0	5.4	03	5.7	10	3	7	1	+3	5.7	7	0
35	+76 9	6.2	5.5	08	6.3	9	4	1	7	+7	6.2	0	7
4199	+65 58	6.0	5.6	05	6.1	6	7	1	7	+5	6.1	1	6
180	+78 54	5.6	5.6	09	6.5	18	5	9	1	+8	6.4	8	1
64	+59 10	6.0	6.4	04	6.8	11	2	8	0	+4	6.8	8	1
3986	+78 1	5.8	6.0	09	6.9	19	6	11	3	+8	6.8	10	3
4150	+69 34	5.7	6.3	06	6.9	17	4	12	4	+5	6.8	11	4
			Mean = 13			192	21−24 / 15 = 30	115	26−31 / 15 = 35			108	20−17 / 15
								Mean = 8				Mean = 7	

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Book 12

Plate 835 E.

No.	P.	Dec.	Mag.	Obs. Br.	½ Cos δ	Diff.	Read.	½ Cos δ Diff.	Read.	Obs. Br. Cord.	Cord + Cord δ	Diff.	Read.
1	177	+57 29	5.7	6.5	0.3	6.8	15	2	11	1	+.3	6.8	11	1
1	184	+68 0	5.3	6.2	0.5	6.7	20	3	14	2	+.5	6.7	14	2
1	180	+78 34	5.6	6.1	0.9	7.0	23	6	14	2	+.8	6.9	13	1
1	145	+59 35	5.5	6.2	0.4	6.6	14	3	11	1	+.4	6.6	11	1
1	56	+61 2	5.4	6.0	0.4	6.4	14	3	10	2	+.4	6.4	10	2
1	188	+63 26	5.4	6.2	0.4	6.6	17	0	12	0	+.4	6.6	12	0
1	1	+63 22	5.5	6.3	0.4	6.7	17	0	12	0	+.4	6.7	12	0
1	191	+64 13	5.5	6.2	0.5	6.7	16	1	12	0	+.4	6.6	11	1
1	114	+74 4	5.3	5.9	0.7	6.6	20	3	13	1	+.7	6.6	13	1
							156		109				107	

Mean = 17 $\frac{12-9}{9} = .33$ $\frac{5-4}{9} = .10$ Mean = 12 $\frac{4-5}{9}$ Mean = 12

Plate 875 E.

1	145	+59 35	5.5	6.6	0.4	7.0	18	2	15	5	+.4	7.0	15	3
4	4258	+60 31	6.0	6.4	0.4	6.8	12	4	8	2	+.4	6.8	8	2
1	56	+61 2	5.4	6.2	0.4	6.6	16	0	12	2	+.4	6.6	12	2
1	318	+80 36	6.0	5.9	1.0	6.9	19	3	9	1	+.9	6.8	8	2
4	4226	+73 36	6.6	6.7	0.7	7.4	15	1	8	2	+.6	7.3	7	3
1	1	+63 22	5.5	6.2	0.4	6.7	16	0	12	2	+.4	6.6	11	1
1	114	+74 4	5.3	5.5	0.7	6.2	16	0	9	1	+.7	6.2	9	1
1	104	+74 12	5.6	5.9	0.7	6.6	17	1	10	0	+.7	6.6	10	0
4	3968	+85 23	5.4	4.7	1.4	6.1	17	1	7	3	+1.3	6.0	6	4
							146		90				86	

Mean = 16 $\frac{7-5}{9} = .13$ $\frac{9-9}{9} = .20$ Mean = 10 $\frac{8-12}{9}$ Mean = 10

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Book 12

Plate 879 E.

No. H.P.	Dec.	Mag.	Obs Br	½ Cos δ	Diff.	Reciᵈ.		½ Cos δ Diff.	Reciᵈ.	Obs Bn Cord.	Cord.	Diff.	Reciᵈ.
1 308	+76 35	5.4	6.5	0.8	7.3	27	3	19	3	+7	7.2	18	3
1 184	+68 0	5.3	6.4	0.5	6.9	22	0	16	0	+5	6.9	16	1
1 141	+59 35	5.4	6.8	0.4	7.2	21	1	18	2	+4	7.2	18	3
1 260	+69 52	5.1	6.1	0.6	6.7	22	0	16	0	+5	6.6	13	0
1 318	+80 36	6.0	6.0	1.0	7.0	20	2	10	6	+9	6.9	9	6
1 56	+61 2	5.4	6.4	0.4	6.8	18	4	14	2	+4	6.8	14	1
1 71	+62 8	4.2	5.5	0.4	5.9	21	1	17	1	+4	5.9	17	2
1 191	+64 13	5.5	6.6	0.5	7.1	20	2	16	0	+4	7.0	13	0
1 114	+74 4	5.3	5.8	0.7	6.5	19	3	12	4	+7	6.5	12	3
1)	+63 22	5.5	6.6	0.4	7.0	20	2	13	1	+4	7.0	13	0
1 151	+65 33	6.0	7.1	0.5	7.6	21	1	16	0	+5	7.6	16	1
4 3968	+85 23	5.4	5.8	1.4	7.2	31	9	18	2	+13	7.1	17	2
1 35	+76 9	6.2	7.0	0.8	7.8	24	2	16	0	+7	7.7	13	0
								203	8 − 13			197	12 − 10
		Mean = 22				286	16 − 16 = .25		13 = .1				13
							13	Mean = 16				Mean = 13	

Plate 848 E.

1 306	+71 42	4.1	5.8	(5.7)	0.6	6.4	(30 | 11)	23	X 8	+6	6.4	23	8
1 287	+62 57	3.6	5.5		0.4	5.9	28	9	23	X 8	+4	5.9	23	8
1 188	+63 26	5.4	6.5		0.4	6.9	20	1	15	X 0	+4	6.9	15	0
1 311	+64 12	5.7	6.6		0.5	7.1	18	1	14	X 1	+4	7.0	13	2
1 257	+67 18	5.5	6.3		0.5	6.8	18	1	13	X 2	+5	6.8	13	2
1 177	+57 29 / 67 58	5.7	6.5		0.3	6.8	15	4	11	X 4	+3	6.8	11	4
1 290	+68 0 / +68 0	5.1	5.9		0.5	6.4	19	0	13	X 2	+5	6.4	13	2
1 184	+78 54 / +78 54	5.3	6.0		0.5	6.5	18	1	12	X 3	+5	6.5	12	3
1 180	+59 49	5.6	6.1		0.9	7.0	23	4	14	X 1	+8	6.9	13	2
1 266	+59 49	5.5	6.4		0.4	6.8	16	3	13	X 2	+4	6.8	13	2
1 260	+69 52	5.1	5.8		0.6	6.4	19	0	13	X 2	+5	6.3	12	3
									164	16 − 17			161	16 − 20
		Mean = 19					194	14 − 10 = .24		11 = .15				15
								10	Mean = 16				Mean = 13	

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Book 12
Plate 876 E.

No. H. P.	Dec.	Mag.	Obs. Br.	½ Cos δ.	Diff.	Recid.	½ Cos δ. Diff.	Recid.	Obs. Br. Cor.	+ Cor δ	Diff.	Recid.
287	+62 57	3.6	4.9	0.4	5.3	22	4	17	4	+4	5.3	17	4
188	+63 26	5.4	6.4	0.4	6.8	19	1	14	1	+4	6.8	14	1
300	+63 55	5.2	6.3	0.4	6.7	20	2	15	2	+4	6.7	15	2
191	+64 13	5.5	6.2	0.5	6.3	16	2	10	3	+4	6.6	11	2
114	+74 4	5.3	5.6	0.7	6.3	17	1	10	3	+7	6.3	10	3
311	+64 12	5.7	6.6	0.5	7.1	18	0	14	1	+4	7.0	13	0
233	+65 21	5.9	6.6	0.5	7.1	16	2	12	1	+5	7.1	12	1
151	+65 33	6.0	6.5	0.5	7.0	15	3	10	3	+5	7.0	10	3
257	+67 18	5.5	6.0	0.5	6.5	15	3	10	3	+5	6.5	10	3
184	+68 0	5.3	5.7	0.5	6.2	15	3	9	4	+5	6.2	9	4
266	+59 49	5.5	6.5	0.4	6.9	17	1	14	1	+4	6.9	14	1
260	+69 52	5.1	5.6	0.6	6.2	17	1	11	2	+5	6.1	10	3
145	+59 35	5.5	6.3	0.4	6.7	15	3	12	1	+4	6.7	12	1
318	+80 36	6.0	6.4	1.0	7.4	24	6	14	1	+9	7.3	13	0
478	+80 54	6.0	6.9	(7.0) 1.0	7.9	(29 | 11)	19	6	+9	7.8	18	5
								191	16–20 / 15 = 24			188	13–20 / 15
			Mean = 18			246	13–19 / 14 = 23	Mean = 13				Mean = 13	

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Book 12
Plate 914 A.

No. H.P.	Dec.	Mag.	Obs Br.	½ Cos δ.	Diff.	Read.	Diff.	Read.	Obs Br. + cond.	Cord. cond.	Diff.	Read.
306	+71 42	4.1	4.6	0.6	5.2	18 3	11	2	+6	5.2	11	2
188	+63 26	5.4	5.8	0.4	6.2	13 2	8	1	+4	6.2	8	1
312	+63 42	5.5	6.1	0.4	6.5	15 0	10	1	+4	6.5	10	1
300	+63 55	5.2	5.8	0.4	6.2	15 0	10	1	+4	6.2	10	1
191	+64 13	5.5	5.7	0.5	6.2	11 4	7	2	+4	6.1	6	3
104	+74 12	5.6	5.7	0.7	6.4	15 0	8	1	+7	6.4	8	1
311	+64 12	5.7	6.2	0.5	6.5	14 1	8	1	+4	6.6	9	0
283	+54 26	5.5	6.0	0.3	6.3	11 4	8	1	+3	6.3	8	1
233	+65 21	5.9	6.2	0.5	6.5	12 3	6	3	+5	6.7	8	1
151	+65 33	6.0	6.9	0.5	7.4	19 4	14	3	+5	7.4	14	3
35	+76 9	6.2	6.2	0.8	7.0	16 1	8	1	+7	6.9	7	2
290	+67 58	5.1	5.5	0.5	6.0	15 0	9	0	+5	6.0	9	0
210	+77 58	5.9	6.0	0.9	6.9	18 3	10	1	+8	6.8	9	0
184	+68 0	5.3	5.6	0.5	6.1	14 1	8	1	+5	6.1	8	1
266	+57 49	5.5	5.9	0.4	6.3	11 4	8	1	+4	6.3	8	1
145	+59 35	5.5	6.0	0.4	6.4	12 3	9	0	+4	6.4	9	0
304	+70 11	4.6	5.3	0.6	5.9	19 4	13	4	+6	5.9	13	4
260	+69 52	5.1	5.4	0.6	6.0	15 0	9	0	+5	5.9	8	1
318	+80 36	6.0	5.5	1.0	6.5	15 0	5	4	+9	6.4	4	5
							169	14 − 16 / 19 = 16			167	13 − 17 / 19
		Mean = 15				278 15 − 22 / 19 = 19		Mean = 9				Mean = 9

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Book 12

Plate 844 E.

No.	Mag	Obs. Br	½ Cos δ	Diff.	Read.	½ Cos δ. Diff.	Read.	Obs Br. Cor δ	Cor δ	Diff.	Read.
290	5.1	5.6	0.5	6.1	16	2	10	1	+.5	6.1	10	0
180	5.6	5.6	0.9	6.5	18	0	9	2	+.8	6.4	8	2
266	5.5	6.4	0.4	6.8	16	2	13	2	+.4	6.8	13	3
260	5.1	5.8	0.6	6.4	19	1	13	2	+.5	6.3	12	2
318	6.0	5.8	1.0	6.8	18	0	8	3	+.9	6.7	7	3
306	4.1	4.8	0.6	5.4	20	2	13	2	+.6	5.4	13	3
287	3.6	4.7	0.4	5.1	20	2	13	4	+.4	5.1	13	5
300	5.2	5.8	0.4	6.2	15	3	10	1	+.4	6.2	10	0
4230	6.3	6.0	1.1	7.1	19	1	8	3	+1.0	7.0	7	3
233	5.9	6.4	0.5	6.9	14	4	10	1	+.5	6.9	10	0
	Mean = 18				175	$\frac{6-11}{10} = .17$	109	$\frac{10-11}{10} = .21$ Mean = 11			105	$\frac{13-8}{10}$ Mean = 10

Plate 1019 E.

