

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: P776394

Luminaire Tested: HCDJBL3040CSD-HCD6TRH-4000lm-5000K

Issue Date: 2/7/2024

Test Information

Test Method: LM-79-2019
Report Number: P776394
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: HCDJBL3040CSD-HCD6TRH-4000lm-5000K
Description: 6 INCH ROUND MEDIUM HAZE TRIM
Light Source: SELECTABLE LUMENS AND CCT ARRAY 90CRI / 5000K CCT
Ballast/Driver: -

Summary

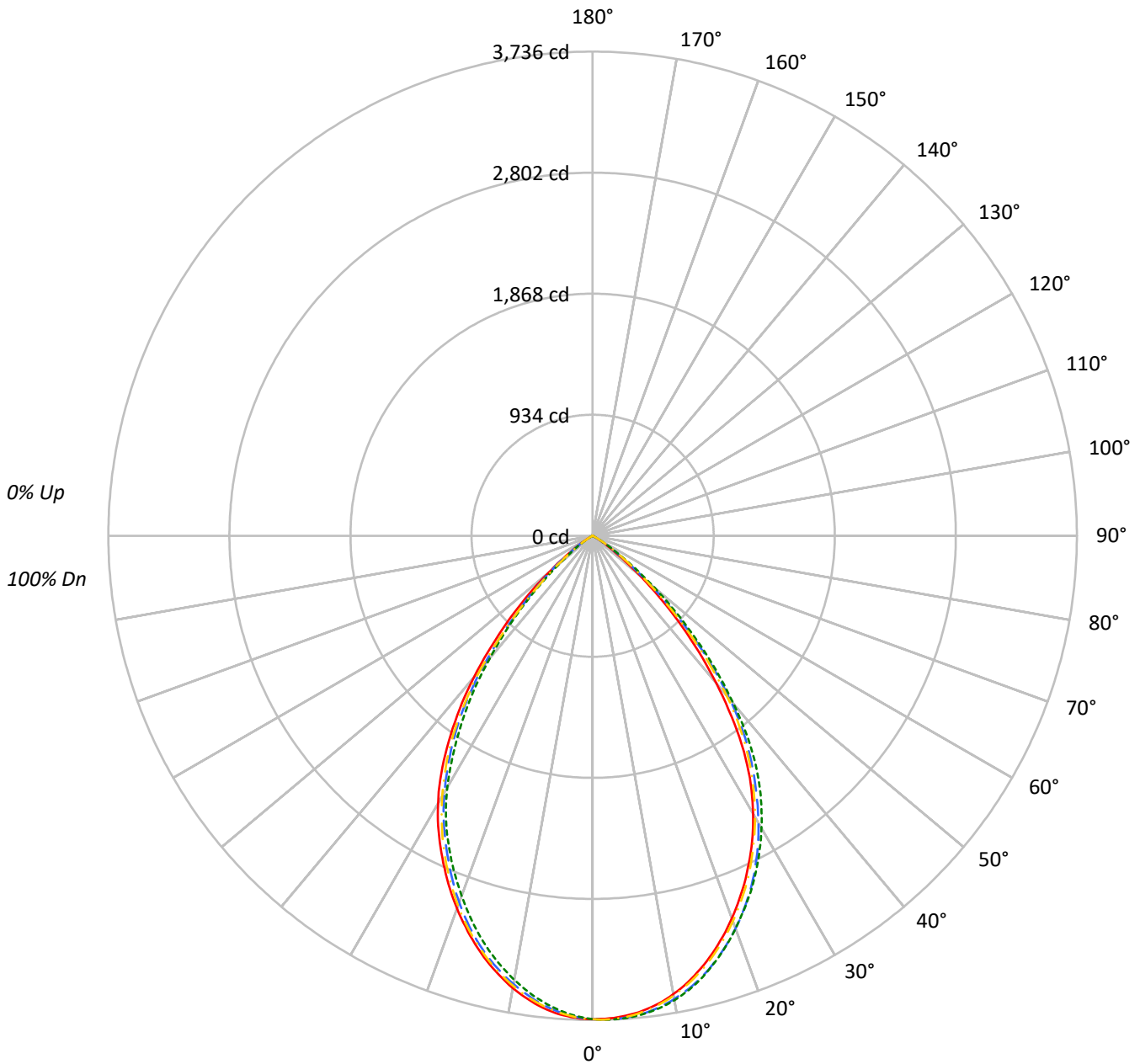
Lumens per Lamp: N/A
Luminaire Lumens: 4691.5 lumens
Efficiency: N/A
Efficacy: 121.9 lumens/watt
Spacing Criteria (0/90/45): 1.02 / 1.02 / 1.06
Luminous Opening: Circular (Dia: 0.5' x H: 0')
CIE Type: Direct

Input Watts (W): 38.5
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: P776394
CATALOG NUMBER: HCDJBL3040CSD-HCD6TRH-4000lm-5000K

