

Scaled data based on original data using
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

Brand: HALO COMMERCIAL

Report Number: P776807

Luminaire Tested: HCDJBS4050CSD-HCD8TRH-HCD8TRLWW-5000lm-3500K

Issue Date: 2/7/2024

Test Information

Test Method: LM-79-2019
Report Number: P776807
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (A2312156B022)
Test Lab:
Issue Date: 2/7/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO COMMERCIAL
Catalog Number: HCDJBS4050CSD-HCD8TRH-HCD8TRLWW-5000lm-3500K
Description: 8 INCH ROUND MEDIUM LENSED WALLWASH KIT
Light Source: SELECTABLE LUMENS AND CCT ARRAY 90CRI / 3500K CCT
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4727.9 lumens
Efficiency: N/A
Efficacy: 98.5 lumens/watt
Spacing Criteria (0/90/45): 1.28 / 1.27 / 1.32
Luminous Opening: Circular (Dia: 0.67' x H: 0')
CIE Type: Direct

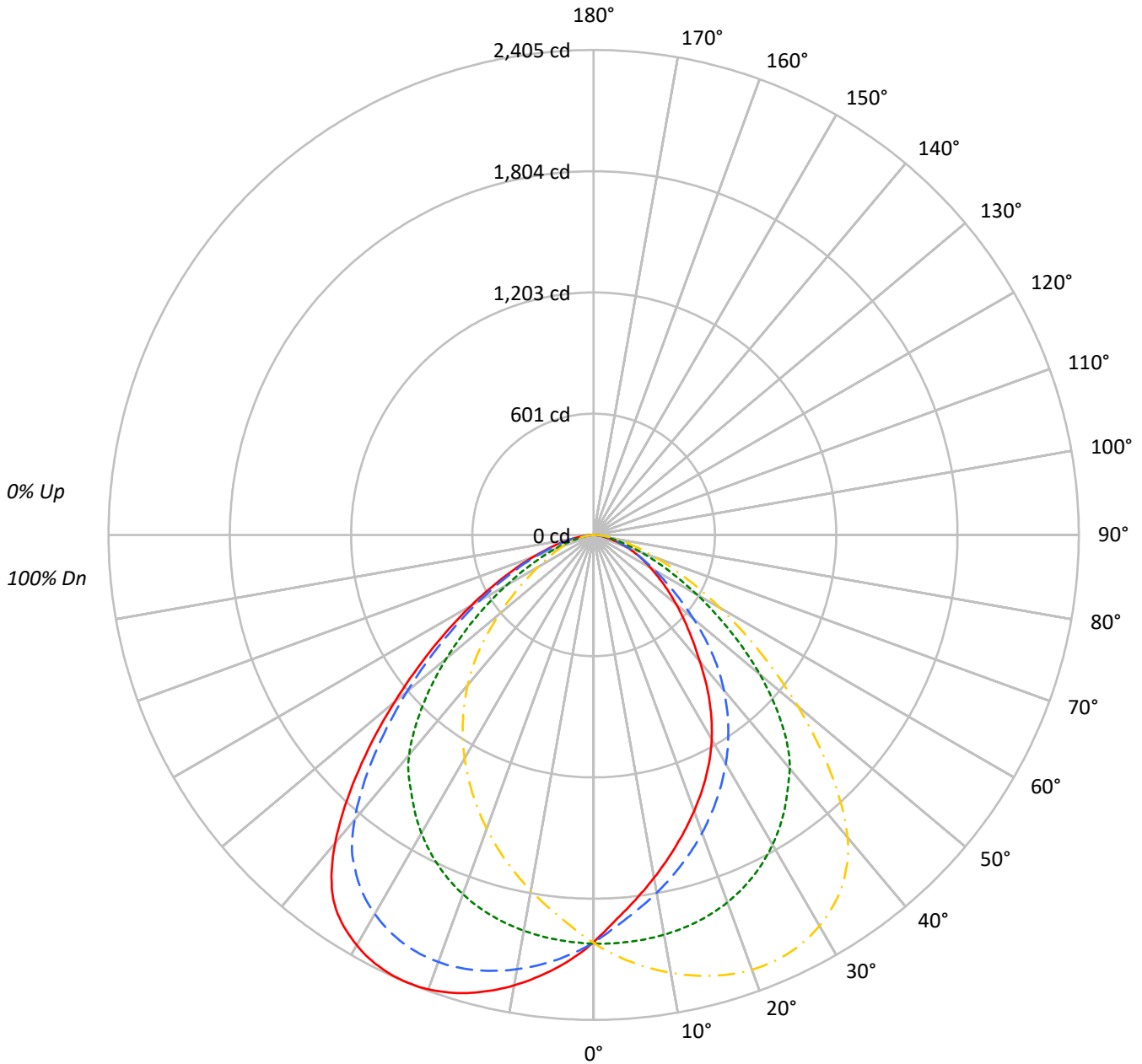
Input Watts (W): 48
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20									20									20									20									
RC	80									50									30									10									0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0																
RCR																																					
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100																			
1	110	106	103	99	108	104	101	98	100	97	95	96	94	92	93	91	89	87																			
2	102	94	89	83	99	93	87	83	89	85	81	86	82	79	83	80	77	75																			
3	94	84	77	71	91	83	76	71	80	74	69	77	72	68	75	71	67	65																			
4	86	75	68	61	84	74	67	61	72	65	60	70	64	59	67	63	59	57																			
5	80	68	60	54	78	67	59	53	65	58	53	63	57	52	61	56	52	50																			
6	74	62	53	47	72	61	53	47	59	52	47	57	51	46	56	50	46	44																			
7	69	56	48	42	67	55	48	42	54	47	42	53	46	42	51	46	41	39																			
8	64	51	43	38	63	51	43	38	50	43	38	48	42	37	47	41	37	35																			
9	60	47	40	34	59	47	39	34	46	39	34	45	38	34	44	38	34	32																			
10	56	44	36	31	55	43	36	31	42	36	31	41	35	31	41	35	31	29																			

