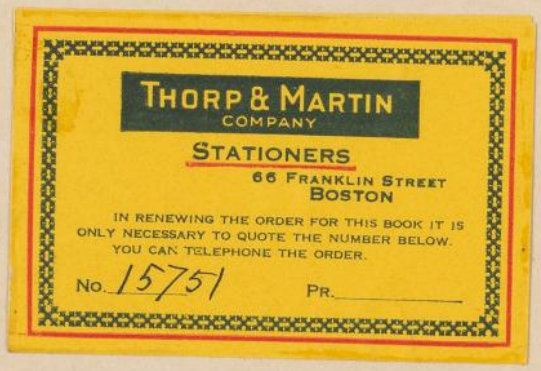
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KG
11366
260

62
Ptm

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Photometric experiments.

RH 488 $1\frac{1}{2}$" aperture over lens; no screen or grating
Exposures 4^m each (to nearest second) on Pleiades

	No. of image	Dec.	Order of Exposure
	1	+20	1
	2	+21.5	2
	3	+23	6
	4	+24.5	5
	5	+26	4
	6	+27.5	3
	7	+29	9
	8	+30.5	8
	9	+32	7
	10	+33.5	12
not measured	11	+35.5	10
not measured	12	+37	11

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2 R.N 488. No. upside down. Diaphragm 1 over image.

Star / Multiples No.	1	2	3	4	5	6	7	8	9
295 star	246	267	294	269	260	239	269	264	269
7.00 background	454	450	440	425	413	399	398	400	387
Dark	-020	-020	-020	-020	-020	-020	-020	-020	-020
S-D	266	287	314	289	280	259	289	284	289
B-D	474	470	460	445	423	419	418	420	407
227	382	383	400	420	351	342	368	349	352
8.34	461	441	429	424	414	403	388	396	390
	-020	-020	-020	-020	-017	-017	-015	-015	-015
	402	403	420	440	368	359	383	364	367
	481	461	449	444	431	420	403	411	405
214	221	258	267	302	239?	226	250	259	254
7.1	461	441	429	424	414	403	388	396	390
	-020	-020	-020	-020	-017	-017	-015	-015	-015
	241	270	287	322	256?	243	265	274	269
	481	461	449	444	431	420	403	411	405
252	130	160	182	156	154	140	156	172	176
6.04	461	441	429	424	414	403	388	396	390
	-020	-020	-020	-020	-017	-017	-015	-015	-015
	150	180	202	176	171	157	171	187	191
	481	461	449	444	431	420	403	411	405
266	219	239	256	another star	230	221	243	242	Defect 248
6.77	461	441	429	424	414	403	388	396	390
	-020	-020	-020	-020	-017	-017	-015	-015	-015
	239	259	276	-	247	238	258	257	263
	481	461	449	444	431	420	403	411	405
	-007								
219	~~022~~	000	003	000	000	000	000	000	000
3.53	457	441	444	432	412	416	399	395	410
	-008	-005	-104	-005	-004	-003	-003	-003	-002
	001	005	007	005	004	003	003	003	002
	459	446	448	437	416	419	402	398	412

* from FSH marked chart

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10	Volts
276	500
364	
-020	
296	
384	
342	500
362	
-010	
352	
372	
253	500
362	
-010	
263	
372	
195	500
362	
-016	
205	
372	
247	500
362	
-010	
257	
372	
006	500
380	
-002	
008	
382	

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Star	1	2	3	4	5	6	7	8	9
224	048	057	069	066	069	052	054	067	069
4.94	457	441	444	432	412	416	399	395	410
	-008	-005	-004	-005	-004	-003	-003	-003	-002
	056	062	073	071	073	055	057	070	071
	465	446	448	437	416	419	402	398	412
236	199	220	240	227	214	208	239	224	233
6.56	457	441	444	432	412	416	399	395	410
	-008	-005	-004	-005	-004	-003	-003	-003	-002
	207	225	244	232	218	211	242	227	235
	465	446	448	437	416	419	402	398	412
231	323	330	342	317	308	302	330	314	336
7.60	457	441	444	432	412	416	399	395	410
	-008	-005	-004	-005	-004	-003	-003	-003	-002
	331	335	346	322	312	305	333	317	338
	465	446	448	437	416	419	402	398	412
185	081	099	109	106	101	087	106	111	109
5.30	456	450	437	430	417	411	400	409	388
	000	000	000	000	000	000	000	000	000
	081	099	109	106	101	087	106	111	109
	456	450	437	430	417	411	400	409	388
144	-006	000	002	002	004	005	006	020	009
2.82	470	446	453	429	438	422	410	417	415
	007	007	009	010	011	012	014	016	017
	-013	-007	-007	-008	-007	-007	-008	+004	-012
	463	439	444	419	427	410	396	401	398
133	(154)	(169)	(198)	(180)	(187)	(173)	(201)	(201)	(218)
6.31	470	446	453	429	438	422	410	417	415
	007	007	009	010	011	012	014	016	017
	(147)	(162)	(179)	(170)	(176)	(161)	(187)	(185)	(201)
	463	439	444	419	427	410	396	401	398

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10	Volts	Image 1	2	3	4	5	6	7	8	9	10
079	500										
380											
-002											
081											
382											
239	500	653	669	683	673	663	657	682	669	677	681
380		653									
-002											
241											
382											
311	500										
380											
-002											
313											
382											
121	500										
377											
001											
120											
376											
009	500										
394											
018											
-009											
376											
(232)	500										
394											
018											
214											
376											

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Plate	1	2	3	4	5	6	7	8	9
121	412	421	430	392	(392)	372	378	381	387
8.63	470	446	453	429	438	422	410	417	415
	007	007	009	010	011	012	014	016	017
	405 463	414 439	421 444	382 419	(381) 427	360 410	364 396	365 401	370 398
137	293	306	318	308	296	293	314	308	319
7.28(A) 10.53(B)	470	446	453	429	438	422	410	417	415
	007	007	009	010	011	012	014	016	017
	287 463	299 439	309 444	298 419	285 427	281 410	300 396	292 401	302 398
134	266	279	299	290	278	271	284	289	291
6.95	470	446	453	429	438	422	410	417	415
	007	007	009	010	011	012	014	016	017
	259 463	272 439	290 444	280 419	267 427	259 410	270 396	273 401	274 398
130	318	328	346	332	316	310	345	339	329
7.5	470	446	453	429	438	422	410	417	415
	007	007	009	010	011	012	014	016	017
	311 463	321 439	337 444	322 419	305 427	298 410	331 396	323 401	312 398
141	359	366	372	374	362	340	367	354	350
7.86	470	446	453	429	438	422	410	417	415
	007	007	009	010	011	012	014	016	017
	352 463	359 439	363 444	364 419	351 427	328 410	353 396	338 401	333 398
145	269	289	294	289	273	264	298	282	291
6.84	479	471	420	442	437	437	411	421	417
	021	022	022	022	022	023	022	023	022
	246 458	267 449	272 398	267 420	251 415	241 414	276 389	259 398	269 395

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10	Volts
—	500
394	
018	
376	
309	500
394	
018	
291	
376	
306	500
394	
018	
288	
376	
339	500
394	
018	
321	
376	
360	500
394	
018	
342	
376	
299	500
392	
022	
277	
370	

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Star	1	2	3	4	5	6	7	8	9
90	040	052	054	051	049	052	052	051	054
4.13	487	470	461	453	442	437	421	420	431
	026	026	027	027	028	029	029	029	030
	014	026	027	024	0214	023	023	022	024
	461	444	434	426	414	407	392	391	399
73	377	391	420	391	370	365	369	351	370
7.99	487	470	461	453	442	437	421	420	431
	026	026	027	027	028	029	029	029	030
	351	365	393	364	342	336	340	322	340
	461	444	434	426	414	408	392	391	401
(#85-86)	383	391	395	388	369	363	377	359	370
(9.1), 8.19	487	470	461	453	442	437	421	420	431
	026	026	027	027	028	029	029	029	030
	357	365	368	361	341	334	348	330	340
	461	444	434	426	414	408	392	391	401
94	323	340	359	340	332	318	331	334	389
7.44	487	470	461	453	442	437	421	420	431
	026	026	027	027	028	029	029	029	030
	297	314	332	313	304	289	302	305	359
	461	444	434	426	414	408	392	391	401
76	145	162	179	170	—	154	177	170	187
5.69	489	481	466	459	431	456	419	424	447
	031	032	032	033	034	034	033	034	035
	114	130	147	137	—	120	144	136	152
	458	449	434	426	397	422	376	390	412
78	209	236	261	245	226	214	247	248	253
6.37	489	481	466	459	431	456	419	424	447
	031	032	032	033	034	034	033	034	035
	178	204	229	212	192	180	214	214	218
	458	449	434	426	397	422	376	390	412

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10	Volts
062	500
409	
030	
032	
379	
359	500
409	
030	
329	
379	
359	500
409	
030	
329	
379	
346	
~~252~~	500
409	
030	
316	
379	
207	500
408	
036	
171	
372	
267	500
408	
036	
231	
372	

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Star	1	2	3	4	5	6	7	8	9
71	042	050	056	056	059	041	049	042	050
3.80	489	481	466	459	431	456	419	424	447
	031	032	032	033	034	034	033	034	035
	011	018	024	023	025	007	016	008	015
	458	449	434	426	397	422	386	390	412
63	311	321	349	334	317	314	328	295	353
7.24	489	481	466	459	431	456	419	424	447
	031	032	032	033	034	034	033	034	035
	280	389	317	301	283	280	295	261	318
	458	449	434	426	397	422	386	390	412
49	050	064	068	063	059	058	059	057	062
4.18	489	481	466	459	431	456	419	424	447
	031	032	032	033	034	034	033	034	035
	019	032	036	030	025	024	026	023	027
	458	449	434	426	397	422	386	390	412
38	040	051	050	054	051	048	051	045	054
3.57	500	480	478	483	456	450	442	438	437
	039	040	040	041	040	042	042	042	043
	001	011	010	013	011	006	009	003	011
	461	440	438	442	416	408	400	396	394
34	120	145	151	144	140	135	149	153	151
5.37	500	480	478	483	456	450	442	438	437
	039	040	040	041	040	042	042	042	043
	081	105	111	103	100	093	107	111	108
	461	440	438	442	416	408	400	396	394
44	454	463	477	441	420	415	425	410	428
8.90	500	480	478	483	456	450	442	438	437
	039	040	040	041	040	042	042	042	043
	415	423	437	400	380	373	383	368	385
	461	440	438	442	416	408	400	396	394

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10	Volts
052	500
408	
036	
016	
372	
334	500
408	
036	
298	
372	
070	500
408	
036	
034	
372	
057	500
416	
043	
014	
373	
180	500
416	
043	
137	
373	
412	500
416	
043	
369	
373	

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Star	1	2	3	4	5	6	7	8	9
46	133	153	172	160	152	150	159	172	162
5.49	500	480	478	483	456	450	442	438	437
	039	040	040	041	040	042	042	042	043
	094	113	132	119	112	108	117	130	119
	461	440	438	442	416	408	400	396	394

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10	Volts
190	500
416	
043	
147	
373	

Difference of reduction curves with total diflection clearly shown by the accompanying plottings.

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1928 Sep. 16

RH500. Pole at $23^h 32$ Mesh 100 to inch

Numbers up.

Readings for numbered circles

Volts = 490		clear	Dk	20 clear	20 Dk	30 clear	30 Dk	clear no sky	film fog
	1	–	–	1204	020	1252	014	1301	018
	2	–	–	1219	020	1259	017	–	–
	3	1294	018	1237	020	1280	017	1287	018
	4	1222	018	1239	020	1257	014	1300	016
	5	1218	018	1219	020	1284	017	1259	018
	6	1217	018	1243	020	1266	018	1244	018
	7	1201	020	1240	019	1288	018	1241	017
	8	1208	020	1243	019	1273	017	1236	017
	9	1174	020	1229	020	1290	019	1260	017
	10	–	–	1249	017*	1279	018	–	–

Plate inverted

Volts =500		clear	Dk		clear	Dk.		clear	Dk.
	1	1449	052	11	–	–	21	–	–
	2	1410	052	12	1223	049	22		
	3	1348	051	13	1259	049	23	1268	050
	4	1328	051	14	1227	049	24	1276	050
	5	1295	050	15	1252	049	25	1270	050
	6	1300	050	16	1234	049	26	1241	050
	7	1279	050	17	1242	049	27	1251	050
	8	1274	050	18	1240	050	28	1263	050
	9	–	–	19	1224	049	29	1267	050
	10	–	–	20	–	–	30	1266	050

* Interruption

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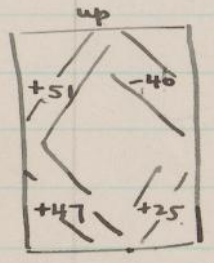
"Diamond" diaphragm over plate.

Subtracted readings

10 D	10 R	20 D	30 R	20 D	20 R	30 D	30 R
-	1397	1184	-	1238	-	1283	1210
-	1358	1199	1174	1242	-	-	-
1276	1297	1217	1210	1263	1218	1269	1224
1204	1277	1219	1178	1243	1226	1284	1245
1200	1245	1199	1203	1267	1220	1241	1180
1199	1250	1223	1185	1248	1191	1226	1170
1181	1229	1221	1193	1270	1201	1224	1182
1188	1224	1224	1190	1256	1213	1219	1203
1154	-	1209	1175	1271	1217	1243	1196
		1232	-	1261	1216	-	1210
Mean -46		+25		+45 +47			+51

	Clear	Dk.
31	1260	050
32	-	-
33	1274	050
34	1265	050
35	1230	050
36	1221	051
37	1232	050
38	1253	050
39	1247	051
40	1261	051

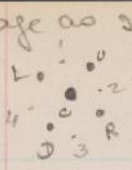
It appears that the plate holder is not holding the plate at the same distance from the focussing eyepiece in all parts of the field. The top right corner is most out of focus.



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Image as seen with inverted plate



Star	C	U	D	L	R	1	2	3
1A	026	038	040	047	046	142	144	148
	-027	-015	-013	-006	-007	89	91	95
1	071	205	196	267	279	879	902	894
	011	145	136	207	213	819	842	834
2	101	534	481	682	623	-	-	-
	041	474	421	622	573			
3	227	850	802	937	-	-	-	-
	167	790	742	877	-			
4	259	935	899	999	1017	-	-	-
	199	875	839	939	957	-	-	
5	494	1064	1081	1244	-	-	-	-
	434	1004	1021	1184	-	-	-	-
6	876	-	-	-	-	-	-	-
	816	-	-	-	-	-	-	-
7	964	-	-	-	-	-	-	-
	904							
8	1138	-	-	-	-	-	-	-
	1078							
9	Not seen	-	-	-	-			

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1928phae.proj.12602C

4	Clear	Dk	Volts
	1192		500
152	~~128~~	053	~~490~~
99	1139		
900	1292	060	~~500~~
840	1232		
-	1281	060	500
	1221		
-	1269	060	500
	1209		
-	1289	060	500
	1229		
-	1286	060	500
	1226		
-	1251	060	500
-	1191		
-	1257	060	500
	1197		
-	1250	060	500
	1190		

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1928phae.proj.1152C

Same Repeated A. Plate upside down
For reason mentioned on p. 15 the plate holder was readjusted

	Clear	Dark	20	Dk	30	Dk	40	Dk.
1	900	009	—	—	—	—	939	018
2	900	009	832	012	—	—	—	—
3	861	010	854	012	904	015	936	018
4	832	010	850	013	931	016	929	019
5	802	010	848	013	914	016	931	019
6	813	010	850	013	920	017	897	019
7	801	010	850	013	928	017	897	019
8	802	010	856	013	924	017	909	020
9	—	—	875	013	916	017	919	019
10	—	—	—	—	938	018	918	020

B. Plate right way up.

1.	—	—	811	022	—	—	979	025
2.	940	023	840	022	903	023	—	—
3.	902	023	866	023	921	023	957	026
4.	859	022	860	023	938	024	954	026
5.	806	022	870	023	913	024	947	026
6.	820	020	874	022	925	024	906	026
7.	820	020	874	022	946	024	922	026
8.	825	020	868	021	947	024	920	026
9.	779	021	880	022	959	024	931	026
10.	—	—	—	—	951	025	919	026

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1928phae.proj.1262C

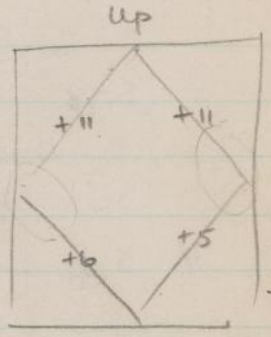
by Professor Rice and the plate repeated.

Subtracted readings

	A	B	Diff		A	B	Diff
1	891	–	–	31	921	954	+33
2	891	917	+26	32	–	–	–
3	851	879	+28	33	918	931	+13
4	822	837	+15	34	910	928	+18
5	792	784	-8	35	912	921	+9
6	803	800	-3	36	878	880	+2
7	791	800	+9	37	878	896	+18
8	792	805	+13	38	889	894	+5
9	–	758	–	39	900	905	+5
10	–	–	–	40	898	893	-5
11	–	789	–				
12	820	818	-2				
13	842	843	+1				
14	837	837	0				
15	835	847	+12				
16	837	852	+15				
17	837	852	+15				
18	843	847	+4				
19	862	858	-4				
20	–	–	–				
21	–	–	–				
22	–	880	–				
23	889	898	+9				
24	915	914	-1				
25	898	889	-9				
26	903	901	-2				
27	911	922	+11				
28	907	923	+16				
29	899	925	+26				
30	920	916	-4				

Means of Diffs.

1 – 10	+11
10 – 20	+5
20 – 30	+6
30 – 40	+11



1) The plate is in better but not perfect adjustment.

2) There are real differences in the protected film.

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Same, order as on p. 16. No diaphragm. Measured over image. The cross wire is not central. Setting

Star	Pg/My	C.	Q	Q'	L	R	R	2	3
1	2.55	006	~~078~~ 022	241 022	030	024	146	163	148
		-018	-002	-002	+006	+000	122	139	124
		-018	-002		+003		123		
1.	4.40	070	177	176	268	240	802	809	818
		041	148	147	239	211	773	780	789
		041	148		225		~~784~~		
2.	5.24	100	(424)	497	556	558	~~427~~	—	—
		071		468	527	529	—	—	—
		071	468		528				
3.	5.78	231	720	755	—	831	—	—	—
		202	691	726	—	802	—	—	—
		202	713		802				
4	5.91	242	810	834	908	887	—		
		212	780	804	878	857	—	—	—
		212	~~797~~		~~868~~				
5	6.46	463	967	956	998	1010	—	—	
		433	937	926	968	980	—	—	—
		433	932		~~979~~ 971				
6	7.12	788	—						
		758	—	—	—	—	—	—	—
		758							
7	7.38	868	—						
		839	—	—	—	—	—	—	—
		839							
8	8.39	1019							
		990	—	—	—	—	—	—	—
		990							
9									

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was made for minimum deflection.

#	Clear	Dark Clear	Volts				C-1	C-2	C-3
132	1121	024							
108	1097	–	040	136	155	295	(96)	(115)	255
822	1149	029							
793	1120								
			214	307	339	471	(93)	(125)	2575
–	1127	029							
–	1098								
			264	403	415	–	139	151	–
–	1128	029							
–	1099								
			331	455	476	–	124	145	–
–	1142	030							
–	1112								
			336	473	495	–	137	159	–
–	1120	030							
–	1090								
			396	524	558	–	128	162	–
	1111	030							
–	1081								
–	1120	029							
–	1091								
–	1112	029							
–	1083								
							526	617	
						Mean	132	154	256

9861
1096

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Diaphragm 3; measures inside

Star	C	U	D	L	R	1	2	3
1 S	-006	000	-001	-001	007	024	034	025
	-028	-022	-021	-021	-015	+002	+012	+003
1.	-028	-022		-018			+005	
1.	-001	034	039	067	056	255	242	242
	-021	+012	+017	045	034	233	220	220
	-021	+014		+040		+226		
2.	016	108	139	150	154	304	292	296
	-006	086	117	128	132	282	270	274
	-006	102		130			278	
3.	034	211	223	(249)	257	~~349~~	~~022~~	—
	012	199	201	—	235	—	—	—
	012	195		235				
4.	055	257	268	289	277	—	—	—
	033	235	246	267	255	—	—	—
	033	240		261				
5.	119	—	—	—	—	—	—	—
	97	—	—	—	—	—	—	—
6.	229	—	—	—	—	—	—	—
	267	—	—	—	—	—	—	—
7.	267	~~[illegible]~~	—	—	—	—	—	—
	245	—	—	—	—	—	—	—
8.	309	—	—	—	—	—	—	—
	287	—	—	—	—	—	—	—

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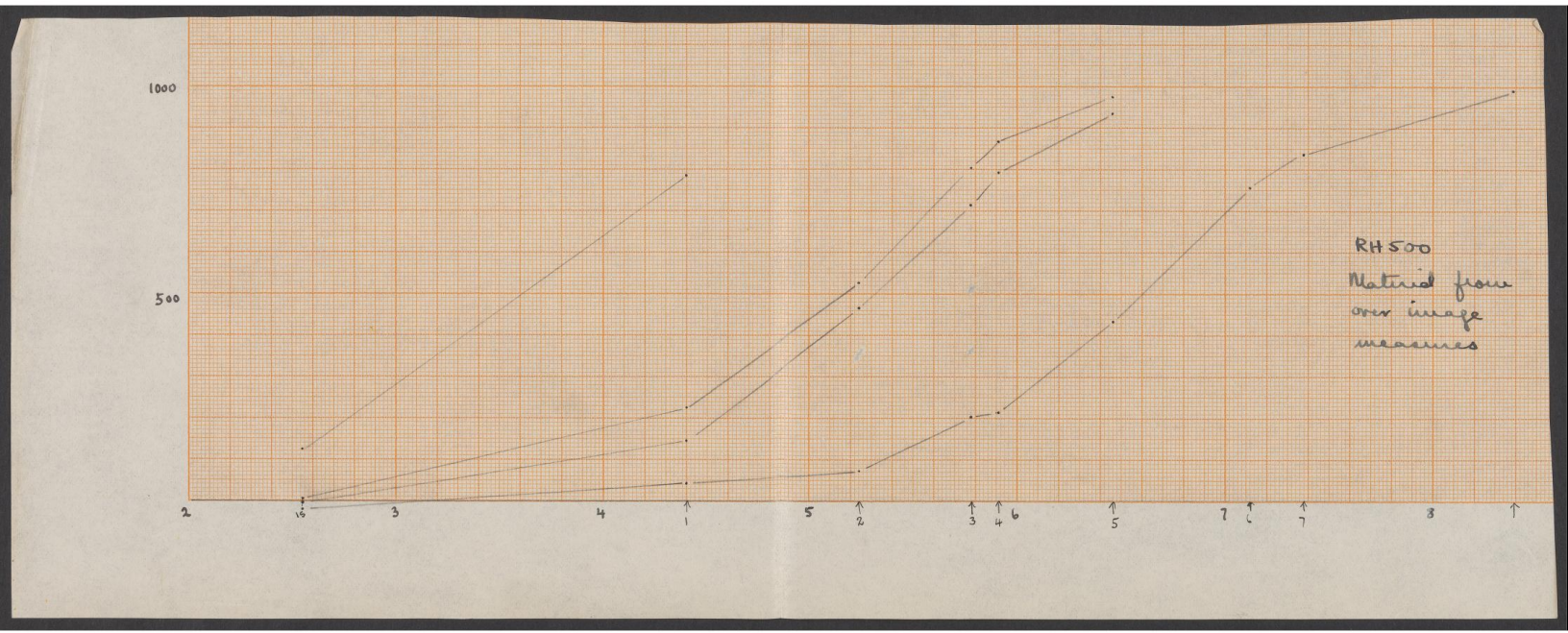
1928phae.proj.1262C

image

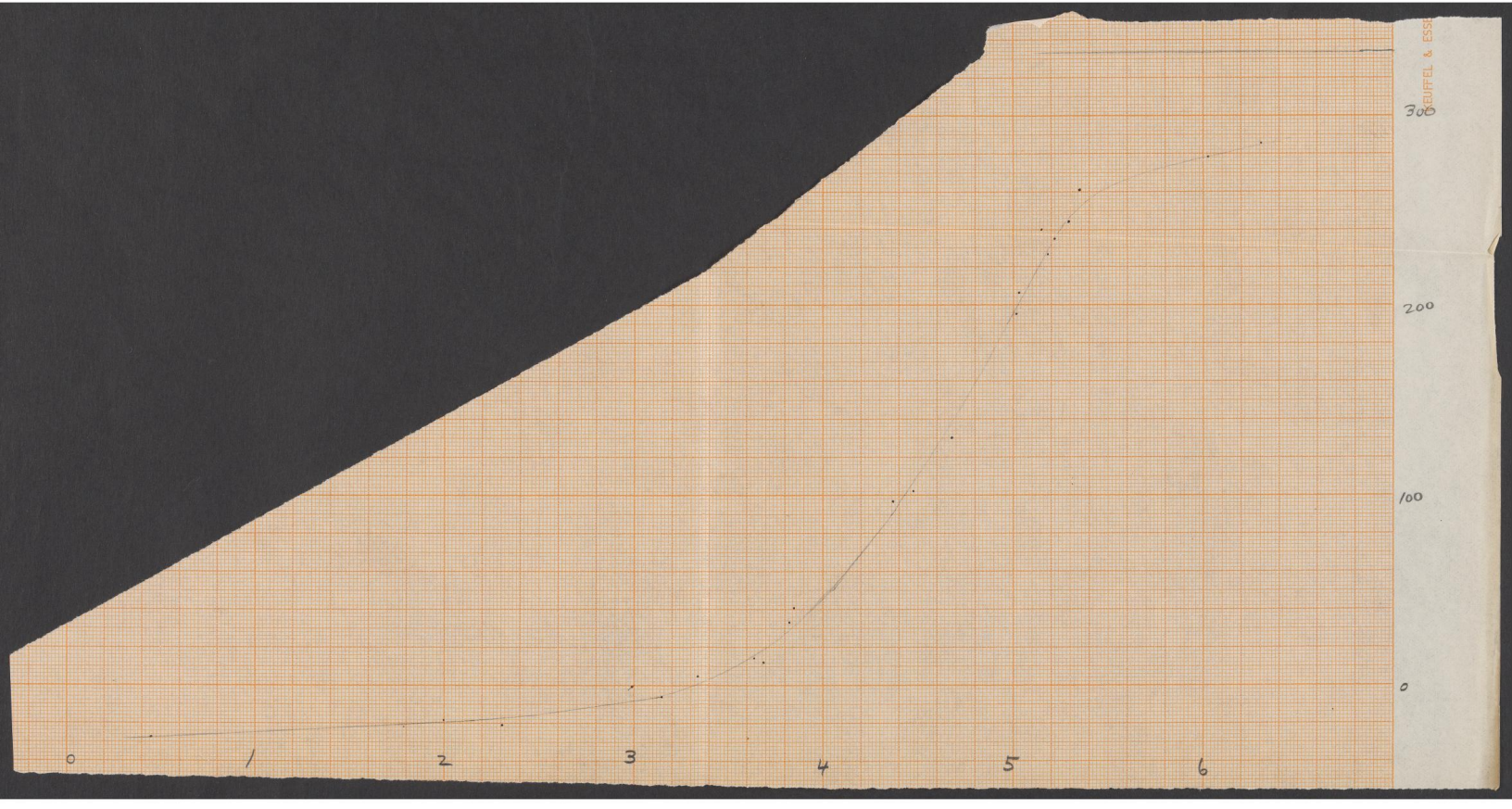
4	Clear	Dark	C	1	2	3	C-1	C-2	C-3
028	350	022							
+003	328								
			042	160	220	345	118	178	303
252	356	022							
230	334								
			170	360	394	517	190	224	347
309	348	022							
287	326								
			314	444 ~~314~~	462 ~~444~~	592 ~~462~~	130	148	278
—	349	022							
—	327								
			357	497	521	-	140	164	-
—	358	022							
—	336								
			387	525	548	-	138	161	
—	359	022					408	473	
						Mean	136	158	278
—	337								
—	370	022				1st Mean	132	154	256
—	348					Mean	134	156	267
—	362	022							
—	340								
—	350	022							
—	328								
	3004								
	334								

The grating constants as measured by 2 methods are thus very closely accordant.

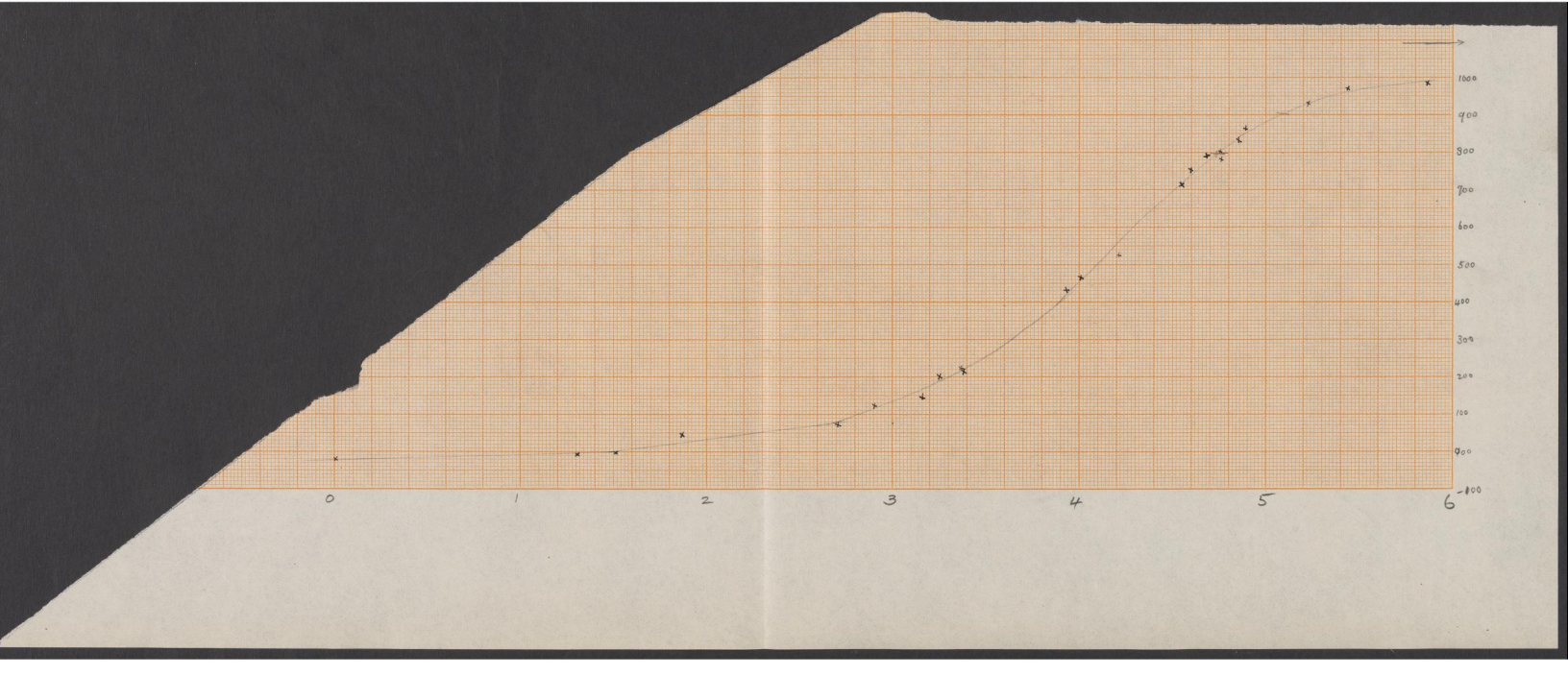
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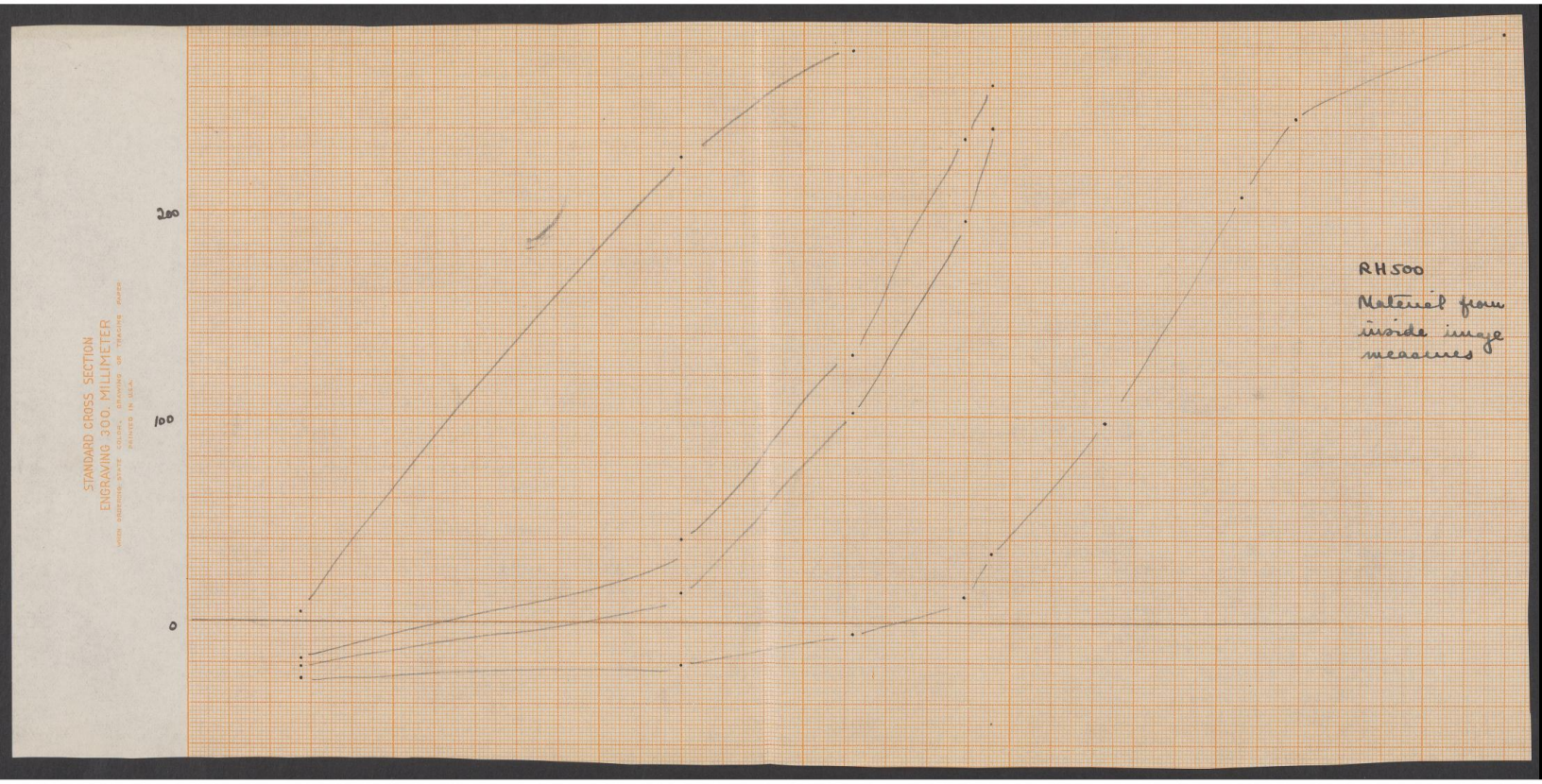
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Measures of RH 623

Star	Exposure a			Exposure b			Exposure c			
	Defl	Cl	Dk	Defl	Cl	Dk	Defl	Cl	Dk	D
2s	198	938	182	186	944	181	187	919	182	18
1	229	962	184	200	949	180	205	938	195	2
2							214	959	182	
3										
4										
5										
6										
7										
9										
10	784	839	182	754	951	187	809	940	187	8
120							386	931	212	
183				276	934	185				
226				216	~~980~~ 944	~~0144~~ 188				
274										

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Exposure d			Exposure e			Exposure f			Exposure g		
Dfr	Cl	Dk	Dfl	Cl.	Dk	Dfl	Cl	Dk	Dfr	Cl	Dk
188	926	184	187	928	187	190	938	189	190	917	183
200	745										
									218	951	180
880	960	187	791	934	188	775	969	187	803	940	182
									441	930	180
									292	940	184

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	Exposure a			Exposure b			Exposure c			
	Dcfl	Cl	Dk	Dcfl	Cl	Dk	Dcfl	Cl	Dk	D
279										
294										
303				388	920	180				
376										
388	272	929	182	280	931	179				
423	217	918	178							
425										
435	272	941	180							
452	330	932	180							
496										
499	249	922	181							
518										
531	369	950	181							
540										
583										
606										

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Exposure d			Exposure e			Exposure f			Exposure g		
Defl	Cl	Dk	Defl	Cl	Dk	Defl	Cl	Dk	Defl	Cl	Dk
						389	937	178			
						580	951	189			

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Measures of RH

Star	Exposure a			Exposure b			Exposure c		
	Defl	Cl	Dk	Defl	Cl	Dk	Defl	Cl	Dk
2 s									
1									
2									
3									
4									
5									
6									
7									
9									
10									
120									
183									
226									
274									

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Exposure d			Exposure e			Exposure f			Exposure g		
Defl	Cl	Dk	Defl	Cl	Dk	Defl	Cl	Dk	Defl	Cl	Dk

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	Exposure a			Exposure b			Exposure c		
	Defl	Cl	Dk	Defl	Cl	Dk	Defl	Cl	Dk
279									
294									
303									
376									
388									
423									
425									
435									
452									
496									
499									
518									
531									
540									
583									
606									

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1928phae.proj.126.pc

Exposure d			Exposure e			Exposure		f	Exposure g		
Defl	Cl	Dk	Defl	Cl	Dk	Defl	Cl	Dk	Defl	Cl	Dk

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1928phae.proj.126..C

RH 624 Pole single images NO. rep

Star	y	x	Defl	Cl	Dk	Mean Dk
66	9.67	11.5	227	1302	190	
1280	980	864	626	1334	195	
—	1012	631	1030	1332	198	
1265	1010	811	692	1334	195	
	999	1117	935	1321	195	
64	994	1129	338	1299	193	19.53
69	995	1160	282	1298	195	Corr=0
—	1031	446	979	1328	196	
	1031	547	857	1329	198	
	1033	586	564	1337	198	
	1018	598	876	1331	197	
	1019	620	647	1339	198	
—	1011	631	1022	1341	199	
..	1039	658	480	1332	196	
	1034	658	389	1342	197	
—						
1253	1017	760	990	1336	199	
50	1032	1081	331	1306	196	
	1021	1176	562	1319	196	
—	1031	416	957	1324	196	
—	1049	444	1105	1318	194	19.68
	1040	453	823	1321	196	0
	1049	568	518	1327	199	
[10.4]	1034	586	508	1331	194	
—	1040	1179	923	1318	194	
[10.6]	1063	341	610	1299	193	
	1059	639	300	1311	194	
	1070	679	859	1320	196	
	1058	751	672	1331	196	
—	1057	876	962	1322	196	19.57
—	1069	940	1058	1308	199	0

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227	1302
626	1334
1030	1332
692	1334
935	1321
338	1299
282	1298
979	1328
857	1329
564	1337
876	1331
647	1339
1022	1341
480	1332
389	1342
990	1336
331	1306
562	1319
957	1324
1105	1318
823	1321
518	1327
508	1331
923	1318
610	1299
300	1311
859	1320
672	1331
962	1322
1058	1308

This plate was the preliminary trial for routine measures.

