

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: P776691

Luminaire Tested: HCDJBS4050CSD-HCD62TRMW-5000lm-3000K

Issue Date: 2/13/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P776691  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA ( A2312156B057-HCD62TRMW)  
Test Lab:  
Issue Date: 2/13/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: HALO COMMERCIAL  
Catalog Number: HCDJBS4050CSD-HCD62TRMW-5000lm-3000K  
Description: 6 INCH ROUND NARROW MATTE WHITE TRIM  
Light Source: SELECTABLE LUMENS AND CCT ARRAY 90CRI / 3000K CCT  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5153.8 lumens  
Efficiency: N/A  
Efficacy: 107.4 lumens/watt  
Spacing Criteria (0/90/45): 1.11 / 1.11 / 1.14  
Luminous Opening: Circular (Dia: 0.5' x H: 0')  
CIE Type: Direct

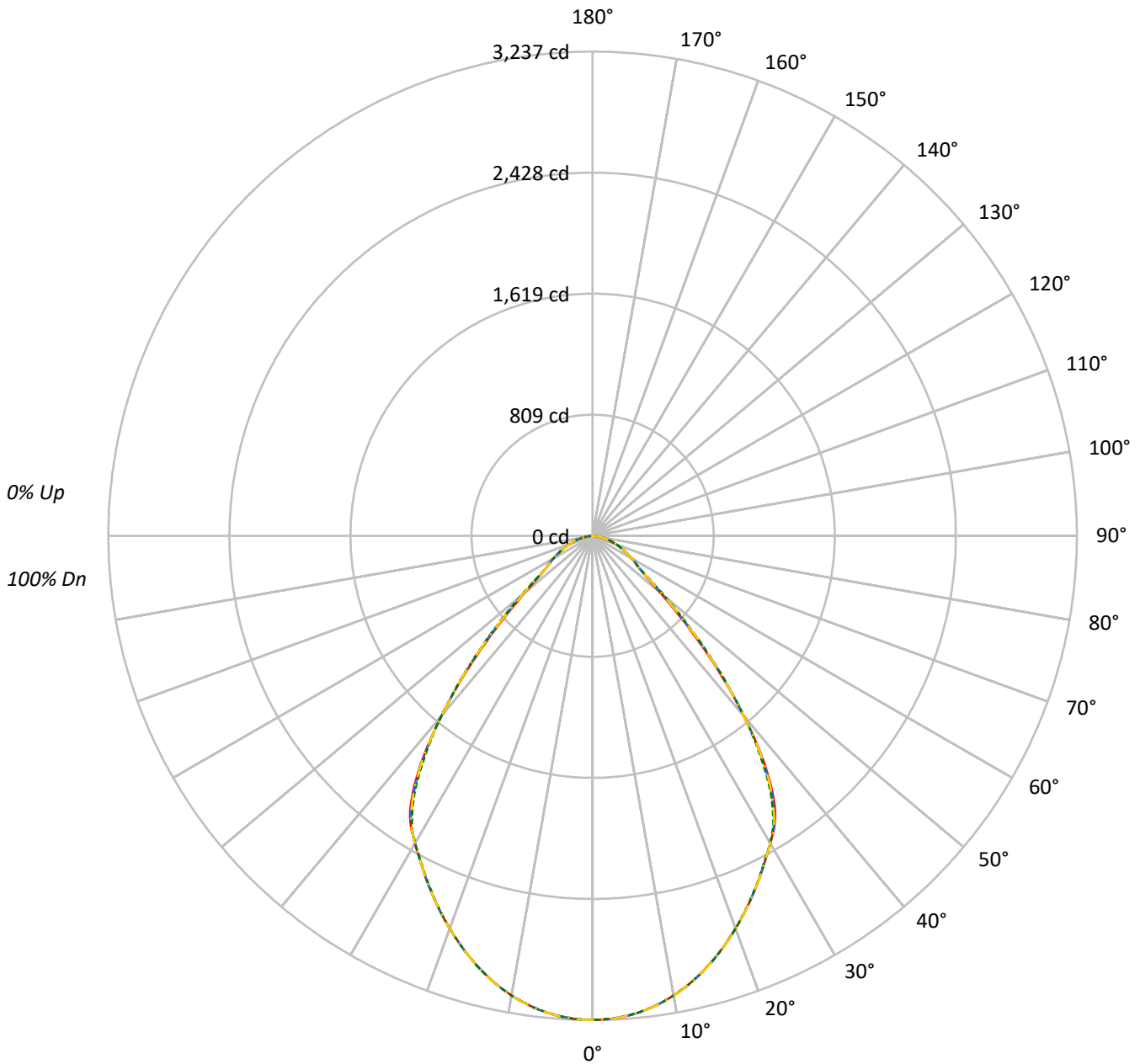
Input Watts (W): 48  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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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	112	108	105	102	109	106	103	100	102	99	97	98	96	94	94	93	91	89																			
2	104	98	92	88	102	96	91	87	92	88	85	89	86	83	86	84	81	79																			
3	97	89	82	77	95	87	81	76	84	79	75	82	77	74	79	76	73	71																			
4	90	81	74	68	88	79	73	68	77	71	67	75	70	66	73	69	65	63																			
5	84	74	66	61	82	73	66	61	71	65	60	69	64	59	67	63	59	57																			
6	79	68	60	55	77	67	60	55	65	59	54	64	58	54	62	57	53	52																			
7	74	62	55	50	72	62	55	50	60	54	49	59	53	49	58	53	49	47																			
8	69	58	51	45	68	57	50	45	56	50	45	55	49	45	54	49	45	43																			
9	65	54	47	42	64	53	46	42	52	46	41	51	45	41	50	45	41	40																			
10	62	50	43	38	61	50	43	38	49	43	38	48	42	38	47	42	38	36																			

