KG
11365
983

1911phae.proj..984L

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..984L

ICG11365, 983

Scale R. Sc1. corr. +0.3

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..984L

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..984L

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..984L

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

KG-11365: 985

HARVARD
UNIVERSITY
LIBRARY
JUL 17 1956

1933phae.proj..984L

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..984L

Measures of Faint Stars – Harvard Standard Regions

		A	B	C	D	E	F
McCand	1	36:220	37:6,24	37:13	37:37		36:216
A plates	2	37:4	37:7,16	37:14	37:38		36:217
	3	37:5,19		37:15	37:39		36:218
	4		37:9,29	37:16		36:219,147	
	5		37:10,34	37:17		36:166	
	6		37:35	37:18		36:168	
	7		37:28,105	37:20		36:208	
	8		37:11,21	37:21,27		36:214	
	9		37:12,33			36:215	
	10			37:23,26			
	11			37:25			
	12			37:32			

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..984L

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..984L

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..984L

Measures of pt plates in Dec. for $A_2 = 12^h + 75$

Dec. MC 831 — Copied Oct 6, 1911 — Copied MC 191

Scale U — MC 231

Curve C.C.P. 2	C.C.P.-2 mean curve	Sc 1	Sc 2	Diff.	Magn.	Curve C.C.P. 2	C.C.P.-2 mean curve	Magn.	Sc 2	Diff.
	13	4.3		5.99				13	4.7	5.59
	14	4.7		6.19				14	4.9	5.49
	15	4.7		5.94				15	5.3	5.34
	16	4.7		6.05				16	5.2	5.55
	17	5.0	4.95 (0.1) 4.9	5.87				17	5.5	5.32
	18	5.5	5.45 (1.0) 5.7	6.23				18	6.1	5.58
	19	5.8	5.75 (0.2) 5.7	6.28				19	6.5	5.53
	20		5.6	6.21				20	6.3	5.51
6.20 6.23 03 6.22	21		5.9	6.22	12.12	5.53 5.59 06 5.56	12.06	21	6.5	5.62
6.24 6.26 02 6.25	22		6.3	6.40	12.65	5.57 5.56 01 5.56	12.56	22	7.0	5.70
6.32 6.30 02 6.31	23		7.0	6.22	13.31	5.63 5.58 05 5.60	13.30	23	7.7	5.52
6.35 6.30 05 6.32	24		7.2	6.28	13.52	5.65 5.60 05 5.62	13.52	24	7.9	5.58
6.39 6.32 07 6.36	25		7.3	6.38	13.76	5.67 5.62 05 5.64	13.74	25	8.1	5.58
6.50 6.45 05 6.48	26		7.8	6.36	14.28	5.73 5.71 02 5.72	14.22	26	8.5	5.66
6.60 6.55 05 6.58	27		8.1	6.32	14.68	5.77 5.75 02 5.76	14.46	27	8.7	5.72
6.67 6.64 03 6.66	28		8.3	6.70	14.96	5.85 5.84 01 5.84	14.84	28	9.0	6.00
6.81 6.82 01 6.82	29		8.7	6.80	15.62	5.99 5.98 01 5.98	15.48	29	9.5	6.00
6.92 6.85 03 6.94	30		9.0	6.93	15.94	6.09 6.07 02 6.08	15.98	30	9.9	6.03
7.04 7.10 06 7.07	31		9.3	7.13	16.37			31	?	
7.13 7.19 06 7.16	32		9.5		16.66			32		
7.13 7.19 06 7.16	33		9.5		16.66			33		
7.37 7.44 07 7.40	34		10.0		17.40			34		

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..984L

Measures of ft stars in Dec for A3 20+45

Oct 9, 1911 Copied

Sc. MC831

Scale U MC477

	Sc 1		Sc 2	Diff.	Curve C.C.P.	L	C.C.P.-L	Mean Curve	Majn.
15	3.7			6.51					
16	5.1			5.37					
17	5.1	5.05	10	5.2	5.65				
18	5.3	5.25	10	5.2	5.75				
19	5.7	5.60	11	5.8	5.55				
20	5.9	5.85	10	5.8	5.47				
21	6.2	6.15	01	6.1	5.44				
22	6.3	6.25	10	6.2	5.39				
23	6.7	6.60	12	6.5	5.42	5.50	5.45	05	5.48	12.08
24	6.9	6.85	10	6.8	5.47	5.50	5.45	05	5.48	12.33
25				6.7	5.53	5.50	5.45	05	5.48	12.38
26				6.9	5.73	5.50	5.45	05	5.48	12.38
27				7.5	5.61	5.50	5.48	02	5.49	12.99
28				7.5	5.79	5.50	5.48	02	5.49	12.99
29				8.2	5.30	5.52	5.50	02	5.51	13.71
30				8.1	5.60	5.51	5.50	01	5.50	13.60
31				8.6	5.52	5.55	5.51	04	5.53	14.13
32				8.8	5.59	5.58	5.53	05	5.56	14.36
33				8.9	5.62	5.59	5.54	05	5.56	14.46
34				9.2	5.65	5.62	5.56	06	5.59	14.79
35				9.5	5.68	5.64	5.59	05	5.62	15.12
36				9.9	5.42	5.59	5.64	05	5.62	15.52
37				F						
38				ns						
39				ns						
40				n.s						

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..984L

Measures of ff-stars in deg for B1 h 1 m 20 +45

Oct 9, 1911 Lepaute.

Scale MC831

Scale U MC 647

	Sc1		Sc2	Diff.	Curve	Magn.
13	4.7					
14	4.7					
15	4.9			5.22		
16	5.2	5.10 ±	5.0	5.56		
17	5.2	5.10 ±	5.0	5.45		
18	5.4	5.350 ±	5.3	5.28		
19	5.6	5.550 ±	5.5	5.31		
20	6.0	5.950 ±	5.9	5.21		
21	5.9	5.85 10	5.8	5.09		
22	6.1	6.00 ±	5.9	5.41		
23	6.1	6.00 ±	5.9	5.46		
24			6.1	6.08	5.70	11.80
25			6.7	5.73	5.78	12.48
26			7.0	5.54	5.82	12.82
27			7.5	5.99	5.86	13.36
28			7.8	6.06	5.88	13.48
29			8.0	5.98	5.90	13.90
30			8.5	5.79	5.91	14.41
31			8.9	5.84	5.90	14.80
32			9.1	6.13	5.90	15.00
33			9.5	6.14	5.89	15.39
34			9.9	5.54	6.88	15.78
35			10.0		5.88	15.88

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..984L

Measures of ϕ stars in Dec for Bz 4+45

Oct 9, 1911

Sc. MC 831

Scale U * MC 154

Copied

Curve E.C.P.	L	E.C.P. L mean curve		Sc 1		Sc 2	Diff.	Magn.
			12	4.7		4.7		
			13	4.9		4.7		
			14	5.0	4.95 0	4.9		
			15	5.1	5.00 1	4.9	5.07	
			16a	5.1	5.05 1	5.0	5.06	
			b	5.4	5.35 0	5.3		
			17	5.4	5.30 1	5.2	5.19	
			18	5.7	5.65 1	5.6	4.98	
			19	5.9	5.90 0	5.9	5.09	
			20	6.1	6.00 1	5.9	5.19	
			21	6.5	6.45 1	6.4	4.85	
			22			6.3	5.17	
			23			6.2	5.25	
			24			6.5	5.10	
5.24	5.20	04	5.22	25		6.9	5.42	12.12
5.31	5.30	01	5.30	26		7.3	5.17	12.60
5.36	5.36	00	5.36	27		7.5	5.24	12.86
5.36	5.36	00	5.36	28		7.5	5.56	12.86
5.49	5.50	01	5.50	29		8.0	5.43	13.50
5.60	5.64	04	5.62	30		8.4	5.60	14.02
5.72	5.77	05	5.74	31		8.7	5.96	14.44
5.87	5.98	11	5.92	32		9.2	6.08	15.12
6.00	6.08	08	6.04	33		9.5	6.15	15.54
6.15	6.28	07	6.18	34		9.9	6.95	16.08
			35			F		

Copied.

MC 629

Curve E.C.P.	L	E.C.P.-L mean curve	Magn.		Sc 1		Sc 2	Diff.
				12	4.5			
				13	4.7			
				14	4.7			
				15	5.0	4.95 0	4.9	5.12
				16	5.0	4.95 0	4.9	5.16
					5.3	5.40 1	5.3	
				17	5.4	5.35 0	5.3	5.14
				18	5.6	5.55 0	5.5	5.08
				19	6.0	5.95 0	5.9	5.04
				20	6.1	6.00 1	5.9	5.19
				21	6.5	6.40 1	6.3	4.90
				22	6.5	6.40 1	6.3	5.07
				23	6.6	6.55 0	6.5	4.90
				24	6.7	6.60 1	6.5	5.00
5.14	5.09	05	5.12	12.12	25		7.0	5.32
5.17	5.15	02	5.16	12.46	26		7.3	5.17
5.21	5.21	00	5.21	12.81	27		7.6	5.14
5.23	5.23	00	5.23	12.93	28		7.7	5.36
5.41	5.44	03	5.42	13.72	29		8.3	5.13
5.50	5.52	02	5.51	14.01	30		8.5	5.60
5.67	5.75	08	5.71	14.61	31		8.9	5.76
5.79	5.91	12	5.85	15.05	32		9.2	6.08
6.04	6.20	16	6.12	15.82	33		9.7	5.95
					34		F	
					35		F	

This plate marked quality 3 - but images compared very well with images of scale -

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..984L

Measures of ft stars in Dec. for $B_3 = 6\ 40 + 45$

Oct ~~10~~ 1911

Sc. MC 831

MC

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..984L

Measures of plates in Reg. for $B_4 = 9\ 20 + 45$ Oct 10, 1911 Lapsed.

Sc. MC. 931
Scale 11

	MC 159 Sc1	Sc2	Diff.	Curve Magn.
12	4.3			
13	4.3			
14	4.9			
15	4.9	4.90	.. 4.9	
16	5.2	5.20	.. 5.2	
17	5.7	5.65	10 5.6	
18	5.6	5.650	1 5.7	
19	5.8	5.80	.. 58	
20		6.1		
21		5.7		
22		6.3		
23		6.7	5.56 5.57	12.27
24		6.8	5.56 5.59	12.39
25		6.7	5.66 5.67	12.27
26		7.0	5.73 5.62	12.62
27		7.5	5.80 5.71	13.21
28		7.6	5.81 5.73	13.33
29		7.9	5.83 5.79	13.69
30		8.1	5.79 5.82	13.92
31		8.5	5.78 5.89	14.39
32		8.8	6.08 5.90	14.70
33		9.1	6.16 5.90	15.00
34		9.5	6.01 5.85	15.35
35		9.7	5.74 5.80	15.50
36		100	5.49 5.73	15.73
37		F		

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..984L

Measures of ft. stars in Reg for Bs. 12+45

Oct 16, 1911

Copied

u

Sc. MC 831

	MC 195 Sc1	Sc2	mean	Diff.	Curve L.	Magn.	Curve E.C.P.	E.C.P.-L	mean Curve	Magn.
12	4.7		4.7	5.76	.	.				
13	5.1		5.1	5.62	5.90	11.00				
14	5.0		5.0	5.95	5.85	10.85				
15	5.1		5.1	5.73	5.90	11.00				
16	5.0	5.0	5.00 00	5.97	5.85	10.85				
17a	~~4.9~~	4.8	4.85 10	6.~~20~~ 15	.	.				
b	5.3	5.1	5.20 12	.	5.95	11.15				
18	~~5.5~~	5.2	5.35 12	6.24	6.04	11.39				
19	5.9	5.8	5.85 10	6.15	6.22	12.07				
20	6.2	6.0	6.10 11	6.34	6.29	12.39	6.27	02	6.28	12.38
21	6.3	6.1	6.20 11	6.25	6.31	12.51	6.28	03	6.30	12.50
22	~~6.3~~	6.0	6.10 11	6.58	6.29	12.39	6.27	02	6.28	12.38
23	6.5	6.2	6.25 10	6.57	6.31	12.56	6.29	02	6.30	12.55
24		6.5		6.39	6.38	12.88	6.32	06	6.35	12.85
25		6.7		6.31	6.40	13.10	6.35	05	6.38	13.08
26		6.9		6.44	6.41	13.31	6.37	04	6.39	13.29
27		6.9		6.21	6.41	13.31	6.37	04	6.39	13.29
28		7.5		6.37	6.45	13.95	6.43	02	6.44	13.94
29		7.9		6.27	6.47	14.37	6.47	00	6.47	14.37
30		8.2		6.73	6.48	14.68	6.49	01	6.48	14.68
31		8.5		6.48	6.47	14.97	6.50	03	6.48	14.98
32		8.9		6.52	6.44	15.34	6.48	04	6.46	15.36
33		9.2		6.46	6.40	15.66	6.43	03	6.42	15.62
34		9.7		6.28	6.33	16.03	6.34	01	6.34	16.04
35		9.7		.	6.33	16.03	6.34	01	6.34	16.04
36		9.9		.	6.31 E	16.21 E	6.30	01	6.30	16.20 E

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..984L

Measures of ff stars in Seq. for B$ = 20h + 45

Oct 16, 1911 Copied.

Sc. MC831

Scale U

Curve E.C.P.	E.C.P.-L.		MC472 Sc1	Sc2		Diff.	Mean Curve	Magn.	Curve E.C.P.	L	E.C.P.-L.	Mean Curve	Magn.	MC502 Sc1	Sc2		Diff.
		12	4.3										12	4.3			
		13	4.7										13	4.9			
		14	4.9										14	5.0	4.95	0	4.9
		15	5.0	4.95	0	4.9	5.07						15	5.0	4.95	0	4.9 5.07
		16	5.0	5.00	00	5.0	5.27						16	5.2	5.15	0	5.1 5.12
		17	5.8	5.30	00	5.3	5.22						17	5.6	5.55	0	5.5 5.02
		18	5.8	5.85	01	5.9	5.20						18	6.0	6.00	00	6.0 5.05
		19	6.0	5.95	0	5.9	5.32						19				5.9 5.37
		20	6.2	6.15	0	6.1	5.36						20				6.2 5.31
		21				6.5	5.42						21				6.7 5.22
5.40	5.38	02	22			6.7	5.46	5.39	12.09	5.03	5.03	00	5.03	12.13	22			7.1 6.9 5.06
5.44	5.41	03	23			7.2	5.40	5.42	12.62	4.78	4.77	01	4.78	12.68	23			7.9 4.70
5.48	5.44	04	24			7.7	5.36	5.46	13.16	4.70	4.67	03	4.68	13.18	24			7.9 8.5 4.56
5.50	5.46	04	25			8.0	5.42	5.48	13.48	4.69	4.65	04	4.67	13.37	25			8.7 4.72
5.51	5.48	03	26			8.3	5.61	5.50	13.80	4.67	4.64	03	4.66	13.66	26			9.0 4.91
5.55	8.50	05	27			8.7	5.35	5.52	14.22	4.65	4.64	01	4.64	14.14	27			9.5 4.55
5.56	5.50	06	28			8.9	5.61	5.53	14.43	4.65	4.66	01	4.66	14.46	28			9.8 4.71
5.59	5.53	06	29			9.4	5.61	5.56	14.96						29			f
5.60	5.56	04	30			9.7	5.62	5.58	15.28						30			
5.60	5.58	02	31			10.	5.50	5.59	15.59						31			

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..984L

Measures of Hi. stars in neg for Bg = 22 40 +45

Oct 17, 1911

Sc. MC 831

Scale U

copied.

	MC 647 Sc1	Sc2	Diff.	curve	ecP.	ecP-l	mean curve	magn.
13	4.1							
14	4.3							
15	4.7							
16	4.9							
17	5.1	5.00	1	4.9	5.00			
18	5.3	5.25	10	5.2	5.09			
19	5.3	5.25	10	5.2	5.03			
20	5.4	5.35	01	5.3	5.17			
21	5.7	5.70	00	5.7	5.17			
22	5.9	5.90	00	5.9	5.10			
23	6.3	6.25	10	6.2	5.13			
24				6.5	5.30			
25				6.5	5.45			
26				6.6	5.55			
27				6.9	5.44	5.38	5.42	04	5.40	12.30
28				7.2	5.53	5.42	5.45	03	5.44	12.64
29				7.4	5.45	5.45	5.47	02	5.46	12.86
30				7.8	5.39	5.51	5.51	00	5.51	13.41
31				8.2	5.57	5.55	5.53	02	5.54	13.74
32				8.5	5.56	5.58	5.56	02	5.57	14.07
33				8.8	5.60	5.60	5.57	03	5.58	14.38
34				9.2	5.52	5.60	5.59	01	5.60	14.80
35				9.4	5.64	5.60	5.60	00	5.60	15.00
36				9.9	5.60	5.62	5.60	02	5.61	15.51

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..984L

Measures of ft. stars in neg. for $b_1 = 1^h + 15$
Oct 17, 1911 Copied.

P.
Sc ~~1911~~ 1911

	t 8196							
	Sc.1		Sc.2	mean	Diff	Diff corr'd	magn	
12	2.1	1.8						
13	2.3	2.0						
14	2.7	2.4						
15	3.0	2.7						
16	3.2	2.9						
17	3.3	3.0						
18	3.7	3.4						
19	4.1	3.8	3.9	3.85	.01	8.36	8.48	12.33
20	4.3	4.0	4.1	4.05	.01	8.57	8.57	12.62
21	4.6	4.3	4.2	4.25	.16	8.64	8.62	12.87
22	5.1	4.8	4.8	4.80	.00	8.76	8.66	13.46
23	5.3	5.0	4.9	4.95	.01	8.61	8.66	13.61
24	5.2	4.9	4.9	4.90	.00	8.68	8.66	13.56
25	5.4	5.1	5.1	5.10	.00	8.66	8.64	13.74
26	5.9	5.6	5.5	5.55	.01 .10	8.57	8.55	14.10
27	6.3	6.0	6.0	6.00	.00	8.34	8.44	14.44
28	6.3	6.0	6.0	6.00	.01	8.55	8.44	14.44
29			6.5			8.24	8.31	14.81
30			7.1			8.07	8.15	15.25
31			7.5			8.10	8.04	15.54
32			8.1			7.86	7.88	15.98
33			9.0			e	7.66	16.66 E

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..984L

Measures of ff stars in Seq for 6h 3 + 15°

Oct 17, 1911 Copied.

Sc. MC 831
Scale 2"

MC 834

	Sc 1		Sc 2	Diff.	Curve magn.			Curve magn.			Sc 1		Sc 2	Diff.
12	4.2									12	4.3			
13	4.6									13	4.5			
14	4.9									14	5.0			
15	5.0	4.95 o	4.9							15	5.0	4.95 o	4.9	
16	5.3	5.25 i o	5.2							16	5.2	5.15 o	5.1	
17	5.4	5.35 o	5.3							17	5.6	5.55 o	5.5	
18	5.5	5.50 oo	5.5							18	5.5	5.50 oo	5.5	
19	5.7	5.60 i	5.6							19	5.9	5.85 i o	5.8	
20	6.0	5.90 i	5.8	6.31	6.28	12.18		6.08	12.23	20	6.2	6.15 o	6.1	6.06
21	6.3	6.25 i o	6.2	6.09	6.17	12.42		6.07	12.37	21	6.8	6.30 oo	6.3	6.04
22	6.7	6.70 oo	6.7	5.80	6.07	12.77		6.05	12.60	22	6.6	6.55 o	6.6	5.95
23			6.6	6.21	6.09	12.69		6.05	12.55	23			6.5	6.31
24			7.1	5.92	6.00	13.10		6.04	12.94	24			6.9	6.12
25			7.2	5.88	6.00	13.20		6.03	13.13	25			7.1	5.98
26			7.7	5.97	5.95	13.65		6.01	12.71 (3)	26			7.7	5.97
27			7.9	6.02	5.93	13.83		6.00	13.90	27			7.9	6.02
28			8.6	5.75	5.86	14.46		5.98	14.48	28			8.5	5.85
29			8.5	5.99	5.87	14.37		5.98	14.48	29			8.5	5.99
30			9.1	5.87	5.80	14.90		5.96	14.86	30			8.9	6.07
31			9.7	5.66	5.75	15.45		5.96	15.46	31			9.5	5.86
32			9.9	5.82	5.78	15.63		5.96	15.76	32			9.8	5.92
33			f					5.96	15.66	33			9.7	5.96
34			f					5.95	15.95	34			10.0	

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..984L

Measures of ℓt stars in Deg for $b_3 = 5^h + 15$
Oct 20, 1911 Leopold.

Sc MC 831
Scale ℓ

	MC 157 Sc 1		Sc 2	Diff.	Curve	Magn.		
11	4.2							
12	4.6							
13	4.5							
14	4.9							
15	5.2	5.10	1	5.0				
16	5.3	5.25	10	5.2				
17	5.2	5.15	01	5.1				
18	5.4	5.40	00	5.4				
19	5.7	5.65	10	5.6				
20	6.1	6.05	10	6.0				
21	6.2	6.10	1	6.0				
22	6.2	6.15	01	6.1				
23	6.5	6.50	00	6.5				
24	6.7	6.65	10	6.6				
25	6.9	6.85	10	6.8				
26	7.2	7.10	1	7.0	5.04	5.05	12.15	
27	7.7	7.65	10	7.6	5.12	5.17	12.82	
28				7.9	5.32	5.21	13.11	
29				8.5	5.32	5.30	13.80	
30				8.9	5.39	5.35	14.25	
31				9.5	5.23	5.41	14.91	
32				9.9	5.31	5.44	15.34	
33				9.9	5.54	5.44	15.34	

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..984L

Measures of ft stars in Reg. for Dt = 4h +15

Oct-20, 1911

Sc. MC 831

Scale U

	MC 698 Sc 1	Sc 2	Diff.	
12	4.2			
13	4.7			
14	5.0			
15	5.3	5.25	10	5.2
16	5.2	5.15	0 ±	5.1
17	5.5	5.55	± 0	5.6
18	5.9	5.90	0 0	5.9
19	6.1	6.05	10	6.0 6.07
20	6.4	6.35	0 ±	6.3 6.15
21	6.4	6.35	0 ±	6.3 6.11
22	6.7	6.70	0 0	6.7 6.06
23				
24				
25				
26				
27				
28				
29				

Plate not finished

Do not use

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..984L

Measures of ff stars in Deg. for b5 = 9h +15

Sc MC 831 Oct 21, 1911 Copied.

Scale 11 MC 116 MC 151

	Sc 1	Sc 2	Diff.	Curve magn.		Curve magn.		Sc 1	Sc 2	Diff.
12	3.8							4.2		
13	?							?		
14	4.1							4.7		
15	4.6							5.2	5.15	5.1
16	4.9							5.5	5.55	5.6
17	5.2	5.10	5.0					5.9	5.85	5.8
18	5.2	5.10	5.0					6.0	5.95	5.9
19	5.3	5.25	5.2					6.1	6.10	6.1
20	5.5	5.45	5.4	6.77 (8)	6.80	12.25 (6)	6.00	12.45 (6)	6.5	6.45 6.4 5.77 (8)
21	5.9	5.85	5.8	6.84 (5)	6.77	12.62 (3)	5.99	12.59 (60)	6.7	6.60 6.5 6.09 (10)
22	6.4	6.35	6.3	6.65 (6)	6.74	13.09 (10)	5.93	12.88 (9)	7.0	6.95 6.9 6.05 (6)
23	6.5	6.50	6.5	6.68 (9)	6.73	13.28 (4)	5.90	13.15 (6)	7.2	7.25 7.3 5.98 (4)
24	6.7	6.70	6.7	6.77 (5)	6.72	13.42 (3)	5.86	13.36 (8)	7.5	7.50 7.5 5.97 (8)
25	7.5	7.45	7.4	6.62 (4)	6.71	14.16 (7)	5.80	14.12 (1)	8.3	8.30 8.3 5.77 (9)
26	7.3	7.30	7.3	6.82 (9)	6.71	14.01 (2)	5.80	14.25 (6)	8.4	8.45 8.5 5.78 (4)
27	7.6	7.55	7.5	6.89 (7)	6.72	14.27	5.80	14.45	8.6	8.65 8.7 5.79 (7)
28	7.9	7.90	7.9	6.75 (82)	6.73	14.63	5.85	14.75		8.9 5.75 (82)
29	8.3	8.25	8.2	6.75 (8)	6.76	15.00	5.90 (86)	14.96 15.00		9.1 5.90 (6.00)
30			8.7	5.84 (64)	6.86	15.56	6.00 (5.90)	15.50 (47)		9.5 6.04 (5.64)
31			9.0	7.06 (6.92)	6.99 (8)	15.99 (5)	6.15 (5.98)	16.05 (15.88)		9.9 6.16 (02)

Curves for Relatin magnitudes slightly changed Nov. 30, 1915, by the addition of 4 series plates. All magnitudes through Star 26 increased by 0.01. Later magn. read from altered curve.

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..984L

Measures of ff stars in Dec. for $\delta_6 = 11 + 15$

Sc MC 831 — Scale U — Oct 23, 1911 — Sc P

	MC 1.2.1 Sc 1	Sc 2	Diff.	Curve Magn.			Magn. Curve		A 7680 Sc 1	Sc 2	Diff	
13	4.0								2.0	1.7		
14	4.2								2.0	1.7		
15	4.2								2.2	1.9		
16	4.7								2.7	2.4		
17	4.9								2.9	2.6		
18	5.1	5.05	10	5.0					3.0	2.7		
19	5.0	4.95	0	4.9					3.0	2.7		
20	5.2	5.20	00	5.2					3.0	2.7		
21	5.3	5.25	10	5.2					3.2	2.9		
22	5.5	5.40	1	5.3					3.3	3.0		
23	5.9	5.85	10	5.8					3.6	3.3		
24	6.1	6.00	1	5.9	6.16	6.16	12.16	12.33	4.0	3.7		8.46
25	6.3	6.25	10	6.2	6.08	6.16	12.41	12.38	4.1	3.8	3.7 3.75	0 8.58
26	6.5	6.40	1	6.3 7.0	6.29	6.15	12.55	12.59	4.3	4.0	4.0 4.00	00 8.69
27	7.0	6.95	0	6.9	6.18	6.15	13.10	13.15	4.9	4.6	4.7 4.65	0 8.48
28	7.3	7.25	10	7.2	6.01	6.16	13.41	13.37	5.2	4.9	4.9 4.90	00 8.36
29	7.1	7.05	10	7.0	6.21	6.15	13.20	13.20	5.0	4.7	4.7 4.70	00 8.56
30	7.7	7.70	00	7.7	6.16	6.20	13.90	13.84	5.7	5.4	5.4 5.40	00 8.46
31				8.1	6.40	6.29	14.39	14.60			6.2	8.30
32				8.3	6.34	6.34	14.64	14.60			6.2	8.44
33				8.5	6.42	6.40	14.90	14.90			6.5	8.42
34				8.8	6.54	6.49	15.29	15.30			6.9	8.44
35				9.2	6.57	6.62	15.82	15.90			7.5	8.27
36				9.5	6.77	6.71	16.21	16.20			7.8	8.47
37												

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..984L

Measures of ft stars in Deg. for $A_3 = 20 + 75$

Sc. MC 831 Oct 23, 1911 Copied.

Scale U

	MC 4.44 Sc 1.44		Sc. 2	Diff.	Curve E.C.R. -2	E.C.R. -2	mean Curve	magn.
15	3.9			6.31				
16	5.0			5.47				
17	5.0	4.95 01	4.9	5.75				
18	5.2	5.15 01	5.1	5.85				
19	5.4	5.35 02	5.3	5.80				
20	5.7	5.65 10	5.6	5.67				
21	6.2	6.15 01	6.1	5.44				
22	6.2	6.15 01	6.1	5.49				
23	6.5	6.45 10	6.4	5.57				
24	6.7	6.70 00	6.7	5.62	5.60	5.55 05	5.58	25 13.28
25	6.9	6.90 00	6.9	5.53	5.60	5.56 04	5.58	12.48
26	7.1	7.05 10	7.0	5.58	5.60	5.58 02	5.59	12.64
27	7.5	7.45 10	7.4	5.66	5.61	5.60 01	5.60	13.05
28	7.5	7.50 00	7.5	5.79	5.61	5.60 01	5.60	13.10
29			8.1	5.40	5.65	5.64 01	5.64	13.74
30			8.0	5.70	5.64	5.64 00	5.64	13.64
31			8.5	5.62	5.67	5.66 01	5.66	14.16
32			8.6	5.79	5.68	5.66 02	5.67	14.27
33			8.8	5.72	5.69	5.67 02	5.68	14.48
34			9.1	5.75	5.69	5.67 02	5.68	14.78
35			9.5	5.68	5.66	5.68 02	5.67	15.17
36			9.8	5.52	5.62	5.68 06	5.65	15.45
37			F					
38			ns					
39			ns					
40			ns					

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..984L

Measures of ff. Stars in Deg for by = 13 + 15

Oct 23, 1911 Copied.

Sc. 9MC831

Scale 4

	9MC 281 Sc1		Sc2	Diff.	Curve	Mag.
11	4.7					
12	4.8					
13	4.9					
14	5.1	5.00 ± .1	4.9			
15	5.2	5.10 ± .1	5.0			
16	5.3	5.25 ± .0	5.2			
17	5.9	5.80 ± .1	5.7			
18	6.1	6.00 ± .1	5.9			
19	6.3	6.20 ± .1	6.1			
20	6.3	6.25 ± .0	6.2	6.02	5.99	12.24
21	6.9	6.95 ± .0	7.0	5.92	5.98	12.93
22	7.2	7.15 ± .0	7.1	6.14	5.98	13.13
23			7.7	5.75	6.01	13.71
24			7.8	6.12	6.02	1882
25			8.1	6.01	6.09	14.19
26			8.4	5.88	6.18	14.58
27			8.5	6.08	6.21	14.71
28			8.7	6.36	6.27	14.97
29			8.9	6.56	6.34	15.24
30			9.3	6.59	6.47	15.77
31			9.7	6.52	6.60	16.30
32			10.0		6.71 E	16.71 E
33			4			

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..984L

Measures of ft. discs in Seq. for $b8 = 15^h + 15$

Oct 24, 1911

Sc. MC 831

Scale M MC 317

copied.

a 7679 (Sup. 24)

	Sc 1		Sc 2	Diff.	Curve Magn.	
11	4.0					
12	4.2					
13	4.3					
14	4.3					
15	4.7					
16	4.9					
17	4.9					
18	5.1	5.05	5.0			
19	5.1	~~5.00~~ 1 1	4.9			
20	5.1	5.00 1 1	4.9			
21	5.3	5.25	5.2			
22	5.8	5.75	5.7			
23	6.1	6.05	6.0			
24	6.3	6.20	6.1			
25	6.5	6.50	6.5	5.76	5.89	12.39
26	6.7	6.70	6.7	6.02	5.95	12.65
27	7.1	~~7.00~~ 1 1	6.9	6.36	6.03	13.03
28	7.7	7.70	7.7	6.17	6.19	13.89
29			7.9	6.06	6.24	14.14
30			8.3	6.23	6.32	14.62
31			8.7	6.27	6.39	15.09
32			8.7	6.53	6.39	15.09
33			8.9	6.37	6.42	15.32
34			9.2	~~6.68~~ 70	6.47	15.67
35			9.7	6.49	6.53	16.23
36			F			

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..984L

Measures of ff- stars in Deg for log = $17^h + 1.5$

Oct 25 1911

Sc. P

7867-

	Sc 1		Sc. 2
14	2.7	2.4	
15	2.9	2.6	
16	3.0	2.7	
17	3.5 / 4.0	3.2 / 3.8	
18	~~3.8~~		3.7
19	4.1	3.9	3.8
20	4.3	4.2	4.1
21	4.6	4.4	4.3
22	4.9	4.8	4.7
23	5.2	5.1	5.0
24	5.5	5.4	5.3
25	6.1	6.0	5.9
26	6.5	6.4	6.3
27			6.7
28			7.0
29			7.4
30			7.7
31			8.0

Rejected images elongated.

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..984L

Measures of ff stars in Dec. for $b_{10} = 19^h + 15$

Oct 25, 1911

Sc MC 831

Scale U

	MC 501 Sc 1	Sc 2	Curve Magn.			MC 501 Sc 1	Sc 2	Diff.
10	4.1					4.1	3.8	
11	4.3					4.3	4.0	4.00 4.0
12	4.9					5.0	4.7	4.70 4.7
13	5.2	5.10	1	5.0		5.3	5.0	5.00 5.0
14	5.2	5.10	1	5.0		5.3	5.0	5.00 5.0
15	5.3	5.25	10	5.2		5.3	5.0	5.15 5.1
16	5.4	5.35	01	5.3		5.5	5.2	5.25 5.3
17	6.0	5.95	01	5.9				6.0
18	6.3	6.30	00	6.3	5.83	12.33		6.5 5.85
19					5.71	12.71		7.0 5.74
20					5.63	13.03		7.4 5.46
21					5.50	13.50		8.0 5.48
22					5.45	13.75		8.3 5.54
23					5.38	14.08		8.7 5.28
24					5.33	14.33		9.0 5.23
25					5.29	14.59		9.3 5.17
26					5.26	14.76		9.5 5.46
27								F
28								F

Faint images are not comparable with scale images of MC 931

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..984L

Measures of ft-stars in Reg. for $B1 = 1^h$ 20+45 Copied.

Oct 30 1911

Sc MC 831

Scale U

	MC 677 Sc1		Sc2	Diff.	Curve magn.	
13	4.1					
14	4.3					
15	4.7					
16	5.2	5.15 0 1	5.1			
17	5.2	5.10 1 1	5.0			
18	5.2	5.15 0 1	5.1			
19	5.6	5.50 1 1	5.4			
20	5.9	6.80 1 1	5.7			
21	5.9	5.80 1 1	5.7			
22	6.2	6.10 1 1	6.0			
23	6.3	6.15 1 2	6.0			11.96
24			6.1	6.08	5.99 86	12.09 11.94
25			6.8	5.83 6	5.96 0	12.76 8 8 0
26			6.9	5.64	5.96 1	12.86 1
27			7.5	5.99	5.95	13.45
28			7.4	6.26	5.95	13.35
29			7.9	6.08	5.95	13.85
30			8.4	5.89	5.96	14.36
31			8.8	5.94	5.96	14.76
32			9.2	6.03	5.96	15.16
33			9.5	6.14	5.96	15.46
34			9.8	5.64	5.95 H	15.75 4
35			10.0		5.93	15.93

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..984L

Measures of ff. stars in Dec for $b_{11} = 2^h\frac{1}{2} + 15$

Nov. 4, 1911 Copied.

Sc 8

Q 8104

	Sc 1		Sc 2	mean	Diff.	Curve	magn.
15	2.1	1.8					
16	2.3	2.0					
17	2.7	2.4					
18	3.0	2.7					
19	3.2	2.9					
20	3.2	2.9					
21	3.4	3.1					
22	3.7	3.4					
23	3.8	3.5					
24	4.1	3.8	3.9	3.85	8.55	8.57	12.42
25	4.3	4.0	3.9	3.95	8.62	8.57	12.52
26	4.7	44	4.3	4.35	8.55	8.55	12.90
27	4.9	4.6	4.6	4.60	8.54	8.53	13.13
28	4.9	4.6	4.6	4.60	8.82	8.53	13.13
29	5.3	5.0	5.0	5.00	8.56	8.48	13.48
30			5.7		8.26	8.33	14.03
31			6.2		8.06	8.20	14.40
32			6.4		7.98	8.12	14.52
33			6.9		8.09	8.00	14.90
34			7.6		7.66	7.78	15.38
35			8.0		7.84	7.66	15.66
36			8.3			7.56	15.86
37			8.8			7.43	16.23

Faint images not comp. with Scale images.

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..984L

Measures of ff stars in Reg. for $b_{10} = 19^h + 15$
Dec. C Oct 30, 1911 Corpeid.

	A 4860 Sc1		Sc2	Mean	Diff.	Curve	magn.
10	2.0	1.7					
11	2.1	1.8					
12	2.8	2.5					
13	3.0	2.7					
14	3.1	2.8					
15	3.1	2.8					
16	3.3	3.0					
17	3.7	3.4					
18	4.1	3.8	3.7	3.75	.01	8.60	8.79 12.54
19	4.3	4.0	4.1	4.05	.01	8.69	8.77 12.82
20	4.3	4.0	4.0	4.00	.00	8.86	8.78 12.78
21	5.0	4.7	4.7	4.70	.00	8.78	8.70 13.40
22	5.5	5.2	5.7	5.20	.00	8.64	8.61 13.81
23	5.9	5.6	5.5	5.55	.01	8.43	8.54 14.09
24			5.7			8.53	8.50 14.20
25			6.1			8.37	8.38 14.48
26			6.5			8.46	8.21 14.71
27			7.5			7.59	7.60 15.10
28			8.0			7.22	7.26 15.26

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj.:984L

Sc. 0

Measures of ff-stars in Deg for $\delta 8 = 15^h + 15$

Oct. 31 1911

Corrected.

	A 1679 Sc. 1	B Sc. 1.0	Sc. 2	mean	Diff.	Curve	magn.
11							
12	1.x						
13	2.0	1.7					
14	1.9	1.6					
15	2.1	1.8					
16	2.1	1.8					
17	2.3	2.0					
18	2.1	1.8					
19	2.3	2.0					
20	2.2	1.9					
21	2.5	2.x					
22	3.1	2.8					
23	3.1	2.8					
24	3.2	2.9					
25	3.2	2.9			9. 8.36	9.47	12.87
26	3.6	3.3			9.42	9.47	12.77
27	4.1	3.8	3.9	3.85 ± .1	9. 8.51	9.36	13.21
28	5.0	4.7	5.0	4.85 ± .2	9.02	8.97	13.82
29			5.3		8.93 66	8.77	14.07
30			6.1		8.43	8.50	14.60
31			6.6		8.37	8.40	15.00
32			6.8		8.43	8.36	15.16
33			7.1		8.17	8.31	15.41
34			7.7		8.20	8.25	15.95
35			8.0		8.19	8.23	16.23
36			8.7		8.24	8.24	16.94

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..984L

Measures of ff stars in Seq. for $B_4 = 17^h\ 20^m + 45°$
Oct 31, 1911 copied

Dec. P

	Q 7865 S21	Scz	mean	Diff.	Curve E.C.P. 2	E.C.P. - 2	mean Curve	Magn
13	2.0 1.7							
14	2.0 1.7							
15	?							
16	2.2 1.9							
17	2.6 2.3			7.96				
18	3.1 2.8			8.06				
19	3.2 2.9			7.66				
20	3.3 3.0			7.95				
21	3.3 3.0			8.39				
22	3.3 3.0			8.16				
23	3.7 3.4			8.14				
24	3.9 3.6			8.18				
25	4.1 3.8	3.9	3.85 01	8.34				
26	4.2 3.9	3.9	3.90 00	8.42	8.22	8.30	08	8.26	12.16
27	4.4 4.1	4.1	4.10 00	8.41	8.22	8.29	07	8.26	12.36
28	5.0 4.7	4.6	4.65 10	8.18	8.19	8.24	05	8.22	12.87
29	6.0 5.7	5.7	5.70 00	8.07	8.11	8.10	01	8.10	13.80
30	6.1 5.8	5.7	5.75 01	8.09	8.11	8.10	01	8.10	13.85
31	6.2 5.9	6.0	5.95 10	8.07	8.10	8.08	02	8.09	14.04
32		6.3		8.01	8.07	8.06	01	8.06	14.36
33		6.5		8.26	8.05	8.05	00	8.05	14.55
34		6.8		8.00	8.00	8.00	00	8.00	14.90
35		7.5		7.92	7.92	7.95	03	7.94	15.44
36		7.9		7.80	7.85	7.90	05	7.88	15.78
37		9.0			7.62 E	7.83 E	21	7.72 E	16.72 E
38		9.1			7.60 E	7.82 E	22	7.71 E	16.81 E
39		9.5			7.50 E	7.78 E	28	7.64 E	17.14 E

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..984L

Measures of ft stars in Dec. for B4 = 9 20 + 45
Nov 9, 1911 Leopold.

