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HARVARD UNIVERSITY  
Physics B

NAME Book 113

Harvard Co-operative Society



1840phae.proj.3101B

THIS BOOK BELONGS TO

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HARVARD COÖPERATIVE SOCIETY

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## INDEX

PLATE	PAGE
A 15788	4
A 20387	19











A 15788

Sequence

Counted stars have circles

14.55

14.9

15.4

15.8

16.1

16.4

16.8<sup>7</sup>

16.9

17.35

17.5

17.818.2

Interpolations made by C.D.B.



A15788

also meas. B.R. P, p. 206  
red type

20 40 -10.0

Square 7Square 8

	<u>I.G.B.</u>	<u>C.D.B.</u>						
37	18.0	17.8	17.9 ✓	between stars	105	18.1	18.0	18.1
38	17.6	17.7	17.6 ✓ e	*SF	106	18.1	18.0	18.0 ✓ e
39	17.7	17.4	17.5 ✓		107	17.1	17.4	17.3 ✓
49	16.8	17.1	17.0 ✓ e		143	18.3	18.1	18.2
50	17.7	17.6	17.7 ✓		144	15.0	14.7	15.0 ✓
51	17.1	17.2	17.2 ✓ e		145	18.0	18.0	18.0 ✓
52	17.2	17.5	17.3 ✓		152	17.7	17.6	17.6 ✓ e
57	17.6	17.6	17.6 ✓	C.D.B. reb?	153	17.8	17.9	17.9 ✓
60	17.4	17.7	17.6 ✓ e	*F	154	17.7	17.7	17.7 ✓
77	17.8	17.7	17.7 ✓		155	16.6	16.8	16.7 ✓
80	17.2	17.4	17.3 ✓	*NF	166	17.8	17.8	17.8 ✓
94	17.4	17.6	17.5 ✓	br.*F F.S.b.	169	17.5	17.8	17.6 ✓ e
95	17.7	17.7	17.7 ✓		305	18.0	17.9	17.9 ✓
98	17.7	17.8	17.8 ✓ e	*P.	306	18.1	18.0	18.0 ✓ e
301	17.2 17.2	17.6 17.7	17.4 ✓	F.S.B.	307	17.6	17.6	17.6 ✓
302	17.6	17.7	17.7 ✓		308	17.2	17.2	17.2 ✓
303	17.7	18.0	17.8 ✓ e		309	17.9	17.9	17.9 ✓
304	17.6	17.8	17.7 ✓		310	17.7	18.0	17.9 ✓

Square 9

167	18.1	18.0	18.0 ✓	*N
168	17.3	17.4	17.3 ✓	



170	18.3	17.9	18.1		64	14.9	15.2	15.1	stellar
174	18.2	18.0	18.1		65	16.5 15.5	16.6 16.6	16.3	Spiral on edge
175	18.2	18.1	18.2		76	16.6 16.4	16.9 16.9	16.7	Spiral on edge
176	18.1	17.9	18.0		78	17.7	17.8	17.8	C.D.B. neb?
177	18.3	18.2	18.3	*F	323	17.6	17.7	17.7	
178	18.0	18.0	18.0		324	17.9	18.0	18.0	
179	17.3	17.6	17.4		325	17.8	17.8	17.8	F.S.B
181	16.6	16.9	16.7		326	17.1	17.4	17.3	
182	18.0	17.8	17.9		327	17.3	17.6	17.4	
183	17.7	17.6	17.6		328	18.0	17.9	17.9	
184	18.2	17.9	18.1	I.G.B. neb?	<u>Square 13</u>				
208	17.9	17.8	17.8		99	17.9	17.7	17.8	
209	18.2	18.0	18.1		100	18.1	17.9	18.0	
210	17.8	17.7	17.7		101	18.1	18.0	18.0	
211	16.7 16.6	17.1 17.1	16.9		102	15.0	14.7	14.9	
311	16.5	16.8	16.6		103	17.0	17.0	17.0	
312	17.4	17.7	17.5		104	15.0	14.6	15.0	
313	17.6	17.7	17.6		108	18.0	18.1	18.0	C.D.B. neb
314	17.7	17.8	17.7		123	17.2	17.4	17.3	
<u>Square 12</u>					157	18.2			I.G.B. neb?
46	17.5	17.7	17.6	*NF	159	18.2	18.0	18.1	
48	17.4	17.6	17.5		164	18.3	18.0	18.1	
61	17.5	17.8	17.6	F.S.B.	329	17.1	17.3	17.2	
62	17.0	17.1	17.1		330	17.0	17.2	17.1	
63	18.0	17.9	18.0		331	17.9	17.8	17.8	



Square 14

345

17.3

17.6

17.4

edge

165 16.0 16.0 16.0

Spiral on edge

edge

186 18.2 17.9 18.1

b?

187 17.8 17.7 17.8

Spiral on edge

188 17.2 17.3 17.3

189 18.3 18.1 18.2

B

197 17.7 17.6 17.6

199 18.3 18.0 18.1

F.S.B.

200 17.5 17.6 17.6

F.S.B.

332 17.9 17.7 17.8

333 17.1 17.5 17.3

334 18.2 17.9 18.1

I 1331 14.8 15.0 15.0

Spiral on edge

Square 17

346

17.7

17.8

17.7

43 17.0 17.4 17.1

Spiral on edge

44 16.2 16.3 16.2

45 15.2 15.0 15.1

neb

67 17.3 17.6 17.5

\*P

71 17.6 17.8 17.7

\*S

72 16.9 17.1 16.9

neb

73 17.5 17.4 17.4

74 17.2 17.6 17.4

75 17.6 17.7 17.6

I.G.B. neb?  
\*S

113 17.5 17.6 17.6

I.G.B. neb?

