

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: P776645

Luminaire Tested: HCDJBS4050CSD-HCD61TRC-5000lm-2700K

Issue Date: 2/13/2024

Test Information

Test Method: LM-79-2019
Report Number: P776645
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: HCDJBL54050CSD-HCD61TRC-5000lm-2700K
Description: 6 INCH ROUND SHALLOW-WIDE SPECULAR CLEAR TRIM
Light Source: SELECTABLE LUMENS AND CCT ARRAY 90CRI / 2700K CCT
Ballast/Driver: -

Summary

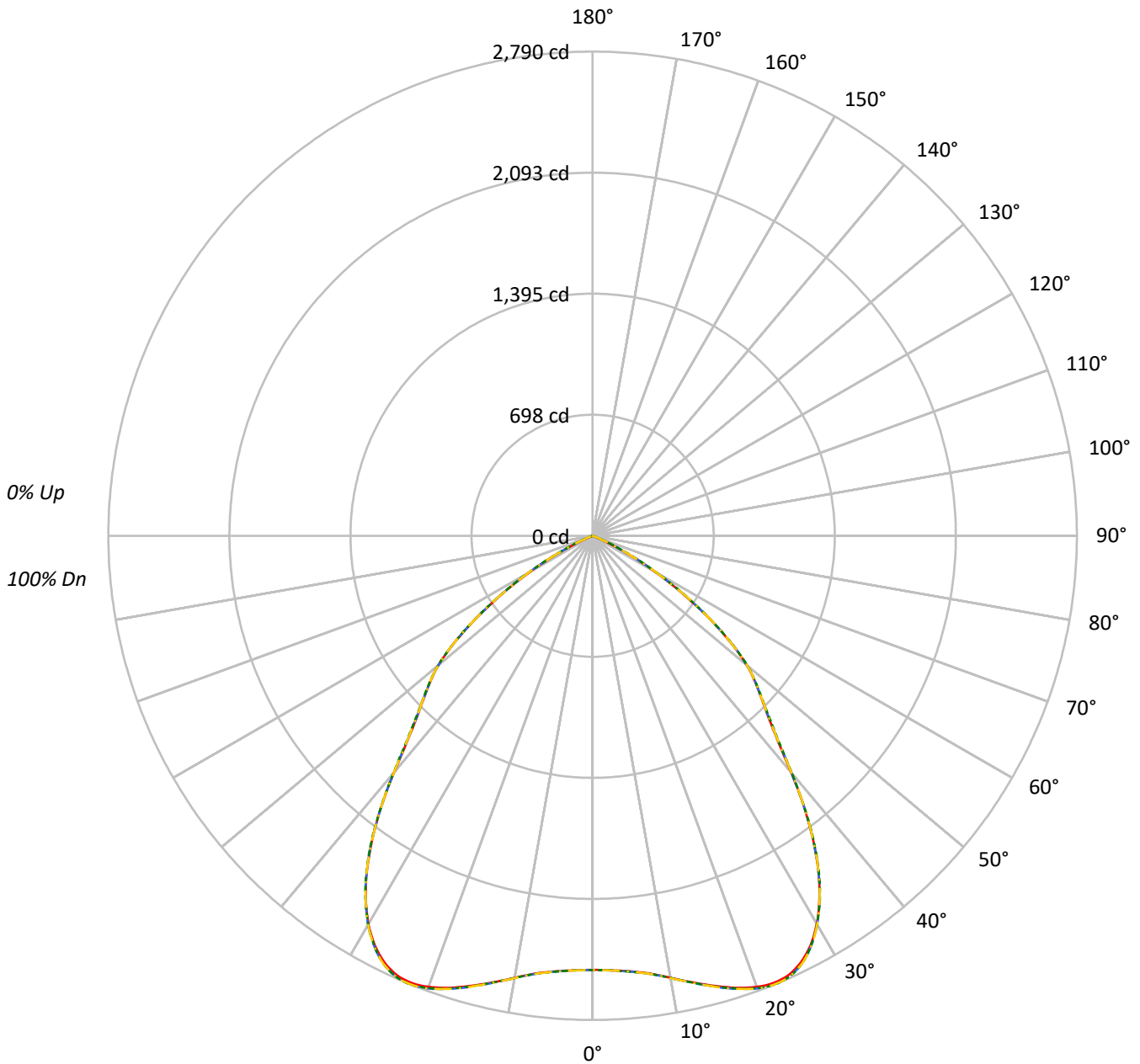
Lumens per Lamp: N/A
Luminaire Lumens: 5623.4 lumens
Efficiency: N/A
Efficacy: 117.2 lumens/watt
Spacing Criteria (0/90/45): 1.39 / 1.39 / 1.3
Luminous Opening: Circular (Dia: 0.5' x H: 0')
CIE Type: Direct