Measured by CHP at one sitting, MD recording. 4 hours.

Lessons learned

(1) steady voltage essential. No corrections can be applied from knowledge of voltage change only.

(2) Measure NPS twice both times to plate limit

(3) Measure no stars fainter than faintest NPS star measured.

(4) Probably mark NPS on plate, but other stars can be easily identified on mm paper.

(5) Mean zero corr. better than individual zero correction.

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Star		y	x	Diff.	cl	Dk		
—	v	1069	1026	976	1301	199		9
—	v	1073	1282	902	1309	200		9
[10.8]	v	1085	322	937	1299	199		9
—	v	1088	779	1091	1320	200		10
	v	1079	795	469	1330	198		4
1260		1088	809	564	1317	198		5
—	v	1081	849	1039	1314	197		10
19		1090	962	610	1310	196		6
—	v	1079	1022	1033	1296	197	0	10
	v	1078	1078	823	1279	197	19.67	8
—	v	1086	1117	1010	1298	197		10
72m74		1086	1141	283	1296	192		2
72?		1081	1142	414	1290	194		4
—	v	1090	1247	944	1300	199		9
—	v	1074	1282	900	1302	200		9
[11.0]	v	1099	362	674	1326	198		6
	v	1098	512	455	1318	197		4
1210	v	1109	631	650	1310	194	0	6
—	v	1109	640	1072	1310	197	196	10
	v	1102	688	931	1313	197	19.55	9
—	v	1106	711	997	1310	196		99
	v	1101	774	826	1309	196		82
—	v	1112	912	1020	1301	198		10
—		1092	921	1051	1299	199		10
		1089	962	618	1284	198		6
[11.2]		1120	389	521	1319	199		5
		1110	631	648	1317	198		6
—		1108	642	1111	1317	198	2	11
		1129	830	783	1310	201	198	7
—		1122	1027	998	1289	200	19.83	9

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976	1301
902	1309
937	1299
1091	1320
469	1330
564	1317
1039	1314
610	1310
1033	1296
823	1279
1010	1298
283	1296
414	1290
944	1300
900	1302
674	1326
465	1318
650	1310
10½	1310
931	1313
995	1308
824	1307
1018	1299
1049	1297
616	1282
519	1317
646	1315
1109	1315
781	1308
996	1287

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star	y	x	Defl	cl	Dk	
	1129	1247	364	1303	201	
[11.7]	1138	582	382	1319	200	
	1147	639	950	1317	206	
	1146	698	709	1311	202	
	1140	700	851	1299	202	
	1140	729	757	1296	200	
	1135	1002	936	1290	200	
	1142	1108	720	1286	201	
	1140	1264	660	1289	200 5	
	1141	1314	519	1297	198 {20.10	
[11.6]	1170	384	710	1300	201	
	1162	388	817	1306	202	
	1169	649	670	1301	202	
	1056	1019	666*	1278	202	
	1157	1059	316	1276	200	
	1068	1067	547	1282	202	
	1160	1195	355	1288	201	
	1171	1230	446	1290	202	
—	1161	1287	920	1298	202 b	
[11.8]	1179	611	740	1290	204 {20.18	
—	1079	616	1011	1290	202	
	1176	631	746	1317	202	
	1170	648	777	1306	202	
	1188	729	780	1317	200	
	1191	1058	901	1280	202	
	1179	1059	858	1272	202	
	1178	1230	451	1302	200	
	1176	1354	533	1301	200	
	1181	1381	769	1312	201 b	
[12.0]	1209	279	494	1288	202	

20.13

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359	1298
377	1314
945	1312
704	1306
846	1294
752	1291
931	1285
715	1281
655	1284
514	1592
704	1294
811	1300
664	1295
660	1272
310	1270
541	1276
349	1282
440	1284
914	1292
734	1284
1005	1284
740	1311
771	1300
774	1311
895	1274
852	1266
445	1296
527	1295
763	1306
488	1282

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star	y	x	Dyf	cl	Dk	
	1205	309	316	1273	200	
	1207	552	391	1295	202	
	1198	712	550	1299	202	
	1220	816	750	1298	202	
	1219	823	860	1300	206	
	1200	978	322	1279	206	
—	1208	1209	1026	1287	208	
	1212	1282	421	1280	200	
	1198	1289	319	1288	200	7
[12.12]	1223	260	837	1279	202	{20.28
	1220	578	779	1296	202	
	1229	631	809	1297	200	
	1217	709	700	1297	200	
—	1228	804	968	1278	202	
	1220	817	761	1289	206	
	1219	824	856	1287	205	
	1233	867	382	1284	204	
—	1227	1024	972	1273	208	
	1228	1218	777	1297	207	8
	1212	1283	400	1284	202	2036
[12.14]	1253	292	397	1279	202	
	1239	327	824	1284	204	
	1237	828	769	1286	203	
	1255	850	288	1272	200	
	1233	867	374	1269	202	
[12.16]	1254	292	401	1287	203	
—	1268	687	954	1272	205	
	1260	794	692	1281	208	
	1254	850	298	1278	204	8
	1270	902	891	1272	207	2038

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309	1266
384	1288
543	1292
743	1291
853	1293
315	1272
1019	1280
414	1273
312	1281
830	1272
771	1288
801	1289
692	1289
960	1270
753	1281
848	1279
374	1276
964	1265
769	1289
392	1276
389	1271
816	1276
761	1278
280	1264
366	1259
393	1279
946	1264
684	1273
290	1270
883	1264

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RH6 24

Star	y	x	Defl	Cl	Dk
	1266	1022	635	1269	203
—	1270	1127	950	1281	202
	1258	1169	832	1274	206
[12.8]	1284	290	679	1267	206
	1281	321	260	1277	204
	1288	389	801	1284	208
	1290	538	497	1282	206
	1283	663	254	1291	207
	1289	1389.	479	1290	205 9
	1286	1440	898	1297	208 (20.15)
[13.0]	1307	209	297	1276	204
	1301	291	360	1269	203
	1311	363	809	1290	204
	1300	657	408	1280	202
	1300	950	564	1274	203
—	1307	1046	989	1259	203
[18.0]	1081	474	1082	1274	209
1046	1801	697	931	1248	204
1147	1803	795	1006	1237	200 10
59 ✓	1790	793	450	1230	201 (20.33)
63 ✓	1797	907	1031	1243	203
132 ✓	1801	961	914	1250	206
..	1800	987	1021	1248	206
176 ✓	1808	1002	1127	1252	208?
..	1802	1212	1039	1256	209 (20.07 1760)
276 ✓	1797	1303	1042	1273	209
[18.2] 940 ✓	1822	244	327	1254	208
944 ✓	1828	339	603	1269	205
..	1823	380	844	1272	206
..	1820	471	917	1274	209 11

20.69

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1928phae.proj.1260C

		Corr for diffl.	m
626	1260		
941	1272		
823	1265		
670	1258		
251	1268		
792	1275		
488	1273		
245	1282		
470	1281		
889	1288		
287	1266		
350	1259		
799	1280		
398	1270		
554	1264		
979	1249		
1072	1264	1040	..
921	1238	913	9.23
996	1227	995	..
440 439	1230	442 ~~+219~~	6.46
1020	1232	1014	..
903	1239	895	9.10
1010	1237	1001	
1116	1241	1101	
1028	1245	1011	
1031	1262	1001	
316	1243	311	5.84
592	1258	587	7.18
833	1261	809	8.56
906	1263	879	8.99

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1928phae.proj.1262C

42 RH624

Star		y	x	sefe	cl	Dk	
..		1821	578	1001	1261	208	
..		1828	688	1139	1240	207	
1178 ✓		1824	827	1093	1241	208	
1211		1829	840	1150	1242	207	
1 ..		1830	922	890	1243	209	
84 ✓	10	1829	910	212	1237	208	
..		1830	1152	934	1258	209	
..		1811	1189	1049	1253	211	
274 ✓		1824	1205	687	1262	204	11
279 ✓		1830	1239	527	1250	203	(20.64)
..		1831	1260	918	1249	202	
293 ×		1832	1298	1020	1259	206	
297 ✓		1820	1431	579	1272	204	
[18.4]	923	1837	000	772	1210	204	
	923 ✓	1839	008	792	1208	206	
	928 ✓	1839	218	781	1248	207	
	..	1851	302	821	1264	204	
	..	1852	347	778	1254	202	
	975 ✓	1848	624	727	1259	207	11
—	2057	1840	700	1037	1257	207	(20.49)
..		1849	828	902	1234	208	
13 ✓		1830	878	887	1227	209	
128 ✓	6	1833	937	769	1229	209	
148 ✓	9	1834	956	918	1234	208	
238 ✓		1848	1030	868	1232	209	
279 ✓ dupl		1831	1239	528	1248	206	
..		1831	1260	939	1249	208	
294 ✓ ~~dupl~~		1850	1267	494	1247	207	
[18.6]	918 ✓	1872	084	526	1236	209	
	..	1859	094	800	1236	209	12
							(20.82)

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1929phae.proj.1262C

		1226 Reduced	m
990	1250	970	..
1128	1229	1126	..
1082	1230	1079	..
1139	1231		..
879	1232	874	8.95
201	1226	~~1226~~ 201	2.55
923	1247		..
1038	1242		..
676	1251	661	7.59
516	1239	511	6.80
907	1238	898	9.11
1009	1248	-	-
568	1261	552	7.01
761	1199	779	8.38
781	1197	800	8.50
770	1237	763	8.28
810	1253	791	8.46
767	1243	755	8.24
716	1248	703	7.89
1026	1246	-	-
890	1222	891	9.07
875	1215	882	9.01
757	1217	~~1217~~ 763	8.28
906	1222	~~1222~~ 908	9.19
856	1220	860	8.88
516	1236	511	6.80
927	1237	918	..
482	1235	477	6.61
514	1224	515	6.81
788	1224	789	8.42

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1928phae.proj.12602C

Star	y	x	Defl	cl	Dk	
..	1864	171	952	1257	210	
974	1860	220	448	1263	209	
921	1871	289	749	1261	210	
..	1852	302	809	1249	209	
..	1850	324	896	1258	208	
..	1952	347	682	1258	209	
948	1866	564	648	1262	210	
977	1861	670	782	1254	210	
1011	1870	756	946	1233	211	13
[18.8] ..	1880	353	788	1260	212	20.8
926	1876	379	516	1256	210	
..	1893	554	796	1260	210	
1000 —	1879	761	935	1229	211	
..	1879	778	878	1229	212	
..	1890	1304	833	1250	213	
..	1880	1312	678	1249	211	
[19.0] 911	1907	310	630	1250	213	
..	1967	749	957	1226	214	
979	1900	783	656	1229	210	15
[19.2] ..	1920	268	947	1259	210	21.4
..	1914	385	674	1252	209	
907	1918	474	562	1257	207	
903 1	1922	560	240	1242	207	
910 4	1920	595	337	1241	204	
..	1926	634	760	1226	206	
[19.4]	1935	710	751	1217	209	
2035						
894 —	1948	750	1012	1223	210	
2034	1936	753	897	1210	209	
338	1947	1168	680	1239	209	
[19.6]	1960	394	849	1266	212	15
..						
						20.82

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1928phae.proj.1262C

		Reduced	m
939	1244	923	
435	1250	426	
736	1248	724	
796	1236	791	
883	1245	868	
669	1245	659	
635	1249		
769	1241		
933	1220		
775	1247		
501	1241		
781	1245	769	
920	1214		
863	1214		
818	1235		
663	1234		
615	1235		
942	1211		
641	1214		
932	1244	909	
659	1237		
547	1242		
225	1227	1227	225
322	1226	1226	322
735	1211		
736	1202		
997	1208		
882	1195		
665	1224		
834	1251		

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1928phae.proj.126...C

Star	y	x	Dep[illegible]	Cl	Dk	
[19.8] 392	1994	388	643	1260	210	
428 = 6	1980	955	589	1209	210	
376	1994	1119	531	1227	209	
[20.0] 895	2000	269	587	1260	209	
..	2011	270	882	1249	210	
..	1999	303	692	1258	210	
392 dupl	1994	389	649	1264	210	
..	2001	531	922	1236	210	
— 654	2001	858	1007	1200	210	16
376 dupl	1995	1119	503	1237	211	(20.99)
..	2010	1343	759	1267	211	
[20.2] 880	2023	411	583	1235	207	
— ..	2030	689	979	1202	209	
..	2031	1167	794	1241	210	
..	2031	1171	883	1234	209	
..	2020	1237	818	1247	210	
[20.4] ..	2046	504	846	1232	211	
—	2032	763	1047	1200	210	
[20.6]	2066	842	993	1217	210	17
—	2069	933	940	1204	212	(20.99)
[20.8]	2081	100	994	1253	216	
778	2080	681	759	1214	214	
765	2079	709	698	1208	214	
722	2091	759	868	1214	215	
673	2091	822	864	1216	214	
627	2091	861	499	1201	214	
572 7	2095	911	600	1200	212	
—	2086	1071	933	1221	214	
[21.6]	2096	349	1214	1248	217	
840	2111	428	750	1243	213	18
						(21.43)

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1928phae..proj..126C

627 1244
573 1193 1193 588
515 1211
571 1244
866 1233
676 1242
633 1248
903 1220
991 1194
497 1221
742 1260
566 1218
962 1185
777 1224
866 1217
801 1230
829 1215
1030 1183
976 1200
923 1187
976 1235
741 1196
680 1190
850 1196
846 1198
481 1183
582 1182 1182 602
915 1203
1196 1230
732 1225

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1928phae.proj.12602C

Star	y	x	Δ refl	Cl	Δ Cl	
722 dupl	2091	759	871	1209	212	
—	2100	772	940	1200	213	
684	2098	802	865	1214	216	
673	2091	822	858	1200	214	
864	2122	179	263	1240	214	
[21.2] 844	2132	350	452	1239	214	
805	2136	520	464	1220	216	
[21.4] ..	2140	362	880	1240	211	
..	2149	524	896	1220	210	18
[21.6] 807	2164	461	715	1230	211	(21.31)
..	2162	861	908	1205	212	
..	2158	874	672	1210	212	
518	2159	1020	859	1214	214	
420	2156	1307	607	1251	210	
[17.8] ..	1781	261	826	1221	209	
..	1779	524	839	1218	211	
—	1776	526	959	1220	210	
—	1778	860	1064	1200	214	
—	1773	1130	924	1211	212	17
[17.6] 960	1769	320	364	1230	210	(21.24)
83	1764	930	887	1197	210	
105	1771	955	714	1202	211	
..	1762	1249	830	1202	212	
264	1759	1323	639	1223	211	
[17.4] ..	1734	844	1168	1198	211	
..	1730	854	891	1202	212	
—	1740	1050	971	1206	212	
—	1732	1055	998	1198	211	
..	1736	1431	421	1027	211	
[17.2] 961	1726	182	348	1209	209	17
						(21.20)

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1928phae..proj..1262C

853	1191
922	1182
847	1196
840	1182
245	1222
434	1221
446	1202
862	1222
878	1202
697	1212
891	1188
655	1193
842	1197
590	1234
809	1204
822	1201
942	1203
1047	1183
907	1194
347	1213
870	1180
697	1185
813	1185
622	1206
1151	1181
874	1185
954	1189
981	1181
404	1010
331	1192

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1928phae.proj.1262C

50 RH624 2866/143 measures made in 4 hours

Star		y	x	Dep[illegible]	cl	Obs	
963 ✓		1712	214	518	1211	210	5
..		1722	524	813	1218	208	7
—		1726	542	1005	1214	210	9
1100 ✓		1731	700	797	1203	210	7
..		1721	749	749	1207	211	7
1171 ✓		1729	780	504	1189	211	4
..		1730	856	869	1206	214	8
205 ✓		1736	1141	400	1189	211	3
240 ✓		1729	1250	487	1197	210 16	4
[17.0] 963 ✓		1712	214	530	1210	212 (21.07)	5
986 ✓		1694	298	323	1206	213	13
..		1700	372	819	1217	212	8
1109		1694	671	459	1210	210	4
225		1701	1388	720	1218	208	7
✓	(1)	2464	751	240	1169	209 (14.5 4.5)	2
✓	(2)	1551	965	300	1190	210	2
						6)1262	
						210 1/3 15	

This plate is to be continued from 14.5 to 17.0 and 21.6 to 24.8

1S			234	1427	218 (5.10)	2
1			241	1417	230	2
2			267	1436	232	2
3			288	1426	229	2
4			306	1429	224 32	2
5			411	1402	229 27.6	3
6			550	1408	227	5
7			611	1412	229	5
8			771	1399	229	7
9			993	1403	229	9

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1928phae.proj.12C2C

		Corr for defl	Corr for volts m
502	1195	514	6.81
797	1202	812	
989	1198	1006	
781	1187	806	8.54
733	1191	753	
488	1173	509	6.78
853	1190	878	
384	1173	401	6.31
471	1181	489	6.69
514	1194	527	6.87
308	1191	316	5.87
804	1202	814	
444	1195	433	6.42
705	1203	717	
225	1154	239	
285	1175	297	

Pages 32 to 40 not reduced at present as they are

(1) outside the zone +5°

(2) in a region of discrepant total deflection.

		Calc. defl.	Obs. defl.		
202	1395	~~178~~	201		
209	1385	~~28~~	225		
235	1404	286	—		
256	1394	306	—		
274	1397	3254	322	+3	+2
379	1370	4287	440	−12	−13
518	1376	5645	588	−22	−23
579	1380	6234	602	+21	+20
739	1367	~~789~~ 908	763	+17	+18
961	1371	~~989~~	908	+11	0
	1393				

Check measures.

These show

(i) form of reduction curve O.K.

(ii) Simple transformation from one days' measures to another not possible; the burned out ones turn the linear relation up.

(iii) Omitting burned images the relation between 1st readings (y) and 2nd readings (x) is

$$y = mx + c$$

where $m = 0.978$, $c = 56$

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1928phae.proj.12652C

52 RH661, No up Diaphragm a,

Pole

Star	2u	1u	C	1d	2d	Cl	Dk	Volts	Mean 1	Mean 2	Cl-
NPS 1	567	383	261	323	567	860	247	510	328	567	61
2	726	411	279	402	*	880	242	510	410	(726)	63
3	781	486	304	472	800	900	246	510	479	790	65
4	784	502	309	519	785	891	242	510	510	784	61
5	—	594	342	592	—	858	242	510	593	—	6
6	—	684	399	682	—	839	241	510	683	—	5
7	—	702	426	702	840	241	5	510	702	—	5
8	—	—	567	—	—	850	242	570	—	—	6
9	—	—	657	—	—	840	241	510	—	—	5
10	—	—	671	—	—	840	240	510	—	—	6
1r	—	595	267	600	—	840	241	510	598	—	5
2r	—	764	484	742	—	858	240	510	753	—	6
3r	—	—	627	—	—	840	242	510	—	—	5
4r	—	—	692	—	—	850	240	570	—	—	6
5r	—	—	768	—	—	845	242	570	—	—	6
6r	—	—	792	—	—	838	245	570	—	—	5
1s	348	260	244	260	347	839	240	570	260	348	5
2s	—	584	342	600	—	844	241	570	592	—	6

Residuals from NPS

	all	[400
1	-4	-4
2	+4	0
3	+1	-2
4	0	+7
5	+2	+2
6	+11	+5
7	+5	+3
8	+3	-
9	0	-
10	-4	-
	+18	+11
	+2	+2

Red stars

Star	Means all	Means [400	Reduced all	Reduced [400	Resid from NPS all	Resid from NPS [400
1r	677	677	675	675	+6	+6
2r	782	783	780	781	-13	-11
3r	876	-	874	-	-22	-
4r	919	-	917	-	-1	-
5r	1000	-	998	-	-18	-
1s	266	272	264	270	+9	+15
2s	658	658	656	656	+9	+9

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1928phae.proj.1262C

Reduced to 600 in pencil

Cl-DR	c	1	2	c	1	2	1-c	2-c	$\bar{1}$	$\bar{2}$	Mean all	Mean [400
613	14 14	81 79	320 313	436	626	830	190	394	437	436	436	436
638	37 35	168 158	484 455	520	717	929	197	(409)	528	(535)	528	524
654	58 53	233 214	554 509	576	764	980	188	(404)	575	(586)	579	576
649	67 62	268 248	542 502	594	790	973	194	(379)	601	(579)	591	598
616	100 97	351 342	-	650	836	-	186	-	647	-	648	648
598	158 158	442 444	-	717	918	-	(201)	-	(729)	-	723	717
599	185 185	461 462	-	741	934	-	(193)	-	(745)	-	743	741
608	325 321	-	-	835	-	-	-	-		-	835	
599	410 411	-	-	893	-	-	-	-		-	893	
600	431 431	-	-	907	-	-	-	-		-	907	
599	26 26	357 357	-	686	857	-	171	-	468	-	677	677
618	244 237	513 498	-	783	969		(186)	-	(780)	-	782	783
598	385 386	-	-	876	-					-	876	
610	452 445	-	-	919	-					-	919	
603	526 524	-	-	(1000)						-	1000	
593	547 552	-	-	(-)						-	-	
599	04 4	20 20	108 108	255	462	664	(207)	(409)	273	(270	266	272
603	101 100	351 349	-	654	852	-	198		663	-	658	658

	2111	1995
Mean All	192	399
Mean [400 omitting 1s	189	394

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1928phae.proj.1262C

54 RH 663, NO ups, Diaphram O

Pole

NPS

Star	2 w	1 w	c	1 e	2 e	cl	clk	Volts	Mean 1	Mean 2	Cl-S
1	511	312	258	314	502	718	242	510	313	510	47
2	609	380	269	374	584	728	240	510	377	596	48
3	652	444	288	442	648	724	242	510	443	650	48
4	631	449	296	452	624	704	237	510	450	628	46
5	—	521	319	510	—	704	240	570	516	-	46
6	—	596	376	599	—	709	240	570	598	-	46
7	—	616	408	612	—	722	240	570	614	-	48
8	—	—	515	—	—	718	241	510	-	-	47
9	—	—	590	—	—	724	241	570	-	-	48
10	—	—	612	—	—	725	242	570	-	-	48
1r	—	553	368	550	—	726	240	570	552	-	48
2r	—	634	444	642	—	719	242	570	638	-	47
3r	—	—	554	—	—	710	242	570	-	-	46
4r	—	—	596	—	—	716	242	570	-	-	47
5r	—	—	656	—	—	708	244	570	-	-	46
1s	326	256	240	254	331	720	238	570	255	328	48
2s	—	500	327	528	—	708	240	570	514	-	4

Residuals from NPS

	Residuals all	Residuals [300	Red stars Star	Means all	Means [300	Reduced means all	Reduced means [300	Residuals all	Residuals [300
1	+15	+15							
2	+10	+16	1r	702	716	685	699	+16	+30
3	+20	+16	2r	793	786	776	769	-17	-24
4	+20	+27	3r	886		869		-27	
5	+18	+18	4r	929		912		+06	
6	+27	+17	5r	1030		1013		-03	
7	+17	+16	1s	275	275	258	258	+03	+03
8	+16	+16	2s	666	666	649	649	+02	+02
9	+22	-							
10	+29								
	194	141 adopted							
	19	+17							

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1928phae.proj.1262C

Reduced to 480 From curve

Cl-Dk	C-Dk	1-Dk	2-Dk	C	1	2	1-c	2-c	$\bar{1}$	$\bar{2}$	Mean all	Mean [300
476	16 16 ~~266~~ 322 ~~+2729~~ 1367	761 73	268 ~~525~~ 276	457	643	846	186	389 ~~203~~ (378)	457	452	455	455
488	~~265~~ 29	135	356 350	540 ~~480~~	725	918	185 ~~245~~	~~438~~	539	(524)	534	540
482	46 46	201 200	408 406	593	782	1000	189	(407)	596	(606)	598	594
467	59 61	213 219	391 403	622	798	994	176	(372)	612	(600)	611	618
464	79 82	276 286	-	659	855	-	196	-	669	-	664	667
469	136 139	358 366	-	729	936	-	(207)	-	(750)	-	739	729
482	168 167	374 372		754	942	-	(188)	-	(756)	-	755	754
477	274 276			846							846	846
483	349 347			915							915	-
483	370 368			940							940	-
486	128 126	312 308		716	875	-	(159)	-	(689)	-	702	716
477	202 204	396 398		786	986	-	(200)		(800)	-	793	786
468	312 320			886							886	
474	354 359			929							929	
464	412 426	+7		(1030)							1030	
482	002 2	17 17	90 90	272	462	670	190	398	276	276	275	275
468	87 89	274 281	-	668	850	-	182	-	664	-	666	666
						Σ	2058	1944				
				Mean of all			187	389				
				Mean of all [300			186	394				

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1928phae.proj.12572C

FH 660, No up No diaphragm

Star	2w	1w	c	1d	2d	cl	Dk	Clr	Mean 1	Mean 2
1	726	378	299	368	699	1049	238	299	373	714
2	884	517	330	588	(962)	1066	234	330	517	884
3	911	566	364	567	866	1036	230	364	566	888
4	862	581	349	564	860	1000	232	349	572	861
5	906	672	461	754	949	1044	232	461	663?	928
6	—	802	511	787	—	976	234	511	795	—
7	—	813	527	819	—	960	232	527	816	—
8	—	—	709	—	—	950	232	709	—	—
9	—	—	774	—	—	975	233	774	—	—
10	—	—	827	—	—	982	232	827	—	—
1r	939	695	440	691	884	942	235	440	692	912
2r	—	858	598	854	—	984	236	598	856	—
3r	—	—	725	—	—	952	234	725	—	—
4r	—	—	792	—	—	970	234	792	—	—
5r	—	—	931	—	—	1019	238	931	—	—
6r	—	—	954	—	—	998	236	954	—	—
1s	389	294	250	289	365	951	232	250	292	377
2s	—	680	425	674	—	960	232	425	677	—

Residuals from NPS

1	-12
2	+4
3	-4
4	+4
5	+10
6	+2
7	0
8	+20
9	+17
10	+2
Mean	+9

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1928phae.proj.12672C

To 750 in pencil

From red curve

	Cl - Dk	c - Dk	1 - Dk	2 - Dk	c	1	2	1 - c	2 - c	$\bar{1}$	$\bar{2}$	Mean all	Sel.
1	811	61 / 56	135 / 125	476 / 440	427	579	824	152	397	400	459	428	
2	826	96 / 87	283 / 257	650 / 590	523	698	(907)	175	(384)	549	542	528	
3	806	134 / 126	336 / 312	658 / 613	581	744	951	163	(370)	565	586	574	
4	788	117 / 114	340 / 332	639 / 624	565 (85)	758	976	193	(411)	579	611	595	
5	812	229 / 211	431 / 398	685 / 632	659	852	1000	193	(341)	673	635	656	
6	742	277 / 280	561 / 567	-	717	889	-	(172)	-	710		714	
7	728	295 / 303	584 / 599	-	737	917	-	(182)	-	738		738	
8	718	477 / 498	-	-	852							852	
9	742	541 / 546	-	-	876							876	
10	750	595 / 595	-	-	913							913	
	707	205 / 217	357 / 378	677 / 717	665	842	-	177	-	663		664	
	748	362 / 363	620 / 621	-	778	972	-	(194)		793		786	77
	718	491 / 512	-	-	859								
	736	558 / 568	-	-	889								
	781	693 / 668	-	-	-								
	762	718 / 706	-	-	-								
	719	218 / 19	60 / 63	145 / 151	255	454	598	199	333				
	728	193 / 199	445 / 458	-	648	832		184	-				
								1984	2236				
						all		180	356				
						Selected		179	365				

The total defl for this plate varies much & the values are thus not very reliable

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RH 662,

Star	2u	1u	c	1d	2d	cl	Dk	c	Mean 1	Mean 2
1	554	390	310	386	564	788	234	310	388	559
2	677	468	357	470	658	776	234	357	469	668
3	765	529	388	530	700	761	230	388	530	702
4*	—	530	389	521	—	769	232	389	526	—
5	—	586	(417)	—	—	768	230	(417)	586	—
6	—	658	510	647	—	750	232	510	652	—
7	—	662	523	660	—	748	232	523	661	—
8	—	—	610	—	—	750	234	610	—	—
9	—	—	660	—	—	751	234	660	—	—
10	—	—	654	—	—	748	234	654	—	—
1r	698	578	429	580	—	690	234	429	579	—
2r	692	526	682	—	—	747	234	682	526	—
3r	—	—	626	—	—	742	234	626	—	—
4r	—	—	660	—	—	746	232	660	—	—
5r	—	—	687	—	—	732	232	687	—	—
1s	397	306	270	302	388	725	232	270	304	392
2s	—	588	442	574	—	710	230	442	581	—

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Reduced to 520 — From curve

C-Bk	$\bar{1}$-Bk	$\bar{2}$-Bk	Cl-Bk	C	1	2	C-$\bar{1}$	C-2	$\bar{1}$	$\bar{2}$	Means all	Select
76	154	325										
111	146	305	554	430	572	742	142	312				
123	235	494										
118	226	416	542	530	666	858	136	328				
158	300	472										
155	294	462	531	583	736	903	153	323				
157	284	-										
152	275	-	537	580	717	-	137	-				
(187)	356	-										
181	344	-	538	(615)	786	-	(171)	-				
278	420	-										
279	422	-	518	721	864	-	143	-				
291	429	-										
293	432	-	516	735	873	-	138	-				
376	-	-										
378	-	-	516	820	-	-	-	-				
426	-	-										
428			517	869	-	-	-	-				
420	-	-										
425			514	866	-	-	-	-				
495	345	-										
222	394	-	456	662	836	-	174	-	684	-	673	
348	292	-										
352	296	-	513	737	894	-	157	-	742	-	740	
392	-	-										
402	-	-	508	844	-	-	-	-				
428	-	-										
433	-	-	514	875	-	-	-	-				
455	-	-										
473			500	914	-	-	-	-				
38	72	160										
37	70	155	(493)*	255	426	584	171	329				
212	351	-										
230	380	-	480	670	821	-	151	-	669			
						Mean all	1673	1292				
							2					
							152	323				

*assumed in halation; clear for No. 5 adopted

No. 5 is in halation, visible

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Summary of pole plates with grating

I grating constant (mm ± 0.01)

	all C-1	all C-2	wt	selected C-1	selected C-2
RH 661	192	399 ± 9	0.9	189	394
662	161	323 ± 14	0.6	—	—
663	187	389 ± 13	2.0	186	394
660	180	356 ± 14	0.7	179	365

Means all C-1	Means all C-2	selected C-1	selected C-2
184	376		

II. Red stars. Residuals from NPS

	1r	2r	3r	4r	5r	6r	1s	2s
RH 661 all	+6	-13	-22	-1	-18	—	+9	+9
sel	+6	-11	—	—	—	—	+15	+9
662	+4	-53	-52	-44	—	—		
	+4							
663	+16	-17	-27	+6	-3	—	+3	+2
	+30	-24	—	—	—	—	+3	+2
660	-5	-7	-37	-29	—	—	0	+1
		-15						
Means (weighted)	+15	-24	-31	-8	-8	—	+4	+3

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Data on these four plates

RH	Total defl.	Range in defl.	Range (%)	Wt*	Remarks
660	750	707-826	14.4	0.7	Reduction curve poor
661	600	593-654	10.7	0.9	
662	520	456-554	17.6	0.6	
663	480	464-488	4.9	2.0	

The uncertainty is caused by the plate fog being irregular.

Plate of Jupiter with grating, requisitioned to test the plate constants by the Hertzsprung method.

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62 November 8 1928

RH628, Diaphragm 1, Numbers up.

	Star	y	x	Dfl	cl	Dk	Dfl-Sk	Cl-dk
	NPS	18 10	729	236	1296	239	-3	1057
	1	2075	504	246	1296	237	9	1059
	2	1691	440	256	1256	234	19	1019
	3			276	1300	240	36	1060
	4			314	1288	236	78	1052
	5			331	1233	239	92	(994)
	6			448	1262	240	208	1020
	7			460	1237	240	220	997
	8			657	1242	240	417	1002
	9			817	1239	240	579	999
	10			889	1290	240	649	1050
12.0								
12.2	1	1219	642	926	1272	244	682	1028
12.4	2	1236	480	350	1381	246	104	1055
	3	1237	819	779	1304	250	529	1054
	4	1249	920	527	1298	249	278	1049
12.6	5	1271	552	618	1240	247	371	993
	6	1270	653	879	1247	245	634	1013
12.8	7	1290	594	812	1239	244	568	995
	8	1284	762	378	1240	248	130	992
13.0	9	1307	812	520	1282	248	272	1034
	10	1297	1065	899	1307	247	652	1060
13.2	11	1334	360	859	1274	247	612	1027
	12	1329	403	410	1267	247	163	1020
	13	1329	559	268	1268	244	024	1024
	14	1314	812	627	1260	246	381	1014
	15	1316	942	742	1254	243	499	1011
	16	1318	988	567	1269	246	221	1013
13.4	17	1342	353	774	1274	247	527	627
	18	1350	372	788	1268	250	538	1018

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Measured by CHP, MRD recording
by MRD, recording for herself

Red. to 1000

Diff-Dk	m	Residual hundredths mag.
-3	2.55	0
9	4.40	0
19	5.25	+1
34	5.65	-13
74	6.23	+32 – always discrepant; does it vary slightly?
93	6.42	-4
204	7.21	+9
221	7.36	-2
416	8.32	0
578	8.98	+5
619	9.12	+1

674
99
502
265
371
633
570
131
263
615
597
160
23
376
494
218
514
528

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	Star	y	x	Defl	cl	Dk	Defl-Dk	Cl-Dk
	19	1354	400	321	1246	246	75	1000
	20	1341	511	550	1254	247	303	1007
	21	1349	1009	459	1290	247	212	1043
13.6	22	1366	932	720	1274	250	470	1024
13.8	23	1398	260	433	1250	247	486	1003
	24	1380	1000	292	1317	247	45	1070
14.0	25	1397	260	732	1284	248	484	1036
	26	1485	604	340	1249	247	93	1002
	27	1400	866	790	1243	249	541	994
	28	1410	1050	900	1304	249	651	1055
	29	1411	1070	267	1268	250	17	1018
14.2	30	1429	555	444	1242	248	196	994
	31	1416	580	869	1240	246	623	994
	32	1428	708	830	1247	252	578	995
	33	1430	803	887	1261	256	631	1005
	34	1411	1070	280	1269	257	23	1012
	35	1421	157	680	1300	254	426	1046
	36	1420	1169	446	1290	249	197	1041
14.4	37	1453	587	778	1259	251	527	1008
	38	1440	641	881	1264	254	627	1010
	39	1441	708	607	1252	254	353	998
	40	1446	887	890	1283	257	633	1026
	41	1442	910	314	1299	256	58	1043
	42	1450	979	759	1233	258	501	975
	43	1451	1166	784	1292	259	528	1033
	44	1444	1120	921	1309	257	664	1052
14.6	45	1471	528	541	1272	259	282	1013
	46	1459	561	846	1240	259	587	981
	47	1465	569	806	1290	248	558	1042
	48	1454	587	794	1250	260	534	998

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75
301
2.64
459
485
42
468
93
543
617
17
197
626
580
628
23
417
189
524
622
354
617
56
508
511
631
279
596
536
540

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	Star	y	x	Dcc	cc	Dk	Dk-Dk	d-Dk
	49	1471	1046	696	1262	254	442	1008
	50	1456	1092	583	1264	258	325	1006
14.8	51	1479	259	310	1262	259	51	1003
	52	1494	260	462	1222	258	204	964
	53	1489	540	878	1221	261	617	960
	54	1484	614	619	1253	257	362	996
	55	1490	761	543	1281	253	290	1028
15.0	56	1490	260	459	1270	255	204	1015
	57	1509	301	679	1271	250	429	1021
	58	1495	379	492	1253	249	243	1004
	59	1493	421	980	1260	253	727	1051
	60	1510	481	700	1259	250	456	1009
	61	1515	530	628	1250	250	378	1000
	62	1504	620	730	1245	249	481	996
	63	1506	642	1040	1253	249	791	1004
	64	1488	761	489	1232	249	240	983
	65	1500	808	480	1253	248	232	1065
	66	15100	835	762	1257	251	511	1006
	67	15101	838	732	1262	249	483	1013
	68	15100	881	990	1215	250	740	965
	69	1490	940	906	1238	250	656	988
	70	1504	1065	742	1256	251	491	1005
	71	1498	1214	975	1235	251	724	984
	72	1495	1248	1026	1214	254	772	960
15.2	73	1528	200	992	1223	249	743	974
	74	1509	299	610	1175	250	360	925
	75	1535	353	303	1221	249	54	972
	76	1510	400	1025	1235	252	773	983
	77	1530	470	694	1222	252	442	976
	78	1516	471	1083	1238	250	833	988

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08	439
06	323
03	51
64	211
60	641
96	364
28	282
15	201
21	420
04	242
01	724
09	447
00	398
96	483
04	789
83	244
5	231
06	510
13	477
5	766
38	664
5	489
4	733
60	803
74	763
25	390
2	56
83	776
76	456
88	844

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Star	y	x	Defl	cl	Dk	Defl-Dk	Cl.-Dk
79	15 10	481	690	1238	251	439	987
80	1530	470	670	1192	250	420	942
81	1530	490	981	1180	250	731	930
82	1514	530	631	1231	250	380	981
83	1535	601	638	1159	250	388	909
84	1510	835	750	1178	252	498	926
	1510	838	775	1235	250	525	985
85	1530	941	825	1203	250	575	953
86	1525	1038	932	1225	251	681	974
87	1534	1066	458	1264	256	202	1008
88	1515	1132	1140	1262	251	889	1011
89	1525	1171	1005	1245	255	750	990
90	1515	1180	778	1220	258	520	962
91	1530	1190	359	1242	245	114	997
92	1550	241	840	1225	255	585	970
93	1535	352	326	1215	250	76	965
94	1529	470	689	1156	251	438	905
95	1544	495	705	1140	252	453	888
96	1535	601	630	1150	250	380	900
fly-speck?	1549	655	270	1130	258	12	872
97	1538	718	912	1155	251	661	904
fly-speck?	1549	990	689	1020	248	441	772
98	1535	1068	540	1180	250	290	930
99	1530	1190	350	1130	250	108	880
100	1555	1235	783	1219	250	533	969
101	1575	160	350	1165	249	101	906

