

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: P776826

Luminaire Tested: HCDJBL54050CSD-HCD8TSQH-5000lm-3000K

Issue Date: 2/7/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P776826  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA ( A2312156B005-HCD4TSQC)  
Test Lab:  
Issue Date: 2/7/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: HALO COMMERCIAL  
Catalog Number: HCDJBL54050CSD-HCD8TSQH-5000lm-3000K  
Description: 8 INCH SQUARE MEDIUM HAZE TRIM  
Light Source: SELECTABLE LUMENS AND CCT ARRAY 90CRI / 3000K CCT  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4568.7 lumens  
Efficiency: N/A  
Efficacy: 95.2 lumens/watt  
Spacing Criteria (0/90/45): 1.08 / 1.08 / 1.15  
Luminous Opening: Rectangular (W 0.67' x L: 0.67' x H: 0')  
CIE Type: Direct

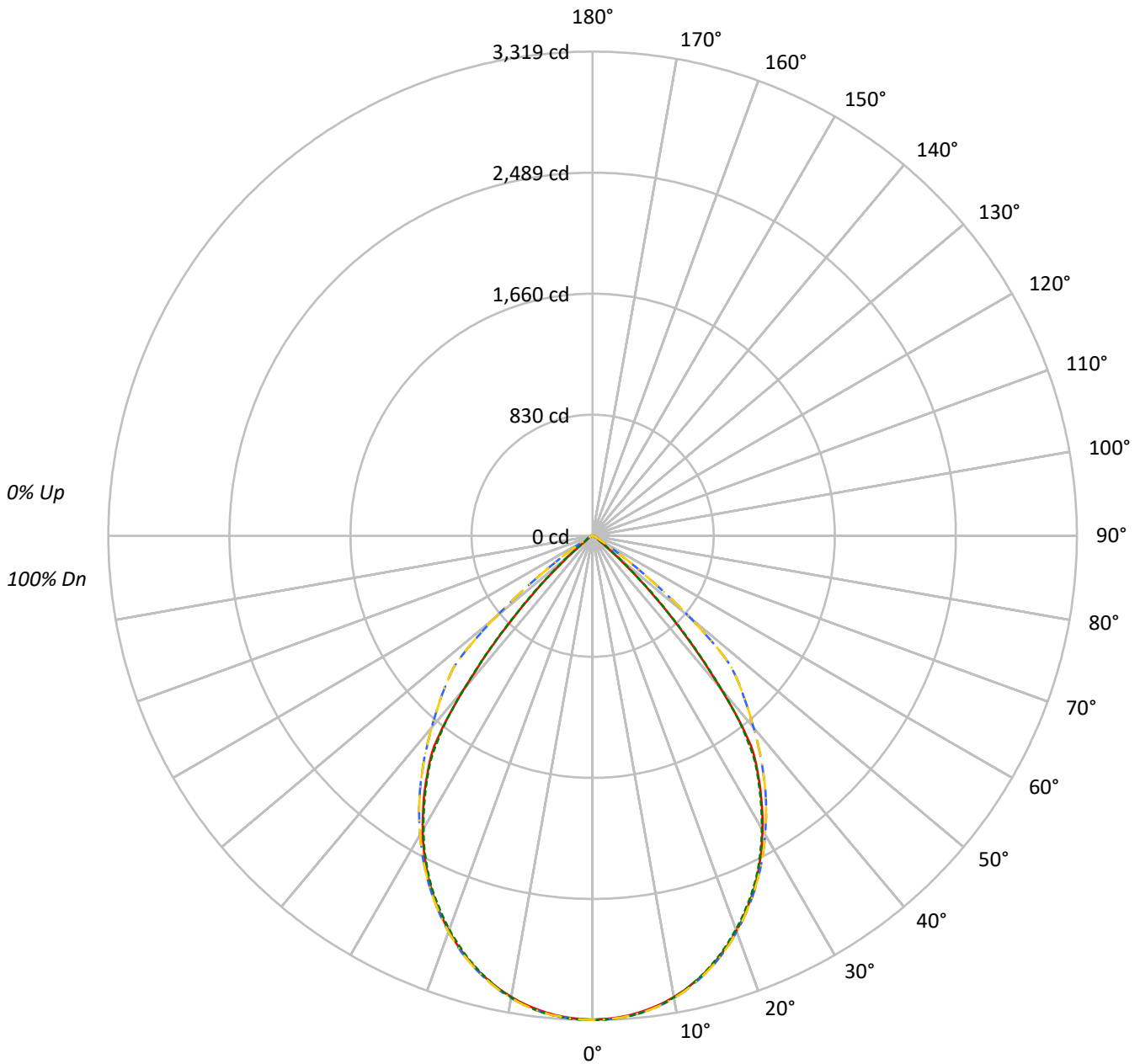
Input Watts (W): 48  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



TEST NUMBER: P776826

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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	113	110	107	104	110	107	105	103	103	101	99	100	98	97	96	95	94	92																			
2	106	101	96	92	104	99	95	91	96	92	89	93	90	87	90	87	85	84																			
3	100	92	87	82	98	91	86	82	88	84	80	86	82	79	83	80	78	76																			
4	94	85	79	74	92	84	78	73	82	77	72	80	75	72	78	74	71	69																			
5	88	78	72	67	86	77	71	66	76	70	66	74	69	65	72	68	65	63																			
6	83	72	66	61	81	72	65	60	70	64	60	69	63	60	67	63	59	58																			
7	78	67	60	55	76	66	60	55	65	59	55	64	59	55	63	58	54	53																			
8	73	62	56	51	72	62	55	51	61	55	51	59	54	50	58	54	50	48																			
9	69	58	51	47	68	58	51	47	57	51	47	56	50	46	55	50	46	45																			
10	65	54	48	43	64	54	48	43	53	47	43	52	47	43	51	46	43	41																			