Input Watts (W): 48
Input Voltage (V): NR
Input Current (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										
RC	80					70					50					30					10					0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0		
RCR	0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100	100	100	100	100	100		
	1	112	108	105	103	109	106	103	101	102	100	98	98	97	95	95	93	92	90	90	90	90	90	90		
	2	104	98	93	88	102	96	91	87	93	89	85	90	86	84	87	84	82	80	80	80	80	80	80		
	3	97	88	82	77	95	87	81	76	84	79	75	82	77	74	79	76	73	71	71	71	71	71	71		
	4	90	80	73	67	88	79	72	67	76	71	66	74	69	65	72	68	64	63	63	63	63	63	63		
	5	83	73	65	60	82	72	65	59	70	63	59	68	62	58	66	61	58	56	56	56	56	56	56		
	6	78	66	59	53	76	65	58	53	64	57	52	62	56	52	61	56	52	50	50	50	50	50	50		
	7	72	61	53	48	71	60	53	47	58	52	47	57	51	47	56	51	47	45	45	45	45	45	45		
	8	68	56	48	43	66	55	48	43	54	47	43	53	47	42	52	46	42	40	40	40	40	40	40		
	9	63	51	44	39	62	51	44	39	50	43	39	49	43	39	48	42	38	37	37	37	37	37	37		
	10	60	48	40	36	58	47	40	36	46	40	35	45	39	35	44	39	35	34	34	34	34	34	34		