257	5.5	5.8	0.5	6.3	13	1	8	1	+.5	6.3	8	1
290	5.1	5.0	0.5	5.5	10	4	4	3	+.5	5.5	4	3
180	5.6	5.5	0.9	6.4	17	3	8	1	+.8	6.3	7	0
260	5.1	5.1	0.6	5.7	12	2	6	1	+.5	5.6	5	2
266	5.5	6.0	0.4	6.4	12	2	9	2	+.4	6.4	9	2
287	3.6	4.1	0.4	4.5	14	0	9	2	+.4	4.5	9	2
4230	6.3	5.6	1.1	6.7	15	1	4	3	+1.0	6.6	3	4
1193	4.7	5.0	0.7	5.7	17	3	10	3	+.7	5.7	10	3
684	5.4	4.8	1.2	6.0	18	4	6	1	+1.1	5.9	5	2
300	5.2	5.5	0.4	5.9	12	2	7	0	+.4	5.9	7	0
233	5.9	6.2	0.5	6.7	12	2	8	1	+.5	6.7	8	1
	Mean = 14				152	$\frac{11-13}{11} = .22$	79	$\frac{10-8}{11} = .16$ Mean = 7			75	$\frac{9-11}{11}$ Mean = 7

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Book 12

Plate 877 E.

No. H.P.	Dec.	Mag.	Obs. Br.	½ Cos δ.	Diff.	Reid.	½ Cos δ. Diff.	Reid.	Obs Br. Cor. δ. Cond.	Diff.	Reid.
1 470	+51 47	5.1	6.4	0.3	6.7	18 0	16 3		+3 6.7	16	3
1 306	+71 42	4.1	5.0	0.6	5.6	22 4	15 2		+.6 5.6	15	2
1 488	+63 30	5.8	6.6	0.4	7.0	17 1	12 1		+.4 7.0	12	1
1 493	+73 50	4.7	5.3	0.7	6.0	20 2	13 0		+.7 6.0	13	0
1 424	+54 30	5.6	6.6	0.3	6.9	16 2	13 0		+.3 6.9	13	0
1 516	+65 6	4.8	5.7	0.5	6.2	18 0	14 1		+.4 6.1	13	0
1 290	+67 58	5.1	5.5	0.5	6.0	15 3	9 4		+.5 6.0	9	4
		Mean = 18				126 6-6/7 = .17	92 6-5/7 = .16	Mean = 13		91 5-5/7	Mean = 13

Plate 939 E.

1 470	+51 47	5.1	5.6	0.3	5.9	10 2	8 1		+.3 5.6	5	1
1 306	+71 42	4.1	4.3	0.6	4.9	15 3	8 1		+.6 4.9	8	2
1 488	+63 30	5.8	6.1	0.4	6.5	12 0	7 0		+.4 6.5	7	1
1 493	+73 50	4.7	4.7	0.7	5.4	14 2	7 0		+.7 5.4	7	1
1 424	+54 30	5.6	5.9	0.3	6.2	9 3	6 1		+.3 6.2	6	0
1 516	+65 6	4.8	5.0	0.5	5.5	11 1	7 0		+.4 5.4	6	0
1 344	+65 50	6.1	6.2	0.5	6.7	11 1	6 1		+.5 6.7	6	0
1 318	+80 36	6.0	5.3	1.0	6.3	13 1	3 4		+.9 6.2	2	4
1 398	+70 85	5.3	5.4	0.6	6.0	13 1	7 0		+.6 6.0	7	1
		Mean = 12				108 7-7/9+8 = .16	59 2-6/9 = .09	Mean = 7		54 5-5/9	Mean = 6

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Book 12

Plate 884 E.

No. H.P.	Dec.	Mag.	Obs Br.	½ Cos δ.	Diff.	Reid.	½ Cos δ. Diff	Reid.	Obs Br. Cond.	Cond.	Diff.	Reid.
639	+62 38	4.8	6.1	0.4	6.5	21	3	17	2	+.4	6.5	17	3
684	+83 26	5.4	5.0	1.2	6.2	20	4	8	7	+1.1	6.1	7	7
316	+65 6	4.8	5.9	0.5	6.4	20	4	16	1	+.4	6.3	15	1
863	+85 45	6.4	6.9	1.4	8.3	33	9	19	4	+1.3	8.2	18	4
								60	7-7 = .35			57	8-7
		Mean = 24				94	9-11 = .50		Mean = 15				Mean = 14

Plate 898 E.

511	+56 35	5.9	6.6	0.3	6.9	13	1	10	4	+.3	6.9	10	3
631	+57 31	5.8	6.5	0.3	6.8	14	2	10	4	+.3	6.8	10	3
318	+80 36	6.0	5.2	1.0	6.2	12	0	2	4	+.9	6.1	1	1
767	+72 13	6.0	6.0	0.6	6.6	13	1	6	0	+.6	6.6	6	1
639	+62 38	4.8	5.3	0.4	5.7	13	1	9	3	+.4	5.7	9	4
684	+83 26	5.4	4.0	1.2	5.2	10	2	-2	8	+1.1	5.1	3	8
488	+63 30	5.8	5.9	0.4	6.3	10	2	5	1	+.4	6.3	5	0
134	+82 55	5.5	4.8	1.1	5.9	16	4	4	2	+1.1	5.9	4	1
316	+65 6	4.8	5.0	0.5	5.5	11	1	7	1	+.4	5.4	6	1
								+53	12-15 = .30			51	16-13
		Mean = 12				112	9-5 = 16	-2	9			-3	9
								51	Mean = 6			48	Mean = 5

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Book 12

Plate 954 E.

No. H.P.	Dec.	Mag.	Obs. Br.	½ Cos. δ	Diff.	Read.	Diff.	Read.	Obs Br. Cord.	+ cord.	Diff.	Read.
1 705	+61 29	5.6	5.6	0.4	6.0	8	2	4	0	+4	6.0	4	0
1 639	+62 38	4.8	4.8	0.4	5.2	8	2	4	0	+4	5.2	4	0
1 711	+53 14	5.2	5.7	0.3	6.0	11	1	8	4	+3	6.0	8	4
1 918	+73 6	5.7	5.5	0.7	6.2	11	1	5	1	+6	6.1	4	0
1 890	+73 45	5.5	5.1	0.7	5.8	10	0	3	1	+6	5.7	2	2
1 864	+73 49	6.0	5.5	0.7	6.2	9	1	2	2	+7	6.2	2	2
1 786	+63 57	6.0	5.7	0.4	6.1	6	4	1	3	+4	6.1	1	3
1 493	+73 50	4.7	4.6	0.7	5.3	13	3	6	2	+7	5.3	6	2
		Mean = 10				76	5−9/8 = .18	33	7−6/8 = .16	Mean = 4		31	6−7/8

Mean = 4

Plate 1057 E.

1	953	+57 24	5.3	5.9	0.3	6.2	13	1	9	5	+3	6.2	9	3
1	886	+58 49												
	885	+58 45	5.1	5.5	0.4	5.9	11	1	8	4	+3	5.8	7	3
2	1209	+79 41	6.3	6.0	0.9	6.9	16	4	6	2	+9	6.9	6	2
1	918	+73 6	5.7	5.3	0.7	6.0	9	3	3	1	+6	5.9	2	2
1	890	+73 45	5.5	4.7	0.7	5.4	6	6	−1	5	+6	5.3	2	6
1	864	+73 49	6.0	5.7	0.7	6.4	11	1	4	0	+7	6.4	4	0
1	684	+83 26	5.4	4.4	1.2	5.6	14	2	2	2	+11	5.5	1	3
1	786	+63 57	6.0	5.8	0.4	6.2	7	5	2	2	+4	6.2	2	2
									6	2	+12	7.0	5	1
2	1485	+84 28	6.5	5.8	1.3	7.1	18	6	+49/39	13−10/9 = 26			36	11−13
		Mean = 12					105	13−16/9 = 32		Mean = 4			−2/34	9

Mean = 4

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Book 12

Plate 1069 E.

No. H.P.	Dec.	Mag	Obs. Br.	½ Cos δ	Diff.	Resid.	Diff.	Resid.	Obs Br. + Cor.	Diff.	Resid.
1	918 +73 6	5.7	5.8	0.7	6.5	14 2	8	1	+6 6.4	7	0
1	921 +53 2	6.2	6.6	0.3	6.9	10 2	7	0	+3 6.9	7	0
1	890 +73 45	5.5	5.4	0.7	6.1	13 1	6	1	+6 6.0	5	2
1	864 +73 49	6.0	5.9	0.7	6.6	13 1	6	1	+7 6.6	6	1
1	1079 +55 40	5.3	5.7	0.3	6.0	10 2	7	0	+3 6.0	7	0
1	885 +58 49 / +58 45	5.1	5.6	0.4	6.0	12 0	9	2	+3 5.9	8	1
1	1155 +69 22	4.7	4.8	0.6	5.4	12 0	7	0	+5 5.3	6	1
1	1078 +59 50	5.2	5.7	0.4	6.1	12 0	9	2	+4 6.1	9	2
2	1209 +79 41	6.3	6.0	0.9	6.9	16 4	6	1	+9 6.9	6	1

Mean = 12 — 112 — 8−4/9 = .12 — 65 — 5−3/9 = .09 Mean = 7 — 61 — 3−5/9 Mean = 7

Plate 1035 E.

2	1198 +56 20	5.4	6.4	0.3	6.7	16	2	13	4	+3 6.7	13 3
2	1237 +56 59	5.8	6.5	0.3	6.8	14	0	10	1	+3 6.8	10 2
2	1270 +67 44	4.9	5.2	0.5	5.7	14	0	8	1	+5 5.7	8 0
2	1279 +59 3	5.1	4.9	0.6	5.5	8	6	4	3	+5 5.4	3 3
2	1168 +59 3	4.3	5.1	0.4	5.5	15	1	12	3	+3 5.4	11 3
1	1155 +69 22	4.7	4.7	0.6	5.3	11	3	6	3	+5 5.2	5 3
2	1209 +79 41	6.3	6.0	0.9	6.9	16	2	6	3	+9 6.9	6 2
1	1078 +59 50	5.2	5.5	0.4	5.9	10	4	7	2	+4 5.9	7 1
1	918 +73 6	5.7	6.1	0.7	6.8	17	3	11	2	+6 6.7	10 2
1	684 +83 26	5.4	5.3	1.2	6.5	23	9	11	2	+11 6.4	10 2

Mean = 14 — 144 — 17−13/10 = .30 — 88 — 12−14/10 = .26 Mean = 9 — 83 — 14−11/10 Mean = 8

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Plate 1071

No. H.P.	Dec.	Mag.	Obs Br	½ Cos S.	Diff.	Reid	½ Cos E. Diff.	Reid	Corr.	Obs Br + Corr.	Diff.	Reid
2	1378	+55 33	5.2	6.6	0.3	6.9	2.0	9	(17)	11 (13)	+.3	6.9	(17)	11 (13)
2	1198	+56 20	5.4	5.8	0.3	6.1	10	1	7	4 3	+.3	6.1	7	4 3
2	1385	+66 37	6.2	6.2	0.5	6.7	10	1	5	4 1	+.5	6.7	5	4 1
2	1237	+56 59	5.8	5.8	0.3	6.1	7	4	3	3 1	+.3	6.1	3	3 1
2	1279	+69 3	5.1	4.8	0.6	5.4	8	3	3	2 1	+.5	5.3	2	1 2
1	1153	+69 22	4.7	4.7	0.6	5.3	11	0	6	4 2	+.5	5.2	5	1 1
2	1168	+59 3	4.3	4.7	0.4	5.1	11	0	8	2 4	+.3	5.0	7	4 3
2	1477	+79 52	5.3	4.3	0.9	5.2	9	2	-1	4 5	+.9	5.2	1	4 5
		Mean = 11					86	9-11/8 = .25		Mean = 8 4			-1	7

Mean = 8 4

Plate 1097 E.

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Book 12

Plate 1119

No. H.P.	Dec.	Mag.	Obs. Br.	½ Cos δ	Diff.	Reed.	Diff.	Reed.	Obs Br. Corr δ + Cond	Diff.	Reed.
							E ½ Cos δ				
2 1385	+66 37	6.2	6.7	0.5	7.2	15	1	10	0	+.5 7.2	10	0
2 1441	+59 2	4.9	5.9	0.4	6.3	17	1	14	4	+.3 6.2	13	3
2 1279	+69 3	5.1	5.7	0.6	6.3	17	1	12	2	+.5 6.2	11	1
2 1477	+79 52	5.3	5.0	0.9	5.9	16	0	6	4	+.9 5.9	6	4
2 1209	+79 41	6.3	6.3	0.9	7.2	19	3	9	1	+.9 7.2	9	1
2 1490	+60 42	6.0	6.5	.04	6.9	13	3	9	1	+.4 6.9	9	1
			Mean = 16			97	3-4 / 6 = .15	60	6-6 / 6 = .20		58	4-6 / 6
								Mean = 10		Mean = 10		

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Book 16.

E.

