1932phae.proj.1289M

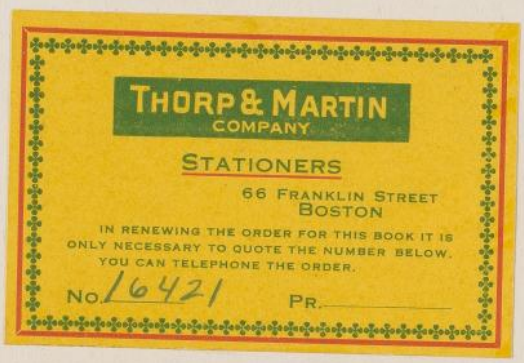
KG
11366
v.287

P'T'M BK 90

RH PLATES.

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

1932phae.proj.1289M



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

1932phae.proj.12.pdf

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

1932phae.proj.12M

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

1932phae.proj.128M

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

1932phae.proj.1209M

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

1932phae.proj.128PM

Index

Plate	Page
4447	2-14
4444	16-24
4445	26-34
3596	36-46
4713	48-62
4714	64-68 + 148
4787	74-104
4788	106-132
3506	134-146
4871	150-156
4869	158-174
4953	176-202
4954	204-218

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

1932phae.proj.129M

M.M. – RH 4447 – Dec. 15, 1932.

Strip	Star	y	x	Defl.	Defl.	Cl.	Dk.	volts
	ls	2017	772	629	—	1800	602	5.04
	1	2271	1035	778	—	1768	622	
	2	—	—	878	—	1762	592	
	3	—	—	995	—	1783	598	
	4	—	—	963	—	1732	592	
	5	—	—	1161	—	1752	587	
	6	—	—	1331	—	1738	581	
	7	—	—	1418	—	1733	568	
	8	—	—	1608	—	1745	573	
14.8	1	1481	865	1342	—	1687	575	
15.0	2	1505	508	1155	1208	1692	582	
	3	1510	850	1452	—	1628	577	
	4	1518	999	1308	—	1658	562	
15.2	5	1531	882	1588	1591	1662	572	
15.4	6	1549	518	1398	1382	1672	569	
	7	1552	705	1505	—	1678	573	
	8	1550	1093	987	982	1662	571	
	9	1547	1123	1554	—	1690	572	
15.6	10	1575	621	1408	1402	1652	578	
15.8	11	1591	571	1590	1587	1682	575	
	12	1579	852	1461	1506	1653	579	
	13	1588	885	1469	1520	1705	581	
16.0	14	1618	709	1068	1089	1678	568	
16.2	15	1625	506	1612	1638	1695	571	
	16	1622	749	1418	1402	1681	568	
	17	1620	756	1542	1522	1692	578	
	18	1632	956	1562	1588	1665	569	
16.4	19	1678	1261	1451	1455	1678	573	
16.8	20	1684	891	1462	1539	1702	571	
	ls	2017	772	598	—	1695	578	

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

1932phae.proj.128M

Cl. – Dk.	Defl.-Dk.	Red. Defl.	Mag.
1198	27	23	—
1146	156	146	—
1170	286	245	—
1185	397	335	—
1140	371	330	—
1165	574	493	—
1157	750	650	—
1165	850	729	—
1175	1035	910	—
1112	—	—	—
1110	600	540	661 ✓
	—	—	—
	—	—	—
1090	1018	933	off curve ✓
1103	821	743	751 ✓
	—	—	—
1091	413	378	595 ✓
	—	—	—
1074	827	769	761 ✓
1107	1013	918	865 (off curve) ✓
1074	905	842	810 ✓
1124	917	815	793 ✓
1110	510	459	631 ✓
1124	1054	938	off curve ✓
1113	842	758	760 ✓
1114	954	857	820 ✓
1096	1006	920	off curve ✓
1105	880	793	781 ✓
1131	929	820	798 ✓
1117	20	18	—

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

1932phae.proj.128M

4

m. m. — RH 4447 — Dec. 15, 1932.

Strip	Star	y	x	Defl.	Defl.	cl.	Dk.	volt.
	1	2271	1035	738	—	1660	572	
	2	—	—	872	—	1678	565	
	3	—	—	952	—	1692	568	
	4	—	—	948	—	1678	571	
	5	—	—	1112	—	1692	573	
	6	—	—	1329	—	1682	582	
	7	—	—	1398	—	1701	584	
	8	—	—	1548	—	1698	588	5.00
		J. A. M. J.		Dec. 16 1932		R. H. 4447		
	1s	2016	782	658	—	1662	628	5.00
	1	2271	1034	722	—	1628	642	
	2	—	—	888	—	1656	648	
	3	—	—	954	—	1660	650	
	4	—	—	898	—	1598	646	
	5	—	—	1120	—	1650	650	
	6	—	—	1298	—	1658	654	
	7	—	—	1356	—	1642	648	
	8	—	—	1530	+	1648	650	
17.0	✓21	1719	898	1338	1358	1650	650	
	✓22	1710	1021	1262	1270	1670	658	
	×23	1710	1050	1578	1068	1680	658	
	✓24	1700	1102	1392	1370	1636	642	
17.2	✓25	1719	417	1430	1428	1648	650	
	✓26	1732	672	1368	1348	1619	650	
	✓27	1719	1083	1411	1390	1620	650	
17.4	✓28	1749	1186	1052	1057	1610	662	
17.6	×29	1762	358	1482	1498	1640	650	
	✓30	1772	432	1488	1482	1630	650	
	✓31	1776	930	1134	1148	1618	638	
	×32	1770	1139	1510	1520	1600	638	

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

1932phae.proj.1201M

Cl.-Dk.	Defl.-Dk.	Red. Defl.	Mag.
1088	166	140	—
1113	307	278	—
1124	384	341	—
1107	377	341	—
1119	539	491	—
1100	747	679	—
1117	814	730	—
1110	960	863	—
1034	30	29	—
986	80	81	—
1008	240	238	—
1000	304	304	—
952	252	263	—
1000	470	470	—
1004	644	642	—
994	708	710	—
998	880	882	—
1000	698	697	732 ✓
1012	608	600	695 ✓
1022	915	898	off curve ✗
994	739	740	755 ✗
998	779	778	778 ✓
969	708	730	749 ✓
970	750	772	775 ✓
968	402	419	622 ✓
990	840	848	828 ✗
980	840	858	837 ✓
980	503	513	661 ✓
962	877	911	off curve ✗

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

1932phae.proj.1201M

6

J. F. McJ R H 44447 12-16-32

Strip	Star	Y	X	Deff.	Defl cl.	Sk	Volts	
17.8	✗33	1780	762	1498	1518	1600	634	
18.0	✓34	1808	408	1392	1420	1600	626	
	✗35	1804	628	1468	1460	1582	638	
	✓36	1801	824	1462	1478	1600	640	
	✓37	1800	846	1632	1630	1838	780	room cooled off galv. change
	✓38	1810	854	1682	1688	1820	746	
18.2	✗39	1830	360	1650	1680	1782	708	
	✓40	1820	640	1610	1622	1680	660	
	✓41	1829	1061	1099	1078	1658	638	
18.4	✓42	1850	412	1412	1400	1650	614	
	✓43	1838	429	1412	1430	1590	600	
	✓44	1834	432	1470	1478	1670	588	
	✓45	1841	800	1442	1434	1562	580	
	✓46	1862	888	1226	1202	1558	570	
	✓47	1840	1160	1229	1220	1580	680	
18.6	✓48	1868	476	1406	1440	1566	572	
	✓49	1870	509	1422	1450	1578	592	
	✓50	1866	631	~~1386~~ 1388	1420	1572	592	
	✓51	1864	1306	1380	1410	1600	604	
18.8	✓52	1890	250	1618	1614	1640	610	
	✓53	1814	608	1420	1422	1660	628	
	✓54	1890	717	1562	1630	1668	640	
gmc. 19.0	✓55	~~1900~~	2864	896	910	1670	623	
	✗56	1898	517	1518	1562	1611	633	
	✓57	1917	544	1432	1447	1668	628	
	✓58	1900	970	950	912	1703	~~630~~ 630	
	✓59	1907	980	1020	1110	1652	620	
19.2	✓60	~~1939~~ 1939	618	918	952	1718	625	
	✓61	1929	1287	1370	1395	1686	635	
19.4.	✓62	1951	258	1288	1270	1666	623	
19.6	✓63	1960	305	1560	1564	1694	642	

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

1932phae.proj.1201M

Cl.-Dk.	Defl.-Dk.	Red. Defl.	Mag.
966	874	910	off curve +
974	780	805	793 ✓
944	826	812	851 +
960	830	862	841 ✓
1058	851	803	795 ✓
1074	939	870	849 ✓
1074	957	890	off curve +
1020	906	941	off curve ✓
1020	450	442	631 ✓
1036	792	763	770 ✓
990	821	832	819 ✓
982	886	900	off curve ✓
982	858	870	848 ✓
988	644	653	713 ✓
1000	644	644	710 ✓
994	851	856	834 ✓
986	844	853	832 ✓
980	812	828	813 ✓
996	791	791	790 ✓
1030	906	874	off curve (851) ✓
1032	793	764	770 ✓
1028	906	880	853 ✓
1047	280	268	551 ✓
978	907	928	off curve +
1040	812	782	781 ✓
1073	301	280	560 ✓
1032	445	431	629 ✓
1093	310	284	562 ✓
1051	747	710	738 ✓
1043	656	628	705 ✓
1052	920	874	851 ✓

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

1932phae.proj.1209M

8

gmc. RH 4447 12-16-3<

Strip	Star	y	x	Diff	Diff	cl	Dk
	✓64	1960	343	1538	1560	1718	627
	✓65	1955	621	1578	1558	1660	621
	✗66	1960	651	1567	1553	1652	639
19.8	✓67	1980	278	1488	1490	1703	620
	✓68	1984	558	1283	1310	1690	620
	✓69	1984	938	1550	1515	1685	640
	✓70	1980	973	1170	1215	1705	630
	✓71	1997	1153	1350	1350	1691	625
	✓72	1999	1372	1260	1258	1705	640
20.0	✓73	1999	418	1582	1560	1712	629
	✓74	2009	739	1106	1118	1705	617
	✓75	2017	748	1398	1480	1680	627
	✓76	2018	909	1255	1281	1671	610
	✓77	2007	950	1310	1386	1721	643
	✓78	2012	1320	1062	1010	1723	665
20.2	✓79	2038	577	908	918	1734	648
20.6	✓80	2071	298	1561	1530	1765	650
	✓81	2067	363	1580	1588	1750	630
	✓82	2059	532	1513	1541	1710	613
	✓83	2064	652	888	858	1715	620
	✓84	2068	768	1198	1202	1706	620
20.8	✓85	2087	414	1370	1396	1705	614
21.0	✓86	2104	245	1275	1295	1732	610
	✓87	2110	353	1317	1401	1718	603
	✓88	2105	381	903	988	1658	605
	✗89	2105	530	Double Star, not measured.			
	✓90	2098	1218	1438	1430	1670	610
	✓91	2110	1232	1410	1454	1685	605
21.2	✓92	2132	1027	1535	1525	1670	605
21.4	✓93	2150	582	1380	1432	1703	608
	✓94	2140	588	1590	1590	1728	605

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

1932phae.proj.1201M

Cl.-Dk.	Defl.-Dk	Red. Defl.	Mag.
1091	922	843	825 ✓
989	947	958	off curve ✓
1013	921	910	off curve ✗
1083	869	800	795 ✓
1090	676	631	707 ✓
1045	892	850	830 ✓
1075	562	522	665 ✓
1066	725	681	725 ✓
1060	619	581	689 ✓
1083	942	869	847 ✓
1088	495	455	639 ✓
1053	712	678	720 ✓
1061	661	623	703 ✓
1078	705	653	712 ✓
1058	371	351	596 ✓
1086	265	244	540 ✓
1115	896	802	797 ✓
1120	954	852	832 ✓
1097	917	853	833 ✓
1095	253	231	532 ✓
1086	680	532	670 ✓
1086	769	707	737 ✓
1122	675	603	697 ✓
1115	756	680	724 ✓
1058	346	329	581 ✓
			— ✗
1060	824	778	778 ✓
1080	827	764	770 ✓
1065	925	861	842 ✓
1095	798	728	748 ✓
1128	790	678	802 ✓

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

1932phae.proj.1209M

gmc RH 4447 12-16-32

Strip	Star	y	x	Defl	Defl	cl	Dk	v at
	✓95	2155	1219	1322	1350	1520	598	
21.6	✓96	2165	885	1188	1200	1541	602	
	✓97	2160	1237	1316	1338	1540	605	
21.8	✓98	2189	605	1450	1397	1537	598	
	✓99	2190	861	1394	1390	1562	602	
	15	2016	782	620	—	1485	598	
	1	2270	1034	767	—	1548	592	
	2	—	—	811	—	1580	598	
	3	—	—	833	—	1574	581	
	4	—	—	840	—	1562	588	
	5	—	—	1068	—	1588	582	
	6	—	—	1208	—	1570	590	
	7	—	—	1348	—	1595	583	
	8	—	—	1412	—	1585	580	4.87

2 JP - RH 4447 - Dec. 16, 1932

	1A	2016	782	~~692~~	—	1730	578	525
	1	2270	1034	888	—	1742	572	
	2	—	—	918	—	1757	572	
	3	—	—	1022	—	1753	572	
	4	—	—	1016	—	1708	573	
	5	—	—	1288	—	1742	573	
	6	—	—	1432	—	1722	578	
	7	—	—	1458	—	1713	573	
	8	—	—	1626	—	1712	567	
22.0	✓109	2200	263	1642	1613	1772	573	
	✓10[illegible]	2217	573	1648	1609	1753	572	
	✓10R	2209	612	1518	1538	1742	568	
22.2	✓103	2221	659	1312	1339	1708	573	
	✓104	2231	687	1062	1057	1738	572	
	✓105	2228	1209	1452	1463	1713	574	

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

1932phae.proj.1201M

cl.-Dk.	Deff.-Dk.	Red. Deff.	Mag.
922	738	805	794
939	592	631	706
935	722	771	773
939	826	879	851
960	790	820	810
887	22	25	—
956	175	183	—
982	213	227	—
993	252	253	—
974	252	258	—
1006	486	483	—
980	618	630	—
1012	765	756	—
1065	832	830	—
1152	114	106	—
1170	316	272	—
1185	346	291	—
1181	450	380	—
1135	443	391	—
1169	715	611	—
1144	854	748	—
1140	~~1040~~ 885	778	—
1145	1059	926	—
1199	1065	882	809
1181	1056	893	815
1174	960	816	762
1135	753	663	672
1166	988	847	781
1139	884	776	738

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

1932phae.proj.1209M

ZJP - R A 4447 - Dec. 16, 1932.

Strip	Star	y	x	Dyff	Dxff	Ce	Dk	Falls
22.4	106	2240	612	1322	1399	1703	582	
	107	2238	1039	1053	1039	1688	582	
22.6	108	2270	678	1308	1313	1679	603	
	109	2267	1281	1072	1032	1693	577	
22.8	110	2290	309	1370	1364	1732	592	
	111	2290	352	810	853	1754	588	
23.0	112	2310	298	1032	1113	1742	592	
	113	2301	759	952	998	1707	593	
	114	2300	952	1052	942	1722	603	
	115	2310	1118	1462	1003	1718	599	
23.2	116	2327	323	1074	1082	1737	593	
	117	2320	618	1182	1123	1752	603	
	118	2318	1039	1422	1438	1712	607	
23.4	119	2347	1113	1478	1448	1703	603	
23.8	120	2390	382	1937	1383	1779	607	
	121	2380	610	1082	1609	1733	603	
	122	2391	703	869	793	1753	613	
	123	2390	902	1488	1518	1763	619	
24.4	124	2448	854	1462	1528	1788	623	
24.6	125	2460	402	1289	1247	1770	622	
	126	2472	632	1118	1167	1748	617	
	127	2478	979	1082	1073	1748	623	
	128	2461	1028	1298	1378	1788	623	
25.0	129	2509	711	1632	1622	1817	629	
	130	2500	997	1622	1628	1797	647	
25.2	131	2520	912	1614	1593	1804	633	
	132	2521	1052	1302	1368	1773	630	
25.6	133	2564	700	1698	1648	1802	640	
	134	2563	723	1553	1548	1807	630	
	135	2566	794	1567	1569	1793	632	

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

1932phae.proj.1201M

Cl.-Dk.	Dgl.-Hk.	Red. Dgl.	Mag.
1121	778	693	691
1106	464	420	580
1076	707	647	667
1116 ~~1140~~	945	848	782
1149 ~~1166~~	775	680	681
1166 ~~1150~~	244	209	458
1150 ~~1114~~	480	417	589
1114	382	343	545
1119	394	352	551
1119	883	789	746
1144	985	860	792
1149	549	479	600
1105	828	745	720
1100	860	772	738
1172	753	642	665
1130	993	880	807
1140	218	191	445
1143	884	773	738
1165	869	745	720
1148	646	563	631
1131	525	464	596
1125	955	850	786
1166 ~~1188~~	715	651	670
1188	998	840	778
1150	978	850	786
1171	971	829	771
1143	705	615	652
1162	1033	890	813
1177	920	780	741
1161	936	804	759

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

1932phae.proj.1209M

N.P. R.A. 4447 — Dec. 16, 1932.

Trip	Class	Star	y	x	Diff	Diff	Ce	Dk	Paths
		1A	2016	782	687	—	1742	642	030
		1	2270	1034	832	—	1798	638	
		2	—	—	1040	—	1852	642	
		3	—	—	1162	—	1842	648	
		4	—	—	1122	—	1812	652	
		5	—	—	1353	—	1848	652	
		6	—	—	1532	—	1842	652	
		7	—	—	1559	—	1852	652	
		8	—	—	1750	—	1830	642	

Plate furnished

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

1932phae.proj.1209M

Cl.–Dk.	Defl.–Dk.	Red. Defl.	
1105	45	41	—
1160	194	167	—
1210	398	329	—
1194	514	432	—
1160	470	407	—
1196	701	587	—
1190	880	739	—
1200	907	757	—
1188	1108	930	—

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

1932phae.proj.12pM

Dec. 17, 1932.

Strip	Star		y	x	dlefl	Lefl	Cl	dk	Volts.
	1A		1989	793	832 —		1863	747	520
	1		2020	968	1092 —		1903	752	
	2		—	—	1302 —		1912	753	
	3		—	—	1392 —		1898	762	
	4		—	—	1278 —		1909	762	
	5		—	—	1503 —		1905	763	
	6		—	—	1597 —		1892	768	
	7		—	—	1638 —		1898	763	
	8		—	—	1842 —		1904	767	
13.6	1	L	1357	867	1752	1750	1863	766	
	2	✓	1367	988	1503	1512	1858	773	
14.0	3	✓	1402	824	1763	1777	1868	763	
14.6	4		1458	948	1632	1618	1883	769	
15.0	5	X	1509	772	1793	1782	1873	779	
15.4	6	✓	1532	769	1740	1714	1862	793	
	7	X	1539	1092	1837	1826	1889	803	
	8	✓	1536	1153	892	867	1812	783	
15.6	9	X	1571	578	1788	1782	1848	773	
16.0	10	x	1597	730	1813	1820	1878	793	
16.2	11	✓	1630	917	1603	1617	1870	783	
16.4	12	✓	1638	478	1628	1573	1880	788	
	13	✓	1643	1252	1693	1683	1872	792	
	14	✓	1640	1300	1622	1664	1877	781	
16.6	15	X	1670	1178	1832	1797	1877	782	
16.8	16	✓	1682	369	1466	1472	1882	792	
	17	✓	1690	588	1772	1764	1882	788	
	18	✓	1697	1148	1662	1632	1888	788	
17.0	19	✓	1699	1343	1708	1743	1873	792	
	20	X	1710	1415	1792	1818	1897	783	
17.4	21	✓	1743	509	1758	1713	1870	793	

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

1932phae.proj.1209M

Cl.-Ok.	Defl.-Ok.	Red. Defl.	Mag.
1116	85	76	—
1151	340	296	—
1159	549	475	—
1136	630	556	—
1147	516	450	—
1142	740	647	—
1124	829	737	—
1135	875	771	—
1137	1075	945	—
1097	985	888	807
1085	735	675	718
1105	1007	~~911~~ 1048	829
1114	856	768	710
1094	1009	921	839
1069	934	875	795
1086	1028	948	off curve
1029	97	93	250
1071	1012	945	off curve
1085	1023	945	off curve
1087	827	760	706
1092	812	743	692
1080	896	829	758
1106	872	790	728
1095	1032	943	off curve
1090	677	621	614
1094	980	896	812
1100	859	780	720
1081	934	859	778
1114	1022	~~990~~ 929	830
1077	943	877	798

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

1932phae.proj.12pM

2 Jp - RH 4444 - Dec. 17, 1932.

Strip	Star	Y	X	Dfl	Dfl	Cl	Dk	Volts
	22	1757	647	1768	1737	1892	792	
	23	1752	653	1620	1603	1888	799	
	24	1750	931	1672	1658	1913	809	
	25	1750	1063	1693	1673	1900	803	
17.6	26	1777	281	1652	1623	1907	793	
17.8	27	1779	707	1688	1723	1903	797	
	28	1788	727	1783	1774	1882	793	
	29	1778	485	1763	1768	1917	803	
18.0	30	1810	430	1707	1702	1880	799	
	31	1810	808	1843	1810	1918	803	
	32	1811	989	1798	1733	1917	801	
	33	1811	1057	1743	1733	1908	803	
18.2	34	1830	338	1782	1782	1902	800	
	35	1829	380	1282	1238	1914	803	
18.4	36	1850	480	1727	1788	1892	803	
	37	1853	813	1772	1806	1882	779	
	38	1843	1313	1838	1812	1912	793	
18.6	39	1858	747	1748	1763	1900	783	
	40	1851	916	1780	1742	1808	702	
18.8	41	1879	698	1332	1277	1823	723	
	42	1892	1066	1732	1698	1803	702	
19.4	43	1942	825	1622	1643	1763	693	
	44	1947	1467	1543	1412	1729	684	
20.0	45	2000	472	1638	1572	1743	672	
	46	2010	548	1408	1468	1723	668	
	47	1999	1174	1232	1163	1742	652	
	48	2001	1422	1318	1222	1708	647	
20.2	49	2029	391	1440	1578	1712	647	
	50	2032	923	1506	1523	1733	648	
20.4	51	2055	300	1578	1542	1712	632	

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

1932phae.proj.1201M

Cl-Dk.	Dgl.-Dk.	Red. Dgl.	Mag
1100	960	873	793
1089	813	749	698
1104	856	776	716
1091	880	803	740
1114	859	770	712
1106	909	821	752
1089	981	902	826 ~~off curve~~
1114	963	864	784
1081	931	860	781
1115	1023	920	839 ×
1116	965	865	783
1105	620	561	582
1102	982	890	808
1111	457	410	503
1089	965	878	797
1103	1010	917	830
1119	1032	925	845 ×
1117	967	865	785 ~~hm~~
1106	1089	913	830 ×
1080	581	538	567
1101	1013	923	840
1090	939	877	795
1045	794	760	707 × (outside circle)
1091	933	870	790 ~~681~~
1055	771	728	~~844~~
1090	546	500	549
1061	623	588	595
1065	832	782	723
1090	871	797	731
1079	897	833	762

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

1932phae.proj.120M

Dec. 17, 1932 — R H 4444

Trip	Star	y	x	diff	diff	Ce	Dk	Volts
	52	2038	354	1492	1522	1728	633	
20.6	53	2060	945	1698	1698	1767	662	
20.8	54	2078	773	1343	1250	1733	648	
	55	2090	853	1462	1523	1737	642	
	56	2081	1418	1618	1603	1718	652	
	1 A	1989	793	783	—	1682	643	520
	1	2330	968	983	—	1702	638	
	2	—	—	1137	—	1709	638	
	3	—	—	1222	—	1707	624	
	4	—	—	1133	—	1733	632	
	5	—	—	1372	—	1694	630	
	6	—	—	1438	—	1688	626	
	7	—	—	1490	—	1698	630	
	8	—	—	1626	—	1712	632	

m.m. — RH 4444 — Dec. 17, 1932.

	1B	1989	794	767	—	1812	672	5.20
	1	2310	969	990	—	1810	652	
	2	—	—	1221	—	1768	651	
	3	—	—	1292	—	1778	649	
	4	—	—	1228	—	1808	668	
	5	—	—	1348	—	1758	639	
	6	—	—	1472	—	1752	641	
	7	—	—	1528	—	1768	639	
	8	—	—	1658	—	1748	631	
21.0	57	2100	541	1531	1528	1712	634	
	58	2105	1443	1605	1598	1728	628	
21.2	59	2134	359	1549	1582	1705	625	
	60	2120	582	1611	1606	1702	628	
	61	2124	699	1380	1406	1703	615	
	62	2130	704	1388	1452	1672	611	
	63	2131	831	1612	1600	1692	612	

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

1932phae.proj.1201M

Cl.-Dk.	Degl.-Dk.	Red. Degl.	Mag.
1095	874	798	732
1105	1036	938	850
1085	648	597	600
1095	850	775	717
1066	95-8	898	813
1039	140	134	—
1064	345	322	—
1071	499	465	—
1083	598	550	—
1101	501	455	—
1064	742	695	—
1065	815	765	—
1068	860	807	—
1080	994	920	—
1140	95	83	—
1158	338	292	—
1117	570	512	—
1129	643	571	—
1150	570	495	—
1119	709	636	—
1111	831	748	—
1129	889	787	—
1117	1027	920	—
1078	896	832	773
1100	974	880	810
1080	941	872	803
1074	980	912	835
1088	778	715	691
1061	809	761	723
1080	994	920	841

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

1932phae.proj.1201M

m. m. – RH 4444 – Dec. 17, 1932.

Strip	Star	y	x	Defl.	Defl.	Cl.	Rk.	volts.
	64	2120	1179	1522	1556	1702	612	
	65	2155	801	1522	1553	1652	608	
21.8	66	2180	378	1539	1500	1658	615	
	67	2185	678	1688	1708	1802	692	
	68	2180	805	1537	1568	1751	681	
	69	2185	942	1580	1572	1792	669	
	70	2188	1178	1071	1105	1768	658	
22.0	71	2208	380	1575	1548	1712	655	
	72	2199	752	1372	1406	1714	648	
	73	2215	796	1350	1368	1712	642	
	74	2212	952	1558	1592	1728	638	
	75	2204	1349	1556	1538	1692	635	
22.2	76	2232	634	1255	1223	1668	628	
	77	2224	881	1582	1600	1710	631	
22.4	78	2245	1250	1570	1588	1713	615	
	79	2248	1255	1402	1438	1682	614	
22.6	80	2275	962	1521	1568	1722	612	
22.8	81	2298	878	1458	1432	1712	618	
	82	2295	1113	1292	1278	1699	612	
	83	2279	1216	1402	1400	1689	610	
23.0	84	2310	1222	1381	1415	1678	610	
23.2	85	2328	638	1499	1490	1664	602	
	86	2320	652	1528	1497	1652	601	
	87	2328	1100	1580	1555	1678	608	
23.6	88	2360	472	1312	1382	1642	598	
	89	2362	488	1529	1552	1640	608	
	90	2370	820	1378	1442	1632	602	
	91	2377	830	1539	1554	1668	608	
	92	2364	897	1291	1293	1682	622	
24.0	93	2410	478	1540	1569	1648	605	

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

1932phae.proj.1201M

Cl.-Dk.	Defl.-Dk.	Red. Defl.	Mag.
1090	927	851	790
1044	930	890	818
1043	905	861	800
1110	1006	906	830
1070	871	814	761
1123	907	806	754
1110	430	387	491
1057	917	868	800
1066	741	695	670
1070	717	670	670
1090	937	860	796
1057	912	814	761
1040	611	588	607
1079	960	890	818
1098	964	878	808
1068	806	756	721
1110	932	840	780
1094	827	758	728
1089	673	619	626
1079	791	733	702
1068	788	738	705
1062	892	839	777
1051	911	867	800
1070	960	899	821
1044	749	717	698
1032	932	903	830
1030	808	784	740
1060	938	885	815
1060	670	632	638
1043	953	910	832

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

1932phae.proj.120M

m.m. – RH 4444 – Dec. 17, 1932.

Strip	Star	y	x	Dafl.	Dafl.	cl.	Dk.	volt.
	94	2425	987	1514	1568	1702	655	
24.4	95	2440	519	1532	1602	1708	651	
	96	2442	742	1512	1509	1689	638	
	97	2445	813	1108	1068	1673	639	
24.6	98	2478	1043	1190	1207	1698	628	
	99	2461	1152	1499	1468	1683	626	
24.8	100	2486	600	1481	1378	1678	621	
	101	2492	622	1272	1270	1633	623	
25.0	102	2510	871	1472	1542	1682	628	
26.2	103	2522	718	1425	1458	1652	612	
	104	2519	766	1368	1358	1668	608	
ls.	ls	1989	793	749	—	1645	620	
	1	2310	970	882	—	1649	604	
	2	—	—	1118	—	1638	615	
	3	—	—	1182	—	1661	611	
	4	—	—	1068	—	1645	598	
	5	—	—	1258	—	1638	612	
	6	—	—	1348	—	1651	602	
	7	—	—	1350	—	1652	608	
	8	—	—	1568	—	1656	611	5.20

Plate finished

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

1932phae.proj.12PM

Cl.-Dk.	Dgfl.-Dk.	Red. Dgfl.	Mag.
1042	886	847	782
1057	916	868	800
1051	872	830	770
1034	449	434	518
1070	570	532	573
1057	858	812	760
1069	809	765	725
1010	648	641	642
1054	879	833	775
1040	830	798	749
1060	755	712	690
1025	129	126	—
1045	278	266	—
1023	503	495	—
1050	571	593	—
1047	470	449	—
1026	646	628	—
1049	746	710	—
1044	742	711	—
1045	959	912	—

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

1932phae.proj.12MM

XgP - R.A. 4445 - Dec. 18, 1932.

Strip	Star		y	x	Dyff	Dyff	Cl.	Dk	Volts
	1a		1990	764	632	—	1732	610	
	1		2305	953	812	—	1731	618	
	2		—	—	992	—	1768	622	
	3		—	—	1040	—	1732	632	
	4		—	—	1008	—	1732	626	
	5		—	—	1109	—	1758	622	
	6		—	—	1383	—	1750	628	
	7		—	—	1283	—	1753	632	
	8		—	—	1598	—	1757	632	
13.6	1	✓	1358	845	1538	1548	1689	636	
	2	✓	1368	967	1188	1172	1697	632	
14.0	3	✓	1403	802	1572	1588	1703	633	
14.6	4	✓	1459	925	1368	1383	1722	627	
15.0	5	✓	1511	941	1479	1393	1718	627	
15.2	6	✓	1514	508	1550	1503	1712	632	
	7	✓	1532	747	1467	1504	1742	642	
15.4	8	✓	1538	1132	678	653	1683	643	
~~16.0~~	9	✓	1600	1203	1628	1638	1762	638	
16.2	10		1636	453	1333	1298	1743	641	
	11	✓	1630	892	1288	1218	1753	639	
16.4	12	✓	1648	1229	1339	1422	1741	652	
	13	✓	1640	1277	1377	1443	1751	642	
16.8	14	✓	1680	943	1139	1123	1778	633	
	15	✓	1690	562	1508	1532	1782	629	
17.0	16	✓	1699	1127	1392	1312	1762	628	
	17	✓	1750	1319	1463	1520	1742	628	
17.4	18	✓	1741	486	1558	1537	1813	642	
	19	✓	1757	623	1582	1562	1832	652	
	20	✓	1752	628	1340	1303	1822	658	
	21	✓	1750	907	1402	1393	1803	652	

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

1932phae.proj.1201M

Cl.-Dk.	Dogl-Dk.	Rel. Dogl.	May.
1122	22	20	
1113	194	174	—
1146	330	288	—
1100	408	370	—
1109	385	347	—
1136	487	430	—
1122	705	628	—
1121	651	581	—
1125	966	855	—
1053	907	860	837
1065	548	515	672
1070	947	885	852
1096	733	670	749
1091	811	743	782
1080	894	827	821
1100	844	767	799
1040	23	22	248
1124	995	885	850
1102	675	611	721
1114	614	550	691
1097	728	663	744
1109	748	672	750
1145	498	435	621
1153	891	772	800
1134	724	637	731
1114	864	773	801
1171	906	774	802
1180	920	780	802
1164	664	568	704
1151	746	648	738

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

1932phae.proj.120M

2JP - RA 4445 - Dec. 18, 1932.

Strip	Star	y	x	dleft	dleft	cc	dk	Volts
	22	1751	1042	1432	1402	1773	648	
17.6	23	1773	257	1442	1403	1777	658	
	24	1778	961	1598	1612	1833	653	
17.8	25	1780	683	1463	1468	1802	653	
	26	1788	702	1562	1563	1793	657	
18.0	27	1809	407	1522	1542	1792	653	
	28	1813	964	1449	~~1482~~	1797	653	
	29	1812	1032	982	1047	1793	657	
18.2	30	1830	312	1621	1602	1772	632	
	31	1827	303	912	942	1772	640	
18.4	32	1850	406	1552	1552	1782	626	
	33	1807	788	1598	1592	1758	621	
	34	1848	1288	1612	1592	1788	623	
18.6	35	1858	722	1527	1487	1748	624	
	36	1860	1407	1602	1593	1772	618	
18.8	37	1890	672	974	1063	1771	623	
	38	1880	1088	1582	1680	1762	618	
19.0	39	1898	1039	1550	1477	1738	623	
19.4	40	1944	799	1548	1537	1792	673	
19.6	41	1970	1030	1342	1308	1867	708	
20.0	42	2000	448	1657	1722	1932	787	
	43	2010	523	1488	1544	1988	779	
	44	2010	823	1649	1539	1919	742	
	45	2000	1149	1072	1048	1898	708	
	46	2002	1219	1772	1693	1908	693	
	47	2006	1397	1218	1138	1892	689	
20.2	48	2032	329	1680	1612	1922	690	
	49	2023	367	1557	1553	1891	682	
	50	2036	908	1542	1512	1874	653	
20.4	51	2052	277	1492	1563	1877	657	

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

1932phae.proj.1201M

Cl.-Dk.	Defl.-Dk.	Red. Defl.	Mag.
1125	769	683	752
1119	764	682	751
1180	952	808	815
1149	813	708	764
1139	908	820	821
1139	879	771	802
1144	813	710	768
1136	357	315	535
1140	1004	882	851
1132	287	254	490
1156	926	798	810
1137	974	860	837
1165	919	840	829
1124	883	785	798
1154	980	850	832
1148	395	339	558
1144	1013	882	851
1115	890	797	810
1119	869	775	802
1159	617	533	691
1145	903	790	810
1209	737	608	718
1177	852	725	770
1190	352	295	522
1213	1039	851	833
1203	484	405	602
1232	956	776	802
1209	873	722	772
1221	874	713	770
1220	871	716	770

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

1932phae.proj.1291M

Zyp- R.H. 4445- Dec. 18, 1932.