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	61732	61732	61732	61732
5°	57126	62084	66121	61796
10°	53514	62409	70308	61795
15°	50278	62763	74306	61780
20°	47328	62997	77900	61600
25°	44446	62963	80817	61104
30°	41257	62532	82814	60188
35°	37285	61575	83434	58619
40°	32649	60296	79442	56721
45°	28665	56863	71064	51833
50°	25349	51078	61190	45231
55°	22382	43732	51594	37877
60°	19826	35959	42816	30542
65°	17692	28839	35008	23933
70°	15077	22370	28520	18201
75°	12079	16974	22990	13365
80°	9371	12536	18092	9037
85°	6270	8933	11560	5114

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 157.5°
 Vertical Angle: 45°
 Luminance: 72290 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	191.7	4.1
10°-20°	555.6	11.8
20°-30°	850.4	18.0
30°-40°	1007.0	21.3
40°-50°	924.8	19.6
50°-60°	646.7	13.7
60°-70°	362.3	7.7
70°-80°	156.5	3.3
80°-90°	33.0	0.7
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	1597.8	33.8
0°-40°	2604.7	55.1
0°-60°	4176.2	88.3
0°-90°	4727.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4727.9	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	2022	2022	2022	2022	2022	
5°	1864	2026	2158	2016	1864	174
15°	1591	1986	2351	1955	1591	447
25°	1319	1869	2399	1814	1319	606
35°	1000	1652	2239	1573	1000	622
45°	664	1317	1646	1200	664	514
55°	420	822	969	712	420	378
65°	245	399	485	331	245	243
75°	102	144	195	113	102	111
85°	18	26	33	15	18	23
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
0°	2022.0	2022.0	2022.0	2022.0	2022.0	2022.0	2022.0	2022.0	2022.0	2022.0	2022.0
0.5°	2002.7	2004.1	2009.3	2016.4	2027.2	2031.5	2035.7	2035.7	2034.8	2032.9	2031.5
1°	1986.6	1989.5	1998.0	2010.2	2027.2	2037.6	2046.6	2049.9	2050.3	2047.5	2041.9
1.5°	1970.1	1973.9	1986.6	2004.1	2027.7	2044.2	2057.4	2064.0	2065.0	2060.7	2051.8
2°	1953.1	1958.8	1974.8	1998.0	2027.7	2049.9	2067.8	2077.2	2079.1	2073.9	2062.1
2.5°	1937.1	1943.7	1963.1	1991.4	2027.7	2055.5	2078.2	2090.0	2092.8	2086.7	2071.6
3°	1921.5	1929.1	1951.7	1985.2	2027.7	2061.7	2087.6	2102.7	2106.5	2099.0	2081.0
3.5°	1906.4	1915.4	1939.9	1978.6	2027.2	2066.9	2097.5	2115.0	2119.7	2110.8	2089.5
4°	1892.3	1901.7	1929.1	1971.5	2026.8	2072.1	2107.0	2127.3	2132.5	2122.5	2098.5
4.5°	1877.6	1888.5	1917.7	1964.9	2026.3	2077.2	2116.4	2139.5	2145.2	2133.9	2107.0
5°	1864.0	1875.3	1906.9	1957.9	2025.8	2082.4	2125.4	2150.9	2157.5	2145.2	2115.5
5.5°	1849.8	1862.1	1896.5	1950.8	2025.3	2086.7	2134.3	2162.7	2169.7	2156.5	2123.5
6°	1836.1	1849.3	1885.7	1944.2	2024.4	2091.4	2142.8	2173.5	2181.5	2167.4	2131.5
6.5°	1822.4	1836.6	1875.3	1937.1	2023.5	2096.1	2151.8	2184.8	2193.3	2177.3	2139.1
7°	1808.3	1823.8	1864.9	1930.0	2022.5	2100.4	2159.8	2195.2	2204.7	2187.7	2146.6
7.5°	1794.6	1811.1	1854.5	1922.9	2021.1	2104.6	2168.3	2205.6	2215.5	2198.1	2153.7
8°	1780.9	1797.9	1844.1	1915.9	2019.7	2108.4	2175.9	2216.0	2226.8	2208.0	2160.8
8.5°	1767.2	1785.1	1833.8	1908.8	2018.3	2112.2	2183.9	2226.4	2237.7	2217.4	2167.8
9°	1753.5	1772.4	1822.9	1901.2	2016.8	2115.9	2191.0	2235.8	2248.1	2226.4	2174.5
9.5°	1739.8	1759.7	1812.5	1894.2	2015.0	2119.2	2198.5	2245.2	2258.0	2235.8	2180.6
10°	1726.2	1746.5	1801.7	1887.1	2013.1	2123.0	2205.1	2255.1	2267.9	2244.3	2186.7
10.5°	1713.0	1733.7	1790.8	1880.0	2011.2	2125.9	2212.2	2263.6	2277.8	2253.3	2192.9
11°	1698.8	1721.0	1780.0	1872.4	2008.8	2128.7	2219.3	2272.6	2287.2	2261.3	2198.5
11.5°	1685.1	1708.2	1769.1	1864.9	2006.5	2131.5	2225.4	2281.1	2296.2	2269.3	2204.2
12°	1671.4	1695.0	1757.8	1857.3	2004.1	2134.3	2231.6	2289.6	2304.7	2277.3	2209.4
12.5°	1658.2	1682.3	1746.9	1849.3	2001.7	2136.7	2237.7	2298.1	2313.2	2284.4	2214.1
13°	1644.5	1669.5	1736.1	1841.3	1998.9	2139.1	2243.4	2305.6	2321.7	2292.0	2218.8
13.5°	1631.3	1656.8	1724.7	1833.8	1995.6	2141.0	2249.0	2312.7	2329.2	2298.6	2223.5
14°	1617.6	1643.6	1713.4	1825.3	1992.3	2142.4	2254.2	2320.3	2336.8	2305.2	2227.8
14.5°	1603.9	1630.8	1702.1	1817.2	1989.0	2144.3	2259.4	2326.9	2343.9	2311.3	2231.6
15°	1590.7	1617.6	1690.8	1808.3	1985.7	2145.7	2264.1	2333.5	2350.9	2317.4	2235.3
15.5°	1577.0	1604.4	1679.4	1800.2	1981.9	2146.6	2268.4	2339.6	2357.5	2322.6	2238.6
16°	1563.8	1591.7	1667.6	1791.3	1978.2	2147.6	2272.6	2345.8	2363.7	2327.8	2241.5
16.5°	1550.6	1578.9	1655.9	1782.8	1973.9	2148.0	2276.4	2350.9	2369.3	2333.0	2244.3
17°	1536.9	1565.7	1644.5	1773.4	1969.7	2148.5	2280.2	2356.1	2374.5	2337.3	2246.7
17.5°	1523.7	1553.0	1632.3	1763.9	1964.9	2148.5	2283.5	2360.9	2379.3	2341.5	2248.5
18°	1510.0	1539.8	1620.5	1754.5	1960.2	2148.5	2286.3	2365.1	2384.0	2345.3	2250.4
18.5°	1496.8	1527.0	1608.2	1745.0	1955.0	2148.0	2288.7	2369.3	2387.7	2348.1	2251.8
19°	1483.6	1513.8	1596.4	1735.1	1949.8	2147.6	2291.0	2373.1	2391.5	2351.4	2252.8
19.5°	1469.9	1501.1	1584.1	1725.7	1944.6	2146.6	2292.9	2376.0	2394.8	2353.8	2253.3
20°	1456.7	1487.4	1571.9	1715.3	1939.0	2145.2	2294.3	2378.8	2397.7	2355.7	2253.7
20.5°	1443.0	1474.2	1559.6	1705.4	1933.3	2143.3	2295.7	2381.1	2400.0	2357.1	2253.3
21°	1429.8	1461.0	1546.8	1695.0	1926.7	2141.4	2296.2	2383.0	2401.9	2358.5	2252.8



