

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: P776843

Luminaire Tested: HCDJBS4050CSD-HCD8TSQMW-5000lm-4000K

Issue Date: 2/7/2024

Test Information

Test Method: LM-79-2019
Report Number: P776843
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-HCD8TSQMW-5000lm-4000K
Description: 8 INCH SQUARE MEDIUM MATTE WHITE TRIM
Light Source: SELECTABLE LUMENS AND CCT ARRAY 90CRI / 4000K CCT
Ballast/Driver: -

Summary

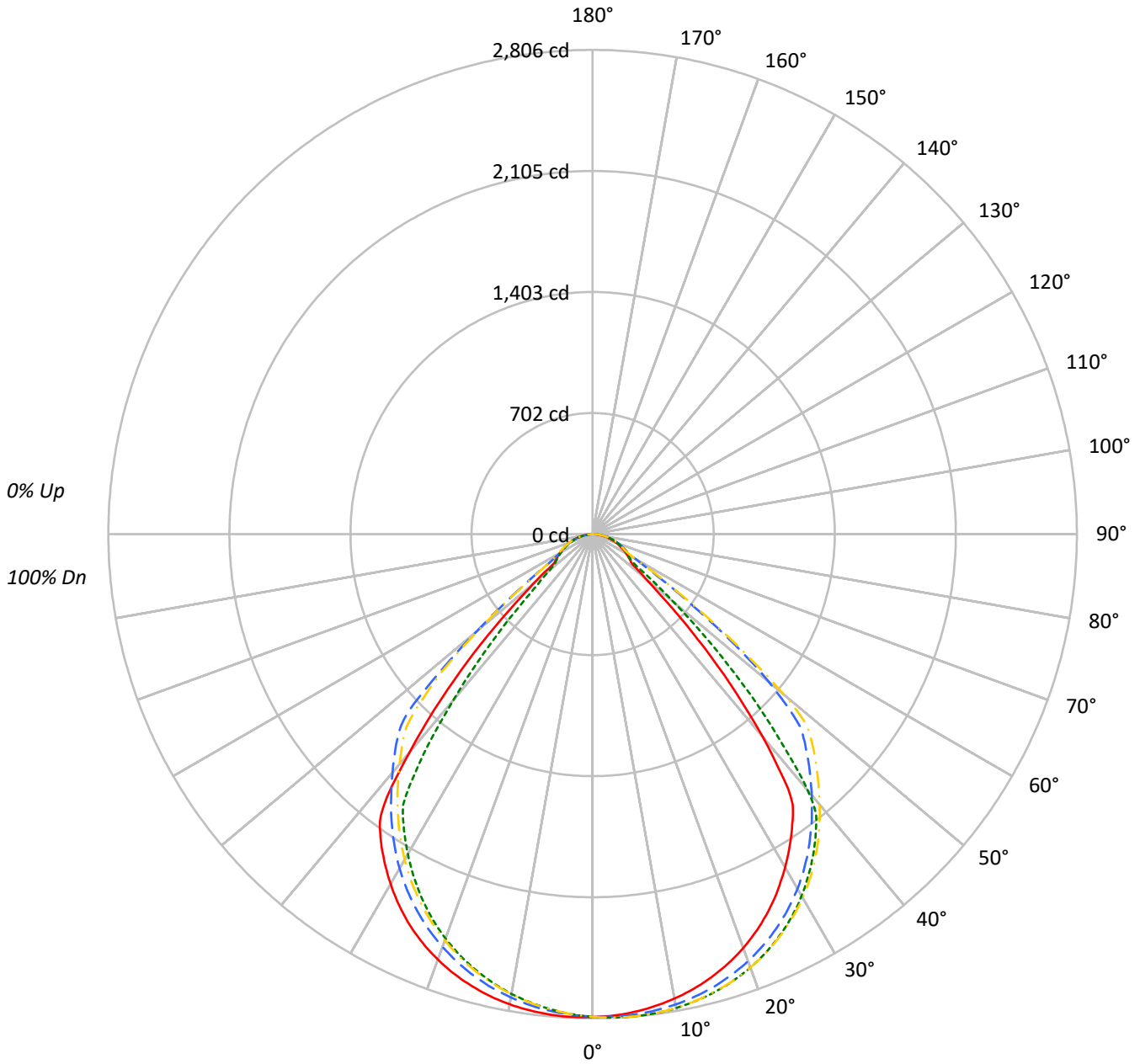
Lumens per Lamp: N/A
Luminaire Lumens: 5066.6 lumens
Efficiency: N/A
Efficacy: 105.6 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.21 / 1.29
Luminous Opening: Rectangular (W 0.67' x L: 0.67' x H: 0')
CIE Type: Direct

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



TEST NUMBER: P776843
CATALOG NUMBER: HCDJBL54050CSD-HCD8TSQMW-5000lm-4000K

Luminous Intensity Polar Plot





TEST NUMBER: P776843

CATALOG NUMBER: HCDJBL54050CSD-HCD8TSQMW-5000lm-4000K

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	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	102	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	84	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	56								
6	78	67	60	54	77	66	59	54	65	58	53	63	57	53	62	57	53	51								
7	73	62	54	49	72	61	54	49	60	53	48	58	52	48	57	52	48	46								
8	69	57	50	44	67	56	49	44	55	49	44	54	48	44	53	48	44	42								
9	65	53	45	41	63	52	45	40	51	45	40	50	44	40	49	44	40	38								
10	61	49	42	37	60	49	42	37	48	41	37	47	41	37	46	41	37	35								

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	67080	67080	67080	67080
5°	66898	67531	67302	66566
10°	66554	67893	67382	65879
15°	65993	68153	67286	64923
20°	65138	68200	66945	63625
25°	63754	67892	66209	61770
30°	61755	67066	64801	59294
35°	59145	65473	62716	56080
40°	47920	60731	51663	39346
45°	29183	41781	32785	21628
50°	14963	22793	16731	12217
55°	11175	11672	10894	10455
60°	10800	11121	10503	10066
65°	10445	10933	10173	9714
70°	10124	10797	9822	9282
75°	9617	10812	9394	8635
80°	8644	10964	8644	7457
85°	6190	11720	6851	4347