* Plate 1229

	H.P. No.	Dec.	Mag.	Obs. Bn.	½ Cos δ	Diff.	Reed.	½ Cos δ. Diff.	Reed.	Obs Bn. Cord.	+ Cord.	Diff.	Reed.
2	1385	+66 37	6.2	6.5	0.5	7.0	13	2	8	1	+.5	7.0	8	1
2	1270	+67 44	4.9	5.2	0.5	5.7	14	1	8	1	+.5	5.7	8	1
2	1477	+79 52	5.3	4.8	0.9	5.7	14	1	4	3	+.9	5.7	4	3
2	1209	+79 41	6.3	6.3	0.9	7.2	19	4	9	2	+.9	7.2	9	2
				Mean = 15			60	$\frac{4-4}{4}$ = .20	29	$\frac{4-3}{4}$ = .18			29	$\frac{4-3}{4}$
									Mean = 7				Mean = 7	

Plate 1072

2	1509	+51 55	4.8	5.9	0.3	6.2	16	3	14	6	+.3	6.2	14	6
2	1566	+65 38	5.3	6.0	0.5	6.5	17	4	12	4	+.5	6.5	12	4
2	1601	+67 13	6.0	6.0	0.5	6.5	10	3	5	3	+.5	6.5	5	3
2	1385	+66 37	6.2	6.1	0.5	6.6	9	4	4	4	+.5	6.6	4	4
2	1441	+59 2	4.9	5.6	0.4	6.0	14	1	11	3	+.3	5.9	10	2
2	1477	+79 52	5.3	4.8	0.9	5.7	14	1	4	4	+.9	5.7	4	4
2	1490	+60 42	6.0	6.5	0.4	6.9	13	0	9	1	+.4	6.9	9	1
				Mean = 13			93	$\frac{9-7}{7}$ = 2.3	59	$\frac{14-11}{7}$ = .36			58	$\frac{13-11}{7}$
									Mean = 8				Mean = 8	

* First four stars carried over from Book 12.

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Book 16.

Plate 1112 E.

No. H.P.	D.M. Dec	Mag.	Obs. Br.	½ Cos δ		Diff.	Reid.	Diff.	Reid.	Obs. Br. Cord.	± Cord.	Diff.	Reid.
2	1509	+51 35	4.8	5.5	0.3	5.8	12	1	10	5	+.3	5.8	10	5
2	1566	+65 38	5.3	5.6	0.5	6.1	13	2	8	3	+.5	6.1	8	3
2	1601	+67 13	6.0	5.8	0.5	6.3	8	3	3	2	+.5	6.3	3	2
2	1477	+79 52	5.3	4.3	0.9	5.2	9	2	-1	6	+.9	5.2	1	6
2	1490	+60 42	6.0	6.3	0.4	6.7	11	0	7	2	+.4	6.7	7	2
			Mean = 11			5.3	$\frac{3-5}{5}$ = .16		28 / 1 / 27	$\frac{10-8}{5}$ = .36			28 / -1 / 27	$\frac{10-8}{5}$
									Mean = 5					
													Mean = 5	

Plate 1064

2	1509	+51 35	4.8	5.9	0.3	6.2	16	2	14	5	+.3	6.2	14	5
2	1540	+53 40	5.8	6.2	0.3	6.5	10	4	7	2	+.3	6.5	7	2
2	1566	+65 38	5.3	5.9	0.5	6.4	16	2	11	2	+.5	6.4	11	2
2	1477	+79 52	5.3	5.3	0.9	6.2	19	5	9	0	+.9	6.2	9	0
2	1490	+60 42	6.0	6.1	0.4	6.5	9	5	5	4	+.4	6.5	5	4
			Mean = 14				70	$\frac{9-9}{5}$ = .36	46	$\frac{7-6}{5}$ = .26			46	$\frac{7-6}{5}$
									Mean = 9					
													Mean = 9	

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Plate 1065

No.	D.M. H.P.	Dec.	Mag.	Obs. Br.	½ Cos δ.	Diff.	Read.	½ Cos δ. Diff.	Read.	Obs. Br. Cord.	Cor. Cord.	Diff.	Read.
2	1829	+66 18	5.0	5.3	0.5	5.8	13	1	8	3	+.5	5.8	8	4
2	1807	+65 49	5.7	5.8	0.5	6.3	11	1	6	1	+.5	6.3	6	2
2	1485	+84 28	6.5	5.2	1.3	6.5	12	0	0	5	+1.2	6.4	1	5
2	1807	+65 49	5.7	5.7	0.5	6.2	10	2	5	0	+.5	6.2	5	1
	1829		5.0	Mean = 12			46	$\frac{1-3}{4}$ = .10	19	$\frac{4-5}{4}$ = .22			19	$\frac{7-5}{4}$
									Mean = 5				−1 18	
													Mean = 4	

Plate 1113

2	1656	+52 12	4.4	5.7	0.3	6.0	18	6	16	9	+.3	6.0	16	8
2	1756	+54 45	4.4	5.3	0.3	5.6	15	3	12	5	+.3	5.6	12	4
2	1644	+54 51	5.6	6.0	0.3	6.3	10	2	7	0	+.3	6.3	7	1
2	1601	+67 13	6.0	5.7	0.5	6.2	7	5	2	5	+.5	6.2	2	6
2	1630	+59 55	6.1	6.4	0.4	6.4	10	2	3	4	+.4	6.8	7	1
2	1477	+79 52	5.3	4.6	0.9	5.5	12	0	2	5	+.9	5.3	2	6
				Mean = 12			72	$\frac{9-9}{6}$ = .30	42	$\frac{14-14}{7}$ = .40			46	$\frac{12-14}{6}$
									Mean = 7				Mean = 8	

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Plate 1073 -

No. H.P.	D.M. Dec.	Mag.	Obs. Br	½ Cos δ	Diff.	Read.	½ Cos δ. Diff.	Read.	Obs. Br. Cor.d + cor.d	Diff.	Read.
1829	+66 18	5.0	5.2	0.5	5.7	12	1	7	1		
1890	+65 54	6.3	6.3	0.5	6.8	10	1	5	1		
						22	$\frac{1-1}{2}$ = .10	12	$\frac{1-1}{2}$ = .10		
			Mean 11					Mean = 6			

Plate 1233

2	1890	+65 54	6.3	6.6	0.5	7.1	13	1	8	3	+.5	7.1	8	3
2	1829	+66 18	5.0	5.0	0.5	5.5	10	3	5	0	+.5	5.5	5	0
3	2189	+84 12	5.0	4.2	1.2	5.4	17	3	4	1	+1.2	5.4	4	1
2	1689	+75 44	6.4	5.9	0.8	6.7	10	2	3	2	+.7	6.6	2	3
							50	$\frac{6-4}{4}$ = 2.2	20	$\frac{3-3}{4}$ = .15			19	$\frac{3-4}{4}$
			Mean = 12						Mean = 5				Mean = 5	

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Plate 1074

No. H.P.	D.M. Dec.	Mag.	Obs. Br	½ Cos δ	Diff.	Resid.	½ Cos δ	Diff.	Resid.	Obs Br Cord.	± Cord.	Diff.	Resid.
2	1923	+57 10	2.6	4.0	0.3	4.3	21	+7 8 −6	(17)	~~13~~ (15)	+3	4.3	(17)	~~13~~ (16)
2	1881	+57 57	5.7	5.8	0.3	6.1	8	8	4	8 2	+3	6.1	4	8 3
2	1945	+69 2	6.6	5.7	0.6	6.3	(2)	(−12 −10 −6)	−3	7 5	+5	6.2	4	8 5
2	1982	+81 56	6.1	4.8	1.1	5.9	8	8 −1	−2	6 4	+1.0	5.8	3	7 4
3	2189	+84 12	5.0	4.1	1.3	5.3	13	8 +5	3	4 1	+1.2	5.3	3	4 2
2	1485	+84 38	6.5	5.9	1.3	7.2	19	8	7	8 5	+1.2	7.1	6	8 5
			Mean = 14 12				69	17−18 6 =	31 5 26	8−9 5 = .34			30 7 23	16−9 5
								12−13 5 = .50	14 −5 9	Mean = 8 2			13 7 6	Mean = 8 1

Plate 1208

1829	+66 18	5.0	4.7	0.3	5.2	7	−1	2	1	+.5	5.7	2	1
1807	+65 49	5.7	5.6	0.3	6.1	9	+1	4	1	+.5	6.1	4	1
1881	+57 57	5.7	5.8	0.3	6.1	8	0	4	1	+.3	6.1	4	1
		Mean = 8				24	1−1 3 = .07	10	2−1 3 = .10			10 3	
								Mean = 3					

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Plate 1116

No. H.P.	Dec	Mag	Obs. Br.	½ Cos δ	Diff.	Resid.	½ Cos δ Diff.	Resid.	Obs Br. Cord.	Cord.	Diff.	Resid.
1981	+57 32	5.9	6.5	0.3	6.8	13 1	9	3	+.3	6.8	9	4
2070	+78 26	5.1	4.7	0.9	5.6	13 1	3	1	+.8	5.5	4	1
2189	+84 12	5.0	4.1	1.2	5.3	16 2	3	2	+1.2	5.3	3	2
			Mean = 14			42 $\frac{2-2}{3}$ = .13	17 $\frac{3-4}{3}$ = .33				16/5	
							Mean = 6					

Plate 1235

3	2084	+75 59	5.4	5.2	0.8	6.0	13	2	6	2	+.7	5.9	5 3 1
On edge of scale. Rej 3	1923	+57 10	2.6	4.0 *	0.3	4.3	21	6	17	9	+.3	4.3	~~17~~ ~~9~~
	2189	+84 12	5.0	4.1	1.2	5.3	16	1	3	5	+1.2	5.3	3 5 1
2	1890	+65 54	6.3	6.3	0.5	6.8	10	5	5	3	+5	6.8	5 3 1
				Mean = 15			60 $\frac{7-7}{4}$ = .35		31 $\frac{9-10}{4}$ = .48				~~30~~ $\frac{9-11}{4}$
									Mean = 8				$\frac{13}{3}$ = 4.3
													Mean = 8.4

A large number of negative residuals on this plate. Change mean & corrected brightness in Catalogue. H.P. 1923 rejected as it is on edge of scale & probably too bright to measure.

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Plate 1218

No. H.P.	Dec.	Mag.	Obs Br	½ Cos δ	Diff.	Read.	½ Cos δ.	Diff.	Read.	Obs Br. Cord	+ cord	Diff.	Read.
2084	+75 59	5.4	6.8	0.8	7.6	29	11	22	4	+7	7.5	21	5
2070	+78 26	5.1	7.0	0.9	7.9	36	3	28	2	+8	7.8	27	1
2135	+70 35	3.8	6.1	0.6	6.7	35	2	29	3	+6	6.7	29	3
		Mean = 33				100	$\frac{5-4}{3} = .30$	79	$\frac{5-4}{3} = .30$			177	
								Mean = 26				26	

Plate 1314

2159	+63 32	6.0	6.1	0.4	6.5	10	1	5	1	+4	6.5	5	1
1966	+65 8	5.9	5.9	0.5	6.4	9	2	5	1	+4	6.3	4	2
2135	+70 35	3.8	4.0	0.6	4.6	14	3	8	2	+6	4.6	8	2
		Mean = 11				33	$\frac{3-3}{3} = .0$	18	$\frac{2-8}{3} = -.13$			17	
								Mean = 6				6	

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Plate 1256

No. H.P.	Dec.	Mag	Obs. Br	½ Cos δ	Diff. Read.		½ Cos δ. Diff. Read.		Obs. Br + Cord.	Cord. Diff. Read.	
2250	+69 10	6.1	5.3	0.6	5.9	3	−6	−21	−2		
2189	+84 12	5.0	4.0	1.2	5.2	15	+6	21	+21		
		Mean = 9				18	$\frac{6-6}{2} = .60$	$\frac{21}{-21}$ / 0	$\frac{2-2}{2} = .20$		

Plate 1162

2	1981	+57 32	5.9	6.5	0.3	6.8	14	+1	9	3	+.3	6.8	9	3
3	2189	+84 12	5.0	4.2	1.2	5.4	17	+4	4	2	+1.2	5.4	4	2
3	2084	+75 39	5.4	5.2	0.8	6.0	13	0	6	0	+.7	5.9	3	1
2	1890	+65 54	6.3	6.2	0.5	6.7	9	−4	4	2	+.5	6.7	4	2
			Mean = 13				53	$\frac{5-4}{4} = .22$	23	$\frac{3-4}{4} = .18$			22	$\frac{3-3}{4}$
									Mean = 6				Mean = 6	

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Plate 1242

No. H.P.	Ra. Dec.	Mag.	Obs. Br.	½ Cos δ.	Diff.	Resid.	½ Cos δ. Diff.	Resid.	Obs Br. Cond.	Cond.	Diff.	Resid.
3	2325 +52 46	5.9	6.5	0.3	6.8	11	0	9	2	+.3	6.8	9	2
3	2309 +53 39	5.3	5.9	0.3	6.2	12	1	9	2	+.3	6.2	9	2
3	2362 +54 26	5.3	5.9	0.3	6.2	10	1	7	0	+.3	6.2	7	0
3	2381 +65 4	3.6	4.1	0.5	4.6	13	2	10	3	+.4	4.5	9	2
3	2337 +55 10	5.6	6.0	0.3	6.3	10	1	7	0	+.3	6.3	7	0
3	2298 +56 6	5.5	5.9	0.3	6.2	10	1	7	0	+.3	6.2	7	0
3	2314 +57 56	6.2	6.3	0.3	6.6	8	3	4	3	+.3	6.6	4	3
3	2250 +69 10	6.1	5.8	0.6	6.4	8	3	3	4	+.5	6.3	2	5
3	2350 +59 15	6.3	6.4	0.4	6.8	8	3	5	2	+.4	6.8	5	2
3	2135 +70 35	3.8	4.2	0.6	4.8	16	5	10	3	+.6	4.8	10	3
		Mean = 11				106	$\frac{8-12}{10}$ = .20	71	$\frac{10-9}{10}$ = .19			69	$\frac{9-10}{10}$
								Mean = 7				Mean = 7	

