

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: P776647

Luminaire Tested: HCDJBS4050CSD-HCD61TRC-5000lm-3500K

Issue Date: 2/13/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P776647  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA ( A2312156B035-HCD61TRC)  
Test Lab:  
Issue Date: 2/13/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: HALO COMMERCIAL  
Catalog Number: HCDJBS4050CSD-HCD61TRC-5000lm-3500K  
Description: 6 INCH ROUND SHALLOW-WIDE SPECULAR CLEAR TRIM  
Light Source: SELECTABLE LUMENS AND CCT ARRAY 90CRI / 3500K CCT  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5821.6 lumens  
Efficiency: N/A  
Efficacy: 121.3 lumens/watt  
Spacing Criteria (0/90/45): 1.39 / 1.39 / 1.3  
Luminous Opening: Circular (Dia: 0.5' x H: 0')  
CIE Type: Direct

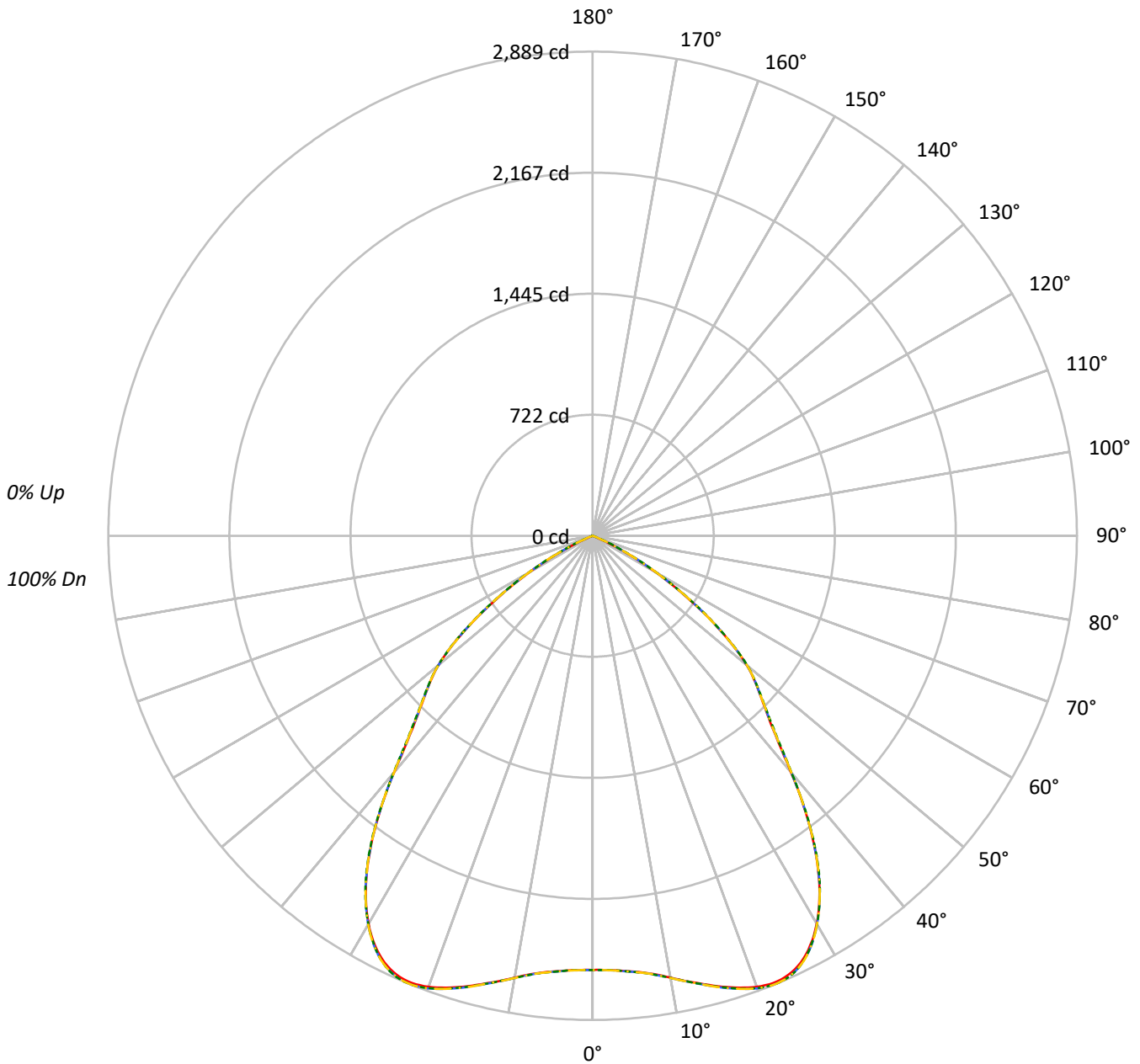
Input Watts (W): 48  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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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								
1	112	108	105	103	109	106	103	101	102	100	98	98	97	95	95	93	92	90								
2	104	98	93	88	102	96	91	87	93	89	85	90	86	84	87	84	82	80								
3	97	88	82	77	95	87	81	76	84	79	75	82	77	74	79	76	73	71								
4	90	80	73	67	88	79	72	67	76	71	66	74	69	65	72	68	64	63								
5	83	73	65	60	82	72	65	59	70	63	59	68	62	58	66	61	58	56								
6	78	66	59	53	76	65	58	53	64	57	52	62	56	52	61	56	52	50								
7	72	61	53	48	71	60	53	47	58	52	47	57	51	47	56	51	47	45								
8	68	56	48	43	66	55	48	43	54	47	43	53	47	42	52	46	42	40								
9	63	51	44	39	62	51	44	39	50	43	39	49	43	39	48	42	38	37								
10	60	48	40	36	58	47	40	36	46	40	35	45	39	35	44	39	35	34								

