

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: P776812

Luminaire Tested: HCDJBS4050CSD-HCD8TRMB-5000lm-3500K

Issue Date: 2/7/2024

Test Information

Test Method: LM-79-2019
Report Number: P776812
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: HCDJBL54050CSD-HCD8TRMB-5000lm-3500K
Description: 8 INCH ROUND MEDIUM MATTE BLACK TRIM
Light Source: SELECTABLE LUMENS AND CCT ARRAY 90CRI / 3500K CCT
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3478.8 lumens
Efficiency: N/A
Efficacy: 72.5 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.25 / 1.15
Luminous Opening: Circular (Dia: 0.67' x H: 0')
CIE Type: Direct

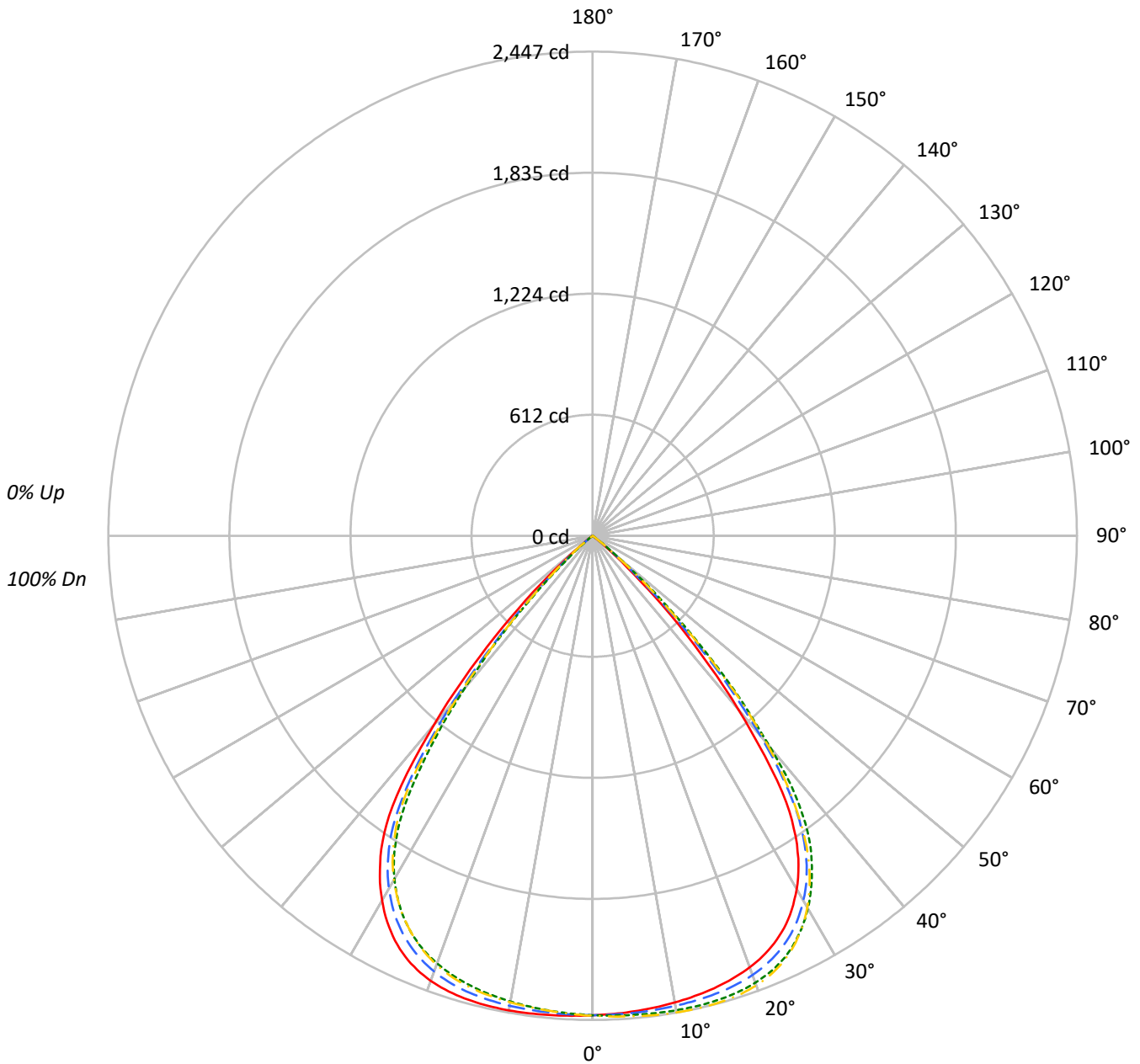
Input Watts (W): 48
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				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	0
RCR																					
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100	100	100	100
1	113	110	107	105	111	108	106	103	104	102	100	100	99	97	97	95	94	93	93	93	93
2	107	102	97	94	105	100	96	92	97	93	90	94	91	89	91	89	87	85	85	85	85
3	101	94	88	84	99	92	87	83	90	85	82	87	84	81	85	82	79	78	78	78	78
4	95	87	81	76	93	85	80	76	83	78	75	81	77	74	79	76	73	71	71	71	71
5	89	80	74	69	88	79	73	69	77	72	68	76	71	67	74	70	67	65	65	65	65
6	84	74	68	63	83	74	67	63	72	66	62	70	66	62	69	65	61	60	60	60	60
7	79	69	62	58	78	68	62	58	67	61	57	66	61	57	65	60	57	55	55	55	55
8	75	64	58	53	73	64	57	53	63	57	53	61	56	53	60	56	52	51	51	51	51
9	71	60	53	49	69	59	53	49	58	53	49	57	52	49	57	52	48	47	47	47	47
10	67	56	50	45	66	56	49	45	55	49	45	54	49	45	53	48	45	43	43	43	43

