

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: P775984

Luminaire Tested: HCDJBL51525CSD-HCD4TRH-2500lm-5000K

Issue Date: 2/7/2024

Test Information

Test Method: LM-79-2019
Report Number: P775984
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (A2310613A001)
Test Lab:
Issue Date: 2/7/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO COMMERCIAL
Catalog Number: HCDJBL51525CSD-HCD4TRH-2500lm-5000K
Description: 4 INCH ROUND MEDIUM HAZE TRIM
Light Source: SELECTABLE LUMENS AND CCT ARRAY 90CRI / 5000K CCT
Ballast/Driver: -

Summary

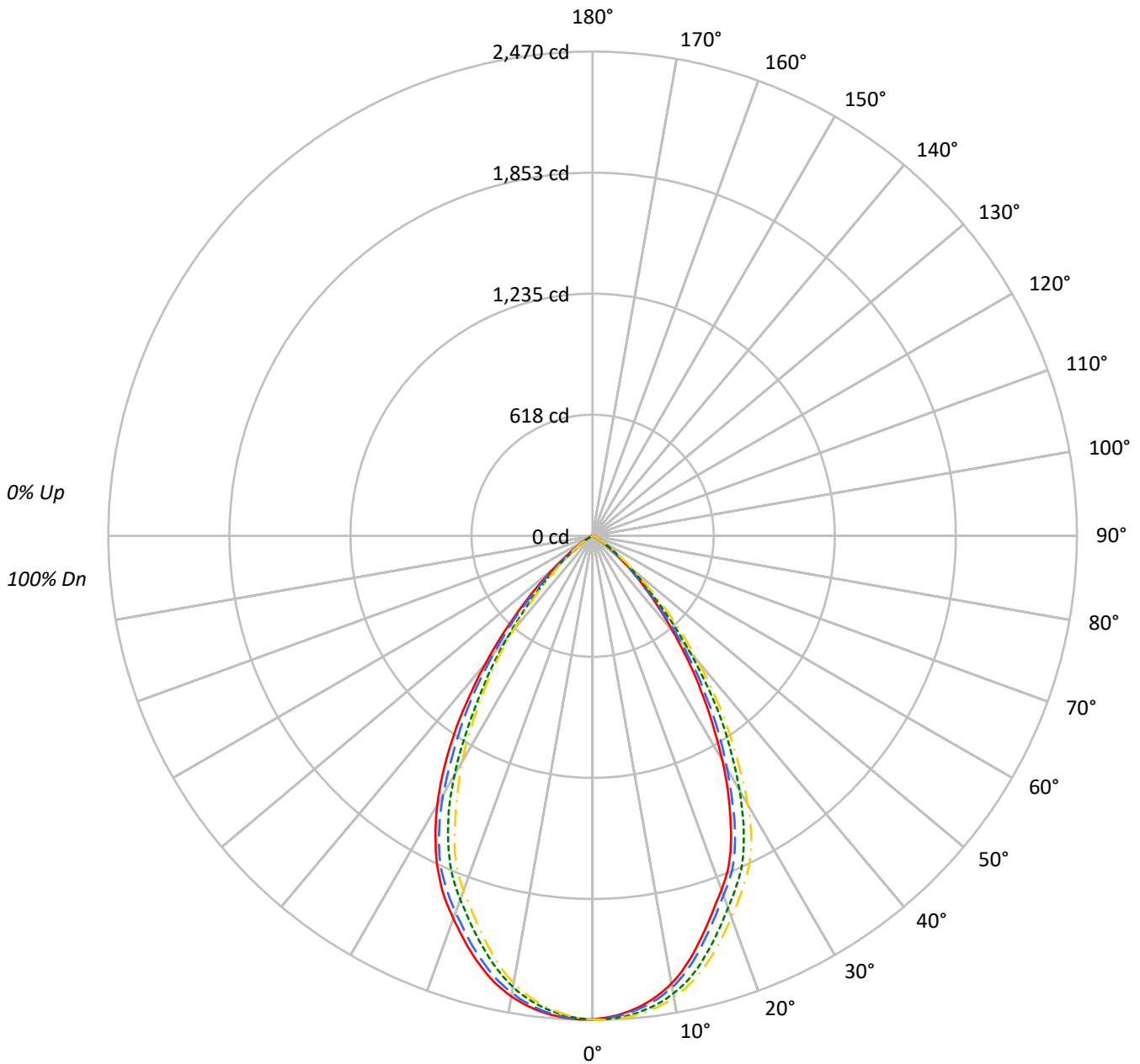
Lumens per Lamp: N/A
Luminaire Lumens: 2779.9 lumens
Efficiency: N/A
Efficacy: 111.2 lumens/watt
Spacing Criteria (0/90/45): 0.98 / 0.98 / 0.98
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 25
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: 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					70					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	50	30	10	0		
RCR																										
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100					100			
1	113	110	107	105	111	108	105	103	104	102	100	100	99	97	97	95	94	92					92			
2	107	101	97	93	104	100	96	92	96	93	90	93	91	88	91	88	86	85					85			
3	101	94	88	84	99	92	87	83	90	85	82	87	84	81	85	82	79	78					78			
4	95	87	81	76	93	85	80	75	83	78	75	81	77	74	79	76	73	71					71			
5	89	80	74	69	88	79	73	69	77	72	68	76	71	68	74	70	67	65					65			
6	84	75	68	63	83	74	68	63	72	67	63	71	66	62	69	65	62	60					60			
7	80	70	63	58	78	69	63	58	68	62	58	66	61	58	65	61	57	56					56			
8	75	65	58	54	74	64	58	54	63	58	54	62	57	53	61	57	53	52					52			
9	71	61	54	50	70	60	54	50	59	54	50	58	53	50	58	53	49	48					48			
10	68	57	51	47	67	57	51	47	56	50	46	55	50	46	54	50	46	45					45			