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445
444
784
387
426
538
534
604
699
200
879
758
539
114
602
79
484
509
412
14
731
569
312
114
551
111

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out of focus RH 628, Diaphragm 1, 70 up

	Star	y	x	Defl	Cl	Dk
	1A	1810	740	540	1030	208
	1	2075	491	855	1040	229
	2	1691	428	865	1080	213
	3			875	1059	219
	4			970	1060	215
	5			988	1080	220
	6			1020	1030	221
	7			1037	1040	222
	8			1040	1045	220
	9			1069	1002	222
	10			1088	1023	230
15.6		1575	150	860	1085	220
		1555	230	995	1045	222
		1570	363	980	1095	220
		1564	525	1010	1090	225
		1569	600	995	1070	235
		1550	736	1085	1110	240
		1570	854	1075	1129	233
		1556	1000	1079	1130	230
		1563	1032	1086	1130	231
		1571	1090	1075	1148	236
		1552	1221	1065	1112	235
15.8		1580	389	1040	1112	236
		1570	430	1080	1090	240
		1600	493	1010	1091	240
		1575	960	1050	1085	246
		1579	993	1030	1130	245
		1579	1058	1080	1120	240
16.0		1605	200	960	1090	240
		1590	240	1055	1100	241

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out of focus

Star	y	x	Defl	Cl	Dk
	1609	260	1068	1113	240
	1610	302	970	1090	248
	1600	410	960	1110	243
	1603	451	1022	1080	240
	1601	495	1005	1090	240
10	1810	740	560	1010	240
1	2075	491	900	1069	239
2	1691	428	855	1090	243
3			910	1050	240
4			970	1070	248
5					
6					
7					
8					
9					
10					

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RH 628₅ Diaphragm 1, No 2

temp	Star	Y	X	Defc	Cl	Dk	Cl-Dk	Dif-Dk	2nd
	1A	1810	490	230	1130	230	MD	0	2
							(900)		
	1	2075	541	250	1250	230	1020	20	17
	2	1691	475	260	1241	236	1005	24	19
	3			270	1260	235	1025	35	51
	4			305	1255	235	1020	70	122
	5			310	1259	240	1019	70	153
	6			432	1260	239	1021	193	222
	7			470	1258	240	1018	230	241
	8			635	1252	240	1012	395	39
	9			811	1270	245	1025	566	58
	10			911	1245	235	1010	666	62
156	102	1575	201	360	1260	240	1020	120	11
	103	1555	280	865	1260	245	1015	620	61
	104	1570	412	585	1269	240	1029	345	3
	105	1564	574	760	1260	248	1012	412	4
	106	1569	650	703	1250	240	1010	463	2
	107	1548	691	270	1239	240	999	30	3
	108	1570	902	892	1260	248	1012	544	5
	109	1550	1026	345	1262	235	1027	110	
	110	1571	1140	780	1276	240	1036	540	
	111	1554	1271	890	1281	239	1042	551	
158	112	1580	437	859	1250	240	1010	619	
	113	1569	649	739	1240	240	1000	499	
	114	1570	902	910	1246	240	1006	670	
	115	1580	1042	755	1253	240	1013	515	
	116	1572	1140	785	1269	239	1030	546	
160	117	1605	249	559	1268	240	1028	319	
	118	1610	352	449	1260	240	1020	209	
	119	1603	459	416	1250	230	1020	186	
	120	1605	500	878	1188	239	949?	639	

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1928phae.proj.12602C

	2nd	Mean
	2	
0	17	
4	19	
5	51	
0	122	
0	153	
3	222	
0	241	
5	396	
6	580	
6	620	
0	118	
0	612	
5	335	
2	407	
3	458	
0	31	
4	538	
0	107	
6	527	
1	529	
9	613	
9	499	
0	666	
5	508	
6	531	
9	310	
9	205	
6	183	
9	671	

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1928phae.proj.1262C

RH 628, Diaphragm 1, No 4

Date	Star	y	x	Defc	cc	Dk	Dc-Dk	Df-Dk
	1A	1810	790	237	1210	235	975	002
	1	2075	541	257	1250	240	1010	17
	2	1691	475	258	1235	239	996	19
	3			286	1238	235	993	51
	4			360	1249	238	1011	122
	5			393	1250	240	1010	153
	6			455	1249	233	1016	222
	7			481	1248	240	1008	241
	8			635	1239	239	1000	396
	9			815	1250	230	1020	580
	10			860	1231	240	991	620
Nov. 10								
	1A	1810	792	214	1199	210	989	14
	1	2075	548	229	1240	210	1030	19
	2	1691	480	238	1235	215	1020	23
	3			269	1240	211	1029	58
	4			270	1233	212	1021	58
	5			311	1240	220	1020	91
	6			381	1250	220	1030	161
	7			438	1231	219	1012	219
	8			628	1237	220	1017	408
	9			788	1245	220	1025	568
	10			879	1223	221	1002	658
16.0	121	1605	251	529	1248	220	1028	309
	122	1610	359	462	1249	223	1026	239
	123	1603	462	370	1248	222	1026	148
	124	1605	505	840	1226	221	1005	619
	125	1600	549	631	1225	222	1003	409
	126	1609	563	370	1214	226	988	144
	127	1614	644	764	1217	224	990	437

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1928phae.proj.12502C

17
19
51
120
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239
396
570
625
Reduce to 1000

405
18
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1928phae.proj.1262C

78 Nov 10th RH628

Strip	Star	y	x	Defe	cl	Dk	Diff-Dk	Cl.-Dk
160	128	1622	624	330	1219	226	104	993
	129	1622	639	752	1210	222	530	988
	done before	1614	643	763	1210	228	435	982
	130	1615	690	746	1208	230	516	978
	131	1600	738	771	1209	229	542	980
	132	1600	780	610	1212	230	380	982
	133	1613	851	520	1204	229	291	975
	134	1610	941	307	1220	230	77	990
162	135	1634	181	789	1195	230	559	965
	136	1630	409	555	1200	230	325	970
	137	1630	570	339	1218	230	109	988
	138	1639	581	490	1211	229	261	982
	139	1622	624	337	1212	231	106	981
	140	1623	639	761	1200	230	531	970
	141	1623	727	451	1202	230	221	972
	142	1630	1093	761	1221	232	529	989
	143	1620	1262	810	1238	235	575	1003
	144	1615	1261	825	1241	240	585	1001
164	145	1658	284	410	1210	230	180	980
	146	1645	290	850	1210	231	69	979
	147	1640	323	858	1219	235	623	984
	148	1649	643	510	1210	230	380	980
	149	1650	952	811	1211	238	573	973
	150	1655	1041	550	1228	237	313	981
	151	1641	1074	360	1229	236	124	983
	152	1641	1108	311	1208	238	173	970
	153	1645	1161	453	1220	235	218	985
	154	1659	1160	643	1228	235	408	993
	1A	1810	793	230	1160	230	0	930
	1	2075	547	240	1199	232	8	968

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1928phae.proj.12502C

104
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1928phae.proj.12612C

Nov 10 RH 628

Typ	Star	y	x	Defe	cl	Dk	cl-Dk.	Defe-Dk
	2	1691	480	251	1190	230	960	21
	3			293	1185	237	948	56
	4			280	1200	236	964	44
	5			309	1191	233	958	66
	6			388	1200	231	969	157
	7			423	1198	232	966	191
	8			698	1169	234	935	464
	9			795	1206	239	967	556
	10			880	1185	234	951	646
							CHP mean	
	1A	1811	770	206	~~1269~~ ~~1174~~	X211	963	-5
	1	2079	521	217	1180	206	972	11
	2	1695	458	227	1182	210	972	17
	3			246	1173	207	966	39
	4			270	1177	211	966	59
	5			309	1178	211	967	98
	6			399	1205	211	994	188
	7			402	1189	209	980	193
	8			618	1201	216	985	402
	9			780	1209	213	996	567
	10			945	1212	209	1003	636
16.6	155	1678	150	528	1196	209	987	319
	156	1659	261	389	1208	210	998	179
	157	1671	396	701	1206	212	984	489
	158	1657	1019	491	1230	217	1013	274
	159	1659	1137	654	1221	212	1009	442
16.8	160	1678	150	542	1187	219	968	323
	161	1680	178	768	1157	220	937	548
	162	1689	202	720	1199	219	980	501
	163	1687	231	693	1218	220	998	473

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1928phae.proj.12572C

22
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1928phae.proj.126.2C

RH628

Strip	Star	y	x	Dcfl	Cl	Dk	Cl.-Dk	Dcfl.-Dk.
	164	1680	243	612	1209	220	989	392
	165	1680	281	649	1205	219	986	430
	166	1678	282	850	1197	217	980	633
	167	1691	602	269	1197	217	980	52
	168	1689	987	805	1210	213	997	592
17.0	169	1713	422	802	1204	215	989	587
	170	1697	458	230	1189	211	978	19
	171	1700	467	449	1209	220	989	229
	172	1705	843	847	1200	221	979	626
17.2	173	1721	731	779	1199	220	979	559
17.4	174	1741	132	572	1207	220	987	352
	175	1734	256	528	1207	218	989	310
	176	1733	562	574	1208	221	987	353
	177	1750	694	858	1211	227	984	631
	178	1748	756	777	1187	220	967	557
	179	1740	781	562	1199	222	977	340
	180	1740	1234	560	1229	223	1006	337
17.6	181	1758	462	818	1213	225	988	593
	182	1759	674	820	1194	221	973	599
	183	1759	785	862	1210	221	989	641
	184	1763	800	757	1208	223	985	534
	185	1769	882	727	1190	221	969	506
	186	1770	1119	883	1202	220	982	663
	187	1760	1252	696	1235	220	1015	476
17.8	188	1794	130	632	1168	212	956	426
	189	1781	215	410	1199	214	985	196
	190	1780	496	890	1189	219	970	671
	191	1787	586	667	1184	218	966	449
	192	1795	610	412	1190	217	973	195
	193	1790	751	290	1189	220	969	70

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1928phae.proj.12502C

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1928phae.proj.12602C

RH628

		y	x	Diff	Cl	Dk	Cl-Dk.	Diff-Dk.
	194	1794	812	789	1203	227	976	562
	195	1780	1057	478	1237	232	1005	246
18.0	196	1810	274	669	1219	236	983	433
	197	1810	391	702	1210	239	971	463
	198	1805	576	740	1201	234	967	506
	199	1805	796	624	1200	238	962	386
	200	1794	811	800	1203	230	973	570
	201	1797	1149	621	1224	229	995	392
18.2	202	1829	180	290	1209	224	985	66
	203	1821	499	403	~~1194~~ 1202	221	991	182
	204	1831	746	783	1200	228	972	555
18.4	205	1840	541	747	1189	221	968	526
	206	1839	1001	964	1189	224	965	740
	207	1847	1036	309	1202	226	976	83
	208	1851	1097	620	1208	226	982	394
	209	1850	1100	752	1206	226	980	526
18.6	210	1876	262	419	1202	227	975	192
	211	1871	711	795	1200	229	971	566
18.8	212	1882	313	727	1202	228	974	499
	213	1880	318	440	1202	222	980	218
	214	1884	976	888	1211	228	983	666
	215	1885	1280	418	1207	227	980	191
19.0	216	1907	160	659	1183	221	962	438
	217	1900	276	359	1204	222	982	137
	218	1906	376	802	1204	222	982	640
	219	1902	577	839	1190	221	969	618

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1928phae.proj.12502C

Dk.

573
244
440
474
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401
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183
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543
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1928phae.proj.12602C

86 RH628 Sunday November 11

Hour	Star	y	x	Def	Cl	Dk	Cl.-Dk	Def.-Dk
	1s	1811	753	240	1292	240	1052	0
	2	1696	441	281	1280	237	1043	21
	3	1690	587	266	1268	235	1033	31
	1			244	1292	234	1058	10
	4			301	1278	237	1041	64
	5			320	1280	237	1043	83
	6			411	1288	236	1052	175
	7			472	1281	236	1045	236
	8			635	1300	237	1063	398
	9			842	1287	237	1050	605
	10			908	1284	237	1047	671
19.0	220	1904	1141	600	1307	240	1067	360
	221	1900	1294	319	1310	237	1073	82
19.2	222	1919	262	902	1300	240	1060	662
	223	1939	268	348	1294	237	1057	111
	224	1924	371	846	1298	239	1059	607
	225	1929	644	917	1282	239	1043	678
	226	1933	654	905	1289	240	1049	665
	227	1295	668	859	1296	240	1056	619
	228	1919	1297	720	1312	242	1070	478
19.4	229	1945	271	531	1298	240	1058	291
	230	1940	682	578	1293	242	1051	336
	231	1948	1027	859	1299	242	1057	617
	232	1948	1254	781	1318	245	1073	546
19.6	233	1971	401	890	1278	239	1039	551
	234	1969	568	752	1299	247	1052	505
	235	1962	658	937	1294	240	1054	697
	236	1961	1195	517	1302	242	1060	275
19.8	237	1993	236	869	1302	242	1060	627

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1928phae.proj.1252C

0	20
21	30
31	9
0	67
4	80
3	167
5	226
6	374
18	576
05	642
1	
360	338
82	76
62	624
11	105
67	574
78	649
65	634
614	587
78	447
91	275
336	320
17	585
46	508
51	530
05	480
97	662
73	260
27	592

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1928phae.proj.1252C

RH628

				Def	Cl	Dk	Cl.-Dk.	Defl.-Dk	
19.8	238	1979	521	710	1263	244	1019	466	4
	239	1987	679	771	1282	240	1042	531	5
	240	1911	1140	929	1312	243	1069	686	6
	241	1991	1290	524	1321	245	1076	279	2
20.0	242	2010	640	689	1282	243	1039	446	4
	243	2007	901	902	1287	247	1040	655	62
	244	2009	1010	712	1303	243	1060	469	4
	245	2010	1218	727	1304	244	1060	483	4
20.2	246	2020	164	348	1294	250	1044	98	9
	247	2026	480	527	1300	249	1051	278	2
	248	2026	952	876	1287 ✓	238	1049	638	6
	249	2036	1060	940	1380	239	1141	701	61
	250	2022	1236	903	1288	232	1056	671	6
20.4	251	2031	1261	324	1317	238	1079	86	8
20.4	252	2054	486	752	1279	230	1049	522	4
	253	2040	570	687	1291	232	1059	455	4
	254	2038	1019	770	1280	232	1058	538	5
	256	2035	1160	871	1299	235	1064	636	5
	257	2051	1301	714	1327	233	1094	581	5
20.6	258	2070	221	370	1294	213 225	959	135	1
	259	2065	851	~~349~~ 336	1281	237	1044	99	9
20.8	260	2097	302	849	1298	237	1061	612	5
	261	2082	819	812	1278	238	1040	574	5
	262	2085	1071	653	1294	239	1055	414	3
	263	2088	1287	870	1309	239	1070	631	5
21.0	264	2117	430	557	1297	236	1061	321	3
	265	2100	804	842	1299	240	1059	602	5
	266	2112	896	562	1289	239	1050	323	3
	267	2099	1038	731	1290	241	1049	490	4
	268	2110	1204	779	1319	241	1078	538	4

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1928phae.proj.12C2C

Dk

6 457
509
643
9 260
6 429
5 629
9 443
3 455
3 94
8 264
8 608
1 614
1 636
6 80
2 498
5 429
8 508
6 597
1 530
5 141
9 95
2 576
4 552
4 392
61 589
21 303
52 568
23 308
0 467
38 498

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1928phae.proj.12502C

RH128

				Diff.	Cl.	Dk.	Cl.-Dk.	Diff.-Dk.
	269	2100	1210 ~~1800~~	790	1312	243	1069	547
	270	2121	1271	908	1303	244	1059	664
21.4	271	2150	250	878	1278	242	1036	636
	272	2147	271	902	1308	242	1066	660
	273	2149	308	780	1321	242	1079	538
	274	2149	690	709	1295	240	1055	469
	275	2140	1100	800	1297	245	1052	555
21.6	276	2175	250	754	1300	246	1054	508
	277	2161	352	524	1302	247	1055	277
	278	2160	521	926	1308	246	1062	680
	279	2169	903	400	1297	242	1055	158
	280	2169	941	827	1299	247	1052	580
	281	2170	1025	463	1292	246	1046	219
	282	2170	1038	721	1292	246	1046	475
	283	2161	1068	700	1303	247	1056	453
	284	2159	1234	542	1320	246	1074	296
21.8	285	2192	384	596	1297	242	1055	354
	286	2197	386	840	1300	245	1055	595
	287	2181	577	829	1297	247	1050	582
	288	2187	821	781	1282	245	1037	536
	289	2182	1124	861	1308	246	1062	615
	290	2187	1162	576	1312	247	1065	329
	291	2182	1180	289	1312	242	1070	47
22.0	292	2215	339	892	1315	242	1073	650
	293	2211	521	841	1290	245	1045	596
	294	2212	987	806	1311	247	1064	559
22.2	295	2229	397	650	1316	249	1067	403
	296	2239	867	634	1307	247	1060	387
	297	2227	1159	363	1294	244	1050	119
22.4	298	2239	433	580	1305	247	1058	333

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1928phae.proj.1262C

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1928phae.proj.12670C

RH628

		y	x	Dfl	Cl	Dk	Cl-H	S.J
	299	2250	710	572	1298	246	1052	326
	300	2229	867	522	1307	247	1060	275
	301	2239	906	442	1298	242	1056	200
22.6	302	2274	327	670	1317	246	1071	424
	303	2269	782	492	1297	245	1052	247
	304	2271	971	780	1292	242	1050	538
	305	2259	1009	811	1300	247	1053	564
	306	2258	1057	593	1302	245	1057	348
22.8	307	2280	584	437	1300	246	1054	181
23.0	308	2288	675	620	1297	247	1050	373
↓	309	2307	830	638	1300	247	1053	391
23.2	310	2319	661	689	1300	249	1051	440
23.4	311	2335	549	694	1304	249	1055	475
	312	2349	861	479	1300	246	1054	233
	313	2380	801	822	1289	246	1043	576
	314	2419	584	561	1306	246	1060	315
	315	2428	648	669	1290	245	1045	424
	316	2427	872	547	1302	244	1058	303
	1s			249	1288	246	1042	3
	1			262	1288	247	1041	15
	2			270	1287	247	1040	23
	3			289	1279	243	1036	46
	4			301	1294	246	1048	55
	5			348	1277	250	1027	98
	6			464	1296	247	1049	167
	7			437	1290	247	1043	190
	8			656	1299	241	1058	415
	9			854	1277	242	1035	612
	10			920	1295	246	1049	674

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1928phae.proj.12577C

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1928phae.proj.12602C

H.S.P. Feb 8th RH643, 20 up

Strip	Class	Star	y	x	Defe	Defe cc	DK	
22.4	f	166	2236	908	850	850	1100	220
	f	167	2236	918	717	718	1120	222
	f	168	2245	973	310	312	1120	215
	f	169	2232	1125	663	675	1148	220
22.6	fe	76	2261	455	819	—	1096	221
	fe	77	2255	922	872	—	1129	227
	fe	78	2267	1194	581	—	1148	223
22.8	fe	79	2286	819	826	—	1127	225
	f	170	2281	950	845	845	1124	225
23.2	fe	80	2329	994	837	—	1120	227
	f	171	2312	1006	819	819	1128	223
23.4	fe	81	2356	545	814	—	1094	221
	f	172	2350	730	730	732	1109	221
		82	2348	771	718	—	1110	222
	f	173	2351	1034	too	faint		
23.6	f	174	2370	333	611	615	1061	222
	fe	83	2370	549	350	—	1100	222
	f	175	2374	616	785	787	1105	225
	f	176	2355	1070	735	740	1118	225
23.8	f	177	2381	335	830	835	1084	222
	f	178	2383	756	825	830	1100	226
		1s	1889	837	228	—	1040	222
		1	1689	530	256	—	1058	221
		2	—	—	290	—	1086	221
		3	—	—	358	—	1085	220
		4	—	—	370	—	1080	220
		5	—	—	454	—	1105	223
		6	—	—	596	—	1090	221
		7	—	—	671	—	1073	222
		8	—	—	870	—	1088	220

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1928phae.proj.12602C

Cl-Dk	Defl-Dk	Defl-Dk	Reduced Defl	Reduced Defl	Mag.	L. No.
880	630	630	718	718	8.22, 8.22	
898	495	496	562	553	7.55, 7.56	
905	95	97	105	107	5.44, 5.46	
928	443	443	477	477	7.27, 7.27	
875	598	—	682	—		
902	645	—	714	—		
925	358	—	387	—		
902	601	—	667	—		
899	620	620	691	691	8.08, 8.08	
893	610	—	683	—		
905	596	596	659	659	7.96, 7.96	
873	593	—	680	—		
888	509	511	572	574	7.63, 7.64	
888	496	—	560	—		
—	two faint					
839	389	393	464	468	7.23, 7.24	
878	128	—	146	—		
880	560	562	637	639	7.87, 7.88	
893	610	615	671	674	7.62, 7.64	
862	608	613	704	709	8.16, 8.17	
874	599	604	685	691	8.06, 8.09	
818	6	—	7	—		
837	35	—	42	—		
865	69	—	80	—		
865	138	—	160	—		
860	150	—	174	—		
882	231	—	261	—		
869	375	—	431	—		
851	449	—	527	—		
868	650	—	747	—		

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Feb 9th

RH 643. 20 Up

Strip	Class	Star	y	x	Dyfl	Dyfl	Cl	Dk	
		1s	1889	838	245	—	1124	210	Volt 5.21
		1	1689	531	270	—	1113	206	
		2	—	—	300	—	1140	222	
		3	—	—	345	—	1120	220	
		4	—	—	370	—	1119	210	
		5	—	—	459	—	1140	215	
		6	—	—	600	—	1134	213	
		7	—	—	645	—	1110	215	
		8	—	—	850	—	1121	210	
24.0	f	179	2399	450	664	665	1165	210	
	fp	84	2399	861	737	—	1190	260	
	f	180	2405	960	678	680	1180	247	
	f	181	2400	1037	731	733	1163	238	
24.2	fp	85	2420	589	768	—	1140	230	
	fp	86	2426	715	540	—	1140	228	
	fp	87	2432	852	460	—	1150	226	
	f	182	2431	967	780	773	1140	227	
24.4	f	183	2452	548	830	830	1130	221	
	fp	88	2455	760	790	—	1140	220	
	f	184	2450	850	651	651	1130	220	
24.6	f	185	2460	337	770	770	1130	220	
	f	186	2460	852	750	750	1131	220	
24.8	f	187	2495	484	520	520	1106	220	
	f	188	2490	573	741	741	1121	220	
	fp	89	2488	620	807	—	1122	220	
	f	189	2489	810	840	840	1134	220	
	f	190	2492	842	470	470	1124	221	
	f	191	2479	920	340	341	1130	220	
25.0	fp	90	2513	483	330	—	1108	220	
	f	192	2512	517	820	820	1080	220	

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1928phae.proj.12602C

Cl.-Dk.	Defl.-Dk.	Defl.-Dk.	Reduced	Reduced	
914	35	—	38	—	
907	64	—	71	—	
918	78	—	85	—	
906	125	—	139	—	
909	160	—	176	—	
925	244	—	263	—	
921	387	—	419	—	
895	430	—	479	—	
911	640	—	701	—	
955	454	455	475	476	7.35, 7.36
930	477	—	512	—	
933	431	433	462	464	7.30, 7.32
926	493	495	533	535	7.61, 7.62
910	538	—	591	—	
912	312	—	342	—	
924	234	—	253	—	
913	553	546	605	598	7.91, 7.97
909	609	609	670	670	8.17, 8.17
920	578	—	618	—	
910	431	431	474	474	7.35, 7.35
910	550	550	604	604	7.91, 7.91
911	530	530	582	582	7.81, 7.81
886	380	380	338	338	6.74, 6.74
901	300	300	579	579	7.78, 7.78
902	521	521	650	—	
914	587	—	568	568	7.74, 7.74
903	520	520	276	276	6.48, 6.48
910	249	249	132	133	5.73, 5.74
888	120	121	124	—	
860	110 608	600	698	698	8.29, 8.29

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1928phae.proj.12602C

Feb 9th FMC, RH643, No 4

Strip	Class	Star	Y	X	Dyll	Dyc	A	Dk	
	f	193	2509	546	690	690	1110	220	
25.2	f	91	2530	645	655	—	1107	221	
	f	92	2525	858	830	—	1110	224	
25.6	f	93	2561	740	680	—	1180	222	
		1A	1889	838	230	—	1065	222	Volt slightly lower
		1	1689	531	252	—	1067	221	
		2	—	—	286	—	1110	221	
		3	—	—	340	—	1100	220	
		4	—	—	368	—	1098	220	
		5	—	—	455	—	1112	221	
		6	—	—	600	—	1102	221	
		7	—	—	640	—	1081	221	
		8	—	—	848	—	1105	225	

plate finished

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1928phae.proj.12602C

Cl.-Dk.	Defl.-Dk.	Defl.-Dk.	Reduced	Reduced	
890	470	470	527	527	7.57, 7.57
886	434	—	490	—	
886	606	—	684	—	
858	458	—	534	—	
843	8	—	9	—	
846	31	—	37	—	
889	65	—	73	—	
880	120	—	136	—	
878	148	—	169	—	
891	234	—	263	—	
881	379	—	430	—	
860	419	—	487	—	
880	623	—	710	—	

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1928phae.proj.1267C

FMC. April 12, 1929 RH 684

Step	Class	Star	y	x	Defl	Dfll	Cl	Dk	Volt
		1S	1870	685	335	—	1885	320	5.09
		1	2231	720	400	—	1898	320	
		2	—	—	490	—	1872	320	
		3	—	—	588	—	1871	320	
		4	—	—	630	—	1891	319	
		5	—	—	801	—	1885	319	
		6	—	—	1112	—	1880	320	
		7	—	—	1210	—	1879	318	
		8	—	—	1600	—	1890	320	
12.8	f	1	1278	772	601	600	1861	319	
13.0	f	1	1297	661	1392	—	1870	320	
	f	2	1308	716	1537	1540	1880	320	
	f	3	1310	772	370	370	1860	320	
13.2	f	2	1321	590	700	—	1860	320	
13.4	f	3	1355	762	1101	—	1858	321	
	f	4	1358	989	1031	1031	1849	321	
13.6	f	4	1370	502	1340	—	1789	321	
	f	5	1368	591	470	—	1880	320	
	f	5	1379	1031	1380	1380	1831	323	
13.8	f	6	1380	500	1155	1155	1840	322	
	f	7	1383	1149	1563	1560	1839	329	
14.0	f	8	1399	768	1340	1340	1856	328	
14.2	f	9	1421	467	1190	1190	1863	329	
	f	10	1428	492	930	930	1850	328	
	f	11	1431	1105	1420	1420	1844	325	
14.4	f	12	1439	540	1560	1560	1816	330	
	f	6	1450	684	1330	—	1850	330	
14.6	f	13	1469	380	730	730	1860	330	
	f	14	1463	875	1422	1420	1838	332	
	f	7	1472	1180	1469	—	1839	332	

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1928phae.proj.12672C

Cl-Dk	Defl-Dk	Defl-Dk	Red. Defl	Red. Defl	Mag	L. No.
1565	15	—	9			
1578	80	—	56			
1552	170	—	110			
1551	268	—	173			
1572	311	—	198			
1566	482	—	307			
1560	792	—	507			
1561	892	—	572			
1570	1280	—	815			
1542	282	281	183	182	5.84, 5.84	101
1550	1072	—	693	—	759	b
1560	1217	1220	780	782	7.72, 7.78 / 8.08, 8.09	100
1540	50	50	32	32	4.93, 4.93 / 4.22, 4.22	99
1540	380	—	246	—	621	242
1537	780	—	507	—	718	297
1528	710	710	465	465	6.88, 6.88 / 6.77, 6.77	98
1468	1019	—	694	—	759	206
1560	150	—	96	—	510	239
1508	1057	1057	701	701	7.54, 7.75 / 7.54, 7.75	97
1518	833	833	548	548	7.14, 7.25 / 7.14, 7.23	27a ?
1510	1234	1231	817	815	7.81, 8.27 / 7.80, 8.26	24a
1528	1012	1012	664	664	7.46, 7.54 / 7.46, 7.54	96
1534	861	861	562	562	7.26, 7.26 / 7.26, 7.26	95
1522	602	602	395	395	6.69, 6.70 / 6.69, 6.70	94
1519	1095	1095	720	720	7.56, 7.56	92
1486	1230	1230	827	827	7.82, 7.82	93
1520	1000	—	658	—	752	264
1530	400	400	261	261	6.27, 6.27	91
1516	1090	1088	724	722	7.57, 7.56	90
1507	1137	—	754	—	773	1a

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1928phae.proj.12602C

YMC April 12, 1929 R.A. 6h 4m

Strip	class	star	y	x	Decl	Decl	cl	Dk	Vol
14.6	f	15	1470	1247	770	765	1838	333	
14.8	p	8	1491	351	1540	—	1851	338	
	f	16	1491	725	1350	1350	1850	340	
	p	9	1482	800	1440	—	1839	340	
15.0	f	17	1508	966	1290	1290	1900	410	
15.2	p	10	1508	511	868	—	1910	389	
	f	18	1499	1055	1240	1240	1858	370	
	p	11	1519	642	1051	—	1861	361	
	p	12	1521	764	870	—	1868	354	
	f	19	1530	982	1141	1140	1855	354	
	p	13	1521	1105	804	—	1842	351	
	p	14	1538	1278	1243	—	1838	350	
15.4	f	20	1550	619	928	920	1859	350	
	p	15	1549	743	890	—	1861	350	
	f	21	1540	1100	1360	1360	1880	360	
15.6	f	22	1572	333	1200	1200	1879	360	
	f	23	1570	543	810	810	1859	360	
	f	24	1561	753	1511	1510	1889	360	
	f	25	1570	849	1585	1582	1857	361	
	f	26	1570	1170	1140	1140	1828	362	
		18	1870	685	370	—	1860	360	
		1	2231	720	410	—	1864	360	
		2	—	—	520	—	1840	360	
		3	—	—	619	—	1860	360	
		4	—	—	640	—	1850	360	
		5	—	—	829	—	1867	360	
		6	—	—	1100	—	1851	360	
		7	—	—	1199	—	1851	360	
		8	—	—	1580	—	1870	360	

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1928phae.proj.12520

ce-Ok	Defe.Ok	Defe.Ok	Ref Defe	Ref Defe	Mag	L. No.	
1505	437	432	290	287	6.36, 6.36	86	
1513	1202	—	795	—	780	135	
1510	1010	1010	670	670	7.48, 7.48	89	
1499	1100	—	735	—	768	2a	
1490	880	880	590	590	7.25, 7.25	85	
1521	479	—	314	—	649	183	
1488	870	870	585	585	7.25, 7.25	84	
1500	690	—	460	—	702	240	
1514	516	—	340	—	659	294	
1501	787	786	524	524	7.05, 7.05	82	
1491	453	—	303	—	644	426	
1488	893	—	600	—	743	464?	Defe wrong?
1509	578	570	384	378	6.65, 6.64	81	
1511	540	—	357	—	665	279	
1520	1000	1000	660	660	7.45, 7.45	80	
1519	840	840	555	555	7.15, 7.15	79	
1499	450	450	300	300	6.40, 6.40	78	
1529	1251	1250	820	819	7.81, 7.81	77	
1496	1224	1221	819	816	7.81, 7.80	76	
1466	778	778	530	530	7.08, 7.08	75	
1500	10	—	7	—			
1504	50	—	33	—			
1480	160	—	108	—			
1500	259	—	173	—			
1490	280	—	188	—			
1507	469	—	311	—			
1491	740	—	495	—			
1491	839	—	562	—			
1510	1220	—	809	—			

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1928phae.proj.12502C

H. J. P. – R. H. – 684 – April 12, 1929

Strip	Class	Star	y	x	Dpl.	Dpl.	Cl.	Dk.	Photo
		10	1870	685	395	—	1798	393	510
		1	2231	730	440	—	1898	396	
		2	—	—	566	—	1921	400	
		3	—	—	660	—	1930	410	
		4	—	—	720	—	1900	401	
		5	—	—	865	—	1911	408	
		6	—	—	1165	—	1900	408	
		7	—	—	1250	—	1905	409	
		8	—	—	1625	—	1909	409	
15.8	p	15	1587	1180	1497	—	1914	411	
16.2	p	27	1631	261	840	840	1935	405	
	p	16	1621	488	1444	—	1910	410	
	p	17	1629	630	730	—	1910	410	
	p	28	1629	671	718	720	1907	405	
	p	18	1630	1311	1290	—	1876	410	
	p	19	1620	1365	1400	—	1891	408	
16.4	p	20	1650	448	1448	—	1921	410	
	p	29	1653	561	1460	1452	1920	410	
	p	30	1651	710	1130	1130	1905	415	
	p	21	1640	844	1391	—	1905	406	
	p	22	1640	1088	1440	—	1908	412	
	p	23	1639	1182	931	—	1900	410	
16.8	p	31	1686	574	965	965	1950	411	
17.0	p	24	1710	280	1089	—	1922	400	
	p	25	1698	882	892	—	1890	398	
	p	32	1710	910	490	490	1878	374	
	p	33	1704	1272	1030	1025	1868	367	
17.4	p	34	1740	260	1459	1465	1889	368	
17.6	p	26	1773	267	1331	—	1882	361	
	p	27	1770	421	560	—	1897	360	

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1928phae.proj.12502C

Cl-Obs	Defl-Obs	Defl-Obs	Red Defl	Red Defl	Mag	L No
1405	2	—	1.42	—		
1502	44	—	29	—		
1521	166	—	109	—		
1520	250	—	164	—		
1499	319	—	213	—		
1503	457	—	304	—		
1492	757	—	507	—		
1496	841	—	562	—		
1500	1216	—	810	—		
1503	1086	—	725	—	797	457
1530	435	435	284	284	6.34, 6.34	69
1500	1034	—	894	—	857	d
1500	320	—	213	—	600	205
1502	313	315	208	210	5.99, 6.00	67
1466	880	—	600	—	751	498
1483	992	—	669	—	777	502
1511	1038	—	685	—	784	118
1510	1050	1042	695	690	7.74, 7.73	66
1490	715	715	480	480	7.00, 7.00	65
1499	985	—	657	—	774	338
1496	1028	—	686	—	783	451
1490	521	—	350	—	662	474
1539	554	554	360	360	6.62, 6.62	60
1522	689	—	453	—	699	51 x
1500	502	—	334	—	655	376
1504	116	116	77	77	4.85, 4.85	57
1501	663	658	440	438	6.89, 6.88	double?
1521	1091	1097	716	720	7.83, 7.84	55 or 25a ?
1521	970	—	636	—	765	23 x 25
1537	200	—	130	—	544	56

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1928phae.proj.1262C

AJP - RH 684 - April 12, 1929

Strip	Class	Star	y	x	Defl.	Defl.	cc.	dk.	Volts
	f	35	1761	1265	1122	1120	1858	360	
	p	28	1768	1399	600	—	1830	358	
18.0	f	36	1817	490	1310	1310	1879	360	
	p	29	1800	500	1164	—	1864	440	
	f	37	1812	967	1285	1281	1854	360	
	p	30	1800	1245	605	—	1840	352	
		10	1870	685	369	/	1829	359	
		1	2231	720	410	/	1859	352	
		2	—	—	530	/	1850	360	
		3	—	—	610	/	1868	360	
		4	—	—	640	/	1833	352	
		5	—	—	820	/	1855	353	
		6	—	—	1116	/	1820	354	
		7	—	—	1220	/	1841	360	
		8	—	—	1610	/	1853	368	510
FMC	April 13, 1929	18	1870	665	340	—	1840	331	5.03
		1	2231	700	388	—	1840	330	
		2	—	—	511	—	1826	334	
		3	—	—	600	—	1848	340	
		4	—	—	630	—	1850	340	
		5	—	—	825	—	1839	338	
		6	—	—	1101	—	1842	339	
		7	—	—	1203	—	1848	338	
		8	—	—	1550	—	1820	335	
18.2	f	38	1818	239	1310	1305	1860	340	
18.6	f	39	1866	300	1415	1412	1870	338	
	p	31	1870	411	950	—	1870	340	
	p	32	1872	442	1500	—	1835	341	
	f	40	1872	1070	1260	1260	1829	339	

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1928phae.proj.12602C

Cl-Dk	Defo-Dk	Defe-Dk	Red. Defe	R.d. Defe	Mag	L. No
1498	762	760	509	507	7.10, 7.09	52
1472	242	—	164	—	573	540
1519	950	950	625	625	7.48, 7.48	46
1424	724	—	507	—	719	62
1494	925	921	620	616	7.46, 7.45	45
1488	253	—	170	—	575	536
1470	10	—	7	—		##
1507	58	—	38	—		
1490	170	—	114	—		
1508	250	—	166	—		
1481	288	—	194	—		
1502	467	—	311	—		
1476	762	—	516	—		
1471	860	—	584	—		
1485	1242	—	836	—		
1509	9	—	6	—		
1516	58	—	38	—		
1492	177	—	118	—		
1508	260	—	172	—		
1510	290	—	192	—		
1501	487	—	324	—		
1503	762	—	506	—		
1510	865	—	574	—		
1485	1215	—	820	—		
1520	970	965	639	635	7.52, 7.51	48
1532	1077	1074	703	700	7.44, 7.44	44
1530	610	—	398	—	673	1279
1494	1159	—	775	—	815	f
1490	921	921	618	618	7.46, 7.46	41

