

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: P776382

Luminaire Tested: HCDJBL3040CSD-HCD62TRMW-4000lm-3500K

Issue Date: 2/13/2024

Test Information

Test Method: LM-79-2019
Report Number: P776382
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: HCDJBS3040CSD-HCD62TRMW-4000lm-3500K
Description: 6 INCH ROUND NARROW MATTE WHITE TRIM
Light Source: SELECTABLE LUMENS AND CCT ARRAY 90CRI / 3500K CCT
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4408.3 lumens
Efficiency: N/A
Efficacy: 114.5 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

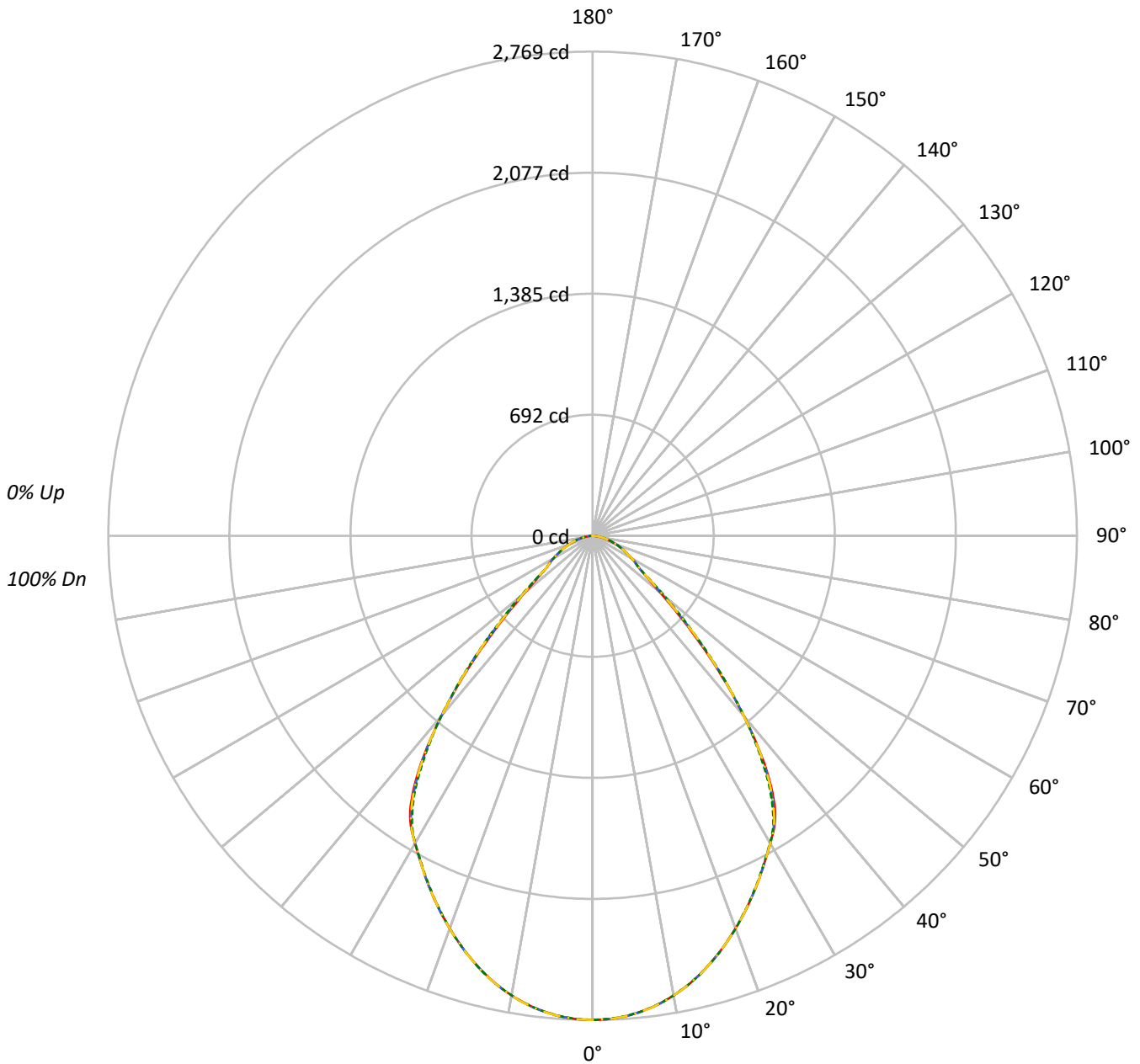
Input Watts (W): 38.5
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