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 135°
 Vertical Angle: 45°
 Luminance: 61741 cd/sqm



TEST NUMBER: P776843

CATALOG NUMBER: HCDJBL54050CSD-HCD8TSQMW-5000lm-4000K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	264.7	5.2
10°-20°	756.6	14.9
20°-30°	1131.1	22.3
30°-40°	1297.9	25.6
40°-50°	942.5	18.6
50°-60°	345.4	6.8
60°-70°	185.2	3.7
70°-80°	112.0	2.2
80°-90°	31.4	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°	2152.4	42.5
0°-40°	3450.3	68.1
0°-60°	4738.1	93.5
0°-90°	5066.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5066.6	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	2798	2798	2798	2798	2798	
5°	2779	2806	2796	2766	2779	264
15°	2658	2745	2710	2615	2658	749
25°	2410	2566	2502	2335	2410	1108
35°	2020	2237	2142	1916	2020	1233
45°	861	1232	967	638	861	679
55°	267	279	261	250	267	250
65°	184	193	179	171	184	182
75°	104	117	101	93	104	109
85°	22	43	25	16	22	28
90°	0	7	0	0	0	



TEST NUMBER: P776843

CATALOG NUMBER: HCDJBL54050CSD-HCD8TSQMW-5000lm-4000K

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
0°	2797.5	2797.5	2797.5	2797.5	2797.5	2797.5	2797.5	2797.5	2797.5	2797.5	2797.5
0.5°	2798.4	2798.9	2797.5	2797.0	2799.4	2799.4	2799.4	2800.4	2800.4	2798.9	2795.1
1°	2797.5	2798.4	2798.0	2798.4	2801.3	2800.8	2800.8	2801.3	2800.8	2798.4	2793.7
1.5°	2796.1	2798.0	2798.4	2799.4	2802.7	2802.3	2802.3	2802.3	2800.8	2798.0	2792.2
2°	2794.6	2797.0	2798.4	2799.9	2803.7	2803.7	2803.2	2802.7	2800.8	2797.5	2790.8
2.5°	2792.2	2796.1	2798.4	2800.8	2804.7	2804.7	2804.2	2802.7	2800.8	2796.5	2788.4
3°	2790.3	2794.6	2798.0	2801.3	2805.6	2805.6	2804.7	2802.7	2800.4	2795.6	2786.5
3.5°	2788.4	2793.2	2797.5	2801.3	2805.6	2806.1	2805.1	2803.2	2799.9	2794.1	2783.6
4°	2785.5	2791.3	2797.0	2801.3	2805.6	2806.1	2805.6	2802.7	2798.9	2792.2	2780.8
4.5°	2782.7	2789.4	2795.6	2800.4	2805.6	2806.1	2805.1	2802.3	2797.5	2790.3	2777.9
5°	2779.3	2787.0	2794.6	2799.9	2805.6	2806.1	2805.1	2801.3	2796.1	2787.9	2774.5
5.5°	2776.0	2784.6	2792.7	2798.9	2805.1	2805.1	2804.2	2800.4	2794.1	2785.1	2771.2
6°	2772.1	2781.7	2791.3	2798.0	2804.2	2804.7	2803.2	2798.9	2792.2	2782.7	2767.4
6.5°	2768.8	2778.4	2788.9	2796.5	2803.2	2803.7	2802.3	2797.5	2789.8	2779.8	2763.5
7°	2764.5	2775.0	2787.0	2795.1	2801.8	2802.7	2800.8	2795.6	2787.4	2776.5	2758.8
7.5°	2759.7	2771.7	2784.1	2793.2	2800.4	2801.8	2799.4	2793.7	2784.6	2773.1	2754.5
8°	2754.9	2767.8	2781.7	2791.3	2798.4	2799.9	2797.5	2791.3	2781.7	2769.3	2749.2
8.5°	2750.2	2763.5	2778.4	2788.4	2796.5	2798.0	2795.6	2788.9	2778.4	2765.0	2743.9
9°	2744.9	2759.2	2775.0	2786.0	2794.1	2796.1	2793.2	2786.0	2775.0	2760.7	2738.7
9.5°	2739.2	2754.5	2771.7	2783.1	2791.8	2793.2	2790.8	2783.1	2771.2	2755.9	2732.9
10°	2733.4	2749.2	2768.3	2780.3	2788.4	2790.8	2787.4	2779.3	2767.4	2751.1	2727.2
10.5°	2727.2	2743.9	2764.0	2776.9	2785.5	2787.9	2784.6	2775.5	2762.6	2746.3	2720.5
11°	2721.0	2738.7	2759.7	2773.1	2782.2	2785.1	2781.2	2771.7	2757.8	2740.6	2713.8
11.5°	2714.3	2732.9	2754.5	2769.3	2778.8	2781.2	2777.4	2767.4	2753.0	2735.3	2707.1
12°	2707.1	2726.7	2750.2	2765.0	2775.0	2777.4	2773.6	2763.1	2748.2	2729.1	2700.4
12.5°	2699.5	2720.5	2744.9	2760.7	2770.7	2773.6	2769.8	2758.8	2742.5	2722.4	2692.8
13°	2692.3	2713.3	2739.6	2755.9	2766.4	2769.3	2765.0	2753.5	2736.8	2715.7	2685.1
13.5°	2684.2	2706.6	2733.9	2751.1	2761.6	2765.0	2760.2	2748.2	2730.6	2709.0	2677.0
14°	2676.0	2699.0	2728.2	2745.9	2756.4	2759.7	2755.4	2742.5	2724.3	2701.9	2668.4
14.5°	2667.4	2691.8	2721.9	2740.6	2751.1	2754.9	2750.2	2736.8	2717.6	2694.7	2659.8
15°	2658.4	2683.7	2715.3	2734.4	2745.4	2749.7	2744.4	2730.6	2710.5	2686.6	2651.2
15.5°	2649.3	2675.6	2708.6	2728.2	2739.6	2743.5	2739.2	2724.3	2703.3	2678.9	2642.1
16°	2639.7	2666.5	2701.4	2721.9	2733.4	2737.7	2732.9	2717.6	2695.6	2670.3	2632.5
16.5°	2630.1	2658.4	2693.7	2715.3	2727.2	2731.5	2726.2	2710.5	2688.0	2661.7	2622.5
17°	2620.1	2649.3	2686.1	2708.1	2720.0	2724.8	2719.6	2703.3	2679.9	2653.1	2612.5
17.5°	2609.6	2639.7	2678.4	2700.9	2712.9	2718.1	2712.4	2695.6	2671.3	2644.0	2601.9
18°	2599.1	2630.1	2669.8	2693.3	2705.7	2710.9	2705.7	2687.0	2662.2	2634.4	2591.4
18.5°	2587.6	2620.1	2661.2	2685.6	2698.0	2703.3	2698.0	2679.4	2653.1	2624.4	2579.9
19°	2576.1	2609.6	2652.6	2677.0	2689.9	2695.6	2689.9	2670.3	2643.5	2614.4	2568.5
19.5°	2564.6	2598.6	2643.1	2668.4	2681.3	2687.5	2681.8	2662.2	2634.0	2603.8	2557.0
20°	2552.7	2587.6	2633.5	2659.8	2672.7	2679.4	2673.2	2652.1	2623.5	2593.3	2545.0
20.5°	2539.8	2576.1	2623.9	2650.7	2663.6	2670.3	2664.6	2643.1	2612.9	2582.3	2532.6
21°	2526.9	2564.6	2613.9	2641.1	2654.5	2661.7	2655.0	2633.0	2602.4	2570.4	2519.7



