

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: P776740

Luminaire Tested: HCDJBS4050CSD-HCD6TSQMW-5000lm-2700K

Issue Date: 2/7/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P776740  
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: HCDJBS4050CSD-HCD6TSQMW-5000lm-2700K  
Description: 6 INCH SQUARE MEDIUM MATTE WHITE TRIM  
Light Source: SELECTABLE LUMENS AND CCT ARRAY 90CRI / 2700K CCT  
Ballast/Driver: -

**Summary**

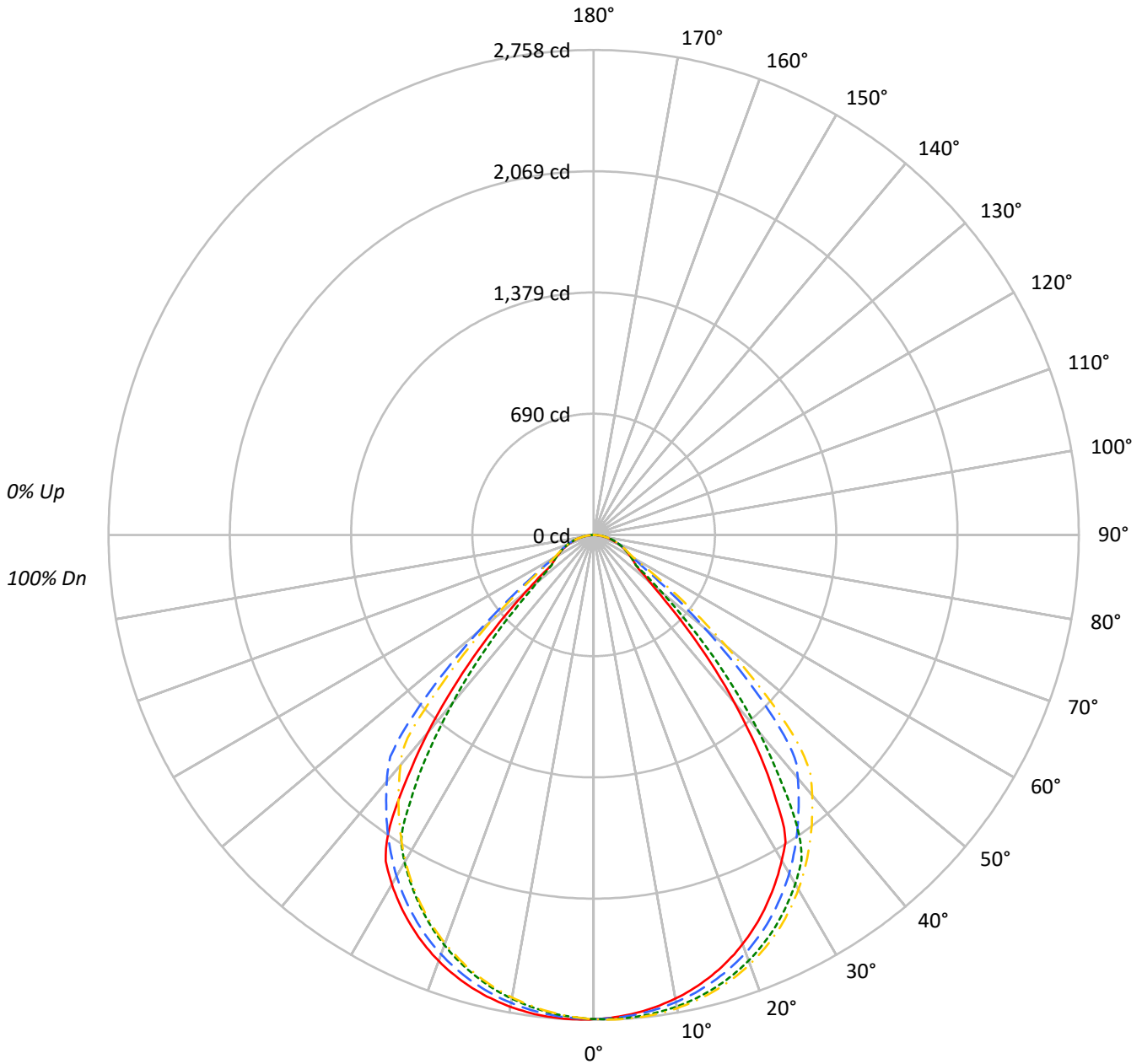
Lumens per Lamp: N/A  
Luminaire Lumens: 4831.1 lumens  
Efficiency: N/A  
Efficacy: 100.6 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.2 / 1.27  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')

CIE Type: Direct  
Input Watts (W): 48  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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



TEST NUMBER: P776740  
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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	111	108	105	102	109	106	103	100	101	99	97	98	96	94	94	93	91	89																			
2	104	97	92	88	101	96	91	87	92	88	85	89	86	83	86	83	81	79																			
3	97	88	82	77	94	87	81	76	84	79	75	81	77	73	79	75	72	70																			
4	90	80	73	68	88	79	72	67	77	71	66	75	70	66	73	68	65	63																			
5	84	73	66	60	82	72	65	60	70	64	59	68	63	59	67	62	58	57																			
6	78	67	60	54	77	66	59	54	65	58	54	63	58	53	62	57	53	51																			
7	73	62	54	49	72	61	54	49	60	53	49	58	53	48	57	52	48	46																			
8	69	57	50	45	67	57	49	45	55	49	44	54	48	44	53	48	44	42																			
9	65	53	46	41	63	52	46	41	51	45	41	50	45	40	49	44	40	39																			
10	61	49	42	38	60	49	42	38	48	42	37	47	41	37	46	41	37	36																			

