

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: P776643

Luminaire Tested: HCDJBS4050CSD-HCD4TSQMW-5000lm-4000K

Issue Date: 2/7/2024

Test Information

Test Method: LM-79-2019
Report Number: P776643
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (A2310613A001)
Test Lab:
Issue Date: 2/7/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO COMMERCIAL
Catalog Number: HCDJBS4050CSD-HCD4TSQMW-5000lm-4000K
Description: 4 INCH SQUARE MEDIUM MATTE WHITE TRIM
Light Source: SELECTABLE LUMENS AND CCT ARRAY 90CRI / 4000K CCT
Ballast/Driver: -

Summary

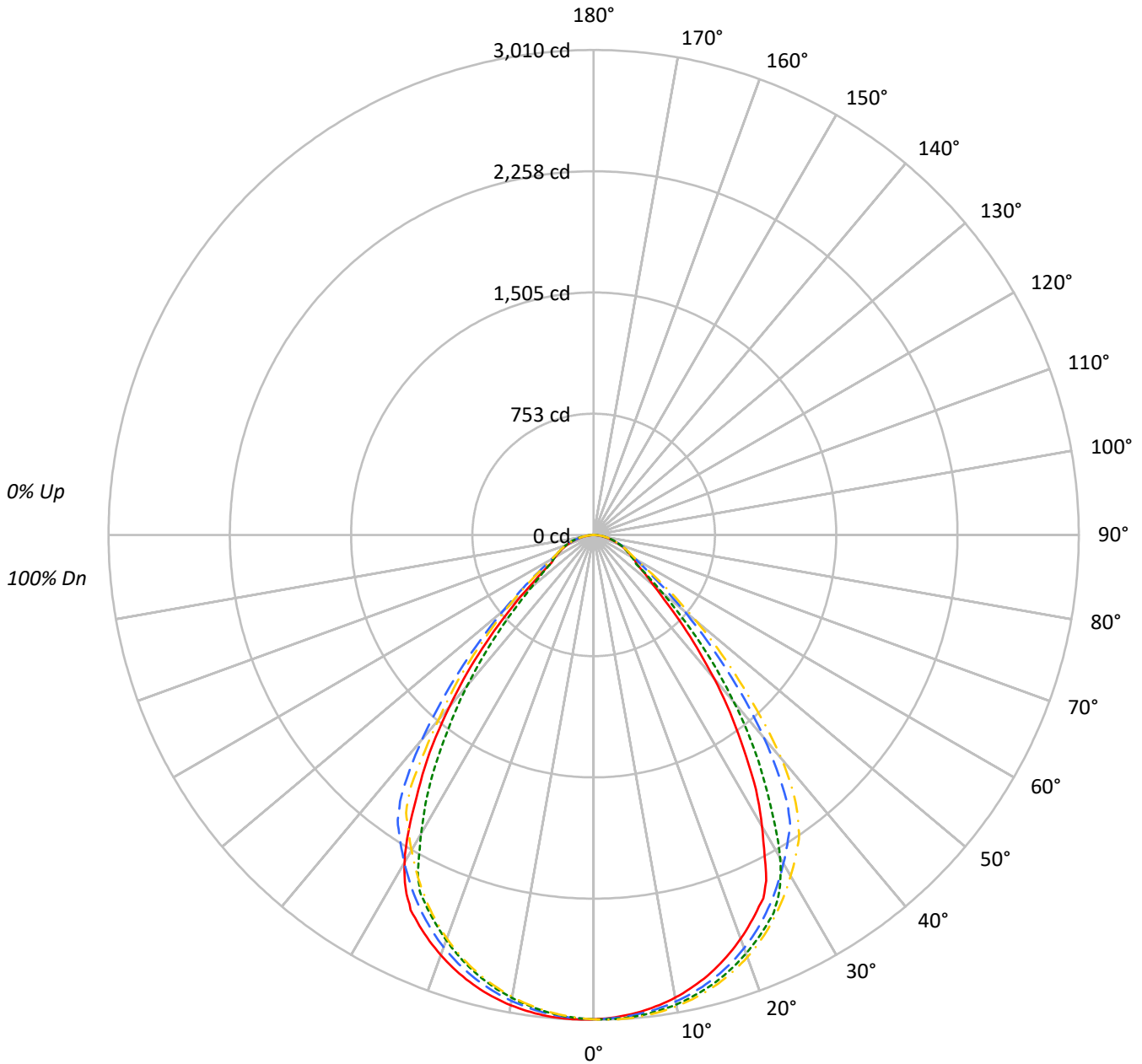
Lumens per Lamp: N/A
Luminaire Lumens: 4971.1 lumens
Efficiency: N/A
Efficacy: 103.6 lumens/watt
Spacing Criteria (0/90/45): 1.12 / 1.13 / 1.17
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')
CIE Type: Direct

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	0					
RCR																										
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100								
1	111	108	104	101	109	106	103	100	101	99	97	98	96	94	94	93	91	89								
2	104	97	92	88	101	96	91	86	92	88	85	89	86	83	86	83	81	79								
3	97	88	82	77	94	87	81	76	84	79	75	81	77	73	79	75	72	70								
4	90	80	73	68	88	79	72	67	77	71	66	75	70	66	73	68	65	63								
5	84	73	66	61	82	72	65	60	70	64	60	69	63	59	67	62	58	57								
6	79	67	60	55	77	67	59	54	65	59	54	63	58	53	62	57	53	51								
7	74	62	55	49	72	61	54	49	60	54	49	59	53	49	57	52	48	47								
8	69	58	50	45	68	57	50	45	56	49	45	55	49	45	53	48	44	43								
9	65	53	46	41	64	53	46	41	52	46	41	51	45	41	50	45	41	39								
10	61	50	43	38	60	49	43	38	48	42	38	48	42	38	47	41	38	36								

