

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: P776617

Luminaire Tested: HCDJBS4050CSD-HCD4TRMW-5000lm-3500K

Issue Date: 2/7/2024

Test Information

Test Method: LM-79-2019
Report Number: P776617
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-HCD4TRMW-5000lm-3500K
Description: 4 INCH ROUND MEDIUM MATTE WHITE TRIM
Light Source: SELECTABLE LUMENS AND CCT ARRAY 90CRI / 3500K CCT
Ballast/Driver: -

Summary

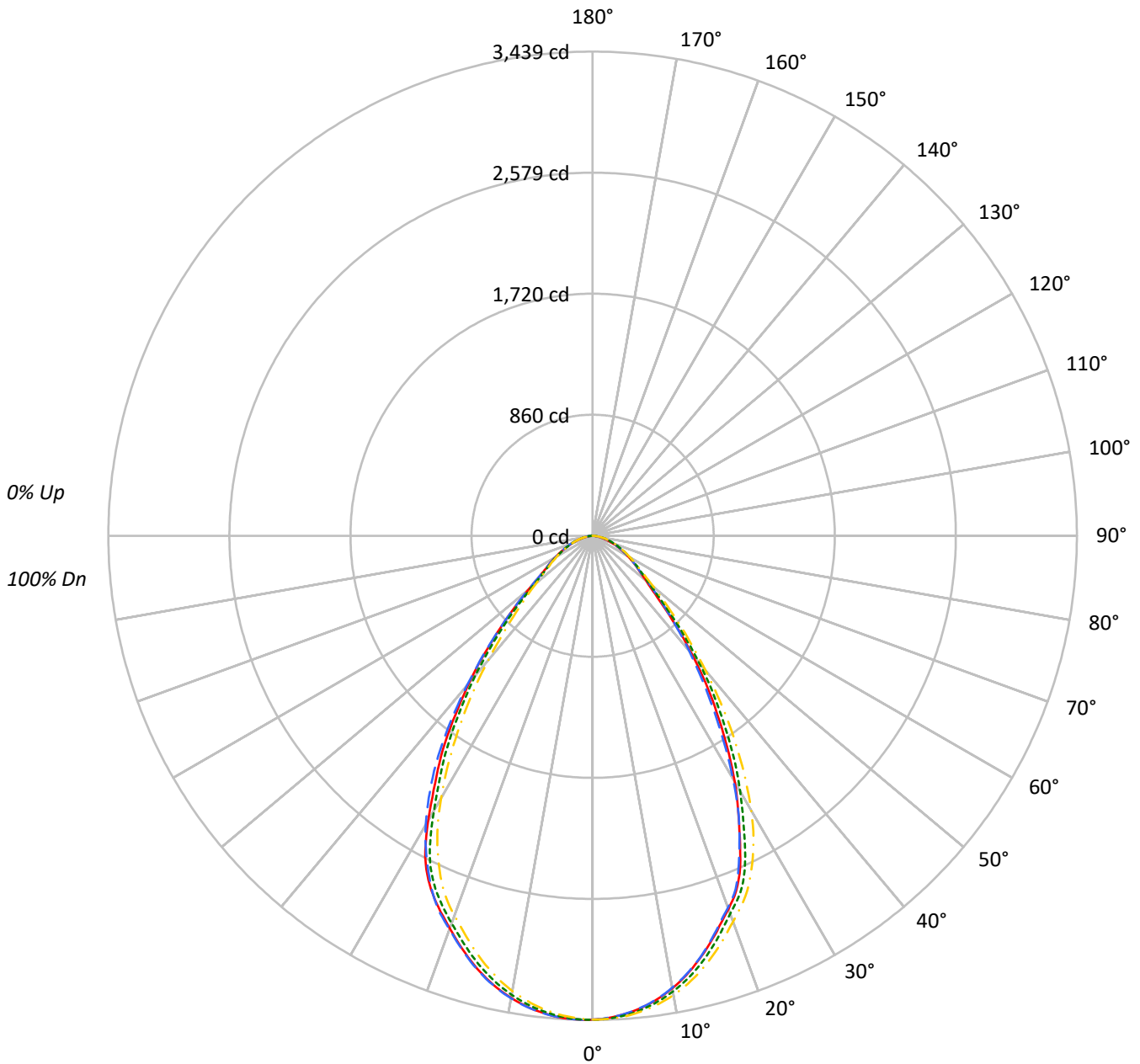
Lumens per Lamp: N/A
Luminaire Lumens: 4793.9 lumens
Efficiency: N/A
Efficacy: 99.9 lumens/watt
Spacing Criteria (0/90/45): 1.03 / 1.03 / 1.02
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

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



TEST NUMBER: P776617
CATALOG NUMBER: HCDJBL54050CSD-HCD4TRMW-5000lm-3500K

Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20					20					20					20										
RC	80					70					50					30					10					0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0		
RCR																										
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100								
1	112	108	105	102	109	106	103	100	102	99	97	98	96	94	95	93	92	90								
2	104	98	93	89	102	96	92	88	93	89	86	90	87	84	87	84	82	80								
3	97	89	83	78	95	88	82	77	85	80	76	82	78	75	80	76	73	72								
4	91	82	75	69	89	80	74	69	78	72	68	76	71	67	74	70	66	65								
5	85	75	68	62	83	74	67	62	72	66	61	70	65	61	68	64	60	58								
6	80	69	62	56	78	68	61	56	66	60	56	65	60	55	64	59	55	53								
7	75	64	57	51	74	63	56	51	62	56	51	60	55	51	59	54	50	49								
8	71	59	52	47	69	59	52	47	57	51	47	56	51	47	55	50	46	45								
9	67	55	48	44	65	55	48	43	54	48	43	53	47	43	52	47	43	41								
10	63	52	45	40	62	51	45	40	50	44	40	49	44	40	49	44	40	38								