**AVERAGE LUMINANCE (cd/sqm):**

	0°	90°	180°	270°
0°	118554	118554	118554	118554
5°	117982	118907	118985	118000
10°	117056	119045	119128	117095
15°	115626	118836	118898	115751
20°	113470	118043	118103	113722
25°	110377	116482	116567	110767
30°	106319	113970	114064	106860
35°	93748	105716	106053	94079
40°	69852	81936	82425	70082
45°	45466	56147	56506	45716
50°	28012	33444	33813	28193
55°	21611	21679	21679	21611
60°	20753	20675	20675	20753
65°	19775	19958	19775	20050
70°	18757	19324	18870	19437
75°	17351	18715	17817	18648
80°	14902	17951	16141	17282
85°	8349	16203	12153	13931

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 135°

Vertical Angle: 45°

Luminance: 97034 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	260.4	5.4
10°-20°	742.0	15.4
20°-30°	1101.7	22.8
30°-40°	1218.1	25.2
40°-50°	825.5	17.1
50°-60°	336.5	7.0
60°-70°	198.6	4.1
70°-80°	117.4	2.4
80°-90°	30.9	0.6
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°	2104.0	43.6
0°-40°	3322.2	68.8
0°-60°	4484.2	92.8
0°-90°	4831.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4831.1	100.0

**CANDELA DISTRIBUTION:**

	0°	90°	180°	270°	360°	Flux
0°	2754	2754	2754	2754	2754	
5°	2730	2751	2753	2730	2730	259
15°	2594	2666	2667	2597	2594	731
25°	2323	2452	2454	2332	2323	1068
35°	1784	2011	2018	1790	1784	1092
45°	747	922	928	751	747	590
55°	288	289	289	288	288	270
65°	194	196	194	197	194	192
75°	104	112	107	112	104	110
85°	17	33	25	28	17	24
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°	2753.5	2753.5	2753.5	2753.5	2753.5	2753.5	2753.5	2753.5	2753.5	2753.5	2753.5
0.5°	2753.5	2752.6	2752.6	2753.5	2753.9	2754.4	2755.3	2755.7	2755.7	2753.9	2752.6
1°	2751.6	2751.6	2751.6	2753.5	2754.8	2755.3	2756.7	2756.7	2756.2	2753.9	2752.6
1.5°	2749.8	2750.3	2751.2	2753.0	2755.3	2756.2	2757.6	2757.6	2756.7	2754.4	2751.6
2°	2748.0	2748.9	2750.3	2752.6	2755.3	2756.2	2758.0	2758.0	2757.1	2753.9	2751.2
2.5°	2745.7	2746.6	2748.9	2752.1	2755.3	2756.7	2758.5	2758.5	2757.1	2753.5	2749.8
3°	2743.0	2744.4	2747.1	2751.2	2754.8	2756.7	2758.5	2758.5	2756.7	2753.0	2748.5
3.5°	2740.3	2742.1	2745.3	2749.8	2754.4	2756.2	2758.5	2758.0	2756.2	2752.1	2747.1
4°	2737.1	2739.3	2743.4	2748.5	2753.5	2755.7	2758.0	2757.6	2755.3	2750.7	2745.3
4.5°	2733.4	2736.6	2741.2	2746.6	2752.6	2755.3	2757.1	2757.1	2754.4	2749.4	2743.4
5°	2729.8	2733.4	2738.4	2744.4	2751.2	2754.4	2756.2	2756.2	2753.0	2747.5	2741.2
5.5°	2726.1	2730.2	2735.7	2742.5	2749.4	2753.0	2755.3	2754.8	2751.6	2745.7	2738.4
6°	2721.6	2726.1	2732.5	2739.8	2747.5	2751.6	2753.9	2753.5	2749.8	2743.4	2735.7
6.5°	2717.5	2722.5	2728.9	2737.1	2745.7	2749.8	2752.1	2751.6	2747.5	2740.7	2732.5
7°	2712.5	2717.9	2725.2	2733.9	2743.4	2748.0	2750.3	2749.4	2745.3	2737.5	2728.9
7.5°	2707.5	2713.8	2721.6	2730.7	2740.3	2745.7	2748.0	2747.1	2742.5	2734.3	2725.2
8°	2702.0	2708.8	2717.5	2727.0	2737.5	2743.0	2745.7	2744.4	2739.3	2731.1	2721.6
8.5°	2696.1	2703.8	2712.9	2723.4	2734.3	2739.8	2743.0	2741.6	2736.2	2727.5	2717.0
9°	2690.1	2697.9	2707.9	2718.8	2730.7	2737.1	2739.8	2738.0	2732.5	2723.4	2712.5
9.5°	2684.2	2692.4	2702.9	2714.7	2727.0	2733.4	2736.6	2734.8	2728.9	2719.3	2707.5
10°	2677.4	2686.5	2697.9	2709.7	2722.9	2729.8	2733.0	2730.7	2724.8	2715.2	2702.4
10.5°	2670.6	2680.1	2692.0	2704.7	2718.8	2725.7	2728.9	2727.0	2720.2	2710.2	2697.0
11°	2663.3	2673.3	2686.5	2699.7	2713.8	2721.6	2724.8	2722.5	2715.7	2704.7	2691.5
11.5°	2655.5	2666.5	2680.1	2694.2	2708.8	2716.6	2720.2	2717.9	2710.6	2699.3	2685.6
12°	2647.8	2659.2	2673.7	2688.3	2703.8	2712.0	2715.7	2712.9	2705.6	2693.8	2679.2
12.5°	2639.6	2651.9	2666.9	2682.4	2698.3	2706.5	2710.2	2707.9	2699.7	2687.9	2672.8
13°	2631.4	2644.1	2659.6	2675.6	2692.4	2701.1	2704.7	2702.0	2694.2	2681.5	2666.0
13.5°	2622.7	2635.9	2652.3	2668.7	2686.0	2695.6	2699.3	2696.1	2687.9	2675.1	2658.7
14°	2613.6	2627.3	2645.0	2661.9	2679.7	2689.2	2693.3	2690.1	2681.5	2667.8	2651.4
14.5°	2604.0	2618.6	2636.8	2654.6	2672.8	2682.9	2687.0	2683.8	2674.7	2661.0	2643.2
15°	2594.0	2609.5	2628.6	2646.9	2666.0	2676.5	2680.6	2676.9	2667.4	2653.2	2635.5
15.5°	2584.0	2599.9	2619.5	2638.7	2658.7	2669.2	2673.7	2669.6	2660.1	2645.5	2627.3
16°	2573.5	2589.9	2610.9	2630.5	2651.0	2661.4	2666.5	2662.4	2651.9	2637.3	2618.2
16.5°	2562.6	2579.9	2601.8	2622.3	2642.8	2654.2	2659.2	2655.1	2644.1	2629.1	2609.5
17°	2551.2	2569.4	2592.7	2613.2	2634.1	2646.0	2651.4	2646.9	2635.5	2620.0	2599.9
17.5°	2539.8	2558.5	2582.6	2603.6	2625.9	2637.8	2643.2	2638.2	2626.8	2610.9	2590.4
18°	2527.5	2547.1	2572.2	2594.0	2616.3	2629.1	2635.0	2629.6	2617.7	2601.3	2580.4
18.5°	2515.7	2535.7	2561.2	2584.0	2607.2	2620.4	2625.9	2620.4	2608.1	2591.7	2570.3
19°	2502.9	2523.9	2550.7	2574.0	2597.2	2610.9	2616.8	2610.9	2598.1	2581.3	2558.9
19.5°	2489.7	2511.6	2539.4	2563.0	2586.7	2601.3	2607.7	2601.3	2588.1	2571.2	2548.5
20°	2476.5	2499.3	2528.0	2552.1	2576.3	2590.8	2597.7	2591.3	2577.6	2560.3	2537.5
20.5°	2462.8	2485.6	2516.1	2540.3	2565.8	2580.4	2587.6	2580.8	2566.7	2549.4	2525.7
21°	2448.7	2472.4	2503.8	2528.4	2553.9	2569.4	2577.2	2569.9	2555.8	2537.5	2513.8