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

	0°	90°	180°	270°
0°	177475	177475	177475	177475
5°	176540	176463	176540	176463
10°	173722	173722	173722	173722
15°	168974	169053	168974	169053
20°	162986	162933	162986	162933
25°	156517	156263	156517	156263
30°	150359	150124	150359	150124
35°	140217	138169	140217	138169
40°	112547	112683	112547	112683
45°	78752	81132	78752	81132
50°	50344	53636	50344	53636
55°	36625	37198	36625	37198
60°	33254	33100	33254	33100
65°	29886	29770	29886	29770
70°	26511	26880	26511	26880
75°	23130	24294	23130	24294
80°	19068	21562	19068	21562
85°	11699	17800	11699	17800

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 81132 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	303.5	5.9
10°-20°	837.3	16.2
20°-30°	1190.6	23.1
30°-40°	1272.8	24.7
40°-50°	804.2	15.6
50°-60°	366.0	7.1
60°-70°	229.2	4.4
70°-80°	120.4	2.3
80°-90°	29.6	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°	2331.4	45.2
0°-40°	3604.2	69.9
0°-60°	4774.5	92.6
0°-90°	5153.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5153.8	100.0

**CANDELA DISTRIBUTION:**

	0°	90°	180°	270°	360°	Flux
0°	3237	3237	3237	3237	3237	
5°	3208	3207	3208	3207	3208	303
15°	2977	2979	2977	2979	2977	837
25°	2588	2583	2588	2583	2588	1191
35°	2095	2065	2095	2065	2095	1278
45°	1016	1046	1016	1046	1016	792
55°	383	389	383	389	383	361
65°	230	230	230	230	230	229
75°	109	115	109	115	109	116
85°	19	28	19	28	19	25
90°	0	1	0	1	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°	3237.4	3237.4	3237.4	3237.4	3237.4	3237.4	3237.4	3237.4	3237.4	3237.4	3237.4
0.5°	3236.9	3237.4	3236.9	3236.9	3235.5	3236.9	3236.9	3237.4	3236.9	3237.4	3236.9
1°	3236.0	3236.5	3236.5	3236.0	3234.6	3236.0	3236.5	3236.5	3236.0	3236.5	3236.5
1.5°	3234.6	3235.1	3234.6	3234.6	3233.2	3234.6	3234.6	3235.1	3234.6	3235.1	3234.6
2°	3232.7	3232.7	3232.7	3232.7	3230.9	3232.7	3232.7	3232.7	3232.7	3232.7	3232.7
2.5°	3230.0	3230.0	3230.4	3230.0	3228.6	3230.0	3230.4	3230.0	3230.0	3230.0	3230.4
3°	3226.7	3227.2	3227.2	3227.2	3225.3	3227.2	3227.2	3227.2	3226.7	3227.2	3227.2
3.5°	3223.0	3223.0	3223.5	3223.5	3221.6	3223.5	3223.5	3223.0	3223.0	3223.0	3223.5
4°	3218.8	3218.8	3218.8	3218.8	3217.4	3218.8	3218.8	3218.8	3218.8	3218.8	3218.8
4.5°	3213.7	3214.2	3214.2	3214.2	3212.3	3214.2	3214.2	3214.2	3213.7	3214.2	3214.2
5°	3208.1	3208.6	3208.6	3208.6	3206.7	3208.6	3208.6	3208.6	3208.1	3208.6	3208.6
5.5°	3202.1	3202.6	3202.6	3202.6	3200.7	3202.6	3202.6	3202.6	3202.1	3202.6	3202.6
6°	3195.6	3195.6	3195.6	3195.6	3194.2	3195.6	3195.6	3195.6	3195.6	3195.6	3195.6
6.5°	3188.2	3188.2	3188.6	3188.6	3187.2	3188.6	3188.6	3188.2	3188.2	3188.2	3188.6
7°	3180.3	3180.7	3180.7	3180.7	3179.3	3180.7	3180.7	3180.7	3180.3	3180.7	3180.7
7.5°	3171.9	3171.9	3172.4	3172.4	3171.0	3172.4	3172.4	3171.9	3171.9	3171.9	3172.4
8°	3162.6	3163.1	3163.5	3163.5	3162.1	3163.5	3163.5	3163.1	3162.6	3163.1	3163.5
8.5°	3152.9	3153.3	3153.8	3153.8	3152.4	3153.8	3153.8	3153.3	3152.9	3153.3	3153.8
9°	3142.6	3143.1	3143.6	3144.0	3142.6	3144.0	3143.6	3143.1	3142.6	3143.1	3143.6
9.5°	3132.0	3132.4	3132.9	3133.3	3132.0	3133.3	3132.9	3132.4	3132.0	3132.4	3132.9
10°	3120.8	3120.8	3121.3	3122.2	3120.8	3122.2	3121.3	3120.8	3120.8	3120.8	3121.3
10.5°	3108.7	3108.7	3109.7	3110.1	3108.7	3110.1	3109.7	3108.7	3108.7	3108.7	3109.7
11°	3096.2	3096.2	3097.1	3098.0	3096.2	3098.0	3097.1	3096.2	3096.2	3096.2	3097.1
11.5°	3082.7	3083.2	3084.1	3085.0	3083.6	3085.0	3084.1	3083.2	3082.7	3083.2	3084.1
12°	3069.3	3069.7	3070.6	3071.6	3070.2	3071.6	3070.6	3069.7	3069.3	3069.7	3070.6
12.5°	3055.3	3055.8	3056.2	3057.2	3056.2	3057.2	3056.2	3055.8	3055.3	3055.8	3056.2
13°	3040.5	3040.9	3041.8	3042.8	3041.8	3042.8	3041.8	3040.9	3040.5	3040.9	3041.8
13.5°	3025.6	3026.1	3027.0	3027.9	3026.5	3027.9	3027.0	3026.1	3025.6	3026.1	3027.0
14°	3009.8	3010.7	3011.7	3012.1	3011.2	3012.1	3011.7	3010.7	3009.8	3010.7	3011.7
14.5°	2994.0	2994.5	2995.4	2996.3	2995.4	2996.3	2995.4	2994.5	2994.0	2994.5	2995.4
15°	2977.3	2978.2	2979.1	2980.1	2978.7	2980.1	2979.1	2978.2	2977.3	2978.2	2979.1
15.5°	2960.6	2961.0	2962.0	2962.9	2961.5	2962.9	2962.0	2961.0	2960.6	2961.0	2962.0
16°	2942.9	2943.8	2944.8	2945.7	2944.3	2945.7	2944.8	2943.8	2942.9	2943.8	2944.8
16.5°	2925.7	2926.2	2927.1	2928.1	2926.7	2928.1	2927.1	2926.2	2925.7	2926.2	2927.1
17°	2907.6	2908.1	2909.0	2909.9	2908.5	2909.9	2909.0	2908.1	2907.6	2908.1	2909.0
17.5°	2889.5	2889.5	2890.4	2891.4	2890.0	2891.4	2890.4	2889.5	2889.5	2889.5	2890.4
18°	2870.5	2871.4	2871.8	2872.3	2870.9	2872.3	2871.8	2871.4	2870.5	2871.4	2871.8
18.5°	2851.4	2852.3	2852.8	2853.3	2851.9	2853.3	2852.8	2852.3	2851.4	2852.3	2852.8
19°	2832.4	2833.3	2833.8	2833.8	2832.8	2833.8	2833.8	2833.3	2832.4	2833.3	2833.8
19.5°	2813.3	2813.8	2814.3	2814.7	2813.3	2814.7	2814.3	2813.8	2813.3	2813.8	2814.3
20°	2793.8	2794.3	2794.7	2794.7	2792.9	2794.7	2794.7	2794.3	2793.8	2794.3	2794.7
20.5°	2774.3	2774.3	2774.3	2774.3	2772.9	2774.3	2774.3	2774.3	2774.3	2774.3	2774.3
21°	2753.4	2753.9	2754.3	2753.9	2752.5	2753.9	2754.3	2753.9	2753.4	2753.9	2754.3



