

Scaled data based on original data using  
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State  
Lighting Products

Test Report Prepared for  
Cooper Lighting Solutions  
(formerly Eaton)

Brand: LUMARK

Report Number: 08515

Luminaire Tested: **HPSF-X-100**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: 08515  
Test Lab: LUMINAIRE TESTING LABORATORY, INC.  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: HPSF-X-100  
Description: FALCON FLOODLIGHT  
Light Source: 100 WATT HPS CLEAR ED-17 HOR  
Ballast/Driver: -

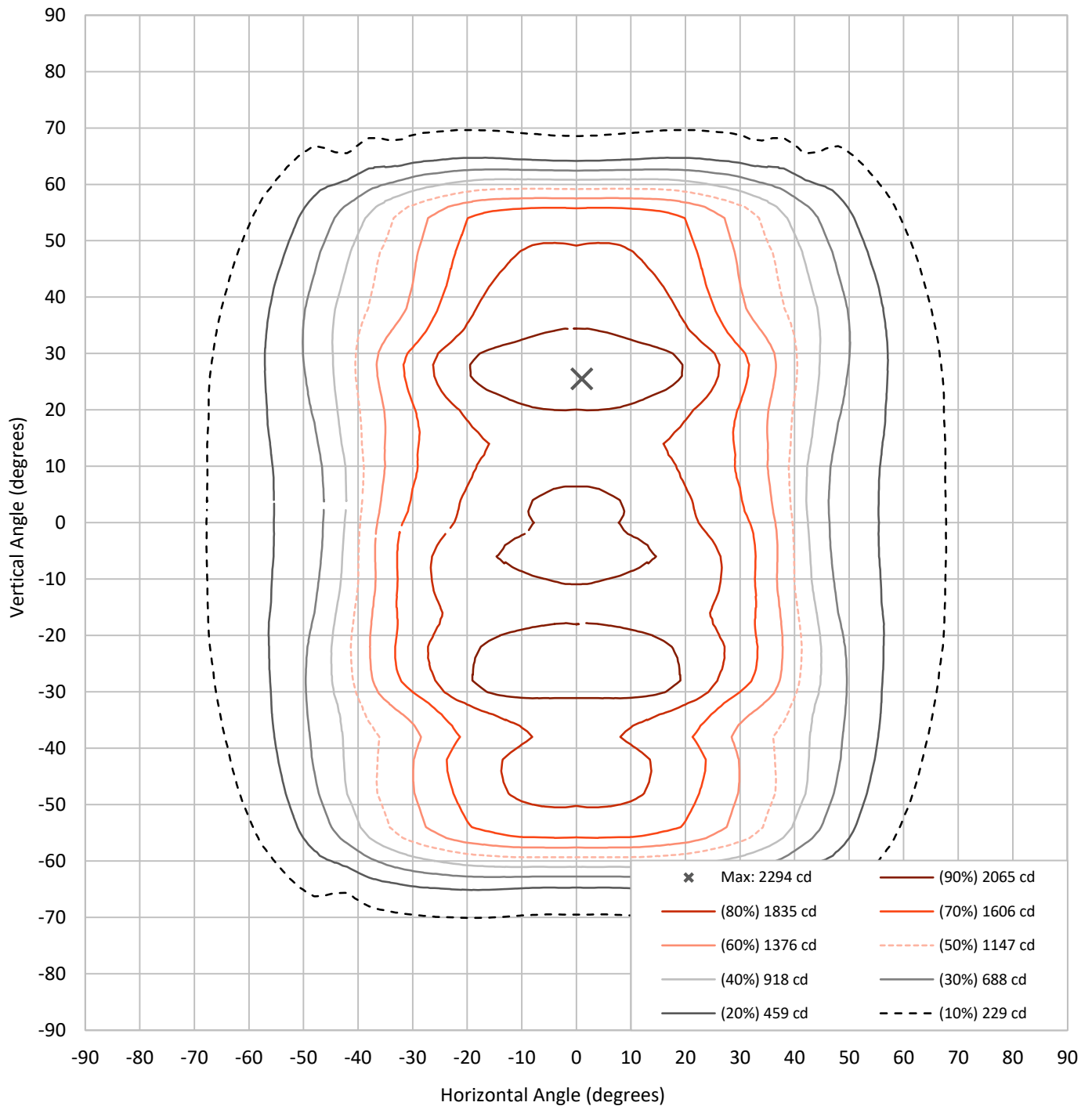
**Summary**

Lumens per Lamp:	9500 (1 lamp)	NEMA Type:	7H x 7V
Luminaire Lumens:	5612.5 lumens	Max Intensity:	2294 candela