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

	0°	90°	180°	270°
0°	142023	142023	142023	142023
5°	143578	143682	143578	143682
10°	149068	149123	149068	149123
15°	157714	157873	157714	157873
20°	167070	167536	167070	167536
25°	172625	173339	172625	173339
30°	169248	169456	169248	169456
35°	155382	155884	155382	155884
40°	131718	132262	131718	132262
45°	112826	113407	112826	113407
50°	102351	102589	102351	102589
55°	78812	79624	78812	79624
60°	47474	48976	47474	48976
65°	14865	18964	14865	18964
70°	80	753	80	753
75°	0	106	0	106
80°	0	0	0	0
85°	0	0	0	0

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 113407 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	251.3	4.3
10°-20°	791.1	13.6
20°-30°	1308.0	22.5
30°-40°	1435.6	24.7
40°-50°	1140.1	19.6
50°-60°	734.3	12.6
60°-70°	160.8	2.8
70°-80°	0.5	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°	2350.4	40.4
0°-40°	3786.0	65.0
0°-60°	5660.3	97.2
0°-90°	5821.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5821.6	100.0

**CANDELA DISTRIBUTION:**

	0°	90°	180°	270°	360°	Flux
0°	2591	2591	2591	2591	2591	
5°	2609	2611	2609	2611	2609	251
15°	2779	2782	2779	2782	2779	790
25°	2854	2866	2854	2866	2854	1305
35°	2322	2329	2322	2329	2322	1434
45°	1455	1463	1455	1463	1455	1137
55°	825	833	825	833	825	730
65°	115	146	115	146	115	146
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°	2590.7	2590.7	2590.7	2590.7	2590.7	2590.7	2590.7	2590.7	2590.7	2590.7	2590.7
0.5°	2589.7	2590.7	2591.2	2591.6	2591.2	2591.6	2591.2	2590.7	2589.7	2590.7	2591.2
1°	2590.7	2591.2	2591.6	2592.1	2591.6	2592.1	2591.6	2591.2	2590.7	2591.2	2591.6
1.5°	2591.6	2592.1	2592.6	2593.0	2592.6	2593.0	2592.6	2592.1	2591.6	2592.1	2592.6
2°	2593.0	2593.5	2594.0	2594.0	2593.5	2594.0	2594.0	2593.5	2593.0	2593.5	2594.0
2.5°	2594.5	2594.9	2595.9	2595.9	2595.4	2595.9	2595.9	2594.9	2594.5	2594.9	2595.9
3°	2596.8	2597.3	2597.8	2597.8	2597.3	2597.8	2597.8	2597.3	2596.8	2597.3	2597.8
3.5°	2599.2	2599.6	2600.6	2600.6	2600.1	2600.6	2600.6	2599.6	2599.2	2599.6	2600.6
4°	2602.0	2602.5	2603.4	2603.9	2603.4	2603.9	2603.4	2602.5	2602.0	2602.5	2603.4
4.5°	2605.3	2605.8	2606.7	2607.2	2606.7	2607.2	2606.7	2605.8	2605.3	2605.8	2606.7
5°	2609.1	2609.5	2610.5	2611.0	2611.0	2611.0	2610.5	2609.5	2609.1	2609.5	2610.5
5.5°	2612.8	2613.8	2614.7	2615.7	2615.2	2615.7	2614.7	2613.8	2612.8	2613.8	2614.7
6°	2617.6	2618.0	2619.5	2620.4	2619.9	2620.4	2619.5	2618.0	2617.6	2618.0	2619.5