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	310471	310471	310471	310471
5°	306276	309244	309838	307350
10°	296297	303095	304910	298699
15°	277464	289073	293815	282754
20°	257380	270518	278232	264465
25°	231882	251809	259696	241769
30°	192359	217877	230287	204783
35°	148011	175327	188571	156261
40°	105044	125695	139642	110893
45°	68095	80535	91374	69234
50°	39373	46852	51003	37748
55°	19374	23609	23894	17377
60°	8130	9237	9489	6746
65°	4229	4377	4526	3544
70°	2465	2576	2760	2097
75°	1507	1653	1653	1264
80°	725	1087	942	725
85°	433	722	433	433

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 157.5°

Vertical Angle: 45°

Luminance: 93457 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	230.2	8.3
10°-20°	614.5	22.1
20°-30°	805.4	29.0
30°-40°	674.5	24.3
40°-50°	342.0	12.3
50°-60°	93.5	3.4
60°-70°	15.7	0.6
70°-80°	3.6	0.1
80°-90°	0.4	0.0
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°	1650.1	59.4
0°-40°	2324.6	83.6
0°-60°	2760.1	99.3
0°-90°	2779.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2779.9	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	2467	2467	2467	2467	2467	
5°	2424	2448	2453	2433	2424	228
15°	2130	2219	2255	2170	2130	597
25°	1670	1813	1870	1741	1670	757
35°	963	1141	1227	1017	963	600
45°	383	452	513	389	383	301
55°	88	108	109	79	88	86
65°	14	15	15	12	14	16
75°	3	3	3	3	3	3
85°	0	0	0	0	0	0
90°	0	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°	2467.0	2467.0	2467.0	2467.0	2467.0	2467.0	2467.0	2467.0	2467.0	2467.0	2467.0
0.5°	2464.2	2464.4	2465.5	2467.3	2468.0	2468.8	2469.1	2468.8	2466.8	2466.2	2466.5
1°	2462.1	2462.4	2464.2	2466.2	2468.0	2469.1	2469.6	2469.3	2467.5	2466.5	2466.5
1.5°	2459.3	2460.3	2462.4	2465.0	2467.5	2469.1	2469.6	2469.6	2467.3	2466.2	2465.2
2°	2456.2	2457.7	2459.8	2463.1	2466.2	2468.3	2469.6	2469.3	2466.8	2465.2	2464.4
2.5°	2452.3	2454.1	2457.2	2460.6	2464.7	2467.5	2468.8	2468.3	2465.7	2463.7	2462.6
3°	2447.9	2450.2	2453.3	2457.7	2462.1	2465.5	2467.3	2467.3	2463.9	2461.9	2460.3
3.5°	2442.8	2445.6	2449.5	2453.6	2459.5	2463.4	2465.2	2465.0	2462.1	2459.5	2457.5
4°	2437.3	2440.4	2444.3	2449.2	2456.4	2460.6	2463.1	2462.6	2459.5	2456.7	2454.4
4.5°	2431.4	2434.5	2439.1	2444.6	2452.6	2457.5	2460.6	2460.0	2455.9	2453.1	2450.2
5°	2424.4	2428.6	2432.9	2438.6	2447.9	2453.9	2456.9	2456.4	2452.6	2449.2	2446.1
5.5°	2417.2	2421.1	2426.5	2432.7	2443.0	2449.5	2453.1	2452.3	2448.2	2444.6	2440.9
6°	2408.7	2413.3	2419.8	2426.2	2437.1	2444.6	2448.7	2448.2	2443.5	2439.7	2435.8
6.5°	2400.4	2405.8	2412.0	2419.5	2431.1	2439.4	2444.0	2443.0	2438.4	2433.7	2429.3
7°	2390.9	2396.5	2403.8	2412.0	2424.4	2433.5	2438.4	2437.8	2432.4	2427.8	2422.6
7.5°	2380.8	2386.5	2394.7	2403.8	2417.2	2427.0	2431.9	2431.4	2426.2	2420.8	2415.1
8°	2370.0	2376.4	2385.2	2395.0	2409.5	2419.8	2424.9	2423.9	2419.5	2413.6	2407.1
8.5°	2358.3	2365.1	2374.6	2385.2	2400.9	2411.8	2417.7	2417.2	2411.8	2405.6	2398.4
9°	2345.7	2352.9	2363.0	2374.9	2392.2	2403.5	2409.5	2408.9	2403.8	2397.1	2389.1
9.5°	2332.8	2340.3	2351.1	2363.8	2382.1	2394.2	2400.9	2400.4	2395.5	2388.0	2379.0
10°	2318.6	2326.8	2338.5	2351.9	2371.8	2384.4	2390.9	2391.1	2386.0	2378.5	2368.4
10.5°	2303.1	2311.9	2325.3	2339.0	2360.1	2373.3	2380.8	2381.6	2376.2	2367.6	2357.6
11°	2287.6	2296.6	2310.1	2325.6	2348.0	2362.0	2370.2	2370.5	2365.3	2356.8	2345.4
11.5°	2270.1	2280.4	2294.3	2310.8	2335.4	2350.1	2358.6	2359.4	2354.2	2344.9	2332.5
12°	2251.7	2262.3	2277.3	2295.4	2321.7	2336.7	2345.9	2347.2	2342.3	2332.5	2319.6
12.5°	2232.9	2243.7	2259.5	2278.3	2306.2	2322.7	2333.6	2335.1	2329.7	2319.4	2305.7
13°	2213.5	2224.9	2240.9	2261.5	2290.5	2308.5	2319.1	2321.2	2316.0	2305.2	2291.0
13.5°	2193.1	2204.5	2222.0	2242.4	2273.9	2292.3	2304.9	2307.2	2301.8	2290.7	2276.0
14°	2172.0	2184.4	2201.7	2223.3	2256.4	2276.3	2289.2	2291.7	2286.6	2275.7	2259.5
14.5°	2151.1	2162.7	2180.7	2203.2	2237.8	2259.2	2272.9	2276.8	2271.6	2260.0	2243.5
15°	2129.6	2142.0	2159.8	2183.6	2218.7	2241.7	2256.4	2259.7	2255.1	2243.2	2226.7
15.5°	2107.9	2120.6	2138.7	2162.9	2199.8	2223.3	2239.6	2243.7	2238.6	2226.9	2209.7
16°	2086.8	2099.2	2118.0	2142.0	2180.2	2205.3	2222.3	2226.7	2222.0	2209.7	2192.1
16.5°	2064.8	2077.7	2096.6	2121.9	2160.9	2186.7	2203.7	2210.2	2205.0	2192.6	2174.0
17°	2043.9	2056.1	2075.4	2100.5	2140.2	2167.8	2185.4	2192.1	2187.2	2175.1	2155.4
17.5°	2022.2	2034.9	2053.7	2079.8	2119.8	2148.0	2167.1	2173.5	2169.4	2156.5	2137.4
18°	2001.1	2014.0	2033.1	2059.2	2099.9	2128.9	2148.0	2154.9	2151.1	2138.4	2118.0
18.5°	1979.7	1992.6	2011.7	2038.0	2079.6	2109.2	2129.1	2137.4	2132.2	2120.1	2098.9
19°	1960.0	1972.4	1991.3	2017.6	2059.4	2089.1	2110.0	2117.2	2113.9	2101.5	2080.3
19.5°	1940.2	1952.5	1971.7	1997.5	2040.1	2069.7	2090.9	2098.7	2095.6	2083.2	2062.3
20°	1921.8	1933.4	1952.0	1978.1	2019.9	2050.1	2071.3	2080.6	2077.5	2065.1	2043.7
20.5°	1902.2	1914.3	1932.9	1958.5	2000.8	2030.5	2052.7	2062.0	2059.2	2047.0	2025.1
21°	1883.1	1895.0	1914.1	1939.1	1981.7	2011.7	2033.6	2042.6	2040.8	2028.7	2006.8