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	297110	297110	297110	297110
5°	295546	297580	297868	295685
10°	292620	296946	297468	292911
15°	287810	294820	295649	288353
20°	280457	290765	291827	281508
25°	271473	285204	286032	272574
30°	238401	263956	267882	244302
35°	195584	221213	226004	203029
40°	150009	174448	179699	157416
45°	105467	126602	131677	112288
50°	74594	84743	89095	77239
55°	59039	58281	61744	60262
60°	55332	53632	54581	55233
65°	52132	51477	51805	53372
70°	48118	49360	48811	51701
75°	43307	46782	44949	49876
80°	34323	43317	38934	46846
85°	16784	35270	23362	41281

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 135°
 Vertical Angle: 45°
 Luminance: 178085 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	283.8	5.7
10°-20°	802.9	16.2
20°-30°	1170.4	23.5
30°-40°	1177.2	23.7
40°-50°	771.8	15.5
50°-60°	374.0	7.5
60°-70°	227.3	4.6
70°-80°	130.9	2.6
80°-90°	32.9	0.7
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°	2257.0	45.4
0°-40°	3434.2	69.1
0°-60°	4580.0	92.1
0°-90°	4971.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4971.1	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	3006	3006	3006	3006	3006	
5°	2979	2999	3002	2980	2979	282
15°	2813	2881	2889	2818	2813	791
25°	2489	2615	2623	2499	2489	1122
35°	1621	1833	1873	1683	1621	1011
45°	754	906	942	803	754	594
55°	343	338	358	350	343	320
65°	223	220	222	228	223	221
75°	113	122	118	131	113	120
85°	15	31	21	36	15	22
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°	3005.9	3005.9	3005.9	3005.9	3005.9	3005.9	3005.9	3005.9	3005.9	3005.9	3005.9
0.5°	3005.5	3004.5	3005.0	3005.0	3006.9	3007.4	3008.3	3008.8	3007.8	3005.9	3004.5
1°	3004.0	3003.1	3004.5	3005.5	3007.4	3008.3	3009.3	3009.8	3008.3	3005.9	3004.0
1.5°	3001.6	3001.6	3004.0	3005.5	3007.4	3008.8	3010.2	3010.2	3008.8	3005.9	3003.1
2°	2999.2	2999.7	3003.1	3005.5	3007.4	3008.8	3010.2	3010.2	3008.8	3005.5	3001.6
2.5°	2996.8	2997.8	3001.6	3004.5	3006.9	3008.8	3010.2	3010.2	3008.8	3005.0	3000.2
3°	2993.5	2994.9	2999.7	3003.5	3005.5	3008.3	3009.8	3010.2	3007.8	3004.0	2998.3
3.5°	2990.6	2992.1	2997.8	3002.6	3004.5	3007.4	3009.3	3009.3	3006.9	3002.6	2995.9
4°	2987.3	2989.2	2995.4	3001.1	3003.1	3006.4	3008.3	3008.8	3005.9	3000.7	2994.0
4.5°	2983.0	2985.4	2992.5	2999.2	3001.6	3004.5	3007.4	3007.4	3004.5	2998.8	2991.1
5°	2978.7	2981.5	2989.2	2996.8	2999.2	3003.1	3005.5	3005.5	3002.1	2996.4	2987.3
5.5°	2974.4	2977.2	2985.8	2994.4	2996.8	3000.7	3003.5	3003.5	3000.2	2994.0	2983.9
6°	2969.6	2972.9	2982.5	2991.6	2994.0	2997.8	3001.1	3001.1	2997.3	2990.6	2980.1
6.5°	2964.3	2968.1	2978.7	2988.7	2990.6	2995.4	2998.3	2998.3	2994.0	2987.3	2975.8
7°	2958.1	2962.4	2974.4	2985.4	2986.8	2992.1	2995.4	2995.4	2991.1	2983.9	2971.0
7.5°	2951.9	2956.7	2969.6	2981.5	2983.0	2988.7	2992.1	2991.6	2987.3	2979.6	2966.2
8°	2945.7	2950.9	2963.8	2977.2	2978.7	2984.9	2988.2	2987.8	2983.4	2975.3	2961.0
8.5°	2938.5	2943.7	2959.0	2972.9	2974.4	2980.6	2983.9	2983.9	2979.1	2970.5	2955.2
9°	2931.3	2937.0	2953.3	2968.1	2969.6	2976.3	2979.6	2979.6	2974.4	2965.7	2949.5
9.5°	2923.6	2929.9	2947.1	2962.4	2964.3	2971.5	2974.8	2974.4	2969.1	2960.0	2943.3
10°	2915.5	2922.7	2940.4	2957.1	2958.6	2965.7	2970.1	2969.6	2963.8	2954.3	2936.6
10.5°	2906.9	2914.6	2933.7	2950.9	2952.3	2960.0	2964.3	2963.8	2958.1	2948.5	2929.4
11°	2898.3	2905.9	2926.5	2944.7	2946.1	2953.8	2958.6	2958.1	2952.3	2941.8	2921.7
11.5°	2889.2	2897.3	2918.9	2938.0	2939.0	2947.6	2952.3	2951.4	2945.7	2935.1	2914.1
12°	2879.1	2888.2	2910.7	2930.8	2931.8	2941.3	2946.1	2944.7	2938.5	2927.9	2905.9
12.5°	2869.1	2878.7	2902.1	2923.2	2924.1	2934.2	2939.0	2937.5	2931.3	2920.3	2897.3
13°	2858.6	2869.1	2893.5	2916.0	2916.5	2926.0	2931.8	2930.3	2923.6	2912.6	2888.7
13.5°	2848.1	2858.6	2884.9	2907.4	2908.3	2918.9	2924.1	2922.2	2915.5	2904.0	2879.1
14°	2837.0	2847.6	2874.8	2899.2	2899.7	2910.2	2916.0	2914.1	2906.9	2894.9	2869.6
14.5°	2825.1	2836.1	2865.3	2890.2	2890.6	2901.2	2907.4	2905.9	2898.3	2885.8	2859.5
15°	2812.6	2824.6	2854.8	2881.1	2881.1	2892.5	2898.8	2896.4	2889.2	2876.8	2849.0
15.5°	2799.7	2812.6	2844.2	2871.5	2871.5	2883.5	2889.7	2887.3	2879.1	2866.7	2838.0
16°	2786.8	2800.2	2832.7	2861.4	2861.0	2872.9	2880.1	2877.2	2869.1	2856.7	2827.0
16.5°	2772.9	2787.3	2821.3	2850.4	2850.0	2862.9	2870.1	2867.2	2858.6	2845.7	2815.0
17°	2759.1	2773.9	2809.8	2839.9	2839.0	2851.9	2859.5	2857.1	2848.1	2834.7	2803.1
17.5°	2744.2	2760.0	2797.3	2828.9	2827.5	2841.4	2848.5	2846.1	2836.1	2823.2	2790.6
18°	2729.9	2746.1	2784.4	2817.0	2815.5	2829.9	2837.0	2834.2	2824.1	2811.2	2777.7
18.5°	2714.1	2730.8	2771.5	2805.0	2803.6	2817.4	2825.6	2822.2	2812.6	2799.3	2764.3
19°	2698.8	2716.0	2757.6	2793.0	2790.6	2804.5	2813.6	2809.8	2800.2	2786.3	2750.9
19.5°	2682.5	2700.2	2743.8	2779.6	2777.7	2793.0	2801.2	2796.9	2787.8	2772.9	2737.1
20°	2666.3	2684.9	2729.4	2766.2	2764.3	2779.2	2787.8	2784.4	2774.4	2759.5	2722.2
20.5°	2650.0	2668.6	2714.1	2752.4	2750.5	2765.8	2774.9	2770.5	2760.5	2745.7	2706.9
21°	2633.2	2651.9	2698.8	2738.5	2736.1	2751.9	2761.0	2756.7	2746.6	2731.8	2692.1