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	432521	432521	432521	432521
5°	427856	429461	431848	430534
10°	417008	420024	425928	423104
15°	399115	403845	414164	409799
20°	377847	382709	397373	392124
25°	344553	355815	380115	373228
30°	293268	304516	339334	327476
35°	236796	249471	284469	272516
40°	180155	193167	224003	212766
45°	127255	138343	164950	154539
50°	97052	102769	115985	108036
55°	82675	86207	89103	84956
60°	72288	76215	77398	74075
65°	61791	67270	66138	64620
70°	52398	59867	56408	57255
75°	42206	53438	47263	50472
80°	29424	46456	36237	43050
85°	10252	36821	16317	31334

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 202.5°
 Vertical Angle: 45°
 Luminance: 167211 cd/sqm



TEST NUMBER: P776617

CATALOG NUMBER: HCDJBL54050CSD-HCD4TRMW-5000lm-3500K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	321.5	6.7
10°-20°	875.6	18.3
20°-30°	1187.1	24.8
30°-40°	1054.3	22.0
40°-50°	645.5	13.5
50°-60°	358.0	7.5
60°-70°	219.7	4.6
70°-80°	108.6	2.3
80°-90°	23.6	0.5
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°	2384.2	49.7
0°-40°	3438.5	71.7
0°-60°	4442.1	92.7
0°-90°	4793.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4793.9	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	3437	3437	3437	3437	3437	
5°	3387	3400	3418	3408	3387	319
15°	3063	3100	3179	3145	3063	859
25°	2481	2562	2737	2688	2481	1127
35°	1541	1624	1852	1774	1541	960
45°	715	777	927	868	715	570
55°	377	393	406	387	377	340
65°	208	226	222	217	208	208
75°	87	110	97	104	87	93
85°	7	26	11	22	7	13
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°	3436.8	3436.8	3436.8	3436.8	3436.8	3436.8	3436.8	3436.8	3436.8	3436.8	3436.8
0.5°	3435.4	3435.9	3434.9	3433.0	3437.7	3436.3	3436.3	3437.3	3438.2	3439.2	3438.2
1°	3433.0	3433.5	3432.6	3430.7	3436.3	3435.9	3435.9	3437.7	3438.7	3439.6	3438.7
1.5°	3429.7	3429.7	3428.8	3427.4	3434.0	3434.4	3434.4	3437.3	3438.7	3439.6	3438.7
2°	3426.0	3425.5	3424.5	3423.6	3431.1	3432.1	3433.0	3435.4	3437.7	3439.2	3437.7
2.5°	3421.2	3420.8	3419.8	3418.9	3427.4	3429.3	3430.7	3434.0	3436.3	3437.7	3436.3
3°	3415.6	3415.6	3414.6	3413.7	3423.1	3425.5	3427.8	3431.6	3434.0	3435.4	3434.0
3.5°	3409.5	3409.5	3408.0	3408.0	3418.4	3421.2	3424.1	3428.3	3431.1	3432.6	3431.1
4°	3402.8	3402.4	3401.0	3401.4	3412.8	3416.5	3419.4	3424.5	3427.8	3429.3	3427.8
4.5°	3395.8	3394.8	3393.4	3394.4	3406.6	3410.4	3414.2	3419.8	3423.6	3425.5	3423.6
5°	3386.8	3386.3	3385.4	3386.3	3399.5	3404.3	3408.5	3414.6	3418.4	3420.8	3418.9
5.5°	3377.9	3376.9	3376.0	3377.4	3391.1	3396.7	3401.4	3409.0	3412.8	3415.1	3413.7
6°	3368.4	3367.0	3366.1	3367.5	3382.6	3389.2	3394.8	3402.4	3406.6	3409.0	3408.0
6.5°	3357.6	3356.2	3356.2	3357.6	3373.1	3380.2	3386.8	3394.8	3400.0	3402.4	3401.4
7°	3346.7	3345.3	3344.8	3346.7	3363.2	3370.8	3378.3	3386.8	3392.9	3395.3	3393.9
7.5°	3334.5	3332.6	3332.1	3334.9	3352.4	3360.9	3368.9	3378.3	3384.5	3387.3	3385.9
8°	3322.2	3320.3	3319.4	3322.2	3340.1	3350.0	3359.0	3368.9	3375.0	3378.3	3376.9
8.5°	3308.5	3306.6	3305.7	3308.5	3328.3	3338.7	3348.1	3359.0	3365.6	3368.4	3367.9
9°	3294.4	3292.0	3291.1	3294.8	3315.1	3326.4	3336.8	3347.7	3355.7	3359.0	3358.0
9.5°	3278.8	3276.0	3275.5	3279.8	3301.0	3313.7	3324.6	3336.8	3344.8	3348.1	3347.2
10°	3263.2	3259.9	3259.5	3263.7	3286.8	3300.0	3311.8	3324.6	3333.0	3337.3	3335.9
10.5°	3246.7	3243.4	3243.0	3247.2	3271.7	3285.9	3298.1	3311.8	3320.3	3325.0	3324.1
11°	3229.3	3226.0	3225.0	3230.2	3254.8	3270.3	3283.5	3298.6	3307.6	3312.3	3311.4
11.5°	3210.9	3206.6	3206.6	3212.3	3238.7	3254.3	3268.9	3283.5	3294.4	3298.6	3298.1
12°	3192.0	3188.3	3187.8	3193.4	3221.3	3237.8	3252.9	3268.9	3280.2	3284.9	3283.5
12.5°	3172.2	3168.0	3168.0	3173.2	3201.9	3219.9	3235.9	3253.3	3264.7	3269.8	3268.4
13°	3151.9	3147.7	3146.7	3153.4	3183.1	3201.9	3218.9	3237.3	3249.1	3254.8	3253.3
13.5°	3129.8	3125.1	3126.0	3132.1	3163.7	3182.6	3201.0	3220.3	3232.6	3238.2	3237.3
14°	3109.0	3103.8	3103.4	3110.0	3143.0	3162.8	3181.7	3201.9	3215.6	3221.3	3219.4
14.5°	3086.4	3081.2	3080.7	3088.3	3121.3	3142.5	3162.8	3183.5	3198.2	3203.3	3201.5
15°	3063.3	3057.1	3056.7	3064.7	3099.6	3121.3	3143.0	3164.2	3178.8	3185.0	3183.1
15.5°	3039.2	3033.6	3033.6	3041.1	3076.5	3099.6	3121.8	3144.9	3159.5	3166.1	3164.7
16°	3014.7	3009.0	3008.6	3016.6	3053.4	3077.4	3100.5	3125.1	3140.1	3146.7	3144.9
16.5°	2990.2	2983.6	2983.6	2992.5	3029.8	3054.3	3078.8	3103.8	3119.9	3126.5	3124.6
17°	2965.6	2958.1	2958.6	2967.5	3005.3	3030.7	3056.7	3082.6	3098.6	3105.7	3104.3
17.5°	2940.6	2932.6	2932.6	2942.1	2980.3	3007.1	3033.6	3060.4	3077.4	3085.0	3082.6
18°	2914.2	2906.7	2906.2	2916.1	2955.7	2982.6	3010.4	3037.8	3055.7	3063.3	3061.4
18.5°	2889.7	2881.2	2880.3	2890.7	2930.3	2957.6	2986.4	3015.2	3033.6	3041.1	3039.2
19°	2866.1	2857.2	2855.8	2865.7	2904.8	2933.6	2962.3	2992.1	3011.4	3019.4	3017.1
19.5°	2843.5	2834.1	2832.6	2842.5	2880.7	2909.5	2938.3	2969.4	2988.3	2997.2	2995.4
20°	2821.3	2811.4	2810.5	2819.9	2857.6	2886.9	2916.6	2946.8	2967.1	2975.5	2974.6
20.5°	2797.7	2787.8	2786.9	2796.8	2835.0	2864.2	2894.0	2924.6	2944.9	2954.8	2953.9
21°	2774.2	2764.3	2763.8	2774.2	2812.4	2843.0	2872.3	2902.4	2923.7	2934.5	2933.6