344 17.1 17.2 17.1

C.D.B. neb?

347

17.2

17.4

17.3

348

18.2

18.0

18.1

F.S.B

Square 19

185

18.3

18.0

18.2

190

18.0

17.7

17.9

191

15.6

15.6

15.6

Spiral on edge

192

16.6

16.6

16.4

193

15.4

15.0

15.2

Spiral on edge

195

15.2

14.9

15.0

215

15.4

15.6

15.5

Spiral on edge

349

17.5

17.7

17.6

I.G.B. neb?



350	18.1	17.9	18.0	
351	17.7	17.7	17.7	
352	17.4	17.5	17.5	
353	17.3	17.3	17.3	*NF
NGC 6968 (I 5062)	115.0	115.0	115.0	



1111  
1111  
1111

7111



































A20387

Sequence

Counted stars have circles

15.2

15.4

15.7

16.25

16.8

17.0

17.3

17.6

17.8

18.2

Interpolations made by C. D. B.



A20387

19 50 -10

Square 7

	C.D.B.	I.G.B.									
1	16.6	16.3	16.4	double *?	21	17.2	17.4	17.3		C.D.B. neb?	bt *NP
	15.6	15.1			22	16.6	15.5				
2	15.9	15.3	15.5			16.7	15.6	16.1		double *?	
					23	17.1	16.9	17.0			
3	15.4	15.1	15.3		24	17.5	17.2	17.3			
					25	17.1	16.9	17.0		double *?	
4	J15.0	J15.0	J15.0	Spiral on edge							
5	J15.0	J15.0	J15.0	stellar	26	17.3	17.0	17.2			
					27	15.6	15.5	15.5			
6	16.1	15.8	16.0	Spiral on edge							
7	16.9	17.0	16.9	C.D.B. neb?	28	18.0	18.0	18.0			
					29	16.9	16.9	16.9			
8	16.8	16.9	16.8	Spiral on edge bt. *SF							
9	17.2	17.3	17.3	C.D.B. neb?	30	17.2	17.2	17.2		between *?	
					31	17.1	17.1	17.1			
10	16.9	16.8	16.8	Spiral on edge							
11	J15.0	J15.0	J15.0		32	17.0	16.9	17.0			
12	15.7	15.6	15.7		33	17.2	17.1	17.1			

Square 8

13	16.0	15.3			34	15.3	15.7	15.5		Spiral on edge	
	16.3	15.3	15.7	Spiral on edge *P	35	17.5	17.3	17.4		*NF	
14	17.0	16.8	16.9	*NP	35a	17.1	17.0	17.0		C.D.B. neb?	
15	16.9	16.9	16.9	XNF							
16	17.8	17.4	17.6	*S							
17	15.9	16.0	16.0	Spiral on edge	36	16.8	16.9	16.9			
18	16.9	16.6	16.7		37	16.7	16.8	16.8		C.D.B. neb?	bt. *NP
18a	17.3	16.9	17.1		38	17.4	17.5	17.5			
19	17.5	17.4	17.4		39	16.1	16.4	16.2			

Square 9

20	16.1	15.3			40	17.7	17.4	17.5			
	16.0	15.3	15.7	*NP	41	17.6	17.3	17.4		*F	

42

J15.0

J15.0

J15.0



Square 13

43	17.1	17.0	17.1
44	<del>17.1</del> 17.7	<del>17.2</del> 16.9	
45	17.2	17.1	<del>17.1</del> 17.0
46	16.9	16.9	16.9
47	17.3	17.5	17.4
48	16.6	16.7	16.7
48a	17.4	17.1	17.2
49	16.6	16.6	16.6

50			
51	<del>17.7</del>		
52	17.1	17.0	17.1
53	15.5	15.6	15.6
53a	<del>16.7</del> 16.8	<del>16.9</del> 17.3	<del>16.9</del> 16.9
54	17.2	17.1	17.1

Square 14

56	17.2	17.0	17.1
57			
58	17.1	17.1	17.1
58a	16.9	16.9	16.9
59	17.6	17.3	17.5
60	16.9	17.0	17.0
61	16.0	15.8	15.9

Square 17

62	17.6	17.2	17.4
63	16.7	16.6	16.7
64	17.2	16.9	17.0
65	16.5	16.5	16.5

Square 18

66	<del>17.2</del>	<del>17.7</del>		double * double?
66a	17.0	17.1	17.0	
67	17.4	17.2	17.3	br. * N
68	16.6	16.7	16.7	between * a
69	17.7	17.7	17.7	
70	16.0	15.4	15.7	
70a	16.0	15.3	15.5	br. * NP c.D.B. neb?
71	17.6	17.4	17.5	
	17.5	17.1	17.3	

Square 19

72	17.2	16.9	17.0	c.D.B. neb?
73	17.4	17.3	17.3	
74	17.2	17.1	17.3	
	17.6	17.1	17.3	
75	16.5	16.2	16.4	stars? c.D.B. neb?
76	16.4	16.4	16.4	
77	17.6	17.2	17.4	stars?
78	16.4	15.5	16.0	
	16.6	15.6	16.0	



✓  
N

✓  
Ka

NP  
neb?

neb?

3. neb?

o?











1840phase.proj.2001B