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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°	2404.0	2430.0	2464.6	2491.5	2518.4	2535.3	2543.5	2535.7	2520.2	2502.0	2476.0
23°	2388.6	2415.4	2451.0	2478.3	2505.6	2523.0	2531.6	2523.9	2507.5	2488.3	2462.4
23.5°	2373.1	2400.4	2436.9	2464.6	2492.9	2510.7	2519.8	2511.6	2494.7	2475.1	2448.7
24°	2357.1	2385.4	2422.7	2451.0	2479.2	2497.9	2507.0	2498.8	2481.0	2461.9	2434.6
24.5°	2340.3	2369.4	2407.7	2436.9	2465.6	2484.7	2493.8	2485.6	2467.4	2448.2	2420.4
25°	2323.4	2353.5	2392.7	2422.3	2451.9	2471.0	2480.6	2471.9	2453.7	2434.1	2405.4
25.5°	2306.1	2336.6	2377.2	2407.2	2437.3	2457.4	2467.4	2458.3	2439.1	2419.5	2390.8
26°	2288.8	2320.2	2361.2	2392.2	2422.3	2442.8	2453.3	2443.7	2424.5	2404.5	2375.8
26.5°	2271.0	2303.4	2344.8	2376.7	2407.2	2428.2	2438.7	2429.1	2409.1	2389.5	2359.9
27°	2252.8	2286.1	2328.4	2361.2	2391.7	2413.2	2423.6	2414.1	2394.0	2374.0	2343.5
27.5°	2234.1	2267.4	2311.6	2345.3	2376.3	2398.1	2409.1	2399.0	2378.5	2358.5	2328.0
28°	2215.4	2249.6	2294.3	2328.9	2359.4	2382.2	2393.1	2383.1	2362.1	2341.6	2310.7
28.5°	2196.8	2231.4	2276.5	2311.6	2343.5	2366.2	2377.2	2367.6	2345.3	2325.7	2293.8
29°	2177.6	2213.2	2259.6	2294.7	2326.6	2349.8	2360.8	2350.7	2328.9	2308.4	2276.0
29.5°	2158.0	2194.0	2241.0	2277.4	2309.7	2333.4	2344.8	2334.3	2312.0	2292.4	2258.3
30°	2138.5	2175.8	2222.3	2259.6	2292.4	2316.1	2327.5	2317.5	2294.3	2273.8	2240.5
30.5°	2118.4	2156.2	2203.6	2241.9	2274.2	2299.3	2310.2	2300.6	2276.0	2256.4	2222.3
31°	2098.4	2136.6	2184.5	2223.6	2255.5	2282.0	2292.9	2282.4	2257.8	2237.8	2203.6
31.5°	2078.3	2116.6	2164.9	2205.0	2237.3	2264.2	2275.1	2264.6	2239.6	2219.5	2184.5
32°	2058.7	2096.5	2145.3	2186.3	2217.3	2245.5	2256.4	2246.9	2220.0	2201.3	2165.3
32.5°	2023.6	2076.0	2125.2	2167.2	2198.1	2227.3	2238.7	2228.2	2200.4	2182.2	2146.2
33°	1987.2	2055.5	2105.6	2147.6	2170.3	2208.2	2219.5	2209.1	2170.3	2162.6	2126.2
33.5°	1938.9	2035.5	2084.7	2127.5	2138.0	2189.0	2200.4	2189.9	2139.4	2143.9	2106.1
34°	1887.0	2015.9	2064.2	2106.6	2101.1	2168.5	2180.4	2170.3	2103.4	2123.0	2085.6
34.5°	1834.1	1982.2	2043.2	2086.5	2059.2	2148.5	2161.2	2148.5	2062.4	2101.1	2065.6
35°	1783.6	1945.7	2022.3	2056.9	2011.3	2125.7	2141.6	2124.8	2017.7	2073.3	2044.6
35.5°	1733.4	1900.6	2000.9	2025.0	1960.8	2091.1	2121.6	2091.1	1967.2	2041.9	2023.6
36°	1682.9	1850.1	1979.9	1989.9	1904.3	2060.1	2101.1	2061.0	1911.6	2008.6	2002.7
36.5°	1630.5	1800.4	1958.0	1948.9	1847.8	2020.0	2081.0	2022.7	1856.0	1969.0	1981.7
37°	1574.5	1750.8	1936.6	1904.3	1787.2	1975.4	2060.5	1980.4	1798.1	1925.2	1959.4
37.5°	1518.0	1701.1	1914.8	1856.0	1730.3	1927.1	2039.1	1934.8	1739.8	1879.2	1938.0
38°	1461.0	1651.0	1892.9	1803.2	1673.8	1875.6	2018.2	1884.7	1684.2	1827.8	1916.6
38.5°	1405.0	1600.9	1871.5	1748.5	1620.5	1821.4	1996.8	1831.9	1629.6	1774.4	1895.2
39°	1349.9	1548.9	1849.2	1694.7	1566.3	1765.3	1976.3	1776.7	1575.4	1719.8	1872.9
39.5°	1296.1	1495.2	1827.8	1640.5	1513.0	1707.5	1954.4	1721.6	1521.6	1665.1	1851.0
40°	1242.8	1438.7	1805.0	1585.8	1457.8	1652.4	1933.4	1666.5	1466.5	1610.9	1829.1
40.5°	1191.8	1383.6	1782.6	1534.4	1402.2	1599.1	1911.1	1613.2	1410.9	1558.1	1807.3
41°	1139.4	1330.3	1760.3	1483.3	1344.8	1547.1	1889.3	1559.9	1353.0	1506.6	1784.5
41.5°	1087.9	1277.0	1739.4	1432.3	1288.4	1494.7	1866.0	1507.9	1296.6	1456.0	1761.2
42°	1035.5	1225.0	1706.6	1382.2	1232.8	1442.3	1842.8	1456.0	1240.5	1405.0	1737.5
42.5°	984.5	1176.3	1671.9	1330.7	1179.0	1389.5	1820.5	1403.6	1185.9	1352.6	1710.2
43°	933.0	1125.3	1624.6	1277.0	1126.6	1335.3	1779.9	1349.4	1133.0	1299.7	1663.3
43.5°	885.2	1075.1	1572.6	1225.5	1074.2	1281.1	1739.8	1294.3	1081.1	1246.0	1622.7