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
22.5°	1388.8	1421.3	1509.6	1662.9	1907.4	2134.3	2296.7	2385.9	2404.7	2359.0	2249.0
23°	1375.1	1408.1	1496.4	1651.6	1900.3	2131.0	2295.7	2385.9	2404.3	2358.0	2246.7
23.5°	1361.4	1394.9	1484.1	1640.8	1892.7	2127.7	2294.3	2385.4	2403.8	2357.1	2244.3
24°	1347.7	1381.2	1470.9	1629.4	1884.7	2124.0	2292.9	2384.4	2402.8	2355.2	2241.0
24.5°	1333.6	1367.1	1458.1	1617.6	1877.2	2119.7	2291.0	2383.0	2401.0	2352.8	2237.7
25°	1319.4	1353.8	1444.9	1606.3	1869.1	2115.0	2288.2	2381.1	2399.1	2350.5	2233.9
25.5°	1305.2	1339.7	1432.2	1594.5	1861.1	2110.3	2285.3	2378.8	2396.7	2347.2	2229.7
26°	1291.1	1326.0	1419.0	1582.7	1852.2	2105.1	2282.0	2376.0	2393.4	2343.4	2224.5
26.5°	1276.9	1311.8	1405.8	1570.4	1843.2	2099.0	2278.3	2372.6	2389.6	2339.1	2219.3
27°	1261.8	1298.2	1392.1	1558.2	1834.2	2093.3	2274.0	2368.9	2385.9	2334.9	2213.6
27.5°	1246.7	1283.5	1378.9	1545.9	1824.8	2086.7	2269.3	2364.6	2381.1	2329.7	2207.5
28°	1232.1	1269.4	1365.2	1533.2	1814.9	2080.1	2264.1	2359.4	2376.0	2323.6	2200.9
28.5°	1217.0	1254.7	1351.5	1520.4	1805.0	2073.0	2258.5	2354.2	2370.3	2317.9	2194.3
29°	1201.4	1240.1	1337.8	1507.7	1795.1	2065.5	2252.3	2348.1	2363.7	2310.8	2186.7
29.5°	1185.9	1225.0	1324.1	1494.9	1784.2	2057.4	2245.7	2342.0	2356.6	2303.8	2178.7
30°	1170.3	1209.9	1310.0	1482.2	1773.8	2048.9	2238.6	2334.9	2349.1	2295.7	2170.2
30.5°	1154.2	1194.3	1295.8	1468.5	1763.0	2040.4	2231.1	2326.9	2341.0	2287.7	2161.2
31°	1137.7	1179.2	1281.6	1455.3	1751.6	2031.5	2223.1	2318.9	2332.5	2278.7	2151.8
31.5°	1121.2	1163.2	1267.0	1442.1	1739.8	2021.6	2214.6	2310.4	2323.6	2269.3	2141.9
32°	1104.2	1147.6	1252.9	1427.9	1728.5	2012.1	2205.6	2300.9	2313.7	2258.9	2132.0
32.5°	1087.2	1131.6	1238.2	1414.7	1716.7	2001.7	2196.2	2291.5	2303.8	2248.5	2120.7
33°	1070.7	1115.1	1223.6	1400.6	1704.5	1991.4	2186.3	2281.1	2292.4	2237.7	2108.9
33.5°	1053.3	1098.6	1209.0	1386.9	1691.7	1980.0	2175.4	2269.8	2280.6	2224.9	2096.6
34°	1036.3	1082.0	1193.9	1372.2	1679.0	1968.2	2164.1	2258.0	2268.4	2212.2	2082.9
34.5°	1017.9	1065.0	1178.8	1358.1	1665.8	1956.4	2152.7	2245.7	2254.7	2197.1	2068.3
35°	1000.4	1047.6	1163.7	1343.5	1652.1	1944.2	2140.0	2231.6	2238.6	2181.5	2052.7
35.5°	982.0	1030.6	1148.1	1328.8	1638.4	1930.5	2126.3	2216.5	2222.1	2163.6	2036.2
36°	964.5	1013.1	1132.5	1314.2	1624.2	1916.3	2111.2	2199.5	2203.2	2144.7	2021.1
36.5°	945.7	995.7	1117.4	1299.1	1609.6	1902.2	2095.2	2180.6	2182.9	2125.4	2005.5
37°	927.7	977.8	1101.4	1284.5	1595.5	1887.1	2078.7	2161.2	2158.4	2104.6	1988.5
37.5°	908.9	959.8	1085.3	1268.9	1580.8	1873.4	2063.1	2140.0	2135.8	2080.6	1968.7
38°	890.9	941.4	1069.3	1254.7	1567.6	1859.7	2045.6	2116.4	2108.9	2055.1	1946.5
38.5°	871.6	923.5	1053.3	1239.6	1553.9	1847.0	2026.3	2091.4	2082.4	2028.6	1922.5
39°	854.1	905.1	1037.2	1225.0	1540.2	1831.9	2004.6	2065.9	2053.7	2000.8	1897.9
39.5°	836.2	886.7	1020.7	1210.4	1527.0	1815.3	1982.4	2038.6	2024.4	1972.0	1871.5
40°	819.2	868.3	1004.2	1195.8	1512.9	1796.9	1957.9	2009.3	1993.3	1941.8	1844.1
40.5°	801.3	849.9	987.2	1180.7	1497.3	1775.7	1931.9	1980.0	1961.2	1910.7	1815.3
41°	785.2	831.9	970.2	1165.6	1480.3	1754.5	1905.0	1948.4	1928.6	1878.6	1786.6
41.5°	768.7	814.0	953.7	1150.0	1462.4	1731.8	1877.2	1916.8	1894.6	1846.0	1756.4
42°	753.6	796.1	936.7	1133.9	1443.5	1707.8	1848.4	1883.8	1860.7	1813.0	1725.7
42.5°	738.0	779.1	919.7	1117.4	1424.2	1684.2	1818.7	1849.8	1826.2	1778.5	1695.0
43°	722.5	762.6	902.2	1100.0	1403.4	1659.2	1787.5	1815.8	1790.8	1745.0	1663.9
43.5°	707.4	746.1	884.8	1082.0	1382.6	1633.2	1755.9	1780.9	1754.9	1709.2	1631.3