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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°	2579.7	2600.2	2650.5	2693.5	2692.6	2708.4	2717.0	2713.6	2703.1	2686.8	2643.8
23°	2561.5	2582.5	2632.8	2678.7	2676.8	2693.0	2701.7	2698.3	2687.8	2671.0	2626.5
23.5°	2543.3	2563.9	2615.1	2662.9	2661.0	2677.7	2685.9	2682.5	2672.9	2654.8	2608.8
24°	2523.7	2545.2	2597.4	2646.6	2645.2	2661.9	2669.6	2666.7	2657.2	2638.5	2591.1
24.5°	2506.9	2527.0	2579.2	2630.4	2628.9	2645.7	2652.4	2650.5	2640.4	2622.2	2573.0
25°	2489.2	2507.9	2560.0	2613.1	2615.1	2629.4	2635.2	2633.7	2622.7	2605.5	2553.8
25.5°	2460.5	2488.8	2540.9	2595.9	2595.9	2612.7	2617.9	2617.5	2606.4	2588.3	2535.2
26°	2429.0	2470.1	2521.3	2578.7	2570.1	2595.0	2599.8	2600.2	2590.2	2570.6	2515.1
26.5°	2399.3	2452.4	2501.7	2561.0	2548.1	2578.2	2581.6	2582.0	2561.0	2552.4	2495.5
27°	2354.8	2429.9	2481.6	2542.3	2522.7	2562.4	2562.9	2563.9	2538.5	2533.2	2475.4
27.5°	2307.9	2395.5	2461.0	2526.1	2494.0	2540.4	2544.3	2547.1	2513.6	2516.0	2454.8
28°	2261.5	2367.7	2440.0	2507.9	2462.0	2514.1	2524.2	2523.2	2484.9	2494.5	2433.7
28.5°	2216.5	2329.9	2418.9	2480.6	2429.0	2492.1	2505.0	2495.5	2454.3	2466.3	2413.2
29°	2173.0	2284.9	2397.9	2456.2	2393.1	2464.8	2485.4	2473.4	2420.8	2442.8	2391.2
29.5°	2130.9	2239.5	2376.8	2431.8	2354.8	2435.2	2465.3	2446.7	2385.4	2417.0	2370.1
30°	2088.8	2194.0	2354.8	2403.6	2312.7	2404.1	2444.7	2416.5	2347.1	2387.8	2348.1
30.5°	2047.7	2149.6	2333.3	2373.0	2267.7	2371.1	2424.6	2385.4	2306.5	2356.2	2326.1
31°	2006.5	2106.0	2311.3	2339.5	2221.3	2334.7	2404.1	2352.4	2262.5	2323.7	2304.1
31.5°	1964.4	2064.9	2288.8	2305.5	2172.5	2298.3	2383.0	2316.5	2214.6	2288.3	2282.1
32°	1918.5	2023.3	2267.2	2268.7	2123.2	2258.2	2361.5	2278.3	2165.3	2251.5	2259.6
32.5°	1874.0	1983.1	2244.3	2229.9	2073.0	2214.1	2340.4	2238.5	2116.1	2210.8	2236.6
33°	1825.7	1941.4	2223.2	2186.9	2023.3	2168.7	2318.4	2195.0	2066.8	2168.7	2214.1
33.5°	1774.9	1899.8	2202.7	2144.8	1974.5	2121.3	2297.9	2149.6	2016.1	2123.2	2191.7
34°	1721.8	1855.3	2181.6	2098.8	1926.6	2073.0	2277.3	2102.2	1966.3	2076.8	2172.0
34.5°	1672.1	1810.4	2148.1	2050.5	1879.7	2024.7	2250.5	2053.4	1919.0	2029.0	2146.7
35°	1620.9	1763.5	2110.3	2002.2	1833.3	1976.4	2216.1	2003.6	1873.0	1979.2	2108.9
35.5°	1572.6	1714.2	2077.8	1954.4	1787.4	1928.5	2185.9	1956.8	1828.1	1931.4	2074.4
36°	1524.7	1663.5	2036.6	1907.0	1741.5	1882.1	2155.8	1908.9	1781.6	1884.5	2042.9
36.5°	1479.8	1613.2	1989.8	1860.1	1694.6	1835.7	2119.4	1862.0	1734.3	1837.6	2000.8
37°	1434.3	1564.0	1941.9	1812.7	1646.7	1789.8	2082.1	1815.6	1689.3	1791.7	1953.4
37.5°	1390.3	1518.5	1892.2	1767.8	1597.9	1745.8	2042.4	1771.1	1641.0	1747.7	1905.6
38°	1346.3	1470.7	1843.4	1722.8	1548.2	1699.4	2000.3	1725.7	1591.7	1702.7	1856.8
38.5°	1301.8	1426.7	1794.1	1678.3	1498.9	1654.4	1957.7	1682.1	1541.0	1659.2	1806.0
39°	1255.9	1383.1	1745.8	1633.8	1450.6	1608.9	1910.8	1635.7	1491.2	1614.7	1756.8
39.5°	1209.5	1340.5	1697.0	1588.4	1401.3	1561.6	1862.5	1589.8	1442.4	1570.2	1705.6
40°	1162.6	1295.6	1646.3	1543.9	1352.0	1514.7	1811.8	1542.0	1392.7	1524.3	1654.4
40.5°	1116.6	1253.5	1595.5	1497.9	1304.7	1466.8	1759.6	1494.6	1344.8	1476.9	1601.8
41°	1071.7	1209.5	1543.9	1451.1	1259.7	1418.5	1704.6	1445.8	1297.5	1429.5	1550.1
41.5°	1028.6	1165.9	1493.2	1404.6	1213.3	1372.1	1648.6	1398.0	1253.0	1382.6	1498.4
42°	985.6	1121.4	1441.0	1357.8	1168.3	1326.2	1592.2	1350.6	1207.1	1336.2	1446.3
42.5°	945.4	1077.9	1388.9	1311.8	1123.3	1280.3	1536.2	1303.2	1162.6	1291.3	1395.1
43°	905.7	1034.4	1336.2	1266.4	1078.4	1234.8	1482.2	1258.3	1119.0	1246.3	1345.3
43.5°	866.9	992.2	1284.1	1222.8	1034.4	1190.8	1428.1	1213.8	1074.1	1203.2	1292.2