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
45°	746.7	924.8	1399.5	1072.0	922.1	1121.6	1593.6	1134.4	928.0	1091.1	1449.2
45.5°	702.9	876.5	1341.2	1024.1	871.1	1071.0	1535.7	1082.0	878.8	1041.4	1388.1
46°	661.0	829.1	1279.7	976.3	822.3	1020.9	1473.3	1031.9	829.6	993.1	1326.2
46.5°	621.4	784.5	1218.2	928.5	775.4	970.4	1409.5	982.2	782.2	945.8	1264.2
47°	582.7	738.9	1156.7	881.5	729.8	921.2	1344.4	932.6	737.1	898.4	1202.7
47.5°	547.1	696.6	1095.2	835.1	686.1	872.9	1278.3	883.8	693.4	851.9	1142.1
48°	514.8	655.1	1035.5	789.5	645.1	825.5	1215.5	836.9	651.9	807.3	1082.0
48.5°	486.6	615.0	979.5	745.8	605.5	779.0	1153.1	789.0	611.8	762.2	1023.7
49°	461.5	576.3	925.7	703.4	568.1	732.6	1094.7	743.5	574.0	719.8	967.2
49.5°	439.2	541.2	872.9	662.9	532.6	689.3	1037.8	699.8	538.5	677.4	912.5
50°	418.2	507.5	821.4	621.9	499.3	646.9	982.2	657.4	504.8	637.3	860.1
50.5°	400.9	477.4	773.6	583.6	468.3	606.8	928.0	615.9	472.9	598.2	810.0
51°	384.0	450.1	727.1	547.6	439.6	569.0	875.2	577.7	444.2	562.2	760.3
51.5°	368.1	427.3	682.4	513.9	417.3	532.6	822.8	541.2	420.9	527.1	714.8
52°	351.7	406.4	639.2	481.5	394.5	498.9	773.6	506.1	397.3	494.8	670.6
52.5°	336.2	388.1	599.1	451.0	372.2	466.5	723.4	473.3	374.0	462.9	628.2
53°	320.7	370.8	560.8	422.8	349.4	437.8	676.1	442.4	350.3	433.2	588.6
53.5°	308.4	354.9	524.8	396.3	327.1	414.6	631.0	418.2	327.1	409.1	550.3
54°	298.9	339.4	491.6	372.7	309.3	390.9	590.9	394.1	309.3	385.0	515.3
54.5°	292.9	324.4	460.1	350.8	296.1	367.2	549.9	369.9	295.7	360.8	482.4
55°	287.9	308.4	431.4	330.3	288.8	343.5	513.0	345.8	288.8	336.7	452.4
55.5°	282.9	295.7	404.5	311.2	283.4	320.3	477.4	321.6	282.9	316.6	424.1
56°	277.9	285.2	380.9	293.8	278.4	301.6	445.5	302.5	277.9	298.9	401.8
56.5°	273.3	279.3	358.5	281.1	273.3	286.1	420.0	286.6	272.9	285.2	379.5
57°	268.8	274.3	338.5	274.3	268.3	276.5	394.1	276.1	268.3	277.4	357.2
57.5°	263.8	269.2	320.3	269.2	263.8	270.6	368.6	270.2	263.3	272.0	334.8
58°	259.2	264.7	305.2	264.2	258.8	265.6	342.6	265.1	258.8	267.0	317.1
58.5°	254.7	259.7	291.6	259.2	254.2	261.0	317.1	260.6	253.8	262.4	302.0
59°	250.1	255.1	279.3	254.7	249.7	256.0	299.3	256.0	249.2	257.4	288.8
59.5°	245.6	250.6	268.8	249.7	245.1	251.5	284.3	251.0	244.6	252.8	277.0
60°	241.0	246.0	259.7	245.1	240.1	246.9	271.5	246.5	240.1	248.3	266.5
60.5°	236.0	241.5	251.0	240.5	235.5	241.9	261.0	241.9	235.5	243.3	257.4
61°	231.4	236.9	243.3	235.5	231.4	237.4	251.0	237.4	230.5	238.7	249.2
61.5°	226.9	232.3	236.4	231.4	226.9	232.8	242.8	232.8	226.0	234.2	241.5
62°	222.3	227.8	230.1	226.9	222.3	228.7	235.1	228.2	221.4	229.6	234.6
62.5°	217.3	223.2	224.1	221.9	217.8	224.1	228.2	223.7	216.9	225.1	228.7
63°	212.8	218.7	219.1	217.3	213.2	219.6	222.3	218.7	211.8	220.0	222.8
63.5°	208.2	213.7	214.1	212.8	209.1	215.0	216.4	214.1	207.7	215.5	217.8
64°	203.6	209.1	209.1	208.2	204.6	210.5	211.8	209.6	203.2	210.9	213.2
64.5°	198.6	204.6	204.6	203.6	200.5	205.9	206.8	205.0	198.6	206.4	208.2
65°	194.1	200.0	200.0	199.5	195.9	201.8	202.3	200.5	194.1	201.8	203.6
65.5°	189.5	195.0	195.0	195.0	191.8	197.3	197.7	195.9	189.5	197.3	199.1
66°	185.0	190.4	190.4	190.4	187.2	192.7	192.7	191.3	185.0	192.7	194.1