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	137187	137187	137187	137187
5°	138691	138790	138691	138790
10°	143996	144047	143996	144047
15°	152345	152504	152345	152504
20°	161382	161837	161382	161837
25°	166752	167441	166752	167441
30°	163487	163690	163487	163690
35°	150095	150584	150095	150584
40°	127238	127761	127238	127761
45°	108980	109546	108980	109546
50°	98862	99093	98862	99093
55°	76126	76910	76126	76910
60°	45863	47310	45863	47310
65°	14360	18329	14360	18329
70°	80	737	80	737
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: 109546 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	242.7	4.3
10°-20°	764.2	13.6
20°-30°	1263.4	22.5
30°-40°	1386.8	24.7
40°-50°	1101.3	19.6
50°-60°	709.3	12.6
60°-70°	155.3	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°	2270.4	40.4
0°-40°	3657.1	65.0
0°-60°	5467.7	97.2
0°-90°	5623.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5623.4	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	2502	2502	2502	2502	2502	
5°	2520	2522	2520	2522	2520	243
15°	2684	2687	2684	2687	2684	763
25°	2757	2768	2757	2768	2757	1260
35°	2243	2250	2243	2250	2243	1385
45°	1406	1413	1406	1413	1406	1099
55°	796	805	796	805	796	705
65°	111	141	111	141	111	141
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°	2502.5	2502.5	2502.5	2502.5	2502.5	2502.5	2502.5	2502.5	2502.5	2502.5	2502.5
0.5°	2501.6	2502.5	2503.0	2503.4	2503.0	2503.4	2503.0	2502.5	2501.6	2502.5	2503.0
1°	2502.5	2503.0	2503.4	2503.9	2503.4	2503.9	2503.4	2503.0	2502.5	2503.0	2503.4
1.5°	2503.4	2503.9	2504.3	2504.8	2504.3	2504.8	2504.3	2503.9	2503.4	2503.9	2504.3
2°	2504.8	2505.2	2505.7	2505.7	2505.2	2505.7	2505.7	2505.2	2504.8	2505.2	2505.7
2.5°	2506.2	2506.6	2507.5	2507.5	2507.1	2507.5	2507.5	2506.6	2506.2	2506.6	2507.5
3°	2508.4	2508.9	2509.3	2509.3	2508.9	2509.3	2509.3	2508.9	2508.4	2508.9	2509.3
3.5°	2510.7	2511.2	2512.1	2512.1	2511.6	2512.1	2512.1	2511.2	2510.7	2511.2	2512.1
4°	2513.4	2513.9	2514.8	2515.3	2514.8	2515.3	2514.8	2513.9	2513.4	2513.9	2514.8
4.5°	2516.6	2517.1	2518.0	2518.5	2518.0	2518.5	2518.0	2517.1	2516.6	2517.1	2518.0
5°	2520.3	2520.7	2521.6	2522.1	2521.6	2522.1	2521.6	2520.7	2520.3	2520.7	2521.6
5.5°	2523.9	2524.8	2525.7	2526.7	2526.2	2526.7	2525.7	2524.8	2523.9	2524.8	2525.7
6°	2528.5	2528.9	2530.3	2531.2	2530.8	2531.2	2530.3	2528.9	2528.5	2528.9	2530.3
6.5°	2533.5	2533.9	2535.3	2535.8	2535.3	2535.8	2535.3	2533.9	2533.5	2533.9	2535.3
7°	2539.0	2539.4	2540.8	2541.2	2540.8	2541.2	2540.8	2539.4	2539.0	2539.4	2540.8
7.5°	2545.3	2545.8	2547.2	2547.2	2546.7	2547.2	2547.2	2545.8	2545.3	2545.8	2547.2
8°	2551.7	2552.6	2554.0	2554.5	2554.0	2554.5	2554.0	2552.6	2551.7	2552.6	2554.0
8.5°	2559.5	2560.4	2562.2	2562.2	2561.7	2562.2	2562.2	2560.4	2559.5	2560.4	2562.2
9°	2568.1	2569.0	2570.4	2570.9	2569.9	2570.9	2570.4	2569.0	2568.1	2569.0	2570.4
9.5°	2577.2	2578.1	2579.5	2580.0	2578.6	2580.0	2579.5	2578.1	2577.2	2578.1	2579.5
10°	2586.8	2587.7	2589.1	2589.1	2587.7	2589.1	2589.1	2587.7	2586.8	2587.7	2589.1
10.5°	2596.4	2597.3	2598.2	2598.2	2597.3	2598.2	2598.2	2597.3	2596.4	2597.3	2598.2
11°	2605.9	2607.3	2608.2	2607.8	2606.9	2607.8	2608.2	2607.3	2605.9	2607.3	2608.2
11.5°	2616.0	2616.9	2617.8	2617.3	2616.4	2617.3	2617.8	2616.9	2616.0	2616.9	2617.8
12°	2625.5	2626.4	2627.4	2627.4	2626.4	2627.4	2627.4	2626.4	2625.5	2626.4	2627.4
12.5°	2635.1	2636.5	2637.4	2637.4	2636.5	2637.4	2637.4	2636.5	2635.1	2636.5	2637.4
13°	2644.7	2646.5	2647.4	2647.4	2646.5	2647.4	2647.4	2646.5	2644.7	2646.5	2647.4
13.5°	2654.7	2656.5	2657.9	2657.4	2656.5	2657.4	2657.9	2656.5	2654.7	2656.5	2657.9
14°	2664.3	2666.5	2668.4	2668.4	2666.5	2668.4	2668.4	2666.5	2664.3	2666.5	2668.4
14.5°	2674.3	2676.6	2678.4	2678.8	2677.0	2678.8	2678.4	2676.6	2674.3	2676.6	2678.4
15°	2684.3	2686.6	2688.9	2689.3	2687.1	2689.3	2688.9	2686.6	2684.3	2686.6	2688.9
15.5°	2693.9	2696.6	2699.4	2699.4	2697.1	2699.4	2699.4	2696.6	2693.9	2696.6	2699.4
16°	2703.5	2706.6	2709.4	2709.4	2707.1	2709.4	2709.4	2706.6	2703.5	2706.6	2709.4
16.5°	2712.6	2715.8	2718.9	2718.9	2716.7	2718.9	2718.9	2715.8	2712.6	2715.8	2718.9
17°	2722.1	2725.3	2728.5	2728.5	2725.8	2728.5	2728.5	2725.3	2722.1	2725.3	2728.5
17.5°	2730.8	2734.4	2737.6	2737.6	2734.9	2737.6	2737.6	2734.4	2730.8	2734.4	2737.6
18°	2739.0	2743.1	2746.3	2746.3	2744.0	2746.3	2746.3	2743.1	2739.0	2743.1	2746.3
18.5°	2746.7	2751.3	2754.5	2754.5	2752.2	2754.5	2754.5	2751.3	2746.7	2751.3	2754.5
19°	2754.0	2758.6	2762.2	2761.8	2760.0	2761.8	2762.2	2758.6	2754.0	2758.6	2762.2
19.5°	2760.4	2765.0	2769.5	2768.6	2767.2	2768.6	2769.5	2765.0	2760.4	2765.0	2769.5
20°	2766.3	2770.9	2775.9	2774.5	2774.1	2774.5	2775.9	2770.9	2766.3	2770.9	2775.9
20.5°	2771.3	2775.9	2780.9	2779.6	2779.6	2779.6	2780.9	2775.9	2771.3	2775.9	2780.9
21°	2775.0	2779.6	2785.0	2783.2	2784.1	2783.2	2785.0	2779.6	2775.0	2779.6	2785.0