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
45°	754.5	873.6	1135.3	1094.2	905.7	1062.1	1274.0	1083.6	942.0	1076.9	1146.8
45.5°	719.5	836.3	1087.9	1053.0	863.6	1018.1	1226.7	1042.0	900.4	1037.2	1099.4
46°	686.1	799.4	1043.4	1011.9	823.4	976.9	1180.3	998.9	858.8	995.1	1054.4
46.5°	654.0	763.6	1000.4	971.2	783.7	936.8	1132.9	956.8	819.1	954.0	1010.0
47°	622.9	728.6	958.8	931.0	746.3	895.6	1087.9	914.7	780.8	913.8	967.8
47.5°	595.2	694.7	918.1	891.3	710.0	856.4	1043.0	873.6	743.9	874.6	926.2
48°	569.3	662.1	877.4	852.1	675.1	817.6	997.5	834.8	708.1	835.8	885.1
48.5°	545.9	630.6	838.2	812.8	642.5	778.9	954.9	796.6	674.6	798.5	845.4
49°	524.4	600.9	800.9	776.0	610.5	742.5	910.4	759.7	641.1	762.1	807.1
49.5°	503.8	573.6	764.5	740.6	580.3	705.7	867.9	722.4	610.0	727.7	770.3
50°	485.1	547.3	728.6	706.2	551.1	671.7	827.2	688.5	579.4	693.2	734.9
50.5°	468.4	523.4	693.7	672.7	522.9	637.7	787.0	654.0	550.2	660.7	699.5
51°	452.6	501.9	660.7	641.6	496.6	606.2	749.2	621.9	522.9	629.1	666.9
51.5°	437.3	481.8	629.1	610.0	472.7	576.0	712.4	591.3	497.6	599.5	635.3
52°	422.9	464.1	599.0	580.8	449.7	547.3	677.4	562.6	473.6	570.8	605.2
52.5°	408.6	446.8	571.2	551.6	430.6	519.1	642.5	533.0	450.7	542.1	576.5
53°	395.2	431.1	544.0	523.9	411.4	492.8	610.9	505.7	430.1	516.2	548.8
53.5°	380.8	416.2	518.6	496.6	392.3	467.4	579.4	480.8	411.9	490.4	522.9
54°	367.4	402.4	493.7	471.7	373.2	444.0	550.2	456.9	394.2	466.0	498.0
54.5°	354.5	388.5	471.2	447.8	354.5	424.8	521.5	433.9	376.0	443.0	475.6
55°	342.6	375.1	449.7	425.3	338.2	405.2	495.6	414.8	358.3	424.4	454.0
55.5°	332.0	361.7	429.6	405.2	325.3	386.1	469.3	396.1	342.1	405.7	433.0
56°	324.4	348.8	410.5	385.6	315.3	366.5	444.9	377.5	328.2	387.0	415.7
56.5°	318.6	335.9	392.8	367.9	309.1	347.3	425.3	358.8	316.7	368.9	398.0
57°	313.4	324.8	376.5	351.2	303.3	331.1	405.2	342.1	309.1	350.2	380.3
57.5°	307.6	314.8	360.7	335.4	298.1	316.7	385.6	326.8	303.3	334.4	363.1
58°	302.4	308.1	346.9	320.5	292.8	305.2	366.0	313.8	298.1	320.1	349.2
58.5°	297.1	302.4	334.4	308.6	287.5	298.1	345.9	302.8	292.8	308.6	335.9
59°	291.4	296.6	322.5	300.9	281.8	291.8	331.1	295.7	287.1	299.5	323.4
59.5°	285.6	291.4	311.9	294.7	276.5	286.6	317.7	289.4	281.8	293.3	312.4
60°	279.9	286.1	301.9	289.0	271.3	281.3	305.7	284.2	276.1	287.5	301.9
60.5°	273.7	280.4	292.8	283.7	266.0	275.6	295.2	278.4	270.8	282.3	292.3
61°	268.4	274.6	284.2	278.0	260.7	270.3	286.1	273.2	265.0	277.0	283.7
61.5°	262.7	268.9	276.1	272.2	255.5	265.0	277.0	267.9	259.3	271.3	275.6
62°	256.9	263.1	268.9	267.0	250.7	259.8	268.9	262.2	254.0	266.0	267.9
62.5°	250.7	256.9	261.2	261.7	245.4	254.5	261.2	256.4	248.8	260.3	260.3
63°	245.4	251.2	254.5	256.4	240.2	248.8	254.0	251.2	243.0	254.5	253.6
63.5°	239.7	245.4	247.8	250.7	234.9	243.5	247.3	245.4	237.8	249.3	247.3
64°	233.9	239.7	242.1	245.4	230.1	238.3	240.6	239.7	232.5	243.5	241.1
64.5°	228.2	234.4	236.3	240.2	224.9	233.0	234.9	234.4	226.8	237.8	235.4
65°	222.9	228.2	231.1	234.9	220.1	228.2	229.6	228.7	221.5	232.5	229.6
65.5°	217.2	222.5	225.8	229.6	214.8	222.9	223.9	223.4	216.2	226.8	224.4
66°	211.5	217.2	220.1	224.4	210.0	217.7	218.6	217.7	211.0	221.5	219.1