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

	0°	90°	180°	270°
0°	79563	79563	79563	79563
5°	79183	79352	79183	79352
10°	78153	78221	78153	78221
15°	76292	76198	76292	76198
20°	73538	73265	73538	73265
25°	69747	69511	69747	69511
30°	64502	64205	64502	64205
35°	57640	57341	57640	57341
40°	42805	43040	42805	43040
45°	22432	22998	22432	22998
50°	7278	7867	7278	7867
55°	2408	2216	2408	2216
60°	1827	1717	1827	1717
65°	1396	1345	1396	1345
70°	1108	1073	1108	1073
75°	908	908	908	908
80°	704	773	704	773
85°	523	523	523	523

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 45°  
 Vertical Angle: 45°  
 Luminance: 47682 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	312.0	6.8
10°-20°	864.4	18.9
20°-30°	1210.9	26.5
30°-40°	1243.9	27.2
40°-50°	753.5	16.5
50°-60°	141.6	3.1
60°-70°	27.4	0.6
70°-80°	12.3	0.3
80°-90°	2.7	0.1
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°	2387.3	52.3
0°-40°	3631.2	79.5
0°-60°	4526.3	99.1
0°-90°	4568.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4568.7	100.0

**CANDELA DISTRIBUTION:**

	0°	90°	180°	270°	360°	Flux
0°	3318	3318	3318	3318	3318	
5°	3290	3297	3290	3297	3290	311
15°	3073	3070	3073	3070	3073	864
25°	2636	2627	2636	2627	2636	1208
35°	1969	1959	1969	1959	1969	1202
45°	662	678	662	678	662	529
55°	58	53	58	53	58	66
65°	25	24	25	24	25	25
75°	10	10	10	10	10	11
85°	2	2	2	2	2	2
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°	3318.1	3318.1	3318.1	3318.1	3318.1	3318.1	3318.1	3318.1	3318.1	3318.1	3318.1
0.5°	3314.8	3316.2	3318.5	3319.9	3319.0	3319.9	3318.5	3316.2	3314.8	3316.2	3318.5
1°	3314.3	3315.7	3317.6	3319.0	3318.5	3319.0	3317.6	3315.7	3314.3	3315.7	3317.6
1.5°	3313.0	3314.3	3316.7	3318.1	3317.6	3318.1	3316.7	3314.3	3313.0	3314.3	3316.7
2°	3311.1	3312.5	3314.8	3316.7	3315.7	3316.7	3314.8	3312.5	3311.1	3312.5	3314.8
2.5°	3308.8	3310.2	3313.0	3314.3	3313.9	3314.3	3313.0	3310.2	3308.8	3310.2	3313.0
3°	3306.0	3307.8	3310.2	3312.0	3311.6	3312.0	3310.2	3307.8	3306.0	3307.8	3310.2
3.5°	3302.7	3304.6	3307.4	3309.2	3308.8	3309.2	3307.4	3304.6	3302.7	3304.6	3307.4
4°	3299.0	3300.9	3303.7	3306.0	3305.5	3306.0	3303.7	3300.9	3299.0	3300.9	3303.7
4.5°	3294.8	3296.2	3299.5	3301.8	3301.3	3301.8	3299.5	3296.2	3294.8	3296.2	3299.5
5°	3289.7	3291.6	3295.3	3297.6	3296.7	3297.6	3295.3	3291.6	3289.7	3291.6	3295.3
5.5°	3284.6	3286.5	3290.2	3292.5	3291.1	3292.5	3290.2	3286.5	3284.6	3286.5	3290.2
6°	3278.1	3280.4	3284.6	3286.9	3285.5	3286.9	3284.6	3280.4	3278.1	3280.4	3284.6
6.5°	3271.6	3274.4	3278.6	3280.4	3278.6	3280.4	3278.6	3274.4	3271.6	3274.4	3278.6
7°	3264.6	3267.4	3271.6	3273.0	3271.1	3273.0	3271.6	3267.4	3264.6	3267.4	3271.6
7.5°	3256.7	3260.0	3264.2	3265.1	3262.8	3265.1	3264.2	3260.0	3256.7	3260.0	3264.2
8°	3248.4	3252.1	3256.3	3256.7	3254.4	3256.7	3256.3	3252.1	3248.4	3252.1	3256.3
8.5°	3239.6	3243.3	3247.5	3247.0	3244.7	3247.0	3247.5	3243.3	3239.6	3243.3	3247.5
9°	3230.3	3234.0	3238.2	3237.2	3234.5	3237.2	3238.2	3234.0	3230.3	3234.0	3238.2
9.5°	3220.5	3224.2	3228.4	3226.6	3223.8	3226.6	3228.4	3224.2	3220.5	3224.2	3228.4
10°	3209.8	3214.5	3217.7	3215.9	3212.6	3215.9	3217.7	3214.5	3209.8	3214.5	3217.7
10.5°	3198.7	3203.3	3206.6	3204.3	3201.0	3204.3	3206.6	3203.3	3198.7	3203.3	3206.6
11°	3187.1	3192.2	3195.0	3192.2	3188.5	3192.2	3195.0	3192.2	3187.1	3192.2	3195.0
11.5°	3175.0	3180.1	3182.4	3179.2	3175.5	3179.2	3182.4	3180.1	3175.0	3180.1	3182.4
12°	3162.0	3167.6	3169.4	3166.2	3162.5	3166.2	3169.4	3167.6	3162.0	3167.6	3169.4
12.5°	3148.5	3154.6	3155.9	3152.2	3148.1	3152.2	3155.9	3154.6	3148.5	3154.6	3155.9
13°	3134.6	3140.6	3142.0	3137.8	3133.7	3137.8	3142.0	3140.6	3134.6	3140.6	3142.0
13.5°	3120.2	3126.2	3127.1	3123.0	3118.3	3123.0	3127.1	3126.2	3120.2	3126.2	3127.1
14°	3104.9	3111.8	3112.3	3107.6	3102.5	3107.6	3112.3	3111.8	3104.9	3111.8	3112.3
14.5°	3089.5	3096.0	3096.5	3091.4	3086.3	3091.4	3096.5	3096.0	3089.5	3096.0	3096.5
15°	3073.3	3080.2	3080.7	3074.7	3069.5	3074.7	3080.7	3080.2	3073.3	3080.2	3080.7
15.5°	3056.5	3064.0	3063.5	3057.5	3051.9	3057.5	3063.5	3064.0	3056.5	3064.0	3063.5
16°	3039.4	3046.8	3046.3	3039.8	3034.2	3039.8	3046.3	3046.8	3039.4	3046.8	3046.3
16.5°	3021.7	3029.1	3028.2	3021.7	3015.7	3021.7	3028.2	3029.1	3021.7	3029.1	3028.2
17°	3003.6	3011.0	3010.1	3002.7	2996.6	3002.7	3010.1	3011.0	3003.6	3011.0	3010.1
17.5°	2984.5	2992.4	2991.0	2983.6	2977.1	2983.6	2991.0	2992.4	2984.5	2992.4	2991.0
18°	2965.0	2972.9	2971.1	2963.6	2956.7	2963.6	2971.1	2972.9	2965.0	2972.9	2971.1
18.5°	2945.1	2953.0	2951.6	2943.7	2935.8	2943.7	2951.6	2953.0	2945.1	2953.0	2951.6
19°	2924.6	2933.0	2931.1	2922.8	2914.9	2922.8	2931.1	2933.0	2924.6	2933.0	2931.1
19.5°	2903.2	2912.1	2909.8	2901.4	2893.0	2901.4	2909.8	2912.1	2903.2	2912.1	2909.8
20°	2881.9	2890.7	2888.4	2880.0	2871.2	2880.0	2888.4	2890.7	2881.9	2890.7	2888.4
20.5°	2860.0	2868.9	2866.6	2857.3	2848.4	2857.3	2866.6	2868.9	2860.0	2868.9	2866.6
21°	2837.3	2846.1	2844.3	2834.5	2825.2	2834.5	2844.3	2846.1	2837.3	2846.1	2844.3