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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
45°	663.9	699.3	830.5	1026.4	1317.0	1551.6	1659.2	1674.3	1645.9	1603.9	1533.6
45.5°	650.7	684.2	812.6	1008.0	1293.9	1523.7	1625.2	1638.9	1610.1	1568.6	1500.6
46°	636.6	669.1	793.7	988.1	1271.3	1494.5	1592.1	1602.5	1573.3	1533.2	1467.6
46.5°	622.9	654.5	774.8	967.8	1248.1	1465.2	1558.6	1566.7	1536.9	1497.3	1434.5
47°	609.7	640.4	756.0	948.0	1224.1	1435.5	1524.2	1529.9	1500.1	1461.9	1401.5
47.5°	596.5	625.7	736.6	927.3	1199.5	1405.8	1489.7	1494.0	1464.7	1427.0	1368.0
48°	583.7	612.0	717.3	907.0	1175.0	1375.6	1456.2	1459.1	1428.9	1392.5	1335.4
48.5°	571.0	598.4	698.9	886.7	1150.5	1345.4	1421.8	1423.2	1394.0	1357.6	1302.9
49°	558.7	584.7	680.0	865.4	1125.9	1315.1	1387.8	1388.3	1357.1	1323.6	1270.8
49.5°	546.0	571.5	662.1	844.7	1100.4	1284.5	1354.3	1352.4	1322.7	1288.7	1238.7
50°	533.7	558.2	643.7	823.9	1075.4	1254.3	1320.8	1317.5	1288.3	1255.2	1206.1
50.5°	521.4	545.5	625.7	802.7	1049.5	1224.1	1286.4	1283.1	1254.3	1221.7	1174.5
51°	509.6	532.3	608.7	781.4	1024.0	1192.9	1252.9	1248.6	1220.3	1189.2	1142.9
51.5°	498.3	520.0	591.7	759.7	999.0	1163.7	1220.8	1215.6	1186.8	1156.6	1112.7
52°	486.5	507.3	574.8	739.0	973.0	1133.5	1188.2	1182.1	1154.7	1124.5	1081.6
52.5°	475.2	495.0	558.7	717.7	947.5	1102.8	1155.2	1148.6	1121.2	1092.9	1050.9
53°	463.9	482.7	542.2	696.5	922.1	1073.1	1123.1	1116.5	1090.5	1062.2	1021.2
53.5°	453.0	470.9	526.2	675.7	896.6	1043.8	1091.5	1084.9	1058.0	1031.1	991.9
54°	441.7	459.1	510.1	655.0	871.1	1014.1	1060.8	1053.7	1028.2	1000.9	962.6
54.5°	431.3	447.8	495.0	634.2	846.1	985.3	1029.7	1022.6	996.6	971.1	934.3
55°	420.5	436.5	479.9	613.9	821.6	957.0	999.0	992.4	969.3	943.3	906.5
55.5°	410.1	425.2	465.3	593.6	797.0	927.7	970.2	962.6	938.6	914.0	879.1
56°	400.2	414.3	450.7	573.3	772.5	899.9	940.0	933.4	911.2	885.7	851.8
56.5°	389.8	403.5	437.0	554.0	748.9	873.5	911.2	904.6	881.5	858.8	825.3
57°	379.9	392.1	422.8	535.1	724.3	845.6	882.9	876.8	856.0	831.9	798.9
57.5°	370.4	382.2	409.6	515.8	701.7	818.7	854.6	848.9	827.7	805.5	773.4
58°	360.5	371.8	396.9	497.4	678.1	792.3	827.7	822.0	802.7	779.6	748.9
58.5°	351.6	361.9	384.1	479.4	655.5	766.8	801.3	796.1	775.8	755.0	723.9
59°	342.6	352.0	371.8	461.5	632.8	741.3	774.8	770.1	751.7	730.5	700.3
59.5°	333.6	342.6	360.0	444.0	610.6	716.8	748.4	744.6	726.2	705.9	676.2
60°	324.7	333.2	348.3	427.1	588.9	692.3	722.9	720.1	701.2	682.8	653.6
60.5°	316.2	323.7	336.9	411.0	567.7	668.2	698.9	696.0	678.1	660.2	630.9
61°	307.7	314.7	325.6	394.5	547.4	644.6	675.3	672.4	653.1	637.5	608.7
61.5°	299.2	306.3	315.7	378.9	526.6	621.9	651.7	649.3	630.9	615.3	587.5
62°	291.2	297.8	305.3	364.3	506.8	599.8	628.6	627.1	608.7	593.6	566.7
62.5°	283.1	289.3	295.4	349.7	487.9	578.1	605.9	604.5	585.6	572.4	546.4
63°	275.6	280.8	286.0	335.5	469.1	555.9	584.2	582.8	565.3	551.6	526.2
63.5°	268.0	272.8	276.5	321.4	449.7	534.6	562.5	561.5	543.6	531.3	507.3
64°	260.5	265.2	267.6	308.1	433.2	514.4	542.2	541.3	522.9	511.5	487.9
64.5°	252.9	257.2	259.1	295.4	416.2	494.5	521.9	521.0	504.0	492.7	469.5
65°	244.9	249.6	251.0	283.1	399.2	475.7	502.1	501.6	484.6	474.2	452.1
65.5°	237.4	242.1	242.5	271.3	382.2	456.8	482.7	482.7	465.3	455.8	434.6
66°	229.8	234.5	234.5	259.5	365.2	437.9	464.3	464.3	447.3	437.9	417.1