Efficiency:	59.1%	Max Intensity Angle:	1°H x 25.5°V
Efficacy:	56.1 lumens/watt		
Luminous Opening:	Rectangular (W 0.79' x L: 0.54' x H: 0')		
Beam Angle (50%):	80.8°H x 118.5°V	Field Angle (10%):	134.4°H x 138.2°V
Beam Lumens:	4249.2 lumens	Field Lumens:	5450.7 lumens
Beam Efficiency:	75.7%	Field Efficiency:	97.1%
Input Watts (W):	100		
Input Voltage (V):	NR		
Input Current (Ain):	NR		
Voltage Rise (V):	NR		
Power Factor:	NR		
Total Harmonic Distortion (THDi):	NR		
Frequency (hertz):	60		
Stabilization Time:	NR		
Operation Time:	NR		
Ambient Temperature (°C):	NR		
Test Distance:	25 FT		



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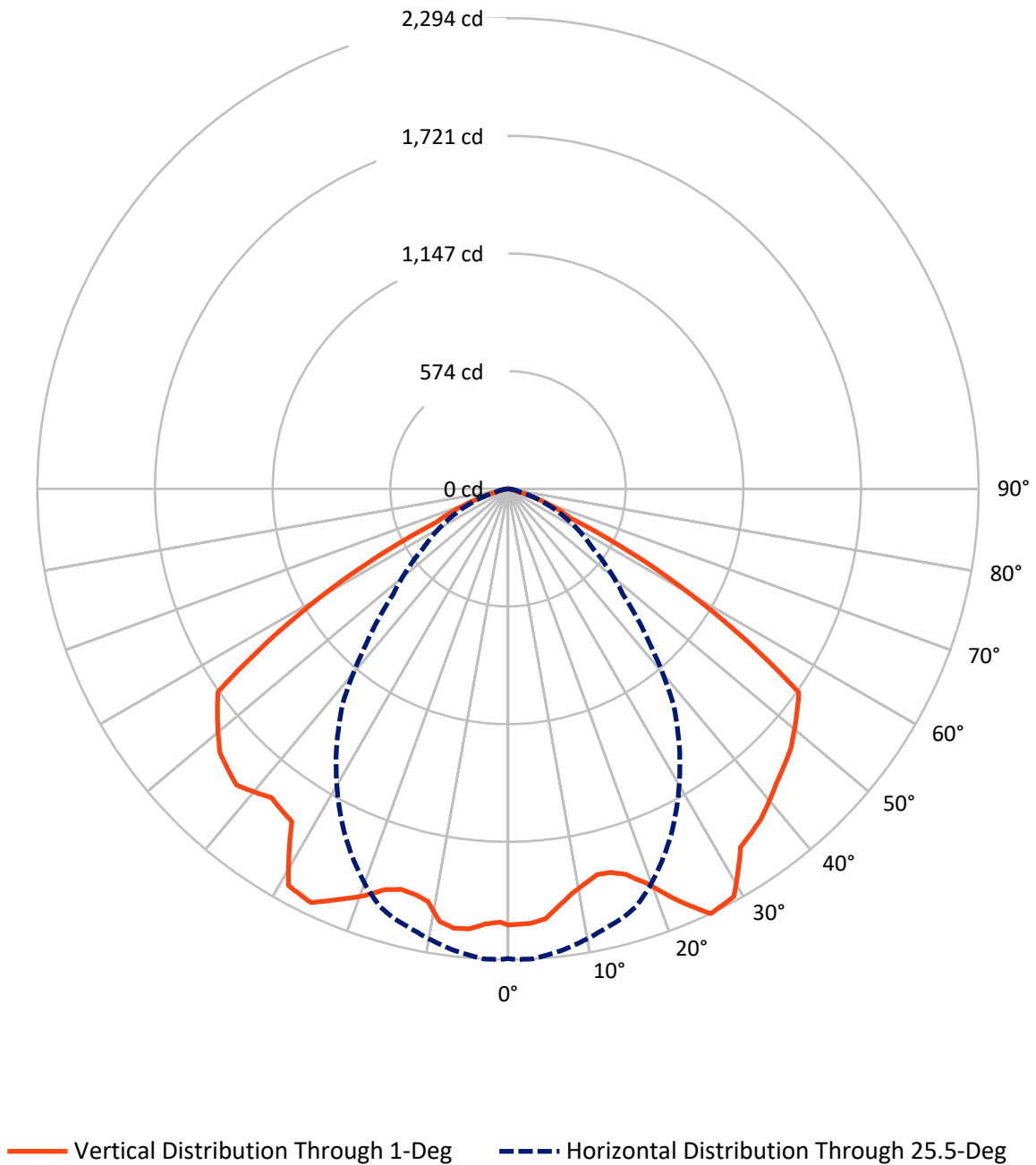
### Iso-Candela Plot