Plate 1221

	2189 +84 12	5.0	6.4	1.2	7.6	39	1	26	4				
	2381 +65 4	3.6	6.5	0.5	7.0	38	0	34	4				
		Mean = 38				77	$\frac{1-0}{2}$ = .05	60	$\frac{4-4}{2}$ = .40				
								Mean = 30					

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Plate 1245

No. H.P.	Dec.	Mag.	Obs. Br.	½ Cos δ.	Diff.	Reed.	Diff.	Reed.	Obs Br. + cond	cond	Diff	Reed.
2189	+84 12	5.0	4.0	1.2	5.2	15	3					
								2	2			
2320	+65 34	5.6	5.6	0.5	6.1	10	2					
								5	1			
								7	$\frac{1-2}{2}=15$			
			Mean = 12			25	$\frac{3-2}{2}=25$		Mean = 4			

Plate 1326

3	2403 +46 46	4.3	4.4	0.2	4.6	5	3	3	2	+2	4.6	3	2
3	2325 +52 46	5.9	6.0	0.3	6.3	6	2	4	1	+3	6.3	4	1
3	2309 +53 39	5.3	5.7	0.3	6.0	10	2	7	2	+3	6.0	7	2
3	2362 +54 26	5.5	5.7	0.3	6.0	8	0	5	0	+3	6.0	5	0
3	2447 +54 39	5.6	6.0	0.3	6.3	10	2	7	2	+3	6.3	7	2
3	2337 +55 10	5.6	5.8	0.3	6.1	8	0	5	0	+3	6.1	5	0
3	2298 +56 6	5.5	5.9	0.3	6.2	10	2	7	2	+3	6.2	7	2
			Mean = 8			57	$\frac{6-5}{7}=16$	38	$\frac{6-3}{7}=13$			38	$\frac{6-3}{7}$
								Mean = 5				Mean = 5	

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Plate 1351

No. H. P.	Dec.	Mag.	Obs. Br.	½ Cos δ.	Diff.	Read.	½ Cos δ. Diff.	Read.	Obs. Br. Cor. d	Cor. d	Diff.	Read
3	2314 +57 36	6.2	6.5	0.3	6.8	10 0	6 2		+.3	6.8	6	2
3	2350 +59 15	6.3	6.5	0.4	6.9	9 1	6 2		+.4	6.9	6	2
3	2250 +69 10	6.1	5.7	0.6	6.3	7 3	2 2		+.5	6.2	1	3
3	2279 +60 43	5.4	5.4	0.4	5.4	8 2	0 4		+.4	5.8	4	0
3	2189 +84 12	5.0	4.0	1.2	5.2	15 5	2 2		+1.2	5.2	2	2
3	2320 +65 34	5.6	5.7	0.5	6.2	11 1	6 2		+.5	6.2	6	2
			Mean = 10			60 $\frac{6-6}{6}$ = 0	22 $\frac{6-8}{6}$ = 2.3				23 $\frac{6-5}{6}$	
							Mean = 4				Mean = 4	

Plate 1340

2364	+62 33	5.7	5.9	0.4	6.3	10 2	6 2					
2381	+65 4	3.6	4.0	0.5	4.3	13 1	9 1					
			Mean = 12			23 $\frac{1-2}{2}$ = 1.5	15 $\frac{1-2}{2}$ = 1.5					
							Mean = 8					

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Plate 1260

No. Dm. H.P.	Dec.	Mag.	Obs. Bn.	½ Cos δ	Bon δ	Diff.	Read.	½ Cos δ	Diff.	Read.	Obs. Bn.	Bon δ	Diff.	Read.
3	2460	+62 33	6.2	6.0	0.4	6.4	6	3	2	3	+.4	6.4	2	3
3	2447	+54 39	5.6	5.7	0.3	6.0	7	2	4	1	+.3	6.0	4	1
3	2381	+65 4	3.6	4.2	0.5	4.7	15	6	11	6	+.4	4.6	10	3
3	2528	+66 29	6.0	5.9	0.5	6.4	9	0	4	1	+.5	6.4	4	1
							37	$\frac{6-5}{4}=.38$	21	$\frac{6-5}{4}=.28$			20	$\frac{5-3}{4}$
			Mean = 9						Mean = 5				Mean = 5	

Plate 1328

	2739	+76 16	5.5	5.1	0.8	5.9	12	2	4	2				
	2717	+68 11	5.4	5.0	0.5	5.5	7	3	1	1				
							19	$\frac{3-3}{2}=.25$	5	$\frac{2-1}{2}=.15$				
			Mean = 10						Mean = 2					

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Plate 1343

No.	Dm.		Obs.				½ Cos S				Obs Br. + Cord			
H.P.	Dec.	Mag.	Br.	½ Cos δ.	Diff.	Resid.		Diff.	Resid.		Cord.	Cord	Diff.	Resid.
3	2630	+52 50	5.6	5.6	0.3	5.9	5	1	3	2	+.3	5.9	3	2
3	2564	+62 33	5.7	5.8	0.4	6.2	9	3	5	4	+.4	6.2	5	4
3	2608	+55 6	5.8	5.6	0.3	5.9	4	2	1	0	+.3	5.9	1	0
3	2739	+76 16	5.5	4.5	0.8	5.3	6	0	-2	3	+.7	5.2	3	4
3	2717	+68 11	5.4	4.8	0.5	5.3	5	1	-1	2	+.5	5.3	1	2
3	2781	+69 5	5.0	4.5	0.6	5.1	6	0	1	0	+.5	5.0	0	1
3	2789	+61 8	6.0	5.9	0.4	6.3	7	1	3	2	+.4	6.3	3	2
			Mean = 6				42	4-4 = .11	13	8-5 = .19			12	8-7
								7	-3	7			-4	7
									10				8	
									Mean = 1				Mean = 1	

Plate 1354

2739	+76 16	5.5	5.2	0.8	6.0	13	1	3	0	+.7	5.9	4	0
2717	+68 11	5.4	5.4	0.5	5.9	11	1	3	0	+.5	5.9	5	1
2739	+76 16	5.5	5.2	0.8	6.0	13	1	3	0	+.7	5.9	4	0
		Mean = 12				37	2-1 = .10	15				13	
							3		Mean = 5				4	

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Plate 1333

No. H.P.	Ann. Dec.	Mag.	Obs. Br.	½ Cos δ	Diff.	Reed,	½ Cos δ Diff.	Reed.	Obs Br. Cor δ.	Cor δ + ½ Cos δ	Diff.	Reed
4												
	3120 +71 14	4.2	4.0	0.6	4.6	10	2	4	3	+.6	4.6	4	3
3	2876 +52 35	6.3	6.3	0.3	6.6	5	3	3	2	+.3	6.6	3	2
3	2739 +76 16	5.5	4.3	0.8	5.3	6	2	-2	3	+.7	5.2	3	4
3	2724 +77 11	5.7	4.7	0.8	5.5	6	2	-2	3	+.8	5.5	2	3
3	2657 +78 13	4.5	4.0	0.9	4.9	12	4	4	3	+.8	4.8	3	2
			Mean = 8			39	$\frac{6-7}{5} = .26$	11	$\frac{8-6}{5} = .28$			10	$\frac{7-7}{5}$
								-4				-5	
								7				5	
								Mean = 1				Mean = 1	

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Plate 1395

	No. Dm. H.P. Wac.	Mag	Obs. Br.	½ los δ	Diff.	Resid.	Diff.	Resid.	Obs Br Cor. δ	Cor. δ	Diff.	Resid.
4	3116 +58 43	4.8	5.4	0.4	5.8	13	0	10	4	+.3	5.7	9	4
4	3371 +79 18	5.9	5.4	0.9	6.3	13	0	4	2	+.9	6.3	4	1
3	2792 +79 16	5.3	5.1	0.9	6.0	14	1	5	1	+.9	6.0	5	0
4	3120 +71 14	4.2	4.1	0.6	4.7	11	2	5	1	+.6	4.7	5	0
4	3133 +62 24	5.5	6.1	0.4	6.5	14	1	10	4	+.4	6.5	10	3
4	3279 +82 9	6.9	5.7	1.1	6.8	10	3	-1	7	+1.0	6.7	2	7
4	3378 +83 10	6.3	5.7	1.2	6.9	17	4	6	0	+1.1	6.8	5	0
4	3211 +75 16	5.6	5.3	0.7	6.2	14	1	6	0	+.7	6.2	6	1
		Mean = 13				106	$\frac{7-5=15}{8}$	46 −1 45	$\frac{8-11}{8}=.24$			44 −2 42	$\frac{10-8}{8}$
								Mean = 6				Mean = 5

Plate 1450

4	3116 +58 45	4.8	5.3	0.4	5.7	12	0	9	3 4	+.3	5.6	8	3
4	3371 +79 18	5.9	5.7	0.9	6.6	16	4	7	2	+.9	6.6	7	2
3	2928 +60 10	5.8	5.8	0.4	6.2	8	4	4	3 1	+.4	6.2	6	1
4	3120 +71 14	4.2	4.2	0.6	4.8	12	0	6	8 1	+.6	4.8	6	1
4	3279 +82 9	6.9	5.7	1.1	6.8	10	2	-1	7 6	+1.0	6.7	2	7
4	3211 +75 16	5.6	5.4	0.7	6.1	13	1	5	5 0	+.7	6.1	5	0
		Mean = 12				71	$\frac{5-6}{6}=-.18$	31 −1 30	$\frac{7-7}{6}=.23$			32 −2 30	$\frac{7-7}{6}$
								Mean = 5				Mean = 5	

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Book 18 E.

Plate 1384

No. Am. H.P.	Dec.	Mag.	Obs. Br.	½ Cos δ.	Diff.	Read.	Diff.	Read.	Obs. Corr. δ	Diff.	Read.
4	3153 +62 24	5.5	5.9	0.4	6.3	12	2	8	2	+.4 6.3	8	2
4	3187 +52 49	5.8	6.2	0.3	6.5	9	1	7	1	+.3 6.5	7	1
4	3268 +53 12	5.4	6.0	0.3	6.3	12	2	9	3	+.3 6.3	9	3
4	3175 +53 44	6.1	6.4	0.3	6.7	9	1	6	0	+.3 6.7	6	0
4	3211 +75 16	5.6	4.7	0.7	5.4	6	4	-2	8	+.7 5.4	2	8
4	3166 +55 24	5.2	5.3	0.3	5.6	7	3	4	2	+.3 5.6	4	2
4	3116 +58 43	4.8	5.3	0.4	5.7	12	2	9	3	+.3 5.6	8	2
4	3120 +71 14	4.2	4.2	0.6	4.8	12	2	6	0	+.6 4.8	6	0
		Mean = 10				79	8-9 = 21 / 8	49	9-10 = 24 / 8		48	8-10 / -2 / 8
								-2			46	
								47	Mean = 6		Mean = 6	

Plate 1519

4	3455 +57 8	5.1	6.0	0.3	6.3	16	1	12	2	+.3 6.3	12	3
4	3545 +77 16	4.4	4.9	0.8	5.7	21	6	13	3	+.8 5.7	13	4
4	3457 +59 19	6.0	6.5	0.4	6.9	12	3	9	1	+.4 6.9	9	0
4	3336 +64 8	6.2	6.5	0.5	7.0	12	3	8	2	+.4 6.9	7	2
4	3211 +75 16	5.6	5.5	0.7	6.2	14	1	6	4	+.7 6.2	6	3
		Mean = 15				75	7-7 = 28 / 3	48	5-7 = 24 / 3		47	7-3 / 3
									Mean = 10		Mean = 9	

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Book 18

E.

Plate 1478

No. H.P.	Dec.	Mag	Obs. Br.	½ Cos δ.	δ.	Diff.	Resid.	½ Cos δ. Diff.	Resid.	Obs. Br. + Cor. δ.	Cor. δ.	Diff.	Resid.
4	3614	+74 26	5.1	6.1	0.7	6.8	24	6	17	5	+.7	6.8	17	5
4	3556	+54 57	5.7	6.3	0.3	6.8	14	4	11	1	+.3	6.8	11	1
4	3590	+55 35	5.9	6.3	0.3	6.6	10	8	7	5	+.3	6.6	7	5
4	3543	+77 16	4.4	4.6	0.8	5.4	18	0	10	2	+.8	5.4	10	2
4	3733	+77 32	5.8	6.3	0.8	7.1	22	4	13	1	+.8	7.1	13	1
		Mean = 18					88	$\frac{10-12}{5}$ = .44	58	$\frac{6-8}{5}$ = 2.8			58	$\frac{6-8}{5}$
									Mean = 12				Mean = 12	

Plate 1520

4	3711	+56 5	5.9	6.6	0.3	6.9	13	4	10	1	+.3	6.9	10	1
4	3371	+79 18	5.9	5.7	0.9	6.6	26	9	7	2	+.9	6.6	7	2
4	3563	+61 48	5.6	6.3	0.4	6.7	16	1	11	2	+.4	6.7	11	2
4	3764	+64 17	5.3	5.7	0.5	6.2	13	4	9	0	+.4	6.1	8	1
		Mean = 17					68	$\frac{9-9}{4}$ = .45	37	$\frac{3-2}{4}$ = .12			36	$\frac{3-3}{4}$
									Mean = 9				Mean = 9	

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Book 18

E.