TEST NUMBER: P776382

CATALOG NUMBER: HCDJBL3040CSD-HCD62TRMW-4000lm-3500K

Luminous Intensity Polar Plot





TEST NUMBER: P776382

CATALOG NUMBER: HCDJBL3040CSD-HCD62TRMW-4000lm-3500K

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20					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	112	108	105	102	109	106	103	100	102	99	97	98	96	94	94	93	91	89					89			
2	104	98	92	88	102	96	91	87	92	88	85	89	86	83	86	84	81	79					79			
3	97	89	82	77	95	87	81	76	84	79	75	82	77	74	79	76	73	71					71			
4	90	81	74	68	88	79	73	68	77	71	67	75	70	66	73	69	65	63					63			
5	84	74	66	61	82	73	66	61	71	65	60	69	64	59	67	63	59	57					57			
6	79	68	60	55	77	67	60	55	65	59	54	64	58	54	62	57	53	52					52			
7	74	62	55	50	72	62	55	50	60	54	49	59	53	49	58	53	49	47					47			
8	69	58	51	45	68	57	50	45	56	50	45	55	49	45	54	49	45	43					43			
9	65	54	47	42	64	53	46	42	52	46	41	51	45	41	50	45	41	40					40			
10	62	50	43	38	61	50	43	38	49	43	38	48	42	38	47	42	38	36					36			

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	151803	151803	151803	151803
5°	151007	150941	151007	150941
10°	148594	148594	148594	148594
15°	144530	144598	144530	144598
20°	139411	139365	139411	139365
25°	133877	133659	133877	133659
30°	128608	128412	128608	128412
35°	119940	118186	119940	118186
40°	96266	96381	96266	96381
45°	67364	69395	67364	69395
50°	43069	45875	43069	45875
55°	31330	31817	31330	31817
60°	28441	28309	28441	28309
65°	25567	25463	25567	25463
70°	22664	22985	22664	22985
75°	19783	20778	19783	20778
80°	16290	18437	16290	18437
85°	10001	15222	10001	15222

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 69395 cd/sqm



TEST NUMBER: P776382

CATALOG NUMBER: HCDJBL3040CSD-HCD62TRMW-4000lm-3500K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	259.6	5.9
10°-20°	716.2	16.2
20°-30°	1018.4	23.1
30°-40°	1088.7	24.7
40°-50°	687.9	15.6
50°-60°	313.1	7.1
60°-70°	196.1	4.4
70°-80°	103.0	2.3
80°-90°	25.4	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°	1994.2	45.2
0°-40°	3082.9	69.9
0°-60°	4083.9	92.6
0°-90°	4408.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4408.3	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	2769	2769	2769	2769	2769	
5°	2744	2743	2744	2743	2744	260
15°	2547	2548	2547	2548	2547	716
25°	2213	2210	2213	2210	2213	1019
35°	1792	1766	1792	1766	1792	1093
45°	869	895	869	895	869	678
55°	328	333	328	333	328	309
65°	197	196	197	196	197	196
75°	93	98	93	98	93	100
85°	16	24	16	24	16	21
90°	0	1	0	1	0	