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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°	1814.4	1831.2	1853.7	1881.3	1923.1	1954.6	1977.6	1987.9	1984.6	1971.1	1948.2
23°	1789.4	1805.9	1830.2	1860.1	1903.5	1933.7	1958.7	1968.3	1964.2	1948.2	1927.5
23.5°	1761.5	1778.3	1805.2	1836.1	1883.6	1913.1	1938.6	1947.1	1940.7	1925.4	1906.9
24°	1731.8	1749.9	1777.8	1810.6	1863.7	1892.1	1918.2	1926.0	1917.2	1902.5	1885.9
24.5°	1700.6	1718.9	1749.1	1783.5	1839.2	1871.5	1898.1	1905.1	1893.7	1879.5	1865.3
25°	1669.9	1688.0	1719.5	1753.8	1813.4	1850.8	1877.9	1883.9	1870.2	1856.5	1839.7
25.5°	1636.6	1655.4	1688.0	1722.8	1786.3	1825.8	1857.6	1862.7	1846.7	1831.0	1813.7
26°	1604.3	1624.7	1655.4	1689.0	1757.4	1799.5	1833.5	1836.6	1819.9	1802.3	1786.3
26.5°	1570.5	1592.4	1620.8	1653.9	1728.2	1772.1	1808.0	1811.1	1792.8	1774.2	1757.4
27°	1537.5	1559.7	1585.5	1618.3	1698.0	1743.2	1781.1	1781.9	1764.4	1746.0	1727.5
27.5°	1502.9	1526.1	1547.8	1583.4	1667.6	1714.8	1753.0	1753.8	1735.7	1717.6	1696.0
28°	1468.8	1492.3	1511.7	1549.3	1635.6	1685.1	1722.0	1722.8	1706.8	1688.5	1663.7
28.5°	1432.9	1458.0	1475.3	1515.5	1601.5	1654.9	1689.5	1692.1	1678.4	1659.0	1630.4
29°	1397.3	1422.9	1438.9	1482.5	1567.7	1623.4	1656.2	1659.6	1647.9	1628.3	1596.1
29.5°	1360.9	1386.2	1404.3	1450.5	1532.8	1591.2	1620.3	1626.5	1617.0	1597.1	1560.4
30°	1323.7	1348.5	1370.2	1417.7	1499.3	1557.6	1582.9	1591.2	1584.7	1564.1	1522.5
30.5°	1285.5	1311.1	1336.1	1385.7	1461.1	1522.0	1543.7	1555.5	1552.2	1530.8	1484.5
31°	1248.4	1273.6	1302.3	1351.1	1425.2	1485.3	1506.0	1518.6	1517.8	1497.2	1446.6
31.5°	1211.4	1235.7	1268.5	1317.3	1389.6	1446.6	1466.0	1480.9	1483.3	1461.3	1407.6
32°	1174.8	1198.5	1234.2	1280.9	1356.3	1408.7	1427.2	1442.5	1447.6	1425.2	1369.9
32.5°	1139.9	1161.4	1199.3	1245.0	1319.6	1370.7	1389.0	1405.0	1413.0	1389.0	1332.2
33°	1105.1	1126.0	1164.7	1207.6	1284.2	1331.2	1351.9	1367.4	1376.4	1353.7	1294.8
33.5°	1069.5	1090.6	1129.1	1169.6	1249.4	1291.5	1314.7	1329.7	1340.5	1316.2	1258.4
34°	1034.6	1054.7	1092.4	1131.2	1215.3	1250.2	1278.0	1292.5	1302.8	1277.8	1222.3
34.5°	999.2	1018.4	1055.8	1094.8	1177.6	1209.1	1241.6	1256.1	1265.9	1240.9	1186.7
35°	963.4	981.4	1019.9	1058.9	1141.2	1168.1	1204.5	1220.2	1227.4	1202.7	1150.5
35.5°	930.3	946.8	984.5	1024.3	1103.5	1128.6	1167.8	1184.6	1190.3	1163.2	1114.9
36°	896.8	913.0	949.7	990.5	1067.9	1089.3	1130.9	1148.2	1150.8	1124.4	1079.3
36.5°	862.7	879.5	925.7	956.4	1027.1	1051.1	1094.0	1112.8	1112.1	1085.2	1042.9
37°	828.9	845.7	890.1	917.4	989.2	1013.2	1056.0	1075.9	1072.8	1047.0	1006.0
37.5°	795.1	812.1	854.7	884.9	949.9	976.8	1017.8	1039.5	1035.6	1008.8	969.0
38°	761.2	778.5	819.3	852.1	912.8	941.4	980.1	1002.6	997.4	971.1	931.6
38.5°	729.5	747.6	783.7	819.6	873.5	905.3	943.2	965.7	960.0	933.9	895.2
39°	699.0	717.1	750.9	787.1	837.1	870.4	906.6	928.8	923.6	897.8	859.6
39.5°	668.8	685.9	718.1	752.2	799.7	834.8	870.7	892.9	887.2	861.4	824.7
40°	639.4	654.9	685.6	717.4	765.1	801.0	834.8	856.5	850.0	825.8	789.4
40.5°	610.0	626.0	654.1	683.8	728.7	765.9	800.2	820.9	814.2	790.2	756.9
41°	581.8	596.8	622.4	650.8	695.4	732.6	766.7	787.1	778.3	753.5	722.5
41.5°	554.5	570.0	591.7	619.0	661.9	699.0	732.9	752.7	742.9	718.7	689.7
42°	528.1	542.9	562.0	588.0	629.9	667.0	700.1	719.2	707.3	684.6	656.7
42.5°	501.6	516.5	533.3	557.8	598.4	634.5	667.8	685.1	673.2	651.0	624.4
43°	476.3	490.7	504.7	527.9	567.6	603.3	635.8	652.6	639.7	619.0	592.4
43.5°	451.7	466.2	477.8	497.9	536.9	572.5	604.6	620.8	606.6	586.0	560.9