TEST NUMBER: P776843

CATALOG NUMBER: HCDJBL54050CSD-HCD8TSQMW-5000lm-4000K

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
22.5°	2485.8	2527.3	2580.9	2610.5	2623.9	2632.1	2625.8	2601.5	2568.0	2534.0	2480.5
23°	2471.4	2514.0	2569.4	2600.0	2613.4	2621.5	2615.8	2590.5	2555.6	2521.1	2466.6
23.5°	2456.6	2500.6	2557.9	2588.5	2601.9	2611.0	2604.8	2579.0	2542.6	2507.7	2452.3
24°	2441.3	2486.2	2545.5	2577.1	2590.9	2600.0	2593.3	2566.6	2530.2	2494.4	2437.9
24.5°	2426.0	2471.9	2533.1	2565.6	2579.0	2588.5	2582.3	2554.6	2516.4	2480.5	2422.6
25°	2409.7	2457.1	2520.2	2552.7	2566.1	2576.6	2570.4	2542.2	2502.5	2466.2	2407.8
25.5°	2393.5	2441.8	2507.3	2540.3	2554.1	2564.2	2558.4	2529.3	2488.6	2451.3	2392.0
26°	2377.2	2426.5	2493.4	2527.3	2540.7	2552.2	2546.0	2515.9	2473.8	2436.5	2376.3
26.5°	2360.0	2410.7	2480.0	2514.0	2527.3	2539.3	2533.1	2501.5	2458.5	2420.7	2360.0
27°	2342.8	2394.4	2466.2	2500.6	2513.5	2525.0	2520.2	2487.2	2442.7	2405.0	2343.3
27.5°	2324.1	2377.7	2451.3	2486.7	2499.1	2511.6	2506.8	2472.8	2426.9	2388.7	2326.5
28°	2306.5	2361.0	2436.0	2471.9	2484.3	2497.7	2492.9	2458.0	2410.7	2372.0	2309.8
28.5°	2286.9	2343.8	2421.2	2457.5	2469.0	2482.9	2478.6	2442.2	2394.0	2354.7	2291.6
29°	2269.2	2326.1	2405.4	2441.8	2454.7	2467.6	2464.2	2426.9	2376.3	2337.5	2273.9
29.5°	2249.1	2307.9	2389.7	2426.5	2437.5	2452.3	2449.4	2410.2	2359.1	2318.9	2255.3
30°	2230.4	2289.2	2373.4	2410.7	2422.2	2436.5	2433.6	2394.0	2340.4	2301.2	2237.1
30.5°	2209.9	2270.6	2357.1	2394.4	2404.0	2420.3	2418.3	2376.7	2322.7	2282.6	2217.5
31°	2190.8	2252.0	2339.9	2377.2	2388.2	2404.0	2402.1	2359.5	2304.1	2263.4	2198.4
31.5°	2170.2	2231.9	2322.2	2360.5	2369.1	2386.3	2385.8	2341.8	2285.4	2244.3	2178.8
32°	2150.1	2212.3	2304.5	2342.8	2350.9	2369.6	2368.6	2323.7	2266.3	2225.2	2158.7
32.5°	2128.6	2192.7	2286.4	2324.6	2332.8	2351.4	2351.4	2305.5	2246.7	2205.6	2137.7
33°	2108.5	2173.1	2267.3	2306.5	2314.6	2333.7	2333.7	2286.9	2226.6	2186.0	2117.1
33.5°	2087.0	2152.5	2249.1	2288.3	2295.0	2315.1	2315.5	2268.2	2206.5	2166.4	2096.1
34°	2065.5	2132.4	2229.5	2269.2	2275.4	2295.9	2296.9	2248.6	2186.0	2146.3	2074.6
34.5°	2042.1	2111.4	2209.9	2250.0	2255.8	2276.8	2278.2	2229.5	2164.0	2125.7	2053.1
35°	2020.5	2090.3	2189.8	2230.4	2236.7	2258.2	2259.1	2209.9	2142.5	2104.7	2031.1
35.5°	1998.1	2068.8	2169.7	2210.8	2215.1	2238.6	2239.0	2190.3	2120.5	2083.2	2009.1
36°	1974.6	2047.3	2148.7	2190.8	2194.6	2218.5	2219.0	2169.7	2098.0	2061.7	1986.6
36.5°	1950.3	2024.8	2128.1	2171.1	2172.6	2198.9	2198.4	2148.7	2073.1	2039.7	1963.6
37°	1909.1	2002.4	2107.1	2150.6	2150.6	2177.8	2177.8	2127.2	2036.8	2016.7	1941.2
37.5°	1859.9	1979.9	2085.6	2129.6	2128.1	2156.8	2156.3	2105.6	1991.4	1994.2	1917.7
38°	1793.9	1956.5	2064.1	2108.5	2105.2	2134.8	2135.3	2083.2	1935.0	1969.9	1894.8
38.5°	1727.9	1932.6	2041.6	2087.0	2079.3	2113.3	2113.3	2061.2	1868.5	1942.6	1872.3
39°	1663.9	1896.7	2019.6	2065.5	2042.5	2090.8	2091.8	2038.2	1798.2	1898.1	1849.4
39.5°	1598.8	1848.9	1997.6	2043.0	1997.1	2067.9	2069.3	2012.4	1724.6	1848.9	1826.4
40°	1530.9	1786.3	1975.1	2020.1	1940.2	2044.4	2046.4	1970.3	1650.5	1790.1	1804.0
40.5°	1460.2	1720.8	1952.6	1996.6	1875.7	2019.1	2023.4	1927.8	1580.2	1724.6	1782.0
41°	1388.0	1658.1	1929.7	1973.2	1802.5	1979.4	2001.4	1871.8	1512.8	1659.6	1759.5
41.5°	1316.7	1595.0	1907.2	1947.9	1728.4	1935.4	1978.5	1809.7	1443.9	1586.4	1737.0
42°	1248.9	1529.0	1884.3	1913.9	1653.8	1881.9	1956.0	1742.3	1374.6	1519.5	1714.1
42.5°	1184.3	1460.2	1861.3	1869.9	1583.1	1818.3	1933.5	1671.5	1302.9	1454.4	1691.6
43°	1117.8	1391.8	1838.9	1817.8	1514.2	1749.4	1910.6	1602.7	1232.1	1392.8	1668.6
43.5°	1051.9	1323.0	1815.4	1759.0	1444.9	1676.8	1888.6	1535.7	1161.8	1324.9	1645.2