TEST NUMBER: P776740

CATALOG NUMBER: HCDJBL54050CSD-HCD6TSQMW-5000lm-2700K

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
67.5°	171.3	176.8	176.8	177.2	174.5	179.5	179.0	177.7	171.8	179.0	180.4
68°	166.7	172.2	172.2	172.7	170.4	175.4	174.5	173.1	167.2	174.0	175.9
68.5°	162.2	167.7	167.7	168.1	166.3	170.8	170.4	169.0	162.6	169.9	171.3
69°	157.6	163.1	163.1	165.8	162.2	166.7	165.8	164.5	158.5	165.4	166.7
69.5°	153.5	158.5	158.5	161.3	158.1	162.2	160.8	159.9	154.0	160.8	162.2
70°	149.0	154.0	154.0	156.7	153.5	158.1	156.7	155.3	149.9	156.3	157.6
70.5°	144.4	149.4	149.4	151.7	149.4	154.0	152.2	151.2	145.3	151.7	153.1
71°	140.3	145.3	144.9	147.1	145.3	149.4	147.6	146.7	141.2	147.1	148.5
71.5°	135.8	140.3	140.8	143.0	141.2	145.3	143.0	142.1	136.7	142.6	144.0
72°	131.2	136.2	136.2	138.5	137.1	140.8	138.5	138.0	132.6	138.5	139.4
72.5°	126.6	131.2	131.7	134.4	133.0	136.7	134.4	133.5	128.0	133.9	134.8
73°	122.1	127.1	127.1	129.8	128.9	132.6	129.8	128.9	123.9	129.4	130.3
73.5°	117.5	122.5	122.5	125.7	124.8	128.5	125.3	124.8	119.8	124.8	125.7
74°	113.0	118.0	118.0	121.2	120.7	123.9	121.2	120.3	115.3	120.7	121.2
74.5°	108.9	113.4	113.4	117.1	116.6	119.8	116.6	116.2	111.2	116.2	117.1
75°	104.3	108.9	109.3	113.0	112.5	115.7	112.5	111.6	107.1	111.6	112.5
75.5°	99.8	104.3	104.8	108.9	108.4	111.6	108.0	107.5	102.5	107.5	108.0
76°	95.7	99.8	100.2	104.3	104.3	107.5	103.4	103.0	98.4	103.0	103.4
76.5°	91.1	95.2	95.7	100.2	100.2	103.4	99.3	98.4	94.3	98.4	99.3
77°	86.6	90.7	91.1	96.1	96.6	99.3	95.2	94.3	90.2	94.3	94.8
77.5°	82.0	86.1	87.0	91.6	92.5	95.2	90.7	89.7	86.1	89.7	90.2
78°	77.9	81.5	82.5	87.5	88.4	90.7	86.6	85.6	82.0	85.2	86.1
78.5°	73.3	77.4	77.9	83.4	84.3	86.6	82.0	81.1	77.4	81.1	81.5
79°	68.8	72.9	73.8	78.8	80.2	82.5	77.9	77.0	73.3	76.5	77.0
79.5°	64.2	68.3	69.2	74.7	76.1	78.4	73.8	72.4	69.7	72.0	72.9
80°	60.1	63.8	64.7	70.2	72.4	74.3	69.2	68.3	65.1	67.9	68.3
80.5°	55.6	59.2	60.6	66.1	68.3	70.2	65.1	63.8	61.0	63.3	64.2
81°	51.5	54.7	56.0	62.0	64.2	65.6	61.0	59.7	56.9	59.2	59.7
81.5°	46.9	50.1	51.9	57.9	60.1	61.5	56.9	55.1	52.8	54.7	55.6
82°	42.8	46.0	47.4	53.8	56.5	57.4	52.8	51.0	48.7	50.1	51.0
82.5°	38.3	41.5	43.3	49.7	52.4	53.8	48.7	46.5	44.6	46.0	46.9
83°	34.2	36.9	39.2	45.6	48.7	49.7	45.1	42.4	40.5	41.5	42.8
83.5°	29.6	32.3	35.5	41.5	44.6	45.6	41.5	38.3	36.4	37.4	39.2
84°	25.5	27.8	31.4	37.4	40.5	41.5	37.8	33.7	32.3	32.8	35.5
84.5°	21.0	23.7	27.8	33.7	36.9	37.8	33.7	29.6	28.2	28.7	31.9
85°	16.9	19.1	24.6	29.6	32.8	33.7	30.1	25.5	24.6	24.1	28.2
85.5°	14.1	16.4	21.0	25.5	29.2	30.1	26.4	21.9	20.5	20.5	24.6
86°	11.4	13.7	17.8	21.9	25.1	26.0	23.2	18.7	16.4	16.9	21.0
86.5°	9.1	10.5	14.6	17.8	21.4	21.9	19.6	15.5	13.2	14.1	17.8
87°	6.4	7.7	10.9	14.1	17.3	18.2	16.4	12.8	10.9	11.4	14.1
87.5°	4.1	5.0	7.7	10.5	13.7	14.6	13.2	10.0	8.7	9.1	10.9
88°	1.8	2.7	4.6	6.8	10.0	10.9	10.0	7.7	6.8	6.8	7.7
88.5°	0.5	0.9	1.8	3.2	6.4	6.8	6.8	5.5	4.6	4.1	4.1