TEST NUMBER: P775984

CATALOG NUMBER: HCDJBLS1525CSD-HCD4TRH-2500lm-5000K

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
45°	382.6	396.0	402.2	413.3	452.5	486.3	515.5	525.1	513.4	495.1	469.6
45.5°	361.4	374.3	378.7	387.5	427.0	458.5	487.4	494.3	484.3	466.7	440.9
46°	340.5	353.4	356.0	361.7	401.7	432.4	460.8	465.4	456.1	438.3	413.5
46.5°	320.6	333.3	333.8	337.6	377.7	407.1	433.4	435.7	428.5	410.7	386.9
47°	300.7	313.1	313.1	315.4	354.7	382.3	407.1	408.4	401.4	385.4	360.9
47.5°	282.9	294.3	293.2	294.3	332.5	358.6	381.3	381.5	375.3	360.6	336.6
48°	265.1	276.5	274.4	274.7	311.3	336.1	357.0	356.2	350.3	334.8	313.4
48.5°	248.1	259.2	256.8	257.1	291.4	314.7	332.7	331.4	326.3	311.6	291.2
49°	231.5	242.4	239.6	240.6	272.6	293.8	309.5	308.2	303.3	289.6	269.8
49.5°	216.1	226.4	223.8	224.8	254.5	274.1	287.6	286.5	280.9	268.2	251.7
50°	201.1	210.9	209.1	210.6	239.3	255.6	266.4	265.9	260.5	250.4	233.9
50.5°	186.9	196.2	195.2	197.0	223.8	239.3	248.6	248.1	242.9	232.6	216.1
51°	173.2	182.0	182.0	184.3	208.6	223.0	230.8	230.3	225.1	214.5	198.2
51.5°	160.0	168.6	169.1	171.9	193.1	207.0	213.0	212.7	207.3	196.7	180.4
52°	147.9	155.9	156.9	160.3	177.9	190.8	195.2	194.9	189.5	178.9	165.2
52.5°	136.0	143.8	145.3	148.7	164.7	174.5	177.3	177.3	171.9	162.9	151.0
53°	124.9	131.9	134.0	137.6	151.8	160.8	162.9	162.6	157.5	148.9	138.1
53.5°	114.4	120.8	123.4	127.0	140.2	147.7	149.5	148.4	144.0	136.0	125.7
54°	104.5	110.5	113.3	116.7	128.8	134.7	136.8	135.5	131.4	124.2	114.6
54.5°	96.0	101.2	103.8	107.1	117.7	122.9	124.7	123.4	119.3	112.5	104.0
55°	88.3	92.4	95.0	98.1	107.6	112.0	113.3	112.5	108.9	102.5	95.3
55.5°	80.8	84.9	87.3	90.3	98.1	101.7	103.0	102.5	99.1	93.7	86.7
56°	73.1	77.4	79.5	82.3	89.3	92.4	93.7	93.2	90.3	85.4	78.0
56.5°	65.3	70.0	71.8	74.3	81.1	83.9	85.2	84.4	81.8	76.4	69.7
57°	57.6	62.2	64.0	66.3	72.5	75.4	76.7	75.6	73.6	68.7	62.2
57.5°	51.9	54.7	56.3	58.3	64.5	67.1	68.1	67.9	65.6	61.2	55.5
58°	47.0	49.3	50.6	52.1	57.6	59.6	60.7	60.4	58.6	54.7	49.6
58.5°	42.6	44.7	45.4	46.5	51.4	53.2	54.0	54.0	52.4	49.0	44.4
59°	38.7	40.5	41.0	41.8	45.7	47.0	48.0	48.0	46.7	44.1	40.0
59.5°	35.4	36.9	36.9	37.7	40.8	42.1	42.9	42.9	41.8	39.5	35.9
60°	32.3	33.6	33.8	34.1	36.7	37.7	38.2	38.5	37.7	35.6	32.5
60.5°	29.4	30.7	30.7	30.7	33.0	33.8	34.3	34.8	34.1	32.5	29.7
61°	26.8	28.1	28.1	27.9	29.9	30.7	31.0	31.5	30.7	29.4	26.8
61.5°	24.8	25.8	25.8	25.6	27.1	27.9	28.1	28.7	27.9	26.8	24.8
62°	22.7	23.7	23.5	23.5	24.8	25.3	25.6	26.1	25.6	24.5	23.0
62.5°	21.2	21.9	21.7	21.4	23.0	23.5	23.5	23.7	23.2	22.7	21.4
63°	19.4	20.4	20.1	19.6	21.2	21.7	21.9	22.2	21.7	21.2	19.6
63.5°	17.8	18.8	18.3	18.1	19.4	19.9	20.1	20.4	20.1	19.4	18.1
64°	16.5	17.3	17.0	16.8	17.8	18.1	18.6	18.8	18.6	17.8	16.3