Sc = MC 831

Scale ll MC 159

	Sc 1	Sc 2	Diff.	Curve	Magn.
12	4.3				
13	4.2				
14	4.8				
15	4.9	4.90	00	4.9	
16	5.1	5.10	00	5.1	
17	5.7	5.65	10	5.6	
18	5.7	5.65	10	5.6	
19	5.9	5.85	10	5.8	
20	6.3	6.25	10	6.2	
21	5.7	5.70	00	5.7	
22	6.4	6.30	10	6.2	
23			6.7	5.56	5.51	12.21
24			6.9	5.46	5.58	12.48
25			6.7	5.66	5.51	12.21
26			7.1	5.63	5.63	12.73
27			7.4	5.90	5.71	13.11
28			7.7	5.71	5.78	13.48
29			7.9	5.53	5.81	13.71
30			8.2	5.69	5.87	14.07
31			8.5	5.78	5.90	14.40
32			8.7	6.18	5.91	14.61
33			9.1	6.16	5.90	15.00
34			9.6	5.91	5.79	15.39
35			9.8	5.64	5.71	15.51
36			10.	5.49	5.60	15.60
37				f		

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..984L

5" Plates.

Measures of Deg. for $b_7 = 13^h + 15$ – also p. c.

Nov 2 1911

Sc MC 831

MC 1023

		Sc 1	Sc 2	Pc				Sc 1	Sc 2			
Polar.	a	B.		5.8	1.29		18	6.9	6.85 6.8	4.48	11.47	
8.10	8	4.0	4.10	7.1	1.00		19	7.1	7.05 7.0	4.52	11.73	
8.89	10	5.0	5.0 3.89	8.2	0.69		20	7.3	7.20 7.1	4.56	11.92	
10.17	13	5.9	5.8 4.37	9.9	0.27		21		7.7	4.67	12.58	
	e	6.1	6.1	9.3			22		7.9	4.71	12.84	
	f	6.4	6.5	7			23		8.3	4.79	13.38	
12.28	19	7.5	7.4 4.88				24		8.5	4.83	13.6	
12.59	20	7.9	7.9 4.69				25		8.9	4.90	14.18	
13.20	23		8.7 4.50				26		9.1	4.94	14.45	
	l		9.1				27		9.3	4.97	14.73	
	1	B		5.3	6.35	6.23	6.29	28		9.5	5.01	15.02
	2	3.2	4.09	6.8	7.23	7.36	7.30	Polar	9	4.4	4.30	Pc 80 B. 0.70
	3	3.9	4.13	6.7	7.88	7.94	7.91		11	5.2	5.1 4.22	8.7 0.72
	4	4.1	4.13	7.1	8.04	8.11	8.08		12	5.7	5.7 4.03	9.3 0.43
	5	4.2	4.15	7.3	8.19	8.27	8.23		14	6.1	6.0 4.52	9.7 0.82
	6	4.3	4.15	7.7	8.51	8.80	8.66		15	6.4	6.3 4.54	
	7	4.3	4.17	8.1	8.84	9.24	9.04		16	6.7	6.7 4.56	
	8	5.1	5.0 4.21 4.19	8.3	9.14	9.51	9.32		17		7.0 4.49	
	9	5.0	4.21 9.30	8.3	9.14	9.60	9.37		18		7.2 4.72	
	10	5.3	4.25 9.64	8.7	9.44	9.60	9.52		21		8.1 4.72	
	11	5.2	5.2 4.23 5.2 9.52	8.7	9.29	9.69	9.52		25		8.9 4.83	
	12	5.7	5.7 4.20 5.7 10.08	9.3	9.76	—	—		26		9.1 5.09	
	13	6.0	5.9 4.34 5.7 10.38						27		9.5 5.05	
	14	6.2	6.1 4.37 6.0 10.46						28		9.9 0.07	
	15	6.5	6.3 4.39 6.2 10.70									
	16	6.5	6.4 4.39 6.3 -									
	17	6.7	6.7 4.46 6.7 11.30									

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..984L

F' Plates.

Measures of Seq for b4 = 13 + 15 - also p.c

Nov 2, 1911

Sc MC 831

MC 1016

	Sc1	Sc2	PC	B-R
a	B		5.2	1.19
8 b	3.9	4.20	7.1	1.00
10 c	4.9	3.99	8.1	0.79
13 d	5.9	5.7 4.37	9.5	0.67
e	6.1	5.9	F	0.
f	6.5	6.3		
19 g	7.6	7.5 4.68		
20 h	7.9	7.9 4.69		
23 k		8.7 4.50		
l		9.2		

	Sc1	Sc2	PC			
1	B		5.0	6.23	-	
2	3.3	4.12	6.5	7.36	7.67	Polar
3	4.0	4.17	7.0	7.94	8.13	
4	4.0	4.18	7.2	8.11	8.29	
5	4.2	4.19	7.5	8.27	8.48	
6	4.4	4.20 8.71	8.0	8.80	8.86	
7	4.5	4.22 8.81	8.5	9.27	.	
8	5.1	4.27 9.45	8.8	9.51	9.49	
9	5.1	4.27 9.45	8.9	9.60	9.55	
10	5.3 (5.30)	4.30 5.3 9.6	8.9	9.60	.	
11	5.3 (5.25)	4.29 5.2 9.61	9.0	9.69	9.62	
12	5.6 (5.55)	4.34 5.5 9.93				
13	6.1	4.41 6.15 6.2 10.56				
14	6.3	4.41 6.25 6.2 10.67				
15	6.5	4.44 6.46 6.4 10.92				
16	6.5	4.44 6.40 6.3 10.86				
17	6.9	4.49 6.90 6.7 11.31				

	Sc1		Sc2		
18	6.9	6.90	6.9	4.50	11.43
19	7.3	7.25	7.2	4.55	11.86
20	7.5	7.45	7.4	4.58	12.10
21			7.9	4.66	12.63
22			8.2	4.71	13.00
23			8.6	4.79	13.48
24			8.7	4.83	13.59
25			9.0	4.90	13.93
26			9.3	4.99	14.30
27			9.5	5.07	-
28			F		

	Sc1	Sc2		PC	
9	4.3	4.40		7.9	0.80
11	5.0	5.0	4.42	8.7	0.72
12	5.4	5.7	4.43	9.0	0.73
14	5.9	6.0	4.52	9.9	0.82
15	6.3	6.3	4.64		
16		6.7	4.56		
17		6.9	4.59		
18		7.3	4.62		
21		8.2	4.62		
25		8.9	4.83		
26		9.2	4.99		
27		9.5	5.08		
28		9.8	5.17		

MC 1023 Trap 1016

	Magn	Magn + curve	Mean	
1	B			
2	7.29	7.42	7.36	-07 +06
3	8.03	8.17	8.10	-07 +07
4	8.23	8.18	8.20	+03 -02
5	8.35	8.39	8.37	-02 +02
6	8.45	8.60	8.52	-07 +08
7	8.47 (5)	8.72	8.60	-13 +12
8	9.31 (2)	9.37	9.34	-03 +03
9	9.21	9.37	9.29	-08 +08
10	9.55	9.60	9.58	-02 +02
11	9.43	9.59 (4)	9.51	-08 +08
12	10.00	9.94 (89)	9.97	+03 -03
13	10.34 (29)	10.51 (6)	10.42	-08 +09
14	10.57 (4)	10.61 (6)	10.59	-02 +02
15	10.79 (4)	10.84 (9)	10.82	-03 +02
16	10.79	10.84	10.82	-03 +02
17	11.16	11.29	11.22	-06 +07
18	11.28 (33)	11.40	11.34	-06 +06
19	11.52 (7)	11.78 (80)	11.64	-12 +11
20	11.76	11.98 (12.03)	11.87	-11 +11
21	12.37	12.56	12.46	-09 +10
22	12.61	12.91	12.76	-15 +15
23	13.09	13.39	13.24	-15 +15
24	13.33	13.53	13.43	-10 +10
25	13.80	13.90	13.85	-05 +05
26	14.04	14.29	14.16	-12 +13
27	14.27	14.62 (57)	14.44	-17 +18
28	14.51			

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..984L

Measures of ff-Stars in Dec. for b12-23+15.

Nov 6, 1911 Copied.

Sc. MC 831

Scale U

	MC 518 Sc 1	Sc 2	Diff.	Curve magn.			MC 598 Sc 1	Sc 2	Diff.	Curve magn.	
12	4.9						4.1				
13	~~5.3~~										
14	5.3						4.6				
15	5.3						4.7				
16	5.7						5.1	5.05 10	5.0		
17	6.0						5.2	5.15 01	5.1		
18	6.7						5.8	5.75 02	5.7		
19	6.9						6.1	6.00 12	5.9		
20	7.2	~~5.03~~					~~6.6~~ 6.3	6.20 12	~~6.4~~ 6.1		
21	7.5	4.73	4.82	12.32			6.6	6.55 01	6.5	5.68	
22	7.9	5.06	4.84	12.74			7.2	7.25 01	7.3	5.71	5.61 12.86
23	8.1	4.92	4.86	12.96					7.5	5.52	5.58 13.08
24	8.7	4.74	4.88	13.58					7.9	5.54	5.53 13.43
25	8.6	4.88	4.88	13.48					8.0	5.48	5.52 13.52
26	8.9	4.75	4.89	13.79					8.2	5.45	5.51 13.71
27	9.1	4.92	4.90	14.01					8.5	5.52	5.50 14.00
28	8.9	4.87	4.89	13.79					8.3	5.47	5.51 13.81
29	9.5	4.97	4.90	14.40					8.9	5.57	5.50 14.40
30	9.8	4.94	4.92	14.72					9.3	5.44	5.50 14.80
31	9.9	5.21	4.92	14.82					9.5	5.61	5.50 15.00
32	~~7~~								9.9	5.52	5.51 15.41

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..984L

Measures of ft. stars in Seq. for $B_9 = 22\ 40 + 45$
Nov 9, 1911 copied.

Sc. "P"

	A 8116 Sc.1	Sc.2	mean	Diff.	Curve	Magn.
13	1.9 1.6					
14	2.0 1.7					
15	2.3 2.0					
16	2.3 2.0					
17	2.3 2.0					
18	2.8 2.5					
19	2.9 2.6					
20	3.1 2.8					
21	3.2 2.9					
22	3.3 3.0					
23	3.6 3.3					
24	3.9 3.6	3.7	3.65	01		
25	4.1 3.8	3.8	3.80	00		
26	43 4.0	3.9	3.95	01		
27		4.2			8.14 8.13	12.33
28		4.6			8.13 8.18	12.78
29		4.7			8.15 8.19	12.89
30		5.1			8.19 8.20	13.30
31		5.6			8.17 8.17	13.77
32		5.9			8.16 8.12	14.02
33		6.4			8.00 8.02	14.42
34		6.9			7.82 7.86	14.76
95		7.3			7.74 7.77	15.07
36		7.7			7.74 7.69	15.39

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..984L

Measures of ff. stars in Seg for BS = 12h +45

Sc. 0

Nov 10, 1911

Corrd.

		Sc1	Sc2	mean	Diff.	Curve 2	Magn. from Swiss March 1915	Curve E.C.P.	E.C.P.-L	mean Curve	mean magn.
	12	2.0 1.7		1.7	8.76	·	·				
D	13	2.3 2.0		2.0	8.72	·	·				
D	14	2.3 2.0		2.0	8.95	·	·				
D	15	2.3 2.0		2.0	8.83	·	·				
	16	2.3 2.0		2.0	8.97	·	·				
D	17	2.7 2.4		2.4	8.60	·	·				
	Mi. 6	3.1 2.8		2.8	·	·	·				
D	18	3.2 2.9		2.9	8.69	·	·				
	19	3.7 3.4		3.4	8.60	8.65	12.05				
D	20	4.0 3.7	3.7	3.70 00	8.74	·	·				
	21	4.2 3.9	3.9	3.90 00	8.55	8.58	12.48	8.60	02	8.59	12.49
	22	4.2 3.9	4.0	3.95 ±0	8.73	8.58 7	12.52	8.59	02	8.58	12.53
	23	4.3 4.0	4.0	4.00 00	8.82	8.56	12.56	8.58	02	8.57	12.57
D	24	4.7 4.4	4.3	4.35 05	8.54	·	·			·	·
	25	4.9 4.6	4.6	4.60 00	8.41	8.45	13.05	8.45	00	8.45	13.05
	26	5.1 4.8	4.7	4.75 ±1	8.59	8.40 1	13.16	8.43	02	8.42	13.17
	27	5.1 4.8	4.8	4.80 00	8.31	8.40	13.20	8.42	02	8.41	13.21
	28		5.6		8.27	8.24	13.84	8.28	04	8.26	13.86
	29		6.1		8.07	8.14	14.24	8.19	05	8.16	14.26
	30		6.6		8.33	8.03	14.63	8.09	06	8.06	14.66
	31		7.1		7.88	7.92	15.02	7.98	06	7.95	15.05
	32		7.5		7.92	7.83	15.33	7.89	06	7.86	15.36
	33		7.9		7.76	7.74	15.64	7.78	04	7.76	15.66
	34		8.3		7.68	7.67	15.97	7.69	02	7.68	15.98
	35		8.3		·	7.67	15.97	7.69	02	7.68	15.98
	36		8.7		·	7.58 Σ	16.28 Σ	7.56	00	7.58	16.28 Σ

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..984L

Measures of ft. stars in deg for Bb = 14 40 +45

Sc. 8

Nov 10, 1911

Copied.

A 7681	Sc 1	Sc 2		Diff.	Curve E.C.P. / 2	Curve E.C.P.	E.C.P. - 2	mean curve	Magn.	Magn.
13	1.7	1.4		8.56						
14	2.0	1.7		8.78						
15	2.1	1.8		8.84						
16	2.1	1.8		8.84						
17	2.2	1.9		8.91						
18	2.2	1.9		9.10						
19	2.7	2.4		9.25						
20	2.6	2.3		9.06						
21	3.0	2.7		9.26						
22	3.3	3.0		9.20	9.37	9.31	06	9.34	12.34	
23	3.3	3.0		9.40	9.37	9.31	06	9.34	12.34	
24	3.3	3.0		9.32	9.37	9.31	06	9.34	12.34	
25	3.5	3.2		9.43	9.42	9.35	07	9.38	12.58	
26	3.5	3.2		9.14	9.42	9.35	07	9.38	12.58	
27	4.0	3.7	3.9	3.80 ± i	9.71	9.39	9.36	03	9.38	13.18
28	4.5	4.2	4.3	4.25 ± i	9.30	9.26	9.29	03	9.28	13.53
29	5.0	4.7	4.8	4.75 ± i	8.91	8.90	9.00	10	8.95	13.70
30	5.7	5.4	5.3	5.35 ± i	8.61	8.60	8.68	08	8.64	13.99
31			5.7		8.44	8.46	8.50	04	8.48	14.18
32			6.5		8.09	8.20	8.20	00	8.20	14.70
33			6.7		8.30	8.14	8.15	01	8.14	14.84
34			7.5		7.83	7.98	7.97	01	7.98	15.48
35			7.5		8.04	7.98	7.97	01	7.98	15.48
36			8.3		7.80	7.88	7.83	05	7.86	16.16
37			8.9?		8.10?	7.87?	7.75?	12	7.81?	16.71?
38			9.1?			7.87	7.73	14	7.80	16.80?

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..984L

Measures of ft. stars in Deg. for = 13+15

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..984L

Measures of ft stars in Deg. for $\Delta 1 = {}^{h}1+15$

Sc. P

Nov 11, 1911 W W Sh

Copied.

A6222

	Sc1		Sc2		Diff.	curve	magn.
12	2.2	1.9					
13	2.7	2.4					
14	3.0	2.7					
15	3.1	2.8					
16	3.1	2.8					
17	3.2	2.9					
18	3.7	3.4					
19	4.0	3.7	3.7	3.70 00			
20	4.1	3.8	3.9	3.85 01			
21	4.3	4.0	4.0	4.00 00			
22	4.3	4.0	4.1	4.05 01			
23	4.7	4.4	4.3	4.35 02			
24	4.9	4.6	4.6	4.60 00	~~7.59~~ 7.34		
25	5.1	4.8	4.7	4.75 01	~~7.58~~	~~7.78~~	
26	5.2	4.9	4.9	4.90 00	7.43	7.76	12.60
27	5.3	5.0	5.0	5.00 00	7.44	7.69	12.69
28	5.5	5.2	5.1	5.15 01	7.74	7.68	12.83
29	5.5	5.2	5.2	5.20 00	7.67	7.68	12.88
30	5.7	5.4	5.5	5.45 01	7.78	7.65	13.10
31			5.7		7.71	7.64	13.34
32			6.1		7.48	7.60	13.70
33			6.3		7.54	7.57	13.87
34			6.5		7.26	7.54	14.04
35			6.8		7.52	7.49	14.29
36			7.0		7.44	7.43	14.43
37			7.4		7.48	7.32	14.72
38			8.0		7.10	7.12	15.12
39			8.4		6.87	6.99	15.39
40			8.9			6.83	15.73

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..984L

Sc. "O"

Measures of ft. stars in deg. for $D_2 = 3^h - 15$

Nov. 1, 1911

copied.

	Q 8175 Sc 1		Sc. 2		Diff.	Curve magn.	
13	2.2	1.9					
14	2.6	2.3					
15	3.1	2.8					
16	3.1	2.8					
17	3.2	2.9					
18	3.3	3.0					
19	3.8	3.5					
20	4.1	3.8	3.7	3.75 .01			
21	4.3	4.0	4.1	4.05 .01	8.15	8.01	12.06
22	4.7	4.4	4.8	4.45 .01	7.92	7.86	12.37
23	4.9	4.6	4.7	4.65 .01	7.88	7.82	12.47
Dbl. 24			5.7 6.9		7.12	7.49	13.19
25			5.9		7.34	7.44	13.34
26			5.9		7.45	7.44	13.34
27			6.7		7.52	7.36	13.56
28			6.5		7.41	7.28	13.78
29			6.9		7.36	7.19	14.09
30			7.7		6.87	7.03	14.73
31			7.9		6.99	7.00	14.90
32			7.9		6.94	7.00	14.90
33			8.1		7.26	6.96	15.06
34			8.5		7.11	6.91	15.41
35			8.7		6.91	6.90	15.60
36			9.1		6.84	6.84	15.94

Dbl. mal. Compare with scale images

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..984L

Measures of lt. plans ~~for~~ in Dog. for D3 = 5h 15

Nov 13, 1911

copied.

Sec 8.

A7616

	Sc1.		Sc2		Diff.	Curve	Magn.
14	1.9	1.6					
15	1.9	1.6					
16	2.0	1.7					
17	2.1	1.8					
18	2.6	2.3					
19	2.7	2.4					
20	3.0	2.7					
21	3.1	2.8					
22	3.6	3.3					
23	3.2	2.9					
24	3.7	3.4					
25	4.1	3.8	3.8	3.8000	8.79	8.99	12.79
26	4.2	3.9	~~4.0~~	3.95 10	8.84	8.96	12.91
27	4.3	4.0	4.0	4.00 00	9.14	8.96	12.96
28	4.3	4.0	4.1	4.05 05	9.03	8.95	13.00
29	4.9	4.6	4.6	4.60 00	8.84	8.88	13.48
30	5.4	5.1	5.1	5.10 00	8.72	8.81	13.91
31	5.5	5.2	5.2	5.20 00	8.83	8.80	14.00
32			5.7		8.76	8.70	14.40
33			6.3		8.52	8.54	14.84
34			6.5		8.46	8.48	14.98
35			6.9		8.33	8.33	15.23
36			7.4		8.32	8.07	15.47
37			7.9		7.64	7.75	15.65
38			8.1			7.60	15.70
39			8.5				

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..984L

Measures of Pt. Stars in neighborhood of $\Delta 4 = 7^{h} 15$
Nov 13, 1911

Sc MC 831

	MC 220 Sc1	Sc2
12	48	
13		
14		
15		
16		
17		
18		
19		
20		
21		
22		
23		
24		
25		
26		
27		
28		
29		
30		
31		
32		
33		
34		
35		
36		
37		
38		
39		
40		

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..984L

Measures of ft. stars in Deg. for D5 = 9h – 15

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..984L

5th Plates.

Measures of Seq. for b1 = 1h + 15 - Polar and P.C

Nov 16, 1911

Sc. MC 831

*MC 832

		Sc 1	Sc 2	Pc
5	a	B		7.5
8	b	4.0 4.10		7.5
9		4.8 3.90		
10	c	4.9 3.99	4.7	
11		5.0 4.07		
12		5.0 4.03		
13	d	5.0 4.27	5.7	
14		6.2 4.32		
	e	6.2	6.1	
15		6.6 4.34		
	f	6.5	6.5	
16		7.0 4.26		
19	g	7.9 4.28	7.8	
18		7.6 4.32		
20	h	8.2 4.39	8.2	
21			8.5 4.32	
23	k		8.7 4.50	
25				
	k		9.2 4.53	
17		7.2 4.29		
1		B.		
2		8.2		
3		8.3		
4		8.8		
5		3.9 3.90		
6		4.1 3.94		
7		4.2 3.96		
8		4.7 4.02		
9		4.7 4.02		
10		4.9 4.05		
11		5.1 5.00	4.9 4.09	
12		5.5	5.5 4.14	
13		5.8	5.8 4.18	
14		6.1 6.06	6.0 4.20	
15		6.4 6.35	6.3 4.24	
16		6.5 6.50	6.5 4.25	
17		6.9 6.85	6.8 4.28	
18		7.2 7.15	7.1 4.30	

Scale Read. + Curve.

7.80			
8.04			
8.16	8.72		
8.72	9.22		
8.72	9.22		
8.95	9.42		
9.09	9.52		
9.64			
9.98			
10.25	10.59		
10.59	10.84		
10.75	11.03		
11.13	11.38		
11.45	11.70		

		Sc 1	Sc 2	Scale Read + Curve	
19		7.5 7.50	7.5 4.32	11.82	12.08
20		7.9 7.96	8.0 4.37	12.32	12.56
21			8.3 4.40	12.70	12.92
22			8.7 4.46	13.16	13.40
23			8.9 4.49	13.39	1362
24			8.7 4.46	13.16	1340
25			9.0 4.51	13.51	1372
26			9.2 4.55	13.75	1396
27			9.7		14.52
28			9.7		14.52
29			9.9		14.75
30			10.0		14.88
31			F		
32			F		
33			F		

Use magnitudes in green ink

* Images on MC 832 have no p.e

For second measure of this plate see Bod. 39 p. 87.

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..984L

T' Plates.

Measures of Deg. for b1 - 1+15 Polar + Pc

Nov 16, 1911

Sc Mc 831

Mc 842

		Sc1	Sc2	Pc	Scale Read. + Curve
5	a	13		6.1 0.29	
6				6.6 9.38	
8	b	4.7 3.20		7.5 0.60	
9		4.8 3.70		8.2 0.50	
10	c	4.9 3.79	4.9	8.3 0.57	
11		5.6 4.22		8.8 0.62	
12		5.7 4.03		9.4 0.63	
13	d	6.0 4.47	5.9	9.4 0.77	
14		6.3 4.22		9.9 0.92	
	e	6.3	6.1	9.4	
15		6.7 4.24			
	f	6.7	6.7		
16		7.1 4.16			
19	g	8.1 4.18	8.1		
17		7.4 4.09			
20	h	8.4	8.3 4.29		
18		7.8 4.12			
23	k	9.0	8.9 4.20		
25			9.5 4.23		
	l		9.5		

	Sc1	Sc2	Scale Read. + Curve
19	7.7 7.60	7.5 4.21	11.81
20	8.0 8.00	8.0 4.22	12.22
21	8.2	4.22	12.62
22	8.7	4.24	12.94
23	8.9	4.24	13.14
24	8.8	4.24	13.04
25	9.1	4.23	13.33
26	9.3	4.23	13.53
27	9.7	4.23	13.93
28	9.7	4.23	13.93
29	10.0		14.20
30	f		
31	f		
32	f		
33	f		

		Scale Read. + Curve		Scale Read. + Curve	
1	3.7 3.76	7.46	6.9 0.44	7.34	
2	3.8 3.78	7.58	7.1 0.45	7.55	
3	3.9 3.80	7.79	im surface.		
4	3.8 3.78	7.58	7.2 0.47	7.67	
5	4.3 3.88	7.18	7.7 0.53	8.23	
6	4.7 3.94	8.54	8.0 0.57	8.57	
7	4.9 3.98	8.88	8.2 0.59	8.79	Dein
8	5.4 4.05	9.45	8.7 0.64	9.34	9.22 .87 .5
9	5.2 4.02	9.22	8.6 0.63	9.23	9.02
10	5.5 6.40 5.3 4.05	9.45	8.8 0.66	9.46	9.23 .7
11	5.7 5.60 5.5 4.08	9.68	9.0 0.69	9.69	9.4 .8
12	6.0 6.95 5.9 4.12	10.07	9.3 0.72 0.54	10.24 .02 .24	9.84
13	6.2 6.20 6.2 4.15	10.35	9.5 0.74 0.56	10.36	10.10
14	6.5 6.45 6.4 4.16	10.61	9.9		10.37
15	6.7 6.70 6.7 4.19	10.89			10.63
16	6.9 6.90 6.9 4.19	11.09			10.84
17	7.3 7.20 7.1 4.20	11.35 .40			11.17
18	7.8 7.50 7.5 4.20	11.70			11.49

Use magnitudes in green ink.
Do not use f.c.

87.

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..984L

T' Plates.

Measures of Seq for $b_{1900} = 7^h + 15^s$, Polar Seq = PC

Nov 18 1911

Sc MC 831

MC 188

		Sc 1	Sc 2	PC
	a	13		6.1
8=	b	4.2		7.5 8.2
9				
10=	c	4.8 5.2	4.9	8.4 8.7
11				
12		5.7		
13=	d	6.1	5.9	9.2
14		6.4		
	e	6.3	6.1	9.6
15				
16		6.3		
	f	6.7	6.6	
19=	g	7.8	7.8	
20=	h		8.3	
23=	k		9.0	
	l		9.5	

Reject-

Scale Read. + Curve				Scale Read + Curve
	B	1	B	
7.20	3.1 4.10	2	3.2	
3.2		3	3.6	
8.10	4.0 4.10	4	3.9	
8.21	4.1 4.11	5	4.2	
8.33	4.2 4.13	6	4.5	
8.44	4.3 4.14	7	4.9	
9.27	5.0 4.27	8	5.0	4.8
9.38	5.1 4.28	9	5.5	4.5
9.60	5.3 4.30	10	5.8	5.8
9.81	5.5 4.31	11	5.3	5.3
9.81	5.5 4.31	12	5.7	5.7
9.70	5.4 4.30	13	5.6	5.7
10.40	6.1 4.30	14	6.2	6.2
10.60	6.3 4.30	15	6.3	6.3
10.99	6.7 4.29	16	6.5	6.5
11.28	6.9 4.28	17	7.0	6.9
11.57	7.3 4.27	18	7.3	7.3

Scale Read + Curve			
6.4	6.4 0.40	6.80	
6.9	6.9 0.40	7.30	Polar
7.2	6.9 0.40	7.30	
7.5	7.3 0.40	7.70	
7.7	7.9 0.41	8.31	
7.9	7.9 0.41	8.31	
8.2	8.1 0.41	8.51	
8.3	8.7 0.41	8.81	
6.7	8.8 0.41	9.21	
8.9	9.2 0.46	9.66	
9.0	9.4 0.48	9.88	
9.3	9.7 0.50	10.20	
9.5	9.5 0.48	9.98	
9.8			

	Sc 1	Sc 2	Scale Read + Curve
19	7.5	7.5 4.27	11.77
20		7.7 4.28	11.98
21		8.0 4.30	12.30
22		8.2 4.30	12.50
23		8.4 4.30	12.70
24		8.2 4.30	12.50
25		9.1 4.30	13.40
26		8.2 4.30	12.50
27		9.7 4.30 2	14.00 2
28		9.5 4.30 2	13.80 2
29		9.9 4.30	14.20
		PC	
5	B.	6.0 0.39	
8	4.0 4.80	7.7 0.40	
9	4.5 4.40	8.3 0.40	
10	4.9 3.99	8.5 0.39	
11	5.1 4.32	9.0 0.42	
12	5.3 4.43	9.2 0.53	
13	5.8 4.37	9.7 0.47	
14	6.2 4.32	10.0 0.52	
15	6.7 4.24		
16	7.1 4.16		
17	7.3 4.19		
18	7.7 4.22		
19	8.0 4.28		
20	8.3 4.29		
21	8.5 4.32		
23	8.9 4.30 Sc 2		
25	9.4 4.33		
26	9.9 4.29		

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..984L

T' Plates.

Measures of Deg for $b4 = 4^h + 15$, Polar + P.C

Nov 21 1911

Sc MC 831

MC 847

		Sc 1	Sc 2	P.C		Sc 1	Sc 2	Scale Read + Curve
	a	13		5.5 0.89	18	7.2	7.2 4.05	11.28
4.00	8: b	4.1		7.5 0.60 8.2 0.50	19	7.4	7.5 4.09	11.54
4.00	9	4.7						
3.99	10. c	4.9	4.9	8.3 0.57 8.9 0.52 9.2 0.53	20		7.8 4.10	11.90
4.02	11	5.4						
4.03	12	5.7						
3.97	13: d	6.2	5.9	9.5 0.67	21		7.9 4.10	12.00
4.02	14	6.8		10.0 0.52				
	e	6.5	6.5		22		8.2 4.11	12.31
4.04	15	6.9						
4.06	16	6.7	6.5		23		8.5 4.11	12.61
4.09	17		6.4					
4.22	18		6.6		24		8.2 4.11	12.31
4.08	19: g		8.7					
			8.5		25		9.1 4.06	13.16
4.09	20: h		8.7					
4.12	21				26		8.3 4.11	12.41
4.00	23: k		9.2					
					27		9.5 4.00	13.50
4.03	25		9.7					
			Scale Read + Curve	Scale Read + Curve	28		9.7 4.00	13.70
	1			5.9 0.83 6.73				
	2	3.0		6.2 0.76 7.16	29		9.9	
	3	3.3		6.7 0.73 7.43				
	4	3.9 3.99	7.89	7.0 0.69 7.69				
	5	4.1 4.00	8.10	7.8 0.68 8.18				
	6	4.2 4.01	8.21	7.6 0.66 8.56				
	7	4.6 4.00	8.60	inverted				
	8	5.0	4.9 4.00 8.95	8.3 0.55 8.85				
	9	4.9	5.0 4.01 8.96	8.7 0.53 9.23				
	10	5.4	5.3 4.02 9.47	8.9 0.52 9.42				
	11	5.5	5.3 4.02 9.42	9.2 0.53 9.70				
	12	5.7	5.5 4.03 9.63	9.2 0.50 9.70				
	13	5.7	5.7 4.03 9.73					
	14	6.4	6.4 4.04 10.44					
	15	6.5	6.7 4.06 10.66					
	16	6.5	6.5 4.06 10.56					
	17	6.8	6.9 4.06 10.91					

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..984L

F' Plates.

Measures of Seq for $b_{10} = 19 + 15$, Polar Dep + P.C

Nov 23, 1911

Sc. MC 831

MC 676

		Sc1	Sc2	P.C
5=	a	B		5.3
8=	b	4.0		7.5
10=	c	4.8		8.5
13=	d	5.9	5.8	
	e	6.2	6.0	
	f	6.5	6.3	
19=	g	7.7	7.7	
20=	h		8.0	
28=	k		8.7	
	l		9.3	

	1	B		5.4	1.20	6.60	Polar 6.62			
	2	2.9		6.0	1.08	7.08	7.16			
	3	3.0		6.2	1.04	7.24	7.33			
	4	3.2		6.5	0.97	7.47	7.60			
8.05	5	4.0	4.05	7.5	0.80	8.30	8.44			
8.18	6	4.1	4.08	Effective						
8.05	7	4.0	4.05	7.3	0.83	8.13	8.28			
8.68	8.92	8	4.7	4.22	8.5	0.66	9.16	9.18		
8.95	9.15	9	4.9	4.25	8.5	0.66	9.16	9.18		
9.33	9.27	10	5.0	4.95	4.97	8.8	0.61	9.41	9.40	
9.40	9.62	11	5.3	5.29	5.1	4.32	9.0	0.60	9.60	9.53
10.43	10.40	12	6.0	5.95	5.9	4.40				
10.56	10.50	13	6.1	6.05	6.0	4.40				
10.76	10.73	14	6.3	6.20	6.1	4.43				
11.07	10.95	15	6.5	6.45	6.4	4.45				
11.38	11.17	16	6.7	6.70	6.7	4.47				
11.71	11.46	17	7.1	7.00	6.9	4.46				
12.27	11.92	18	7.5	7.60	7.5	4.42				

12.20	15	19	7.7	7.75	7.8	4.40		
12.11		20			7.7	4.41		
12.83		21			8.6	4.33		
13.20		22			8.9	4.30	1448	
13.50		23			9.2	4.30		
13.60		24			9.3	4.30		
14.03		25			9.7	4.33	1441	
14.37		26			10.0	4.37	1469	
14.26		27			9.9	4.36	1460	
		28			F			

	5	B			5.2	1.19
	6	B			5.8	1.18
	8	B				
		4.0	4.10		7.3	0.80
	9	4.1	4.00		8.0	0.70
	10	4.7	4.19		8.2	0.69
	11	5.1	4.32	5.1	8.7	0.72
	12	5.5	4.33	5.3	9.2	0.53
	13	5.8	4.37	5.9	9.7	0.47
	14	6.2	4.42	6.1	10.0	0.52
	15	6.8	4.54	6.3	F	
	16		4.56	6.7		
	17		4.49	7.0		
	18		4.42	7.5		
	19		4.38	7.9		
	20		4.39	8.2		
	21		4.32	8.5		
	23		4.30	8.9		
	25		4.33	9.3		
	26		4.39	9.7		

Use magnitudes in your ink.

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..984L

F' Plates.

Measures of Seq for B6=14 40+45, Polar + Pcs

Nov 23, 1911

Sc MC831

MC 955

		Sc1	Sc2	Pc			Sc1	Sc2			
	a	B.		4.9		19	5.9	5.85	58x	11.20	11.03
8=	b	3.0		6.3		20	6.0	5.95	5.9	11.80	11.14
9		3.7									
10=	c	3.7		7.3		21	6.3	6.30	6.3	11.66	11.52
11		4.2									
12		4.5									
13=	d	4.9	4.9	8.6		22	6.5	6.50	6.5	11.89	11.73
14		5.2									
~~15~~	~~e~~	~~5.2~~	~~5.2~~	~~8.9~~		23	6.7	6.80	6.9	12.22	12.08
16		5.5									
17		5.7	5.6	9.2		24			6.7	12.10	11.96
18		6.5									
19=	g	6.9	6.9			25			6.9	12.35	12.20
20	h	7.2	7.2			26			6.7	12.10	1.96
23	k	7.5	7.8			27			7.3	12.83	12.65
25	l	8.0	8.5			28			7.9	13.60	13.37
1		B		4.9	6.49	29			7.9	13.60	13.37
2		B		4.9	6.49	30			8.2	14.00	.
3		B		5.1	6.70	31			8.3	14.14	13.88
4		B		5.2	6.80	32			8.7	.	14.41
5		B		5.6	7.21	33			9.1	.	15.00
6		2.8		5.9	7.52	34			9.3	.	15.28
7		3.1		6.1	7.73	35			9.5'	.	[illegible]
8		3.1		6.3	7.93	36			9.5'	.	15.58
9		3.7		7.3	8.94	37			10.0	.	(15.80) ff.
10		4.1		7.5	9.13	38			ns		
11		4.3	9.60	9.47	7.7 9.32						
12		4.7	10.01	9.82	8.4 9.97						
13		4.7	10.01	9.82	8.5 10.05						
14		5.2	5.10	5.0	10.43 8.9	.	10.20				
15		5.2	5.20	5.2	10.53 9.0	.	10.31				
16		5.3	5.20	5.1	10.53 9.0	.	10.31				
17		5.4	5.35	5.3	10.68		10.47				
18		5.6	5.65	5.4	10.99		10.79				

Use magnitudes in green ink

See pg. 51

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..984L

F1 Plates.

Measures of Seg for b6 - 11 + 15 Polar + PC

Nov 25 1911.

Dc MC831

MC1427

	Sc1	Sc2	PC
a	B		5.3
b	3.9		7.3
c	4.7		8.3
d	5.9	5.7	9.3
e	6.1	6.0	
f	6.5'	6.4	
g		7.5'	
h		7.8	
k		8.4	
l		8.9	
1	B		5.1
2 near edge	B		5.3
" " 3	B		6.1
" " 4	3.0		6.0
5	3.2		6.4
6	3.7		6.9
7 Too near edge			
8	4.0		7.3
9	4.0		7.5
10	4.2		7.7
11	4.9	4.7	8.5'
12	4.7		8.5'
13	5.1	5.0	8.8
14	5.3	5.2	9.0
15	5.1	5.0	8.7
16	5.8	5.7	9.5'
17	5.9	5.9	9.5
18	6.2	6.1	

Seg too far from Centre

	Sc1	Sc2
19	6.2	6.1
20	6.3	6.1
21	6.3	6.3
22	6.5'	6.5'
23	7.0	6.8
24	6.9	7.0
25	7.2	7.1
26	7.5'	7.5'
27	7.9	8.0
28		8.3
29		8.1
30		8.5'
31		9.0
32		9.3
33		9.5'
34		9.7
35		10.0
36		F
37		F

Plate rejected Seg too far from Centre

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..984L

T' Plates.

Measures of Deg for $B_1 = 1\ 20 + 45$ Polar, + Pc

ScMC8 31

~~Nov~~ 27 1911

AC 1425

	Sc1	Sc2	Pc			Sc1	Sc2	Magn	
a	B		5.1		19	5.9 595	6.0	10.49	10.83
b	~~4.4~~ 3.7		7.3		20	6.1 6.05	6.0	10.61	10.97
c	4.9		8.5		21	6.1	6.1	10.69	11.03
d	5.7	5.7			22	6.3 6.25	6.2	10.87	11.21
e	5.9	5.9			23	6.3	6.3	10.94	11.27
f	6.2	6.1			*24	NS			
g		7.3			25	7.1	7.1	11.94	12.24
h		7.7		Adopt magn. from P.C.	26		7.3	12.20	12.49
k		8.1			27		7.9	12.93	13.20
l		8.7		Magn. from P.C.	28		8.2	13.30	13.55
1	B		5.7	6.87	29		8.7	.	14.17
2	2.9		6.1	7.18	30		8.9	.	14.41
Off Plate. 3	~~3.1~~				31		9.2	.	14.80
4	3.1		6.4	7.40	32		9.5	.	15.19
5	3.3		6.7	7.63	33		9.8	.	15.57
6	3.5 3.7		7.0	7.86	34		F		
7	4.1		7.5	8.21	35		F		
8	4.1		7.6	8.29					
9	4.2		7.7	8.35					
10	Too super.		~~8.3~~						
11	4.3		7.7	8.35					
12	4.3		7.7	8.35					
13	4.7		8.5	8.86	star				
14	5.0 ~~4.95~~	4.9 ~~4.98~~	8.7	9.00	9.60				
15	5.2 5.15	5.1	9.0	From star	9.81				
16	5.7	5.7		10.18	10.52				
M	5.7	5.7		10.18	10.52				
18	5.9 5.85	5.8		10.36	10.70				

Adopt Magn. in green ink

The Spot marked 24, originally, is a prismatic companion. The image of No. 24 was later marked on the chart, and was measured by O'R.

* Star marked 24 on chart and MC 677 does not appear on T' plates, nor A 8194 - Defect?

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..984L

F1

Measures of Deg. for B1 = 1 20 +45, Polar + Pc

Sc MC 831

Nov. 28 1911

MC 1201

		Sc1	Sc2	Pc		
5 = a	B			5.3		
8 = b	3.5			7.3		
10 = c	4.2			8.3		
13 = d	5.1	5.1				
e	5.3	5.3				
f	5.7	5.7				
19 = g	7.1	7.0				
20 = h		7.3				
23 = k		8.1				
l		8.9				
1	B			5.9	6.90	
2	B			6.3	7.23	
3	?					
4	2.9			6.7	7.53	
5	3.1			7.0	7.83	
6	3.2			7.2	8.00	
7	3.8			7.7	8.41	
8	3.9			7.7	8.41	
9	3.9			?		
10	Sm. too close					
11	4.1			8.0	8.65	
12	4.1			8.1	8.74	
13	4.4					
14	4.8		9.81		9.80	
15	5.1	5.05	5.0	10.10	9.97	
16	5.7		5.7	10.84	10.48	
17	5.6	5.65	5.7	10.73	10.43	
18	5.8		5.8	10.95	10.58	

Check mags. from Pc.