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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°	2766.2	2776.0	2773.6	2763.4	2754.6	2763.4	2773.6	2776.0	2766.2	2776.0	2773.6
23°	2741.6	2751.4	2749.5	2738.8	2730.0	2738.8	2749.5	2751.4	2741.6	2751.4	2749.5
23.5°	2716.0	2726.7	2724.9	2714.2	2705.8	2714.2	2724.9	2726.7	2716.0	2726.7	2724.9
24°	2690.5	2700.7	2699.8	2689.1	2680.7	2689.1	2699.8	2700.7	2690.5	2700.7	2699.8
24.5°	2663.6	2674.7	2674.2	2664.0	2654.3	2664.0	2674.2	2674.7	2663.6	2674.7	2674.2
25°	2636.2	2648.2	2647.8	2638.5	2627.3	2638.5	2647.8	2648.2	2636.2	2648.2	2647.8
25.5°	2608.7	2621.3	2621.3	2611.5	2600.4	2611.5	2621.3	2621.3	2608.7	2621.3	2621.3
26°	2579.9	2593.4	2594.3	2585.5	2572.5	2585.5	2594.3	2593.4	2579.9	2593.4	2594.3
26.5°	2551.1	2565.1	2566.9	2558.1	2543.2	2558.1	2566.9	2565.1	2551.1	2565.1	2566.9
27°	2520.9	2536.3	2539.1	2530.2	2513.1	2530.2	2539.1	2536.3	2520.9	2536.3	2539.1
27.5°	2491.2	2507.0	2511.2	2501.4	2482.9	2501.4	2511.2	2507.0	2491.2	2507.0	2511.2
28°	2460.1	2476.8	2482.9	2471.7	2450.8	2471.7	2482.9	2476.8	2460.1	2476.8	2482.9
28.5°	2428.5	2446.2	2453.6	2441.5	2418.3	2441.5	2453.6	2446.2	2428.5	2446.2	2453.6
29°	2395.5	2416.0	2424.8	2410.9	2385.8	2410.9	2424.8	2416.0	2395.5	2416.0	2424.8
29.5°	2362.5	2384.8	2396.0	2378.8	2352.3	2378.8	2396.0	2384.8	2362.5	2384.8	2396.0
30°	2329.6	2352.8	2365.8	2346.8	2318.9	2346.8	2365.8	2352.8	2329.6	2352.8	2365.8
30.5°	2295.7	2320.3	2336.1	2313.8	2284.5	2313.8	2336.1	2320.3	2295.7	2320.3	2336.1
31°	2260.4	2287.3	2305.4	2281.3	2250.1	2281.3	2305.4	2287.3	2260.4	2287.3	2305.4
31.5°	2226.0	2254.3	2275.2	2247.8	2214.8	2247.8	2275.2	2254.3	2226.0	2254.3	2275.2
32°	2190.7	2220.4	2244.6	2214.4	2179.1	2214.4	2244.6	2220.4	2190.7	2220.4	2244.6
32.5°	2154.9	2186.0	2213.4	2179.5	2143.3	2179.5	2213.4	2186.0	2154.9	2186.0	2213.4
33°	2118.7	2151.7	2181.9	2146.1	2107.5	2146.1	2181.9	2151.7	2118.7	2151.7	2181.9
33.5°	2082.4	2117.7	2149.8	2111.7	2070.8	2111.7	2149.8	2117.7	2082.4	2117.7	2149.8
34°	2044.8	2082.9	2117.3	2077.3	2033.7	2077.3	2117.3	2082.9	2044.8	2082.9	2117.3
34.5°	2007.7	2047.6	2084.8	2043.0	1996.0	2043.0	2084.8	2047.6	2007.7	2047.6	2084.8
35°	1969.1	2012.3	2052.2	2007.7	1958.9	2007.7	2052.2	2012.3	1969.1	2012.3	2052.2
35.5°	1931.9	1977.5	2018.3	1972.8	1921.7	1972.8	2018.3	1977.5	1931.9	1977.5	2018.3
36°	1893.4	1941.7	1984.4	1937.5	1877.6	1937.5	1984.4	1941.7	1893.4	1941.7	1984.4
36.5°	1852.0	1905.0	1951.4	1901.7	1827.9	1901.7	1951.4	1905.0	1852.0	1905.0	1951.4
37°	1802.3	1869.2	1917.5	1866.0	1773.1	1866.0	1917.5	1869.2	1802.3	1869.2	1917.5
37.5°	1737.3	1832.5	1884.1	1829.7	1716.4	1829.7	1884.1	1832.5	1737.3	1832.5	1884.1
38°	1671.8	1796.3	1849.3	1794.0	1656.0	1794.0	1849.3	1796.3	1671.8	1796.3	1849.3
38.5°	1599.3	1759.6	1815.8	1754.5	1594.2	1754.5	1815.8	1759.6	1599.3	1759.6	1815.8
39°	1524.1	1721.5	1782.4	1708.5	1525.0	1708.5	1782.4	1721.5	1524.1	1721.5	1782.4
39.5°	1445.6	1666.2	1749.4	1656.9	1452.1	1656.9	1749.4	1666.2	1445.6	1666.2	1749.4
40°	1367.5	1606.8	1715.9	1600.7	1375.0	1600.7	1715.9	1606.8	1367.5	1606.8	1715.9
40.5°	1289.5	1539.4	1683.0	1540.8	1298.8	1540.8	1683.0	1539.4	1289.5	1539.4	1683.0
41°	1215.6	1469.7	1650.9	1476.7	1225.4	1476.7	1650.9	1469.7	1215.6	1469.7	1650.9
41.5°	1142.3	1398.2	1619.8	1409.4	1152.5	1409.4	1619.8	1398.2	1142.3	1398.2	1619.8
42°	1070.7	1326.7	1588.7	1338.7	1081.9	1338.7	1588.7	1326.7	1070.7	1326.7	1588.7
42.5°	999.2	1256.1	1558.0	1268.1	1010.3	1268.1	1558.0	1256.1	999.2	1256.1	1558.0
43°	928.6	1184.5	1527.3	1197.1	941.1	1197.1	1527.3	1184.5	928.6	1184.5	1527.3
43.5°	857.5	1114.8	1497.1	1127.4	871.4	1127.4	1497.1	1114.8	857.5	1114.8	1497.1