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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°	2779.6	2783.7	2790.0	2787.8	2790.5	2787.8	2790.0	2783.7	2779.6	2783.7	2790.0
23°	2778.6	2782.3	2789.1	2786.4	2789.6	2786.4	2789.1	2782.3	2778.6	2782.3	2789.1
23.5°	2775.9	2779.6	2786.4	2783.2	2787.3	2783.2	2786.4	2779.6	2775.9	2779.6	2786.4
24°	2771.3	2775.0	2781.8	2779.1	2782.7	2779.1	2781.8	2775.0	2771.3	2775.0	2781.8
24.5°	2765.0	2768.6	2775.5	2773.2	2776.4	2773.2	2775.5	2768.6	2765.0	2768.6	2775.5
25°	2756.8	2760.9	2767.2	2765.4	2768.2	2765.4	2767.2	2760.9	2756.8	2760.9	2767.2
25.5°	2747.7	2751.3	2757.7	2756.3	2757.7	2756.3	2757.7	2751.3	2747.7	2751.3	2757.7
26°	2736.3	2739.9	2745.8	2745.4	2745.8	2745.4	2745.8	2739.9	2736.3	2739.9	2745.8
26.5°	2722.1	2726.2	2732.2	2732.6	2731.7	2732.6	2732.2	2726.2	2722.1	2726.2	2732.2
27°	2707.6	2711.7	2716.7	2718.0	2715.8	2718.0	2716.7	2711.7	2707.6	2711.7	2716.7
27.5°	2690.7	2694.8	2699.4	2701.6	2698.0	2701.6	2699.4	2694.8	2690.7	2694.8	2699.4
28°	2672.0	2676.1	2679.8	2683.4	2678.4	2683.4	2679.8	2676.1	2672.0	2676.1	2679.8
28.5°	2652.4	2655.6	2659.3	2663.8	2657.4	2663.8	2659.3	2655.6	2652.4	2655.6	2659.3
29°	2630.5	2633.7	2636.5	2641.9	2635.1	2641.9	2636.5	2633.7	2630.5	2633.7	2636.5
29.5°	2607.3	2610.0	2613.2	2617.8	2611.4	2617.8	2613.2	2610.0	2607.3	2610.0	2613.2
30°	2582.7	2584.5	2586.8	2592.3	2585.9	2592.3	2586.8	2584.5	2582.7	2584.5	2586.8
30.5°	2556.3	2557.2	2559.9	2565.4	2559.0	2565.4	2559.9	2557.2	2556.3	2557.2	2559.9
31°	2527.6	2528.5	2531.2	2536.2	2530.8	2536.2	2531.2	2528.5	2527.6	2528.5	2531.2
31.5°	2498.0	2498.0	2501.1	2505.2	2501.1	2505.2	2501.1	2498.0	2498.0	2498.0	2501.1
32°	2466.5	2466.1	2468.8	2472.9	2470.2	2472.9	2468.8	2466.1	2466.5	2466.1	2468.8
32.5°	2433.2	2432.3	2436.0	2438.7	2437.8	2438.7	2436.0	2432.3	2433.2	2432.3	2436.0
33°	2398.6	2397.7	2400.9	2403.2	2403.6	2403.2	2400.9	2397.7	2398.6	2397.7	2400.9
33.5°	2362.2	2360.3	2364.4	2365.8	2367.2	2365.8	2364.4	2360.3	2362.2	2360.3	2364.4
34°	2324.3	2322.5	2326.2	2326.6	2330.3	2326.6	2326.2	2322.5	2324.3	2322.5	2326.2
34.5°	2283.8	2283.8	2286.1	2286.5	2290.6	2286.5	2286.1	2283.8	2283.8	2283.8	2286.1
35°	2242.8	2242.3	2244.6	2245.5	2250.1	2245.5	2244.6	2242.3	2242.8	2242.3	2244.6
35.5°	2200.9	2200.9	2202.7	2203.6	2208.1	2203.6	2202.7	2200.9	2200.9	2200.9	2202.7
36°	2158.0	2158.0	2159.4	2160.8	2163.9	2160.8	2159.4	2158.0	2158.0	2158.0	2159.4
36.5°	2113.8	2114.3	2115.2	2116.1	2119.7	2116.1	2115.2	2114.3	2113.8	2114.3	2115.2
37°	2067.8	2068.7	2069.2	2070.5	2073.3	2070.5	2069.2	2068.7	2067.8	2068.7	2069.2
37.5°	2021.8	2022.2	2023.1	2024.5	2025.9	2024.5	2023.1	2022.2	2021.8	2022.2	2023.1
38°	1974.8	1974.8	1976.2	1977.1	1978.5	1977.1	1976.2	1974.8	1974.8	1974.8	1976.2
38.5°	1927.0	1927.0	1928.4	1929.3	1930.2	1929.3	1928.4	1927.0	1927.0	1927.0	1928.4
39°	1878.2	1878.2	1880.1	1881.4	1881.9	1881.4	1880.1	1878.2	1878.2	1878.2	1880.1
39.5°	1828.1	1828.6	1830.4	1833.1	1833.6	1833.1	1830.4	1828.6	1828.1	1828.6	1830.4
40°	1778.0	1778.5	1781.6	1783.9	1785.3	1783.9	1781.6	1778.5	1778.0	1778.5	1781.6
40.5°	1728.8	1729.7	1733.8	1737.9	1738.8	1737.9	1733.8	1729.7	1728.8	1729.7	1733.8
41°	1682.3	1683.7	1687.8	1692.3	1694.2	1692.3	1687.8	1683.7	1682.3	1683.7	1687.8
41.5°	1638.6	1640.4	1644.0	1648.6	1650.0	1648.6	1644.0	1640.4	1638.6	1640.4	1644.0
42°	1598.5	1599.4	1603.0	1606.2	1609.0	1606.2	1603.0	1599.4	1598.5	1599.4	1603.0
42.5°	1561.1	1561.6	1566.1	1569.3	1571.1	1569.3	1566.1	1561.6	1561.1	1561.6	1566.1
43°	1524.7	1525.1	1530.1	1533.8	1537.9	1533.8	1530.1	1525.1	1524.7	1525.1	1530.1
43.5°	1490.9	1492.3	1495.9	1499.6	1502.8	1499.6	1495.9	1492.3	1490.9	1492.3	1495.9