19	6.0 5.95	5.9	11.13	10.74
20	6.2	6.2	11.40	11.07
21	6.1 6.05	6.0	11.23	10.88
22	6.3	6.3	11.50	11.19
23	6.3	6.3	11.50	11.19
24	6.8	6.8	12.02	11.82
25	7.0 6.95	6.9	12.17	12.00
26		7.2	12.43	12.32
27		7.7	12.90	12.96
28		8.1	13.30	13.47
29		8.4	13.59	13.87
30		8.7	.	14.30
31		9.1	.	14.88
32		9.5	.	16.45
33		9.8	.	15.90
34		F		
35		F		

Magnitudes in green ink adopted.

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..984L

J'

Measures of Seq for B 6 14 40 +45 Polar, ~PC

Dec 1, 1911

52 MC 831

MC 1150

	Sc1	Sc2	PC			Sc1	Sc2		
a	B		4.9		19	6.0	6.95 5.9	11.15	11.04
b	3.1		6.5		20	6.1	6.10 6.1	11.28	11.22
c	3.9		7.7		21	6.3	6.30 6.3	11.47	11.45
d	5.0	4.9			22	6.7	6.70 6.7	11.86	11.92
e	5.2	5.2			23	6.7	6.70 6.7	11.86	11.92
f	5.7	5.5			24		6.7	11.86	11.92
g		7.1			25		7.0	12.18	12.30
h		7.5			26		6.8	11.97	12.05
k		8.1			27		7.5'	12.67	12.89
l		8.8			28		8.0	13.17	13.47
1	B		4.9	6.38	29		8.2	13.38	13.70
2	B		5.1	6.59	30		8.5'	.	14.02
3	B		5.2	6.70	31		8.5'	.	14.02
4	2.8		5.3	6.80	32		8.8	.	14.38
5	near edge		5.7	7.23	33		9.2	.	1482
6	3.0		6.5	8.10	34		9.3	.	14.94
7	3.2		6.6	8.20	35		9.7	.	15.39
8	3.3		7.1	8.75	36		F		
9	4.0		7.7	9.40	37		F		
10	4.2		7.9	9.61	38		F		
11	4.3		?						
12	4.7	9.57 9.95	8.7						
13	4.8	9.69 10.05							
14	5.2	5.10 5.0	10.33	10.03					
15	5.2	5.20 5.2	10.42	10.14					
16	5.2	5.20 5.2	10.42	10.14					
17	5.3	5.26 5.2	10.46	10.20					
18	5.7	5.60 5.5	10.80	10.62					

See pg 47 for 1st mean

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..984L

~~Superseded~~ J'

~~see page 471~~

Measures of Deq. for b3 = 5+15, Polar + Pc

Dec 7, 1911

Sc. MC 831

MC 1422

		Sc 1	Sc 2	Pc
5	a	B		5.1 1.29
6				5.5 748
8	b	4.1	4.00	7.2 090
10	c	4.8	4.09	8.3 069
13	d	6.0 5.7	6.0 4.17	9.5 067
11		5.2	4.22	8.9 052
	e	5.9	5.9	
12		5.7	4.03	9.3 043
	f	defective		
19	g	7.8	7.8 1.438	
20	h		8.1	4.49
23	k		8.7	4.50
	l			

		Pc		RC
1	B	5.2	1.30	6.50
2	B	5.5	1.26	6.76
3	B	5.8	1.23	703
4	3.0	6.1	1.20	7.30
5	B	6.3	1.18	747
6	3.1	6.5	1.17	7.67
7	3.8 ~~3.77~~	6.8	1.15	7.95
8	3.9 ~~3.95~~	7.1	1.12	8.27
9	4.2 ~~3.78~~	7.5	1.10	8.60
10	4.3 5.09	7.5	1.10	8.60
9.39 11	4.3 5.09	7.8	1.09	8.89
9.39 12	4.5 ~~5.07~~	8.0	1.08	9.08
9.68 13	4.6 ~~5.05~~	8.3	1.06	9.36
9.96 14	4.9 ~~5.06~~	8.5	1.06	9.56
10.16 10.26 15	5.2 5.10	5.0	~~5.06~~	
10.21 10.26 16	5.2 5.15	5.1	~~5.06~~	
10.31 10.36 17	5.3 5.25	5.2	~~5.06~~	
10.40 10.45 18	5.4 5.35	5.3	~~5.06~~	

Being mean of scale readings

Sc 1 Sc 2

10.74 19	5.7 5.79	5.7	5.04
11.08 20	6.1 6.05	6.0	5.03
11.13 21	6.1 6.05	6.0	5.03
11.23 22	6.2 6.10	6.0	5.03
11.33 23	6.3 6.30	6.3	5.03
11.54 24	6.5 6.50	6.5	5.04
11.74 25	6.7 6.70	6.7	5.04
11.94 26	6.9 6.85	6.8	5.04
12.25 27	7.3 7.25	7.2	5.05
12.58 28		7.5	5.08
13.00 29		7.7	5.10
13.33 30		8.2	5.13
13.70 31		8.5	5.20
14.18 32		8.9	5.28
14.70 33		9.3	5.40
15.23 34		9.7	5.53

Polar

		Pol
5	B	5.1 1.29
8	B ~~4.0~~	6.8 1.30
9	B	7.7 1.00
10	B ~~4.9~~	7.9 0.99
11	B ~~5.~~	8.3 1.12
12	~~4.~~ ~~5.~~	8.7 1.03
	4.83	
13	5.8 5.07	9.1 1.07
14	5.4 5.12	9.5 1.12
15	5.9 5.04	9.8 1.14
16	6.2 5.06	
17	6.5 4.99	
18	6.9 5.02	
19	7.2 5.08	
20	7.5 5.09	
21	7.8 5.02	
23	8.1 5.10	
25	8.5 5.23	
26	8.9 5.29	
27	9.2 5.35	
28	9.5 5.47	
29	9.9 5.62	

~~4.40~~

4.22

4.24

4.26

4.29

4.42

4.52

4.63

4.69

4.65

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..984L

F1

Measures of Neg. for $\alpha_{1900} = 19^h + 15^m$ Polar – PC

Dec 5 1911

Sc MC 831

MC 1436

	Sc1	Sc2	pc			Sc1	Sc2	
a	B.		5.2	12.20	19	7.7	7.75	7.8 4.40
b	4.0		7.5	12.10	20			7.7 4.40 12.22
c	4.7		8.3	12.74	21			8.3 4.44 12.54
d	5.9	5.7	9.2	13.19	22			8.7 4.49 13.26
e	6.2	6.2		13.41	23			8.9 4.51 13.47
f	6.5	6.5		13.64	24			9.1 4.54 13.68
g		7.8		14.09	25			9.5 4.59 14.06
h		8.2		14.55	26			9.9 4.65 14.43
k		8.7		14.55	27			9.9 4.65 14.43
l		9.2			28			

F

Polar Sequence

	1	B		5.5 1.15 6.65		5	B		5.3 1.09
	2	2.9		6.1 1.06 7.16	7.28	6			5.8 1.18
	3	2.9		6.2 1.06 7.26	7.34	8			7.2 0.90
	4	3.3		6.7 0.99 7.69	7.72	9	4.5 4.20		7.9 0.80
8.18	5	4.0 4.18	(extrapolated)	7.3 0.89 8.19	8.17	10	4.7 4.19		8.1 0.79
Bbl 8.28	6	4.1 4.18	"	? Inclose images ?		11	5.2 4.22	5.1	8.7 0.72
8.28	7	4.1 4.18	"	7.3 0.89 8.19	8.17	12	5.5 4.23	5.5	9.0 0.70
9.00	8	4.8 4.20		8.3 0.80 9.10	8.94	13	6.0 4.27	6.0	9.5 0.67
9.33	9.20 11 9	5.0 4.90	4.8 4.21	8.5 0.77 9.27	9.12	14	6.3 4.32	6.3	9.9 0.62
9.44	9.30 26 10	5.1 5.05	5.0 4.21	8.8 0.73 9.53	9.38	15	6.6 4.34	6.7	
9.68	9.51 11	5.3 6.30	5.3 4.21	9.0 0.70 9.70	9.54	16	4.36	6.9	
10.52	10.37 12	6.1 6.10	6.1 4.27	9.7 0.58 10.28	-	17	4.39	7.2	
10.63	10.47 2 13	6.2 6.15	6.1 4.27	9.8 0.56 10.36	-	18	4.42	7.5	
10.86	10.68 3 14	6.4 6.35	6.3 4.28			19	4.48	7.8	
11.08	10.90 85 15	6.6 6.55	6.5 4.30			20	4.49	8.1	
11.29	11.11 16	6.8 6.80	6.8 4.31			21	4.42	8.4	
11.60	11.34 9 17	7.1 7.05	7.0 4.34			23	4.40	8.8	
12.22	11.88 18	7.5 7.50	7.5 4.38			25	4.53	9.2	
						26	4.69	9.5	

Use magnitudes in green ink.

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..984L

T1

Measures of peg for BD = 20+45, Polar + Pc

Dec 5, 1911

Sc. MC 831

MC 1421

		Sc 1	Sc 2	Pc		Sc1	6.30	Sc2		
	a	B		5.2	1.19	19	6.3	6.3	10.84	10.86
8	b	4.1 4.00		7.3	0.80	20	6.3	6.30 6.3	10.84	10.86
9		4.6 4.10		7.9	0.80					
10	c	4.7 4.19		8.4	0.49	21	6.9	6.80 6.7	11.33	11.70
11		5.0 4.42								
12		5.3 4.43				22	7.1	7.05 7.0	11.58	12.05
13	d	5.7	5.8 4.47			23		7.3	11.83	12.37
14	e	6.0	6.0 4.52			24		7.7	12.23	12.83
15	f	6.3	6.3 4.64			25		8.0	12.52	13.18
16		6.7	6.7 4.56			26		8.3	12.82	13.50
17		7.0	4.49			27		8.6	13.02	13.72
18			7.4 4.52			28		8.7	13.24	13.92
19			7.8 4.48			29		9.2	13.79	14.55
20	h		8.1 4.49			30		9.7	14.37	15.07
21			8.3 4.52			31		9.9	14.60	15.17
22	k		8.7 4.50							
25			9.1 4.63							
26			3.8 4.49							
	l		8.6							

1	Dm. hazy		6.1	7.12	
2	" "		6.4	7.38	
3	" "		6.3	7.30	
4	" "		6.9	7.79	
5	4.1		7.2	8.03	
6	4.2		7.2	8.03	
7	4.7		7.7	8.44	
8	5.0	4.95 4.9 9.26	7.9	8.60	
9	5.1	5.05 5.0 9.41 8.74	7.9	8.60	
10	5.0	4.95 4.9 9.26	8.0	8.69	
11	5.1	5.10 5.1 9.48 8.80	8.0	8.69	
12	5.2	5.20 5.2 9.60 8.94			
13	5.4	5.45 5.5 9.90	9.38		
14	5.7	5.70 5.7 10.20	9.82		
15	5.9	5.90 5.9 10.42	10.15		
16	5.9	5.90 5.9 10.42	10.15		
17	6.1	6.05 6.0 10.58	10.40		
18	6.3	6.20 6.1 10.73	10.68		

~~Do not~~ Use magnitudes in green ink on this page, except for prismatic companions.

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..984L

T'

Measures of Deg for b11 = 21 + 15. Polar + Pc
Dec 6, 1911

See MC831

	MC 1420 Sc1	Sc2	Pc
a	B		5.1
8= b	3.7		7.2
9			
10 c	4.3		7.7
11			
12			
13 d	5.3	5.2	8.9
14 e	5.5	5.5	
15			
16 f	6.0	5.9	
17			
18		7.2	
19=g			
20=h		7.5	
28=k		8.3	
l		8.7	
1	B		5.4
2	B		5.7
3	3.0		6.3
4	3.6		6.7
5	3.9		7.2
6	3.9		7.3
7	4.1		7.6
8	4.3		7.7
9	4.7		8.2
10	4.9		8.3
11	5.0	5.0	8.5
12	4.9	4.7	8.5
13	5.1	5.0	
14	4.7	B	8.5
15	5.1	5.1	
16	5.3	5.3	
17	5.7	5.8	
18	5.9	6.9	

	Sc1	Sc2
19	6.3	6.3
20	6.3	6.3
21	6.7	6.7
22	6.7	6.7
23	6.7	6.5
24	6.9	6.9
25	7.2	7.2
26		7.3
27		7.5
28		7.8
29		7.9
30		8.3
31		8.7
32		8.9
33		9.0
34		9.4
35		9.7
36		9.9
37		?

Reject.

See page 64

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..984L

F1

Measures of Dog for B8 = 20 h + 45° Polar + P.C

Dec. 11, 1911

See MC 831

MC 1065

		Sc1	Sc2	P.C		Sc1	Sc2		
	a	B		5.1	19	5.8 6.75	5.7	10.95	10.84
8 =	b	3.1 5.00		6.5	20	6.0 5.95	5.9	11.16	11.06
9		3.7 5.00							
10	c	3.9 4.99		7.7	21	6.5 6.50	6.5	11.76	11.68
11		4.2 5.22							
12		4.7 5.03							
13	d	3.8	4.9 5.17	8.7	22		6.9	12.19	12.10
14 386	e	5.3	5.3 5.22	9.0	23		7.3	12.62	12.52
15. 197	f	5.7	5.7 5.24		24		7.7	13.05	12.95
16		6.6	5.8 5.36						
17		6.3	5.8 5.19						
18		6.7	6.9 5.22						
19 =	g	7.0	7.6 5.28		25		8.2	13.59	13.48
20 =	h		7.2 5.39		26		8.5	13.91	13.80
21			7.5 5.32						
23 =	k		8.0 5.20		27		8.7	14.13	14.02
25			8.4 5.33						
24			8.7 5.49						
27	l	B	9.1 5.45	5.8	28		8.9	14.34	14.23
26			9.8 5.47						
	2	2.9		6.0	29		9.2	14.66	14.57
	3	2.9		6.0	30		9.7	15.18	15.10
	4	3.2	8.20	6.4	31		9.9	15.39	15.31
	5	3.3	8.30	6.4					
	6	3.3	8.30	6.4					
	7	3.7	8.72	7.0					
	8	3.9	8.93 8.73 8.81	7.5					
	9	4.0	9.04 8.85 8.93	7.5					
	10	4.1	9.15 8.97 9.01	7.7					
	11	4.3	9.48 9.28	7.9					
	12	4.3	9.48 9.28	8.0					
	13	4.7	9.81 9.66 9.72	8.5					
	14	4.7	9.81 9.66 9.72	8.3					
	15	4.9	4.85 4.8 9.98 9.87	8.7					
	16	5.1	5.05 5.0 10.20 10.12	8.9					
	17	5.3	5.30 5.3 10.46 10.40	9.0					
	18	5.7	5.60 5.5 10.79 10.75						

	Sc1	Sc2		
19	5.8 6.75	5.7	10.95	10.84
20	6.0 5.95	5.9	11.16	11.06
21	6.5 6.50	6.5	11.76	11.68
22		6.9	12.19	12.10
23		7.3	12.62	12.52
24		7.7	13.05	12.95
25		8.2	13.59	13.48
26		8.5	13.91	13.80
27		8.7	14.13	14.02
28		8.9	14.34	14.23
29		9.2	14.66	14.57
30		9.7	15.18	15.10
31		9.9	15.39	15.31

10.46	6.74	28	
11.21	7.40	29	
11.21	7.40	30	
11.64	7.80	31	
11.64	7.80		
11.64	7.80		
12.30	8.40		
12.84	8.90		
12.84	8.90		
13.05	9.10		
13.27	9.31		
13.38	9.41		
13.91	9.95		
13.70	9.74		
14.13	10.17		
14.34	10.38		
14.45	10.49		

Use magnitudes in green nos.
Orig. magn. for p.c. may be used.

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..984L

F1

Measures of Dog for $B_2 = 4^h + 45$, Polar + P.C

Dec 1911

Sc Mc 831

45

Mc 1409 ~~1231~~

	Sc 1	Sc 2	P.C			SC 1		SC 2	
a	B		5.1		19	6.0	5.95	5.9	11.03
b	3.2		6.5		20	6.1	6.00	5.9	11.08
c	4.2		7.5		21	6.3	6.25	6.2	11.34
d	5.2	5.1	9.1		22	6.4	6.35	6.3	11.45
386	5.6	5.5	+1.		23	6.3	6.20	6.1	11.29
197	5.7	5.7			24	6.3	6.25	6.2	11.34
g		7.2			25	6.7	6.70	6.7	11.80
h		7.5			26	7.2	7.10	7.0	12.22
K		7.9			27	7.5	7.40	7.3	12.54
l		8.1			28			7.5	12.65
1	B		5.9	7.37	29			7.7	12.86
2	3.9		6.8	7.80	30			8.3	~~13.52~~ ecl.
3	3.9		6.2	7.70	31			8.7	
4	3.3		6.7	8.20	32			8.9	
5	3.7		6.7	8.20	33			~~7.5~~ def.	
6	3.7		6.9	8.40	34			9.5	
7	3.9		7.3	8.75	35			m.s.	
8	4.0		7.3	8.75					
9	4.1		7.3	8.75					
10	4.3		7.7	9.10					
11	4.7		7.7	9.10					
12	4.7	9.73							
13	4.6	9.62							
14	4.7	9.73							
15	5.2	5.10	5.0	10.15					
16	5.2	5.20	5.2	10.25					
17	5.4	5.35	5.3	10.41					
18	5.7	6.60	5.5	10.67					

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..984L

J'

Measures of Seq. for B2 = 4h+45° Polar, + P.C.

Sc. MC 831 — December 12, 1911.

MC 1231

	Sc 1	Sc 2	P.C.			Sc 1	Sc 2			
a			5.0		19	5.7	5.70	5.7	10.84	10.63
b	3.1		7.2		20	5.9	5.80	5.7	10.95	10.75
c	4.0		7.5		21	6.1	6.05	6.0	11.21	11.08
d	5.2	5.1			22	6.2	6.15	6.1	11.31	11.20
386	5.3	5.2			23	6.1	6.05	6.0	11.21	11.08
197	5	5.5			24	6.3	6.25	6.2	11.42	11.31
g		7.2			25	6.7	6.80	6.9	11.98	12.02
h		7.5			26	6.9	6.95	7.0	12.13	12.20
k		8.1			27	7.2	7.20	7.2	12.38	12.52
l		8.7		Replot using Sc 1 & 2	28			7.3	12.48	12.67
1			5.7	6.97	29			7.7	12.86	13.19
2			6.3	7.52	30			8.3	13.44	14.00
3	2.9		6.5	7.71	31			8.7	.	14.52
4	3.2		6.9	8.08	32			9.1	.	15.06
5	3.3		7.2	8.37	33			9.5	.	15.60
6	3.3		7.3	8.46	34			9.7	.	15.87
7	3.7		7.3	8.46	35			ft.		
8	3.7		7.3	8.46						
9	3.9	8.82	. 7.7	8.84						
10	4.1	9.06	. 8.3	.						
11	4.2	9.18	. 8.3	.						
12	4.3	9.29	9.43 8.5	.						
13	4.2	9.18	. 8.5	.						
14	4.3	9.29	9.43							
15	5.0	4.95	4.9	10.02	9.87					
16	5.1	5.10	5.1	10.19	9.99					
17	5.9	5.25	5.2	10.35	10.09					
18	5.3	5.25	5.2	10.35	10.09					

½ – 30

Use magnitudes in green ink

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..984L

J'.

Measures of Seq for $63 = 5^h + 15^\circ$. Polar + P.C.

Sc MC831

December 14, 1911

Mc 997

		Sc 1	Sc 2	P.C.		Sc 1	Sc 2
11:15	5	B		4.7	10.74 19	5.4 5.35	5.3 5.54
	8	3.1		6.7	11.20 20	5.8 5.85	5.9 5.40
	10	4.1		7.5	11.42 21	6.0 5.95	5.9 5.44
	11	4.5		7.8			
	13	4.8		8.5	11.44 22	6.0 6.00	6.0 5.44
	12				11.55 23	6.1 6.10	6.1 5.45
14 =	38	5.2	5.2		11.76 24	6.3 6.30	6.3 5.46
15 =	197	6.0	5.8		11.98 25	6.5 6.50	6.5 5.48
	19		7.3		12.20 26		6.7 5.50
	20		7.7		12.40 27		6.9 5.50
	23		8.4		12.70 28		7.2 5.50
			9.0		13.20 29		7.7 5.50
	1	B		4.9 1.57 6.47	13.52 30		8.0 5.52
	2	B		5.1 1.54 6.64	13.80 31		8.3 5.50
	3	B		5.4 1.50 6.90	14.20 32		8.7 5.50
	4	B		5.7 1.49 7.17	14.67 33		9.2 5.47
	5	B		6.1 1.45 7.55	14.94		9.5 5.44
	6	2.9		6.3 1.42 7.72	Sc. 6		
	7	3.1		6.6 1.41 8.01	8	3.1 5.00	
	8	3.1		6.8 1.40 8.20	9	3.8 4.90	
8.98	9	4.0 4.98		7.3 1.43 8.73	10	3.9 4.99	
8.88	10	3.9 4.98		7.2 1.43 8.63	11	4.3 5.12	
9.09	11	4.1 4.99		7.5 1.44 9.14	12	4.6 5.13	
9.31	12	4.3 5.01		7.8 1.48 9.28	13	4.9 5.27	
9.48	13	4.3 5.01		8.0 1.50 9.50	14	5.2 5.32	
9.84	14	4.7 5.14		8.3 1.55 9.90	15	5.5 5.44	
10.34	15	5.2 6.1 5.15	5.1 5.24		16	5.9 5.36	
10.49	16	5.3 5.20	5.1 5.29		17	6.1 5.39	
10.62	17	5.3 5.25	5.2 5.34		18	6.4 5.52	
10.62	18	5.3 5.25	5.2 5.32		19	6.8 5.48	
					20		
					21	7.3 5.39	
					23	7.7 5.50	
					25	8.2 5.53	
					26	8.7 5.49	
					27	9.1 5.48	
					28	9.5 5.47	

P.C.
4.8 1.59
5.5 1.48
6.7 1.40
7.3 1.40
7.5 1.39
7.8 1.62
8.2 1.53
8.5 1.67
8.8 1.72
9.2 1.74
9.5 1.76

11:30

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..984L

J'

11:35

Measures of Sep. for R9 = 2h 40m +45° Polar + P.C.

Sc. Mc 831

December 14 1911

Mc 1411

		Sc 1	Sc 2	P.C.		Sc 1	Sc 2		
5 =	a			4.9 1.47	19	4.9	4.95 5.0	10.15	10.03
8 =	b	3.1		6.5 1.60	20	5.2	5.10 5.0	10.33	10.20
10 =	c	4.0 4.89		7.3 1.57	21	5.3	5.25 5.2	10.51	10.37
11 =		4.1 5.02		7.1 1.72					
12 =		4.1 5.03		8.1 1.63					
13 =	d	5.1	4.9 5.17	8.7 1.47	22	5.5	5.40 5.3	10.70	10.52
14 =	386	5.2	5.2 5.32	8.8 1.72	23	5.9	5.90 5.9	11.25	11.10
15 =	197	5.5	5.4 5.44	9.3 1.64	24	6.1	6.05 6.0	11.40	11.27
16 =		5.8	5.6 5.46						
17 =		5.8	5.6 5.29						
19 =	g	7.2	7.0 5.18		25	6.3	6.20 6.1	11.56	11.42
18 =		6.5	6.5 5.42						
20 =	h		7.3 5.29		26	6.3	6.30 6.3	11.66	11.54
21 =			7.5 5.32						
23 =	k		7.8 5.40		27	6.5	6.45 6.4	11.81	11.67
			8.7 5.53						
25	b		6.5		28	6.5	6.50 6.5	11.86	11.78
26			8.7 5.49						
27	1		9.2 5.35		29	6.7	6.80 6.9	12.17	12.12
28			9.5 5.47						
29	2		9.9 5.62	5.3 6.81	30		7.3	12.69	12.72
	3			5.2 6.70	31		7.1	13.19	13.22
	4			5.5 7.03	32		7.9	13.33	13.47
	5			5.5 7.03	33		8.3	13.80	13.92
	6			5.9 7.45	34		9.3?	15.16	15.13
	7	3.2 .		6.3 7.88	35		8.7	14.34	41
	8	3.1 .		6.5 8.09	36		9.3	15.16	15.13
	9	3.2 .		6.5 8.09					
	10	3.3 .		6.7 8.30					
	11	3.7 .		7.0 8.61					
	12	3.7 .		7.0 8.61					
	13	4.1 9.04	9.10	7.8 9.03					
	14	4.2 9.18	9.21	7.7 9.23					
	15	4.3 9.30	9.31	8.0 9.54					
	16	4.7 9.83	9.74	8.0 9.54					
	17	4.5 9.57	9.53	8.3 9.84					
	18	5.0 4.90 4.8 10.09	9.97	8.7 10.35					

Use magnitudes in green ink
Use p.c. magn. as they stand, since these seems to be little systematic diff. from later measures.

11:53

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..984L

11:05

Measures of Seq. for $C_2 = 3^h + 15$. Polar + P.C.

Sc Mc831

December 20, 1911

Mc 943

	Polar Seq.	Sc 1	Sc 2	P.C.		Sc 1	Sc 2	P.C.	
					Scale Read + Curve				Scale Read + Curve
5				4.7 1.69					
6				5.2 1.68		6	3.5 4.89	8.39	7.0 1.53	8.53
7		3.2		4.90 6.5 1.60		7	3.8 4.94	8.74	7.3 1.50	8.80
8		3.9		4.80 7.3 1.40		8	3.8 4.94	8.74	7.4 1.49	8.89
9	10 = 0	4.0		4.89 7.3 1.59		9	4.0 4.97	8.97	7.7 1.46	9.16
10	11	4.3		5.12 8.0 1.42		10	4.9 5.08	9.98	8.7 1.35	10.05
11	12	4.7		5.03 8.5 1.23		11	4.2 4.98	9.18	7.8 1.43	9.23
12	13	5.1		5.07 8.8 1.37		12	4.5 5.02	9.52	8.4 1.38	9.78
13	14	5.3	5.2	5.32 9.2 1.32		13	5.2 5.10	10.20	8.9 1.34	10.24
14	15	5.8	5.8	5.54 9.7 1.24		14	5.3 5.12	10.42	9.2 1.31	10.51
15	16	6.0	5.9	5.26 9.9 1.36		15	5.1 5.17	10.82	?	
16	17	6.2	6.1	5.29		16	5.1 5.17	10.87		
17	18	6.5	6.7	5.32		17	5.9 5.19	10.99		
18	19	6.9	6.9	5.38		18	4.7		Star from other exposure superposed on image making it bright.	
19	20	7.2	7.1	5.39		19	6.4	6.2 5.24	11.54	
20	21	7.5	7.5	5.32		20	6.5	6.5 5.26	11.76	
21	22	7.7	7.9	5.25		21	6.7	6.5 5.27	11.87	
22	23	7.9	8.0	5.30		22	6.9	6.9 5.30	12.20	
23	24		8.3	5.20		23	7.3	7.4 5.34	12.69	
24	25		8.7	5.33		24	7.7	7.5 5.37	12.97	
25	26		8.7	5.49		25	7.7	7.6 5.38	13.03	
26	27		9.0	5.55		26	8.0	7.9 5.40	13.35	
27	28		9.4	5.57		27		8.5 5.48	13.98	
28	29		9.9	5.62		28		8.7 5.50	14.20	
29	30		n.s.			29		8.9 5.52	14.42	
30						30		9.1 5.51	14.61	
31						31		9.7 5.61	15.31	
32						32		9.9 5.63	15.53	
33						33		?		

11:09

Star, Sequence

11:09

January 13, 1912

	B	Scale Read + Curve		Scale Read + Curve
1	B			
2	B			
3	3.1		6.0 1.62	7.62
4	3.2 4.83	8.03	6.5 1.59	8.09
5	3.5 4.88	8.35	6.7 1.57	8.27

11:26

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..984L

J'

Measures of Seq. for C9 = 17h+15. Polar + P.C.

Sc. MC 831

December 20, 1911

MC 1280

		Sc 1	Sc 2	P.C.			Sc 1	Sc 2	P.C.	
Polar Seq. 5 = a				5.2	11.9	6	3.2		7.1	8.24
	8	3.1		5.00	7.2 0.90	7	4.2		7.7	8.90
	9				7.7 1.00					
10 = c		4.1		4.79	8.2 0.69	8	4.3		8.5	9.21
	11	4.7		4.72	8.7 0.72	9	5.1	5.0	8.9	9.58
	12	5.0		4.73	9.2 0.53	10	5.2	5.1	9.3	9.95
	13	5.3	5.3	4.87	9.5 0.67	11	5.2	5.2	9.5	10.13
	14	5.7	5.5	4.92	9.9 0.62	12	5.3	5.2	9.8	10.50
	15	6.2	6.0	4.84		13	5.5	5.2	9.7	10.32
	16	6.5	6.3	4.86		14	5.8	5.8		
	17	6.5	6.5	4.99		15	6.2	6.2	11.11	
	18	6.9	6.8	5.12		16	6.8	6.5	11.33	
	19	7.2 6.7	7.3	5.08		17	6.9	6.8	11.77	
	20		7.5	5.09		18	7.0	7.0	11.99	
	21		7.8	5.02		19	6.7	6.8	11.77	
	22		8.0	5.05		20	7.3	7.2	12.28	
	23		8.3	4.90		21		7.6	12.53	
	24		8.5	5.00		22		7.7	12.73	
	25		8.7	5.03		23		8.1	13.19	
	26		9.0	5.19		24		8.7	13.50	
	27		9.3	5.25		25		8.5	13.62	
	28		9.7	5.27		26		8.7	13.85	
	29			5.52		27		9.0	14.18	
	30		n.s.			28		9.3	14.50	
January 13, 1912										
Stair Seq.	1	B.				29		9.5	14.72	
1.28	2	B.				30		9.5	14.72	
	3	B.				31				
	4	8.0			7.73					
	5	8.1			7.82					

M.O.R.

1.45

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..984L

-f'

Measures of Seq. for Cg - 15h + 15°

Sc Mc831

December 20, 1911

Mc 1233.

Polar Seq. s = a/18 = 9

	Sc1	Sc2	P.C.				Sc1	Sc2	P.C.		
				5.5	0.89	6	3.7		7.5	8.05	7.60
			Bi-fil. adj. Bi-fil. adj. Readings	3.1	0.88						
	3.9		4.20	7.5	0.60	7				— too near edge of plate	
				3.5	0.20						
10.c	4.2		4.69	8.7	0.79	8	3.2		8.1	8.96	8.61
11	5.0	4.9	4.42	9.2	0.82	9	4.3		8.8	9.35	8.69
12	5.3	5.1	4.53	9.5	0.23	10	4.7 4.49	9.19	9.5	9.72	9.28
13	5.6	5.5	4.67	9.0	0.27 0.62	11	4.8 4.49	9.29	9.5	9.72	9.28
14	6.0	5.9	4.52			12	4.9 4.49	9.34	9.7	9.94	9.49
15	6.5	6.4	4.54			13	5.2 5.10	5.0 4.49	9.59	9.9	10.16 9.58
16	6.7	6.7	4.56			14	5.2 5.10	5.0 4.50	9.60		
17	7.0	6.9	4.57			15	5.5 5.50	5.5 4.50	10.00		
18	7.3	7.3	4.62			16	5.5 5.55	5.6 4.50	10.05		
19		7.6	4.68			17	5.8 5.80	5.8 4.52	10.32		
20		7.9	4.79			18	5.8 5.80	5.8 4.52	10.32		
21		8.3	4.52			19	5.8 5.76	5.7 4.52	10.27		
22		8.5	4.55			20	5.9 5.86	5.8 4.52	10.37		
23		8.7	4.50			21	6.2 6.15	6.1 4.54	10.69		
24		8.9	4.60			22	6.7 6.70	6.7 4.56	11.26		
25		9.1	4.63			23	7.0 7.05	7.1 4.57	11.62		
26		9.4	4.79			24	7.1 7.05	7.0 4.57	11.62		
27		9.7	4.85			25	7.5 7.45	7.4 4.58	12.03		
28		10.1	4.87			26	7.7 7.80	7.9 4.58	12.38		
29		f.				27		8.2 4.58	12.78		
30		f.				28		8.7 4.64	13.31		
						29		9.0 4.65	13.65		
						30		9.3 4.71	14.01		
						31		9.7 4.79	14.49		
						32		9.9 4.85	14.75		
						33		f			
						34		f			

Use p.c. magn. in green ink.

January 15, 1912

Stan. Seq.

11.55

1	B	6.3	7.14	6.63	
2	B	6.2	7.06	6.52	
3	3.2	7.6	8.12	7.69	
4	3.2	6.9	(7.62)	7.09	Stars near edge of plate.
5	3.6	7.3	(7.91)	7.43	near edge.

MOP

17.16

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..984L

J.

Measures of Seq. for α 11 = 21h +15°

December 20, 1911.

Eq. Mc 831.

Mc 1420

		Sc 1	Sc 2	P.C.				Sc. 1	Sc 2	P.C.				Sc 1	Sc 2
Polar Seq.	a			5.2	1.19		6	3.9		7.0	8.15	14.31	34		9.3 5.01
8 =	8	3.7	4.40	7.0	1.10		7	4.0		7.5	8.68	15.01	35		9.9 5.11
10 =	c	4.3	4.59	7.7	1.19		8	4.1		7.9	9.10	15.13	36		10.0 5.13
	11	4.7	4.72	8.1	1.32		9	4.3		7.5	8.68		37		1
	12	5.0	4.73	8.5	1.23		10	4.3		8.2	9.42				
	13	5.4	5.7 4.87	8.9	1.27	9.48 (approx.)	11	4.8	4.75	4.7	4.68	star superposed on image.			
	14	5.7	5.8 4.72	9.3	1.22	9.60 (approx.)	12	4.9	4.90	4.9	4.70	8.7	9.95		
	15	6.1	6.1 4.84	9.7	1.24	9.36	13	4.7	4.70	4.7	4.66				
	16	6.5	6.3 4.86			9.36	14	4.7	4.7	13.	4.66				
	17	6.7	6.7 4.89			9.69	15	6.1	5.00	4.9	4.69				
	18	7.1	7.0 4.92			9.93	16	5.3	5.25	5.2	4.73				
	19		7.3 4.98			10.37	17	5.7	5.60	5.5	4.77				
	20		7.7 4.89			10.58	18	5.9	5.85	5.8	4.78				
	21		7.9 4.92			11.09	19	6.21	6.15	6.1	4.89				
Omit	22		8.7 4.95			11.09	20	6.2	6.10	6.0	4.89				
	23		8.3 4.90			11.47	21	6.7	6.60	6.5	4.87				
Omit	24		8.5 5.00			11.57	22	6.7	6.70	6.7	4.87				
	25		8.9 4.83 5.03			11.36	23	6.5	6.50	6.5	4.86				
	26		9.2 4.99			11.89	24			7.0	4.89				
	27		9.5 5.05			12.10	25			7.2	4.90				
	28		9.8 5.27			12.61	26			7.7	4.91				
	29		1.			12.82	27			7.9	4.92				
	30		1			12.82	28			7.9	4.92				
Stan. Seq.		Sc 1	Sc 2	P.C.											
11 55	1	B		5.3	6.45	13.02	29			8.1	4.92				
December 20, 1911	2	B.		5.9	7.04	13.43	30			8.5	4.93				
	3	2.9		6.5	7.65	13.64	31			8.7	4.94				
	4	3.7		6.5	7.65	13.64	32			8.7	4.94				
	5	3.9		6.9	8.05	13.85	33			8.9	4.95				

MEOR

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..984L

J'

Measures of Seq. for $C_{11} = 21^h + 15°$.

Sc Mc831 December 22, 1911

Mc1199

		Sc1	Sc2	P.C.			Sc1	Sc2	P.C.	
Polar Seq.	a	B		53 1.99		4	3.3	6.9	7.93	
	18	3.2	4.90	7.0 1.10		5	3.7	7.4	8.35	
10	c.	4.0	4.89	8.2 0.69		6	3.7	7.7	8.60	
11		4.3	5.12	8.7 0.72		7	4.0	7.9	8.76	
12		4.8	4.93	9.0 0.73		8	4.1	8.2	9.38 03	
13		5.2	5.1	4.97 9.3 0.87		9	4.3	8.5	9.30	
14		5.5	5.2	5.02 9.7 0.82	9.47	11	4.6 4.87	9.2	10.00	
15		5.8	5.5	5.44	9.60	12	4.7 4.90	9.3	10.10	
16		6.1	6.1	5.26	9.47	13	4.6 4.87	9.0	9.78	
17		6.3	6.3	5.19	9.60	14	5.1 4.90	9.3	10.10	
18		6.7	6.7	5.22	10.08 9.95	15	5.2 5.10 5.0 4.95			
19		7.1	7.2	5.08	10.08	16	5.1 5.10 5.1 4.98			
20		7.5	7.5	5.09	10.59	17	5.5 5.50 5.5 5.09			
21			7.7	5.12	10.80 5	18	5.7 5.75 5.8 5.10			
22		omit	7.9	5.15	11.03	19	5.9 5.90 5.9 5.13			
23			8.2	5.00	11.15	20	6.0 6.00 6.0 5.15			
24		omit	8.5	5.00	11.60 5	21	6.5 6.45 6.4 5.20			
25			8.7	5.03	11.70 5	22	6.6 6.55 6.5 5.20			
26			9.0	5.19	11.80	23	6.6 6.60 6.6 5.20			
27			9.3	5.25	12.18	24	7.0 7.00 7.0 5.18			
28			9.7	5.27	12.26	25	7.1 7.10 7.1 5.16			
29			n.s.		12.63	26	7.5 5.13	13.80	31	8.7 5.10
30			n.s.		13.06	27	8.0 5.06	13.92	32	8.8 5.12
1		B		5.8 6.95	13.06	28	8.0 5.06	14.16	33	9.0 5.16
2		2.8		5.7 6.86	13.26	29	8.2 5.06	14.65 2	34	9.4 5.25 2
3		2.9		6.7 7.75	13.58	30	8.5 5.06	15.11	35	9.8 5.36
									36	

11:50
January 15, 1912
Star Seq.
2.20

2.43

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..984L

1

Measures of Seq. for $C_1 = 13^h + 15^\circ$ (also Pg 20131)

January 1, 1912

Mo. March

M 10 1016

		Sc 1	Sc 2	Diff Adj Mag	Reading Adj Mag		Sc 1	Sc 2					
1:75	5	3.8		2.59	6.39	13			7.9	2.70	10.60	10.78	10.69	09	09
Polar Seq.	8 = 1h	5.5	5.3	2.70	8.10	14			8.1	2.75	10.85	10.99	10.92	07	07
	9	6.3	6.3	2.40	8.70										
	10 = 0	6.5	6.6	2.29	8.89	15			8.3	2.85	11.06	11.09	11.10	03	02
	11	7.0	6.9	2.42	9.42	16			8.5	2.85	11.35	11.30	11.32	03	02
	12	7.2	7.2	2.53	9.73	17			8.8	2.93	11.73	11.51	11.62	11	11
	13	7.5	7.5	2.67	10.17	18			8.9	2.94	11.84	11.61	11.72	12	11
	14	7.8	7.9	2.72	10.52	19			8.9	2.95	11.85	11.82	11.84	01	02
	15	8.2	8.2	2.74	10.94	20			9.2	3.00	12.20	12.25	12.22	02	03
	16	8.5	8.5	2.76	11.26	21			9.7	3.13	12.83	12.67	12.75	08	08
	17		8.7	2.79	11.49	22			9.9	3.17	13.07	12.78	12.92	15	14
	18		8.9	3.02	11.92	23									
	19		9.2	30.8	12.28										
	20		9.5	309	12.59										
	21		9.7	3.12	12.82										
	22														
				Sc Corr	Magn										
	23		10.0	3.20	13.20	MP 1023	Mean								
Stan. Seq.	1	4.0		2.53	6.53										
	2	4.7	4.70 4.7	2.51	7.21	7.56	7.38		17	18					
	3	5.1	5.10 5.1	2.50	7.60	7.93	7.76		16	17					
	4	5.3	5.40 5.5	2.49	7.89	8.01	7.95		06	06					
	5	6.1	6.00 5.9	2.49	8.49	8.57	8.53		04	04					
	6	6.3	6.25 6.2	2.50	8.78	8.94	8.87		07	07					
	7	6.7	6.60 6.5	2.50	9.10	9.14	9.12		02	02					
	8	7.0	6.95 6.9	2.53	9.43	9.54	9.48		05	06					
	9	7.3	7.25 7.2	2.55	9.75	9.95	9.85		10	10					
	10	7.5	7.50 7.5	2.61	10.11	10.16	10.14		03	02					
	11	7.5	7.45 7.4	2.59	9.99	10.26	10.12		13	14					
	12		7.7	2.65	10.35	10.37	10.36		01	01					

MCR.