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
45°	661.5	912.3	1406.1	928.1	678.2	928.1	1406.1	912.3	661.5	912.3	1406.1
45.5°	600.2	845.9	1375.9	862.1	619.2	862.1	1375.9	845.9	600.2	845.9	1375.9
46°	543.0	781.8	1345.2	797.1	562.5	797.1	1345.2	781.8	543.0	781.8	1345.2
46.5°	486.8	719.5	1313.7	733.9	504.9	733.9	1313.7	719.5	486.8	719.5	1313.7
47°	431.5	658.2	1269.5	672.2	449.2	672.2	1269.5	658.2	431.5	658.2	1269.5
47.5°	378.6	599.2	1215.6	614.6	399.5	614.6	1215.6	599.2	378.6	599.2	1215.6
48°	333.5	542.1	1151.5	557.9	355.8	557.9	1151.5	542.1	333.5	542.1	1151.5
48.5°	292.2	487.7	1083.7	503.1	314.9	503.1	1083.7	487.7	292.2	487.7	1083.7
49°	255.5	434.8	1012.7	449.2	277.8	449.2	1012.7	434.8	255.5	434.8	1012.7
49.5°	223.4	383.7	939.7	400.9	242.9	400.9	939.7	383.7	223.4	383.7	939.7
50°	195.1	335.8	865.9	354.4	210.9	354.4	865.9	335.8	195.1	335.8	865.9
50.5°	168.6	292.6	792.9	311.7	180.7	311.7	792.9	292.6	168.6	292.6	792.9
51°	144.5	254.1	720.9	271.7	151.9	271.7	720.9	254.1	144.5	254.1	720.9
51.5°	125.0	220.2	653.6	235.5	127.7	235.5	653.6	220.2	125.0	220.2	653.6
52°	105.4	190.5	591.8	203.9	108.7	203.9	591.8	190.5	105.4	190.5	591.8
52.5°	88.7	164.0	531.4	174.7	95.7	174.7	531.4	164.0	88.7	164.0	531.4
53°	76.6	139.8	475.2	147.7	83.1	147.7	475.2	139.8	76.6	139.8	475.2
53.5°	65.5	119.4	419.9	122.6	70.1	122.6	419.9	119.4	65.5	119.4	419.9
54°	62.7	99.9	369.3	100.3	57.6	100.3	369.3	99.9	62.7	99.9	369.3
54.5°	59.9	83.6	321.0	83.1	54.8	83.1	321.0	83.6	59.9	83.6	321.0
55°	57.6	69.2	278.2	69.7	53.0	69.7	278.2	69.2	57.6	69.2	278.2
55.5°	55.3	59.0	239.7	59.9	50.6	59.9	239.7	59.0	55.3	59.0	239.7
56°	53.0	54.3	204.9	52.5	48.8	52.5	204.9	54.3	53.0	54.3	204.9
56.5°	50.6	52.0	173.7	48.8	46.9	48.8	173.7	52.0	50.6	52.0	173.7
57°	48.8	50.2	147.7	46.9	45.1	46.9	147.7	50.2	48.8	50.2	147.7
57.5°	46.5	48.3	125.0	45.1	43.2	45.1	125.0	48.3	46.5	48.3	125.0
58°	44.6	46.5	106.4	43.7	41.8	43.7	106.4	46.5	44.6	46.5	106.4
58.5°	42.7	44.6	89.7	41.8	39.9	41.8	89.7	44.6	42.7	44.6	89.7
59°	41.3	43.2	76.2	40.4	38.6	40.4	76.2	43.2	41.3	43.2	76.2
59.5°	39.5	41.8	64.6	39.0	37.2	39.0	64.6	41.8	39.5	41.8	64.6
60°	38.1	39.9	54.3	37.6	35.8	37.6	54.3	39.9	38.1	39.9	54.3
60.5°	36.2	38.6	48.3	36.2	33.9	36.2	48.3	38.6	36.2	38.6	48.3
61°	34.8	37.2	43.7	35.3	33.0	35.3	43.7	37.2	34.8	37.2	43.7
61.5°	33.4	35.8	39.9	33.9	31.6	33.9	39.9	35.8	33.4	35.8	39.9
62°	32.1	34.8	37.6	32.5	30.2	32.5	37.6	34.8	32.1	34.8	37.6
62.5°	30.7	33.4	35.8	31.6	29.3	31.6	35.8	33.4	30.7	33.4	35.8
63°	29.3	32.1	34.4	30.7	27.9	30.7	34.4	32.1	29.3	32.1	34.4
63.5°	28.3	31.1	33.0	29.3	26.9	29.3	33.0	31.1	28.3	31.1	33.0
64°	26.9	29.7	32.1	28.3	25.5	28.3	32.1	29.7	26.9	29.7	32.1
64.5°	26.0	28.8	30.7	27.4	24.6	27.4	30.7	28.8	26.0	28.8	30.7
65°	24.6	27.9	29.7	26.5	23.7	26.5	29.7	27.9	24.6	27.9	29.7
65.5°	23.7	26.5	28.3	25.5	22.8	25.5	28.3	26.5	23.7	26.5	28.3
66°	22.8	25.5	27.4	24.6	21.8	24.6	27.4	25.5	22.8	25.5	27.4