TEST NUMBER: P776740  
CATALOG NUMBER: HCDJBL4050CSD-HCD6TSQMW-5000lm-2700K

**CANDELA DISTRIBUTION (continued):**

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

TEST NUMBER: P776740

CATALOG NUMBER: HCDJBL54050CSD-HCD6TSQMW-5000lm-2700K

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
0°	2753.5	2753.5	2753.5	2753.5	2753.5	2753.5
0.5°	2752.6	2751.6	2751.6	2752.6	2752.6	2753.5
1°	2751.6	2750.3	2749.8	2750.7	2750.7	2751.6
1.5°	2750.3	2748.5	2747.5	2748.0	2748.9	2749.8
2°	2748.9	2746.2	2745.3	2745.7	2746.6	2748.0
2.5°	2747.5	2744.4	2743.0	2743.0	2743.9	2745.7
3°	2745.7	2742.1	2739.8	2739.8	2741.2	2743.0
3.5°	2743.4	2739.8	2737.1	2737.1	2738.0	2740.3
4°	2741.2	2736.6	2733.9	2733.4	2734.3	2737.1
4.5°	2738.4	2733.4	2730.2	2729.8	2730.7	2733.4
5°	2735.7	2730.2	2726.1	2725.7	2727.0	2729.8
5.5°	2732.5	2726.1	2722.5	2721.1	2722.9	2726.1
6°	2729.3	2721.6	2718.4	2717.0	2718.4	2721.6
6.5°	2725.7	2717.5	2713.4	2712.5	2713.4	2717.5
7°	2721.6	2712.9	2708.4	2707.0	2708.4	2712.5
7.5°	2717.0	2707.9	2703.4	2701.5	2703.4	2707.5
8°	2712.5	2702.4	2697.9	2696.1	2697.4	2702.0
8.5°	2707.9	2697.0	2692.0	2690.1	2692.0	2696.1
9°	2702.4	2691.1	2685.6	2683.8	2685.6	2690.1
9.5°	2697.0	2684.7	2679.2	2677.4	2678.8	2684.2
10°	2691.5	2678.3	2672.4	2670.6	2672.4	2677.4
10.5°	2685.1	2671.5	2666.0	2663.7	2665.5	2670.6
11°	2678.8	2664.6	2658.3	2656.4	2657.8	2663.3
11.5°	2672.4	2657.3	2650.5	2648.7	2650.5	2655.5
12°	2665.5	2649.6	2643.2	2640.5	2642.3	2647.8
12.5°	2658.3	2641.9	2635.0	2632.3	2634.1	2639.6
13°	2650.5	2633.2	2626.4	2623.6	2625.0	2631.4
13.5°	2642.8	2624.5	2617.7	2615.0	2616.3	2622.7
14°	2635.0	2615.4	2608.6	2605.9	2607.2	2613.6
14.5°	2626.4	2606.3	2599.0	2596.8	2597.7	2604.0
15°	2617.3	2596.8	2589.5	2586.7	2587.6	2594.0
15.5°	2608.1	2586.7	2579.4	2576.7	2577.6	2584.0
16°	2598.6	2576.3	2569.0	2566.2	2566.7	2573.5
16.5°	2588.6	2565.8	2558.0	2555.8	2555.8	2562.6
17°	2578.5	2554.8	2547.1	2544.4	2544.8	2551.2
17.5°	2568.1	2543.9	2535.7	2533.0	2533.4	2539.8
18°	2557.6	2532.1	2523.9	2521.1	2521.1	2527.5
18.5°	2546.2	2520.2	2512.0	2508.8	2508.8	2515.7
19°	2534.8	2507.5	2499.3	2496.5	2496.1	2502.9
19.5°	2523.0	2494.7	2486.5	2483.8	2483.3	2489.7
20°	2510.7	2482.0	2473.3	2471.5	2470.1	2476.5
20.5°	2498.4	2468.3	2459.6	2457.8	2456.4	2462.8
21°	2485.1	2455.1	2446.0	2444.1	2442.3	2448.7