TEST NUMBER: P776645

CATALOG NUMBER: HCDJBL54050CSD-HCD61TRC-5000lm-2700K

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
45°	1405.7	1405.7	1408.9	1410.3	1413.0	1410.3	1408.9	1405.7	1405.7	1405.7	1408.9
45.5°	1379.8	1379.8	1382.9	1384.3	1385.7	1384.3	1382.9	1379.8	1379.8	1379.8	1382.9
46°	1354.7	1355.1	1357.4	1359.2	1360.2	1359.2	1357.4	1355.1	1354.7	1355.1	1357.4
46.5°	1330.5	1330.5	1332.8	1334.2	1336.0	1334.2	1332.8	1330.5	1330.5	1330.5	1332.8
47°	1306.8	1306.8	1308.7	1310.5	1311.9	1310.5	1308.7	1306.8	1306.8	1306.8	1308.7
47.5°	1283.2	1283.2	1285.4	1286.8	1287.3	1286.8	1285.4	1283.2	1283.2	1283.2	1285.4
48°	1260.4	1259.9	1262.2	1263.6	1264.5	1263.6	1262.2	1259.9	1260.4	1259.9	1262.2
48.5°	1236.7	1236.7	1238.5	1240.3	1240.8	1240.3	1238.5	1236.7	1236.7	1236.7	1238.5
49°	1212.1	1212.5	1214.3	1215.7	1216.6	1215.7	1214.3	1212.5	1212.1	1212.5	1214.3
49.5°	1187.0	1186.5	1188.8	1190.2	1190.7	1190.2	1188.8	1186.5	1187.0	1186.5	1188.8
50°	1159.2	1159.2	1160.6	1161.9	1161.9	1161.9	1160.6	1159.2	1159.2	1159.2	1160.6
50.5°	1128.7	1128.7	1129.6	1131.4	1131.4	1131.4	1129.6	1128.7	1128.7	1128.7	1129.6
51°	1096.3	1095.9	1097.2	1098.6	1100.0	1098.6	1097.2	1095.9	1096.3	1095.9	1097.2
51.5°	1062.2	1061.7	1063.5	1065.3	1065.8	1065.3	1063.5	1061.7	1062.2	1061.7	1063.5
52°	1026.6	1027.1	1028.4	1029.8	1030.7	1029.8	1028.4	1027.1	1026.6	1027.1	1028.4
52.5°	990.2	989.7	992.0	993.8	994.3	993.8	992.0	989.7	990.2	989.7	992.0
53°	951.9	952.3	954.6	956.9	956.4	956.9	954.6	952.3	951.9	952.3	954.6
53.5°	913.6	914.1	916.8	918.6	919.5	918.6	916.8	914.1	913.6	914.1	916.8
54°	874.4	875.3	878.1	879.9	880.3	879.9	878.1	875.3	874.4	875.3	878.1
54.5°	835.7	835.7	839.3	841.6	842.5	841.6	839.3	835.7	835.7	835.7	839.3
55°	796.5	797.0	801.1	802.9	804.7	802.9	801.1	797.0	796.5	797.0	801.1
55.5°	756.4	757.3	761.4	764.1	766.0	764.1	761.4	757.3	756.4	757.3	761.4
56°	716.8	718.1	722.7	725.0	727.2	725.0	722.7	718.1	716.8	718.1	722.7
56.5°	677.6	678.9	683.5	686.2	688.5	686.2	683.5	678.9	677.6	678.9	683.5
57°	638.4	640.7	644.8	648.0	650.2	648.0	644.8	640.7	638.4	640.7	644.8
57.5°	600.1	602.4	606.5	610.1	612.4	610.1	606.5	602.4	600.1	602.4	606.5
58°	562.3	564.1	568.7	573.2	575.0	573.2	568.7	564.1	562.3	564.1	568.7
58.5°	524.5	527.2	531.8	537.2	538.6	537.2	531.8	527.2	524.5	527.2	531.8
59°	488.0	491.2	494.9	500.8	502.1	500.8	494.9	491.2	488.0	491.2	494.9
59.5°	452.9	455.2	459.3	465.2	466.6	465.2	459.3	455.2	452.9	455.2	459.3
60°	418.3	420.1	424.2	429.7	431.5	429.7	424.2	420.1	418.3	420.1	424.2
60.5°	383.7	385.5	389.6	395.1	397.8	395.1	389.6	385.5	383.7	385.5	389.6
61°	350.0	351.8	356.8	361.8	364.5	361.8	356.8	351.8	350.0	351.8	356.8
61.5°	315.8	319.4	324.4	329.4	333.5	329.4	324.4	319.4	315.8	319.4	324.4
62°	283.4	288.0	293.0	298.5	302.6	298.5	293.0	288.0	283.4	288.0	293.0
62.5°	251.1	257.0	262.5	267.9	272.5	267.9	262.5	257.0	251.1	257.0	262.5
63°	219.6	227.8	232.8	238.3	243.3	238.3	232.8	227.8	219.6	227.8	232.8
63.5°	189.6	200.0	205.5	210.5	216.0	210.5	205.5	200.0	189.6	200.0	205.5
64°	160.4	174.1	180.4	185.0	190.5	185.0	180.4	174.1	160.4	174.1	180.4
64.5°	134.4	150.4	156.3	160.4	165.9	160.4	156.3	150.4	134.4	150.4	156.3
65°	110.7	127.6	133.5	137.2	141.3	137.2	133.5	127.6	110.7	127.6	133.5
65.5°	88.4	107.5	112.5	114.4	118.0	114.4	112.5	107.5	88.4	107.5	112.5
66°	69.3	89.3	93.0	95.7	97.5	95.7	93.0	89.3	69.3	89.3	93.0