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1928phae.proj.126:C

FMC April 13, 1929 RH 684

Strip	class	star	y	x	Dyll	Dyll	cl	Rb	Volt	c
18.8	f	41	1899	389	705	705	1880	335		
	f	42	1898	878	1080	1082	1831	340		
19.0	p	33	1909	360	1158	—	1851	340		
	p	34	1911	399	1291	—	1839	340		
	f	43	1910	538	880	879	1853	340		
	p	35	1905	1110	1236	—	1835	340		
19.2	p	36	1919	382	1000	—	1840	340		
	f	44	1926	720	570	560	1838	340		
	p	37	1919	930	1250	—	1825	340		
	f	45	1920	1018	1455	1460	1829	340		
	f	46	1937	1121	600	600	1800	340		
19.4	p	38	1940	182	1383	—	1860	341		
	f	47	1950	610	1209	1201	1850	340		
	p	39	1946	1111	1305	—	1810	340		
	f	48	1940	1344	404	401	1809	340		
	f	49	1939	1420	870	875	1800	340		
19.6	p	50	1970	890	1240	1245	1859	352		
	p	40	1969	918	860	—	1841	350		
	p	41	1964	985	1499	—	1850	350		
	f	51	1960	1072	1240	1230	1830	351		
19.8	p	42	1984	198	790	—	1880	350		
	p	43	1980	290	1180	—	1850	353		
	p	44	1981	549	1284	—	1840	353		
	f	52	1989	615	1290	1285	1850	352		
	f	53	1980	768	1388	1385	1850	360		
	f	54	1990	813	1392	1398	1873	361		
	p	45	1998	1030	940	—	1830	360		
	p	46	1991	1110	950	—	1810	359		
20.0	f	55	2003	650	1430	1420	1838	361		

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1928phae.proj.12570

Cl-Clk	Defl-Clk	Defl-Clk	Red Defl	Red Defl	Mag	L.No
1545	370	370	240	240	6.09, 6.09	40
1491	740	742	495	496	7.03, 7.03	37
1511	818	—	541	—	725	1251
1499	951	—	635	—	760	1246
1515	540	539	356	356	6.56, 6.56	39
1495	896	—	600	—	746	570
1500	660	—	440	—	688	1242
1498	230	220	154	147	5.63, 5.57	35
1485	910	—	613	—	751	572
1489	1115	1120	750	755	7.91, 7.94	x
1460	260	260	178	178	5.78, 5.78	30
1519	1042	—	686	—	780	1235
1510	869	861	575	570	7.30, 7.29	32
1470	965	—	655	—	768	587
1469	64	61	44	42	4.51, 4.49	29
1460	530	535	363	366	6.59, 6.61	28
1507	888	893	590	593	7.35, 7.36	26
1491	510	—	342	—	650	23.627
1500	1149	—	765	—	809	601
1479	889	879	601	594	7.40, 7.37	25
1530	440	—	288	—	629	1214
1497	827	—	553	—	729	1208
1487	931	—	626	—	757	1171
1498	938	933	626	623	7.49, 7.47	28 a
1490	1028	1025	690	688	7.70, 7.70	15 a
1512	1031	1037	683	685	7.67, 7.68	14 a
1470	580	—	394	—	671	625
1471	591	—	407	—	676	606
1477	1069	1059	724	716	7.83, 7.80	12 a

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1928phae.proj.1267C

7mc April 13, 1929 RH684

Strip	class	star	y	x	Defl	Defl	cl	Rh	Vol II
20.2	p	47	2022	980	1470	—	1840	361	
20.4	f	56	2040	748	1420	1422	1845	369	
	f	48	2040	1085	1226	—	1804	365	
	f	57	2058	1121	1259	1260	1840	365	
20.6	p	49	2062	230	1373	—	1892	365	
	f	58	2076	762	1341	1340	1850	365	
	f	59	2072	1150	1190	1190	1820	370	
	f	60	2070	1306	620	620	1789	368	
		15	1870	665	370	—	1841	365	
		1	2231	700	420	—	1858	370	
		2	—	—	552	—	1830	370	
		3	—	—	650	—	1861	369	
		4	—	—	661	—	1860	370	
		5	—	—	860	—	1851	370	
		6	—	—	1160	—	1852	370	
		7	—	—	1220	—	1839	370	
		8	—	—	1602	—	1860	370	5.00
	xgp-		RH684	April 13, 1929					
		15	1870	665	335	/	1757	322	3.80
		1	2231	700	378	/	1780	321	
		2	—	—	495	/	1803	321	
		3	—	—	590	/	1810	320	
		4	—	—	610	/	1778	321	
		5	—	—	789	/	1793	322	
		6	—	—	1089	/	1780	322	
		7	—	—	1178	/	1776	325	
		8	—	—	1519	/	1800	321	
20.8	p	50	2082	493	1225	—	1796	323	
	f	61	2079	763	1274	1278	1785	325	
	f	62	2090	1092	425	428	1768	323	

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1928phae.proj.12507C

Cl-Dk	Defl-Dk	Defl-Dk	Red. Defl	Red Defl	Mag	L No
1479	1109	—	750	—	8.04	1166
1476	1051	1053	714	715	7.79, 7.79	8
1439	861	—	599	—	7.46	642
1475	894	895	605	606	7.43, 7.43	C6
1527	1008	—	660	—	7.70	1184
1485	976	975	657	656	7.59, 7.58	23
1450	820	820	565	565	7.27, 7.27	9
1421	252	252	177	177	5.77, 5.77	22
1476	05	—	3			
1488	50	—	34	—		
1460	182	—	125	—		
1492	281	—	188	—		
1490	291	—	195	—		
1481	490	—	330	—		
1482	790	—	533	—		
1469	850	—	580	—		
1490	1232	—	826	—		
1435	13	—	9	—		
1459	57	—	39	—		
1482	174	—	117	—		
1490	270	—	181	—		
1457	289	—	198	—		
1471	467	—	318	—		
1458	767	—	527	—		
1451	853	—	586	—		
1479	1198	—	810	—		
1473	902	—	612	—	7.52	1109
1460	949	953	649	653	7.54, 7.55	23
1445	402	405	278	280	6.25, 6.25	21

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1928phae.proj.1262C

Zg - RH684 - April 13, 1929

Mag	Class	Star	y	x	Dyl	Dyl.	Cl	Dk.	Nebs
	f	63	2078	1152	1137	1139	1760	325	
21.0	f	64	2100	1029	840	843	1777	329	
21.2	f	65	2120	538	1105	1104	1811	330	
21.4	f	66	2154	422	980	980	1812	330	
	f	67	2140	590	933	929	1802	331	
	f	68	2140	600	1385	1369	1795	338	
	p	51	2150	1139	1368	—	1777	339	
	p	52	2148	1277	429	—	1795	338	
21.6	f	69	2162	311	1371	1371	1800	331	
	f	70	2161	1064	1257	1260	1750	334	
	f	71	2162	1152	1111	1111	1762	339	
	f	72	2164	1310	501	501	1778	332	
21.8	f	73	2180	354	553	550	1814	338	
	f	74	2190	1280	490	490	1774	339	
22.0	f	75	2200	772	521	522	1771	331	
22.4	p	53	2258	419	1318	—	1810	341	
22.6	f	76	2273	420	760	760	1791	340	
22.8	p	54	2295	380	1268	/	1810	340	
	f	77	2290	760	1260	1272	1779	345	
	p	55	2292	1102	1040	—	1781	347	
23.0	p	56	2300	406	1020	—	1818	350	
	f	78	2314	450	524	524	1708	341	
	f	79	2309	700	990	979	1780	345	
	p	57	2310	902	1048	—	1770	344	
		1A	1870	661	358	/	1784	345	
		1	2231	700	410	/	1790	349	
		2	/	/	530	/	1810	350	
		3	/	/	620	/	1803	349	
		4	/	/	652	/	1780	350	
		5	/	/	815	/	1788	349	
		6	/	/	1075	/	1776	350	
		7	/	/	1189	/	1777	350	
		8	/	/	1368	/	1798	352	500

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1928phae.proj.12602C

Cl-Dk	Dfl-Dk	Dfl-Dk	Red. Dfl	Red. Dfl	Mag	L. No.
1435	812	814	565	566	7.24, 7.24	a
1448	511	514	353	355	6.52, 6.53	19
1481	775	774	523	522	7.09, 7.08	20
1482	650	650	438	438	6.80, 6.80	k
1471	602	598	408	406	6.69, 6.68	18
1457	1047	1031	719	709	7.81, 7.77	e
1438	1029	—	715	—	790	679
1457	911	—	62	—	H66	660
1469	1040	1040	710	710	7.77, 7.77	f
1416	923	926	651	654	7.54, 7.55	g
1423	772	772	542	542	7.15, 7.15	h
1446	169	169	117	117	5.23, 5.23	16
1481	220	217	148	146	5.48, 5.47	17
1435	151	151	105	105	5.10, 5.10	15
1440	190	191	132	133	5.36, 5.36	14
1469	977	—	665	—	773	1044
1451	426	420	289	289	6.29, 6.29	13
1470	928	—	631	—	759	1043
1434	915	927	637	646	7.49, 7.52	12
1434	693	—	483	—	705	
1468	670	—	456	—	696	1030
1467	183	183	125	125	5.30, 5.30	10
1435	645	634	450	442	6.84, 6.72	9
1426	704	—	493	—	709	805
1439	13	—	9	—		
1441	61	—	42	—		
1460	180	—	123	—		
1454	271	—	186	—		
1430	302	—	211	—		
1439	466	—	324	—		
1426	725	—	508	—		
1427	839	—	586	—		
1446	1216	—	840	—		

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1928phae.proj.1252C

FMC April 15, 1929 RH 684

Hrs	Class	Star	y	x	Dfl.	Dfl	Cl	Dk	Poets
		18	1870	702	390	—	1879	380	5.0
		1	2231	739	438	—	1861	380	
		2	—	—	560	—	1852	382	
		3	—	—	650	—	1870	383	
		4	—	—	672	—	1845	390	
		5	—	—	879	—	1880	380	
		6	—	—	1150	—	1869	370	
		7	—	—	1240	—	1825	360	
		8	—	—	1560	—	1885	359	
23.2	f	58	2338	981	1458	—	1840	355	
	f	80	2339	1070	1440	1440	1818	350	
23.6	f	81	2379	471	1400	1400	1812	328	
	f	82	2364	789	1080	1080	1821	320	
23.8	f	59	2399	812	1518	—	1785	320	
	f	83	2395	981	1345	1345	1800	320	
	f	84	2397	1149	1290	1290	1800	311	
24.0	f	60	2401	660	1308	—	1840	310	
	f	61	2418	780	1530	—	1810	310	
	f	62	2401	1047	1490	—	1789	310	
24.2	f	85	2420	809	980	980	1770	310	
24.4	f	63	2441	548	922	—	1750	310	
	f	86	2444	926	1270	1270	1770	310	
24.6	f	87	2461	620	1420	1420	1752	310	
	f	64	2459	988	1290	—	1770	310	
24.8	f	65	2478	680	1550	—	1810	310	
	f	66	2479	910	1170	—	1770	310	
25.2	f	88	2520	872	1370	1370	1769	310	
		18	1870	702	318	—	1760	305	
		1	2231	739	360	—	1752	306	
		2	—	—	510	—	1762	302	

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1928phae.proj.12602C

Cl-Dk	Defl-Dk	Defl-Dk	Red Defl	Red Defl	Mag	L No
1499	10	—	7	—		
1481	58	—	39	—		
1470	178	—	121	—		
1487	267	—	180	—		
1455	282	—	194	—		
1500	499	—	332	—		
1499	780	—	520	—		
1465	880	—	600	—		
1526	1201	—	789	—		
1485	1103	—	743	—	803	790
1468	1090	1090	745	745	7.94, 7.94	2a
1484	1072	1072	723	723	7.84, 7.84	m
1501	760	760	505	505	7.08, 7.08	5
1465	1198	—	817	—	836	880
1480	1025	1025	693	693	7.72, 7.72	4
1489	979	979	657	657	7.57, 7.57	o
1530	998	—	653	—	765	926
1500	1220	—	815	—	835	892
1479	1180	—	800	—	827	k
1460	670	670	460	460	6.93, 6.93	3
1440	612	—	425	—	681	960
1460	960	960	657	657	7.57, 7.57	ye
1442	1110	1110	770	770	8.04, 8.04	1a
1460	980	—	670	—	774	809
1500	1240	—	825	—	839	3a
1460	860	—	590	—	741	844
1459	1060	1060	727	727	7.85, 7.85	1
1455	13	—	9			
1446	54	—	37	—		
1460	208	—	145	—		

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1928phae.proj.12672C

FMC April 15, 1929 RH 684

Strip	class	star	y	x	Diff	Diff	cl	Dk	Volts
		3	—	—	563	—	1773	304	
		4	—	—	636	=	1789	304	
		5	—	—	791	<	1772	306	
		6	—	—	1030	<	1751	305	
		7	—	—	1160	<	1770	309	
		8	—	—	1520	>	1768	310	
			- Plate finished -						5.00

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1928phae.proj.1252C

Cl-Clk	Dafl-Dk	Dafl-Dk	Red. Dafl	Red. Dafl	Mag.	L.NO
1469	259	—	177	—		
1485	332	—	224	—		
1466	485	—	330	—		
1446	725	—	502	—		
1461	851	—	582	—		
1458	1210	—	830	—		

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1928phae.proj.126.2C

 New Series RH 1150 June 14, 1929 New Series

FMC

trip	class	stars	y	x	Dyll	Dyll	cl	Dh	Volh
		15	1960	802	542	—	1584	202	5.22
		1	2001	445	850	—	1483	207	
		2	—	—	890	—	1570	208	
		3	—	—	1001	—	1570	210	
		4	—	—	1062	—	1483	210	
		5	—	—	1190	—	1589	211	
		6	—	—	1390	—	1600	212	
		7	—	—	1420	—	1592	212	
		8	—	—	1560	—	1621	212	
14.8	f	1	1479	720	1378	—	1488	213	
	f	1	1480	750	1182	1182	1534	215	
15.0	fp	2	1491	678	1038	—	1550	216	
15.2	fp	3	1529	598	1370	—	1524	219	
	f	2	1530	602	1382	1369	1525	220	
15.4	fp	4	1553	850	1530	—	1628	229	
	fp	5	1546	900	1445	—	1657	230	
	fp	6	1549	900	1529	—	1637	230	
	fp	7	1552	952	1348	—	1669	230	
15.6	f	3	1561	960	980	980	1680	230	
	f	4	1570	1021	1535	1550	1708	231	
15.8	fp	8	1589	685	1291	—	1540	234	
16.0	f	5 ✓	1603	570	1390	1390	1497	230	
	f	6 ✓	1601	1139	1480	1484	1747	232	
16.4	f	7 ✓	1650	538	1390	1390	1493	230	
	f	8 ✓	1650	660	1392	1400	1533	232	
	f	9 ✓	1652	1156	1540	1542	1752	231	
16.6	f	10 ✓	1678	471	1201	1201	1489	233	
	f	11 ✓	1677	630	780	780	1512	232	
	fp	9	1658	760	1320	—	1550	234	
16.8	fp	16	1680	375	1331	—	1482	234	

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1928phae.proj.1252C

C.-Dk.	Defl.-Dk.	Defl.-Dk.	Reduced	Reduced	Magn.	L. No.	
1382	340	—	247	—			
1276	643	—	504	—			
1202	682	—	567	—			
1360	791	—	582	—			
1273	852	—	669	—			
1378	979	—	711	—			
1388	1178	—	849	—			
1380	1208	—	875	—			
1409	1348	—	967	—			
1275	1165	—	914	—	770	1235 ✓	
1319	967	967	734	734	6.59 ~~581~~	6.59	
1334	822	—	616	—	581	1214 ✓	
1305	1151	—	883	—	739	1104 ✓	
1305	1162	1149	890	880	7.52	7.45	
1399	1301	—	930	—	787	8 ✓	
1427	1215	—	852	—	722	23 ✓	
1407	1299	—	922	—	777	a ✓	
1439	1118	—	777	—	676	51 ✓	
1450	750	750	577	577	5.32	5.32	doubtful; curve uncertain
1477	1304	1319	882	892	7.48	7.53	
1306	1057	—	809	—	696	1208 ✓	
1267	1160	1160	916	916	7.77	7.77	
1515	1248	1252	822	827	7.04	7.07	
1263	1160	1160	918	918	7.79	7.79	
1301	1160	1168	891	897	7.53	7.58	
1521	1309	1311	860	862	7.30	7.31	
1256	968	968	772	772	6.77	6.77	
1285	548	548	428	428	off	off	4:1 approx.
1316	1086	—	827	—	707	1251 ✓	
1248	1097	—	811	—	697	1043 ✓	

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1928phae.proj.1252C

Mul Series F. M.C June 14, 1929. RH 1150
M.R.D

Strip	Class	Star	x	y	Dec	Dec	d	Dh	Var
16.8	f	11	1680	649	1380	—	1517	233	
	f	12	1679	750	1230	—	1550	233	
	f	13	1691	752	1399	—	1559	233	
	f	14	1698	900	920	—	1618	233	
	f	12	1680	1026	1538	1538	1671	236	
17.0	f	15	1709	769	1214	—	1462	235	
	f	16	1709	795	1232	—	1573	238	
	f	13	1710	1017	951	951	1666	238	
17.2	f	17	1720	412	1341	—	1422	239	
	f	18	1720	1020	1550	—	1682	240	
M.R.D	f	14	1721	1222	990	991	1740	235	
17.6	f	19	1772	874	1385	—	1630	240	
17.8	f	20	1790	590	1347	—	1520	240	
	f	21	1780	1163	1220	—	1745	242	
18.2	f	15	1829	368	1367	1365	1470	244	
	f	16	1819	920	1510	1510	1665	245	
18.4	f	22	1840	693	1380	—	1550	243	
	f	17	1837	723	1400	1400	1547	243	
	f	23	1850	1050	1250	—	1800	248	
18.6	f	24	1860	1307	975	—	1790	248	
18.8	f	18	1886	541	1420	1420	1510	245	
	f	19	1884	860	1160	1160	1610	247	
	f	20	1890	1070	1475	1475	1700	247	
19.0	f	21	1910	490	1283	1283	1500	245	
	f	22	1907	1049	1280	1280	1688	249	
	f	25	1902	1050	1170	—	1675	249	
	f	26	1910	1157	1390	—	1735	250	
	f	23	1912	1305	1240	1240	1775	250	
19.2	f	24	1920	600	1185	1185	1500	249	
19.6	f	25	1974	299	1365	1365	1450	247	

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1928phae.proj.1262C

Cl. Db.	Heff Db.	Heff Db.	Reduced	Reduced	Magn.	L. N.	
1284	1147	—	893	—	747	1166	
1317	997	—	748	—	657	1242	
1326	1166	—	883	—	740	1246	
1385	687	—	502	—	502	56	
1435	1302	1302	906	906	7.67 7.67		
1237	979	—	732	—	649		
1335	994	—	746	—	655	1279	
1428	713	713	491	491	5.17 5.17		uncertain; curve poor
1183	1102	—	929	—	785	1044	
1442	1310	—	1061	—	curve	118 ?	
1506	755	756	501	502	5.22 5.22		" " "
1390	1145	—	825	—	705	62	
1280	1107	—	863	—	727	1109	
1503	978	—	651	—	600	183	
1226	1123	1121	832	830	7.11 7.10		
1420	1265	1265	891	891	7.53 7.53		
1307	1137	—	867	—	730	1171	
1304	1157	1157	884	884	7.47 7.47		
1552	1002	—	649	—	599	239	
1542	727	—	472	—		?	
1265	1175	1175	928	928	7.90 7.90		
1363	913	913	669	669	6.25 6.25		
1453	1228	1228	852	852	7.23 7.23		
1255	1038	1038	827	827	7.08 7.08		
1439	1031	1031	716	716	6.49 6.49		
1426	921	—	645	—	596	205	
1485	1140	—	769	—	721	240	
1525	990	990	649	649	6.12 6.12		
1251	936	936	748	748	7.64 7.64		
1203	1118	1118	942	942	8.06 8.06		

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MRD. June 14, 1929. RH 1150

New Series

Stop	Star	Class	y	x	Defl	Defl	Cl	Dk
	26 ✓	f	1960	630	1398	1398	1535	250
19.8	27 ✓	f	1980	700	1315	1315	1555	250
	28 ✓	f	1990	1201	1410	1410	1730	252
20.0	27	p	2010	1130	1360	—	1710	251
20.2	28	p	2030	1153	1335	—	1730	251
	29	p	2029	1321	1500	—	1785	253
20.4	29 ✓	f	2047	979	1170	1170	1472	252
	30 ✓	f	2041	600	1410	1410	1527	253
20.6	31 ✓	f	2067	290	1240	1240	1470	251
21.4	30	p	2157	989	1320	—	1670	253
		15	1960	802	575	—	1590	250
		1	2001	445	880	—	1490	250
		2	—	—	918	—	1520	250
		3	—	—	1025	—	1565	251
		4	—	—	1093	—	1490	250
		5	—	—	1210	—	1600	252
		6	—	—	1390	—	1600	250
		7	—	—	1420	—	1560	252
		8	—	—	1555	—	1610	250

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2 JP – RH 1150 – June 14, 1929

	10	1960	805	562	—	1533	240
	1	2001	445	875	—	1470	240
	2	—	—	910	—	1511	240
	3	—	—	1018	—	1567	240
	4	—	—	1088	—	1480	241
	5	—	—	1209	—	1602	242
	6	—	—	1390	—	1602	242
	7	—	—	1410	—	1552	241
	8	—	—	1555	—	1610	245

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1928phae.proj.1262C

C.-Dk.	Deff. Dk.	Deff. Dk.	Reduced	Reduced	Mag.	L. No
1285	1148	1148	891	891	7.53 7.53	
1305	1065	1065	817	817	7.01 7.01	
1478	1158	1158	782	782	6.82 6.82	
1459	1109	—	761	—	666	279 ✓✓
1479	1084	—	735	—	650	294 ✓✓
1532	1247	—	814	—	697	297 ✓ ×
1220	918	918	751	751	6.67 6.67	
1274	1167	1167	914	914	7.75 7.75	
1219	989	989	810	810	6.98 6.98	✓
1417	1067	—	744	—	685	376 ×
1340	325	—	242	—		
1240	630	—	508	—		
1270	668	—	527	—		
1314	774	—	589	—		
1240	843	—	681	—		
1348	958	—	712	—		
1350	1140	—	844	—		
1308	1168	—	895	—		
1360	1306	—	960	—		
1293	322	—	249	—		
1230	635	—	519	—		
1271	670	—	528	—		
1327	778	—	587	—		
1239	847	—	685	—		
1360	967	—	712	—		
1360	1148	—	844	—		
1311	1169	—	891	—		
1365	1310	—	958	—		

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HgP - RA 11 50 - June 14, 1929

New Series

Strip	Class	Star	y	x	Defl	Defl	cl	Dk	Volts
21.6	f	32 ✓	2170	251	1200	1200	1451	242	
	f	33 ✓	2160	1050	1400	1402	1680	250	
21.8	p	31	2180	205	1311	—	1450	249	
22.0	p	32	2205	378	1270	—	1482	249	
22.0	f	34 ✓	2210	702	990	991	1548	249	
	p	33	2211	718	1210	—	1552	246	
22.2	f	35 ✓	2228	704	1242	1230	1574	250	
22.8	f	36 ✓	2278	738	1242	1248	1572	249	
23.0	p	37 ✓	2304	1140	1481	1466	1690	250	
	f	38 ✓	2301	1233	1030	1030	1701	250	
23.2	p	34	2328	691	1324	—	1560	244	
23.6	f	39	2368	430	1237	1240	1498	249	
	p	35	2371	1165	1244	—	1693	250	
23.8	p	36	2380	650	1363	—	1528	252	
24.0	p	37	2408	699	1242	—	1549	251	
	p	38	2407	786	1421	—	1579	252	
24.2	f	40 ✓	2431	653	920	920	1530	251	
24.4	p	39	2451	1054	1241	—	1631	251	
24.8	f	41 ✓	2481	705	1228	1225	1569	252	
25.2	p	40	2519	895	960	—	1608	253	
25.6	p	41	2575	552	659	—	1530	251	
	f	42 ✓	2564	805	1340	1354	1599	252	
26.6	p (2)	42	2670	931	792	—	1620	251	
	f (1)	43	2675	658	1343	1345	1570	251	
		10	1960	805	562	—	1538	250	
		1	2001	445	872	—	1471	250	
		2	—	—	902	—	1498	250	
		3	—	—	1018	—	1541	250	
		4	—	—	1079	—	1469	251	
		5	—	—	1210	—	1578	251	
		6	—	—	1371	—	1580	251	

Plate furnished

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1928phae.proj.1262C

Cl.-Dk.	Defl.-Dk.	Defl.-Dk.	Reduced	Reduced	Mag.	L. No
1209	958	958	790	790	6.80 6.80	
1430	1160	1162	804	806	6.88 6.89	
1201	1062	—	884	—	735	844
1233	1021	—	832	—	706	805
1299	741	742	571	572	5.52 5.52	
1306	964	—	737	—	650	627
1324	992	980	749	738	6.59 6.54	
1323	993	999	749	755	6.59 6.62	
1470	1231	1216	855	843	7.18 7.10	
1451	780	780	538	538	5.34 5.34	
1316	980	—	742	—	653	625
1249	988	991	790	793	6.80 6.82	
1443	994	—	688	—	623	426
1276	1111	—	872	—	729	642
1298	991	—	764	—	666	606
1327	1169	—	879	—	734	570
1279	669	669	524	524	5.25 5.25	
1380	990	—	718	—	640	474
1317	976	973	742	740	6.55 6.54	
1355	707	—	523	—	522	536
1279	408	—	320	—		-?
1347	1118	1102	830	820	7.02 6.97	
(2) 1369	541	—	395	—		
(1) 1319	1092	1094	826	827	7.00 7.00	
1288	312	—	242	—		
1220	622	—	511	—		
1248	652	—	524	—		
1291	768	—	545	—		
1218	828	—	681	—		
1327	959	—	722	—		
1329	1130	—	843	—		

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New Series

Strip	Class	Star	Y	X	Defl	Defl	Cl	Dk	Notes
		7	—	—	1408	—	1537	251	
		8	—	—	1540	—	1586	251	521

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1928phae.proj.126.C

Cl.-Dk.	Defl.-Dk.	Defl. Dk	Reduced	Reduced
1286	1157	—	900	—
1335	1289	—	965	—

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1928phae.proj.12572C

FMC RH 1151 June 15, 1929

New Series

trip	class	star	y	x	Defl	Defl	cl	Dk	Volt
		18	1955	861	239	—	1742	239	0.22
		1	2018	502	465	—	1700	191	
		2	—	—	447	—	1755	190	
		3	—	—	750	—	1799	193	
		4	—	—	828	—	1780	192	
		5	—	—	1020	—	1780	195	
		6	—	—	1328	—	1770	197	
		7	—	—	1394	—	1754	199	
		8	—	—	1650	—	1775	199	
14.6	f	1 ✓	1465	758	1402	1402	1773	202	
	f	2 ✓	1470	897	1460	1460	1794	207	
14.8	f	1	1491	720	800	—	1767	205	
	f	3 ✓	1481	810	1140	1140	1777	206	
15.2	f	2	1520	560	1399	—	1762	209	
	f	3	1530	642	1470	—	1763	210	
	f	4	1531	948	1458	—	1770	210	
15.4	f	5	1549	900	1600	—	1795	210	
	f	6	1547	1000	1190	—	1800	210	
15.6	f	4 ✓	1559	1003	1630	1630	1802	210	
	f	5 ✓	1568	1020	690	690	1788	210	
15.8	f	7	1588	731	1320	—	1769	210	
16.0	f	6 ✓	1609	1200	1530	1530	1821	212	
16.4	f	8	1652	808	1350	—	1792	214	
16.6	f	9	1678	800	1250	—	1800	213	
16.8	f	10	1690	422	1430	—	1734	219	
	f	7 ✓	1680	531	1200	1200	1756	217	
	f	11	1680	693	1527	—	1761	215	
	f	12	1690	802	1601	—	1765	215	
	f	13 ✓	1690	950	639	—	1780	216	
	f	8	1682	1086	1550	1550	1770	218	

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1928phae.proj.1261C

Cl.-Dk.	Diff.-Dk.	Diff.-Dk.	Reduced	Reduced	Magn.	L. NO
1503	0	—	0	—		
1509	274	—	181	—		
1565	257	—	164	—		
1606	557	—	347	—		
1538	636	—	413	—		
1585	825	—	519	—		
1573	1131	—	716	—		
1555	1195	—	768	—		
1576	1451	—	918	—		
1571	1200	1200	763	763	7.25 7.25	
1587	1253	1253	778	778	7.31 7.31	
1562	595	—	381	—	590	1214
1571	834	834	530	530	6.42 6.42	
1553	1198	—	766	—	726	1141
1553	1260	—	811	—	748	1104
1560	1248	—	799	—	742	23
1585	1390	—	775	—	730	8
1590	980	—	616	—	672	51
1592	1420	1420	890	890	7.92 7.92	
1578	480	480	304	304	5.62 5.62	
1559	1110	—	715	—	705	1208
1609	1318	1318	828	828	7.58 7.58	
1548	1136	—	720	—	706	1251
1587	1037	—	652	—	684	1242
1515	1211	—	803	—	743	1043
1539	983	983	640	640	6.80 6.80	
1546	1312	—	846	—	766	1166
1550	1386	—	896	—	796	1246
1564	423	—	272	—	552	56
1552	1332	1332	858	858	7.73 7.73	

	N	S
15195	50	870
12010	510	

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1928phae.proj.1267C

New Series

FMC RH 1151 June 15, 1929

Trip	Class	Star	y	x	Diff	Diff	cl	Dk	Voth
17.0	f	14	1703	848	1178	—	1781	219	
	f	9	1711	1077	650	650	1745	215	
17.2	f	15	1729	463	1460	—	1720	219	
	f	16	1732	848	1615	—	1769	220	
	f	10	1729	1283	650	650	1813	218	
17.4	f	11	1751	309	1480	1480	1742	220	
	?	12	1747	1100	1524	—	1782	220	
17.6	f	17	1770	927	1390	—	1770	220	
	f	18	1764	1216	986	—	1791	220	
17.8	f	19	1792	641	1432	—	1772	221	
18.2	f	20	1829	282	1250	—	1728	221	
	f	13	1821	980	1590	1590	1780	222	
18.4	f	21	1840	747	1428	—	1777	224	
	f	14	1840	782	1440	1440	1779	222	
	f	22	1840	1360	540	—	1828	220	
18.8	f	15	1890	603	1570	1570	1740	225	
	f	16	1889	918	1015	1015	1764	221	
	f	23	1890	1101	898	—	1769	222	
19.0	f	17	1910	550	1335	1335	1700	222	
	f	18	1910	1107	1173	1173	1781	222	
	f	19	1897	1130	1460	1462	1775	222	
	f	24	1900	1210	1260	—	1780	222	
		18	1955	861	819	—	1720	220	
		1	2015	502	585	—	1687	222	
		2	—	—	503	—	1720	220	
		3	—	—	770	—	1762	222	
		4	—	—	912	—	1690	220	
		5	—	—	1072	—	1748	220	
		6	—	—	1370	—	1730	220	
		7	—	—	1445	—	1725	221	
		8	—	—	1668	—	1730	221	

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1928phae.proj.126.C

Cl.-Dk.	Defl.-Dk.	Defl.-Dk	Reduced	Reduced	Mag	L. No.
1564	959	—	612	—	670	1279
1530	435	435	283	283	5.54 5.54	
1501	1241	—	828	—	756	1044
1549	1395	—	896	—	795	f
1595	432	432	272	272	5.51 5.51	
1522	1260	1260	826	826	7.55 7.55	
1562	1304	—	1017	—	② 721	②62
1550	1170	—	754	—	①	↓
1571	766	—	488	—	577	183
1551	1211	—	782	—	734	1109
1507	1029	—	685	—	695	960 ?
1568	1368	1368	880	880	7.87 7.87	
1553	1204	—	776	—	731	1171
1557	1218	1218	795	795	7.40 7.40	
1603	316	—	196	—	525	239
1515	1345	1345	886	886	7.89 7.89	
1543	794	794	515	516	6.37 6.39	
1547	676	—	438	—	609	205
1478	1113	1113	749	749	7.18 7.18	
1559	951	951	610	610	6.70 6.70	
1563	1238	1240	796	798	7.40 7.41	
1558	1038	—	665	—	689	240?
1500	99	—	66	—		
1465	363	—	247	—		
1500	283	—	189	—		
1540	548	—	355	—		
1470	692	—	468	—		
1528	852	—	559	—		
1510	1150	—	763	—		
1504	1224	—	812	—		
1509	1447	—	961	—		

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1928phae.proj.12602C

FMC RH 1151 June 18, 1929

New Series

Trip	Hrs	Day	y	x	Diff	Diff	c	Dk	Volt
		18	1955	880	319	—	1720	190	5.10
		1	2018	520	607	—	1700	190	
		2	—	—	525	—	1730	190	
		3	—	—	800	—	1772	188	
		4	—	—	920	—	1708	190	
		5	—	—	1071	—	1750	190	
		6	—	—	1364	—	1750	190	
		7	—	—	1430	—	1759	190	
		8	—	—	1670	—	1769	191	
19.2		20	1930	671	1110	1110	1760	190	
		21	1928	835	1580	1580	1778	188	
		22	1920	1122	1150	1150	1795	190	
		23	1922	1380	980	980	1820	190	
19.4		25	1948	345	1490	—	1661	190	
19.6		24	1970	700	1510	1510	1750	190	
19.8		25	1983	378	1520	1521	1682	181	
		26	1990	872	1350	1350	1762	185	
20.0		27	2001	1082	1610	1610	1821	190	
		26	2005	1202	1161	—	1778	190	
		28	2001	1278	1315	1315	1788	190	
		29	2000	1438	1560	1560	1835	190	
20.2		27	2020	643	1593	—	1770	190	
		28	2028	1230	1270	—	1800	190	
20.6		30	2078	364	1300	1300	1708	188	
		31	2059	451	1180	1180	1710	182	
		32	2061	679	1510	1510	1755	185	
		29	2060	1271	1610	—	1825	190	
21.0		30	2100	450	1580	—	1705	188	
		31	2110	1120	1578	—	1828	188	
21.4		32	2152	1065	1091	—	1810	180	

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1928phae.proj.12602C

Co.-Dk.	Defl.-Dk.	Defl.-Dk.	Reduced	Reduced	Mag.	L.No
1530	129	—	84	—		
1510	417	—	276	—		
1540	335	—	217	—		
1584	612	—	386	—		
1518	730	—	476	—		
1560	881	—	566	—		
1560	1174	—	751	—		
1569	1240	—	790	—		
1598	1479	—	938	—		
1570	920	920	585	585	6.43 6.43	
1590	1392	1392	876	876	7.86 7.86	
1605	960	960	596	596	6.47 6.47	
1630	790	790	485	485	6.04 6.04	
1471	1300	—	883	—	790	926
1560	1320	1320	858	858	7.72 7.72	
1501	1339	1340	916	917	8.14 8.15	
1577	1165	1165	740	740	7.04 7.04	
1631	1420	1420	870	870	7.81 7.81	
1588	971	—	611	—	661	279
1598	1125	1126	704	704	6.89 6.89	
1645	1370	1370	832	832	7.52 7.52	
1580	1403	—	890	—	795	
1610	1080	—	667	—	683	294
1520	1112	1112	731	731	7.01 7.01	
1528	998	998	651	651	6.69 6.69	
1570	1325	1325	848	848	7.63 7.63	
1635	1420	—	868	—	779	2a
1517	1392	—	917	—	816	
1640	1390	—	848	—	764	338
1630	991	—	559	—	641	376

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1928phae.proj.1267C

New Series

mc RH 1151 June 18, 1929

Slit	Class	Star	y	y	Dyz	Dyz	a	Δa Vel
21.6		33	2170	1125	1432	1365	1851	183
21.8		34	2180	331	1365	1220	1745	180
22.0		33	2200	280	1450	—	1758	172
22.2		35	2220	279	790	790	1822	177
		36	2239	780	1240	1243	1800	180
		34	2220	798	1185	—	1802	179
		15	1955	880	337	—	1800	178
		1	2018	520	660	—	1768	178
		2	—	—	540	—	1800	179
		3	—	—	852	—	1849	180
		4	—	—	1031	—	1770	180
		5	—	—	1180	—	1820	180
		6	—	—	1435	—	1814	180
		7	—	—	1519	—	1805	180
		8	—	—	1705	—	1814	180

Hg + RH 1151 - June 18, 1929

		15	1955	878	310	—	1837	152
		1	2018	521	660	—	1810	158
		2	—	—	549	—	1810	160
		3	—	—	860	—	1880	164
		4	—	—	1030	—	1764	169
		5	—	—	1140	—	1780	170
		6	—	—	1421	—	1793	170
		7	—	—	1470	—	1813	170
		8	—	—	1686	—	1791	172
22.8	f	37	2289	811	1253	1255	1780	180
23.0	f	36	2310	1309	712	720	1790	178
23.2	p	35	2331	775	1181	—	1739	180
23.6	p	36	2364	1250	1082	—	1820	180
23.8	f	39	2379	502	1310	1312	1730	181

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1928phae.proj.1267C

Cl.-Dk.	Defl.-Dk.	Defl.-Dk.	Reduct.	Reduct.	Mag.	L. No
1668	1249	1182	748	709	7.08 6.90	
1565	1185	1040	757	663	7.02 6.73	
1586	1278	—	806	—	737	844 ✓
1646	613	613	373	373	5.69 5.69	
1620	1060	1063	664	656	6.69 6.70	
1623	1006	=	652	—	675	627 ✓
1622	159	—	98	—		
1590	482	—	304	—		
1621	361	—	223	—		
1669	662	—	404	—		
1590	851	—	534	—		
1640	1000	—	609	—		
1634	1255	—	766	—		
1625	1339	—	824	—		
1634	1526	—	935	—		
1685	158	—	94	—		
1652	502	—	304	—		
1650	389	—	236	—		
1716	696	—	402	—		
1595	861	—	539	—		
1610	970	—	603	—		
1623	1251	—	770	—		
1643	1300	—	790	—		
1619	1514	—	926	—		
1600	1073	1075	679	681	6.79 6.80	
1672	534	542	332	337	5.47 5.48	
1559	1001	—	642	—	668	625 ✓
1640	982	—	550	—	633	426 ✓ ×
1549	1129	1131	728	730	6.98 6.99	

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1928phae.proj.12602C

New Series

Setup	class	star	y	z	Dye	Dye	a	Da	Volt
	p	37	2390	733	1421	—	1743	182	
24.0	p	38	2412	782	1229	—	1795	189	
	p	39	2410	870	1489	—	1772	190	
24.4	f	40	2444	729	708	710	1770	189	
	p	40	2450	1140	1112	—	1788	190	
24.8	f	41	2492	779	1221	1210	1787	192	
25.2	p	41	2519	983	730	—	1849	191	
25.8	p	42	2588	643	431	—	1841	191	
	f	42	2580	880	1460	1452	1852	200	
26.8	f	1	1955	878	368	—	1749	196	
		1	2018	521	711	—	1818	198	
Plate		2	—	—	603	—	1830	198	
Exposed		3	—	—	898	—	1911	200	
		4	—	—	1053	—	1802	200	
		5	—	—	1201	—	1868	200	
		6	—	—	1498	—	1862	202	
		7	—	—	1540	—	1890	202	
		8	—	—	1787	—	1893	203	510