Strip	Star	y	x	dyfl	dyfl	cc	dk	Volts.	
	52 v	2079	748	1262	1212	1852	647		
	53 v	2060	919	1688	1742	1847	642		
20.8	54 v	2090	828	1542	1562	1902	643		
21.0	55 v	2100	517	1609	1592	1863	653		
	56 v	2109	1147	1648	1578	1848	623		
21.2	57 v	2120	342	1709	1707	1853	639		
	58 v	2122	672	1390	1398	1862	650		
	59 v	2130	678	1378	1463	1860	628		
	60 v	2130	803	1698	1750	1862	622		
	61 v	2120	1052	1603	1593	1861	642		
21.6	62 v	2157	773	1703	1712	1872	648		
	63 v	2171	817	1722	1778	1898	660		
21.8	64 v	2180	352	1788	1812	1888	632		
	65 v	2181	650	1742	1705	1872	632		
	66 v	2189	778	1571	1623	1893	624		
	67 v	2183	917	1583	1558	1888	630		
	68 v	2190	1150	1068	1008	1858	639		
	1x	1990	764	679	—	1863	632	510	
	1	2305	953	883	—	1873	640		
	2	—	—	1050	—	1882	657		
	3	—	—	1143	—	1908	632		
	4	—	—	1040	—	1897	657		
	5	—	—	1202	—	1904	647		
	6	—	—	1367	—	1889	642		
	7	—	—	1439	—	1911	652		
	8	—	—	1744	—	1957	624		
		J.M.J.	R.H. 4445	Dec 18 1932					
	1s	1980	765	719	—	1710	678	500	
	1	2306	953	880	—	1706	672		
	2	—	—	1000	—	1718	662		

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

1932phae.proj.1201M

Cl.-Dk.	Degs.-Dk.	Red. Degs.	Mag.
1205	600	497	660 ✓
1205	1073	888	852 ✓
1259	909	722	773 ✓
1210	947	782	805 ✓
1225	990	809	815 ✓
1214	1094	901	862 ✓
1212	744	613	722 ✓
1232	792	643	735 ✓
1240	1102	890	855 ✓
1219	966	785	806 ✓
1224	1060	865	841 ✓
1238	1075	868	840 ✓
1256	1168	930	off curve ✓
1240	1092	878	848 ✓
1269	978	770	800 ✓
~~1279~~ 1258	940	748	785 ✓
1219	399	327	543 ✓
1231	47	38	—
1233	243	196	—
1225	393	326	—
1276	511	401	—
1240	383	308	—
1257	555	442	—
1247	725	580	—
1259	787	622	—
1333	1120	841	—
1032	41	40	—
1034	208	202	—
1056	338	320	—

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

1932phae.proj.1209M

J. F. McJ – R.H. 4445 – Dec. 19, 1932.

Strip	Star	Y	X	Defl.	Defl.	Cl	Δ/r	Volts
	3	—	—	1042	—	1716	648	
	4	—	—	1010	—	1686	650	
	5	—	—	1088	—	1720	650	
	6	—	—	1262	—	1690 ~~1716~~	640 ~~680~~	
	7	—	—	1282	—	1706	640	
	8	—	—	1590	—	1700	638	
22.0	69 ✓	2201	352	1540	1568	1700	622	
	70 ✓	2199	724	1348	1360	1700 ~~1362~~	624	
	71 ✓	2212	763	1356	1302	1702	628	
	72 ✓	2210	926	1506	1508	1700	620	windows opened & room cooling
	73 ✓	2212	1268	1642	1650	1790	670	
	74 ✓	2208	1322	1538	1540	1810	722	
22.2	75 ✓	2231	609	1278	1340	1964	740	
	76 ✓	2221	854	1820	1824	1962	760	
22.4	77 ✓	2238	982	1780	1800	2050	832	
	78 ✓	2250	1212	1752	1748	1998	810	
	79 ✓	2260	1229	1548	1622	2000	790	
22.6	80 ✓	2274	939	1752	1738	1998	805	
	81 ✓	2260	1161	1872	1904	2014	780	
22.8	82 ✓	~~2262~~ 2279	388	1634	1678	2052	800	
	83 ✓	2298	1028	1476	1496	2058	830	
	84 ✓	2280	1191	1648	1664	2070	800	
23.0	85 ✓	2304	359	2018	2070	2112	818	
	87	2298	850	1784	1782	2086	806	
	86 ✓	2298	840	1920	1932	2088	802	
	88 ✓	2311	1197	1630	1624	~~1638~~ 2092	800	
23.2	89 ✓	2328	610	1860	1872	2050	792	
	90 ✓	2320	629	1930	1902	2088	800	
	91 ✓	2320	878	1918	1928	2078	798	
	92 ✓	2330	1072	1884	1872	2022	800	

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

1932phae.proj.1201M

Cl.-Dk.	Defl.-Dk.	Red. Defl.	Mag.
1068	394	368	—
1036	360	348	—
1070	338	317	—
1050	622	590	—
1066	642	601	—
1062	952	900	—
1078	932	864	812 ✓
1076	730	678	740 ✓
1074	701	652	728 ✓
1080	881	821	800 ✓
1120	976	872	815 ✓
1118	817	731	763 ✓
1224	569	507	643 ✓
1202	1062	1023	off curve ✓
1218	958	785	787 ✓
1188	940	779	783 ✓
1210	830	678	817 ✓
1193	940	788	788 ✓
1234	1108	902	828 ✓
1262	858	680	740 ✓
1228	656	533	662 ✓
1270	856	672	738 ✓
1294	1226	950	off curve ✓
1280	977	763	778 ✓
1286	1124	872	815 ✓
1292	827	640	722 ✓
1258	1074	856	810 ✓
1288	1116	862	812 ✓
1288	1133	880	817 ✓
1282	1078	838	804 ✓

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

1932phae.proj.129M

J 7 mc J - R.A. 4445 - Dec. 19, 1932.

Strip	Star	y	x	Defl.	Defl.	Cl.	Dk	Volts.
	93 ✓	2330	1446 / 445	1902	1946	2068	758	
23.6	94 ✓	2360	1662	1662	1638	1990	684	
	95 ✓	2360	484	1830	1866	1982	674	
	96 ✓	2370	792	~~2046~~ 1658	1670	1920	652	
	97 ✓	2394	802	1722	1750	1898	620	
	98 ✓	2361	870	1618	1418	1900	598	
	99 ✓	2370	990	1688	1672	1842	1600	
23.8	2J 100 ✓	2393	958	1582	1678	1857	607	
24.0	101 ✓	2407	459	1782	1753	1842	592	
24.2	102 ✓	2418	629	1532	1458	1836	592	
	103 ✓	2428	958	1642	1612	1817	592	
24.4	104 ✓	2440	492	1683	1658	1838	573	
	105 ✓	2444	716	1600	1573	1813	583	
	106 ✓	2442	788	1077	1142	1829	582	
24.6	107 ✓	2461	1027	1653	1583	1823	573	
24.8	108 ✓	2482	573	1560	1507	1812	578	
	109 ✓	2490	597	1388	1472	1813	578	
	110 ✓	2479	1014	1262	1258	1809	562	
25.2	111 ✓	2521	690	1657	1627	1828	582	
	112 ✓	2519	738	1510	1523	1813	577	
	1	1990	764	663	—	1812	573	505
Plate	1	2305	953	842	—	1807	582	
Inverted	2	—	—	1077	—	1817	567	
	3	—	—	1262	—	1818	578	
	4	—	—	1053	—	1808	578	
	5	—	—	1192	—	1832	573	
	6	—	—	1373	—	1822	579	
	7	—	—	1408	—	1822	583	
	8	—	—	1723	—	1821	568	

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

1932phae.proj.1209M

Cl.-Dk.	Dyll-Dk.	Red Dyll.	Mag.
1310	1166	892	822
1306	966	737	768
1308	1174	898	823
1268	1012	797	790
1278	1116	878	818
1302	870	666	734
1242	1080	870	815
1250	1021	819	798
1260	1176	938	837
1244	903	723	762
1225	1035	847	808
1265	1097	868	813
1230	1003.	817	798
1241	528	423	598
1250	1045	832	801
1239	961	780	785
1240	857	690	745
1241	698	560	675
1246	1060	849	809
1236	939	754	772
1239	90	73	—
1225	260	212	—
1250	510	408	—
1240	624	502	—
1230	475	385	—
1259	619	491	—
1243	794	638	—
1239	825	665	—
1253	1135	906	—

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

1932phae.proj.129M

~~R. H.~~ W. M. - R H 3596 - Dec. 19, 1932.
Numbers upside down

Strip	Star	y	x	Defl.	Defl.	cl.	Dk.	volt.
	ls	1990	652	580	—	1722	568	5.00
	1	2353	720	610	—	1703	572	
	2	—	—	655	—	1712	570	
	3	—	—	682	—	1730	575	
	4	—	—	722	—	1682	568	
	5	—	—	788	—	1692	565	
	6	—	—	947	—	1672	572	
	7	—	—	985	—	1682	578	
	8	—	—	1362	—	1708	572	
14.0	1	1417	732	1572	1580	1672	581	
14.4	2	1445	778	1502	1531	1661	582	
14.6	3	1468	969	1398	1368	1638	579	
15.0	4	1510	850	1522	1515	1632	580	
15.4	5	1551	547	1435	1481	1652	572	
	6	1545	661	1281	1328	1641	588	
	7	1541	700	1392	1451	1632	583	
15.6	8	1561	709	1512	1549	1648	580	
	9	1565	792	1208	1235	1698	582	
15.8	10	1583	817	1300	1259	1638	589	
16.0	11	1598	362	1399	1435	1661	588	
	12	1608	749	1489	1552	1632	592	
	13	1608	1071	1452	1500	1613	582	
	14	1610	1087	1421	1439	1628	588	
16.2	15	1635	428	1409	1412	1662	598	
	16	1619	600	892	927	1622	592	
	17	1621	673	1269	1348	1621	590	
	18	1687	898	1362	1382	1605	592	
16.4	19	1648	759	1172	1298	1642	600	
	20	1651	1182	1348	1368	1628	596	
16.6	21	1667	430	1368	1357	1655	602	

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

1932phae.proj.1201M

Cl.-Dk.	Defl.-Dk.	Red. Defl.	Mag.
1154	12	10	
1131	38	35	—
1142	85	75	—
1155	107	92	—
1114	154	137	—
1127	223	198	—
1100	375	340	—
1104	407	368	—
1136	790	698	—
1091	995	911	off curve
1079	934	866	off curve
1059	804	759	865
1052	938	891	off curve
1080	886	820	off curve
1053	712	676	832
1049	839	800	off curve
1068	950	891	off curve
1116	640	574	798
1049	691	660	828
1073	829	773	off curve
1040	928	893	off curve
1031	894	866	off curve
1040	842	810	off curve
1064	812	763	off curve
1030	718	709	710
1031	718	696	840
1013	780	769	off curve
1042	600	576	800
1032	762	738	855
1053	760	720	850

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

1932phae.proj.120M

m.m. — RH 3596 — Dec. 19, 1932.

Strip	Star	y	x	Defl.	Defl.	cl.	Rk.	volt.
	22	1660	928	1498	1467	1632	597	
	23	1663	961	1293	1352	1638	601	
	24	1675	1058	1300	1350	1632	593	
16.8	25	1689	398	1402	1472	1661	606	
	26	1688	588	1452	1472	1639	608	
	27	1692	595	1282	1320	1639	598	
	28	1688	1078	1148	1202	1618	589	
	29	1692	1102	1152	1140	1623	592	
17.0	30	1700	578	1110	1212	1628	600	
	31	1708	925	1390	1458	1631	597	
	32	1706	939	1159	1222	1628	601	
	33	1714	1149	1402	1478	1600	598	
17.2	34	1730	312	1448	1431	1658	589	
	35	1728	928	1421	1439	1612	578	
17.4	36	1740	500	1448	1434	1604	583	
	37	1745	765	1388	1332	1610	582	
	38	1739	776	1812	1308	1589	588	
2gf	39	1738	1130	1185	1181	1612	579	605
	40	1750	1253	1467	1532	1612	592	
	41	1748	1267	1482	1523	1608	582	
17.6	42	1760	289	1068	1128	1638	592	
	43	1765	409	1522	1523	1643	593	
	44	1767	537	1248	1268	1658	594	
	45	1768	548	1442	1553	1626	593	
	46	1775	636	1443	1498	1646	593	
	47	1763	1029	1439	1483	1613	597	
	48	1760	1228	1468	1423	1632	600	
	49	1777	1283	831	828	1098	582	
17.8	50	1788	449	1283	1357	1677	582	
	51	1790	999	1088	1093	1627	582	

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

1932phae.proj.1201M

Cl.-Dk.	Degd.-Dk.	Red. Degd.	Mag.
1055	885	855	off curve
1037	721	696	841
1039	732	705	844
1055	831	788	off curve
1031	854	821	off curve
1041	703	675	833
1029	586	570	797
1031	554	531	787
1028	560	545	790
1034	827	800	off curve
1027	584	574	798
1002	842	840	off curve
1069	851	797	off curve
1034	852	823	off curve
1021	858	840	off curve
1028	778	855	off curve
1001	727	721	850
1033	604	784	off curve
1020	908	890	off curve
1026	~~920~~ ~~915~~ 906	897	off curve
1046	~~477~~	484	770
1050	~~929~~ ~~164~~	885	off curve
1064	~~664~~ ~~200~~	623	816
1033	905	875	off curve
1053	877	832	off curve
1016	864	851	off curve
1032	846	820	off curve
1016	248	244	673
1095	738	674	832
1045	508	487	770

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

1932phae.proj.120M

KJP - RH 3596 - dec. 19, 1932.

trip	Star	y	x	dleft	dleft	cc	dk.	Volts.
18.0	52	1810	1203	1223	1133	1637	591	
	53	1809	1289	1462	1509	1651	598	
18.2	54	1822	404	1390	1422	1663	611	
	55	1830	778	948	1023	1658	609	
18.4	56	1850	459	1338	1383	1637	622	
	57	1840	532	1392	1433	1672	603	
	58	1850	622	1063	1142	1668	603	
18.6	59	1868	332	768	813	1663	602	
	60	1873	609	1222	1213	1662	609	
	61	1868	658	1108	1103	1629	613	
	62	1867	1031	1423	1393	1657	612	
	63	1862	1113	938	980	1652	608	
18.8	64	1878	468	1219	1252	1672	612	
	65	1890	569	1448	1403	1677	607	
	66	1880	732	1423	1453	1662	612	
	67	1890	1032	1369	1443	1653	612	
	68	1880	1112	1222	1283	1648	612	
19.0	69	1908	606	1348	1392	1637	618	
	70	1903	1173	1177	1218	1613	609	
19.2	71	1937	230	1307	1312	1678	612	
	72	1932	707	1023	1103	1653	608	
	73	1928	1211	1462	1472	1647	611	
19.4	74	1940	712	1130	1113	1673	608	
	75	1944	828	1577	1472	1647	613	
	76	1950	1190	983	1002	1673	623	
19.6	77	1970	654	1190	1228	1662	608	
	78	1968	868	1178	1328	1644	612	
	79	1965	1233	1440	1417	1643	608	
	80	1972	1230	1522	1508	1652	609	
	81	1959	1311	1218	1287	1603	622	

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

1992phae.proj.12QM

Cl.-Dk.	Defl.-Dk.	Red. Defl.	Mag.
1046	587	562	795
1053	888	842	off curve
1052	795	925	off curve
1049	377	359	728
1015	738	727	851
1069	809	758	off curve
1065	499	468	763
1061	188	171	628
1053	609	578	799
1016	517	509	778
1045	796	762	off curve
1044	351	336	720
1060	624	588	801
1070	819	765	off curve
1050	826	786	off curve
1041	794	762	off curve
1036	640	618	812
1019	752	738	856
1004	589	586	801
1066	698	656	827
1045	455	435	755
1036	856	827	off curve
1065	514	482	770
1034	911	881	off curve
1058	369	352	728
1064	601	570	798
1032	641	621	815
1035	820	792	off curve
1043	906	868	off curve
981	630	643	822

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

1932phae.proj.1201M

ZP-RH 3596- Dec. 19, 1932.

Trip	Star	y	x	Defl	Defl	Cl	Dk	Volts
	82	1962	1321	1362	1363	1614	614	
19.8	83	1986	637	883	863	1609	613	
	1N	1990	652	623	—	1629	611	
	1	2353	720	634	—	1600	613	
	2	—	—	677	—	1627	613	
	3	—	—	762	—	1648	613	
	4	—	—	738	—	1608	606	
	5	—	—	801	—	1638	612	
	6	—	—	1002	—	1603	603	
	7	—	—	1023	—	1622	613	500
	8	—	—	1262	—	1630	608	

Numbers upside down/ M.M.- RH3596- Dec. 20, 1932.

	1s	1990	648	624	—	1816	618	5.18
	1	2353	721	642	—	1763	612	
	2	—	—	690	—	1791	608	
	3	—	—	792	—	1762	610	
	4	—	—	758	—	1746	620	
	5	—	—	1028	—	1808	632	
	6	—	—	1058	—	1781	600	
	7	—	—	1150	—	1748	614	
	8	—	—	1408	—	1828	612	
20.0	84	2000	464	1448	1492	1818	597	
	85	2014	588	1585	1601	1828	622	
	86	2013	1108	1168	1178	1738	608	
20.2	87	2028	476	1169	1243	1768	698	
	88	2032	1052	1175	1221	1698	591	
20.4	89	2050	550	1190	1202	1752	592	
	90	2056	860	1022	1082	1708	568	
	91	2042	1018	1102	1192	1682	571	
20.6	92	2059	332	740	782	1768	562	

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

1932phae.proj.1201M

Cl.–Dk.	Defl.–Dk.	Red Defl.	Mag.
1000	748	748	860
996	260	261	683
1018	12	12	—
987	21	21	—
1014	64	63	—
1035	149	145	—
1002	132	131	—
1026	189	185	—
1000	399	398	—
1009	310	308	—
1022	654	640	—
1198	06	5	—
1151	30	26	—
1183	82	69	—
1152	182	158	—
1126	138	122	—
1176	396	337	—
1181	458	384	—
1134	536	472	—
1216	796	652	—
1221	873	715	860
1206	971	806	off curve
1130	565	505	753
1170	608	520	762
1107	607	548	771
1160	604	521	762
1140	484	424	720
1111	576	518	760
1206	199	165	590

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

1932phae.proj.128M

m.m. — RH 3596 — Dec. 20, 1932.

Strip	Star	y	x	Defl.	Defl.	Cl.	Dk. volt.
	93	2062	268	1552	1512	1782	562
	94	2059	280	1458	1432	1711	571
	95	2060	600	1501	1482	1828	562
	96	2065	927	1468	1522 (scratch on image)	1698	568
	97	2066	932	1308	1297	1683	572
20.8	98	2091	351	995	982	1715	567
21.0	99	2110	1230	1010	998	1728	562
21.2	100	2121	340	1358	1428	1742	560
	101	2135	850	1553	1505	1718	562
21.4	102	2140	332	1463	1506	1740	560
21.6	103	2164	342	1366	1379	1758	578
	104	2175	709	782	793	1710	576
	105	2160	1255	1531	1489	1721	572
21.8	106	2180	294	1440	1531	1752	570
	107	2195	491	1458	1462	1711	573
22.0	108	2200	490	1368	1392	1728	571
	109	2208	692	1342	1355	1715	568
	110	2208	659	1298	1253	1690	570
	111	2202	1175	1200	1220	1678	582
	112	2209	1232	1543	1522	1676	570
22.2	113	2237	1067	1223	1278	1672	581
	114	2225	1238	1136	1172	1682	578
22.4	115	2248	949	732	805	1712	579
	116	2248	418	1118	1199	1728	580
	117	2240	1027	630	568	1692	582
22.6	118	2276	678	1262	1232	1672	578
	119	2259	975	1218	1238	1683	581
22.8	120	2285	418	1185	1192	1710	579
	121	2285	697	1096	1168	1698	578
	122	2295	1121	948	968	1682	589

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

1932phae.proj.1201M

Cl.-Dk.	Defl.-Dk	Red. Defl.	Mag.
1220	470	795	off curve
1140	874	767	off curve
1266	930	735	off curve
1130	927	820	off curve
1111	730	656	828
1148	421	367	690
1166	442	379	698
1182	833	704	853
1156	967	837	off curve
1180	924	783	off curve
1180	794	613	840
1134	212	187	600
1149	938	817	off curve
1182	916	775	off curve
1138	887	779	off curve
1107	809	699	850
1147	780	681	842
1120	706	630	812
1096	628	513	584
1105	962	870	off curve
1091	669	613	805
1104	576	522	763
1133	189	167	590
1148	578	504	757
1110	17	15	395
1094	669	610	802
1102	647	586	791
1131	609	538	770
1120	558	498	751
1093	369	331	677

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

1932phae.proj.128M

m. m — RH 3596 — Dec. 20, 1932.

Strip	Star	y	x	Defl.	Defl.	Cl.	Dk.	volt.	
23.0	123	2309	340	978	1032	1698	588		
	124	2311	472	1001	1022	1662	572		
	125	2310	751	918	923	1632	570		
23.0	126	2309	757	1338	1232	1625	558		
23.2	127	2321	894	1153	1162	1653	563		
	128	2330	1148	982	1013	1632	548		
23.6	129	2375	818	1192	1278	1708	572		
23.8	130	2388	1038	713	682	1743	563		
24.0	131	2410	409	1432	1512	1728	558		
24.2	132	2431	487	923	963	1697	562		
	133	2430	923	892	887	1722	578		
24.6	134	2469	672	1373	1392	1719	573		
24.8	135	2492	827	1312	1522	1723	588		
25.0	136	2088	678	1441	1560	1711	577		
	1	1990	648	582	—	1718	572		
		2353	721	662	—	1697	563		
	2	—	—	623	—	1718	583		
	3	—	—	777	—	1778	568		
	4	—	—	693	—	1707	564		
	5	—	—	933	—	1707	572		
	6	—	—	1012	—	1788	557		
	7	—	—	1074	—	1718	562	526	
	8	—	—	1387	—	1783	663		

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

1932phae.proj.1201M

Cl.-Dk.	Defl.-Dk.	Red. Defl.	Mag.
1110	417	376	695
1090	440	403	711
1062	350	329	671
1067	727	682	841
1090	595	546	773
1084	450	415	716
1136	663	584	791
1180	135	114	553
1170	914	780	off curve
1135	381	336	627
1149	317	276	647
1140	809	710	858
1135	829	730	858
1134	923	814	off curve
1146	10	9	—
1134	99	88	—
1135	40	35	—
1207	214	175	—
1143	129	113	
1185	361	304	—
1151	455	394	—
1156	512	~~445~~	—
1220	824	677	—

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

1932phae.proj.121PM

Dec. 11 – R.A. 4713 – Dec. 20, 1932.

Strip	Case	Star	y	x	Diff	Diff	ca	dk
15.2	f	x	1	1522 920	1222	1232	1492	563
15.4	p	✓	1	1540 801	1243	—	1476	577
	p	✓	2	1552 828	1223	—	1468	570
	f	x	2	1547 1117	1253	1340	1497	592
15.6	p	✓	3	1567 768	1212	—	1462	573
	f	✓	3	1572 986	1413	1393	1467	568
	p	✓	4	1562 1038	1312	—	1463	563
	p	✓	5	1560 1088	1112	—	1457	558
15.8	p	✓	6	1590 1139	1282	—	1423	552
	p	✓	7	1597 730	1173	—	1443	553
16.0	p	✓	8	1610 848	1033	—	1447	573
	p	✓	9	1612 957	1237	—	1472	563
	p	✓	10	1610 1048	1308	—	1487	570
16.2	p	✓	11	1622 793	1170	—	1457	563
16.4	p			1650 610	1063	—	1438	563
	f	✓	4	1648 658	1312	1309	1452	553
	p	✓	12	1650 1208	1261	—	1473	562
	f	x	5	1651 1245	1210	1249	1487	568
16.6	p	✓	13	1671 1005	1388	—	1487	573
	f	x	6	1671 1133	1042	1082	1497	557
	p	✓	14	1660 1270	1372	—	1477	558
16.8	f	✓	7	1690 606	1311	1329	1428	553
	p	✓	15	1691 621	1272	—	1447	558
	p	✓	16	1679 709	1318	—	1432	553
17.0	p	✓	17	1704 608	1332	—	1443	554
	f	✓	8	1706 842	1068	1102	1457	541
17.2	p	✓	18	1737 518	1323	—	1404	548
	p	✓	19	1720 850	822	—	1463	558
	p	✓	20	1722 1128	1238	—	1477	542
	p	✓	21	1730 1311	1348	—	1478	549

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

1932phae.proj.1201M

Cl.-Dk	Deff-Dk	Red. Deff.	
929	664	715	757 ✗ outside circle
899	666	741	759
895	460	514	651
905	704	778	785 ✗ outside circle
889	639	719	735
899	835	929	874 ✓
900	749	832	812
899	554	617	728
871	730	838	796
890	620	697	741
874	460	526	632
909	674	742	762
917	788	858	—
894	607	679	723
875	500	572	—
899	757	842	819 ✓
911	699	767	—
919	662	721	760 ✗ outside circle
914	815	892	835
940	505	537	674 ✗ outside circle
919	814	886	—
875	767	877	840 ✓
859	714	831	791
879	765	870	833
869	788	906	—
916	544	594	703 ✓
856	775	905	—
905	264	292	565
935	696	745	719
935	805	862	832

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

1932phae.proj.12MM

RJP – R.H. 4713 – Dec. 20, 1932.

Strip	Class	Star	y	x	dyfl	dyfl	ce	dk	Volts
17.4	f	9	1739	590	1338	1327	1428	543	
		10	1745	760	1338	1342	1433	532	
		22	1748	1129	1432	—	1480	540	
		11	1740	1143	1218	1218	1488	538	
		23	1751	1242	1298	—	1478	542	
		12	1752	1319	1088	1088	1458	534	
17.6		13	1766	449	1352	1338	1422	537	
		14	1761	577	962	952	1387	542	
		24	1772	629	1082	—	1428	542	
		25	1778	663	1253	—	1437	532	
		26	1760	992	1282	—	1458	548	
17.8	p	27	1791	737	999	—	1442	538	
	f	15	1780	808	1037	978	1443	542	
		28	1779	842	1018	—	1459	538	
18.0		16	1810	454	1228	1228	1447	543	
		17	1803	600	1358	1360	1437	533	
		29	1804	603	1292	—	1428	532	
		18	1812	612	1322	1304	1452	533	
		30	1798	621	1348	—	1443	533	
		19	1809	713	1338	1357	1432	528	
		20	1800	718	1193	1219	1443	520	
		31	1807	804	1150	—	1462	532	
		32	1810	1219	760	—	1493	530	
		33	1799	1343	1230	—	1487	529	
18.2		21	1821	547	1358	1358	1428	542	
		22	1819	1029	1239	1257	1467	528	
		34	1820	1135	1366	—	1488	522	
			J.F. McJ.	R.H. 4713	Dec. 21	1932			
15.2	p	35	1838	721	1282	—	1423	562	
(seat)	f	23	1821	549	1294	1288	1374	568	

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

1932phae.proj.12001M

Cl.-Dk.	Defl.-Dk.	Red. Defl.	
885	789	892	850 ✓
901	808	896	851 ✗
940	892	949	—
950	680	716	758 ✓
936	756	803	808
924	552	598	704 ✗ outside circle
885	808	913	864 ✗
845	415	491	653 ✓
886	540	609	721
905	721	797	797
910	734	806	831
904	461	510	656
901	466	518	665 ✓
921	480	521	710
904	685	758	777 ✓
904	826	915	865 ✓
896	760	848	—
919	780	845	820 ✓
910	815	896	852
910	820	907	858 ✓
923	686	744	770 ✓
930	618	664	763
963	230	239	544
958	701	732	776
886	815	920	— ✗
939	720	767	780 ✓
966	844	874	840
861	720	832	832
806	723	897	852 ✗

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

1932phae.proj.128M

~~3~~ P — RH 4713 — Dec. 21, 1932.

J 7 Mc J

Strip	Class	Star	y	x	Defl.	Defl.	Cl	Hr.	Volts
	f	24	1819	1029	1152	1162	1418	572	520
	p	36	1820	1136	1284	—	1418	580	
18.4	p	37	1849	500	968	—	1398	580	
	p	38	1840	1175	1298	—	1444	588	
	p	39	1850	1262	1282	—	1430	582	
18.6	p	40	1874	670	842	—	1380	580	
	p	41	1870	846	1192	—	1402	570	
	p	42	1864	1072	1309	—	1434	568	
	p	43	1871	1182	1310	—	1418	578	
	f	25	1860	1212	1330	1334	1428	570	
	f	26	1861	1377	1018	982	1390	570	
18.8	p	44	1897	510	1140	—	1382	570	
	p	45	1895	904	910	—	1404	570	
	p	46	1888	1232	1210	—	1414	560	
	p	47	1890	1339	928	—	1380	560	
19.0	f	27	1902	488	620	638	1342	552	
	p	48	1902	669	1270	—	1360	560	
	f	28	1908	690	1272	1280	1352	560	
	p	49	1902	732	1232	~~1318~~	1348	548	
	p	50	1910	876	1018	—	1382	550	
	f	29	1917	872	1048	1072	1387	558	
	p	51	1909	1178	922	—	1386	548	
	p	52	1911	1339	1130	—	1402	568	
19.2	f	30	1928	942	1154	1172	1370	554	
	f	31	1932	1059	1004	1011	1402	650	
19.4	p	53	1941	890	968	—	1372	540	
	p	54	1941	891	802	—	1352	541	
	p	55	1950	939	1110	—	1342	540	
	p	56	1950	988	1208	—	1360	541	
	f	32	1952	1038	688	700	1364	542	

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

1932phae.proj.1:NM

R.-Dk.	Defl.-Dk.	Red. Defl.	
846	575	679	772 ✓
838	704	840	840
808	388	480	692
856	710	829	844
848	700	826	—
800	262	328	636
832	622	748	808
866	741	856	—
840	732	872	—
858	762	889	849 ✗
820	430	525	709 ✗ outside circle
812	570	703	800
834	340	408	709
854	650	761	—
820	368	449	—
790	77	97	— off curve) ✓
800	710	887	836
792	716	905	855 ✓
800	684	855	—
832	468	562	725
829	502	606	742 ✓
838	374	446	693
844	572	678	—
816	609	746	796 ✓
852	458	538	714 ✓
832	428	515	722
811	261	322	636
802	570	711	—
819	667	815	840
822	152	185	569 ✓

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

1932phae.proj.128M

J. F. Mc J - B44743 - Dec. 21, 1932.

Strip	Class	Star	Y	X	Defl.	Defl.	Cl.	Hz	Volts
	p	✓ 57	1942	1118	952	—	1368	538	540
	f	✗ 33	1951	1310	802	838	1362	532	
19.6	p	✓ 58	1970	642	690	—	1328	538	
19.8	p	✓ 59	1990	666	850	—	1340	528	
	f	✗ 34	1992	852	1150	1190	1348	536	
	p (?)		~~1982~~	~~871~~	~~1136~~	—	~~1368~~	~~538~~	
	p	✓ 60	1998	1060	938	—	1380	600	
	f	✓ 35	1990	1202	1258	1256	1398	528	
20.0	p	✓ 61	2010	590	1022	—	1318	526	
	p	✓ 62	2008	640	910	—	1328	522	
	?	✓ 63	2002	682	1162	—	1318	520	
	p	✓ 64	2000	1390	1019	—	1348	522	
20.2	f	✓ 36	2019	450	948	968	1318	520	
	f	✓ 37	2019	779	1120	1140	1312	522	
	p	✓ 65	2031	~~1020~~ 821	1020	—	1359	548	
	p	✓ 66	2030	960	1209	—	1372	540	
	p	✓ 67	~~2031~~ 2044	1100	1248	—	1380	540	
	p	✓ 68	2020	1112	1270	—	1382	530	
	p	✓ 69	2019	1140	1092	—	1362	528	
20.4	f	✗ 38	2042	527	632	672	1358	553	
	p	✓ 70	2058	808	1007	—	1397	558	
	p	✓ 71	2058	829	1222	—	1386	563	
	p	✓ 72	2040	922	1072	—	1390	567	
20.6	p	✓ 73	2072	403	953	—	1353	563	
	p	✓ 74	2069	481	903	—	1362	562	
	p	✓ 75	2061	620	922	—	1382	573	
	f	✓ 39	2062	634	956	982	1392	549	
	p	✓ 76	2071	697	1058	—	1373	576	
	p	✓ 77	2074	698	943	—	1393	558	

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

1932phae.proj.1780M

Cl.–Dk.	Dafl.-Dk.	Red. Dafl.	
830	414	499	—
830	288	341	637 ✗ outside circle
~~790~~			
790 ~~812~~	152	193	~~565~~
812 ~~812~~	322	397	~~664~~
812 ~~850~~	634	781	810 ✗
~~870~~			
850 ~~792~~	408	480	~~702~~
870 ~~806~~	729	838	830 ✓
792 ~~798~~	496	627	~~772~~
806 ~~826~~	388	482	~~707~~
798 ~~798~~	632	792	~~797~~
826 ~~790~~	497	602	~~763~~
798 ~~811~~	438	549	719 ✓
790 ~~832~~	608	770	805 ✓
811 ~~870~~	472	582	~~764~~
832 ~~852~~	669	804	—
840 ~~834~~	708	843	—
852 ~~806~~	740	869	—
834 ~~839~~	564	676	~~762~~
805 ~~823~~	99	123	~~537~~ ✗ double star
839 ~~823~~	449	535	~~697~~
823 ~~790~~	659	801	~~832~~
823 ~~800~~	505	614	~~772~~
790 ~~809~~	390	494	~~624~~
800 ~~843~~	341	426	~~638~~
8098	349	431	~~645~~
843	420	498	699 ✓
803	488	608	~~742~~
855	385	461	~~663~~

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

1932phae.proj.128M

D.P. - R.A. 4713 - Dec. 21, 1932.