TEST NUMBER: P776826

CATALOG NUMBER: HCDJBL54050CSD-HCD8TSQH-5000lm-3000K

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
67.5°	20.0	22.8	24.6	21.8	19.0	21.8	24.6	22.8	20.0	22.8	24.6
68°	19.0	21.8	23.7	20.9	18.6	20.9	23.7	21.8	19.0	21.8	23.7
68.5°	18.1	20.9	22.8	20.4	17.7	20.4	22.8	20.9	18.1	20.9	22.8
69°	17.7	20.0	21.8	19.5	16.7	19.5	21.8	20.0	17.7	20.0	21.8
69.5°	16.7	19.5	20.9	18.6	16.3	18.6	20.9	19.5	16.7	19.5	20.9
70°	15.8	18.6	20.0	18.1	15.3	18.1	20.0	18.6	15.8	18.6	20.0
70.5°	15.3	17.7	19.5	17.2	14.9	17.2	19.5	17.7	15.3	17.7	19.5
71°	14.4	17.2	18.6	16.7	14.4	16.7	18.6	17.2	14.4	17.2	18.6
71.5°	13.9	16.3	17.7	15.8	13.5	15.8	17.7	16.3	13.9	16.3	17.7
72°	13.0	15.8	17.2	15.3	13.0	15.3	17.2	15.8	13.0	15.8	17.2
72.5°	12.5	14.9	16.3	14.4	12.5	14.4	16.3	14.9	12.5	14.9	16.3
73°	12.1	14.4	15.3	13.9	11.6	13.9	15.3	14.4	12.1	14.4	15.3
73.5°	11.1	13.5	14.9	13.5	11.1	13.5	14.9	13.5	11.1	13.5	14.9
74°	10.7	13.0	13.9	12.5	10.7	12.5	13.9	13.0	10.7	13.0	13.9
74.5°	10.2	12.5	13.5	12.1	10.2	12.1	13.5	12.5	10.2	12.5	13.5
75°	9.8	11.6	12.5	11.6	9.8	11.6	12.5	11.6	9.8	11.6	12.5
75.5°	9.3	11.1	12.1	11.1	9.3	11.1	12.1	11.1	9.3	11.1	12.1
76°	8.8	10.7	11.6	10.2	8.8	10.2	11.6	10.7	8.8	10.7	11.6
76.5°	8.4	9.8	10.7	9.8	8.4	9.8	10.7	9.8	8.4	9.8	10.7
77°	7.4	9.3	10.2	9.3	7.9	9.3	10.2	9.3	7.4	9.3	10.2
77.5°	7.0	8.8	9.8	8.8	7.4	8.8	9.8	8.8	7.0	8.8	9.8
78°	7.0	8.4	8.8	8.4	7.0	8.4	8.8	8.4	7.0	8.4	8.8
78.5°	6.5	7.9	8.4	7.9	6.5	7.9	8.4	7.9	6.5	7.9	8.4
79°	6.0	7.4	7.9	7.4	6.0	7.4	7.9	7.4	6.0	7.4	7.9
79.5°	5.6	6.5	7.4	7.0	5.6	7.0	7.4	6.5	5.6	6.5	7.4
80°	5.1	6.0	7.0	6.5	5.6	6.5	7.0	6.0	5.1	6.0	7.0
80.5°	4.6	5.6	6.5	6.0	5.1	6.0	6.5	5.6	4.6	5.6	6.5
81°	4.2	5.1	6.0	5.6	4.6	5.6	6.0	5.1	4.2	5.1	6.0
81.5°	4.2	4.6	5.6	5.1	4.2	5.1	5.6	4.6	4.2	4.6	5.6
82°	3.7	4.2	5.1	4.6	4.2	4.6	5.1	4.2	3.7	4.2	5.1
82.5°	3.3	3.7	4.6	4.2	3.7	4.2	4.6	3.7	3.3	3.7	4.6
83°	2.8	3.7	4.2	3.7	3.3	3.7	4.2	3.7	2.8	3.7	4.2
83.5°	2.8	3.3	3.7	3.7	2.8	3.7	3.7	3.3	2.8	3.3	3.7
84°	2.3	2.8	3.3	3.3	2.8	3.3	3.3	2.8	2.3	2.8	3.3
84.5°	1.9	2.3	2.8	2.8	2.3	2.8	2.8	2.3	1.9	2.3	2.8
85°	1.9	1.9	2.3	2.3	1.9	2.3	2.3	1.9	1.9	1.9	2.3
85.5°	1.4	1.4	1.9	1.9	1.4	1.9	1.9	1.4	1.4	1.4	1.9
86°	0.9	1.4	1.9	1.9	1.4	1.9	1.9	1.4	0.9	1.4	1.9
86.5°	0.9	0.9	1.4	1.4	1.4	1.4	1.4	0.9	0.9	0.9	1.4
87°	0.5	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.5	0.9	0.9
87.5°	0.5	0.5	0.9	0.9	0.9	0.9	0.9	0.5	0.5	0.5	0.9
88°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
88.5°	0.0	0.0	0.5	0.5	0.5	0.5	0.5	0.0	0.0	0.0	0.5