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1928phae.proj.1202C

Cl. Dk.	Defl. Dk.	Defl. Dk.	Reduced	Reduced	Magn.	L. No
1561	1239	—	781	—	724	642 ✓ ✓
1606	1040	—	646	—	670	606 ✓
1582	1299	—	818	—	737	570 ✓ ✓
1581	519	621	327	329	5.44 ← 5.45	✓ very uncertain curve
1598	922	—	578	—	545	474 ✓
1596	1029	1018	644	636	6.65 6.62	
1658	539	—	325	—	544	536 ✓
1650	340	—	146	—	not distinct curve ?	660 ?
1652	1260	1252	762	757	7.13 7.10	
1553	172	—	111	—		
1620	513	—	338	—		
1632	405	—	248	—		
1711	698	—	466	—		
1602	853	—	532	—		
1668	1001	—	599	—		
1660	1296	—	779	—		
1688	1338	—	790	—		
1690	1584	—	939	—		

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1928phae.proj.1622C

New Series

FMC June 21, 1929 RH 11 71

Strip	Class	Star	Y	b	Dpg	Dpl	Cl	Dk	Roots
		18	2125	865	371	—	1340	168	
		1	2070	1225	524	—	1359	168	
		2	—	—	599	—	1392	169	
		3	—	—	740	—	1412	170	
		4	—	—	790	—	1370	170	
		5	—	—	965	—	1410	171	
		6	—	—	1090	—	1378	171	
		7	—	—	1110	—	1371	171	
		8	—	—	1290	—	1386	172	
14.8	f	1	1479	860	1100	1100	1358	172	
15.0	f	1	1515	585	1125	—	1409	180	
	f	2	1515	1065	1155	—	1321	175	
	f	3	1501	1098	490	—	1320	175	
15.2	f	4	1530	630	1288	—	1404	180	
	f	5	1530	1187	1160	—	1335	179	
15.6	f	6	1560	708	1225	—	1401	180	
	f	7	1571	756	739	—	1393	188	
	f	2	1560	962	990	990	1370	185	
	f	8	1570	1149	1180	—	1335	185	
15.8	f	9	1581	771	1238	—	1369	185	
	f	10	1590	900	1240	—	1369	185	
16.0	f	3	1610	1016	700	700	1339	184	
16.4	f	11	1650	548	1290	—	1465	188	
	f	12	1641	600	980	—	1435	185	
	f	13	1640	1110	1148	—	1358	188	
16.6	f	14	1678	910	1139	—	1342	189	
	f	15	1678	958	971	—	1370	189	
	f	4	1668	1215	1200	1200	1359	189	
16.8	f	16	1680	870	1150	—	1380	185	
	f	5	1690	928	1220	1220	1385	188	

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1928phae.proj.12620

Cl.-Dk.	Defl.-Dk.	Defl.-Dk	Reduced	Reduced	Magn.	L. No.
1172	203	—	173	—		
1191	356	—	298	—		
1223	430	—	352	—		
1242	570	—	459	—		
1200	620	—	517	—		
1239	794	—	642	—		
1207	919	—	762	—		
1200	939	—	783	—		
1214	1118	—	920	—		
1186	928	928	783	783	7.32 7.32	
1229	945	—	770	—	715	498 ✓ ×
1146	980	—	857	—	770	647 ✓ ×
1145	315	—	275	—	not drawn on curve	660 ×
1224	1108	—	905	—	804	509 ×
1156	981	—	860	—	765	683 ✓ ×
1221	1045	—	856	—	770	523 ✓ ×
1205	551	—	458	—	567 ✓	536 ✓ ×
1185	805	805	680	680	6.65 6.65	
1150	995	—	865	—	775	681 ✓ ×
1184	1053	—	887	—	790	541 ✓ ✓
1184	1056	—	890	—	792	583 ✓ ✓
1155	516	516	447	447	5.62 5.62	
1277	1102	—	864	—	775	457 ✓ ×
1260	795	—	637	—	644	474 ✓ ×
1170	960	—	822	—	747	679 ✓ ✓
1153	950	—	824	—	749	587 ✓ ✓
1181	782	—	662	—	656	606 ✓ ✓
1170	1011	1011	865	865	7.88 7.88	
1195	965	—	808	—	738	570 ✓ ✓
1197	1032	1032	861	861	7.86 7.86	

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1928phae.proj.126C

New Series

FMC
MRD

RH 1171 June 21, 1929

Strip	class	star	y	x	Dec	Dif	c	Dh	Volt
16.8	fo	17	1691	1109	1280	—	1368	190	
	f	6	1678	1240	980	980	1368	187	
17.0	f	7	1702	563	1289	1290	1453	188	
	f	18	1700	1008	1085	—	1362	188	
17.2	fo	19	1728	490	950	—	1460	189	
17.4	f	8	1748	432	815	815	1450	185	
	f	9	1740	530	1180	1183	1462	188	
	fo	20	1739	609	1242	—	1445	188	
note: voltmeter only 5 — has a battery been changed?	f	10	1757	931	1190	1190	1380	188	
	fo	21	1758	966	950	—	1345	188	
	fo	22	1750	1121	1135	—	1387	187	
	fo	23	1754	1372	1210	—	1380	190	
17.6	fo	24	1759	508	1246	—	1440	190	
	f	11	1769	931	1010	1012	1395	188	
	f	12	1770	1422	1210	1210	1389	188	
MRD 17.8	f	13	1790	1407	1240	1240	1380	200	
18.0	fo	25	1802	939	1215	—	1365	198	
	f	14	1810	956	1240	1240	1390	200	
	fo	26	1810	1170	1210	—	1350	200	
	fo	27	1800	1219	1255	—	1360	195	
	fo	28	1810	1431	1100	—	1390	197	
18.2	f	15	1826	720	1260	1260	1415	200	
	f	16	1819	965	1010	1010	1350	195	
	fo	29	1820	1310	1175	—	1370	196	
	fo	30	1829	1462	1250	—	1410	198	
18.4	f	17	1838	799	1243	1243	1380	197	
	f	18	1833	965	740	740	1360	192	
	f	19	1850	1269	1197	1197	1360	192	
18.6	fo	31	1870	947	990	—	1382	190	
	fo	32	1862	1287	1050	—	1369	190	

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1928phae..proj..1..C

Cl.-Dk.	Defl.-Dk.	Defl.-Dk.	Reduced	Reduced	Magn.	L.No
1178	1090	—	924	—	818	688
1181	793	793	672	672	6.61 6.61	
1265	1101	1102	871	871	7.92 7.92	
1174	897	—	764	—	713	642
1271	761	—	599	—	625	426
1265	630	630	498	498	5.84 5.84	
1274	992	995	778	778	7.28 7.28	
1267	1054	—	840	—	758	451
1192	1002	1002	841	841	7.72 7.72	
1157	762	—	660	—	655	625
1200	946	—	790	—	727	713
1190	1020	—	858	—	772	k
1250	1056	—	845	—	763	420
1207	822	824	682	684	6.65 6.66	
1201	1022	1022	852	852	7.80 7.80	
1180	1040	1040	882	882	7.98 7.98	
1167	1017	—	873	—	783	601
1190	1040	1040	875	875	7.95 7.95	
1150	1010	—	879	—	785	748
1166	1060	—	912	—	814	
1193	903	—	758	—	708	809
1215	1060	1060	873	873	7.93 7.93	
1155	815	815	706	706	6.78 6.78	
1174	979	—	835	—	755	
1212	1055	—	869	—	779	
1183	1046	1046	883	883	7.99 7.99	
1168	548	548	470	470	5.74 5.74	
1168	1005	1005	862	862	7.86 7.86	
1192	800	—	672	—	662	627
1179	860	—	731	—	692	805

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1928phae.proj.126MC

142 MRD June 21, 1929 RH 1171

new series

Strip	Class	Star	y	x	Dyll	Dyll	a	Dk
	f	20	1870	1417	990	990	1399	192
		15	2125	865	430	—	1380	190
		1	2070	1225	575	—	1390	190
		2	—	—	675	—	1430	192
		3	—	—	780	—	1430	192
		4	—	—	834	—	1400	192
		5	—	—	1000	—	1425	193
		6	—	—	1120	—	1390	192
		7	—	—	1140	—	1384	191
		8	—	—	1330	—	1378	193

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dyP- RH 1171 — June 21, 1929 505

		10	2125	865	420	—	1302	191
		1	2070	1226	565	—	1375	192
		2	—	—	641	—	1414	192
		3	—	—	771	—	1431	193
		4	—	—	801	—	1393	192
		5	—	—	959	—	1404	193
		6	—	—	1100	—	1389	192
		7	—	—	1120	—	1374	193
		8	—	—	1350	—	1389	192
18.8	f	21	1878	530	1221	1240	1441	198
	f	22	1882	619	1121	1109	1428	199
	p	33	1882	1458	1070	—	1412	199
19.4	p	34	1939	678	1030	—	1392	200
19.8	p	35	1980	623	1242	—	1406	200
	f	23	1990	1068	1172	1172	1400	199
	f	24	1979	1379	972	971	1374	199
	p	36	1985	1382	1230	—	1380	200
20.0	f	25	2000	1290	900	900	1378	199

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1928phae.proj.12570C

Cl-Dk.	Defl-Dk.	Defl-Lt.	Reduced	Reduced	Magn.	L. No
1207	798	798	662	662	6.54 6.54	
1190	240	—	202	—		
1200	385	—	321	—		
1238	483	—	391	—		
1238	588	—	476	—		
1208	642	—	532	—		
1232	807	—	657	—		
1198	928	—	776	—		
1193	949	—	796	—		
1185	1137	—	961	—		
1111	229	—	206	—		
1183	363	—	307	—		
1202	449	—	368	—		
1238	578	—	468	—		
1201	609	—	508	—		
1211	766	—	633	—		
1197	908	—	760	—		
1181	927	—	786	—		
1197	1158	—	969	—		
1243	1023	1042	824	840	7.53 7.62	
1229	922	910	752	742	7.01 6.94	
1213	891	—	719	—	691	844 ✓
1192	830	—	697	—	678	876 ✓
1216	1042	—	865	—	774	338 ✓
1201	973	973	811	811	7.44 7.44	
1175	773	772	658	657	6.48 6.47	
1180	1030	—	658	—	658	880 ✓
1179	701	701	596	596	6.20 6.20	

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1928phae.proj.1262C

New Series

α Aql P – R.A. 1171 – June 21, 1929

Step	Class	Star	V	C	Dpl	Dpp	Cl	Db	Volts
20.2	p	37	2030	441	1267	—	1440	200	
	l	26	2030	1418	1200	1200	1402	200	
20.4	l	27	2055	467	1102	1110	1457	200	
20.6	l	28	2060	906	1180	1221	1441	200	
	p	38	2065	519	1000	—	1412	200	
	l	38B ~~29~~	2062	971	1061	—	1395	200	
	l	30	2069	1371	1161	1181	1388	200	
20.8	p	39	2079	348	1114	—	1445	200	
	p	40	2077	539	1044	—	1430	200	
	l	31	2081	1041	1159	1157	1383	200	
	p	41	2088	1309	1181	—	1379	200	
21.0	p	42	2098	571	1291	—	1430	199	
21.2	l	32	2130	364	971	971	1457	200	
	l	33	2121	1072	921	928	1374	200	
21.4	p	43	2150	448	1251	—	1440	201	
	l	34	2151	599	1281	1289	1423	200	
	l	35	2139	621	1041	1041	1424	200	
	l	36	2137	1179	1052	1057	1380	200	
	p	44	2140	1400	1150	—	1401	200	
21.6	l	37	2160	809	930	933	1391	200	
	l	38	2160	1213	1200	1195	1380	201	
21.8	p	45	2188	517	1098	—	1410	200	
	p	46	2191	625	911	—	1405	200	
22.0	l	39	2209	946	1122	1128	1397	201	
22.2	l	40	2228	749	1215	1225	1404	200	
	l	41	2215	1302	1156	1168	1388	201	
22.4	p	47	2251	326	938	—	1460	201	
	p	48	2248	369	940	—	1452	200	
	p	49	2240	983	1136	—	1377	200	
	p	50	2256	1446	972	—	1418	201	

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1928phae.proj.12620

Cl.-Dk.	Defl.-Dk.	Defl.-Dk.	Reduced	Reduced	Magn.	L.No.
1240	1021	—	830	—	753	2a
1202	1000	1000	833	833	7.57 7.57	
1257	902	910	719	726	6.79 6.83	
1241	980	1021	790	823	7.29 7.52	
1212	800	—	661	—	661	294
1195	861	—	721	—	693	
1188	961	981	810	830	7.43 7.56	
1245	914	—	735	—	701	297
1230	844	—	686	—	673	279
1183	959	957	811	810	7.44 7.43	
1179	981	—	834	—	756	907
1231	1092	—	887	—	786	274
1259	771	771	614	614	6.27 6.27	
1174	721	728	614	620	6.27 6.30	
1240	1051	—	847	—	763	264
1233	1081	1089	876	882	7.83 7.86	
1227	841	841	686	686	6.61 6.61	
1180	852	857	722	727	6.81 6.85	
1201	950	—	790	—	729	926
1191	730	733	612	615	6.26 6.27	
1179	999	994	848	844	7.65 7.63	
1216	898	—	742	—	704	240
1205	711	—	590	—	626	205 ?
1196	921	927	770	776	7.12 7.17	
1204	1015	1025	842	851	7.62 7.68	
1187	955	967	805	815	7.40 7.47	
1259	737	—	586	—	624	242
1252	570	—	456	—	567	239
1177	936	—	796	—	734	117
1247	771	—	634	—	649	960

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1928phae.proj.1267C

New Series

RH 1171

Strip	Class	Star	Y	X	Dyll	Dyll	Cl.	Dk	Pots
		1S	2125	865	420	—	1331	200	
		1	2070	1226	541	—	1357	201	
		2	—	—	643	—	1416	201	
		3	—	—	768	—	1398	201	
		4	—	—	811	—	1380	201	
		5	—	—	979	—	1405	201	
		6	—	—	1105	—	1370	202	
		7	—	—	1111	—	1351	202	
		8	—	—	1340	—	1396	203	5.55
FMC	June 22, 1929	1S	2125	857	388	—	1488	110	5.39
	RH 1171	1	2070	1218	570	—	1465	120	
		2	—	—	700	—	1478	121	
		3	—	—	815	—	1490	120	
		4	—	—	891	—	1450	120	
		5	—	—	1040	—	1481	121	
		6	—	—	1120	—	1450	128	
		7	—	—	1160	—	1455	130	
		8	—	—	1360	—	1469	132	
22.8		51	2285	1080	1197	—	1470	130	
		42	2292	1412	1210	1215	1500	129	
23.0		52	2312	796	1165	—	1470	122	
		43	2300	1061	1310	1310	1460	125	
23.2		53	2331	370	1302	—	1512	130	
		44	2320	437	930	930	1508	130	
		54	2319	505	1020	—	1495	130	
		45	2338	642	870	870	1472	130	
		55	2321	915	840	—	1470	130	
23.4		56	2339	621	1280	—	1483	130	
		46	2340	1067	1340	1340	1442	130	
		57	2350	1259	1210	—	1452	130	

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1928phae.proj.1267C

Obj. Dk.	Defl. Dk.	Defl. Dk.	Reduced	Reduced	Magn.	L. No.
1131	220	—	194	—		
1156	370	—	320	—		
1215	442	—	363	—		
1197	567	—	474	—		
1179	610	—	617	—		
1204	778	—	646	—		
1168	898	—	769	—		
1149	909	—	792	—		
1187	1131	—	957	—		
1378	278	—	209	—		
1345	450	—	335	—		
1357	579	—	426	—		
1370	715	—	516	—		
1330	771	—	579	—		
1360	919	—	676	—		
1322	992	—	760	—		
1326	1030	—	777	—		
1337	1228	—	957	—		
1340	1067	—	795	—	726	1109?
1321	1081	1086	819	823	7.41 7.42	
1348	1043	—	775	—	716	62
1335	1185	1185	888	888	7.92 7.92	
1352	1172	—	849	—	756	206
1378	800	800	682	682	5.96 5.96	
1365	890	—	652	—	646	183
1342	740	740	552	552	5.83 5.83	
1340	710	—	630	—	581	sequence star no 3
1353	1150	—	851	—	757	b
1312	1210	1218	921	921	8.19 8.19	
1322	1080	—	817	—	738	1044

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1928phae.proj.1267C

Duo Series

FMC
MRD

RH 1171 June 22, 1929

Strip	Class	Star	y	x	Defl	Defl	cl	Dk Volt
23.6	f	47	2362	634	1280	1280	1458	132
	fp	58	2374	650	1329	—	1480	132
	f	48	2369	1190	1030	1030	1442	132
	f	59	2360	1303	1020	—	1478	133
23.8	f	49	2390	504	1278	1280	1500	136
	fp	60	2392	770	853	—	1478	131
	fp	61	2390	919	1229	—	1470	131
	f	50	2391	1001	1310	1310	1480	131
MRD	f	51	2389	1030	600	600	1470	132
24.0	fp	62	2404	921	1080	—	1450	130
	fp	63	2400	1030	1255	—	1468	131
	f	52	2394	1124	1260	1260	1448	130
24.2	fp	64	2428	913	1180	—	1452	130
24.4	f	53	2440	522	1230	1230	1462	131
	fp	65	2441	921	1357	—	1465	131
	f	54	2440	1089	1270	1270	1459	130
24.6	f	55	2475	642	1295	1295	1472	132
	fp	66	2470	764	1350	—	1463	132
24.8	fp	67	2479	502	1320	—	1455	131
	f	56	2480	700	850	850	1472	132
	f	57	2490	717	1310	1310	1450	130
	f	58	2486	847	1340	1340	1470	133
	fp	15	2492	991	1115	—	1465	132
25.0	fp	69	2506	1051	1310	—	1470	133
	f	59	2510	1059	1230	1230	1455	131
	fp	70	2501	1219	1309	—	1458	131
25.2	fp	71	2532	827	1295	—	1465	132
25.4	fp	72	2540	723	1080	—	1470	133
	fp	73	2540	776	1285	—	1460	131
	fp	74	2550	779	1180	—	1410	130

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1928phae.proj.1267C

C.-Dk.	Defl.-Dk.	Defl.-Dk.	Reduced	Reduced	Magn.	L. No
1326	1148	1148	866	866	7.75 7.75	
1348	1197	—	889	—	784	118 ✓
1310	898	898	686	686	6.57 6.57	
1345	887	—	660	—	652	1030 ✓
1364	1142	1144	837	838	7.54 7.55	
1347	722	—	536	—	585	56 ✓
1339	1098	—	820	—	740	1246 ✓
1349	1179	1179	873	873	7.82 7.82	
1338	468	468	350	350	4.80 4.80	
1320	960	—	720	—	686	1242 ✓
1337	1124	—	841	—	752	1166 ✓
1318	1130	1130	858	858	7.70 7.70	
1322	1050	—	794	—	725	1251 ✓
1331	1099	1099	825	825	7.46 7.46	
1334	1226	—	918	—	805	1244 ✓
1329	1140	1140	858	858	7.70 7.70	
1340	1163	1163	867	867	7.75 7.75	
1331	1218	—	914	—	801	
1324	1189	—	897	—	789	135 ×
1340	718	718	536	536	5.76 5.76	
1320	1180	1180	894	894	7.95 7.95	
1337	1207	1207	904	904	8.03 8.03	
1332	983	—	738	—	697	1208 ×
1337	1177	—	881	—	779	1176 ×
1324	1099	1099	830	830	7.50 7.50	
1327	1178	—	886	—	782	1110 ×
1333	1163	—	873	—	773	8 ×
1337	947	—	709	—	680	51 ×
1329	1154	—	870	—	772	9 ×
1280	1058	—	822	—	742	23 ×

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1928phae.proj.1262C

New Series MRD June 22, 1929, RH 1171

Strip	Class	Star	y	x	Defl	Defl	Cl	Dk
	f	75	2547	1008	1325	—	1445	130
	f	76	2550	1080	1170	—	1453	130
25.6	f	60	2570	862	1235	1235	1490	132
	f	61	2563	910	1030	1030	1495	132
	f	62	2565	1063	1355	1355	1480	132
	pf	77	2560	1167	1120	—	1480	132
25.8	f	63	2579	822	1205	1205	1490	133
	f	64	2580	962	1155	1155	1470	131
	pf	78	2589	1001	880	—	1470	131
26.0	pf	79	2602	960	1220	—	1488	132
	f	66	2601	1000	1310	1310	1470	130
	f	15	2125	857	435	—	1410	130
		1	2070	1218	630	—	1420	131
		2	—	—	710	—	1455	130
		3	—	—	830	—	1454	130
		4	—	—	885	—	1430	129
		5	—	—	1070	—	1450	129
		6	—	—	1135	—	1410	130
		7	—	—	1175	—	1410	130
		8	—	—	1380	—	1430	132

Plate finished.

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1928phae.proj.1252C

O.-Dk.	Deff-Dk	Deff-Dk.	Reduced	Reduced	Magn.	L.No
1315	1195	—	910	—	799	1201 x
1323	1040	—	787	—	723	1104 x
1358	1103	1103	814	814	7.39 7.39	
1343	898	898	667	667	6.46 6.46	
1348	1223	1223	907	907	8.05 8.05	
1348	988	—	732	—	693	1141 x
1357	1072	1072	791	791	7.23 7.23	
1339	1024	1024	765	765	7.06 7.06	
1339	749	—	560	—	596	1214 x
1356	1088	—	802	—	730	
1340	1180	1180	880	880	7.86 7.86	
1280	305	—	238	—		
1289	499	—	387	—		
1326	580	—	437	—		
1324	700	—	528	—		
1301	756	—	580	—		
1321	941	—	712	—		
1280	1005	—	785	—		
1280	1045	—	824	—		
1298	1248	—	961	—		

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1928phae.proj.1262C

New Series

F.M.C. RH 1158, July 1, 1929
continued from RK 66 p 216.

Strip	Class	Star	y	x	Diff	Diff	α	Dec	Volt
		18	1980	851	320	—	1471	075	5.20
		1	1941	490	612	—	1500	078	
		2	—	—	771	—	1490	080	
		3	—	—	850	—	1492	080	
		4	—	—	900	—	1503	081	
		5	—	—	980	—	1480	081	
		6	—	—	1182	—	1510	082	
		7	—	—	1169	—	1502	085	
		8	—	—	1390	—	1494	085	
19.2	p	37	1920	221	1388	—	1510	089	
19.4	p	38	1950	298	1325	—	1480	091	
	p	39	1941	915	1389	—	1510	092	
	p	18	1952	1230	1314	1310	1590	098	
	p	19	1950	1310	1074	1071	1655	100	
19.6	p	20	1970	505	1348	1345	1520	101	
19.8	p	40	1985	315	1332	—	1515	102	
	p	21	1987	520	1010	1010	1520	102	
	p	22	1985	671	1120	1110	1500	105	
	p	23	1988	782	1100	1108	1518	108	
	p	41	1989	1363	680	—	1681	110	
	p	42	1990	1408	918	—	1700	110	
	p	24	1992	1410	915	912	1715	110	
20.0	p	25	2010	526	615	615	1530	110	
	p	43	2001	708	1312	—	1512	111	
	p	26	2010	909	1312	1310	1530	115	
	p	44	2010	1205	1120	—	1635	118	
20.2	p	27	2030	380	1332	1332	1525	120	
20.6	p	45	2062	218	1200	—	1551	120	
	p	28	2065	545	1095	1099	1522	121	
	p	29	2060	983	942	942	1555	121	

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1928phae.proj.12502C

Q.-Dk.	Defl.-Dk.	Defl.-Dk.	Reduced	Reduced	Magn.	L.No
1396	245	—	176	—		
1422	534	—	376	—		
1410	691	—	491	—		
1412	770	—	547	—		
1422	819	—	576	—		
1399	899	—	643	—		
1418	1050	—	742	—		
1417	1084	—	767	—		
1409	1306	—	928	—		
1421	1299	—	914	—	8.25	
1389	1234	—	891	—	8.08	
1418	1296	—	914	—	8.24	105 ✓✓
1492	1216	1212	813	812	7.59, 7.58	
1555	974	971	626	625	6.26, 6.25	
1419	1247	1244	880	877	8.02, 7.99	
1413	1230	—	871	—	7.96	880 ✓✗
1418	908	908	641	641	6.39, 6.39	
1395	1015	1005	727	721	7.02, 6.97	
1410	992	1000	704	710	6.84, 6.89	
1571	570	—	363	—	4.13	239 ✓✗
1590	808	—	509	—	5.37	242 ✓✗
1606	805	802	502	500	5.33, 5.30	
1420	505	505	356	356	4.06, 4.06	
1401	1201	—	857	—	7.88	2N ✓✗
1416	1197	1195	846	845	7.81, 7.80	
1517	902	—	696	—	6.05	240 ✓
1405	1212	1212	863	863	7.90, 7.90	
1431	1080	—	754	—	7.23	844 ✓✗
1401	974	978	695	697	6.75, 6.77	
1434	821	821	573	573	5.86, 5.86	

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1928phae.proj.12620

154 7mc RH 1158 July 1, 1929

New Series

Strip	Class	Star	y	x	Dyg	Dyg	d	Dh	Voch
20.6	f	46	2060	1264	1379	—	1650	122	
20.8	f	30	2080	785	1318	1316	1558	125	
	f/p	47	2080	1130	1380	—	1598	127	
21.0	f	31	2111	862	1262	1250	1549	129	
	f/p	48	2100	1159	1110	—	1615	180	
		15	1980	851	385	—	1512	130	
		1	1941	490	705	—	1540	130	
		2	—	—	855	—	1532	130	
		3	—	—	918	—	1535	130	
		4	—	—	963	—	1540	132	
		5	—	—	1051	—	1521	131	
		6	—	—	1189	—	1551	131	
		7	—	—	1225	—	1542	132	
		8	—	—	1430	—	1530	133	
	Dyp	RH 1158 — July 1, 1929							
		14	1980	850	401	—	1439	120	520
		1	1941	490	705	—	1528	120	
		2	—	—	852	—	1522	120	
		3	—	—	920	—	1530	120	
		4	—	—	961	—	1539	123	
		5	—	—	1043	—	1518	123	
		6	—	—	1188	—	1548	129	
		7	—	—	1209	—	1551	130	
		8	—	—	1430	—	1519	130	
21.2	p	49	2129	379	1129	—	1533	130	
	f	32	2125	524	1298	1291	1503	132	
	f	33	2125	740	1261	1262	1569	133	
	p	50	2123	1178	1009	—	1581	132	
	f	34	2127	1195	970	970	1598	134	

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1928phae.proj.12602C

Obs.-Dk.	Diff.-Dk.	Diff.-Dk.	Reduced	Reduced	Magn.	L.No.
1528	1257	—	823	—	7.65	264
1433	1193	1191	832	831	7.72, 7.72	
1471	1263	—	851	—	7.84	274
1420	1133	1121	800	791	7.50, 7.46	
1485	981	—	660	—	6.51	279
1382	265	—	184	—		
1410	575	—	408	—		
1402	726	—	518	—		
1399	788	—	564	—		
1408	831	—	591	—		
1390	920	—	662	—		
1420	1058	—	745	—		
1410	1093	—	776	—		
1397	1297	—	929	—		
1319	281	—	213	—		
1408	585	—	416	—		
1402	732	—	523	—		
1410	800	—	567	—		
1416	838	—	592	—		
1395	920	—	660	—		
1419	1059	—	746	—		
1421	1079	—	756	—		
1389	1300	—	937	—		
1403	999	—	712	—	6.91	805
1371	1166	1159	850	845	7.81, 7.75	
1436	1128	1129	775	776	7.35, 7.35	
1449	877	—	606	—	6.14	294
1464	836	836	571	571	5.87, 5.87	

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1928phae.proj.126C

DLP – RH 1158 – July 1, 1929

New Series

Mag	Class	Star	η	ξ	Diff	Diff	Cl.	Dc	Dec
21.4	p	51	2141	223	1240	—	1540	137	
21.6	p	52	2161	345	1300	—	1528	139	
	p	53	2170	1210	1290	—	1599	140	
	p	54	2150	1342	1130	—	1639	140	
21.8	p	55	2180	1050	1304	—	1559	140	
22.0	p	56	2210	268	1299	—	1500	142	
	ℓ	35	2200	290	1309	1309	1520	144	
	p	57	2204	429	1388	—	1530	144	
	p	58	2210	480	1325	—	1520	147	
	p	59	2209	711	1107	—	1527	141	
	ℓ	36	2208	808	1367	1375	1549	143	
	p	60	2210	989	1103	—	1530	141	
	ℓ	37	2212	1203	1260	1256	1607	148	
22.2	ℓ	38	2220	1236	862	860	1617	150	
22.4	ℓ	39	2251	250	1010	994	1462	147	
	ℓ	40	2250	888	1270	1240	1540	149	
	ℓ	41	2246	1140	1261	1250	1590	150	
22.6	ℓ	42	2260	363	1090	1059	1522	150	
	ℓ	43	2241	1066	1311	1310	1561	150	
22.8	p	61	2280	509	1262	—	1519	150	
	ℓ	44	2277	529	1330	1320	1530	151	
	ℓ	45	2280	1164	1195	1190	1622	151	
23.0	p	62	2311	661	997	—	1531	152	
	ℓ	46	2300	950	960	960	1540	151	
23.2	ℓ	47	2330	605	1120	1110	1529	151	
23.4	ℓ	48	2341	388	1314	1314	1530	151	
23.6	ℓ	49	2366	266	690	689	1538	151	
	ℓ	50	2365	502	1078	1080	1540	152	
	p	63	2359	609	1173	—	1549	151	
23.8	p	64	2390	494	1254	—	1545	152	

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1928phae.proj.12...C

O-Dk.	Def-Dk.	Def-Dk.	Reduced	Reduced	Magn.	L. No.
1403	1103	—	787	—	7.43	809
1389	1161	—	836	—	7.72	790
1459	1150	—	788	—	7.43	2a
1499	990	—	664	—	6.65	297
1419	1164	—	822	—	7.63	338
1358	1157	—	853	—	7.83	k
1376	1165	1165	847	847	7.77, 7.77	
1386	1244	—	899	—	8.10	
1373	1218	—	886	—	8.04	745
1386	866	—	626	—	6.27	627
1406	1224	1232	872	878	7.94, 7.98	
1389	862	—	621	—	6.26	376
1459	1112	1108	764	760	7.27, 7.25	
1467	712	710	486	484	5.15, 5.14	
1315	863	847	656	644	6.50, 6.43	
1391	1121	1091	806	784	7.53, 7.40	
1440	1111	1100	774	765	7.34, 7.27	
1372	940	909	686	663	6.73, 6.55	
1411	1161	1160	823	822	7.63, 7.63	
1369	1112	—	814	—	7.66	713
1379	1179	1169	856	848	7.84, 7.79	
1471	1044	1039	712	707	6.92, 6.87	
1379	845	—	613	—	6.18	625
1389	809	809	583	583	5.94, 5.94	
1368	969	959	709	702	6.89, 6.84	
1379	1163	1163	845	845	7.76, 7.76	
1387	539	538	389	388	4.21, 4.20	
1388	926	928	668	670	6.58, 660	
1398	1022	—	733	—	7.05	642
1393	1102	—	792	—	7.44	679

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1928phae.proj.1262C

New Series

Dyp – RH 1.158 – July 1, 1929

Trap	Class	Star	y	x	Diff	Diff.	Cl	Dk	Watts
	p	65	2391	650	982	—	1532	152	
24.0	p	66	2404	697	1234	—	1522	153	
	p	67	2410	736	1190	—	1549	152	
24.2	p	68	2420	1003	1290	—	1568	153	
	p	51	2430	1041	1286	1280	1588	153	
	p	69	2424	1106	1208	—	1587	155	
24.4	p	52	2442	315	1289	1294	1525	151	
	p	70	2449	440	1290	—	1530	153	
	p	53	2442	826	1178	1185	1530	153	
24.6	p	54	2470	777	1171	1170	1538	153	
	p	71	2460	1115	832	—	1579	151	
24.8	p	72	2479	391	1282	—	1512	151	
	p	73	2489	685	1360	—	1541	151	
25.0	p	55	2500	1162	694	695	1601	151	
25.2	p	74	2525	472	700	—	1553	151	
	p	75	2520	505	1273	—	1559	150	
	p	56	2520	920	1226	1210	1555	151	
	p	76	2514	989	863	—	1561	150	
	p	57	2519	1002	890	889	1560	150	
	p	58	2531	1010	1268	1282	1580	150	
	p	77	2520	1042	1329	—	1578	150	
25.4	p	78	2540	820	630	—	1530	151	
25.6	p	59	2562	540	1041	1035	1541	151	
26.4	p	79	2641	972	1110	—	1600	151	
26.6	p	60	2658	733	1074	1081	1545	151	
	p	1A	1980	850	390	—	1377	150	
Flat		1	1941	490	701	—	1538	150	
Finished		2	—	—	850	—	1533	151	
		3	—	—	916	—	1537	150	
		4	—	—	952	—	1547	150	

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1928phae.proj.12602C

Cl.-Dk.	Def.-Dk.	Def.-Dk.	Reduced	Reduced	Magn.	L. No.
1380	830		602	—	6.10	606
1369	1081	—	790	—	7.43	587
1397	1038	—	744	—	7.14	570
1415	1137	—	804	—	7.51	451
1436	1133	1127	791	786	7.44, 7.41	
1432	1053	—	736	—	7.06	420
1374	1138	1143	828	832	7.67, 7.67	
1377	1137	—	826	—	7.66	681
1379	1025	1032	745	750	7.15, 7.20	
1385	1018	1017	735	734	7.07, 7.06	
1428	681	—	478	—	5.08	426
1361	1131	—	831	—	7.69	683
1390	1209	—	869	—	7.91	583
1450	543	544	376	374	4.09, 4.08	
1402	249	—	178	—	Inston curve	660
1409	1123	—	799	—	7.48	668 47
1404	1075	1069	767	754	7.29, 7.22	
1411	713	—	505	—	5.35	474
1410	746	739	525	524	5.51, 5.50	
1480	1118	1132	765	765	7.23, 7.27	
1428	1179	—	826	—	7.66	457
1379	479	—	348	—	3.85	536
1390	880	884	633	636	6.34, 6.36	
1449	959	—	663	—	6.54	498
1394	923	930	662	667	6.54, 6.57	
1227	240	—	196	—	~~240~~	
1408	551	—	392	—		
1382	699	—	506	—		
1387	760	—	548	—		
1397	802	—	574	—		

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1928phae.proj.1202C

New Series

strip	Class star	y	x	Defl.	Defl.	Cl.	Dk.	Volt.
	5	—	—	1040	—	1524	150	
	6	—	—	1180	—	1552	158	
	7	—	—	1203	—	1553	151	
	8	—	—	1430	—	1526	157	5.10

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1928phae.proj.1262C

Cl. Dk.	Defl. Dk.	Defl. Dk.	Reduced	Reduced Magn.
1374	890	—	147	—
1402	1030	—	735	—
1402	1052	—	752	—
1375	1279	—	930	—

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1928phae.proj.1262C

New Series

FMC July 2, 1929 RA 643

Strip	Class	Star	y	x	Diff	Diff	α	Δα	Valh
		18	1990	1000	072	—	1505	070	
		1	1799	695	100	—	1499	078	
		2	—	—	151	—	1560	080	
		3	—	—	209	—	1545	080	
		4	—	—	258	—	1549	081	
		5	—	—	390	—	1550	082	
		6	—	—	618	—	1528	084	
		7	—	—	715	—	1517	087	
		8	—	—	1350	—	1542	099	
14.4			1449	821	1030	1050	1530	100	
14.6			1470	740	1090	1149	1525	100	
			1470	980	1095	—	1561	100	
14.8			1480	1012	1070	1072	1550	100	
			1488	1035	1230	—	1550	101	
15.0			1518						

measure no good Cannot read x scale

Continued from Bk 66 P. 218

Typ RA 643 — July 2, 1929

15.8		15	1590	807	832	845	1710	168	
		16	1589	936	922	910	1710	165	
		9	1580	1032	1183	—	1740	170	
		10	1579	1090	1170	—	1774	170	
		17	1580	1162	1090	1080	1729	169	
16.0		11	1600	465	1219	—	1663	170	
		18	1601	601	1072	1058	1678	169	
		19	1609	759	512	532	1698	167	
		20	1602	791	761	768	1719	164	
		21	1612	859	1155	1155	1743	170	
		22	1600	1083	1140	1140	1739	170	
		10	1991	929	170	—	1610	169	
		1	1798	619	192	—	1672	166	

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1928phae.proj.1262C

Cl.-Dk.	Defl.-Dk.	Defl.-Dk.	Reduced	Reduced	Magn.	L No
1542	664	677	431	439	7.36, 7.38	
1545	757	745	491	482	7.50, 7.48	
1570	1013	—	646	—	7.88	1176 ✓ x
1604	1000	—	623	—	7.83	1201 ✓ x
1560	921	911	590	584	7.75, 7.73	
1493	1049	—	703	—	8.03	3a ✓ x
1509	903	889	598	590	7.77, 7.74	
1531	345	365	225	238	6.61, 6.66	
1656	597	604	384	388	7.20, 7.21	
1573	985	985	627	627	7.84, 7.84	
1569	970	970	618	618	7.82, 7.82	
1441	1	—	1	—		
1506	26	—	17	—		

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1928phae.proj.12602C

July 2, 1929 R.A. 643

trip	class	star	y	x	Decl	Diff	cl	Dh	Vol
		2	—	—	242	—	1730	168	
		3	—	—	301	—	1741	164	
		4	—	—	350	—	1732	162	
		5	—	—	461	—	1761	167	
		6	—	—	742	—	1749	169	
		7	—	—	840	—	1689	169	
		8	—	—	1451	—	1748	169	530
FMC July 3, 1929		15	1991	920	161	—	1780	160	
		1	1798	612	190	—	1680	160	
		2	—	—	231	—	1768	160	
		3	—	—	292	—	1770	160	
		4	—	—	359	—	1752	160	
		5	—	—	461	—	1748	160	
		6	—	—	750	—	1722	160	
		7	—	—	863	—	1697	159	
		8	—	—	1490	—	1730	160	
16.2		12	1630	360	1162	—	1658	160	
		13	1630	526	980	—	1692	160	
		23	1618	588	1040	1040	1672	161	
		24	1628	700	1310	1315	1750	162	
		25	1630	800	1041	1040	1755	161	
		14	1620	850	1348	—	1730	161	
		26	1635	855	591	603	1741	160	
		15	1630	1060	780	—	1780	161	
		27	1638	1148	1220	1270	1770	165	
16.4		28	1645	360	1030	1058	1650	162	
		29	1641	801	442	440	1750	163	
		30	1640	802	1162	1170	1740	168	
		31	1638	839	1245	1245	1769	168	
		32	1649	989	730	730	1751	162	