6.5°	2622.8	2623.2	2624.6	2625.1	2624.6	2625.1	2624.6	2623.2	2622.8	2623.2	2624.6
7°	2628.4	2628.9	2630.3	2630.8	2630.3	2630.8	2630.3	2628.9	2628.4	2628.9	2630.3
7.5°	2635.0	2635.5	2636.9	2636.9	2636.4	2636.9	2636.9	2635.5	2635.0	2635.5	2636.9
8°	2641.6	2642.6	2644.0	2644.5	2644.0	2644.5	2644.0	2642.6	2641.6	2642.6	2644.0
8.5°	2649.6	2650.6	2652.5	2652.5	2652.0	2652.5	2652.5	2650.6	2649.6	2650.6	2652.5
9°	2658.6	2659.5	2661.0	2661.4	2660.5	2661.4	2661.0	2659.5	2658.6	2659.5	2661.0
9.5°	2668.0	2669.0	2670.4	2670.9	2669.5	2670.9	2670.4	2669.0	2668.0	2669.0	2670.4
10°	2677.9	2678.9	2680.3	2680.3	2678.9	2680.3	2680.3	2678.9	2677.9	2678.9	2680.3
10.5°	2687.9	2688.8	2689.7	2689.7	2688.8	2689.7	2689.7	2688.8	2687.9	2688.8	2689.7
11°	2697.8	2699.2	2700.1	2699.6	2698.7	2699.6	2700.1	2699.2	2697.8	2699.2	2700.1
11.5°	2708.1	2709.1	2710.0	2709.6	2708.6	2709.6	2710.0	2709.1	2708.1	2709.1	2710.0
12°	2718.0	2719.0	2719.9	2719.9	2719.0	2719.9	2719.9	2719.0	2718.0	2719.0	2719.9
12.5°	2727.9	2729.4	2730.3	2730.3	2729.4	2730.3	2730.3	2729.4	2727.9	2729.4	2730.3
13°	2737.9	2739.7	2740.7	2740.7	2739.7	2740.7	2740.7	2739.7	2737.9	2739.7	2740.7
13.5°	2748.2	2750.1	2751.5	2751.1	2750.1	2751.1	2751.5	2750.1	2748.2	2750.1	2751.5
14°	2758.1	2760.5	2762.4	2762.4	2760.5	2762.4	2762.4	2760.5	2758.1	2760.5	2762.4
14.5°	2768.5	2770.9	2772.8	2773.2	2771.3	2773.2	2772.8	2770.9	2768.5	2770.9	2772.8
15°	2778.9	2781.3	2783.6	2784.1	2781.7	2784.1	2783.6	2781.3	2778.9	2781.3	2783.6
15.5°	2788.8	2791.6	2794.5	2794.5	2792.1	2794.5	2794.5	2791.6	2788.8	2791.6	2794.5
16°	2798.7	2802.0	2804.8	2804.8	2802.5	2804.8	2804.8	2802.0	2798.7	2802.0	2804.8
16.5°	2808.1	2811.4	2814.7	2814.7	2812.4	2814.7	2814.7	2811.4	2808.1	2811.4	2814.7
17°	2818.0	2821.3	2824.7	2824.7	2821.8	2824.7	2824.7	2821.3	2818.0	2821.3	2824.7
17.5°	2827.0	2830.8	2834.1	2834.1	2831.3	2834.1	2834.1	2830.8	2827.0	2830.8	2834.1
18°	2835.5	2839.7	2843.0	2843.0	2840.7	2843.0	2843.0	2839.7	2835.5	2839.7	2843.0
18.5°	2843.5	2848.2	2851.5	2851.5	2849.2	2851.5	2851.5	2848.2	2843.5	2848.2	2851.5
19°	2851.1	2855.8	2859.6	2859.1	2857.2	2859.1	2859.6	2855.8	2851.1	2855.8	2859.6
19.5°	2857.7	2862.4	2867.1	2866.2	2864.7	2866.2	2867.1	2862.4	2857.7	2862.4	2867.1
20°	2863.8	2868.5	2873.7	2872.3	2871.8	2872.3	2873.7	2868.5	2863.8	2868.5	2873.7
20.5°	2869.0	2873.7	2878.9	2877.5	2877.5	2877.5	2878.9	2873.7	2869.0	2873.7	2878.9
21°	2872.8	2877.5	2883.1	2881.3	2882.2	2881.3	2883.1	2877.5	2872.8	2877.5	2883.1