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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°	2693.0	2693.0	2692.6	2692.1	2690.2	2692.1	2692.6	2693.0	2693.0	2693.0	2692.6
23°	2672.1	2672.1	2671.7	2671.2	2669.3	2671.2	2671.7	2672.1	2672.1	2672.1	2671.7
23.5°	2651.2	2651.2	2650.8	2649.8	2648.4	2649.8	2650.8	2651.2	2651.2	2651.2	2650.8
24°	2630.3	2630.3	2629.9	2628.5	2626.6	2628.5	2629.9	2630.3	2630.3	2630.3	2629.9
24.5°	2609.4	2609.0	2608.5	2607.1	2605.2	2607.1	2608.5	2609.0	2609.4	2609.0	2608.5
25°	2587.6	2587.6	2587.1	2585.7	2583.4	2585.7	2587.1	2587.6	2587.6	2587.6	2587.1
25.5°	2566.2	2566.2	2565.8	2563.9	2562.0	2563.9	2565.8	2566.2	2566.2	2566.2	2565.8
26°	2544.9	2544.9	2544.4	2543.0	2540.7	2543.0	2544.4	2544.9	2544.9	2544.9	2544.4
26.5°	2523.0	2523.0	2522.6	2520.7	2518.8	2520.7	2522.6	2523.0	2523.0	2523.0	2522.6
27°	2501.2	2501.7	2501.2	2499.3	2497.0	2499.3	2501.2	2501.7	2501.2	2501.7	2501.2
27.5°	2479.8	2479.8	2479.4	2478.0	2475.7	2478.0	2479.4	2479.8	2479.8	2479.8	2479.4
28°	2457.5	2458.5	2458.0	2456.6	2454.8	2456.6	2458.0	2458.5	2457.5	2458.5	2458.0
28.5°	2436.6	2437.6	2437.1	2435.7	2433.8	2435.7	2437.1	2437.6	2436.6	2437.6	2437.1
29°	2415.7	2416.7	2416.2	2415.3	2412.9	2415.3	2416.2	2416.7	2415.7	2416.7	2416.2
29.5°	2395.3	2395.8	2395.8	2394.4	2392.5	2394.4	2395.8	2395.8	2395.3	2395.8	2395.8
30°	2375.3	2375.3	2375.3	2373.5	2371.6	2373.5	2375.3	2375.3	2375.3	2375.3	2375.3
30.5°	2354.9	2355.4	2354.4	2353.0	2350.7	2353.0	2354.4	2355.4	2354.9	2355.4	2354.4
31°	2334.9	2334.9	2334.0	2331.7	2328.9	2331.7	2334.0	2334.9	2334.9	2334.9	2334.0
31.5°	2313.6	2313.6	2311.7	2309.4	2305.7	2309.4	2311.7	2313.6	2313.6	2313.6	2311.7
32°	2291.7	2290.3	2287.1	2282.9	2277.8	2282.9	2287.1	2290.3	2291.7	2290.3	2287.1
32.5°	2268.0	2264.8	2259.7	2252.7	2246.7	2252.7	2259.7	2264.8	2268.0	2264.8	2259.7
33°	2241.1	2237.4	2228.6	2220.7	2214.2	2220.7	2228.6	2237.4	2241.1	2237.4	2228.6
33.5°	2210.0	2206.7	2194.6	2186.3	2179.8	2186.3	2194.6	2206.7	2210.0	2206.7	2194.6
34°	2174.7	2173.3	2158.9	2149.6	2144.0	2149.6	2158.9	2173.3	2174.7	2173.3	2158.9
34.5°	2136.1	2133.8	2120.8	2110.6	2105.5	2110.6	2120.8	2133.8	2136.1	2133.8	2120.8
35°	2095.2	2091.5	2080.4	2069.2	2064.6	2069.2	2080.4	2091.5	2095.2	2091.5	2080.4
35.5°	2052.1	2046.9	2038.1	2026.5	2020.5	2026.5	2038.1	2046.9	2052.1	2046.9	2038.1
36°	2006.1	1999.6	1994.0	1982.4	1974.9	1982.4	1994.0	1999.6	2006.1	1999.6	1994.0
36.5°	1957.8	1950.8	1947.1	1935.9	1926.6	1935.9	1947.1	1950.8	1957.8	1950.8	1947.1
37°	1907.1	1900.6	1897.8	1887.6	1878.3	1887.6	1897.8	1900.6	1907.1	1900.6	1897.8
37.5°	1854.2	1849.5	1846.8	1838.4	1829.1	1838.4	1846.8	1849.5	1854.2	1849.5	1846.8
38°	1799.4	1796.6	1793.8	1788.2	1780.3	1788.2	1793.8	1796.6	1799.4	1796.6	1793.8
38.5°	1743.2	1743.2	1738.5	1736.7	1729.7	1736.7	1738.5	1743.2	1743.2	1743.2	1738.5
39°	1687.4	1688.4	1683.7	1683.3	1680.5	1683.3	1683.7	1688.4	1687.4	1688.4	1683.7
39.5°	1630.3	1631.7	1627.1	1628.4	1628.0	1628.4	1627.1	1631.7	1630.3	1631.7	1627.1
40°	1572.7	1575.5	1571.3	1573.6	1574.6	1573.6	1571.3	1575.5	1572.7	1575.5	1571.3
40.5°	1514.2	1518.4	1515.6	1519.3	1520.2	1519.3	1515.6	1518.4	1514.2	1518.4	1515.6
41°	1457.1	1461.7	1460.8	1464.0	1467.3	1464.0	1460.8	1461.7	1457.1	1461.7	1460.8
41.5°	1400.4	1403.6	1406.4	1410.6	1412.0	1410.6	1406.4	1403.6	1400.4	1403.6	1406.4
42°	1343.7	1346.5	1352.1	1355.8	1359.5	1355.8	1352.1	1346.5	1343.7	1346.5	1352.1
42.5°	1287.5	1290.3	1298.2	1302.9	1306.1	1302.9	1298.2	1290.3	1287.5	1290.3	1298.2
43°	1231.3	1235.0	1245.3	1249.4	1252.7	1249.4	1245.3	1235.0	1231.3	1235.0	1245.3
43.5°	1176.1	1179.3	1191.8	1196.0	1198.8	1196.0	1191.8	1179.3	1176.1	1179.3	1191.8