Luminous Intensity Polar Plot





TEST NUMBER: P776394

CATALOG NUMBER: HCDJBL3040CSD-HCD6TRH-4000lm-5000K

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20					20					20					20										
RC	80					70					50					30					10					0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0		
RCR																										
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100					100			
1	113	110	107	105	110	108	105	103	104	102	100	100	98	97	96	95	94	92					92			
2	106	101	97	93	104	99	95	92	96	93	90	93	90	88	90	88	86	84					84			
3	100	93	87	83	98	92	86	82	89	85	81	86	83	80	84	81	78	77					77			
4	94	86	80	75	92	85	79	74	82	77	73	80	76	73	78	75	72	70					70			
5	89	79	73	68	87	78	72	68	76	71	67	75	70	66	73	69	66	64					64			
6	83	73	67	62	82	73	66	62	71	65	61	69	64	61	68	64	60	59					59			
7	78	68	61	57	77	67	61	56	66	60	56	65	60	56	64	59	55	54					54			
8	74	63	57	52	73	63	56	52	62	56	52	61	55	51	59	55	51	50					50			
9	70	59	53	48	69	59	52	48	58	52	48	57	51	48	56	51	47	46					46			
10	66	55	49	45	65	55	49	45	54	48	44	53	48	44	52	48	44	43					43			

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	204507	204507	204507	204507
5°	203604	204842	202679	200632
10°	199924	202562	197263	193734
15°	192901	196823	189031	184297
20°	183235	188153	178492	172407
25°	171391	177821	165899	159045
30°	156739	164892	150998	142016
35°	136101	147867	129342	117631
40°	106099	120869	101970	88366
45°	72752	87746	69961	56804
50°	40067	53039	38319	27897
55°	15321	23292	16573	11880
60°	2017	5964	3991	1568
65°	259	480	376	259
70°	64	128	128	128
75°	85	85	85	85
80°	0	0	0	0
85°	0	0	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 87746 cd/sqm



TEST NUMBER: P776394

CATALOG NUMBER: HCDJBL3040CSD-HCD6TRH-4000lm-5000K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	348.3	7.4
10°-20°	944.2	20.1
20°-30°	1277.2	27.2
30°-40°	1226.2	26.1
40°-50°	714.1	15.2
50°-60°	175.8	3.7
60°-70°	5.6	0.1
70°-80°	0.3	0.0
80°-90°	0.0	0.0
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	2569.6	54.8
0°-40°	3795.8	80.9
0°-60°	4685.6	99.9
0°-90°	4691.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4691.5	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	3730	3730	3730	3730	3730	
5°	3700	3722	3683	3646	3700	350
15°	3399	3468	3331	3247	3399	953
25°	2834	2940	2743	2629	2834	1298
35°	2034	2210	1933	1758	2034	1252
45°	938	1132	902	733	938	725
55°	160	244	173	124	160	165
65°	2	4	3	2	2	4
75°	0	0	0	0	0	0
85°	0	0	0	0	0	0
90°	0	0	0	0	0	0