64.5°	15.2	16.0	15.7	15.5	16.0	16.3	17.0	17.3	17.0	16.0	15.0
65°	14.2	15.0	14.7	14.2	14.7	15.0	15.2	15.5	15.2	15.0	13.9
65.5°	13.2	13.7	13.7	13.2	13.7	13.9	14.2	14.5	14.2	13.9	12.9
66°	12.1	12.9	12.6	12.4	12.6	12.9	13.2	13.4	13.2	12.9	12.1



TEST NUMBER: P775984

CATALOG NUMBER: HCDJBL51525CSD-HCD4TRH-2500lm-5000K

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
67.5°	9.8	10.3	10.1	9.8	10.1	10.3	10.6	10.6	10.6	10.3	9.6
68°	9.0	9.6	9.6	9.3	9.3	9.6	9.8	9.8	9.8	9.6	9.0
68.5°	8.5	9.0	9.0	8.8	8.8	8.8	9.0	9.3	9.0	9.0	8.3
69°	8.0	8.3	8.3	8.0	8.3	8.3	8.5	8.5	8.5	8.3	7.7
69.5°	7.2	7.7	7.7	7.5	7.7	7.7	8.0	8.0	8.0	7.7	7.2
70°	6.7	7.2	7.2	7.0	7.0	7.2	7.5	7.5	7.5	7.2	6.7
70.5°	6.2	6.7	6.7	6.5	6.7	6.7	7.0	7.0	7.0	6.7	6.2
71°	5.9	6.2	6.2	5.9	6.2	6.2	6.5	6.5	6.5	6.2	5.9
71.5°	5.4	5.7	5.7	5.7	5.7	5.7	5.9	5.9	5.9	5.7	5.4
72°	4.9	5.4	5.4	5.2	5.4	5.4	5.4	5.7	5.4	5.4	5.2
72.5°	4.6	4.9	4.9	4.9	4.9	5.2	5.2	5.2	5.2	4.9	4.6
73°	4.1	4.6	4.6	4.4	4.6	4.6	4.9	4.9	4.6	4.6	4.4
73.5°	3.9	4.1	4.1	4.1	4.4	4.4	4.4	4.4	4.4	4.1	4.1
74°	3.6	3.9	3.9	3.9	4.1	4.1	4.1	4.1	4.1	3.9	3.9
74.5°	3.4	3.6	3.6	3.6	3.6	3.9	3.9	3.9	3.9	3.6	3.4
75°	3.1	3.4	3.4	3.4	3.4	3.6	3.6	3.6	3.4	3.4	3.1
75.5°	2.8	3.1	3.1	3.1	3.1	3.4	3.4	3.4	3.1	3.1	2.8
76°	2.6	2.8	2.8	2.8	2.8	3.1	3.1	2.8	2.8	2.8	2.6
76.5°	2.3	2.6	2.6	2.6	2.8	2.8	2.8	2.8	2.6	2.6	2.6
77°	2.1	2.3	2.3	2.3	2.6	2.6	2.6	2.6	2.6	2.3	2.3
77.5°	1.8	2.1	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.1	2.1
78°	1.8	1.8	2.1	2.1	2.1	2.3	2.1	2.1	2.1	2.1	1.8
78.5°	1.5	1.8	1.8	1.8	2.1	2.1	2.1	1.8	1.8	1.8	1.8
79°	1.3	1.5	1.5	1.8	1.8	1.8	1.8	1.8	1.8	1.5	1.5
79.5°	1.3	1.3	1.5	1.5	1.5	1.8	1.5	1.5	1.5	1.3	1.5
80°	1.0	1.3	1.3	1.3	1.5	1.5	1.5	1.3	1.3	1.3	1.3
80.5°	1.0	1.0	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.0	1.0
81°	0.8	1.0	1.0	1.3	1.3	1.3	1.3	1.0	1.0	1.0	1.0
81.5°	0.8	0.8	1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.8	1.0
82°	0.5	0.8	0.8	1.0	1.0	1.0	1.0	0.8	0.8	0.8	0.8
82.5°	0.5	0.5	0.8	0.8	0.8	1.0	0.8	0.8	0.8	0.5	0.8
83°	0.3	0.5	0.8	0.8	0.8	0.8	0.8	0.8	0.5	0.5	0.5
83.5°	0.3	0.5	0.5	0.8	0.8	0.8	0.8	0.5	0.5	0.5	0.5
84°	0.3	0.3	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.3	0.5
84.5°	0.3	0.3	0.5	0.5	0.5	0.5	0.5	0.5	0.3	0.3	0.5
85°	0.3	0.3	0.3	0.5	0.5	0.5	0.5	0.3	0.3	0.3	0.3
85.5°	0.0	0.3	0.3	0.3	0.3	0.5	0.3	0.3	0.3	0.3	0.3
86°	0.0	0.0	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
86.5°	0.0	0.0	0.3	0.3	0.3	0.3	0.3	0.3	0.0	0.0	0.3
87°	0.0	0.0	0.0	0.3	0.3	0.3	0.3	0.3	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.3	0.3	0.3	0.0	0.0	0.0	0.0
88°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
88.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P775984
CATALOG NUMBER: HCDJBL51525CSD-HCD4TRH-2500lm-5000K