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
45°	1015.8	1021.4	1035.3	1043.2	1046.5	1043.2	1035.3	1021.4	1015.8	1021.4	1035.3
45.5°	964.3	971.2	985.6	994.4	997.7	994.4	985.6	971.2	964.3	971.2	985.6
46°	915.0	922.9	936.8	947.1	951.2	947.1	936.8	922.9	915.0	922.9	936.8
46.5°	867.2	876.0	889.5	901.1	905.7	901.1	889.5	876.0	867.2	876.0	889.5
47°	820.7	830.5	843.5	856.0	861.1	856.0	843.5	830.5	820.7	830.5	843.5
47.5°	776.6	785.9	799.8	812.8	817.5	812.8	799.8	785.9	776.6	785.9	799.8
48°	734.8	744.1	758.0	771.5	776.6	771.5	758.0	744.1	734.8	744.1	758.0
48.5°	695.8	703.7	717.6	731.5	737.1	731.5	717.6	703.7	695.8	703.7	717.6
49°	658.2	665.6	679.1	693.9	699.0	693.9	679.1	665.6	658.2	665.6	679.1
49.5°	622.9	629.4	643.3	657.2	663.3	657.2	643.3	629.4	622.9	629.4	643.3
50°	590.3	595.0	609.4	623.3	628.9	623.3	609.4	595.0	590.3	595.0	609.4
50.5°	560.2	563.4	577.8	590.8	596.4	590.8	577.8	563.4	560.2	563.4	577.8
51°	532.3	535.1	548.1	559.7	566.2	559.7	548.1	535.1	532.3	535.1	548.1
51.5°	506.3	508.6	520.7	531.4	537.4	531.4	520.7	508.6	506.3	508.6	520.7
52°	482.6	484.9	496.1	504.9	510.0	504.9	496.1	484.9	482.6	484.9	496.1
52.5°	460.8	462.6	472.4	479.8	484.4	479.8	472.4	462.6	460.8	462.6	472.4
53°	440.8	444.0	451.0	457.0	460.8	457.0	451.0	444.0	440.8	444.0	451.0
53.5°	425.0	426.9	431.5	436.6	439.4	436.6	431.5	426.9	425.0	426.9	431.5
54°	410.1	410.6	413.8	417.6	419.9	417.6	413.8	410.6	410.1	410.6	413.8
54.5°	396.7	396.7	398.1	400.8	403.6	400.8	398.1	396.7	396.7	396.7	398.1
55°	383.2	383.7	385.5	387.4	389.2	387.4	385.5	383.7	383.2	383.7	385.5
55.5°	370.7	372.5	374.4	375.8	379.0	375.8	374.4	372.5	370.7	372.5	374.4
56°	361.8	362.8	364.1	365.1	368.8	365.1	364.1	362.8	361.8	362.8	364.1
56.5°	354.4	354.4	354.4	355.3	358.6	355.3	354.4	354.4	354.4	354.4	354.4
57°	347.4	347.4	346.5	346.0	348.4	346.0	346.5	347.4	347.4	347.4	346.5
57.5°	340.9	340.5	339.5	338.6	338.1	338.6	339.5	340.5	340.9	340.5	339.5
58°	334.0	333.5	332.6	331.6	330.7	331.6	332.6	333.5	334.0	333.5	332.6
58.5°	326.5	326.1	325.1	324.2	323.7	324.2	325.1	326.1	326.5	326.1	325.1
59°	319.1	318.6	318.2	317.2	316.3	317.2	318.2	318.6	319.1	318.6	318.2
59.5°	311.2	311.2	310.3	309.8	309.3	309.8	310.3	311.2	311.2	311.2	310.3
60°	303.3	303.3	302.8	302.4	301.9	302.4	302.8	303.3	303.3	303.3	302.8
60.5°	295.4	295.4	294.9	294.5	294.0	294.5	294.9	295.4	295.4	295.4	294.9
61°	288.0	288.0	287.5	287.0	286.6	287.0	287.5	288.0	288.0	288.0	287.5
61.5°	280.5	280.5	280.1	279.6	279.1	279.6	280.1	280.5	280.5	280.5	280.1
62°	273.1	273.1	272.6	272.2	271.7	272.2	272.6	273.1	273.1	273.1	272.6
62.5°	265.7	265.7	265.2	264.8	264.3	264.8	265.2	265.7	265.7	265.7	265.2
63°	258.7	258.2	258.2	257.3	257.3	257.3	258.2	258.2	258.7	258.2	258.2
63.5°	251.3	251.3	250.8	250.4	250.4	250.4	250.8	251.3	251.3	251.3	250.8
64°	244.3	244.3	243.8	243.4	242.9	243.4	243.8	244.3	244.3	244.3	243.8
64.5°	237.3	237.3	236.9	236.4	236.4	236.4	236.9	237.3	237.3	237.3	236.9
65°	230.4	230.8	230.4	229.9	229.5	229.9	230.4	230.8	230.4	230.8	230.4
65.5°	223.4	223.9	223.9	223.4	222.9	223.4	223.9	223.9	223.4	223.9	223.9
66°	216.9	217.4	216.9	216.4	216.4	216.4	216.9	217.4	216.9	217.4	216.9