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CATALOG NUMBER: HCDJBL54050CSD-HCD61TRC-5000lm-3500K

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
22.5°	2877.5	2881.7	2888.3	2886.0	2888.8	2886.0	2888.3	2881.7	2877.5	2881.7	2888.3
23°	2876.5	2880.3	2887.4	2884.6	2887.9	2884.6	2887.4	2880.3	2876.5	2880.3	2887.4
23.5°	2873.7	2877.5	2884.6	2881.3	2885.5	2881.3	2884.6	2877.5	2873.7	2877.5	2884.6
24°	2869.0	2872.8	2879.8	2877.0	2880.8	2877.0	2879.8	2872.8	2869.0	2872.8	2879.8
24.5°	2862.4	2866.2	2873.2	2870.9	2874.2	2870.9	2873.2	2866.2	2862.4	2866.2	2873.2
25°	2853.9	2858.1	2864.7	2862.9	2865.7	2862.9	2864.7	2858.1	2853.9	2858.1	2864.7
25.5°	2844.5	2848.2	2854.8	2853.4	2854.8	2853.4	2854.8	2848.2	2844.5	2848.2	2854.8
26°	2832.7	2836.4	2842.6	2842.1	2842.6	2842.1	2842.6	2836.4	2832.7	2836.4	2842.6
26.5°	2818.0	2822.3	2828.4	2828.9	2828.0	2828.9	2828.4	2822.3	2818.0	2822.3	2828.4
27°	2803.0	2807.2	2812.4	2813.8	2811.4	2813.8	2812.4	2807.2	2803.0	2807.2	2812.4
27.5°	2785.5	2789.7	2794.5	2796.8	2793.0	2796.8	2794.5	2789.7	2785.5	2789.7	2794.5
28°	2766.2	2770.4	2774.2	2778.0	2772.8	2778.0	2774.2	2770.4	2766.2	2770.4	2774.2
28.5°	2745.9	2749.2	2752.9	2757.7	2751.1	2757.7	2752.9	2749.2	2745.9	2749.2	2752.9
29°	2723.2	2726.5	2729.4	2735.0	2727.9	2735.0	2729.4	2726.5	2723.2	2726.5	2729.4
29.5°	2699.2	2702.0	2705.3	2710.0	2703.4	2710.0	2705.3	2702.0	2699.2	2702.0	2705.3
30°	2673.7	2675.6	2677.9	2683.6	2677.0	2683.6	2677.9	2675.6	2673.7	2675.6	2677.9
30.5°	2646.3	2647.3	2650.1	2655.8	2649.2	2655.8	2650.1	2647.3	2646.3	2647.3	2650.1
31°	2616.6	2617.6	2620.4	2625.6	2619.9	2625.6	2620.4	2617.6	2616.6	2617.6	2620.4
31.5°	2586.0	2586.0	2589.3	2593.5	2589.3	2593.5	2589.3	2586.0	2586.0	2586.0	2589.3
32°	2553.4	2552.9	2555.8	2560.0	2557.2	2560.0	2555.8	2552.9	2553.4	2552.9	2555.8
32.5°	2519.0	2518.0	2521.8	2524.6	2523.7	2524.6	2521.8	2518.0	2519.0	2518.0	2521.8
33°	2483.1	2482.2	2485.5	2487.8	2488.3	2487.8	2485.5	2482.2	2483.1	2482.2	2485.5
33.5°	2445.4	2443.5	2447.7	2449.2	2450.6	2449.2	2447.7	2443.5	2445.4	2443.5	2447.7
34°	2406.2	2404.3	2408.1	2408.6	2412.4	2408.6	2408.1	2404.3	2406.2	2404.3	2408.1
34.5°	2364.3	2364.3	2366.6	2367.1	2371.3	2367.1	2366.6	2364.3	2364.3	2364.3	2366.6
35°	2321.8	2321.3	2323.7	2324.6	2329.3	2324.6	2323.7	2321.3	2321.8	2321.3	2323.7
35.5°	2278.4	2278.4	2280.3	2281.2	2285.9	2281.2	2280.3	2278.4	2278.4	2278.4	2280.3
36°	2234.1	2234.1	2235.5	2236.9	2240.2	2236.9	2235.5	2234.1	2234.1	2234.1	2235.5
36.5°	2188.3	2188.8	2189.7	2190.7	2194.4	2190.7	2189.7	2188.8	2188.3	2188.8	2189.7
37°	2140.7	2141.6	2142.1	2143.5	2146.3	2143.5	2142.1	2141.6	2140.7	2141.6	2142.1
37.5°	2093.0	2093.5	2094.4	2095.8	2097.3	2095.8	2094.4	2093.5	2093.0	2093.5	2094.4
38°	2044.4	2044.4	2045.8	2046.8	2048.2	2046.8	2045.8	2044.4	2044.4	2044.4	2045.8
38.5°	1994.9	1994.9	1996.3	1997.3	1998.2	1997.3	1996.3	1994.9	1994.9	1994.9	1996.3
39°	1944.4	1944.4	1946.3	1947.7	1948.2	1947.7	1946.3	1944.4	1944.4	1944.4	1946.3
39.5°	1892.5	1893.0	1894.9	1897.7	1898.2	1897.7	1894.9	1893.0	1892.5	1893.0	1894.9
40°	1840.6	1841.1	1844.4	1846.8	1848.2	1846.8	1844.4	1841.1	1840.6	1841.1	1844.4
40.5°	1789.7	1790.6	1794.9	1799.1	1800.1	1799.1	1794.9	1790.6	1789.7	1790.6	1794.9
41°	1741.6	1743.0	1747.2	1752.0	1753.8	1752.0	1747.2	1743.0	1741.6	1743.0	1747.2
41.5°	1696.3	1698.2	1702.0	1706.7	1708.1	1706.7	1702.0	1698.2	1696.3	1698.2	1702.0
42°	1654.8	1655.7	1659.5	1662.8	1665.6	1662.8	1659.5	1655.7	1654.8	1655.7	1659.5
42.5°	1616.1	1616.6	1621.3	1624.6	1626.5	1624.6	1621.3	1616.6	1616.1	1616.6	1621.3
43°	1578.4	1578.8	1584.0	1587.8	1592.1	1587.8	1584.0	1578.8	1578.4	1578.8	1584.0
43.5°	1543.5	1544.9	1548.7	1552.4	1555.7	1552.4	1548.7	1544.9	1543.5	1544.9	1548.7