TEST NUMBER: P776645

CATALOG NUMBER: HCDJBL54050CSD-HCD61TRC-5000lm-2700K

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
67.5°	21.4	41.5	44.7	47.4	50.1	47.4	44.7	41.5	21.4	41.5	44.7
68°	12.8	29.2	31.9	35.5	41.0	35.5	31.9	29.2	12.8	29.2	31.9
68.5°	7.7	19.1	22.8	25.1	31.9	25.1	22.8	19.1	7.7	19.1	22.8
69°	4.6	11.4	14.1	15.9	22.8	15.9	14.1	11.4	4.6	11.4	14.1
69.5°	2.7	7.3	8.2	8.2	13.7	8.2	8.2	7.3	2.7	7.3	8.2
70°	0.5	3.6	4.6	4.6	4.6	4.6	4.6	3.6	0.5	3.6	4.6
70.5°	0.5	1.4	2.7	2.7	1.8	2.7	2.7	1.4	0.5	1.4	2.7
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: P776645
CATALOG NUMBER: HCDJBL54050CSD-HCD61TRC-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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P776645

CATALOG NUMBER: HCDJBL54050CSD-HCD61TRC-5000lm-2700K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	2502.5	2502.5	2502.5	2502.5	2502.5	2502.5
0.5°	2503.4	2503.0	2503.4	2503.0	2502.5	2501.6
1°	2503.9	2503.4	2503.9	2503.4	2503.0	2502.5
1.5°	2504.8	2504.3	2504.8	2504.3	2503.9	2503.4
2°	2505.7	2505.2	2505.7	2505.7	2505.2	2504.8
2.5°	2507.5	2507.1	2507.5	2507.5	2506.6	2506.2
3°	2509.3	2508.9	2509.3	2509.3	2508.9	2508.4
3.5°	2512.1	2511.6	2512.1	2512.1	2511.2	2510.7
4°	2515.3	2514.8	2515.3	2514.8	2513.9	2513.4
4.5°	2518.5	2518.0	2518.5	2518.0	2517.1	2516.6
5°	2522.1	2522.1	2522.1	2521.6	2520.7	2520.3
5.5°	2526.7	2526.2	2526.7	2525.7	2524.8	2523.9
6°	2531.2	2530.8	2531.2	2530.3	2528.9	2528.5
6.5°	2535.8	2535.3	2535.8	2535.3	2533.9	2533.5
7°	2541.2	2540.8	2541.2	2540.8	2539.4	2539.0
7.5°	2547.2	2546.7	2547.2	2547.2	2545.8	2545.3
8°	2554.5	2554.0	2554.5	2554.0	2552.6	2551.7
8.5°	2562.2	2561.7	2562.2	2562.2	2560.4	2559.5
9°	2570.9	2569.9	2570.9	2570.4	2569.0	2568.1
9.5°	2580.0	2578.6	2580.0	2579.5	2578.1	2577.2
10°	2589.1	2587.7	2589.1	2589.1	2587.7	2586.8
10.5°	2598.2	2597.3	2598.2	2598.2	2597.3	2596.4
11°	2607.8	2606.9	2607.8	2608.2	2607.3	2605.9
11.5°	2617.3	2616.4	2617.3	2617.8	2616.9	2616.0
12°	2627.4	2626.4	2627.4	2627.4	2626.4	2625.5
12.5°	2637.4	2636.5	2637.4	2637.4	2636.5	2635.1
13°	2647.4	2646.5	2647.4	2647.4	2646.5	2644.7
13.5°	2657.4	2656.5	2657.4	2657.9	2656.5	2654.7
14°	2668.4	2666.5	2668.4	2668.4	2666.5	2664.3
14.5°	2678.8	2677.0	2678.8	2678.4	2676.6	2674.3
15°	2689.3	2687.1	2689.3	2688.9	2686.6	2684.3
15.5°	2699.4	2697.1	2699.4	2699.4	2696.6	2693.9
16°	2709.4	2707.1	2709.4	2709.4	2706.6	2703.5
16.5°	2718.9	2716.7	2718.9	2718.9	2715.8	2712.6
17°	2728.5	2725.8	2728.5	2728.5	2725.3	2722.1
17.5°	2737.6	2734.9	2737.6	2737.6	2734.4	2730.8
18°	2746.3	2744.0	2746.3	2746.3	2743.1	2739.0
18.5°	2754.5	2752.2	2754.5	2754.5	2751.3	2746.7
19°	2761.8	2760.0	2761.8	2762.2	2758.6	2754.0
19.5°	2768.6	2767.2	2768.6	2769.5	2765.0	2760.4
20°	2774.5	2774.1	2774.5	2775.9	2770.9	2766.3
20.5°	2779.6	2779.6	2779.6	2780.9	2775.9	2771.3
21°	2783.2	2784.1	2783.2	2785.0	2779.6	2775.0