TEST NUMBER: P776691

CATALOG NUMBER: HCDJBL54050CSD-HCD62TRMW-5000lm-3000K

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
67.5°	196.9	197.9	197.9	197.4	197.4	197.4	197.9	197.9	196.9	197.9	197.9
68°	190.4	191.4	191.8	191.4	191.4	191.4	191.8	191.4	190.4	191.4	191.8
68.5°	184.4	185.3	185.8	185.3	185.3	185.3	185.8	185.3	184.4	185.3	185.8
69°	177.9	179.3	179.8	179.8	179.3	179.8	179.8	179.3	177.9	179.3	179.8
69.5°	171.4	173.2	174.2	173.7	173.7	173.7	174.2	173.2	171.4	173.2	174.2
70°	165.4	166.7	168.1	168.1	167.7	168.1	168.1	166.7	165.4	166.7	168.1
70.5°	159.3	161.2	162.6	162.1	162.1	162.1	162.6	161.2	159.3	161.2	162.6
71°	153.7	155.6	157.0	157.0	156.5	157.0	157.0	155.6	153.7	155.6	157.0
71.5°	147.7	149.6	151.4	151.4	151.0	151.4	151.4	149.6	147.7	149.6	151.4
72°	142.1	144.0	145.8	145.8	145.4	145.8	145.8	144.0	142.1	144.0	145.8
72.5°	136.6	138.4	140.7	140.3	140.3	140.3	140.7	138.4	136.6	138.4	140.7
73°	130.5	132.8	135.2	135.2	134.7	135.2	135.2	132.8	130.5	132.8	135.2
73.5°	124.9	127.3	130.1	130.1	129.6	130.1	130.1	127.3	124.9	127.3	130.1
74°	119.8	121.7	124.5	124.9	124.5	124.9	124.5	121.7	119.8	121.7	124.5
74.5°	114.3	116.6	119.4	119.8	119.4	119.8	119.4	116.6	114.3	116.6	119.4
75°	109.2	111.0	114.3	114.7	114.7	114.7	114.3	111.0	109.2	111.0	114.3
75.5°	104.0	105.9	109.6	109.6	109.6	109.6	109.6	105.9	104.0	105.9	109.6
76°	98.9	100.8	104.5	105.0	105.0	105.0	104.5	100.8	98.9	100.8	104.5
76.5°	93.8	95.7	99.4	100.3	99.9	100.3	99.4	95.7	93.8	95.7	99.4
77°	88.7	91.0	94.8	95.7	95.2	95.7	94.8	91.0	88.7	91.0	94.8
77.5°	83.6	85.9	90.1	91.0	90.6	91.0	90.1	85.9	83.6	85.9	90.1
78°	79.0	81.3	85.0	86.4	85.9	86.4	85.0	81.3	79.0	81.3	85.0
78.5°	74.3	76.2	80.4	81.7	81.7	81.7	80.4	76.2	74.3	76.2	80.4
79°	69.7	71.5	75.7	77.1	77.1	77.1	75.7	71.5	69.7	71.5	75.7
79.5°	65.0	66.9	71.5	72.9	72.9	72.9	71.5	66.9	65.0	66.9	71.5
80°	60.4	62.2	66.9	68.3	68.3	68.3	66.9	62.2	60.4	62.2	66.9
80.5°	56.2	58.1	62.7	64.1	64.1	64.1	62.7	58.1	56.2	58.1	62.7
81°	51.6	53.4	58.1	59.9	59.9	59.9	58.1	53.4	51.6	53.4	58.1
81.5°	47.4	48.8	53.9	55.7	55.7	55.7	53.9	48.8	47.4	48.8	53.9
82°	43.2	44.6	49.7	51.6	51.6	51.6	49.7	44.6	43.2	44.6	49.7
82.5°	38.6	40.4	45.5	47.8	47.8	47.8	45.5	40.4	38.6	40.4	45.5
83°	34.4	36.2	41.3	43.7	43.7	43.7	41.3	36.2	34.4	36.2	41.3
83.5°	30.2	32.0	37.6	39.9	39.5	39.9	37.6	32.0	30.2	32.0	37.6
84°	26.5	27.9	33.9	35.8	35.8	35.8	33.9	27.9	26.5	27.9	33.9
84.5°	22.3	23.7	30.2	32.0	32.0	32.0	30.2	23.7	22.3	23.7	30.2
85°	18.6	20.0	26.5	28.3	28.3	28.3	26.5	20.0	18.6	20.0	26.5
85.5°	14.9	16.7	22.8	24.6	24.6	24.6	22.8	16.7	14.9	16.7	22.8
86°	12.1	13.5	19.5	20.9	20.9	20.9	19.5	13.5	12.1	13.5	19.5
86.5°	9.8	11.1	15.8	17.2	17.7	17.2	15.8	11.1	9.8	11.1	15.8
87°	7.4	8.8	13.0	13.9	13.9	13.9	13.0	8.8	7.4	8.8	13.0
87.5°	5.6	6.5	9.8	10.7	10.7	10.7	9.8	6.5	5.6	6.5	9.8
88°	3.7	4.6	7.0	7.4	7.9	7.4	7.0	4.6	3.7	4.6	7.0
88.5°	1.9	2.8	4.6	5.6	6.0	5.6	4.6	2.8	1.9	2.8	4.6