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1928phae.proj.1262C

Cl. Dk.	Defl. Dk.	Defl. Dk.	Reduced	Reduced	Magn	L. No
1562	74	—	47	—		
1577	137	—	87	—		
1570	188	—	120	—		
1594	294	—	184	—		
1580	573	—	363	—		
1520	671	—	442	—		
1579	1282	—	813	—		
1560	.1	—	1	—		
1520	30	—	20	—		
1608	71	—	44	—		
1610	132	—	82	—		
1592	199	—	126	—		
1588	301	—	189	—		
1562	590	—	378	—		
1538	704	—	457	—		
1570	1330	—	846	—		
1498	1002	—	669	—	7.90	895 ↓ x
1532	820	—	534	—	7.56	926 x
1511	879	879	581	581	7.69, 7.69	
1588	1148	1153	722	726	8.03, 8.04	
1594	880	879	552	551	7.62, 7.62	
1569	1187	—	757	—	8.11	
1581	431	443	272	280	6.73, 6.75	
1619	619	—	382	—	7.13	1208 ↓ x
1605	1055	1105	658	687	7.87, 7.87	
1488	868	896	583	602	7.69, 7.73	
1587	279	277	175	174	6.36, 6.36	
1572	994	1002	632	637	7.81, 7.83	
1601	1077	1077	672	672	7.91, 7.91	
1589	568	568	358	358	7.05, 7.05	

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1928phae.proj.1262C

FMC July 3, 1929 PH643

New Series

trip	class	star	y	x	Diff	Diff	el	Sb	Vert
16.4		33	1638	1230	1122	1121	1783	168	
16.6		34	1660	449	1280	1290	1710	170	
		35	1670	490	1360	1352	1702	168	
		36	1669	669	1210	1210	1750	169	
		37	1660	912	1430	1420	1762	170	
		38	1660	922	1128	1130	1780	168	
		16	1670	971	1100	—	1751	170	
		39	1677	1010	1303	1310	1765	170	
		40	1670	1181	815	822	1749	170	
16.8		41	1689	371	1270	1271	1690	171	
		42	1691	789	1219	1241	1778	179	
		43	1690	1100	1335	1360	1800	180	
		17	1690	1132	1410	—	1772	180	
17.0		44	1709	538	1200	1210	1711	180	
		45	1708	599	1120	1135	1749	180	
		46	1710	600	1210	1233	1678	180	
		47	1702	730	595	605	1785	181	
		48	1709	749	1392	1410	1760	185	
		49	1702	1026	748	741	1780	185	
		18	1710	1080	1370	—	1799	185	
		50	1710	1200	1108	1118	1785	185	
		19	1709	1210	1120	—	1771	185	
17.2		51	1721	415	1389	1400	1745	187	
		52	1721	540	303	300	1700	184	
		20	1730	560	1230	—	1745	185	
		53	1732	809	1370	1369	1752	187	
		21	1725	858	935	—	1778	188	
		22	1725	895	1350	—	1789	190	
		54	1720	955	1330	1339	1760	185	
		55	1728	1018	890	849	1770	185	

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1928phae.proj.1602C

Cl. Dk.	Defl. Dk.	Defl. Dk.	Reduced	Reduced	Magn.	L.NO
1615	954	953	590	589	7.71, 7.71	
1540	1110	1120	721	727	8.03, 8.04	
1534	1192	1184	776	771	8.18, 8.16	
1581	1041	1041	657	657	7.87, 7.87	
1592	1260	1250	791	784	8.23, 8.22	
1612	960	962	595	597	7.72, 7.73	
1581	930	—	587	—	7.69	1166
1595	1133	1140	711	714	8.00, 8.01	
1579	645	652	408	413	7.22, 7.23	
1519	1099	1100	723	724	8.03, 8.03	
1599	1040	1062	657	664	7.86, 7.88	
1620	1155	1186	713	728	8.01, 8.04	
1592	1230	—	772	—	8.18	?
1531	1020	1030	666	672	7.88, 7.91	
1569	940	955	598	608	7.73, 7.75	
1498	1030	1053	687	702	7.94, 7.99	
1604	414	424	258	264	6.68, 6.70	
1575	1207	1225	765	777	8.15, 8.19	
1595	563	566	353	349	7.03, 7.01	
1614	1185	—	733	—	8.06	1244
1600	923	933	576	583	7.67, 7.69	
1586	935	—	589	—	7.70	8
1558	1202	1213	771	777	8.17, 8.18	
1516	119	116	79	77	5.65, 5.64	
1560	1045	—	670	—	7.90	907
1565	1183	1182	766	765	8.13, 8.13	
1590	741	—	470	—	7.41	1109
1599	1160	—	726	—	8.03	?
1575	1145	1167	727	732	8.04, 8.06	
1585	645	664	407	418	7.22, 7.25	

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1928phae.proj.126.2C

New Series

FMC
MRD

RH643, July 5, 1929

strip	class	star	y	x	Defe	Defe	el	Dk	Volt
17.2	f	23	1730	1075	760	—	1790	190	
	f ?	24	1732	1120	1450	—	1770	190	
	f	25	1720	1165	1309	—	1791	190	
	p	26	1729	1260	980	—	1795	190	
	f	56	1727	1280	670	670	1780	190	
MRD 17.4	f	57	1753	300	1345	1345	1700	190	
	f	58	1738	385	1210	1210	1715	195	
	f	27	1755	438	1190	—	1700	191	
	f	59	1740	553	690	690	1735	190	
	f	60	1747	851	1410	1410	1768	188	
	p	28	1750	1049	955	—	1755	189	
	f	29	1740	1052	604	—	1794	185	
	f	61	1747	1285	1270	1270	1765	188	
	f	62	1739	1308	1115	1115	1805	190	
17.6	f	63	1752	301	1302	1302	1710	190	
	f	64	1768	482	955	955	1720	187	
	p	30	1760	659	1180	—	1733	188	
	p	31	1770	957	1200	—	1774	190	
	f	65	1759	1258	1240	1250	1793	190	
	p	32	1770	1290	645	—	1770	189	
17.8	f	33	1780	314	925	—	1660	187	
	f	66	1791	702	1220	1220	1722	190	
	p	33B	1790	710	1380	—	1732	190	
	f	67	1790	783	740	740	1743	190	
	f	68	1790	908	1215	1215	1738	190	
	p	34	1790	1071	565	—	1767	189	
18.0									
		69	1809	828	1171	1213	1730	190	
	f	35	1800	891	1370	—	1732	190	
	p	36	1797	1218	1240	—	1781	190	

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1928phae.proj.1262C

d. Dec.	Defl. Dec.	Defl. R.A.	Reduced	Reduced	Magn.	L. No.
1600	570	—	356	—	7.06	1251 ✓
1580	1260	—	797	—	8.22	1274 ✓
1601	1119	—	697	—	7.96	
1605	790	—	492	—	7.45	23 ✓
1590	480	480	302	302	6.83, 6.83	
1510	1155	1155	765	765	8.15, 8.15	
1520	1015	1015	757	757	8.13, 8.13	
1509	999	—	662	—	7.87	880 ✓
1545	500	500	324	324	6.93, 6.93	
1580	1222	1222	774	774	8.18, 8.18	
1566	766	—	489	—	7.45	1246 ✓
1609	419	—	260	—	6.68	1242 ✓
1577	1082	1082	687	687	7.94, 7.94	
1615	925	925	572	572	7.66, 7.66	
1520	1112	1112	731	731	8.05, 8.05	
1533	768	768	501	501	7.48, 7.48	
1545	992	—	641	—	7.83	948 ✓
1584	1010	—	637	—	7.82	1139 ✓
1603	1050	1060	655	661	7.86, 7.88	
1581	456	—	288	—	6.77	51 ✓
1473	738	—	501	—	7.48	844 ✓
1532	1030	1030	672	672	7.91, 7.91	
1542	1190	—	771	—	~~9.48~~ 8.16	~~844~~ ✓
1553	550	550	354	354	7.04, 7.04	
1548	1026	1025	662	662	7.88, 7.87	
1578	376	—	238	—	6.61	1279 ✓
1540	981	1023	637	665	7.82, 7.89	
1572	1180	—	766	—	8.14	
1591	1050	—	659	—	7.86	

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1928phae.proj.1267C

New Series

strip	class	star	y	x	Dyp	Dyp	d	Dh
18.2	f	70	1829	844	1299	1300	1697	190
	p	37	1830	907	888	—	1744	190
	f	71	1823	1206	1323	1320	1760	190
18.4	p	38	1852	220	991	—	1600	189
	p	39	1853	283	979	—	1650	187
	f	12	1851	581	660	661	1710	186
	p	40	1848	605	1278	—	1691	187
	f	73	1840	621	461	463	1702	183
	f	74	1839	635	1213	1230	1722	188
	p	41	1851	662	1273	—	1719	187
	f	75	1853	664	1265	1285	1681	190
	f	76	1840	737	1350	1350	1702	190
	f	77	1840	891	999	1000	1742	188
	p	42	1849	1161	283	—	1717	187
18.6	f	78	1861	433	1300	1200	1669	189
	f	79	1860	771	824	837	1698	186
	f	80	1860	899	1231	1240	1754	189
	f	81	1860	990	1190	1230	1775	190
	f	82	1863	1211	1341	1345	1742	190
	f	83	1862	1278	981	1030	1740	189
	f	84	1871	1341	1050	1041	1773	190
		10	1991	921	191	—	1607	189
		11	1798	612	230	—	1662	189
		2	—	—	260	—	1728	189
		3	—	—	319	—	1729	188
		4	—	—	382	—	1721	189
		5	—	—	526	—	1761	188
		6	—	—	778	—	1730	188
		7	—	—	880	—	1690	188
		8	—	—	1481	—	1731	188

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1928phae.proj.1267C

Cl.-Pb.	Def.-Pk.	Def.-Pk.	Reduced	Reduced	Magn	L.NO
1507	1109	1110	735	736	8.05, 8.05	
1554	698	—	448	—	7.35	1171 ✓ ✓
1570	1133	1130	721	719	8.03, 8.02	
1411	802	—	568	—	7.64	801 ✓ +
1463	792	—	541	—	7.58	809 ✓ ×
1524	474	475	311	312	6.88, 6.88	
1504	1091	—	724	—	8.03	89 3006 ?
1519	278	280	177	184	6.38, 6.43	
1534	1025	1042	668	678	7.89, 7.92	
1532	1086	—	708	—	7.99	?
1491	1076	1095	720	733	8.03, 8.05	
1512	1160	1160	767	767	8.15, 8.15	
1554	811	812	523	524	7.53, 7.53	
1530	96	—	63	—	5.44	56 ✓ ✓
1480	1111	1111	751	751	8.12, 8.12	
1512	643	651	425	431	7.27, 7.29	
1565	1042	1051	667	672	7.89, 7.91	
1585	1000	1040	632	656	7.82, 7.86	
1552	1151	1155	742	743	8.07, 8.07	
1551	792	841	511	542	7.51, 7.59	
1583	860	851	543	538	7.59, 7.57	
1418	2	—	1	—		
1493	41	—	28	—		
1539	71	—	46	—		
1541	131	—	85	—		
1532	193	—	126	—		
1573	338	—	215	—		
1542	590	—	383	—		
1502	692	—	462	—		
1543	1293	—	838	—		

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1928phae.proj.126C

New Series

Diff - R.A. 64 - July 5, 1929

Strip	Class	Star	y	x	Dyff	Dyff.	Cl.	Dk	Plate
		10	1991	921	020	—	1380	020	525
		1	1798	613	045	—	1448	020	
		2	—	—	090	—	1491	020	
		3	—	—	152	—	1510	020	
		4	—	—	200	—	1502	020	
		5	—	—	323	—	1540	021	
		6	—	—	568	—	1520	021	
		7	—	—	709	—	1471	022	
		8	—	—	1290	—	1531	028	
18.8	f	85	1883	239	732	739	1434	029	
	p	43	1883	370	1093	—	1442	030	
	f	86	1880	390	552	561	1460	030	
	f	87	1892	924	892	894	1540	031	
	p	44	1890	1092	637	—	1534	031	
	f	88	1880	1110	828	828	1559	033	
	p	45	1880	1279	1072	—	1570	039	
	f	89	1890	1303	930	890	1600	046	
19.0	f	90	1901	227	672	678	1467	040	
	f	91	1900	410	621	621	1502	039	
	p	46	1910	432	589	—	1474	040	
	f	92	1898	608	1090	1090	1488	041	
	f	93	1907	939	609	620	1559	041	
	f	94	1909	1240	331	343	1601	040	
	f	95	1910	1314	1011	1012	1591	043	
19.2	p	47	1924	389	921	—	1505	047	
	f	96	1920	1048	612	619	1581	044	
	f	97	1931	1127	1080	1110	1578	048	
	f	98	1922	1292	1051	1053	1624	050	
	f	99	1923	1374	945	949	1588	050	
19.4	p	48	1947	783	920	—	1588	050	

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1928phae.proj.1262C

Cl.-Dk.	Defl. Dk.	Defl. Dk	Reduced	Reduced	Magn.	L. No.
1360	0	—	0	—		
1428	25	—	18	—		
1471	70	—	48	—		
1490	132	—	89	—		
1482	180	—	121	—		
1519	302	—	199	—		
1499	547	—	366	—		
1449	687	—	475	—		
1503	1262	—	540	—		
1405	703	710	581	509	7.47, 7.49	
1442	1063	—	737	—	8.05	
1430	522	531	364	382	7.10, 7.15	
1509	861	863	571	572	7.65, 7.65	
1503	606	—	404	—	7.23	62 vv
1526	795	795	522	522	7.52, 7.52	
1531	1033	—	675	—	7.90	90 v+
1560	890	858	570	544	7.65, 7.58	
1427	632	638	444	447	7.35, 7.35	
1463	583	582	348	347	7.20, 7.20	
1434	549	—	383	—	7.16	8.05 vv
1447	1049	1049	726	726	8.03, 8.03	
1518	568	579	375	382	7.14, 7.15	
1561	291	303	186	194	6.40, 6.44	
1548	968	969	626	627	7.78, 7.78	
1458	874	—	600	—	7.43	?
1537	568	575	370	374	7.12, 7.13	
1530	1032	1062	675	694	7.90, 7.95	
1574	1001	1003	636	638	7.82, 7.82	
1538	895	899	582	585	7.68, 7.69	
1538	870	—	566	—	7.63	2 vv

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1928phae.proj.126.pc

New Series

Dyf-R 4643 - July 5, 1929

Strip	Class	Star	y	x	Dyfl	Dyfl	Cl	Dk	Note
		100	1946	999	894	953	1534	051	
		101	1949	1126	692	700	1601	051	
		49	1940	1242	867	—	1607	052	
19.6		102	1971	322	979	985	1479	052	
		103	1972	543	509	510	1511	051	
		104	1971	684	852	890	1520	052	
		105	1969	779	700	702	1580	053	
19.8		106	1980	512	900	901	1530	053	
		50	1989	1240	860	—	1531	058	
20.0		51	2002	168	393	—	1422	053	
		52	2000	442	1049	—	1530	054	
		107	2013	555	808	825	1510	057	
		108	2011	430	311	313	1534	053	
		109	2010	912	188	191	1564	052	
		110	2007	1090	275	272	1591	053	
20.2		111	2030	471	750	760	1511	059	
		53	2029	487	981	—	1502	059	
		112	2020	901	939	939	1580	060	
		113	2029	1001	908	910	1554	060	
		114	2028	1063	490	491	1578	060	
		15	1991	921	060	—	1429	059	
		1	1798	613	085	—	1480	058	
		2	—	—	126	—	1530	055	
		3	—	—	189	—	1549	055	
		4	—	—	246	—	1510	057	
		5	—	—	358	—	1590	058	
		6	—	—	643	—	1559	059	
		7	—	—	690	—	1511	058	525
		8	—	—	1330	—	1569	059	

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1928phae.proj.1267C

α.-Db.	Defl.-Db.	Defl.-Dk	Reduced	Reduced	Magn.	I. No.
1483	846	902	571	608	7.65, 7.75	
1550	641	649	414	419	7.25, 7.27	
1555	815	—	523	—	7.62	118
1427	927	933	650	654	7.84, 7.86	
1460	458	459	314	315	6.90, 6.91	
1468	800	838	546	572	7.58, 7.66	
1527	647	649	424	426	7.29, 7.30	
1477	847	848	574	575	7.66, 7.66	
1473	802	—	552	—	7.60	b
1369	340	—	248	—	6.63	752
1476	995	—	695	—	7.90	
1453	741	768	511	529	7.50, 7.53	
1481	258	260	174	176	6.34, 6.35	
1512	136	139	90	92	5.78, 5.79	
1538	222	219	144	142	6.18, 6.16	
1452	691	701	446	483	7.43, 7.44	
1443	922	—	639	—	7.81	748
1520	879	879	577	577	7.67, 7.67	
1494	848	856	566	568	7.65, 7.66	
1518	430	431	273	274	6.73, 6.73	
1370	1	—	1	—		
1422	27	—	19	—		
1475	71	—	48	—		
1494	134	—	90	—		
1453	189	—	130	—		
1532	300	—	196	—		
1500	584	—	390	—		
1453	632	—	435	—		
1510	1271	—	842			

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1928phae.proj.126MC

7MC July 6, 1929 RH 643

New Series

Trip	Class	Star	y	x	Dyff	Dyf	cl	Dh	Volh
		15	1991	885	025	—	1448	020	5.20
		1	1798	578	049	—	1420	020	
		2	—	—	090	—	1490	020	
		3	—	—	148	—	1470	020	
		4	—	—	190	—	1490	020	
		5	—	—	298	—	1470	020	
		6	—	—	550	—	1450	020	
		7	—	—	633	—	1435	021	
		8	—	—	1000	—	1470	025	
20.4	f	115	2043	230	698	699	1390	025	
	f	116	2050	1020	591	588	1470	030	
	f	117	2050	1050	220	230	1450	030	
	f	118	2040	1069	982	988	1510	030	
20.6	f	119	2061	200	698	691	1400	031	
	f	120	2071	224	845	852	1395	030	
	f	121	2070	428	870	865	1448	030	
	f	122	2060	558	030	030	1420	029	
	f	123	2060	850	580	580	1471	030	
	f	124	2071	1220	720	721	1500	030	
20.8	f	125	2080	132	725	752	1400	031	
	f	126	2081	578	525	529	1470	030	
	f	127	2089	875	872	872	1470	032	
	f	128	2079	990	370	370	1445	031	
	f	129	2081	1002	720	720	1480	032	
	f	54	2079	1280	310	—	1330	032	
21.0	f	130	2108	431	850	850	1440	032	
	f	55	2102	442	768	—	1430	035	
	f	131	2100	873	910	910	1460	038	
	f	132	2100	978	650	651	1520	038	
	f	56	2100	1110	240	—	1512	035	

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1928phae.proj.126:C

Cl.-Dk.	Defl.-Dk.	Defl.-Dk.	Reduced	Reduced	Magn.	F. No.
1428	5	—	4	—		
1400	29	—	21	—		
1470	70	—	48	—		
1450	128	—	88	—		
1470	170	—	116	—		
1450	278	—	192	—		
1430	530	—	371	—		
1414	612	—	434	—		
1445	975	—	675	—		
1365	673	674	493	494	7.60, 7.60	
1440	561	558	390	388	7.19, 7.18	
1431	190	260	134	141	6.09, 6.14	
1480	952	958	644	647	8.20, 8.21	
1369	667	660	488	483	7.57, 7.54	
1365	816	822	597	602	8.00, 8.03	
1418	840	835	593	589	8.00, 7.96	
1391	1	1	1	1	(not a curve)	
1431	550	530	384	384	7.17, 7.17	
1470	690	691	470	471	7.49, 7.50	
1369	694	711	507	520	7.66, 7.71	
1440	495	499	344	347	7.01, 7.03	
1438	840	840	586	585	7.96, 7.96	
1414	339	339	240	240	6.60, 6.60	
1448	688	688	476	476	7.52, 7.52	
1298	278	—	127	—	6.05	183 ✓ ✓
1408	818	818	582	582	7.94, 7.94	
1395	733	—	526	—	7.73	713 ✓ ✓
1422	872	872	614	614	8.07, 8.07	
1482	612	613	413	414	7.29, 7.29	
1477	205	—	139	—	6.12	205 ✓ ✓

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1928phae.proj.12602C

178 fmc

New Series

Grp	Class	star	y	x	Defl	Defa	dl	Dk	Obs
		15	1991	885	085	—	1422	031	
		1	1798	578	060	—	1432	031	
		2	—	—	100	—	1500	035	
		3	—	—	164	—	1480	030	
		4	—	—	200	—	1482	030	
		5	—	—	330	—	1481	030	
		6	—	—	570	—	1470	031	
		7	—	—	645	—	1452	030	
		8	—	—	1010	—	1475	031	
H gp		12	1991	885	001	—	1310	001	520
RH643,		1	1798	579	030	—	1369	006	
July 6, 1929		2	—	—	071	—	1433	008	
		3	—	—	130	—	1420	007	
		4	—	—	168	—	1438	009	
		5	—	—	280	—	1448	010	
		6	—	—	519	—	1433	009	
		7	—	—	610	—	1383	010	
		8	—	—	1200	—	1430	011	
21.2	f	133	2120	641	610	612	1406	011	
	f	134	2130	648	910	920	1418	011	
	p	57	2130	654	330	—	1400	011	
	f	135	2120	660	125	125	1389	012	
	f	136	2123	971	600	652	1441	016	
	f	137	2120	1237	1034	1042	1450	020	
21.4	f	138	2140	345	917	922	1391	020	
	f	139	2143	439	900	900	1440	020	
21.6	f	140	2160	139	420	419	1342	019	
	f	141	2160	385	360	361	1388	018	
	f	142	2169	408	241	239	1380	019	
	f	143	2161	581	968	964	1427	020	
	f								

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1928phae.proj.1262C

α.-Db	Decl.-Dk	Decl.-Dk	Reduced	Reduced	Magn.	Lo. No.
1391	4	—	3	—		
1401	29	—	21	—		
1465	65	—	44	—		
1450	134	—	92	—		
1452	170	—	117	—		
1451	300	—	206	—		
1439	539	—	375	—		
1422	615	—	432	—		
1444	971	—	676	—		
1309	0	—	0	—		
1363	24	—	18	—		
1425	63	—	44	—		
1413	123	—	87	—		
1429	159	—	118	—		
1438	270	—	188	—		
1424	510	—	358	—		
1373	608	—	437	—		
1419	1189	—	837	—		
1395	599	601	429	431	7.35, 7.36	
1407	899	909	639	646	7.85, 7.86	
1389	319	—	230	—	6.65	627 ✓
1377	113	113	82	82	5.68, 5.68	
1425	634	636	444	446	7.38, 7.39	
1430	1014	1022	710	714	8.02, 8.03	
1371	897	902	653	657	7.88, 7.89	
1420	880	880	618	618	7.80, 7.80	
1323	401	400	302	302	6.93, 6.93	
1376	342	343	249	250	6.73, 6.73	
1361	222	220	163	161	6.33, 6.32	
1407	948	944	674	671	7.93, 7.92	

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1928phae.proj.126YC

New Series

Hyp – RH 643 – July 6, 1929

Hyp	Class	Star	y	x	Δyll	Δyll	Cl.	Dk.	Fac
	p	58	2175	1189	438	—	1458	020	
	f	144	2168	1253	142	149	1430	019	
21.8	p	59	2180	489	915	—	1412	020	
	p	60	2184	619	820	—	1387	020	
	f	145	2180	745	385	392	1371	020	
	f	146	2190	866	209	209	1440	017	
22.0	p	61	2200	182	480	—	1337	020	
	p	62	2198	380	453	—	1391	021	
	f	147	2203	529	501	507	1413	020	
	p	63	2201	565	379	—	1408	020	
	f	148	2211	678	221	219	1400	020	
	f	149	2198	691	634	645	1454	021	
	f	150	2212	842	400	402	1424	021	
	f	151	2211	861	130	130	1420	020	
	p	64	2203	1088	837	—	1472	023	
22.2	p	65	2228	249	847	—	1370	022	
	p	66	2220	306	909	—	1377	026	
	p	67	2219	498	620	—	1401	025	
	f	152	2223	741	465	480	1441	021	
	p	68	2237	1104	388	—	1460	023	
	f	153	2236	1143	971	972	1440	029	
	p	69	2280	1339	118	—	1450	023	
22.4	p	70	2250	1217	740	—	1470	030	
22.6	f	154	2260	429	998	1000	1391	030	
	p	71	2269	519	380	—	1391	028	
	p	72	2259	902	332	—	1440	028	
	p	73	2260	971	740	—	1439	028	
	p	74	2268	1110	328	—	1450	029	
	f	155	2270	1137	1008	1008	1453	029	
	p	75	2260	1301	928	—	1452	030	

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1928phae.proj.1267C

Cl.-Dk.	Defl.-Dk.	Defl.-Dk.	Reduced	Reduced	Magns.	Lib.
1438	418	—	291	—	6.89	240
1411	123	130	87	92	5.75, 5.80	
1392	895	—	642	—	7.85	664
1367	810	—	592	—	7.73	601
1351	365	372	269	275	6.81, 6.83	
1423	192	192	135	135	6.15, 6.15	
1317	460	—	349	—	7.10	699
1370	732	—	533	—	7.59	679
1393	481	487	346	350	7.08, 7.11	
1388	369	—	258	—	6.76	625
1380	201	199	146	144	6.22, 6.22	
1433	613	624	428	435	7.35, 7.36	
1403	379	381	270	272	6.81, 6.83	
1400	110	110	79	79	5.67, 5.67	—
1449	814	—	561	—	7.66	274
1348	826	—	612	—	7.78	683
1351	883	—	653	—	7.88	681
1376	595	—	432	—	7.35	642
1420	444	459	312	323	6.98, 7.01	
1437	365	—	254	—	6.75	279
1411	942	943	667	668	7.91, 7.91	
1427	95	—	67	—	5.50	239
1448	710	—	493	—	7.49	264
1361	968	970	710	712	8.02, 8.02	
1363	352	—	258	—	6.76	606
1442	304	—	228	—	7.35	376
1411	712	—	504	—	7.52	338
1421	291	—	204	—	6.55	294
1424	979	979	686	686	7.95, 7.95	
1422	898	—	631	—	7.82	225

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1928phae.proj.12602C

New Series

Strip	Class	Star	y	x	Diff	Diff	Cl	Dk	Note
		1s	1991	885	631	—	1170	029	
		1	1798	579	052	—	1362	025	
		2	—	—	092	—	1397	029	
		3	—	—	160	—	1425	030	
		4	—	—	187	—	1420	029	
		5	—	—	290	—	1455	030	
		6	—	—	523	—	1429	030	
		7	—	—	657	—	1388	030	
		8	—	—	1209	—	1434	030	521
FMC July 8, 1929		1S	1991	898	(0-)	—	1202	(0-)	
		1	1798	590	(0-)	—	1170	(0-)	
		2	—	—	085	—	1222	(0-)	
		3	—	—	082	—	1220	(0-)	
		4	—	—	130	—	1215	(0-)	5.15
		5	—	—	219	—	1225	(0-)	
		6	—	—	452	—	1210	(0-)	
		7	—	—	541	—	1187	(0-)	
		8	—	—	840	—	1234	(0-)	
22.8		156	2289	800	048	051	1200	(0-)	
		157	2280	1050	620	624	1250	(0-)	
23.0		76	2309	910	025	—	1130	0-	
		158	2312	505	591	603	1225	0-	
		77	2300	567	685	—	1222	0-	
		159	2310	870	785	765	1235	0-	
		160	2301	890	339	328	1237	0-	
		161	2300	1180	690	715	1259	0-	
		162	2300	1181	570	573	1230	0-	
		163	2301	1224	722	722	1264	0-	
23.2		78	2320	600	549	—	1228	0-	
		164	2320	1080	580	590	1260	0-	

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1928phae.proj.1267C

Cl.-Dk	Defl.-Dk.	Defl. Dk.	Reduced	Reduced	Magn.	L. No
1141	2	—	2	—		
1337	27	—	20	—		
1368	63	—	46	—		
1395	130	—	93	—		
1391	158	—	113	—		
1425	260	—	182	—		
1399	493	—	353	—		
1358	627	—	462	—		
1404	1179	—	839	—		
1202	0	—	0	—		
1170	0	—	0	—		
1222	35	—	29	—		
1220	82	—	67	—		
1215	130	—	107	—		
1225	219	—	179	—		
1210	452	—	373	—		
1187	541	—	456	—		
1234	840	—	680	—		
1200	48	37	40	42	5.35, 5.37	
1250	620	624	497	499	7.55, 7.54	
1130	25	—	22	—	495	660
1225	591	603	482	491	7.49, 7.52	
1222	685	—	560	—	7.80	587
1235	785	765	635	618	8.11, 8.04	
1237	354	328	274	265	6.70, 6.67	
1259	690	715	548	568	7.75, 7.83	
1230	570	573	463	466	7.41, 7.43	
1264	722	722	570	570	7.84, 7.84	
1228	549	—	447	—	7.34	570
1260	580	598	460	467	7.40, 7.43	

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1928phae.proj.12602C

New Series

FMC R.A. 643 July 8, 1929

trip	class	star	y	x	Decl	Decl	cl	Rh	Vol
23.2	f	79	2321	1120	622	—	1241	0 —	
	f	165	2330	1188	510	532	1259	0 —	
23.4	f	166	2350	1038	050	060	1260	0 —	
23.6	f	80	2370	1253	401	—	1274	0 —	
23.8	f	81	2390	880	800	—	1250	0 —	
	f	167	2384	1011	781	800	1229	0 —	
24.2	f	82	2431	1059	820	—	1260	0 —	
	f	168	2419	1070	820	830	1269	0 —	
24.4	f	169	0452	793	685	692	1270	0 —	
	f	83	2450	835	635	—	1252	0 —	
24.6	f	84	2460	609	750	—	1230	0 —	
	f	170	2459	1131	608	611	1264	0 —	
		15	1991	898	0 —	—	1215	0 —	
		1	1798	590	010	—	1190	0 —	
		2	—	—	040	—	1248	0 —	
		3	—	—	095	—	1230	0 —	
		4	—	—	135	—	1218	0 —	
		5	—	—	218	—	1239	0 —	
		6	—	—	490	—	1210	0 —	
		7	—	—	588	—	1190	0 —	
		8	—	—	860	—	1240	0 —	

FMC — R.A. 643 — July 8, 1929

	15	1991	898	0 —	—	1157	0 —
	1	1798	589	0 —	—	1190	0 —
	2	—	—	027	—	1259	0 —
	3	—	—	088	—	1267	0 —
	4	—	—	117	—	1260	0 —
	5	—	—	212	—	1301	0 —
	6	—	—	441	—	1280	0 —
	7	—	—	520	—	1240	0 —
	8	—	—	1060	—	1281	0 —

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1928phae.proj.1262C

Cl.-Dk.	Defl-Dk.	Dyfl-Dk	Reduced	Reduced	Mags.	Plo.
1241	622	—	500	—	7.65	29
1259	510	532	405	423	7.17, 7.24	
1260	50	60	40	48	6.35, 6.44	
1274	401	—	314	—	6.33	297
1250	800	—	639	—	8.12	425
1229	781	800	636	651	8.12, 8.18	
1260	520	—	650	—	8.17	?
1269	820	830	647	654	8.17, 8.19	
1270	685	692	638	645	7.71, 7.74	
1252	635	—	507	—	7.58	451
1230	750	—	609	—	8.00	541
1264	608	611	481	483	7.48, 7.49	
1215	0	—	0	—		
1190	10	—	8	—		
1248	40	—	32	—		
1230	95	—	77	—		
1218	135	—	111	—		
1239	218	—	176	—		
1210	490	—	405	—		
1190	588	—	493	—		
1240	860	—	692	—		
1157	0	—	0	—		
1190	0	—	0	—		
1259	27	—	21	—		
1267	80	—	63	—		
1260	117	—	93	—		
1301	212	—	163	—		
1280	441	—	345	—		
1240	520	—	419	—		
1281	1060	—	826	—		

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1928phae.proj.1267C

New Series

H.D.P. – RH 643 – July 8, 1929

Strip	Class	Star	y	x	Dyp	Dyp	d	Dk	Ooch
24.8	p	85	2479	617	111	—	1270	0 –	518
	l	171	2480	676	752	753	1298	0 –	
	p	86	2481	791	940	—	1289	0 –	
	l	172	2489	819	833	832	1289	0 –	
25.0	l	173	2506	512	510	515	1200	0 –	
	p	87	2502	923	600	—	1309	0 –	
	l	174	2507	1022	465	425	1293	0 –	
	l	175	2501	1099	611	611	1298	0 –	
25.2	p	88	2520	280	280	—	1331	0 –	
25.4	l	176	2540	482	900	900	1281	0 –	
	l	177	2552	911	544	541	1304	0 –	
	p	89	2538	918	223	—	1330	0 –	
	l	178	2535	1030	719	719	1310	0 –	
	p	90	2550	1059	989	—	1339	0 –	
25.6	l	179	2569	449	711	710	1313	0 –	
	l	180	2559	610	831	830	1304	0 –	
	p	91	2559	822	784	—	1308	0 –	
	l	181	2562	917	630	650	1330	0 –	
25.8	p	92	2591	882	803	—	1288	0 –	
	l	182	2590	843	850	882	1331	0 –	
	l	183	2598	905	260	261	1310	0 –	
	l	184	2580	982	091	091	1340	0 –	
26.0	l	185	2600	548	390	391	1281	0 –	
	p	93	2607	592	752	—	1305	0 –	
	l	186	2611	609	567	568	1291	0 –	
	l	187	2596	638	670	704	1262	0 –	
	l	188	2598	904	260	260	1330	0 –	
26.2	l	189	2615	520	889	902	1288	0	
	p	94	2620	549	103	—	1290	0 –	
	l	190	2620	570	850	841	1263	0	

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1928phae.proj.126.C

Cl.-Dk.	Dyl.-Dk	Dyll-Dk	Reduced	Reduced	Magn	L. No.
1270	111	—	87	—	5.90	536
1298	752	753	579	580	7.69, 7.69	
1289	940	—	730	—	8.06	
1289	833	832	647	646	7.85, 7.85	
1200	510	516	425	429	7.32, 7.33	
1309	600	—	458	—	7.39	420
1293	465	505	369	390	7.15, 7.23	
1298	611	611	471	471	7.43, 7.43	
1331	280	—	210	210	6.66	
1281	950	950	741	741	7.59, 7.59	
1304	544	541	416	414	7.28, 7.28	
1330	223	—	167	—	6.49	426
1310	719	719	549	549	7.50, 7.50	
1339	989	—	739	—	6.31	
1313	711	710	547	541	7.60, 7.60	
1304	831	830	636	635	7.83, 7.83	
1308	784	—	599	—	7.74	457
1380	630	650	473	488	7.43, 7.46	
1288	803	—	623	—	7.80	
1331	850	882	638	661	7.84, 7.89	
1310	260	261	198	199	6.61, 6.62	
1340	091	091	68	68	5.17, 5.17	
1281	390	391	304	305	7.00, 7.01	
1305	752	—	575	—	7.68	534
1291	567	568	439	440	7.36, 7.36	
1262	670	704	530	556	7.56, 7.63	
1330	260	260	195	195	6.61, 6.61	
1288	889	902	690	702	7.96? 7.99	
1290	103	—	79 ? 785	—	5.81 8.20	540
1263	860	841	673	666	7.92, 7.89	

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1928phae.proj.1267C

New Series RH643 - July 8, 1929

Strip	Class	Star	Y	X	Diff.	Diff.	Cl.	Dk	Plate
	p	95	2635	709	560	—	1292	001	
	p	96	2628	910	790	—	1311	001	
26.6	p	97	2660	803	549	—	1322	002	
	p	98	2668	810	897	—	1340	004	
	p	191	2670	811	857	860	1319	023	
		10	1991	898	010	—	1180	003	
		1	1798	589	028	—	1258	001	
		2	—	—	062	—	1301	002	
		3	—	—	115	—	1320	002	
		4	—	—	150	—	1273	001	
		5	—	—	269	—	1331	001	
		6	—	—	475	—	1213	002	
		7	—	—	570	—	1271	005	
		8	—	—	1126	—	1318	008	510

Plate Finished

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1928phae.proj.126.C

Cl.-Dt.	Defl.-Dt.	Defl.-Dt.	Reduced	Reduced	Magn.	D. No.
1241	559	—	432	—	7.33	498
1310	789	—	602	—	7.75	1a
1320	547	—	414	—	7.28	464
1336	893	—	668	—	7.90	462
1316	854	857	648	651	7.86, 7.87	
1177	7	—	6	—		
1257	27	—	21	—		
1299	60	—	46	—		
1318	113	—	86	—		
1272	149	—	117	—		
1330	268	—	201	—		
1311	473	—	361	—		
1266	565	—	446	—		
1310	1118	—	863	—		

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1928phae.proj.1269C

FMC July 9, 1929 R+644

New Series

trip	class	star	y	x	Diff	Diff	a	Dk	Volt
		15	1980	965	020	—	1440	018	515
		1	1803	648	088	—	1470	012	
		2	—	—	103	—	1470	012	
		3	—	—	160	—	1507	012	
		4	—	—	262	—	1470	011	
		5	—	—	320	—	1502	015	
		6	—	—	570	—	1522	020	
		7	—	—	700	—	1505	020	
		8	—	—	1260	—	1518	022	
14.6		1	1462	910	998	—	1490	022	
		2	1471	970	1180	—	1508	021	
		1	1470	971	1098	1111	1503	020	
		2	1461	1030	1152	1155	1481	023	
14.8		3	1498	905	081	088	1498	023	
15.0		3	1505	778	768	—	1462	028	
		4	1509	785	1160	1168	1460	029	
		4	1500	845	1190	—	1480	030	
		5	1510	1040	1135	1142	1515	030	
		5	1510	1050	758	—	1538	030	
15.2		6	1521	758	612	—	1490	030	
		6	1521	790	870	885	1471	030	
		7	1530	820	1060	1071	1498	030	
		8	1518	1060	830	815	1530	030	
		7	1529	1132	255	—	1522	030	
15.4		8	1548	718	1072	—	1470	030	
		9	1550	759	940	985	1473	032	
		9	1557	780	1190	—	1500	031	
		10	1555	1130	900	900	1512	031	
		11	1555	1152	1071	1078	1520	030	
		10	1541	1178	~~1050~~ 825	—	1548	032	