Plate 1521

	No. H.P.	Dm. Dec.	Obs. Mag.	Br.	½ Cos δ		Diff.	Reid.	½ Cos δ		Diff.	Reid.	Obs. Cord.	Br. Cord.	Diff	Reid.
U	3796	+66 10	5.4	6.0	0.5	6.5	16	2			11	5	+.5	6.5	11	6
4	3788	+78 1	5.8	5.8	0.9	6.7	17	3			9	3	+.8	6.6	8	3
U	3733	+77 32	5.8	5.8	0.8	6.6	17	3			8	2	+.8	6.6	8	3
4	3804	+79 43	7.4	6.7	0.9	7.6	12	2			2	4	+.9	7.6	2	3
4	3909	+61 35	5.2	5.3	0.4	5.7	9	5			5	1	+.4	5.7	5	0
4	3883	+81 39	5.6	5.0	1.1	6.1	15	1			5	1	+1.0	6.0	4	1
4	3876	+72 60	6.6	6.5	0.7	7.2	12	2			6	0	+.6	7.1	5	0
4	4230	+82 23	6.3	5.7	1.1	6.8	16	2			5	1	+1.0	6.7	4	1
4	3988	+85 23	5.4	4.0	1.4	5.4	13	1			0	6	+1.3	5.3	1	6
4	3882	+65 28	6.2	6.5	0.5	7.0	13	1			8	2	+.5	7.0	8	3
			Mean = 14				140	$\frac{11-11}{10}=.22$			59	$\frac{12-13}{10}=.25$			55	$\frac{13-11}{10}$
											Mean = 6				−1	
															54	
															Mean = 5	

Plate 1520

4	3590	+55 35	5.9	6.4	0.3	6.7	11	1			8	6	+.3	6.7	8	6
4	3650	+66 8	5.5	6.5	0.5	7.0	20	0			15	1	+.5	7.0	15	1
4	3313	+76 19	4.9	6.2	0.8	7.0	29	9			21	7	+.7	6.9	20	6
4	3545	+77 16	4.4	5.4	0.8	6.2	26	6			18	4	+.8	6.2	18	4
4	3453	+57 8	5.1	5.6	0.3	5.9	12	8			8	6	+.3	5.9	8	6
4	3428	+68 60	5.8	6.7	0.6	7.3	20	0			15	1	+.5	7.2	14	0
			Mean = 20				118	$\frac{15-17}{6}=.53$			85	$\frac{13-12}{6}=.42$			83	$\frac{11-12}{6}$
											Mean = 14				Mean = 14	

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Book 18 -

Plate 1584 E.

No. H.P.	Dec.	Mag.	Obs. Br.	½ Cos δ.	Diff.	Reid.	½ Cos δ.	Diff.	Reid.	Cor. δ.	Obs Br + cor δ.	Diff.	Reid.
3797	+52 19	5.9	6.3	0.3	6.8	11	0	9	3	+.3	6.8	9	3
3787	+52 16	5.7	6.3	0.3	6.6	11	0	9	3	+.3	6.6	9	3
3730	+52 38	5.7	6.0	0.3	6.3	9	2	6	0	+.3	6.3	6	0
3876	+72 60	6.6	6.5	0.7	7.2	12	1	6	1	+.6	7.1	5	1
3748	+53 23	6.0	6.4	0.3	6.7	10	1	7	1	+.3	6.7	7	1
3764	+64 17	5.3	5.4	0.4	5.8	10	1	5	1	+.4	5.8	5	1
3614	+74 26	5.1	5.2	0.7	5.9	13	4	8	2	+.7	5.9	8	2
3870	+55 7	5.5	5.6	0.3	5.9	7	4	4	2	+.3	5.9	4	2
3796	+75 27	5.7	5.7	0.7	6.4	13	4	7	1	+.7	6.4	7	1
3796	+66 10	5.4	5.3	0.5	5.8	9	2	4	2	+.5	5.8	4	2
3711	+56 35	5.9	5.8	0.3	6.1	5	6	2	4	+.3	6.1	2	4
3692	+56 19	6.1	6.0	0.3	6.3	5	6	2	4	+.3	6.3	2	4
3733	+77 32	5.8	5.3	0.8	6.1	12	1	3	3	+.8	6.1	3	3
3545	+77 16	4.4	4.0	0.8	4.8	12	1	4	2	+.8	4.8	4	2
3736	+59 22	5.5	6.0	0.4	6.4	12	1	9	3	+.4	6.4	9	3
3604	+79 43	7.4	6.8	0.9	7.7	13	2	3	3	+.9	7.7	3	3
3855	+60 26	4.5	5.3	0.4	5.7	16	5	12	6	+.4	5.7	12	6
			Mean = 11			184	19-22 = 24	100	19-21 = 24			99	19-22
							17		17				17
								Mean = 6				Mean = 6	

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Book 18. E.

Plate 1576

No. H.P.	Dec.	Mag.	Obs. Br.	½ Cos δ.	Diff. Read.		½ Cos δ.	Diff. Read.	Cor. δ	Obs. Br. Cor. δ	Diff. Read.	
4	4112 +73 27	5.6	6.4	0.7	7.1	22	3	15	4	+.6	7.0	14	4
4	4032 +53 39	6.0	6.2	0.3	6.5	8	9	5	6	+.3	6.5	5	5
4	3876 +72 60	6.6	7.6	0.7	8.3	23	6	17	6	+.6	8.2	16	6
4	3882 +65 8	6.2	6.3	0.5	7.0	13	4	8	3	+.4	6.9	7	3
4	3986 +78 1	5.8	6.2	0.9	7.1	21	4	13	2	+.8	7.0	12	2
4	4086 +58 38	5.0	5.6	0.4	6.0	13	4	10	1	+.3	5.9	9	1
4	3733 +77 32	5.8	6.0	0.8	6.8	19	2	10	1	+.8	6.8	10	0
			Mean = 17			119	$\frac{17-17}{7}$ .29	78	$\frac{12-11}{7}$ = .33			73	$\frac{10-9}{7}$
								Mean = 11				Mean = 10	

Plate 1564

1	35 +76 9	6.2	6.1	0.8	6.9	15	0	7	2	+.7	6.8	6	3
4	4204 +67 0	5.1	5.8	0.5	6.3	17	2	12	3	+.3	6.3	13	3
4	4153 +57 46	4.8	5.8	0.3	6.1	17	2	13	4	+.3	6.1	13	4
4	3986 +78 1	5.8	5.9	0.9	6.8	18	3	10	1	+.8	6.7	9	0
4	4086 +58 38	5.0	5.7	0.4	6.1	14	1	11	2	+.3	6.0	10	1
1	180 +78 54	5.6	5.3	0.9	6.2	15	0	6	3	+.8	6.1	5	4
4	4238 +60 31	6.0	6.2	0.4	6.6	10	5	6	3	+.4	6.6	6	3
4	4233 +61 29	6.1	6.2	0.4	6.6	9	6	5	4	+.4	6.6	5	4
1	1 +63 22	5.5	6.2	0.4	6.6	16	1	11	2	+.4	6.6	11	2
4	4226 +73 36	6.6	6.3	0.7	7.0	11	4	4	5	+.6	6.9	3	6
4	3968 +85 23	5.4	5.1	1.4	6.5	24	9	11	2	+1.3	6.4	10	1
4	3996 +75 27	5.7	6.2	0.7	6.9	20	5	12	3	+.7	6.9	12	3
4	4199 +65 58	6.0	6.4	0.5	6.9	14	1	9	0	+.5	6.9	9	0
			Mean = 15			200	$\frac{23-17}{13}$ = .30	117	$\frac{17-17}{13}$ = .26			111	$\frac{14-20}{13}$
								Mean = 9				Mean = 9	

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(9 Plates measured with Wedge A.)

Book I

Plate 176 - 9.

No. H.P.	Dec.	Mag.	Glo. Br.	½ cos δ.	Diff. Read.	Diff. Read.
4252	-18 0	4.6	5.6	0.0	5.6	10 | 7
68	-24 27	5.2	6.0	0.1	6.1	9 | 6
4245	-3 42	5.1	4.8	0.0	4.8	3 | 6
72	+6 18	5.7	6.2	0.0	6.2	5 | 2
2	-23 11	7.3	6.4	0.0	6.4	(9) | (12)
3	-3 13	6.4	5.9	0.0	5.9	5 | 8
4249	+7 49	6.0	6.2	0.0	6.2	2 | 1
33	-10 14	5.4	5.7	0.0	5.7	3 | 0
12	+10 29	5.4	5.5	0.0	5.5	1 | 2

Entered in Book 28

30 − 17 = 13; 13 / 8 = 1.8

30 − 8 = 22

Mean = 5.3

Plate 197 9.

23	+14 31	3.0	4.2	0.0	4.2
68	-24 27	5.2	5.7	0.1	5.8
72	+6 18	5.7	5.6	0.0	5.6
32	+8 9	6.1	6.5	0.0	6.5

12	7
6	1
1	6
4	1

Entered in Book 28

22 − 1 = 21; 8 − 7 = 1; 1 / 4 = .38

Mean = 5.4

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Book I
Plate 157 G

No. H.P.	H.P. ~~Dist.~~ Dec.	Mag.	Obs. Br.	½ cos δ.	Diff. Read.	½ cos δ. Diff. Read.
4137	-21 34	4.7	6.3	0.0	6.3	6 2
4161	-1 55	5.9	6.9	0.0	6.9	10 2
4179	+9 1	6.2	6.5	0.0	6.5	3 5
4218	+10 16	5.3	6.1	0.0	6.1	8 0
4207	+0 25	6.1	6.5	0.0	6.5	4 4
4213	-19 34	5.3	6.0	0.0	6.0	7 1
4195	-18 57	5.3	6.0	0.0	6.0	7 1
4188	+1 7	4.7	5.7	0.0	5.7	10 2
4221	+1 25	6.3	6.5	0.0	6.5	2 6
4167	-8 8	6.5	7.0	0.0	7.0	5 3
4252	-18 0	4.6	6.1	0.0	6.1	13 7
4190	-15 12	4.7	6.0	0.0	6.0	13 3
						90 $\frac{16-22}{12} = .32$

Mean = ~~7.8~~ 8

Entered in Book 28

Book 10.
Plate 864 G.

Entered in Book 28

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Book 10.

Plate 949 Ig.

No. H.P.	Dec.	Mag.	Obs. Br. B.	a.	½ cos δ.	Diff.	a	Wedge A. ½ cos δ. Diff. Read.	Wedge B. ½ cos δ. Diff. Read.
4252	-18 0	4.6	5.4	5.6	0.0	5.6		10 3	9 4
4245	-3 42	5.1	5.7	5.8	0.0	5.8		7 2	6 1
4227	+6 24	6.1	6.3	6.3	0.0	6.3		2 3	2 3
33	-10 14	5.4	5.9	6.0	0.0	6.0		6 1	5 0
4218	+10 16	5.3	5.8	5.8	0.0	5.8		5 0	5 0
12	+10 29	5.4	5.8	5.6	0.0	5.6		5 3	4 1
								32 $\frac{8-6}{6}$ = .3	31 $\frac{5-4}{6}$ = .15
								Mean = 5	Mean = 5

Entered in Book 28

Plate 894 Ig.

33	-10 14	5.4	6.0	0.0	6.0
12	+10 29	5.4	5.8	0.0	5.8

6 1
4 1
10 $\frac{1-1}{2}$ = .10
Mean = 5

Entered in Book 28

* B. a. Plate 894 Ig.

33	-10 14	5.4	5.9	6.0	0.0	6.0	
12	+10 29	5.4	5.7	5.8	0.0	5.8	
84	+14 34	5.8	5.8	6.7	0.0	5.9	
72	+6 18	5.7	6.0	5.9	0.0	5.9	

Wedge A. Wedge B.

6 3 5 2
4 1 3 0
1 2 0 3
2 1 3 0
11 $\frac{2-3}{4}$ = .12
Mean = 3

* Plate 894 not included in 1st grouping of Ig Plates in Book 29 as it had only 2 standard stars at the time the grouping was made.

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Book 6.

* Plate 893. ~~g~~ f.