TEST NUMBER: P776394

CATALOG NUMBER: HCDJBL3040CSD-HCD6TRH-4000lm-5000K

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
0°	3730.5	3730.5	3730.5	3730.5	3730.5	3730.5	3730.5	3730.5	3730.5	3730.5	3730.5
0.5°	3729.7	3730.1	3733.0	3735.4	3731.8	3733.4	3734.2	3732.6	3728.9	3727.3	3727.7
1°	3728.9	3730.5	3734.6	3737.5	3734.2	3735.0	3735.0	3732.2	3727.3	3724.0	3724.4
1.5°	3727.7	3730.5	3735.0	3738.7	3735.4	3736.3	3734.6	3730.9	3725.6	3720.7	3719.9
2°	3725.6	3730.1	3735.0	3738.7	3736.3	3736.3	3734.2	3728.9	3721.5	3716.6	3714.6
2.5°	3725.6	3728.5	3733.8	3737.9	3735.4	3735.0	3732.2	3726.0	3718.3	3711.3	3708.0
3°	3719.5	3726.0	3732.6	3736.7	3734.6	3733.8	3729.3	3721.5	3712.5	3705.2	3700.7
3.5°	3715.8	3723.2	3730.1	3734.6	3732.6	3730.5	3725.6	3717.0	3706.8	3698.2	3693.7
4°	3711.3	3719.9	3726.9	3731.8	3729.7	3727.7	3721.5	3710.9	3700.3	3690.9	3683.9
4.5°	3705.6	3715.8	3722.8	3728.1	3726.4	3723.6	3715.8	3704.4	3692.9	3681.5	3674.5
5°	3699.9	3710.5	3718.3	3724.0	3722.4	3718.7	3709.7	3697.0	3683.1	3671.7	3663.9
5.5°	3694.6	3704.4	3713.4	3718.7	3717.9	3713.4	3702.3	3688.4	3672.9	3661.0	3652.0
6°	3685.2	3697.4	3707.2	3713.0	3712.5	3706.8	3694.1	3678.2	3662.3	3649.6	3639.8
6.5°	3677.0	3690.5	3700.3	3706.8	3706.0	3699.5	3686.4	3667.2	3650.4	3637.3	3625.9
7°	3667.6	3681.9	3692.1	3699.9	3699.1	3692.1	3676.2	3656.1	3638.1	3623.8	3612.8
7.5°	3656.9	3672.5	3683.5	3691.3	3690.9	3683.5	3665.9	3643.0	3623.8	3609.1	3597.2
8°	3645.5	3662.3	3674.5	3681.9	3682.3	3674.5	3654.9	3630.0	3609.5	3594.0	3582.1
8.5°	3633.6	3651.2	3664.3	3672.1	3672.9	3663.9	3642.6	3616.1	3594.4	3578.4	3565.4
9°	3620.6	3638.9	3653.7	3661.4	3662.3	3652.9	3630.4	3601.3	3578.0	3562.1	3549.4
9.5°	3606.2	3626.7	3641.4	3650.0	3651.2	3641.4	3616.1	3585.4	3562.1	3544.5	3531.4
10°	3591.5	3613.2	3629.5	3637.7	3638.9	3628.3	3601.7	3569.4	3543.7	3526.9	3513.0
10.5°	3575.6	3598.5	3616.1	3624.6	3625.5	3614.8	3586.6	3551.9	3525.7	3508.5	3494.2
11°	3559.2	3583.8	3603.0	3610.7	3611.6	3599.7	3570.7	3534.3	3506.5	3489.3	3475.0
11.5°	3542.0	3567.8	3587.4	3595.6	3596.4	3584.6	3554.3	3515.9	3486.0	3469.7	3455.0
12°	3522.8	3551.0	3572.7	3579.7	3580.5	3567.8	3536.3	3496.7	3466.0	3449.2	3434.1
12.5°	3504.0	3533.5	3555.5	3563.7	3563.7	3550.6	3517.9	3477.0	3445.1	3428.0	3413.3
13°	3484.8	3515.9	3539.2	3547.4	3547.4	3533.1	3499.9	3457.0	3423.9	3406.3	3391.6
13.5°	3464.0	3496.3	3521.2	3528.6	3527.7	3513.4	3479.5	3435.7	3401.0	3384.2	3369.1
14°	3443.5	3477.0	3502.4	3510.2	3508.5	3494.2	3459.5	3414.1	3378.5	3360.9	3345.8
14.5°	3421.4	3456.2	3482.8	3490.9	3487.7	3472.9	3438.6	3391.2	3355.2	3336.4	3322.1
15°	3398.9	3435.7	3462.3	3470.9	3468.0	3452.1	3416.1	3368.3	3330.7	3311.4	3297.5
15.5°	3375.6	3413.7	3441.5	3450.9	3446.0	3430.4	3393.2	3344.6	3305.7	3287.3	3272.2
16°	3351.9	3390.8	3419.8	3428.4	3424.3	3407.9	3370.7	3320.4	3280.8	3261.6	3245.6
16.5°	3327.4	3367.9	3396.9	3406.3	3401.4	3384.2	3346.6	3295.5	3255.0	3234.6	3218.6
17°	3302.4	3344.2	3374.4	3383.8	3377.3	3360.5	3322.5	3270.1	3228.0	3206.8	3191.2
17.5°	3276.3	3320.0	3350.7	3360.9	3353.6	3336.0	3297.1	3243.2	3201.5	3179.0	3162.2
18°	3250.5	3294.7	3326.6	3336.4	3328.2	3311.0	3272.2	3217.0	3172.8	3150.3	3132.8
18.5°	3223.9	3268.9	3301.2	3311.9	3302.9	3285.7	3245.6	3189.2	3145.0	3120.9	3103.7
19°	3196.6	3242.8	3276.7	3286.9	3277.5	3259.9	3218.6	3161.4	3116.8	3092.3	3072.3
19.5°	3168.7	3215.8	3250.1	3261.2	3251.7	3232.9	3191.2	3132.8	3089.0	3061.2	3040.8
20°	3140.9	3188.8	3224.4	3235.0	3225.2	3205.1	3164.3	3105.0	3059.6	3030.5	3009.3
20.5°	3111.9	3160.2	3197.4	3206.8	3197.0	3178.2	3135.6	3075.5	3029.7	2999.5	2977.8
21°	3082.9	3131.5	3170.0	3179.8	3169.6	3149.9	3106.2	3046.5	3000.3	2968.8	2946.3