TEST NUMBER: P776843

CATALOG NUMBER: HCDJBL54050CSD-HCD8TSQMW-5000lm-4000K

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
45°	860.6	1123.6	1746.6	1556.8	1232.1	1468.3	1820.7	1336.3	966.8	1128.4	1571.6
45.5°	799.9	1060.5	1723.1	1489.3	1160.4	1401.9	1797.3	1268.0	902.2	1060.0	1532.9
46°	743.0	996.9	1699.2	1425.8	1093.9	1334.0	1773.8	1200.1	841.0	999.3	1487.0
46.5°	687.1	932.3	1675.3	1362.2	1028.9	1263.7	1750.4	1131.2	780.3	936.6	1422.9
47°	632.6	869.7	1650.5	1296.7	963.9	1193.4	1726.5	1066.2	722.4	880.2	1344.0
47.5°	583.3	809.9	1606.5	1230.7	899.8	1124.5	1701.6	1003.1	666.5	818.5	1265.1
48°	536.0	752.1	1560.6	1164.7	836.2	1060.0	1675.8	941.9	616.8	763.1	1184.3
48.5°	493.9	696.6	1503.2	1098.2	776.0	996.4	1636.1	879.3	567.5	706.7	1106.4
49°	458.0	642.1	1446.8	1037.0	717.7	932.3	1581.1	818.5	522.6	652.2	1031.3
49.5°	427.4	591.4	1389.4	973.5	662.7	870.2	1520.4	759.7	480.0	602.9	957.2
50°	401.1	542.7	1334.0	916.1	611.0	808.0	1446.3	702.8	448.5	557.0	884.0
50.5°	379.2	498.2	1273.7	856.8	563.2	748.3	1367.4	649.3	417.4	511.6	814.7
51°	358.6	459.0	1203.9	798.0	517.3	691.4	1284.2	596.7	386.3	470.0	750.2
51.5°	338.0	427.4	1133.1	738.7	475.7	636.9	1200.6	549.4	355.2	437.0	689.9
52°	318.0	399.7	1059.0	685.1	442.7	585.7	1119.3	504.9	324.2	404.0	631.6
52.5°	300.3	376.3	983.0	632.1	409.3	537.9	1039.4	470.5	299.8	371.5	578.5
53°	287.4	354.8	909.4	583.3	376.3	492.9	965.8	436.0	282.6	338.5	530.2
53.5°	281.1	335.2	838.1	535.5	343.3	459.0	895.5	401.6	274.9	312.2	485.8
54°	275.9	315.1	770.7	493.4	318.4	425.0	826.7	367.2	269.7	288.8	452.3
54.5°	271.6	296.0	705.7	451.3	295.0	391.1	759.3	332.8	264.9	271.6	419.3
55°	267.3	280.7	648.3	415.0	279.2	357.2	694.7	308.4	260.6	263.9	386.8
55.5°	262.5	271.6	593.8	381.5	272.1	323.2	634.0	285.0	255.8	258.7	353.8
56°	258.2	266.3	540.8	351.4	267.3	297.9	577.6	266.8	251.5	254.4	321.3
56.5°	253.9	262.0	492.9	323.7	262.5	275.9	528.8	259.1	247.2	249.6	299.8
57°	249.6	257.2	450.4	298.3	257.7	262.5	488.6	253.9	242.9	245.3	281.6
57.5°	245.3	252.9	411.7	275.9	253.4	256.8	448.5	249.6	239.1	241.0	266.3
58°	241.5	248.6	377.2	261.5	249.1	252.4	407.8	244.8	234.8	236.7	253.9
58.5°	237.1	244.3	347.6	255.8	244.8	247.7	367.7	241.0	230.9	232.8	243.4
59°	233.3	240.0	321.3	251.0	240.5	243.4	328.0	236.7	226.6	228.5	234.3
59.5°	229.0	236.2	300.3	246.2	236.2	239.1	301.2	232.4	222.8	224.7	226.6
60°	225.2	231.9	282.6	241.9	231.9	234.8	280.2	228.5	219.0	220.9	219.9
60.5°	220.9	228.1	268.2	237.6	227.6	230.5	263.9	224.2	215.2	217.1	214.7
61°	217.1	224.2	256.3	233.3	223.8	226.2	249.6	220.4	211.3	213.2	210.4
61.5°	212.8	220.4	245.3	229.5	219.9	222.3	239.1	216.6	207.0	209.4	206.1
62°	208.9	216.1	236.2	225.2	216.1	218.5	229.5	212.8	203.2	205.6	201.3
62.5°	204.6	212.3	228.1	221.4	212.3	214.7	221.8	208.9	198.9	201.8	197.0
63°	200.3	208.5	221.8	217.1	208.0	210.9	214.7	205.1	195.1	197.5	192.7
63.5°	196.5	204.6	217.1	213.2	204.2	207.0	209.4	201.3	191.2	193.6	188.9
64°	192.2	200.8	212.3	209.4	200.3	203.2	204.6	197.5	186.9	189.3	184.6
64.5°	188.4	196.5	208.0	205.1	196.5	199.4	200.3	193.6	183.1	185.5	180.3
65°	184.1	192.7	203.7	201.3	192.7	195.6	196.0	189.8	179.3	181.7	175.9
65.5°	179.8	188.9	198.9	197.5	188.4	191.7	191.7	186.0	175.0	177.4	172.1
66°	175.9	184.6	194.6	193.6	184.6	187.9	187.4	181.7	171.2	173.6	167.8