TEST NUMBER: P776826

CATALOG NUMBER: HCDJBL54050CSD-HCD8TSQH-5000lm-3000K

**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: P776826

CATALOG NUMBER: HCDJBLS4050CSD-HCD8TSQH-5000lm-3000K

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
0°	3318.1	3318.1	3318.1	3318.1	3318.1	3318.1
0.5°	3319.9	3319.0	3319.9	3318.5	3316.2	3314.8
1°	3319.0	3318.5	3319.0	3317.6	3315.7	3314.3
1.5°	3318.1	3317.6	3318.1	3316.7	3314.3	3313.0
2°	3316.7	3315.7	3316.7	3314.8	3312.5	3311.1
2.5°	3314.3	3313.9	3314.3	3313.0	3310.2	3308.8
3°	3312.0	3311.6	3312.0	3310.2	3307.8	3306.0
3.5°	3309.2	3308.8	3309.2	3307.4	3304.6	3302.7
4°	3306.0	3305.5	3306.0	3303.7	3300.9	3299.0
4.5°	3301.8	3301.3	3301.8	3299.5	3296.2	3294.8
5°	3297.6	3296.7	3297.6	3295.3	3291.6	3289.7
5.5°	3292.5	3291.1	3292.5	3290.2	3286.5	3284.6
6°	3286.9	3285.5	3286.9	3284.6	3280.4	3278.1
6.5°	3280.4	3278.6	3280.4	3278.6	3274.4	3271.6
7°	3273.0	3271.1	3273.0	3271.6	3267.4	3264.6
7.5°	3265.1	3262.8	3265.1	3264.2	3260.0	3256.7
8°	3256.7	3254.4	3256.7	3256.3	3252.1	3248.4
8.5°	3247.0	3244.7	3247.0	3247.5	3243.3	3239.6
9°	3237.2	3234.5	3237.2	3238.2	3234.0	3230.3
9.5°	3226.6	3223.8	3226.6	3228.4	3224.2	3220.5
10°	3215.9	3212.6	3215.9	3217.7	3214.5	3209.8
10.5°	3204.3	3201.0	3204.3	3206.6	3203.3	3198.7
11°	3192.2	3188.5	3192.2	3195.0	3192.2	3187.1
11.5°	3179.2	3175.5	3179.2	3182.4	3180.1	3175.0
12°	3166.2	3162.5	3166.2	3169.4	3167.6	3162.0
12.5°	3152.2	3148.1	3152.2	3155.9	3154.6	3148.5
13°	3137.8	3133.7	3137.8	3142.0	3140.6	3134.6
13.5°	3123.0	3118.3	3123.0	3127.1	3126.2	3120.2
14°	3107.6	3102.5	3107.6	3112.3	3111.8	3104.9
14.5°	3091.4	3086.3	3091.4	3096.5	3096.0	3089.5
15°	3074.7	3069.5	3074.7	3080.7	3080.2	3073.3
15.5°	3057.5	3051.9	3057.5	3063.5	3064.0	3056.5
16°	3039.8	3034.2	3039.8	3046.3	3046.8	3039.4
16.5°	3021.7	3015.7	3021.7	3028.2	3029.1	3021.7
17°	3002.7	2996.6	3002.7	3010.1	3011.0	3003.6
17.5°	2983.6	2977.1	2983.6	2991.0	2992.4	2984.5
18°	2963.6	2956.7	2963.6	2971.1	2972.9	2965.0
18.5°	2943.7	2935.8	2943.7	2951.6	2953.0	2945.1
19°	2922.8	2914.9	2922.8	2931.1	2933.0	2924.6
19.5°	2901.4	2893.0	2901.4	2909.8	2912.1	2903.2
20°	2880.0	2871.2	2880.0	2888.4	2890.7	2881.9
20.5°	2857.3	2848.4	2857.3	2866.6	2868.9	2860.0
21°	2834.5	2825.2	2834.5	2844.3	2846.1	2837.3