TEST NUMBER: P776645

CATALOG NUMBER: HCDJBL54050CSD-HCD61TRC-5000lm-2700K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
22.5°	2787.8	2790.5	2787.8	2790.0	2783.7	2779.6
23°	2786.4	2789.6	2786.4	2789.1	2782.3	2778.6
23.5°	2783.2	2787.3	2783.2	2786.4	2779.6	2775.9
24°	2779.1	2782.7	2779.1	2781.8	2775.0	2771.3
24.5°	2773.2	2776.4	2773.2	2775.5	2768.6	2765.0
25°	2765.4	2768.2	2765.4	2767.2	2760.9	2756.8
25.5°	2756.3	2757.7	2756.3	2757.7	2751.3	2747.7
26°	2745.4	2745.8	2745.4	2745.8	2739.9	2736.3
26.5°	2732.6	2731.7	2732.6	2732.2	2726.2	2722.1
27°	2718.0	2715.8	2718.0	2716.7	2711.7	2707.6
27.5°	2701.6	2698.0	2701.6	2699.4	2694.8	2690.7
28°	2683.4	2678.4	2683.4	2679.8	2676.1	2672.0
28.5°	2663.8	2657.4	2663.8	2659.3	2655.6	2652.4
29°	2641.9	2635.1	2641.9	2636.5	2633.7	2630.5
29.5°	2617.8	2611.4	2617.8	2613.2	2610.0	2607.3
30°	2592.3	2585.9	2592.3	2586.8	2584.5	2582.7
30.5°	2565.4	2559.0	2565.4	2559.9	2557.2	2556.3
31°	2536.2	2530.8	2536.2	2531.2	2528.5	2527.6
31.5°	2505.2	2501.1	2505.2	2501.1	2498.0	2498.0
32°	2472.9	2470.2	2472.9	2468.8	2466.1	2466.5
32.5°	2438.7	2437.8	2438.7	2436.0	2432.3	2433.2
33°	2403.2	2403.6	2403.2	2400.9	2397.7	2398.6
33.5°	2365.8	2367.2	2365.8	2364.4	2360.3	2362.2
34°	2326.6	2330.3	2326.6	2326.2	2322.5	2324.3
34.5°	2286.5	2290.6	2286.5	2286.1	2283.8	2283.8
35°	2245.5	2250.1	2245.5	2244.6	2242.3	2242.8
35.5°	2203.6	2208.1	2203.6	2202.7	2200.9	2200.9
36°	2160.8	2163.9	2160.8	2159.4	2158.0	2158.0
36.5°	2116.1	2119.7	2116.1	2115.2	2114.3	2113.8
37°	2070.5	2073.3	2070.5	2069.2	2068.7	2067.8
37.5°	2024.5	2025.9	2024.5	2023.1	2022.2	2021.8
38°	1977.1	1978.5	1977.1	1976.2	1974.8	1974.8
38.5°	1929.3	1930.2	1929.3	1928.4	1927.0	1927.0
39°	1881.4	1881.9	1881.4	1880.1	1878.2	1878.2
39.5°	1833.1	1833.6	1833.1	1830.4	1828.6	1828.1
40°	1783.9	1785.3	1783.9	1781.6	1778.5	1778.0
40.5°	1737.9	1738.8	1737.9	1733.8	1729.7	1728.8
41°	1692.3	1694.2	1692.3	1687.8	1683.7	1682.3
41.5°	1648.6	1650.0	1648.6	1644.0	1640.4	1638.6
42°	1606.2	1609.0	1606.2	1603.0	1599.4	1598.5
42.5°	1569.3	1571.1	1569.3	1566.1	1561.6	1561.1
43°	1533.8	1537.9	1533.8	1530.1	1525.1	1524.7
43.5°	1499.6	1502.8	1499.6	1495.9	1492.3	1490.9