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CATALOG NUMBER: HCDJBL54050CSD-HCD4TRMW-5000lm-3500K

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
22.5°	2689.3	2675.1	2674.2	2690.2	2741.1	2773.2	2804.3	2836.4	2858.1	2869.4	2868.0
23°	2654.4	2639.7	2636.4	2655.8	2712.8	2745.9	2777.9	2813.3	2835.9	2846.3	2842.5
23.5°	2617.1	2602.0	2595.9	2619.5	2680.3	2715.7	2750.6	2789.3	2812.8	2820.8	2816.1
24°	2575.1	2560.5	2552.5	2579.8	2644.0	2683.6	2720.9	2763.3	2788.8	2794.4	2787.4
24.5°	2529.9	2518.1	2509.1	2537.9	2605.3	2649.2	2689.3	2736.4	2763.3	2766.1	2757.7
25°	2481.3	2473.3	2464.8	2494.0	2562.4	2612.4	2656.2	2707.2	2737.4	2736.4	2726.1
25.5°	2433.6	2426.1	2421.8	2448.3	2517.6	2571.4	2621.3	2677.0	2709.5	2704.8	2692.6
26°	2385.5	2378.0	2379.4	2401.1	2470.9	2528.9	2586.0	2644.5	2678.9	2672.3	2659.1
26.5°	2337.4	2327.0	2336.5	2353.0	2420.9	2484.6	2548.2	2609.1	2645.9	2636.9	2624.6
27°	2289.8	2277.5	2292.1	2304.9	2371.9	2438.8	2511.5	2572.8	2611.0	2601.5	2591.2
27.5°	2244.5	2227.5	2246.9	2254.9	2324.7	2392.6	2473.3	2535.0	2572.8	2564.8	2557.2
28°	2199.7	2176.6	2198.3	2205.8	2277.5	2345.0	2433.2	2495.0	2531.3	2528.9	2521.4
28.5°	2155.4	2128.5	2148.3	2157.7	2231.8	2300.2	2391.2	2454.4	2485.5	2490.7	2486.0
29°	2109.2	2080.4	2096.9	2109.2	2186.5	2256.3	2345.9	2411.0	2437.4	2451.6	2449.7
29.5°	2064.3	2032.7	2045.5	2060.6	2141.2	2212.9	2299.7	2365.7	2387.4	2411.0	2411.0
30°	2018.1	1984.6	1993.1	2012.0	2095.5	2169.5	2251.6	2318.6	2335.1	2369.5	2371.4
30.5°	1971.4	1937.9	1939.8	1962.9	2050.7	2126.6	2203.0	2267.2	2281.8	2324.2	2328.5
31°	1922.9	1889.4	1888.0	1913.9	2005.4	2082.3	2152.5	2214.8	2228.9	2279.4	2285.5
31.5°	1874.7	1841.3	1836.5	1865.8	1958.2	2037.5	2101.6	2160.1	2178.0	2232.7	2239.8
32°	1823.8	1794.1	1784.7	1817.7	1912.0	1992.2	2052.6	2104.9	2129.9	2184.6	2195.0
32.5°	1774.8	1745.5	1732.8	1769.1	1865.3	1946.0	2003.5	2050.2	2082.7	2133.7	2150.2
33°	1726.7	1697.4	1682.8	1721.9	1815.8	1897.4	1951.6	1995.0	2036.0	2081.8	2105.4
33.5°	1679.0	1651.7	1632.8	1675.2	1766.7	1848.8	1899.7	1942.2	1989.8	2030.4	2057.7
34°	1632.8	1603.6	1583.3	1628.1	1718.2	1798.8	1847.9	1893.1	1945.0	1979.9	2012.0
34.5°	1586.6	1556.4	1534.7	1580.9	1671.0	1747.4	1796.9	1841.7	1898.3	1929.0	1961.5
35°	1541.3	1508.3	1485.7	1534.2	1623.8	1696.0	1745.5	1789.9	1851.6	1880.4	1911.5
35.5°	1497.0	1463.5	1439.4	1487.5	1579.0	1647.0	1695.1	1740.3	1802.6	1832.8	1859.2
36°	1453.1	1415.8	1395.1	1440.4	1532.3	1596.5	1642.7	1690.3	1751.7	1785.1	1807.8
36.5°	1408.3	1369.6	1351.7	1392.3	1488.5	1547.9	1593.2	1640.3	1701.2	1737.0	1754.5
37°	1363.0	1325.3	1309.3	1346.0	1443.7	1498.9	1540.8	1589.4	1649.8	1688.5	1701.2
37.5°	1317.7	1281.0	1266.8	1299.8	1399.3	1451.7	1490.4	1538.9	1598.8	1641.8	1648.8
38°	1272.5	1237.6	1224.8	1254.5	1355.5	1404.5	1439.0	1489.4	1550.3	1592.2	1596.0
38.5°	1227.2	1193.7	1182.9	1212.6	1311.1	1358.3	1389.9	1440.8	1504.5	1543.7	1542.2
39°	1183.8	1153.1	1142.8	1171.1	1263.0	1312.1	1340.9	1392.3	1455.9	1494.1	1490.4
39.5°	1139.5	1112.6	1103.2	1130.5	1219.2	1265.9	1295.1	1346.5	1410.2	1445.1	1438.5
40°	1096.6	1072.5	1063.1	1089.9	1175.8	1219.6	1246.5	1300.8	1363.5	1395.6	1387.6
40.5°	1055.0	1033.4	1025.8	1051.3	1130.5	1171.5	1200.3	1256.9	1321.5	1347.0	1336.6
41°	1015.0	995.2	990.0	1013.1	1087.6	1125.8	1154.6	1213.0	1275.3	1299.4	1288.5
41.5°	974.4	957.4	954.6	976.3	1046.1	1081.0	1111.6	1171.1	1228.1	1252.2	1241.3
42°	934.3	921.6	922.0	940.0	1006.5	1037.1	1068.7	1130.5	1181.9	1205.5	1195.1
42.5°	896.1	887.1	889.5	904.6	965.9	993.7	1028.2	1089.9	1139.0	1160.2	1150.3
43°	857.9	853.7	857.9	870.6	926.8	952.7	988.5	1049.4	1093.3	1114.0	1105.0
43.5°	820.2	820.6	826.3	837.6	887.6	913.1	951.3	1010.7	1049.4	1069.2	1061.2