Strip	Class	Star	y	x	Dyl	Dyl	Ce	Dk	Volts
	f	40	2073	920	928	758	1389	060	
	p	78	2062	1340	1142	—	1378	557	
20.8	f	41	2082	365	1158	1172	1332	557	
	p	79	2090	881	782	—	1372	562	
	f	42	2090	892	1123	1181	1398	558	
21.0	p	80	2106	362	1207	—	1348	563	
	f	43	2092	601	1294	1263	1378	557	
	p	81	2110	781	983	—	1327	563	
	p	82	2100	818	1122	—	1363	562	
	p	83	2110	883	963	—	1388	554	
	p	84	2115	1012	978	—	1398	563	
21.2	p	85	2120	352	1298	—	1357	558	
	f	86	2132	408	1170	—	1352	560	
	f	87	2138	708	1257	—	1382	562	
	p	88	2132	1093	788	—	1412	563	
21.4	p	89	2105	837	1292	—	1384	572	
	f	44	2140	1047	1253	1253	1408	563	
	p	90	2148	1317	672	—	1402	562	
	f	45	2151	1339	1119	1122	1407	566	
	p	91	2149	1349	1252	—	1418	554	
21.6	f	46	2152	498	1293	1322	1443	553	
	p	92	2172	548	1213	—	1347	559	
	f	47	2160	693	1097	1112	1390	558	
	p	93	2166	1294	1163	—	1408	567	
21.8	p	94	2189	377	1262	—	1337	557	
	f	48	2182	436	883	968	1318	560	
	p	95	2179	664	968	—	1358	562	
	p	96	2182	678	1181	—	1357	563	
	f	49	2193	990	1242	1278	1392	572	
	f	50	2183	1343	1238	1277	1412	563	

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

1932phae..proj..1..10M

Cl.-Dk.	Decl.-Dk	Red. Decl.	
826	180	218	583 ✓
821	585	713	—
775	608	785	811 ✓
810	220	272	616
840	594	707	782 ✓
795	754	~~848~~ 820	797
821	721	878	843 ✓
764	423	554	704
801	560	699	748
834	409	490	700
835	415	497	—
799	140	927	817
~~792~~ 793	610	771	793
820	695	848	—
849	225	265	599
812	720	886	—
845	690	816	823 ✓
840	110	131	792?
841	554	658	763 ✗ outside circle
864	498	577	—
790	754	954	off curve ✓
788	644	817	820
832	546	656	763 ✓
841	596	709	783
780	705	905	—
758	365	468	685 ✓
796	406	511	— var.
794	618	779	784
820	688	840	831 ✓
849	694	817	822 ✗ outside circle

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

1932phae.proj.129M

RJP - RH 4713 - Dec. 21, 1932.

Trip	Class	Star							
	p	✓	97	2190	1363	880	—	1432	562
22.0	p	✓	98	2200	630	1233	—	1388	570
	p	✓	51	2210	789	724	714	1398	570
	p	✓	52	2208	968	1222	1207	1417	570
	p	✓	99	2208	1023	1328	—	1427	587
	p	✓	100	2208	1256	1209	—	1472	592
M.M.	p	✓	101	2202	1367	1003	—	1423	578
22.2	f	✓	53	2231	1122	1028	1052	1453	572
22.4	f	✓	~~54~~ omit	2257	1054	891	952	1468	584
22.8	f	✓	55	2280	684	928	971	1400	562
22.4	s	✓	102	2263	401	1141	—	1392	560
	s	✓	103	2251	415	1218	—	1368	552
	f	✓	56	2250	581	1248	1302	1381	550
	s	✓	104	2258	619	878	—	1397	552
	f	✓	57	2250	715	1391	1393	1392	558
	f	✓	58	2257	1054	891	952	1468	584
	s	✓	105	2243	1309	1069	—	1442	562
22.6	s	✓	106	2263	1059	1152	—	1412	549
	s	✓	107	2268	1288	1018	—	1428	548
22.2	f	✓	59	2231	1122	1028	1052	1453	572
	s	✓	108	2225	1315	1209	—	1418	425
22.8	f	✓	60	2281	683	910	889	1408	542
	s	✓	109	2290	691	1220	—	1378	561
	f	✓	61	2284	802	~~1407~~ 582	565	1401	548
	s	✓	110	2299	1192	1308	—	1418	542
	f	✓	62	2290	1275	760	787	1408	548
23.0	f	✓	63	2300	565	952	991	1362	553
	f	✓	64	2315	886	1031	1087	1409	558
	s	✓	111	2302	902	990	—	1412	558
	s	✓	112	2312	1212	928	—	1398	555

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

1932phae.proj.120M

Cl.-Dk	Dafl.-Dk.		
870	318	366	649
818	663	811	828
828	144	174	564 ✓
847	659	777	807 ✓
840	741	883	—
880	717	815	—
845	425	503	717
881	468	532	712 ✓
884	337	382	650 ✓
838	387	462	682 ✓
832	581	699	779
816	666	817	810
831	775	933	868 ✓
845	326	386	692
834	834	1000	off curve ✗
884	337	381	649 ✓
880	507	576	—
863	603	699	784
880	470	534	736
881	468	531	712 ✓
993	784	790	800
866	352	407	661
817	659	807	812
853	25	29	off curve ✗
876	766	875	848
860	225	262	~~706~~ 602 ✗ (outside circle)
809	418	517	706 ✓
851	501	589	730 ✓
854	432	506	722
843	373	442	—

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

1932phae.proj.129M

m. m.- RH 4713 – Dec. 21, 1932.

Strip	Star		y	x	Deff.	Deff.	Cl.	Dk.	Wolf.
	f	65	2310	1018	1078	1062	1382	571	
	f	66	2330	912	1246	1254	1412	563	
	s	112a	2330	957	1149	—	1400	570	
	f	67	2321	1020	1102	1158	1394	566	
	s	113	2331	1130	1238	—	1402	558	
23.4	s	114	2348	542	984	~~131~~	1348	560	
	s	115	2350	700	695	—	1358	568	
	f	68	2350	920	1041	1032	1392	566	
23.6	s	116	2372	540	821	—	1321	565	
	s	117	2360	550	1118	—	1342	559	
	f	69	2378	680	1240	1260	1352	561	
	f	70	2365	791	1039	1100	1380	560	
	s	118	2360	798	1300	—	1378	558	
	f	71	2359	979	1105	1058	1382	552	
	s	119	2360	1152	1000	—	1395	562	
23.8	s	120	2398	1242	812	—	1388	560	
24.0	f	72	2404	470	1040	1088	1312	558	
	f	73	2415	640	1047	1035	1360	562	
24.2	s	121	2420	743	883	—	1362	578	
	f	74	2430	988	718	772	1412	575	
	s	122	2424	1215	669	—	1402	572	5.02
24.4	s	123	2420	743	908	—	1410	583	5.00
repeat	f	75	2430	988	799	745	1453	600	
	s	124	2420	1215	723	—	1436	583	
24.4	s	125	2445	696	1028	—	1398	573	
	f	76	2440	777	1260	1310	1418	585	
	f	77	2438	787	1167	1171	1405	568	
	s	126	2455	850	1180	—	1402	566	
	s	127	2455	1054	780	—	1392	558	
	f	78	2442	1202	962	976	1403	558	
24.6	f	79	2466	752	1179	1162	1382	558	

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

1992phae.proj.120PM

Cl.-Dk.	Defl.-Dk.	Red. Defl.	
811	501	618	747 ✓
849	684	806	819 ✓
830	579	698	~~884~~
828	564	681	~~773~~ ✓
844	680	806	—
788	424	538	729
790	127	161	—572
826	520	630	752 ✓
756	256	339	—
783	559	714	—
791	689	872	~~843~~ ✓
820	509	621	~~749~~ ✓
820	742	905	—
830	529	637	755 ✓
833	438	526	—751
828	252	304	—617
754	506	671	759 ✓
798	479	600	739 ✓
784	305	389	—686
837	170	203	576 ✓
830	97	116	—529
827	325	393	—686
853	172	202	571 ✓
853	140	164	—529
825	455	552	—749
833	700	840	825 ✓
832	601	723	790 ✓
836	614	735	—
834	222	266	—638
845	411	486	713 × outside circle
824	598	726	791 ✓

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

1932phae.proj.12pm

gmc. RH 4713 12-21-32

strip	class	Sstar	y	x	Deff	Defl	Cl	W.k.	Volt.
	p 128	2474	1068	1140	1162		1382	550	
x	f 80		2473	1183	1280	1284	1408	560	
24.8	z 129	2489	668	1071	—	—	1360	553	
	z 130		2480	710	1264	—	1367	553	
	f 81		2491	800	688	698	1338	549	
	f 82		2481	944	1050	1002	1355	552	
	f 83		2494	988	732	728	1362	552	
25.0	f 84		2515	735	742	754	1333	560	
	f 85		2512	749	1188	1162	1334	552	
	z 131		2505	757	1160	—	1338	541	
	f 86		2502	798	835	948	1351	535	
	f 87		2515	852	1173	1188	1352	547	
	f 88		2514	855	645	617	1355	548	
	f 89		2512	893	950	952	1355	550	
	z 132		2502	905	1058	—	1375	545	
	z 133		2513	951	1081	—	1350	558	
25.2	z 134		2533	672	1190	—	1308	558	
	f 90		2529	898	1193	1208	1345	555	
25.4	z 135		2555	745	1188	—	1360	560	
x	f 91		2558	803	1208	1216	1356	558	
25.6	z 136		2564	798	892	—	1342	552	
25.8 x	f 92		2578	951	1228	1248	1350	568	5.0

plate Finished !

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

1932phae.proj.1201M

Cl.-Dk.	Defl.-Dk.	Red. Defl.	
832	612	736	—
848	-722	852	830 × outside circle
807	711	882	180
814	~~147~~ 211	874	—
789	~~477~~ 147	187	555 ✓
803	~~172~~ 474	590	748 ✓
810	~~187~~ 178	220	589 ✓
773	~~623~~ 188	243	604 ✓
782	623	797	814 ✓
797	619	777	~~822~~
822	357	434	698 ✓
805	633	787	811 ✓
807	83	103	off curve ✓
805	401	498	717 ✓
830	513	619	—
792	523	661	— 772
750	632	844	— 817
790	645	817	819 ✓
800	628	786	— 839
798	654	820	820 ×
790	340	431	—
787	670	858	831 × outside circle

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

1932phae.proj.1209M

HJP - RH 4714 - Dec. 22, 1932.

Strip		Star	y	x	dlyll	dlyll cc	dlx	Volts.	
		1A	2140	780	593	—	1442	592	570
		1	1872	1031	652	—	1378	592	
		2	—	—	683	—	1362	592	
		3	—	—	704	—	1332	582	
		4	—	—	770	—	1357	597	
		5	—	—	838	—	1317	586	
		6	—	—	954	—	1318	583	
		7	—	—	973	—	1307	573	
		8	—	—	1203	—	1322	570	
15.0	✓	1	1511	776	1123	1079	1307	582	
	✓	2	1511	812	802	792	1293	582	
		3	1512	932	877	906	1293	578	
15.2	✓	4	1528	679	852	873	1288	567	
	✓	5	1523	870	1113	1072	1303	572	
	✓	6	1538	868	854	848	1292	567	
	✓	7	1517	918	1172	1172	1303	577	
15.4	✓	8	1550	599	1180	1172	1282	572	
	✓	9	1542	723	1103	1088	1288	564	
15.6	✓	10	1562	913	1110	1162	1268	567	
15.8	✓	11	1597	679	842	808	1252	562	
	✓	12	1591	879	1144	1129	1298	563	
16.2	✓	13	1618	1027	1052	1043	1272	563	
	✓	14	1630	1198	1052	1012	1282	553	
16.6	✓	15	1668	687	1038	1001	1268	563	
	✓	16	1663	874	1061	1109	1292	559	
16.8	✓	17	1679	743	1032	1001	1292	553	
	✓	18	1680	1179	1133	1122	1287	558	
17.0	✓	19	1702	647	1108	1103	1292	563	
		20	1712	648	1077	1063	1282	563	
17.2	✗	21	1732	390	801	818	1279	553	

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

1932phae.proj.1201M

Cl.-Dk.	Degl-Dk.	Red. Degl.	
820	01	191	—
786	60	76	—
770	91	118	—
750	122	163	—
760	173	228	—
734	255	347	—
735	371	503	—
734	400	543	—
752	633	840	—
725	519	~~727~~ 716	780 ✓
711	215	302	633 ✓
715	313	435	678 ✓
721	295	408	668 ✓
731	520	711	780 ✓
725	284	392	662 ✓
726	595	821	822 ✓
710	604	849	835 ✓
724	531	732	786 ✓
701	569	810	815 ✓
690	263	383	660 ✓
735	572	774	806 ✓
709	484	680	766 ✓
729	479	654	756 ✓
705	456	643	752 ✓
733	526	718	780 ✓
739	463	624	745 ✓
729	569	780	805 ✓
729 ~~724~~	542	742	790 ✓
719	501	708	777 ✓
726	256	353	650 × (outside circle)

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

1932phae.proj.12pM

HJP-RH 4714 - Dec. 22, 1932.

Strip	Star	y	x	Defl	Defl	Ce	Sk	Volts
	✓ 22	1711	781	1039	1052	1293	563	
	x 23	1731	1058	660	653	1273	552	
	✓ 24	1731	1101	893	913	1298	567	
17.4	x 25	1747	860	587	578	1282	566	
	✓ 26	1761	979	922	853	1307	573	
17.6	✓ 27	1770	607	872	852	1297	572	
17.8	✓ 28	1793	541	1012	1012	1292	568	
	✓ 29	1781	1083	1208	1224	1312	572	
18.2	✓ 30	1820	694	1192	1220	1297	566	
	✓ 31	1821	873	649	613	1277	568	
18.4	✓ 32	1851	1228	823	773	1307	563	
18.6	x 33	1867	321	1100	1097	1312	563	
	✓ 34	1871	970	1042	1043	1308	562	
18.8	✓ 35	1888	617	1200	1213	1293	563	
19.4	✓ 36	1952	739	647	682	1292	569	
	✓ 37	1939	770	1100	1067	1298	573	
	✓ 38	1951	1297 1034	1163	1082	1293	572	
19.6	✓ 39	1969	~~976~~	904	813	1293	573	
19.8	x 40	1990	1134	572	577	1321	572	
20.2	✓ 41	2033	807	1137	1118	1292	573	
	✓ 42	2011	881	1158	1078	1292	572	
	✓ 43	2017	1209	913	902	1292	572	
20.4	✓ 44	2052	1349	938	842	1282	573	
20.6	x 45	2069	349	747	771	1303	563	
	✓ 46	2071	623	647	648	1263	559	
~~21.8~~	✓ 47	~~2298~~	599	949	912	1283	562	
	✓ 48	2100	714	1108	1098	1257	562	
	✓ 49	2111	787	979	979	1283	563	
21.2	✓ ~~50~~	2123	968	1221	1198	1253	563	
	✓ 51	2130	1161	580	583	1304	568	

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

1932phae.proj.1201M

Cl.-Dk	Degk-Dk.	Red Degk.	
730	482	.660	758 ✓
721	104	144	573 × (too bt. on master plate to be measured)
731	336	459	686 ✓
716	16	22	300 × too bt.
734	314	425	675 ✓
725	290	398	664 ✓
724	444	611	741 ✓
740	644	868	846 ✓
731	640	873	850 ✓
709	63	97	523 ✓
744	230	308	634 ✓
749	535	715	780 × outside circle
746	480	642	750 ✓
730	643	880	852 ✓
723	96	132	563 ✓
725	511	705	775 ✓
721	450	623	743 ✓
720	295	410	669 ✓
749	02	03	off curve × too bright
719	555	772	802 ✓
720	~~436~~ 546	~~603~~ 759	~~738~~ 796 ✓
720	436	605	739 ✓
709	317	446	680 ✓
740	196	264	620 × outside circle
694	89	128	560 ✓
721	368	510	705 ✓
695	441	633	747 ✓
720	416	578	727 ✓
690	647	939	886 (off curve) ✓
736	16	22	300

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

1932phae.proj.120M

Kp - RH 4714 - Dec. 22, 1932.

Strip	Star	y	x	Dyll	Dyll	Cc	Dk Volts
22.0	✓ 52	2208	629	1072	1041	1292	572
22.2	✓ 53	2280	939	1048	1022	1303	573
	✓ 54	2220	1043	1132	1117	1283	577
	✓ 55	2228	1058	1209	1173	1282	568
	✓ 56	2222	1202	1088	1087	1307	562
22.4	✓ 57	2250	849	838	779	1307	573
22.6	✗ 58	2268	337	992	982	1292	573
	✓ 59	2270	1079	711	697	1264	566
22.8	✓ 60	2283	512	1012	1052	1247	568
23.0	✓ 61	2304	1321	818	848	1292	573
23.2	✓ 62	2323	813	860	788	1262	568
23.4	✗ 63	2351	520	853	843	1242	572
	✓ 64	2342	1049	1148	1122	1268	562
24.6	✗ 65	2370	409	1010	1037	1233	563
	✓ 66	2340	1282	1123	1043	1267	573
	✓ 67	2349	1287	689	663	1269	573
24.8	✓ 68	2388	997	1083	1087	1268	567
24.8	✗ 69	2477	474	1143	1132	1282	579
	✗ 70	2480	537	1107	1122	1282	577
25.0	✗ 71	2504	732	992	988	1263	568
25.2	✓ 72	2529	983	1042	1047	1242	568
	12	2140	780	582	—	1282	563
Plate finished.	1	1872	1031	618	—	1282	558
	2	—	—	632	—	1272	562
	3	—	—	673	—	1292	562
	4	—	—	777	—	1282	559
	5	—	—	799	—	1268	562
Con. on Page 148	6	—	—	962	—	1258	558
	7	—	—	999	—	1262	562
	8	—	—	1156	—	1247	589

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

1932phae.proj.1201M

Cl.-Dk.	Degf.-Dk.	Red. Degf.		
720	484	671	762 ✓	
730	482	660	758 ✓	
706	547	775	801 ✓	
714	623	869	847 ✓	
745	526	707	778 ✓	
734	235	319	638 ✓	
719	414	574	727 ✓	outside circle
698	138	197	597 ✓	
679	464	679	763 ✓	
709	260	362	653 ✓	
694	256	368	654 ✓	
670	276	411	671 ✓	outside circle
706	573	811	817 ✓	
710	451	585	730 ✓	outside circle
694	450	647	751 ✓	
696	103	148	575 ✓	
701	518	738	788 ✓	
703	569	808	814 ✓	outside circle
705	537	758	796 ✓	" "
695	422	603	736 ✓	" "
674	476	702	775 ✓	
719	19	27		
724	60	83		
710	70	98		
730	111	152		
723	218	303		
706	237	338		
700	404	572		
700	437	627		
658	567	860		

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

1932phae.proj.12pM

June RH 4787 1-20-33.

Strip	Star	y	x	Dyfl	Dyfl	Cl	Dx	σ₂₆₁
	1S	1929	842	415	—	1465	372	5.02
	1	2280	956	575	—	1412	353	
	2	—	—	778	—	1482	362	
	3	—	—	802	—	1438	374	
	4	—	—	702	—	1423	392	
	5	—	—	1000	—	1443	380	
	6	—	—	950	—	1510	410	
	7	—	—	975	—	1310	394	
	8	—	—	1175	—	1362	432	
14.0		1417	818	1263	1272	1310	470	
		1412	870	998	1140	1400	468	
		1411	883	990	1015	1365	460	
		1413	902	1080	1090	1502	470	
		1410	913	1244	1223	1388	455	
14.2		1430	723	1272	1272	1395	445	
		1422	848	1180	1162	1370	423	
		1427	858	1146	1137	1340	438	
		1430	967	920	850	1367	422	
14.4		1440	813	1200	1200	1368	392	
		1440	817	918	968	1358	400	
		1445	930	1232	1275	1412	422	
		1451	1021	997	987	1390	380	
		1452	1053	1210	1198	1360	400	
14.6		1461	880	1238	1255	1440	427	
		1462	895	812	780	1465	415	
14.8		1480	738	1147	1190	1452	412	
		1498	749	1248	1252	1450	400	
		1490	949	1100	1120	1440	405	
		1480	1033	850	950	1432	400	
15.0		1507	791	877	815	1440	412	

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

1932phae.proj.1201M

Omit

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

1932phae.proj.120M

gmc. RH 4787 1-20-33.

Strip	Star	y	x	Defl	Defl	cc	Dk	Plt.
		1502	957	1050	1020	1440	390	
		1501	1079	1080	1085	1412	397	
		1511	1098	1013	991	1410	365	
15.2		1532	713	1250	1230	1422	372	
		1521	849	1110	1070	1427	362	
15.4		1550	1153	1250	1200	1450	380	
15.8		1587	508	1222	1197	1392	399	
		1580	743	1213	1190	1442	388	
		1588	777	1157	1132	1440	370	
		1590	1223	937	975	1438	361	
16.2		1622	858	1217	1240	1463	411	
		1635	958	1120	1120	1462	396	
		1618	1011	1003	1027	1460	407	
		1632	1069	1042	1090	1503	421	
		1620	1170	1207	1190	1518	450	
	1S	1929	842	530	—	1540	442	
	1	2280	956	552	—	1524	440	
	2	—	—	785	—	1548	410	
	3	—	—	940	—	1520	410	
	4	—	—	758	—	1537	392	
	5	—	—	1060	—	1546	390	
	6	—	—	1108	—	1539	384	
	7	—	—	1070	—	1480	395	
	8	—	—	1238	—	1411	391	5.05

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

1932phae.proj.1281M

Omit

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

1932phae.proj.1201M

74

J. C. M. J. [redacted] Jan 21 1933 R.A. 4787

Strip	Star	y	x	Defl.	Defl.	Cl.	Dk	Volts
16	1s	2130	869	570	—	1542	490	495
	1	1778	754	778	—	1532	498	
	2	—	—	940	—	1502	490	
	3	—	—	838	—	1518	488	
	4	—	—	894	—	1448	474	
	5	—	—	1020	—	1474	478	
	6	—	—	1100	—	1442	462	
	7	—	—	1098	—	1440	462	
	8	—	—	1230	—	1440	460	
16.4	14	1648	536	1272	1260	1416	458	
	15	1640	821	1002	1020	1434	460	
	16	1640	870	1200	1219	1422	462	
	17	1649	878	1172	1196	1431	460	
	18	1649	958	1258	1274	1448	470	
	19	1652	1131	919	906	1341	452	
16.6	20	1660	859	1030	1068	1390	440	
16.8	21	1680	720	1020	982	1430	464	
	22	1680	766	1158	1152	1472	460	
	23	1691	892	1252	1212	1512	488	
17.0	24	1712	425	1362	1368	1508	470	
	25	1701	471	1362	1344	1506	471	
	26	1699	491	1250	1300	1552	484	
	27	1701	529	1140	1190	1528	490	
	28	1712	664	1178	1182	1512	462	
	29	1701	708	1002	960	1532	480	
	30	1704	896	1290	1282	1520	470	
	31	1712	921	1242	1280	1534	470	
	32	1702	1034	1310	1332	1528	468	
	33	1708	1036	1080	1087	1542	456	
17.2	34	1725	522	1338	1330	1694	552	

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

1932phae.proj.128M

Cl – Dk	mean Defl. – Dk	Red. Defl.	Magn
1052	80	76	—
1034	280	270	—
1012	250	246	—
1030	350	340	—
974	420	432	—
996	542	544	—
980	638	651	—
978	636	651	—
980	770	786	—
958	808	845	8.46 52
974	551	566	678
960	748	780	8.17
971	724	746	7.93
978	796	814	836
889	460	518	650
950	609	641	723
966	537	556	670
1012	695	686	748
1024	746	728	782
1038	870	838	889
1035	882	852	off curve
1068	791	741	792
1038	675	650	729
1050	718	683	752
1052	501	475	621
1050 ~~1052~~ ~~1050~~	816	777	815
1064 ~~1060~~ ~~1064~~	791	743	792
1060 ~~1064~~ ~~1086~~	853	805	830
~~1086~~	628	588	683
1142	782	684	752

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

1932phae.proj.1200M

J. F. M. J Jan. 21 1933 R. A. 4782

Strip	Star		x	y	Defl.	Defl.	Cl.	Ha	d.
17.2	35	✓	1738	522	1000	960	1666	488	495
	36	✓	1730	639	1230	1290	1674	628	
	37	✓	1726	657	1224	1240	1688	550	
	38	✓	1724	940	1480	1498	1708	560	
17.4	39	✓	1744	654	1222	1204	1688	542	
	40	✓	1750	980	842	861	1682	544	
	41	✓	1742	1046	1260	1322	1680	520	
	42	✓	1748	1249	1452	1488	1682	492	
17.6	43	✓	1762	528	1442	1440	1656	482	
	44	✓	1760	568	1432	1400	1608	462	
	45	✓	1770	662	1410	1370	1642	486	
	46	✓	1770	843	1068	1062	1638	487	
	47	✓	1761	860	918	970	1662	482	
	48	✓	1770	928	1398	1362	1612	478	
	49	✓	1770	1284	1382	1422	1598	448	
17.8	50	✓	1788	650	1412	1368	1590	476	
	51	✓	1780	1059	1082	1110	1608	482	
	52	✓	1789	1088	1428	1451	1694	504	
	15		2130	869	662	—	1640	522	
	1		1778	754	~~958~~ 858	—	1642	508	
	2		—	—	852	—	1648	504	
	3		—	—	966	—	1618	492	
	4		—	—	1070	—	1586	498	
	5		—	—	1160	—	1592	490	
	6		—	—	1232	—	1728	522	
	7		—	—	1252	—	1630	482	
	8		—	—	1438	—	1644	476	

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

1992phae.proj.128M

Cl.–Dk	Mean Defl.–Dk.	Red. Defl.	Magn.
1178	492	418	580
1146	732	639	727
1138	682	600	698
1148	929	809	831
1146	671	586	689
1138	308	271	483
1160	771	664	740
1190	978	813	835
1174	959	816	836
1146	954	832	846
1156	904	782	821
1151	578	502	641
1180	462	392	565
1134	902	795	824
1150	954	830	840
1114	914	820	841
1126	614	546	663
1190	936	786	820
1118	140	93	—
1134	342	302	—
1144	348	304	—
1126	474	421	—
1088	572	526	—
1102	670	607	—
1206	710	588	—
1148	770	671	—
1168	962	824	—

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

1932phae.proj.12MM

xgP- R2 4787- Jan. 21, 1933.

Trig	Star		y	v	dlife	dlife	ce	dk	Volts
	1A		2130	869	483	—	1647	390	525
	1		1778	754	842	—	1687	381	
	2		—	—	818	—	1642	382	
	3		—	—	904	—	1652	380	
	4		—	—	907	—	1582	369	
	5		—	—	1172	—	1642	403	
	6		—	—	1263	—	1653	392	
	7		—	—	1323	—	1690	393	
	8		—	—	1423	—	1692	384	
18.0	53	V	1808	418	1218	1114	1644	373	
	54	V	1816	578	686	708	1638	392	
	55	V	1811	598	1493	1482	1607	383	
	56	V	1804	683	1582	1527	1610	380	
	57	V	1800	903	1442	1440	1622	392	
	58	V	1814	1264	1462	1460	1604	388	
18.2	59	V	1822	340	1476	1472	1573	392	
	60	V	1819	521	1177	1143	1607	390	
	61	V	1820	749	643	632	1572	390	
	62	V	1832	1003	1462	1462	1594	413	
	63	V	1830	1032	903	966	1592	389	
	64	V	1817	1042	1512	1476	1610	403	
	65	V	1821	1077	1218	1209	1577	393	
	66	V	1817	1180	1453	1428	1590	403	
18.4	67	V	1840	382	1138	1119	1558	413	
	67a	V	1857	488	1497	1443	1587	422	
	68	V	1850	617	1497	1503	1573	413	
	69	V	1853	643	1488	1458	1617	422	
	70	V	1851	698	1409	1387	1621	438	
	71	V	1850	708	1472	1492	1622	462	
	72		1850	864	1293	1238	1638	472	

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

1932phae.proj.128M

Cl.–Dk.	Mean Deff–Dk.	Red. Deff.	Magn.
1257	93	74	
1306	461	353	
1260	436	346	
1272	524	411	
1213	538	443	
1239	769	621	
1261	871	690	
1297	930	718	
1208	1039	860	
1271	793	623	695 ✓
1246	330	265	435 ✓
1224	1105	901	off curve ✓
1230	1150	936	off curve ✓
1230	1049	853	851 ✓
1216	1073	884	off curve ✓
1181	1082	917	off curve ✓
1217	770	633	702 ✓
1182	248	210	388 ✓
1181	1049	888	off curve ✓
1203	571	474	595 ✓
1207	1091	906	off curve ✓
1184	845	713	752 ✓
1187	1037	874	off curve ✓
1145	715	624	697 ✓
1165	1048	900	off curve
1160	1087	937	off curve ✓
1195	1051	882	off curve ✓
1183	960	810	819 ✓
1160	1020	880	off curve ✓
1166	844	724	757 ✓

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

1932phae.proj.1210M

gme RH 4787 1-21-33

Strip	Star	y	x	Defl	Defl	Cl	Dk	Volt
18.6	73	1879	403	1520	1009	1603	492	
	74	1864	522	1555	1515	1717	467	6.18
	75	1862	568	1204	1248	1525	452	
	76	1878	907	1112	1148	1507	435	
	77	1861	1012	1180	1204	1502	420	
	78	1877	1200	1038	1051	1300*	403	
	79	1868	1349	1170	1198	1313	384	
18.8	80	1888	361	1178	1210	1259	392	
	81	1880	399	1110	1083	1295	394	
	82	1890	516	972	953	1272	392	
	83	1882	758	1180	1145	1325	540	
	84	1876	815	1260	1260	1375	523	
19.0	85	1903	305	1138	1140	1350	514	
	86	1903	329	1232	1214	1363	487	
	87	1908	360	1170	1192	1335	474	
	88	1907	371	1207	1198	1312	445	
	89	1902	519	1178	1162	1303	440	
	90	1900	703	1159	1159	1300	420	
	91	1905	828	975	907	1225	920	
	92	1908	960	1182	1192	1232	412	
	93	1912	982	986	932	1255	399	
	94	1901	1079	765	708	1249	392	
	95	1911	1103	1090	1118	1242	387	
19.2	96	1937	462	908	853	1252	392	
	97	1937	609	932	848	1240	383	
	98	1936	853	1078	1092	1193	397	
	99	1931	898	870	835	1230	398	
	100	1935	1098	1004	1018	1213	405	
	101	1918	1180	990	942	1237	403	
	102	1922	1373	(image obscured)	1052	1240	398	

* sudden drop in clear reading occasioned by touching lamp.

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

1932phae.proj.128M

A.-Dk.	Mean Defl.-Dk.	Red. Defl.	Magn.
1161	1022	882	off curve ✓
1250	1068	855	850 ✓
1073	774	721	755 ✓
1072	695	647	708 ✓
1082	772	713	752 ✓
897	641	715	752 ✓
929	800	862	off curve ✓
867	802	925	off curve ✓
901	702	779	798 ✓
880	570	648	710 ✓
785	622	793	805 ✓
852	737	866	off curve ✓
836	625	748	772 ✓
876	736	840	840 ✓
861	707	822	830 ✓
867	767	874	off curve ✓
863	730	846	842 ✓
880	739	840	840 ✓
805	521	648	708 ✓
820	775	946	off curve ✓
856	560	655	716 ✓
857	344	402	543 ✓
855	717	839	837 ✓
860	488	568	661 ✓
857	507	592	675 ✓
796	687	865	off curve ✓
832	454	546	646 ✓
808	606	751	780 ✓
834	563	675	728 ✓
842	654	777	798 ✓

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

1932dhae.proj.128PM

jmc RH 4787 1-21-33.

Strip	Star	y	x	Deff	Deff image drawn	Cl	Dk.	Volt
	103 ✓	1920	1374	1008		1210	400	
19.4	104 ✓	1955	300	1048	1050	1225	394	
	105 ✓	1953	480	1102	1052	1242	400	
	106 ✓	1941	~~400~~ 692	791	748	1212	388	
	107 ✓	1950	1177	1042	1040	1210	393	
	108 ✓	1939	1307	813	794	1303	399	
	109 ✓	1958	1343	892	892	1185	401	
	13	2128	868	528	—	1303	400	
	1	1172	754	695	—	1292	403	
	2	—	—	772	—	1268	402	
	3	—	—	765	—	1242	402	
	4	—	—	786	—	1223	400	
	5	—	—	890	—	1232	400	
	6	—	—	953	—	1248	402	
	7	—	—	949	—	1272	392	
	8	—	—	1112	—	1288	422	5.15

J. mc J. R.H. 4787. 1-23-33

Repeating pages 70 + 72

13	2130	919	840	—	1952	552
1	1778	793	1232	—	1929	590
2	—	—	1330	—	1980	618
3	—	—	1338	—	1970	608
4	—	—	1460	—	1928	604
5	—	—	1580	—	1951	572
6	—	—	1621	—	1936	570
7	—	—	1640	—	1948	546
8	—	—	1772	—	1968	558
15.4	1551	710	1652	1644	1898	560
	~~1539~~	~~912~~	~~1764~~	~~1732~~		
15.6	1570	670	1396	1387	1670	570

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

1932phae.proj.128M

Cl.-Dk.	Mean Defl.-Dk.	Red. Defl.	Magn.
810	608	752	476 ✓
831	655	788	802 ✓
842	677	805	815 ✓
824	384	466	588 ✓
817	648	793	803 ✓
804	405	504	618 ✓
778	485	623	697 ✓
903	128	142	—
889	292	329	—
866	370	427	—
842	363	432	—
823	386	469	—
832	490	589	—
846	551	652	—
880	551	633	—
866	690	797	—

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

1932phae.proj.129M

J. F. M. J. R. A. 4787 Jan 23 1933

Strip | Star | 4 Repeat of 20 + 12 | Dept. 1540 | Dept. Cl | Hk.