1142

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..984L

Measures of Seq. for C 7 = 13h +15°

January 1 - 1912.

Sc Mc 831

1:44

M 10 1023

		Sc 1	Sc 2	Diff	Adpt. Rdcn.
Polar Seq.	5	3.3		3.09	6.39
	6	4.1		2.88	6.98
	8 = 8	5.21	5.21	2.90	8.10
	9	6.21	6.1	2.50	8.70
	10	6.3	6.1	2.69	8.89
	11	6.5	6.7	2.82	9.42
	12	6.9	7.1	2.73	9.73
	13	7.3	7.3	2.87	10.17
	14	7.7	7.7	2.82	10.52
	15	8.1	8.21	2.74	10.94
	16		8.5	2.76	11.26
	17		8.7	2.79	11.49
	18		9.0	2.92	11.92
	19		9.3	2.98	12.28
	20		9.5	2.89	12.59
	21		9.9	2.92	12.82
	23		1		
Star Seq	1	4.2?		Cen. 2.90	Magn.
	2	4.7 4.70	4.7	2.86	7.56
	3	5.1 5.10	5.1	2.83	7.93
	4	5.3 5.25	5.21	2.81	8.01 (6)
	5	5.9 5.85	5.8	2.77	8.57 (62)
	6	6.0 6.05	6.1	2.74	8.84 (79)
	7	6.3 6.40	6.5	2.74	9.14
	8	6.7 6.80	6.9	2.74	9.64
	9	7.1 7.05	7.0	2.75	9.75 (80)
	10	7.5 7.45	7.4	2.76	10.16 (21)

	Sc 1	Sc 2		
11	7.5 7.50	7.5	2.76	10.26
12	7.6 7.65	7.7	2.77	10.37 (42)
13	7.9 7.95	8.0	2.78	10.78 (3)
14		8.2	2.79	10.99
15		8.3	2.80	11.30 (1)
16		8.3	2.80	11.10
17		8.7	2.81	11.51
18		8.8	2.81	11.61
19		9.0	2.82	11.82
20		9.4	2.85	12.25
21		9.8	2.87	12.67
22		9.9	2.88	12.78
23		1		

MOR

2:00

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..984L

1'

1:35

Measures of Seq. for C7 = 13h + 15°

Sc. M6831

January 2, 1912.

Plate Me 1023

		Sc1	Sc2				Sc1	Sc2		
Polar Seq.	3	6.1	6.0	-0.26	5.74	13		9.0	0.99	9.99
	4	6.3	6.2	-0.29	5.91	14		9.3	1.15	10.45
	5	6.8	6.7	-0.41	6.39	15		9.5	1.25	10.75
	6		7.2	-0.22	6.98	16		9.8	1.40	11.20
	8		7.7	0.40	8.10	17		10.0	1.50	11.50
	9		8.1	0.60	8.70					
	10		8.5	0.39	8.89					
	11		8.5	0.92	9.42					
	12		8.7	1.03	9.73					
	13		9.1	1.07	10.17					
	14		9.3	1.22	10.52					
	15		9.7	1.24	10.94					
	16		9.8	1.46	11.26					
	17		10.0	1.49	11.49					
	18		?							

		Sc.1	Sc.2		
Star Seq.	1	6.5	6.7	-0.21	6.29
	2		7.1	0.06	7.15
	3		7.5	0.25	7.75
	4		7.5	0.25	7.75
	5		7.8	0.40	8.20
	6		8.1	0.56	8.66
	7		8.3	0.65	8.95
	8		8.5	0.75	9.25
	9		8.7	0.85	9.55
	10		8.9	0.96	9.86
	11		9.0	1.00	10.00
	12		8.9	0.96	9.86

1:50

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae..proj..984L

11:56

Measures of Seq. for C7 = 13h +15°

Scale R

January 3, 1912

MC 956

Stan. Seq. No.	Image	Sc 1.	Sc 2
1.	1	2.1	0
	2	B.	
	3	2.1	
	4	B	
	5	2.1	0
" 2	1	4.0	0
	2	1.3	
	3	4.0	
	4	B	
	5	4.1	1
" 3	1	4.3	0
	2	2.0	
	3	4.3	0
	4	B	
	5	4.5	2
" 4	1	5.9	0
	2	3.9	
	3	5.9	
	4	B.	
	5	6.1	2
" 5	1	6.0	1
	2	3.8	
	3	5.9	
	4	1.0	
	5	6.1	2
" 6	1	7.0	0
	2	4.3	

Stan. Seq. No.	Image	Sc 1	Sc 2
6	3	7.0	
	4	1.9	
	5	7.1	1
" 7	1	7.2	0
	2	4.8	
	3	7.2	
	4	2.1	
	5	7.3	1
" 8	1	8.3	0
	2	5.2	
	3	8.3	
	4	2.9	
	5	8.5	2
" 9	1	9.2	0
	2	5.1	
	3	9.2	
	4	3.0	
	5	9.3	1
" 10	1	9.3	0
	2	5.2	
	3	9.3	
	4	3.2	
	5	9.5	2
" 11	1	9.3	1
	2	5.1	
	3	9.2	
	4	3.9	

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..984L

Measures of Neg. for $C_7 = 13^h + 15°$.

Scale R

January 3, 1912

MC956

No Image		sc 1	sc 2
~~Image~~ 11	5	9.5	3
" 12	1	9.9	0
	2	5.7	
	3	9.9	
	4	4.0	
	5	10.0	1
" 13	1	~~10.0~~	11.2 0
	2	7.1	
	3	~~10.5~~	11.2
	4	4.9	
	5	~~10.4~~	11.3 1
" 14	1	~~10.5~~	11.7 1
	2	7.2	
	3	~~10.5~~	11.8
	4	5.1	
	5	~~10.5~~	12.0 2
" 15	1	~~10.7~~	12.2 0
	2	7.7	
	3	~~10.7~~	12.2
	4	5.0	
	5	~~10.9~~	12.4 2
" 16	1	~~10.7~~	12.3 1
	2	7.3	
	3	~~10.7~~	12.2
	4	5.1	
	5	~~11.0~~	12.5 3

No. Image	Im.	sc 1	
17	1	~~11.0~~	12.7 0
	2	8.9	
	3	~~11.0~~	12.7
	4	5.8	
	5	~~11.1~~	12.9 2
18	1	~~11.3~~	13.1 0
	2	9.1	
	3	~~11.3~~	13.1
	4	5.2	
	5	~~11.3~~	13.2 1
19	1	~~7~~	13.7 2
	2	10.0	
	3	~~7~~	13.9
	4	6.2	
	5	~~7~~	13.9 0
20	1	~~7~~	
	2	~~10.1~~	10.7
	3	~~7~~	
	4	6.9	
	5	~~7~~	
21	1	~~7~~	
	2	~~10.7~~	12.2
	3	~~7~~	
	4	7.2	
	5	~~7~~	
22	1	~~7~~	

MOR

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae..proj..984L

Measures of Leq. for C7 = 13h + 15°

Scale R. January 3, 1911.

Mc 956

No.		Sc. 1	Sc. 2
~~Image~~ 22	2	~~11.0~~	12.7
	3	f.	
	4	8.3	8.7
	5	f.	
" 23	1	f.	
	2	~~11.1~~	12.8
	3	f.	
	4	9.3	9.7
	5	f.	
" 24	1	f.	
	2	~~11.5~~	13.3
	3	f.	
	4	~~10.1~~	10.3
	5	f.	
" 25	1	f.	
	2	f	13.9
	3	f.	
	4	~~10.8~~	10.7
	5	f.	
" 26	1	f.	
	2	f.	
	3	f.	
	4	~~10.1~~	11.3
	5	f.	
" 27	1	f.	
	2	f.	
	3	f.	

~~No.~~		Sc 1	Sc 2
27	4	~~10.7~~	11.7
	5	f.	
28	1	f.	
	2	f.	
	3	f.	
	4	~~10.7~~	12.1
	5	f.	
29	1	f.	
	2	f.	
	3	f.	
	4	~~10.9~~	12.9
	5	f.	
30	1	f.	
	2	f.	
	3	f	
	4	~~11.1~~	13.3
	5	f.	
31	1	f.	
	2	f.	
	3	f.	
	4	~~11.5~~	13.5
	5	f.	
32	1	f.	
	2	f.	
	3	f.	
	4	~~11.1~~	13.9
	5	f.	

MBR.

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..984L

Measures of Seq for $C_7 = 13^h + 15^\circ$

Scale R. January 3. 1912.

MC 956

No.	Sc 1	Sc 2
~~Image~~ 33 1	7	
2	7	
3	7	
4	7	7
5	7	

For the above plate MC 956 - all observations with scale 1. fainter than 10.0 - rejected. Wrong image used.

1 5

MOR.

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..984L

11:29

Measures of Seq. for C1 = 13h + 15°

Scale R

January 4 - 1912.

Mc 1019
Sc 1. Sc 2

Stair Seq.	Inv.			Stair Seq.	Inv.		
No 1.	1	2.1	0	No 4	3	8.9	
	2	3.			4	2.1	
	3	2.1			5	9.1	2
	4	3		" 8	1	8.2	1
	5	2.2	1		2	6.2	
" 2	1	5.2	0		3	8.8	
	2	3.1			4	4.0	
	3	4.2			5	9.2	4
	4	3		" 8	1	9.5	0
	5	5.3	1		2	7.1	
" 3	1	7.1	0		3	9.5	
	2	5.0			4	4.7	
	3	7.1			5	9.7	2
	4	3.		" 9	1	9.7	0
	5	7.3	2		2	6.1	
" 4	1	7.7	2		3	9.7	
	2	5.7			4	4.0	
	3	7.9			5	9.9	2
	4	3		" 10	1	9.9	0
	5	8.1	2		2	7.2	
" 5	1	7.9	0		3	9.9	
	2	5.1			4	5.1	
	3	7.9			5	10.0	1
	4	3		" 11	1	9.7	2
	5	8.1	2		2	7.9	
" 6	1	8.7	2		3	9.9	
	2	6.1			4	5.8	

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..984L

Measures of Seg. for $C_7 = 13^h + 15°$

Scale R.

January 4. 1912

Mc 1019.

		Sc 1.	Sc 2
No. 11	5	10.1	2
" 12	1	10.0	1
	2	8.2	
	3	10.1	8
	4	5.9	
	5	10.1 10.4	10.5 3
" 13	1	∫	12.0
	2	9.0	
	3	∫	11.9 1
	4	7.1	
	5	∫	12.0 1
" 14	1	∫	12.0 1
	2	9.1	
	3	∫	11.9
	4	6.8	
	5	∫	12.3 4
" 15	1	∫	12.8 1
	2	9.2	
	3	∫	12.0
	4	6.9	
	5	∫	12.8 4
" 16	1	∫	12.2
	2	9.3	
	3	∫	12.3 1
	4	∫ 6.9	
	5	∫	12.5 2

		Sc 1	Sc 2
No 17	1	∫	12.1 0
	2	9.7	
	3	∫	12.1
	4	7.9	
	5	∫	13.0 3
" 18	1	∫	12.8 0
	2	9.8	10.2
	3	∫	12.8
	4	8.0	
	5	∫	13.1 3
" 19	1	∫	12.9 0
	2	10.3	10.7
	3	∫	12.9
	4	8.2	
	5	∫	13.2 3
" 20	1	∫	13.5 0
	2	∫	11.2
	3	∫	13.5
	4	8.3	8.9
	5	∫	13.9 4
" 21	1	∫	14.0 1
	2	∫	11.9
	3	∫	13.9
	4	9.3	9.8
	5	∫	14.1 2
" 22	1	∫	∫

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..984L

Measures of Seg. for $b_7 = 13^h + 15°$

Scale R

January 4, 1912

MC 1019.

		Sc 1	Sc 2
No. 22	2	f	12.1
	3	f	f
	4	9.3	9.8
	5	f	f
" 23	1	f	f
	2	f	12.3
	3	f	f
	4	9.7	9.9
	5	f	f
" 24	1	f	
	2	f	f
	3	f	
	4	10.1	
	5	f	
" 25	1	f	
	2	f	13.7
	3	f	
	4	f	11.3
	5	f	
" 26	1	f	
	2	f	f
	3	f	
	4	f	11.7
	5	f	
" 27	1	f	
	2	f	

		Sc 1	Sc 2
No. 27	3	f	
	4	f	12.3
	5	f	
" 28	1	f	
	2	f	
	3	f	
	4	f	12.1
	5	f	
" 29	1	f	
	2	f	
	3	f	
	4	f	12.1
	5	f	
" 30	1	f	
	2	f	
	3	f	
	4	f	13.5
	5	f	
" 31	1	f	
	2	f	
	3	f	
	4	f	13.9
	5	f	
" 32	1	f	
	2	f	
	3	f	
	4	f	f
	5	f	

Bright images spuriously duplicated and badly comparable with scale.

2:20

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..984L

1:45

Scale R

Measures of Seq. for CT = 13h + 15°

January 5, 1912

.Mc964 – Isochromatic.

		Sc 1	Sc 2	
No 1.	1	4.1	0	Images near edge
	2	1.3		of plate
	3	4.1		
	4	B		
	5	4.2	1	
No 2	1	too poor		Images near edge
	2	3.2		of plate
	3	t.p.		
	4	B		
	5	t.p.		
No 3	1	9.2	10.1	Images near
	2	5.1		edge of plate
	3	9.2	10.0	1
	4	2.1		
	5	9.5	10.0	0
" 4	1	9.2	9.7	0
	2	6.1		
	3	9.2	9.7	
	4	3.2		
	5	9.4		0
" 5	1	9.3	9.9	0
	2	6.1		
	3	9.3	9.9	
	4	3.1		
	5	9.3	10.1	2
" 6	1	10.0	11.1	0
	2	7.1		

		Sc 1	Sc 2	
No. 6	3	10.1	11.1	
	4	4.1		
	5	10.3	11.4	2
" 7	1	f	11.1	0
	2	7.3		
	3	f	11.1	
	4	4.6		
	5	f	12.0	3
" 8	1	f	12.2	1
	2	8.1		
	3	f	12.3	
	4	5.2		
	5	f	12.1	4
" 9	1	f	12.9	1
	2	8.9		
	3	f	13.0	
	4	5.3		
	5	f	13.3	3
" 10	1	f	13.1	0
	3	8.9		
	3	f	13.1	
	4	5.3		
	5	f	def.	
" 11	1	f	12.0	0
	2	8.0		
	3	f	12.0	
	4	4.9		

Images near edge of plate.

M.R.

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..984L

Measures of Seq. for C7 = 13h +15°

Scale R.

January 5, 1912

Mc964 cont.

		Sc1	Sc2
No 11	5	f	12.4
" 12	1	f	13.0
	2	9.2	9.7
	3	f	13.0
	4	5.3	
	5	f	f
" 13	1	f	f
	2	9.2	10.2
	3	f	f
	4	6.3	
	5	f	f
" 14	1	f	f
	2	9.7	10.2
	3	f	f
	4	6.2	
	5	f	f
" 15	1	f	f
	2	10.1	11.1
	3	f	f
	4	6.7	
	5	f	f
" 16	1	f	f
	2	10.1	11.1
	3	f	f
	4	6.9	
	5	f	f
No 17	1	f	f
	2	f	11.7
	3	f	f
	4	7.7	
	5	f	f
" 18	1	f	f
	2	f	11.7
	3	f	f
	4	7.7	
	5	f	f
" 19	1	f	f
	2	f	12.2
	3	f	f
	4	8.2	
	5	f	f
" 20	1	f	f
	2	f	13.0
	3	f	f
	4	8.9	
	5	f	f
" 21	1	f	f
	2	f	13.5
	3	f	f
	4	9.3	10.0
	5	f	f
" 22	1	f	f

M.R.

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..984L

Measures of Seq. for $C_7 = 13^h + 15°$.

Scale R

January 5, 1912.

Mc 964 cont

		Sc 1	Sc 2
No 22	2	ƒ	13.9
	3	ƒ	ƒ
	4	10.1	11.1
	5	ƒ	ƒ
" 23	1	ƒ	ƒ
	2	ƒ	ƒ
	3	ƒ	ƒ
	4	ƒ	11.9
	5	ƒ	ƒ
" 24	1	ƒ	ƒ
	2	ƒ	ƒ
	3	ƒ	ƒ
	4	ƒ	12.9
	5	ƒ	ƒ
" 25	1	ƒ	ƒ
	2	ƒ	ƒ
	3	ƒ	ƒ
	4	ƒ	13.2
	5	ƒ	ƒ
" 26	1	ƒ	ƒ
	2	ƒ	ƒ
	3	ƒ	ƒ
	4	ƒ	13.7
	5	ƒ	ƒ
" 27	1	ƒ	ƒ
	2	ƒ	ƒ

		Sc 1	Sc 2
No 27	3	ƒ	ƒ
	4	ƒ	14.0
	5	ƒ	ƒ

M.R. 2:30

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..984L

Measures of Leg. for C7 = 13h +15°

January 6, 1912

11:45

Scale R MC 1088 Prochronizer

		sc 1						
No 1	1	3.9 1		No 6	3	9.9		
	2	B			4	7.1		
Images near	3	4.0			5	9.9 0		
edge of plate	4	1.9		" 7	1	10.0 1		
	5	4.1 1			2	5.2		
No 2	1	8.0 2			3	10.1		
Images near	2	3.0			4	8.0		
edge of plate	3	8.2			5	10.1 0		
	4	5.1		" 8	1	f	11.9 1	
	5	8.3 1			2	6.1		
No 3	1	9.1 2			3	f	12.0	
Images near	2	4.1			4	8.3		
edge of plate	3	9.3			5	f	12.1 1	
	4	6.0		" 9	1	f	12.9 1	Images near edge of plate.
	5	9.6 3			2	5.8		
No 4	1	9.3 1			3	f	13.0	
	2	4.2			4	9.0	9.7	
	3	9.4			5	f	13.2 2	
	4	6.2		" 10	1	f	12.9 0	
	5	9.4 0			2	6.2		
" 5	1	9.1 1			3	f	12.9	
	2	4.2 1			4	9.1	9.7	
	3	9.2			5	f	13.0 1	
	4	6.7		" 11	1	f	11.1 0	
	5	9.3 1			2	5.1		
" 6	1	9.5 2			3	f	11.1	
	2	5.1			4	7.9		

M.R.

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..984L

Measures of Seq. for C7 = 13h + 15°

Scale R

January 6, 1912

MC 1088 cont.

		sc1	sc2			sc1	sc2
No 11	5	1	11.2 1	No 17	1	1	1
" 12	1	1	12.7 2		2	8.0	
	2	6.1			3	1	1
	3	1	12.5		4	1	11.9
	4	8.9			5	1	1
	5	1	12.5 0	" 18	1	1	1
" 13	1	1	12.9 1		2	7.2	
	2	7.1			3	1	1
	3	1	13.0		4	1	11.2
	4	9.7	10.4		5	1	1
	5	1	13.0 0	" 19	1	1	1
" 14	1	1	13.5 2		2	8.3	
	2	7.1			3	1	1
	3	1	13.7		4	1	12.0
	4	10.0	10.7		5	1	1
	5	1	1	" 20	1	1	1
" 15	1	1	14.0 0		2	8.9	
	2	7.2			3	1	1
	3	1	14.0		4	1	12.8
	4	10.0	10.7		5	1	1
	5	1	14.0 0	" 21	1	1	1
" 16	1	1	13.7 2		2	9.2	10.0
	2	7.0			3	1	1
	3	1	13.9		4	1	13.1
	4	9.7	10.2		5	1	1
	5	1	13.9 0	" 22	1	1	1

MR.

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..984L

Measures of Seq. for C 7 = 13h + 15°.

Scale R

January 6, 1912

MC 1088 cont.

		Sc 1	
No 22	2	9.7	10.1
	3	ƒ	ƒ
	4	ƒ	~~13~~ 14.0
	5	ƒ	ƒ
" 23	1	ƒ	ƒ
	2	10.1	10.9
	3	ƒ	ƒ
	4	ƒ	ƒ
	5	ƒ	ƒ
" 24	1	ƒ	ƒ
	2	~~ƒ~~ 11.7	11.7
	3	ƒ	ƒ
	4	ƒ	ƒ
	5	ƒ	ƒ
" 25	1	ƒ	ƒ
	2	ƒ	12.1
	3	ƒ	ƒ
	4	ƒ	ƒ
	5	ƒ	ƒ
" 26	1	ƒ	ƒ
	2	ƒ	12.2
	3	ƒ	ƒ
	4	ƒ	ƒ
	5	ƒ	ƒ
" 27	1	ƒ	ƒ
	2	ƒ	13.0
	3	ƒ	ƒ
	4	ƒ	ƒ
	5	ƒ	ƒ
No 28	1	ƒ	ƒ
	2	ƒ	13.2
	3	ƒ	ƒ
	4	ƒ	ƒ
	5	ƒ	ƒ
No 29	1	ƒ	ƒ
	2	ƒ	13.3
	3	ƒ	ƒ
	4	ƒ	ƒ
	5	ƒ	ƒ
" 30	1	ƒ	ƒ
	2	ƒ	14.0
	3	ƒ	ƒ
	4	ƒ	ƒ
	5	ƒ	ƒ
" 31	1	ƒ	ƒ
	2	ƒ	ƒ
	3	ƒ	ƒ
	4	ƒ	ƒ
	5	ƒ	ƒ
" 32	1	ƒ	ƒ
	2	ƒ	ƒ
	3	ƒ	ƒ
	4	ƒ	ƒ
	5	ƒ	ƒ

12:29

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..984L

82

1:11

Scale R.

Measures of Sep. for C7 = 13h + 15°

January 8, 1912

MD 1019

			Sc 1	Sc 2				Sc 1	Sc 2
No. 1	1	1	9.1	9.9 1	No. 6	3	f	12.0	
		2	6.9			4	6.2		
		3	9.2	9.8		5	f	12.2	2
		4	3.8		" 7	1	f	12.4	1
		5	9.2	9.9 1		2	9.5	10.1	
1:2.5									
" 2	1		9.9	10.1 1		3	f	12.5	
	2		7.2			4	7.1		
	3		9.9	10.2		5	f	12.4	1
	4		4.1		" 8	1	f	12.7	1
	5		9.9	10.1 1		2	9.9	10.5	
" 3	1		f	11.1 1		3	f	12.8	
	2		7.9			4	7.3		
	3		f	11.2		5	f	12.7	1
	4		4.9		" 9	1	f	13.0	1
	5		f	11.1 1		2	10.1	11.1	
" 4	1		f	11.3 1		3	f	13.1	
	2		6.2			4	8.1		
	3		f	11.2		5	f	13.0	1
	4		5.0		" 10	1	f	13.2	1
	5		f	11.2 0		2	f	11.7	
" 5	1		f	11.7 0		3	f	13.1	
	2		8.4			4	8.7		
	3		f	11.7		5	f	13.2	1
	4		6.1		" 11	1	f	13.3	1
	5		f	12.9 2		2	f	11.3	
" 6	1		f	12.1 1		3	f	13.2	
	2		9.3	9.7		4	8.9		

mq.

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..984L

Measures of Seq. for CT = 13h + 15°.

Scale R

January 8, 1912

MD 1019

		sc1	sc2
No. 11	5	f	13.5 3
" 12	1	f	13.5 0
	2	f	11.9
	3	f	13.5
	4	9.0	9.7
	5	f	13.7 2
No. 13	1	f	13.7 0
	2	f	12.2
	3	f	13.7
	4	9.3	9.8
	5	f	13.9 2
" 14	1	f	14.0 1
	2	f	12.2
	3	f	13.9
	4	9.3	9.9
	5	f	14.0 1
" 15	1	f	f
	2	f	12.5
	3	f	f
	4	9.5	10.1
	5	f	f
" 16	1	f	f
	2	f	12.5
	3	f	f
	4	9.7	10.3
	5	f	f
" 17	1	f	f
No. 17	2	f	12.9
	3	f	f
	4	10.2	10.7
	5	f	f
" 18	1	f	f
	2	f	12.9
	3	f	f
	4	f	11.0
	5	f	f
" 19	1	f	f
	2	f	13.5
	3	f	f
	4	f	11.9
	5	f	f
" 20	1	f	f
	2	f	13.9
	3	f	f
	4	f	12.3
	5	f	f
" 21	1	f	f
	2	f	f
	3	f	f
	4	f	12.5
	5	f	f
" 22	1	f	f
	2	f	f
	3	f	f

MQR

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..984L

Measures of Seq. for C7 = 13h + 15°

Scale R

January 8, 1912

MD 1019

		SC1	SC2
No 22	4	f	12.7
	5	f	f
" 23	1	f	f
	2	f	f
	3	f	f
	4	f	13.1
	5	f	f
" 24	1	f	f
	2	f	f
	3	f	f
	4	f	13.5
	5	f	f
" 25	1	f	f
	2	f	f
	3	f	f
	4	f	13.5
	5	f	f
" 26	1	f	f
	2	f	f
	3	f	f
	4	f	13.9
	5	f	f
" 27	1	f	f
	2	f	f
	3	f	f
	4	f	14.0
	5	f	f
No 28	1	f	f
	2	f	f
	3	f	f
	4	f	13.8
	5	f	f
" 29	1	f	f
	2	f	f
	3	f	f
	4	f	f
	5	f	f
" 30	1	f	f
	2	f	f
	3	f	f
	4	f	f
	5	f	f
" 31	1	f	f
	2	f	f
	3	f	f
	4	f	f
	5	f	f
" 32	1	f	f
	2	f	f
	3	f	f
	4	f	f
	5	f	f

MOR.

1:55.

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..984L

11:09

Measures of Seq. for $C_7 = 13^h + 15°$

Scale R

January 9. 1912

M2 964

		Sc 1	Sc 2
No 1	1	8.2	1
	2	6.0	
	3	8.3	
	4	3.9	
	5	8.5	2
" 2	1	9.7	10.2 1
	2	7.2	
	3	10.0	10.2
	4	4.9	
	5	10.0	10.4 2
" 3	1	10.1	11.1 0
	2	8.0	
	3	10.2	11.1
	4	5.2	
	5	10.4	11.3 2
" 4	1	?	11.1 1
	2	8.2	
	3	?	11.0
	4	5.2	
	5	?	11.3 3
" 5	1	?	11.5 0
	2	8.7	
	3	?	11.5
	4	6.0	
	5	?	11.8 3
" 6	1	?	12.0 1

		Sc 1	Sc 2
No 6	2	9.2	9.7
	3	?	11.9
	4	6.3	
	5	?	12.3 4
" 7	1	?	12.2 0
	2	9.3	9.7
	3	?	12.2
	4	6.8	
	5	?	12.5 3
" 8	1	?	12.5 0
	2	9.5	10.1
	3	?	12.5
	4	7.2	
	5	?	12.8 3
" 9	1	?	13.0 1
	2	10.0	10.4
	3	?	12.9
	4	7.9	
	5	?	13.3 4
" 10	1	?	13.0 1
	2	10.1	10.7
	3	?	13.1
	4	8.0	
	5	?	13.5 4
" 11	1	?	13.2 0
	2	10.1	10.7

MOR.

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..984L

Measures of Seq. for CT = 13h +15°

Scale R.

January 9, 1912

MD964

		Sc1	Sc2
No 11	3	∓	13.2
	4	8.1	
	5	∓	13.53
" 12	1	∓	13.20
	2	∓	11.2
	3	∓	13.2
	4	8.2	
	5	∓	13.53
" 13	1	∓	13.50
	2	∓	12.0
	3	∓	13.5
	4	8.7	
	5	∓	14.05
" 14	1	∓	13.90
	2	∓	12.2
	3	∓	13.9
	4	9.1	9.7
	5	∓	∓
" 15	1	∓	14.00
	2	∓	12.3
	3	∓	14.0
	4	9.3	9.9
	5	∓	∓
" 16	1	∓	∓
	2	∓	12.5
	3	∓	∓
	4	9.3	9.9

		Sc1	Sc2
No. 16	5	∓	∓
" 17	1	∓	∓
	2	∓	12.7
	3	∓	∓
	4	9.8	10.2
	5	∓	∓
" 18	1	∓	∓
	2	∓	12.8
	3	∓	∓
	4	10.1	10.7
	5	∓	∓
" 19	1	∓	∓
	2	∓	13.0
	3	∓	∓
	4	10.2	10.8
	5	∓	∓
" 20	1	∓	∓
	2	∓	12.9
	3	∓	∓
	4	10.0	10.7
	5	∓	∓
" 21	1	∓	∓
	2	∓	13.02
	3	∓	∓
	4	∓	11.3
	5	∓	∓
" 22	1	∓	∓

MOR.

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..984L

Measures of Neg. for C7 = 13h +15°

Scale R

January 9. 1912

M 0964

		Sc 1	Sc 2
No 22	2	f	~~f 13.2~~
	3	f	f
	4	f	12.4
	5	f	f
" 23	1	f	f
	2	f	f
	3	f	f
	4	f	12.7
	5	f	f
" 24	1	f	f
	2	f	f
	3	f	f
	4	f	13.1
	5	f	f
" 25	1	f	f
	2	f	f
	3	f	f
	4	f	13.3
	5	f	f
" 26	1	f	f
	2	f	f
	3	f	f
	4	f	13.5
	5	f	f
" 27	1	f	f
	2	f	f
	3	f	f
No 27	4	f	13.9
	5	f	f
" 28	1	f	f
	2	f	f
	3	f	f
	4	f	13.9
	5	f	f
" 29	1	f	f
	2	f	f
	3	f	f
	4	f	14.0
	5	f	f
" 30	1	f	f
	2	f	f
	3	f	f
	4	f	f
	5	f	f
" 31	1	f	f
	2	f	f
	3	f	f
	4	f	f
	5	f	f
32	1	f	f
	2	f	f
	3	f	f
	4	f	f
	5	f	f

MAR.

11:45

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..984L

Scale R
10:40

Measures of Seq. for C7 = 13h +15°

January 10, 1912

M E 956

	Image	Sc 1	Sc 2
No 1	2	9.7	
	4	7.8	
" 2	2	10.8	
	4	8.9	
" 3	2	11.2	
	4	9.1	
" 4	2	11.2	
	4	9.3	
" 5	2	11.7	
	4	9.8	
" 6	2	12.2	
	4	10.2	
" 7	2	12.5	
	4	10.4	
" 8	2	12.7	
	4	11.0	
" 9	2	12.9	
	4	11.3	
" 10	2	13.0	
	4	11.3	
" 11	2	13.2	
	4	11.3	
" 12	2	13.3	
	4	11.5	
" 13	2	image superposed	
	4	12.2	
No. 14	2	13.9	
	4	12.2	
" 15	2	∫	
	4	12.5	
" 16	2	∫	
	4	12.7	
" 17	2	∫	
	4	12.9	
" 18	2	∫	
	4	13.2	
" 19	2	∫	
	4	13.4	
" 20	2	∫	
	4	13.5	
" 21	2	∫	
	4	13.9	
" 22	2	∫	
	4	∫	
23			

MER

10.55

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..984L

Measures of Seq. for C7 - $13^h + 15°$

Scale R

January 10 - 1912.

M 8 964

	Im.	SC1	SC2
No 1	2	10.0	
	4	8.1	
" 2	2	11.1	
	4	9.3	
" 3	2	11.5	
	4	9.9	
" 4	2	11.7	
	4	10.1	
" 5	2	12.1	
	4	10.4	
" 6	2	12.3	
	4	10.4	
" 7	2	12.5	
	4	10.8	
" 8	2	12.7	
	4	11.1	
" 9	2	13.0	
	4	11.3	
" 10	2	13.2	
	4	11.5	
" 11	2	13.5	
	4	11.9	
" 12	2	13.3	
	4	11.7	
" 13	2	13.5	
	4	11.9	

		SC1	SC2
No. 14	2	13.9	
	4	12.3	
" 15	2	13.9	
	4	12.3	
" 16	2	f	
	4	12.5	
" 17	2	f	
	4	12.7	
" 18	2	f	
	4	12.9	
" 19	2	f	
	4	13.3 ~~12.9~~	
" 20	2	f	
	4	13.5	
" 21	2	f	
	4	14.0	
" 22	2	f	
	4	14.0?	
23			

MOR.

11:09

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..984L

1:10

Scale P

Measures of Seq. for C7 - $13^h + 15°$

January 12, 1912 Copied.

A 7636

		SO1	SO2	Mean	Diff	Curve	Magn.
No.	15	2.3	2.0				
	16	2.7	2.4				
	17	3.1	2.8				
	18	3.2	2.9				
	19	3.3	3.0				
	20	3.7	3.4			8.86	9.18 12.58
	21	4.0	3.7			9.11	9.11 12.81
	22	4.3	4.0 4.0	4.00	.00	9.26	9.04 13.04
	23	4.8	4.5 4.5	4.50	.00	8.90	8.93 13.43
	24	5.3	5.0 5.1	5.05	.01	8.85	8.81 13.86
	25	5.7	5.4 5.3	5.35	.01	8.72	8.77 14.12
	26	5.9	5.6 5.6	5.60	.00	8.68	8.75 14.35
	27		6.1			8.48	8.72 14.82
	28		6.3			8.76	8.74 15.04
	29		6.7			8.76	8.78 15.48
	30		6.9			8.99	8.80 15.70
	31		7.5			8.72	8.80 16.30
	32		7.7				8.80 16.50
	33		8.2				

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj.:984L

J1

2:20

Measures of Seq. for C2 = 3h +15

Scale MC 831.

January 16 1912

MC 1236

Polar Seq. #	sc1	sc2	P.C.		sc1	sc2	P.C.	Scale Read. + Curve
a	B		82	8	4.6 4.30			8.90
8	4.9		3.20	9	4.8 4.29			~~9.09~~
9	4.9		3.80	10	5.1	5.1 4.23		9.93
10	5.0	4.8	3.99	11	5.0	5.1 4.20		9.33 ~~9.25~~
11	5.2	5.1	4.22	12	5.3	5.2 4.25		9.50
12	5.5	5.4	4.33	13	5.9	5.8 4.21		10.06
13	6.0	5.9	4.17	14	6.2	6.0 4.19		10.29
14	6.3	6.3	4.22	15	6.4	6.4 4.18		10.58
15	6.7	6.5	4.34	16	6.6	6.6 4.17		10.77
16	7.3	7.2	4.06	17	6.8	6.9 4.16		11.01
17	7.5	7.3	4.09	18	6.9	7.0 4.14		11.09
18	7.8	7.7	4.12	19	7.2	7.3 4.12		11.37
19		8.3	3.98	20		7.7 4.11		~~11.81~~ defective
20		8.5	4.09	21		7.7 4.11		11.81
21		8.5	4.12	22		8.1 4.13		12.23
22		9.0	4.20	23		8.5 4.17		12.67
24				24		8.7 4.21		12.91
25		9.3	4.43	25		8.7 4.21		12.91
26		9.7	4.49	26		9.0 4.28		13.28
27				27		9.5 4.41		13.91
Star Seq. 1	3.1	Scale Read + Curve	near edge of plate.	28		9.7 4.48		14.18
2	3.1		8.7	29		9.9 4.54		14.44
3	3.2		8.9	30		↓		
4	4.0			31		↓		
5	3.9			32		↓		
6	4.2 4.35		~~8.55~~	33		↓		
7	4.5 4.30		~~8.80~~	34		↓		

MCR. 2:35

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..984L

Measures of Ft. Stars in Seq for B6 = 14 40 +45°

Scale 8.

January 18, 1912 Lepaute.

11:35

A7681

	sc1	sc2	mean	Diff.	Curve	Magn.
.13	1.7	1.4				
.14	2.1	1.8				
.15	2.2	1.9				
.16	2.2	1.9				
.17	2.3	2.0				
.18	2.3	2.0				
.19	2.8	2.5				
.20	2.7	2.4				
.21	3.1	2.8				
.22	3.3	3.0		9.20	8.99	11.99
.23	3.7	3.4		9.00	9.01	12.41
24	3.7	3.4		8.92	9.01	12.41
25	3.9	3.6		9.03	9.02	12.62
26	3.9	3.6		8.74	9.02	12.62
27	4.3 4.0	3.9	3.95	9.06	9.00	12.95
28	4.5 4.2	4.3	4.25	9.30	8.99	13.24
29	5.1 4.8	4.8	4.80	8.86	8.83	13.63
30	5.1 5.4	5.3	5.35	8.61	8.60	13.95
31		5.1		8.44	8.44	14.14
32		~~6.8 7.2~~		8.09	8.15	14.65
33		6.9		8.10	8.07	14.97
34		7.3		8.03	8.03	15.33
35		7.5		8.04	8.03	15.83
36		8.2		7.90	8.05	16.25
37		8.1		8.30	8.13	16.83
38		9.0			8.20 E	17.20 E

MER.

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..984L

Measures of Seq. for C8 = $15^h + 15°$.

Scale MC831 – MC960

January 18, 1912.

No.		sc1	sc2
1	1	4.3	1
	2	3.2	
	3	4.2	
	4	B	
	5	4.7	5
2	1	4.1	0
	2	3.2	
	3	4.1	
	4	B	
	5	4.5	4
3	1	6.0	1
	2	4.1	
	3	5.9	
	4	B	
	5	6.3	4
4–m	1	4.1	0
Edge of	2	3.2	
plate	3	4.1	
	4	B	
	5	4.3	2
5	1	5.1	1
	2	4.0	
	3	5.0	
	4	2.8	
	5	5.2	2
6	1	5.2	0
	2	4.1	
	3	5.2	
	4	2.8	
	5	5.5	3
7	too near edge to measure.		
8	1	6.3	1
	2	4.8	
	3	6.2	
	4	3.2	
	5	6.7	5
9	1	6.5	0
	2	5.1	
	3	6.5	
	4	3.6	
	5	6.8	5
10	1	7.1	1
	2	5.3	
	3	7.2	
	4	3.8	
	5	7.7	5
11	1	7.3	1
	2	5.7	
	3	7.2	
	4	3.9	
	5	7.7	5
12	1	7.5	2
	2	5.9	
	3	7.3	

MOR-

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..984L

Measures of Seq. for $\alpha 8 = 15^h + 15°$.

Scale MC831 January 18. 1912

MC960

No.	Image	sc1		No.		sc1.	sc2
12	4	4.1		18	1	8.3	1
	5	7.7	4		2	6.5	
13	1	7.5	2		3	8.2	
	2	5.9			4	4.9	
	3	7.3			5	8.5	3
	4	4.1		19	1	8.3	0
	5	7.8	5		2	6.5	
14	1	7.8	1		3	8.3	
	2	5.9			4	4.9	
	3	7.7			5	8.5	2
	4	4.1		20	1	8.5	2
	5	7.8	1		2	6.4	
15	1	7.9	1		3	8.3	
	2	6.1			4	4.9	
	3	7.8			5	8.5	2
	4	4.3		21	1	7	8.7 2
	5	8.0	2		2	6.8	
16	1	8.0	2		3	7	8.9
	2	6.2			4	5.2	
	3	7.8			5	7	9.0
	4	4.3		22	1	7	9.1 1
	5	8.1	3		2	7.3	
17	1	8.2	2		3	7	9.0
	2	6.2			4	5.3	
	3	8.0			5	7	9.4 3
	4	4.7		23	1	7	9.3 1
	5	8.2	2		2	7.8	

M.W.

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..984L

Measures of Seq. for C8 = 15h +15°

Scale mc 831. January 18, 1912

mc 960.