TEST NUMBER: P776691

CATALOG NUMBER: HCDJBL54050CSD-HCD62TRMW-5000lm-3000K

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
90°	0.0	0.5	0.5	0.9	1.4	0.9	0.5	0.5	0.0	0.5	0.5



TEST NUMBER: P776691

CATALOG NUMBER: HCDJBL54050CSD-HCD62TRMW-5000lm-3000K

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
0°	3237.4	3237.4	3237.4	3237.4	3237.4	3237.4
0.5°	3236.9	3235.5	3236.9	3236.9	3237.4	3236.9
1°	3236.0	3234.6	3236.0	3236.5	3236.5	3236.0
1.5°	3234.6	3233.2	3234.6	3234.6	3235.1	3234.6
2°	3232.7	3230.9	3232.7	3232.7	3232.7	3232.7
2.5°	3230.0	3228.6	3230.0	3230.4	3230.0	3230.0
3°	3227.2	3225.3	3227.2	3227.2	3227.2	3226.7
3.5°	3223.5	3221.6	3223.5	3223.5	3223.0	3223.0
4°	3218.8	3217.4	3218.8	3218.8	3218.8	3218.8
4.5°	3214.2	3212.3	3214.2	3214.2	3214.2	3213.7
5°	3208.6	3206.7	3208.6	3208.6	3208.6	3208.1
5.5°	3202.6	3200.7	3202.6	3202.6	3202.6	3202.1
6°	3195.6	3194.2	3195.6	3195.6	3195.6	3195.6
6.5°	3188.6	3187.2	3188.6	3188.6	3188.2	3188.2
7°	3180.7	3179.3	3180.7	3180.7	3180.7	3180.3
7.5°	3172.4	3171.0	3172.4	3172.4	3171.9	3171.9
8°	3163.5	3162.1	3163.5	3163.5	3163.1	3162.6
8.5°	3153.8	3152.4	3153.8	3153.8	3153.3	3152.9
9°	3144.0	3142.6	3144.0	3143.6	3143.1	3142.6
9.5°	3133.3	3132.0	3133.3	3132.9	3132.4	3132.0
10°	3122.2	3120.8	3122.2	3121.3	3120.8	3120.8
10.5°	3110.1	3108.7	3110.1	3109.7	3108.7	3108.7
11°	3098.0	3096.2	3098.0	3097.1	3096.2	3096.2
11.5°	3085.0	3083.6	3085.0	3084.1	3083.2	3082.7
12°	3071.6	3070.2	3071.6	3070.6	3069.7	3069.3
12.5°	3057.2	3056.2	3057.2	3056.2	3055.8	3055.3
13°	3042.8	3041.8	3042.8	3041.8	3040.9	3040.5
13.5°	3027.9	3026.5	3027.9	3027.0	3026.1	3025.6
14°	3012.1	3011.2	3012.1	3011.7	3010.7	3009.8
14.5°	2996.3	2995.4	2996.3	2995.4	2994.5	2994.0
15°	2980.1	2978.7	2980.1	2979.1	2978.2	2977.3
15.5°	2962.9	2961.5	2962.9	2962.0	2961.0	2960.6
16°	2945.7	2944.3	2945.7	2944.8	2943.8	2942.9
16.5°	2928.1	2926.7	2928.1	2927.1	2926.2	2925.7
17°	2909.9	2908.5	2909.9	2909.0	2908.1	2907.6
17.5°	2891.4	2890.0	2891.4	2890.4	2889.5	2889.5
18°	2872.3	2870.9	2872.3	2871.8	2871.4	2870.5
18.5°	2853.3	2851.9	2853.3	2852.8	2852.3	2851.4
19°	2833.8	2832.8	2833.8	2833.8	2833.3	2832.4
19.5°	2814.7	2813.3	2814.7	2814.3	2813.8	2813.3
20°	2794.7	2792.9	2794.7	2794.7	2794.3	2793.8
20.5°	2774.3	2772.9	2774.3	2774.3	2774.3	2774.3
21°	2753.9	2752.5	2753.9	2754.3	2753.9	2753.4