Strip	Star						
15.8	3						
	1s	2130	904	1009	—	2360	562
	1	1778	791	1372	—	2354	574
	2	—	—	1412	—	2342	531
	3	—	—	1542	—	2356	548
	4	—	—	1618	—	2270	532
	5	—	—	1761	—	2342	540
	6	—	—	1840	—	2362	560
	7	—	—	1910	—	2372	558
	8	—	—	2050	—	2412	544
15.4	1	1551	707	1932	1911	2274	550
	2	1552	820	2040	2040	2188	530
	3	1539	910	2092	2084	2226	520
	4	1542	932	2036	2062	2208	524
15.6	5	1565	668	1742	1748	2242	538
	6	1570	1000	2062	2076	2202	540
15.8	7	1586	858	1990	2002	2212	541
16.0	8	1599	868	2012	2028	2252	546
	9	1602	1132	1994	2032	2254	561
16.2	10	1622	678	2008	2036	2252	560
	11	1628	904	1902	2026	2268	563
	12	1620	1147	1904	1902	2270	554
	13	1620	1152	1720	1701	2284	558
	14	back to page 74 for 16.4 – 19.4					
19.6	10	1970	508	1786	1748	2350	540
	11	1968	861	1592	1598	2310	568
	12	1959	1169	1902	1948	2397	568
	13	1962	1364	1488	1502	2416	588

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

1932phae.proj.128M

Cl.-Dk	Magn Defl.-Dk	Rel. Defl.	Magn
~~1798~~			
~~1780~~	—		
1798 ~~1811~~	447	248	—
1780 ~~1808~~	798	443	—
1811 ~~1738~~	881	486	—
1808 ~~1802~~	994	550	—
1738 ~~1802~~	1086	626	—
1802 ~~1814~~	1221	678	—
1802 ~~1868~~	1280	711	—
1814 ~~1724~~	1352	752	—
1868 ~~1658~~	1506	808	—
1724 ~~1726~~	1372	797	802 ✓
1658 ~~1684~~	1510	912	~~off curve~~ ✓
1706 ~~1704~~	1568	920	~~off curve~~ ✓
1684 ~~1662~~	1525	906	~~off curve~~
1704 ~~1671~~	1207	708	722
1662 ~~1706~~	1529	920	~~off curve~~
1671 ~~1693~~	1455	871	~~off curve~~
1706 ~~1692~~	1474	865	~~off curve~~
1693 ~~1725~~	1402	859	~~off curve~~
1692 ~~1716~~	1462	865	~~off curve~~
1705 ~~1726~~	1401	823	830
1716 ~~1810~~	1349	787	790
1726 ~~1750~~	1152	669	711
—	—		
—	—		
1810	1227	678	699 ✓
1750	1035	592	620 ✓
1829	1357	743	752 ✓
1828	903	496	535 ✓

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

1932phae.proj.1291M

J. M. J. R. H. 4787 Jan 23, 1933.

strip	Star		y	x	Δeff.	Δeff.	el.	Δk
	114		1782	1318	1808	1791	2258	588
	15		2130	906	968	—	2292	574
	1		1778	790	1374	—	2278	572
	2		—	—	1310	—	2240	570
	3		—	—	1386	—	2308	542
	4		—	—	1548	—	2250	540
	5		—	—	1570	—	2240	530
	6		—	—	1748	—	2272	544
	7		—	—	1802	—	2258	560
	8		—	—	1980	—	2258	542

Zp - R.H. 4787 - Jan. 24, 1933. #95

	14	2130	906	677	—	2187	647
	1	1779	792	958	—	2237	663
	2	—	—	1118	—	2192	667
	3	—	—	1363	—	2221	692
	4	—	—	1396	—	2172	700
	5	—	—	1513	—	2184	677
	6	—	—	1545	—	2200	703
	7	—	—	1663	—	2304	712
	8	—	—	1922	—	2258	713
19.8	115	1978	951	1962	2013	2244	713
	116	1996	1190	1974	1978	2286	724
	117	1978	1265	1612	1522	2243	703
	118	1982	1277	1777	1818	2317	712
20.0	119	2004	444	1843	1772	2268	740
	120	2000	503	1203	1143	2280	724
	121	2006	528	1912	2042	2288	743
	122	1998	690	2042	2103	2322	730
	123	2010	691	2037	2058	2242	740
	124	2010	736	2011	2107	2247	743

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

1932phae.proj.126M

Cl.-Dk.	Mean Defl.-Dk.	Red. Defl.	Magn.
1670	1212	727	740 ✓
1718	394	229	—
1706	802	470	—
1670	740	443	—
1766	844	478	—
1710	1008	589	—
1710	1040	609	—
1728	1204	698	—
1698	1242	733	—
1716	1438	839	—
—	—	—	
1540	30	19	—
1574	295	187	—
1525	451	296	—
1529	441	288	—
1472	696	472	—
1507	836	555	—
1497	842	562	—
1592	941	591	—
1545	1209	783	—
1531	1275	833	off curve ✓
1562	1252	803	off curve ✓
1540	864	561	752 ✓
1605	1086	677	806 ✓
1598	1068	700	815 ✓
1536	449	289	530 ✓
1545	1234	800	off curve ✓
1592	1342	844	off curve ✓
1552	1308	871	off curve ✓
1554	1319	877	off curve ✓

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

1932phae.proj.12PM

JP - RH 4787 - Jan. 24, 1933.

	Star	y	x	Diff	Diff	ce	dk	Volts	
	125	2003	763	1916	1980	2272	752		
	126	2010	903	1473	1403	2252	732		
	127	2000	1145	1612	1620	2313	712		
	128	2009	1216	2080	1952	2262	732		
	1x	2120	906	882	—	2318	836	495	
	1	1779	792	1142	—	2410	822		
	2	—	—	1223	—	2886	827		
	3	—	—	1303	—	2407	863		
	4	—	—	1443	—	2343	891		
	5	—	—	1506		2408	932		
	6	—	—	1703	—	2492	933		
	7	—	—	1768	—	2597	963		
	8	—	—	2040	—	2538	942		

m.m. - RH 4787 - Jan. 24 1933. 5.15

	1s	2130	838	149	—	2720	169	
	1	1779	722	160	—	2731	101	
	2	—	—	221	—	2702	121	
	3	—	—	241	—	2582	132	
	4	—	—	288	—	2502	110	
	5	—	—	561	—	2670	122	
	6	—	—	960	—	2690	101	
	7	—	—	911	—	2731	105	
	8	—	—	1718	—	2648	128	
20.2	129	2026	410	182	135	2762	138	
	130	2022	1166	185	178	2824	125	
	131	2021	1189	378	358	2695	121	
	132	2037	1240	1631	1662	2763	81	
	133	2030	1331	1188	1281	2551	68	
20.4	134	2041	958	148	102	2582	89	
20.6	135	2058	308	1302	1371	2493	91	

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

1932phae.proj.126M

Cl.–Dk.	Mean Defl.–Dk.	Red. Defl.	Magn.
1520	1196	788	845 ✓
1520	706	464	690 ✓
1601	904	564	750 ✓
1530	1284	840	off curve ✓
1482	46	31	
1588	320	201	—
1559	396	254	—
1554	450	289	—
1452	552	380	—
1476	594	389	—
1659	770	494	—
1634	805	492	—
1596	1098	689	—
—	—	—	
2551	−20		—
2630	59	22	—
2581	100	38	—
2450	109	41	—
2392	188	78	—
2548	439	172	—
2589	869	330	—
2626	806	304	—
2520	1590	632	—
2624	20	8	off curve (too bright) ✓
2696	57	21	~~off~~ 465 ✓
2574	247	96	617 ✓
2682	1565	583	822 ✓
2483	1166	469	790 ✓
2493	36	14	off curve (too bright) ✓
2462	1245	518	~~800~~ ✓

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

1932phae.proj.1209M

m.m. – RH 4787 – Jan. 26, 1932.

Stup	Star	y	x	Defl.	Defl.	Cl.	Dk.	volt.
	136	2073	780	160	178	2640	91	
	137	2055	1040	970	1031	2620	122	
	138	2076	1152	181	232	2700	95	
	139	2060	1209	348	361	2710	90	
20.8	140	2096	282	901	880	2551	111	
	141	2079	558	1061	1148	2658	89	
	142	2080	967	105	138	2740	108	
21.6	143	2102	652	912	1028	2711	109	
	144	2108	1018	824	889	2821	112	
	1s	2130	838	102	—	2808	118	
	1	1780	722	178	—	2662	111	
	2	—	—	185	—	2752	109	
	3	—	—	292	—	2830	111	
	4	—	—	242	—	2638	118	
	5	—	—	442	—	2810	100	
	6	—	—	935	—	2716	100	
	7	—	—	1010	—	2792	100	
	8	—	—	1920	—	2730	115	5.00

m.m. – RH 4787 – Jan. 31, 1933.

	1s	2130	920	488	—	2568	458	5.18
	1	1780	800	712	—	2561	498	
	2	—	—	772	—	2588	522	
	3	—	—	761	—	2628	531	
	4	—	—	942	—	2576	538	
	5	—	—	1058	—	2710	535	
	6	—	—	1240	—	2620	551	
	7	—	—	1404	—	2678	528	
	8	—	—	2078	—	2720	536	
21.2	145	2130	798	672	598	2751	538	

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

1932phae.proj.120M

Cl.–Dk.	Mean Defl. Dk.	Red. Defl.	Magn.
2549	78	30	531 ✓
2498	878	352	752 ✓
2605	111	42	561 ✓
2620	264	108	625 ✓
2440	779	319	738 ✓
2561	1015	397	767 ✓
2632	14	5	off curve (too bright) ✓
2602	861	331	742 ✓
2709	744	274	718 ✓
2690	−16		—
2551	67	26	—
2643	76	29	—
2729	181	66	—
2520	124	49	—
2710	342	126	—
2610	835	318	—
2692	910	337	—
2616	1805	692	—
—	—	—	
—	—	—	
2114	80	14	—
2063	214	107	—
2066	250	122	—
2097	230	109	—
2088	404	198	—
2175	523	240	—
2069	689	332	—
2150	896	406	—
2184	1542	707	—
2213	134	61	472 ✓

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

1932phae.proj.1209M

m. m. – RH 4787 – Jan. 31, 1933.

Strip	Star	y	x	Defl.	Defl.	cl.	Dk.	volt.
	146	2122	982	1750	1828	2706	527	
	147	2124	1186	1461	1408	2595	500	
	148	2120	1199	2173	2132	2740	501	
	149	2130	1290	1851	1908	2671	508	
21.4	150	2155	510	1615	1661	2678	498	
	151	2158	748	1548	1541	2702	518	
	152	2142	760	1292	1031	2682	501	
	153	2145	833	1051	1105	2672	468	
	154	2149	1092	1038	1042	2572	432	
	155	2145	1148	2048	2078	2591	392	
	156	2150	1172	1651	1638	2608	378	
	157	2152	1249	1432	1400	2501	365	
	158	2146	1272	1650	1738	2538	352	
	159	2151	1430	1492	1448	2351	348	
	160	2159	1440	1135	1151	2431	355	
21.6	161	2162	549	1230	1238	2462	348	
	162	2175	828	541	572	2401	345	
	163	2173	889	1509	1578	2409	348	
	164	2165	962	1530	1521	2443	361	
	165	2158	1133	1131	1198	2412	357	
	166	2160	1142	1752	1642	2453	358	
	167	2160	1148	1648	1669	2402	382	
	168	2178	1359	1410	1498	2393	385	
21.8	169	2189	981	1172	1858	2371	401	
	170 (scratchy on plate)	2193	1313	1032	1335	2492	393	
	171	2183	1321	1631	1681	2543	412	
22.0	172	2210	515	1369	1392	2521	438	
	173	2210	778	1558	1631	2551	469	
	174	2201	949	1861	1905	2502	478	
	175	2215	1038	1232	1212	2552	462	

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

1932phae.proj.1201M

Obs.–Dk	Mean Defl.–Dk	Red. Defl	Magn.
2179	1262	581	806
2095	934	446	762
2239	1651	739	836
2163	1372	634	820
2180	1140	523	792
2184	1026	469	771
2181	766	351	728
2204	600	272	682
2140	608	284	691
2197	1671	761	off curve
2230	1266	568	803
2136	1051	493	780
2186	1342	615	814
~~2003~~ 2076	1122	554	800
~~2004~~	788	380	740
2114	886	419	752
2056	211	105	542
2061	1196	580	806
2082	1165	544	798
2055	807	393	745
2095	1339	639	820
2020	1276	632	820
2008	1069	532	795
1970	1414	718	834
2099	941	448	765
2131	1244	584	808
2083	942	461	765
2082	1125	539	795
2124	1405	662	825
2090	760	363	734

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

1932mae.proj.1200M

m. m. – RH 4787 – Jan. 31, 1933.

Strip	Star	y	x	Defl.	Defl.	Q,	Dk.,	volts
	176	2210	1238	2040	2069	2492	448	
	177	2210	1375	1210	1152	2561	435	5.16
22.2	178	2221	763	1558	1498	2492	432	
	179	2220	880	1865	2035	2488	443	
	180	2228	881	1202	1250	2468	432	
	181	2221	1050	1352	1365	2491	461	
	182	2217	1100	1991	2020	2551	459	
	183	2221	1269	1451	1432	2609	438	
	184	2232	1334	1145	1141	2461	433	
22.40	185	2250	412	625	621	2401	452	
	186	2239	462	1138	1168	2501	436	
	187	2254	482	1638	1588 +1742	2525	438	
	188	2248	805	562	565	2481	445	
	189	2252	1142	1590	1599	2553	451	
	190	2250	1322	1762	1858	2482	455	
22.6	191	2261	407	1670	1692	2492	460	
	192	2265	467	1165	1240	2551	452	
	193	2276	620	858	820	2609	431	
	194	2258	650	1022	1008	2542	448	
	195	2259	860	1532	1458	2558	443	
	196	2266	901	1852	1849	2628	441	
	197	2260	1022	1968	2041	2581	458	
	198	2269	1061	1978	2068	2621	437	
	199	2259	1407	523	518	2538	462	
22.8	200	2286	430	1782	1879	2501	452	
	201	2283	531	1832	1752	2550	455	
	202	2292	609	1948	1932	2532	443	
	203	2293	802	1432	1462	2511	442	
	204	2297	869	902	931	2403	438	
	205	2296	1097	1632	1738	2443	432	

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

1932phae.proj.1201M

Cl.-Dk.	Mean Defl.-Dk.	Red. Defl.	Magn.
2044	1606	785	~~flare~~
2126	746	351	729
2060	1096	517	789
2045	1501	722	835
2036	794	383	742
2030	897	439	760
2092	1547	730	834
2171	1004	463	771
2028	710	349	725
1949	171	88	519
2065	717	347	725
2087	1176	563	802
2036	119	~~588~~ 59	~~808~~ 472
2102	1143	548	799
2027	1355	668	825
2032	1221	602	812
2099	750	373	740
2178	408	201	625
2094	567	271	680
2115	1152	542	798
2187	1409	644	821
2123	1546	728	836
2184	1586	726	835
2076	58	28	340
2049	1398	672	825
2095	1337	638	819
2089	1497	716	834
2069	1005	486	778
1965	478	243	660
2011	1253	624	818

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

1932phae.proj.120M

M.M. — R H 4787 — Jan. 31, 1933.

Slip	Star	y	x	Defl.	Defl.	Cl.	Dk.	volt.
	206	2287	1382	1038 1118	1132	2448	438	
	1s	2130	918	422	—	2499	431	
	1	1780	800	510	—	2482	422	
	2	—	—	562	—	2462	414	
	3	—	—	758	—	2412	418	
	4	—	—	692	—	2331	415	
	5	—	—	886	—	2371	412	
	6	—	—	1028	—	2421	426	
	7	—	—	1170	—	2482	419	
	8	—	—	1828		2468	399	5.12
	M.M. — R H	4787 —		Feb. 6, 1933.				
	1s	2130	899	503	—	1892	514	510
	1	1779	784	537	—	1847	517	
	2	—	—	578	—	1904	551	
	3	—	—	613	—	1867	542	
	4	—	—	657	—	1732	547	
	5	—	—	720	—	1838	536	
	6	—	—	911	—	1880	542	
	7	—	—	1012	—	1950	541	
	8	✓	✓	1422	—	1900	539	
23.0	207	2300	348	1588	1587	1760	527	
	208	2295	648	1350	1383	1830	532	
	209	2301	688	610	618	1850	538	
	210	2313	747	1196	1223	1910	542	
	211	2298	802	802	890	1929	537	
	212	2307	863	1021	1044	1889	533	
23.2	213	2328	373	992	1016	1733	503	
	214	2320	383	1382	1372	1776	510	
	215	2329	418	872	917	1817	505	
	216	2228	552	712	718	1793	498	

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

1932phae.proj.1209M

α − Dk	Mean Defl.-Dk.	Red. Defl.	Magn.	
2010	686	341	722 ✓	
2068	−9	—		
2060	88	43	—	
2048	138	67	—	
1994	340	171	—	
1916	277	144	—	
1959	474	242	—	
1995	602	302	—	
2063	751	364	—	
2067	1429	691	—	
—	—			
1378	−11	—	—	
1330	20	15	—	
1363	−3	—	—	
1326	71	54	—	
1205	110	91	—	
1305	187	143	—	
1338	369	276	—	
1409	471	334	—	
1361	883	648	—	
1233	1061	860	off curve	too faint
1298	834	643	835 ✓	
1312	76	58	578 ✓	
1368	632	462	787 ✓	
1392	334	240	700 ✓	
1356	1003	742	off curve ✓	
1250	601	401	765 ✓	
1276	862	676	off curve ✓	
1312	389	296	725 ✓	
1295	217	167	660 ✓	

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

1932phae.proj.1201M

RJP – CH 4787 – Feb. 6, 1933.

Trip	Star	y	x	dlefl	dlefr	ce	xdc	Volts
	217	2318	708	1412	1438	1827	513	
	218	2330	1026	1062	1034	1882	510	
	219	2331	1088	982	978	1842	503	
23.4	220	2340	408	1482	1479	1752	502	
	221	2351	779	1403	1436	1853	504	
	222	2353	778	1042	1063	1841	508	
	223	2350	965	1073	1498	1848	503	
	224	2340	1138	1312	1336	1813	492.	
	225	2339	1073	1388	1433	1910	498	
	226	2350	1093	1482	1503	1882	514	
23.6	227	2372	597	1132	1133	1808	490	
	228	2370	678	1518	1508	1838	497	
	229	2360	950	1222	1288	1780	507	
	230	2373	953	1022	1063	1888	492	
	231	2363	~~1003~~	963	1004	1829	508	
	232	2358	1028	1386	1422	1828	503	
	233	2370	1141	805	893	1838	507	
23.8	234	2383	769	1467	1513	1853	500	
	235	2391	907	1012	1105	1872	504	
	236	2373	988	1181	1270	1840	482	
	237	2390	1182	733	722	1850	482	
	238	2391	1242	1510	1512	1843	500	
	239	2390	1268	1342	1353	1870	493	
24.0	240	2397	477	803	803	1817	503	
	241	2407	678	1263	1343	1807	491	
	242	2412	768	510	518	1752	492	
	243	2412	844	508	503	1760	494	
	244	2410	958	1292	1328	1838	498	
	245	2399	1103	1249	1338	1813	491	
	246	2410	1253	1288	1329	1837	496	

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

1932phae.proj.1201M

Cl. Dk	Mean Defl. - Dk.	Red. Defl.	Magn.
1314	912	693	off curve
1369	1035	758	off curve
1339	475	355	749
1249	949	761	off curve
1349	916	679	off curve
1333	544	408	768
1345	1003	747	off curve
1321	830	628	832
1412	912	640	836
1368	978	715	off curve
1318	642	487	793
1341	1016	758	off curve
1273	748	587	820
1396	550	394	762
1321	476	360	750
1325	901	680	off curve
1331	367	275	716
1353	990	731	off curve
1368	554	405	765
1358	744	548	810
1368	246	180	670
1343	1011	754	off curve
1377	855	621	830
1314	300	228	693
1316	812	617	830
1260	22	17	500
1266	12	9	470
1340	812	606	828
1322	803	606	828
1344	815	605	827

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

1932phae.proj.121PM

AP - R.A. 4787 - Feb. 6, 1933.

Strip	Star	y	x	dyll	dlefl	Ce	dk	Volts
~~24.3~~	1A	2130	899	493	—	1842	522	510
	1	1779	784	527	—	1912	503	
	2	—	—	563	—	1892	499	
	3	—	—	563	—	1842	482	
	4	—	—	622	—	1778	488	
	5	—	—	670	—	1864	488	
	6	—	—	855	—	1810	490	
	7	—	—	973	—	1892	497	
	8	—	—	1376	—	1905	485	
	AP - R.A. 4787 - Feb. 7, 1933.							
	1A	2130	847	518	—	1798	527	540
	1	1779	731	572	—	1832	540	
	2	—	—	608	—	1848	513	
	3	—	—	600	—	1787	512	
	4	—	—	690	—	1723	552	
	5	—	—	760	—	1790	517	
	6	—	—	1003	—	1772	463	
	7	—	—	1088	—	1886	500	
	8	—	—	1382	—	1857	473	1048
24.2	247 ✓	2433	518	1033	1062	1810	476	
	248 ✓	2435	535	1088	1067	1693	454	
	249 ✓	2437	541	1248	1243	1843	478	
	250 ✓	2420	619	742	752	1748	503	
	251 ✓	2429	653	1382	1427	1704	447	
	252 ✓	2439	678	720	772	1714	432	
	253 ✓	2420	729	933	969	1608	437	
	254 ✓	2422	829	1142	1088	1718	428	
	255 ✓	2420	871	1408	1422	1765	416	
	256 X ✓	2427	1133	1050	1030	1785	430	
24.4	257 ✓	2448	433	1312	1320	1700	452	

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

1932phae.proj.1201M

Cl.-Dk.	Deff.-Dk.	Red. Deff.	Magn.
1320	~~-71~~	~~384~~	
1409	24	17	
1393	14	10	
1360	81	60	
1290	134	104	
1376	182	132	
1320	365	269	
1395	476	341	
1420	891	627	
1271	—	—	
1287	27	21	
1335	95	71	
1275	38	30	
1171	38	32	
1273	243	191	
1309	540	412	
1386	588	424	
1384	909	656	
1334	572	428	730
1239	1080	873	off curve
1365	768	562	790
1295	294	227	620
1257	957	761	off curve
1282	314	245	630
1171	514	438	735
1290	687	532	778
1349	999	740	852
1275	1110	872	off curve
1248	864	692	834

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

1932phae.proj.128PM

2P - RA 4787 - Feb. 7, 1933.

Strip	Star	y	x	dy	dx	cc	dk	Volts
	258	2442	829	1420	1436	1743	452	
	259	2452	860	1388	1408	1683	453	
24.6	260	2463	462	642	668	1717	438	
	261	2467	808	1056	1370	1726	413	
	262	2461	892	1411	1422	1688	418	
	263	2469	909	943	952	1742	413	
	264	2478	946	1092	990	1737	434	
	265	2470	1182	1052	1083	1662	418	
24.8	266	2490	737	1407	1352	1687	413	
	267	2487	776	1387	1426	1653	412	
	268	2490	1082	1429	1392	1747	438	
25.0	269	2500	477	1303	1348	1706	403	
	270	2502	536	1147	1210	1613	413	
	271	2500	940	1473	1460	1697	398	
	272	2500	1016	1320	1368	1717	421	
25.2	273	2531	839	768	760	1676	427	
	274	2521	973	1072	1120	1703	408	
	275	2531	1011	1393	1383	1703	393	
	276	2521	1047	1177	1212	1618	397	
25.4	277	2542	589	698	772	1617	382	
	278	2500	610	763	820	1623	383	
	279	2547	724	1253	1262	1636	358	
	280	2553	730	623	699	1630	363	
	281	2540	890	368	360	1680	390	
	282	2549	1111	1363	1354	1637	393	
25.6	283	2572	654	470	490	1617	384	
	284	2563	739	752	788	1642	373	
	285	2570	741	1128	1150	1568	350	
	286	2560	939	1048	1018	1627	353	
25.8	287	2591	792	893	868	1622	372	

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

1932phae.proj.1203M

Ph.-Dk.	Degl.-Dk.	Red. Dgl.	Magn.
1291	980	759	off curve
1230	995	809	off curve
1284	922	173	585
1310	940	717	842
1270	998	786	off curve
1329	535	403	720
1303	601	465	750
1244	650	522	772
1274	967	759	858
1241	993	800	off curve
1309	970	741	off curve
1303	923	708	838
1200	765	637	815
1299	1068	823	off curve
1296	923	712	842
1249	329	264	642
1295	738	570	791
1310	995	760	off curve
1221	797	652	821
1235	354	286	653
1240	409	330	680
1278	900	705	840
1267	298	235	625
1290	~~331~~	—	
1244	965	775	off curve
1233	96	78	500
1269	372	293	661½
1218	789	648	818
1274	680	533	776
1250	08	6	350

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

1932phae.proj.129M

DP - RH 4787 - Feb. 7, 1933.

Strip	Star	y	x	dy/dx	dy/dx	Cc	dk	Plts
	288	2591	908	1090	1042	1583	352	
	289	2577	950	676	690	1613	365	
26.0	290	2601	632	1113	1160	1617	374	
	291	2623	666	670	563	1560	370	
	292	2592	682	1313	1337	1606	363	
	293	2601	699	1202	1252	1599	404	
	294	2610	757	1204	1210	1628	364	
	295	2604	968	1374	1363	1567	383	
26.2	296	2623	720	422	430	1612	368	
	297	2614	778	1242	1300	1553	383	
	298	2629	829	842	872	1632	392	
	299	2628	839	1303	1292	1648	377	
	300	2631	841	931	908	1638	373	
	301	2613	870	523	513	1608	363	
	302	2613	874	1007	1093	1650	370	
	303	2623	966	1173	1202	1593	353	
26.4	304	2644	773	1068	1111	1587	308	
	305	2640	787	693	763	1573	303	
	306	2644	803	443	429	1558	343	
	307	2643	819	662	640	1607	352	
	308	2640	873	1392	1372	1647	367	
	1	2130	847	962	—	1660	364	
	1	1779	731	489	—	1662	362	
	2	—	—	523	—	1663	353	
	3	—	—	~~340~~	—	1663	378	
	4	—	—	623	—	1577	357	
	5	—	—	760	—	1698	463	
	6	—	—	982	—	1720	423	
	7	—	—	990	—	1780	457	550
	8	—	—	1372	—	1702	428	

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

1932phae.proj.1201M

cl.-Dk.	Defl.-Dk.	Red. Defl.	Magn.
1231	714	580	795
1248	318	255	638
1243	762	612	809
1190	246	206	607
1243	962	773	off curve
1199	827	690	832
1264	843	666	825
1184	985	231	off curve
1244	58	47	462
1170	888	759	854
1240	465	375	705
1271	921	724	845
1265	547	433	732
1245	160	128	548
1280	680	631	775
1240	835	673	828
1229	732	596	801
1220	385	315	671
1215	95	78	500
1255	299	238	627
1280	1015	794	off curve
1296	—	—	
1300	127	97	
1310	180	137	
1285	192	149	
1218	264	217	
1235	297	240	
1297	559	431	
1330	540	415	
1274	944	741	

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

1932phae.proj.1281M

jmc RH 4788 2-9-33

Strip	Star	y	x	dyff	dyff	Cc	dk	Volts
	15	1921	791	515	—	1571	496	5.22
	1	2273	903	518	—	1584	520	
	2	2138	533	544	—	1597	518	
	3	—	—	592	—	1630	529	
	4	—	—	610	—	1620	540	
	5	—	—	672	—	1612	540	
	6	—	—	832	—	1638	541	
	7	—	—	922	—	1579	569	
	8	—	—	1285	—	1623	530	
14.0	1 ✓	1400	800	1034	1043	1495	540	
	2 ✓	1403	812	1048	1009	1520	550	
14.2	3 ✓	1419	765	1160	1158	1462	520	
	4 ✓	1419	770	728	682	1489	492	
	5 ✓	1418	851	1270	1218	1462	500	
	6 ✓	1423	883	1198	image scratched	1458	508	
	7 ✓	1431	941	1228	1192	1470	480	
	8 ✓	1430	975	640	620	1485	482	
	9 ✓	1433	1009	1200	1252	1490	470	
14.4	10 ✓	1458	690	827	815	1501	480	
	11 ✓	1440	732	1140	1110	1470	460	
	12 ✓	1441	848	457	460	1472	473	
14.6	13 ✓	1472	701	1130	1090	1498	458	
	14 ✓	1465	900	1210	1140	1423	445	
	15 ✓	1470	901	803	775	1437	482	
	16 ✓	1460	981	547	552	1459	470	
14.8	17 ✓	1492	749	440	448	1470	433	
	18 ✓	1479	919	660	712	1410	410	
	19 ✓	1488	1031	792	770	1442	420	
	20 ✓	1491	1051	711	763	1490	430	
15.0	21 ✓	1510	594	1238	1231	1538	423	

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

1932phae.proj.120M

Cl.-Dk.	Defl.-Dk.	Red. Defl.	Magn.
1075	19	18	
1064	—	—	
1079	26	24	
1101	63	57	
1080	70	65	
1072	132	123	
1097	291	265	
1010	353	349	
1093	755	690	
955	498	522	792
970	478	493	783
942	639	678	833
997	213	214	694
962	774	805	off curve
950	690	726	843
990	730	738	~~off~~ 848
1003	148	147	665
1020	756	742	~~off curve~~
1021	341	333	733
1010	665	658	828
999	~~85~~	—	off curve (too bright)
1040	652	627	821
978	730	746	off curve
955	307	322	731
989	80	81	824
1037	11	11	481
1000	276	276	715
1022	361	352	741
1060	307	289	718
1115	811	728	844

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

1932phae.proj.1201M

gmc RH. 4788 2-9-33

Trip	Star	Y	X	dyff	dxff	Ce	dk.	Volts
	22 ✓	1510	667	1140	1113	1508	428	
	23 ✓	1502	800	840	862	1533	436	
15.2	24 ✓	1530	1105	1177	1168	1488	450	
15.4	25 ✓	1557	695	1068	1018	1523	440	
	26 ✓	~~1544~~	~~802~~					
	27 ✓	1538	1163	1230	1195	1488	442	
15.6	28 ✓	1561	458	1125	1132	1500	478	
	29 ✓	1567	729	960	952	1574	540	
	30 ✓	1571	1171	729	735	1592	498	
	1s	1921	791	494	—	1668	470	
	1	2273	903	490	—	1647	475	
	2	—	—	499	—	1651	463	
	3	—	—	517	—	1662	463	
	4	—	—	538	—	1620	476	
	5	—	—	580	—	1602	450	
	6	—	—	812	—	1568	475	
	7	—	—	883	—	1551	470	
	8	—	—	1226	—	1590	470	5.21

dyff - RH 4788 - Feb 10 1933

	1s	1922	870	368	—	1772	383	~~500~~
	1	2278	988	378	—	1580	412	
	2	—	—	450	—	1672	417	
	3	—	—	463	—	1693	397	
	4	—	—	477	—	1613	434	
	5	—	—	572	—	1612	437	
	6	—	—	767	—	1612	427	
	7	—	—	853	—	1618	415	
	8	—	—	1213	—	1613	413	
	9	/	/	/	/	/	/	
15.8	31 ✓	1582	863	1403	1392	1640	440	

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

1932phae.proj.120M

Cl. ~~Defl.~~-Dk.	Defl.-Dk.	Red.-Defl.	Mag.
1080	698	646	825
1097	415	378	747
1138	712	686	835
1083	603	556	802
1046	770	736	846
1022	650	635	822
1034	416	402	754
1094	234	214	695
1198	24	22	523
1172	15	13	498
1188	36	30	549
1199	54	45	579
1144	62	54	591
1152	130	113	651
1093	337	308	725
1081	413	382	750
1120	756	695	831
1389	—	—	
1168	—	—	
1255	33	26	
1296	66	51	
1179	43	37	
1175	135	115	
1185	340	287	
1203	438	363	
1200	860	715	
1200	958	797	off curve

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

1932phae.proj.120M

Hyp - R.A. 4788 - Feb. 10, 1933.

Strip	Star	y	x	dyff	dyff	Ce	dk	Volts
	32	1590	1288	1410	1318	1563	412	
16.0	33	1602	892	1150	1188	1558	412	
	34	1600	1047	781	770	1657	442	
	35	1601	1182	1182	1186	1547	424	
	36	1602	1204	1004	982	1557	408	
	37	1611	1369	1087	988	1568	403	
	38	1613	1371	647	573	1522	388	
16.2	39	1623	523	1293	1294	1662	422	
	40	1627	819	1222	1213	1572	403	
	41	1623	932	420	403	1553	392	
	42	1617	992	929	920	1513	402	
	43	1628	1008	412	402	1537	397	
	44	1617	1103	712	708	1575	413	
	45	1622	1220	882	872	1554	413	
16.4	46	1642	509	1322	1362	1622	400	
	47	1642	592	762	780	1639	403	
	48	1638	672	1272	1209	1568	408	
	49	1643	819	1006	948	1623	407	
	50	1642	1300	783	723	1528	383	
16.6	51	1667	634	862	823	1598	402	
	52	1671	772	872	866	1617	394	
	53	1662	788	1163	1166	1628	397	
	54	1661	824	1053	1037	1607	387	
	55	1664	1181	1118	1043	1517	397	
	1A	1922	875	360	—	1637	383	
	1	2278	988	383	—	1608	373	
	2	—	—	386	—	1678	383	
	3	—	—	442	—	1654	387	
	4	—	—	456	—	1588	373	
	5	—	—	522	—	1632	362	

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

1932phae.proj.1201M

Cl.-Dk.	Degr.-Dk.	Red. Degr.	
1151	952	826	~~off curve~~
1146	757	661	820
1215	334	275	714
1123	760	676	824
1149	585	509	782
1165	635	544	792 (outside circle on 4787)
1134	~~222~~	196	682 (outside circle on 4787)
1240	872	703	832
1169	815	697	829
1161	20	17	522
1111	522	470	772
1140	10	9	502
1162	297	255	708
1141	464	406	755
1222	942	770	~~off curve~~
1230	368	299	722
1160	858	740	840
1216	580	477	776
1145	370	323	732
1196	440	368	745
1223	475	388	749
1231	767	622	812
1220	658	540	790
1120	683	609	~~808~~
1254	—		
1235	10	8	
1295	3	2	
1267	55	43	
1216	84	69	
1270	160.	126	

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

1932phae.proj.1281M

HJ.P. R.H 4788 Feb. 10, 1933

Trip	Star	Y	X	Dyf	Dyf	Cc	Dk	Volts
	6	—	—	703	—	1643	342	
	7	—	—	782	—	1572	373	
	8	—	—	1279	—	1653	373	500
				Jmc. Feb. 11, 1933				G.
	13	1921	875	481	—	1630	473	5.14
	1	2273	987	473	—	1582	460	
	2	—	—	490	—	1618	442	
	3	—	—	498	—	1542	430	
	4	—	—	471	—	1638	412	
	5	—	—	541	—	1630	407	
	6	—	—	722	—	1563	393	
	7	—	—	943	—	1498	358	
	8	—	—	1210	—	1583	381	
17.0	56 ✓	1700	690	885	900	1510	348	
	57 ✓	1695	702	1235	1278	1520	346	
	58 ✓	1712	1223	648	612	1480	363	
	59 ✓	1708	1359	820	800	1595	367	
	60 ✓	1712	1403	920	900	1603	408	
16.8	61 ✓	~~1695~~	~~737~~					
	62 ✓	1681	998	1030	1018	1607	381	
17.2	63 ✓	1721	1030	1137	1140	1562	400	
	64 ✓	1738	1087	488	510	1573	395	
17.4	65 ✓	1742	419	1001	968	1583	386	
	66 ✓	1737	922	791	790	1662	408	
	67 ✓	1742	988	1168	1162	1592	404	
17.6	68 ✓	1713	931	1212	1230	1643	410	
	69 ✓	1719	1140	844	837	1641	400	
	70 ✓	1762	1171	630	628	1632	362	
	71 ✓	1770	1327	1010	950	1642	387	
	72 ✓	1714	1386	1228	1255	1563	367	

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

1932phae.proj.1201M

1301	361	277	
1199	409	342	
1280	906	702	
1157	08	~~691~~	—
1122	13	12	—
1176	48	41	—
1112	68	61	—
1226	59	48	—
1223	134	109	—
1170	329	281	—
1140	585	513	—
1202	829	689	—
1162	544	459	760
1174	910	774	836
1117	267	239	694
1228	443	361	735
1195	502	420	750
1226	643	525	780
1162	738	634	809
1178	104	88	~~44~~ 60
1197	598	500	773
1254	382	305	717
1188	761	641	810
1233	811	657	813
1241	440	354	732
1270	267	210	682
1265	593	472	766
1196	875	731	829

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

1932phae.proj.1201M

gmc. R.A. 4788. Feb. 11, 1933.