TEST NUMBER: P776807

CATALOG NUMBER: HCDJBL54050CSD-HCD8TRH-HCD8TRLWW-5000lm-3500K

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
67.5°	206.2	212.3	212.3	227.4	318.5	386.9	412.0	412.4	397.3	388.4	369.5
68°	199.1	205.3	205.3	217.1	303.9	370.4	395.9	396.4	380.8	372.3	353.4
68.5°	191.6	198.2	198.2	207.6	290.2	353.4	379.4	379.9	364.8	356.3	338.3
69°	184.0	191.1	191.1	197.7	276.1	337.9	363.4	363.8	348.3	341.6	323.7
69.5°	177.0	183.6	184.5	189.2	263.3	322.3	346.8	347.8	333.6	327.0	309.6
70°	168.9	176.5	177.9	180.7	250.6	307.2	331.7	333.2	319.5	312.9	295.4
70.5°	162.3	168.9	171.8	172.7	238.3	293.0	316.6	318.5	305.3	299.2	282.2
71°	155.7	162.3	165.6	165.2	226.0	279.8	303.0	304.8	291.6	285.5	269.4
71.5°	148.6	156.2	159.5	158.1	214.7	266.1	289.3	291.2	277.9	272.3	256.7
72°	142.0	149.6	153.4	150.5	203.4	252.9	275.6	277.5	265.2	259.5	244.4
72.5°	135.4	143.5	147.7	143.5	192.5	240.2	262.8	264.7	252.5	247.3	232.2
73°	128.8	136.8	141.6	135.9	182.1	227.9	249.6	252.5	240.2	235.0	220.8
73.5°	121.7	130.2	135.4	129.8	171.8	216.1	238.3	240.2	228.4	223.7	209.5
74°	115.1	124.1	129.8	123.6	162.3	204.8	226.0	228.9	217.1	212.3	198.7
74.5°	109.0	118.0	124.1	117.5	152.9	193.9	214.2	217.1	205.7	202.0	188.3
75°	102.4	111.4	118.4	111.8	143.9	183.1	202.9	206.2	194.9	191.1	177.9
75.5°	96.3	105.7	112.8	106.6	135.0	172.7	192.5	195.4	184.5	180.7	168.0
76°	90.1	99.6	107.6	101.5	126.9	162.8	181.7	185.0	174.1	170.4	158.1
76.5°	84.5	93.4	101.9	96.3	118.9	152.9	171.8	175.1	164.7	160.9	149.1
77°	78.8	87.8	96.7	91.5	111.4	143.9	161.9	165.2	154.8	151.5	140.2
77.5°	74.1	82.1	91.5	87.3	103.8	135.0	152.4	155.7	145.3	142.5	131.2
78°	69.8	76.9	86.4	82.6	96.7	126.0	143.0	146.8	136.4	133.5	122.7
78.5°	65.6	72.2	81.2	78.3	89.7	118.0	134.5	137.8	127.9	125.1	114.7
79°	61.3	67.5	76.4	73.6	83.5	109.9	125.5	129.3	118.9	116.6	107.1
79.5°	57.6	63.2	71.7	69.4	76.9	101.9	117.5	120.8	110.9	109.0	99.1
80°	53.3	59.5	67.0	65.1	71.3	94.8	109.5	112.3	102.9	101.0	91.5
80.5°	50.0	55.2	62.3	61.3	65.1	87.8	101.5	104.8	94.8	93.4	84.9
81°	46.2	51.4	58.0	57.1	60.4	80.7	94.4	97.2	87.3	85.9	77.9
81.5°	42.5	47.2	54.3	52.9	54.7	74.1	86.8	89.7	79.7	78.8	71.3
82°	38.7	43.4	50.0	49.1	50.0	68.0	80.2	82.6	72.7	72.2	64.6
82.5°	35.4	39.6	46.2	45.3	45.3	61.8	73.1	75.5	65.6	65.6	58.5
83°	31.6	35.9	42.5	41.5	41.1	56.2	67.0	68.9	59.0	59.0	52.9
83.5°	27.8	32.1	38.7	38.2	37.3	51.0	60.4	62.3	51.9	52.9	47.7
84°	24.5	28.8	34.9	34.4	33.5	46.2	54.7	56.2	45.8	47.2	42.5
84.5°	21.2	25.0	31.1	31.1	29.3	41.1	48.6	50.0	39.2	41.5	37.3
85°	17.9	21.7	27.4	27.4	25.5	36.3	43.9	44.4	33.0	35.9	32.1
85.5°	15.1	17.9	24.1	24.1	22.2	31.6	38.7	39.2	26.9	30.2	26.9
86°	12.3	15.1	20.3	20.8	18.9	26.9	33.5	34.0	20.3	24.5	21.7
86.5°	9.4	12.7	17.5	17.5	16.0	23.1	28.3	28.3	15.1	20.3	17.5
87°	7.1	9.9	14.2	14.6	13.2	18.9	23.1	23.1	12.3	16.0	13.2
87.5°	4.7	7.1	11.3	11.8	10.4	15.1	18.9	18.4	9.4	12.3	9.0
88°	2.8	4.7	8.0	8.5	8.0	11.8	14.2	14.2	6.6	8.0	5.2
88.5°	1.4	2.8	5.2	5.7	5.7	8.5	10.4	9.4	3.8	3.8	1.4