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
45°	715.0	730.6	740.0	746.6	777.3	804.1	841.4	895.2	926.8	939.5	935.7
45.5°	684.8	702.7	713.1	718.8	743.3	770.7	808.9	858.4	889.0	898.5	895.6
46°	656.5	676.3	688.1	692.4	710.8	737.6	776.3	822.5	851.3	858.4	857.0
46.5°	629.6	650.9	662.6	666.4	680.1	707.9	744.7	788.1	815.5	819.2	819.7
47°	605.1	626.3	639.5	641.4	652.3	678.2	715.0	755.1	780.1	780.6	783.4
47.5°	582.9	602.7	616.4	617.8	626.3	650.4	686.7	722.5	745.7	745.2	749.4
48°	563.1	581.5	594.3	595.7	601.8	624.9	660.3	692.4	713.1	711.2	715.5
48.5°	544.3	560.8	573.0	574.5	579.6	600.9	634.8	663.6	681.0	679.2	683.4
49°	527.3	541.4	554.2	554.2	559.8	579.2	609.8	635.8	649.9	648.0	652.3
49.5°	510.8	523.0	534.8	534.8	541.4	557.9	587.2	609.8	620.7	619.3	623.5
50°	495.7	505.6	516.4	516.4	524.9	538.6	565.0	584.8	592.4	591.9	595.2
50.5°	481.5	489.1	498.0	499.5	508.4	520.7	544.3	561.2	566.9	566.9	568.8
51°	467.9	474.0	482.0	483.0	492.9	504.2	524.5	539.1	542.9	543.3	544.3
51.5°	454.2	458.9	466.0	467.9	478.7	488.6	505.6	518.3	520.7	521.6	520.7
52°	441.5	444.8	450.9	452.8	465.5	473.5	488.1	499.0	499.9	500.9	499.0
52.5°	428.7	431.1	436.3	439.1	451.8	459.4	471.2	480.1	481.1	481.5	478.7
53°	416.5	418.8	422.6	425.4	438.6	445.7	455.6	462.7	464.1	463.6	459.8
53.5°	405.1	407.0	409.9	412.7	425.9	432.5	440.5	447.1	447.6	447.1	443.3
54°	394.8	396.2	398.1	400.9	414.1	420.7	426.4	432.0	432.5	431.5	428.2
54.5°	385.8	386.7	388.2	391.0	402.3	408.0	413.2	417.9	418.8	416.9	414.1
55°	376.8	377.8	379.2	381.6	392.9	398.5	402.8	405.1	406.1	404.7	403.7
55.5°	367.9	368.8	370.2	372.6	383.4	388.6	392.9	395.2	396.2	394.8	393.3
56°	358.9	359.9	361.3	363.2	374.0	379.2	383.0	385.3	385.8	384.4	383.0
56.5°	349.5	350.9	352.3	354.7	364.6	369.3	372.6	375.4	375.4	374.5	373.1
57°	340.5	341.9	343.4	345.2	356.1	359.9	362.7	365.0	365.0	364.1	362.7
57.5°	331.6	333.0	333.9	336.3	346.7	350.4	353.3	355.6	356.6	354.7	352.8
58°	322.6	324.0	325.0	327.3	337.7	341.5	343.8	346.2	346.7	345.2	342.9
58.5°	313.6	315.1	316.5	318.8	328.7	332.0	334.4	337.2	336.7	335.8	333.4
59°	305.1	306.6	308.0	310.3	319.8	323.1	325.4	327.8	326.8	325.9	324.0
59.5°	296.2	298.1	299.5	301.4	311.3	314.1	316.0	318.4	317.4	316.5	314.6
60°	287.2	290.1	291.0	293.4	302.8	306.1	307.5	309.4	307.5	307.5	305.6
60.5°	278.7	281.6	283.0	284.9	294.8	297.1	299.0	300.4	298.1	298.1	296.7
61°	270.2	273.1	275.0	276.8	286.3	289.1	290.5	291.9	289.1	289.1	288.2
61.5°	262.2	265.1	267.4	269.3	278.3	281.1	282.0	283.5	280.2	280.2	279.7
62°	253.7	257.0	259.9	261.3	270.2	273.1	274.0	275.4	271.2	271.7	271.7
62.5°	245.7	249.5	251.9	253.7	262.2	265.1	266.5	266.9	262.7	263.2	263.6
63°	237.7	241.5	244.8	246.7	254.7	257.5	258.5	258.9	254.2	254.7	255.6
63.5°	230.2	233.9	237.2	239.1	247.1	250.0	250.9	250.4	245.7	246.7	248.1
64°	222.6	226.4	230.6	232.0	240.1	242.4	243.4	242.4	237.7	238.6	240.5
64.5°	215.1	219.3	223.6	225.4	233.0	235.3	236.3	234.9	229.7	231.1	233.5
65°	207.5	211.8	217.0	218.4	225.9	228.3	229.2	227.3	222.1	223.6	225.9
65.5°	200.4	204.7	209.9	211.8	219.3	221.2	222.6	219.8	214.1	216.0	218.8
66°	193.4	198.1	203.3	205.2	212.2	214.6	215.5	212.7	207.0	208.9	212.2