Strip	Star	y	x	dlgl	dlgl	Ce	dk	Volts
17.8	73	1987	985	1485	1483	1650	373	
	74	1781	1310	1250	1215	1672	368	
	75	1798	1330	~~362~~ 908	~~406~~ 892	~~890~~ 1686	324	
	76	1789	1370	448	450	1590	310	
18.0	77	1799	454	1040	1062	1578	350	
	78	1811	522	1205	1207	1632	325	
	79	1810	742	1018	1063	1672	328	
	80	1819	751	938	950	1545	341	
	81	1807	909	1048	1017	1658	328	
	82	1810	1027	1103	1093	1546	316	
18.2	83	1821	417	998	1012	1594	310	
	84	1837	478	1110	1105	1588	313	
	85	1818	750	956	960	1538	322	
	86	1822	1012	1167	1130	1522	311	
	87	1825	1277	1008	1042	1573	308	
18.4	88	1847	470	1274	1208	1653	282	
	89	1855	433	1270	1230	1638	321	
18.6	90	1870	643	1214	1291	1560	312	
	91	1869	648	1258	1284	1553	302	
	92	1871	657	913	872	1502	305	
	93	1868	828	1110	1142	1530	290	
	94	1860	903	1105	1145	1538	312	
	95	1860	966	433	448	1520	313	
	96	1871	1242	962	1008	1653	320	
18.8	97	1884	519	1258	1218	1552	305	
	98	1878	542	1086	1058	1490	309	
	99	1877	618	1248	1213	1568	329	
	100	1887	698	808	772	1512	327	
	101	1881	837	1168	1138	1503	311	
	102	1891	957	762	659	1598	322	

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

1932phae.proj.1201M

α.-Dk.	Deff.-Dk.	Red Deff.	Mags.
1277	1111	870	Off curve
1310	860	656	813
1362	575	422	750
1280	139	108	623
1228	701	571	794
1301	879	673	818
1344	712	531	782
1204	603	501	774
1330	704	529	781
1230	782	636	809
1284	695	595	850
1275	792	621	807
1216	636	528	780
1241	837	691	821
1265	717	566	793
1371	959	698	822
1317	929	706	824
1248	940	753	832
1251	969	774	836
1202	592	492	771
1240	836	674	818
1226	810	661	815
1207	127	106	621
1333	665	498	772
1252	938	748	830
1181	763	645	810
1239	900	726	828
1185	463	391	743
1192	839	703	823
1276	388	304	716

same star

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

1932phae.proj.1219M

NP - RA 4788 - Feb. 11, 1933.

trip	star	y	x	dlyll	dlyll	Cc	dk	Volts
	103 ✓	1892	1029	1002	886	1098	326	
	104 ✓	1883	1046	1168	1108	1077	332	
	105 ✓	1881	1282	1203	1143	1607	322	
19.0	106 ✓	1904	501	1367	1350	1098	313	
	107 ✓	1911	607	988	987	1066	302	
	108 ✓	1911	809	1212	1122	1472	302	
	108a ✓	1907	993	367	378	1048	299	
19.2	109 ✓	1923	582	1033	1103	1087	310	
	110 ✓	1928	693	842	792	1078	298	
	111 ✓	1933	1059	708	722	1063	308	
19.4	112 ✓	1939	491	803	752	1067	304	
	113 ✓	1903	563	1228	1123	1078	318	
	114 ✓	1952	745	350	332	1023	319	
	115 ✓	1952	888	1253	1243	1050	303	
	116 ✓	1943	1428	662	637	1480	322	
19.6	117 ✓	1970	503	582	578	1052	322	
	118 ✓	1960	558	412	392	1619	317	
	119 ✓	1963	932	370	368	1073	310	
	120 ✓	1968	903	1248	1232	1092	323	
	121 ✓	1961	1154	1014	922	1078	323	
	122 ✓	1959	1178	1173	1222	1498	323	
	123 ✓	1961	1192	1218	1198	1588	315	
19.8	124 ✓	1968	657	1263	1162	1618	323	
	125 ✓	1981	672	892	913	1601	333	
	126 ✓	1995	754	333	333	1540	312	
	127 ✓	1979	1140	1227	1203	1507	319	
	128 ✓	1981	1397	1062	959	1482	300	
20.0	129 ✓	~~2002~~	379	1103	1059	1488	302	
	130 ✓	2012	383	1270	1253	1578	298	
	131 ✓	2000	471	1268	1317	1602	302	

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

1932phae.proj.1201M

cl. - Dk.	Deff. - Dk.	Red. Defl.	Mag
1272	618	486	769 ✓
1245	806	646	811 ✓
1285	851	662	814 ✓
1285	1045	814	847 ✓
1264	686	542	785 ✓
1170	865	739	829 ✓
1249	73	58	568 ✓
1277	763	597	805 ✓
1220	529	433	754 ✓
1255	432	344	729 ✓
1263	474	375	739 ✓
1230	858	696	822 ✓
1204	22	18	460 ✓
1197	945	790	841 ✓
1158	328	283	710 ✓
1230	258	210	682 ✓
1302	85	66	578 ✓
1263	52	41	547 ✓
1269	917	722	828 ✓
1250	645	516	778 ✓
1175	855	727	828 ✓
1273	893	701	823 ✓
1295	889	686	820 ✓
1268	559	441	757 ✓
1228	21	17	455 ✓
1238	896	724	828 ✓
1182	710	600	802 ✓
1186	779	656	813 ✓
1380	964	698	822 ✓
1300	990	761	834 ✓

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

1932phae.proj.129M

RP - C44 4788 - Feb. 11, 1933 -

Strip	Star	y	x	dlyfl	dlyfl	cc	dk	Vals
	132 X	2010	523	560	512	1582	308	
	133 ✓	2010	548	328	363	1462	312	
	134 X	2000	579	1302	1392	1081	308	
	135 X	2001	979	1208	1133	1548	338	
	136 ✓	2012	1301	330	342	1508	324	
20.2	137 ✓	2029	881	782	798	1587	352	
	138 ✓	2027	1054	1358	1368	1578	360	
	139 ✓	2031	1204	1249	1203	1560	363	
	140 X	2015	1300	1078	1052	1603	358	
	141 ✓	2032	1337	1166	1098	1473	370	
20.4	142 ✓	2050	504	1242	1298	1666	383	
	143 ✓	2037	738	1060	978	1603	373	
	144 ✓	2040	1278	462	453	1584	375	
20.6	145 ✓	2073	412	1037	973	1579	382	
	146 ✓	2066	427	559	546	1622	379	
	147 X	2064	428	1280	1242	1567	383	
	148 ✓	2057	517	1018	972	1543	380	
	149 ✓	2060	828	1329	1308	1520	400	
	150 ✓	2069	917	613	603	1502	388	
	151 ✓	2065	1273	900	953	1552	402	
	1 N	1921	875	398	—	1493	382	530
✓	1	2273	987	388	—	1552	393	
	2	—	—	458	—	1720	402	
	3	—	—	532	—	1613	398	
	4	—	—	471	—	1618	392	
	5	—	—	570	—	1624	392	
	6	—	—	754	—	1492	379	
	7	—	—	842	—	1550	393	
	8	—	—	1272	—	1532	383	

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

1932phae.proj.1201M

Cl.-Dk.	Defl.-Dk	Red. Defl.	Magn	
1274	228	833	~~If cant~~	×
1150	34	23	483	✓
1273	1039	816	847	×
1216	858	709	825	×
1234	12	10	420	✓
1235	438	355	732	✓
1218	1003	820	850	✓
1197	862	720	827	✓
1250	712	569	792	×
1103	762	640	820	✓
1283	887	691	821	✓
1230	646	688	820	✓
1209	83	69	582	✓
1197	623	521	780	✓
1243	173	139	647	✓
1184	878	741	830	×
1163	615	528	781	✓
1120	918	819	848	✓
1114	220	197	676	✓
1150	524	456	760	✓
1111	16	14	—	
1159	—	—	—	
1318	56	42	—	
1215	134	110	—	
1226	79	64	—	
1232	178	144	—	
1113	375	332	—	
1157	449	388	—	
1149	889	773	—	
	—			

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

1932phae.proj.120M

gmc. RH 4788, Feb. 14, 1933

Strip	Star	y	x	Defl.	Defl.	Cl.	Dk.	Volt.
	ls	1921	872	364	—	1523	390	5.18
	1	2272	937	382	—	1503	402	
	2	—	—	543	—	1487	438	
	3	—	—	500	—	1510	419	
	~~5~~ 5	—	—	712	—	1542	425	
	~~6~~ 6	—	—	810	—	1588	431	
	~~4~~ 4	—	—	509	—	1686	440	
	7	—	—	898	—	1622	448	
	8	—	—	1398	—	1652	468	
20.8	152 X	2088	321	1028	1008	1672	444	
	153 ✓	2080	511	1380	1407	1710	430	
	154 ✓	2092	589	1242	1230	1698	440	
	155 ✓	2094	836	1363	1344	1691	447	
	156 ✓	2091	1076	760	716	1652	428	
	157 ✓	2097	1078	958	910	1620	440	
	158 ✓	2079	1207	1290	1277	1639	447	
	159 ✓	2098	1226	972	912	1622	436	
	160 ✓	2079	1388	1318	1228	1583	430	
21.0	161 ✓	2111	508	1190	1190	1722	411	
	162 ✓	2118	704	1102	1120	1683	417	
	164 ✓	2105	789	971	968	1683	420	
	163 X	2108	718	1397	1328	1590	418	
21.2	165 X	2122	469	1422	1410	1644	388	
	166 ✓	2118	583	1418	1352	1782	403	
	167 ✓	2129	608	760	700	1670	425	
	168 ✓	2125	860	993	960	1581	408	
	169 ✓	2130	1168	1300	1270	1598	390	
	170 ✓	2128	1328	1234	1287	1560	395	
	171 ✓	2130	1359	1327	1303	1508	393	
	172 ✓	2130	1382	1070	1000	1420	410	

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

1932phae.proj.1201M

Cl.-No.	Defl.-Ak.	Red. Defl.	Magn.
1133	—	—	—
1101	—	—	—
1049	95	91	—
1091	81	74	—
1117	287	257	—
1157	379	328	—
1246	69	55	—
1174	450	383	—
1184	730	616	—
1228	574	468	759 x
1280	964	753	835 ✓
1258	796	633	807 ✓
1250	907	725	830 ✓
1224	310	253	660 ✓
1180	496	420	742 ✓
1192	837	702	824 ✓
1186	508	429	745 ✓
1153	843	730	830 ✓
1311	779	594	795 ✓
1206	634	526	776 ✓
1263	550	435	748 ✓
1172	945	806	845 x
1256	1028	~~1221~~ 814	841 x
1379	982	712	827 ✓
1240	305	245	655 ✓
1173	569	484	763 ✓
1208	895	742	833 ✓
1165	866	743	833 ✓
1115	918	822	849 ✓
1010	625	618	802 ✓

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

1932phae.proj.122M

June R.H. 4788 Feb. 14, 1933

Strip	Star	y	x	Defl.	Defl.	Cl	Dk.	Volt
	17 3+	2120	1407	1370	1356	1532	428	
	1s	1921	872	415	—	1555	430	
	1	2272	937	460	—	1568	420	
	2	—	—	563	—	1520	412	
	3	—	—	603	—	1555	395	
	4	—	—	513	—	1620	407	
	5	—	—	719	—	1493	392	
	6	—	—	853	—	1478	407	
	7	—	—	834	—	1408	410	
	8	—	—	1350	—	1518	392	5.16

June - R.H. 4788 - Feb. 15, 1933.

	1s	1922	922	240	—	1496	222
	1	2272	933	252	—	1532	223
	2	—	—	357	—	1512	220
	3	—	—	337	—	1497	228
	4	—	—	332	—	1507	233
	5	—	—	512	—	1427	238
	6	—	—	677	—	1417	233
	7	—	—	701	—	1413	230
	8	—	—	1158	—	1457	237
21.4		2150	928	1100	1098	1527	253
		2140	1171	792	742	1393	253
21.6		2153	788	1312	1298	1522	258
		2172	677	990	942	1522	263
		2163	782	943	912		

Reject

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

1932phae.proj.120M

α-Dk	Defl.-Dk.	Red. Def.	Mag.
1104	935	846	851 X
1125			
1148	40	35	
1108	151	136	
1160	208	179	
1213	106	87	
1101	327	291	
1071	446	417	
998	424	425	
1126	958	850	

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

1932phae.proj.1201M

jmc. KH 4788 2-16-33.

Strip	Star	y	x	Defl	Defl	Ce.	Dk	Volt
	1S	1921	792	358	—	1063	350	
	1	2273	904	370	—	1035	358	5.42
	2	—	—	387	—	1062	390	
	3	—	—	440	—	1032	373	
	4	—	—	406	—	1060	430	
	5	—	—	530	—	1095	460	
	6	—	—	638	—	1056	410	
	7	—	—	708	—	1172	507	
	8	—	—	492	—	1095	500	

21.4 Reject — Sudden change in Dark Reading.

1

jmc. 2-23-33

	1S	1920	881	274	—	2010	272	5.10
	1	2274	992	289	—	2048	274	
	2	—	—	509	—	2060	270	
	3	—	—	608	—	2030	277	
	4	—	—	450	—	2058	270	
	5	—	—	710	—	1953	264	
	6	—	—	943	—	1972	262	
	7	—	—	1048	—	1952	278	
	8	—	—	1633	—	1960	282	
21.4	174	2151	547	1748	1756	2003	283	
	175	2152	842	1283	1206	2043	283	
	176	2155	941	1646	1693	2037	283	
	177	2149	1012	1418	1386	2025	282	
	178	2140	1230	1003	1005	1981	280	
	179	2151	1349	1478	1468	2025	278	

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

1932phae.proj.125M

Cl - Ob	Def - Ob	Red - Def.	May
1738	2	1	—
1774	15	8	—
1790	289	133	—
1753	331	188	—
1788	180	101	—
1689	446	249	—
1710	681	399	—
1674	770	459	—
1678	1351	806	—
1720	1469	854	843 ✓
1760	961	546	768 ✓
1754	1387	792	831 ✓
1741	1120	642	796 ✓
1701	724	425	731 ✓
1741	1195	685	807 ✓

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

1932phae.proj.1209M

JME. R.H. 4788 2-23-33.

Strip	Star	y	x	Decl	Decl	Cl	Dh.	Volt
	180 ✓	2148	1387	1610	1640	2042	272	
21.6	181 ✓	2169	733	1355	1343	2138	288	
	182 ✓	2179	1179	1314	1253	2047	278	
	183 ✓	2167	1225	1622	1532	1996	277	
	184 ✓	2160	1343	1600	1598	2032	278	
21.8	185 ✓	2183	882	1050	1147	2060	282	
	186 ✓	2184	1139	1706	1704	2015	288	
	187 ✓	2181	1149	1552	1530	2032	282	
	188 ✓	2180	1099	1690	1745	1980	293	
	189 X	2187	1130	1728	1783	1978	300	
	190 X	2179	1260	1713	1692	2040	296	
	191	~~2187~~	~~1269~~					
	192 ✓	2197	1365	870	828	1990	300	
	193 X	2192	1420	1098	1060	1977	294	
	194 X	2193	1421	882	895	2004	296	5.07
	195 ✓	2218	568	1828	1658	2043	322	
22.0	196 ✓	2211	671	1271	1267	2047	322	
	197 ✓	2207	713	532	562	2082	319	
	198 ✓	2200	1367	~~1052~~ 872	869	2069	321	
22.2	199 ✓	2219	482	1782	1802	2128	320	
	200 ✓	2218	568	1710	1708	2078	324	
	201 ✓	2233	846	1643	1662	2052	340	
	202 ✓	2218	997	370	362	2110	343	
	203 ✓	2221	1171	360	357	2032	351	
	204 ✓	2220	1227	1032	872	2082	348	
	205 ✓	2231	1329	838	733	2068	343	
22.4	206 ✓	2243	660	1673	1662	2096	342	
	207 ✓	2251	688	882	903	2093	332	
	208 ✓	2250	1098	1632	1652	2129	382	
22.6	209 ✓	2260	463	1790	1928	2152	827	

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

1992phae.proj.120M

d - Dk.

1770	1353	765	826 ✓
1850	1061	574	777 ✓
1769	1006	569	776 ✓
1719	1300	757	824 ✓
1754	1321	754	823 ✓
1778	816	458	740 ✓
1727	1417	820	837 ✓
1750	1259	719	814 X
1687	1425	845	842 ✓
1678	1456	868	847 X
1744	1406	806	834 X
—	—	—	
1690	549	325	696 ✓
1781	785	440	737 X
1708	592	346	704 X
1721	1421	826	838 ✓
1725	947	548	769 ✓
1769	234	132	562 ✓
1748	547	313	692 ✓
1808	1472	816	834 ✓
1754	1485	847	845 ✓
1712	1312	767	827 ✓
1767	93	13	386 ✓
1681	7	4	330 ✓
1734	604	348	705 ✓
1725	443	257	661 ✓
1754	1326	756	824 ✓
1761	566	317	692 ✓
1797	1310	729	819 ✓
1825	1432	841	842 ✓

same star

same star

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

1932phae.proj.129M

HP-RH 4788 - Feb 23, 1932.

Strip	Star	y	x	dyfl	dyfl	Cc	dk	Falt
	210 ✓	2271	888	440	432	2087	330	
	211 ✓	2261	906	653	632	2113	332	
	212 ✓	2264	1083	1478	1450	2098	327	
	213 ✓	2273	1231	1703	1718	2067	333	
22.8	214 ✓	2286	500	1627	1638	2100	333	
	215 ✓	2290	703	1373	1282	2072	332	
	216 ✓	2287	767	343	333	2097	328	
	217 ✓	2291	1092	923	909	2093	328	
	218 ✓	2274	1181	1662	1562	2118	342	
	1 N	1922	881	320	—	2108	321	570
	1	2274	992	374	—	2043	332	
	2	—	—	520	—	2104	327	
	3	—	—	572	—	2108	338	
	4	—	—	452	—	2117	333	
	5	—	—	722	—	2112	343	
	6	—	—	1008	—	2093	342	
	7	—	—	1082	—	2008	342	
	8	—	—	1764	—	2083	340	

J.E.McJ. RH 4788 Feb. 24, 1933.

	15	1921	819	758	—	2512	748	600
	1	2218	930	770	—	2530	741	
	2	—	—	972	—	2602	738	
	3	—	—	931	—	2620	732	
	4	—	—	854	—	2502	730	
	5	—	—	1052	—	2510	726	
	6	—	—	1364	—	2530	728	
	7	—	—	1502	—	2512	722	
	8	—	—	2152	—	2522	730	
23.0	219 ✓	2309	1029	1109	1156	2518	738	

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

1932phae..proj..129M

Cl - Dk.

1757	106	64	485 ✓
1781	310	174	605 ✓
1771	1137	642	796 ✓
1734	1377	794	831 ✓
1767	1299	735	820 ✓
1740	996	572	777 ✓
1769	10	6	346 ✓
1765	588	333	705 ✓
1776	1270	715	814 ✓
1787	-1	—	—
1711	42	25	—
1777	193	101	—
1770	234	137	—
1784	119	67	—
1769	379	214	—
1751	666	380	—
1666	740	443	—
1743	1424	817	—
—	—	—	
—	—	—	
1764	10	6	—
1789	29	16	—
1864	234	125	—
1888	199	105	—
1772	124	70	—
1784	326	182	—
1802	636	352	—
1790	780	435	—
1792	1422	794	—
1780	420	236	671 ✓

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

1932phae.proj.129M

Zone. R.A. 4788 – Feb. 27, 1923

Strip	Star	Y	Y	Defl.	Defl.	Cl.	Dk.	Vol 6.
	220 ✓	2302	1046	1502	1410	2508	738	510
	221 ✓	2300	1160	824	840	2478	742	
	222 ✓	2310	1160	1748	1603	2483	752	
23.2	223 ✓	2327	649	1440	1383	2522	772	
	224 ✓	2330	648	1992	1979	2572	764	
	225 ✓	2320	761	1942	1808	2527	773	
	226 ✓	2329	788	1816	1697	2592	777	
	227 ✓	2331	978	1016	983	2498	777	
	228 ✓	2320	1019	1478	1423	2578	779	
	229 ✓	2334	1154	1422	1408	2538	772	
	230 ✓	2322	1268	2187	2132	2552	793	
23.4	231 ✓	2341	791	1916	1876	2558	812	
	232 ✓	2354	917	1762	1717	2572	803	
	233 ✓	2353	962	1208	1162	2574	803	
	234 ✓	2339	1192	1828	1838	2588	782	
23.6	235 ✓	2374	826	1666	1474	2528	803	
23.8	236 ✓	2378	552	1162	1032	2502	811	
	237 ✓	2388	808	1898	2052	2530	804	
	238 ✓	2392	816	1832	1886	2553	810	
	239 ✓	2393	862	1287	1197	2542	804	
	240 ✓	2389	1148	2022	1972	2478	817	
24.0	241 ✓	2410	568	1342	1273	2497	832	
	242 ✓	2411	577	1854	1742	2508	832	
	243 ✓	2410	1042	2010	1932	2553	832	
24.2	244 ✓	2429	589	2212	2081	2543	823	
24.4	245 ✓	2438	852	2082	2043	2638	809	
	246 ✓	2450	863	2217	2192	2549	824	
24.6	247 ✓	2470	1052	1243	1186	2520	832	
24.8	248 ✓	2490	708	1832	1718	2502	823	
	249 ✓	2481	1012	1593	1562	2567	842	

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

1932phae..proj..129M

C-O.	Mean Diff-Dr.	Red. Dif.	Mag
1780	718	406	728 ✓
1736	90	52	501 ✓
1731	1024	591	783 ✓
1750	639	365	717 ✓
~~1782~~ 1792	1222	680	810 ✓
1754	1102	628	795 ✓
1815	980	540	766 ✓
1721	223	129	592 ✓
1799	672	374	720 ✓
1766	643	401	727 ✓
1759	1366	777	836 ✓
1746	1084	621	792 ✓
1769	937	530	761 ✓
1771	382	215	660 ✓
1806	1051	581	780 ✓
1725	767	446	739 ✓
1691	286	169	631 ✓
1726	1171	680	810 ✓
1743	1049	602	787 ✓
1738	438	253	679 ✓
1661	1180	711	820 ✓
1665	476	286	691 ✓
1776	966	544	767 ✓
1771	1139	642	800 ✓
1720	1274	742	828 ✓
1829	1254	686	812 ✓
1725	1431	830	850 ✓
1712	383	224	665 ✓
1769	1052	596	784 X (under the line in 4787).
1725	736	427	733 ✓

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

1932phae.proj.1209M

Exp - R.H. 4788 - Feb. 24, 1932.

Strip	Star	y	x	dyℓ	dyℓℓ	Cc	dk	Volts	
25.2	250	2521	738	1820	1830	2096	822		
	1A	1921	819	818	—	2572	821		
	1	2278	930	823	—	2592	824		
Plate	2	—	—	982	—	2586	818		
Invalid	3	—	—	1073	—	2522	824		
	4	—	—	942	—	2003	810		
	5	—	—	1183	—	2519	809		
	6	—	—	1392	—	2511	807		
	7	—	—	1600	—	2488	812		
	8	—	—	2128	—	2008	807	505	

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

1992phae.proj.128M

Cl-Dk.	Mean Dif-Dk	Red. Diff.	
1774	1008	569	777 (outside circle in 4787)
1751	—	—	—
1768	9	5	—
1768	184	94	—
1698	249	147	—
1743	132	76	—
1710	274	160	—
1704	585	343	—
1646	788	479	—
1751	1321	756	—

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

1932phae.proj.129M

Zgf - RA 3506 - Feb. 25, 1933

Strip	Star	y	x	Dyf1	Dyf2	cc	Dk	Balk
	1A	1992	772	660	—	2312	648	505
	1	2354	823	712	—	2318	638	
	2	—	—	872	—	2327	648	
	3	—	—	968	—	2398	643	
	4	—	—	922	—	2328	650	
	5	—	—	1173	—	2367	642	
	6	—	—	1520	—	2363	642	
	7	—	—	1582	—	2342	638	
	8	—	—	1958	—	2322	638	
15.2	1 ✓	1538	987	1928	1910	2318	643	
	2 ✓	1531	1032	2039	2023	2298	644	
15.4	3 ✓	1547	878	2058	2032	2317	632	
15.6	4 ✓	1564	1128	1650	1647	2318	624	
	5 ✓	1570	1149	1872	1852	2286	623	
	6 ✓	1578	707	1693	1733	2312	612	
	7 ✓ *	1563	1128	1572	1637	2287	596	
15.8	8 ✓	1598	698	1938	1928	2312	609	
16.0	9 ✓	1612	937	1063	1242	2318	614	
16.2	10 ✓	1630	763	2008	2012	2278	616	
	11	1612	1009	1849	1912	2228	622	
16.4	12 ✓	1641	768	2090	2103	2297	612	
	13 ✓	1639	1093	1667	1644	2297	608	
16.8	14 ✓	1683	732	2091	2072	2302	614	
	15 ✓	1692	853	1692	1712	2303	613	
	16 ✓	1680	921	2068	2142	2320	613	
	17 ✓	1684	929	1877	1877	2309	607	
	18	1693	1262	2032	2042	2281	600	
	19 ✓	1696	1277	1763	1752	2268	604	
17.2	20 ✓	1728	650	2042	2013	2312	613	
	21 ✓	1738	1097	1978	1982	2303	613	

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

1932phae.proj.128M

Cl-Ok.	Deff.-Db.	Red. Deff.	Magn
1664	12	07	—
1680	74	44	—
1679	124	74	—
1755	325	186	—
1678	272	163	—
1725	531	308	—
1721	878	505	—
1709	949	552	—
1689	1325	783	
1675	1276	758	827
1654	1387	837	off curve
1685	1413	839	off curve
1694	1024	605	765
1663	1239	745	821
1705	1101	650	783
1691	~~1008~~ 1024	~~546~~ 594 778	760
1703	1324	~~770~~	834
1704	684	401	680
1662	1384	831	off curve
1606	1258	770	831
1685	1394	828	off curve (outside circle)
1689	1048	645	781
1688	1458	860	off curve
1690	1089	643	781
1707	1492	872	off curve
1702	1270	748	821
1681	1437	850	off curve
1654	1154	698	802
1699	1309	~~770~~ 829	~~831~~ off curve.
1690	1367	809	~~off curve~~ 843

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

1932phae.proj.129M

SP-RH 3506- Feb. 25, 1933.

Mag.	Star	y	x	dlyfl	dlyfl	cc	dk	Falts
	22 ✓	1729	1112	1947	2002	2288	~~642~~ 585	
17.4	23 ✓	1742	528	1812	1787	2337	628	
17.6	24 ✓	1773	533	1763	1752	2302	617	
	25 ✓	1759	637	1622	1599	2320	613	
	26 ✓	1759	872	1882	1850	2307	604	
17.8	* 27	1792	347	1862	1920	2297	612	
	28 ✓	1780	786	1919	1927	2310	613	
	29 ✓	1778	1337	1595	1620	2252	604	
18.0	30 ✓	1809	496	1752	1772	2297	612	
	× 31	1807	499	2020	1952	2313	604	
	32 ✓	1809	500	1927	1950	2312	613	
	33 ✓	1797	562	2082	2082	2310	618	
18.2	34 ✓	1820	744	1957	1942	2318	619	
	35 ✓	1820	1115	1443	1467	2265	618	
18.4	36 ✓	1850	402	1918	1918	2293	622	
	37 ✓	1846	798	2000	1912	2312	608	
	38 ✓	1840	908	1668	1632	2258	604	
	39 ✓	1851	1371	1968	1932	2248	604	
18.6	40 ✓	1866	572	1016	1102	2297	603	
	41 ✓	1870	808	1918	1824	2302	580	
	42 ✓	1867	947	1792	1817	2293	598	
	43 ✓	1859	999	1642	1597	2283	600	
	44 ✓	1871	072	2062	2048	2267	603	
	45	1873	1373	1983	1992	2242	600	
	10	1992	772	632	—	2258	612	
	1	2354	823	663	—	2254	602	
	2	—	—	917	—	2260	602	
	3	—	—	992	—	2293	603	
	4	—	—	903	—	2283	604	
	5	—	—	1182	—	2296	599	

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

1992phae.proj.129M

Cl-Ok.	Deff.-Dk.	Red. Deff.	
1676	1365	813	~~off curve~~ 845
1709	1172	686	796
1685	1141	673	792
1707	997	581	755
1703	1262	738	820
1685	1279	753	825 x (outside circle)
1697	1310	775	832
1648	1064	612	720
1685	1150	682	795
1709	1382	812	~~off curve~~ 844 x
1699	1325	782	835
1692	1464	863	off curve
1699	1331	780	834
1647	837	505	724
1671	1296	773	832
1704	1348	793	839
1658 ~~1654~~	1056 ~~1046~~	637 ~~633~~	~~795~~ 780
1644	1346	819	~~off curve~~ 848
1694	456	268	618
1722	1291	747	823
1695	1206	711	810
1683	1020	607	766
1664	1452	870	off curve
1642	1388	845	off curve
1646	20	12	—
1652	61	37	—
1658	315	189	—
1690	389	229	—
1679	299	178	—
1697	583	344	—

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

1932phae.proj.1209M

N.P. RN 3506 - Feb. 25, 1933.

strip	Star	y	x	Diff	Diff	Clock	Volts	
	6	—	—	1454	—	2294	609	605
	7	—	—	1483	—	2292	600	
	8	—	—	1902	—	2299	598	
	12	1993	788	638	—	2298	622	540
	1	2256	839	682	—	2308	622	
	2	—	—	859	—	2328	606	
	3	—	—	888	—	2383	612	
	4	—	—	883	—	2302	608	
	5	—	—	1173	—	2347	643	
	6	—	—	1430	—	2368	650	
	7	—	—	1483	—	2353	662	
	8	—	—	1988	—	2372	657	
18.8	46 ✓	1881	928	2063	2126	2349	652	
19.0	47 ✓	1900	963	1942	2012	2368	638	
19.2	48 ✓	1931	588	1963	1893	2368	662	
	49 ✓	1923	937	2103	2092	2372	663	
	50 ✓	1927	1062	1533	1490	2347	633	
	51 ✓	1932	1068	1649	1628	2383	643	
	52 ✓	1921	1398	2044	1908	2308	653	
19.4	53 ✓	1948	324	1870	1894	2353	653	
19.6	× 54	1970	349	2022	1913	2318	627	
	55 ✓	1957	1227	1941	1923	2308	626	
19.8	56	1978	990	1268	1268	2362	632	
20.0	57 ✓	2000	1468	1722	1632	2308	622	
20.2	58 ✓	2020	832	1730	1730	2427	618	
	59 ✓	2029	1373	1567	1588	2310	612	
	60 ✓	2020	1410	1742	1660	2353	604	
20.4	61 ✓	2051	343	1042	1087	2342	601	
	+ 62 ✓	2054	638	2140	2063	2372	603	
	63 ✓	2047	917	1612	1632	2443	612	

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

1932phae.proj.128M

Cl.-Dk.	Deff.-Dk.	Red. Deff.	Magn.
1691	851	503	—
1692	883	521	—
1701	1304	764	—
1676	16	10	—
1686	60	36	—
1722	253	147	—
1771	276	156	—
1694	275	162	—
1704	530	310	—
1718	780	458	—
1691	821	475	—
1721	1337	776	—
1697	1391	821	~~11~~ 850 ✓
1730	1339	770	833 ✓
1706	1266	743	825 ✓
1709	1435	837	off curve ✓
1714	879	512	742 ✓
1740	995	571	763 ✓
1655	1322	800	843 ✓
1700	1229	723	821 ✓
1691	1341	799	841 X
1682	1306	778	835 ✓
1730	636	368	675 ✓
1686	1055	623	782 ✓
1809	1114	678	781 ✓
1698	966	570	762 ✓
1749	1097	626	782 ✓
1741	464	267	628 ✓
1769	1499	849	off curve ✓
1831	1010	558	758 ✓

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

1932phae.proj.129M

QP - RH 3506 - Feb. 26, 1932

trip	star		y	x	dleft	dleft	cc	dc	Bolo
	64	✓	2047	1217	1652	1603	2379	603	
	65	✓	2057	1291	1822	2019	2382	593	
20.8	66	✓	2087	709	1062	1537	2358	603	
21.0	67	X	2108	288	1373	1398	2337	602	
	68	✓	2100	941	2057	1960	2374	598	
21.6	69	✓	2160	699	1941	1906	2383	608	
	70	✓	2164	1068	1023	1283	2387	603	
	71	✓	2196	333	1987	1987	2327	617	
22.0	72	X	2210	400	1993	2082	2380	611	
	73	X	2202	848	2023	1987	2407	688	
	74	X	2200	951	1992	1988	2368	620	
	75	✓	2200	1018	1867	1880	2373	617	
	76	✓	2207	1282	2027	1902	2347	624	
22.2	77	✓	2229	1386	900	872	2352	621	
	78	✓	2223	1428	1892	1897	2298	622	
22.4	79	✓	2241	774	1693	1672	2383	622	
	80	X	2246	908	2006	1988	2372	632	
	81	✓	2248	1333	1753	1774	2358	633	
22.6	82	X	2259	280	1219	1162	2322	634	
	83	✓	2270	1038	1988	2038	2342	648	
22.8	84	✓	2279	779	1782	1727	2364	603	
	85	✓	2278	1058	1665	1647	2332	642	
	1N		1993	788	652	—	2333	663	540
	1		2356	839	753	—	2393	633	
	2		—	—	882	—	2339	633	
	3		—	—	1032	—	2402	652	
	4		—	—	873	—	2327	633	
	5		—	—	1153	—	2358	639	
	6		—	—	1417	—	2352	628	
	7		—	—	1547	—	2307	607	
	8		—	—	1947	—	2339	617	

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

1932phae.proj.128M

Cl.-Dk.	Deff.-Dk.	Red. Deff.	Magn.
1776	1025	578	765
1789	1575	880	off curve
1755	944	537	750
1735	784	458	718 x (near edge of circle)
1776	1411	795	842
1775	1316	740	825
1784	455	254	621
1710	1370	801	843
1769	1402	793	842 x
1769	1332	753	830 x
1738	1335	768	833 x
1756	1217	690	807
1723	1341	780	839
1731	265	153	558
1676	1273	758	831
1761	1061	601	776
1740	1365	783	840 x
1725	1131	663	805
1688	557	328	656 x (outside circle)
1694	1365	809	845
1711	1102	646	798
1690	1014	599	773
1670	———		—
1760	120	68	—
1706	249	145	—
1758	380	217	—
1694	240	142	—
1717	520	303	—
1729	794	461	—
1700	940	551	—
1722	1330	774	—

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

1932phae.proj.1209M

J7 mc J. - RA 3506 - Feb. 27, 1933.