TEST NUMBER: P776843

CATALOG NUMBER: HCDJBL54050CSD-HCD8TSQMW-5000lm-4000K

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
67.5°	164.0	174.5	182.2	181.7	173.1	176.4	175.0	169.7	159.7	161.6	155.4
68°	160.2	170.2	177.9	177.4	169.3	172.6	170.7	165.9	155.9	157.3	151.1
68.5°	156.3	165.9	172.6	173.1	165.4	168.3	166.9	162.1	152.0	153.5	146.8
69°	152.5	161.1	168.8	169.3	161.6	164.5	162.6	157.8	148.2	149.2	143.0
69.5°	148.2	156.8	165.0	165.4	157.8	160.6	158.7	154.0	144.4	145.3	138.7
70°	144.4	153.0	160.6	162.1	154.0	156.8	154.4	150.1	140.1	141.5	134.4
70.5°	140.1	148.7	156.8	158.3	150.6	153.0	150.6	146.3	136.3	137.2	130.5
71°	136.3	144.9	152.5	154.0	146.8	149.2	146.3	142.0	132.4	133.4	126.2
71.5°	132.0	141.0	148.7	150.1	143.0	145.3	142.5	138.2	128.6	129.6	121.9
72°	128.1	136.7	144.4	146.3	139.1	141.5	138.2	134.4	124.8	125.3	118.1
72.5°	123.8	132.4	140.1	142.5	135.8	137.7	134.4	130.5	121.0	121.4	113.8
73°	120.0	128.6	135.8	138.2	132.0	133.9	130.0	126.2	117.1	117.6	110.0
73.5°	115.7	124.3	132.0	134.4	128.1	130.0	126.2	122.4	113.3	113.3	105.7
74°	111.9	120.5	127.7	130.5	124.3	126.2	122.4	118.6	109.5	109.5	101.4
74.5°	107.6	116.2	123.4	126.7	120.5	122.4	118.1	114.7	105.2	105.2	97.5
75°	103.8	112.4	119.5	122.9	116.7	118.6	114.3	110.4	101.4	101.4	93.2
75.5°	99.4	108.1	115.2	119.1	113.3	114.7	110.4	106.6	97.5	97.1	88.9
76°	95.1	103.8	110.9	114.7	109.5	110.9	106.1	102.3	93.7	92.8	85.1
76.5°	91.3	99.4	107.1	110.9	105.7	107.1	102.3	98.5	89.9	88.9	80.8
77°	87.0	95.6	102.8	107.1	101.8	103.3	98.5	94.7	85.6	85.1	77.0
77.5°	83.2	91.3	98.5	102.8	98.0	99.4	94.2	90.4	81.8	80.8	72.7
78°	78.9	87.0	94.7	99.0	94.2	95.6	90.4	86.5	77.9	77.0	68.8
78.5°	75.1	83.2	90.4	95.1	90.4	91.8	86.5	82.2	74.1	72.7	64.5
79°	70.8	78.9	86.5	90.8	87.0	88.0	82.2	78.4	70.3	68.8	60.7
79.5°	66.9	74.6	82.2	87.0	83.2	84.1	78.4	74.6	66.5	64.5	56.4
80°	62.6	70.8	77.9	83.2	79.4	79.8	74.6	70.3	62.6	60.7	52.6
80.5°	58.8	66.5	74.1	78.9	75.5	76.5	70.8	66.5	58.8	56.4	48.8
81°	55.0	62.2	70.3	75.1	72.2	72.7	66.9	62.6	55.0	52.6	44.5
81.5°	50.7	57.9	66.0	71.2	68.4	68.4	62.6	58.8	51.2	48.3	40.6
82°	46.9	54.0	61.7	66.9	64.5	65.0	58.8	54.5	47.3	44.5	36.8
82.5°	42.6	49.7	57.9	63.1	60.7	60.7	55.0	50.7	43.5	40.2	32.5
83°	38.7	45.9	54.0	59.3	57.4	56.9	51.2	46.9	39.7	36.3	28.7
83.5°	34.4	41.6	49.7	55.5	53.5	53.1	47.3	42.6	35.9	32.0	25.3
84°	30.6	37.3	45.9	51.6	49.7	49.2	43.5	38.7	32.0	28.2	22.0
84.5°	26.8	33.5	41.6	47.3	46.4	45.4	39.7	34.9	28.2	24.4	18.6
85°	22.5	29.2	37.8	43.5	42.6	42.1	35.9	30.6	24.9	20.1	15.3
85.5°	18.6	25.3	33.9	39.7	38.7	38.2	32.0	26.8	21.0	16.3	12.0
86°	15.8	21.0	29.6	35.9	35.4	34.4	28.2	22.9	17.7	12.9	9.1
86.5°	12.4	16.7	26.3	32.5	31.6	30.6	24.9	18.6	13.9	10.0	5.7
87°	9.6	13.9	22.9	28.7	27.7	26.8	21.5	15.3	10.5	7.6	2.9
87.5°	6.7	11.0	19.6	24.9	24.4	23.4	18.2	12.4	8.1	5.3	0.5
88°	3.8	8.1	16.7	21.5	20.6	19.6	15.3	9.6	5.7	2.9	0.0
88.5°	1.4	5.3	13.4	17.7	17.2	16.3	12.0	7.2	3.3	0.5	0.0