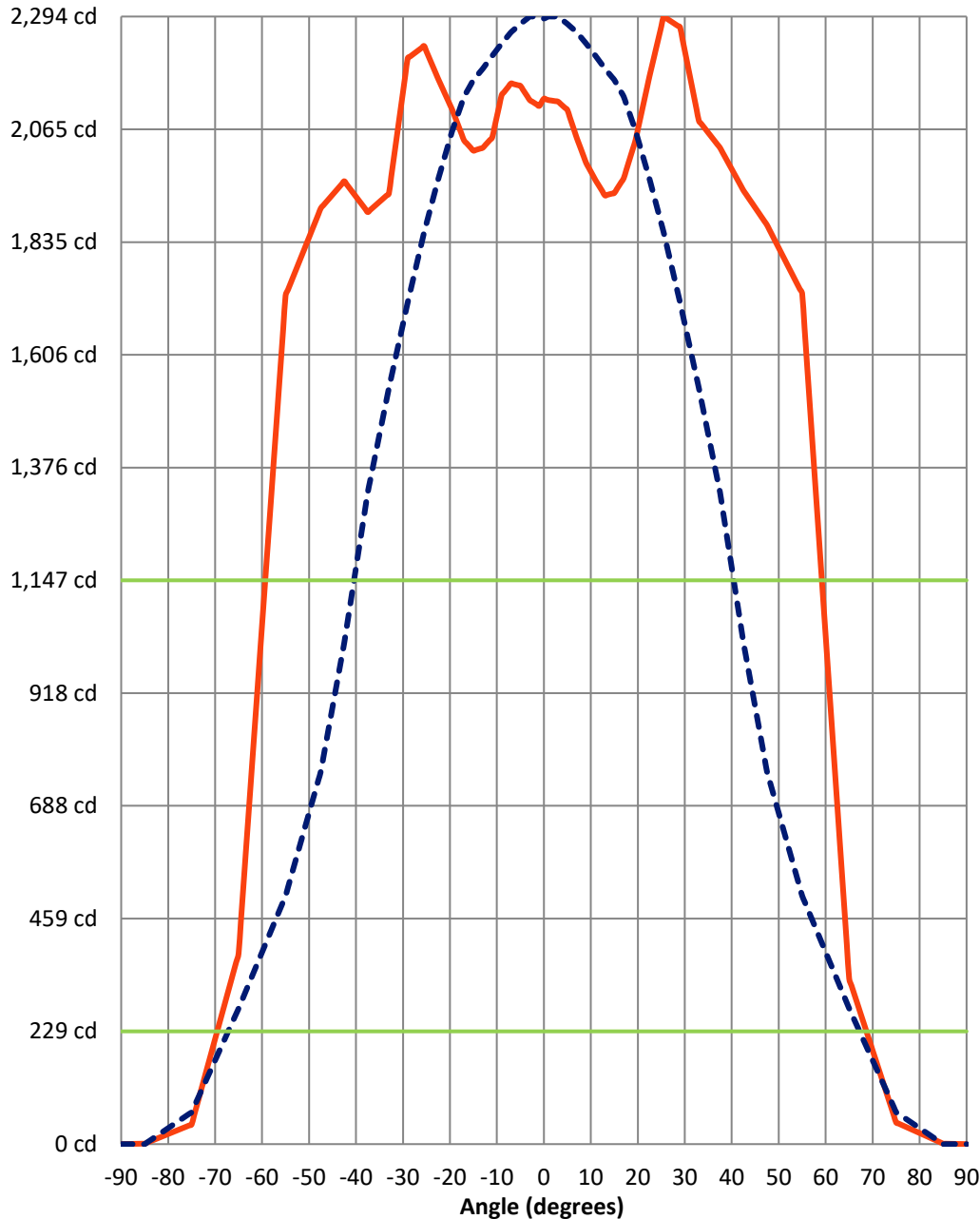
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### Luminous Intensity Polar Plot