TEST NUMBER: P776617

CATALOG NUMBER: HCDJBL54050CSD-HCD4TRMW-5000lm-3500K

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
67.5°	173.1	177.8	183.9	186.3	192.9	194.8	195.7	191.5	185.8	187.7	192.0
68°	167.0	171.2	177.8	180.2	186.8	188.7	189.6	184.9	179.2	181.1	185.4
68.5°	160.8	165.5	172.1	174.0	180.6	182.5	183.0	178.3	172.1	174.5	179.2
69°	154.7	159.4	166.0	168.4	174.5	176.4	176.9	171.7	166.0	168.4	173.1
69.5°	148.6	153.3	160.4	162.7	168.8	170.7	170.7	165.5	159.4	162.2	167.0
70°	142.4	147.2	154.7	157.5	162.7	164.6	165.1	159.4	153.3	156.1	160.8
70.5°	136.3	141.0	149.0	151.9	157.5	158.9	159.4	153.3	147.2	150.0	155.2
71°	130.6	135.4	143.4	146.2	151.9	153.3	153.3	147.2	141.5	143.8	149.5
71.5°	125.0	129.7	137.7	141.0	146.2	148.1	147.6	141.0	135.4	138.2	143.8
72°	118.9	124.0	132.1	135.4	140.5	142.4	142.0	135.4	129.7	132.5	138.2
72.5°	113.2	118.4	126.9	130.2	135.4	137.2	136.8	129.7	124.0	126.9	133.0
73°	107.5	112.7	121.2	125.0	130.2	131.6	131.1	124.0	118.4	121.2	127.3
73.5°	102.3	107.1	116.0	119.8	125.0	126.4	125.5	118.4	112.7	115.6	122.2
74°	97.2	101.9	110.8	115.1	119.8	121.7	120.7	113.2	107.5	110.4	117.0
74.5°	92.0	96.7	105.6	109.9	114.6	116.5	115.1	108.0	102.3	105.2	111.8
75°	86.8	91.5	100.5	105.2	109.9	111.3	110.4	102.3	97.2	100.0	106.6
75.5°	81.6	86.3	95.7	100.0	105.2	106.6	105.2	97.6	92.0	94.8	101.9
76°	76.9	81.6	90.6	95.7	100.0	101.9	100.0	92.0	86.8	89.6	97.2
76.5°	72.2	76.4	85.8	90.6	95.3	97.2	95.3	87.3	82.1	84.9	92.0
77°	67.4	71.7	81.1	86.3	90.6	92.4	90.6	82.1	76.9	79.7	87.3
77.5°	62.7	67.0	76.4	81.6	86.3	88.2	85.8	77.3	72.2	75.0	82.5
78°	58.0	62.3	72.2	77.3	81.6	83.5	81.1	72.6	67.4	70.7	77.8
78.5°	53.3	57.5	67.4	72.6	77.3	78.8	76.4	67.9	63.2	66.0	73.6
79°	49.1	52.8	63.2	68.4	72.6	74.5	72.2	63.2	58.5	61.3	69.3
79.5°	44.8	48.6	58.5	64.1	68.4	70.3	67.9	59.0	54.2	56.6	64.6
80°	40.6	44.3	54.2	59.9	64.1	66.0	63.2	54.2	50.0	52.4	60.4
80.5°	36.3	40.1	50.5	56.1	60.4	61.8	59.4	50.0	45.7	48.1	56.1
81°	32.1	35.8	46.2	51.9	56.1	57.5	55.2	45.7	41.5	44.3	52.4
81.5°	28.3	31.6	42.4	47.6	51.9	53.8	50.9	42.0	37.7	40.1	48.1
82°	24.1	27.8	38.7	43.9	48.1	49.5	47.2	38.2	33.5	35.8	44.3
82.5°	20.3	24.1	34.9	40.1	43.9	45.7	43.4	34.4	29.7	32.1	41.0
83°	16.5	20.8	31.6	36.3	40.6	42.0	40.1	30.7	25.5	27.8	37.7
83.5°	14.1	17.5	27.8	32.5	36.8	38.2	36.3	26.4	21.7	24.5	34.0
84°	11.8	15.6	25.0	29.2	33.0	34.4	32.5	23.1	17.9	21.2	30.7
84.5°	9.4	13.7	21.7	25.5	29.2	30.7	29.2	20.3	14.6	17.9	27.4
85°	7.1	11.3	18.4	21.7	25.5	26.9	25.5	17.5	11.3	15.6	24.1
85.5°	5.7	9.4	15.6	18.4	21.7	23.6	22.6	15.1	9.4	13.7	20.8
86°	4.2	7.5	12.7	15.1	18.4	20.3	19.3	13.2	8.0	11.8	17.9
86.5°	3.3	5.7	9.9	11.8	15.1	16.5	16.5	10.8	6.6	9.9	15.1
87°	1.9	3.8	6.6	8.5	11.8	13.2	13.2	9.0	5.2	8.0	12.3
87.5°	0.9	2.4	3.8	5.2	8.5	10.4	10.4	7.1	4.2	6.1	9.4
88°	0.5	0.9	1.4	2.4	5.7	7.1	7.5	5.2	2.8	4.7	6.6
88.5°	0.0	0.5	0.5	0.9	2.8	3.8	4.7	3.3	1.9	2.8	3.8