TEST NUMBER: P776394

CATALOG NUMBER: HCDJBL3040CSD-HCD6TRH-4000lm-5000K

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
22.5°	2993.3	3042.4	3083.7	3093.1	3087.8	3062.0	3017.1	2959.0	2907.1	2872.3	2843.7
23°	2962.7	3011.3	3053.4	3063.3	3058.8	3031.0	2987.6	2927.5	2874.0	2838.8	2809.4
23.5°	2931.6	2979.4	3022.8	3032.6	3029.7	2999.9	2957.8	2896.0	2841.7	2804.4	2773.8
24°	2899.3	2948.0	2990.5	3001.1	3000.7	2968.8	2925.9	2864.1	2808.5	2770.5	2738.6
24.5°	2866.6	2915.7	2958.6	2969.6	2971.7	2942.6	2892.8	2831.8	2776.6	2736.2	2702.6
25°	2833.5	2882.9	2925.9	2937.3	2939.8	2910.3	2859.2	2799.5	2742.7	2701.8	2667.9
25.5°	2800.4	2848.2	2892.8	2903.8	2907.9	2877.2	2825.7	2766.0	2709.2	2666.7	2631.9
26°	2767.2	2815.1	2858.4	2871.1	2876.4	2844.9	2791.8	2733.3	2675.6	2631.9	2596.3
26.5°	2732.1	2781.1	2823.3	2837.2	2844.5	2810.6	2756.6	2699.4	2641.7	2596.7	2559.9
27°	2697.7	2745.2	2788.5	2802.8	2812.2	2777.5	2722.3	2665.8	2606.1	2561.6	2524.0
27.5°	2661.7	2708.8	2752.1	2768.1	2778.3	2742.7	2687.5	2631.5	2572.2	2525.6	2486.8
28°	2626.2	2672.4	2714.5	2732.1	2744.3	2708.4	2652.3	2596.3	2536.6	2487.6	2448.3
28.5°	2589.8	2635.6	2676.9	2696.1	2710.8	2673.2	2616.8	2561.6	2501.1	2449.1	2408.7
29°	2552.6	2598.0	2638.4	2659.3	2676.5	2638.0	2580.0	2525.2	2463.9	2411.1	2369.0
29.5°	2514.6	2558.7	2598.8	2622.1	2640.5	2602.9	2543.2	2487.2	2425.0	2371.5	2326.9
30°	2476.1	2519.1	2559.1	2584.1	2604.9	2566.9	2505.6	2449.1	2385.4	2331.4	2285.2
30.5°	2436.9	2479.0	2519.1	2544.0	2568.5	2529.7	2467.5	2409.5	2346.1	2289.3	2242.7
31°	2396.8	2438.1	2476.5	2505.6	2533.0	2492.5	2428.3	2369.8	2304.0	2247.2	2199.3
31.5°	2355.5	2396.4	2436.1	2465.1	2494.5	2454.9	2388.6	2328.9	2261.1	2204.6	2155.6
32°	2312.6	2353.1	2393.1	2423.8	2456.5	2416.4	2349.0	2287.2	2216.9	2160.9	2110.6
32.5°	2270.5	2311.8	2350.6	2381.7	2418.1	2376.8	2308.1	2244.7	2172.3	2116.3	2066.4
33°	2226.3	2268.0	2308.5	2340.4	2378.8	2336.7	2266.8	2200.1	2126.5	2070.1	2022.3
33.5°	2180.9	2224.3	2267.2	2298.3	2337.5	2296.2	2225.1	2155.2	2079.5	2023.9	1977.7
34°	2133.1	2179.3	2223.4	2255.7	2297.0	2254.5	2182.6	2109.8	2032.1	1978.1	1932.3
34.5°	2084.4	2135.1	2179.7	2212.8	2252.9	2210.8	2140.4	2063.2	1981.8	1929.1	1885.7
35°	2033.7	2088.9	2135.1	2167.8	2209.5	2167.4	2097.1	2015.3	1932.7	1880.0	1839.5
35.5°	1983.0	2042.7	2092.6	2123.3	2163.7	2123.7	2053.8	1967.9	1884.1	1831.3	1792.1
36°	1928.6	1996.1	2046.0	2078.7	2118.0	2079.1	2009.2	1920.1	1835.0	1781.9	1743.0
36.5°	1874.3	1946.6	2002.2	2034.1	2068.9	2032.9	1963.0	1871.4	1785.1	1731.6	1692.3
37°	1818.2	1896.3	1955.6	1987.1	2019.0	1985.1	1915.6	1823.2	1733.6	1680.9	1639.2
37.5°	1762.6	1844.0	1907.8	1938.9	1967.5	1936.0	1867.7	1773.3	1685.0	1629.3	1587.2
38°	1705.0	1790.4	1857.9	1886.9	1914.3	1884.5	1817.8	1723.8	1633.8	1576.6	1532.4
38.5°	1650.2	1736.9	1808.0	1838.3	1858.3	1832.6	1767.1	1673.9	1583.1	1523.5	1478.1
39°	1593.0	1681.3	1755.3	1785.1	1803.1	1779.0	1714.4	1623.6	1531.2	1469.9	1423.7
39.5°	1537.8	1625.7	1701.7	1732.0	1746.3	1723.4	1660.8	1571.7	1479.7	1415.9	1367.3
40°	1482.6	1566.8	1645.7	1676.8	1689.0	1664.9	1606.0	1518.5	1424.9	1360.3	1310.8
40.5°	1427.8	1509.6	1591.7	1620.4	1632.6	1606.5	1551.3	1465.4	1371.4	1305.5	1253.2
41°	1372.2	1455.6	1536.5	1562.7	1576.2	1546.8	1492.4	1411.8	1316.6	1251.1	1195.9
41.5°	1317.4	1399.6	1480.1	1505.5	1521.8	1487.9	1434.7	1359.1	1261.8	1199.2	1139.5
42°	1262.2	1343.1	1422.1	1471.5	1466.2	1428.6	1376.3	1303.1	1206.6	1144.8	1083.9
42.5°	1207.0	1287.1	1364.0	1409.4	1412.6	1369.7	1318.6	1247.9	1155.5	1092.1	1030.4
43°	1151.0	1230.7	1305.9	1346.0	1358.3	1311.7	1261.4	1191.4	1102.7	1039.8	978.8
43.5°	1096.2	1176.3	1248.3	1283.0	1300.6	1254.8	1204.1	1136.7	1053.3	988.2	928.1