TEST NUMBER: P776826

CATALOG NUMBER: HCDJBLS4050CSD-HCD8TSQH-5000lm-3000K

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
22.5°	2763.4	2754.6	2763.4	2773.6	2776.0	2766.2
23°	2738.8	2730.0	2738.8	2749.5	2751.4	2741.6
23.5°	2714.2	2705.8	2714.2	2724.9	2726.7	2716.0
24°	2689.1	2680.7	2689.1	2699.8	2700.7	2690.5
24.5°	2664.0	2654.3	2664.0	2674.2	2674.7	2663.6
25°	2638.5	2627.3	2638.5	2647.8	2648.2	2636.2
25.5°	2611.5	2600.4	2611.5	2621.3	2621.3	2608.7
26°	2585.5	2572.5	2585.5	2594.3	2593.4	2579.9
26.5°	2558.1	2543.2	2558.1	2566.9	2565.1	2551.1
27°	2530.2	2513.1	2530.2	2539.1	2536.3	2520.9
27.5°	2501.4	2482.9	2501.4	2511.2	2507.0	2491.2
28°	2471.7	2450.8	2471.7	2482.9	2476.8	2460.1
28.5°	2441.5	2418.3	2441.5	2453.6	2446.2	2428.5
29°	2410.9	2385.8	2410.9	2424.8	2416.0	2395.5
29.5°	2378.8	2352.3	2378.8	2396.0	2384.8	2362.5
30°	2346.8	2318.9	2346.8	2365.8	2352.8	2329.6
30.5°	2313.8	2284.5	2313.8	2336.1	2320.3	2295.7
31°	2281.3	2250.1	2281.3	2305.4	2287.3	2260.4
31.5°	2247.8	2214.8	2247.8	2275.2	2254.3	2226.0
32°	2214.4	2179.1	2214.4	2244.6	2220.4	2190.7
32.5°	2179.5	2143.3	2179.5	2213.4	2186.0	2154.9
33°	2146.1	2107.5	2146.1	2181.9	2151.7	2118.7
33.5°	2111.7	2070.8	2111.7	2149.8	2117.7	2082.4
34°	2077.3	2033.7	2077.3	2117.3	2082.9	2044.8
34.5°	2043.0	1996.0	2043.0	2084.8	2047.6	2007.7
35°	2007.7	1958.9	2007.7	2052.2	2012.3	1969.1
35.5°	1972.8	1921.7	1972.8	2018.3	1977.5	1931.9
36°	1937.5	1877.6	1937.5	1984.4	1941.7	1893.4
36.5°	1901.7	1827.9	1901.7	1951.4	1905.0	1852.0
37°	1866.0	1773.1	1866.0	1917.5	1869.2	1802.3
37.5°	1829.7	1716.4	1829.7	1884.1	1832.5	1737.3
38°	1794.0	1656.0	1794.0	1849.3	1796.3	1671.8
38.5°	1754.5	1594.2	1754.5	1815.8	1759.6	1599.3
39°	1708.5	1525.0	1708.5	1782.4	1721.5	1524.1
39.5°	1656.9	1452.1	1656.9	1749.4	1666.2	1445.6
40°	1600.7	1375.0	1600.7	1715.9	1606.8	1367.5
40.5°	1540.8	1298.8	1540.8	1683.0	1539.4	1289.5
41°	1476.7	1225.4	1476.7	1650.9	1469.7	1215.6
41.5°	1409.4	1152.5	1409.4	1619.8	1398.2	1142.3
42°	1338.7	1081.9	1338.7	1588.7	1326.7	1070.7
42.5°	1268.1	1010.3	1268.1	1558.0	1256.1	999.2
43°	1197.1	941.1	1197.1	1527.3	1184.5	928.6
43.5°	1127.4	871.4	1127.4	1497.1	1114.8	857.5



TEST NUMBER: P776826

CATALOG NUMBER: HCDJBL54050CSD-HCD8TSQH-5000lm-3000K

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
45°	928.1	678.2	928.1	1406.1	912.3	661.5
45.5°	862.1	619.2	862.1	1375.9	845.9	600.2
46°	797.1	562.5	797.1	1345.2	781.8	543.0
46.5°	733.9	504.9	733.9	1313.7	719.5	486.8
47°	672.2	449.2	672.2	1269.5	658.2	431.5
47.5°	614.6	399.5	614.6	1215.6	599.2	378.6
48°	557.9	355.8	557.9	1151.5	542.1	333.5
48.5°	503.1	314.9	503.1	1083.7	487.7	292.2
49°	449.2	277.8	449.2	1012.7	434.8	255.5
49.5°	400.9	242.9	400.9	939.7	383.7	223.4
50°	354.4	210.9	354.4	865.9	335.8	195.1
50.5°	311.7	180.7	311.7	792.9	292.6	168.6
51°	271.7	151.9	271.7	720.9	254.1	144.5
51.5°	235.5	127.7	235.5	653.6	220.2	125.0
52°	203.9	108.7	203.9	591.8	190.5	105.4
52.5°	174.7	95.7	174.7	531.4	164.0	88.7
53°	147.7	83.1	147.7	475.2	139.8	76.6
53.5°	122.6	70.1	122.6	419.9	119.4	65.5
54°	100.3	57.6	100.3	369.3	99.9	62.7
54.5°	83.1	54.8	83.1	321.0	83.6	59.9
55°	69.7	53.0	69.7	278.2	69.2	57.6
55.5°	59.9	50.6	59.9	239.7	59.0	55.3
56°	52.5	48.8	52.5	204.9	54.3	53.0
56.5°	48.8	46.9	48.8	173.7	52.0	50.6
57°	46.9	45.1	46.9	147.7	50.2	48.8
57.5°	45.1	43.2	45.1	125.0	48.3	46.5
58°	43.7	41.8	43.7	106.4	46.5	44.6
58.5°	41.8	39.9	41.8	89.7	44.6	42.7
59°	40.4	38.6	40.4	76.2	43.2	41.3
59.5°	39.0	37.2	39.0	64.6	41.8	39.5
60°	37.6	35.8	37.6	54.3	39.9	38.1
60.5°	36.2	33.9	36.2	48.3	38.6	36.2
61°	35.3	33.0	35.3	43.7	37.2	34.8
61.5°	33.9	31.6	33.9	39.9	35.8	33.4
62°	32.5	30.2	32.5	37.6	34.8	32.1
62.5°	31.6	29.3	31.6	35.8	33.4	30.7
63°	30.7	27.9	30.7	34.4	32.1	29.3
63.5°	29.3	26.9	29.3	33.0	31.1	28.3
64°	28.3	25.5	28.3	32.1	29.7	26.9
64.5°	27.4	24.6	27.4	30.7	28.8	26.0
65°	26.5	23.7	26.5	29.7	27.9	24.6
65.5°	25.5	22.8	25.5	28.3	26.5	23.7
66°	24.6	21.8	24.6	27.4	25.5	22.8