TEST NUMBER: P776691

CATALOG NUMBER: HCDJBL54050CSD-HCD62TRMW-5000lm-3000K

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
22.5°	2692.1	2690.2	2692.1	2692.6	2693.0	2693.0
23°	2671.2	2669.3	2671.2	2671.7	2672.1	2672.1
23.5°	2649.8	2648.4	2649.8	2650.8	2651.2	2651.2
24°	2628.5	2626.6	2628.5	2629.9	2630.3	2630.3
24.5°	2607.1	2605.2	2607.1	2608.5	2609.0	2609.4
25°	2585.7	2583.4	2585.7	2587.1	2587.6	2587.6
25.5°	2563.9	2562.0	2563.9	2565.8	2566.2	2566.2
26°	2543.0	2540.7	2543.0	2544.4	2544.9	2544.9
26.5°	2520.7	2518.8	2520.7	2522.6	2523.0	2523.0
27°	2499.3	2497.0	2499.3	2501.2	2501.7	2501.2
27.5°	2478.0	2475.7	2478.0	2479.4	2479.8	2479.8
28°	2456.6	2454.8	2456.6	2458.0	2458.5	2457.5
28.5°	2435.7	2433.8	2435.7	2437.1	2437.6	2436.6
29°	2415.3	2412.9	2415.3	2416.2	2416.7	2415.7
29.5°	2394.4	2392.5	2394.4	2395.8	2395.8	2395.3
30°	2373.5	2371.6	2373.5	2375.3	2375.3	2375.3
30.5°	2353.0	2350.7	2353.0	2354.4	2355.4	2354.9
31°	2331.7	2328.9	2331.7	2334.0	2334.9	2334.9
31.5°	2309.4	2305.7	2309.4	2311.7	2313.6	2313.6
32°	2282.9	2277.8	2282.9	2287.1	2290.3	2291.7
32.5°	2252.7	2246.7	2252.7	2259.7	2264.8	2268.0
33°	2220.7	2214.2	2220.7	2228.6	2237.4	2241.1
33.5°	2186.3	2179.8	2186.3	2194.6	2206.7	2210.0
34°	2149.6	2144.0	2149.6	2158.9	2173.3	2174.7
34.5°	2110.6	2105.5	2110.6	2120.8	2133.8	2136.1
35°	2069.2	2064.6	2069.2	2080.4	2091.5	2095.2
35.5°	2026.5	2020.5	2026.5	2038.1	2046.9	2052.1
36°	1982.4	1974.9	1982.4	1994.0	1999.6	2006.1
36.5°	1935.9	1926.6	1935.9	1947.1	1950.8	1957.8
37°	1887.6	1878.3	1887.6	1897.8	1900.6	1907.1
37.5°	1838.4	1829.1	1838.4	1846.8	1849.5	1854.2
38°	1788.2	1780.3	1788.2	1793.8	1796.6	1799.4
38.5°	1736.7	1729.7	1736.7	1738.5	1743.2	1743.2
39°	1683.3	1680.5	1683.3	1683.7	1688.4	1687.4
39.5°	1628.4	1628.0	1628.4	1627.1	1631.7	1630.3
40°	1573.6	1574.6	1573.6	1571.3	1575.5	1572.7
40.5°	1519.3	1520.2	1519.3	1515.6	1518.4	1514.2
41°	1464.0	1467.3	1464.0	1460.8	1461.7	1457.1
41.5°	1410.6	1412.0	1410.6	1406.4	1403.6	1400.4
42°	1355.8	1359.5	1355.8	1352.1	1346.5	1343.7
42.5°	1302.9	1306.1	1302.9	1298.2	1290.3	1287.5
43°	1249.4	1252.7	1249.4	1245.3	1235.0	1231.3
43.5°	1196.0	1198.8	1196.0	1191.8	1179.3	1176.1



TEST NUMBER: P776691

CATALOG NUMBER: HCDJBL54050CSD-HCD62TRMW-5000lm-3000K

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
45°	1043.2	1046.5	1043.2	1035.3	1021.4	1015.8
45.5°	994.4	997.7	994.4	985.6	971.2	964.3
46°	947.1	951.2	947.1	936.8	922.9	915.0
46.5°	901.1	905.7	901.1	889.5	876.0	867.2
47°	856.0	861.1	856.0	843.5	830.5	820.7
47.5°	812.8	817.5	812.8	799.8	785.9	776.6
48°	771.5	776.6	771.5	758.0	744.1	734.8
48.5°	731.5	737.1	731.5	717.6	703.7	695.8
49°	693.9	699.0	693.9	679.1	665.6	658.2
49.5°	657.2	663.3	657.2	643.3	629.4	622.9
50°	623.3	628.9	623.3	609.4	595.0	590.3
50.5°	590.8	596.4	590.8	577.8	563.4	560.2
51°	559.7	566.2	559.7	548.1	535.1	532.3
51.5°	531.4	537.4	531.4	520.7	508.6	506.3
52°	504.9	510.0	504.9	496.1	484.9	482.6
52.5°	479.8	484.4	479.8	472.4	462.6	460.8
53°	457.0	460.8	457.0	451.0	444.0	440.8
53.5°	436.6	439.4	436.6	431.5	426.9	425.0
54°	417.6	419.9	417.6	413.8	410.6	410.1
54.5°	400.8	403.6	400.8	398.1	396.7	396.7
55°	387.4	389.2	387.4	385.5	383.7	383.2
55.5°	375.8	379.0	375.8	374.4	372.5	370.7
56°	365.1	368.8	365.1	364.1	362.8	361.8
56.5°	355.3	358.6	355.3	354.4	354.4	354.4
57°	346.0	348.4	346.0	346.5	347.4	347.4
57.5°	338.6	338.1	338.6	339.5	340.5	340.9
58°	331.6	330.7	331.6	332.6	333.5	334.0
58.5°	324.2	323.7	324.2	325.1	326.1	326.5
59°	317.2	316.3	317.2	318.2	318.6	319.1
59.5°	309.8	309.3	309.8	310.3	311.2	311.2
60°	302.4	301.9	302.4	302.8	303.3	303.3
60.5°	294.5	294.0	294.5	294.9	295.4	295.4
61°	287.0	286.6	287.0	287.5	288.0	288.0
61.5°	279.6	279.1	279.6	280.1	280.5	280.5
62°	272.2	271.7	272.2	272.6	273.1	273.1
62.5°	264.8	264.3	264.8	265.2	265.7	265.7
63°	257.3	257.3	257.3	258.2	258.2	258.7
63.5°	250.4	250.4	250.4	250.8	251.3	251.3
64°	243.4	242.9	243.4	243.8	244.3	244.3
64.5°	236.4	236.4	236.4	236.9	237.3	237.3
65°	229.9	229.5	229.9	230.4	230.8	230.4
65.5°	223.4	222.9	223.4	223.9	223.9	223.4
66°	216.4	216.4	216.4	216.9	217.4	216.9