TEST NUMBER: P776807

CATALOG NUMBER: HCDJBL54050CSD-HCD8TRH-HCD8TRLWW-5000lm-3500K

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
90°	0.0	0.0	0.0	0.0	0.5	0.5	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P776807

CATALOG NUMBER: HCDJBL54050CSD-HCD8TRH-HCD8TRLWW-5000lm-3500K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	2022.0	2022.0	2022.0	2022.0	2022.0	2022.0
0.5°	2027.7	2026.3	2018.7	2012.1	2006.0	2002.7
1°	2032.9	2025.8	2012.1	2000.3	1990.4	1986.6
1.5°	2038.1	2024.9	2005.0	1988.1	1974.8	1970.1
2°	2043.3	2023.9	1998.0	1976.3	1959.3	1953.1
2.5°	2048.5	2023.0	1990.9	1963.5	1944.2	1937.1
3°	2053.2	2021.6	1983.8	1951.3	1929.5	1921.5
3.5°	2057.4	2020.6	1976.3	1939.0	1915.4	1906.4
4°	2062.1	2019.2	1968.7	1927.2	1900.8	1892.3
4.5°	2066.4	2017.8	1961.2	1915.4	1887.1	1877.6
5°	2070.2	2016.4	1953.1	1904.1	1873.9	1864.0
5.5°	2073.9	2014.5	1945.6	1892.3	1860.7	1849.8
6°	2077.7	2012.6	1937.6	1881.4	1847.4	1836.1
6.5°	2081.0	2010.7	1930.0	1870.1	1834.2	1822.4
7°	2084.3	2008.8	1922.0	1859.2	1821.0	1808.3
7.5°	2087.6	2006.5	1914.0	1847.9	1807.8	1794.6
8°	2090.5	2004.1	1906.4	1837.1	1794.6	1780.9
8.5°	2093.3	2001.7	1897.9	1825.7	1781.4	1767.2
9°	2096.1	1998.9	1889.9	1814.4	1767.7	1753.5
9.5°	2098.5	1996.1	1881.9	1803.1	1754.9	1739.8
10°	2100.8	1993.3	1873.9	1792.2	1741.7	1726.2
10.5°	2102.7	1989.9	1865.4	1780.4	1728.5	1713.0
11°	2104.6	1986.6	1857.3	1769.1	1715.3	1698.8
11.5°	2106.0	1983.3	1848.9	1757.3	1702.1	1685.1
12°	2107.4	1980.0	1840.4	1746.0	1688.9	1671.4
12.5°	2108.9	1976.3	1831.4	1734.2	1675.7	1658.2
13°	2109.8	1972.0	1822.9	1722.4	1662.9	1644.5
13.5°	2110.8	1968.2	1813.9	1710.6	1649.2	1631.3
14°	2111.2	1964.0	1805.0	1698.8	1636.0	1617.6
14.5°	2111.2	1959.3	1796.0	1686.5	1622.8	1603.9
15°	2111.2	1954.6	1787.0	1674.7	1609.6	1590.7
15.5°	2111.2	1949.8	1777.1	1662.5	1595.5	1577.0
16°	2110.8	1944.6	1767.7	1650.2	1582.7	1563.8
16.5°	2110.3	1939.5	1758.3	1637.9	1569.5	1550.6
17°	2109.3	1933.8	1748.3	1626.1	1556.3	1536.9
17.5°	2107.9	1928.1	1738.0	1613.4	1542.6	1523.7
18°	2106.5	1922.5	1728.1	1601.1	1529.4	1510.0
18.5°	2104.6	1915.9	1717.7	1587.9	1515.7	1496.8
19°	2102.3	1909.7	1707.3	1575.6	1502.5	1483.6
19.5°	2099.9	1903.1	1696.4	1562.9	1489.3	1469.9
20°	2097.1	1896.0	1686.1	1550.6	1476.1	1456.7
20.5°	2094.2	1889.4	1674.7	1537.4	1462.4	1443.0
21°	2090.9	1881.9	1663.9	1524.2	1449.2	1429.8