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1928phae.proj.126C

Cl.-Dk	Diff.-Dk	Diff.-Dk	Reduced	Reduced	Magn.	L. No.
1422	2	—	1	—		
1458	76	—	52	—		
1458	91	—	62	—		
1495	148	—	99	—		
1459	261	—	172	—		
1487	305	—	205	—		
1502	550	—	368	—		
1485	680	—	458	—		
1496	1238	—	826	—		
1468	976	—	665	—	7.90	1110x
1487	1159	—	778	—	8.20	
1483	1078	1091	726	736	8.06, 8.08	
1468	1129	1132	774	776	8.20, 8.20	
1475	58	65	39	44	~~off curve~~ off curve	
1434	740	—	515	—	7.49	1043x
1431	1131	1139	796	795	8.24, 8.25	
1450	1160	—	800	—	8.26	
1485	1105	1112	743	749	8.12, 8.13	
1508	728	—	485	—	7.42	1104x
1460	582	—	398	—	7.16	1030x
1441	840	855	582	592	7.69, 7.71	
1468	1030	1041	702	710	8.00, 8.03	
1500	800	785	533	522	7.07, 7.51	
1492	225	—	150	—	6.10	1214x
1440	1042	—	723	—	8.05	~~1046~~
1441	908	953	628	661	7.80, 7.89	
1469	1159	—	788	—	8.23	1044x
1481	169	169	114	114	5.86, 5.86	
1490	1041	1048	699	703	7.99, 8.01	
1516	793	—	522	—	7.51	

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1928phae.proj.126mc

New Series #MC July 2. 1729 RH644

Mag	Class	Star	y	x	Diff	Diff	a	Dk	Vock
15.6	f0	11	1559	788	789	—	1491	034	
	f	12	1560	829	215	220	1490	032	
	f	13	1578	892	1110	1175	1500	032	
	f0	12	1561	1048	1050	—	1528	038	
	f	14	1566	1070	1090	1088	1538	040	
	f1	13	1560	1102	949	—	1539	040	
	f	15	1570	1198	960	962	1549	040	
15.8	f	16	1585	840	750	790	1512	040	
	f	17	1580	970	817	810	1520	040	
	f	18	1590	1119	1050	1052	1539	041	
	f2	19	1592	1280	408	420	1560	040	
16.0	f	14	1604	541	1188	—	1485	040	
	f	20	1611	628	970	990	1482	045	
	f	a 21	1600	636	1005	1039	1490	045	
	f	b 21	1601	791	455	475	1500	042	
	f	22	1600	827	701	730	1480	042	
	f0	15	1611	871	1160	—	1485	041	
	f	23	1609	892	1070	1070	1515	042	
	f0	16	1610	1085	625	—	1542 1470	040	
~~16.2~~		18	1980	965	060	—	~~1470~~	055	
		1	1803	648	140	—	1500	055	
		2	—	—	169	—	1590	053	
		3	—	—	213	—	1530	053	
		4	—	—	370	—	1515	055	
		5	—	—	387	—	1532	055	
		6	—	—	660	—	1560	058	
		7	—	—	740	—	1540	058	
		8	—	—	1300	—	1562	059	

Comb in Zone 64, 214

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1928phae.proj.12572

α-Dk.	Defl.-Dk.	Defl.-Dk.	Reduced	Reduced	Magn.	L. No.	
1459	755	—	517	—	7.49	1044	also no 9
1458	183	188	125	129	5.93, 5.99		
1468	1078	1143	734	778	8.05, 8.21		
1490	1012	—	679	—	7.94	1176 x	
1498	1050	1048	700	698	8.00, 7.99		
1499	909	—	606	—	7.75	1201 x	
1509	920	922	609	611	7.76, 7.76		
1472	710	750	482	508	7.42, 7.47		
1480	777	770	525	519	7.52, 7.50		
1498	1009	1011	673	675	7.92, 7.94		
1520	368	380	242	250	6.57, 6.60		
1446	1148	—	793	—	8.11		
1437	925	945	643	667	7.84, 7.87		
1445	960	994	663	687	7.90, 7.96		
1458	413	433	283	297	6.72, 6.78		
1438	659	688	459	479	7.35, 7.40		
1444	1119	—	775	—	8.20		
1473	1028	1028	698	698	7.99, 7.99		
1502	585	—	390	—	7.14	1208 x	
1415	5	—	4	—			
1445	85	—	59	—			
1437	116	—	81	—			
1477	160	—	108	—			
1460	315	—	216	—			
1477	332	—	225	—			
1502	602	—	401	—			
1482	682	—	460	—			
1503	1241	—	827	—			

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1928phae.proj.1262C

New Series

FMC July 10, 1929 RH 674

Cont. from book 64, 218

Mag	class	Star	μ	φ	Diff	Diff	α 1900	Dk	Voll
		15	1980	1015	829	~~1590~~	~~022~~	022	5.22
		1	1803	698	090	—	1620	019	
		2	—	—	112	—	1620	020	
		3	—	—	185	—	1655	020	
		4	—	—	290	—	1640	020	
		5	—	—	400 58	—	1645	020	
		6	—	—	660	—	1670	020	
		7	—	—	770	—	1662	020	
		8	—	—	1450	—	1670	020	
18.4		40	1844	470	1320	—	1640	020	
		62	1850	672	629	632	1563	020	
		63	1839	712	430	430	1590	020	
		64	1850	757	1290	1291	1600	020	
		41	1839	819	1279	—	1602	020	
		65	1851	862	808	821	1625	019	
		66	1840	961	1350	1350	1630	020	
		67	1852	990	1220	1220	1610	021	
		68	1850	1080	1190	1202	1680	023	
		69	1851	1307	1240	1250	1705	025	
		42	1849	1361	1090	—	1738	025	
		70	1850	1370	1010	1019	1680	021	
		71	1850	1371	780	780	1680	021	
18.6		72	1872	550	1150	1165	1640	022	
		43	1870	1180	650	—	1682	020	
		73	1870	1200	950	950	1681	020	
		74	1860	1434	1030	1042	1709	021	
18.8		44	1880	370	940	—	1731	020	
		75	1881	430	990	988	1569	020	
		76	1880	480	720	750	1587	021	
		77	1887	1015	1130	1130	1630	020	

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1928phae.proj.1262C

Cl.-Dk	Defl.-Dk.	Defl.-Dk.	Reduced	Reduced	Magn.	D. No.
1568	7	—	4	—		
1601	71	—	44	—		
1600	92	—	58	—		
1635	165	—	101	—		
1620	270	—	167	—		
1625	380	—	234	—		
1650	638	—	347	—		
1642	750	—	467	—		
1650	1430	—	868	—		
1620	1300	—	804	—	8.16	840×
1543	609	612	395	397	7.07, 7.07	
1570	410	410	262	262	6.62, 6.62	
1580	1270	1271	804	805	8.17, 8.17	
1582	1259	—	795	—	8.16	977×
1606	789	802	492	500	7.33, 7.35	
1610	1330	1330	827	827	8.23, 8.23	
1589	1199	1199	756	755	8.03, 8.03	
1657	1167	1179	705	712	7.90, 7.92	
1680	1216	1225	723	728	7.95, 7.96	
1713	1065	—	622	—	7.68	90×
1659	989	998	568	602	7.52, 7.63	
1659	769	759	458	458	7.24, 7.24	
1618	1128	1143	696	707	7.87, 7.90	
1662	630	—	379	—	7.00	62✓
1661	930	930	560	560	7.61, 7.61	
1688	1089	1021	598	606	7.60, 7.63	
1411	920	—	652	—	7.76	809×
1549	970	968	628	626	7.69, 7.68	
1566	699	729	446	466	7.22, 7.25	
1610	1110	1110	690	690	7.85, 7.85	

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1928phae.proj.12602C

New Series } FMC MRD July 10, 1929 RH644

Trip	class	Star	y	z	Defl	Defl	cl	Dh	Vech
18.8	f	78	1898	1330	413	410	1680	020	
	f	79	1880	1346	1221	1220	1669	020	
	f	80	1880	1394	1010	995	1672	020	
	p	46	1890	1520	1103	—	1680	022	
19.0	p	46	1909	460	1250	—	1579	022	
	f	81	1910	485	1195	1230	1545	022	
	f	82	1899	500	870	870	1560	022	
	f	83	1900	1030	719	762	1590	022	
	f	84	1910	1138	695	720	1618	022	
	p	47	1914	1219	1100	—	1601	022	
	p	48	1910	1330	1015	—	1660	022	
	f	85	1911	1385	1170	1170	1655	021	
	f	86	1900	1405	1130	1142	1680	023	
	f	87	1910	1465	1063	1077	1660	025	
MRD 19.2	p	49	1929	520	760	—	1550	025	
	f	88	1930	829	1295	1295	1560	020	
	f	89	1922	1218	1210	1210	1635	020	
	f	90	1922	1500	1120	1120	1663	020	
	p	50	1920	1509	1035	—	1630	018	
19.4	p	51	1948	475	1020	—	1560	021	
	p	52	1940	873	920	—	1550	020	
	f	91	1938	1090	990	990	1590	020	
	f	92	1950	1207	1300	1300	1615	020	
	f	93	1939	1225	800	800	1627	020	
	f	94	1942	1300	1050	1050	1660	020	
19.6	p	53	1960	385	1070	—	1550	017	
	f	95	1970	415	1160	1160	1542	017	
	f	96	1970	633	670	670	1570	020	
	f	97	1970	700	1125	1125	1560	019	
	f	98	1969	775	983	983	1565	020	

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1928phae..proj..126C

Cl. Dk	Defl. Dk	Defl. Dk	Reduced	Reduced	Magn.	L. No.
1660	393	390	237	235	6.39, 6.38	
1649	1201	1200	730	729	7.96, 7.96	
1652	990	976	600	591	7.61, 7.59	
1668	1081	—	654	—	7.76	
1557	1225	—	790	—	8.13	
1523	1173	1208	770	793	8.06, 8.13	
1538	848	848	532	532	7.49, 7.49	
1568	697	740	445	473	7.21, 7.37	
1596	673	698	422	437	7.15, 7.18	
1579	1078	—	684	—	7.84	
1638	983	—	601	—	7.62	118 ✓
1634	1149	1149	703	703	7.89, 7.89	
1657	1107	1119	669	676	7.80, 7.82	
1635	1038	1052	635	644	7.76, 7.74	
1525	735	—	482	—	7.31	805 ✓
1540	1275	1275	829	829	8.23, 8.23	
1615	1190	1190	737	737	7.98, 7.98	
1643	1100	1100	670	670	7.81, 7.81	
1612	1017	—	633	—	7.71	135 ✗
1539	999	—	650	—	7.75	791 ✗
1530	900	—	588	—	7.58	2 n ✗
1570	970	970	618	618	7.67, 7.67	
1595	1280	1280	803	803	8.16, 8.16	
1607	780	780	486	486	7.31, 7.31	
1640	1030	1030	628	628	7.70, 7.70	
1533	1053	—	687	—	7.85	k ✗
1525	1143	1143	750	750	8.01, 8.01	
1550	650	650	420	420	7.15, 7.16	
1541	1116	1116	723	723	7.94, 7.94	
1545	963	963	624	624	7.68, 7.68	

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1928phae.proj.1162C

198 Vela Survey MRD RH644 July 10, 1929

Strip	Class	Star	y	x	Defl	Defl	Cl	Dk	
	f	99	1960	869	830	830	1559	017	
	fp	54	1970	1087	1060	—	1575	018	
	f	100	1962	1100	1085	1085	1600	019	
	fp	55	1960	1330	900	—	1615	020	
		13	1980	1015	030	—	1417	012	
		1	1803	698	130	—	1485	010	
		2	—	—	140	—	1540	012	
		3	—	—	225	—	1540	010	
		4	—	—	395	—	1529	010	
		5	—	—	445	—	1560	010	
		6	—	—	660	—	1540	010	
		7	—	—	750	—	1559	011	
		8	—	—	1345	—	1585	012	
	fp	RH644	July	10,	1929				
		10	1980	964? ~~1012~~	010	—	1320	0	520
		1	1803	647? ~~695~~	129	—	1463	0	
		2	—	—	143	—	1519	001	
		3	—	—	227	—	1552	002	
		4	—	—	390	—	1498	002	
		5	—	—	420	—	1550	004	
		6	—	—	700	—	1530	008	
		7	—	—	753	—	1553	008	
		8	—	—	1341	—	1582	010	
19.8	f	101	1979	605	1050	1080	1540	011	
	fp	102	1984	1055	1140	1134	1580	013	
	fp	56	1989	1220	1000	—	1598	014	
20.0	fp	57	2011	451	1221	—	1520	020	
	f	103	2010	594	976	1003	1558	020	
	fp	58	2000	623	1197	—	1550	020	

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1928phae..proj..126C

α.-Dk.	Defo.-Dk.	Defo.-Dk.	Reduced	Reduced	Magn.	L. No.
1542	813	813	526	526	7.43, 7.43	
1554	1042	—	670	—	7.80	105 ✓
1581	1066	1066	674	674	6.83, 6.82	
1595	880	—	553	—	7.49	b V
1405	18	—	13	—		
1475	120	—	81	—		
1528	128	—	84	—		
1530	215	—	140	—		
1519	385	—	254	—		
1550	435	—	281	—		
1530	660	—	426	—		
1548	739	—	477	—		
1573	1333	—	848	—		
1320	10	—	8	—		
1463	129	—	88	—		
1518	142	—	94	—		
1550	225	—	145	—		
1496	388	—	260	—		
1546	416	—	270	—		
1522	692	—	455	—		
1545	746	—	483	—		
1572	1331	—	846	—		
1529	1034	1069	680	700	7.85, 7.90	
1567	1127	1121	720	716	7.97, 7.95	
1584	486	—	623	—	7.67	h 2 V
1500	1201	—	802	—	8.21	764 x
1538	956	983	623	639	7.68, 7.72	
1530	1177	—	770	—	8.12	778 x

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1928phae.proj.12602C

New Series

Yp - RH644 - July (?) 1929

Strip	Class	Star	Y	Z	Diff	Diff	Cl	Dk	Pts
	f	104	2006	8 2	481	488	1538	017	
	f	165	2011	9 2	1163	1179	1571	021	
	f	166	2010	1005 992 ok	1029	1052	1573	021	
	f	107	2001	1005 ok	242	277	1548	020	
	f	108	1999	8	340	340	1591	019	
20.2	p	59	2027	342	1231	—	1540	021	
	p	60	2020	488	1139	—	1550	020	
	f	109	2029	6 2	958	958	1503	021	
	p	60b	2020	645	1105	—	1531	023	
	f	110	2020	9	990	997	1599	027	
	f	111	2019	55	581	582	1595	022	
	f	112	2021	45	1060	1082	1628	025	
20.1	f	113	20	5 3 60	982	982	1540	028	
	p	61	2042	530	1147	—	1557	027	
	f	114	2042	6 58	980	990	1549	026	
	f	115	2041	5 6	1170	1180	1579	030	
	f	116	2052	9 79	670	671	1557	021	
	f	117	2041	9 1	1100	719	1600	020	
	f	118	2041	7 2 1	319	320	1567	021	
	p	62	2042	1361	377	—	1591	022	

Con. in Bk. 67 P. 2.

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1928phae.proj.1262C

Cl. Dk	Defl. Dk.	Defl. Dk.	Red. red	Red. red	Magn.	L. No.
1521	464	471	305	310	6.63, 6.65	
1550	1142	1168	738	748	8.01, 8.04	
1562	1008	1031	650	665	7.75, 7.80	
1528	255	257	165	168	5.95, 5.96	
1572	321	321	204	204	6.19, 6.19	
1519	1210	—	798	—	8.20	758? x
1530	1119	—	731	—	8.00	
1482	937	937	633	633	7.72, 7.72	
1508	1082	—	719	—	7.95	765 v
1572	963	970	613	617	7.64, 7.66	
1573	559	560	356	357	6.84, 6.84	
1603	1035	1057	647	660	7.75, 7.78	
1512	954	954	631	631	7.71, 7.71	
1530	1120	—	733	—	8.01	748 v
1523	954	964	627	633	7.69, 7.71	
1549	1140	1150	738	744	8.01, 8.04	
1536	649	650	423	424	7.09, 7.09	
1580	699	713	442	451	7.15, 7.17	
1546	299	299	194	194	6.13, 6.13	
1569	355	—	227	—	6.29	183 x

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1928phae.proj.1262C

Cut from BK 67, RH 804
July 12, 1929 MRD Page 16

Stub	Class	Star	γ	α	Defl	Defl	α	Dec
15.8	f	10	1593	672	1155	—	1910	085
	f	9	1587	680	1100	1130	1890	080
	f	10	1589	792	350	350	1910	075
	f	11	1590	818	130	135	1970	080
	f	12	1589	900	1365	1370	1950	075
	fp	11	1590	1142	1350	—	2020	082
16.0	f	13	1602	632	1030	1045	1995	080
	f	14	1600	789	1170	1155	2019	077
	f	15	1611	980	950	1020	2020	080
	f	16	1609	1131	1360	1370	1965	090
	fp	12	1599	1192	1160	—	1985	092
Omit	f	1	1609	1231	23 to preceding 1080	1180		
		15	1955	958	095	—	1820	086
		1	1870	601	145	—	1950	090
		2	—	—	210	—	1970	090
		3	—	—	285	—	1950	090
		4	—	—	380	—	1953	090
		5	—	—	540	—	1832	092
		6	—	—	870	—	1850	090
		7	—	—	975	—	1867	093
		8	—	—	1369	—	1837	094

Dyf- RH 804 — July 12, 1929

515

10	1955	957	111	—	1841	110
1	1870	601	160	—	1979	110
2	—	—	208	—	1960	106
3	—	—	320	—	1990	108
4	—	—	377	—	1949	110
5	—	—	516	—	1879	110

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1928phae.proj.1202C

Cl. Dk	Defl. Dk.	Defl. Dk.	Reduced	Reduced	Magn.	L. No.
1825	1070	—	586	—	7.76	1044
1810	1020	1050	564	581	7.69, 7.74	
1835	275	275	156	150	6.00, 6.00	
1890	50	55	26	29	4.40, 4.45	
1875	1290	1295	688	691	8.15, 8.16	
1938	1268	—	655	—	8.03	8
1915	950	965	497	504	7.47, 7.50	
1942	1093	1078	563	555	7.65, 7.65	
1940	870	940	448	485	7.24, 7.39	
1875	1270	1280	678	683	8.12, 8.13	
1893	1068	—	564	—	7.69	23
1734	9	—	5	—		
1860	55	—	30	—		
1880	120	—	64	—		
1860	195	—	105	—		
1863	290	—	156	—		
1740	448	—	258	—		
1760	780	—	443	—		
1774	882	—	497	—		
1743	1275	—	732	—		
1731	1	—	1	—		
1869	50	—	27	—		
1854	102	—	55	—		
1882	215	—	118	—		
1839	267	—	145	—		
1769	406	—	230	—		

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1928phae.proj.1262C

New Series

Strip	Class	Star	Y	X	Deff	Diff	Cl	Dk	Notes
		6	—	—	870	—	1861	111	
		7	—	—	995	—	1903	111	
		8	—	—	1432	—	1890	111	
16.2	p	13	1637	902	1300	—	1885	117	
	f	17	1620	967	1381	1391	1899	119	
	p	14	1628	1239	739	—	1886	115	
	f	18	1613	1292	1120	1150	1884	118	
16.4	p	15	1655	1019	948	—	1910	119	
	f	19	1640	1169	1160	1153	1901	120	
16.6	f	20	1661	912	1291	1340	1888	119	
	p	16	1671	1001	718	—	1921	120	
	f	21	1671	1090	992	995	1869	117	
	f	22	1660	1100	1341	1424	1869	120	
16.8	f	23	1690	750	1286	1290	1889	121	
	p	17	1688	1002	1080	—	1870	120	
	f	24	1688	1168	512	511	1848	117	
	f		Con in Bb 67 P. 18.						

HP — RA 804 — July 13, 1929 continued from 67, p22

		10	1955	940	092	—	1770	090	520
		1	1869	588	150	—	1888	091	
		2	—	—	202	—	1905	091	
		3	—	—	310	—	1887	091	
		4	—	—	378	—	1920	093	
		5	—	—	520	—	1868	093	
		6	—	—	877	—	1890	098	
		7	—	—	1020	—	1921	100	
		8	—	—	1100	—	1887	100	
18.6	f	61	1870	458	751	751	1929	100	
	f	62	1870	459	180	187	1908	098	

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1928phae.proj.1262C

Cl.-Dk.	Defl. Dk.	Defl.-Dk.	Reduced	Reduced	Magn.	L. No.
1750	759	—	433	—		
1792	884	—	492	—		
1779	1321	—	743	—		
1768	1183	—	670	—	8.07	1166
1780	1262	1272	710	715	8.23, 8.24	
1771	624	—	362	—	6.90	51
1766	1002	1032	568	585	7.70, 7.74	1161
1791	829	—	462	—	7.31	1251
1781	1040	1033	583	579	7.75, 7.74	
1769	1172	1221	664	691	8.04, 8.14	
1801	598	—	330	—	6.82	1242
1752	875	878	499	501	7.45, 7.46	
1749	1251	1304	716	746	8.24, 8.35	
1768	1165	1179	660	666	8.04, 8.06	
1750	960	—	549	—	7.64	1246
1731	395	394	228	227	6.44, 6.43	
1680	2	—	2	—		
1797	59	—	33	—		
1814	111	—	61	—		
1796	219	—	122	—		
1827	285	—	166	—		
1775	427	—	240	—		
1792	779	—	434	—		
1821	920	—	505	—		
1787	1300	—	727	—		
1829	651	651	357	357	6.87, 6.87	
1810	82	89	43	49	4.70, 4.95	

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1928phae.proj.12602C

New Series Dyp - RH 804 - July 13, 1929

Hour	Class	Star	y	x	Δyf	Δyf	Cl	Δk	Notes
	f	63	1870	559	1248	1260	1919	102	
	f	64	1861	662	360	370	1927	101	
	f	65	1862	1148	919	923	1887	101	
18.8	f	66	1890	689	611	618	1919	101	
	f	67	1883	1239	1323	1323	1888	104	
19.0	f	68	1903	912	110	111	1604	102	
	f	69	1901	1029	999	1038	1891	102	
	f	70	1909	1045	1210	1222	1882	102	
	p	31	1910	1141	1253	—	1881	103	
	f	71	1903	1321	373	371	1878	100	
	p	32	1912	1340	529	—	1883	104	
19.2	f	72	1923	480	1069	1075	1890	103	
	f	73	1931	1101	1121	1161	1905	104	
19.4	p	33	1950	300	1053	—	1917	110	
	p	34	1957	793	1213	—	1910	110	
	f	74	1940	823	806	839	1882	109	
	f	76	1950	1264	389	389	1859	105	
	p	35	1951	1471	1138	—	1829	104	
19.6	f	76	1960	772	1321	1321	1652	111	
	f	77	1960	1040	1227	1251	1861	110	
	f	78	1963	1288	1252	1250	1868	110	
	f	79	1970	1480	248	251	1831	109	
19.8	f	80	1985	353	1250	1253	1910	111	
	f	81	1979	449	1180	1200	1887	111	
	f	82	1981	691	470	471	1895	110	
	f	83	1981	790	498	496	1891	109	
	f	84	1982	1078	1139	1201	1861	110	
	f	85	1998	1167	307	310	1879	109	
	p	36	1988	1188	399	—	1840	108	
	f	86	1995	1262	520	530	1879	108	

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1928phae.proj.1262C

Cl.-Dk	Depl.-Dk.	Depl-Dk	Reduced	Reduced	Magn.	L.Ks.
1817	1146	1158	632	636	7.93, 7.95	
1826	269	269	142	147	5.96, 6.00	
1786	818	832	458	466	7.26, 7.29	
1818	510	517	281	284	6.57, 6.58	
1784	1219	1219	683	683	8.13, 8.13	
1502	08	09	5	6	2.70, 2.80	
1789	847	936	503	524	7.44, 7.53	
1780	1108	1120	622	629	7.90, 7.93	
1778	1250	——	703	—	8.19	h
1778	273	271	153	152	6.03, 6.03	
1779	425	—	239	——	6.41	183
1787	966	972	541	544	7.57, 7.59	
1801	1017	1057	564	587	7.66, 7.76	
1807	943	—	522	——	7.52	844
1800	1103	—	613	——	7.86	2 r
1773	697	730	394	412	7.03, 7.07	
1764	284	284	162	162	6.07, 6.07	
1725	1034	—	599	——	7.80	206
1541	1210	1210	786	786	8.54, 8.54	
1761	1117	1141	637	652	8.01, 8.01	
1758	1142	1140	650	648	8.00, 8.00	
1722	139	142	81	82	5.51, 5.52	
1799	1139	1142	633	635	7.94, 7.95	
1776	1069	1089	602	613	7.82, 7.86	
1785	360	361	201	202	6.26, 6.26	
1782	389	397	218	223	6.33, 6.34	
1751	1029	1091	587	622	7.77, 7.98	
1770	98	101	55	57	5.15, 5.20	
1732	291	—	168	——	6.13	205
1771	412	422	233	238	6.37, 6.40	

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1928phae.proj.12602C

New Series

Dyp - RH 804 - July 13, 1929

Strip	Class	Star	Y	X	Dyff.	Dyff	Cl.	Db.	Volts
	f	87	1986	1359	920	950	1862	104	
20.0	f	88	2001	518	1080	1118	1902	112	
	f	89	2011	1083	1080	1091	1860	112	
	f	90	2009	1299	1032	1051	1831	112	
	f	91	2002	1400	1130	1135	1872	116	
20.2	p	37	2029	295	1154	—	1917	117	
	f	92	2026	391	940	951	1911	115	
	p	38	2034	450	908	—	1918	115	
	f	93	2035	519	1298	1337	1878	118	
	f	94	2029	662	1241	1240	1882	118	
	f	95	2021	890	1264	1264	1840	118	
	f	96	2031	1092	970	990	1863	120	
	f	97	2037	1231	349	349	1867	114	
	p	39	2031	1288	700	—	1860	115	
	p	40	2035	1447	220	—	1825	115	
20.4	f	98	2041	370	954	958	1920	112	
	f	99	2048	742	1288	1331	1872	122	
	f	100	2050	978	1321	1355	1861	120	
	f	101	2051	1197	1101	1107	1842	120	
	f	102	2050	1466	1110	1126	1720	121	
	p	41	2043	1489	463	—	1855	120	
		1∞	1955	940	120	—	1711	116	
		1	1869	588	178	—	1832	120	
		2	—	—	222	—	1825	119	
Cont		3	—	—	301	—	1898	118	
to		4	—	—	377	—	1893	118	
BX 67		5	—	—	569	—	1847	119	
D 22		6	—	—	884	—	1848	120	
		7	—	—	10 10	—	1885	120	520
		8	—	—	1400	—	1854	121	

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1928phae.proj.1262C

Cl.-Dk	Deff.-Dk	Deff.-Dk	Reduced	Reduced	Magn.	L. Ko.
1758	816	846	465	482	7.29, 7.35	
1790	968	1006	541	563	7.58, 7.67	
1748	968	979	555	561	7.64, 7.66	
1719	920	939	536	546	7.57, 7.60	
1756	1014	1019	578	580	7.73, 7.73	
1800	1037	—	577	—	7.73	809
1796	826	836	460	467	7.27, 7.29	
1803	793	—	441	—	7.19	805
1760	1180	1219	671	693	8.07, 8.15	
1764	1123	1122	637	636	7.96, 7.96	
1722	1146	1146	666	666	8.06, 8.06	
1743	850	870	488	499	7.38, 7.42	
1753	235	235	134	134	5.92, 5.92	
1745	635	—	364	—	6.90	240
1720	105	—	585	—	7.75	239
1808	842	846	467	469	7.29, 7.30	
1760	1166	1209	668	691	8.07, 8.15	
1741	1201	1235	690	710	8.15, 8.23	
1722	981	987	570	574	7.70, 7.72	
1699	989	1005	619	630	7.88, 7.93	
1735	343	—	198	—	6.24	242
1695	4	—	3	—		
1712	58	—	34	—		
1706	103	—	59	—		
1780	183	—	103	—		
1775	259	—	146	—		
1728	450	—	261	—		
1728	767	—	445	—		
1765	890	—	506	—		
1733	1279	—	738	—		

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1928phae.proj.12C2C

HJP – C H 855 – Sept 25, 1929

Strip	Class	Star	y	x	Dyfe	Dyfe	Cl	Dk	Volts
		10	2130	709	690	—	1937	043	520
		1	2011	1050	147	—	1980	050	
		2	—	—	213	—	1960	050	
		3	—	—	388	—	1983	050	
		4	—	—	452	—	1995	049	
		5	—	—	741	—	2030	050	
		6	—	—	1098	—	2049	051	
		7	—	—	1150	—	2069	053	
		8	—	—	1671	—	2070	057	
14.2	f		1408	691	1064	1091	2028	060	
	f		1420	719	1872	1872	2007	062	
	f		1438	726	442	410	1972	057	
14.4	p		1440	539	1788	—	2038	060	
	p		1438	854	1496	—	1980	061	
14.6	p		1468	743	1826	—	2012	063	
	p		1471	753	1691	—	2029	068	
	p		1477	821	198	—	2019	063	
14.8	f		1479	496	1660	1620	1968	065	
	p		1488	538	1800	—	2052	063	
	f		1498	722	1057	1011	2020	062	
	p		1480	724	1758	—	2109	063	
	p		1495	782	1351	—	2008	062	
	f		1489	840	1748	1657	2001	163	
	p		1486	913	1383	—	1990	062	
15.0	p		1492	427	1428	—	2049	068	
omit	f		1498	722	1079	1088	2027	069	
	f		1511	917	412	380	1987	069	
15.2	f		1530	403	333	331	2019	069	
	f		1530	509	1851	1811	2050	072	
	f		1536	531	1663	1681	2048	073	

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1928phae.proj.1262C

Cl.-Dk.	Defl.-Dk.	Defl.-Dk.	Reduced	Reduced	Magn.	L. No.
1894	44	—	25	—		
1930	97	—	50	—		
1910	163	—	84	—		
1933	338	—	175	—		
1946	403	—	207	—		
1980	691	—	349	—		
1998	1047	—	525	—		
2016	1097	—	546	—		
2013	1614	—	804	—		
1968	1004	1031	511	525		
1945	1810	1810	931	981		
1915	385	362	201	189		
1978	1728	—	872	—		
1919	1435	—	748	—		
1949	1763	—	906	—		
1961	1623	—	828	—		
1956	135	—	69	—		660
1903	1595	1555	828	817		
1989	1731	—	872	—		
1958	995	949	508	485		
1946	1690	—	869	—		
1946	1289	—	663	—		647
1938	1685	1594	867	827		
1928	1324	—	685	—		683
1981	1366	—	687	—		
1918	343	311	177	162		
1950	264	262	135	133		
1978	1779	1739	899	880		
1976	1590	1608	805	813		

Repeated in BK69

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1928phae.proj.1262C

Hyp - RH 855 - Sept 25, 1929

Trip	Class	Star	y	x	Dyf	Dff	Cl	Dk	Vels
	P		1517	821	1752	1680	2020	081	
	P		1533	886	1467	—	2001	078	
	P		1521	949	1681	1660	1963	080	
	P		1539	952	951	948	1979	077	
	P		1548	1035	1411	1342	1968	079	
15.7	P		1550	471	1933	—	2077	082	
	P		1550	837	1680	1698	2013	082	
	P		1550	928	1618	1537	1988	082	
15.6	P		1569	351	648	670	2079	082	
	P		1560	492	1603	1499	2071	083	
	P		1560	588	1905	1898	2050	090	
15.8	P		1580	319	1228	—	2065	087	
	P		1590	370	1575	—	2061	089	
	P		1582	400	1825	—	2041	091	
	P		1580	497	1184	1164	2019	090	
	P		1580	1019	991	367	1963	087	
16.0	P		1602	292	1889	—	2071	090	
	P		1605	441	1479	—	2071	090	
	P		1608	500	552	—	2060	089	
	P		1612	518	1540	—	2044	090	
	P		1600	641	1549	—	2043	090	
	P		1610	860	1921	—	2006	090	
	P		1609	928	1830	—	1997	090	
16.2	P		1620	688	1860	—	2057	091	
	P		1624	727	1789	—	2011	091	
	P		1627	918	1781	1799	1996	092	
16.4	P		1652	297	1819	1836	2052	092	
	P		1638	384	1839	—	2051	092	
	P		1640	697	1867	1807	2057	093	
	P		1647	700	1793	—	2020	092	

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Cl.-Dk.	Defl.-Dk.	Defl.-Dk.	Reduced	Reduced	Magn. L. Ko.
1937	1671	1599	864	825	
1923	1389	—	722	—	681
1883	1601	1580	851	839	
1902	874	871	460	458	
1889	1332	1263	706	670	
1993	1851	—	929	—	534
1931	1548	1616	826	838	
1906	1536	1455	805	763	
1997	566	588	284	295	
1988	1520	1418	762	708	
1960	1815	1808	927	922	
1978	1141	—	578	—	498
1972	1486	—	764	—	509
1950	1734	—	898	—	519
1929	1094	1074	568	558	
1876	304	280	162	149	
1981	1799	—	907	—	
1981	1389	—	700	—	523
1971	463	—	234	—	536
1954	1450	—	743	—	541
1953	1459	—	741	—	583
1916	1231	—	644	—	679
1907	1740	—	913	—	
1966	1769	—	900	—	
1920	1698	—	885	—	
1904	1689	1701	885	893	
1960	1727	1744	882	890	
1959	1747	—	892	—	
1958	1774	1714	907	876	
1928	1701	—	883	—	

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Ngc - RH855 - Sept 25, 1929

Strip	Class	Star	y	x	Diff	Diff	Cl	Dk	Pets
f			1653	763	1183	1178	2002	091	
f			1656	829	1680	1634	1940	092	
f			1649	1122	1779	1734	1913	092	
		1A	2130	709	161	—	1890	091	
		1	2011	1050	207	—	1999	092	
		2	—	—	327	—	1988	090	
		3	—	—	430	—	2009	091	
		4	—	—	431	—	2020	091	
		5	—	—	801	—	2050	091	
		6	—	—	1160	—	2063	091	
		7	—	—	1230	—	2087	092	
		8	—	—	1802	—	2061	093	520
	Cont.	from 69,	pg. 72						
NGC RH855 Sept. 28, '29		8	2130	779	060	—	2005	030	
		1	2010	1120	101	—	1959	031	
		2	—	—	171	—	1911	031	
		3	—	—	328	—	1985	035	
		4	—	—	351	—	1963	035	
		5	—	—	703	—	2042	050	
		6	—	—	1088	—	2041	050	
		7	—	—	1145	—	2048	048	
		8	—	—	1640	—	2049	048	
41.8	f	69	2179	260	1248	—	2029	049	
	f	132	2181	309	245	258	2012	045	
	f	133	2190	400	1715	1690	2052	050	
	f	134	2188	420	1250	1250	2052	047	
	f	135	2190	442	1600	1622	2041	050	
	f	136	2181	518	1330	1302	2040	050	
	f	137	2188	966	1170	1130	2000	050	
	f	138	2195	1040	1502	1461	2012	051	
	f	139	2190	1342	1579	1572	1968	051	

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α. Dk.	Defl.-Dk.	Defl.-Dk.	Reduced	Reduced	Magn.	Ko.
1911	1092	1082	572	567		
1848	1588	1542	860	835		
1821	1687	1642	927	903		
1799	70	—	39	—		
1907	115	—	603	—		
1898	227	—	125	—		
1918	339	—	177	—		
1929	340	—	176	—		
1959	710	—	363			
1972	1061	—	542	—		
1995	1138	—	570	—		
1968	1709	—	867			
1975	30	—	15	—		
1928	70	—	36	—		
1880	140	—	75	—		
1950	293	—	151	—		
1928	316	—	164			
1992	658	—	328	—		
1991	1038	—	522	—		
2000	1117	—	558	—		
2001	1592	—	796	—		
1880	1199	—	637	—		
1967	200	213	102	108		
2002	1665	1640	833	820		
2005	1203	1203	601	601		
1991	1561	1572	778	790		
1990	1280	1252	643	629		
1950	1120	1080	574	554		
1961	1451	1410	740	718		
1917	1528	1521	796	793		

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FMC B+ 855 Sept 2d, 1929

Strip	class	star	y	x	Dpg	Dpg	cl	Dk	Vol
22.0	f	140	2208	202	101	092	1979	050	
	f	141	2210	351	1020	996	2042	050	
	f	142	2208	360	471	450	2062	050	
	f	143	2210	396	520	480	2045	050	
	f	144	2200	398	501	482	2049	050	
	f	145	2213	408	1432	1420	2030	050	
	f	146	2200	450	1068	978	2055	051	
	f	147	2218	660	962	945	2050	051	
	f	148	2209	930	1111	1080	2001	057	
	f	149	2210	1007	1338	1355	1980	052	
	f	150	2210	1122	1255	1195	1962	052	
√22.2	f	151	2238	272	1323	1288	2000	053	
	p	70	2230	370	1452	—	2068	055	
	f	152	2221	380	772	770	2039	058	
	f	153	2230	420	1630	1618	2070	058	
	f	154	2225	451	1540	1490	2035	059	
	f	155	2229	481	1480	1398	2078	059	
	f	156	2229	620	1703	1680	2070	059	
	p	71	2221	911	1171	—	2000	059	
	f	157	2227	950	1369	1351	1953	059	
22.4	f	158	2240	432	1250	1180	2058	060	
	p	72	2257	449	1018	—	2040	060	
	p	73	2249	551	660	—	2040	058	
	f	159	2250	650	1570	1410	2063	060	
	f	160	2250	802	811	790	2028	060	
	f	161	2250	853	1491	1440	2028	060	
	p	74	2250	1022	1097	—	1963	059	
		15	2130	779	092	—	1998	060	
		1	2010	1120	147	—	1970	060	
		2	—	—	201	—	1938	060	
		3	—	—	899	—	1990	060	

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Cl.-Dk.	Defl.-Dk.	Defl.-Dk.	Reduced	Reduced	Magn.	No.
1913	51	42	27	22		
1992	970	946	488	475		
2012	421	400	209	199		
1995	470	430	236	216		
1999	451	432	226	216		
1980	1382	1370	699	692		
2004	1017	927	507	464		
1999	911	864	457	432		
1950	1060	1029	544	527		
1928	1286	1303	668	676		
1910	1203	1143	630	598		
1947	1270	1235	652	633		
2013	1397	—	693	—		264x
1981	714	712	360	359		
1912	1572	1550	823	812		
1976	1481	1431	751	725		
2019	1421	1339	704	663		
2011	1644	1621	817	807		
1941	1112	—	574	—		1171v
1894	1310	1292	692	681		
1998	1190	1120	597	562		
1980	958	—	484	—		240v
1982	602	—	304	—		205v
2003	1510	1350	753	673		
1968	751	730	382	371		
1968	1431	1380	727	701		
1904	1038	—	545	—		1109v
1938	32	—	16	—		
1910	87	—	46	—		
1878	141	—	75	—		
1930	339	—	176	—		