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
45°	1455.3	1455.3	1458.6	1460.0	1462.8	1460.0	1458.6	1455.3	1455.3	1455.3	1458.6
45.5°	1428.4	1428.4	1431.7	1433.1	1434.5	1433.1	1431.7	1428.4	1428.4	1428.4	1431.7
46°	1402.4	1402.9	1405.2	1407.1	1408.1	1407.1	1405.2	1402.9	1402.4	1402.9	1405.2
46.5°	1377.4	1377.4	1379.8	1381.2	1383.1	1381.2	1379.8	1377.4	1377.4	1377.4	1379.8
47°	1352.9	1352.9	1354.8	1356.7	1358.1	1356.7	1354.8	1352.9	1352.9	1352.9	1354.8
47.5°	1328.4	1328.4	1330.7	1332.1	1332.6	1332.1	1330.7	1328.4	1328.4	1328.4	1330.7
48°	1304.8	1304.3	1306.7	1308.1	1309.0	1308.1	1306.7	1304.3	1304.8	1304.3	1306.7
48.5°	1280.2	1280.2	1282.1	1284.0	1284.5	1284.0	1282.1	1280.2	1280.2	1280.2	1282.1
49°	1254.8	1255.2	1257.1	1258.5	1259.5	1258.5	1257.1	1255.2	1254.8	1255.2	1257.1
49.5°	1228.8	1228.4	1230.7	1232.1	1232.6	1232.1	1230.7	1228.4	1228.8	1228.4	1230.7
50°	1200.1	1200.1	1201.5	1202.9	1202.9	1202.9	1201.5	1200.1	1200.1	1200.1	1201.5
50.5°	1168.4	1168.4	1169.4	1171.3	1171.3	1171.3	1169.4	1168.4	1168.4	1168.4	1169.4
51°	1135.0	1134.5	1135.9	1137.3	1138.7	1137.3	1135.9	1134.5	1135.0	1134.5	1135.9
51.5°	1099.6	1099.1	1101.0	1102.9	1103.3	1102.9	1101.0	1099.1	1099.6	1099.1	1101.0
52°	1062.8	1063.3	1064.7	1066.1	1067.0	1066.1	1064.7	1063.3	1062.8	1063.3	1064.7
52.5°	1025.0	1024.6	1026.9	1028.8	1029.3	1028.8	1026.9	1024.6	1025.0	1024.6	1026.9
53°	985.4	985.9	988.3	990.6	990.1	990.6	988.3	985.9	985.4	985.9	988.3
53.5°	945.8	946.3	949.1	951.0	951.9	951.0	949.1	946.3	945.8	946.3	949.1
54°	905.2	906.2	909.0	910.9	911.4	910.9	909.0	906.2	905.2	906.2	909.0
54.5°	865.1	865.1	868.9	871.3	872.2	871.3	868.9	865.1	865.1	865.1	868.9
55°	824.6	825.0	829.3	831.2	833.1	831.2	829.3	825.0	824.6	825.0	829.3
55.5°	783.1	784.0	788.2	791.1	793.0	791.1	788.2	784.0	783.1	784.0	788.2
56°	742.0	743.4	748.1	750.5	752.9	750.5	748.1	743.4	742.0	743.4	748.1
56.5°	701.4	702.9	707.6	710.4	712.8	710.4	707.6	702.9	701.4	702.9	707.6
57°	660.9	663.2	667.5	670.8	673.1	670.8	667.5	663.2	660.9	663.2	667.5
57.5°	621.3	623.6	627.9	631.6	634.0	631.6	627.9	623.6	621.3	623.6	627.9
58°	582.1	584.0	588.7	593.4	595.3	593.4	588.7	584.0	582.1	584.0	588.7
58.5°	542.9	545.8	550.5	556.2	557.6	556.2	550.5	545.8	542.9	545.8	550.5
59°	505.2	508.5	512.3	518.4	519.8	518.4	512.3	508.5	505.2	508.5	512.3
59.5°	468.9	471.2	475.5	481.6	483.0	481.6	475.5	471.2	468.9	471.2	475.5
60°	433.0	434.9	439.2	444.8	446.7	444.8	439.2	434.9	433.0	434.9	439.2
60.5°	397.2	399.1	403.3	409.0	411.8	409.0	403.3	399.1	397.2	399.1	403.3
61°	362.3	364.2	369.4	374.5	377.4	374.5	369.4	364.2	362.3	364.2	369.4
61.5°	326.9	330.7	335.9	341.1	345.3	341.1	335.9	330.7	326.9	330.7	335.9
62°	293.4	298.1	303.3	309.0	313.2	309.0	303.3	298.1	293.4	298.1	303.3
62.5°	259.9	266.0	271.7	277.4	282.1	277.4	271.7	266.0	259.9	266.0	271.7
63°	227.4	235.9	241.0	246.7	251.9	246.7	241.0	235.9	227.4	235.9	241.0
63.5°	196.2	207.1	212.7	217.9	223.6	217.9	212.7	207.1	196.2	207.1	212.7
64°	166.0	180.2	186.8	191.5	197.2	191.5	186.8	180.2	166.0	180.2	186.8
64.5°	139.2	155.7	161.8	166.0	171.7	166.0	161.8	155.7	139.2	155.7	161.8
65°	114.6	132.1	138.2	142.0	146.2	142.0	138.2	132.1	114.6	132.1	138.2
65.5°	91.5	111.3	116.5	118.4	122.2	118.4	116.5	111.3	91.5	111.3	116.5
66°	71.7	92.5	96.2	99.1	100.9	99.1	96.2	92.5	71.7	92.5	96.2