TEST NUMBER: P776643

CATALOG NUMBER: HCDJBL54050CSD-HCD4TSQMW-5000lm-4000K

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
67.5°	194.7	200.0	203.8	208.6	195.2	202.4	202.9	201.4	195.2	205.2	203.3
68°	189.5	194.2	198.5	203.3	190.4	197.1	197.1	196.2	189.9	200.0	198.1
68.5°	183.7	188.5	192.8	198.1	185.1	192.3	191.8	190.9	184.7	194.2	192.8
69°	178.5	183.2	187.5	192.8	180.4	187.1	186.6	185.6	179.4	189.0	187.1
69.5°	171.8	177.5	181.8	188.0	175.6	181.8	181.3	179.9	174.1	183.7	181.8
70°	166.5	173.7	176.5	182.8	170.8	177.0	175.6	174.6	168.9	178.5	176.5
70.5°	161.7	167.9	170.8	177.5	166.0	172.2	170.3	169.4	164.1	173.2	171.3
71°	156.4	162.2	165.5	173.2	161.2	167.0	165.1	164.1	158.8	167.9	166.0
71.5°	151.7	156.0	160.3	167.9	156.4	161.7	159.8	158.8	153.6	162.2	160.8
72°	145.9	150.2	155.0	163.1	151.7	156.9	154.5	153.6	148.3	156.9	155.5
72.5°	140.7	144.5	149.7	157.9	146.9	152.1	149.3	148.3	143.5	151.7	150.2
73°	134.9	139.2	144.5	153.1	141.6	147.4	144.0	143.0	138.3	146.4	145.0
73.5°	129.7	133.5	139.2	147.8	136.8	142.1	139.2	137.8	133.0	141.1	139.7
74°	123.9	128.2	134.0	143.0	132.5	137.3	134.0	132.5	128.2	135.9	134.4
74.5°	118.6	122.5	128.2	137.8	127.7	132.5	128.7	127.3	123.0	130.6	129.7
75°	113.4	116.7	123.0	133.0	122.5	127.3	123.9	122.0	117.7	125.3	124.4
75.5°	108.1	111.5	117.7	127.7	117.7	122.5	118.6	116.7	112.9	120.1	119.1
76°	102.4	105.7	112.4	123.0	112.9	117.7	113.4	111.5	107.6	114.8	113.9
76.5°	97.1	100.5	107.2	118.2	108.6	112.9	108.6	106.2	102.9	110.0	108.6
77°	91.9	94.7	101.9	112.9	103.8	108.1	103.8	100.9	97.6	104.8	103.3
77.5°	86.6	89.5	96.6	108.1	99.0	103.3	99.0	95.7	92.8	99.5	98.6
78°	81.3	83.7	91.9	102.9	94.2	98.1	93.8	90.4	88.0	94.2	93.3
78.5°	76.1	78.5	86.6	98.1	89.5	93.3	89.0	85.2	82.8	89.0	88.0
79°	70.8	72.7	81.8	92.8	85.2	88.5	84.2	79.9	78.0	83.7	83.2
79.5°	65.5	67.5	76.5	88.0	80.4	83.7	79.4	74.6	73.2	78.9	78.5
80°	60.3	62.2	71.8	83.2	76.1	78.9	74.6	69.8	68.4	73.7	73.7
80.5°	55.5	56.9	67.0	78.0	71.3	74.2	70.3	64.6	63.6	68.4	68.4
81°	50.2	51.2	62.2	73.2	67.0	69.4	65.5	59.8	58.8	63.2	64.1
81.5°	45.0	45.9	57.4	68.4	62.2	65.1	61.2	55.5	54.1	58.4	59.3
82°	39.7	41.1	52.6	63.6	57.9	60.3	56.5	50.7	48.8	53.1	54.5
82.5°	34.9	36.4	48.3	59.3	53.6	56.0	52.1	46.4	44.0	47.8	50.2
83°	29.7	32.1	44.0	54.5	49.3	51.2	47.8	42.1	39.7	43.5	45.9
83.5°	24.4	27.3	39.7	50.2	44.5	46.9	44.0	37.8	34.9	38.8	42.1
84°	19.6	23.4	35.4	45.5	40.2	42.1	39.7	33.5	30.1	34.0	38.3
84.5°	17.2	19.6	31.6	41.1	35.9	37.8	35.9	29.7	25.4	29.7	34.4
85°	14.8	16.7	27.7	36.4	31.1	33.5	31.6	25.4	20.6	24.9	30.6
85.5°	12.0	13.9	23.4	32.1	26.8	28.7	27.7	21.5	17.2	21.1	26.3
86°	9.6	11.5	19.6	27.3	22.5	24.4	23.9	18.7	14.4	18.2	23.0
86.5°	7.2	9.1	16.3	23.0	18.2	20.1	20.1	15.8	12.4	15.8	19.1
87°	5.3	6.2	12.4	18.7	13.9	15.8	16.3	12.9	10.5	13.4	15.3
87.5°	2.9	3.8	9.1	14.4	9.6	11.5	12.4	10.0	8.1	10.5	11.5
88°	1.0	1.4	5.3	10.5	5.7	7.2	8.6	7.7	6.2	8.1	8.1
88.5°	0.0	0.5	1.9	6.2	1.9	3.3	4.8	4.8	4.3	5.7	4.3