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	73999	73999	73999	73999
5°	73936	74484	74527	73862
10°	74248	75491	75507	74090
15°	74837	76818	76730	74508
20°	75408	78105	77754	74720
25°	75168	78473	77614	73878
30°	72692	76665	75019	70630
35°	65388	71507	68414	61325
40°	45761	55577	49635	39839
45°	21795	31083	25379	16459
50°	4436	8336	4726	2104
55°	202	303	176	128
60°	55	55	55	55
65°	36	36	36	36
70°	45	45	45	45
75°	0	0	0	0
80°	0	0	0	0
85°	0	0	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 31083 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	231.0	6.6
10°-20°	677.8	19.5
20°-30°	1038.1	29.8
30°-40°	1080.3	31.1
40°-50°	436.1	12.5
50°-60°	14.9	0.4
60°-70°	0.6	0.0
70°-80°	0.1	0.0
80°-90°	0.0	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°	1946.8	56.0
0°-40°	3027.1	87.0
0°-60°	3478.1	100.0
0°-90°	3478.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3478.8	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	2424	2424	2424	2424	2424	
5°	2412	2430	2432	2410	2412	230
15°	2368	2430	2428	2357	2368	669
25°	2231	2330	2304	2193	2231	1023
35°	1754	1919	1836	1645	1754	1055
45°	505	720	588	381	505	406
55°	4	6	3	2	4	13
65°	0	0	0	0	0	1
75°	0	0	0	0	0	0
85°	0	0	0	0	0	0
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°	2423.8	2423.8	2423.8	2423.8	2423.8	2423.8	2423.8	2423.8	2423.8	2423.8	2423.8
0.5°	2422.9	2421.9	2422.9	2423.4	2423.8	2426.2	2427.1	2427.1	2424.8	2423.4	2422.9
1°	2421.9	2421.9	2422.9	2423.8	2424.8	2427.6	2428.5	2428.1	2425.7	2423.8	2422.4
1.5°	2421.0	2421.0	2422.9	2424.3	2425.7	2428.5	2430.0	2429.5	2426.7	2423.8	2422.4
2°	2420.0	2420.5	2422.4	2424.8	2426.7	2429.5	2430.9	2430.4	2427.1	2424.3	2422.4
2.5°	2419.1	2419.6	2422.4	2425.2	2427.1	2430.4	2432.3	2431.4	2428.1	2424.8	2421.9
3°	2417.7	2419.1	2421.9	2425.2	2427.6	2431.8	2433.3	2432.8	2429.0	2425.2	2421.5
3.5°	2416.7	2418.2	2421.9	2425.2	2428.5	2432.3	2434.2	2433.7	2430.0	2425.2	2421.0
4°	2415.3	2417.2	2421.0	2425.7	2429.0	2433.3	2435.6	2434.7	2430.9	2425.2	2421.0
4.5°	2413.9	2416.3	2420.5	2425.7	2429.5	2434.7	2436.6	2435.6	2431.4	2425.7	2420.0
5°	2412.5	2415.3	2420.0	2425.7	2430.4	2435.6	2437.5	2437.0	2431.8	2425.7	2419.6
5.5°	2411.1	2413.9	2419.6	2426.2	2430.9	2436.6	2438.9	2438.0	2432.8	2425.7	2419.1
6°	2409.7	2413.0	2419.1	2426.2	2431.4	2437.5	2439.9	2438.4	2433.3	2426.2	2418.6
6.5°	2408.3	2411.6	2418.2	2426.2	2432.3	2438.4	2440.8	2439.4	2433.7	2426.2	2418.2