TEST NUMBER: P776647

CATALOG NUMBER: HCDJBL54050CSD-HCD61TRC-5000lm-3500K

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
67.5°	22.2	42.9	46.2	49.1	51.9	49.1	46.2	42.9	22.2	42.9	46.2
68°	13.2	30.2	33.0	36.8	42.5	36.8	33.0	30.2	13.2	30.2	33.0
68.5°	8.0	19.8	23.6	25.9	33.0	25.9	23.6	19.8	8.0	19.8	23.6
69°	4.7	11.8	14.6	16.5	23.6	16.5	14.6	11.8	4.7	11.8	14.6
69.5°	2.8	7.5	8.5	8.5	14.2	8.5	8.5	7.5	2.8	7.5	8.5
70°	0.5	3.8	4.7	4.7	4.7	4.7	4.7	3.8	0.5	3.8	4.7
70.5°	0.5	1.4	2.8	2.8	1.9	2.8	2.8	1.4	0.5	1.4	2.8
71°	0.5	0.5	1.4	1.4	0.5	1.4	1.4	0.5	0.5	0.5	1.4
71.5°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
72°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
72.5°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
73°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
73.5°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
74°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
74.5°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
75°	0.0	0.0	0.5	0.5	0.5	0.5	0.5	0.0	0.0	0.0	0.5
75.5°	0.0	0.0	0.0	0.5	0.5	0.5	0.0	0.0	0.0	0.0	0.0
76°	0.0	0.0	0.0	0.0	0.5	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: P776647

CATALOG NUMBER: HCDJBL54050CSD-HCD61TRC-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: P776647

CATALOG NUMBER: HCDJBL54050CSD-HCD61TRC-5000lm-3500K

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
0°	2590.7	2590.7	2590.7	2590.7	2590.7	2590.7
0.5°	2591.6	2591.2	2591.6	2591.2	2590.7	2589.7
1°	2592.1	2591.6	2592.1	2591.6	2591.2	2590.7
1.5°	2593.0	2592.6	2593.0	2592.6	2592.1	2591.6
2°	2594.0	2593.5	2594.0	2594.0	2593.5	2593.0
2.5°	2595.9	2595.4	2595.9	2595.9	2594.9	2594.5
3°	2597.8	2597.3	2597.8	2597.8	2597.3	2596.8
3.5°	2600.6	2600.1	2600.6	2600.6	2599.6	2599.2
4°	2603.9	2603.4	2603.9	2603.4	2602.5	2602.0
4.5°	2607.2	2606.7	2607.2	2606.7	2605.8	2605.3
5°	2611.0	2611.0	2611.0	2610.5	2609.5	2609.1
5.5°	2615.7	2615.2	2615.7	2614.7	2613.8	2612.8
6°	2620.4	2619.9	2620.4	2619.5	2618.0	2617.6
6.5°	2625.1	2624.6	2625.1	2624.6	2623.2	2622.8
7°	2630.8	2630.3	2630.8	2630.3	2628.9	2628.4
7.5°	2636.9	2636.4	2636.9	2636.9	2635.5	2635.0
8°	2644.5	2644.0	2644.5	2644.0	2642.6	2641.6
8.5°	2652.5	2652.0	2652.5	2652.5	2650.6	2649.6
9°	2661.4	2660.5	2661.4	2661.0	2659.5	2658.6
9.5°	2670.9	2669.5	2670.9	2670.4	2669.0	2668.0
10°	2680.3	2678.9	2680.3	2680.3	2678.9	2677.9
10.5°	2689.7	2688.8	2689.7	2689.7	2688.8	2687.9
11°	2699.6	2698.7	2699.6	2700.1	2699.2	2697.8
11.5°	2709.6	2708.6	2709.6	2710.0	2709.1	2708.1
12°	2719.9	2719.0	2719.9	2719.9	2719.0	2718.0
12.5°	2730.3	2729.4	2730.3	2730.3	2729.4	2727.9
13°	2740.7	2739.7	2740.7	2740.7	2739.7	2737.9
13.5°	2751.1	2750.1	2751.1	2751.5	2750.1	2748.2
14°	2762.4	2760.5	2762.4	2762.4	2760.5	2758.1
14.5°	2773.2	2771.3	2773.2	2772.8	2770.9	2768.5
15°	2784.1	2781.7	2784.1	2783.6	2781.3	2778.9
15.5°	2794.5	2792.1	2794.5	2794.5	2791.6	2788.8
16°	2804.8	2802.5	2804.8	2804.8	2802.0	2798.7
16.5°	2814.7	2812.4	2814.7	2814.7	2811.4	2808.1
17°	2824.7	2821.8	2824.7	2824.7	2821.3	2818.0
17.5°	2834.1	2831.3	2834.1	2834.1	2830.8	2827.0
18°	2843.0	2840.7	2843.0	2843.0	2839.7	2835.5
18.5°	2851.5	2849.2	2851.5	2851.5	2848.2	2843.5
19°	2859.1	2857.2	2859.1	2859.6	2855.8	2851.1
19.5°	2866.2	2864.7	2866.2	2867.1	2862.4	2857.7
20°	2872.3	2871.8	2872.3	2873.7	2868.5	2863.8
20.5°	2877.5	2877.5	2877.5	2878.9	2873.7	2869.0
21°	2881.3	2882.2	2881.3	2883.1	2877.5	2872.8