TEST NUMBER: P776643
CATALOG NUMBER: HCDJBL54050CSD-HCD4TSQMW-5000lm-4000K

CANDELA DISTRIBUTION (continued):

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



TEST NUMBER: P776643

CATALOG NUMBER: HCDJBL54050CSD-HCD4TSQMW-5000lm-4000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	3005.9	3005.9	3005.9	3005.9	3005.9	3005.9
0.5°	3002.6	3005.0	3005.0	3005.5	3005.9	3005.5
1°	3001.6	3003.5	3003.1	3003.5	3004.5	3004.0
1.5°	2999.7	3001.6	3000.7	3001.1	3002.1	3001.6
2°	2997.8	2999.7	2998.3	2998.3	2999.2	2999.2
2.5°	2995.4	2997.3	2995.4	2995.4	2996.4	2996.8
3°	2992.5	2994.4	2992.1	2992.1	2993.0	2993.5
3.5°	2989.2	2991.6	2989.2	2988.7	2989.7	2990.6
4°	2985.8	2987.8	2985.4	2984.9	2985.8	2987.3
4.5°	2982.0	2984.4	2981.1	2980.6	2981.5	2983.0
5°	2977.7	2980.1	2976.3	2976.3	2977.2	2978.7
5.5°	2973.4	2975.8	2971.5	2971.0	2972.4	2974.4
6°	2968.6	2970.5	2966.2	2965.7	2967.2	2969.6
6.5°	2963.4	2965.3	2961.0	2960.5	2961.4	2964.3
7°	2957.6	2959.5	2954.7	2954.3	2955.7	2958.1
7.5°	2951.4	2953.8	2948.5	2948.0	2949.0	2951.9
8°	2945.2	2947.1	2941.8	2941.3	2942.8	2945.7
8.5°	2938.5	2940.4	2934.6	2934.2	2935.6	2938.5
9°	2931.8	2933.2	2927.5	2926.5	2927.9	2931.3
9.5°	2924.1	2925.6	2919.8	2918.9	2920.3	2923.6
10°	2916.0	2918.4	2911.7	2910.2	2912.2	2915.5
10.5°	2907.9	2910.2	2903.1	2902.1	2903.1	2906.9
11°	2899.2	2901.2	2894.5	2893.0	2894.5	2898.3
11.5°	2890.6	2892.1	2884.9	2883.5	2885.4	2889.2
12°	2881.1	2883.0	2875.3	2873.9	2875.3	2879.1
12.5°	2871.5	2872.9	2865.3	2863.8	2864.8	2869.1
13°	2861.4	2862.9	2854.8	2853.3	2854.8	2858.6
13.5°	2850.4	2852.4	2844.2	2842.8	2843.7	2848.1
14°	2839.9	2841.4	2832.7	2831.3	2832.7	2837.0
14.5°	2828.4	2829.9	2821.3	2819.3	2820.3	2825.1
15°	2817.0	2817.9	2809.3	2807.4	2807.9	2812.6
15.5°	2804.5	2805.5	2796.4	2794.9	2794.9	2799.7
16°	2792.1	2793.0	2783.5	2782.0	2782.5	2786.8
16.5°	2778.7	2780.1	2770.5	2768.6	2769.1	2772.9
17°	2765.3	2766.2	2757.2	2755.2	2755.2	2759.1
17.5°	2751.4	2752.4	2742.8	2740.9	2740.4	2744.2
18°	2737.5	2737.5	2728.4	2726.5	2726.1	2729.9
18.5°	2722.2	2722.7	2713.1	2712.2	2710.7	2714.1
19°	2707.4	2707.9	2697.8	2696.4	2695.0	2698.8
19.5°	2692.1	2692.1	2682.0	2681.1	2679.2	2682.5
20°	2675.8	2676.3	2665.8	2664.8	2662.4	2666.3
20.5°	2659.6	2660.0	2649.5	2647.6	2645.7	2650.0
21°	2642.8	2643.3	2632.3	2631.3	2628.5	2633.2