7°	2406.8	2410.1	2417.7	2426.2	2432.8	2438.9	2441.7	2440.3	2434.2	2425.7	2417.2
7.5°	2405.0	2408.7	2417.2	2426.7	2433.3	2439.9	2442.7	2441.3	2434.7	2425.7	2416.7
8°	2403.1	2407.3	2416.3	2426.2	2433.7	2440.8	2443.6	2441.7	2435.1	2426.2	2415.8
8.5°	2401.2	2405.4	2415.3	2426.7	2434.2	2441.3	2444.1	2442.7	2435.1	2425.7	2414.9
9°	2399.3	2404.0	2414.4	2426.2	2434.7	2441.7	2445.1	2443.2	2435.6	2425.2	2414.4
9.5°	2396.9	2402.1	2413.4	2426.2	2434.7	2442.2	2445.5	2443.6	2435.6	2425.2	2413.0
10°	2395.0	2400.2	2412.5	2425.7	2435.1	2442.7	2446.0	2444.1	2435.6	2424.8	2412.0
10.5°	2392.7	2398.3	2411.6	2425.7	2435.1	2443.2	2446.5	2444.1	2435.6	2424.3	2410.6
11°	2390.3	2396.5	2410.1	2425.2	2435.1	2443.6	2446.9	2444.6	2435.1	2423.4	2409.2
11.5°	2388.0	2394.1	2408.7	2424.8	2435.1	2443.6	2446.9	2444.6	2435.1	2422.4	2407.8
12°	2385.6	2391.7	2407.8	2424.3	2435.1	2443.6	2447.4	2444.6	2434.7	2421.5	2405.9
12.5°	2382.8	2389.9	2406.4	2423.8	2434.7	2443.6	2447.4	2444.1	2433.7	2420.5	2404.5
13°	2380.0	2387.0	2404.5	2422.9	2434.2	2443.6	2446.9	2444.1	2433.3	2419.1	2402.1
13.5°	2377.1	2384.7	2403.1	2421.9	2433.3	2443.6	2446.5	2443.6	2432.3	2417.2	2400.2
14°	2373.8	2382.3	2401.2	2421.0	2432.3	2442.7	2446.0	2443.2	2430.9	2415.8	2397.4
14.5°	2371.0	2379.5	2399.3	2419.6	2431.8	2442.2	2445.5	2442.2	2429.5	2413.9	2395.0
15°	2367.7	2376.6	2396.9	2418.2	2430.4	2441.3	2444.6	2441.3	2427.6	2411.6	2392.2
15.5°	2363.9	2373.8	2394.6	2416.3	2429.5	2440.3	2443.2	2439.9	2425.7	2409.2	2388.9
16°	2360.1	2370.5	2392.2	2414.4	2427.6	2438.9	2441.7	2438.0	2423.4	2406.4	2385.6
16.5°	2356.4	2367.2	2389.4	2412.5	2425.7	2437.0	2440.3	2436.1	2421.0	2403.1	2381.8
17°	2352.1	2363.4	2386.6	2409.7	2423.8	2435.1	2438.0	2433.3	2418.2	2399.8	2377.6
17.5°	2347.4	2359.7	2383.3	2406.8	2421.5	2432.8	2435.6	2430.9	2415.3	2396.0	2372.9
18°	2342.7	2355.9	2379.5	2403.5	2418.6	2430.0	2433.3	2427.6	2411.6	2391.7	2367.7
18.5°	2338.0	2351.2	2376.2	2400.2	2415.8	2426.7	2430.0	2423.8	2407.8	2387.0	2362.5
19°	2332.3	2346.9	2371.9	2396.5	2412.0	2422.9	2426.7	2420.0	2403.1	2381.8	2356.8
19.5°	2326.6	2341.7	2367.2	2391.7	2408.3	2419.1	2422.9	2415.3	2398.3	2376.2	2350.2
20°	2321.0	2336.5	2362.5	2387.0	2404.0	2414.9	2418.2	2410.6	2393.2	2370.0	2343.2
20.5°	2314.4	2330.9	2356.8	2381.8	2399.3	2409.7	2413.4	2405.0	2387.0	2363.4	2335.6
21°	2307.3	2324.8	2351.2	2376.2	2393.6	2404.0	2407.8	2399.3	2380.9	2355.9	2328.1