TEST NUMBER: P776740

CATALOG NUMBER: HCDJBL54050CSD-HCD6TSQMW-5000lm-2700K

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
22.5°	2444.6	2411.8	2402.7	2400.9	2398.1	2404.0
23°	2430.5	2396.3	2387.6	2385.8	2382.6	2388.6
23.5°	2415.9	2380.8	2371.7	2370.3	2367.1	2373.1
24°	2400.9	2364.9	2356.2	2354.4	2350.7	2357.1
24.5°	2385.8	2348.5	2340.3	2338.0	2334.3	2340.3
25°	2370.3	2331.6	2324.3	2322.0	2317.9	2323.4
25.5°	2354.4	2314.8	2306.6	2305.2	2301.1	2306.1
26°	2338.0	2297.9	2290.2	2288.3	2283.8	2288.8
26.5°	2321.6	2280.6	2272.8	2271.0	2266.0	2271.0
27°	2304.3	2262.8	2255.1	2253.7	2248.2	2252.8
27.5°	2287.0	2244.1	2237.3	2235.5	2230.0	2234.1
28°	2269.7	2225.9	2218.6	2216.8	2211.8	2215.4
28.5°	2252.3	2206.8	2200.0	2198.1	2192.7	2196.8
29°	2233.7	2188.1	2181.3	2179.5	2174.0	2177.6
29.5°	2215.4	2169.0	2162.1	2160.3	2154.9	2158.0
30°	2196.3	2149.4	2143.0	2140.7	2135.3	2138.5
30.5°	2177.2	2128.9	2123.0	2120.7	2115.7	2118.4
31°	2157.6	2108.4	2103.4	2100.6	2095.6	2098.4
31.5°	2138.9	2087.0	2082.4	2080.1	2075.1	2078.3
32°	2118.9	2066.9	2061.9	2059.6	2055.1	2058.7
32.5°	2098.8	2032.8	2041.4	2038.7	2034.6	2023.6
33°	2078.3	1996.3	2020.5	2018.2	2013.6	1987.2
33.5°	2057.4	1946.2	1997.7	1996.8	1992.2	1938.9
34°	2035.5	1894.3	1977.6	1975.4	1972.6	1887.0
34.5°	2015.0	1841.9	1940.3	1953.5	1948.9	1834.1
35°	1982.6	1789.9	1904.7	1931.6	1908.8	1783.6
35.5°	1946.7	1739.4	1853.7	1909.8	1871.5	1733.4
36°	1900.2	1688.8	1807.3	1887.9	1823.7	1682.9
36.5°	1848.7	1636.0	1756.7	1866.0	1773.1	1630.5
37°	1800.0	1580.8	1707.9	1843.2	1723.9	1574.5
37.5°	1748.9	1524.3	1658.3	1820.9	1676.5	1518.0
38°	1698.8	1465.6	1610.0	1798.6	1628.7	1461.0
38.5°	1649.2	1408.6	1560.3	1776.3	1579.5	1405.0
39°	1600.4	1353.5	1508.9	1753.9	1530.7	1349.9
39.5°	1546.2	1299.3	1454.6	1731.2	1478.8	1296.1
40°	1492.0	1246.9	1401.3	1708.4	1425.9	1242.8
40.5°	1436.0	1195.9	1348.0	1685.6	1372.6	1191.8
41°	1382.7	1143.9	1294.3	1663.3	1319.3	1139.4
41.5°	1327.1	1091.1	1241.9	1639.1	1268.3	1087.9
42°	1274.2	1038.7	1194.5	1604.1	1218.7	1035.5
42.5°	1223.2	988.1	1146.2	1566.3	1170.8	984.5
43°	1174.5	936.7	1096.6	1510.7	1121.6	933.0
43.5°	1122.5	888.8	1048.7	1456.0	1072.9	885.2

TEST NUMBER: P776740

CATALOG NUMBER: HCDJBL54050CSD-HCD6TSQMW-5000lm-2700K

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
45°	974.5	750.8	902.0	1272.0	927.1	746.7
45.5°	923.4	706.1	857.4	1215.0	881.5	702.9
46°	875.6	664.2	811.4	1159.9	836.0	661.0
46.5°	828.7	623.7	768.1	1106.1	791.3	621.4
47°	783.6	585.4	724.4	1052.4	748.0	582.7
47.5°	739.4	549.9	683.4	998.6	706.6	547.1
48°	696.6	517.1	642.4	945.3	664.7	514.8
48.5°	655.1	488.4	603.6	895.2	625.5	486.6
49°	615.0	462.9	567.6	846.5	588.1	461.5
49.5°	577.2	440.5	533.9	799.5	553.1	439.2
50°	540.8	420.9	501.1	753.5	518.4	418.2
50.5°	507.1	402.3	473.3	712.1	488.4	400.9
51°	477.0	385.4	447.4	672.0	461.0	384.0
51.5°	450.6	369.5	425.0	633.2	436.9	368.1
52°	427.3	354.0	405.0	596.8	415.0	351.7
52.5°	406.8	338.0	387.2	561.7	395.9	336.2
53°	390.0	322.5	370.8	528.5	378.1	320.7
53.5°	373.1	309.3	354.4	497.5	361.7	308.4
54°	356.3	299.3	338.9	467.9	345.8	298.9
54.5°	339.9	292.9	323.5	440.5	330.7	292.9
55°	324.4	287.9	308.4	415.5	315.3	287.9
55.5°	308.4	282.9	296.1	391.8	301.1	282.9
56°	295.2	278.4	286.6	370.4	289.7	277.9
56.5°	284.7	273.3	281.1	351.2	282.9	273.3
57°	278.4	268.8	276.1	333.0	277.4	268.8
57.5°	273.3	263.8	271.1	316.6	272.4	263.8
58°	268.8	259.2	266.5	302.0	267.9	259.2
58.5°	263.8	254.7	261.5	288.8	262.9	254.7
59°	259.2	250.1	256.9	277.9	258.3	250.1
59.5°	254.7	245.6	252.4	267.9	253.8	245.6
60°	250.1	241.0	247.8	258.8	248.7	241.0
60.5°	245.6	236.4	243.3	251.0	244.2	236.0
61°	241.0	231.9	238.7	243.7	239.6	231.4
61.5°	236.4	227.8	234.2	236.9	235.1	226.9
62°	231.9	223.2	229.6	231.0	230.1	222.3
62.5°	227.3	218.7	225.1	225.5	225.5	217.3
63°	222.8	214.6	220.5	221.0	221.0	212.8
63.5°	218.2	210.0	215.9	215.9	215.9	208.2
64°	213.7	205.5	211.4	211.4	211.4	203.6
64.5°	209.1	201.4	206.8	206.4	206.4	198.6
65°	205.0	196.8	202.3	201.8	201.8	194.1
65.5°	200.5	192.7	197.7	196.8	196.8	189.5
66°	195.9	188.2	193.2	192.3	192.3	185.0