TEST NUMBER: P776647

CATALOG NUMBER: HCDJBL54050CSD-HCD61TRC-5000lm-3500K

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
22.5°	2886.0	2888.8	2886.0	2888.3	2881.7	2877.5
23°	2884.6	2887.9	2884.6	2887.4	2880.3	2876.5
23.5°	2881.3	2885.5	2881.3	2884.6	2877.5	2873.7
24°	2877.0	2880.8	2877.0	2879.8	2872.8	2869.0
24.5°	2870.9	2874.2	2870.9	2873.2	2866.2	2862.4
25°	2862.9	2865.7	2862.9	2864.7	2858.1	2853.9
25.5°	2853.4	2854.8	2853.4	2854.8	2848.2	2844.5
26°	2842.1	2842.6	2842.1	2842.6	2836.4	2832.7
26.5°	2828.9	2828.0	2828.9	2828.4	2822.3	2818.0
27°	2813.8	2811.4	2813.8	2812.4	2807.2	2803.0
27.5°	2796.8	2793.0	2796.8	2794.5	2789.7	2785.5
28°	2778.0	2772.8	2778.0	2774.2	2770.4	2766.2
28.5°	2757.7	2751.1	2757.7	2752.9	2749.2	2745.9
29°	2735.0	2727.9	2735.0	2729.4	2726.5	2723.2
29.5°	2710.0	2703.4	2710.0	2705.3	2702.0	2699.2
30°	2683.6	2677.0	2683.6	2677.9	2675.6	2673.7
30.5°	2655.8	2649.2	2655.8	2650.1	2647.3	2646.3
31°	2625.6	2619.9	2625.6	2620.4	2617.6	2616.6
31.5°	2593.5	2589.3	2593.5	2589.3	2586.0	2586.0
32°	2560.0	2557.2	2560.0	2555.8	2552.9	2553.4
32.5°	2524.6	2523.7	2524.6	2521.8	2518.0	2519.0
33°	2487.8	2488.3	2487.8	2485.5	2482.2	2483.1
33.5°	2449.2	2450.6	2449.2	2447.7	2443.5	2445.4
34°	2408.6	2412.4	2408.6	2408.1	2404.3	2406.2
34.5°	2367.1	2371.3	2367.1	2366.6	2364.3	2364.3
35°	2324.6	2329.3	2324.6	2323.7	2321.3	2321.8
35.5°	2281.2	2285.9	2281.2	2280.3	2278.4	2278.4
36°	2236.9	2240.2	2236.9	2235.5	2234.1	2234.1
36.5°	2190.7	2194.4	2190.7	2189.7	2188.8	2188.3
37°	2143.5	2146.3	2143.5	2142.1	2141.6	2140.7
37.5°	2095.8	2097.3	2095.8	2094.4	2093.5	2093.0
38°	2046.8	2048.2	2046.8	2045.8	2044.4	2044.4
38.5°	1997.3	1998.2	1997.3	1996.3	1994.9	1994.9
39°	1947.7	1948.2	1947.7	1946.3	1944.4	1944.4
39.5°	1897.7	1898.2	1897.7	1894.9	1893.0	1892.5
40°	1846.8	1848.2	1846.8	1844.4	1841.1	1840.6
40.5°	1799.1	1800.1	1799.1	1794.9	1790.6	1789.7
41°	1752.0	1753.8	1752.0	1747.2	1743.0	1741.6
41.5°	1706.7	1708.1	1706.7	1702.0	1698.2	1696.3
42°	1662.8	1665.6	1662.8	1659.5	1655.7	1654.8
42.5°	1624.6	1626.5	1624.6	1621.3	1616.6	1616.1
43°	1587.8	1592.1	1587.8	1584.0	1578.8	1578.4
43.5°	1552.4	1555.7	1552.4	1548.7	1544.9	1543.5