TEST NUMBER: P776382

CATALOG NUMBER: HCDJBL3040CSD-HCD62TRMW-4000lm-3500K

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
0°	2769.1	2769.1	2769.1	2769.1	2769.1	2769.1	2769.1	2769.1	2769.1	2769.1	2769.1
0.5°	2768.7	2769.1	2768.7	2768.7	2767.5	2768.7	2768.7	2769.1	2768.7	2769.1	2768.7
1°	2767.9	2768.3	2768.3	2767.9	2766.7	2767.9	2768.3	2768.3	2767.9	2768.3	2768.3
1.5°	2766.7	2767.1	2766.7	2766.7	2765.5	2766.7	2766.7	2767.1	2766.7	2767.1	2766.7
2°	2765.1	2765.1	2765.1	2765.1	2763.6	2765.1	2765.1	2765.1	2765.1	2765.1	2765.1
2.5°	2762.8	2762.8	2763.2	2762.8	2761.6	2762.8	2763.2	2762.8	2762.8	2762.8	2763.2
3°	2760.0	2760.4	2760.4	2760.4	2758.8	2760.4	2760.4	2760.4	2760.0	2760.4	2760.4
3.5°	2756.8	2756.8	2757.2	2757.2	2755.6	2757.2	2757.2	2756.8	2756.8	2756.8	2757.2
4°	2753.2	2753.2	2753.2	2753.2	2752.0	2753.2	2753.2	2753.2	2753.2	2753.2	2753.2
4.5°	2748.9	2749.3	2749.3	2749.3	2747.7	2749.3	2749.3	2749.3	2748.9	2749.3	2749.3
5°	2744.1	2744.5	2744.5	2744.5	2742.9	2744.5	2744.5	2744.5	2744.1	2744.5	2744.5
5.5°	2738.9	2739.3	2739.3	2739.3	2737.7	2739.3	2739.3	2739.3	2738.9	2739.3	2739.3
6°	2733.4	2733.4	2733.4	2733.4	2732.2	2733.4	2733.4	2733.4	2733.4	2733.4	2733.4
6.5°	2727.0	2727.0	2727.4	2727.4	2726.2	2727.4	2727.4	2727.0	2727.0	2727.0	2727.4
7°	2720.3	2720.7	2720.7	2720.7	2719.5	2720.7	2720.7	2720.7	2720.3	2720.7	2720.7
7.5°	2713.1	2713.1	2713.5	2713.5	2712.3	2713.5	2713.5	2713.1	2713.1	2713.1	2713.5
8°	2705.2	2705.6	2706.0	2706.0	2704.8	2706.0	2706.0	2705.6	2705.2	2705.6	2706.0
8.5°	2696.8	2697.2	2697.6	2697.6	2696.4	2697.6	2697.6	2697.2	2696.8	2697.2	2697.6
9°	2688.1	2688.5	2688.9	2689.3	2688.1	2689.3	2688.9	2688.5	2688.1	2688.5	2688.9
9.5°	2678.9	2679.3	2679.7	2680.1	2678.9	2680.1	2679.7	2679.3	2678.9	2679.3	2679.7
10°	2669.4	2669.4	2669.8	2670.6	2669.4	2670.6	2669.8	2669.4	2669.4	2669.4	2669.8
10.5°	2659.1	2659.1	2659.9	2660.3	2659.1	2660.3	2659.9	2659.1	2659.1	2659.1	2659.9
11°	2648.3	2648.3	2649.1	2649.9	2648.3	2649.9	2649.1	2648.3	2648.3	2648.3	2649.1
11.5°	2636.8	2637.2	2638.0	2638.8	2637.6	2638.8	2638.0	2637.2	2636.8	2637.2	2638.0
12°	2625.3	2625.7	2626.5	2627.3	2626.1	2627.3	2626.5	2625.7	2625.3	2625.7	2626.5
12.5°	2613.4	2613.8	2614.2	2615.0	2614.2	2615.0	2614.2	2613.8	2613.4	2613.8	2614.2
13°	2600.7	2601.1	2601.9	2602.7	2601.9	2602.7	2601.9	2601.1	2600.7	2601.1	2601.9
13.5°	2588.0	2588.4	2589.1	2589.9	2588.8	2589.9	2589.1	2588.4	2588.0	2588.4	2589.1
14°	2574.4	2575.2	2576.0	2576.4	2575.6	2576.4	2576.0	2575.2	2574.4	2575.2	2576.0
14.5°	2560.9	2561.3	2562.1	2562.9	2562.1	2562.9	2562.1	2561.3	2560.9	2561.3	2562.1
15°	2546.6	2547.4	2548.2	2549.0	2547.8	2549.0	2548.2	2547.4	2546.6	2547.4	2548.2
15.5°	2532.3	2532.7	2533.5	2534.3	2533.1	2534.3	2533.5	2532.7	2532.3	2532.7	2533.5
16°	2517.2	2518.0	2518.8	2519.6	2518.4	2519.6	2518.8	2518.0	2517.2	2518.0	2518.8
16.5°	2502.5	2502.9	2503.7	2504.5	2503.3	2504.5	2503.7	2502.9	2502.5	2502.9	2503.7
17°	2487.0	2487.4	2488.2	2489.0	2487.8	2489.0	2488.2	2487.4	2487.0	2487.4	2488.2
17.5°	2471.5	2471.5	2472.3	2473.1	2471.9	2473.1	2472.3	2471.5	2471.5	2471.5	2472.3
18°	2455.3	2456.1	2456.5	2456.8	2455.7	2456.8	2456.5	2456.1	2455.3	2456.1	2456.5
18.5°	2439.0	2439.8	2440.2	2440.6	2439.4	2440.6	2440.2	2439.8	2439.0	2439.8	2440.2
19°	2422.7	2423.5	2423.9	2423.9	2423.1	2423.9	2423.9	2423.5	2422.7	2423.5	2423.9
19.5°	2406.4	2406.8	2407.2	2407.6	2406.4	2407.6	2407.2	2406.8	2406.4	2406.8	2407.2
20°	2389.7	2390.1	2390.5	2390.5	2388.9	2390.5	2390.5	2390.1	2389.7	2390.1	2390.5
20.5°	2373.0	2373.0	2373.0	2373.0	2371.8	2373.0	2373.0	2373.0	2373.0	2373.0	2373.0
21°	2355.1	2355.5	2355.9	2355.5	2354.3	2355.5	2355.9	2355.5	2355.1	2355.5	2355.9