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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°	2283.7	2304.0	2330.4	2355.9	2375.2	2383.7	2387.0	2377.1	2357.3	2330.9	2300.2
23°	2274.8	2296.0	2322.4	2347.9	2367.7	2375.7	2379.0	2368.6	2348.3	2321.0	2289.8
23.5°	2264.8	2287.5	2313.9	2338.9	2358.7	2366.7	2370.0	2358.7	2338.4	2310.1	2279.0
24°	2254.5	2278.1	2304.5	2329.9	2350.7	2357.3	2360.6	2348.8	2328.1	2299.3	2267.2
24.5°	2243.6	2268.6	2294.6	2319.6	2341.3	2346.9	2349.3	2338.0	2316.3	2287.0	2254.5
25°	2231.4	2257.8	2284.2	2308.7	2329.5	2336.1	2338.4	2326.2	2304.0	2274.3	2241.3
25.5°	2219.1	2246.4	2272.4	2297.4	2318.6	2323.8	2325.7	2313.4	2290.8	2260.6	2227.6
26°	2205.4	2233.7	2260.1	2285.1	2306.8	2311.1	2312.5	2299.8	2276.6	2246.0	2212.5
26.5°	2191.3	2221.0	2247.4	2271.9	2293.6	2296.5	2297.9	2285.1	2261.5	2230.4	2196.4
27°	2175.7	2206.3	2233.2	2258.2	2278.5	2281.8	2282.3	2269.6	2245.5	2214.4	2179.9
27.5°	2159.2	2191.7	2218.1	2243.6	2264.4	2266.3	2266.3	2253.1	2228.5	2196.9	2161.5
28°	2141.7	2175.2	2202.1	2227.6	2248.3	2248.8	2249.3	2235.1	2210.6	2178.5	2143.1
28.5°	2123.3	2157.8	2185.6	2211.5	2231.4	2230.9	2230.4	2216.3	2191.3	2158.7	2123.8
29°	2103.5	2139.4	2167.7	2194.1	2213.4	2212.0	2211.5	2196.4	2171.4	2138.9	2103.0
29.5°	2083.7	2120.5	2149.3	2175.7	2195.0	2191.7	2190.8	2175.7	2150.2	2117.7	2081.3
30°	2062.0	2099.7	2129.5	2156.8	2174.7	2170.5	2169.1	2154.0	2128.0	2096.0	2058.7
30.5°	2039.8	2078.0	2108.7	2136.5	2154.5	2148.3	2146.4	2130.9	2104.9	2072.8	2035.1
31°	2015.3	2054.4	2087.0	2114.8	2132.3	2124.3	2121.9	2106.3	2080.9	2048.3	2009.6
31.5°	1989.8	2030.4	2064.4	2092.7	2109.2	2100.2	2097.4	2080.9	2055.9	2022.8	1982.7
32°	1962.9	2004.0	2039.4	2070.0	2085.6	2074.7	2069.5	2054.0	2029.0	1996.4	1954.0
32.5°	1934.2	1975.7	2012.9	2045.0	2061.5	2046.9	2040.8	2025.2	2000.7	1968.6	1922.4
33°	1902.5	1945.9	1985.1	2019.5	2034.6	2018.1	2011.0	1994.5	1971.4	1938.9	1890.3
33.5°	1870.0	1913.4	1954.9	1992.6	2007.7	1988.4	1979.0	1962.9	1941.2	1907.7	1855.8
34°	1833.7	1880.4	1924.7	1964.3	1979.4	1957.3	1945.5	1929.0	1908.7	1874.2	1819.0
34.5°	1795.5	1844.0	1890.8	1934.6	1949.7	1923.3	1909.1	1893.1	1873.3	1837.4	1778.9
35°	1754.4	1804.4	1855.8	1902.1	1918.6	1887.0	1870.0	1854.4	1835.6	1796.4	1732.7
35.5°	1712.0	1761.5	1817.2	1867.2	1884.1	1846.4	1829.0	1812.4	1794.0	1750.6	1684.1
36°	1665.3	1715.7	1777.1	1829.0	1847.8	1804.9	1785.6	1767.6	1748.8	1702.5	1632.2
36.5°	1610.5	1666.2	1731.8	1785.6	1807.7	1758.2	1738.8	1720.9	1699.7	1649.2	1574.7
37°	1547.8	1608.6	1682.2	1740.7	1762.4	1712.0	1691.7	1671.9	1646.4	1591.7	1514.3
37.5°	1480.3	1544.5	1628.9	1690.7	1715.3	1660.5	1642.6	1621.4	1586.9	1526.6	1449.2
38°	1413.3	1479.4	1572.3	1641.2	1665.3	1607.7	1593.1	1568.1	1521.8	1457.2	1384.1
38.5°	1344.5	1415.7	1512.4	1583.2	1610.5	1550.2	1541.2	1513.4	1453.0	1386.5	1315.7
39°	1278.4	1355.3	1449.7	1525.6	1544.5	1491.7	1486.5	1455.3	1382.7	1312.4	1244.5
39.5°	1213.3	1293.5	1383.6	1461.5	1469.5	1428.4	1425.1	1394.0	1312.4	1239.7	1171.8
40°	1148.2	1233.1	1315.7	1396.4	1394.5	1362.9	1364.8	1328.9	1245.4	1168.0	1099.6
40.5°	1080.8	1166.6	1248.2	1323.7	1322.8	1293.5	1305.8	1263.3	1180.3	1097.3	1022.7
41°	1012.4	1097.3	1180.3	1250.1	1257.2	1225.6	1240.7	1196.3	1114.3	1028.4	948.2
41.5°	945.8	1025.6	1110.5	1176.1	1192.1	1154.8	1174.2	1126.5	1047.3	958.1	875.6
42°	878.9	957.6	1041.6	1100.6	1125.6	1088.8	1105.8	1057.2	977.9	888.8	809.0
42.5°	814.2	890.7	972.3	1024.6	1058.6	1022.3	1035.5	988.3	910.9	819.4	737.3
43°	752.0	824.1	902.0	952.5	986.4	956.2	962.4	917.1	842.1	749.6	672.2
43.5°	688.3	759.0	829.8	878.9	916.1	888.8	892.1	848.2	777.4	683.6	607.1