No.	Im.	sc1	sc2
23	3	1	9.2
	4	5.9	
	5	1	9.3 1
24	1	1	9.5 2
	2	7.7	
	3	1	9.3
	4	5.7	
	5	1	9.5 2
25	1	1	9.7 2
	2	8.1	
	3	1	9.5
	4	6.2	
	5	1	9.8 3
26	1	1	10.0 1
	2	8.2	
	3	1	9.9
	4	6.2	
	5	1	10.0
27	1	1	1
	2	8.5	
	3	1	1
	4	6.7	
	5	1	1
28	1	1	1
	2	1	9.3
	3	1	1
	4	7.4	
	5	1	1
29	1	1	1
	2	1	9.5
	3	1	1
	4	7.5	
	5	1	1
30	1	1	1
	2	1	9.7
	3	1	1
	4	8.1	
	5	1	1
31	1	1	1
	2	1	10.0
	3	1	1
	4	8.3	
	5	1	1
32	1	1	1
	2	1	m.s.
	3	1	1
	4	8.4	
	5	1	1
33	1	1	1
	2	1	1
	3	1	1
	4	7	6.5
	5	1	1
34	1	1	1

MSR.

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..984L

Measures of Seq. for C8 = $15^h + 15^\circ$

January 18. 1912

Scale Mc831

Mc960

No.		Sc1	Sc2
34	2	ƒ	ƒ
	3	ƒ	ƒ
	4	ƒ	8.7
	5	ƒ	ƒ
35	1	ƒ	ƒ
	2	ƒ	ƒ
	3	ƒ	ƒ
	4	ƒ	9.0
	5	ƒ	ƒ
36	1	ƒ	ƒ
	2	ƒ	ƒ
	3	ƒ	ƒ
	4	ƒ	9.5
	5	ƒ	ƒ
37	1	ƒ	ƒ
	2	ƒ	ƒ
	3	ƒ	ƒ
	4	ƒ	9.9
	5	ƒ	ƒ

12:10 Mcℛ.

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..984L

1:55

Measures of Seq. for C8 = 15h +15°

Scale R

January 19, 1912

MC948

		Sc1	Sc2
No 1	1	7.0	1
	2	t.p.	
	3	7.1	
	4	B	
	5	7.6	5
2	1	6.2	0
	2	4.2	
	3	6.2	
	4	B	
	5	6.7	5
3	1	~~7.3~~ 8.1	1
	2	5.1	
	3	~~7.7~~ 8.2	
	4	B	
	5	8.5	3
4	1	6.1	0
near	2	3.8	
Edge of	3	6.1	
plate	4	B	
	5	6.8	2
5	1	7.9	0
	2	5.3	
	3	7.9	
	4	B	
	5	8.1	2
6	1	8.0	0
	2	5.2	

		Sc1	Sc1
No 6	3	8.0	
	4	B	
	5	8.5	5
7	too near edge to measure.		
8	1	8.5	0
	2	6.1	
	3	8.5	
	4	2.1	
	5	8.5	0
9	1	9.2	0 10.1
	2	6.7	
	3	9.2	10.1
	4	3.0	
	5	9.5	10.3 3
10	1	10.0	10.7 0
	2	7.1	
	3	10.1	10.7
	4	4.2	
	5	10.3	11.1 4
11	1	10.1	11.0 1
	2	7.0	
	3	10.1	10.9
	4	3.9	
	5	10.3	11.2 3
12	1	10.1	10.9 0
	2	7.0	
	3	10.1	10.9

MOR

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..984L

Measures of Deg. for C8 = 15h +15°

Scale R

January 19, 1912.

Mc 948

No.		sc1	sc2
12	4	4.1	
	5	10.5	11.3 4
13	1	f	11.1 0
	2	7.3	
	3	f	11.1
	4	4.9	
	5	f	11.5 4
14	1	f	11.3 0
	2	8.1	
	3	f	11.3
	4	5.1	
	5	f	11.7 4
15	1	f	12.0 0
	2	8.3	
	3	f	12.0
	4	5.9	
	5	f	12.5 5
16	1	f	12.2 0
	2	8.1	f
	3	f	12.2
	4	6.0	
	5	f	12.7 5
17	1	f	12.3 1
	2	9.1	
	3	f	12.2
	4	6.2	
	5	f	12.7 5

No.		sc1	sc2
18	1	f	12.7 0
	2	9.1	
	3	f	12.7
	4	6.3	
	5	f	13.1 4
19	1	f	12.7 0
	2	9.2	
	3	f	12.7
	4	6.1	
	5	f	13.2 5
20	1	f	12.3 1
	2	8.9	
	3	f	12.2
	4	5.9	
	5	f	12.7 5
21	1	f	13.0
	2	9.7	
	3	f	12.9 1
	4	7.1	
	5	f	13.5 5
22	1	f	13.9 0
	2	10.1	
	3	f	13.9
	4	7.7	
	5	f	n.s.
23	1	f	f
	2	f	11.3

MOR.

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..984L

Measures of Nebs. for $C8 = 15^h + 15°$.

Scale R. January 19-1912.

MC948-

No.		sc1	sc2
23	3	1	1
	4	7.9	
	5	1	1
24	1	1	1 14.0
	2	1	11.7
	3	1	1
	4	8.0	
	5	1	1
25	1	1	1
	2	1	12.3
	3	1	1
	4	8.3	
	5	1	1
26	1	1	1
	2	1	13.0
	3	1	1
	4	9.1	9.9
	5	1	1
27	1	1	1
	2	1	13.2
	3	1	1
	4	9.1	10.7
	5	1	1
28	1	1	1
	2	1	1
	3	1	1
	4	1	11.7
28	5	1	1
29	1	1	1
	2	1	1
	3	1	1
	4	1	11.7
	5	1	1
30	1	1	1
	2	1	1
	3	1	1
	4	1	12.6
	5	1	1
31	1	1	1
	2	1	1
	3	1	1
	4	1	12.9
	5	1	1
32	1	1	1
	2	1	1
	3	1	1
	4	1	13.0
	5	1	1
33	1	1	1
	2	1	1
	3	1	1
	4	1	13.3
	5	1	1
34	1	1	1

M.O.R.

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..984L

Measures of Seq. for $C8 = 15^h + 15^\circ$

Scale R

January 19. 1912

Mc948

No.		Sc. 1	3
34	2	1	1
	3	1	1
	4	1	13.7
	5	1	1
35	1	1	1
	2	1	1
	3	1	1
	4	1	14.0
	5	1	1
36	1	1	1
	2	1	1
	3	1	1
	4	1	1
	5	1	1

2:30 M.O.R.

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj.0041

Measures of Seq. for $C\delta = 15^h + 15^\circ$.

1:16

Scale R

January 22, 1912

MC965 – Isochromatic

No.	Inv.		No.	Inv.	
1	1	n.s.	7	off edge of plate.	
	2	4.1	8	1	n.s.
	3	7.2		2	7.1
	4	B		3	9.3
	5	7.3		4	4.2
2	1	n.s.		5	9.5
	2	3.8	9	1	n.s.
	3	7.9		2	7.2
	4	B		3	9.7
	5	8.12		4	4.7
3	1	n.s.		5	9.7
	2	7.1	10	1	n.s.
	3	9.5		2	9.1
	4	4.3		3	9.7 12.3
	5	9.72		4	6.1
4	1	too near edge		5	f 12.7
5	1	n.s.	11	1	n.s.
	2	5.2		2	8.2
	3	7.7		3	f 12.5
	4	3.2		4	5.3
	5	7.70		5	f 12.7
6	1	N.S.	12	1	n.s.
	2	5.7		2	8.1
	3	8.5		3	f 11.7
	4	9.7		4	5.3
	5	8.72		5	f 12.0

M.O.R.

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..984L

Measures of Seq. for C8 = 15h + 15°

Scale R.

January 22, 1912.

MC965 - Isochromatic

No.		Sc. 1	Sc 2
	1	m.s.	
13	2	8.1	
	3	f	11.7
	4	5.3	
	5	f	12.0
14	1	m.s.	
	2	9.1	9.3
	3	f	13.0
	4	6.2	
	5	f	13.3
15	1	m.s.	
	2	9.3	10.0
	3	f	13.9
	4	6.3	
	5	f	14.0
16	1	m.s.	
	2	9.5	10.2
	3	f	m.s.
	4	6.5	
	5	f	m.s.
17	1	m.s.	
	2	8.7	
	3	f	12.5
	4	6.1	
	5	f	12.9
18	1	m.s.	
	2	9.5	12.0
	3	f	f

Cont

No.	Im.	Sc 1	Sc 2
18	4	6.8	
	5	f	f
19	1	m.s.	
	2	9.7	10.1
	3	f	13.8
	4	6.8	
	5	f	14.0
20	1	m.s.	
	2	9.3	9.7
	3	f	13.8
	4	6.2	
	5	f	f
21	1	m.s.	
	2	f	11.7
	3	f	f
	4	7.7	
	5	f	f
22	1	m.s.	
	2	f	12.9
	3	f	f
	4	8.2	
	5	f	f
23	1	m.s.	
	2	f	13.0
	3	f	f
	4	8.7	
	5	f	f

m.os.

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..984t

Measures of Dif. for CP = 15h +15°.

Scale R. January 22, 1912.

MC 965 cont. Trochimatic

No.	Im.	SO1	SO2
24	1	n.s.	
	2	ƒ	~~13.3~~ ~~12.5~~
	3	ƒ	ƒ
	4	8.7	
	5	ƒ	ƒ
25	1	n.s.	
	2	ƒ	13.9
	3	ƒ	ƒ
	4	9.2	10.0
	5	ƒ	ƒ
26	1	n.s.	
	2	ƒ	ƒ
	3	ƒ	ƒ
	4	9.5	10.1
	5	ƒ	ƒ
27	1	n.s.	
	2	ƒ	ƒ
	3	ƒ	ƒ
	4	10.1	11.0
	5	ƒ	ƒ
28	1	n.s.	
	2	ƒ	ƒ
	3	ƒ	ƒ
	4	ƒ	12.8
	5	ƒ	ƒ
29	1	n.s.	

No	Im.		
29	2	ƒ	ƒ
	3	ƒ	ƒ
	4	ƒ	12.1
	5	ƒ	ƒ
30	1	n.s.	
	2	ƒ	ƒ
	3	ƒ	ƒ
	4	ƒ	13.7
	5	ƒ	ƒ
31	1	n.s.	
	2	ƒ	ƒ
	3	ƒ	ƒ
	4	ƒ	14.0
	5	ƒ	ƒ
32	1	n.s.	
	2	ƒ	ƒ
	3	ƒ	ƒ
	4	ƒ	ƒ
	5	ƒ	ƒ
33	ƒ		
34	ƒ		
35	ƒ		
36	ƒ		
37	ƒ		

M.B.R.

1:50

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..984L

J'

Measures of Seq. for 08 = 15h + 15°.

1.50.

Scale R

January 22, 1912.

MD 1233

		Sc 1	Sc 2	Adopt. Mean Scale Read.	O-C
Polar Seq.	5	5		1.79	
	7	7.2	7.5	1.79	+0.89
	8	7.2	7.5	0.90	0.60
	9	8.1	8.4	0.60	0.30
	10	8.6	8.9	0.29	-0.01
	11	9.2	9.5	9.70 9.9 -0.30	-0.28
	12	9.4	9.7	9.90 10.1 -0.17	-0.17
	13	9.9	10.2	10.45 10.7 -0.23	-0.28
	14		11.1	-0.58	
	15		11.5	-0.56	
	16		12.1	-0.84	
	17		12.9	-0.81	
	18		12.9	-0.98	
	19		13.7	-1.42	
	20		13.9	-1.31	
	21		↓		
Star Seq.	1	6.4	6.7	Copied from sheet 7.40	7.41
	2	6.5	6.8	7.49	7.50
	3	7.0	7.3	7.85	7.88
	4	6.9	7.2	7.79	7.81
	5	7.2	7.5	8.00	8.03
	6	7.2	7.5	8.00	8.03
	7	8.2	8.5	8.69	8.75
	8	8.3	8.6	8.76	8.82
	9	8.5	8.8	8.85	8.97
	10	9.1	9.4 9.1	9.23	9.38
	11	9.3	9.6 9.7	9.65 9.35	9.55
	12	9.3	9.6 9.7	9.65 -.25 9.55	9.55

	Sc 1	Sc 2			
13	9.4	9.7	9.7	9.70 9.62	9.59
14	9.9	10.2	10.2	10.20 9.66 (?)	9.95
15	10.0	10.3	10.8	10.55 10.22 (?)	10.20
16	10.2	10.5	11.0	10.75 11.38	10.35
17		11.1		10.58	10.60
18		11.3			10.72
19		11.3			10.72
20		11.3			10.72
21		12.0			11.21
22		12.5			11.54
23		13.0			11.90
24		12.9			11.83
25		13.2		-1.04	12.04
26		13.5		-1.23	12.25
27		13.9			12.52
28		13.9			12.52
29		↓			

mos

2:1

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..0041

11:30

Measures of Ist. Stars for Seg. of 37 = 17h 20 +45°

Scale P

January 24, 1912

Copied.

A7865

	sc1	scr	mean.	Diff.	Curve E.C.P.	L	E.C.P.-L.	mean Curve	Magn.
13	2.1								
14	1.9								
15	2.2								
16	2.2								
17	2.3			7.96					
18	3.0			7.86					
19	3.1			7.46					
20	3.3			7.65					
21	3.3			8.09					
22	3.1			8.06					
23	3.7			7.84					
24	3.9			7.88					
25	4.1	3.8	4.0	3.90 ±1	8.29				
26	4.2	3.9	3.9	3.90 00	8.42	8.00	.	.	8.00	11.90
27	4.5	4.2	4.3	4.25 01	8.26	8.02	8.20	18	8.11	12.36
28	5.0	4.7 *4	4.7	4.70 00	8.13	8.03	8.13	10	8.08	12.78
29	~~5.0~~ 6.1	5.8	5.8	5.80 00	7.97	8.00	8.00	00	8.00	13.80
30	6.1				7.74	7.99	7.96	03	7.98	14.08
31	6.2				7.82	7.99	7.94	05	7.96	14.16
32	6.4				~~8~~ 7.91	7.97	7.90	07	7.98 4	14.38 4
33	6.7				8.06	7.95	7.86	09	7.90	14.60
34	6.9				8.00	7.92	7.82	10	7.87	14.77
35	7.5				7.92	7.81	7.73	08	7.77	15.27
36	8.2				7.50	7.64	7.63	01	7.64	15.84
37	9.0					7.38 E	7.53 E	15	7.46 E	16.46 E
38	9.3					7.29 E	7.49 E	20	7.39 E	16.69 E
39	10.0					7.04 E	7.40 E	36	7.22 E	17.22 E

MGR.

* Remeasured May 13, 1915. Error of unit.

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..984L

Measures of Seq for C8 = 15h + 15°

Scale R

January 24, 1912.

M 1096 5

No.	Im.	sc1	sc2
1	1	9.1 0	
	2	6.3	
	3	9.1	
	4	8.1	
	5	9.3 2	
2	1	9.3 1	
	2	6.2	
	3	9.4	
	4	2.9	
	5	9.4 0	
3	1	9.5	
	2	7.7	
	3	10.0	
	4	4.9	
	5	10.0	
4	1	9.7 1	
	2	7.1	
	3	9.8	
	4	4.2	
	5	9.9 1	
5	1	9.7	
	2	7.3 0	
	3	9.7	
	4	5.2	
	5	10.1 4	
6	1	9.9 2	
	2	7.9	
6	3	10.1	
	4	5.2	
	5	10.1 0	
7	1	f	11.9 1
	2	8.9	
	3	f	12.0
	4	6.2	
	5	f	12.1 1
8	1	f	11.7 2
	2	9.1	9.7
	3	f	11.9
	4	6.2	
	5	f	12.0 1
9	1	f	11.9 1
	2	9.3	9.7
	3	f	12.0
	4	6.8	
	5	f	12.3 3
10	1	f	12.5 0
	2	9.7	10.1
	3	f	12.5
	4	7.1	
	5	f	12.9 4
11	1	f	12.5
	2	9.8	10.2
	3	f	12.5 0
	4	7.2	

MOR.

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..984L

Measures of Seq. for C8 = 15h +15°

Scale R

January 24, 1912

M 1965 cont.

No.		SC1	SC2
11	5	1	12.94
12	1	1	~~12.5 +0.2~~
	2	9.7	10.2
	3	1	12.72
	4	7.2	
	5	1	13.03
13	1	1	13.01
	2	10.0	10.7
	3	1	13.1
	4	7.8	
	5	1	13.32
14	1	1	13.01
	2	10.1	10.9
	3	1	13.1
	4	7.9	
	5	1	13.32
15	1	1	13.30
	2	1	11.1
	3	1	13.3
	4	8.2	
	5	1	13.85
16	1	1	13.70
	2	1	11.4
	3	1	13.7
	4	8.7	
	5	1	13.92
17	-1	1	13.92

No.		SC1	SC2
17	2	1	11.7
	3	1	13.7
	4	8.9	
	5	1	13.92
18	1	1	13.9
	2	1	11.9
	3	1	13.90
	4	9.0	9.7
	5	1	13.90
19	1	1	13.91
	2	1	11.9
	3	1	13.8
	4	9.1	9.8
	5	1	13.91
20	1	1	13.70
	2	1	11.5
	3	1	13.7
	4	9.2	9.3
	5	1	13.92
21	1	1	14.00
	2	1	12.7
	3	1	14.0
	4	9.3	9.7
	5	1	14.0
22	1	1	1
	2	1	12.9
	3	1	1

MER

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..984L

Measures of Seq. for C8 = 15h + 15°

Scale R.

January 24, 1912

MD965 cont.

No.		sc1	sc2
22	4	10.0	11.0
	5	1	1
23	1	1	1
	2	1	13.2
	3	1	1
	4	1	10.8
	5	1	1
24	1	1	1
	2	1	13.2
	3	1	1
	4	1	10.7
	5	1	1
25	1	1	1
	2	1	13.5
	3	1	1
	4	1	11.5
	5	1	1
26	1	1	1
	2	1	13.7
	3	1	1
	4	1	12.5
	5	1	1
27	1	1	1
	2	1	1
	3	1	1
	4	1	12.5
	5	1	1

No.		sc1	sc2
28	1	1	1
	2	1	1
	3	1	1
	4	1	12.8
	5	1	1
29	1	1	1
	2	1	1
	3	1	1
	4	1	13.1
	5	1	1
30	1	1	1
	2	1	1
	3	1	1
	4	1	13.5 1
	5	1	1
31	1	n.s	
	2	n.s	
	3	n.s	
	4	13.9	
	5	n.s	

mOR. 12:25

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..984L

11.25

Measures of Seq for C8 = 15h +15°.

Scale R

January 27-1912

m2960

No.	Pair	Sc I	Sc I
1	1	9.2	0
	2	6.2	
	3	9.2	
	4	3.1	
	5	9.2	0
2	1	9.2	1
	2	6.0	
	3	9.3	
	4	2.9	
	5	9.3	0
3	1	10.1	0
	2	7.7	
	3	10.1	
	4	4.1	
	5	10.3	2
4	1	9.5	0
	2	7.1	
	3	9.5	
	4	4.1	
	5	9.7	2
5	1	9.5	0
	2	7.3	
	3	9.5	
	4	3.9	
	5	9.7	2
6	1	9.9	1
	2	8.1	
	3	9.8	
	4	5.0	
	5	9.9	1
7	1	1	11.9 1
	2	8.5	
	3	1	12.0
	4	6.0	
	5	1	11.9 1
8	1	1	11.9 2
	2	8.8	
	3	1	11.7
	4	6.1	
	5	1	11.9 2
9	1	1	12.0 1
	2	9.2	9.7
	3	1	11.9
	4	6.5	
	5	1	12.0 1
10	1	1	12.3 2
	2	9.3	9.9
	3	1	12.5
	4	6.1	
	5	1	12.5 0
11	1	1	12.5 2
	2	9.5	10.1
	3	1	12.3
	4	6.9	

M.R.

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..984L

Measures of Leg for C8 = 15h +15°

Scale R.

January 27. 1912

MD960 cont.

No.	Im.	sc1	sc2	
11	5	∓	12.5	2
12	1	∓	12.5	0
	2	9.7	10.5	
	3	∓	12.5	
	4	7.3		
	5	∓	12.8	3
13	1	∓	12.7	2
	2	10.0	10.7	
	3	∓	12.5	
	4	8.0		
	5	∓	12.7	2
14	1	∓	12.7	2
	2	10.1	10.9	
	3	∓	12.9	
	4	8.0		
	5	∓	12.7	2
15	1	∓	13.0	1
	2	∓	10.9	
	3	∓	12.9	
	4	8.0		
	5	∓	13.0	1
16	1	∓	13.3	2
	2	∓	11.2	
	3	∓	13.1	
	4	8.2		
	5	∓	13.1	
17	1	∓	13.5	0

No.		sc1	sc2
17	2	∓	11.3
	3	∓	13.5
	4	9.1	9.4
	5	∓	13.3 2
18	1	∓	13.8
	2	∓	11.7
	3	∓	13.7
	4	9.1	9.3
	5	∓	13.9
19	1	∓	13.9
	2	∓	11.5
	3	∓	13.9
	4	8.9	
	5	∓	13.8
20	1	∓	13.8
	2	∓	11.7
	3	∓	13.7
	4	9.1	9.5
	5	∓	13.8
21	1	∓	∓
	2	∓	12.3
	3	∓	∓
	4	scratch across image	
	5	∓	∓
22	1	∓	∓
	2	∓	12.7
	3	∓	∓

MAR

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj.0841

Measures of Seg. for C8 = 15h + 15°

Scale R

January 27, 1912

MO 960 cont.

		Sc1	Sc2
22	4	9.7	10.9
	5	ƒ	ƒ
23	1	ƒ	ƒ
	2	ƒ	12.9
	3	ƒ	ƒ
	4	10.1	10.8
	5	ƒ	ƒ
24	1	ƒ	ƒ
	2	ƒ	13.0
	3	ƒ	ƒ
	4	10.1	10.7
	5	ƒ	ƒ
25	1	ƒ	ƒ
	2	ƒ	13.0
	3	ƒ	ƒ
	4	10.2	11.1
	5	ƒ	ƒ
26	1	ƒ	ƒ
	2	ƒ	ƒ
	3	ƒ	ƒ
	4	~~11.7~~ 11.4	~~12.3~~ 12.3
	5	ƒ	ƒ
27	1	ƒ	ƒ
	2	ƒ	ƒ
	3	ƒ	ƒ
	4	~~11.7~~ 11.3	~~12.1~~ 12.3
	5	ƒ	ƒ

No.			
28	1	ƒ	ƒ
	2	ƒ	ƒ
	3	ƒ	ƒ
	4	ƒ	~~12.3~~ 12.5
	5	ƒ	ƒ
29	1	ƒ	ƒ
	2	ƒ	ƒ
	3	ƒ	ƒ
	4	ƒ	~~12.5~~ 12.0
	5	ƒ	ƒ
30	1	ƒ	ƒ
	2	ƒ	ƒ
	3	ƒ	ƒ
	4	ƒ	13.5
	5	ƒ	ƒ
31	1	ƒ	ƒ
	2	ƒ	ƒ
	3	ƒ	ƒ
	4	ƒ	13.7
	5	ƒ	ƒ
32	1	ƒ	ƒ
	2	ƒ	ƒ
	3	ƒ	ƒ
	4	ƒ	13.5 ?
	5	ƒ	ƒ
33	1	ƒ	ƒ
	2	ƒ	ƒ
	3	ƒ	ƒ
	4	ƒ	ƒ

MCR.

12:15

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..984L

Measures of Seq. for $G8 = 15^h + 15°$

Scale R.

January 29. 1912

M & 960

No.	Inv.	Sec.
1	2	10.9
	4	9.1
2	2	10.8
	4	8.8
3	2	11.5
	4	9.5
4	2	10.9
	4	9.3
5	2	11.7
	4	10.0
6	2	12.0
	4	10.2
7	2	12.2
	4	10.3
8	2	12.4
	4	10.5
9	2	12.7
	4	10.9
10	2	12.8
	4	11.1
11	2	13.2
	4	11.3
12	2	12.9
	4	11.5
13	2	13.1
	4	11.5
14	2	13.3
	4	11.7
15	2	13.7
	4	11.9
16	2	13.8
	4	12.2
17	2	13.9
	4	12.4
18	2	13.9
	4	12.5
19	2	∓
	4	12.3
20	2	13.9
	4	12.3
21	2	∓
	4	12.7
22	2	∓
	4	12.9
23	2	∓
	4	13.1
24	2	∓
	4	13.3
25	2	∓
	4	13.5
26	2	∓
	4	13.9

MR.

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..984L

Measures of Seq. for $C8 = 15^h + 15^\circ$

Scale R

January 29, 1912.

Mc 960.

No.	Im.	Sec
27	2	∓
	4	14.0
28	2	∓
	4	∓

M.R.

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..984L

Measures of Seg. for C8 = 15h +15.

Scale R

January 29. 1912.

M6965

No.	Im.	Sc
1	1	8.9
	2	10.8
2	3	8.8
	4	10.8
3	5	9.3
	2	11.3
4	1	9.3
	2	11.4
5	1	10.1
	2	11.7
6	1	10.3
	2	11.9
7	1	10.4
	2	12.3
8	1	10.5
	2	12.5
9	1	11.0
	2	12.8
10	1	11.3
	2	13.2
11	1	11.2
	2	13.2
12	1	11.5
	2	13.3
13	1	11.5
	2	13.5

No.		
14	1	11.5
	2	13.7
15	1	11.8
	2	13.8
16	1	11.9
	2	13.9
17	1	12.4
	2	⸗
18	1	12.3
	2	⸗ 13.9
19	1	12.5
	2	⸗
20	1	12.7
	2	⸗
21	1	12.7
	2	⸗
22	1	13.1
	2	⸗
23	1	~~13.5~~ defective
	2	⸗
24	1	13.5
	2	⸗
25	1	13.7
	2	⸗
26	1	13.9
	2	⸗
27	1	⸗
	2	⸗

MOR.

2:25

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..984L

Measures of Seq. for $C_8 = 15^h + 15^\circ$

Scale R.

January 30, 1912

ME 1053

	Sec		Polar Seq.		
1	10.2	7.33	11	12.0	−2.58
2	10.1	7.24	12	12.3	−2.57
3	10.9	8.05	13	12.5	−2.33
4	10.5	7.63	14	12.7	−2.18
5	10.9	8.05	15	12.9	−1.96
6	11.0	8.16	16	13.2	−1.94
7	11.5	8.76	17	13.5	−2.01
8	11.7	9.02	18	~~7.~~	
9	11.9	9.28	3	8.1	−2.36
10	12.1	9.57	4	8.3	−2.39
11	12.4	~~9.95~~ 10.00	6	9.8	−2.82
12	12.5	10.15			
13	12.7	~~10.48~~			
14	12.7	10.48			
15	12.9	10.79			
16	12.9	10.79			
17	13.2	11.26 2			
18	13.2	11.26 2			
19	13.1	11.10 08			
20	13.3	11.44 35			
21	13.7	11.92			
22	13.9	12.22			
23	~~7.~~				
Polar Seq. 5	9.2	−2.81 ~~6.09~~			
8	11.0	−2.90			
9	11.5	−2.80			
10	11.6	−2.71			

mcd.

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..984L

Measures of Seq. for C9 = $17^h + 15$

Scale R.

January 31. 1912

MC 1135

No.	f	Sc1	Sc2
1	1	5.2	
	2	B	
	3	5.3	
	4	2.9	
	5	5.2	
On edge of plate. 2	1	5.3	
	2	B.	
	3	5.2	
	4	2.9	
	5	5.3	
3	1	5.7	
	2	B.	
	3	5.9	
	4	2.7	
	5	6.0	
4	1	6.8	
	2	B.	
	3	6.9	
	4	3.9	
	5	7.1	
5	1	7.1	
	2	B	
	3	7.3	
	4	4.1	
	5	7.7	
6	1	7.9	
	2	B.	
	3	7.9	
	4	4.9	
	5	8.0	
7	1	8.3	
	2	3.1	
	3	8.3	
	4	6.3	
	5	8.3	
8	1	9.1	9.7
	2	4.1	
	3	9.2	9.9
	4	7.1	
	5	9.3	10.0
9	1	10.0	10.9
	2	5.0	
	3	10.1	11.0
	4	8.3	
	5	10.2	11.1
10	1	f	11.8
	2	5.8	
	3	f	11.8
	4	8.3	
	5	f	12.0
11	1	f	11.7
	2	5.9	
	3	f	11.6
	4	8.1	

M.03.

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae..proj..984L

Measures of Seq. for C9 = 17h+15°.

Scale R

January 31, 1912

MC 1135 cont

No	Im.	sc1	scv
11	5	1	11.5
12	1	1	12.3
	2	6.2	
	3	1	12.3
	4	9.2	9.4
	5	1	12.5
13	1	1	11.7
	2	5.9	
	3	1	11.9
	4	9.0	
	5	1	12.1
14	1	1	12.0
	2	6.0	
	3	1	12.2
	4	8.9	
	5	1	12.2
15	1	1	12.5
	2	6.2	
	3	1	12.5
	4	9.3	9.9
	5	1	12.7
16	1	1	13.0
	2	7.1	
	3	1	13.1
	4	9.7	10.1
	5	1	13.3
17	1	1	13.3
	2	7.3	
	3	1	13.3
	4	10.0	10.9
	5	1	13.5
18	1	1	1
	2	8.1	
	3	1	13.9
	4	10.3	11.2
	5	1	1
19	1	1	1
	2	8.3	
	3	1	1
	4	1	11.7
	5	1	1
20	1	1	1
	2	8.9	
	3	1	1
	4	1	11.9
	5	1	1
21	1	1	1
	2	9.2	9.9
	3	1	1
	4	1	12.2
	5	1	1
22	1	1	1
	2	9.5	10.0
	3	1	1

MOR

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..984L

Measures of Seg for C9 = 17h +15°

Scale R

January 31, 1912 -

MC 1135 cont.

No.		sc1	sc2
22	4	1	12.7
	5	1	1
23	1	1	1
	2	9.5	10.1
	3	1	1
	4	1	12.9
	5	1	1
24	1	1	1
	2	10.1	10.9
	3	1	1
	4	1	13.1
	5	1	1
25	1	1	1
	2	10.3	11.2
	3	1	1
	4	1	13.7
	5	1	1
26	1	1	1
	2	1	11.2
	3	1	1
	4	1	13.9
	5	1	1
27	1	1	1
	2	1	12.1
	3	1	1
	4	1	1
	5	1	1
28	1	1	1
	2	1	12.7
	3	1	1
	4	1	1
	5	1	1
29	1	1	1
	2	1	12.7
	3	1	1
	4	1	1
	5	1	1
30	1	1	1
	2	1	13.3
	3	1	1
	4	1	1
	5	1	1
31	1	1	1
	2	1	13.7
	3	1	1
	4	1	1
	5	1	1
32	1	1	1
	2	1	1
	3	1	1
	4	1	1
	5	1	1

M 02

2:50

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..984L

2:20

Measures of Seq. for $C9 = 17^h + 15$

Scale R

February 1, 1912

MC 1117

No.		Sc 1	Sc 2
1	1	5.2	
	2	B	
	3	5.2	
	4	3.0	
	5	5.3	
2	1	6.3	
	2	B	
	3	6.4	
	4	2.9	
	5	6.4	
3	1	6.2	
	2	B	
	3	6.3	
	4	2.7	
	5	6.3	
4	1	7.1	
	2	B	
	3	7.2	
	4	4.1	
	5	7.4	
5	1	7.5	
	2	B	
	3	7.7	
	4	4.9	
	5	7.5	
6	1	8.5	
	2	B	
	3	8.7	
	4	5.3	
	5	8.7	
7	1	9.2	10.0
	2	3.7	
	3	9.3	10.1
	4	6.7	
	5	9.3	10.1
8	1	9.1	10.7
	2	4.1	
	3	9.9	10.9
	4	7.1	
	5	9.7	10.9
9	1	†	11.7
	2	5.1	
	3	†	11.9
	4	8.3	
	5	†	12.0
10	1	†	12.0
	3	6.0	
	3	†	12.2
	4	8.5	
	5	†	12.2
11	1	†	11.9
	2	5.9	
	3	†	12.0
	4	8.2	

M.R.

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..984L

Measures of Leq. for $\alpha q = 17^h + 15^\circ$

Scale R

February 1-1912.

Mc1117 cont.

No.			
11	5	†	11.9
12	1	†	12.0
	2	6.1	
	3	†	12.0
	4	9.0	
	5	†	11.9
13	1	†	12.2
	2	6.2	
	3	†	12.2
	4	9.1	9.1
	5	†	12.4
14	1	†	12.0
	2	6.2	
	3	†	11.9
	4	9.0	9.1
	5	†	12.2
15	1	†	12.5
	2	6.9	
	3	†	12.7
	4	9.9	10.2
	5	†	12.9
16	1	†	13.5
	2	7.2	
	3	†	13.7
	4	10.2	11.0
	5	†	13.7

No.	sc1	sc2
17	1 †	13.9
	2 7.8	
	3 †	13.9
	4 †	11.3
	5 †	14.0
18	1 †	†
	2 ~~8.1~~	
	3 †	†
	4 †	12.5
	5 †	†
19	1 †	†
	2 9.0	9.1
	3 †	†
	4 †	12.5
	5 †	†
20	1 †	†
	2 9.3	10.1
	3 †	†
	4 †	12.8
	5 †	†
21	1 †	†
	2 10.0	10.1
	3 †	†
	4 †	13.0
	5 †	†
22	1 †	†

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..984L

Measures of Seq. for $C9 = 17^h + 15^\circ$

Scale R.

February 1. 1912.

MC 1117 cont

No.		Sc1	Sc2
22	2	9.9	10.7
	3	ƒ	ƒ
	4	ƒ	13.2
	5	ƒ	ƒ
23	1	ƒ	ƒ
	2	10.2	10.9
	3	ƒ	ƒ
	4	ƒ	13.2
	5	ƒ	ƒ
24	1	ƒ	ƒ
	2	ƒ	11.0
	3	ƒ	ƒ
	4	ƒ	ƒ
	5	ƒ	ƒ
25	1	ƒ	ƒ
	2	ƒ	11.7
	3	ƒ	ƒ
	4	ƒ	ƒ
	5	ƒ	ƒ
26	1	ƒ	ƒ
	2	ƒ	12.0
	3	ƒ	ƒ
	4	ƒ	ƒ
	5	ƒ	ƒ
27	1	ƒ	ƒ
	2	ƒ	12.5
	3	ƒ	ƒ
	4	ƒ	ƒ
	5	ƒ	ƒ
28	1	ƒ	ƒ
	2	ƒ	12.9
	3	ƒ	ƒ
	4	ƒ	ƒ
	5	ƒ	ƒ
29	1	ƒ	ƒ
	2	ƒ	13.0
	3	ƒ	ƒ
	4	ƒ	ƒ
	5	ƒ	ƒ
30	1	ƒ	ƒ
	2	ƒ	13.5
	3	ƒ	ƒ
	4	ƒ	ƒ
	5	ƒ	ƒ
31	1	ƒ	ƒ
	2	ƒ	13.9
	3	ƒ	ƒ
	4	ƒ	ƒ
	5	ƒ	ƒ
32	1	ƒ	ƒ
	2	ƒ	ƒ
	3	ƒ	ƒ
	4	ƒ	ƒ
	5	ƒ	ƒ

MCR

2,153

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..984L

Measures of Seq. for C 9 = 17^h +15°.

1.30 Scale R.

February 2. 1912

MC 1089 – Isochromatic

No.		Sc 1	Sc 2
1	1	9.2	10.1
	2	3.0	
	3	9.3	10.0
	4	5.1	
	5	9.3	10.0
2	1	8.9	9.3
	2	3.1	
	3	8.9	9.7
	4	5.1	
	5	9.0	9.7
3	1	8.3	
	2	3.2	
	3	8.3	
	4	5.3	
	5	8.3	
4	1	9.3	9.7
	2	4.1	
	3	9.2	9.6
	4	5.3	
	5	9.2	9.7
5	1	10.2	10.7
	2	5.0	
	3	10.2	10.9
	4	6.9	
	5	10.3	11.0
6	1	10.2	11.0
	2	5.1	
	3	10.3	11.0
	4	7.2	
	5	10.2	11.2
7	1	9.9	10.7
	2	5.2	
	3	10.0	10.6
	4	6.9	
	5	10.0	10.8
8	1	8.1	
	2	4.1	
	3	8.0	
	4	5.7	
	5	8.0	
9	1	1	13.7
	2	7.1	
	3	1	13.9
	4	10.0	10.4
	5	1	13.9
10	1	1	1
	2	7.2	
	3	1	1
	4	10.2	10.8
	5	1	1
11	1	1	12.3
	2	6.1	
	3	1	12.5
	4	9.0	9.3

MOR.

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..984L

Measures of Seq. for cg = $17^h + 15°$.

Scale R

February 2, 1912

MC 1089 Isochromatic

No.			
11	5	ƒ	12.5
12	1	ƒ	13.8
	2	7.2	
	3	ƒ	13.9
	4	9.3	10.1
	5	ƒ	13.9
13	1	ƒ	13.9
	2	7.1	
	3	ƒ	13.9
	4	9.9	10.2
	5	ƒ	n.s.
14	1	ƒ	ƒ
	2	8.1	
	3	ƒ	ƒ
	4	ƒ	11.9
	5	ƒ	ƒ
15	1	ƒ	ƒ
	2	7.9	
	3	ƒ	ƒ
	4	ƒ	11.4
	5	ƒ	ƒ
16	1	ƒ	ƒ
	2	9.3	9.9
	3	ƒ	ƒ
	4	ƒ	13.3
	5	ƒ	ƒ
17	1	ƒ	ƒ

cont.

No.			
17	2	9.7	10.3
	3	ƒ	ƒ
	4	ƒ	13.7
	5	ƒ	ƒ
18	1	ƒ	ƒ
	2	10.1	10.7
	3	ƒ	ƒ
	4	ƒ	ƒ
	5	ƒ	ƒ
19	1	ƒ	ƒ
	2	10.1	10.9
	3	ƒ	ƒ
	4	ƒ	ƒ
	5	ƒ	ƒ
20	1	ƒ	ƒ
	2	ƒ	10.9
	3	ƒ	ƒ
	4	ƒ	ƒ
	5	ƒ	ƒ
21	1	ƒ	ƒ
	2	ƒ	11.9
	3	ƒ	ƒ
	4	ƒ	ƒ
	5	ƒ	ƒ
22	1	ƒ	ƒ
	2	ƒ	12.3
	3	ƒ	ƒ

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..984L

Measures of Seq. for C9 = 17h + 15°.

Scale R

February 2, 1912

MC 1089 Isochromatic

No				No			
22	Im.	∓		27	5	∓	∓
	4	∓	∓	28	1	∓	∓
	5	∓	∓		2	∓	∓
23	1	∓	∓		3	∓	∓
	2	∓	125		4	∓	∓
	3	∓	∓		5	∓	∓
	4	∓	∓				
	5	∓	∓				
24	1	∓	∓				
	2	∓	127				
	3	∓	∓				
	4	∓	∓				
	5	∓	∓				
25	1	∓	∓				
	2	∓	128				
	3	∓	∓				
	4	∓	∓				
	5	∓	∓				
26	1	∓	∓				
	2	∓	13.8				
	3	∓	∓				
	4	∓	∓				
	5	∓	∓				
27	1	∓	∓				
	2	∓	140				
	3	∓	∓				
	4	∓	∓				

M.R.

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..984L

Measures of Seq. for 9^h-17^h +15°

Scale R

February 2, 1912.

Mc 1033 Isochromatic

No.		Sc1	
1	1	~~8.1~~ 7	
	2	B	
	3	~~8.2~~ 7	
	4	4.0	
	5	7.3	
2	1	7.2	
	2	3.1	
	3	7.4	
	4	5.7	
	5	7.4	
3	1	7.1	
	2	3.0	
	3	7.2	
	4	~~7.8~~ 5.1	
	5	7.3	
4	1	8.0	
	2	3.2	
	3	8.2	
	4	5.3	
	5	8.3	
5	1	9.0	9.7
	2	4.1	
	3	9.3	10.0
	4	6.3	
	5	9.3	9.9
6	1	9.3	9.9
	2	4.1	
	3	9.5	10.0
	4	7.1	
	5	9.3	10.1
7	1	9.0	~~10.0~~
	2	4.0	
	3	9.2	10.2
	4	6.7	
	5	9.1	10.2
8	1	7.0	
	2	3.1	
	3	7.2	
	4	4.9	
	5	7.3	
9	1	‡	12.1
	2	6.1	
	3	‡	12.3
	4	8.9	
	5	‡	12.5
10	1	‡	13.0
	2	6.3	
	3	‡	13.2
	4	9.1	10.1
	5	‡	13.3
11	1	‡	11.7
	2	5.1	
	3	‡	11.9
	4	8.1	

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..984L

Measures of Seq. fn ~~Seq. ff~~ C9 = 17h + 15°

Scale R

February 2, 1912.