TEST NUMBER: P776394

CATALOG NUMBER: HCDJBL3040CSD-HCD6TRH-4000lm-5000K

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
45°	938.4	1013.2	1073.7	1107.2	1131.8	1086.4	1034.0	972.7	902.4	837.8	784.6
45.5°	888.5	958.8	1016.5	1052.8	1076.1	1029.9	978.4	921.6	852.9	789.9	739.6
46°	837.0	906.1	959.6	998.5	1022.6	976.0	924.5	868.9	804.7	742.5	695.9
46.5°	786.3	853.7	903.2	944.5	970.7	922.8	870.1	817.7	755.6	698.8	653.8
47°	736.8	801.8	849.2	890.1	918.7	870.9	817.7	765.8	708.2	653.4	612.5
47.5°	688.5	750.7	797.3	837.4	867.2	820.2	766.6	716.8	662.4	611.7	573.6
48°	641.5	701.2	746.2	785.4	816.5	772.4	717.2	667.3	618.2	570.8	536.4
48.5°	596.5	653.4	695.9	735.1	766.6	726.2	669.7	620.3	574.9	532.8	501.3
49°	552.4	606.4	648.5	685.7	717.2	680.0	623.1	574.1	531.5	494.7	467.3
49.5°	509.9	560.6	601.9	637.8	668.1	635.4	580.2	530.3	489.8	458.8	433.8
50°	469.8	515.2	556.9	589.6	621.9	590.8	537.7	488.6	449.3	424.8	403.1
50.5°	430.1	471.0	512.7	543.8	576.5	548.7	497.6	448.9	411.3	395.0	374.9
51°	392.9	430.1	471.8	499.6	532.3	507.4	459.6	411.7	378.2	365.5	346.7
51.5°	356.1	391.3	431.8	457.9	491.1	468.2	423.2	380.2	345.5	335.7	318.9
52°	321.8	354.9	394.2	418.3	451.0	429.7	392.9	348.8	312.4	306.2	290.7
52.5°	289.1	319.7	357.4	379.4	412.1	397.0	362.3	316.9	279.7	276.8	264.5
53°	258.8	287.8	323.4	343.0	377.4	363.9	331.6	285.4	253.9	251.5	241.2
53.5°	230.2	258.4	290.3	309.1	342.6	331.2	300.9	258.8	230.6	228.6	218.3
54°	204.8	231.0	260.5	278.0	307.5	298.1	270.3	234.7	209.8	206.9	197.5
54.5°	181.5	205.3	231.0	248.6	273.1	265.4	245.3	212.6	190.9	186.0	176.2
55°	160.3	182.4	204.8	222.0	243.7	240.0	221.6	193.0	173.4	167.2	157.0
55.5°	139.8	159.9	179.9	197.1	217.1	213.8	199.1	173.4	156.2	148.4	138.2
56°	123.9	139.4	157.8	173.8	192.6	190.9	177.4	155.8	139.8	131.2	121.0
56.5°	107.5	123.1	138.6	151.7	170.1	168.9	157.0	139.0	124.3	114.9	104.7
57°	91.6	107.1	121.8	134.1	149.2	148.4	138.2	122.7	109.2	99.8	90.0
57.5°	75.6	90.8	104.7	116.9	129.2	128.8	120.2	107.1	95.3	85.9	76.0
58°	60.5	74.4	87.9	99.4	111.2	110.8	103.9	92.8	81.8	71.6	60.9
58.5°	45.8	58.5	71.1	82.2	94.9	94.4	88.7	78.9	67.5	60.9	51.9
59°	33.5	44.2	55.2	65.0	78.9	79.7	73.6	63.8	57.2	50.3	42.5
59.5°	24.5	32.3	40.5	48.7	66.6	68.7	62.1	54.0	47.0	39.3	33.5
60°	18.4	23.3	29.4	35.6	54.4	57.7	51.1	44.2	36.4	28.6	24.5
60.5°	13.5	17.6	21.3	25.3	42.1	46.6	39.7	34.3	26.2	18.0	15.1
61°	11.4	15.1	15.9	18.8	29.8	35.6	28.2	24.5	16.4	13.9	11.9
61.5°	9.4	12.7	13.5	13.9	17.6	24.5	17.2	14.7	12.3	11.0	9.4
62°	7.4	10.2	11.0	11.9	13.1	13.5	13.1	11.0	9.4	8.6	7.8
62.5°	5.3	7.8	8.6	9.8	10.2	10.2	9.8	9.0	7.4	7.0	6.1
63°	4.5	5.7	6.5	7.8	8.2	8.2	7.8	7.0	6.1	5.7	5.3
63.5°	3.7	4.5	5.3	5.7	6.5	6.5	6.1	5.7	4.9	4.9	4.5
64°	2.9	3.7	4.5	4.9	5.3	5.3	5.3	4.9	4.1	4.1	3.7
64.5°	2.5	3.3	3.7	4.1	4.5	4.5	4.1	4.1	3.3	3.3	3.3
65°	2.0	2.9	3.3	3.3	3.7	3.7	3.7	3.3	2.9	2.9	2.9
65.5°	2.0	2.5	2.5	2.9	3.3	2.9	2.9	2.9	2.5	2.5	2.5
66°	1.6	2.0	2.5	2.5	2.5	2.5	2.5	2.5	2.0	2.0	2.0