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	0.0	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P775984

CATALOG NUMBER: HCDJBL51525CSD-HCD4TRH-2500lm-5000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	2467.0	2467.0	2467.0	2467.0	2467.0	2467.0
0.5°	2466.5	2466.2	2466.5	2466.0	2465.5	2464.2
1°	2466.0	2464.7	2464.2	2463.4	2462.9	2462.1
1.5°	2464.7	2462.6	2461.3	2460.6	2460.3	2459.3
2°	2462.9	2460.0	2458.5	2457.5	2456.9	2456.2
2.5°	2460.3	2456.9	2454.4	2452.8	2452.6	2452.3
3°	2457.7	2453.1	2450.2	2448.2	2447.7	2447.9
3.5°	2454.6	2448.9	2445.1	2443.0	2442.5	2442.8
4°	2450.8	2444.0	2439.7	2436.8	2436.6	2437.3
4.5°	2446.4	2438.9	2433.7	2430.9	2430.1	2431.4
5°	2441.5	2432.9	2427.3	2423.9	2422.9	2424.4
5.5°	2435.8	2426.5	2419.5	2416.4	2415.6	2417.2
6°	2429.8	2419.5	2412.0	2407.9	2407.4	2408.7
6.5°	2423.1	2411.5	2403.8	2399.6	2398.6	2400.4
7°	2415.6	2403.3	2394.5	2390.1	2388.5	2390.9
7.5°	2407.4	2394.2	2384.9	2380.0	2378.5	2380.8
8°	2398.9	2384.4	2374.9	2369.2	2367.6	2370.0
8.5°	2389.3	2373.6	2363.5	2357.8	2356.0	2358.3
9°	2379.2	2362.2	2351.6	2345.2	2343.1	2345.7
9.5°	2368.1	2350.3	2339.2	2331.5	2329.9	2332.8
10°	2356.8	2337.4	2325.3	2317.8	2315.2	2318.6
10.5°	2344.4	2323.5	2310.8	2302.8	2300.5	2303.1
11°	2331.2	2309.3	2295.6	2286.3	2283.2	2287.6
11.5°	2317.6	2294.3	2278.8	2268.8	2266.4	2270.1
12°	2303.6	2278.1	2261.5	2250.7	2247.9	2251.7
12.5°	2288.1	2261.3	2243.5	2231.9	2228.2	2232.9
13°	2272.6	2244.0	2224.9	2212.2	2208.4	2213.5
13.5°	2256.1	2226.4	2206.3	2192.1	2188.5	2193.1
14°	2239.3	2208.1	2186.2	2172.0	2167.6	2172.0
14.5°	2221.3	2189.3	2166.8	2151.8	2146.7	2151.1
15°	2204.2	2170.2	2145.6	2130.4	2124.7	2129.6
15.5°	2185.6	2150.5	2126.0	2109.5	2103.3	2107.9
16°	2167.3	2131.2	2105.1	2087.8	2081.9	2086.8
16.5°	2148.2	2111.8	2086.0	2066.9	2061.0	2064.8
17°	2129.6	2091.2	2065.1	2045.0	2039.5	2043.9
17.5°	2110.3	2072.1	2044.7	2024.6	2017.9	2022.2
18°	2090.7	2051.9	2023.8	2003.4	1996.9	2001.1
18.5°	2071.3	2032.1	2004.4	1983.0	1976.6	1979.7
19°	2052.4	2012.4	1984.8	1964.2	1956.9	1960.0
19.5°	2033.6	1994.1	1965.7	1945.1	1937.3	1940.2
20°	2015.3	1974.7	1946.4	1925.7	1918.0	1921.8
20.5°	1995.9	1955.4	1927.0	1906.6	1898.3	1902.2
21°	1978.1	1935.8	1906.1	1885.4	1878.7	1883.1