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FMC RH 855 Sept 28, 1929

Strip	class	star	y	x	Dec	Dec	α	Obs	Volh.
		4	—	—	8911	—	1990	060	
		5	—	—	7330	—	2025	060	
		6	—	—	1130	—	2025	060	
		7	—	—	1269	—	2032	060	
		8	—	—	1642	—	2059	060	

Cont in BK 693 p 76

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Cl.-Dk.	Defl.-Dk.	Defl.-Dk	Reduced	Reduced	Magn. L.Ks.
1930	331	—	172	—	
1965	670	—	341	—	
1965	1070	—	544	—	
1972	1209	—	613	—	
1999	1582	—	793	—	

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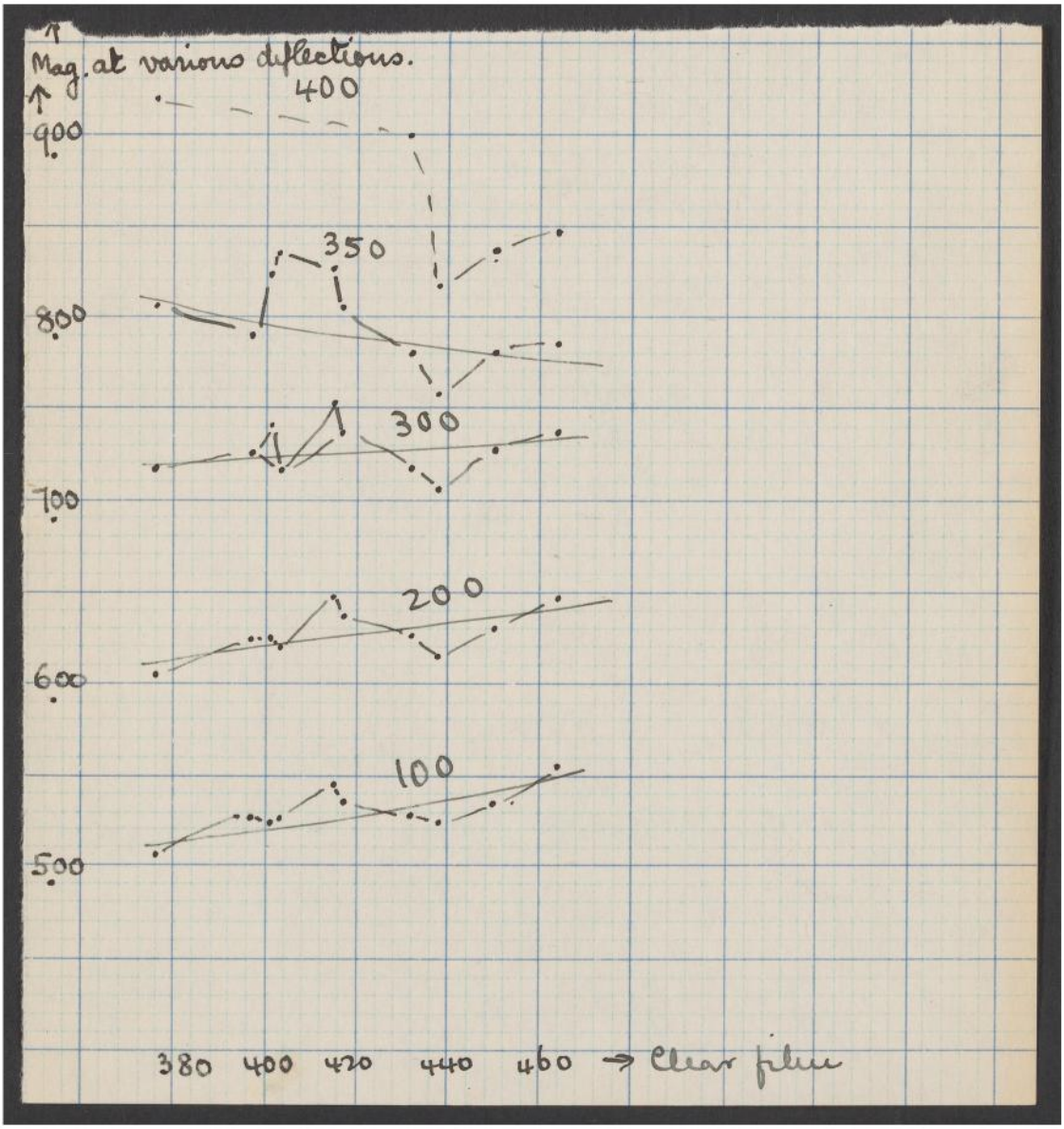
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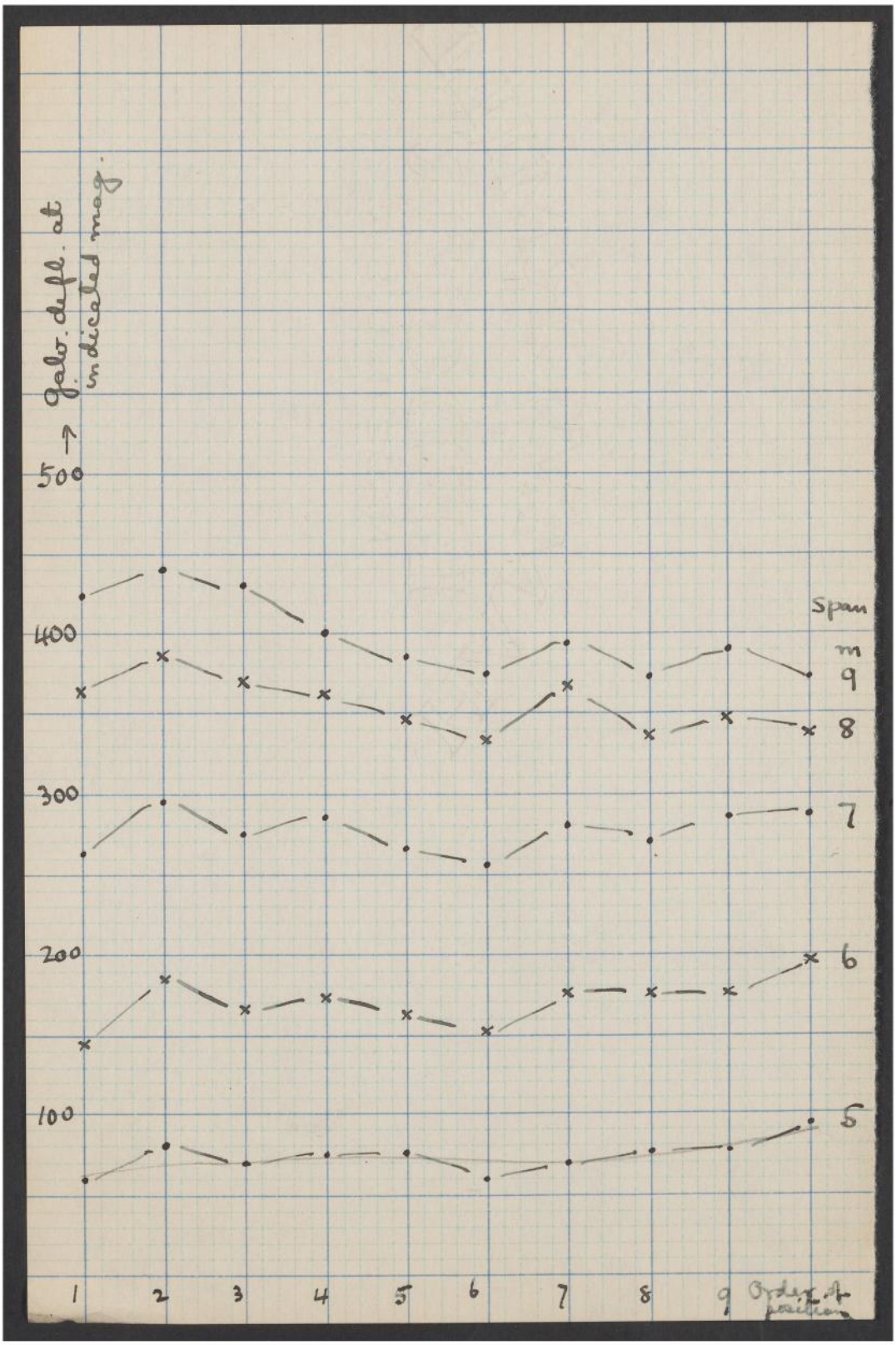
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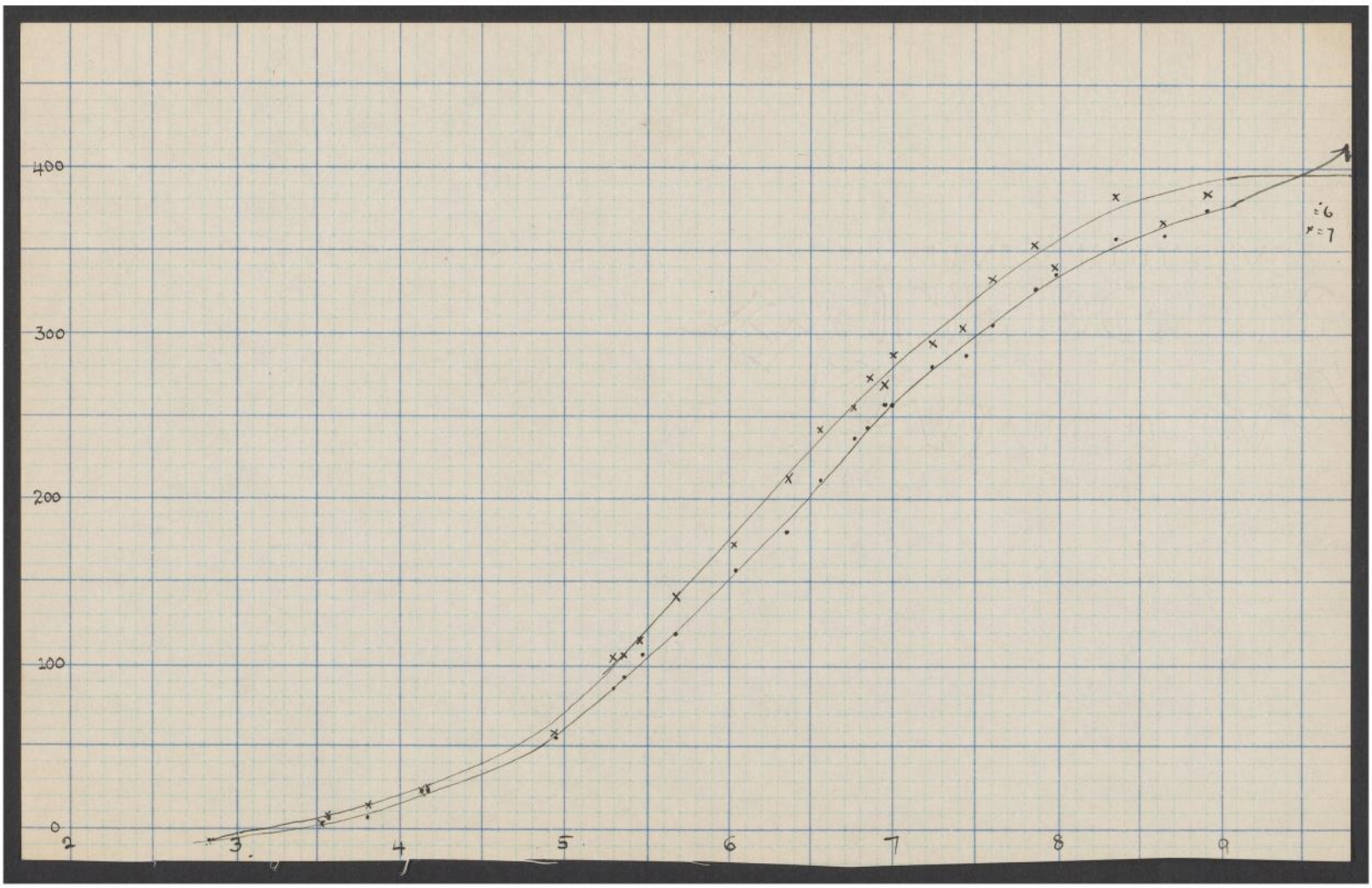
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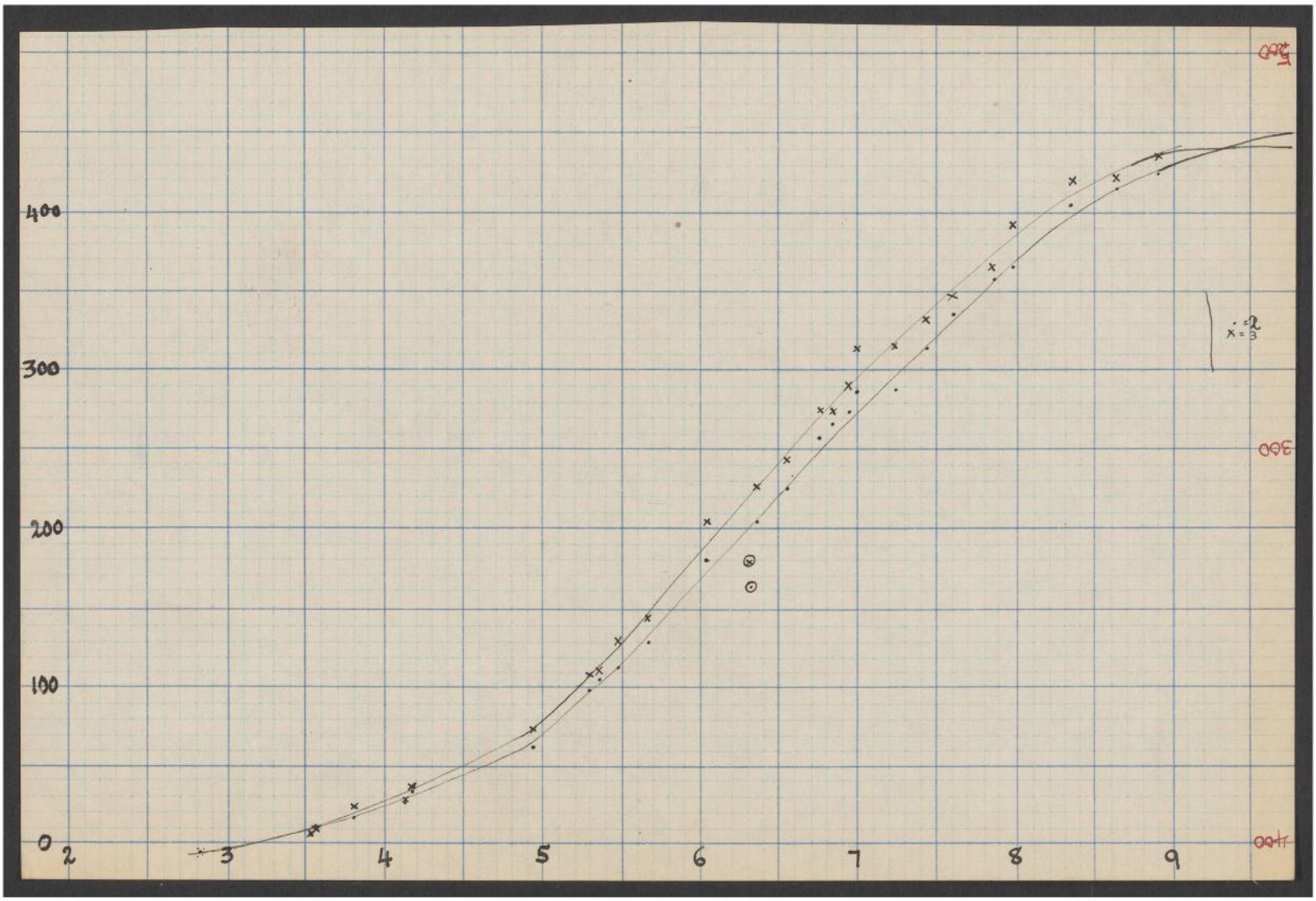
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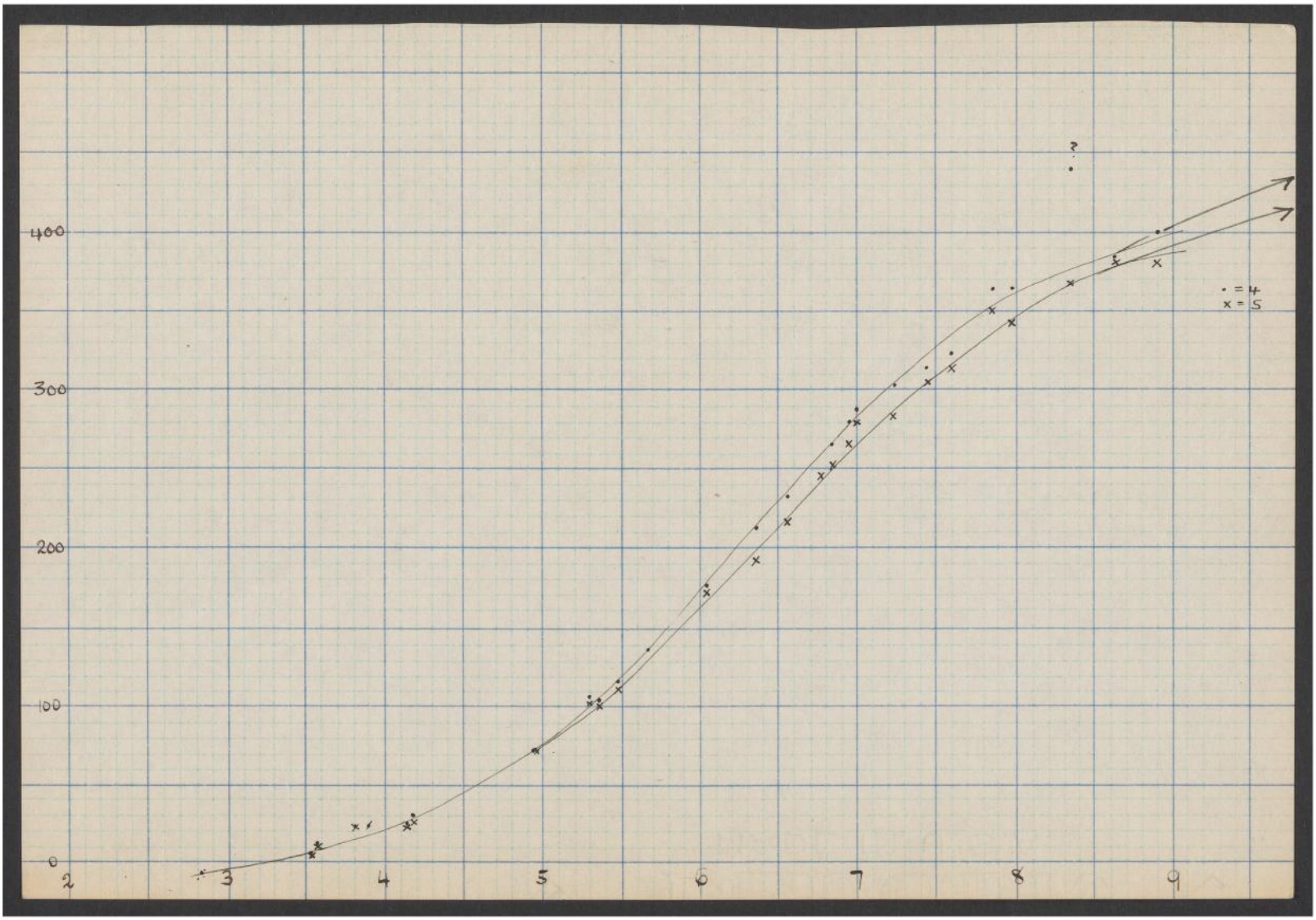
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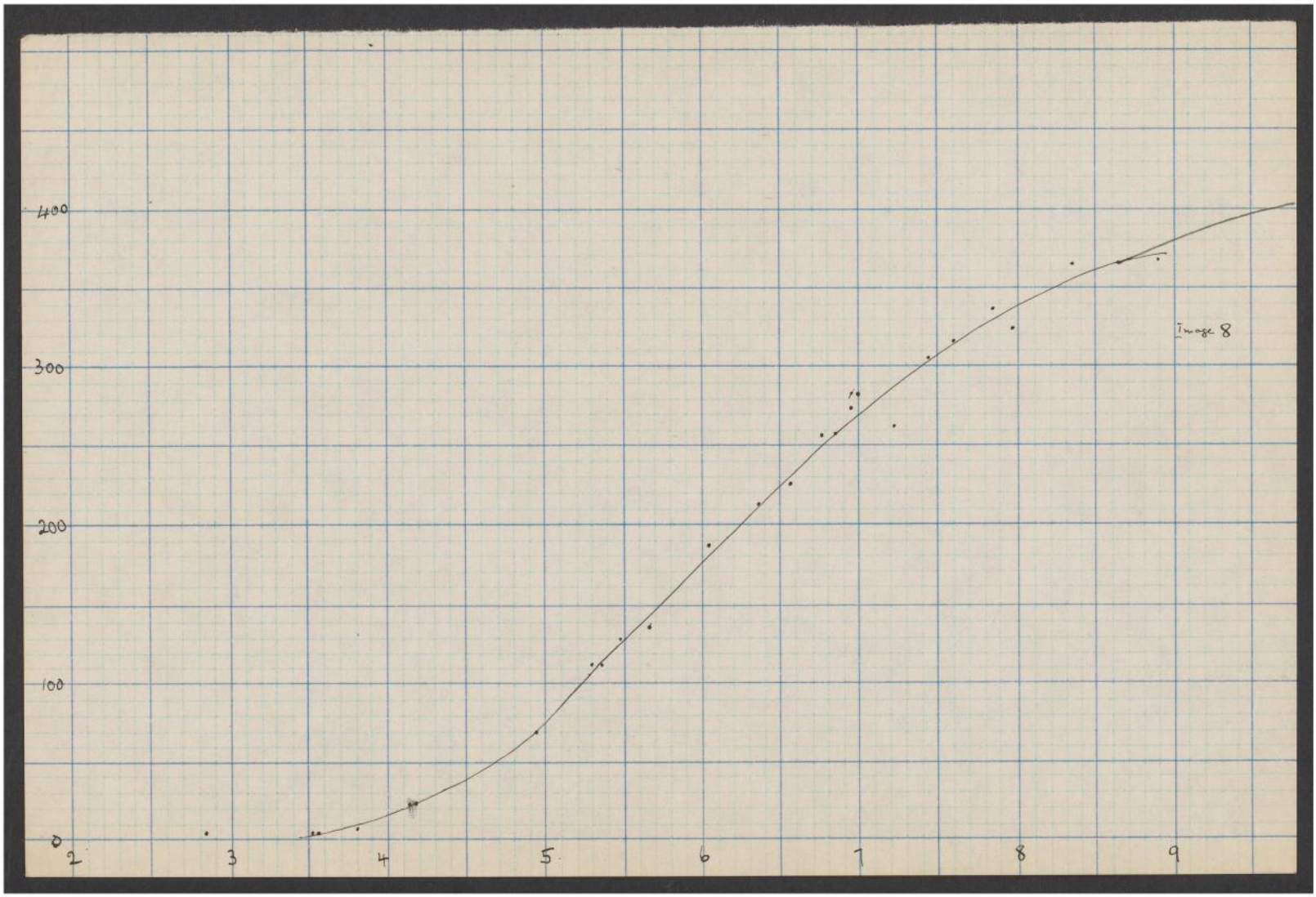
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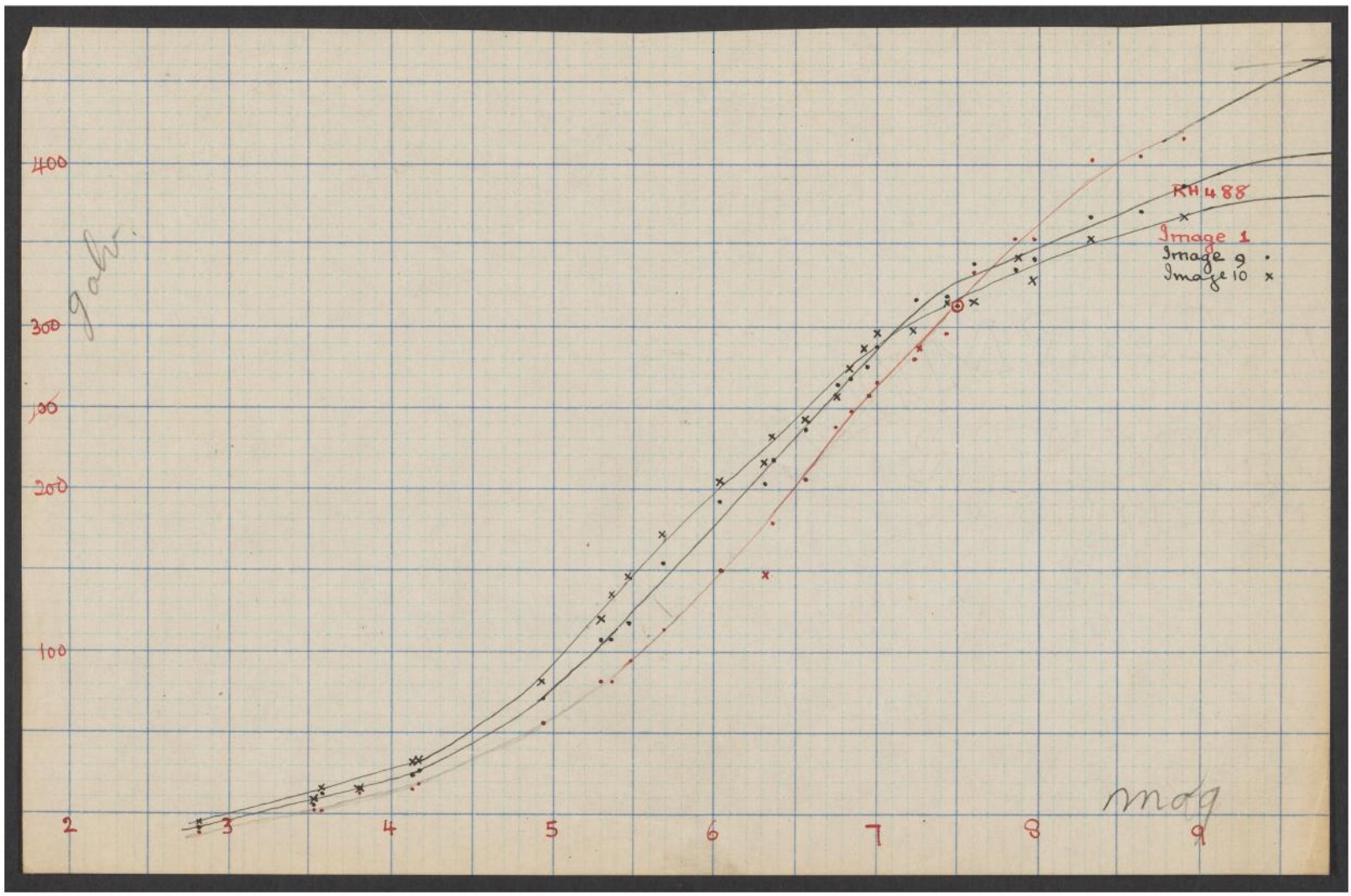
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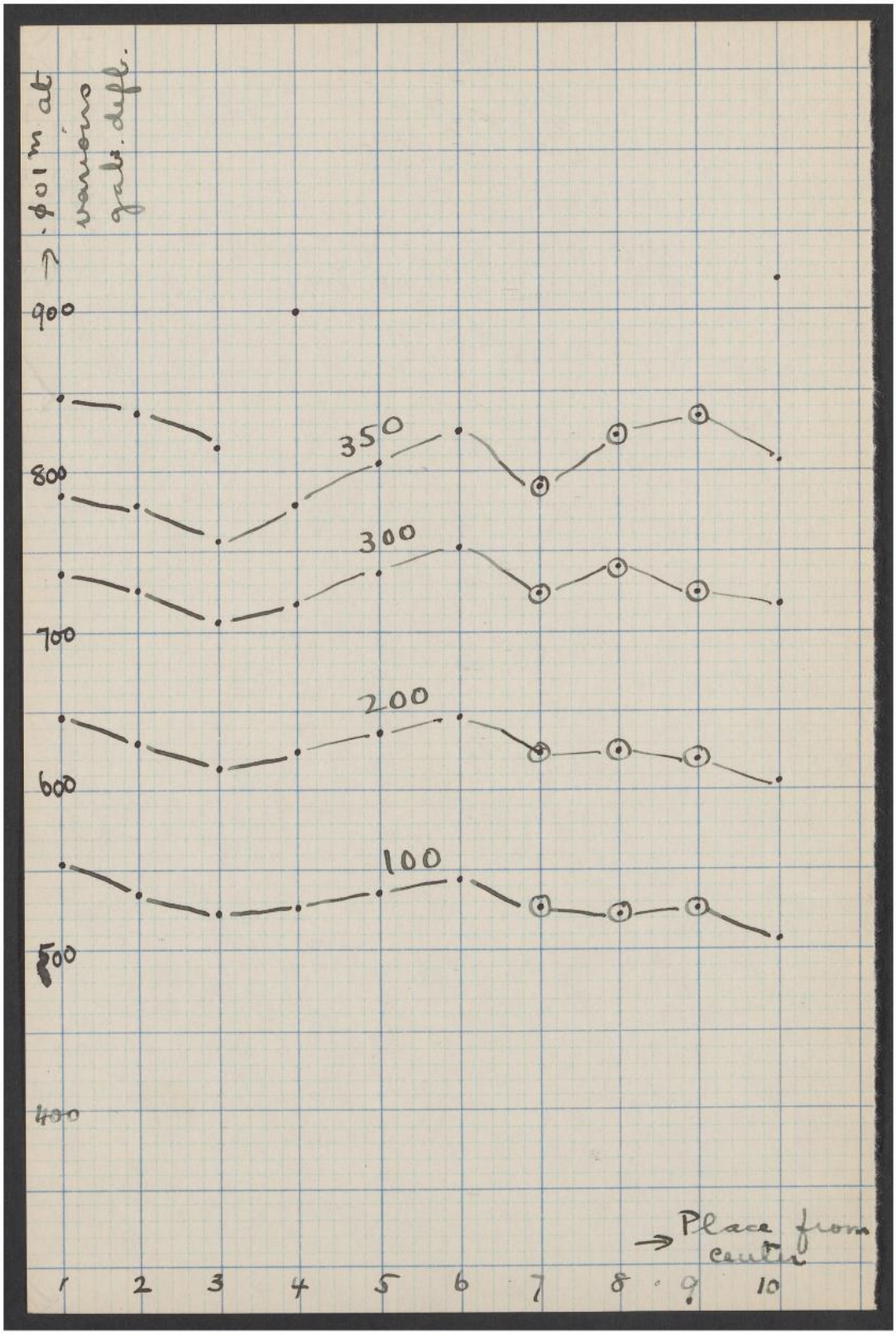
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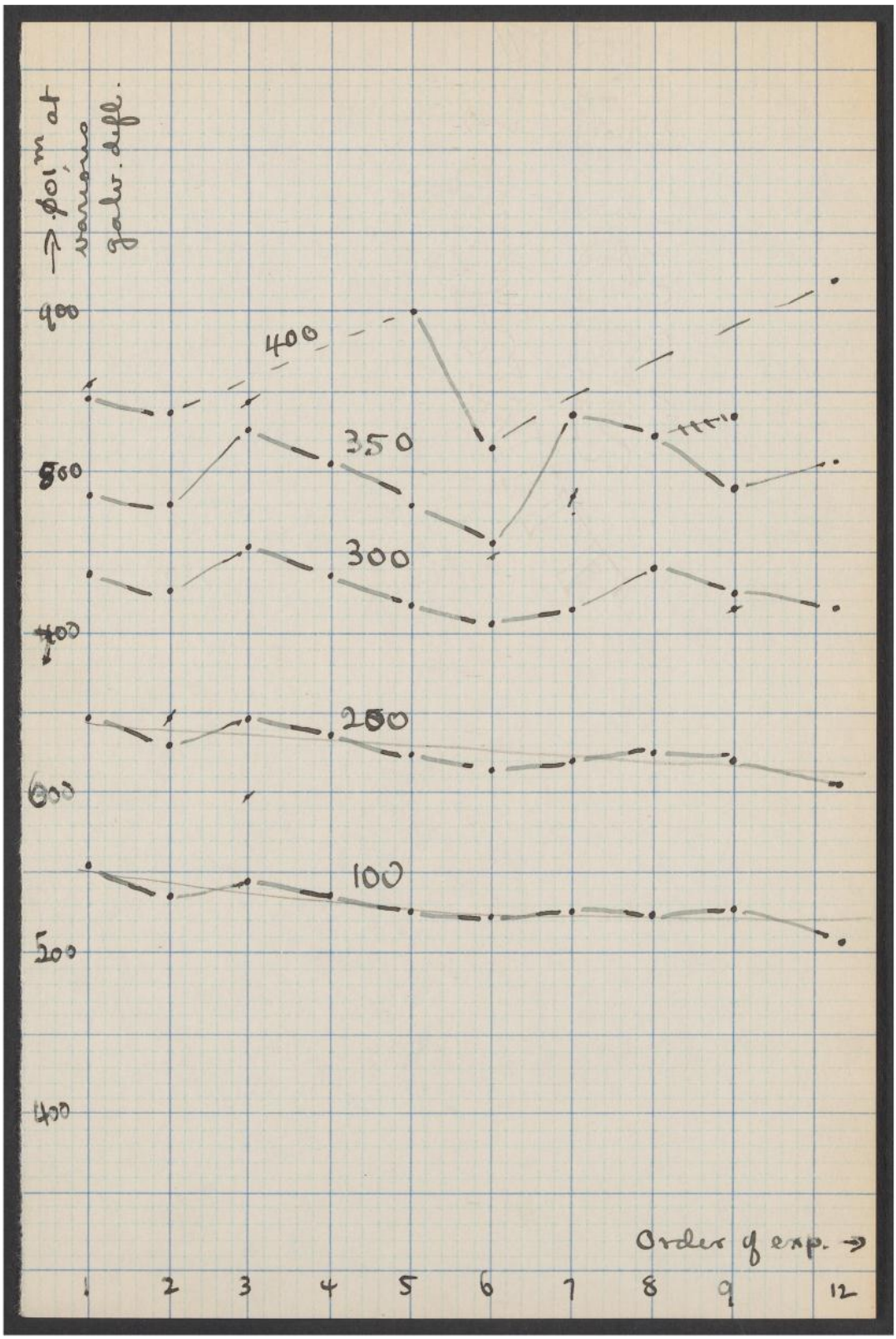
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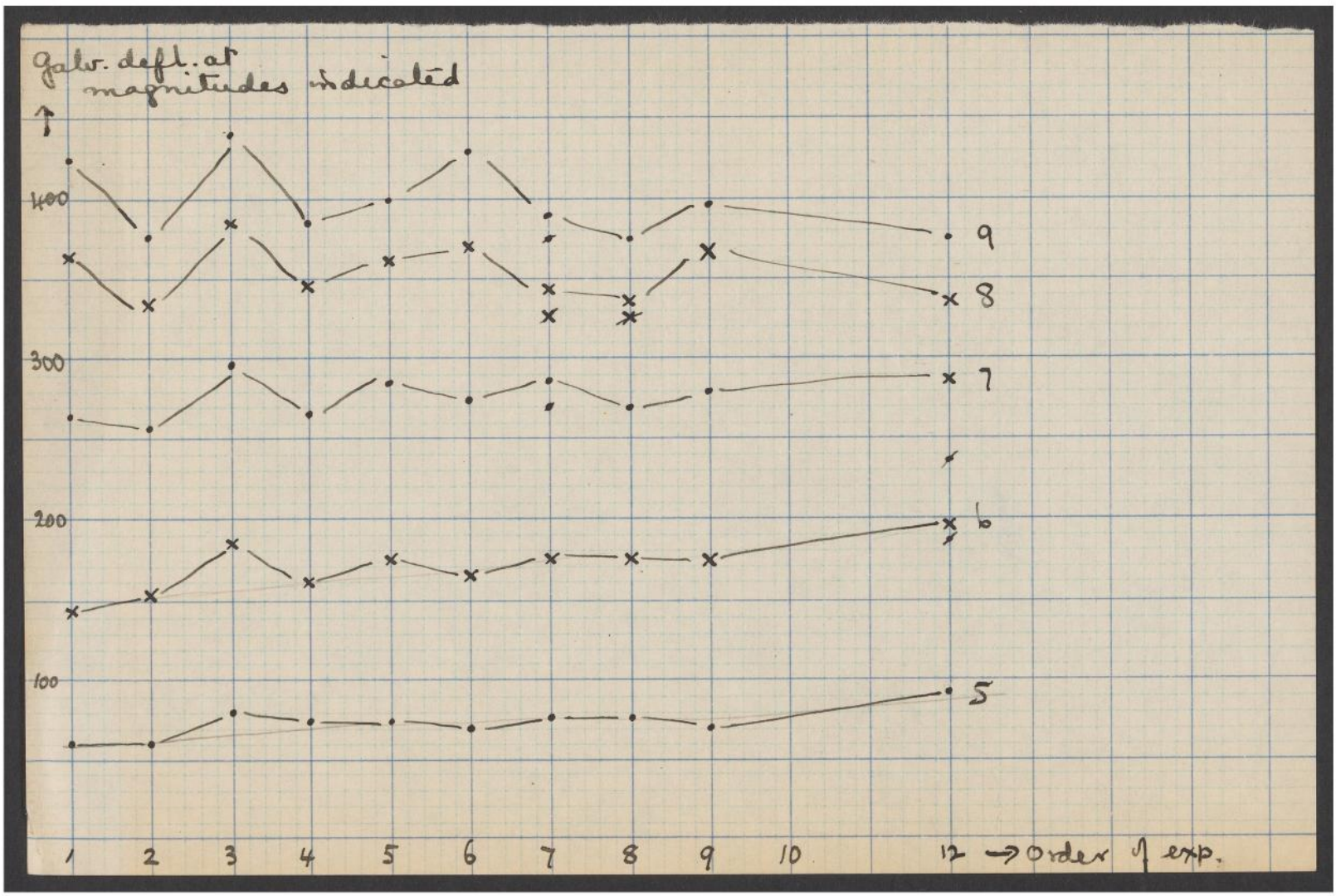
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