TEST NUMBER: P776394
 CATALOG NUMBER: HCDJBL3040CSD-HCD6TRH-4000lm-5000K

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
67.5°	1.2	1.2	1.6	1.6	1.6	1.6	1.6	1.6	1.2	1.2	1.2
68°	0.8	1.2	1.2	1.2	1.6	1.2	1.6	1.2	1.2	1.2	1.2
68.5°	0.8	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
69°	0.8	0.8	1.2	1.2	1.2	1.2	1.2	1.2	0.8	0.8	0.8
69.5°	0.8	0.8	0.8	0.8	1.2	0.8	0.8	0.8	0.8	0.8	0.8
70°	0.4	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
70.5°	0.4	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
71°	0.4	0.4	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
71.5°	0.4	0.4	0.8	0.8	0.8	0.8	0.8	0.8	0.4	0.4	0.4
72°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
72.5°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
73°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
73.5°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
74°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
74.5°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
75°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
75.5°	0.0	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
76°	0.0	0.0	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
76.5°	0.0	0.0	0.4	0.4	0.4	0.4	0.4	0.4	0.0	0.0	0.4
77°	0.0	0.0	0.0	0.4	0.4	0.4	0.0	0.0	0.0	0.0	0.0
77.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
78°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
78.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
79°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
79.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
81°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
81.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
83°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
83.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
84°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
84.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
86°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
86.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
88°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
88.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P776394
CATALOG NUMBER: HCDJBL3040CSD-HCD6TRH-4000lm-5000K

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: P776394

CATALOG NUMBER: HCDJBL3040CSD-HCD6TRH-4000lm-5000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	3730.5	3730.5	3730.5	3730.5	3730.5	3730.5
0.5°	3729.3	3724.8	3727.3	3729.3	3730.5	3729.7
1°	3725.2	3719.9	3722.8	3726.0	3728.1	3728.9
1.5°	3719.9	3714.2	3717.9	3721.5	3726.0	3727.7
2°	3713.4	3707.2	3711.3	3716.6	3721.5	3725.6
2.5°	3706.4	3699.5	3703.6	3710.9	3717.5	3725.6
3°	3698.2	3690.5	3695.8	3703.6	3713.4	3719.5
3.5°	3689.2	3680.7	3686.4	3696.6	3707.6	3715.8
4°	3679.8	3670.4	3676.6	3688.4	3701.9	3711.3
4.5°	3669.2	3658.6	3665.9	3679.4	3694.6	3705.6
5°	3657.3	3645.9	3654.1	3669.2	3686.8	3699.9
5.5°	3644.7	3633.2	3641.4	3658.6	3677.8	3694.6
6°	3631.2	3619.3	3628.7	3647.5	3668.8	3685.2
6.5°	3616.9	3603.8	3614.4	3634.9	3658.6	3677.0
7°	3602.2	3589.1	3599.7	3621.8	3647.9	3667.6
7.5°	3586.2	3572.3	3584.2	3608.7	3636.1	3656.9
8°	3570.3	3554.7	3568.2	3594.0	3623.4	3645.5
8.5°	3553.1	3536.7	3551.0	3578.4	3609.1	3633.6
9°	3535.9	3518.7	3533.1	3562.5	3594.8	3620.6
9.5°	3516.7	3499.5	3515.1	3545.3	3579.3	3606.2
10°	3497.9	3480.3	3495.8	3528.1	3563.3	3591.5
10.5°	3477.9	3459.0	3476.6	3509.7	3546.5	3575.6
11°	3457.4	3437.8	3456.2	3490.1	3529.0	3559.2
11.5°	3436.6	3416.5	3434.9	3470.1	3510.6	3542.0
12°	3414.5	3393.6	3413.3	3449.6	3490.9	3522.8
12.5°	3392.4	3371.1	3391.2	3428.0	3470.9	3504.0
13°	3369.1	3347.4	3367.9	3406.3	3450.9	3484.8
13.5°	3345.4	3323.3	3343.7	3383.4	3429.2	3464.0
14°	3320.4	3298.8	3319.2	3360.9	3407.5	3443.5
14.5°	3295.1	3273.4	3294.3	3337.2	3384.6	3421.4
15°	3268.9	3247.3	3268.5	3312.7	3362.6	3398.9
15.5°	3243.6	3219.9	3241.9	3287.3	3337.6	3375.6
16°	3216.2	3193.3	3215.4	3262.4	3313.5	3351.9
16.5°	3188.8	3164.7	3187.6	3237.0	3289.0	3327.4
17°	3160.2	3136.9	3159.8	3210.5	3263.6	3302.4
17.5°	3132.4	3107.4	3131.1	3182.2	3236.2	3276.3
18°	3103.7	3077.6	3102.5	3154.4	3209.2	3250.5
18.5°	3073.9	3047.3	3073.5	3125.8	3181.8	3223.9
19°	3044.5	3017.9	3042.8	3096.4	3153.2	3196.6
19.5°	3014.6	2987.2	3013.4	3067.3	3124.6	3168.7
20°	2984.8	2955.3	2983.5	3036.7	3095.2	3140.9
20.5°	2955.3	2924.2	2952.9	3005.6	3064.5	3111.9
21°	2923.4	2892.8	2921.8	2974.5	3033.8	3082.9