Trip	Star	Y.	X	Defl.	Defl.	Cl.	Δk	Volts.
	15	1992	788	562	—	2188	548	
	1	2354	839	600	—	2324	562	
	2	—	—	782	—	2202	602	
	3	—	—	809	—	2204	598	
	4	—	—	832	—	2228	618	
	5	—	—	1028	—	2242	602	
	6	—	—	1250	—	2226	608	
	7	—	—	1352	—	2218	600	
	8	—	—	1792	—	2194	618	
23.00	86 ✓	2304	700	1312	1208	2248	628	
	87 ✓	2309	832	1432	1388	2248	626	
	88 ✓	2302	1110	1342	1298	2192	638	
	89 ✓	2300	1118	1740	1674	2208	626	
	90 ✓	2310	1254	1606	1582	2236	614	
23.24	× 91	2342	350	1738	1718	2256	594	
	× 92	2342	362	1898	1888	2232	562	
23.6	× 93	2364	284	1652	1554	2254	580	
	94 ✓	2359	612	1338	1230	2250	592	
	95 ✓	2364	1178	1580	1640	2232	608	
23.8	+ 96	2390	558	1440	*2052	2244	612	
	× 97	2382	587	1918	2038	2261	606	
	98 ✓	2375	1396	940	898	2254	612	
24.0	× 99	2398	360	1860	1860	2240	592	
	× 100	2410	521	2038	2050	2282	628	
	101 ✓	2400	510	1448	1380	2302	620	
	102 ✓	2414	462	1608	1504	2324	612	
24.2	103	2426	849	1198	1190	2264	632	
	104 ✓	2420	1316	1254	1232	2281	620	
24.4	105 ✓	2458	538	1896	1898	2340	626	
	× 106 ✓	2460	1032	1898	1872	2284	624	

* Image very faint.

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

1992phae.proj.1201M

Cl.-Dk.	Defl.-Dk.	Red. Defl.	Magn.
1640	14	09	—
1762	38	21	—
1600	180	112	—
1606	211	131	—
1610	214	133	—
1640	426	260	—
1618	642	398	—
1618	752	465	—
1576	1174	746	—
1620	632	#391	705 ✓
1622	784	483	740 ✓
1554	680	431	720 ✓
1582	1081	682	811 ✓
1622	480	601	782 ✓
1662	1134	679	807 X (outside circle)
1670	1331	798	853 X
1674	1073	642	796 X (outside circle)
1678	712	425	715 ✓
1624	1002	619	787 ✓
1632	828	503	747 X no mean Defl.
1655	1372	823	off curve X
1642	307	#187	604 ✓
1648	1268	770	845 X (outside circle)
1654	1416	856	off curve
1682	794	473	735 ✓
1712	944	#553	764 ✓
1632	562	345	680 ✓
1661	623	375	692 ✓
1712	1277	747	836 ✓
1660	1256	757	841 X

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

1932phae.proj.1201M

J.T.McJ - RH 3506 - Feb. 27, 1932.

Strip	Star	Y	X	Defl.	Defl.	Cl	Dk.
24.8	107 X	2482	1189	2008	1916	2360	638
25.2	108 ✓	2519	610	621	632	2342	622
	109 ✓	2521	994	1740	1573	2348	624
	15	1992	788	621	—	2336	608
	1	2352	839	682	—	2342	612
	2	—	—	839	—	2334	602
	3	—	—	866	—	2358	636
	4	—	—	896	—	2344	618
	6	—	—	1096	—	2332	612
	6	—	—	1324	—	2314	608
	7	—	—	1462	—	2343	609
	8	—	—	1867	—	2327	617

NGP - RH 3506 - Feb. 28, 1933. 575

	15	1992	790	638	—	1958	628
	1	2352	842	714	—	1999	648
	2	—	—	769	—	1998	622
	3	—	—	812	—	1972	638
	4	—	—	788	—	2008	592
	5	—	—	1003	—	1998	642
	6	—	—	1348	—	2033	618
	7	—	—	1268	—	2032	620
	8	—	—	1672	—	2022	614
25.4	110 ✓	2543	803	1303	1317	1988	627
	111 ✓	2544	1237	1382	1393	1963	621
25.6	+ 112	2560	993	1613	1608	1982	623
26.0	113 ✓	2600	819	1229	1143	1978	621
26.2	+ 114	2633	631	1352	1312	1992	603
26.4	115 ✓	2652	940	1542	1508	2015	622
27.0	116 ✓	2700	899	1482	1500	2048	643

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

1992phae.proj.120M

α.-Dk.	Degl.-Dk.	Red. Defl.	Magn.
1722	1324	773	846 ✓
1720	5	403	~~If~~ anne (too bright !)
1724	~~733~~ 1032	~~425~~ 597	~~715~~ 780 ✓
1728	13	08	—
1730	70	41	—
1732	237	137	—
1722	220	128	—
1726	278	161	—
1720	484	281	—
1706	716	417	—
1734	863	498	—
1710	1250	729	—
1330	10	08	—
1351	66	49	—
1376	147	107	—
1339	179	134	—
1416	196	138	—
1356	361	266	—
1415	730	517	—
1412	648	458	—
1408	1058	750	—
1361	~~1316~~ 683	501	~~706~~ 756 ✓
1342	767	569	~~776~~ 778 ✓
1359	988	728	826 ✓
1357	565	418	725 ✓
1389	719	513	759 ✓ (outside circle)
1393	912	653	805 ✓
1405	848	601	790 ✓

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

1932phae.proj.124M

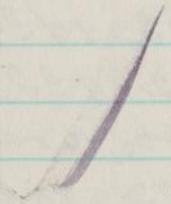
XP - RA 3506 - Feb. 28, 1932.

Strip	Star	Y	X	Dyff	Dyff	Ce	Dk	Volts
	1s	1992	790	678	—	2022	692	
	1	2352	842	701	—	2043	603	
Plate finished	2	—	—	822	—	2087	662	
	3	—	—	693	—	2092	653	
	4	—	—	882	—	2052	668	
	5	—	—	1013	—	2063	698	
	6	—	—	1228	—	2058	719	
	7	—	—	1309	—	2073	689	
	8	—	—	1734	—	2088	702	

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

1992phae.proj.120M

Cl.-Dk.	Dfl.-Dk.	Red. Dfl.	Magn.
1330			
1390	48	34	—
1425	160	112	—
1439	40	28	—
1384	214	153	—
1365	315	229	—
1355	525	388	—
1384	620	447	—
1386	1032	745	—



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

1932phae.proj.129M

XYP-RH #714 March 2, 1933

Temp	Star	y	x	Deff	xDeff	Ce	xDk	Volts
	1A	2140	828	608	—	1842	589	578
	1	1872	1078	598	—	1802	612	
	2	—	—	642	—	1792	609	
	3	—	—	672	—	1798	609	
	4	—	—	692	—	1832	612	
	5	—	—	783	—	1782	622	
	6	—	—	1012	—	1738	621	
	7	—	—	1172	—	1793	613	
	8	—	—	1092	—	1782	603	
17.6	79	1460	1278	1113	1073	1742	609	
15.2	73	1528	1187	1423	1433	1783	612	
20.4	74	2032	1450	932	932	1793	612	
21.0	75	2117	1489	1600	1600	1832	604	
21.8	76	2183	1478	1572	1573	1843	612	
23.0	77	2302	1369	993	962	1838	593	
23.4	78	2348	1328	708	742	1802	593	
	1A	2140	828	~~613~~	—	~~1782~~	—	
	1	1872	1078	—	—	—	—	
	2	—	—	—	—	—	—	
	3	—	—	—	—	—	—	
	4	—	—	—	—	—	—	
	5	—	—	—	—	—	—	
	6	—	—	—	—	—	—	
	7	—	—	—	—	—	—	
	8	—	—	—	—	—	—	

Closing sequence omitted.
Photometer went out of
adjustment.

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

1932phae.proj.128M

(measurement of additions to circle).
Numbers up

cc-dk	Mean dyfl-dk	Red. dyf.	Magn
1253	19	15	—
1190	—	—	—
1189	39	33	—
1195	69	58	—
1220	80	66	—
1160	161	149	—
1117	391	352	—
1180	559	473	
1179	989	840	—
1133	~~484~~	426	~~468~~ ✓
1171	816	697	812 ✓ ✓
1181	320	272	713
1228	996	811	825 ✓
1231	960	781	823 ✓
1245	385	309	729 ✓ discard
1209	~~432~~	109	620 ✓ "

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

1932phae.proj.129M

Dyp. R.H. +871 — March 6, 1933

Strip	Star	y	x	dyff	dyff	Cc	Dk	Volts
	1s	1962	912	642	—	1917	643	510
	1	2294	1079	652	—	1992	653	
	2	—	—	683	—	1942	643	
	3	—	—	753	—	1986	634	
	4	—	—	726	—	2003	649	
*	4s	—	—	988	—	1968	639	
*	5s	—	—	828	—	1932	642	
	7	—	—	1036	—	2029	640	
	8	—	—	1400	—	2000	652	
14.2	1 ✓	1433	1982	1550	1532	1939	624	
14.4	2 ✓	1439	992	1477	1512	2007	622	
	3 X	1451	1128	1542	1552	1978	623	
14.6	4 ✓	1477	809	918	898	1938	612	
14.8	5 ✓	1497	809	1242	1232	1927	627	
	6 ✓	1482	1178	932	972	2042	633	
	7 ✓	1485	1178	1160	1058	2078	623	
15.0	8 ✓	1512	956	1109	1122	1982	638	
	9 ✓	1509	1132	1510	1512	1987	633	
15.2	10 ✓	1528	641	1393	1483	1862	631	
	11 X	1534	912	1678	1566	2001	648	
	12 ✓	1520	973	1847	1863	1967	653	
	13 X	1530	1080	1662	1793	1957	650	
	14 ✓	1520	1093	1262	1240	1976	648	
15.4	15 ✓	1550	603	1422	1430	1888	654	
15.6	16 ✓	1561	590	1357	1492	1892	648	
	17 ✓	1570	743	1463	1272	1939	662	
15.8	18 ✓	1589	578	1273	1292	1888	653	
	19 ✓	1580	655	1103	1078	1919	652	
	20 ✓	1590	800	1448	1384	1903	637	
	21 ✓	1598	891	1456	1438	1991	648	

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

1932phae.proj.128M

Cl. ☐K.	Green Defl-Dk	Red Defl.	Magn
1274	−1	−E	
1339	−1	−	
1299	40	30	
1352	119	88	
1354	77	57	
1329	349	265	
1290	186	144	
1389	396	285	
1348	748	555	
1315	917	697	off curve
1385	872	630	852
1355	924	682	off curve
1326	296	223	692
1300	610	669	off curve
1409	319	226	692
1455	486	334	735
1344	478	355	742
1354/~~1231~~	878	648	off curve
1231/~~1353~~	807	655	off curve
1353/~~1314~~	974	720	off curve
1314/~~1307~~	1202	916	off curve
1307/~~1328~~	1078	826	off curve
1328/~~1234~~	603	454	780
1234/~~1244~~	772	625	850
1244/~~1271~~	776	623	850
1271/~~1235~~	756	594	834
1235/~~1267~~	629	509	802
1267/~~1266~~	438	346	740
1266	779	615	846
1343	799	594	836

* note reverse order of 5+6 in measurement

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

1932phae.proj.129M

Dyp - D4 4871 - March 6, 1932

Strip	Star	y	x	dyff	dyff	Cc	dk	Volts
	22 ✓	1582	1228	1343	1263	1981	644	
	23 ✓	1590	1269	963	922	1972	642	
	24 ✓	1581	1317	1160	1204	1962	672	
16.0	25 ✓	1617	598	1401	1212	1977	671	
	26 X	1610	1013	1448	1463	1956	668	
	27 X	1610	1150	1692	1673	2003	649	
	28 ✓	1610	1203	1432	1363	2004	653	
	29 ✓	1608	1223	852	888	2012	648	
16.2	30 ✓	1630	579	1213	1223	1916	652	
	31 ✓	1637	581	400	882	1912	653	
	32 ✓	1614	598	1312	1243	1909	632	
	33 ✓	1620	690	1106	1128	1908	628	
	34 ✓	1628	894	1438	1452	1983	628	
	35 ✓	1630	1067	1372	1492	1972	633	
	36 ✓	1631	1098	1072	1053	1963	626	
16.4	37 ✓	1641	722	1311	1418	1879	613	
	38 ✓	1650	1038	1379	1492	1883	613	
	39 ✓	1643	1212	1182	1272	1960	612	
	40 ✓	1650	1274	1602	1542	1968	614	
	41 X	1650	1404	803	820	1943	603	
	1A	1962	912	603	—	1872	598	
	1	2294	1079	620	—	1887	602	
	2	—	—	652	—	1877	603	
	3	—	—	682	—	1882	593	
	4	—	—	682	—	1927	603	
	5	—	—	752	—	1858	604	
	6	—	—	992	—	1888	604	
	7	—	—	993	—	1967	612	
	8	—	—	1450	—	1907	599	510

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

1932phae.proj.1283M

Cl-Dk	Incan Defl-Dk	Rd. Defl.	Magn.		
1337	659	493	793	←	
1330	300	226	692	←	
1290	510	395	757	←	
1306	635	486	790	←	
1293	793	612	843	X	
1354	1033	754	off curve	X	
1351	745	551	820	←	
1364	222	163	662	←	
1264	571	455	780	←	
1259	238	189	675	←	
1277	646	506	801	←	Same star as Star 25 (above)
1280	489	382	752	←	
1355	817	602	841	←	
1339	799	597	838	←	
1340	439	328	732	←	
1266	751	593	838	←	
1270	823	648	858 (off curve)	←	
1348	615	456	780	←	
1354	958	706	off curve	←	
1340	209	156	656	X	Under the line.
1274	5	4			
1285	18	14			
1274	49	38			
1289	89	69			
1324	79	~~58~~ 59			
1254	148	118			
1284	388	302			
1355	381	281			
1308	851	651			

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

1932phae.proj.129M

m. m. – RH 4871 – March 6, 1933.

Strip	Star	y	x	Deff.	Deff.	Cl.	Dk.	Volt.
	1s	1962	912	592	—	1872	602	5.05
	1	2294	1079	618	—	1958	608	
	2	—	—	652	—	1888	589	
	3	—	—	715	—	1895	582	
	4	—	—	718	—	1942	591	
	5	—	—	759	—	1882	598	
	6	—	—	992	—	1910	578	
	7	—	—	1018	—	1978	602	
	8	—	—	1348	—	1922	592	
16.6	42	1662	510	940	1038	1842	603	
	43	1661	656	1125	1205	1882	612	
	44	1679	651	1281	1255	1812	628	
	45	1672	902	1268	1292	1912	619	
	46	1663	989	678	672	1892	624	
	47	1666	1008	1378	1417	1910	609	
	48 X	1658	1222	1112	1205	1958	612	
	49	1668	1401	1210	1278	1891	621	
16.8	50	1687	678	1332	1358	1862	623	
	51	1681	718	622	618	1868	618	
	52 X	1695	791	1509	1462	1891	620	
	53	1681	801	763	828	1878	608	
	54	1691	995	1201	1318	1870	601	
17.0	55 X	1705	642	1358	1348	1808	605	
	56 X	1714	658	915	985	1828	593	
	57	1728	850	1210	1183	1846	590	
	58	1716	1270	1182	1285	1905	593	
	1s	1962	912	585	—	1858	592	
	1	2294	1079	599	—	1862	582	
	2	—	—	622	—	1810	583	
	3	—	—	640	—	1882	572	

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

1932phae.proj.128M

C-Dk	Mean Diff.-Dk	Rd Diff.	Magn.
1270	~~+10~~	—	
1350	+10	7	
1299	63	48	
1313	133	101	
1351	127	94	
1284	161	125	
1332	414	311	
1376	~~756~~ 416	302	
1330	~~386~~ 756	568	
1239	~~553~~ 386	312	732 ✓
1220	~~645~~ 553	453	782 ✓
1189	~~661~~ 645	543	813 ✓
1293	~~61~~ 661	511	801 ✓
1268	~~189~~ 61	40	533 ✓
1301	~~546~~ 189	606	837 ✓
1346	~~623~~ 546	413	769 ✓
1270	~~722~~ 623	490	794 ✓
1239	~~2~~ 722	683	828 ✓
1250	~~866~~ 2	2	399 ✓
1271	~~188~~ 866	681	off curve ✗
1270	~~659~~ 188	148	657 ✓
1269	~~748~~ 659	519	802 ✓
1203	~~357~~ 748	621	843 ✗
1235	~~606~~ 357	289	722 ✓
1256	~~641~~ 606	482	791 ✓
1312	641	488	792 ✓
1266	—	—	
1280	17	13	
1227	39	30	
1290	68	53	

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

1932phae.proj.129M

m. m. – RH 4871 – March 6, 1933.

Strip	Star	y	x	Defl.	Defl.	Cl.	Dk.	volt.
	4	—	—	652	—	1918	573	
	5		—	732	—	1828	568	
	6	—	—	932	—	1838	568	
	7	—	—	1023	—	1878	565	
	8	—	—	1362	—	1841	550	498

Cont. in Bk. 93, page 2

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

1932phae.proj.128M

α-Dk	Incorr Decl-Dk	Red Decl.	Magn.
1345	79	59	
1260	164	130	
1270	364	287	
1313	468	348	
1291	812	629	

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

1932dhae.proj.1201M

gmc RH 4869 3-15-33

Strip	Star	y	x	Diff	Diff	Cl	Dk	Volt
	1 s	1910	852	1082	—	2951	1055	5.18
	1	2268	769	1066	—	2905	1028	
	2	—	—	1172	—	2932	1017	
	3	—	—	1220	—	2870	1018	
	4	—	—	1250	—	2856	1142	
	5	—	—	1410	—	2942	1065	
	6	—	—	1690	—	3030	1052	
	7	—	—	1790	—	3045	1136	
	8	—	—	2218	—	3018	1050	
14.6	✓ 1	1469	800	2095	2108	2853	1082	
	✗ 2	1476	1146	1820	1793	2995	1072	
15.2	✗ 3	1538	1170	2130	2116	3040	1040	
15.4	✓ 4	1540	832	1640	1608	2890	1090	
	✗ 5	1540	1122	1246	1268	3045	1038	
15.6	✓ 6	1566	1012	1630	1638	2830	1318	
15.8	✓ 7	1585	908	2302	2288	2992	1131	
	✓ 8	1589	1102	1193	1210	3025	1192	
	✗ 9	1593	1249	1260	1247	3070	1098	
16.0	✓ 10	1617	903	2050	1984	3048	1136	
	✗ 11	1599	1336	1393	1391	3060	1048	
	✗ 12	1604	1347	1322	1320	3048	1037	
16.2	✗ 13	1621	1231	1402	1382	2790	1030	
	✗ 14	1627	1298	1160	1182	2888	1185	
	✗ 15	1619	1303	1332	1378	2948	1239	
16.4	✓ 16	1642	1034	2138	2107	2663	1187	
	✗ 17	1647	1308	1650	1590	2238*	1062*	
	✗ 18	1651	1341	1160	1190	2082*	960*	
	✗ 19	1648	1348	1368	1352	2039	1090	
16.6	✓ 20	1675	535	1572	1580	2065	1033	
	✓ 21	1668	837	1470	1492	2018	1227	

* room coming up

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

1932phae.proj.128M

d-Dk	Def-Dk	Red Df	Hazy		Hazy
1894	27	14	—		
1877	38	20	—		
1915	155	124	—		
1852	202	109	—		
1714	208	122	—		
1877	345	183	—		
1978	638	322	—		
1909	654	342	—		
1968	1168	854	—		
1771	1020	577	~~799~~		786 ✓
1923	734	381	~~776~~	outside circle	742 x
2000	1083	543	~~783~~	" "	778 x x
1800	534	296	~~711~~		741 (712) ✓
2007	219	106	~~626~~	outside circle	581 x
1512	316	209	~~682~~		652 ✓
1861	1164	625	~~810~~		796 ✓
1833	9	5	~~off cone (too light!)~~		off cone (too light!)
1972	155	79	~~600~~	outside circle	432 x
1918	887	450	~~764~~		757 ✓
2012	344	172	~~603~~	outside circle	640 x
2011	284	141	~~652~~	" "	616 x
1760	~~282~~ 362	206	~~674~~	" "	660 x
1703	—	—	~~off cone (too light!)~~	" "	off cone (too light!) x
1709	116	68	~~540~~	" "	524 x
1476	935	634	~~811~~		799 ✓
1176	558	415	~~741~~	outside circle	762 x
1122	215	193	~~673~~	" "	653 x
949	270	285	~~713~~	" "	705 x
1032	543	411	~~755~~		749 ✓
791	254	321	~~728~~		723 ✓

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

1932phae.proj.120PM

gme. RH 4869. 3-15-33

Strip	Star	y	x	Defl	Defl 1630	cl	Dk	Volt
	✓22	1672	1102	1723	~~1630~~	2138	1213	
	✗23	1664	1295	1338	1338	2110	1250	
16.8	✓24	1680	907	1672	1720	2480	1240	
17.0	✓25	1700	1181	1140	1150	1793	1000	
	✓26	1710	1204	1598	1487	1910	930	
17.2	✓27	1728	1202	1428	1440	2010	1060	
	✗28	1727	1257	1688	1642	1780	1022	
17.4	✗✓29	1757	447	1633	1548	1700	1128	
	✓30	1740	509	1188	1210	2430	1007	
	31	~~1742~~	~~540~~	~~1682~~	~~2262~~	~~2550~~	~~1087~~	
	✓32	1738	673	1298	1288	2570	1122	
	✓33	1744	838	1770	1786	2550	1138	
	✓34	1740	856	2008	2020	2780	1140	
	✓35	1739	938	1638	1652	2542	1132	
	15	1910	852	1137	—	2552	1177	
	1	2269	780	1153	—	2480	1112	
	2	—	—	1270	—	2895	1147	
	3	—	—	1254	—	2908	1110	
	4	—	—	1350	—	2723	1165	
	5	—	—	1380	—	3110	1050	
	6	—	—	1673	—	3115	1062	
	7	—	—	1956	—	2942	1170	
	8	—	—	2388	—	2940	1165	5.03

~~gme~~ RH 4869 — March 16, 1933.

15	1910	852	1082	—	2810	1080	5.63
1	2269	778	1112	—	2760	1102	
2	—	—	1137	—	2752	1107	
3	—	—	1183	—	2740	1117	
4	—	—	1232	—	2775	1120	
5	—	—	1337	—	2788	1110	

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

1932phae.proj.1289M

Cl-Ok				Mag.
925	463	501	~~780~~	769 ✓
860	88	102	~~620~~ outside circle	578 ✗
1240	456	368	~~741~~	738 ✓
793	145	183	~~665~~	648 ✓
980	612	625	~~810~~	797 ✓
950	374	394	~~750~~	745 ✓
758	643	849	~~875~~ off curve	854 ✗ outside circle ~~✗~~
672	462	808	~~847~~	843 ✓
1423	192	135	~~645~~	609 ✓
~~1463~~	—			Rejected - (difference in Def. readings)
1448	171	118	~~628~~	592 ✓
1412	640	453	~~766~~	758 ✓
1640	874	533	~~787~~	776 ✓
1410	513	364	~~741~~	737 ✓
~~1375~~	-40			
1368	41	30		
1748	123	70		
1798	144	80		
1642	185	112		
2060	350	170		
2053	611	298		
1772	886	500		
1775	1223	690		
~~1731730~~	2	1		
1658	10	6		
1645	30	18		
1623	66	40		
1655	112	68		
1678	227	135		

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

1932Dae.proj.12PM

RH 4869 June. 3-16-33

Strip	Star	y	x	Defl	Defl	Cl	Dk	Volt.
	6	—	—	1667	—	2805	1102	
	7	—	—	1693	—	2785	1118	
	8	—	—	2217	—	2752	1130	
17.6		~~1666~~	535	1803	1804	~~2710~~	~~1135~~	} Reject
		1890	837	1916	1928	2790		
J.F.McJ.	✓36	1759	763	1942	1912	2788	1146	
	✓37	1772	809	2388	2478	2718	1151	
	✓38	1770	1159	1182	1180	2822	1160	
	34	1762	1196	1198	1200	2823	1148	
	1s	1910	852	1154	—	2802	1146	
	1	2269	769	1172	—	2768	1142	
	2	—	—	1208	—	2782	1152	
	3	—	—	1240	—	2786	1158	
	4	—	—	1252	—	2754	1148	
	5	—	—	1360	—	2792	1132	
	6	—	—	1650	—	2768	1148	
	7	—	—	1930	—	2746	1150	
	8	—	—	2240	—	2782	1150	
	JJP - RH 4869 -		March 16, 1933.					510
	1s	1910	852	1123	—	2218	1130	
	1	2269	769	1140	—	2208	1153	
	2	—	—	1170	—	2208	1142	
	3	—	—	1193	—	2222	1143	
	4	—	—	1223	—	2212	1152	
	5	—	—	1292	—	2248	1162	
	6	—	—	1483	—	2247	1183	
	7	—	—	1582	—	2247	1163	
	8	—	—	1940	—	2207	1168	
17.8	✗40	1778	1312	1618	1690	2222	1174	
	✗41	1790	1322	1822	1818	2212	1159	

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

1932phae.proj.128M

1703	565	332	728
1667	575	345	733
1622	1087	670	831
—	—	—	
—	—	—	
1642	'781	475	759 ✓
1627	1282	789	off curve ✓
1662	21	13	470 ✓
1675	51	30	536 ✓
1656	8	5	—
1626	30	18	—
1630	56	34	—
1628	82	50	—
1606	104	65	—
1660	228	137	—
1620	502	310	—
1596	780	488	—
1632	1090	668	—
—	—		
1088	−7	—	—
1055	−13	—	—
1066	28	26	—
1079	50	46	—
1060	71	67	—
1086	130	119	—
1064	300	282	—
1084	419	386	—
1044	777	744	—
1048	480	457	765 ✓ outside circle
1053	661	627	818 ✓ " "

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

1932phae.proj.1209M

XP - R.A. 4869 - March 16, 1932

Strip	Star	y	x	dyff	dxff	cc	dk	Volts
18.0	✓ 42	1810	1224	1176	1178	2248		1173
	✗ 43	1808	1315	1592	1556	2164		1164
	✗ 44	1801	1430	1914	2014	2248		1153
18.2	✓ 45	1822	679	1277	1258	2237		1163
	✓ 46	1833	1059	1864	1812	2263		1172
	✓ 47	1838	1258	1438	1392	2248		1162
	✗ 48	1823	1403	1312	1306	2248		1166
18.4	✓ 49	1849	907	1446	1423	2177		1152
	✓ 50	1852	1137	1523	1607	2203		1150
	✓ 51	1838	1132	1922	1892	2218		1117
	✓ 52	1838	1258	1893	1400	2177		1112
18.6	✗ 53	1862	1432	1782	1813	2190		1142
	✗ 54	1879	1482	1707	1621	2157		1102
18.8	✓ 55	1891	492	1823	1869	2162		1113
	✓ 56	1892	975	1857	1849	2206		1112
	✓ 57	1881	1110	1245	1257	2173		1113
	✗ 58	1879	1482	1760	1708	2197		1112
19.0	✓ 59	1912	809	1622	1672	2217		1119
	✓ 60	1901	1205	1603	1623	2218		1107
	✓ 61	1911	1209	1205	1232	2224		1103
	✓ 62	1899	1231	1849	1822	2203		1093
19.2	✓ 63	1921	1254	1834	1750	2188		1092
	✓ 64	1929	1289	1102	1100	2198		1092
19.4	✓ 65	1958	862	1372	1264	2193		1088
	✓ 66	1951	942	1804	1722	2193		1100
19.6	✓ 67	1969	847	1667	1752	2192		1093
	✓ 68	1967	1037	1537	1498	2237		1094
19.8	✓ 69	1984	707	1813	1772	2122		1103
	✓ 70	1992	1089	1712	1722	2179		1086
	✓ 71	1989	1253	1623	1613	2168		1092

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

1932phae.proj.129M

Cl-Ok.	Def-Dk.	Red-Def.		
1075	4	4	off curve ✓	
1000	410	410	751 ×	outside circle
1095	811	751	855 ×	" "
1074	104	91	617 ✓	
~~1066~~ 1061	666	628	819 ✓	
1086	253	233	693 ✓	
1077	143	133	641 ×	outside circle
1025	282	275	710 ✓	
1053	415	394	746 ✓	
1101	790	711	843 ✓	
1065	284	266	706 ✓	
1048	655	625	818 ×	outside circle
1055	687	652	825 ×	" "
1049	733	700	839 ✓	
1094	741	678	832 ✓	
1060	138	130	640 ✓	
1085	622	574	801 ×	
1098	528	481	772 ✓	
1111	506	455	764 ✓	
1121	140	125	637 ✓	
1110	742	669	830 ✓	
1096	700	639 ~~691~~	821 ✓	
1106	9	8	off curve ✓	
1105	230	208	681 ✓	
1093	663	606	812 ✓	
1099	616	561	797 ✓	
1143	423	369	740 ✓	
1019	689	611	832 ✓	
1083	631	582	805 ✓	
1076	526	489	773 ✓	

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

1932phae.proj.1209M

ZC RA 4869 - March 16, 1932

Strip	Star	y	x	Defl	Defl	Cc	Dk	Go to
	✓ 72	1990	1325	1529	1519	2182	1084	
	✗ 73	1990	1464	1614	1642	2193	1088	
20.0	✓ 74	2010	688	1682	1577	2172	1087	
	✓ 75	2001	1445	1463	1492	2162	1097	
	✗ 76	2010	1443	1669	1658	2178	1079	
20.2	✓ 77	2030	678	1742	1779	2187	1083	
20.4	✗ 78	2050	1139	1122	1128	2169	1093	
20.6	✓ 79	2071	1004	1833	1987	2207	1089	
	✓ 80	2068	1288	1782	1652	2167	1097	
20.8	✓ 81	2080	327	1209	1173	2192	1084	
	✓ 82	2090	700	1713	1730	2168	1096	
	✓ 83	2078	1149	1526	1558	2197	1077	
	✓ 84	2090	1174	1167	1143	2208	1063	
	✗ 85	2080	1498	1158	1142	2161	1068	
21.0	✓ 86	2110	351	1591	1711	2142	1064	
	✓ 87	2113	603	1619	1617	2142	1068	
	✓ 88	2104	1087	1103	1103	2178	1063	
	✓ 89	2096	1129	1397	1392	2148	1073	
	✓ 90	2110	1132	1082	1616	2168	1072	
21.2	✓ gone 91	2116	407	1678	1682	2103	1057	5.10
	✓ 92	2118	434	1812	1770	2120	1058	
	✗ 93	2117	1075	1858	1850	2142	1060	
21.4	✓ 94	2141	1060	1120	1118	2172	~~1070~~ 1070	
	✓ 95	2138	1232	1620	1602	2170	1047	
	✓ 96	2152	1268	1137	1121	2162	1052	
	✗ 97	2155	1448	1767	1751	2179	1052	
21.6	✓ 98	2170	418	1867	1823	2110	1039	
	✓ 99	2170	535	1305	1302	2110	1043	
	✗ 100	2169	598	1870	1912	2134	1042	
	✓ 101	2161	1087	1070	1076	2132	1060	

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

1932phae.proj.128M

Cl-Dk	Def-Dk	Red. Def.		
1098	440	401	749 ✓	
1105	540	489	773 ×	outside circle
1085	542	499	776 ✓	
1065	380	351	738 ×	outside circle
1099	584	536	789 ×	" "
1054	677	~~586~~ 642	822 ✓	
1076	32	30	545 ×	?
1118	821	735	850 ✓	
1070	620	580	804 ✓	
1108	107	97	567 ✓	
1075	628	585	805 ✓	
1120	465	415	752 ✓	
1145	92	80	603 ✓	
1093	82	75	600 ×	outside circle
1078	587	535	788 ✓	
1074	550	512	781 ✓	
1115	40	36	554 ✓	
1075	322	300	718 ✓	
1096	527	481	772 ✓	
1046	623	596	809 ✓	
1062	733	690	835 ✓	
1082	794	734	850 ×	
1102	49	44	564 ✓	
1123	564	502	778 ✓	
1110	77	69	595 ✓	
1127	707	628	819 ×	outside circle
1071	806	753	856 ✓	
1061	258	242	699 ✓	
1092	849	777	863 ×	outside circle
1064	13	12	460 ✓	

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

1932phae.proj.1281M

gmt. RA 4869 3-16-33

Strip	Star	y	x	Dpfl	Dpfl	ce	Dk	Vel.
	✓ 102	2160	1187	1510	1510	2138	1042	
	✗ 103	2159	1359	1538	1562	2161	1070	
	✗ 104	2169	1449	1892	1912	2193	1067	
	✗ 105	2158	1531	1868	1867	2198	1068	
21.8	✓ 106	2180	481	1626	1603	2125	1057	
	✓ 107	2183	763	1100	1100	2135	1068	
	✓ 108	2178	718	1212	1212	2178	1053	
22.0	✓ 109	2201	447	1149	1129	2103	1052	
	✓ 110	2215	711	1683	1667	2110	1056	
	✓ 111	2206	1211	1153	1091	2180	1060	
	✓ 112	2212	1209	1070	1067	2156	1063	
22.2	✓ 113	2218	440	1318	1300	2118	1058	
	✓ 114	2232	450	1565	1558	2168	1065	
	✓ 115	2220	597	1156	1142	2148	1072	
	✓ 116	2219	940	1194	1188	2172	1065	
	✓ 117	2220	976	1488	1452	2180	1070	
22.4	✓ 118	2247	357	1630	1650	2148	1065	
	✓ 119	2250	427	1642	1662	2130	1072	
	✓ 120	2235	432	1622	1600	2148	1071	
	✓ 121	2240	493	1742	1702	2140	1055	
	✓ 122	2239	588	1810	1795	2136	1073	
	✗ 123	2242	598	1963	1953	2118	1060	
	✓ 124	2245	964	1860	1823	2151	1050	
	✗ 125	2238	1370	2092	2140	2208	1066	
22.6	✓ 126	2270	393	1725	1740	2117	1067	
	✓ 127	2257	1055	1663	1683	2140	1057	
	✓ 128	2260	1228	1063	1069	2165	1050	
	✗ 129	2270	1341	1528	1538	2148	1050	
	✗ 130	2260	1411	1402	1390	2148	1042	
	15	1900	852	1050	—	2142	1033	

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

1962phae.proj.12mM

a-Dk	Def-Dk			
1096	508	464	767 ✓	
1091	480	439	760 ✗	outside circle
1126	835	741	852 ✗	" "
1130	799	706	841 ✗	" "
1068	557	522	784 ✓	
1067	32	30	545 ✓	
1125	159	141	598 ✓	
1051	87	83	606 ✓	
1054	619	587	806 ✓	
1120	112	100	569 ✓	
1093	5	5	off curve ✓	
1060	251	237	695 ✓	
1043	496	475	770 ✓	
1076	77	72	599 ✓	
1107	126	114	579 ✓	
1110	400	361	738 ✓	
1083	575	530	787 ✓	
1058	580	548	792 ✓	
1077	540	501	778 ✓	
1086	667	615	814 ✓	
1063	729	685	834 ✓	
1058	898	849	off curve ✗	
1101	792	718	944 ✓	
1142	1050	920	off curve ✗	
1050	665	633	820 ✓	
1083	616	569	800 ✓	
1115	16	14	472 ✓	
1098	483	440	760 ✗	outside circle
1106	354	320	725 ✗	" "
1109	17	15		

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

1932phae.proj.120PM

gmc. R.A. 4869 3-16-33

Strip	Star	y	x	Defl	Defl	Cl.	Dh	Volt.
	1	2268	780	1048	—	2111	1036	
	2	—	—	1072	—	2115	1052	
	3	—	—	1103	—	2152	1043	
	4	—	—	1109	—	2111	1038	
	5	—	—	1199	—	2140	1043	
	6	—	—	1338	—	2128	1040	
	7	—	—	1398	—	2130	1038	
	8	—	—	1758	—	2113	1042	5.03

N.P. - R.A. 4869 - March 17, 1933.