TEST NUMBER: P776843
CATALOG NUMBER: HCDJBL54050CSD-HCD8TSQMW-5000lm-4000K

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
90°	0.0	0.0	3.8	7.2	6.7	5.7	2.9	0.5	0.0	0.0	0.0



TEST NUMBER: P776843

CATALOG NUMBER: HCDJBLS4050CSD-HCD8TSQMW-5000lm-4000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	2797.5	2797.5	2797.5	2797.5	2797.5	2797.5
0.5°	2793.7	2795.6	2795.1	2795.6	2797.0	2798.4
1°	2791.8	2793.2	2792.2	2793.2	2795.1	2797.5
1.5°	2789.4	2790.8	2789.4	2790.3	2793.2	2796.1
2°	2787.0	2787.9	2786.5	2787.9	2790.8	2794.6
2.5°	2784.1	2784.6	2783.6	2784.6	2787.9	2792.2
3°	2781.2	2781.7	2779.8	2781.7	2785.1	2790.3
3.5°	2777.9	2777.9	2776.5	2777.9	2782.2	2788.4
4°	2774.5	2774.1	2772.1	2774.1	2778.8	2785.5
4.5°	2770.7	2769.8	2768.3	2770.2	2775.5	2782.7
5°	2766.9	2765.5	2763.5	2765.5	2771.2	2779.3
5.5°	2762.6	2760.7	2758.8	2761.2	2767.4	2776.0
6°	2757.8	2755.9	2753.5	2756.4	2763.1	2772.1
6.5°	2753.0	2750.6	2748.2	2751.1	2758.8	2768.8
7°	2747.8	2744.9	2742.5	2745.9	2753.5	2764.5
7.5°	2742.5	2739.2	2736.3	2740.1	2748.7	2759.7
8°	2736.8	2732.9	2730.1	2734.4	2743.0	2754.9
8.5°	2730.6	2726.7	2723.9	2728.2	2737.2	2750.2
9°	2724.3	2719.6	2717.2	2721.5	2731.5	2744.9
9.5°	2717.6	2712.9	2710.0	2714.8	2725.3	2739.2
10°	2710.9	2705.7	2702.3	2707.6	2718.6	2733.4
10.5°	2703.3	2698.0	2694.7	2700.4	2711.9	2727.2
11°	2696.1	2689.9	2687.0	2692.8	2704.7	2721.0
11.5°	2688.0	2681.8	2678.9	2685.1	2697.6	2714.3
12°	2680.3	2673.2	2669.8	2676.5	2689.4	2707.1
12.5°	2671.7	2664.1	2661.2	2668.4	2681.3	2699.5
13°	2663.1	2655.0	2651.7	2659.3	2673.7	2692.3
13.5°	2654.1	2645.4	2642.6	2650.7	2665.0	2684.2
14°	2645.0	2635.9	2632.5	2641.1	2656.0	2676.0
14.5°	2635.4	2625.8	2622.5	2631.6	2646.9	2667.4
15°	2625.4	2615.3	2611.5	2621.5	2637.3	2658.4
15.5°	2615.3	2604.8	2601.5	2611.5	2627.3	2649.3
16°	2604.8	2593.3	2590.5	2600.5	2617.7	2639.7
16.5°	2594.3	2582.3	2579.0	2590.0	2607.2	2630.1
17°	2582.8	2570.9	2567.0	2578.5	2596.7	2620.1
17.5°	2571.3	2558.4	2555.1	2567.5	2585.7	2609.6
18°	2559.9	2546.0	2543.1	2555.6	2574.2	2599.1
18.5°	2547.4	2533.1	2530.7	2543.1	2562.7	2587.6
19°	2535.0	2520.2	2516.8	2531.2	2550.8	2576.1
19.5°	2522.6	2507.3	2503.9	2518.3	2538.8	2564.6
20°	2509.7	2493.4	2490.5	2505.4	2525.9	2552.7
20.5°	2495.8	2479.1	2476.7	2492.4	2513.0	2539.8
21°	2482.4	2464.7	2462.3	2478.1	2499.6	2526.9