TEST NUMBER: P775984

CATALOG NUMBER: HCDJBL1525CSD-HCD4TRH-2500lm-5000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
22.5°	1919.2	1871.8	1836.9	1816.5	1809.8	1814.4
23°	1899.4	1847.2	1811.6	1789.4	1783.7	1789.4
23.5°	1879.2	1823.0	1784.8	1761.3	1756.1	1761.5
24°	1859.4	1796.6	1756.6	1731.6	1725.9	1731.8
24.5°	1835.4	1769.5	1728.0	1699.1	1694.2	1700.6
25°	1810.6	1741.1	1698.8	1665.5	1662.1	1669.9
25.5°	1783.5	1712.2	1668.6	1630.7	1627.0	1636.6
26°	1755.8	1683.1	1637.6	1595.5	1592.7	1604.3
26.5°	1724.9	1652.9	1605.1	1561.5	1556.3	1570.5
27°	1693.1	1622.1	1572.1	1527.9	1519.7	1537.5
27.5°	1658.5	1589.3	1538.0	1494.4	1483.3	1502.9
28°	1623.2	1555.8	1502.9	1461.8	1447.9	1468.8
28.5°	1585.5	1521.2	1467.0	1429.8	1412.0	1432.9
29°	1546.5	1484.8	1431.1	1397.6	1378.7	1397.3
29.5°	1507.0	1447.6	1394.7	1364.5	1343.3	1360.9
30°	1468.3	1409.2	1358.8	1331.2	1309.8	1323.7
30.5°	1428.3	1370.7	1322.4	1295.8	1276.5	1285.5
31°	1390.6	1331.5	1288.4	1260.2	1242.4	1248.4
31.5°	1353.7	1291.5	1252.7	1223.1	1207.8	1211.4
32°	1317.3	1252.0	1217.6	1184.8	1173.2	1174.8
32.5°	1281.7	1212.0	1182.3	1147.2	1137.9	1139.9
33°	1244.5	1171.7	1145.9	1110.5	1102.2	1105.1
33.5°	1208.3	1131.2	1108.2	1074.1	1066.6	1069.5
34°	1171.9	1093.0	1071.5	1038.0	1030.7	1034.6
34.5°	1135.3	1054.7	1033.6	1001.8	993.8	999.2
35°	1097.9	1017.1	995.9	968.0	959.0	963.4
35.5°	1060.4	981.7	957.4	935.0	924.4	930.3
36°	1022.7	946.3	915.4	900.9	891.9	896.8
36.5°	985.3	911.7	879.7	867.1	859.3	862.7
37°	947.9	877.1	843.9	833.0	826.8	828.9
37.5°	911.2	842.8	808.2	799.2	794.5	795.1
38°	875.6	808.2	772.3	765.1	762.0	761.2
38.5°	840.8	773.9	737.0	731.0	730.3	729.5
39°	806.2	740.3	704.2	697.7	698.8	699.0
39.5°	772.6	707.0	670.9	664.4	666.0	668.8
40°	739.0	675.0	638.1	631.7	634.2	639.4
40.5°	706.3	643.0	606.6	599.7	603.5	610.0
41°	674.0	611.3	575.9	568.2	573.6	581.8
41.5°	642.2	580.3	545.4	538.0	544.2	554.5
42°	610.8	551.1	516.5	508.5	515.0	528.1
42.5°	580.6	521.4	488.7	479.6	487.6	501.6
43°	550.9	493.3	461.5	451.5	460.5	476.3
43.5°	521.7	465.7	435.2	423.6	434.4	451.7



TEST NUMBER: P775984

CATALOG NUMBER: HCDJBL51525CSD-HCD4TRH-2500lm-5000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
45°	439.1	389.0	362.4	348.5	361.1	382.6
45.5°	413.3	365.0	340.5	325.8	338.4	361.4
46°	387.7	342.3	319.3	304.1	316.7	340.5
46.5°	362.7	320.6	298.7	283.7	296.3	320.6
47°	338.7	299.7	279.6	265.4	277.2	300.7
47.5°	314.9	279.0	261.2	248.3	258.9	282.9
48°	292.5	260.2	243.9	231.8	242.1	265.1
48.5°	271.8	242.4	227.4	216.6	226.1	248.1
49°	251.4	225.1	211.4	202.1	210.9	231.5
49.5°	233.9	208.8	196.4	189.2	197.5	216.1
50°	216.3	192.8	182.2	176.6	183.8	201.1
50.5°	198.8	177.9	168.6	164.2	171.4	186.9
51°	181.2	163.9	155.7	152.6	159.3	173.2
51.5°	166.5	150.5	143.5	141.7	147.7	160.0
52°	152.8	138.1	131.9	131.1	136.6	147.9
52.5°	139.4	125.7	121.1	120.8	126.2	136.0
53°	127.5	114.4	110.7	110.7	116.2	124.9
53.5°	116.2	104.0	101.2	101.7	106.6	114.4
54°	105.6	94.7	92.2	93.2	97.6	104.5
54.5°	96.3	87.0	84.7	85.7	90.3	96.0
55°	87.8	79.2	77.2	78.2	82.6	88.3
55.5°	79.2	71.2	69.4	70.7	74.9	80.8
56°	70.7	63.5	62.0	63.2	67.1	73.1
56.5°	63.2	55.8	54.5	55.8	59.4	65.3
57°	56.3	49.6	48.5	49.8	53.2	57.6
57.5°	50.1	44.4	43.6	44.9	48.0	51.9
58°	44.7	40.0	39.2	40.5	43.6	47.0
58.5°	40.3	35.9	35.6	36.7	39.5	42.6
59°	36.1	32.5	32.3	33.6	36.1	38.7
59.5°	32.8	29.4	29.2	30.5	32.8	35.4
60°	29.7	26.8	26.6	27.9	30.2	32.3
60.5°	27.1	24.5	24.3	25.6	27.6	29.4
61°	24.8	22.5	22.2	23.5	25.3	26.8
61.5°	23.0	20.7	20.4	21.7	23.5	24.8
62°	21.2	18.8	18.8	19.9	21.7	22.7
62.5°	19.6	17.3	17.3	18.3	19.9	21.2
63°	17.8	16.0	16.0	17.0	18.3	19.4
63.5°	16.3	14.7	15.0	15.7	17.0	17.8
64°	15.0	13.7	13.7	14.5	15.7	16.5
64.5°	13.9	12.6	12.6	13.4	14.5	15.2
65°	12.9	11.9	11.9	12.4	13.4	14.2
65.5°	11.9	10.8	11.1	11.6	12.6	13.2
66°	11.1	10.1	10.3	10.8	11.6	12.1