TEST NUMBER: P776617
CATALOG NUMBER: HCDJBL54050CSD-HCD4TRMW-5000lm-3500K

CANDELA DISTRIBUTION (continued):

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



TEST NUMBER: P776617

CATALOG NUMBER: HCDJBL54050CSD-HCD4TRMW-5000lm-3500K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	3436.8	3436.8	3436.8	3436.8	3436.8	3436.8
0.5°	3435.9	3438.2	3436.3	3434.4	3434.9	3435.4
1°	3436.3	3437.7	3434.9	3432.6	3432.6	3433.0
1.5°	3435.4	3436.3	3433.0	3430.2	3429.7	3429.7
2°	3434.4	3434.4	3430.7	3426.9	3426.0	3426.0
2.5°	3432.6	3431.6	3427.8	3423.6	3421.7	3421.2
3°	3430.2	3428.3	3423.6	3419.4	3416.5	3415.6
3.5°	3427.4	3424.5	3419.4	3414.2	3410.9	3409.5
4°	3423.6	3420.3	3413.7	3409.0	3404.7	3402.8
4.5°	3419.4	3414.2	3408.0	3401.9	3397.7	3395.8
5°	3414.6	3408.0	3401.0	3394.8	3389.6	3386.8
5.5°	3408.5	3401.4	3393.9	3386.8	3381.2	3377.9
6°	3401.9	3394.4	3385.4	3378.3	3372.2	3368.4
6.5°	3395.3	3386.8	3376.9	3369.4	3361.8	3357.6
7°	3387.8	3377.9	3367.5	3359.0	3351.0	3346.7
7.5°	3379.7	3367.9	3357.6	3348.1	3339.6	3334.5
8°	3370.3	3358.5	3346.7	3336.3	3327.4	3322.2
8.5°	3360.9	3347.7	3335.4	3324.6	3314.7	3308.5
9°	3350.5	3335.9	3323.1	3310.9	3300.0	3294.4
9.5°	3339.6	3324.1	3310.4	3297.7	3285.9	3278.8
10°	3327.9	3310.9	3296.7	3283.5	3270.8	3263.2
10.5°	3315.6	3297.7	3282.1	3268.4	3255.2	3246.7
11°	3301.9	3283.5	3267.0	3252.4	3238.2	3229.3
11.5°	3288.2	3268.9	3251.5	3235.9	3219.9	3210.9
12°	3273.6	3252.9	3234.9	3217.5	3201.9	3192.0
12.5°	3258.5	3236.4	3217.5	3199.1	3182.6	3172.2
13°	3242.5	3219.4	3200.0	3180.7	3163.3	3151.9
13.5°	3226.0	3202.4	3181.2	3161.4	3142.0	3129.8
14°	3208.5	3184.0	3162.3	3141.1	3120.3	3109.0
14.5°	3190.6	3165.1	3142.5	3120.3	3098.6	3086.4
15°	3171.7	3145.3	3121.8	3098.2	3076.0	3063.3
15.5°	3152.4	3124.6	3100.5	3076.5	3053.4	3039.2
16°	3132.6	3104.3	3078.8	3053.8	3030.3	3014.7
16.5°	3112.3	3083.1	3056.7	3031.2	3005.7	2990.2
17°	3091.1	3060.4	3034.0	3008.1	2981.7	2965.6
17.5°	3069.9	3039.2	3010.9	2983.6	2956.7	2940.6
18°	3048.2	3016.6	2988.3	2960.0	2932.2	2914.2
18.5°	3026.0	2993.5	2965.2	2936.4	2908.1	2889.7
19°	3002.9	2972.2	2942.5	2913.8	2885.5	2866.1
19.5°	2981.7	2949.6	2920.4	2892.1	2863.3	2843.5
20°	2960.9	2927.9	2899.6	2869.9	2841.1	2821.3
20.5°	2940.2	2907.2	2877.0	2847.7	2818.0	2797.7
21°	2919.0	2885.0	2855.3	2825.1	2794.9	2774.2