TEST NUMBER: P776645

CATALOG NUMBER: HCDJBL54050CSD-HCD61TRC-5000lm-2700K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
45°	1410.3	1413.0	1410.3	1408.9	1405.7	1405.7
45.5°	1384.3	1385.7	1384.3	1382.9	1379.8	1379.8
46°	1359.2	1360.2	1359.2	1357.4	1355.1	1354.7
46.5°	1334.2	1336.0	1334.2	1332.8	1330.5	1330.5
47°	1310.5	1311.9	1310.5	1308.7	1306.8	1306.8
47.5°	1286.8	1287.3	1286.8	1285.4	1283.2	1283.2
48°	1263.6	1264.5	1263.6	1262.2	1259.9	1260.4
48.5°	1240.3	1240.8	1240.3	1238.5	1236.7	1236.7
49°	1215.7	1216.6	1215.7	1214.3	1212.5	1212.1
49.5°	1190.2	1190.7	1190.2	1188.8	1186.5	1187.0
50°	1161.9	1161.9	1161.9	1160.6	1159.2	1159.2
50.5°	1131.4	1131.4	1131.4	1129.6	1128.7	1128.7
51°	1098.6	1100.0	1098.6	1097.2	1095.9	1096.3
51.5°	1065.3	1065.8	1065.3	1063.5	1061.7	1062.2
52°	1029.8	1030.7	1029.8	1028.4	1027.1	1026.6
52.5°	993.8	994.3	993.8	992.0	989.7	990.2
53°	956.9	956.4	956.9	954.6	952.3	951.9
53.5°	918.6	919.5	918.6	916.8	914.1	913.6
54°	879.9	880.3	879.9	878.1	875.3	874.4
54.5°	841.6	842.5	841.6	839.3	835.7	835.7
55°	802.9	804.7	802.9	801.1	797.0	796.5
55.5°	764.1	766.0	764.1	761.4	757.3	756.4
56°	725.0	727.2	725.0	722.7	718.1	716.8
56.5°	686.2	688.5	686.2	683.5	678.9	677.6
57°	648.0	650.2	648.0	644.8	640.7	638.4
57.5°	610.1	612.4	610.1	606.5	602.4	600.1
58°	573.2	575.0	573.2	568.7	564.1	562.3
58.5°	537.2	538.6	537.2	531.8	527.2	524.5
59°	500.8	502.1	500.8	494.9	491.2	488.0
59.5°	465.2	466.6	465.2	459.3	455.2	452.9
60°	429.7	431.5	429.7	424.2	420.1	418.3
60.5°	395.1	397.8	395.1	389.6	385.5	383.7
61°	361.8	364.5	361.8	356.8	351.8	350.0
61.5°	329.4	333.5	329.4	324.4	319.4	315.8
62°	298.5	302.6	298.5	293.0	288.0	283.4
62.5°	267.9	272.5	267.9	262.5	257.0	251.1
63°	238.3	243.3	238.3	232.8	227.8	219.6
63.5°	210.5	216.0	210.5	205.5	200.0	189.6
64°	185.0	190.5	185.0	180.4	174.1	160.4
64.5°	160.4	165.9	160.4	156.3	150.4	134.4
65°	137.2	141.3	137.2	133.5	127.6	110.7
65.5°	114.4	118.0	114.4	112.5	107.5	88.4
66°	95.7	97.5	95.7	93.0	89.3	69.3



TEST NUMBER: P776645

CATALOG NUMBER: HCDJBL54050CSD-HCD61TRC-5000lm-2700K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
67.5°	47.4	50.1	47.4	44.7	41.5	21.4
68°	35.5	41.0	35.5	31.9	29.2	12.8
68.5°	25.1	31.9	25.1	22.8	19.1	7.7
69°	15.9	22.8	15.9	14.1	11.4	4.6
69.5°	8.2	13.7	8.2	8.2	7.3	2.7
70°	4.6	4.6	4.6	4.6	3.6	0.5
70.5°	2.7	1.8	2.7	2.7	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: P776645
CATALOG NUMBER: HCDJBL54050CSD-HCD61TRC-5000lm-2700K

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
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Scaled Data Report





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

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Scaled Data Report



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Peachtree City, GA 30269

Scaled Data Report





21.5°	2778.2	2782.3	2788.2	2785.9	2787.8	2785.9	2788.2	2782.3	2778.2	2782.3	2788.2
22°	2779.6	2783.7	2790.0	2787.3	2789.6	2787.3	2790.0	2783.7	2779.6	2783.7	2790.0



44°	1460.4	1461.3	1465.0	1467.2	1470.9	1467.2	1465.0	1461.3	1460.4	1461.3	1465.0
44.5°	1432.6	1433.1	1436.3	1438.1	1440.4	1438.1	1436.3	1433.1	1432.6	1433.1	1436.3



66.5°	50.6	71.1	75.6	78.4	78.8	78.4	75.6	71.1	50.6	71.1	75.6
67°	35.1	56.0	58.8	61.5	62.0	61.5	58.8	56.0	35.1	56.0	58.8



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°	2785.9	2787.8	2785.9	2788.2	2782.3	2778.2
22°	2787.3	2789.6	2787.3	2790.0	2783.7	2779.6



44°	1467.2	1470.9	1467.2	1465.0	1461.3	1460.4
44.5°	1438.1	1440.4	1438.1	1436.3	1433.1	1432.6



66.5°	78.4	78.8	78.4	75.6	71.1	50.6
67°	61.5	62.0	61.5	58.8	56.0	35.1

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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)