TEST NUMBER: P776843

CATALOG NUMBER: HCDJBLS4050CSD-HCD8TSQMW-5000lm-4000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
22.5°	2438.9	2418.8	2417.4	2435.6	2457.5	2485.8
23°	2424.1	2402.6	2401.6	2420.7	2443.2	2471.4
23.5°	2408.3	2386.8	2385.8	2405.9	2428.4	2456.6
24°	2392.5	2369.6	2369.6	2390.1	2413.1	2441.3
24.5°	2376.3	2352.4	2352.4	2374.4	2397.3	2426.0
25°	2359.5	2334.7	2335.1	2358.1	2381.5	2409.7
25.5°	2342.8	2317.0	2317.9	2341.8	2364.8	2393.5
26°	2325.1	2298.8	2300.2	2324.6	2348.5	2377.2
26.5°	2307.4	2280.6	2282.1	2307.4	2331.3	2360.0
27°	2289.7	2261.5	2263.4	2290.2	2314.1	2342.8
27.5°	2271.1	2241.9	2244.8	2272.5	2295.9	2324.1
28°	2252.4	2222.3	2225.2	2253.9	2277.8	2306.5
28.5°	2233.3	2202.2	2206.1	2235.7	2259.6	2286.9
29°	2214.2	2182.1	2186.4	2216.6	2241.4	2269.2
29.5°	2194.6	2162.1	2166.4	2197.4	2221.8	2249.1
30°	2174.5	2141.5	2145.8	2178.3	2202.7	2230.4
30.5°	2154.4	2120.5	2125.7	2158.2	2183.1	2209.9
31°	2134.3	2099.4	2105.2	2138.6	2163.0	2190.8
31.5°	2113.8	2077.9	2083.7	2118.1	2142.9	2170.2
32°	2093.2	2055.9	2062.6	2097.5	2122.4	2150.1
32.5°	2072.7	2033.9	2042.1	2076.0	2101.8	2128.6
33°	2051.1	2011.5	2020.5	2055.4	2081.3	2108.5
33.5°	2029.6	1988.5	1998.1	2033.9	2059.7	2087.0
34°	2007.6	1965.6	1976.6	2012.4	2039.7	2065.5
34.5°	1986.1	1941.2	1953.6	1989.5	2018.2	2042.1
35°	1963.6	1915.8	1931.1	1967.9	1996.6	2020.5
35.5°	1941.2	1865.2	1907.7	1946.0	1975.1	1998.1
36°	1918.2	1807.3	1884.8	1923.0	1953.1	1974.6
36.5°	1894.8	1742.3	1859.4	1900.5	1930.2	1950.3
37°	1869.9	1677.2	1824.0	1878.1	1907.7	1909.1
37.5°	1840.8	1610.3	1773.8	1855.1	1884.8	1859.9
38°	1791.5	1541.5	1712.2	1832.2	1861.3	1793.9
38.5°	1732.2	1470.7	1648.6	1809.2	1838.4	1727.9
39°	1669.6	1398.0	1588.8	1786.7	1813.5	1663.9
39.5°	1606.5	1324.9	1524.3	1763.8	1774.3	1598.8
40°	1543.4	1257.0	1458.3	1741.3	1727.0	1530.9
40.5°	1476.9	1189.6	1388.9	1717.9	1665.8	1460.2
41°	1408.5	1124.5	1321.5	1694.9	1604.6	1388.0
41.5°	1338.7	1057.6	1254.1	1672.0	1545.3	1316.7
42°	1270.8	993.5	1188.6	1649.5	1484.1	1248.9
42.5°	1203.9	927.6	1126.0	1626.6	1422.9	1184.3
43°	1138.9	864.9	1065.7	1603.6	1358.3	1117.8
43.5°	1076.3	804.7	1003.1	1579.7	1292.8	1051.9



TEST NUMBER: P776843

CATALOG NUMBER: HCDJBL54050CSD-HCD8TSQMW-5000lm-4000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
45°	888.8	637.8	819.5	1466.4	1103.0	860.6
45.5°	828.6	585.7	762.6	1412.8	1043.7	799.9
46°	770.3	538.4	708.6	1357.9	983.5	743.0
46.5°	714.3	496.3	655.0	1305.7	923.3	687.1
47°	660.3	461.4	602.9	1251.7	863.0	632.6
47.5°	608.6	431.7	555.1	1196.3	805.6	583.3
48°	558.0	407.4	510.6	1129.3	750.2	536.0
48.5°	513.5	385.8	472.4	1060.0	696.6	493.9
49°	472.4	366.2	439.9	986.8	644.0	458.0
49.5°	446.1	346.6	411.7	918.0	595.3	427.4
50°	420.7	327.5	388.2	852.5	546.5	401.1
50.5°	395.4	307.9	367.7	790.8	502.5	379.2
51°	369.6	292.6	348.6	730.1	462.3	358.6
51.5°	344.2	282.6	329.4	675.6	428.4	338.0
52°	324.6	276.8	310.3	623.0	398.8	318.0
52.5°	306.0	272.1	292.1	571.4	373.4	300.3
53°	287.4	267.7	278.3	525.0	351.4	287.4
53.5°	272.5	263.4	271.6	482.9	331.3	281.1
54°	264.4	258.7	266.3	442.7	311.3	275.9
54.5°	259.6	254.4	262.0	409.8	292.6	271.6
55°	254.8	250.1	257.2	377.7	276.8	267.3
55.5°	250.5	245.8	252.9	350.0	267.3	262.5
56°	246.2	241.9	248.6	324.6	262.5	258.2
56.5°	241.9	237.6	244.3	305.0	257.7	253.9
57°	238.1	233.8	240.0	287.4	253.4	249.6
57.5°	233.8	229.5	236.2	273.0	249.1	245.3
58°	230.0	225.7	232.4	260.6	244.8	241.5
58.5°	226.2	221.8	228.1	250.5	240.5	237.1
59°	221.8	218.0	224.2	241.0	236.7	233.3
59.5°	218.0	214.2	220.4	232.8	232.4	229.0
60°	214.2	209.9	216.1	226.6	228.1	225.2
60.5°	210.4	206.1	212.8	221.8	224.2	220.9
61°	206.5	202.2	208.9	217.5	219.9	217.1
61.5°	202.2	198.4	205.1	213.2	216.1	212.8
62°	198.4	194.1	200.8	208.5	211.8	208.9
62.5°	194.6	190.3	197.0	204.2	208.0	204.6
63°	190.3	186.5	193.2	199.9	203.7	200.3
63.5°	186.5	182.2	188.9	195.6	199.4	196.5
64°	182.6	178.3	185.0	191.2	195.1	192.2
64.5°	178.3	175.0	180.7	186.9	190.8	188.4
65°	174.5	171.2	176.9	182.6	186.9	184.1
65.5°	170.2	167.3	172.1	178.8	182.6	179.8
66°	166.4	163.5	168.8	174.5	178.3	175.9