H.P No.	H.P Dec.	Mag.	Obs. Br.	½ cos δ.	Diff.	Reid	½ cos δ. Diff.	Reid
4163	+39 34	5.5	6.3	0.1	6.4		9	3
4177	+49 48	5.3	5.8	0.2	6.0		7	1
4237	+41 26	5.9	6.4	0.2	6.6		7	1
4244	+41 22	6.1	6.2	0.2	6.4		3	3
4176	+42 36	4.3	4.9	0.2	5.1		8	2
4147	+42 15	5.8	6.2	0.2	6.4		6	0
4183	+43 40	4.4	4.8	0.2	5.0		6	0
4242	+44 33	6.1	6.4	0.2	6.6		5	1
4237	+53 3	5.0	5.2	0.3	5.5		3	1
							56	7-5 = 13

Mean = 6

Entered in Book 31

Plate 863 ~~g~~.

4213	-19 34	5.3	6.4	0	6.4	11	2
4195	-18 37	5.3	6.5	0	6.5	12	1
4188	+1 7	4.7	6.0	0	6.0	13	0
4221	+1 25	6.3	6.8	0	6.8	5	8
4252	-18 0	4.6	6.2	0	6.2	16	3
4190	-15 12	4.7	6.1	0	6.1	14	1
4245	-3 42	5.1	6.9	0	6.9	18	5
						89	7-11 = 39

Mean = 13

Entered in Book 28

* Plate 893 was marked ~~g~~ by mistake & was grouped as a ~~g~~. Plate in the grouping of ~~g~~ Plates with correction = ½ cos δ.

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(V. Plates measured with Wedge A)

Book 4-

Plate 175. V.

No. H.P.	Dec.	Mag	Obs. Br. a.	Obs. Br. B.	½ cos D	Diff.	Reed	½ cos D	Diff.	Reed
								Wedge B.		
40	+38 1	4.3	~~6.2~~	~~6.1~~	0.1		~~6.3~~ 6.1	½ cos D		
4177	+49 48	3.3	~~3.8~~	~~6.0~~	0.2		~~6.2~~ 6.0			
25	+40 22	5.8	6.5	~~6.6~~	~~6.7~~	0.2	~~6.8~~ 6.7			
4244	+41 42	6.1	6.2	~~6.3~~	~~6.4~~	0.2	~~6.5~~ 6.4			
57	+52 23	5.8	6.1	~~6.2~~		0.3	~~6.3~~ 6.4			
27	+32 32	6.0	6.7	~~6.7~~		0.1	~~6.8~~ 6.8			
4176	+42 36	4.3	5.2	~~5.3~~		0.2	~~5.5~~ 5.4			
36	+42 56	6.0	6.3	~~6.5~~		0.2	~~6.7~~ 6.5			
43	+43 8	5.9	6.3	~~6.4~~		0.2	~~6.6~~ 6.5			
4183	+43 40	4.4	5.1	~~5.3~~		0.2	~~5.5~~ 5.3			
69	+53 30	4.8	5.3	~~5.7~~		0.3	~~6.0~~ 5.6			

(20)			(18)		
9	X	0	7	X	0
10	X	1	9	X	2
4	X	5	3	X	4
7	X	2	6	X	1
8	X	1	8	X	1
13	X	3	11	X	4
7	X	2	5	X	2
7	X	2	6	X	1
11	X	2	9	X	2
12	X	3	8	X	1
117	15-18	6-12 = .20	98 73		10-8
8/7	11	10			10

Mean = 10 9

Mean = 8 7

Plate 175 entered in Book 31

Plate 170. V.

			a.	B.			
23	+14 31	3.0	~~4.8~~	4.8	0	~~4.8~~	4.8
42	+36 7	4.6	~~6.0~~	5.8	0.1	~~6.1~~	5.9
34	+26 36	5.9	~~6.8~~	6.9	0.1	~~6.9~~	7.0
40	+38 1	4.3	~~6.0~~	6.0	0.1	~~6.1~~	6.1
5	+28 26	2.1	~~4.4~~	4.3	0.1	~~4.5~~	4.4

18	1		18	1
13	2		13	4
10	7		11	6
18	1		18	1
24	7		23	6
85	9-9 = .36		83	8-10
	5			5

Mean = 17

Mean = 17

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Book. 4

Plate 177 - 9. Q. ½cos δ. Wedge B ½cos δ

H.P. No.	H.P. Dec.	Mag.	Obs Br. a	Obs Br. B	½cos δ.	Diff. Read.	Diff. Read.	Diff. Read.
105	+47 12	5.5	~~6.3~~	6.5	0.2	~~6.7~~	6.7	
107	+47 38	4.6	~~5.3~~	5.4	0.2	~~5.7~~	5.6	
40	+38 1	4.3	~~5.6~~	5.5	0.1	~~5.7~~	5.6	
65	+29 5	5.3	~~6.1~~	6.0	0.1	~~6.2~~	6.1	
100	+47 51	4.8	~~4.9~~	5.1	0.2	~~5.1~~	5.3	
46	+30 16	5.6	~~6.0~~	6.3	0.1	~~6.3~~	6.4	
127	+40 26	4.4	~~5.2~~	5.2	0.1	~~5.3~~	5.3	
121	+30 19	5.0	~~5.4~~	5.4	0.2	~~5.6~~	5.6	
44	+30 52	5.8	~~6.4~~	6.3	0.1	~~6.3~~	6.4	
53	+51 21	5.4	~~5.6~~	5.6	0.3	~~5.9~~	5.9	
57	+52 23	5.8	~~5.8~~	5.8	0.3	~~6.1~~	6.1	
70	+32 56	6.2	~~6.8~~	6.8	0.1	~~6.9~~	6.9	
83	+33 4	4.4	~~5.1~~	5.1	0.1	~~5.2~~	5.2	
36	+42 56	6.0	~~6.6~~	6.6	0.2	~~6.8~~	6.8	
43	+43 8	5.9	~~6.4~~	6.4	0.2	~~6.6~~	6.6	
77	+53 8 30	5.0	~~5.4~~	5.3	0.3	~~5.7~~	5.6	
59	+43 44	5.2	~~5.7~~	5.6	0.3	~~5.8~~ ~~5.9~~	5.8	
69	+53 50	4.8	~~5.2~~	5.5	0.3	~~5.5~~	5.8	
113	+44 11	5.9	~~6.1~~	6.2	0.2	~~6.4~~	6.4	
110	+54 36	5.4	~~5.7~~	5.6	0.3	~~5.9~~	5.9	
102	+46 22	5.0	~~5.8~~	5.9	0.2	~~6.1~~	6.1	

12	5	12	4
11	4	~~10~~ 11	4
14	7	13	5
9	2	8	3
3	4	5	3
7	0	8	4
9	2	9	4
6	1	6	2
7	0	6	2
5	2	5	3
3	4	3	4
7	0	7	4
8	1	8	4
8	1	8	4
7	0	7	4
7	0	6	2
7	0	~~6~~	4
7	0	10	5
4	3	5	3
6	1	5	3
10	3	11	3
157	21	168	80
Mean = 7		Mean = 8	

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Book 4.

Plate 905 - J.

No. H.P.	Dec.	Mag.	Obs Br. a.	obs Br. b.	½ cos δ.	Diff. Reed.	½ cos δ.	Diff. Reed.
4165	+39 34	5.5	~~5.9~~ 6.2	6.1	0.1	~~6.0~~ 6.3	5	0	8	3
4177	+49 48	5.3	~~5.5~~ 5.6		0.2	~~5.7~~ 5.8	4	1	5	0
4257	+41 26	5.9	~~6.2~~ 6.3		0.2	~~6.4~~ 6.5	5	0	6	1
4244	+41 42	6.1	~~6.0~~ 6.0		0.2	~~6.2~~ 6.2	1	4	1	4
4147	+42 15	5.8	6.2	6.0	0.2	6.4	6	1	4	1
4176	+42 36	4.3	~~4.9~~ 5.0		0.2	~~5.1~~ 5.2	8	3	9	4
4183	+43 40	4.4	~~4.7~~ 4.7		0.2	~~4.9~~ 4.9	5	0	5	0
4222	+44 33	6.1	~~6.3~~ 6.3		0.2	~~6.5~~ 6.5	4	1	4	1
4237	+55 35	5.0	~~5.3~~ 5.3		0.3	~~5.6~~ 5.6	6	1	6	1
							44	$\frac{5-6}{9}$ = 12	48	$\frac{9-6}{9}$
								Mean = 5		Mean = 5

Wedge B.

Entered in Book 31

Plate 904 - J.

4175	+17 46	5.4	6.3	6.7	0.0	~~6.5~~ 6.7	11	0	13	0
4209	+28 10	5.9	~~6.8~~ 6.9		0.1	6.9 7.0	10	1	11	2
5	+28 26	2.1	~~4.0~~ 4.3		0.1	~~4.1~~ 4.2	20	9	22	9
4236	+31 41	6.3	~~6.6~~ 6.9		0.1	~~6.7~~ 7.0	4	7	7	6
							45	$\frac{9-8}{4}$ = 42	53	$\frac{9-8}{4}$
								Mean = 11		Mean = 13

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Book 9

Plate 907 - I.

Entered in Book 31

No. H.P.	Dec.	Mag.	Obs Br. A.	Obs Br. B.	Obs, Br. ½ cos δ	Diff. Reed.	½ cos δ Diff. Reed.	Wedge B. ½ cos δ Diff. Reed.
39	+47 16	5.8	~~5.9~~	6.1	0.2	0.1	6.3	3 1 / 5 1
105	+47 12	5.5	~~5.9~~	6.0	0.2	0.1	6.2	6 2 / 7 1
107	+47 38	4.6	~~4.9~~	5.2	0.2	0.1	5.4	5 1 / 8 2
40	+38 1	4.3	~~5.2~~	5.3	0.1	0.3	5.6	10 6 / 13 7
100	+49 51	4.8	~~4.9~~	5.3	0.2	0.1	5.5	3 1 / 7 1
121	+50 19	5.0	~~5.0~~	5.4	0.2	0.2	5.6	2 2 / 6 0
127	+40 26	4.4	~~4.9~~	5.3	0.1	0.0	5.4	6 2 / 10 4
35	+51 21	5.4	~~5.3~~	5.5	0.3	0.8	5.8	4 0 / 4 2
37	+52 23	5.8	~~5.6~~	5.8	0.3	0.3	6.1	1 3 / 3 3
36	+42 36	6.0	~~6.0~~	6.2	0.2	0.2	6.4	2 2 / 4 2
43	+43 8	5.9	~~5.9~~	6.1	0.2	0.1	6.3	2 2 / 4 2
~~82~~	~~+53 14~~	~~3.7~~	~~4.0~~	~~B.~~	~~0.3~~	~~4.3~~		6 2 /
77	+53 30	5.0	~~5.3~~	5.3	0.3	0.6	5.6	6 2 / 6 0
39	+43 44	5.2	~~5.5~~	5.6	0.2	0.2	5.8	3 1 / 6 0
69	+53 50	4.8	~~4.6~~	5.1	0.3	0.3	5.4	1 3 / 6 0
113	+44 11	5.9	6.0	6.2	0.2	0.2	6.4	3 1 / 5 1
133	+44 20	5.9	6.2	6.5	0.2	0.4	6.7	5 1 / 8 2
110	+54 34	5.4	~~5.3~~	5.7	0.3	0.6	6.0	2 2 / 6 0
4232	+55 3	5.5	~~5.2~~	5.2	0.3	0.5	5.5	0 4 / 0 6
102	+46 22	5.0	~~5.4~~	5.6	0.2	0.6	5.8	6 2 / 8 2
						78	19 − 31 / 20 = 2.0	116 19 − 17 / 19 =

~~Mean = 4~~

Mean = 6

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Book 9.

Plate 906. f.

Entered in Book 31

V

H.P. No.	H.P. Dec	Mag. Br.	Obs. Bar.	Obs. Q. B.	½ cos δ	Diff.	Reed.	Wedge B. ½ cos δ	Diff.	Reed.
79	+26 35	6.1	~~6.3~~	6.8	0.1	~~0.6~~	6.9	3	2	8	3
34	+26 36	5.9	~~6.4~~	6.9	0.1	~~0.5~~	7.0	6	3	11	6
46	+30 16	5.6	~~5.8~~	6.0	0.1	~~5.9~~	6.1	3	1	5	0
44	+30 32	5.8	~~5.7~~	5.9	0.1	~~5.8~~	6.0	0	3	2	3
31	+21 37	6.0	~~6.0~~	6.2	0.0	~~6.0~~	6.2	0	3	2	3
27	+32 32	6.0	~~5.9~~	6.0	0.1	~~6.0~~	6.1	0	3	1	4
99	+23 39	6.0	~~6.3~~	6.6	0.0	~~6.3~~	6.6	3	0	6	1
42	+36 7	4.6	~~4.8~~	5.0	0.1	~~4.9~~	5.1	3	0	5	0
79	+26 35	6.1	~~6.3~~	6.6	0.1	~~6.4~~	6.7	3	1	6	1
34	+26 36	5.9	~~6.3~~	6.5	0.1	~~6.6~~	6.6	7	0	7	2
								30	9−7 = .18	53	13−10
									10		10
									Mean = 3		Mean = 3

Plate 910. f.