	18	1911	922	1043	—	2232	1055	5.40
	1	2270	838	1053	—	2182	1063	
	2	—	—	1096	—	2207	1083	
	3	—	—	1143	—	2232	1077	
	4	—	—	1152	—	2190	1092	
	5	—	—	1263	—	2257	1094	
	6	—	—	1442	—	2300	1098	
	7	—	—	1504	—	2275	1099	
	8	—	—	1972	—	2277	1100	
22.8	✓131	2290	621	1708	1643	2178	1099	
	✓132	2283	658	1909	1973	2193	1097	
	✓133	2288	671	1177	1173	2189	1096	
	✓134	2290	752	1282	1253	2207	1103	
	✓135	2281	922	1422	1442	2250	1102	
	✓136	2281	1318	1143	1136	2207	1103	
23.0	✓137	2311	483	1145	1144	2187	1107	
	✓138	2304	572	1832	1883	2174	1097	
23.2	✓139	2301	722	1858	1879	2207	1098	
	✓140	2327	999	1794	1813	2252	1093	
	✗141	2332	1161	1917	1818	2257	1083	
	✗142	2326	1573	1253	1298	2228	1078	

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

1932phae.proj.12.tif

1075	12	11	—
1063	20	19	—
1109	60	54	—
1073	71	66	—
1097	156	142	—
1088	298	274	—
1092	360	330	—
1071	716	669	—
—	—	—	—
1177	-8	—	—
1119	-10	—	—
1124	13	12	—
1155	66	57	—
1098	60	55	—
1163	169	145	—
1202	344	286	—
1176	405	344	—
1177	872	741	—
1079	577	490	776 ✓
1096	844	705	824 ✓
1093	79	66	589 ✓
1104	165	149	651 ✓
1148	315	274	708 ✓
1184	37	34	529 ✓
1080	37	34	529 ✓
1077	761	707	824 ✓
1109	770	694	822 ✓
1159	711	613	807 ✓
1174	785	668	818 ✓
1150	188	163	659 ✓ outside circle

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

1932phae.proj.1209M

DJP - R.A. 4869 - March 17, 1933.

Exp	Star	y	x	Dyff	Dyff	Cc	Dk	Balts.
23.4	✓ 143	2341	462	1573	1483	2158	1082	
	✓ 144	2338	464	1642	1712	2172	1083	
	✓ 145	2350	463	1358	1347	2132	1072	
	✓ 146	2352	498	1304	1283	2178	1068	
	✓ 147	2339	514	1168	1158	2172	1074	
	✓ 148	2351	520	1313	1288	2167	1070	
	✓ 149	2352	922	1758	1713	2192	1047	
	✓ 150	2347	1154	1532	1537	2229	1062	
	✓ 151	2343	1272	1788	1778	2207	1078	
	✗ 152	2340	1382	1538	1504	2207	1068	
23.6	✓ 153	2370	506	1073	1070	2154	1068	
	✓ 154	2361	539	1342	1320	2167	1063	
	✓ 155	2371	699	1427	1409	2164	1052	
	✓ 156	2372	828	1203	1181	2170	1058	
	✓ 157	2371	941	1572	1512	2179	1065	
	✓ 158	2362	952	1818	1892	2154	1064	
23.8	✓ 159	2380	504	1104	1095	2149	1071	
24.0	✓ 160	2400	491	1423	1373	2182	1072	
	✓ 161	2402	507	1603	1562	2218	1076	
	✓ 162	2401	508	1240	1218	2142	1060	
	✓ 163	2400	520	1570	1588	2178	1063	
	✓ 164	2411	531	1492	1542	2187	1064	
	✓ 165	2408	681	1553	1567	2187	1072	
	✓ 166	2411	1232	1552	1582	2169	1063	
	✓ 167	2401	1242	1218	1206	2162	1052	
	✗ 168	2410	1447	1853	1772	2180	1061	
24.6	✓ 169	2473	554	1320	1338	2172	1049	
	✓ 170	2472	571	1422	1442	2148	1044	
24.8	✓ 171	2482	678	1863	1823	2192	1062	
25.2	✓ 172	2521	601	1222	1223	2148	1046	

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

1932phae.proj.1201M

α-Dk	Def - Dk.	Red. Def.	Mugn.	
1076	446	415	755 ✓	
1084	594	547	791 ✓	
1060	280	264	705 ✓	
1115	230	206	678 ✓	
1098	89	81	603 ✓	
1097	270	248	697 ✓	
1145	688	601	804 ✓	
1167	472	405	753 ✓	
1129	705	625	810 ✓	
1139	453	398	751 ✗	outside circle
1086	3	3	~~2ff~~ curve ✓	
1104	268	243	696 ✓	
1112	366	329	728 ✓	
1112	134	121	636 ✓	
1114	477	428	757 ✓	
1090	791	726	827 ✓	
1078	28	26	496 ✓	
1110	326	290	715 ✓	
1142	506	443	763 ✓	
1082	169	156	657 ✓	
1110	501	451	764 ✓	
1123	453	403	753 ✓	
1115	488	438	762 ✓	
1106	504	456	767 ✓	
1110	150	135	645 ✓	
1119	746	668	817 ✗	
1123	280	249	697 ✓	
1107	391	353	737 ✓	
1130	781	692	822 ✓	
1102	176	160	658 ✓	

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

1932phae.proj.120M

XP - RA 4869 - March 17, 1933.

Strip	Star	y	x	Dyl	Dyl	Cc	Dk	Plate
	✓ 173	2525	876	1742	1722	2158	1053	
	✗ 174	2523	1211	1073	1064	2172	1038	
	✗ 175	2539	1264	1773	1848	2194	1036	
25.4	✓ 176	2544	1167	1692	1669	2120	1043	
25.6	✓ 177	2571	864	1692	1652	2177	1062	
	✓ 178	2579	1042	1642	1629	2178	1058	
26.0	✓ 179	2599	963	1107	1116	2178	1052	
	1s	1911	922	1057		2198	1048	530
Plate	1	2270	838	1063	—	2168	1043	
	2	—	—	1078	—	2182	1036	
finished	3	—	—	1118	—	2197	1042	
	4	—	—	1126	—	2149	1043	
	5	—	—	1206	—	2218	1043	
	6	—	—	1402	—	2208	1064	
	7	—	—	1404	—	2212	1044	
	8	—	—	1904	—	2197	1057	

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

1932phae.proj.128M

Cl-Dk.	D of-Dk.	Red. Dof.	May.	
1105	679	614	807 ✓	
1139	35	31	515 ✓	under line.
1158	774	668	818 x	
1077	637	592	802 ✓	
1115	610	541	792 ✓	
1125	582	517	783 ✓	
1126	59	52	568 ✓ 784	
1160	9	8	—	
1125	20	18	—	
1146	42	37	—	
1155	76	66	—	
1106	83	75	—	
1175	163	139	—	
1144	338	295	—	
1166	410	352	—	
1140	847	743	—	

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

1932phae.proj.129M

J. F. Mc J. Jr. R.K. 4953 April 4, 1933

Strip	Star	Y	Z	Defl.	Defl.	Cl.	Dk.	Volts.
	15	1996	869	1272	—	1902	1282	520
	1	2350	979	1290	—	1875	1260	
	2	—	—	1306	—	1874	1278	
	3	—	—	1348	—	1890	1287	
	4	—	—	1340	—	1898	1270	
	5	—	—	1386	—	1894	1270	
	6	—	—	1492	—	1920	1290	
	7	—	—	1538	—	1902	1298	
	8	—	—	1792	—	1934	1312	
14.2	1 ✓	1429	847	1718	1740	1910	1320	
	2 ✓	1429	850	1468	1476	1912	1319	
	3 ✓	1412	890	1624	1624	1918	1306	
	4 ✓	1430	930	1772	1784	1910	1322	
	5 ✓	1419	1000	1408	1422	1942	1328	
14.4 ✓	6 ✓	1434	962	1786	1780	1930	1330	
	7 ✓	1450	812	1768	1740	1944	1334	
	8 ✓	1451	928	1348	1350	1934	1334	
	9 ✓	1441	1021	1795	1798	1960	1350	
	10 ✓	1447	1054	1510	1522	1952	1340	
	11 ✓	1442	1090	1782	1780	1960	1362	
14.6	12 ✓	1468	770	1620	1584	1962	1352	
	13 ✓	1478	980	1820	1792	1952	1360	
	14 ✓	1470	1067	1472	1462	1964	1364	
14.8	15 ✓	1486	780	1740	1790	1980	1378	
	16 ✓	1480	980	1630	1616	1980	1376	
	17 ✓	1490	990	1602	1598	1978	1380	
	15	1996	869	1384	—	1982	1390	
	1	2350	979	1400	—	1988	1380	
	2	—	—	1422	—	1998	1380	
	3	—	—	1439	—	1992	1372	
	4	—	—	1435	—	1999	1381	

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

1932phae.proj.1201M

Cl.–Dk.	Def.–Dk.	Red. Def.	Magn.
620	—	—	—
615	30	49	—
596	28	47	—
603	61	101	—
628	70	112	—
624	116	186	—
630	202	320	—
604	240	398	—
622	480	770	—
590	409	693	815 ✓
593	153	258	678 ✓
612	318	520	773 ✓
588	456	775	835 ✓
614	87	142	620 ✓
600	453	755	830 ✓
610	420	688	814 ✓
600	15	25	387 ✓
610	446	731	824 ✓
612	176	287	699 ✓
598	419	700	818 ✓
610	250	410	741 ✓
592	446	753	830 ✓
600	103	172	642 ✓
602	387	643	806 ✓
604	247	409	740 ✓
598	220	368	727 ✓
592	—	—	—
608	20	33	—
618	42	68	—
620	67	108	—
618	49	79	—

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

1932phae.proj.12MM

J.F. McJ. Jr. R.A. 4953 April 4, 1933

Strip	Star	Y	X	Defl	Defl	Cl.	Dk.	Volts.
	5	—	—	1480	—	1978	1360	
	6	—	—	1578	—	1996	1368	
	7	—	—	1610	—	1946	1370	
	8	—	—	1818	—	1960	1358	
	—	April 5 1933		R.A. 4953		J.F. McJ Jr		
	1S	1996	869	1192	—	1839	1206	
	1	2350	979	1232	—	1842	1210	
	2	—	—	1250	—	1842	1228	
	3	—	—	1280	—	1838	1230	
	4	—	—	1288	—	1868	1234	
	5	—	—	1328	—	1836	1242	
	6	—	—	1450	—	1882	1234	
	7	—	—	1478	—	1852	1242	
	8	—	—	1722	—	1874	1244	
	18 ✓	1502	829	1252	1256	1850	1230	
	19 ✓	1511	880	1484	1478	1842	1238	
	20 ✓	1500	996	1762	1720	1848	1236	
	21 ✓	1500	1110	1468	1470	1838	1238	
	22 ✓	1502	1130	1438	1436	1842	1222	
15.2	x 23 ✓	1520	674	1722	1696	1870	1230	
	24 x	1520	748	1640	1638	1832	1238	
	25 x	1524	1211	1372	1376	1858	1236	
15.4	26 ✓	1542	704	1730	1726	1868	1238	
	27 ✓	1540	1186	1636	1640	1856	1238	
	28 ✓	1549	1242	1720	1690	1858	1232	
15.6	29 ✓	1570	638	1660	1630	1880	1238.	
	30 ✓	1568	775	1682	1598	1840	1228	
	31 ✓	1578	810	1650	1552	1870	1244	
15.8	32 x	1691	860	1720	1744	1862	1238	
	33 ✓	1582	1258	1370	1360	1870	1230	

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

1932phae.proj.128M

Cl.-Dk.	Def.-Dk.	Red. Def.	Magn.	
618	120	194	—	
628	210	334	—	
576	240	416	—	
602	460	764	—	
—	—	—		
633	—	—	—	
632	22	35	—	
614	22	36	—	
608	50	82	—	
634	54	85	—	
594	86	145	—	
648	216	333	—	
610	236	387	—	
630	478	759	—	
620	24	39	5·05 ✓	
604	243	402	732 ✓	
612	505	825	825 ✓	
600	231	385	728 ✓	
620	215	347	718 ✓	
640	479	748	809 ✓	
594	401	675	794 X	
622	138	222	681 X	(under line in H787)
630	490	778	816 ✓	
618	400	647	638 ✓	
626	473	755	810 ✓	
642	407	634	786 ✓	
612	362	591	778 ✓	
626	307	490	752 ✓	
624	494	791	820 X	
640	135	211	627 ✓	

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

1932phae.proj.128PM

J. F. Mc J. J. R.A. 4953 April 5, 1933

Strip	Star	Y	X	Defl.	Defl.	Cl.	Dk	Volts.
1.60	34 ✓	1600	898	1730	1742	1862	1220	520
	35 ✓	1611	890	1618	1614	1868	1222	
	36 ✓	1610	1072	1410	1410	1862	1218	
	37 ✓	1618	1179	1638	1678	1860	1220	
	38 ✓	1610	1210	1540	1548	1870	1224	
	39 X	1600	1314	1710	1712	1858	1240	
1.62	40 ✓	1631	520	1688	1648	1852	1220	
	41 ✓	1634	814	1632	1636	1880	1222	
	42 ✓	1631	929	1240	1238	1850	1220	
	43 ✓	1626	989	1510	1512	1862	1220	
	44 ✓	1636	1004	1249	1242	1868	1234	
	45 ✓	1626	1100	1432	1432	1864	1228	
	46 X	1630	1218	1510	1512	1862	1230	
	47 X	1619	1367	1538	1550	1856	1229	
	48 X	1621	1369	1370	1350	1878	1230	
	1s	1996	869	1230	—	1850	1230	~~540~~
	1	2350	979	1236	—	1828	1218	
	2	—	—	1258	—	1840	1220	
	3	—	—	1270	—	1830	1210	
	4	—	—	1276	—	1858	1216	
	5	—	—	1320	—	1842	1208	
	6	—	—	1484	—	1870	1222	
	7	—	—	1486	—	1876	1228	
	8	—	—	1708	—	1752	1234	
	~~X~~	+	+					

June April 7, 1933

1s	1991	867	1351	—	2053	1342	530
1	2348	978	1373	—	2078	1358	
2	—	—	1448	—	2161	1377	
3	—	—	1470	—	2093	1363	
4	—	—	1450	—	2110	1360	

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

1932phae.proj.120M

Cl.-Dk.	Def.-Dk.	Red. Def.	Magn.	
642	516	803	821 ✓	
646	394	609	780 ✓	
644	192	298	704 ✓	
640	423	660	791 ✓	
646	320	495	754 ✓	
618	471	762	811 X	
632	448	709	800 ✓	
658	412	626	784 ✓	
630	19	30	478 ✓	
642	291	453	745 ✓	
634	11	17	420 ✓	
636	204	320	710 ✓	
632	281	445	742 X	
627	315	502	756 X	(outside circle in 4787)
648	130	201	672 X	(outside circle in 4787)
620	0	0	—	
610	18	29	—	
620	38	61	—	
620	60	97	—	
642	60	94	—	
634	112	177	—	
648	262	404	—	
648	258	398	—	
518	474	915	—	
711	9	13		
720	15	21		
790	71	90		
730	107	147		
750	90	120		

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

1932phae.proj.128M

gmt. R.H. 4953 April 7, 1933.

Trip	Star	y	x	Defl.	Defl.	Cl.	Dk.	Volt.
	5	—	—	1522	—	2073	1363	
	6	—	—	1650	—	2098	1370	
	7	—	—	1712	—	2112	1392	
	8	—	—	1938	—	2092	1382	
16.4	49 ✓	1650	503	1942	1942	2115	1435	
	50 ✗	1648	519	1995	2027	2142	1417	
	51 ✓	1650	588	1712	1712	2142	1432	
	52 ✓	1646	668	1970	1968	2162	1430	
	53 ✓	1650	813	1858	1862	2160	1403	
	54 ✓	1638	1095	1948	1970	2162	1410	
	55 ✓	1650	1295	1707	1672	2160	1398	
16.6	56 ✓	1670	629	1748	1741	2112	1393	
	57 ✓	1669	783	1940	1917	2108	1408	
	58 ✓	1669	819	1850	1880	2163	1428	
	59 ✓	1660	1002	2010	2018	2148	1405	
	60 ✓	1671	1175	1868	1895	2140	1402	
16.8	61 ✓	1693	876	2029	2012	2110	1386	
	62 ✓	1686	744	2002	2008	2147	1418	
	63 ✓	1679	768	1804	1820	2188	1429	
	64 ✓	1683	822	1930	1898	2150	1421	
	65 ✓	1689	992	1857	1850	2153	1431	
	66 ✓	1697	992	2063	2069	2211	1458	
17.0	67 ✓	1709	684	1852	1848	2192	1442	
	68 ✓	1704	697	2070	2092	2168	1430	
	69 ✓	1702	732	2004	2002	2158	1443	
	70 ✓	1708	1363	2018	2020	2190	1428	
17.2	71 ✓	1721	743	2062	2053	2145	1418	
	72 ✗	1728	870	2058	2071	2158	1410	
	73 ✓	1730	1023	1880	1908	2205	1435	
	74 ✓	1727	1061	2022	2040	2193	1423	

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

1992phae.proj.12:01M

α-OR.	Defl.-DR.	Red. Defl.	Mag.
710	159	224	—
728	280	385	—
720	310	431	—
710	556	783	—
680	507	745	822 ✓
725	594	820	836 X
710	280 → 395	~~388~~	726 ✓
732	539	737	820 ✓
757	457	596	786 ✓
752	549	730	820 ✓
762	291	381	721 ✓
719	351	488	756 ✓
700	550	785	830 ✓
735	437	595	785 ✓
743	609	820	835 ✓
738	479	649	799 ✓
724	634	876	845 ✓
729	587	805	832 ✓
759	383	505	761 ✓
729	~~[illegible]~~ 493	676	807 ✓
722	422	585	782 ✓
753	608	808	832 ✓
750	408	544	773 ✓
738	651	883	847 ✓
715	560	783	830 ✓
762	591	676	807 ✓
727	639	879	846 ✓
748	654	873	845 X
765	459	600	787 ✓
720	608	791	830 ✓

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

1932phae.proj.128M

gmc. R.H. 4953 4-7-33.

Strip	Star	g	x	Dfl.	Dfl.	Cl.	Dk.	Set.
	75 ✓	1720	1218	1641	1672	2210	1439	
	76 ✓	1718	1352	1743	1781	2212	1442	
	77 ✓	1728	1387	2055	2010	2210	1439	
	78 ✓	1720	1397	1821	1810	2182	1467	
	1S	1991	868	1479	—	2172	1462	
	1	2346	978	1494	—	2172	1471	
	2	—	—	1528	—	2190	1452	
	3	—	—	1580	—	2182	1443	
	4	—	—	1532	—	2150	1440	
	5	—	—	1643	—	2172	1420	
	6	—	—	1728	—	2210	1423	
	7	—	—	1740	—	2202	1432	
	8	—	—	2003	—	2200	1452	5.28

to gmc. 4-8-33

	1S	1992	851	1315	—	2048	1327	5.18
	1	2348	962	1363	—	2127	1358	
	2	—	—	1398	—	2110	1368	
	3	—	—	1457	—	2124	1370	
	4	—	—	1414	—	2102	1380	
	5	—	—	1543	—	2170	1418	
	6	—	—	1648	—	2178	1413	
	7	—	—	1668	—	2162	1420	
	8	—	—	1950	—	2172	1418	
17.4	79 ✓	1750	683	1977	1972	2187	1409	
	80 ✓	1738	890	2002	2023	2170	1443	
	81 ✓	1748	902	1712	1682	2212	1480	
	82 ✓	1751	968	1961	1929	2218	1420	
	83 ✓	1745	1066	1493	1491	2215	1417	
	84 ✓	1750	1107	2013	2008	2230	1430	

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

1932phao.proj.1:38M

α-Ok.	Defl.-Ok.	Red. Defl.	Mag.
771	218	283	673
770	320	416	734
771	593	770	827
715	348	487	756
710	17	24	—
701	23	33	—
738	76	103	—
739	137	186	—
710	92	129	—
752	223	291	—
787	305	388	—
770	308	400	—
748	651	870	—
721	—	—	—
769	5	7	—
742	30	40	—
754	87	115	—
722	34	41	—
752	125	166	—
765	235	301	—
742	248	334	—
754	532	706	—
768	565	735	835
721	569	782	849
732	217	291	715
798	525	658	815
798	75	94	605
858	580	725	832

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

1932phae.proj.128PM

gme. R.H. 4953 4-8-33.

trip	Star	y	x	Diff.	Diff.	Cl.	Dk.	Volt.
	85 ✓	1754	1161	2028	2000	2248	1443	
17.6	86 X	1760	410	2100	2107	2262	1431	
	87 ✓	1770	1149	1612	1607	2180	1436	
	88 ✓	1761	1240	1992	2002	2188	1420	
	89 ✓	1762	1340	2032	2030	2212	1420	
17.8	90 X	1780	413	2027	2068	2171	1392	
	91 ✓	1789	448	2003	1982	2173	1372	
	92 ✓	1788	630	1941	1937	2140	1368	
	93 ✓	1782	748	1977	1957	2143	1348	
	94 X	1790	829	2017	2060	2143	1340	
	95 X	1789	853	1964	1964	2100	1333	
	96 ✓	1778	868	1888	1933	2049	1330	
	97 ✓	1782	910	1820	1820	2103	1313	
	98 ✓	1788	1118	1610	1653	2078	1318	
	99 ✓	1790	1288	1802	1840	2101	1321	
	100 ✓	1780	1306	1650	1652	2132	1311	
	101 ✓	1785	1364	1857	1841	2118	1310	
18.0	102 ✓	1808	434	1673	1711	2082	1308	
	103 X	1807	696	1963	1928	2053	1301	
	104 ✓	1798	963	1391	1379	2097	1313	
	105 ✓	1809	1309	1654	1649	2120	1307	
	106 ✓	1798	1360	1400	1398	2112	1310	
18.2	107 X	1818	406	1672	1742	2118	1307	
	108 ✓	1819	500	1767	1803	2090	1313	
	109 ✓	1820	721	1720	1772	2097	1303	
	110 ✓	1828	729	1679	1708	2083	1307	
	111 ✓	1818	889	1691	1731	2090	1300	
	112 ✓	1821	890	1900	1940	2102	1298	
	113 ✓	1820	1007	1748	1816	2070	1302	
	1S	1892	852	1310	—	2070	1310	

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

1932phae.proj.1200M

α - Ok.	Decl. - Ok.	Red. Decl.	Mag.	
805	571	710	828 ✓	
831	672	809	off curve X	
744	173	233	694 ✓	
768	577	750	840 ✓	
792	611	772	846 ✓	
779	655	841	off curve X	
801	620	775	846 ✓	
772	571	740	837 ✓	
795	619	779	847 ✓	
797	698	818	off curve X	
767	631	823	off curve X	
719	580	807	off curve ✓	
780	507	641	811 ✓	
760	313	412	750 ✓	
780	500	642	812 ✓	
821	340	414	750 ✓	
808	539	617	806 ✓	
776	384	495	773 ✓	
752	644	851	off curve X	
784	72	92	604 ✓	
813	348	423	752 ✓	
802	89	111	622 ✓	
811	400	493	773 X	(this star does not appear at all on 4787)
777	472	608	802 ✓	
794	443	558	790 ✓	
776	386	497	772 ✓	
790	411	520	780 ✓	
804	622	773	846 ✓	
768	480	624	808 ✓	
760	0.	0.	—	

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

1932phae.proj.128M

J M E RH 4953 4-8-33

Strip	Star	y	x	Defl	Defl.	Cl.	Dk.	Volt.
	1	2348	952	1318	—	2058	1310	
	2	—	—	1342	—	2072	1302	
	3	—	—	1362	—	2080	1303	
	4	—	—	1367	—	2080	1300	
	5	—	—	1457	—	2020	1307	
	6	—	—	1558	—	2100	1303	
	7	—	—	1580	—	2060	1308	
	8	—	—	1863	—	2060	1308	5.12

J. F. M. J. Jr. R. H. 4953 April 10 1933

	15	1996	882	1280	—	2020	1270	
	1	2350	992	1276	—	1980	1270	
	2	—	—	1320	—	1950	1270	
	3	—	—	1350	—	1956	1258	
	4	—	—	1320	—	1972	1272	
	5	—	—	1430	—	1952	1280	
	6	—	—	1540	—	2016	1290	
	7	—	—	1590	—	1998	1298	
	8	—	—	1855	—	1988	1302	
18.4	114 ✓	1848	489	1740	1722	1978	1296	
	115 ✓	1842	951	1912	2150	2368	1340	
	116 ✓	1836	289	1904	1744	2040	1304	
18.6	117 ✓	1862	442	1748	1778	2056	1288	
	118 ✓	1858	480	1786	1780	2020	1300	
	119 ✓	1870	922	1778	1790	2002	1310	
	120 ✓	1870	977	1400	1400	2042	1300	
18.8	121 ✓	1890	554	1728	1724	2040	1288	
	122 ✓	1880	654	1830	1824	*~~2032~~	1282	
	123 ✓	1880	660	1782	1822	2030	1278	
	124 ✓	1882	669	1601	1603	2024	1290	
	125 ✓	1892	708	1538	1540	1988	1278	
						*2032		

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

1932phae.proj.12.tif

Cl.-Dr.	Defl.-Dr.	Red. Defl.	Mag.
748	8	11	—
770	40	52	—
777	59	76	—
780	67	88	—
713	50	70	—
797	255	320	—
752	272	362	—
752	555	738	—
750	10	13	—
710	6	8	—
680	50	73	—
698	92	132	—
700	48	69	—
672	150	224	—
726	250	344	—
700	292	417	—
686	533	776	—
682	435	638	808 ✓
1028	691	692	817 ✓
736	520	707	823 ✓
768	475	618	802 ✓
720	483	671	814 ✓
692	474	685	814 ✓
742	100	135	605 ✓
752	438	583	795 ✓
750	545	727	828 ✓
752	524	698	821 ✓
734	312	425	745 ✓
710	261	368	727 ✓

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

1932phae.proj.128DM

Strip	Star	Y	X	Defl.	Defl.	Cl.	Hts	Volts.
	126 ✓	1880	840	1800	1870	2070	1296	
	127 X	1890	848	1758	1762	2058	1278	
	128 ✓	1892	1054	1719	1749	2046	1292	
	129 ✓	1884	1253	1700	1702	2058	1280	
	130 ✓ gms	1889	1291	1747	1757	2028	1273	
19.0	131 ✓	1910	510	1790	1818	2033	1283	
	132 ✓	1894	528	1792	1798	2048	1288	
	133 ✓	1892	627	1770	1802	2042	1270	
	134 ✓	1905	967	1548	1512	2027	1278	
	135 ✓	1905	1040	1592	1622	2020	1277	
19.2	136 X	1930	591	1658	1672	2010	1280	
	137 ✓	1917	615	1624	1622	2002	1263	
	138 ✓	1919	818	1760	1792	1998	1272	
	139 X	1918	886	1862	1886	2010	1271	
	140 X	1929	978	1883	1911	2013	1270	
	141 X	1927	1055	1815	1818	2035	1270	
	142 ✓	1913	1003	1301	1309	2015	1280	
	143 X	1931	1090	1842	1860	2017	1280	
19.4	144 X	1947	499	1510	1506	2016	1280	
	145 ✓	1934	703	1590	1596	1982	1280	
	146 X	1948	1017	1815	1851	2020	1282	
	147 ✓	1942	1068	1552	1550	2012	1280	
	148 X	1953	1083	1856	1853	2013	1280	
	149 X	1938	1168	1870	1840	2020	1276	
	150 ✓	1952	1438	1462	1462	1968	1274	
19.6	151 X	1968	503	1860	1852	1988	1277	
	152 ✓	1967	568	1329	1326	1968	1273	
	153 X	1960	571	1767	1777	2053	1273	
	154 X	1968	661	1810	*	1965	1272	
	155 X	1970	698	1817	1808	1997	1267	

* image obscured by defect.

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

1002phae.proj.1000M

Q-OR.	Def-OR.	Red.-Def.	Mag.
774	514	690	820 ✓
780	482	617	801 ✗
754	442	586	795 ✓
778	421	540	782 ✓
755	479	634	807 ✓
750	421	561	790 ✓
760	507	667	815 ✓
772	516	669	816 ✓
755	~~352~~ 352	~~467~~ 334	~~758~~ 715 ✓
743	330	~~444~~	751 ✓
730	385	527	778 ✗
739	~~483~~ 390	~~626~~ 487	~~804~~ 765 ✓
724	504	695	821 ✓
739	608	824	850 ✗
743	627	844	off curve ✗
765	646	845	off curve ✗
735	25	34	463 ✓
737	571	775	838 ✗
736	228	310	706 ✗
702	313	446	751 ✓
738	~~604~~ 551	~~814~~ 747	~~778~~ 833 ✗
732	271	371	728 ✓
733	574	783	841 ✗
744	579	778	838 ✗
694	188	271	690 ✓
711	579	815	849 ✗
695	54	78	543 ✓
730	499	683	819 ✗
693	538	778	839 ✗
730	550	753	834 ✗

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

1932phae.proj.1219M

gme. RH 4953 4-11-33

Strip	Star	y	x	Defl.	Defl.	a.	Dk.	Volt
	156	1960	753	1286	1292	2012	1270	
	157	1960	897	1755	1742	1980	1273	
	158	1970	941	1312	1320	2005	1281	
	159	1972	963	1790	1791	2008	1280	
	160	1953	1082	1858	1848	2013	1280	
	161	1959	1152	1842	1842	2022	1271	
	162	1969	1164	1600	1608	1946	1268	
	163	1963	1187	1758	1740	1988	1270	
	164	1970	1217	1738	1776	1970	1267	
	165	1952	1438	1460	1449	2008	1263	
	166	1968	1469	1753	1790	1998	1270	
	1s	1993	882	1270	—	1960	1272	
	1	2348	992	1305	—	1925	1271	
	2	—	—	1313	—	1950	1272	
	3	—	—	1347	—	1972	1273	
	4	—	—	1341	—	1967	1275	
	5	—	—	1420	—	1962	1280	
	6	—	—	1527	—	1987	1270	
	7	—	—	1550	—	1992	1273	
	8	—	—	1792	—	1967	1285	6.00

J.m.J. R.H. 4953 4/12/33

	—	—	—	—	—	—	—
	1s	1955	882	1286	—	2090	1302
	1	2348	992	1312	—	2086	1304
	2	—	—	1354	—	2088	1306
	3	—	—	1420	—	2112	1334
	4	—	—	1400	—	2148	1344
	5	—	—	1488	—	2122	1348
	6	—	—	1642	—	2180	1360
	7	—	—	1696	—	2152	1356
	8	—	—	1946	—	2188	1370

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

1002phae.proj.1201M

Eq.-Dk.	Def.-Dk.	Red. Def.	Magn.
742	19	26	43
707	475	672	817 X
724	35	48	490
728	510	700	821 X
			X
751	571	760	835
678	336	495	768
718	479	667	815 X
703	490	697	821 X
			X
728	501	689	820 X
—	—	—	—
654	29	44	—
678	41	60	—
699	74	106	—
692	66	95	—
682	140	205	—
717	257	358	—
719	277	385	—
682	507	743	—
—	—	—	
788	—	—	—
782	8	10	—
782	48	61	—
778	86	111	—
804	56	70	—
774	140	181	—
820	282	344	—
796	340	427	—
818	576	705	—

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

1932phae.proj.1201M

J7 mc J. - RX 4953 - April 12, 1933.