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
45°	504.8	562.3	614.7	676.5	719.9	687.3	677.0	649.1	587.8	510.0	437.3
45.5°	445.3	499.6	548.6	612.3	656.2	622.7	611.4	583.1	527.9	456.2	383.1
46°	391.1	439.7	486.8	553.8	593.5	559.5	544.4	520.3	471.3	402.9	328.8
46.5°	337.8	382.1	428.3	495.8	529.3	501.9	488.7	463.3	414.7	349.6	275.0
47°	287.3	327.9	373.1	440.1	474.6	443.9	433.1	406.6	358.1	295.8	233.0
47.5°	240.1	275.0	323.1	386.4	419.9	385.9	377.4	350.0	301.4	249.6	194.8
48°	198.6	227.9	276.0	333.5	365.1	327.9	321.7	293.0	252.9	207.1	160.9
48.5°	161.3	185.4	233.5	284.9	310.4	269.8	266.1	244.8	208.0	168.4	130.2
49°	138.7	151.0	195.8	240.6	263.2	220.3	222.7	199.1	167.0	133.5	104.3
49.5°	116.0	127.4	160.4	200.5	217.5	178.3	180.2	159.4	131.1	103.3	81.1
50°	93.4	103.8	136.8	163.7	175.5	141.5	141.5	124.5	99.5	85.9	67.0
50.5°	70.3	80.2	113.7	138.7	137.3	108.5	108.5	93.4	82.1	67.9	53.3
51°	48.1	57.1	90.6	114.2	103.8	89.6	89.2	76.9	64.6	50.5	39.2
51.5°	34.9	42.9	67.5	89.6	85.9	70.3	70.3	60.4	47.2	32.6	25.0
52°	24.1	30.7	44.3	65.1	67.9	51.4	50.9	43.9	29.7	14.6	11.3
52.5°	15.1	20.3	30.2	40.6	49.5	32.6	31.6	27.4	12.7	9.4	7.5
53°	12.7	17.5	18.9	25.9	31.6	14.2	12.7	10.4	8.5	7.1	6.1
53.5°	9.9	14.2	15.6	15.1	14.2	9.0	8.5	7.5	6.6	5.7	4.7
54°	7.1	10.9	11.8	12.3	9.0	7.1	6.6	6.1	5.2	4.2	3.8
54.5°	4.7	7.5	8.5	9.4	7.1	5.7	5.2	4.7	3.8	3.3	2.8
55°	3.8	4.2	5.2	7.1	5.7	4.2	4.2	3.8	3.3	2.8	2.4
55.5°	2.8	3.3	3.8	4.2	4.2	3.3	3.3	2.8	2.4	2.4	1.9
56°	2.4	2.8	3.3	3.3	3.3	2.4	2.4	2.4	1.9	1.9	1.9
56.5°	1.9	2.4	2.4	2.8	2.4	1.9	1.9	1.9	1.9	1.4	1.4
57°	1.9	1.9	1.9	2.4	1.9	1.9	1.9	1.9	1.4	1.4	1.4
57.5°	1.4	1.4	1.9	1.9	1.9	1.4	1.4	1.4	1.4	1.4	1.4
58°	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	0.9
58.5°	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	0.9	0.9	0.9
59°	0.9	1.4	1.4	1.4	1.4	0.9	0.9	0.9	0.9	0.9	0.9
59.5°	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
60°	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
60.5°	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
61°	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
61.5°	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
62°	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.5	0.5	0.5
62.5°	0.9	0.9	0.9	0.9	0.9	0.5	0.5	0.5	0.5	0.5	0.5
63°	0.5	0.9	0.9	0.9	0.5	0.5	0.5	0.5	0.5	0.5	0.5
63.5°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
64°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
64.5°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
65°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
65.5°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
66°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5