Entered in Book 31

V

4173	+17 46	5.4	~~6.2~~	6.1	0.0	~~6.2~~	6.1	8	1
4209	+28 10	5.9	~~6.4~~	6.5	0.1	~~6.3~~	6.6	6	1
								14	1−1/2 = .10
									Mean = 7

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Book 9.

Plate 960 - J.

Wedge B.

H.P. No.	H.P. Dec	Mag.	Obs Bn	Obs Bz	½ cos δ	Diff.	Reed.	½ cos δ	Diff.	Reed.
4257	+41 26	5.9	6.6	7.1	0.2	6.8	7.3	9	3	14	6
43	+43 8	5.9	6.0	6.4	0.2	6.2	6.6	3	3	7	1
39	+43 47	5.2	5.6	5.7	0.2	5.4	5.9	5	2	7	1
4242	+44 35	6.1	6.2	6.5	0.2	6.3	6.7	3	3	6	2
42	+36 7	4.6	5.3	5.3	0.1	5.2	5.4	8	2	8	0
39	+47 16	5.8	5.9	6.0	0.2	5.8	6.2	3	3	4	4
40	+38 1	4.3	5.2	5.2	0.1	5.1	5.3	10	4	10	2
								41	$\frac{9-11}{7} = -2$	56	$\frac{8-8}{7}$
									Mean = 6		Mean = 8

Entered in Book 31

V

Plate 974 - J.

39	+48 44	5.2	5.7	5.9	0.2	5.7	6.1	7	2	9	0
4183	+43 40	4.4	5.2	4.9	0.2	5.0	5.1	10	1	7	2
4242	+44 35	6.1	6.7	6.6	0.2	6.4	6.8	8	1	7	2
42	+36 7	4.6	5.3	5.3	0.1	5.2	5.4	8	1	8	1
40	+38 1	4.3	5.4	5.4	0.1	5.3	5.5	12	3	12	3
								45	$\frac{4-4}{5} = 16$	43	$\frac{3-5}{5}$
									Mean = 9		Mean = 9

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V

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Book 9 -
Plate 973. J.

H.P. No.	H.P. Dec	Mag.	Brgh. ½cos δ	Obs. a. Br. b. Br.	Diff. Read.	½cos δ.	Diff. Read.	Wedge B. ½cos δ.	Diff. Read.
31	+21 37	6.0	~~6.6~~	~~6.5~~ 0.0	~~6.6~~ 6.5				
~~23~~	~~+14 31~~	~~3.0~~	~~4.0~~	B 0.0	~~4.0~~				
34	+26 36	3.7	~~6.3~~ 6.3	0.1	~~6.4~~ 6.4				
46	+30 16	5.6	~~6.0~~ 5.8	0.1	~~6.1~~ 5.9				
44	+30 52	5.8	~~6.1~~ 6.0	0.1	~~6.2~~ 6.1				

6	0	5	1
10	4	5	1
7	1	3	1
5	1	3	1
4	2	16	$\frac{2-2}{4}$
32	$\frac{5\%-3}{5}$ = 1.86	Mean = 4	

Mean = 6

✓
Entered in Book 31

Plate 959 J.

✓
Entered in Book 31

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Book 17.

Plate 1709 ✓

H.P. No.	H.P. Dec.	Obs. Mag.	Br.	½ cos δ.	Diff. Read.	½ cos δ. Diff. Read.

Plate 1715 ✓

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Book 17 - Plate 1563 - J.

Wedge B. ½cos

H.P. No.	H.P. Dec.	Mag.	Obs Br a.	Obs Br b.	½cos δ.	Diff.	Readd.	Diff.	Readd.	Diff.	Readd.
4165	+39 34	5.3	6.2	6.2	0.1	8	0	8	1		
4177	+49 48	5.3	5.7	5.7	0.2	6	2	6	1		
4257	+41 26	5.9	6.6	6.6	0.2	7	1	9	2		
4244	+41 42	6.1	6.3	6.4	0.2	6	2	5	2		
4176	+42 36	4.3	5.2	4.9	0.2	11	3	8	1		
4147	+42 15	5.8	6.3	6.4	0.2	7	1	8	1		
4183	+43 40	4.4	5.1	5.0	0.2	9	1	8	1		
4237	+55 3	5.0	5.5	5.3	0.3	8	0	6	1		
						62	$\frac{4-6}{8} = -.2$	58	$\frac{6-2}{8}$		
						Mean = 8		Mean = 7			

Book 4. Plate 298 - J.

			a.	B.							
1030	+9 13	4.4	5.6	5.5	0.0	5.6	5.5	12	X	5	11 X 5
956	+29 27	5.6	6.3	6.2	0.1	6.4	6.3	8	X	1	7 X 1
912	+9 40	5.3	6.4	6.4	0.0	6.4	6.4	11	X	4	11 X 5
1020 1019	+9 51	3.5	4.7	4.4	0.0	4.7	4.4	12	X	3	9 X 3
983	+30 7	5.8	6.3	6.4	0.1	6.4	6.5	6	X	1	7 X 1
903	+20 15	5.4	5.9	5.9	0.0	5.9	5.9	5	X	2	3 X 1
1032	+21 4	3.0	4.0	4.0	0.0	4.0	4.0	10	X	3	10 3 4
968 969	+31 7 +31 2	5.9	6.1	6.0	0.1	6.2	6.1	3	X	4	2 X 4
958	+40 34	5.5	6.0	5.9	0.2	6.2	6.1	7	X	0	6 X 0
947	+40 38	5.3	5.8	5.8	0.2	6.0	6.0	7	X	0	7 X 1
940	+11 12	5.6	5.8	6.0	0.0	5.8	6.0	2	X	5	4 X 2
888	+21 25	4.7	6.5	6.8	0.0	6.5	6.8	(18)	X	(11)	(21) X (15)
954	+41 41	5.1	5.6	5.4	0.2	5.8	5.6	7	X	0	5 X 1
987	+21 30	4.8	5.5	5.2	0.0	5.5	5.2	7	X	0	4 X 2
930	+32 33	5.2	5.6	5.5	0.1	5.7	5.6	5	X	2	4 X 2
1049	+23 9	6.0	6.7	6.8	0.0	6.7	6.8	7	X	0	8 X 2
								157 109	$\frac{33-34}{15}$	$\frac{18-14}{21}$	TM 100
								Mean = 8.7			

Entered in Book 31

This Plate continued on ~~next~~ Page 148

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Book 4 - Plate 277 - Δ

H.P. No.	H.P. Dec.	Mag.	Obs Br. a.	Obs Br. B	½ cos δ.	Obs Br. a.	Obs Br. B	½ cos δ.
1044	+16 09	4.9	~~6.0~~	6.1	0.0	~~6.0~~	6.1	
1084	+27 36	4.5	~~6.0~~	5.8	0.1	6.1	5.9	
1104	+37 12	2.7	~~4.6~~	~~4.5~~	0.1	~~4.7~~	4.6	
1081	+19 50	6.1	~~6.4~~	6.6	0.0	~~6.4~~	6.6	
1106	+47 32	5.5	~~6.5~~	6.5	0.2	~~6.7~~	6.7	
1032	+21 4	3.0	~~4.0~~	4.0	0.0	~~4.0~~	4.0	
1052	+49 46	5.4	~~6.0~~	5.8	0.2	~~6.2~~	6.0	
1016	+23 38	5.4	~~5.7~~	5.8	0.0	~~5.7~~	5.8	
1099	+25 38	5.1	~~5.3~~	5.6	0.1	~~5.6~~	5.7	

Wedge B.

½ cos δ. Diff.	Read.	½ cos δ. Diff.	Read.
11	3	12	2
16	8	14	4
(20)	(12)	19	9
3	5	5	5
12	4	12	2
10	2	10	0
8	0	6	4
3	5	4	6
3	3	6	4
~~88~~ 68	17 - 13 = ~~38~~ 8	88	17 - 17 9
Mean = ~~10~~ 8		Mean = 10	

Entered in Book 31

Continuation of Plate 298 - Δ. See Page 146.

			a.	B.			
949	+33 50	5.1	~~5.9~~	5.7	0.1	5.8	
1012	+14 13	5.7	~~6.1~~	6.0	0.0	6.0	
992	+25 3	5.4	~~5.8~~	5.7	0.1	5.8	
990	+15 47	5.3	~~6.0~~	5.8	0.0	5.8	
1037	+25 50	4.9	~~5.8~~	~~5.8~~	0.1	5.9	
1044	+16 29	4.9	~~5.8~~	5.6	0.0	5.6	
1004	+16 58	5.5	~~6.0~~	5.9	0.0	5.9	
986	+17 52	5.4	~~5.7~~	5.6	0.0	5.6	
911	+27 53	6.0	~~6.4~~	6.7	0.1	6.8	
922	+38 20	4.9	~~5.6~~	5.5	0.1	5.6	

Entered in Book 31

7	8	1
3	~~4~~	3
4	~~3~~	2
3	~~4~~	3
10	~~3~~	4
7	8	1
4	~~3~~	2
2	~~3~~	4
8	~~4~~	2
7	8	1
~~176~~ 135	~~32 - 38~~ 26	31 - 26 25
	Mean = ~~7~~ 6	

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Book 4.
Plate 310 - J.

H.P. No.	H.P. Dec.	Mag.	Obs Br. a.	Obs Br. B	½ cos δ	Diff.	Wedge A. ½ cos δ	Reid Diff.	Wedge B. ½ cos δ	Reid Diff.
1116	+7 39	4.3	~~5.6~~	~~5.7~~	0	~~5.6~~		13 3		14 6
1119	+19 22	5.1	~~6.0~~	~~5.9~~	0	~~6.0~~		9 1		8 0
1150	+19 49	5.6	~~6.4~~	~~6.5~~	0	~~6.4~~		8 0		9 1
1178	+9 39	5.2	~~6.4~~	~~6.6~~	0	~~6.4~~		12 4		14 6
1120	+11 41	5.9	~~6.4~~	~~6.6~~	0	~~6.4~~		5 3		7 1
1169	+12 35	5.4	~~6.1~~	~~6.1~~	0	~~6.1~~		7 1		7 1
1071	+12 37	4.8	~~5.7~~	~~5.7~~	0	~~5.7~~		9 1		9 1
1147	+13 40	5.7	~~6.3~~	~~6.4~~	0	~~6.3~~		6 2		7 1
1163	+13 53	5.7	~~6.0~~	~~6.2~~	0	~~6.0~~		3 3		5 3
1064	+13 52	5.2	~~5.8~~	~~5.8~~	0	~~5.8~~		6 2		6 2
1153	+14 14	4.2	~~5.3~~	~~5.1~~	0	~~5.3~~		11 3		9 1
1075	+14 16	5.7	~~6.0~~	~~6.2~~	0	~~6.0~~		3 3		5 3
1180	+14 26	6.0	~~6.3~~	~~6.9~~	0	~~6.3~~ 6.9		5 3		9 1
1061	+14 27	5.7	~~6.4~~	~~6.5~~	0	~~6.4~~ 6.5		7 1		8 0
1132	+14 47	4.4	~~5.3~~	~~5.1~~	0	~~5.3~~ 5.1		9 1		7 1
1099	+23 56	5.1	~~5.3~~	~~5.4~~	0.1	~~5.6~~ 5.5		5 3		4 4
1152	+16 9	5.0	~~5.8~~	~~5.6~~	0	~~5.8~~ 5.6		8 0		6 2
1164	+16 10	5.4	~~6.0~~	~~6.0~~	0	~~6.0~~ 6.0		6 2		6 2
1106	+47 52	5.6	~~6.2~~	~~6.1~~	0.2	~~6.4~~ 6.3		9 1		8 0
1084	+27 36	4.5	~~5.6~~	~~5.5~~	0.1	~~5.7~~ 5.6		12 4		11 3
1060	+17 41	5.2	~~6.6~~	~~6.8~~	0	~~6.6~~ 6.8		14 6		16 8
1139	+48 45	5.6	~~6.3~~	~~6.3~~	0.2	~~6.5~~ 6.5		9 1		9 1
1123	+38 30	5.3	~~6.2~~	~~6.0~~	0.1	~~6.3~~ 6.1		10 2		8 0
								186	$\frac{29-27}{23}=.24$	192 $\frac{28-20}{23}$
								Mean = 8		Mean = 8

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Book 4 -

Plate 300 - ♃.