TEST NUMBER: P776807

CATALOG NUMBER: HCDJBL54050CSD-HCD8TRH-HCD8TRLWW-5000lm-3500K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
22.5°	2079.1	1858.3	1629.4	1485.0	1408.1	1388.8
23°	2073.9	1850.3	1617.6	1472.3	1394.4	1375.1
23.5°	2069.2	1841.3	1605.8	1458.6	1380.7	1361.4
24°	2063.6	1832.8	1594.0	1445.4	1367.1	1347.7
24.5°	2057.9	1823.4	1581.8	1431.7	1352.9	1333.6
25°	2051.8	1813.9	1569.5	1418.5	1339.2	1319.4
25.5°	2045.6	1804.5	1556.8	1404.8	1325.5	1305.2
26°	2038.6	1795.1	1544.5	1391.1	1311.4	1291.1
26.5°	2031.5	1785.1	1531.7	1377.4	1296.7	1276.9
27°	2023.9	1774.3	1519.0	1363.8	1282.6	1261.8
27.5°	2015.9	1763.9	1505.8	1349.6	1268.0	1246.7
28°	2007.4	1753.1	1492.6	1335.4	1252.9	1232.1
28.5°	1998.9	1742.2	1479.4	1321.3	1238.7	1217.0
29°	1989.9	1730.4	1466.2	1307.6	1223.6	1201.4
29.5°	1980.5	1719.1	1452.9	1293.4	1209.0	1185.9
30°	1970.6	1707.3	1439.3	1279.3	1193.9	1170.3
30.5°	1960.2	1695.0	1425.1	1264.2	1178.3	1154.2
31°	1949.8	1682.7	1411.4	1250.0	1162.7	1137.7
31.5°	1938.5	1670.5	1397.7	1235.4	1146.7	1121.2
32°	1927.7	1656.8	1383.1	1220.8	1130.6	1104.2
32.5°	1915.4	1644.1	1368.9	1206.1	1114.6	1087.2
33°	1903.1	1630.4	1354.3	1191.0	1098.6	1070.7
33.5°	1889.9	1616.7	1340.2	1175.9	1081.6	1053.3
34°	1875.8	1602.1	1325.1	1160.8	1065.0	1036.3
34.5°	1861.6	1587.4	1310.4	1145.7	1048.5	1017.9
35°	1846.5	1572.8	1295.3	1130.2	1031.1	1000.4
35.5°	1832.3	1559.1	1280.7	1114.6	1014.1	982.0
36°	1819.1	1545.9	1266.1	1099.5	996.6	964.5
36.5°	1806.4	1532.7	1251.4	1083.5	978.7	945.7
37°	1793.2	1519.5	1236.8	1067.4	961.2	927.7
37.5°	1778.5	1506.3	1222.2	1051.8	943.3	908.9
38°	1762.0	1492.1	1207.6	1035.8	925.4	890.9
38.5°	1743.6	1477.0	1192.9	1020.2	907.0	871.6
39°	1722.4	1460.5	1178.8	1003.7	889.0	854.1
39.5°	1700.2	1442.6	1163.2	988.1	870.6	836.2
40°	1676.6	1423.2	1147.2	971.1	852.7	819.2
40.5°	1653.0	1402.9	1130.6	955.1	833.8	801.3
41°	1628.5	1382.6	1113.7	938.6	815.9	785.2
41.5°	1602.5	1360.9	1096.7	922.1	798.0	768.7
42°	1576.6	1339.2	1078.3	904.6	780.5	753.6
42.5°	1550.1	1317.0	1059.9	887.6	764.0	738.0
43°	1523.7	1294.4	1041.0	870.2	747.0	722.5
43.5°	1495.4	1271.3	1022.1	852.2	731.0	707.4

TEST NUMBER: P776807

CATALOG NUMBER: HCDJBL54050CSD-HCD8TRH-HCD8TRLWW-5000lm-3500K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
45°	1410.9	1200.5	962.2	797.5	683.8	663.9
45.5°	1381.7	1175.9	941.9	779.1	669.1	650.7
46°	1352.4	1152.3	921.6	759.7	653.6	636.6
46.5°	1324.6	1126.9	900.8	741.3	639.4	622.9
47°	1294.4	1102.3	880.1	722.0	625.3	609.7
47.5°	1264.7	1076.8	858.8	702.6	611.1	596.5
48°	1235.4	1052.8	838.1	683.3	596.9	583.7
48.5°	1207.1	1027.3	816.8	664.4	583.3	571.0
49°	1176.9	1002.8	796.1	645.5	569.6	558.7
49.5°	1147.6	977.8	774.8	627.6	556.4	546.0
50°	1118.4	952.3	753.6	609.2	543.1	533.7
50.5°	1090.5	927.7	732.4	591.7	529.9	521.4
51°	1060.3	903.2	712.5	573.8	517.2	509.6
51.5°	1033.4	878.7	691.3	557.3	504.4	498.3
52°	1004.2	853.6	671.0	540.3	492.2	486.5
52.5°	976.8	828.6	650.3	523.8	479.9	475.2
53°	949.0	805.0	630.0	507.3	468.1	463.9
53.5°	922.1	781.4	609.7	492.2	455.8	453.0
54°	894.2	757.4	590.3	476.6	444.0	441.7
54.5°	868.3	733.8	571.0	461.0	432.7	431.3
55°	841.8	711.6	551.6	446.4	421.4	420.5
55.5°	816.4	688.5	532.3	432.2	410.5	410.1
56°	790.4	666.3	514.4	418.1	399.7	400.2
56.5°	765.4	643.7	496.0	403.9	388.8	389.8
57°	740.9	621.9	478.0	390.7	378.0	379.9
57.5°	717.3	600.2	460.1	378.0	367.6	370.4
58°	693.2	579.9	443.6	365.7	357.7	360.5
58.5°	670.6	559.7	427.1	353.4	347.8	351.6
59°	647.0	539.4	411.0	341.6	338.3	342.6
59.5°	624.8	519.1	395.0	330.3	328.9	333.6
60°	603.1	500.2	379.9	319.5	319.5	324.7
60.5°	581.8	480.9	364.8	308.6	310.5	316.2
61°	560.6	462.9	350.1	298.2	301.5	307.7
61.5°	540.8	445.5	336.5	288.3	293.0	299.2
62°	520.5	427.5	322.8	278.9	284.5	291.2
62.5°	501.1	410.5	309.1	269.4	276.5	283.1
63°	481.8	393.6	296.3	260.5	268.5	275.6
63.5°	463.4	377.5	284.1	251.5	260.0	268.0
64°	445.0	361.5	272.3	243.5	252.9	260.5
64.5°	427.5	346.4	260.5	235.5	245.4	252.9
65°	411.5	331.3	249.6	227.4	237.8	244.9
65.5°	395.0	317.1	238.8	219.9	230.8	237.4
66°	378.5	302.5	228.4	212.8	223.7	229.8