TEST NUMBER: P776647

CATALOG NUMBER: HCDJBL54050CSD-HCD61TRC-5000lm-3500K

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
45°	1460.0	1462.8	1460.0	1458.6	1455.3	1455.3
45.5°	1433.1	1434.5	1433.1	1431.7	1428.4	1428.4
46°	1407.1	1408.1	1407.1	1405.2	1402.9	1402.4
46.5°	1381.2	1383.1	1381.2	1379.8	1377.4	1377.4
47°	1356.7	1358.1	1356.7	1354.8	1352.9	1352.9
47.5°	1332.1	1332.6	1332.1	1330.7	1328.4	1328.4
48°	1308.1	1309.0	1308.1	1306.7	1304.3	1304.8
48.5°	1284.0	1284.5	1284.0	1282.1	1280.2	1280.2
49°	1258.5	1259.5	1258.5	1257.1	1255.2	1254.8
49.5°	1232.1	1232.6	1232.1	1230.7	1228.4	1228.8
50°	1202.9	1202.9	1202.9	1201.5	1200.1	1200.1
50.5°	1171.3	1171.3	1171.3	1169.4	1168.4	1168.4
51°	1137.3	1138.7	1137.3	1135.9	1134.5	1135.0
51.5°	1102.9	1103.3	1102.9	1101.0	1099.1	1099.6
52°	1066.1	1067.0	1066.1	1064.7	1063.3	1062.8
52.5°	1028.8	1029.3	1028.8	1026.9	1024.6	1025.0
53°	990.6	990.1	990.6	988.3	985.9	985.4
53.5°	951.0	951.9	951.0	949.1	946.3	945.8
54°	910.9	911.4	910.9	909.0	906.2	905.2
54.5°	871.3	872.2	871.3	868.9	865.1	865.1
55°	831.2	833.1	831.2	829.3	825.0	824.6
55.5°	791.1	793.0	791.1	788.2	784.0	783.1
56°	750.5	752.9	750.5	748.1	743.4	742.0
56.5°	710.4	712.8	710.4	707.6	702.9	701.4
57°	670.8	673.1	670.8	667.5	663.2	660.9
57.5°	631.6	634.0	631.6	627.9	623.6	621.3
58°	593.4	595.3	593.4	588.7	584.0	582.1
58.5°	556.2	557.6	556.2	550.5	545.8	542.9
59°	518.4	519.8	518.4	512.3	508.5	505.2
59.5°	481.6	483.0	481.6	475.5	471.2	468.9
60°	444.8	446.7	444.8	439.2	434.9	433.0
60.5°	409.0	411.8	409.0	403.3	399.1	397.2
61°	374.5	377.4	374.5	369.4	364.2	362.3
61.5°	341.1	345.3	341.1	335.9	330.7	326.9
62°	309.0	313.2	309.0	303.3	298.1	293.4
62.5°	277.4	282.1	277.4	271.7	266.0	259.9
63°	246.7	251.9	246.7	241.0	235.9	227.4
63.5°	217.9	223.6	217.9	212.7	207.1	196.2
64°	191.5	197.2	191.5	186.8	180.2	166.0
64.5°	166.0	171.7	166.0	161.8	155.7	139.2
65°	142.0	146.2	142.0	138.2	132.1	114.6
65.5°	118.4	122.2	118.4	116.5	111.3	91.5
66°	99.1	100.9	99.1	96.2	92.5	71.7



TEST NUMBER: P776647

CATALOG NUMBER: HCDJBL54050CSD-HCD61TRC-5000lm-3500K

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
67.5°	49.1	51.9	49.1	46.2	42.9	22.2
68°	36.8	42.5	36.8	33.0	30.2	13.2
68.5°	25.9	33.0	25.9	23.6	19.8	8.0
69°	16.5	23.6	16.5	14.6	11.8	4.7
69.5°	8.5	14.2	8.5	8.5	7.5	2.8
70°	4.7	4.7	4.7	4.7	3.8	0.5
70.5°	2.8	1.9	2.8	2.8	1.4	0.5
71°	1.4	0.5	1.4	1.4	0.5	0.5
71.5°	0.5	0.5	0.5	0.5	0.5	0.5
72°	0.5	0.5	0.5	0.5	0.5	0.5
72.5°	0.5	0.5	0.5	0.5	0.5	0.5
73°	0.5	0.5	0.5	0.5	0.5	0.5
73.5°	0.5	0.5	0.5	0.5	0.5	0.5
74°	0.5	0.5	0.5	0.5	0.5	0.5
74.5°	0.5	0.5	0.5	0.5	0.5	0.5
75°	0.5	0.5	0.5	0.5	0.0	0.0
75.5°	0.5	0.5	0.5	0.0	0.0	0.0
76°	0.0	0.5	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: P776647

CATALOG NUMBER: HCDJBL54050CSD-HCD61TRC-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

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

Scaled Data Report



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Peachtree City, GA 30269

Scaled Data Report





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

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Peachtree City, GA 30269

Scaled Data Report



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1121 Highway 74 South  
Peachtree City, GA 30269

Scaled Data Report





21.5°	2876.1	2880.3	2886.4	2884.1	2886.0	2884.1	2886.4	2880.3	2876.1	2880.3	2886.4
22°	2877.5	2881.7	2888.3	2885.5	2887.9	2885.5	2888.3	2881.7	2877.5	2881.7	2888.3



44°	1511.9	1512.8	1516.6	1518.9	1522.7	1518.9	1516.6	1512.8	1511.9	1512.8	1516.6
44.5°	1483.1	1483.6	1486.9	1488.7	1491.1	1488.7	1486.9	1483.6	1483.1	1483.6	1486.9



66.5°	52.4	73.6	78.3	81.1	81.6	81.1	78.3	73.6	52.4	73.6	78.3
67°	36.3	58.0	60.9	63.7	64.2	63.7	60.9	58.0	36.3	58.0	60.9



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°	2884.1	2886.0	2884.1	2886.4	2880.3	2876.1
22°	2885.5	2887.9	2885.5	2888.3	2881.7	2877.5



44°	1518.9	1522.7	1518.9	1516.6	1512.8	1511.9
44.5°	1488.7	1491.1	1488.7	1486.9	1483.6	1483.1



66.5°	81.1	81.6	81.1	78.3	73.6	52.4
67°	63.7	64.2	63.7	60.9	58.0	36.3

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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)