TEST NUMBER: P776812

CATALOG NUMBER: HCDJBL54050CSD-HCD8TRMB-5000lm-3500K

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
67.5°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
68°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
68.5°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
69°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
69.5°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
70°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
70.5°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
71°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.0	0.0	0.0	0.0
71.5°	0.5	0.5	0.5	0.5	0.5	0.0	0.0	0.0	0.0	0.0	0.0
72°	0.0	0.5	0.5	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
72.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
73°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
73.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
74°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
74.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
75°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
75.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
76°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
76.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
78°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
78.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
79°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
79.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
81°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
81.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
83°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
83.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
84°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
84.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
86°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
86.5°	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0	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	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: P776812

CATALOG NUMBER: HCDJBL54050CSD-HCD8TRMB-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	0.0	0.0	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P776812

CATALOG NUMBER: HCDJBL54050CSD-HCD8TRMB-5000lm-3500K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	2423.8	2423.8	2423.8	2423.8	2423.8	2423.8
0.5°	2422.4	2421.9	2423.8	2424.8	2424.8	2422.9
1°	2421.9	2421.0	2422.4	2423.4	2423.4	2421.9
1.5°	2421.0	2419.6	2421.0	2421.9	2421.9	2421.0
2°	2420.0	2418.6	2419.6	2420.5	2420.5	2420.0
2.5°	2419.6	2417.2	2418.6	2419.1	2419.6	2419.1
3°	2418.6	2416.3	2417.2	2417.7	2417.7	2417.7
3.5°	2417.2	2414.9	2415.3	2416.3	2416.3	2416.7
4°	2416.7	2413.4	2413.9	2414.9	2414.9	2415.3
4.5°	2415.3	2411.6	2412.5	2413.4	2413.4	2413.9
5°	2414.4	2410.1	2410.6	2411.6	2412.5	2412.5
5.5°	2413.0	2408.7	2409.2	2410.1	2410.6	2411.1
6°	2412.0	2406.8	2407.3	2408.7	2409.2	2409.7
6.5°	2410.6	2405.0	2405.9	2406.8	2407.8	2408.3
7°	2408.7	2403.1	2404.0	2405.4	2406.4	2406.8
7.5°	2407.3	2401.2	2402.1	2403.5	2404.5	2405.0
8°	2405.9	2399.3	2400.2	2402.1	2403.1	2403.1
8.5°	2404.0	2396.9	2397.9	2400.2	2401.2	2401.2
9°	2402.1	2394.6	2396.0	2398.3	2399.3	2399.3
9.5°	2400.7	2392.2	2393.6	2396.5	2397.4	2396.9
10°	2398.3	2389.9	2391.3	2394.6	2395.5	2395.0
10.5°	2396.5	2387.0	2388.9	2392.2	2393.2	2392.7
11°	2394.1	2384.7	2386.6	2390.3	2391.3	2390.3
11.5°	2391.7	2381.4	2383.7	2388.0	2388.9	2388.0
12°	2389.4	2378.5	2380.9	2385.6	2386.6	2385.6
12.5°	2386.6	2375.7	2377.6	2382.8	2384.2	2382.8
13°	2383.7	2372.4	2374.3	2380.0	2381.4	2380.0
13.5°	2380.4	2369.1	2371.5	2377.1	2378.1	2377.1
14°	2377.6	2365.3	2367.7	2373.8	2375.2	2373.8
14.5°	2373.8	2361.6	2363.9	2370.0	2371.9	2371.0
15°	2370.5	2357.3	2360.1	2366.3	2368.2	2367.7
15.5°	2366.7	2353.1	2355.4	2362.5	2364.4	2363.9
16°	2362.0	2348.3	2351.2	2357.8	2360.1	2360.1
16.5°	2357.8	2343.6	2346.5	2353.1	2355.9	2356.4
17°	2353.1	2338.4	2340.8	2347.9	2351.2	2352.1
17.5°	2347.9	2332.8	2335.6	2342.2	2346.0	2347.4
18°	2342.2	2326.6	2329.5	2336.1	2340.3	2342.7
18.5°	2336.1	2321.0	2323.3	2329.5	2334.2	2338.0
19°	2329.9	2314.4	2316.7	2322.4	2328.1	2332.3
19.5°	2323.3	2306.8	2309.7	2314.8	2321.0	2326.6
20°	2315.8	2299.8	2302.1	2306.8	2313.4	2321.0
20.5°	2308.2	2291.7	2294.1	2298.3	2305.4	2314.4
21°	2299.8	2283.2	2285.6	2288.9	2297.4	2307.3