TEST NUMBER: P776740

CATALOG NUMBER: HCDJBL54050CSD-HCD6TSQMW-5000lm-2700K

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
67.5°	182.7	175.4	180.0	178.6	178.1	171.3
68°	178.1	170.8	175.4	174.0	173.1	166.7
68.5°	173.6	166.7	170.8	169.0	168.6	162.2
69°	169.0	162.6	166.7	163.6	166.3	157.6
69.5°	164.9	158.5	162.2	159.4	161.3	153.5
70°	160.4	154.4	158.1	154.9	156.3	149.0
70.5°	155.8	149.9	153.5	150.8	150.8	144.4
71°	151.7	145.8	149.0	146.7	145.8	140.3
71.5°	147.1	141.7	144.9	141.7	141.2	135.8
72°	143.0	137.6	140.3	137.1	136.7	131.2
72.5°	138.5	133.0	136.2	132.6	132.1	126.6
73°	133.9	128.9	131.7	128.0	127.1	122.1
73.5°	129.8	124.4	127.1	123.5	122.5	117.5
74°	125.3	120.3	122.5	118.9	118.0	113.0
74.5°	121.2	116.2	118.4	114.3	113.4	108.9
75°	116.6	112.1	113.9	109.8	108.9	104.3
75.5°	112.5	107.5	109.3	105.2	104.3	99.8
76°	108.0	103.4	105.2	100.7	99.3	95.7
76.5°	103.9	99.3	100.7	96.1	94.8	91.1
77°	99.3	95.2	96.6	91.6	90.2	86.6
77.5°	95.2	90.7	92.0	87.0	85.6	82.0
78°	90.7	86.6	87.5	82.5	81.1	77.9
78.5°	86.6	82.5	83.4	77.9	76.5	73.3
79°	82.0	77.9	78.8	73.3	72.0	68.8
79.5°	77.4	73.8	74.3	68.8	67.4	64.2
80°	73.3	69.7	69.7	64.7	62.4	60.1
80.5°	68.8	65.6	65.6	60.1	57.9	55.6
81°	64.7	61.5	61.0	56.0	53.3	51.5
81.5°	60.1	57.4	56.9	51.5	48.7	46.9
82°	56.0	52.8	52.4	47.4	44.2	42.8
82.5°	51.9	48.7	48.3	43.3	39.6	38.3
83°	47.8	44.6	44.2	39.2	35.1	34.2
83.5°	43.7	40.5	39.6	35.1	30.5	29.6
84°	39.2	36.4	35.5	31.4	26.4	25.5
84.5°	35.1	32.3	31.4	27.3	22.8	21.0
85°	31.0	28.2	27.3	23.7	19.1	16.9
85.5°	26.9	24.1	22.8	20.0	15.9	14.1
86°	22.8	20.0	18.7	16.4	13.2	11.4
86.5°	18.7	15.9	15.0	12.8	10.5	9.1
87°	15.0	12.3	11.4	9.1	7.3	6.4
87.5°	10.9	8.7	7.7	5.9	4.6	4.1
88°	7.3	4.6	4.1	2.3	1.8	1.8
88.5°	3.2	0.9	0.5	0.5	0.5	0.5



TEST NUMBER: P776740

CATALOG NUMBER: HCDJBL54050CSD-HCD6TSQMW-5000lm-2700K

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
90°	0.0	0.0	0.0	0.5	0.0	0.0



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Cooper Lighting Solutions Photometric Lab  
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Peachtree City, GA 30269

Scaled Data Report





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

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Cooper Lighting Solutions Photometric Lab  
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Peachtree City, GA 30269

Scaled Data Report



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Peachtree City, GA 30269

Scaled Data Report





21.5°	2433.7	2458.7	2491.1	2516.6	2542.1	2558.5	2565.8	2558.5	2543.9	2525.7	2501.5
22°	2419.1	2444.6	2477.9	2504.3	2530.2	2547.1	2554.8	2547.6	2532.1	2513.8	2488.8



44°	836.9	1023.7	1516.6	1173.1	1022.3	1225.9	1697.9	1239.6	1029.1	1193.1	1567.2
44.5°	791.3	974.5	1459.7	1122.5	971.7	1173.1	1646.9	1186.3	978.6	1141.7	1508.9



66.5°	180.4	185.9	185.9	185.9	183.1	188.2	188.2	186.8	180.4	188.2	189.5
67°	175.9	181.3	181.3	181.8	179.0	184.1	183.6	182.2	175.9	183.6	185.0



89°	0.0	0.5	0.5	0.9	2.7	3.6	3.6	2.7	2.3	1.8	1.4
89.5°	0.0	0.0	0.5	0.5	0.5	0.9	1.4	0.9	0.5	0.5	0.5



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21.5°	2471.9	2441.0	2431.8	2430.0	2427.7	2433.7
22°	2458.7	2426.4	2417.3	2415.9	2413.6	2419.1



44°	1072.4	840.1	999.1	1390.4	1024.1	836.9
44.5°	1022.8	795.4	950.8	1331.6	975.8	791.3



66.5°	191.3	184.1	188.6	187.7	187.2	180.4
67°	186.8	179.5	184.5	183.1	182.7	175.9

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Scaled Data Report



89°	0.9	0.0	0.5	0.5	0.5	0.0
89.5°	0.0	0.0	0.0	0.5	0.5	0.0

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Peachtree City, GA 30269

Scaled Data Report



(END OF REPORT)