TEST NUMBER: P775984

CATALOG NUMBER: HCDJBL51525CSD-HCD4TRH-2500lm-5000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
67.5°	8.8	8.3	8.3	8.8	9.3	9.8
68°	8.3	7.7	7.7	8.3	8.8	9.0
68.5°	7.7	7.2	7.2	7.5	8.0	8.5
69°	7.2	6.7	6.7	7.0	7.5	8.0
69.5°	6.7	6.2	6.2	6.5	7.0	7.2
70°	6.2	5.7	5.7	6.2	6.5	6.7
70.5°	5.9	5.4	5.4	5.7	5.9	6.2
71°	5.4	4.9	4.9	5.2	5.4	5.9
71.5°	5.2	4.6	4.6	4.9	5.2	5.4
72°	4.6	4.4	4.4	4.6	4.6	4.9
72.5°	4.4	3.9	3.9	4.1	4.4	4.6
73°	4.1	3.6	3.6	3.9	4.1	4.1
73.5°	3.9	3.4	3.4	3.6	3.6	3.9
74°	3.6	3.1	3.1	3.4	3.4	3.6
74.5°	3.4	2.8	2.8	3.1	3.1	3.4
75°	3.1	2.6	2.6	2.8	2.8	3.1
75.5°	2.8	2.6	2.6	2.6	2.6	2.8
76°	2.6	2.3	2.3	2.3	2.3	2.6
76.5°	2.3	2.1	2.1	2.1	2.1	2.3
77°	2.1	1.8	1.8	1.8	2.1	2.1
77.5°	2.1	1.8	1.8	1.8	1.8	1.8
78°	1.8	1.5	1.5	1.5	1.5	1.8
78.5°	1.5	1.5	1.5	1.5	1.5	1.5
79°	1.5	1.3	1.3	1.3	1.3	1.3
79.5°	1.3	1.3	1.3	1.3	1.0	1.3
80°	1.3	1.0	1.0	1.0	1.0	1.0
80.5°	1.0	1.0	1.0	1.0	0.8	1.0
81°	1.0	0.8	0.8	0.8	0.8	0.8
81.5°	0.8	0.8	0.8	0.8	0.8	0.8
82°	0.8	0.8	0.8	0.5	0.5	0.5
82.5°	0.8	0.5	0.5	0.5	0.5	0.5
83°	0.5	0.5	0.5	0.5	0.5	0.3
83.5°	0.5	0.5	0.5	0.5	0.3	0.3
84°	0.5	0.3	0.3	0.3	0.3	0.3
84.5°	0.3	0.3	0.3	0.3	0.3	0.3
85°	0.3	0.3	0.3	0.3	0.3	0.3
85.5°	0.3	0.3	0.3	0.3	0.0	0.0
86°	0.3	0.0	0.0	0.0	0.0	0.0
86.5°	0.0	0.0	0.0	0.0	0.0	0.0
87°	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0
88°	0.0	0.0	0.0	0.0	0.0	0.0
88.5°	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P775984

CATALOG NUMBER: HCDJBL1525CSD-HCD4TRH-2500lm-5000K

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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Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report



Report Generated By 670245859 / DESKTOP-T8S5UU9

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Scaled Data Report





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

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Scaled Data Report



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21.5°	1861.7	1875.1	1894.7	1920.0	1962.9	1992.6	2014.8	2024.3	2022.5	2010.1	1988.2
22°	1839.5	1855.0	1874.8	1901.2	1943.0	1974.0	1995.7	2006.0	2003.9	1991.0	1969.1



44°	427.7	441.7	451.7	469.3	508.0	542.9	574.1	588.0	574.9	554.2	529.7
44.5°	405.0	418.4	426.4	440.9	480.1	513.4	544.4	555.8	543.6	524.8	499.5



66.5°	11.4	11.9	11.9	11.4	11.6	11.9	12.1	12.4	12.1	11.9	11.1
67°	10.6	11.1	10.8	10.6	10.8	11.1	11.4	11.4	11.4	11.1	10.3



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

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Scaled Data Report





21.5°	1959.3	1915.4	1884.4	1863.0	1857.6	1861.7
22°	1939.1	1893.7	1861.2	1840.5	1834.3	1839.5



44°	493.6	439.3	410.2	398.0	409.4	427.7
44.5°	466.5	413.8	385.7	372.7	385.1	405.0

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66.5°	10.3	9.6	9.6	10.1	10.8	11.4
67°	9.6	8.8	9.0	9.6	10.1	10.6

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Scaled Data Report



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

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Scaled Data Report



(END OF REPORT)