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### Luminous Intensity Plot



**Beam:**  
 H Angle: 80.8°  
 V Angle: 118.5°  
 Lumens: 4249.2  
 Efficiency: 75.7%

**Field:**  
 H Angle: 134.4°  
 V Angle: 138.2°  
 Lumens: 5450.7  
 Efficiency: 97.1%

**Spill:**  
 Lumens: 161.8  
 Efficiency: 2.9%

— Vertical Distribution through 1-Deg  
 - - - Horizontal Distribution through 25.5-Deg



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FIELD  
 BEAM

**CANDELA DISTRIBUTION:**

	0°	1°	3°	5°	7°	9°	11°	13°	15°	17°	19.5°
90°	0	0	0	0	0	0	0	0	0	0	0
85°	0	1	0	1	0	0	0	0	0	0	0
75°	46	44	42	44	46	43	42	44	41	41	42
65°	331	337	333	340	347	353	363	372	386	389	391
55°	1725	1730	1733	1733	1733	1724	1714	1702	1687	1663	1607
47.5°	1866	1870	1876	1874	1875	1859	1839	1809	1777	1739	1685
42.5°	1942	1940	1941	1936	1923	1907	1895	1874	1847	1804	1751
37.5°	2024	2027	2027	2023	2011	1994	1972	1947	1915	1874	1813
33°	2083	2082	2082	2071	2058	2035	2021	2000	1974	1937	1886
29°	2270	2272	2272	2262	2252	2240	2216	2186	2160	2130	2067
25.5°	2290	2294	2294	2279	2262	2239	2214	2188	2165	2131	2062
22.5°	2171	2173	2179	2167	2154	2134	2110	2076	2044	2012	1957
19.5°	2040	2042	2050	2038	2036	2016	1994	1968	1939	1910	1865
17°	1961	1965	1970	1961	1960	1949	1933	1915	1897	1871	1829
15°	1932	1935	1936	1928	1923	1908	1886	1867	1847	1828	1798
13°	1929	1930	1927	1922	1912	1896	1879	1860	1845	1819	1797
11°	1965	1961	1957	1950	1942	1925	1908	1891	1874	1848	1809
9°	1998	1996	1994	1983	1973	1946	1930	1911	1893	1868	1819
7°	2047	2047	2050	2033	2021	2000	1978	1949	1921	1896	1836
5°	2106	2104	2101	2078	2069	2047	2023	1994	1962	1935	1868
3°	2125	2121	2109	2099	2083	2058	2032	2001	1969	1949	1890
1°	2119	2124	2119	2102	2091	2068	2040	2014	1974	1950	1903
0°	2116	2127	2099	2081	2071	2055	2032	2001	1966	1947	1902
-1°	2099	2112	2094	2080	2062	2044	2033	2005	1974	1954	1919
-3°	2112	2124	2122	2112	2105	2093	2071	2048	2020	2000	1958
-5°	2148	2153	2166	2160	2154	2144	2112	2080	2065	2045	1997
-7°	2158	2158	2162	2147	2141	2126	2096	2075	2060	2042	2014
-9°	2129	2134	2122	2106	2094	2068	2038	2028	2029	2009	1983
-11°	2047	2048	2043	2027	2023	2003	1984	1986	1989	1969	1949
-13°	2027	2027	2025	2017	2010	1996	1977	1968	1963	1946	1927
-15°	2021	2021	2022	2013	2009	1995	1979	1968	1961	1947	1916
-17°	2040	2042	2043	2034	2025	2012	2000	1989	1975	1952	1913
-19.5°	2099	2104	2108	2103	2099	2088	2074	2060	2043	2014	1968
-22.5°	2165	2167	2181	2185	2190	2181	2163	2141	2118	2087	2038
-25.5°	2234	2234	2245	2240	2239	2223	2199	2172	2145	2106	2051
-29°	2211	2209	2209	2213	2225	2227	2216	2199	2172	2121	2055
-33°	1929	1934	1933	1929	1924	1921	1908	1896	1873	1843	1794
-37.5°	1896	1896	1881	1860	1840	1815	1790	1759	1729	1690	1638
-42.5°	1961	1959	1949	1933	1919	1901	1883	1854	1819	1783	1737
-47.5°	1899	1904	1904	1903	1900	1883	1867	1838	1800	1761	1703
-55°	1722	1726	1734	1727	1722	1720	1715	1688	1655	1626	1586
-65°	384	388	384	385	385	391	398	410	420	429	429
-75°	39	40	36	37	38	39	39	41	37	36	35
-85°	0	1	0	2	0	0	0	0	0	0	0
-90°	0	0	0	0	0	0	0	0	0	0	0