TEST NUMBER: P776807

CATALOG NUMBER: HCDJBL54050CSD-HCD8TRH-HCD8TRLWW-5000lm-3500K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
67.5°	330.8	262.8	199.1	191.6	202.0	206.2
68°	316.2	250.1	190.2	185.0	194.4	199.1
68.5°	302.0	237.8	181.7	178.4	187.3	191.6
69°	288.3	226.5	173.2	172.2	180.3	184.0
69.5°	274.6	215.2	165.6	166.6	173.2	177.0
70°	261.4	203.9	158.1	160.4	166.6	168.9
70.5°	249.2	193.5	150.5	154.8	160.0	162.3
71°	236.9	183.1	143.0	148.6	153.4	155.7
71.5°	224.6	173.2	135.9	142.5	146.8	148.6
72°	213.3	164.2	129.3	136.8	140.2	142.0
72.5°	202.0	155.7	122.7	131.2	133.5	135.4
73°	191.1	146.8	116.1	125.5	126.9	128.8
73.5°	180.7	137.8	110.4	119.9	120.8	121.7
74°	170.8	128.8	104.8	114.7	114.7	115.1
74.5°	160.9	120.8	99.6	109.0	108.5	109.0
75°	151.5	113.3	94.4	103.8	102.4	102.4
75.5°	142.5	105.7	89.2	98.6	96.3	96.3
76°	133.5	98.6	84.5	93.4	90.6	90.1
76.5°	125.5	92.0	79.7	88.2	84.5	84.5
77°	117.0	85.4	75.5	83.1	79.3	78.8
77.5°	109.5	79.3	71.3	78.3	73.6	74.1
78°	101.9	73.1	67.5	73.1	68.9	69.8
78.5°	94.4	67.5	63.2	68.4	64.2	65.6
79°	87.8	61.8	59.0	64.2	59.9	61.3
79.5°	80.7	56.6	55.2	59.5	56.2	57.6
80°	74.1	51.4	51.4	54.7	51.9	53.3
80.5°	68.0	46.7	47.7	51.0	48.1	50.0
81°	62.3	42.5	43.9	46.7	44.4	46.2
81.5°	56.6	38.2	40.1	42.9	40.1	42.5
82°	51.0	34.0	36.8	39.2	36.3	38.7
82.5°	46.2	30.2	33.5	35.4	33.0	35.4
83°	42.0	26.9	30.2	32.1	29.3	31.6
83.5°	37.3	23.6	26.4	28.3	25.5	27.8
84°	32.6	20.3	23.6	25.0	22.2	24.5
84.5°	27.8	17.0	20.3	21.7	18.9	21.2
85°	23.1	14.6	17.0	18.4	16.0	17.9
85.5°	19.3	11.8	14.2	15.6	13.2	15.1
86°	15.6	9.4	11.3	12.7	10.4	12.3
86.5°	11.8	6.6	8.5	9.4	8.0	9.4
87°	8.5	4.7	5.7	6.6	5.7	7.1
87.5°	5.7	2.4	3.3	4.2	3.8	4.7
88°	2.4	0.9	0.9	1.9	2.4	2.8
88.5°	0.5	0.0	0.0	0.5	0.9	1.4



TEST NUMBER: P776807

CATALOG NUMBER: HCDJBL54050CSD-HCD8TRH-HCD8TRLWW-5000lm-3500K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
90°	0.0	0.0	0.0	0.0	0.0	0.0



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Peachtree City, GA 30269

Scaled Data Report





— 0°-180° - - 45°-225° - - - - 90°-270° - · - 135°-315°

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Scaled Data Report



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Scaled Data Report





21.5°	1416.1	1447.7	1534.6	1684.2	1920.6	2139.5	2296.7	2384.4	2403.3	2359.0	2251.8
22°	1402.4	1435.0	1521.8	1673.8	1914.0	2137.2	2296.7	2385.4	2403.8	2359.0	2250.4



44°	692.7	730.5	866.9	1064.1	1360.9	1606.3	1724.7	1746.0	1718.1	1674.7	1598.8
44.5°	678.6	714.4	848.9	1045.7	1339.7	1579.4	1691.7	1710.1	1683.2	1639.3	1566.7



66.5°	221.8	227.4	227.0	248.2	348.3	420.5	445.9	445.9	429.9	420.9	401.6
67°	214.2	219.9	219.4	237.4	333.2	403.9	428.5	428.5	413.4	404.9	385.5



89°	0.5	1.4	2.4	3.3	3.8	5.2	6.1	4.7	0.9	0.5	0.0
89.5°	0.0	0.5	0.5	0.9	1.9	2.4	2.4	0.9	0.0	0.0	0.0

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21.5°	2087.2	1874.3	1652.5	1511.5	1435.5	1416.1
22°	2082.9	1866.3	1641.2	1498.2	1421.8	1402.4



44°	1468.0	1247.7	1002.3	834.3	714.9	692.7
44.5°	1438.3	1224.1	982.0	816.4	699.3	678.6

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66.5°	362.4	288.8	218.5	205.7	216.1	221.8
67°	345.9	275.1	208.6	198.7	209.0	214.2

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89°	0.0	0.0	0.0	0.0	0.5	0.5
89.5°	0.0	0.0	0.0	0.0	0.0	0.0

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Scaled Data Report



(END OF REPORT)