TEST NUMBER: P776617

CATALOG NUMBER: HCDJBL54050CSD-HCD4TRMW-5000lm-3500K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
22.5°	2853.9	2818.0	2785.0	2746.8	2711.9	2689.3
23°	2829.8	2794.9	2760.5	2718.0	2680.3	2654.4
23.5°	2804.3	2769.9	2733.6	2686.4	2644.9	2617.1
24°	2776.5	2745.4	2704.8	2653.4	2607.2	2575.1
24.5°	2747.7	2716.6	2674.6	2618.0	2567.1	2529.9
25°	2717.1	2687.8	2642.1	2582.2	2525.6	2481.3
25.5°	2685.0	2656.2	2608.1	2545.4	2481.7	2433.6
26°	2651.5	2623.7	2572.3	2508.6	2436.5	2385.5
26.5°	2615.2	2585.5	2533.6	2469.5	2389.8	2337.4
27°	2579.8	2546.8	2493.5	2428.9	2344.0	2289.8
27.5°	2544.0	2503.0	2452.0	2387.4	2297.8	2244.5
28°	2506.7	2456.7	2408.6	2343.6	2253.0	2199.7
28.5°	2468.5	2407.7	2362.9	2297.8	2208.7	2155.4
29°	2428.9	2358.2	2315.3	2250.2	2164.8	2109.2
29.5°	2389.3	2305.8	2265.7	2201.6	2121.4	2064.3
30°	2346.4	2253.5	2214.3	2152.1	2078.0	2018.1
30.5°	2302.1	2202.5	2160.6	2102.5	2033.2	1971.4
31°	2255.8	2152.5	2104.4	2052.6	1986.5	1922.9
31.5°	2208.2	2104.4	2050.7	2000.7	1940.3	1874.7
32°	2159.6	2057.3	1997.4	1949.7	1893.6	1823.8
32.5°	2109.2	2011.1	1945.0	1898.3	1845.5	1774.8
33°	2057.7	1965.3	1895.0	1847.4	1793.6	1726.7
33.5°	2005.9	1919.6	1844.1	1795.5	1743.6	1679.0
34°	1955.4	1873.3	1795.5	1744.6	1691.3	1632.8
34.5°	1905.4	1823.3	1746.0	1692.2	1639.9	1586.6
35°	1856.4	1773.8	1696.5	1640.8	1587.5	1541.3
35.5°	1808.2	1723.8	1646.5	1590.4	1538.9	1497.0
36°	1760.1	1673.4	1596.0	1540.8	1489.4	1453.1
36.5°	1712.0	1623.8	1546.0	1491.3	1441.8	1408.3
37°	1664.4	1572.9	1496.0	1440.4	1394.6	1363.0
37.5°	1614.9	1524.3	1447.0	1391.3	1349.8	1317.7
38°	1565.8	1477.2	1398.4	1342.3	1302.7	1272.5
38.5°	1517.3	1431.4	1350.8	1294.6	1256.9	1227.2
39°	1469.1	1386.1	1306.0	1246.5	1210.2	1183.8
39.5°	1419.2	1340.4	1261.2	1199.8	1163.1	1139.5
40°	1370.6	1295.1	1217.8	1153.6	1116.8	1096.6
40.5°	1321.5	1249.8	1175.3	1108.8	1071.6	1055.0
41°	1276.2	1203.6	1132.9	1065.0	1026.7	1015.0
41.5°	1228.1	1159.3	1091.8	1023.9	983.8	974.4
42°	1182.4	1114.0	1050.3	982.9	943.3	934.3
42.5°	1136.2	1070.1	1012.6	945.2	904.6	896.1
43°	1092.8	1026.7	972.0	907.4	866.9	857.9
43.5°	1047.0	985.7	933.4	870.6	830.5	820.2



TEST NUMBER: P776617

CATALOG NUMBER: HCDJBL54050CSD-HCD4TRMW-5000lm-3500K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
45°	921.1	868.3	821.6	769.7	731.0	715.0
45.5°	879.6	831.5	787.2	739.1	701.3	684.8
46°	840.9	796.1	754.1	710.3	672.6	656.5
46.5°	802.3	760.7	721.6	682.0	645.7	629.6
47°	765.5	727.3	690.5	654.2	620.2	605.1
47.5°	730.6	694.2	661.7	628.7	596.6	582.9
48°	696.6	663.1	632.9	605.1	574.9	563.1
48.5°	665.9	632.5	606.5	582.5	554.2	544.3
49°	634.8	604.2	582.0	560.8	535.3	527.3
49.5°	607.0	577.3	558.4	540.0	517.9	510.8
50°	580.6	551.8	535.8	520.2	501.3	495.7
50.5°	555.6	527.8	514.6	501.8	485.8	481.5
51°	532.0	506.5	495.2	484.4	470.7	467.9
51.5°	510.8	486.7	476.8	468.3	456.5	454.2
52°	490.5	468.3	460.3	452.3	443.3	441.5
52.5°	471.6	451.8	444.3	437.7	430.1	428.7
53°	454.2	436.3	429.2	423.5	417.9	416.5
53.5°	437.7	422.1	415.0	410.8	406.1	405.1
54°	422.6	408.9	402.8	399.0	395.7	394.8
54.5°	409.4	397.6	392.4	389.1	386.3	385.8
55°	399.5	387.2	383.0	380.1	377.3	376.8
55.5°	389.1	378.3	373.5	370.7	367.9	367.9
56°	379.2	368.8	364.1	361.7	358.9	358.9
56.5°	369.3	359.4	355.1	352.3	349.5	349.5
57°	358.9	349.5	345.7	342.9	340.5	340.5
57.5°	349.5	339.6	335.8	333.4	331.6	331.6
58°	340.0	330.6	326.8	324.5	322.6	322.6
58.5°	330.6	321.2	317.4	315.5	313.6	313.6
59°	320.7	312.2	308.4	306.6	305.1	305.1
59.5°	311.8	302.8	299.5	298.1	296.7	296.2
60°	302.8	294.3	291.0	289.6	288.2	287.2
60.5°	293.8	285.3	282.5	281.6	280.2	278.7
61°	285.3	277.3	274.5	273.1	272.1	270.2
61.5°	276.8	269.3	266.5	265.1	263.6	262.2
62°	268.8	261.3	258.9	257.5	256.1	253.7
62.5°	260.8	253.3	250.4	250.0	248.1	245.7
63°	252.8	245.7	243.4	242.4	240.5	237.7
63.5°	245.7	238.2	235.8	235.3	233.0	230.2
64°	238.2	231.1	228.7	228.3	225.4	222.6
64.5°	230.6	224.0	221.7	221.2	218.4	215.1
65°	223.6	217.0	215.1	214.6	211.3	207.5
65.5°	216.5	210.3	208.5	207.5	204.2	200.4
66°	209.9	203.7	201.9	201.4	197.1	193.4