TEST NUMBER: P776691

CATALOG NUMBER: HCDJBL54050CSD-HCD62TRMW-5000lm-3000K

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
67.5°	197.4	197.4	197.4	197.9	197.9	196.9
68°	191.4	191.4	191.4	191.8	191.4	190.4
68.5°	185.3	185.3	185.3	185.8	185.3	184.4
69°	179.8	179.3	179.8	179.8	179.3	177.9
69.5°	173.7	173.7	173.7	174.2	173.2	171.4
70°	168.1	167.7	168.1	168.1	166.7	165.4
70.5°	162.1	162.1	162.1	162.6	161.2	159.3
71°	157.0	156.5	157.0	157.0	155.6	153.7
71.5°	151.4	151.0	151.4	151.4	149.6	147.7
72°	145.8	145.4	145.8	145.8	144.0	142.1
72.5°	140.3	140.3	140.3	140.7	138.4	136.6
73°	135.2	134.7	135.2	135.2	132.8	130.5
73.5°	130.1	129.6	130.1	130.1	127.3	124.9
74°	124.9	124.5	124.9	124.5	121.7	119.8
74.5°	119.8	119.4	119.8	119.4	116.6	114.3
75°	114.7	114.7	114.7	114.3	111.0	109.2
75.5°	109.6	109.6	109.6	109.6	105.9	104.0
76°	105.0	105.0	105.0	104.5	100.8	98.9
76.5°	100.3	99.9	100.3	99.4	95.7	93.8
77°	95.7	95.2	95.7	94.8	91.0	88.7
77.5°	91.0	90.6	91.0	90.1	85.9	83.6
78°	86.4	85.9	86.4	85.0	81.3	79.0
78.5°	81.7	81.7	81.7	80.4	76.2	74.3
79°	77.1	77.1	77.1	75.7	71.5	69.7
79.5°	72.9	72.9	72.9	71.5	66.9	65.0
80°	68.3	68.3	68.3	66.9	62.2	60.4
80.5°	64.1	64.1	64.1	62.7	58.1	56.2
81°	59.9	59.9	59.9	58.1	53.4	51.6
81.5°	55.7	55.7	55.7	53.9	48.8	47.4
82°	51.6	51.6	51.6	49.7	44.6	43.2
82.5°	47.8	47.8	47.8	45.5	40.4	38.6
83°	43.7	43.7	43.7	41.3	36.2	34.4
83.5°	39.9	39.5	39.9	37.6	32.0	30.2
84°	35.8	35.8	35.8	33.9	27.9	26.5
84.5°	32.0	32.0	32.0	30.2	23.7	22.3
85°	28.3	28.3	28.3	26.5	20.0	18.6
85.5°	24.6	24.6	24.6	22.8	16.7	14.9
86°	20.9	20.9	20.9	19.5	13.5	12.1
86.5°	17.2	17.7	17.2	15.8	11.1	9.8
87°	13.9	13.9	13.9	13.0	8.8	7.4
87.5°	10.7	10.7	10.7	9.8	6.5	5.6
88°	7.4	7.9	7.4	7.0	4.6	3.7
88.5°	5.6	6.0	5.6	4.6	2.8	1.9



TEST NUMBER: P776691

CATALOG NUMBER: HCDJBL54050CSD-HCD62TRMW-5000lm-3000K

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
90°	0.9	1.4	0.9	0.5	0.5	0.0



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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  
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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°	2733.4	2733.9	2733.4	2733.4	2732.0	2733.4	2733.4	2733.9	2733.4	2733.9	2733.4
22°	2713.5	2713.5	2713.5	2712.5	2711.1	2712.5	2713.5	2713.5	2713.5	2713.5	2713.5



44°	1121.2	1124.5	1138.4	1144.5	1147.3	1144.5	1138.4	1124.5	1121.2	1124.5	1138.4
44.5°	1067.4	1072.5	1085.9	1093.4	1096.2	1093.4	1085.9	1072.5	1067.4	1072.5	1085.9



66.5°	209.9	210.9	210.9	210.4	209.9	210.4	210.9	210.9	209.9	210.9	210.9
67°	203.4	204.4	204.4	203.9	203.4	203.9	204.4	204.4	203.4	204.4	204.4



89°	0.9	1.4	2.8	3.7	4.2	3.7	2.8	1.4	0.9	1.4	2.8
89.5°	0.5	0.5	1.4	2.3	2.8	2.3	1.4	0.5	0.5	0.5	1.4



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Scaled Data Report





21.5°	2733.4	2732.0	2733.4	2733.4	2733.9	2733.4
22°	2712.5	2711.1	2712.5	2713.5	2713.5	2713.5



44°	1144.5	1147.3	1144.5	1138.4	1124.5	1121.2
44.5°	1093.4	1096.2	1093.4	1085.9	1072.5	1067.4

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Scaled Data Report



66.5°	210.4	209.9	210.4	210.9	210.9	209.9
67°	203.9	203.4	203.9	204.4	204.4	203.4



89°	3.7	4.2	3.7	2.8	1.4	0.9
89.5°	2.3	2.8	2.3	1.4	0.5	0.5

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Peachtree City, GA 30269

Scaled Data Report



(END OF REPORT)