TEST NUMBER: P776394

CATALOG NUMBER: HCDJBL3040CSD-HCD6TRH-4000lm-5000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
22.5°	2825.7	2797.1	2825.7	2876.0	2937.7	2993.3
23°	2792.2	2764.0	2792.2	2842.5	2904.6	2962.7
23.5°	2759.1	2731.3	2760.3	2808.9	2871.1	2931.6
24°	2724.7	2697.7	2725.9	2774.6	2836.7	2899.3
24.5°	2690.4	2664.2	2692.8	2739.4	2803.2	2866.6
25°	2656.0	2629.4	2658.1	2704.3	2768.9	2833.5
25.5°	2620.9	2595.1	2623.7	2669.1	2733.7	2800.4
26°	2586.5	2560.3	2587.3	2631.9	2699.0	2767.2
26.5°	2550.5	2524.4	2550.5	2596.3	2663.4	2732.1
27°	2513.7	2487.6	2513.3	2557.5	2627.4	2697.7
27.5°	2476.1	2450.8	2474.9	2519.5	2590.6	2661.7
28°	2437.7	2410.3	2434.4	2480.6	2553.0	2626.2
28.5°	2397.6	2370.2	2396.0	2441.4	2515.0	2589.8
29°	2357.5	2328.9	2354.7	2401.7	2476.5	2552.6
29.5°	2316.7	2287.2	2312.6	2360.4	2437.3	2514.6
30°	2274.1	2243.5	2269.6	2319.5	2398.0	2476.1
30.5°	2230.8	2196.9	2226.3	2277.4	2356.7	2436.9
31°	2186.6	2150.3	2180.5	2235.3	2315.4	2396.8
31.5°	2141.7	2102.8	2134.7	2193.6	2273.7	2355.5
32°	2096.3	2054.2	2086.9	2148.6	2231.6	2312.6
32.5°	2048.9	2005.9	2039.4	2105.7	2188.7	2270.5
33°	2000.6	1955.6	1990.8	2061.5	2143.7	2226.3
33.5°	1951.5	1906.2	1942.1	2017.0	2099.1	2180.9
34°	1902.1	1856.7	1893.9	1970.8	2052.9	2133.1
34.5°	1851.4	1806.8	1844.4	1922.1	2006.7	2084.4
35°	1801.5	1757.7	1794.1	1873.4	1957.7	2033.7
35.5°	1751.2	1708.3	1745.9	1823.6	1909.0	1983.0
36°	1699.7	1659.6	1696.8	1772.9	1856.3	1928.6
36.5°	1648.6	1610.1	1647.3	1720.9	1802.7	1874.3
37°	1596.6	1559.8	1597.0	1663.7	1747.5	1818.2
37.5°	1544.3	1508.3	1545.9	1610.1	1693.5	1762.6
38°	1491.6	1457.6	1493.2	1553.3	1634.7	1705.0
38.5°	1437.2	1402.0	1438.4	1498.5	1576.6	1650.2
39°	1384.4	1346.4	1383.6	1467.0	1516.5	1593.0
39.5°	1330.5	1290.4	1328.8	1403.2	1448.6	1537.8
40°	1276.1	1234.8	1273.6	1339.1	1392.2	1482.6
40.5°	1222.1	1181.2	1218.8	1275.3	1335.8	1427.8
41°	1168.6	1129.7	1161.6	1211.5	1279.8	1372.2
41.5°	1117.4	1078.6	1106.4	1155.1	1223.3	1317.4
42°	1063.5	1029.1	1052.4	1098.2	1166.5	1262.2
42.5°	1011.5	978.8	1000.5	1042.2	1110.9	1207.0
43°	960.4	929.4	949.0	986.6	1054.1	1151.0
43.5°	908.5	879.5	896.2	932.2	999.3	1096.2



TEST NUMBER: P776394

CATALOG NUMBER: HCDJBL3040CSD-HCD6TRH-4000lm-5000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
45°	764.2	732.7	744.6	774.8	844.3	938.4
45.5°	718.0	686.9	694.7	725.7	796.5	888.5
46°	673.0	641.9	647.2	678.7	749.1	837.0
46.5°	631.3	596.5	600.6	633.3	704.1	786.3
47°	588.0	553.6	556.5	589.2	658.3	736.8
47.5°	548.3	511.5	514.4	547.5	615.8	688.5
48°	510.3	471.0	473.5	507.4	572.4	641.5
48.5°	473.5	431.4	435.4	469.4	531.1	596.5
49°	438.7	395.0	399.1	433.4	490.2	552.4
49.5°	405.6	359.8	364.7	398.6	452.2	509.9
50°	376.2	327.1	333.6	366.3	414.2	469.8
50.5°	347.1	297.7	303.8	335.3	379.0	430.1
51°	317.7	271.1	277.2	306.7	345.9	392.9
51.5°	288.7	247.0	252.3	278.8	314.4	356.1
52°	263.7	225.3	229.8	253.9	285.0	321.8
52.5°	239.6	205.7	208.5	230.2	257.2	289.1
53°	216.7	186.9	189.7	207.3	230.6	258.8
53.5°	196.3	169.7	171.3	185.6	206.1	230.2
54°	176.6	153.3	154.1	166.0	183.6	204.8
54.5°	157.8	138.6	139.4	147.2	162.7	181.5
55°	140.7	124.3	124.7	131.7	141.9	160.3
55.5°	123.5	110.0	110.4	116.1	125.9	139.8
56°	107.9	95.7	95.7	100.6	110.0	123.9
56.5°	93.6	81.4	81.0	85.5	94.0	107.5
57°	80.1	66.6	66.2	69.9	78.1	91.6
57.5°	65.4	51.9	51.9	54.8	63.0	75.6
58°	55.6	39.7	39.3	41.7	48.2	60.5
58.5°	45.8	29.8	29.0	30.7	36.0	45.8
59°	36.0	22.1	21.7	22.9	26.6	33.5
59.5°	26.2	16.8	16.4	17.2	19.6	24.5
60°	16.4	14.3	13.9	14.7	14.7	18.4
60.5°	12.7	11.4	11.4	12.3	12.7	13.5
61°	10.2	9.0	8.6	10.2	10.2	11.4
61.5°	8.2	6.5	6.1	7.8	8.2	9.4
62°	6.5	5.3	5.3	5.3	6.1	7.4
62.5°	5.3	4.5	4.1	4.5	4.9	5.3
63°	4.5	3.7	3.7	3.7	4.1	4.5
63.5°	3.7	3.3	2.9	2.9	3.3	3.7
64°	3.3	2.9	2.5	2.5	2.9	2.9
64.5°	2.9	2.5	2.0	2.0	2.5	2.5
65°	2.5	2.0	1.6	2.0	2.0	2.0
65.5°	2.0	1.6	1.6	1.6	1.6	2.0
66°	1.6	1.6	1.2	1.2	1.6	1.6