TEST NUMBER: P776812

CATALOG NUMBER: HCDJBLS4050CSD-HCD8TRMB-5000lm-3500K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
22.5°	2271.9	2254.5	2256.4	2257.8	2268.1	2283.7
23°	2261.5	2243.6	2245.5	2246.0	2257.3	2274.8
23.5°	2249.7	2232.3	2233.7	2234.2	2245.5	2264.8
24°	2238.0	2220.0	2221.9	2221.4	2233.2	2254.5
24.5°	2225.2	2206.8	2208.7	2207.8	2220.5	2243.6
25°	2211.5	2193.1	2195.0	2193.1	2206.8	2231.4
25.5°	2197.4	2178.5	2179.9	2178.5	2192.2	2219.1
26°	2181.8	2163.4	2164.4	2162.5	2177.6	2205.4
26.5°	2165.8	2146.9	2148.3	2146.4	2161.5	2191.3
27°	2148.8	2129.0	2131.3	2129.0	2145.0	2175.7
27.5°	2130.4	2110.6	2113.4	2111.1	2127.1	2159.2
28°	2111.1	2091.2	2094.5	2091.2	2108.7	2141.7
28.5°	2090.8	2070.5	2074.7	2072.4	2088.9	2123.3
29°	2070.0	2049.3	2054.0	2051.1	2068.6	2103.5
29.5°	2047.8	2026.6	2032.7	2030.4	2048.3	2083.7
30°	2024.3	2003.5	2009.6	2007.7	2026.6	2062.0
30.5°	1998.8	1977.6	1986.5	1985.6	2004.0	2039.8
31°	1970.9	1951.1	1961.0	1960.6	1979.9	2015.3
31.5°	1941.7	1921.4	1934.2	1935.1	1954.0	1989.8
32°	1910.6	1890.8	1904.4	1905.8	1925.7	1962.9
32.5°	1876.6	1856.8	1873.8	1875.7	1895.5	1934.2
33°	1842.2	1821.4	1839.8	1842.6	1863.4	1902.5
33.5°	1803.5	1783.2	1806.3	1810.1	1831.3	1870.0
34°	1763.9	1740.7	1770.0	1774.7	1796.4	1833.7
34.5°	1720.5	1695.4	1730.8	1735.5	1758.7	1795.5
35°	1672.8	1645.4	1688.4	1692.6	1717.1	1754.4
35.5°	1619.0	1590.3	1639.8	1646.4	1671.9	1712.0
36°	1562.4	1528.9	1585.5	1594.0	1622.3	1665.3
36.5°	1498.7	1464.8	1524.7	1536.5	1566.2	1610.5
37°	1434.6	1402.5	1458.2	1473.7	1503.9	1547.8
37.5°	1367.1	1342.1	1386.5	1408.6	1436.5	1480.3
38°	1303.4	1279.8	1313.8	1338.8	1368.1	1413.3
38.5°	1237.9	1218.0	1244.9	1269.0	1298.7	1344.5
39°	1174.6	1145.9	1178.4	1194.5	1228.4	1278.4
39.5°	1109.5	1073.2	1114.7	1123.2	1157.2	1213.3
40°	1042.6	999.6	1048.2	1051.5	1084.1	1148.2
40.5°	972.7	935.9	978.9	979.3	1014.7	1080.8
41°	901.0	872.7	910.5	907.6	947.3	1012.4
41.5°	828.9	811.4	843.5	835.9	879.8	945.8
42°	759.5	746.8	778.4	768.5	812.8	878.9
42.5°	689.7	681.7	715.2	704.3	744.4	814.2
43°	621.3	617.5	653.8	642.0	679.3	752.0
43.5°	555.7	553.8	593.0	582.1	616.1	688.3



TEST NUMBER: P776812

CATALOG NUMBER: HCDJBL54050CSD-HCD8TRMB-5000lm-3500K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
45°	386.4	381.2	419.4	418.0	445.3	504.8
45.5°	329.7	326.9	366.5	370.8	393.9	445.3
46°	273.1	273.1	318.0	326.4	346.7	391.1
46.5°	229.3	225.5	273.1	284.5	302.9	337.8
47°	191.1	181.6	231.2	245.8	261.3	287.3
47.5°	156.6	156.6	192.5	209.5	223.6	240.1
48°	127.4	132.1	158.0	177.8	189.2	198.6
48.5°	101.4	107.6	134.0	153.3	157.6	161.3
49°	80.2	83.0	110.4	129.3	134.0	138.7
49.5°	66.5	58.5	87.3	105.7	110.4	116.0
50°	53.3	44.3	63.7	81.6	86.3	93.4
50.5°	40.1	32.6	47.2	57.6	63.2	70.3
51°	26.9	22.6	34.4	42.0	46.2	48.1
51.5°	13.7	14.2	23.1	28.3	32.1	34.9
52°	9.0	11.3	14.6	17.5	20.8	24.1
52.5°	6.6	9.0	11.8	14.2	17.5	15.1
53°	5.7	7.1	9.4	10.9	14.2	12.7
53.5°	4.2	4.7	7.1	8.0	10.9	9.9
54°	3.3	3.8	4.7	4.7	7.5	7.1
54.5°	2.8	2.8	3.8	3.8	4.2	4.7
55°	2.4	2.4	2.8	2.8	3.3	3.8
55.5°	1.9	1.9	2.4	2.4	2.8	2.8
56°	1.9	1.9	1.9	1.9	2.4	2.4
56.5°	1.4	1.4	1.9	1.9	1.9	1.9
57°	1.4	1.4	1.4	1.4	1.4	1.9
57.5°	1.4	1.4	1.4	1.4	1.4	1.4
58°	0.9	0.9	1.4	1.4	1.4	1.4
58.5°	0.9	0.9	0.9	1.4	1.4	1.4
59°	0.9	0.9	0.9	0.9	0.9	0.9
59.5°	0.9	0.9	0.9	0.9	0.9	0.9
60°	0.9	0.9	0.9	0.9	0.9	0.9
60.5°	0.9	0.9	0.9	0.9	0.9	0.9
61°	0.9	0.9	0.9	0.9	0.9	0.9
61.5°	0.9	0.9	0.9	0.9	0.9	0.9
62°	0.5	0.9	0.9	0.9	0.9	0.9
62.5°	0.5	0.5	0.9	0.9	0.9	0.9
63°	0.5	0.5	0.5	0.5	0.5	0.5
63.5°	0.5	0.5	0.5	0.5	0.5	0.5
64°	0.5	0.5	0.5	0.5	0.5	0.5
64.5°	0.5	0.5	0.5	0.5	0.5	0.5
65°	0.5	0.5	0.5	0.5	0.5	0.5
65.5°	0.5	0.5	0.5	0.5	0.5	0.5
66°	0.5	0.5	0.5	0.5	0.5	0.5