MC 1033 Isochromatic Cont.

No.		Su 1	Su 2.
	5	ƒ	12.0
12	1	ƒ	12.7
	2	6.0	
	3	ƒ	12.5
	4	8.9	
	5	ƒ	12.5
13	1	ƒ	12.7
	2	6.2	
	3	ƒ	12.9
	4	9.0	9.7
	5	ƒ	13.0
14	1	ƒ	12.7
	2	6.9	
	3	ƒ	12.9
	4	9.9	10.3
	5	ƒ	12.9
15	1	ƒ	13.0
	2	6.1	
	3	ƒ	13.0
	4	9.7	10.1
	5	ƒ	13.3
16	1	ƒ	ƒ
	2	7.3	
	3	ƒ	ƒ
	4	ƒ	11.3
	5	ƒ	ƒ
17	1	ƒ	ƒ
17	2	8.1	
	3	ƒ	ƒ
	4	ƒ	12.7
	5	ƒ	ƒ
18	1	ƒ	ƒ
	2	8.9	
	3	ƒ	ƒ
	4	ƒ	12.9
	5	ƒ	ƒ
19	1	ƒ	ƒ
	2	8.9	
	3	ƒ	ƒ
	4	ƒ	13.1
	5	ƒ	ƒ
20	1	ƒ	ƒ
	2	9.0	9.7
	3	ƒ	ƒ
	4	ƒ	13.2
	5	ƒ	ƒ
21	1	ƒ	ƒ
	2	9.8	10.0
	3	ƒ	ƒ
	4	ƒ	13.5
	5	ƒ	ƒ
22	1	ƒ	ƒ
	2	10.1	
	3	ƒ	ƒ

M.O.

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..984L

Measures of Seq for C9 = 17h + 15°.

Scale R

February 2. 1912.

Mc 1033 Isochromatic Cont

No			
22	4	∓	m.s.
	5	∓	∓
23	1	∓	∓
	2	9.3	10.1
	3	∓	∓
	4	∓	13.1
	5	∓	∓
24	1	∓	∓
	2	10.2	11.0
	3	∓	∓
	4	∓	13.9
	5	∓	∓
25	1	∓	∓
	2	∓	11.0
	3	∓	∓
	4	∓	∓
	5	∓	∓
26	1	∓	∓
	2	∓	11.9
	3	∓	∓
	4	∓	∓
	5	∓	∓
27	1	∓	∓
	2	∓	12.4
	3	∓	∓
	4	∓	∓
	5	∓	∓
28	1	∓	∓
	2	∓	12.9
	3	∓	∓
	4	∓	∓
	5	∓	∓
29	1	∓	∓
	2	∓	13.9
	3	∓	∓
	4	∓	∓
	5	∓	∓
30	1	∓	∓
	2	∓	∓
	3	∓	∓
	4	∓	∓
	5	∓	∓
31	1	∓	∓
	2	∓	∓
	3	∓	∓
	4	∓	∓
	5	∓	∓

M.R.

2:30.

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..984L

Measures of Seq. for C10 = 19h + 15°

Scale R.

February 5 1912

MC 1278 Spectrum

No.		Sc1	Sc2	
1	1	9.5	10.3 o	
	2	5.1		
	3	9.5	10.3	
	4	7.2		
	5	9.7	10.7 4	
2	1	10.0	10.9 1	
	2	5.3		
	3	10.1	10.8	
	4	7.7		
	5	10.3	10.8 o	
3	1	9.7	10.0 2	
	2	4.3		
	3	9.5	10.2	
	4	6.2		
	5	9.7	10.3 1	
4	1	†	12.2 1	
	2	5.2		
	3	†	12.3	
	4	8.0		
	5	†	12.3 o	
5	1	†	12.9 1	
	2	5.3		
	3	†	13.0	
	4	8.4		
	5	†	13.0	
6	1	†	13.3 2	
	2	6.2		
	3	†	13.5	No 11 is superposed on No 6 Images peculiar Shape.
	4	9.3	10.1	
	5	†	13.5 o	
7	1	†	11.0 3	
	2	5.1		
	3	†	11.3	
	4	7.3		
	5	†	11.3 o	
8	1	†	† 13.8 1	
	2	7.3		
	3	†	13.9	
	4	10.0 ~~8.3~~	11.0	
	5	†	†	
9	1	†	13.7 2	
	2	7.0		
	3	†	13.5	
	4	9.7	10.3	
	5	†	13.7 2	
10	1	†	†	
	2	8.3		
	3	†	†	
	4	†	12.0	
	5	†	†	
11	1	†	†	
	2	9.0	9.7	
	3	†	†	
	4	†	12.5	

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..984t

Measures of Seq. for C 10 = 19h +15°

Sc R

February 5, 1912

Mc 1248 Isochromatic

No.		Sc 1	Sc 2
11	5	ƒ	ƒ
12	1	ƒ	ƒ
	2	9.5	10.3
	3	ƒ	ƒ
	4	ƒ	12.7
	5	ƒ	ƒ
13	1	ƒ	ƒ
	2	9.8	10.7
	3	ƒ	ƒ
	4	ƒ	13.2
	5	ƒ	ƒ
14	1	ƒ	ƒ
	2	10.1	10.8
	3	ƒ	ƒ
	4	ƒ	13.9
	5	ƒ	ƒ
15	1	ƒ	ƒ
	2	10.2	10.8
	3	ƒ	ƒ
	4	ƒ	14.0
	5	ƒ	ƒ
16	1	ƒ	ƒ
	2	~~ƒ 10.9~~	10.9 ~~11.3~~
	3	ƒ	ƒ
	4	ƒ	ƒ
	5	ƒ	ƒ

cont.

No.		Sc 1	Sc 2
17	1	ƒ	ƒ
	2	ƒ	11.5
	3	ƒ	ƒ
	4	ƒ	ƒ
	5	ƒ	ƒ
18	1	ƒ	ƒ
	2	ƒ	11.7
	3	ƒ	ƒ
	4	ƒ	ƒ
	5	ƒ	ƒ
19	1	ƒ	ƒ
	2	ƒ	12.2
	3	ƒ	ƒ
	4	ƒ	ƒ
	5	ƒ	ƒ
20	1	ƒ	ƒ
	2	ƒ	12.3
	3	ƒ	ƒ
	4	ƒ	ƒ
	5	ƒ	ƒ
21	1	ƒ	ƒ
	2	ƒ	12.8
	3	ƒ	ƒ
	4	ƒ	ƒ
	5	ƒ	ƒ
22	1	ƒ	ƒ

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..984L

Measures of Seq. for C 10 = 19^h + 15°.

Scale R

February 5, 1912

MC 1248 Isochromatic

No.		S01	S02
22	2	∓	12.9
	3	∓	∓
	4	∓	∓
	5	∓	∓
23	1	∓	∓
	2	∓	m.s.
	3	∓	∓
	4	∓	∓
	5	∓	∓

MOR

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..984L

Measures of Seq. for $C_{10} = 19^h + 15°$.

Sc. R. February 5, 1912.

MC 1090 Isochromatic

No.		SC1	SC2	
1	1	8.9		1
	2	4.1		
	3	9.0	9.7	
	4	6.1		
	5	9.1	9.9	2
2	1	9.3	9.9	
	2	4.2		
	3	9.3	10.1	2
	4	6.2		
	5	9.5	10.1	0
3	1	9.0	9.7	2
	2	4.1		
	3	9.0	9.5	
	4	6.1		
	5	9.2	9.7	2
4	1	10.1	10.7	
	2	5.1		2
	3	10.2	10.5	
	4	7.3		
	5	10.1	10.7	2
5	1	?	12.1	2
	2	5.2		
	3	?	11.9	
	4	8.1		
	5	?	11.9	0
6	1	?		
	2	superposed on No 6.		

Images of 11 yoking images peculiar shape.

MOR.

No.		SC1	SC2	
6	3	?		see note ↙
	4			
	5	?		
7	1	9.3	9.9	1
	2	4.2		
	3	9.2	9.8	
	4	6.2		
	5	9.3	10.0	2
8	1	?	13.2	2
	2	7.2		
	3	?	13.0	
	4	10.0		
	5	?	13.2	2
9	1	?	12.2	2
	2	5.2		
	3	?	12.0	
	4	8.2		
	5	?	12.2	2
10	1	?	13.9	0
	2	6.2		
	3	?	13.9	
	4	9.4	10.1	
	5	?	14.0	1
11	1	?		Superposed on No 6.
	2	7.0		
	3	?		

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..984L

Measures of Seq for C 10 = 19^{h} +15°

February 5, 1912.

MC 1090 Epoch

No.		Sc1	Sc2
11	4	superposed on No 6.	
	5	ƒ	ƒ
12	1	ƒ	ƒ
	2	8.1	##
	3	ƒ	ƒ
	4	ƒ	11.3
	5	ƒ	ƒ
	1	ƒ	ƒ
13	2	8.3	
	3	ƒ	ƒ
	4	ƒ	12.1
	5	ƒ	ƒ
14	1	ƒ	ƒ
	2	8.8	
	3	ƒ	ƒ
	4	ƒ	12.2
	5	ƒ	ƒ
15	1	ƒ	ƒ
	2	8.7	
	3	ƒ	ƒ
	4	ƒ	12.2
	5	ƒ	ƒ
16	1	ƒ	ƒ
	2	8.9	
	3	ƒ	ƒ
	4	ƒ	12.0
	5	ƒ	ƒ

No.		Sc1	Sc2
17	1	ƒ	ƒ
	2	9.7	10.2
	3	ƒ	ƒ
	4	ƒ	13.3
	5	ƒ	ƒ
18	1	ƒ	ƒ
	2	9.1	9.9
	3	ƒ	ƒ
	4	ƒ	13.5
	5	ƒ	ƒ
19	1	ƒ	ƒ
	2	10.0	10.7
	3	ƒ	ƒ
	4	ƒ	13.9
	5	ƒ	ƒ
20	1	ƒ	ƒ
	2	10.1	10.8
	3	ƒ	ƒ
	4	ƒ	ƒ
	5	ƒ	ƒ
21	1	ƒ	ƒ
	2	ƒ	11.2
	3	ƒ	ƒ
	4	ƒ	ƒ
	5	ƒ	ƒ
22	1	ƒ	ƒ
	2	ƒ	12.1

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..984L

Measures of Sep. for C.10 = 19h +15°

Sc. A. February 5, 1912

MC 1090 Isochromatic

No.			
22	3	∓	∓
	4	∓	∓
	5	∓	1
23	1	∓	∓
	2	∓	13.9?
	3	∓	∓
	4	∓	∓
	5	∓	∓
24	1	∓	∓
	2	∓	n.s.
	3	∓	∓
	4	∓	∓
	5	∓	∓

M. OR. 11:50

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..984L

P'

Measurice of Seq for 6 10- 19h +15

Feb 5, 1912

S 7 00
S. R

AN 2 1436

Polar.

	Sc.1	Sc.2				Sc.1	Sc.2		
5	5.4	5.7	0.69	0.89	10.31	13	10.3	10.6 -0.49	11.1 10.85	10.22 41
8	7.2	7.5	0.60	+0.90	10.60	14	+0.3		11.2 -0.60	10.66
9	8.0	8.3	0.40	0.70	11.01	15			11.7 -0.69	11.04
10	8.4	8.7	0.19	0.49	11.25	16			12.0 -0.75	11.27
11	9.1	9.4	9.8 9.60	-0.18	11.56	17			12.4 -0.84	11.59
12	9.5	9.8	10.1 9.95	-0.27 2	12.11	18			12.9 -0.85	12.02
13	10.1	10.4	10.7 10.55	-0.43 38	12.29	19			13.2 -0.91	12.29
14	—		11.1	-0.58	12.29	20			13.2 -0.91	12.29
15			11.5	-0.56	12.82	21			13.8 -0.98	12.84
16			12.1	-0.84		22			14.0.	13.04
17			12.3	-0.81						
18			12.7	-0.78						2.20
19			Image eyes.							
20			13.5	-0.91						
21			13.8	0.98						
23			14	-0.7						

6.64	1	5.7 0.94	6.0	6.71
7.04	2	6.1 0.94	6.4	7.10
7.25	3	6.3 0.95	6.6	7.30
7.71	4	6.8 0.91 0.88	7.1	7.70
8.14	5	7.3 0.84	7.6	8.13
8.24	6	7.5 0.74	7.8	8.29
8.24	7	7.5 0.74	7.8	8.29
8.90	8	8.4 0.50	8.7	8.90
8.95	9	8.5 0.45	8.8	8.98
9.29	10	9.2 0.09	9.5 10.0 9.75	9.64
9.45	11	9.5 0.25	9.8 10.7 10.25	9.99
10.35	12	10.1 0.45	10.4 11.0 10.70	10.30

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..984L

5'

Measures of Seq. for C10 = 19h + 15°

February 6. 1912.

Scale R

ME 1436

		sc1	scr				sc1	scr	
Polar	3	6.7	7.0	−1.26 −0.96	10.84	14	13.5 −2.66		10.87
	4	7.1	7.4	−1.19	11.00	15	13.7 −2.70		11.02
	5	7.5	7.8	−1.11 −0.91	11.17	16	13.9 −2.73		11.18
	6	8.2	8.5	−1.22		17	†		
	8	star perforced on no 8.							
	9	10.1	10.4	10.9 −1.90					
	10			11.0 −2.11					
	11			11.5 −2.08					
	12			12.0 −2.37					
	13			12.5 −2.33					
	14			13.2 −2.68					
	15			13.7 −2.76					
	16			13.9 −2.64					
	17			†					

Star 6.70	1	7.9	8.2 −1.20		6.71	
7.26	2	8.1	8.4	8.7 −1.34 8.55	6.89	7.02
7.40	3	8.8	9.1	−1.40	7.45	7
7.87	4	9.3	9.6	9.7 −1.63 9.65	7.92	
8.33	5	9.7	10.0	10.2 −1.77 10.10	8.28	
8.57	6	9.9	10.2	10.7 −1.04 10.45	8.55	
8.57	7	9.9	10.2	10.7 −1.04 10.45	8.55	
9.21	8	10.2	10.5	11.5 −2.09 11.00	8.99	
9.21	9			11.7 −2.09	9.39	
9.59	10			11.8 −2.20	9.60	
9.75	11			~~11.7~~ 12.1 −2.30	9.82	
10.33	12			~~12.2~~ 12.8 −2.47	10.35	
10.60	13			~~12.5~~ 13.2 −2.60	10.65	

M 68

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..984L

Measures of Seq. for C10 = 19h +15.

Scale R. February 6. 1912.

MD 1248 Cont.

No.	Im.	Sc1	Sc2
	1	∫	11.2 3
1	2	5.9	
	3	∫	11.5
	4	9.0	
	5	∫	11.5 0
2	1	∫	11.7 3
	2	6.9	
	3	∫	12.0 2
	4	9.3	10.1
	5	∫	12.5 5
3	1	∫	11.8 2
	2	6.9	
	3	∫	12.0
	4	9.2	10.1
	5	∫	12.5 5
4	1	∫	12.5
	2	7.0	
	3	∫	12.7 2
	4	9.9	10.3
	5	∫	12.9 2
5	1	∫	13.0 2
	2	8.2	
	3	∫	13.2
	4	10.3	11.1
	5	∫	13.5 3
6	1	∫	13.5
	2	8.2	
	3	∫	13.9 4
	4	∫	11.3
	5	∫	14.0 1
7	1	∫	12.5 2
	2	8.2	
	3	∫	12.1
	4	∫	11.1
	5	∫	12.9 2
8	1	∫	13.9
	2	9.0	
	3	∫	14.0 1
	4	∫	12.3
	5	∫	n.s.
9	1	∫	∫
	2	9.3	9.9
	3	∫	∫
	4	∫	12.3
	5	∫	∫
10	1	∫	∫
	2	9.9	10.7
	3	∫	∫
	4	∫	12.1
	5	∫	∫
11	1	∫	∫
	2	10.1	11.0
	3	∫	∫
	4	∫	superposed on No. 6.
	5	∫	∫

MOR.

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..984L

Measures of Seq. for C 10 = 19h + 15°.

Scale R

February 6 - 1912

MR 1248 cont.

No.		Sc1	Sc2
12	1	1	1
	2	~~12~~ 1	120
	3	1	1
	4	1	139
	5	1	1
13	1	1	1
	2	1	123
	3	1	1
	4	1	1
	5	1	1
14	1	1	1
	2	1	123
	3	1	1
	4	1	1
	5	1	1
15	1	1	1
	2	1	122
	3	1	1
	4	1	1
	5	1	1
16	1	1	1
	2	1	125
	3	1	1
	4	1	1
	5	1	1
17	1	1	1
	2	1	129
	3	1	1
	4	1	1
	5	1	1
18	1	1	1
	2	1	~~12~~ 13.9
	3	1	1
	4	1	1
	5	1	1
19	1	1	1
	2	1	13.3
	3	1	1
	4	1	1
	5	1	1
20	1	1	1
	2	1	13.8
	3	1	1
	4	1	1
	5	1	1
21	1	1	1
	2	1	n.s.
	3	1	1
	4	1	1
	5	1	1
22	1	1	1
	2	1	1
	3	1	1
	4	1	1

MOR.

2:55

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..984L

2:30

Scale R

J'

Measures of Seq. for C9 = 17h +15°

February 7, 1912

MA 1280

		Sc1.	Sc2		Sc1	Sc2		
Polar	5	3.9	4.2	2.49				
	6	5.2	6.5	1.78				
	8	7.2	7.5	0.90				
	9	8.2	8.5	0.90				
	10	8.9	9.2	-0.91				
	11	9.3	9.8 10.1	-0.38	10.85	-0.43		
	12	9.6	9.9 10.3	-0.37	10.10		12	11.27 0.69 10.51 10.50
	13	10.1	10.4 10.9	-0.48	10.65		13	11.3 0.70 10.60 10.59
	14		11.2	-0.68			14	11.3 0.70 10.60 10.59
	15		11.7	-0.76			15	11.6 0.78 10.82 10.82
	16		12.2	-0.94			16	12.3 0.94 11.36 11.40
	17		12.5	-1.01			17	12.1 1.00 11.70 11.73
	18		13.0	-1.08			18	13.2 1.05 12.15 12,19
	19		13.3	-1.02			19	13.2 1.05 12.15 12.19
	20		13.5	-0.91			20	13.3 1.05 12.25 12.28
	21		13.8	-0.78			21	J.
Standard	1	5.8	1.48 6.1	7.28	7.30			
	2	6.0	1.40 6.3	7.40	7.41			
	3	5.8	1.48 6.1	7.28	7.30			
	4	7.0	0.95 7.3	7.95	7.95			
	5	7.2	0.87 7.5	8.07	8.05			
	6	8.1	0.43 8.4	8.53	8.54			
	7	9.0	9.3 +0.1	9.07	9.10			
	8	9.3	9.6 9.9	-0.25 9.75	9.50	9.39		
	9	10.1	10.4 10.8	-0.50 10.60	10.10	10.02		
	10		11.2	-0.69	10.51	10.50		
	11		11.5	-0.65	10.75	10.43		

M.O.

2:45

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..984L

F1

Measures of seq for $\delta g = 17^{h} + 15$

March 18, 1912

Sc. R

ME 1280

Polar

	Sc	R
3	8.2	2.46
4	8.4	2.49
5	9.3	2.91
6	10.1	3.12
8	11.1	3.00
9	12.1	3.40
10	12.3	3.41
11	12.6	3.18
12	12.9	3.17
13	13.2	3.03
14	13.7	3.18
15	14.0	3.06
16	F	
17	F	
1	10.3	3.10 7.20
2	10.5	3.14 7.36
3	10.3	3.10 7.20
4	11.1	3.19 7.91
5	11.3	3.20 8.10
6	11.7	3.20 8.50
7	12.2	3.20 9.00
8	12.5	3.20 9.30
9	12.7	3.20 9.50
10	13.8	3.16 10.04
11	13.3	3.16 10.14
12	13.2	3.18 10.02
13	1.35	3.18 10.35
14	13.4	3.13 10.67
15		

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..984L

T'

Measures of Sep. for 64 = 7" + 15

Scale R

April 1, 1912

MD 1493

		So 1	So 2		So 2
Polar.	5	~~4.7~~		11	10.2
	6	~~8.2~~		12	10.2
	8	7.2		13	10.3
	9	8.2		14	10.9
	10	8.3		15	11.1
	11	~~9.2~~	9.7	16	11.3
	12	9.5	10.1	17	12.1
	13	9.9	10.3	18	12.5
	14		10.7	19	12.7
	15	~~11~~	Reject	20	13.1
	16		11.5	21	13.3
	17		11.9	22	13.5
	18		12.4	23	13.8
	19		12.7	Wr. 8 Plate used.	
	20		13.1		
	21		13.5		
	~~23~~		13.9	See page 156.	
	25		F		
	1	B			
	2	5.7			
	3	5.9			
	4	6.3			
	5	7.1			
	6	7.7			
	7	7.9			
	8	8.1			
	9	8.9			
	10	9.7	10.1		

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..9841

J'

Measures of Sig for 64 Tau 15

Sc. R

April 2, 1912

ME 1493

		Sc 1	Sc 2			Sc 2
Polar	3	6.9 -1.16	7.2	-1.46	16	13.6 -2.47 11.13
	4	7.1 -1.19 -1.26	7.4	-1.49	17	13.8 -2.48 11.32
	5	7.7 -1.31	8.0	-1.61	18	
	6	8.2 -1.62 8.5	8.7	8.60 -1.62	19	
	8	9.3 -1.70 9.6	10.0	9.80 -1.70	20	
	9	Sm. super				
	10	-2.11 11.0				
	11	-2.28 11.7				
	12	-2.37 12.1				
	13	-2.33 12.5				
	14	-2.38 12.9				
	15	-2.36 13.3				
	16	-2.44 13.7				
	1	8.1 -1.44 .58	6.66 .52			
	2	9.1 -1.47 .7	7.33			
	3	9.3 -1.78 .80	7.50			
	4	9.9 -1.86 .96	8.00			
	5	10.3 -1.97	8.33			
	6	10.7 -2.04	8.66			
	7	11.1 -2.11	8.99			
	8	11.2 -2.14	9.09			
	9	11.7 -2.24	9.50			
	10	12.3 -2.27	10.03			
	11	12.5 -2.30	10.20			
	12	12.5 -2.30	10.20			
	13	12.7 -2.33	10.37			
	14	13.1 -2.39	10.71			
	15	13.3 -2.43	10.87			

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..984L

Measures of Seq for 6h = 7h + 15

Sc. R

April 2, 1912

No MC 1561

		Sc 1	Sc 2
1	1	8.7	2
	2	B	
	3	8.9	
Image poor -	4	-	
	5	8.9	0
2	1	8.9	0
	2	B	
	3	8.9	
Image poor.	4	-	
	5	9.1	2
3	1	6.9	2
Near edge of pl.	2	B	
	3	7.1	
	4	4.1	
2:21	5	7.1	0
4	1	8.3	
	2	B.	
	3	8.7	
	4	6.3	
	5	8.9	
5	1	9.4	10.0
	2	t.fr.	
	3	9.8	10.5
	4	7.7	
	5	9.7	10.4
6	1	9.3	10.1
	2	t.fr.	
	3	9.7	10.3
	4	7.3	
	5	9.7	10.3
7	1	9.2	10.1 2
	2	t.fr.	
	3	9.7	10.3
	4	7.1	
	5	10.0	10.5 2
8	1	10.0	10.8 2
	2	t.fr.	
	3	t.f.	11.0
	4	7.9	
	5	7.	11.1 1
9	1	9.9	10.1
	2	5.9	
	3	7	11.2
	4	8.0	
	5	7	11.1
10	1	7	11.1
	2	6.2	
	3	7	12.0
	4	9.2	9.3
	5	7	11.2
11	1	7	11.9
	2	6.9	
	3	7	12.5
	4	9.1	9.7
	5	7	12.5
12	1	7	11.1

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..9841

Measures of Sig. for 64 = 7+15

Sc. R

April 2, 1912.

MC 1561

		Sc1	Sc2
12	2	6.2	
	3	✗	12.0
	4	9.1	9.3
	5	✗	12.3
13	1	✗	11.7
	2	6.7	
	3	✗	12.3
	4	9.7	10.0
	5	✗	12.5
14	1	✗✗	12.3
	2	7.1	
	3	✗	12.9
	4	9.7	10.3
	5	✗	13.0
15	1	✗	12.5
	2	7.2	
	3	✗	13.0
	4	10.0	10.9
	5	✗	13.0
16	1	✗	12.7
	2	7.9	
	3	✗	13.2
	4	✗	10.9
	5	✗	13.5
17	1	✗	12.5
	2	8.2	
	3	✗	12.5
	4	✗	11.2
	5	✗	13.3
18	1	✗	✗13.2
	2	8.9	
	3	✗	✗
	4	✗	11.9
	5	✗	✗
19	1	✗	13.7
	2	9.0	9.3
	3	✗	✗
	4	✗	12.3
	5	✗	✗
20	1	✗	✗
	2	9.3	9.8
	3	✗	✗
	4	✗	12.3
	5	✗	✗
21	1	✗	✗✗
	2	9.3	10.0
	3	✗	✗
	4	✗	12.7
	5	✗	✗
22	1	✗	✗
	2	9.4	10.1
	3	✗	✗
	4	✗	12.7
	5	✗	✗
23	1	✗	✗
	2	9.7	10.4

MCR

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..984L

Measures of Seq. for C4 = 7h +15°.

LeR. April 2, 1912

MC 1561

No.		Sc1	Scr
23	3	7	7
	4	7	13.2
	5	7	7
24	1	7	7
	2	9.7	10.0
	3	7	7
	4	7	7
	5	7	7
25	1	7	7
	2	7	11.7
	3	7	7
	4	7	7
	5	7	7
26	1	7	7
	2	7	11.9
	3	7	7
	4	7	7
	5	7	7
27	1	7	7
	2	7	13.1
	3	7	7
	4	7	7
	5	7	7
28	1	7	7
	2	7	13.3
	3	7	7
	4	7	7

No.		Sc1	Scr
28	5	7	7
29	1	7	7
	2	7	13.5
	3	7	7
	4	7	7
	5	7	7
30	1	7	7
	2	7	7
	3	7	7
	4	7	7
	5	7	7

Images [illegible] on MC 1561

3:05

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..984L

Measures of Sig. for $\delta 4 = 7^h 4^m 15^s$

Sc, R

April 3, 1912

MC 1573

		Sc 1	Sc 2
1	1	9.2	9.9
	2		
	3		
	4		
	5		
2	1	9.7	10.3
	2		
	3		
	4		
	5		
3	1	9.7	10.3
	2		
	3		
	4		
	5		
4	1	9.3	9.9
	2		
	3		
	4		
	5		
5	1		12.3
	2		
	3		
	4		
	5		
6	1	9.7	10.2
	2		
	3		
	4		
	5		

		Sc 1	Sc 2			Sc 1	Sc 2
7	1		11.1	13	1		13.0
	2				2		
	3				3		
	4				4		
	5				5		
8	1		13.0	14	1		
	2				2		
	3				3		
	4				4		
	5				5		
9	1		12.1	15	1		
	2				2		
	3				3		
	4				4		
	5				5		
10	1		13.9	16	1		
	2				2		
	3				3		
	4				4		
	5				5		
11	1		F	17	1		
	2				2		
	3				3		
	4				4		
	5				5		
12	1		13.2	18	1		
	2				2		
	3				3		
	4				4		
	5				5		

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..984L

Measurie of Seq for $\mathcal{C}_4 = 7\frac{1}{2}+15$

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..984L

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..984L

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..984L

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..984L

1'

Measures of sequence for S Cancri.

Scale ~~1.40~~ 1.40

April 24, 1912.

MC 1565

Polar Seq.	sc1	scv	R.C.			sc1	scv	R.C.
			5.0					
5			~~4.2~~	1.39	11.32 l	6.5	4.82	6.4
6			5.5	1.48	11.57 m	6.7	4.87	6.5
			7.0		12.08 n	7.2	4.98	7.1
8			~~4.3~~	1.10				
9			7.7	1.00				
10	4.1	4.79	8.0	0.89				
11	4.7	4.72	8.7	0.72				
12	5.2	4.53	9.2	0.53				
13	5.7	4.47	9.6	0.57				
14	5.9	4.62	5.8					
15	6.2	4.74	6.1					
16	6.4	4.86	6.3					
17	6.7	4.89	6.6					
18	6.9	5.02	6.9					
19	7.3	4.98	7.2					
20	7.5	4.99	7.7					

a	B-	5.5	5.3	1.48	6.80
b	B.	6.2	6.2	1.24	7.44
c	B	6.5	6.7	1.20	7.80
d	B	7.2	7.3	1.08	8.28
e	4.2		8.9	0.72	9.42
f	4.9		8.8	0.68	9.48
g	5.3	5.2	9.2	0.56	9.76
h	5.3	5.1	9.3	0.55	9.85
10.53 k	5.9	4.63	5.9	9.8 0.39	10.25

MOR

1.57

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..984L

9'/.

Measures of Sequence for S Cancri.

Scale K

April 24, 1912.

2:00 Mc 1572 ~~Isochromatic~~

Polar Seq.	sc1	sc2	B.C.		§	sc1	sc2
5	5.9	5.7	#	0.49	11.23 l	7.2 3.93	7.1
6	6.1	6.5		0.38	11.47 m	7.5 3.97	7.4
8	8.0	8.2		0.10	12.05 n	8.0	8.1
9	8.5	8.5		0.20			
10	5.1 3.89	5.0	8.9	-0.01			
11	5.5 3.92	5.5	9.5	-0.08			
12	6.1 3.93	5.9	10.0	-0.27			
13	6.5 3.97	6.3	t.f.				
14	6.7 3.82	6.5					
15	7.0 3.94	6.9					
16	7.3 3.96	7.1					
17	7.5 3.99	7.3					
18	7.9 4.02	7.8					
19	8.2 4.09	8.1					
20	8.5 4.09	8.3					

a	B		6.7	0.35	7.05
b	4.0		7.2	0.28	7.48
c	4.3		7.9	0.15	8.05
d	4.1		8.2	0.10	8.30
e	5.4	5.3	9.5	-0.15	9.35
f	6.0	5.9	9.7	-0.18	9.52
g	6.3	6.2			
10.14 h	6.4 3.74	6.2			
10.62 k	6.8 3.82	6.5			

MAR

2:20

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..984L

1'

Measures of Sequence for S Cancri.

April 24, 1912.

Scale U

2:22

MX01565

		Sci	Scv	O.C.			Sci	Scv	
Polar Seq.	5	BB.				l	8.5	2.84	11.34
	6	4.0	2.98			m	8.1	2.89	11.59
	8	5.2	2.90	5.2		n	8.9	3.02	11.92
	9	5.8	2.90	5.7	+19 2093		6.7	2.73	9.43
	10	6.2	2.69	6.2	+19 2082		5.0	2.90	7.90
	11	6.1	2.82	6.5	+19 2085		8.7	2.89	11.59
	12	7.1	2.73	6.1	E of 19 2085		8.5	2.83	11.33
	13	7.5	2.67	7.5	+19 2091		7.3	2.69	9.99
	14	7.8	2.72	7.7					
	15	8.2	2.74	8.0					
	16	8.5	2.86	8.3					
	17	8.7	2.79	8.5					
	18		3.02	8.9					
	19		3.08	9.2					
	20		3.09	9.5					

a	3.9	2.90	680	
b	5.0		764	
c	5.2	5.0 2.89	8.09	
d	5.7	5.4 2.86	8.26	
e	6.4	6.9 2.76	9.25	
f	6.8	6.8 2.62	9.42	
g	7.4	7.3 2.69	9.99	
h	7.4	7.3 2.69	10.09	
k	8.0	7.9 2.74	10.74	

2:40

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..984L

1'

Measures of Sequence for S Cancri.

Scale 4

April 25. 1912

11:30 MD 1572 ~~Photometric~~

		Sc 1	Sc 2	R.E.			Sc 1	Sc 2		
Polar Seq.	*5	4.8		1.59			l	9.2	2.15	11.35
25 mm. from centre of pl.	6	5.0		1.98			m	9.5	2.21	11.61
	8	6.5	6.4	1.70			n	X9.9	2.21	12.17
19 mm. from centre of pl.	9	7.0	6.9	1.70	+19	2093		7.5	1.73	9.23
	10	7.3	7.2	1.59	+19	2082		6.1		—
	11	7.7	7.5	1.72	+19	2085		9.5	2.23	11.70
	12	8.0	7.8	1.83	E.	"		9.3	2.17	11.47
	13		8.5	8.8 1.87	+19	2091		8.2	1.93	10.13
	14		8.9	8.5 2.02						
	15		9.2	8.9 2.14						
	16		9.5	9.1 2.16						
	17		9.8	9.3 2.19						
	18		10.0	9.7 2.22						
	19		10.1	10.0 2.28						
	20		~~4~~	4						

a	5.1	5.0		
b	6.0	5.9		
c	6.3	6.2		
d	6.9	6.7	1.56	8.25
e	7.5	7.5	1.73	9.23
f	7.7	7.7	1.78	9.48
g	8.1	8.2	1.93	10.08
h		8.3	1.96	10.26
k		8.6	2.05	10.64

* No 5 is 9.2 mm. from centre of plate

MQ

11:47

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..984L

Measures of Sequence for S Cancri.

April 25, 1912.

Scale N

11:49

Me ~~15 8 8~~ 15 6 5

		Sc1	Sc2			Sc1 η	Sc2 n.s.
20mm from centre.	3	4.9		0.84			
" " "	4	5.1	4.8	0.81	+19 2093		~~6.5~~ 8.2
	5	5.3	5.3	1.09	+19 2082		6.0
	6	5.8	5.1	1.18	+19 2085		10.0
	8	6.8	6.5	1.30	E of 19 2085		9.7
	9	7.3	7.3	1.40	+19 2091		8.8
	10	7.5	7.7	1.39			
	11	7.9	8.0	1.42			
	12		8.3	1.43			
	13		8.1	1.47			
	14		9.0	1.52			
	15		9.6	1.34			
	16		10.0	1.26			
	17		?				
	a	5.5	5.5	1.10	6.60		
	b	6.2	6.1	1.24	7.44		
	c	6.5	6.5	1.27	7.77		
	d	6.9	6.9	1.34	8.24		
	e	8.0	~~8.0~~ 8.0	1.43	9.43		
	f	8.2	8.2	1.44	9.64		
	g	8.1	8.5	1.46	9.95		
	h	8.1	8.1	1.45	9.15		
	k	9.2	9.2	1.42	10.64		
	l	9.1	9.1	1.27	11.27		
	~~m~~	~~9.9~~	~~9.9~~				

12:03

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..984L

Measures of sequence for δ Cancri.

Scale 12

April 25, 1912

12:20

ME 1512 ~~Trichromatic~~

	Sc1	Sc2		
20 mm from centre. 3	5.3	5.3	+0.44	
" " " 4	5.7	5.9	+0.11	
5	6.3	6.2	+0.19	
6	6.8	6.7	+0.28	
8	7.5	7.7	+0.40	
9	8.2	8.3	0.40	
10		8.5	0.39	
11		9.1	0.32	
12		9.5	0.23	
13		9.9	0.27	
14		t.f.		
a	6.3	6.3	0.22	6.62
b	7.2	7.2	0.35	7.55
c	7.5	7.83	0.37	7.87
d		7.9	0.40	8.30
e		9.0	0.34	9.34
f		9.3	0.30	9.60
g		9.7	0.25	9.95
h		9.9	0.23	10.14
k				
l				

mar.

12:28

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..984L

I'

Measures of Deg. for $b_{1900} = 4^h + 15°$

Apr 29, 1912

Scale U.

HD 1493

Polar.

		Sc. I.			
	5	3.7 2.69	10.70	14	8.0 2.52 2.70
	6	4.2 2.78	10.90	15	8.7 2.80
	8	5.2 2.40	11.23	16	8.5 2.73
	9	5.9 2.80	11.33	17	8.6 2.73
	10	6.1 2.89	11.65	18	8.9 2.75
	11	6.7 2.72	11.77	19	9.0 2.77
	12	7.0 2.73	12.09	20	9.3 2.79
	13	7.5 2.67	11.99	21	9.2 2.79
	14	7.9 2.62	12.32	22	9.5 2.82
	15	8.2 2.74	12.66	23	9.8 2.86
	16	8.5 2.76			
	17	8.7 2.79			
	18	9.2 2.72			
	19	9.4 2.88			
	20	9.7 2.89			
6.74	1	4.0 2.74			
7.53	2	4.7 2.83			
7.64	3	4.8 2.84			
8.17	4	5.3 2.84			
8.25	5	5.4 2.85			
8.64	6	5.8 2.84			
8.72	7	6.9 2.82			
9.08	8	6.3 2.78			
9.27	9	6.5 2.77			
9.94	10	7.2 2.74			
10.04	11	7.3 2.74			
10.04	12	7.3 2.74			
10.23	13	7.5 2.73			

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..984L

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..984L

Measures of δ Cancri.

May 1, 1912

Sc. U

1 4.40

MC 1565

		Sc1	Sc2	
Polar	13	5.3	5.2	4.97
	14	5.7	5.5	4.92
	15	6.2	6.1	4.74
	16	6.5	6.3	4.86
	17	6.7	6.6	4.89
	18	7.3	7.3	4.62
	19	7.4	7.5	4.85
	20			
e		4.3		
f		4.5		
g			5.2	4.93 10.13
h			5.1	4.93 10.03
k			5.9	4.81 10.73

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..984L

Measures of S Cancri.

Scale 2 May 1. 1912.

Mc 1572

		sc 1	sc 2.	
Polar	13		6.2	3.97
	14		6.5	4.02
	15		6.8	4.14
	16		7.2	4.06
	17		7.5	3.99
	18		7.9	4.02
	19		8.1	4.18
	e		5.3	
	f		5.4	
	g		6.1	4.04 10.14
	h		6.0	4.03 10.03
	k		6.7	10.73 10.73

1952

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..984L

Measures of δ Cancri.

May 1. 1912.

Scale

1:53

MD 1565

		sc1, sc2		
Polar	13	7.2	2.97	
	14	7.7	2.82	
	15	8.1	2.84	
	16	8.3	2.86	
	17	8.4	3.09	
	18	8.8	3.12	
	19	9.1	3.18	
	e	6.3		
	f	6.7		
	g	7.5	2.76	10.26
	h	7.7	2.86	10.16
	k	7.9	2.89	10.79

MOR.

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj.9841

Measures of S Cancri

Screw

May 1. 1912.

2.00

MD 1572

		Sec	
Polar	13	8.2	1.97
	14	8.5	2.02
	15	8.8	2.14
	16	9.1	2.16
	17	9.5	1.99
	18	9.9	2.02
	19	1	
	e	7.3	
	f	7.5	
	g	8.0	2.06 10.06
	h	8.1	2.05 10.15
	k	8.7	2.05 10.75

MOR

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..984L

Measures of S Cancri

Scale 11

May 1. 1912

2:05

Mr 1565

		Scale		
Polar	9	7.3	1.30	
	10	7.8	1.09	
	11	8.2	1.22	
	12	8.5	1.23	
	13	8.8	1.37	
	14	9.0	1.52	
	15	~~8.8~~ 9.3	1.64	
	16	9.7	1.56	
	e	8.0	1.14	9.14
	f	8.2	1.20	9.40
	g	8.8	1.38	10.18
	h	8.7	1.35	10.05
	k	9.3	1.54	10.84

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..984L

Measures of δ Cancri.

Scale 2 May 1, 1912.

ME 1572

		SC 2	
Polar	9	8.3 0.40	
	10	8.5 0.39	
	11	8.9 0.52	
	12	9.3 0.43	
	13	9.1 0.47	
	14	10.0 0.52	
	15	n.s.	
	e	8.9 0.44	9.34
	f	9.2 0.44	9.64
	g	9.7 0.43	10.13
	h	9.7 0.43	10.13
	k	n.s.	

MR

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..984L

95

$G_1 = 1^h + 15$

May 4 1912

Sc. U. ME 1474

Col.