TEST NUMBER: P776643

CATALOG NUMBER: HCDJBL54050CSD-HCD4TSQMW-5000lm-4000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
22.5°	2590.7	2591.6	2579.2	2576.8	2574.9	2579.7
23°	2572.5	2573.4	2561.0	2558.6	2556.7	2561.5
23.5°	2554.8	2554.8	2542.8	2538.5	2538.0	2543.3
24°	2536.1	2536.6	2523.7	2519.4	2518.9	2523.7
24.5°	2517.0	2517.5	2504.1	2499.3	2499.3	2506.9
25°	2497.4	2499.3	2484.9	2479.2	2479.2	2489.2
25.5°	2478.2	2482.5	2464.8	2457.7	2460.1	2460.5
26°	2459.1	2460.1	2444.7	2438.0	2439.5	2429.0
26.5°	2441.9	2426.1	2425.1	2415.6	2421.8	2399.3
27°	2422.3	2399.8	2407.4	2395.0	2402.6	2354.8
27.5°	2391.2	2362.5	2386.4	2372.5	2372.5	2307.9
28°	2360.1	2317.5	2354.8	2350.5	2341.4	2261.5
28.5°	2330.4	2272.0	2324.2	2328.0	2310.3	2216.5
29°	2289.3	2227.5	2294.5	2306.0	2267.7	2173.0
29.5°	2244.8	2183.0	2252.4	2282.1	2222.8	2130.9
30°	2200.3	2140.5	2209.4	2260.1	2176.3	2088.8
30.5°	2156.7	2096.4	2163.4	2237.1	2132.8	2047.7
31°	2114.2	2054.3	2120.8	2214.1	2089.3	2006.5
31.5°	2070.6	2011.8	2076.8	2190.7	2046.7	1964.4
32°	2028.5	1968.7	2035.2	2167.3	2006.0	1918.5
32.5°	1986.4	1923.7	1994.1	2144.3	1966.8	1874.0
33°	1944.8	1878.3	1952.4	2122.3	1926.1	1825.7
33.5°	1902.2	1830.9	1910.8	2102.7	1886.9	1774.9
34°	1857.7	1782.1	1869.7	2081.1	1845.3	1721.8
34.5°	1813.2	1732.8	1826.1	2045.7	1802.7	1672.1
35°	1767.8	1682.6	1781.6	2003.6	1756.8	1620.9
35.5°	1720.4	1632.4	1736.7	1972.1	1711.8	1572.6
36°	1672.6	1584.5	1689.3	1926.6	1663.0	1524.7
36.5°	1623.8	1536.2	1642.9	1870.2	1615.6	1479.8
37°	1575.9	1490.8	1595.1	1813.7	1565.9	1434.3
37.5°	1528.6	1444.8	1548.2	1757.7	1519.5	1390.3
38°	1482.6	1399.9	1500.8	1702.2	1473.5	1346.3
38.5°	1438.1	1355.4	1456.8	1649.1	1429.5	1301.8
39°	1392.7	1311.8	1411.8	1597.5	1386.5	1255.9
39.5°	1349.2	1265.9	1370.2	1547.7	1344.4	1209.5
40°	1306.6	1220.0	1327.1	1499.9	1303.2	1162.6
40.5°	1265.0	1175.5	1284.6	1453.9	1262.1	1116.6
41°	1220.9	1130.0	1242.5	1409.0	1220.5	1071.7
41.5°	1177.9	1085.5	1200.8	1364.0	1177.4	1028.6
42°	1134.3	1042.0	1157.8	1320.0	1134.8	985.6
42.5°	1092.2	999.9	1114.7	1277.4	1092.7	945.4
43°	1049.2	958.3	1072.6	1233.4	1050.1	905.7
43.5°	1006.6	918.1	1030.0	1188.4	1008.5	866.9



TEST NUMBER: P776643

CATALOG NUMBER: HCDJBL54050CSD-HCD4TSQMW-5000lm-4000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
45°	888.0	803.3	910.0	1054.0	890.8	754.5
45.5°	851.6	766.9	873.1	1011.4	854.5	719.5
46°	813.8	731.0	836.3	970.2	818.1	686.1
46.5°	777.9	696.1	799.4	929.6	782.7	654.0
47°	743.0	663.1	764.5	891.3	748.3	622.9
47.5°	709.0	630.6	728.6	854.9	714.8	595.2
48°	675.1	601.9	694.7	820.5	681.8	569.3
48.5°	643.5	573.2	662.6	787.5	650.2	545.9
49°	611.9	547.8	631.5	754.5	620.0	524.4
49.5°	583.2	524.4	601.9	723.4	591.8	503.8
50°	554.5	502.3	573.6	692.8	565.5	485.1
50.5°	529.1	482.3	547.8	663.1	540.6	468.4
51°	505.2	464.5	522.9	634.4	518.1	452.6
51.5°	483.2	447.8	501.4	606.2	497.1	437.3
52°	463.1	432.5	481.8	579.4	477.9	422.9
52.5°	444.9	417.7	462.6	553.5	460.2	408.6
53°	428.2	403.3	445.4	529.1	443.5	395.2
53.5°	413.8	389.4	429.1	505.7	427.7	380.8
54°	400.0	375.6	413.4	483.7	412.9	367.4
54.5°	386.1	362.6	400.0	462.6	398.5	354.5
55°	371.7	349.7	385.6	443.0	385.6	342.6
55.5°	357.9	337.3	371.7	424.4	371.7	332.0
56°	345.4	326.8	358.8	407.1	358.8	324.4
56.5°	332.5	318.2	345.9	390.9	345.9	318.6
57°	321.0	311.5	333.5	375.1	333.9	313.4
57.5°	311.0	306.2	322.0	360.7	322.9	307.6
58°	302.4	300.4	312.4	347.3	313.8	302.4
58.5°	296.1	295.2	304.8	334.9	306.7	297.1
59°	290.9	289.9	299.0	323.4	301.4	291.4
59.5°	285.6	285.1	293.3	311.9	295.7	285.6
60°	280.4	279.4	288.0	302.4	290.4	279.9
60.5°	275.1	274.6	282.7	293.3	284.2	273.7
61°	269.4	269.4	277.0	284.7	278.9	268.4
61.5°	264.1	264.1	271.7	276.5	273.2	262.7
62°	258.8	258.8	266.5	268.9	267.4	256.9
62.5°	253.6	253.6	260.7	261.7	261.2	250.7
63°	248.3	248.8	255.5	255.0	255.5	245.4
63.5°	243.0	243.5	250.2	248.8	249.7	239.7
64°	237.8	238.7	245.0	242.6	244.0	233.9
64.5°	232.5	233.5	239.2	237.3	238.3	228.2
65°	227.7	228.2	234.4	232.0	232.5	222.9
65.5°	222.5	223.4	229.2	226.3	226.8	217.2
66°	217.2	218.2	223.4	221.0	221.0	211.5