TEST NUMBER: P776394

CATALOG NUMBER: HCDJBL3040CSD-HCD6TRH-4000lm-5000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
67.5°	1.2	1.2	0.8	0.8	1.2	1.2
68°	1.2	0.8	0.8	0.8	0.8	0.8
68.5°	0.8	0.8	0.8	0.8	0.8	0.8
69°	0.8	0.8	0.8	0.8	0.8	0.8
69.5°	0.8	0.8	0.8	0.8	0.8	0.8
70°	0.8	0.8	0.4	0.4	0.4	0.4
70.5°	0.8	0.4	0.4	0.4	0.4	0.4
71°	0.4	0.4	0.4	0.4	0.4	0.4
71.5°	0.4	0.4	0.4	0.4	0.4	0.4
72°	0.4	0.4	0.4	0.4	0.4	0.4
72.5°	0.4	0.4	0.4	0.4	0.4	0.4
73°	0.4	0.4	0.4	0.4	0.4	0.4
73.5°	0.4	0.4	0.4	0.4	0.4	0.4
74°	0.4	0.4	0.4	0.4	0.4	0.4
74.5°	0.4	0.4	0.4	0.4	0.4	0.4
75°	0.4	0.4	0.4	0.0	0.0	0.4
75.5°	0.4	0.0	0.0	0.0	0.0	0.0
76°	0.4	0.0	0.0	0.0	0.0	0.0
76.5°	0.0	0.0	0.0	0.0	0.0	0.0
77°	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	0.0	0.0	0.0	0.0	0.0	0.0
78°	0.0	0.0	0.0	0.0	0.0	0.0
78.5°	0.0	0.0	0.0	0.0	0.0	0.0
79°	0.0	0.0	0.0	0.0	0.0	0.0
79.5°	0.0	0.0	0.0	0.0	0.0	0.0
80°	0.0	0.0	0.0	0.0	0.0	0.0
80.5°	0.0	0.0	0.0	0.0	0.0	0.0
81°	0.0	0.0	0.0	0.0	0.0	0.0
81.5°	0.0	0.0	0.0	0.0	0.0	0.0
82°	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0	0.0
83°	0.0	0.0	0.0	0.0	0.0	0.0
83.5°	0.0	0.0	0.0	0.0	0.0	0.0
84°	0.0	0.0	0.0	0.0	0.0	0.0
84.5°	0.0	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0	0.0
85.5°	0.0	0.0	0.0	0.0	0.0	0.0
86°	0.0	0.0	0.0	0.0	0.0	0.0
86.5°	0.0	0.0	0.0	0.0	0.0	0.0
87°	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0
88°	0.0	0.0	0.0	0.0	0.0	0.0
88.5°	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P776394
CATALOG NUMBER: HCDJBL3040CSD-HCD6TRH-4000lm-5000K

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



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°

Signify Classified - Internal
Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report



Signify Classified - Internal
Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report





21.5°	3053.0	3102.1	3142.2	3151.6	3142.6	3121.3	3076.8	3017.5	2970.9	2938.1	2912.4
22°	3023.6	3072.7	3112.7	3122.5	3114.8	3093.1	3046.9	2988.0	2938.6	2905.4	2878.9



44°	1041.8	1121.5	1190.2	1219.3	1243.8	1198.8	1146.1	1080.2	1000.9	936.3	879.1
44.5°	989.5	1067.6	1131.8	1163.2	1187.4	1142.8	1090.9	1026.3	953.1	887.7	832.5



66.5°	1.2	1.6	2.0	2.0	2.0	2.0	2.0	2.0	1.6	1.6	1.6
67°	1.2	1.6	1.6	1.6	2.0	2.0	2.0	1.6	1.6	1.6	1.6



89°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
89.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Signify Classified - Internal
Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report





21.5°	2890.7	2861.3	2889.9	2941.8	3001.9	3053.0
22°	2858.4	2829.0	2858.0	2909.5	2970.0	3023.6



44°	859.4	829.2	844.7	878.7	946.9	1041.8
44.5°	812.0	780.1	794.8	826.3	895.4	989.5

Signify Classified - Internal
Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report



66.5°	1.6	1.2	1.2	1.2	1.2	1.2
67°	1.2	1.2	1.2	1.2	1.2	1.2

Signify Classified - Internal
Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report



89°	0.0	0.0	0.0	0.0	0.0	0.0
89.5°	0.0	0.0	0.0	0.0	0.0	0.0

Signify Classified - Internal
Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report



(END OF REPORT)