3	5.7	0.54			
4	5.3	0.61			
5	5.8	0.59			
6	6.2	0.78			
8	7.1	1.00			
9	7.6	1.10			
10	7.7	1.19			
11	8.1	1.32			
12	8.3	1.43			
13	8.7	1.47			
14	9.1	1.42			
15	9.5	1.44			
16	9.9	1.36			
1	6.3	0.79	7.09		
2	6.5	0.85	7.35		
3	6.6	0.87	7.47		
4	6.8	0.93	7.73		
5	7.2	1.03	8.23		
6	7.4	1.09	8.49		
7	7.5	1.13	8.63		
8	7.9	1.24	9.14		
9	8.0	1.27	9.27		
10	8.2	1.32	9.52		
11	8.5	1.38	9.88		
12	8.6	1.40	10.04		
13	8.7	1.42	10.12		
14	9.0	1.47	10.47		
15	9.6	1.50	11.00		

Scale Read + curve

16	9.7	1.57	10.21
17	9.9	1.52	11.42

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..984L

γ

$61 = 1 + 15$

May 4, 1912

So. U.

MC 1474

10	4.0	4.89		7.8	1.09						
11	4.7	4.72		8.7	1.22		dbl?	10	4.9	4.76	9.66
12	5.0	4.73		8.5	1.03			11	5.0	4.79	9.79
13	5.2	4.77		9.0	1.17			12	5.1	4.79	9.89
14	5.7	4.82		9.3	1.22			13	5.2	4.81	10.21
15	5.9	5.04		9.7	1.24			14	5.7	4.84	10.54
16	6.3	4.96						15	6.0	4.85	10.85
17	6.7	4.79						16	6.1	4.86	10.96
18	7.0	4.92						17	6.5	4.90	11.40
19	7.3	4.98						18	6.8	4.94	11.74
20	7.5	5.09						19	7.0	4.96	11.96
21	7.7	5.12						20	7.2	5.00	12.20
23	8.1	5.10						21	7.5	5.06	12.56
25	8.5	5.23						22	7.9	5.12	13.02
26	8.8	5.39						23	8.2	5.20	13.40
27	9.1	5.45						24	8.0	5.16	13.16
28	9.5	5.47						25	8.2	5.28	13.48
								26	8.3	5.23	13.53
								27	8.8	5.32	14.12
								28	9.9	5.35	14.25
								29	9.2	5.43	14.63
								30	9.5	5.49	14.99
								31	9.9		
								32	F		
								33	F.		

5											
6				4.9	1.49	6.39					
8				5.5	1.48	6.98					
				6.8	1.30	8.10					
9				7.7	1.00	8.70					
1				5.8	1.37	7.17					
2				6.1	1.35	7.45					
3				6.2	1.32	7.52					
4				6.8	1.25	8.05					
5	3.9	4.70	8.60	7.3	1.21	8.51					
6	4.0	4.69	8.69	7.3	1.21	8.51					
7	4.1	4.70	8.80	7.5	1.20	8.70					
8	4.8	4.75	9.55	8.2	1.19	9.39					

Scale Read. + curve

Scale Read. + curve

Scale Read. + curve

9	4.8	4.75	9.55	8.2	1.19	9.39					
10	4.9	4.76	9.66								
11	5.0	4.79	9.79	8.7	1.18	9.88					
12	5.1	4.79	9.89	8.8	1.18	9.98					
13	5.2	4.81	10.21	9.0	1.18	10.18					
14	5.7	4.84	10.54								
15	6.0	4.85	10.85								
16	6.1	4.86	10.96								
17	6.5	4.90	11.40								
18	6.8	4.94	11.74								
19	7.0	4.96	11.96								
20	7.2	5.00	12.20								
21	7.5	5.06	12.56								
22	7.9	5.12	13.02								
23	8.2	5.20	13.40								
24	8.0	5.16	13.16								
25	8.2	5.28	13.48								
26	8.3	5.23	13.53								
27	8.8	5.32	14.12								
28	8.9	5.35	14.25								
29	9.2	5.43	14.63								
30	9.5	5.49	14.99								
31	9.9										
32	F										
33	F.										

On edge

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..984L

P'

61 = 1 + 15

Sc. U

May 6, 1912

MD 1474

	Sv1	Sv2
5	3.2 3.19	
6	4.0 2.98	
8	5.1 3.00	
9	5.8 2.90	
10	6.0 2.89	
11	6.5 2.92	
12	6.9 2.83	
13	7.4	7.2 2.77
14	7.7	7.8 2.82
15		8.1 2.84
16		8.4 2.86
17		8.7 2.89
18		8.9 3.02
19		9.2 3.08
20		9.5 3.09
21		9.9 2.92
23		

1	4.2 3.02		7.22
2	4.5 3.00		7.50
3	5.0 2.94		7.94
4	5.3 2.90		8.22
5	5.5 2.90		8.40
6	5.5 2.90		8.40
7	5.9 5.95	6.0 4 2.88	8.83
8		6.3 2.84	9.24
9		6.4 2.84	9.24
10		6.7 2.84	9.54
11		6.9 6.7 2.83	9.73
12		7.2 2.83	10.03
13		7.4 2.84	10.24
14		7.7 2.85	10.55
15		8.1 2.87	10.98
16		8.2 2.88	11.19
17		8.5 2.91	11.41
18		8.8 2.95	11.73
19		9.0 2.97	11.97
20		9.3 2.99	12.29
21		9.5 3.01	12.51
22		9.9 3.05	12.95
23		9.9	12.95

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..984L

D.

$G1 = 1^h + 15$

Sc. II

May 6, 1912

AC 9774

3	5.3	0.44	
4	5.5	0.41	
5	6.0	0.39	
6	6.5	0.48	
8	7.7	0.40	
9	8.2	0.50	
10	8.3	0.59	
11	8.7	0.72	
12	8.9	0.83	
13	9.3	0.87	
14	9.7	0.82	
15	10.0	0.94	
1	6.3	6.7 0.41	7.11
2	6.3	6.9 0.43	7.33
3	6.9	7.1 0.45	7.55
4	7.1	7.3 0.49	7.79
5	7.4	7.7 0.53	8.23
6	~~7.5~~ 7.4	7.9 0.56	8.47
7	7.7	8.0 0.58	8.58
8	8.3	0.64	8.92
9	8.5	0.66	9.15
10	8.7	0.69	9.39
11	8.9	0.74	9.62
12	9.1	0.77	9.87
13	9.2	0.79	9.99
14	9.5	0.85	10.35
15	9.9	0.93	10.83

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..984L

γ_1

$b_2 = 3^h + 15$

May 7, 1912

Scale 4

1:40

MD 943

		Sc 1	Sc 2
Polar Seq.	8	5.0 3.10	
	9	5.5 3.20	5.7
	10	5.7 3.29	5.5
	11	6.2 3.22	6.1
	12	6.5 3.23	6.4
	13	6.9 3.27	6.8
	14	7.1 3.42	7.1
	15	7.5 3.44	7.5
	16	7.7 3.56	7.7
	17		8.1 3.39
	18		8.5 3.42
	19		8.7 3.58
	20		8.9 3.69
	21		9.2 3.63
	23		9.7 3.50

	Sc 1		Scale Read + Curve
11	6.1		6.1 3.47 9.47
12	6.5	6.50	6.5 3.33 9.83
13	7.0		7.0 3.41 10.41
14	7.3		7.3 3.43 10.73
15	7.7		7.7 3.45 10.85
16	7.7	7.60	7.7 3.45 11.05
17	7.9	7.80	7.87 3.47 11.27
18			image superposed.
19			8.1 3.50 11.60
20			8.3 3.50 11.80
21			8.5 3.52 12.02
22			8.7 3.53 12.23
23			9.0 3.54 12.54
24			9.2 3.56 12.76
25			9.3 3.55 12.85

		Scale Read + Curve
1	3.7	
2 *	4.1	
3	4.5 3.00	8.50 extrap.
4	5.1 5.05 5.0 3.11	8.16
5	5.2	5.2 3.14 8.34
6	5.3	5.3 3.17 8.47
7	5.6 5.70	5.8 3.22 8.92
8	5.8 5.85	5.9 3.24 9.19
9	6.0 6.05	6.1 3.17 9.22
10	6.8 6.85	6.9 3.37 10.22

Assumed to be 5.8

MOR

1:5

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..984L

γ¹

C 2 – 3h +15°

Scale 1

May 1, 1912

2:20

MD 1236

Polar

	Sc 1	Sc 2
6		
8	6.2 1.90	6.2
9	6.8 1.90	6.9
10	7.0 1.89	7.0
11	7.7 2.02	7.5
12	7.8 1.93	7.8
13		8.2 1.97
14		8.5 2.02
15		8.9 2.04
16		9.2 2.06
17		9.5 1.99
18		9.9 2.02
19		t.f.

	Sc 1			
13	8.0	8.10	8.2 2.00	10.10
14			8.5 2.00	10.50
15			8.6 2.01	10.61
16			8.1 2.00	10.70
17			8.9 2.00	10.90
18			9.0 2.00	11.00
19			9.3 2.00	11.30
20			9.7 2.01	11.71
21			n.s.	

Scale Read + Curve

1	4.2			
2	5.0			
3	5.5	5.50	5.5 1.83	7.33
4	6.1	6.00	5.9 1.90	7.90
5	6.3	6.30	6.3 1.90	8.20
6	6.5	6.50	6.5 1.90	8.40
7	6.7	6.70	6.7 1.91	8.61
8	6.7	6.70	6.7 1.91	8.61
9	6.9	6.90	6.9 1.94	8.84
10	8.2	8.15	8.1 2.00	10.15
11	7.2	7.20	7.2 1.95	9.15
12	7.5	7.60	7.7 1.98	9.58

wrong wire

mar

2:35

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..984L

p1

6 2 = 3 + 15

Sc "U"

May 10, 1912

AE 943

3	5.4	0.34	9.29	8	8.2 1.09
4	5.6	0.31	9.42	9	8.3 1.12
5	6.2	0.29	10.34	10	9.0 1.34
6	6.5	0.48	9.41	11	8.3 1.11
8	7.3	0.80	9.68	12	8.5 1.18
9	7.8	0.90	10.46	13	9.1 1.36
10	7.9	0.99	10.71	14	9.3 1.41
11	8.2	1.22	10.95	15	9.5 1.45
12	8.5	1.23	10.95	16	9.5 1.45
13	8.9	1.27	11.19	17	9.7 1.49
14	9.1	1.42		18	9.3 1.45
15	9.5	1.44	10.71	7N	8.7
16	9.9	1.36			
~~17~~	~~9.3~~				
18	9.7				

6.64	1N	6.2	0.44
7.83	2N	7.1	
8.89	3N	7.9	
9.29	4N	8.2	
9.95	5N	8.7	
10.34	6N	9.0	
7.44	1	6.8	
7.55	2	6.9	0.65
7.83	3	7.2	0.73
8.20	4	7.4	0.80
8.61	5	7.7	0.91
8.88	6	7.9	0.98
	7	St. bulges.	

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj.:984L

$\mathcal{G}_1$

$G_3 = 5^h + 15$

May 11, 1912

Sc. U

MD 1422

Plan.

	Sc 1			Sc 2		
8	5.7	2.90	14	6.9	2.93	9.83
9	5.8	2.90	15	7.3	2.95	10.25
10	6.0	2.89	16	7.3	2.95	10.25
11	6.5	2.92	17	7.5	2.97	10.47
12	6.8	2.98	18	7.6	2.97	10.57
13	7.2	2.97	19	7.9	2.99	10.89
14	7.5	3.02	20	8.0	8.2 3.01	11.01
15	7.9	3.04	21		8.2 3.01	11.21
16	8.3	2.96	22		8.3 3.03	11.33
17	8.5	2.99	23		8.5 3.04	11.54
18	8.9	3.02	24		8.5 3.04	11.54
19	9.2	3.05	25		8.7 3.04	11.74
20	9.5	3.09	26		8.9 3.06	11.96
21	9.7	3.12	27		9.2 3.08	12.28
23	10.0	3.20	28		9.5 3.11	12.61
1	4.0		29		10.0	
2	4.2					
3	4.3					
4	4.7					
5	5.0	2.90	7.90			
6	5.2	2.90	8.10			
7	5.3	2.80	8.20			
8	5.5	2.90	8.40			
9	6.1	2.90	9.00			
10	6.0	2.90	8.90			
11	6.3	2.80	9.20			
12	6.7	2.92	9.62			
13	6.7	2.92	9.62			

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..984L

β_1

$\delta 3 = \frac{h}{5} + 15$

Sc. U

May 11, 1912

MD 994

Polar

	Sc 1	Sc 2		Sc 1	Sc 2	
8	5.7	2.90	14	6.9	3.00	9.90
9	5.7	3.00	15	7.2	3.00	10.20
10	5.9	2.99	16	7.3	3.00	10.30
11	6.4	3.02	17	7.5	3.00	10.50
12	6.8	2.93	18	7.5	3.00	10.50
13	7.2	2.97	19	7.8	3.00	10.80
14	7.5	3.02	20	8.1	3.01	11.11
15	7.9	8.0 3.04	21	8.1	3.01	11.11
16	8.2	8.2 3.06	22	8.3	3.03	11.35
17		8.5 2.99	23	8.5	3.03	11.53
18		8.9 3.02	24	8.5	3.03	11.53
19		9.1 3.08	25	8.7	3.03	11.73
20		9.5 3.29	26	8.9	3.03	11.93
21		9.8 3.02	27	9.3	3.03	12.33
23		F 3.30	28	9.4	3.04	12.44
1	3.8		29	9.8	2.70	12.70
2	4.1					
3	4.3					
4	Image defective					
5	4.7	2.90 (7.60 extrapolated)				
6	4.9	2.98 7.88				
7	5.2	2.94 8.14				
8	5.3	2.95 8.25				
9	6.0	2.97 8.97				
10	5.9	2.97 8.87				
11	6.2	2.98 9.18				
12	6.5	2.99 9.49				
13	6.7	2.99 9.69				

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj.0041

γ¹

l 33°.5 + 15

Sc. U

May 13, 1912

HR 1422

	Sec				
1	6.0	0.53	6.53	8	7.3 0.80
2	6.3	0.58	6.88	9	7.8 0.90
3	6.4	0.61	7.01	10	7.9 0.99
4	6.8	0.70	7.50	11	8.2 1.22
5	7.0	0.74	7.74	12	8.5 1.23
6	7.1	0.77	7.87	13	8.9 1.27
7	7.3	0.82	8.12	14	9.2 1.32
8	7.3	0.82	8.12	15	9.5 1.44
9	7.9	0.98	8.88	16	9.8 1.46
10	8.0	1.00	9.00	1p	6.4
11	8.2	1.05	9.25	2p	7.3
12	8.3	1.08 8	9.34 8	3p	7.8
13	8.4	1.12	9.52	4p	8.1
14	8.6	1.17	9.77	5p	8.5
15	8.9	1.27	10.17	6p	8.8
16	8.9	1.27	10.17	7p	9.3
17	9.1	1.29 31	10.39 41	8p	
18	9.1	1.29 31	10.39 41		
19	9.3	13.7	10.67		
20	9.5	1.44	10.94		
21	9.5	1.44	10.94		
22	9.9	1.50	11.40		
23	f				
Polar 3	5.3	0.44			
4	5.5	0.24 41			
5	5.9	0.49			
6	6.4	0.58			

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..984L

γ1

b3 = 5 + 15

May 13, 1912

Sc U

Fe 994

Cd

3	5.4	0.34	6	7.5 0.25	7.75
4	5.6	0.31	7	7.8 0.28	8.08
5	6.2	0.19	8	7.9 0.30	8.20
6	6.8	0.18	9	8.4 0.35	8.75
7			10	8.4 0.35	8.75
8	7.9	0.20	11	8.7 0.38	9.08
9	8.3	0.40	12	8.8 0.39	9.19
10	8.5	0.39	13	8.9 0.40	9.30
11	8.9	0.52	14	9.1 0.41	9.51
12	9.3	0.43	15	9.4 0.48	9.88
13	9.7	0.47	16	9.5 0.49	9.99
14	9.9	0.62	17	9.7 0.52	10.22
15	F		18	9.7 0.52	10.22
16	F		19	10.0 0.55	10.55
1r	6.3				
2r	7.3				
3r	7.7				
4r	8.2				
5r	8.8				
6r	9.0				
7r	9.3				
8r					
1	6.2	0.24	6.44		
2	6.5	0.21	6.71		
3	6.7	0.21	6.91		
4	7.1	0.23	7.33		
5	7.3	0.25	7.55		

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj.:984L

γ_1

$b_5 = g^k + 15$

Sc. II

May 14, 1918

	Sc I	Sc II	B-C	Sc I		PC
5	B		6.2 0.19	8.79 7 4.7 4.09 3.48		8.7 0.48 9.18
6			6.7 0.28	9.11 8 4.9 4.21 3.20		9.0 0.52 9.52
8	4.1 4.00		7.1 0.40	9.11 9 4.9 4.21		9.2 0.53 9.73
9	4.1 3.90		8.3 0.40	9.53 10 5.2 4.33		9.4 0.56 9.96
10	4.8 4.09		8.5 0.39	9.66 11 5.3 4.36		9.3 0.56 9.86
11	5.1 4.32		8.9 0.52	9.94 12 5.5 4.44		9.5 0.59 10.09
12	5.3 4.43		9.2 0.53	10.49 25 13 5.8 5.76 5.7 4.45 4.50		9.7 0.63 10.33
13	5.7 4.47		9.5 0.67	10.30 14 5.8 4.50		9.9 0.66 10.56
14	5.9 5.9 4.62		9.9 0.62	10.69 15 6.1 4.59		
15	6.2 6.3 4.74			10.80 16 6.3 4.50		
16	6.7 4.56			11.46 17 6.9 4.56		
17	6.9 4.59			11.78 18 7.3 4.48		
18	7.5 4.42			12.10 19 7.1 4.40		
19	7.9 4.38			12.29 20 7.9 4.39		
20	8.2 4.39			12.56 21 8.2 4.36		
21	8.5 4.32			12.84 22 8.5 4.34		
22				13.02 23 8.7 4.32		
23	8.9 4.30			13.22 24 8.9 4.32		
24				13.84 25 9.5 4.34		
25	9.7 4.33					
26	9.8 4.39					
27						

Recognition of plate.

1	B		6.8 0.28 -.23 5	7.08 5	
2	4.1	3.91 8.01	7.3 0.32 -.26	7.62	
3	B.		7.5 0.34 -.26	7.84	Boss for ph centre.
4	4.1	3.91 8.01	7.7 0.36 -.29	8.06	" " " "
5	4.4	4.09 8.79	8.3 0.43 -.31	8.73	
6			8.5 0.45 -.32	8.95	" " " "

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..984L

π'

$65 = 9 + 15$

Sc. U

May 14, 1912

HC 206

Pol.	5	B			6.2	0.19	9.95	10	5.7	4.25	9.3	0.56	9.86	
	6	B			6.8	0.18	9.95	11	5.7	4.25	9.3	0.56	9.86	
	8	B			7.8	0.30	10.17	12	5.9	4.27	9.5	0.61	10.11	
	9	4.8	3.95		8.4	0.30	10.29	13	6.0	4.29	9.7	0.65	10.35	
	10	4.9	3.99		8.5	0.39	10.39	14	6.1	4.29	9.8	0.68	10.48	
	11	5.3	5.3	4.12	8.9	0.52	10.79	15	6.5	4.29				
	12	5.4	5.5	4.23	9.2	0.53	11.08	16	6.8	4.28				
	13	5.9	5.9	4.27	9.5	0.67	11.37	17	7.1	4.27				
	14	6.2	6.2	4.32	9.9	0.62	11.56	18	7.3	4.27				
	15	6.6	6.5	4.34			11.96	19	7.7	4.26				
	16	7.0	7.0	4.26			12.16	20	7.9	4.26				
	17		7.3	4.19			12.38	21	8.1	4.28				
	18		7.7	4.22			13.04	22	8.7	4.34				
	19		8.0	~~4.28~~			13.26	23	8.9	4.36				
	20						13.50	24	9.1	4.40				
	21		8.5	~~4.32~~			13.96	25	9.5	4.46				
	23		8.8	~~4.40~~ 4.40			14.20	26	9.7	4.50				
	25		9.3	4.43			14.54	27	10.0	4.54				
	26		9.1	4.49				28						
Prolapse edge	1	B			6.8	0.20	7.00	29						
	2	B			7.5	0.27	7.77	30						
	3	B			7.7	0.28	7.98							
	4				7.9	0.31	8.21							
8.60	5	4.7	3.90		8.4	0.40	8.80							
8.89	6	4.9	3.99		8.5	0.41	8.91							
8.89	7	4.9	3.99		8.7	0.44	9.14							
9.56	8	5.4	4.16		9.0	0.50	9.50							
9.70	9	5.5	4.20		9.1	0.53	9.68							

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj.:984L

$b_5 = 9 + 15$

May 21, 1912

Sēū

MC 1365

Obs.	10	4.8	4.09		8.6	0.29	9.42	9	5.2	4.22	9.3 0.42 9.72
	11	5.2	4.22		8.9	0.52	9.55	10	5.3	4.25	9.3 0.46 9.95
	12	5.5	4.23		9.3	0.43	9.43	11	5.2	4.23	9.7 0.47 10.17
	13	5.8	4.37		9.7	0.47	9.83	12	5.5	4.38	9.8 0.49 10.29
	14	6.0	4.52				9.95	13	5.6	4.35	
	15	6.3	4.64				10.20	14	5.8	4.40	
	16	6.7	4.56				10.57	15	6.1	4.47	
	17	6.9	4.59				10.83	16	6.3	4.53	
	18	7.2	4.72				11.29	17	6.7	4.59	
Cloudy another day →	19	7.7	4.58				11.53	18	6.9	4.63	
	20	7.9	4.69				11.85	19	7.2	4.65	
	21	8.1	4.72				12.18	20	7.5	4.68	
	23	8.5	4.70				12.30	21	7.7	4.90	
	26	8.9	4.83				12.75	22	8.0	4.75	
	26	9.2	4.99				12.97	23	8.2	4.77	
	27	9.6	4.95				13.19	24	8.4	4.79	
	28	10.0	4.97				13.76	25	8.9	4.86	
	5	B			6.0	0.39					
	6	B			6.8	0.18	14.10	26	9.2	4.96	
	8	B			7.9	0.20	14.21	27	9.3	4.91	
	9	7.7 8			8.5	0.20	14.45	28	9.3	4.91	
Near edge	1	B			6.2	0.28 6.48	14.45	29	9.5	4.95	
	2	B			7.3	0.26 7.56	14.78	30	9.8	4.98	
Foot of C.	3				7.4	0.26 7.66		31			
" " "	4				7.7	0.27 7.97					
	5	7.1			8.5	0.31 8.81					
" " "	6				8.7	0.33 9.08 8.97					
" " "	7				8.9	0.36 9.26 9.7					
9.03	8	4.9	4.13		9.2	0.40 9.60					

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..984L

γ^1

$b5 = 9+15$

May 21, 1912

Sc. U

HD 1365

5	3.7	2.49		14	7.9	2.53 10.43
6	4.6	2.38		15	8.2	2.56 10.76
8	5.7	2.40		16	8.5	2.60 11.10
9	6.3	2.40		17	8.6	2.60 11.20
10	6.7	2.49		18	8.8	2.64 11.44
11	6.9	2.52		19	9.2	2.69 11.89
12	7.2	7.3	2.53	20	9.5	2.73 12.23
13		7.7	2.47	21	9.7	2.78 12.48
14		8.0	2.52	22		
15		8.4	2.54			
16		8.7	2.56			
17		8.9	2.57			
18		9.2	2.72			
19		9.5	2.78			
20		9.8	2.79			
1	B					
2	5.3	2.41	7.71			
3	5.0					
4	5.7	2.40	7.80			
5	6.3	2.40	8.70			
6	6.5	2.41	8.91			
7	6.5	2.41	8.91			
8	6.9	2.43	9.33			
9	7.2	2.46	9.66			
10	7.5	2.49	9.99			
11	7.3	2.47	9.77			
12	7.5	2.49	9.99			
13	7.7	2.51	10.21			

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..984L

γ_1

$b\ 8 = 15^h + 15$

Dec U

	MR 1811		PC					PC	
5	B		5.1		12	5.3 4.00	9.30	8.0	9.47
8	B		6.7		13	5.3 4.0c	9.30	8.2	9.68
9	B		7.3		14	5.5 4.05-	9.55	8.5	9.99
10	B		7.5		15	5.9 4.16	10.06	9.0	10.51
11	5.3 4.12-		7.9		16	5.9 4.16	10.06	9.3	10.82
12	5.7 4.03		8.3		17	6.1 4.25-	10.35		
13	6.0 4.17		8.7		18	6.1 4.25-	10.35		
14	6.3 4.22		9.0		19	6.2 4.28	10.48		
15	6.7 5 4.44				20	6.3 4.30	10.60		
16	6.7 7.0 4.56				21	6.5 4.35-	10.85		
17	7.0 4.49				22	6.8 6.8 4.43	11.23		
18	7.7 7.3 4.52-				23	7.1 7.1 4.49	11.59		
19	7.7 7.7 4.58				24	7.3 7.3 4.52	11.82		
20	8.0 8.2 4.59				25	7.3 7.3 4.52	11.82		
21	8.3 4.62				26	7.9 7.85 7.8 4.61	12.46		
23	8.6 4.60				27	8.1 4.66	12.76		
25	8.9 4.83				28	8.5 4.73	13.23		
26	9.3 4.89				29	8.7 4.75	13.45		
27	9.7 4.85-				30	8.9 4.87	13.77		
1	B		5.8	7.13					
Postarp. C. 2	B		5.9	7.24					
3	B		6.7	8.09					
On edge of film 4			6.2	(7.56)					
Postarp. C. 5			6.7	8.09					
" " " 6			6.7	8.09					
New edge of film 7			7.7	9.15					
Postarp C. 8			7.8	9.25					
" " " 9			7.8	9.25					
10	5.0 .		7.9 8.1	9.36					
11	5.2 3.96	9.16	7.9	9.36					

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..984L

$\delta 1$

$\delta 8 = 15^h + 15$

Sc. U. #1811 May 23, 1912

			Sc 2		
5	4.0	2.39	11	7.1 2.28	9.33
8	5.9	2.20	12	7.3 2.24	9.54
9	6.5	2.20	13	7.3 2.24	9.54
10	6.7	2.19	14	7.4 2.25	9.65
11	Defective		15	8.0 2.30	10.30
12	7.5	2.23	16	8.0 2.30	10.30
13	7.9	2.27	17	8.3 2.33	10.63
14	8.2	8.2 2.32	18	8.3 2.33	10.63
15	8.5	8.5 2.44	19	8.4 2.34	10.74
16		8.8 2.46	20	8.3 2.33	10.63
17		9.1 2.39	21	8.7 2.37	11.07
18		9.5 2.42	22	9.0 2.40	11.40
19		9.8 2.48	23	9.3 2.44	11.74
20		〃	24	9.5 2.47	11.97
21		〃	25	9.5 2.47	11.97
23		〃	26	9.8 2.50	12.30
25		〃			
26		〃			
27		〃			

1	4.9	2.29	7.19
2	4.8	2.30	7.10
3	5.3	2.25	7.55
4	5.4	2.24	7.64
5	5.4	2.24	7.64
6	5.6	2.21	7.81
7	6.3	2.20	8.50
8	6.4	2.20	8.60
9	6.5	2.21	8.71
10	7.0	2.22	9.22

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj . 984L

γ_1

$b\,8 = 15^h + 15$

Sc. U

May 25, 1912

ME 1811

		sc 2.			sc 2.	
Polar	3	5.3 0.44		15	9.1 1.05 ~~not marked~~	10.15
	4	5.5 0.41		16	9.3 1.10	10.40
	5	6.1 0.29		17	9.5 1.13	10.63
	6	6.5 0.48		18	9.5 1.13	10.63
	7	7.5 0.60		19	9.1 1.14	10.84
	98	8.1 0.60		20	9.1 1.14	10.84
	10	8.2 0.69		21	~~1~~	
	11	8.5 0.92				
	12	8.8 0.93				
	13	9.1 1.07				
	14	9.4 1.12				
	15	9.8 1.14				
	16	10.1 1.16				
	1	6.7 0.48	7.18			
	2	6.8 0.49	7.29			
	3	7.1 0.55	7.65			
	4	7.0 0.53	7.53			
	5	7.2 0.56	7.76			
	6	7.2 0.56	7.76			
	7	7.8 0.69	8.49			
	8	8.1 0.75	8.85			
	9	8.2 0.78	8.98			
	10	8.5 0.87	9.37			
	11	8.5 0.87	9.37			
	12	8.8 0.84	9.64			
	13	9.1 1.05	10.15			
	14	8.9 1.00	9.90			

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..984L

1'

Measures of Seq. for C9 = 17h + 15°

Sept

1:16

May 25, 1912.

Mc 1776

		Sc 2	P.C.		Sc 1	Sc 2	P.C.	
Polar	5		4.9 1.49	15 6	t.b.		6.2 1.74	7.94
	6		5.4 1.58					
	8		6.3 1.80	16 7	4.1	(9.55 extrapolated)	7.5 1.86	9.36
	9		6.9 1.80	8	4.3	(9.73 extrapolated)	7.7 1.86	9.56
	10		7.0 1.89	9	4.8	10.17	8.2 1.84	10.04
	11		7.5 1.92	10	4.9 5.36	10.26	8.3 1.84	10.14
	12		7.9 1.83	11	4.9 5.36	10.26	8.3 1.84	10.14
	13	4.8 5.37	8.3 1.97	12	4.7 5.38	10.08	8.1 1.85	9.95
	14	5.2 5.32	8.8 1.72	13	5.0 5.34	10.34		
	15	5.1 5.24	9.1 1.84	14	5.3 5.30	10.60		
	16	6.0 5.26	9.3 1.86	15	5.8 5.25	11.05		
	17	6.3 5.19		16	6.0 5.24	11.24		
	18	6.7 5.22		17	6.3 5.22	11.52		
	19	7.0 5.28		18	6.4 5.22	11.62		
	20	7.3 5.29		19	6.3 5.22	11.52		
	21	7.6 5.22		20	6.9 5.21	12.11		
	23	8.0 5.20		21	7.1 5.21	12.31		
	25	8.5 5.23		22	7.3 5.22	12.52		
	26	8.9 5.39		23	7.7 5.25	12.95		
	27	9.1 5.45		24			8.1 5.28	13.38
	28	9.5 5.47		25			8.3 5.30	13.60
	29	9.9 5.62		26			8.6 5.33	13.93
	30	1.		27			8.7 5.34	14.04
1	10	~~11~~		28			9.0 5.39	14.39
2	11		5.3 1.57 6.81	29			9.2 5.43	14.63
3	12			30			9.0 5.39	14.39
4	13	t.b.						
5	14	B.	6.3 1.75 8.05					

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj.:984L

51

C9 - 17h +15°

So. W

May 25, 1912.

11:41

MW 1776

		Sc 1	Sc 2				
Polar	5	3.2	3.19				
	6	3.8	3.18				
	8	5.0	3.10				
	9	5.8	2.90				
	10	6.0	2.89				
	11	6.3	3.12				
	12	6.6	3.13				
	13	7.0	3.17				
	14	7.4	3.12				
	15	7.7	3.24				
	16	8.0	3.26				
	17	~~8.3~~	8.9	3.19			
	18	~~8.7~~	8.7	3.22			
	19	~~9.1~~	9.1	3.18			
	20	~~9.3~~	9.3	3.29			
	21		9.5	3.32			
	23		9.8	3.40			
	24		✓.				
	1	4.0	3.13	7.13			
	2	4.2	3.12	7.35			
	3	4.1	3.12	7.22			
	4	4.8	3.10	7.90			
	5	4.9	3.10	8.00			
	6	5.3	3.09	8.39			
	7	6.2	3.09	9.29			
	8	6.4	3.10	9.50			
	9	6.9	3.13	10.03			
	10	7.3	3.15	10.45			
	11	7.1	3.14	10.24			
	12	7.2	3.14	10.34			
	13	7.2	3.15	10.35			
	14	7.3	3.15	10.35			
	15	7.9	3.17	11.09			
	16		8.2	3.20	11.40		
	17		8.5	3.22	11.72		
	18		8.9	3.25	12.15		
	19	8	8	8.7	3.24	11.94	
	20		8.8	3.25	12.05		
	21		9.2	3.30	12.50		
	22						
	23						
	24						
	25						

11:52

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..984L

1'

C9 = 17h +15°

Scale 4

May 25, 1912.

11:54

Me 1776

		Sei	Scr		Scr
Polar	3	5.2	5.1 .964	12	8.7 .168 10.38
	4	5.4	5.3 .061	13	8.6 .166 10.26
	5	5.9	5.7 .069	14	9.0 .172 10.28 .72
	6	6.2	6.1 .088	15	9.5 .188 11.61 .28
	8	7.2	7.0 .120	16	9.7 .181 11.51
	9	7.6	7.5 .120	3N ++	7.1
	10		7.6 .179	5N ++	8.2
	11		7.9 .152	7N	8.9 6.2
	12		8.2 .153	4N	7.4
	13		8.5 .167	6N	8.5
	14		8.8 .172	2N	6.2
	15		9.1 .184	1N	5.3
	16		9.5 .176	8N	9.2
	17		9.8 .169		
	18		↓		
	1				
	2		6.3 .093	7.23	
	3		6.1 .087	6.97	
	4		6.9 .111	8.01	
	5	++	7.1 .117	8.27	
	6		7.2 .120	8.40	
	7		7.8 .140	9.20	
	8		8.0 .186	9.74 .46	
	9		8.5 .167 .3	9.89 10.14	
	10		8.3 .164 .5	10.14	
	11		8.5 .164	10.14	

12:14

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj.0841

J'

$b11 = 21^h + 15^\circ$

Scale U

May 28, 1912

11:30

MD 1420

		Sc1	Scz.		Sc1	Scz	
Polar	5	B.		12	7.2 2.60		9.80
	6	4.3 2.68		13	7.1 2.57		9.69
	8	5.5 2.60		14	7.1 2.59		9.69
	9	6.2 2.50		15	7.5 2.62		10.12
	10	6.4 2.49		16	7.7 2.64		10.34
	11	6.8 2.62		17		8.0 2.68	10.68
	12	7.2 2.53		18		8.2 2.68	10.88
	13	7.5 2.67		19		8.3 2.69	10.99
	14	7.9 2.62		20		8.5 2.71	11.21
	15	~~8.9~~	8.2 2.74	21		8.7 2.73	11.43
	16	~~8.5~~	8.5 2.76	22		8.7 2.73	11.43
	17		8.8 2.69	23		8.9 2.74	11.64
	18		9.2 2.72	24		9.5 2.78	12.28
	19		9.5 2.78				
	20		9.8 2.79				
	21		10.0 2.82				
	1	4.0 2.70	6.70				
	2	4.7 2.64	7.34				
	3	5.1 2.61	7.71				
	4	5.4 2.59	7.99				
	5	5.8 2.58	8.36				
	6	6.0 2.55	8.55				
	7	6.2 2.55	8.75				
	8	6.3 2.54	8.84				
	9	6.8 2.56	9.36				
	10	6.7 2.55	9.25				
	11	7.0 2.58	9.58				

11:41

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..984L

J1

C.11 = 21h +15°

Scale 4.

May 28, 1912.

MD 1730

		Sc1	Scr
Polar	5	B	
	6	4.2 2.78	
	8	5.6 2.50	
	9	6.2 2.50	
	10	6.3 2.59	
	11	6.7 2.72	
	12	7.0 2.73	
	13	7.5 2.67	
	14	7.8 2.72	
	15		8.1 2.84
	16		8.5 2.76
	17		8.7 2.79
	18		9.1 2.82
	19		9.4 2.88
	20		9.1 2.89
	21		
1		4.1 2.66	6.76
2		4.7 2.61	7.31
3		5.1 2.60	7.70
4		5.2 2.60	7.80
5		5.8 2.60	8.40
6		5.9 2.60	8.50
7		6.2 2.61	8.80
8		6.2 2.61	8.81
9		6.5 2.62	9.12
10		6.7 2.63	9.33

#	Sc1	Scr
11	7.0 2.66	9.66
12	7.1 2.67	9.77
13	7.1 2.67	9.77
14	7.2 2.67	9.87
15	7.5 2.70	10.20
16	7.7 2.74	10.44
17	7.9 2.74	10.64
18	8.1 2.75	10.85
19	8.5 2.80	11.30
20	8.6 2.80	11.40
21	8.8 2.80	11.60
22	8.8 2.80	11.60
23	8.8 2.80	11.60

11:55

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..984L

J1

C11 = 21h +15°

Scale 1.

May 28, 1912.

ME 1199

		Sc1			Sc1	Sc2
Polar	3	5.3 0.44		1N	6.3	
	4	5.5 0.41		2N	7.3	
	5	6.0 0.39		3N	7.9	
	6	6.4 0.58		4N	∯	8.1
	∯	7.5 0.60		5N		8.9
	9	∯	8.1 0.60	6N		9.3
	10		8.3 0.59			
	11		8.7 0.72			
	12		9.0 0.73			
	13		9.+ 0.77			
	14		9.8 0.72			
	15		∯			
	1	6.2 0.46		6.66		
	2	6.5 0.50		7.00		
	3	6.9 0.51		7.41		
	4	7.2 0.55		7.75		
	5	7.3 0.56		7.86		
	6	7.3 0.56		7.86		
	7	∯	8.1 0.63	8.73		
	8		8.2 0.65	8.85		
	9		8.5 0.67	9.17		
	10		8.7 0.69	9.39		
	11		8.7 0.69	9.39 9.71		
	12		8.9 0.8	9.71		
	13		8.9 0.8	9.71		
	14		8.7 0.69	9.39		

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..984L

C11 = 21h +15°

Sc. 2.

May 28, 1912.

ME 1420.

		Sc1	Sc2		Sc1	Sc2
Polar	3	5.2 0.54		1N	6.3	
	4	5.4 0.51		2N	7.2	
	5	5.9 0.49		3N	7.7	
	6	6.7 0.58		4N	8.0	
	8	7.3 0.80		5N		8.9
	9	7.7 1.00		6N		9.3
	10	7.9 0.99				
	11		8.3 1.12			
	12		8.6 1.13			
	13		9.0 1.17			
	14		9.4 1.12			
	15		9.8 1.14			
	1	6.0 0.55		6.55		
	2	6.3 0.59		6.89		
	3	6.8 0.69		7.49		
	4	7.2 0.80		8.00		
	5	7.2 0.80		8.00		
	6	7.1 0.77		7.87		
	7	7.8 0.97		8.77		
	8	7.8 0.97		8.77		
	9		8.1 1.03	9.13		
	10		8.4 1.10	9.50		
	11		8.6 1.13	9.73		
	12		8.7 1.13	9.83		
Image out on 13	13		8.3	-		
	14		9.0 1.16	10.16		
	15		9.2 1.16	10.36		

12:21

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..984L

b 11 21+10−

Sc. U

May 28, 1912

M.P. 1199

8	5.3	2.80	13	7.1 2.81	9.91
9	6.0	2.70	14	7.1 2.81	9.91
10	6.2	2.69	15	7.3 2.82	10.12
11	6.6	2.82	16	7.7 2.87	10.57
12	7.0	2.73	17	7.9 2.88	10.78
13	7.4	2.77	18	8.1 2.91	11.01
14	7.7	2.82	19	8.3 2.93	11.23
15	8.0	2.94	20	8.5 2.96	11.46
16	8.3	2.96	21	8.7 2.97	11.67
17	8.5	2.99	22	8.7 2.97	11.67
18	8.9	3.02	23	8.9 3.00	11.90
19	9.2	3.08	24	9.3 3.05	12.35
20	9.5	3.09			
21	9.8	3.12			
22	4				
1	4.1				
2	4.7				
3	5.1	2.80	7.90		
4	5.3	2.80	8.10		
5	5.5	2.79	8.29		
6	5.6	2.79	8.39		
7	6.1	2.78	8.88		
8	6.3	2.78	9.08		
9	6.7	2.79	9.49		
10	6.7	2.79	9.49		
11	7.0	2.80	9.80		
12	7.3	2.82	10.12		

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..984L

J'

C12 = 23h +15°

Scale x

June 12, 1912

10:20

MW1227

		SC1	SC2		SC1	SC2	
Polar	5	3 4.9 2.49		12	6.5 2.76		9.26
	8	5.4 2.70		13	6.5 2.76		9.26
	9	6.2 2.50		14	6.8 2.72		9.52
	10	6.3 2.59		15	6.9 2.73		9.63
	11	6.6 2.82		16	7.3 2.76		10.06
	12	7.0 2.73		17	7.4 2.77		10.17
	13	7.5	7.4 2.77	18		8.1 2.77	10.87
	14	7.8	7.8 2.72	19		8.3 2.77	11.07
	15		8.2 2.74	20		8.5 2.77	11.27
	16		8.5 2.76	21		8.7 2.77	11.47
	17		8.7 2.79				
	18		9.1 2.82				
	19		9.5 2.78				
	20		9.9 2.69				
	21		1				

	1	3.9 2.48	6.38
	2	4.2 2.59	6.79
	3	4.7 2.54	7.24
	4	5.0 2.58	7.58
	5	5.1 2.59	7.69
	6	5.5 2.61	8.11
	7	5.8 2.65	8.45
	8	5.9 2.65	8.55
	9	6.2 2.68	8.88
	10	6.1 2.67	8.77
	11	6.2 2.68	8.88

mor.