TEST NUMBER: P776617

CATALOG NUMBER: HCDJBL54050CSD-HCD4TRMW-5000lm-3500K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
67.5°	190.5	184.4	183.0	182.1	176.9	173.1
68°	183.9	178.3	176.9	176.4	169.8	167.0
68.5°	178.3	172.6	170.3	169.8	164.1	160.8
69°	172.1	167.0	165.1	164.1	158.5	154.7
69.5°	166.0	161.3	159.4	158.5	152.3	148.6
70°	160.4	155.6	154.2	153.3	146.7	142.4
70.5°	154.7	150.5	148.6	147.6	140.5	136.3
71°	149.5	144.8	142.9	142.0	134.9	130.6
71.5°	143.8	139.1	137.7	136.3	129.2	125.0
72°	138.7	133.9	132.5	131.1	123.6	118.9
72.5°	133.0	128.8	127.3	125.5	117.9	113.2
73°	127.8	123.6	122.2	120.3	112.7	107.5
73.5°	122.6	118.4	117.0	115.1	107.1	102.3
74°	117.9	113.7	112.2	109.9	101.9	97.2
74.5°	112.7	108.5	107.1	105.2	96.7	92.0
75°	108.0	103.8	102.3	100.0	91.5	86.8
75.5°	103.3	99.0	97.6	95.3	86.8	81.6
76°	98.6	94.3	92.9	90.1	81.6	76.9
76.5°	93.9	89.6	88.2	85.4	76.4	72.2
77°	89.1	85.4	84.0	80.6	71.7	67.4
77.5°	84.9	80.6	79.2	76.4	67.0	62.7
78°	80.2	76.4	75.0	71.7	62.3	58.0
78.5°	75.9	72.2	70.7	67.4	58.0	53.3
79°	71.7	67.9	66.5	62.7	53.3	49.1
79.5°	67.4	63.7	62.3	58.5	49.1	44.8
80°	63.2	59.4	58.0	54.7	44.8	40.6
80.5°	59.0	55.7	54.2	50.5	40.6	36.3
81°	55.2	51.4	50.0	46.2	36.3	32.1
81.5°	50.9	47.6	46.2	42.4	32.5	28.3
82°	47.2	43.9	42.4	38.7	28.8	24.1
82.5°	43.4	40.1	38.7	35.4	25.0	20.3
83°	40.1	36.3	34.9	31.6	21.7	16.5
83.5°	36.3	32.5	31.1	28.3	18.9	14.1
84°	32.5	28.8	27.4	25.0	16.5	11.8
84.5°	28.8	25.5	24.1	21.7	14.6	9.4
85°	25.5	21.7	20.8	18.4	12.3	7.1
85.5°	21.7	18.4	17.0	15.6	9.9	5.7
86°	18.4	15.6	14.1	12.3	8.0	4.2
86.5°	15.1	12.3	10.8	9.4	6.1	3.3
87°	12.3	9.0	7.5	6.1	4.2	1.9
87.5°	9.0	5.7	4.2	3.3	2.4	0.9
88°	5.7	2.8	1.9	1.4	0.9	0.5
88.5°	2.8	0.9	0.5	0.5	0.5	0.0



TEST NUMBER: P776617

CATALOG NUMBER: HCDJBL54050CSD-HCD4TRMW-5000lm-3500K

CANDELA DISTRIBUTION (continued):

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

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Peachtree City, GA 30269

Scaled Data Report



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Peachtree City, GA 30269

Scaled Data Report





21.5°	2749.6	2736.9	2737.8	2749.2	2790.2	2820.4	2850.6	2880.7	2901.5	2912.8	2912.3
22°	2721.3	2707.2	2708.1	2720.9	2767.1	2798.2	2829.3	2858.6	2880.3	2892.1	2891.1



44°	783.4	789.5	797.1	806.5	849.4	875.8	913.1	971.1	1006.9	1025.3	1018.3
44.5°	749.0	759.3	766.9	776.3	813.1	839.5	875.8	933.4	967.3	981.5	976.3



66.5°	186.8	191.0	197.1	198.6	205.6	208.0	208.5	205.2	199.5	201.4	205.2
67°	179.7	184.4	190.5	192.4	199.5	201.4	202.3	198.6	192.9	194.8	198.6



89°	0.0	0.5	0.0	0.0	0.9	1.4	1.9	1.9	0.9	1.4	1.4
89.5°	0.0	0.5	0.0	0.0	0.0	0.5	0.5	0.5	0.0	0.5	0.5

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21.5°	2897.3	2862.4	2832.6	2801.0	2769.4	2749.6
22°	2876.5	2841.1	2809.5	2774.6	2742.1	2721.3



44°	1004.6	944.7	895.6	835.7	795.6	783.4
44.5°	961.7	906.0	858.8	801.8	762.6	749.0



66.5°	203.3	197.1	195.3	194.8	190.1	186.8
67°	196.7	190.5	189.1	188.7	183.5	179.7

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Peachtree City, GA 30269

Scaled Data Report



89°	0.9	0.0	0.0	0.0	0.5	0.0
89.5°	0.0	0.0	0.0	0.0	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)