No.	H.P. Dec.	Mag.	Obs Br. a.	Obs Br. B	½ cos δ.	Wedge A. ½ cos δ. Diff.	Wedge A. ½ cos δ. Read.	Wedge B. ½ cos δ. Diff.	Wedge B. ½ cos δ. Read.
1164	+16 10	5.4	5.8	5.8	0	5.8	5.8	4	1	4	0
1152	+16 9	5.0	5.6	5.4	0	5.6	5.4	6	1	4	0
1260	+17 46	5.0	5.6	5.7	0	5.6	5.7	6	1	7	3
1239	+28 7	4.9	5.7	5.6	0.1	5.8	5.7	9	4	8	4
1252	+28 22	5.7	6.1	6.0	0.1	6.2	6.1	5	0	4	0
1139	+48 45	5.6	6.1	6.0	0.2	6.3	6.2	7	2	6	2
1248	+29 5	5.5	5.9	5.9	0.1	6.0	6.0	5	0	5	1
1187	+29 36	6.0	6.3	6.4	0.1	6.4	6.5	4	1	5	1
1245	+40 0	5.1	5.6	5.4	0.1	5.7	5.5	6	1	4	0
1150	+19 49	5.6	5.8	5.9	0.1	5.8	5.9	2	3	3	1
1112	+49 53	6.0	6.2	6.1	0.2	6.4	6.3	4	1	3	1
1216	+20 17	4.0	4.2	4.4	0.0	4.2	4.4	2	3	4	0
1223	+32 32	6.0	6.0	6.0	0.1	6.1	6.1	1	4	1	3
								61	$\frac{9-13}{13} = -17$	58	$\frac{11-5}{13}$
									Mean = 5		Mean = 4

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Plate 332 - ♃.

No.	H.P. Dec.	Mag.	Obs Br. a.	Obs Br. B	½ cos δ.	Wedge A. ½ cos δ. Diff.	Wedge A. ½ cos δ. Read.	Wedge B. ½ cos δ. Diff.	Wedge B. ½ cos δ. Read.
1338	+22 49	5.8	6.5	6.5	0.0	6.5	6.5	7	4	7	4
1295	+34 6	3.7	5.2	5.1	0.1	5.2	5.3	16	3	15	4
1310	+45 17	4.7	5.6	5.8	0.2	6.0	5.8	11	0	13	2
1378	+55 36	5.2	6.0	5.8	0.3	6.1	6.3	11	0	9	2
								43	$\frac{5-4}{4} = 0.2$	44	$\frac{6-6}{4}$
									Mean = 11		Mean = 11

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Book 4 -
Plate 203 - I -

H.P. No.	H.P. Dec.	Mag.	Obs. Br.	Obs. B-A/2	cos D.	Diff.	Read.	½cos D. Diff.	½cos D. Read.	Wedge B. ½cos D. Diff.	Wedge B. ½cos D. Read.
			A.	B							
677	+27 18	5.4	6.2	6.3	0.1	6.4	6.3	9	2	10	3
682	+47 23	4.3	5.0	5.2	0.2	5.4	5.2	9	2	11	4
642	+47 32	5.4	6.0	6.1	0.2	6.3	6.2	8	1	9	2
578	+47 48	4.2	5.4	5.2	0.2	5.4	5.6	14	7	12	5
552	+48 39	5.0	5.5	5.5	0.2	5.7	5.5	7	0	7	0
555	+49 7	4.8	5.4	5.3	0.2	5.5	5.6	8	1	7	0
595	+19 19	5.4	6.2	6.2	0.0	6.2	6.0	8	1	8	1
573	+39 30	5.8	6.5	6.3	0.1	6.4	6.6	8	1	6	1
671	+50 1	4.5	5.0	5.0	0.2	5.2	5.2	7	0	7	0
719	+30 0	4.6	5.6	5.5	0.2	5.7	5.8	12	4	11	4
617	+30 21	5.7	6.5	6.5	0.2	6.7	6.7	10	3	10	3
603	+20 33	5.8	6.2	6.4	0.0	6.4	6.2	4	3	6	1
628	+21 53	6.0	6.2	6.2	0.0	6.2	6.2	2	5	2	5
600	+31 54	4.0	4.4	4.4	0.1	4.5	4.5	5	2	5	2
608	+32 43	5.2	5.4	5.3	0.1	5.4	5.3	3	4	2	5
711	+53 18	5.2	5.6	5.6	0.3	5.9	5.9	7	0	7	0
615	+23 34	4.2	5.1	4.9	0.0	4.9	5.1	9	2	7	0
594	+33 34	5.0	5.5	5.3	0.1	5.4	5.6	6	1	4	3
625	+23 41	3.8	4.1	4.3	0.0	4.3	4.1	3	4	5	2
618	+23 44	3.0	4.0	4.0	0.0	4.0	4.0	10	3	10	3
608	+23 44	3.8	4.2	4.3	0.0	4.3	4.3	5	2	5	2
613	+24 0	4.0	4.9	4.9	0.0	4.9	4.9	9	2	9	2
610	+24 3	4.4	5.3	5.1	0.0	5.1	5.3	9	2	7	0
632	+34 0	5.7	6.0	5.9	0.1	6.0	6.1	4	3	3	4
577	+24 3	5.9	6.3	6.4	0.0	6.4	6.3	4	3	5	2
569	+34 33	5.7	6.2	6.2	0.3	6.5	6.5	8	1	8	1
647	+34 44	5.5	5.8	5.7	0.1	5.8	5.9	4	3	3	0
557	+55 2	5.0	5.5	5.4	0.3	5.7	5.8	8	1	7	0

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Continued on Page 156.

200 34-30 193

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Book 4.

Plate 203 - 4 - Continued from Page 154.

No.	H.P. Dec.	H.P. Mag.	Obs Br	½ cos δ	Diff.	Reid.	½ cos δ	Diff.	Reid.
			a. B.						
606	+45 18	3.6	~~6.0~~ 5.8	0.2	~~6.2~~ 6.0				
629	+25 14	3.5	~~6.1~~ 5.8	0.1	~~6.2~~ 5.9				
632	+33 27	4.1	~~4.9~~ 4.9	0.1	~~5.0~~ 5.0				
366	+45 39	5.4	~~6.4~~ 6.3	0.2	~~6.6~~ 6.5				
399	+36 5	5.6	~~6.0~~ 6.0	0.1	~~6.1~~ 6.1				

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Wedge B.

6	1	4	3
7	0	4	3
9	2	9	2
12	3	11	4
5	2	5	2
239	41-33 = 8	226	34-39
	33		33
Mean = 7		Mean = 7	

Plate 201 - 4.

336	+34 23	3.1	~~4.7~~ 4.7	0.1	~~4.8~~ 4.8						
419	+26 33	5.4	~~6.0~~ 6.1	0.1	~~6.1~~ 6.2						
432	+27 12	4.7	~~5.4~~ 5.3	0.1	~~5.5~~ 5.4						
334	+37 18	4.8	~~5.6~~ 5.7	0.1	~~5.7~~ 5.8						
367	+28 5	5.3	~~5.8~~ 5.7	0.1	~~5.9~~ 5.8						
389	+7 55	4.4	~~5.0~~ 5.0	0.0	~~5.0~~ 5.0						
340	+38 29	5.6	~~6.2~~ 6.0	0.1	~~6.3~~ 6.1						
365	+19 21	5.6	~~5.9~~ 5.7	0.0	~~5.9~~ 5.7						
428	+19 29	5.8	~~6.2~~ 6.0	0.0	~~6.2~~ 6.0						
382	+10 5	5.4	~~5.7~~ 5.6	0.0	~~5.7~~ 5.6						
350	+20 39	5.4	~~6.5~~ 6.8	0.0	~~6.5~~ 6.8						
417	+21 26	5.4	~~6.0~~ 5.8	0.0	~~6.0~~ 5.8						
356	+32 49	5.2	~~5.8~~ 5.8	0.1	~~5.9~~ 5.9						
361	+33 17	4.2	~~5.0~~ 4.8	0.1	~~5.1~~ 4.9						
336	+34 23	3.1	~~4.8~~ 4.8	0.1	~~4.9~~ 4.9						

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17	8	1	16	17	9
7	3	1	0	8	0
8	4	0	1	7	1
9	4	1	2	10	2
6	3	2	1	5	3
6	3	2	1	6	2
7	3	1	0	5	3
3	6	5	4	1	7
4	5	4	3	2	6
3	6	5	4	2	6
11	3	2	4	14	6
6	3	2	1	14	6
7	3	1	0	7	1
9	4	3	2	7	1
(18)	9	10	(11)	(18)	(10)
101	19	24-23	19-11 = 8	105	34-31 = 3
103			11	14	24-31
					14
Mean = 7				Mean = 8	

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Standard Stars on E. Plates.
Residuals of 10 and greater.

		Resid.	Book.	Page.	11.7 V.	14.8 H.	First Meas. Bre.	Sec. Meas. Bre.	
Plate	284	11	3	12	20.4	12.0	6.3	5.2	First wrong.
"	"	13	3	12	21.2	15.2	4.3	13	
"	1074	16	16	88	5.6	8.4	4.1	4.4	
"	536	13	3	98	15.1	15.3	4.4	4.0	
"	"	15	3	98	12.5	23.6	4.0	13	
"	800	13	3	124	15.2	23.4	6.5	6.3	
"	353	12	3	60	18.7	20.8	6.9	7.3	
"	1071	13	12	198	13.6	6.2	6.6	5.5	First wrong

Not taken when constants were derived. Found on exam. of Book 29, March 20, '70.

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Book 8
Pole Plate 140 I

H.P. No	H.P. Dec	H.P. Mag	Obs Bi	Diff.	Resid
916	+85° 34	6.2	6.4	2	1
684	+83 31	5.4	5.8	4	1

16
3

Book 18
Pole Plate 2242 I

+85° 74	863	+85 48	6.4	.			
+85° 383	3968	+85 30	5.0	5.4 ~~4.9~~	4	2	6
+86 319	3789	+86 32	7.4	6.4	1.0	~~8~~	8
+86° 269	3077	+86 37	4.3	4.2	1	~~3~~	1
+86 272	3092	+86 59	5.9	5.6	3	~~5~~	1

~~4|10~~
~~.25~~

-14+4=-10 4|-10
-25

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Standard Stars on F. & G. Plates.
Residuals of 10 and greater.

	Plate	Book	Page	11.7 V.	14.8 H.	First Meas Br.	Resid.	2nd Meas Br.	2nd. Resid.	
5.	291	4	62	20.2	19.2	5.4	(18)	5.2	(16)	
6.	"	"	"	12.4	12.1	5.2	(14)	5.2	(14)	
8.	419	"	120	10.4	16.8	5.8	(15)	6.0	(17)	
14.	608	"	132	12.9	7.1	6.7	(13)	6.2	8	2nd " wrong.
11.	552	"	138	17.0	22.3	6.8	(14)	6.7	(13)	
3.	175	"	32	19.5	7.7	6.0	(11)	6.0	(11)	
17.	701	1	208	11.4	19.5	6.5	(17)	6.7	(15)	
16.	678	1	214	4.8	7.9	5.6	(14)	6.8	(12)	
28.	1421	19	110	10.0	22.7	5.9	(17)	4.8	6	1st " wrong.
29.	1567	17	82	10.6	20.4	6.3	(19)	6.7	(15)	
20.	839	4	188	3.4	19.0	6.5	(11)	6.8	8	
21.	899	6	12	5.0	14.5	6.5	(20)	6.8	(23)	
	~~345~~	1	58	~~17.8~~	~~6.8~~					
	~~345~~	1	58	~~18.0~~	~~11.8~~					
	~~345~~	1	58	~~15.8~~	~~11.7~~					
10.	525	1	182	5.6	10.8	5.6	(13)	4.4	1	1st " wrong.

The following plates were overlooked when constants were derived.
Found in examination of books, March 20 & 21 '90.

1	151	4	50	15.0	14.3	4.0	(11) ~~(12)~~	B.		Edge of scale
2	163	4	52	21.0	18.3	5.8	(12)	6.3	(17)	1st " wrong
4	264	4	122	10.7	18.8	4.0	(11)	4.2	(13)	
Crossed off D. B.	~~298~~	4	4			~~4.6~~	~~(15)~~			
7	309	1	78	22.4	19.4	4.6	(10)	4.8	(12)	
9	475	4	88	20.0	13.8	4.2	(13)	4.0		Edge of scale
12	567	4	92	21.8	18.9	4.0	(12)	~~4.0~~ B		Edge of scale
13	572	4	96	11.8	11.0	4.0	(12)	4.0		Edge of scale

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Remarks.

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Standard Stars on Fund'l Plates.
Residuals of 10 and greater.

11.7 14.8

	Plate	Book	Page	V.	H.	First Mean Br.	First Mean Resid.	2nd Mean Br.	2nd Mean Resid.	
Crossed off D.C.	~~656~~	~~4~~	~~162~~				(14)			
" " "	"	"	"				(12)			
15.	"	"	"	21.1	22.9	5.2	(11)	5.6	(15)	
18.	749	6	10	9.4	22.7	4.0	(18)	4.0		Edge of Scale
19.	788	6	30	19.1	12.8	4.0	(17)	4.0		" " "
22.	1012	9	176	21.5	20.9	~~4.6~~	(13)	4.2	9	
23.	1026	9	208	5.4	11.6	4.0	(12)	4.0		Edge of Scale
24.	1100	10	136	23.1	17.8	~~6.7~~ 6.3	(11)	6.6	~~(14)~~ 8	
25.	1127	13	150	21.6	16.4	6.7	(12)	6.8	(13)	
26.	1272	10	162	22.0	24.1	6.6	(15)	5.6	5	1st ½ wrong.
27	1330	19	20	4.8	20.3	5.6	(13)			

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