10:3

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..984L

51

C 12 = 23h + 15°

Scale 11

June 12, 1912.

10:36 M 20 1154

		Sc1	Sc2			Sc1	Sc2	
Polar	5	4.0 2.39			13	7.2 2.10		9.30
	8	6.2 1.90			14	7.3 2.11		9.41
	9	6.7 2.00			15	7.3 2.11		9.41
	10	6.9 1.99			16	7.8 2.25		10.05
	11	7.3 2.12			17		8.0 2.30	10.30
	12	7.6 2.13			18	~~8.1~~	8.1 2.40	11.10
	13	7.9 2.27			19		9.0 2.42	11.42
	14		8.2 2.32		20		9.0 2.42	11.42
	15		8.5 2.44		21		9.3 2.41	11.71
	16		8.8 2.46					
	17		9.1 2.39					
	18		9.5 2.42					
	19		9.9 2.38					
	20		↓					
	1	4.2 2.11		6.31				
	2	4.5 2.04		6.54				
	3	5.0 2.00		7.00				
	4	5.5 1.98		7.48				
	5	5.5 1.98		7.48				
	6	6.0 1.96		7.96				
	7	6.3 1.96		8.26				
	8	6.5 1.98		8.48				
	9	6.8 2.01		8.81				
	10	6.7 2.00		8.70				
	11	7.1 2.06		9.16				
	12	7.2 2.10		9.30				

more.

10:45

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..984L

J'

C12 = 23 +15°

Scale U

June 12, 1912.

10:47 M.S. 1154

		Sc 1	Scr.		Sc 1	Scr.	
Polar	3	5.5 0.24		9	8.6	8.83	
	4	5.8 0.11		10	8.3	8.49	
	5	6.3 0.09		11	8.7	8.94	
	6	6.7 0.28		12	9.0	9.27	
	8		8.0 0.10	13	9.3	9.60	
	9		8.6 0.10	14	9.2	9.49	
	10		8.7 0.19	15	9.5	9.84	
	11		9.0 0.42	16	9.8	10.20	
	12		9.4 0.38	17	9.7 0.37		10.07
	13		9.7 0.47				
	14		10.1 0.42				
	1N	6.8					
	2N	7.3					
	3N		8.0				
	4N		8.3				
	5N		9.2				
	6N		8.7				
	1	6.2 0.16		6.36			
	2	6.4		6.56			
	3	6.9		7.05			
	4	7.2		7.35			
	5	7.2		7.35			
	6	7.8		7.95			
	7	7.7		7.85			
	8		8.0	8.16			

MOR.

11102

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj...984L

1

C12 = 23h + 15°

Scale U

June 12, 1912

11:05 Ac9657

		sc1	sc2		sc1	sc2	
Polar	3	6.3 -0.56		11	8.9	8.97	
	4	6.5 -0.59		12	9.2	9.35	
	5	6.9 -0.51		13	9.3	9.48	
	6	7.3 -0.32		14	9.3	9.48	
	8		8.3 -0.20				
	9		8.7 -0.50				
	10		8.8 +0.09				
	11		9.1 -0.32				
	12		9.5 -0.23				
	13		9.9 -0.27				
	14		1				
	1r	7.1					
	2r	8	8.2				
	3r		8.7				
	4r		9.0				
	5r		9.6				
	1	7.0 -0.42		6.58			
	2	7.3		6.95			
	3	7.7		7.49			
	4	8.0		7.82			
	5	8.1		7.95			
	6		8.2	8.08			
	7		8.6	8.59			
	8		8.5	8.47			
	9		8.6	8.59			
	10		8.7	8.71			

11:15

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..984L

$B_9 = 22\ 40 + 45$

Sc. W.

June 12, 1912

Cl.	5	B		5.7	Sofar fr. C	7	B	6.9	7.70
	6	B		6.1	" " " "	8	3.9	7.3	8.04
	8			7.3	" " " "	9	3.9	7.2	7.95
	9			Sm. super.		10	4.0	8.70	7.7 8.31
	10	4.2	4.69	8.7		11	4.3	9.00	
	11	4.7	4.72			12	4.2	8.90	
	12	5.1	4.63			13	4.3	9.00	
	13	5.7	4.77			14	4.3	9.00	
	14	5.9	4.62			15	5.0	9.68	
	15	6.3	4.64			16	5.2	9.88	
	16	6.6	4.66			17	5.3	9.97	
	17	6.9	4.59			18	5.7	10.35	
	18	7.3	4.62			19	5.3	9.97	
	19	7.8	4.48			20	5.3	9.97	
	20	8.0	8.0 4.57			21	6.2	10.83	
	21	8.2	8.2 4.62			22	6.3	10.92	
	22		8.4			23	6.5	11.11	
	23		8.5 4.70			24	6.9	11.50	
	24		8.7			25	7.1	11.70	
	25		8.9 4.83			26	7.2	11.80	
	26		9.3 4.89			27	7.2	11.80	
	27		9.7 4.85			28	7.8	12.41	
	1	B		5.2		29	7.9 7.95	8.0	12.57
Sofar fr. C.	2	B		5.4		30		8.2	12.86
" " "	3	B		5.9	6.71	31		8.9	13.70
" " "	4	B		6.0	6.81	32		9.3	14.16
	5	29		6.3	7.12	33		9.5	14.38
Sofar fr. C.	6	B		6.9	7.70	34			
						35			

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..984L

$\mathcal{B}_9 = 22\ 40 + 45$

Se. U

	M.D. 1906		June 12, 1912	
5	3.9	2.49		
6	4.4	2.58		
8	5.5	2.60		
9	6.3	2.40		
10	6.5	2.39		
11	7.0	2.42		
12	7.3	2.43		
13	7.7	2.47		
14	8.0	2.52		
15		8.3 2.64		
16		8.5 2.76		
17		8.8 2.69		
18		9.1 2.82		
19		9.5 2.78		
20		9.9 2.69		
1	3.9	6.40		
2	4.1	6.62		
3	4.3	6.84		
4	4.3	6.84		
5	4.7	7.25		
6	5.2	7.76		
7	5.3	7.86		
8	5.7	8.21		
9	5.5	8.04		
10	6.2	8.68		
11	6.4	8.85		
12	6.3	8.76		
13	6.5	8.93		
14			6.5	8.93
15			7.1	9.53
16			7.3	9.74
17			7.3	9.74
18			7.7	10.20
19			7.4	9.85
20			7.3	9.74
21			8.1	10.66
22			8.3	10.90
23			8.5	11.14
24			8.9	11.60
25			9.1	11.84
26			9.1	11.84
27			9.3	12.07
28			9.9	12.77

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..984L

B9 = 22 40 +45

Scale 11:20

June 13, 1912

M 20 1411

		sc 1	sc 2
Polar	5	3.2 3.19	
	6	3.7 3.28	
	8	5.2 3.90	
	9	5.8 2.90	
	10	6.0 2.89	
	11	6.3 3.13	
	12	6.6 3.13	
	13	7.1 3.07	
	14	7.4 3.12	
	15	7.7 3.24	
	16	8.0 3.26	
	17	star superposed on ~~8.1~~	
	18	~~8.1~~	8.1 3.22
	19	~~9.0~~	9.0 3.28
	20	~~9.3~~	9.3 3.29
	21	~~9.5~~	9.5 3.32
	23	~~9.9~~	9.9 3.30
	1	3.1	6.35
too far from centre	2	3.1	(6.87)
" " " "	3	3.9	(7.05)
" " " "	4	4.0	(7.14)
	5	4.3	7.40
	6	4.3	7.40
	7	5.0	8.03
	8	5.2	8.21
too far from centre.	9	5.2	(8.21)
	10	5.7	8.70
	11	5.9	8.90
	12	5.3	8.31
	13	6.0	9.00
	14	6.1	9.10
	15	6.3	9.32
	16	6.4	9.42
	17	6.8	9.87
	18	7.1	10.21
	19	6.9	9.99
	20	7.2	10.32
	21	7.5	10.65
	22	7.5	10.65
	23	7.8	10.99
	24		8.1 11.31
	25		8.2 11.42
	26		8.3 11.53
	27		8.7 11.97
	28		8.9 12.18

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..984L

B9 = 22h 40m +45°

June 13, 1912

Mc 1411

		sc1	sc2		sc2	
Polar	3	~~5.2~~	~~4.8~~ ~~5.2~~ 5.0 0.94	8	6.8	8.17
	4		~~5.4~~ 5.4 0.91	9	6.9	8.30
	5		5.4 0.99	10	7.1	8.60
	6		6.0 0.98	11	7.3	8.90
	8		6.7 1.40	12	7.1	8.60
	9		7.1 1.60	13	7.7	9.40
	10		7.3 1.57	14	7.8	9.53
	11		7.7 1.72	15	7.9	9.65
	12		8.0 1.73	16	8.0	9.77
	13		8.3 1.87	17	8.1	9.89
	14		8.7 1.82	18	8.5	10.34
	15		9.1 1.84	19	8.3	10.12
	16		9.5 1.76	20	8.5	10.34
	17		9.9 1.57	21	8.7	10.55
	18		‡			
	1N		5.4 6.33			
	2N		6.5 7.72			
	3N		7.3 8.89			
	4N		7.5 8.16			
	5N		8.3 10.12			
	1		5.2 6.12			
	2		5.5 6.45			
	3		5.7 6.69			
	4		5.9 6.91			
	5		6.2 7.30			
	6		6.2 7.30			
	7		6.5 7.73			

11:40

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..984L

B7 = 17 20 +45

June 13, 1912.

MN 991.

		Sc.1			Sc1	Sc2
Polar	5	3.1 3.29		11	5.7 2.82	8.52
	6	3.8 3.18		12	6.4 2.76	9.16
	8	5.2 2.90		13	6.3 2.76	9.06
	9	6.0 2.70		14	6.5 2.75	9.25
	10	6.2 2.69		15	6.7 2.76	9.46
	11	6.6 2.82		16	7.0 2.78	9.78
	12	6.9 2.83		17	7.3 2.79	10.09
	13	7.3 2.87		18	8.0 2.83	10.83
	14	7.7 2.82		19	7.9 2.83	10.73
	15	8.1 2.84		20	7.9 2.83	10.73
	16	8.4 2.86		21	8.1 2.84	10.94
	17	8.1 2.79		22	8.3 2.85	11.15
	18	9.0 2.92		23	8.3 2.85	11.15
	19	9.3 2.98		24	8.5 2.85	11.35
	20	9.7 2.89		25	8.8 2.88	11.68
	21	10.0 2.82		26	9.0 2.89	11.89
	1	3.7 3.18	6.88	27	9.2 2.89	12.09
	2	4.0 3.10	7.10			
	3	4.3 3.05	7.35			
	4	5.0 2.91	7.91			
	5	4.9 2.94	7.84			
	6	~~5.0 2.91~~	7.91			
	7	5.0 2.91	7.91			
	8	4.7 2.97	7.67			
	9	5.3 2.88	8.18			
	10	5.3 2.88	8.18			

11.55

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..984L

B7 = 17 20m +45°

Scale u.

June 13 1912.

mD 1281

					SC1	SC2	
Polar	5	4.7 2.19		15	7.5 2.18		9.65
	6	4.9 2.08		16		7.8 2.19	9.99
	8	6.0 2.10		17		8.0 2.20	10.20
	9	6.1 2.00		18		8.6 2.26	10.86
	10	6.8 2.09		19		8.5 2.25	10.75
	11	7.2 2.22		20		8.6 2.26	10.86
	12	7.5 2.23		21		8.8 2.29	11.09
	13	8.0 2.17		22		9.0 2.29	11.29
	14	~~8.3~~	8.3 2.22	23		9.1 2.29	11.39
	15		8.5 2.24	24		9.3 2.31	12.61
	16		8.9 2.36	25		9.5 2.38	11.83
	17		9.2 2.29	26		9.7 2.34	12.04
	18		9.1 2.22				
	1	4.9 2.14	7.04				
too far from centre	2	5.2 2.12	(7.32)				
" " "	3	5.3 2.12	(7.42)				
" " "	4	6.1 2.10	(8.20)				
	5	6.0 2.10	(8.10)				
	6	6.1 2.10	(8.20)				
	7	6.0 2.10	8.10				
	8	5.7 2.11	7.81				
	9	6.3 2.10	8.40				
	10	6.4 2.14	8.54				
	11	6.7 2.11	8.81				
	12	7.3 2.14	9.44				
	13	7.3 2.14	~~9.56~~ 9.44				
	14	7.4 2.15	9.66				

12.13

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..984L

Sc W'

June 13, 1912

Pol.	5	13		5.9	7	32		8.6	8.69
	8	B		8.1	8	33		8.5	8.59
	9	4.1	4.60	8.7	9	37		8.9	8.97
	10	4.3	4.59	8.8	10	37	4.55 8.25	8.7	8.78
	11	4.7	4.72	9.2	11	41	4.69 8.79	9.3	9.37
	12	5.0	4.73	9.6	12	43	4.62 8.92	9.3	9.37
	13	5.4	4.77		13	43	4.62 8.92		
	14	5.8	4.72		14	48	4.67 9.47		
	15	6.2	4.74		15	49	4.67 9.47		
	16	6.5	4.76		16	51	4.69 9.79		
	17	6.8	4.69		17	53	4.71 10.01		
	18	7.1	4.82		18	61	4.75 10.85		
	19	7.4	4.88		19	59	4.75 10.55		
	20	7.7	4.89		20	60	4.75 10.75		
	21	7.9	4.92		21	62	4.76 10.96		
	22				22	63	4.77 11.07		
	23	8.3	4.90	8.3	23	65	4.78 11.28		
	24				24	69	4.81 11.61		
	25		5.03	8.7	25	71	4.83 11.93		
	26		5.19	9.0	26	73	4.86 12.16		
	27		5.05	9.5	27	75	4.88 12.38		
	28		5.07	9.9	28	80	4.93 12.93		
	1	B		7.4	29	86	4.99 13.59		
	2	B		7.7	30	87	4.99 13.69		
	3	3.1		7.7	31	89	5.01 13.91		
	4	Too near edge			32	97	5.04 14.24		
	5	Too near edge			33	95	5.07 14.57		
	6	"	"						

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..984L

B7 = 17h 20 +45°

Scale 2.

11:40

June 14, 1912

Mc991.

		Sc1	Sc2		Sc1	Sc2	
Polar	10	4.0 4.89		10	3.3 5.00	(8.30)	too far from centre
	11	4.4 5.02		11	3.9 5.00	8.90	
	12	4.8 4.93		12	4.1 5.00	9.10	
	13	5.2 4.97		13	4.1 5.00	9.10	
	14	5.5 5.02		14	4.6 5.00	9.60	
	15	5.9 5.04		15	4.7 5.00	9.70	
	16	6.3 4.96		16	5.1 5.00	10.10	
	17	6.7 4.79		17	5.3 4.99	10.29	
	18	7.2 4.72		18	5.9 4.85	10.85	
	19	7.5 4.78		19	5.7 4.98	10.68	
	20	7.8 4.79		20	5.8 4.97	10.77	
	21	~~8.0~~	8.3 4.52	21	6.0 4.93	10.93	
	~~22~~	~~8.4~~		22	6.0 4.93	10.93	
	23	~~8.4~~	8.7 4.50	23	6.3 4.91	11.21	
	25	~~9.0~~	9.0 4.73	24	6.7 4.87	11.57	
	26		9.4 4.79	25	6.9 4.84	11.74	
	27		9.8 4.75	26	7.2 4.79	11.99	
	1	B.		27	7.4 4.76	12.16	
	2	B.		28	7.9 4.74	12.64	
	3	B.		29		8.5 4.70	13.20
Not on plate.	4			30	~~8.5~~	8.7 4.70	13.40
too near Edge.	5			31	~~8.4~~	9.0 4.71	13.71
" " "	6			32		9.3 4.72	14.02
	7	3.0		33		9.5 4.73	14.23
	8	3.1		34		9.7 4.75	14.45
too far from centre	9	3.3		35		9.9 4.76	14.66

MOR

11:54

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..984L

B7 = 17 20 +45

Scale u.

June 14, 1912.

ME1281

		sc1	sc2		sc2	
Polar	3	5.9 -0.16		12	8.9 0.20	9.10
	4	6.0 -0.09		13	8.9 0.20	9.10
	5	6.5 -0.11		14	9.2 0.28	9.46
	6	7.2 -0.22		15	9.3 0.29	9.59
	8	~~8.1~~	8.2 -0.10			
	9	~~8.6~~	8.6 0.10			
	10	~~8.7~~	8.7 0.19			
	11		9.1 0.32			
	12		9.4 0.33			
	13		9.9 0.27			
	14					
	1N	6.3	~~6.1~~	6.18		
	2N	7.5		7.34		
	3N		8.3	8.31		
	4N		8.5	8.55		
	5N		9.1	9.37		
	1	7.2 -0.16		7.04		
	2	7.3 -0.16		7.14		
	3	7.5 -0.15		7.35		
	4	8.0 -0.07		7.93		
	5	~~8.1~~	8.1 -0.05	8.05		
	6		8.3 -0.00	8.30		
	7		8.1 -0.05	8.05		
	8		8.2 -0.02	8.18		
	9		8.3 0.00	8.30		
	10		8.2 -0.02	8.18		
	11		8.5 0.06	8.56 ~~8.74~~		

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..984L

B7 = 17h 20 +45°

Scale .4

June 14, 1912.

Me 991

		sc1	sc2			sc1	sc2	
Polar	3	5.3 0.44			11	8.0 0.50		8.50
	4	5.5 0.41			12	8.4 0.58		8.98
	5	6.2 0.17			13	8.5 0.60		9.10
	6	6.7 0.28			14	8.7 0.65		9.35
	8	7.7 0.40			15	8.8 0.68		9.48
	9		8.2 0.50		16	8.7		9.35
	10		8.3 0.59		17	8.7		9.35
	11		8.6 0.82		18	9.3		10.10
	12		9.0 0.73		19	9.3 0.80		10.10
	13		9.3 0.87					
	14		9.7 0.82					
	15		10.0 0.94					
	1N	6.8 4.1		7.10				
	2N	7.7		8.13				
	3N		8.5	9.10				
	4N		8.8	9.48 ~~8.98~~				
	5N		9.5	10.38 3				
	1	6.4 0.30		6.70				
	2	6.5 0.30		6.80				
	3	6.8 0.31		7.11				
	4	7.3 0.37		7.67				
	5	7.5 0.40		7.90				
	6	7.7 0.44		8.14				
	7	7.5 0.40		7.90				
	8	7.6 0.42		8.02				
	9	7.7 0.44		8.14				
	10	7.7 0.44		8.14				

12.25

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..984L

B 8 = 20 + 45

Sc. U.

June 14, 1912

H.C. 998

5	B		4.7			9	4.2	9.27	
8	B		6.3	Dorfan f C		10	4.2	(9.27)	
9	B		6.7	" " "		11	4.2	(9.27)	
10	4.7	4.69	7.1			12	4.3	9.88	
11	4.5	4.92	7.6			13	4.4	9.81 / 9.80	
12	4.8	4.93				14	4.9	~~10.03~~	
13	5.2	4.97				15	5.0	~~10.14~~	9.90
14	5.1	4.82				16	5.2	~~10.35~~	10.11
15	6.0	4.94				17	5.2	~~10.35~~	10.11
16	6.3	4.96				18	5.3	~~10.46~~	10.22
17	6.6	4.89				19	5.3	~~10.46~~	10.22
18	7.0	4.92				20	5.7	~~10.90~~	10.62
19	7.3	4.98				21	6.2	~~11.43~~	~~12.36~~ 11.13
20	7.7	4.89				22	6.7	~~11.98~~	11.64
21	8.0	4.82				23	7.1	~~12.40~~	12.02
23	8.7	4.80				24	7.5	~~12.84~~	12.40
25	8.9	4.83				25	7.8	~~13.86~~	12.70
26	9.2	4.99				26	8.3	~~13.70~~	13.19
27	9.5	5.05				27	8.7	~~14.13~~	13.59
28	9.9	5.07				28	9.0	~~14.45~~	13.90
1	Dorfan f C.		5.0	6.52		29	9.5	~~14.97~~	14.48
2			5.7	7.38		30			
3	B		6.1	7.82		31			
4	B		6.1	7.82		32			
5	Dorfan f C.	(8.75)	6.0	7.71		33			
6	4.0	8.86	6.2	7.94					
7	Dorfan f. C	4.0	(8.86)	6.9	8.70				
8	4.1	8.96							

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..984L

δ 8 = 20 + 45

Se W

June 14, 1912

	H.D. 998				
5	3.1	3.29	12	6.3	9.35
6	3.7	3.28	13	6.5	9.55
8	5.0	3.10	14	6.7	9.75
9	5.7	3.00	15	6.7	9.75
10	5.9	2.99	16	6.9	9.95
11	6.3	3.12	17	7.3	10.35
12	6.7	3.03	18	7.7	10.78
13	7.1	3.07	19	7.9	10.98
14	7.5	3.02	20	8.1	11.19
15	7.8	3.14	21	8.3	11.39
16	8.1	8.1 3.16	22	8.5	11.60
17	8.4	8.4 3.09	23	9.0	12.10
18	8.8	8.7 3.12	24	9.5	12.62
19	9	9.2 3.08			
20		9.5 3.09			
21		9.7 3.12			
23					
1	4.0	7.24			
2	4.2	7.41			
3	4.2	7.41			
4	5.1	8.21			
5	4.9	8.04			
6	5.0	8.12			
7	5.4	8.50			
8	5.3	8.40			
9	5.5	8.59			
10	5.9	8.96			
11	6.3	9.35			

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..984L

$B_8 = 20 + 45$

Sc W

June 18, 1912

HR 1065

		Sc 2
3	5.8 -0.06	
4	6.1 -0.19	
5	6.5 -0.11	
6	7.0 -0.02	
8	8.1 0.00	
9	8.5 0.20	
10	8.6 0.29	
11	8.9 0.52	
12	9.2 0.53	
13	9.5 0.67	
14	9.9 0.72	
15		

1	6.8	6.73
2	7.2	7.16
3	7.1	7.05
4	7.3	7.28
5	7.5	7.50
6	7.5	7.50
7	8.1	8.20
8	8.1	8.20
9	8.3	8.47
10	8.3	8.47
11	8.3	8.47
12	8.5	8.75
13	8.5	8.75
14	8.8	9.19
15	8.7	9.04
16	8.9	9.33

	Sc 2	
17	9.1	9.61
18	9.3	9.90
1p	6.3	6.20
2p	7.4	7.38
3p	8.1	8.20
4p	8.5	8.74
5p	9.3	9.90
6p	9.7	10.40

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..984L

B 8 = 20 + 45

Scale U

June 18 · 1912.

ME 1421

	sc 1.	sc 2.		sc 2		
3	5.3	0.4x	16	8.7	9.52	10.35
4	5.5	0.41	17	8.9	9.79	10.65
5	6.1	0.29	18	9.1	10.05	10.95
6	6.5	0.48	19	9.5	10.55	11.53
8	7.6	0.50	20	9.8	10.91	11.92
9	8.1	0.60	1r	6.2	6.60	
10	8.2	0.69	2r	7.2	7.67	
11	8.6	0.82	3r	7.7	8.24	
12	8.9	0.83	4r	8.1	8.73	
13	9.2	0.97	5r	9.0	9.91	
14	9.3	1.02	6r	9.5	10.53	
15	9.8	1.14				
16	10.1	1.16				

1	6.7 ~~7.0~~	7.13	7.25
2	7.0	7.45	7.75
3	7.1	7.56	7.92
4	7.2	7.68	8.09
5	7.3	7.80	8.23
6	7.3	7.80	8.23
7	7.5	8.01	8.55
8	7.6	8.13	8.71
9	7.8	8.38	9.00
10	7.9	8.50	9.17
11	8.2	8.88	9.60
12	8.3	9.00	9.75
13	8.3	9.00	9.75
14	8.7	9.52	10.35
15	8.7	9.52	10.35

Use Magnitudes in green ink.

1:20

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..984L

B·2 = 4^h $+45°$

Scale 4. June 18, 1912.

M 10 1409

	Sc 1	Sc 2
5	3.1	3.29
6	4.0	2.98
8	5.3	2.80
9	6.0	2.70
10	6.2	2.69
11	6.5	2.92
12	6.8	2.93
13	7.2	2.97
14	7.5	3.02
15	7.9	3.04
16		8.2 3.06
17		8.5 2.99
18		8.9 3.02
19		9.2 3.08
20		9.5 3.09
21		9.8 3.02
~~22~~		~~10.1~~

Scale Read. + Curve

1	4.3	7.20
too far from centre 2	4.7	(7.54)
" " " 3	4.8	(7.62)
4	5.1	7.91
too far from centre 5	5.1	(7.91)
" " " 6	5.3	(8.10)
7	5.3	8.10
8	7.0	~~7.70~~ 8.78
9	7.0	~~7.70~~ 8.78
10	6.3	9.10

	Sc 1	Sc 2
11	6.4	9.20
12	6.7	9.55
13	6.5	9.32
14	6.9	9.79
15	7.1	10.03
16	7.3	10.28
17	7.5	10.52
18	7.7	10.77
19	7.9	~~11.02~~ 10.91
20		8.1 11.12
21	~~8.1~~	8.1 11.12
22	~~8.3~~	8.3 11.33
23		8.1 11.12
24		8.2 11.22
25		8.7 11.74
26		8.9 11.95
27		9.1 12.15
28		9.2 12.25

Assumed scale reading 6.0 VA 12-7-6

" " " 6.0

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..984L

B2 = 4h +45°

Scale 4

June 18, 1912.

M 31409

	sc1	sc7
3	5.2 0.54	
4	5.4 0.51	
5	5.9 0.49	
6	6.4 0.58	
8	7.5 0.60	
9	8.0 0.70	
10		8.1 0.79
11		8.4 1.02
12		8.6 1.13
13		9.0 1.17
14		9.3 1.22
15		9.7 1.24
16		10.0 1.26
17		
1		6.3 6.82
2		6.7 7.25
3		6.9 7.46
4		7.1 7.69
5		7.2 7.80
6		7.5 8.13
7		7.3 7.91
8		7.3 7.91
9		7.7 8.38
10		7.9 8.64
11		8.0 8.78
12		8.2 9.06
13		7.9 8.64

14	8.3	9.22
15	8.3	9.22
16	8.5	9.51
17	8.8	9.92
18	9.0	10.18
19	9.2	10.41
1N	6.3	6.82
2N	7.0	7.58
3N	7.8	8.50
4N	~~7.7~~ 8.1	8.92
5N	8.8	9.92
6N	9.2	10.41

1:40

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..984L

Q 1 = 1 20 + 45

June 18, 1912

Sc U

HD 1425

5	3.2	3.19	11	6.2	9.02
6	3.8	3.18	12	6.2	9.02
8	5.2	2.90	13	6.5	9.32
9	6.0	2.70	14	6.7	9.52
10	6.1	2.79	15	7.1	9.92
11	6.5	2.92	16	7.5	10.32
12	6.9	2.83	17	7.5	10.32
13	7.3	2.87	18	7.7	10.52
14	7.7	2.82	19	7.7	10.52
15	8.1	2.84	20	8.1	10.93
16	8.4	2.86	21	7.9	10.72
17	8.6	2.89	22	8.3	11.14
18	9.0	2.92	23	8.4	11.25
19	9.3	2.98	24	8.8	11.70
20	9.6	2.99	25	9.0	11.92
21	9.9	2.92	26	9.3	12.25
23			27	9.8	12.78
~~25~~					

		Scale Read. + Curve
1	4.0	7.07
2	4.2	(7.23)
3	4.2	(7.23)
4	4.9	(7.82)
5	5.1	8.00
6	5.3	8.18
7	5.7	8.55
8	5.7	8.55
9	6.1	8.93
10	6.1	8.93

Poofaf.C.

Poofafs. C.

" " " "

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..984L

B1 = 1 20 + 45

Soln

June 19, 1912

HD 1201

5	3.2	3.19			
6	4.0	2.98			
7	~~5.9~~				
8	5.2	2.90			
9	5.9	2.80			
10	6.0	2.89			
11	6.4	3.02			
12	6.7	3.03			
13	7.2	2.97			
14	7.5	3.02			
15	7.9	3.04			
16	8.2	3.06			
17	8.5	2.99			
18	8.9	3.02			
19	9.2	3.08			
20	9.5	3.09			
21	9.7	3.12			
~~22~~					
23	~~10.0~~	10.0	3.10		

		Scale Read + Curve
1	4.1	7.10
2	4.2	(7.20)
3	4.2	(7.20)
4	4.7	(7.66)
5	5.1	8.05
6	5.2	8.14
7	5.6	8.53
8	5.8	8.74
9	6.1	9.04

Two for f. C.

Two for f. C.

				Scale Read + Curve
10	6.1	Slow drift?		9.04
11	6.2			9.14
12	6.2			9.14
13	6.4			9.34
14	6.5			9.44
15	7.2			10.17
16	7.5			10.49
17	7.6			10.60
18	7.7			10.70
19	7.9			10.91
20	8.1			11.14
21	7.8			10.80
22		8.4		11.45
23		8.5		11.55
24	8.9	8.9		11.98
25		9.1		12.18
26	9.2	9.2		12.29
27		9.7		12.79

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..984L

$B_1 - 1$ 20 + 45

June 18, 1912

Sc U

W E 1425

3	5.5	0.24	16	9.3	10.13
4	5.7	0.21	17	9.7	10.00
5	6.7	0.19	18	9.3	10.13
6	6.7	0.28	19	9.3	10.13
8	7.7	0.40	20	9.6	10.50
9	8.3	0.40	21	9.8	10.74
10	8.4	0.49	22	9.9	10.86
11	8.8	0.52	1K	6.3	6.52
12	9.0	0.73	2K	7.3	7.67
13	9.3	0.87	3K	8.1	8.58
14	9.4	0.92	4K	8.4	8.93
15	10.0	0.94	5K	9.3	10.12
16			6K	9.7	10.62

		Scale Read. + Curve
1	6.4	6.64
2	6.7	6.98
3	6.5	6.75
4	7.0	7.31
5	7.3	7.66
6	7.5	7.90
7	7.7	8.10
8	7.9	8.34
9	7.9	8.34
10	8.1	8.58
11	8.1	8.58
12	8.2	8.70
13	8.5	9.08
14	8.7	9.33
15	9.0	9.72

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..984L

Ar - 4 + 75

June 24, 1912

Scii

4: ~~ME~~ 954

	Sc 1		Sc 2.		
3	5.3 0.44				
4	5.5 0.44				
5	6.0 0.39				
6	6.5 0.48				
8	7.5 0.60				
9	8.0 0.70	~~8.0~~	15	8.7	9.60
10	~~8.1~~	8.1 0.79	16	9.1	10.07
11	~~8.4~~	8.4 1.02	17	9.3	10.31
12	~~8.8~~	8.8 0.93	18	9.3	10.31
13	~~9.2~~	9.2 0.97	19	9.5	10.55
14	~~9.5~~	9.5 1.02	1N 6.3		6.77
15	~~9.8~~	9.8 1.14	2N 7.2		7.77
		Scale Read + curve	3N 7.8		8.51
1	6.4	6.89	4N	8.2	8.99
2	7.1	7.67	5N	9.0	9.94
3	6.7	7.21	6N	9.5	10.53
4	7.1	7.67			
5	7.7	8.39			
6	7.6	~~8.0~~ 8.27			
7	8.0	8.75			
8	7.9	8.63			
9		8.0 8.75			
10					
11		8.2 8.99			
12		8.5 9.35			
13		8.5 9.35			
14		8.9 9.83			

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..984L

$a_1 = 4 + 75$

Scale U.

June 24, 1912

Mc 1202

3	5.2	0.54		1N	6.3	6.95
4	5.3	0.61		2N	7.2	7.81
~~45~~	5.7	0.69		3N	8.0	8.52
6	6.3	0.68		4N	8.3	8.80
~~8~~	7.5	0.60		5N	9.2	9.72
9	~~8.2~~	0.50		~~6N~~	9.7	10.28
10	8.4	0.49		7N		
11	8.9	0.52				
12	9.2	0.53				
13	9.5	0.67				
14	9.9	0.62				
15						

1	6.3	6.95	
2	6.3	6.95	
3	6.3	6.95	
4	6.7	7.84	
5	6.9	~~7.53~~ 8.54	Assumed to be 7.9 on spanning plate Aug. 20, 1913 H.S.L.
6	7.7	8.25	
7	7.7	8.25	
8	7.8	8.34	
9		8.2 8.70	
~~10~~		~~9.2~~	
11	8	~~8.1~~ 9.20	
12		~~8.4~~ 9.2 ~~9.73~~	
13		~~8.9 9.1 10.29~~	wrongly identified
14		9.7 10.29	
15		~~1~~	

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

$a_2 = 12 + 75$

June 25, 1912

Sc. W.

MC 958

				Pc	
	5	B		4.8	
	6	B		5.3	
	8	3.1		6.2	
	9	3.7		7.5	
	10	3.9	4.99	7.7	
	11	4.3	5.12	8.0	
	12	4.7	5.03	8.3	
	13	5.1	5.07	8.7	
	14	5.4	5.12	9.2	
	15	5.7	5.24		
	16	6.0	5.26		
	17	6.3	5.19		
	18	6.7	5.22		
	19	7.1	5.18		
	20	7.4	5.19		
	21	7.5	5.32		
	~~22~~	~~4.7~~			
	23	7.9	5.30		
	~~24~~				
	25	8.3	5.43		
	26	8.7	5.49		
	27	9.1	5.45		
	28	9.5	5.47		
	1	B		5.0	6.70
Too faint C	2	B		5.7	7.36
" "	3	B		6.0	7.64
" "	4	B		6.2	7.81
" "	5	B		6.4	7.99 (8.99)
" "	6	B		6.7	8.23

				Pc		
	7	3.8	8.79	7.2	8.68	~~7.2~~
	8	3.9	8.90	7.4	8.85	
	9	4.0	9.00	7.5	8.93	
Too faint C.	10	4.0	9.00	7.5	8.93	
	11	4.2	9.22			
	12	4.6	9.66			
	13	4.9	10.00			
	14	5.1	10.21			
	15	5.3	10.43			
	16	5.2	10.32			
	17	5.5	10.64			
	18	6.2	11.40			
	19	6.7	11.93			
	20	6.3	11.51			
	21	6.9	12.15			
	22	7.2	12.46			
	23	8.0	13.35			
	24	8.2 (8.2)	13.57			
	25	8.1	13.47			
	26	7.9	~~13.24~~ i			
	27	8.7	14.11			
	28	9.1	14.55			
	29	9.5	14.97			
	30	f				

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..984L

Sc. "U"

$\alpha_2 = 12 + 7.5$

June 25, 1912

	HC 1195		PC					PC
5	B		6.3	Too faint	6	Too near edge		6.9 (7.44)
6			6.8		7	3.9	8.78	8.2
8	3.2		7.1		8	4.1	9.03	8.7
9	3.7		7.5		9	4.0	8.90	
10	4.0	4.89	7.6		10	4.1	(9.03)	
11	4.4	5.02			11	4.2	(9.14)	
12	4.7	5.03			12	5.0	10.10	
13	5.1	5.07			13	5.2	10.32	
14	5.4	5.12			14	5.3	10.44	
15	5.7	5.24			15	5.3	10.44	
16	6.0	5.26			16	5.3	10.44	
17	6.3	5.19			17	5.4	10.55	
18	6.7	5.22			18	6.3	11.50	
19	7.1	5.18			19	6.9	12.07	
20	7.5	5.09			20	6.6	11.80	
21	7.7	5.12			21	7.1	12.25	
23	9.2	5.00			22	7.4	12.51	
25	8.7	5.03			23	8.0	13.07	
26	9.1	5.09			24	8.3	13.35	
27	9.5	5.05			25	8.5	13.55	
28	9.9	5.07			26	8.3	13.35	
29					27	9.0	14.03	
30					28	9.3	14.34	
1	B		6.1		29	9.7	14.75	
2	B		6.1	Too faint C.	30	4		
3	B		6.1					
4	B		6.7	(6.07)				
5	B		6.3	(6.24)				

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj.0041

$\alpha_2 = 12 + 45$

June 25, 1912

Sc U

HD 9.58

5	3.1	3.29	12	7.1	10.10
6	3.7	3.28	13	7.3	10.31
8	5.1	3.00	14	7.3	10.31
9	5.7	3.00	15	7.5	10.54
10	5.9	2.99	16	7.6	10.65
11	6.4	3.02	17	7.5	10.54
12	6.8	2.93	18	8.3	11.47
13	7.2	2.97	19	8.7	11.93
14	7.5	3.02	20	8.5	11.70
15	7.8	3.14	21	8.9	12.15
16	8.1	3.16	22	9.2	12.49
17	8.3	3.19	23	9.7	13.06
18	8.7	3.22	24	9.9	13.30
19	9.0	3.28	25	10.0	13.42
20	9.3	3.29			
21	9.5	3.32			
23	9.9	3.30			
1	3.7	6.93			
2	4.1	7.30			
3	4.7	7.39			
4	4.3	7.48			
5	4.9	8.00			
6	5.1	8.18			
7	6.0	9.00			
8	6.2	9.19			
9	6.2	9.19			
10	6.3	9.28			
11	6.5	9.49			

Drift C

" " " 4

" " " 5

" " " 6

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..984L

1:20

Scale M

Measures of Proximate Companions

January 5, 1912.

I 34831

Polar	7 = a^1	7.8	−1.39
	9 = a^2	7.9	−1.34
	10 = a^3	8.3	−1.30
	11 = a^4	8.5	−1.30
	12 = a^5	8.9	−1.20
	13 = b^1	9.1	−1.03
	15 = b^2	9.7	−1.08
	16 = C	∔	
Star.	1	8.2	−1.31 = 6.89
	2	8.4	−1.28 = 7.12
	3	8.3	−1.30 7.00
	4	9.3	−1.11 8.19
	5	9.3	−1.11 8.19
	6	9.5	−1.07 8.43
	7	∔	

1:27 mR.

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..0841

f'

1:28

Measures of Prismatic Companions

Scale M

January 5, 1912

I 32021

Orbs	a'	8.7	-1.79
	a^2	8.5	-1.94
	a^3	8.8	-1.80
	a^4	9.0	-1.80
	a^5	9.5	-1.80
	b'	9.1	-1.63
	b^2	∓	
	c	∓	
Stars.	1	8.7	-1.83 6.87
	2	8.9	-1.81 7.09
	3	8.7	-1.83 6.87
	4	9.1	-1.75 7.95
	5	9.8	-1.75 8.05
	6	9.9	-1.74 8.16
	7	∓	

1:34
M.R.

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..984L

Estimated brightness of Asteroid (Metcalf)

MC 1415 T'

ast. 11.9

1:36

Measures of Prismatic Companions
January 5, 1912.

Scale m
Solar

	I	3°5580
a'	7.7	-1.29
a²	8.0	-1.44
a³	8.5	-1.50
a⁴	8.7	-1.50
a⁵	9.1	-1.40
b'	9.3	-1.23 ~~-0.68~~
b²	9.9	-1.28
c	?	
1	8.3	-1.41 6.89
2	8.5	-1.44 7.06
3	8.5	-1.44 7.06
4	9.3	-1.40 7.90
5	9.5	-1.35 8.15
6	9.8	-1.23 8.57
7	10.0	

1:40

M R.

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..984L

John C. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..984L

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..984L

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..984L

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..984L

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..984L

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System