Strip	Star	Y	X	Defl.	Defl.	Cl.	Vk	Volts
	167 ✓	1979	512	1500	1490	2202	1362	
	168 ✓	1989	682	1708	1696	2168	1372	
	169 X	1981	739	2031	2030	2158	1364	
	170 ✓	1991	1408	1840	1848	2172	1378	
20.0	171 ✓	2008	480	1958	1960	2212	1376	
	172 ✓	2016	558	1390	1392	2190	1368	
	173 ✓	2001	766	1372	1380	2172	1360	
	174 X	2009	988	1882	1894	2140	1350	
20.2	175 ✓	2019	534	1490	1480	2168	1348	
	176 ✓	2034	890	1620	1610	2150	1340	
	177 X	2022	1310	1800	1892	2168	1336	
	178 ✓	2020	1311	1334	1330	2156	1328	
20.4	179 ✓	2054	514	1792	1830	2160	1330	
	180 ✓	2042	749	1700	1696	2108	1310	
	181 ✓	2040	1262	1940	1930	2166	1330	
	182 ✓	2048	1288	1400	1380	2156	1318	
	183 ✓	2041	1349	1810	1820	2110	1312	
20.6	184 ✓	2070	428	1388	1390	2148	1316	
	185 X	2070	428	1836	1862	2168	1318	
	186 ✓	2062	530	1696	1694	2170	1338	
	187 ✓	2066	840	1950	1950	2150	1324	
	188 ✓	2072	929	1518	1490	2130	1320	
	189 ✓	2072	1284	1710	1690	2168	1320	
20.8	190 X	2080	420	1722	1700	2188	1319	
	191 X	2090	578	1950	1910	2168	1322	
	192 ✓	2080	619	1828	1820	2182	1338	
	193 ✓	2090	1272	1920	1912	2204	1332	
	194 ✓	2090	1458	1929	1930	2205	1378	
21.0	195 ✓	2099	447	1670	1638	2232	1380	
	196 ✓	2102	652	1897	1857	2228	1382	

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

1022phae.proj.1201M

Cl.-Dk.	Def.-Dk.	Red. Def.	Magn.
840	133	158	627 ✓
796	330	414	738 ✓
794	666	840	off anne X
794	451	569	784 ✓
836	583	697	825 ✓
822	23	28	454 ✓
812	16	20	430 ✓
790	538	680	821 X
820	137	167	633 ✓
810	275	340	711 ✓
832	460	553	734 X
828	4	5	375 ✓
830	481	580	793 ✓
798	388	486	762 ✓
836	605	723	831 ✓
838	72	86	565 ✓
798	503	630	808 ✓
832	73	87	566 ✓
850	531	625	806 X
832	357	429	742 ✓
826	626	758	840 ✓
810	184	227	664 ✓
848	380	448	749 ✓
869	392	457	751 X
846	608	718	830 X
844	486	576	791 ✓
872	584	670	820 ✓
827	551	666	817 ✓
852	274	322	728 ✓
846	495	585	794 ✓

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

1932phae.proj.1281M

17 mc J – R.A. 4953 – April 12, 1923

Strip	Star	y	x	Defl.	Defl.	Cl.	Dk.	
	197 V	2110	856	1742	1698	2160	1350	
	198 V	2104	900	1950	1940	2150	1348	
	199 V	2100	1140	1568	1664	2162	1362	
	200 V	2109	1142	1682	1690	2200	1356	
	201 V	2109	1290	1662	1672	2180	1354	
	202 X	2104	1414	1972	1990	2144	1342	
21.2	203 V	2120	572	1800	1804	2168	1362	540
	204	2129	648	1982	1987	2182	1353	
	205 V	2130	769	1800	1782	2153	1332	
	206	2120	781	1968	1973	2182	1328	
	207 V	2131	1469	2053	2003	2147	1353	
21.4	208 V	2140	673	1528	1512	2127	1361	
	209 V	2138	924	1703	1692	2170	1362	
	210 V	2151	1237	1663	1727	2143	1363	
	211 V	2139	1391	1964	1903	2142	1354	
	212 V	2140	1423	1991	1922	2139	1357	
	213 V	2140	1448	1822	1762	2182	1357	
21.6	214 V	2166	847	1744	1742	2158	1382	
	215 V	2158	992	1882	1887	2193	1382	
	216 V	2162	1353	2048	1922	2168	1383	
	217 V	2171	1349	1947	1977	2173	1378	
	218 V	2160	1390	2039	2044	2193	1377	
21.8	219 V	2179	739	1817	1792	2168	1360	
	220 V	2181	1182	1813	1813	2178	1382	
	221 V	2178	1229	2010	2042	2197	1392	
	222 V	2190	1267	2090	2062	2182	1378	
22.0	223 +	2211	1489	1764	1716	2189	1372	
	224 X	2199	1524	1688	1612	2201	1383	
	225 V	2212	718	1482	1473	2167	1379	
	226 V	2210	749	1982	1984	2178	1360	

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

1032pbae.proj.ctm

Cl.-Dk.	Left-Dk.	Red. Def.	Magn.
810	370	457	757 ✓
802	597	744	837 ✓
800	254	317	703 ✓
844	330	392	730 ✓
826	313	378	725 ✓
802	639	795	851 ✓
806	440	545	781 ✓
829	631	762	842 ✓
821	459	559	787 ✓
854	642	752	840 ✓
794	675	850	off curve ✓
766	159	207	645 ✓
808	335	415	738 ✓
780	332	425	742 ✓
788	579	735	833 ✓
782	599	765	843 ✓
825	435	527	776 ✓
776	361	465	755 ✓
811	502	619	803 ✓
785	602	767	842 ✓
795	584	735	833 ✓
816	663	812	off curve ✓
808	444	549	782 ✓
796	431	541	780 ✓
805	634	786	848 ✓
804	653	812	off curve ✓
817	368	450	750 ✓ outside circle
818	227	278	687 ✓
788	98	124	602 ✓
818	623	761	842 ✓

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

1932phae.proj.128PM

NJP-RH 4953 - April 12, 1933

Strip	Star	y	x	Refe	Refe	Ce.	Dk	Volts
	227	2192	888	1728	1718	2187	1382	
	228	2209	1369	1643	1622	2197	1392	
22.2	229	2222	787	1908	1938	2142	1382	
	230	2225	571	1946	1956	2118	1363	
	231	2219	674	1772	1812	2163	1378	
	232	2224	1002	1382	1372	2197	1370	
	233	2230	1174	1383	1368	2162	1352	
	234	2228	1231	1643	1603	2138	1352	
22.4	235	2241	849	1940	1900	2142	1362	
	236	2240	1332	1534	1522	2108	1343	
22.6	237	2260	692	1571	1622	2108	1338	
	238	2272	837	1852	1848	2112	1332	
	239	2270	907	1521	1487	2117	1348	
	240	2260	1101	1878	1911	2137	1342	
22.8	241	2282	649	1900	1958	2107	1344	
	242	2293	771	1382	1063	2142	1336	
	243	2280	891	1393	1383	2108	1321	
	244	2282	1186	1892	1848	2127	1338	
	245	2281	1223	1900	1938	2152	1349	
	1*	1905	882	1341	—	2137	1338	
	1	2348	992	1957	—	2096	1342	
✓	2	—	—	1370	—	2092	1333	535
	3	—	—	1432	—	2114	1324	
	4	—	—	1419	—	2103	1329	
	5	—	—	1492	—	2117	1332	
	6	—	—	1672	—	2167	1364	
	7	—	—	1683	—	2148	1348	
	8	—	—	1963	—	2169	1356	

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

1932phae.proj.tif.gz

Cl.-Dk.	Def.-Dk.	Rd.-Def	Magn
805	341	424	742
805	240	298	696
760	566	745	837
755	586	776	846
785	414	527	776
824	4	5	375
810	23	28	455
786	271	344	714
780	558	715	830
805	175	217	658
770	258	335	710
780	518	664	818
769	156	203	653
795	552	695	825
763	610	800	852
806	36	45	499
787	67	85	565
789	532	675	820
803	570	710	829
799	3	4	—
754	15	20	—
759	37	49	—
790	108	137	—
774	90	116	—
785	160	204	—
803	308	384	—
800	335	419	—
813	607	747	—

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

1932phae.proj.128M

N.P. - R.A. 4253 - April 13, 1933.

Strip	Star	Y	X	Δlyfl	Δlyfl	Cc	Δk	Balt	Cl
	1N	1993	883	1297	—	2092	1293		
	1	2351	993	1303	—	2088	1289		
	2	—	—	1362	—	2052	1303		
	3	—	—	1392	—	2098	1312		
	4	—	—	1387	—	2103	1318		
	5	—	—	1478	—	2097	1312		
	6	—	—	1633	—	2120	1332		
	7	—	—	1642	—	2102	1325		
	8	—	—	1917	—	2132	1317		
23.0	246V	2301	708	1710	1722	2092	1337		
	247V	2300	1098	1627	1673	2122	1324		
	248V	2311	1112	1603	1662	2117	1337		
	249V	2310	1229	1393	1393	2067	1322		
23.2	250V	2336	717	1609	1592	2076	1348		
	251V	2331	832	1752	1814	2082	1333		
	252V	2330	1087	1637	1652	2118	1339		
	253V	2319	1097	1542	1573	2072	1334		
	254V	2320	1229	1712	1702	2127	1320		
23.4	255V	2339	717	1842	1882	2023	1328		
	256V	2340	857	1762	1772	2104	1323		
	257V	2350	859	1822	1889	2079	1316		
	258V	2342	1046	1442	1442	2093	1316		
	259V	2342	1222	1603	1612	2104	1312		
	260V	2349	1258	1760	1822	2077	1321		
23.6	261V	2362	987	1666	1693	2087	1317		
	262V	2361	1032	1532	1533	2107	1308		
23.8	263V	2387	619	1400	1398	2104	1319		
	264V	2382	892	1622	1692	2087	1313		
24.0	265V	2397	~~812~~ 813	1812	1786	2069	1319		
	266V	2401	880	1778	1852	2078	1323		

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

1932phae.proj.1901M

Cl.–Dk.	Def.-Dk.	Red. Def.	Magn.
799	4	5	—
794	14	18	—
749	59	79	—
786	80	102	—
785	69	88	—
785	166	211	—
788	301	382	—
777	317	408	—
815	600	735	—
755	379	502	785
798	326	408	732
780	320	410	734
745	71	95	556
728	252	346	709
749	450	600	793
779	305	392	728
738	223	302	692
797	377	473	756
695	534	768	831
781	444	568	784
763	539	706	819
777	126	164	618
792	295	372	725
756	470	621	805
770	362	470	755
799	224	280	687
785	80	102	567
774	344	445	745
750	480	640	803
755	472	625	805

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

1932phae.proj.1203M

NGC RA 4953 – April 13, 1933.

Strip	Star	Y	X	Dyf	Dyf	Cc	Dx	Dx-19	Cc
	267	2402	929	1489	1508	2067	1317		
	268	2400	1214	1882	1832	2088	1317		
24.2	269	2421	1111	1842	1800	2124	1304		
	1s	1993	883	1322	—	2101	1308		
	1	2351	993	1392	—	2094	1310		
Plate	2	—	—	1363	—	2087	1299	635	
spoiled	3	—	—	1414	—	2085	1306		
	4	—	—	1369	—	2107	1313		
	5	—	—	1482	—	2072	1313		
	6	—	—	1618	—	2078	1304		
	7	—	—	1602	—	2073	1311		
	8	—	—	1910	—	2069	1314		

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

1932phae.proj.1288M

Cl.-Dk.	Ref.-Dk.	Red. Ref	Magn.
750	181	241	662 ✓
771	540	700	818 ✓
820	517	630	801 ✓
793	14	18	—
784	22	28	—
788	64	81	—
779	108	139	—
794	56	71	—
759	169	223	—
774	309	399	—
762	291	382	—
755	596	790	—

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

1932phae.proj.1201M

gmc. RH 4954 april 13, 1933

strip	star	y	x	defl	defl	cc	dk	Bttv
	1s	1498	816	1303	—	2150	1293	6.33
	1	2350	929	1310	—	2101	1293	
	2	—	—	1356	—	2077	1290	
	3	—	—	1402	—	2118	1306	
	4	—	—	1432	—	2102	1303	
	5	—	—	1466	—	2115	1310	
	6	—	—	1592	—	2128	1307	
	7	—	—	1632	—	2160	1318	
	8	—	—	1955	—	2130	1316	
14.2	1 v	1420	838	*	1700	2120	1311	
	2 ✓	1423	946	1387	1368	2082	1315	
14.4	3 ✓	1434	791	1841	1829	2115	1316	
	4 ✓	1434	794	1492	1492	2120	1325	
	5 ✓	1440	910	1920	1938	2102	1307	
	6 ✓	1449	967	1940	1922	2140	1318	
	7 ✓	1445	1000	1477	1468	2108	1314	
	8 ✓	1450	1034	1902	1888	2160	1338	
14.6	9 ✓	1459	758	1902	1902	2132	1341	
	10 ✓	1458	872	1367	1350	2122	1336	
14.8	11 ✓	1473	716	1663	1679	2148	1322	
	12 ✓	1490	727	1861	1851	2102	1326	
	13 ✓	1480	927	1900	1900	2108	1317	
	14 ✓	1485	928	1649	1623	2120	1313	
	15 ✓	1492	936	1646	1652	2108	1307	
	16 ✓	1477	1011	1428	1417	2070	1303	
15.0	17 ✓	1510	773	1320	1308	2083	1307	
	18 ✓	1501	1067	1670	1678	2065 ~~2068~~	1310	
	19 ✓	1508	1078	1620	1602	2062	1307	
15.2	20 ✓	1529	691	1848	1882	2061	1308	
	21 ✓	1519	818	1643	1611	2058	1304	

* image obscured by line.

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

1932phae.proj.1201M

Cl.-Pk.	Def.-Pk.	Red. Def.	Magn.
857	10	12	—
808	17	21	—
787	66	84	—
812	96	118	—
799	129	162	—
805	156	194	—
821	285	347	—
842	314	373	—
814	639	785	—
809	389	481	761 ✓
767	62	81	550 ✓
799	519	650	809 ✓
795	167	210	658 ✓
795	622	782	836 ✓
822	613	745	829 ✓
794	158	199	650 ✓
822	557	678	815 ✓
791	561	709	812 ✓
786	22	28	451 ✓
826	349	422	744 ✓
776	533	686	817 ✓
791	583	736	827 ✓
807	323	400	737 ✓
801	342	427	744 ✓
767	119	155	621 ✓
776	7	9	388 ✓
755	364	482	762 ✓
755	304	402	739 ✓
753	557	740	829 X
754	323	428	745 ✓

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

1932phae.proj:128M

gmc. R.H. 4954 April 13, 1933

temp	Star	y	x	dyc	dyc	cc	dk	Volts	Cl.
~~15.4~~	22+	1537	1218	1530	1524	2108	1310		
15.4	23 ✓	1543	1136	1867	1870	2068	1298		
15.6	24 X	1561	583	1974	1956	2092	1303		
15.8	25 ✓	1582	483	1842	1808	2108	1293		
	26 ✓	1572	721	1772	1764	2082	1286		
	27 ✓	1581	756	1713	1719	2082	1320		
	28 ✓	1586	1202	1540	1532	2088	1331		
16.0	29 ✓	1603	1231	1930	1920	2125	1332		
	15	1998	816	1317	—	2162	1317		
	1	2350	928	1328	—	2131	1320		
	2	—	—	1385	—	2097	1312		
	3	—	—	1378	—	2122	1312		
	4	—	—	1462	—	2080	1307		
	5	—	—	1462	—	2137	1322		
	6	—	—	1605	—	2115	1332		
	7	—	—	1648	—	2116	1327		
	8	—	—	1948	—	2120	1347		5.25

J.F. Mc J.Jr. R.H. 4954 April 14, 1933.

	15	2000	818	1302	—	2056	1318
	1	2350	931	1336	—	2042	1330
	2	—	—	1370	—	2080	1324
	3	—	—	1384	—	2060	1338
	4	—	—	1420	—	2078	1346
	5	—	—	1464	—	2090	1330
	6	—	—	1602	—	2080	1328
	7	—	—	1648	—	2078	1330
	8	—	—	1872	—	2108	1330
16.2	30 ✓	1619	839	1839	1839	2062	1292
	31 ✓	1630	939	1708	1700	2090	1312

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

1932phae.proj.128M

Cl.-Dk.	Def.-Dk.	Red. Def.	Magn.
798	217	272	690 X (outside circle in 4787)
770	570	740	828 ✓
789	662	840	849 X
815	532	653	810 ✓
796	482	605	797 ✓
762	396	519	773 ✓
757	205	271	689 ✓
793	593	748	830 ✓
845	0	0	—
811	8	10	—
785	73	93	—
810	66	81	—
773	155	201	—
815	140	172	—
783	273	348	—
789	321	407	—
773	601	778	—
—	—	—	
738	—	—	—
712	6	8	—
756	46	61	—
722	46	64	—
732	74	101	—
760	134	176	—
752	274	364	—
748	318	425	—
778	542	697	—
770	547	710	833 ✓
778	392	504	773 ✓

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

1932phae.proj.1291M

J. F. Mc. Jr. R.H. 4954 April 14, 1933.

Strip	Star	Y	X	dlyl	dlyl Cl	Dk	Bts	...	Cl
16.2	32 ✓	1614	990	1580	1556	2052	1298		
	33 ✓	1630	1048	1576	1562	2062	1292		
	34 ✓	1616	1126	1906	1910	2078	1304		
	35 ✓	1618	1149	1764	1742	2068	1300		
	36 X	1628	1317	1506	1480	2062	1292		
16.4	37 ✓	1642	469	1880	1864	2090	1290		
	38 ✓	1642	761	1852	1836	2060	1298		
	39 ✓	1640	878	1312	1310	2062	1288		
	40 ✓	1640	951	1318	1310	2070	1280		
	41 X	1638	1238	1716	1660	2062	1284		
16.6	42 ✓	1661	538	1550	1538	2090	1278		
	43 ✓	1660	762	1720	1726	2028	1288		
	44 ✓	1657	1242	1640	1586	2070	1288		
16.8	45 ✓	1682	579	1664	1650	2100	1284		
	46 ✓	1689	718	1746	1698	2078	1272		
	47 ✓	1679	731	1868	1840	2050	1286		
	48 ✓	1680	769	1760	1776	2092	1288		
	49 ✓	1679	1124	1858	1912	2120	1298		
17.0	50 ✓	1700	941	1850	1748	2080	1310		
	gone 51 ✓	1692	771	1850	1862	2110	1328		
17.2	52 ✓	1719	632	1773	1759	2173	1362		
	53 ✓	1713	680	2022	1970	2173	1363		
	54 ✓	1721	1167	1625	1591	2142	1380		
	55 ✓	1720	1302	1759	1733	2177	1391		
	56 ✓	1721	1343	1858	1820	2207	1360		
17.4	57 ✓	1738	972	1912	1888	2192	1381		
	58 ✓	1750	1031	1533	1473	2171	1378		
17.6	59 ✓	1755	868	1753	1732	2168	1390		
	60 ✓	1759	932	1867	1953	2173	1396		
17.8	61 X	1791	976	1928	1941	2167	1383		

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

1932phae.proj.1201M

Cl.-Dk.	Def.-Dk.	Rad. Def.	Magn.
754	270	358	728 ✓
770	277	360	725 ✓
774	604	780	850 ✓
768	453	590	800 ✓
770	201	261	687 X (outside circle in 4787)
800	582	728	838 ✓
762	546	716	836 ✓
774	23	30	497 ✓
760	34	45	523 ✓
778	404	519	778 X
812	266	327	712 ✓
740	435	588	799 ✓
782	325	414	743 ✓
816	373	457	757 ✓
806	450	558	790 ✓
764	568	743	842 ✓
804	480	597	801 ✓
822	587	714	835 ✓
770	439	570	793 ✓
782	528	675	824 ✓
811	404	498	770 ✓
810	633	781	851 ✓
762	228	298	705 ✓
786	355	451	756 ✓
847	479	565	791 ✓
811	519	640	813 ✓
793	125	158	637 ✓
778	352	452	757 ✓
777	514	661	821 ✓
784	551	704	832 X

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

1932phae.proj.128PM

gmt. R.A. 4954 April 14, 1933:

Strip	Star	y	x	klyl	klyl	Cl.	dk	Volts	D. Cl.
	62 ✓	1792	1083	1757	1751	2172		1387	
	63 ✓	1774	1113	1672	1623	2162		1385	
	64 ✓	1783	1270	1818	1804	2207		1392	
	65 ✓	1788	1330	2008	2028	2214		1390	
18.0	66 ✓	1805	422	2012	2007	2140		1402	
	67 ✓	1791	598	1990	1992	2178		1391	
	68 ✓	1803	930	1489	1475	2170		1392	
	69 ✓	1894	1253	1952	1952	2182		1393	
	70 ✓	1810	1273	1805	1807	2177		1382	
	71 ✓	1805	1325	1578	1510	2198		1355	
	1s	1998	814	1359	—	2140		1351	
	1	2349	928	1371	—	2127		1365	
	2	—	—	1410	—	2108		1358	
	3	—	—	~~1458~~ 1434	—	2103		1360	
	4	—	—	1437	—	2102		1357	
	5	—	—	1461	—	2113		1356	
	6	—	—	1643	—	2108		1358	
	7	—	—	1643	—	2106		1341	
	8	—	—	1903	—	2092		1340	5.20

J. F. M. J. Jr. R. A. 4954 April 15, 1933.

—	—	—	—	—	—	—	—
1s	1999	817	1308	—	2048		1320
1	2350	930	1338	—	2042		1321
2	—	—	1360	—	2050		1312
3	—	—	1348	—	2020		1314
4	—	—	1380	—	2040		1312
5	—	—	1438	—	2052		1330
6	—	—	1578	—	2078		1340
7	—	—	1610	—	2052		1328
8	—	—	1898	—	2098		1322

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

1002phae.proj.17.tiff

Cl.-Dk.	Def.-Dk.	Red. Def	Magn.
785	367	467	760 ✓
777	262	337	717 ✓
815	419	514	775 ✓
824	628	762	847 ✓
738	607	823	862 ✓
787	600	762	847 ✓
778	90	116	606 ✓
789	559	708	832 ✓
795	424	533	781 ✓
843	189	224	670 ✓
789	8	10	—
762	6	8	—
750	52	69	—
743	74	100	—
745	80	107	—
757	105	139	—
750	285	380	—
765	302	394	—
752	563	748	—
—	—	—	
728	—	—	—
721	17	24	—
738	48	65	—
706	34	50	—
728	68	93	—
722	108	149	—
738	238	322	—
724	282	390	—
776	576	742	—

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

1932phae.proj.128PM

J. M. J. R.A. 4954 April 15/1953. . .

Strip	Star	y	x	Δleft	Δright	Ce	Dk	Volts
18.2	72 V	1820	411	1760	1740	2082	1317	
	73 V	1831	468	1838	1864	2070	1318	
	74 V	1830	689	1818	1798	2050	1312	
	75 V	1822	854	1752	1748	2072	1308	
	76 V	1828	970	1832	1810	2062	1310	
18.4	77 V	1840	362	1770	1740	2092	1320	
	78 V	1839	697	1780	1740	2024	1340	
	79 V	1840	959	1908	1890	2082	1352	
	80 V	1840	1222	1895	1872	2070	1332	
18.6	81 V	1869	418	1880	1880	2044	1320	
	82 V	1859	432	1840	1828	2070	1332	
18.8	83 V	1891	602	1762	1730	2112	1346	
	84 V	1878	920	1478	1472	2106	1362	
	85 V	1889	1190	1900	1810	2158	1382	
	1s	1998	818	1370	—	2140	1368	
	1	2350	930	1372	—	2080	1376	
	2	—	—	1390	—	2092	1370	
	3	—	—	1411	—	2102	1360	
	4	—	—	1430	—	2088	1358	
	5	—	—	1458	—	2100	1352	
	6	—	—	1608	—	2112	1362	
	7	—	—	1622	—	2090	1350	
	8	—	—	1908	—	2120	1350	

J. M. C. April 15

1s	1998	815	1238	—	2014	1242	6.18
1	2349	930	1250	—	~~1967~~ *	1249	
2	—	—	1288	—	1967	1250	
3	—	—	1323	—	1992	1267	
4	—	—	1348	—	1982	1271	
5	—	—	1403	—	2008	1277	

* 1984

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

1932phae.proj.1210M

R.-Dk.	Def.-Dk.	Red. Def.	Magn.
765	433	566	790 ✓
752	533	709	838 ✓
738	496	672	820 ✓
764	442	579	793 ✓
752	511	680	820 ✓
772	435	563	790 ✓
684	420	615	804 ✓
730	547	749	835 ✓
738	551	747	834 ✓
724	560	774	844 ✓
738	502	680	820 ✓
766	400	522	776 ✓
744	113	152	652 ✓
776	473	608	801 ✓
772	2	3	—
704	—	—	—
722	20	28	—
742	51	69	—
730	72	99	—
748	106	142	—
750	246	328	—
740	272	367	—
770	558	725	—
772	—	—	—
735	1	1	—
717	38	53	—
725	56	77	—
711	77	108	—
731	126	172	—

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

1932phae.proj.1281M

gmc. R.H. 4954 April 15, 1933

Trig	Star	y	x	dyf	dyf	Cc	Dk	Volts	Cl
	6	—	—	1562	—	2028	1278		
	7	—	—	1572	—	1997	1272		
	8	—	—	1830	—	2009	1287		
19.0	86	1898	488	1870	1830	2033	1286		
	87	1902	642	1638	1640	2068	1303		
	88	1898	780	1822	1850	2077	1298		
	89	1907	902	1617	1588	2058	1309		
	90	1907	977	1703	1703	2023	1305		
	91	1898	990	1808	1805	2042	1237		
19.2	92	1928	551	1705	1699	2041	1227		
	93	1927	753	1856	1832	2028	1218		
	94	1920	940	1302	1270	2012	1210		
19.4	95	1942	528	1745	1729	1993	1208		
	96	1944	639	1658	1646	1978	1210		
	97	1948	1056	1562	1568	1964	1212		
19.6	98	1957	437	1552	1542	1948	1207		
	99	1970	720	1253	1269	2002	1246		
	100	1969	834	1872	1882	2028	1262		
	101	1971	1101	1714	1699	2043	1280		
	102	1970	1122	1860	1844	2012	1305		
	103	1954	1372	1613	1603	2073	1308		
19.8	104	1990	448	1505	1472	2043	1310		
	105	1977	503	1392	1388	2072	1317		
	106	1978	878	1382	1368	2103	1312		
20.0	107	1948	619	1683	1713	2020	1315		
	107a	2010	702	1341	1327	2004	1313		
	15	1998	814	1320	—	2048	1335		
	1	2349	931	1340	—	2046	1336		
	2	—	—	1363	—	2047	1332		
	3	—	—	1395	—	2051	1332		

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

1932phae.proj..128M

Cl. – Dk.	Def – Dk.	Red. Def	Magn.
750	284	378	—
725	300	414	—
722	543	751	—
747	564	754	840 ✓
765	336	439	747 ✓
779	538	690	822 X
749	293	391	732 ✓
723	403	557	786 ✓
805	569	706	826 ✓
814	475	584	794 ✓
810	626	773	844 ✓
802	76	95	542 ✓
785	529	673	819 ✓
768	442	575	791 ✓
752	353	469	758 ✓
741	340	458	753 ✓
756	15	20	485 ✓
766	615	803	ff curve X
763	426	559	786 ✓
712	552	775	844 X
765	300	392	733 ✓
733	176	240	677 ✓
755	73	97	592 ✓
791	63	80	510 ✓
705	383	543	782 ✓
691	21	30	509 ✓
713	—	—	—
710	4	6	—
715	31	43	—
719	63	88	—

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

1932phae.proj.128M

gmt. RH 4454 April, 15, 1933.

Strip	Star	Y	X	Dyl	Dyl	Cl	Dk	Volts	
	4	—	—	1397	—	2030	1330		
	5	—	—	1466	—	2041	1347		
	6	—	—	1588	—	2061	1333		
	7	—	—	1630	—	2050	1328		
	8	—	—	1852	—	2057	1324	5.10	
		Dyp	- R	4454		April	20, 1933.		
	1A	1898	786	1410	—	2163	1404	5.30	
	1	2350	401	1442	—	2142	1396		
	2	—	—	1452	—	2147	1432		
	3	—	—	1480	—	2163	1438		
	4	—	—	1502	—	2162	1463		
	5	—	—	1582	—	2232	1452		
	6	—	—	1737	—	2209	1451		
	7	—	—	1748	—	2202	1467		
	8	—	—	2003	—	2218	1452		
20.2	108 ✓	2030	442	1639	1628	2199	1482		
	109 ✓	2028	467	1487	1488	2202	1462		
	110 ✓	2024	1219	1478	1477	2218	1463		
20.4	111 ✓	2044	798	1866	1896	2228	1468		
	112 ✓	2050	1197	1582	1578	2183	1472		
20.8	113 ✓	2091	321	1892	1921	2212	1452		
	114 ✓	2087	338	1567	1572	2228	1484		
	115 ✓	2072	437	1882	1913	2198	1482		
	116 ✓	2081	838	1712	1702	2240	1474		
	117 ✓	2078	1192	1912	1922	2219	1473		
21.0	118 ✓	2110	354	1812	1769	2213	1468		
	119 ✓	2107	1050	1752	1762	2200	1472		
	120 ✓	2110	1052	1892	1858	2212	1467		
	121 ✓	2111	1199	1909	1867	2212	1453		
21.2	122 ✓	2120	763	1862	1883	2232	1442		

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

1932phao.proj.1.1000M

Cl. - Obj.	Def. - Obj.	Red. Def	Magn
700	67	96	—
700	119	170	—
748	255	341	—
722	302	418	—
733	528	720	—
759	6	8	—
749	19	25	—
715	20	28	—
725	42	58	—
699	39	56	—
780	130	167	—
758	286	372	—
735	281	382	—
766	551	720	—
717	151	210	670 v
740	25	34	510 v
755	14	19	463 v
760	413	543	738 v
711	108	152	641 v
760	454	596	800 v
744	85	114	613 v
716	415	579	796 v
766	233	304	709 v
746	444	595	800 v
745	322	432	756 v
728	285	392	742 v
745	408	548	788 v
759	435	574	795 v
790	430	544	787 v

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

1932phae.proj.1209M

ZP – RA 4954 – April 20, 1933.

Setigo	Star	Y	X	Δlyll	Δlyll	Cc	Δb	Notes
21.4	123 ✓	2150	0583	1642	1673	2200	1457	
	124 ✓	2138	678	1952	1958	2193	1458	
	125 ✓	2141	833	1873	1900	2207	1450	
	126 ✓	2142	1008	1982	1992	2187	1438	
21.6	127 ✓	2170	755	1878	1872	2228	1454	
	128 ✓	2158	1148	1852	1900	2212	1449	
	129 ✓	2168	1262	2042	2070	2222	1468	
21.8	130 ✓	2188	1093	1993	2010	2192	1498	
22.0	131 ✓	2210	1279	1812	1799	2252	1492	
22.2	132 ✓	2230	585	1913	1932	2282	1498	
	133 ✓	2220	628	1632	1610	2213	1507	
	134 ✓	2231	911	1511	1512	2279	1493	
	135 ✓	2238	1084	1578	1509	2238	1502	
	136 ✓	2230	1140	1862	1828	2218	1501	
22.4	137 ✓	2241	1243	1751	1752	2258	1483	
22.6	138 ✓	2270	603	1812	1783	2293	1508	
22.8	139 ✓	2289	800	1553	1567	2250	1492	
	140 ✓	2278	818	1672	1683	2238	1493	
23.0	141 ✓	2308	618	2023	2012	2241	1493	
	142 ✓	2301	681	1522	1527	2210	1502	
	143 ✓	2314	1008	1842	1900	2221	1490	
	144 ✓	2312	1139	1592	1588	2258	1498	
23.2	145 ✓	2321	1007	1762	1763	2248	1492	
	146 ✓	2318	1022	1869	1887	2240	1488	
	147 ✓	2322	1138	1972	1969	2219	1493	
23.4	148 ✓	2342	627	1832	1843	2262	1502	
	149 ✓	2347	767	2023	1983	2232	1505	
	150 ✓	2348	956	1702	1692	2242	1493	
	151 ✓	2334	997	1918	1848	2262	1503	
	152 ✓	2350	1132	1803	1868	2248	1512	

Cont. in Bk. 93 Page 80

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

1992phae.proj.1289M

Cl.-Dk.	Def.-Dk	Red. Def	Magn.
743	200	269	696
735	497	676	820
757	436	576	796
749	549	753	837
774	421	544	787
763	427	560	791
754	588	780	844
694	503	725	830
760	313	412	750
784	424	540	786
706	114	161	645
786	18	23	480
736	11	15	450
717	344	480	770
775	268	346	725
725	~~334~~ 289	~~468~~ 398	~~765~~ 744
758	68	90	590
745	184	247	687
748	524	700	824
708	22	31	502
731	381	521	781
760	92	121	619
756	270	357	729
752	390	518	780
726	477	657	814
760	335	440	758
727	498	685	821
749	204	272	698
759	380	501	776
736	348	473	769

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

1932phae.proj.12[illegible]M

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

1032phys.proj.1.pdf 1/1/2004

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

1932phae.proj.1210M

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

1932phae.proj.1:30M

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

1932phae.proj.12.pdf

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

1932phae.proj.1289M

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

1932phae.proj.1289M

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