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**CANDELA DISTRIBUTION (continued):**

	22.5°	25.5°	29°	33°	37.5°	42.5°	47.5°	55°	65°	75°	85°
90°	0	0	0	0	0	0	0	0	0	0	0
85°	2	3	2	1	1	0	0	0	0	0	0
75°	40	41	28	27	19	8	3	35	19	0	0
65°	391	371	367	298	341	222	286	158	61	13	0
55°	1519	1424	1303	1160	944	740	551	317	94	34	0
47.5°	1602	1499	1382	1252	1107	876	671	409	160	47	0
42.5°	1650	1531	1408	1271	1138	936	723	462	198	54	0
37.5°	1726	1607	1458	1313	1174	1000	774	495	228	59	0
33°	1810	1711	1571	1436	1271	1022	790	508	251	64	0
29°	1979	1872	1717	1556	1341	1019	780	512	263	66	0
25.5°	1963	1855	1712	1538	1326	1020	758	505	276	65	0
22.5°	1882	1794	1665	1504	1294	1002	739	500	280	69	0
19.5°	1797	1719	1618	1474	1266	982	718	494	279	68	0
17°	1761	1697	1605	1468	1258	968	695	492	282	69	0
15°	1743	1686	1597	1469	1258	952	679	483	286	70	0
13°	1754	1699	1614	1486	1264	935	660	478	287	70	0
11°	1753	1698	1613	1483	1248	905	641	474	286	70	0
9°	1752	1689	1609	1485	1245	897	634	467	286	72	0
7°	1764	1705	1630	1515	1265	896	627	467	285	71	0
5°	1797	1742	1642	1523	1271	888	621	466	287	72	0
3°	1805	1748	1651	1531	1294	887	618	465	288	73	0
1°	1821	1759	1678	1547	1312	899	622	464	287	74	0
0°	1832	1773	1696	1568	1325	905	623	466	289	75	0
-1°	1845	1794	1713	1584	1336	912	620	463	286	74	0
-3°	1880	1822	1739	1600	1343	918	626	467	289	76	0
-5°	1917	1850	1764	1607	1347	932	630	464	288	77	0
-7°	1932	1867	1776	1607	1344	938	641	469	288	75	0
-9°	1923	1865	1773	1601	1338	946	653	471	286	73	0
-11°	1906	1857	1767	1600	1336	954	667	474	285	73	0
-13°	1893	1845	1766	1616	1352	976	679	477	284	74	0
-15°	1870	1824	1754	1614	1372	1004	695	477	283	74	0
-17°	1865	1816	1734	1600	1383	1026	711	487	280	74	0
-19.5°	1914	1847	1749	1603	1398	1054	730	488	278	74	0
-22.5°	1976	1899	1780	1624	1400	1072	754	487	272	72	0
-25.5°	1979	1886	1763	1617	1395	1062	763	488	260	70	0
-29°	1975	1835	1688	1564	1366	1034	769	483	253	66	0
-33°	1719	1608	1482	1378	1233	955	758	479	236	64	0
-37.5°	1568	1471	1350	1227	1109	931	738	466	216	60	0
-42.5°	1660	1551	1411	1260	1113	922	721	440	187	53	0
-47.5°	1614	1518	1402	1278	1119	907	681	401	153	45	0
-55°	1514	1427	1321	1183	996	764	567	314	92	33	0
-65°	426	415	409	379	334	229	270	149	57	13	0
-75°	33	37	21	18	14	6	3	44	18	0	0
-85°	3	3	2	1	0	0	0	0	0	0	0
-90°	0	0	0	0	0	0	0	0	0	0	0





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**CANDELA DISTRIBUTION (continued):**

	90°
90°	0
85°	0
75°	0
65°	0
55°	0
47.5°	0
42.5°	0
37.5°	0
33°	0
29°	0
25.5°	0
22.5°	0
19.5°	0
17°	0
15°	0
13°	0
11°	0
9°	0
7°	0
5°	0
3°	0
1°	0
0°	0
-1°	0
-3°	0
-5°	0
-7°	0
-9°	0
-11°	0
-13°	0
-15°	0
-17°	0
-19.5°	0
-22.5°	0
-25.5°	0
-29°	0
-33°	0
-37.5°	0
-42.5°	0
-47.5°	0
-55°	0
-65°	0
-75°	0
-85°	0
-90°	0

(END OF REPORT)