TEST NUMBER: P776812

CATALOG NUMBER: HCDJBL54050CSD-HCD8TRMB-5000lm-3500K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
67.5°	0.5	0.5	0.5	0.5	0.5	0.5
68°	0.5	0.5	0.5	0.5	0.5	0.5
68.5°	0.5	0.5	0.5	0.5	0.5	0.5
69°	0.5	0.5	0.5	0.5	0.5	0.5
69.5°	0.5	0.5	0.5	0.5	0.5	0.5
70°	0.5	0.5	0.5	0.5	0.5	0.5
70.5°	0.5	0.5	0.5	0.5	0.5	0.5
71°	0.5	0.5	0.5	0.5	0.5	0.5
71.5°	0.0	0.5	0.5	0.5	0.5	0.5
72°	0.0	0.0	0.5	0.5	0.5	0.0
72.5°	0.0	0.0	0.0	0.0	0.0	0.0
73°	0.0	0.0	0.0	0.0	0.0	0.0
73.5°	0.0	0.0	0.0	0.0	0.0	0.0
74°	0.0	0.0	0.0	0.0	0.0	0.0
74.5°	0.0	0.0	0.0	0.0	0.0	0.0
75°	0.0	0.0	0.0	0.0	0.0	0.0
75.5°	0.0	0.0	0.0	0.0	0.0	0.0
76°	0.0	0.0	0.0	0.0	0.0	0.0
76.5°	0.0	0.0	0.0	0.0	0.0	0.0
77°	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	0.0	0.0	0.0	0.0	0.0	0.0
78°	0.0	0.0	0.0	0.0	0.0	0.0
78.5°	0.0	0.0	0.0	0.0	0.0	0.0
79°	0.0	0.0	0.0	0.0	0.0	0.0
79.5°	0.0	0.0	0.0	0.0	0.0	0.0
80°	0.0	0.0	0.0	0.0	0.0	0.0
80.5°	0.0	0.0	0.0	0.0	0.0	0.0
81°	0.0	0.0	0.0	0.0	0.0	0.0
81.5°	0.0	0.0	0.0	0.0	0.0	0.0
82°	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0	0.0
83°	0.0	0.0	0.0	0.0	0.0	0.0
83.5°	0.0	0.0	0.0	0.0	0.0	0.0
84°	0.0	0.0	0.0	0.0	0.0	0.0
84.5°	0.0	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0	0.0
85.5°	0.0	0.0	0.0	0.0	0.0	0.0
86°	0.0	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: P776812

CATALOG NUMBER: HCDJBL54050CSD-HCD8TRMB-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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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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21.5°	2300.2	2318.6	2345.0	2370.0	2388.0	2397.9	2401.7	2392.2	2373.8	2348.3	2319.6
22°	2292.2	2311.5	2338.0	2363.0	2382.3	2391.3	2394.6	2385.1	2365.8	2339.9	2310.6



44°	625.5	694.4	756.2	809.5	848.2	821.3	817.5	782.2	713.7	621.3	545.3
44.5°	564.2	628.4	683.6	740.6	782.2	753.8	749.1	715.2	651.5	563.3	491.1



66.5°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
67°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5



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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21.5°	2291.3	2274.3	2276.6	2279.5	2288.0	2300.2
22°	2281.8	2264.8	2266.7	2269.1	2278.5	2292.2



44°	499.1	493.4	534.0	523.2	555.7	625.5
44.5°	443.0	436.8	475.0	468.9	499.1	564.2

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Scaled Data Report



66.5°	0.5	0.5	0.5	0.5	0.5	0.5
67°	0.5	0.5	0.5	0.5	0.5	0.5

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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)