TEST NUMBER: P776843

CATALOG NUMBER: HCDJBL54050CSD-HCD8TSQMW-5000lm-4000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
67.5°	154.4	151.6	157.8	161.6	165.9	164.0
68°	150.6	147.7	153.5	157.8	161.6	160.2
68.5°	146.3	143.9	149.7	153.5	157.3	156.3
69°	142.5	140.1	145.8	149.2	153.5	152.5
69.5°	138.2	136.3	141.5	144.9	149.2	148.2
70°	134.4	132.4	137.7	140.6	144.9	144.4
70.5°	130.5	128.6	133.4	136.3	140.6	140.1
71°	126.7	124.8	129.6	132.0	136.7	136.3
71.5°	122.4	121.0	125.7	127.7	132.4	132.0
72°	118.6	116.7	121.4	123.4	128.1	128.1
72.5°	114.3	112.8	117.1	119.1	123.8	123.8
73°	110.4	109.0	113.3	115.2	119.5	120.0
73.5°	106.1	104.7	109.0	110.9	115.2	115.7
74°	102.3	100.9	105.2	106.6	111.4	111.9
74.5°	98.0	97.1	100.9	102.3	107.1	107.6
75°	94.2	93.2	96.6	98.0	102.8	103.8
75.5°	89.9	88.9	92.8	93.7	98.0	99.4
76°	86.1	85.1	88.5	89.4	94.2	95.1
76.5°	81.8	81.3	84.6	85.1	89.9	91.3
77°	77.9	77.5	80.3	81.3	85.6	87.0
77.5°	73.6	73.6	76.5	77.0	81.3	83.2
78°	69.8	69.8	72.2	72.7	77.0	78.9
78.5°	65.5	65.5	68.4	68.4	72.7	75.1
79°	61.7	61.7	64.1	64.1	68.4	70.8
79.5°	57.4	57.9	59.8	59.8	64.1	66.9
80°	53.5	54.0	55.9	55.9	59.8	62.6
80.5°	49.2	50.2	51.6	51.6	55.5	58.8
81°	45.4	46.4	47.8	47.3	51.2	55.0
81.5°	41.6	42.6	44.0	43.5	46.9	50.7
82°	37.8	38.7	39.7	39.7	42.6	46.9
82.5°	33.9	34.4	35.9	35.9	38.7	42.6
83°	29.6	30.6	32.0	32.0	34.4	38.7
83.5°	25.8	26.8	27.7	28.2	29.6	34.4
84°	22.0	22.9	23.9	24.9	25.8	30.6
84.5°	18.6	19.6	20.1	21.0	21.5	26.8
85°	14.8	15.8	16.3	17.7	18.2	22.5
85.5°	11.0	12.0	12.9	14.3	15.3	18.6
86°	7.2	8.6	9.1	11.0	12.4	15.8
86.5°	3.8	4.8	5.3	7.6	9.1	12.4
87°	1.0	1.4	1.9	3.8	6.2	9.6
87.5°	0.0	0.0	0.5	1.4	3.8	6.7
88°	0.0	0.0	0.0	0.0	1.4	3.8
88.5°	0.0	0.0	0.0	0.0	0.0	1.4



TEST NUMBER: P776843

CATALOG NUMBER: HCDJBL54050CSD-HCD8TSQMW-5000lm-4000K

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



Report Generated By 670245859 / DESKTOP-T8S5UU9

Signify Classified - Internal
Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report





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

Signify Classified - Internal
Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report



Signify Classified - Internal
Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report





21.5°	2513.5	2552.7	2602.9	2631.6	2644.5	2652.1	2645.9	2623.0	2591.4	2558.4	2507.3
22°	2499.6	2540.3	2592.4	2621.1	2634.4	2642.6	2636.4	2612.5	2579.9	2546.0	2493.9



44°	986.8	1254.6	1792.0	1692.5	1374.1	1605.1	1866.1	1470.7	1094.4	1258.9	1621.8
44.5°	922.8	1188.1	1768.6	1624.7	1303.4	1534.8	1843.6	1402.8	1028.9	1189.6	1598.4



66.5°	172.1	180.7	190.3	189.3	180.7	184.1	183.1	177.9	167.3	169.3	163.5
67°	168.3	176.4	186.0	185.5	176.9	180.3	179.3	174.0	163.5	165.4	159.7



89°	0.0	2.9	10.0	14.3	13.4	12.4	9.1	4.3	1.4	0.0	0.0
89.5°	0.0	0.5	7.2	10.5	10.0	9.1	5.7	1.9	0.0	0.0	0.0

Signify Classified - Internal
Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report





21.5°	2468.1	2449.4	2448.0	2464.2	2486.2	2513.5
22°	2453.7	2434.1	2432.2	2450.4	2472.4	2499.6



44°	1014.6	747.8	940.5	1554.4	1228.3	986.8
44.5°	951.9	690.4	878.3	1511.8	1164.7	922.8



66.5°	162.6	159.7	165.0	170.2	174.0	172.1
67°	158.7	155.9	161.1	165.9	169.7	168.3

Signify Classified - Internal
Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

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

Signify Classified - Internal
Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report



(END OF REPORT)