TEST NUMBER: P776826

CATALOG NUMBER: HCDJBL54050CSD-HCD8TSQH-5000lm-3000K

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
67.5°	21.8	19.0	21.8	24.6	22.8	20.0
68°	20.9	18.6	20.9	23.7	21.8	19.0
68.5°	20.4	17.7	20.4	22.8	20.9	18.1
69°	19.5	16.7	19.5	21.8	20.0	17.7
69.5°	18.6	16.3	18.6	20.9	19.5	16.7
70°	18.1	15.3	18.1	20.0	18.6	15.8
70.5°	17.2	14.9	17.2	19.5	17.7	15.3
71°	16.7	14.4	16.7	18.6	17.2	14.4
71.5°	15.8	13.5	15.8	17.7	16.3	13.9
72°	15.3	13.0	15.3	17.2	15.8	13.0
72.5°	14.4	12.5	14.4	16.3	14.9	12.5
73°	13.9	11.6	13.9	15.3	14.4	12.1
73.5°	13.5	11.1	13.5	14.9	13.5	11.1
74°	12.5	10.7	12.5	13.9	13.0	10.7
74.5°	12.1	10.2	12.1	13.5	12.5	10.2
75°	11.6	9.8	11.6	12.5	11.6	9.8
75.5°	11.1	9.3	11.1	12.1	11.1	9.3
76°	10.2	8.8	10.2	11.6	10.7	8.8
76.5°	9.8	8.4	9.8	10.7	9.8	8.4
77°	9.3	7.9	9.3	10.2	9.3	7.4
77.5°	8.8	7.4	8.8	9.8	8.8	7.0
78°	8.4	7.0	8.4	8.8	8.4	7.0
78.5°	7.9	6.5	7.9	8.4	7.9	6.5
79°	7.4	6.0	7.4	7.9	7.4	6.0
79.5°	7.0	5.6	7.0	7.4	6.5	5.6
80°	6.5	5.6	6.5	7.0	6.0	5.1
80.5°	6.0	5.1	6.0	6.5	5.6	4.6
81°	5.6	4.6	5.6	6.0	5.1	4.2
81.5°	5.1	4.2	5.1	5.6	4.6	4.2
82°	4.6	4.2	4.6	5.1	4.2	3.7
82.5°	4.2	3.7	4.2	4.6	3.7	3.3
83°	3.7	3.3	3.7	4.2	3.7	2.8
83.5°	3.7	2.8	3.7	3.7	3.3	2.8
84°	3.3	2.8	3.3	3.3	2.8	2.3
84.5°	2.8	2.3	2.8	2.8	2.3	1.9
85°	2.3	1.9	2.3	2.3	1.9	1.9
85.5°	1.9	1.9	1.9	1.9	1.4	1.4
86°	1.9	1.4	1.9	1.9	1.4	0.9
86.5°	1.4	1.4	1.4	1.4	0.9	0.9
87°	0.9	0.9	0.9	0.9	0.9	0.5
87.5°	0.9	0.9	0.9	0.9	0.5	0.5
88°	0.5	0.5	0.5	0.5	0.5	0.5
88.5°	0.5	0.5	0.5	0.5	0.0	0.0



TEST NUMBER: P776826

CATALOG NUMBER: HCDJBL54050CSD-HCD8TSQH-5000lm-3000K

**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



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°

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Cooper Lighting Solutions Photometric Lab  
1121 Highway 74 South  
Peachtree City, GA 30269

Scaled Data Report



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Cooper Lighting Solutions Photometric Lab  
1121 Highway 74 South  
Peachtree City, GA 30269

Scaled Data Report





21.5°	2814.5	2823.4	2821.0	2811.3	2802.4	2811.3	2821.0	2823.4	2814.5	2823.4	2821.0
22°	2789.9	2800.1	2797.3	2787.6	2778.3	2787.6	2797.3	2800.1	2789.9	2800.1	2797.3



44°	789.2	1047.0	1466.5	1060.5	803.6	1060.5	1466.5	1047.0	789.2	1047.0	1466.5
44.5°	725.1	980.6	1436.8	994.1	737.2	994.1	1436.8	980.6	725.1	980.6	1436.8



66.5°	21.8	24.6	26.5	23.7	20.9	23.7	26.5	24.6	21.8	24.6	26.5
67°	20.9	23.7	25.5	22.8	20.0	22.8	25.5	23.7	20.9	23.7	25.5



89°	0.0	0.0	0.0	0.0	0.5	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	0.0



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Scaled Data Report





21.5°	2811.3	2802.4	2811.3	2821.0	2823.4	2814.5
22°	2787.6	2778.3	2787.6	2797.3	2800.1	2789.9



44°	1060.5	803.6	1060.5	1466.5	1047.0	789.2
44.5°	994.1	737.2	994.1	1436.8	980.6	725.1

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Scaled Data Report



66.5°	23.7	20.9	23.7	26.5	24.6	21.8
67°	22.8	20.0	22.8	25.5	23.7	20.9

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Scaled Data Report



89°	0.0	0.5	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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Cooper Lighting Solutions Photometric Lab  
1121 Highway 74 South  
Peachtree City, GA 30269

Scaled Data Report



(END OF REPORT)