TEST NUMBER: P776643

CATALOG NUMBER: HCDJBL54050CSD-HCD4TSQMW-5000lm-4000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
67.5°	201.9	203.3	208.1	205.2	203.8	194.7
68°	196.6	198.5	202.9	199.5	198.1	189.5
68.5°	191.8	193.3	197.6	193.8	192.3	183.7
69°	186.6	188.5	192.3	188.5	187.1	178.5
69.5°	181.3	183.7	187.1	182.8	181.3	171.8
70°	176.5	178.9	181.8	177.5	175.6	166.5
70.5°	171.3	173.2	177.0	172.7	170.3	161.7
71°	166.5	168.4	173.7	167.4	164.6	156.4
71.5°	161.2	164.1	168.4	161.7	159.3	151.7
72°	156.4	159.3	162.7	156.4	154.1	145.9
72.5°	151.2	154.5	157.4	151.2	148.3	140.7
73°	146.4	150.2	152.1	145.9	142.6	134.9
73.5°	141.6	145.0	146.9	140.2	137.3	129.7
74°	136.4	140.2	142.1	134.9	131.6	123.9
74.5°	131.6	135.4	136.8	129.7	125.8	118.6
75°	126.3	130.6	131.6	124.4	120.6	113.4
75.5°	121.5	125.8	126.8	119.1	114.8	108.1
76°	116.3	121.0	121.5	113.4	109.6	102.4
76.5°	111.5	115.8	116.7	108.1	103.8	97.1
77°	106.7	111.0	111.5	103.3	98.1	91.9
77.5°	101.4	106.2	106.7	98.1	92.8	86.6
78°	96.6	101.4	101.4	92.8	87.1	81.3
78.5°	91.4	96.6	96.6	87.6	81.8	76.1
79°	86.6	91.9	91.4	82.8	76.1	70.8
79.5°	81.8	87.1	86.6	77.5	70.8	65.5
80°	76.5	82.3	81.3	72.7	65.1	60.3
80.5°	71.8	77.5	76.5	67.9	59.8	55.5
81°	67.0	73.2	71.8	63.2	54.5	50.2
81.5°	62.7	68.4	67.0	58.4	49.8	45.0
82°	57.9	63.6	62.2	53.6	44.5	39.7
82.5°	53.1	59.3	57.4	49.3	40.2	34.9
83°	48.8	54.5	52.6	45.0	35.4	29.7
83.5°	44.0	49.8	47.8	40.7	31.1	24.4
84°	39.7	45.5	43.1	36.4	26.8	19.6
84.5°	34.9	41.1	38.8	32.5	23.0	17.2
85°	30.6	36.4	34.0	28.2	19.6	14.8
85.5°	25.8	32.1	29.2	24.4	16.7	12.0
86°	21.5	27.3	24.4	20.1	13.9	9.6
86.5°	16.7	23.0	20.1	16.3	11.0	7.2
87°	12.4	18.2	15.8	12.4	8.1	5.3
87.5°	8.1	14.4	12.0	9.1	5.3	2.9
88°	4.3	10.0	8.1	5.3	2.4	1.0
88.5°	1.4	5.7	4.3	1.4	1.0	0.0



TEST NUMBER: P776643
CATALOG NUMBER: HCDJBL54050CSD-HCD4TSQMW-5000lm-4000K

CANDELA DISTRIBUTION (continued):

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

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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°

Signify Classified - Internal
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1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report



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Peachtree City, GA 30269

Scaled Data Report





21.5°	2615.5	2634.7	2683.0	2724.1	2721.7	2737.5	2747.1	2742.8	2732.8	2716.5	2676.8
22°	2597.4	2617.5	2666.7	2708.8	2707.4	2722.7	2732.3	2728.4	2718.4	2702.1	2660.0



44°	829.1	950.1	1232.4	1177.9	990.3	1146.8	1374.0	1169.7	1028.6	1159.2	1242.0
44.5°	791.3	911.9	1183.6	1135.3	947.8	1104.2	1324.3	1127.6	985.6	1119.0	1193.2



66.5°	206.2	211.5	214.8	219.1	204.8	212.4	213.4	212.4	205.7	216.2	213.9
67°	200.5	205.7	209.5	213.9	200.0	207.2	208.1	207.2	200.5	210.5	208.6



89°	0.0	0.5	0.5	2.4	0.5	1.0	1.9	2.4	2.4	3.3	1.9
89.5°	0.0	0.5	0.5	0.5	0.0	0.0	0.5	0.5	0.5	1.4	0.5

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Scaled Data Report





21.5°	2626.1	2626.5	2615.1	2613.1	2610.8	2615.5
22°	2608.8	2608.8	2597.4	2595.4	2593.1	2597.4



44°	966.4	878.9	989.4	1143.0	967.4	829.1
44.5°	927.7	840.6	950.1	1098.5	929.1	791.3



66.5°	211.9	213.4	218.6	215.8	215.3	206.2
67°	207.2	208.6	213.4	210.5	209.5	200.5

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1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report



89°	0.5	1.9	1.0	0.5	0.5	0.0
89.5°	0.0	0.5	0.5	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



(END OF REPORT)