TEST NUMBER: P776382

CATALOG NUMBER: HCDJBL3040CSD-HCD62TRMW-4000lm-3500K

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
22.5°	2303.5	2303.5	2303.1	2302.7	2301.1	2302.7	2303.1	2303.5	2303.5	2303.5	2303.1
23°	2285.6	2285.6	2285.2	2284.8	2283.2	2284.8	2285.2	2285.6	2285.6	2285.6	2285.2
23.5°	2267.7	2267.7	2267.3	2266.5	2265.4	2266.5	2267.3	2267.7	2267.7	2267.7	2267.3
24°	2249.9	2249.9	2249.5	2248.3	2246.7	2248.3	2249.5	2249.9	2249.9	2249.9	2249.5
24.5°	2232.0	2231.6	2231.2	2230.0	2228.4	2230.0	2231.2	2231.6	2232.0	2231.6	2231.2
25°	2213.3	2213.3	2212.9	2211.7	2209.7	2211.7	2212.9	2213.3	2213.3	2213.3	2212.9
25.5°	2195.0	2195.0	2194.6	2193.0	2191.5	2193.0	2194.6	2195.0	2195.0	2195.0	2194.6
26°	2176.8	2176.8	2176.4	2175.2	2173.2	2175.2	2176.4	2176.8	2176.8	2176.8	2176.4
26.5°	2158.1	2158.1	2157.7	2156.1	2154.5	2156.1	2157.7	2158.1	2158.1	2158.1	2157.7
27°	2139.4	2139.8	2139.4	2137.8	2135.8	2137.8	2139.4	2139.8	2139.4	2139.8	2139.4
27.5°	2121.1	2121.1	2120.7	2119.5	2117.6	2119.5	2120.7	2121.1	2121.1	2121.1	2120.7
28°	2102.1	2102.9	2102.5	2101.3	2099.7	2101.3	2102.5	2102.9	2102.1	2102.9	2102.5
28.5°	2084.2	2085.0	2084.6	2083.4	2081.8	2083.4	2084.6	2085.0	2084.2	2085.0	2084.6
29°	2066.3	2067.1	2066.7	2065.9	2063.9	2065.9	2066.7	2067.1	2066.3	2067.1	2066.7
29.5°	2048.8	2049.2	2049.2	2048.0	2046.4	2048.0	2049.2	2049.2	2048.8	2049.2	2049.2
30°	2031.7	2031.7	2031.7	2030.2	2028.6	2030.2	2031.7	2031.7	2031.7	2031.7	2031.7
30.5°	2014.3	2014.7	2013.9	2012.7	2010.7	2012.7	2013.9	2014.7	2014.3	2014.7	2013.9
31°	1997.2	1997.2	1996.4	1994.4	1992.0	1994.4	1996.4	1997.2	1997.2	1997.2	1996.4
31.5°	1978.9	1978.9	1977.3	1975.3	1972.2	1975.3	1977.3	1978.9	1978.9	1978.9	1977.3
32°	1960.2	1959.0	1956.3	1952.7	1948.3	1952.7	1956.3	1959.0	1960.2	1959.0	1956.3
32.5°	1940.0	1937.2	1932.8	1926.9	1921.7	1926.9	1932.8	1937.2	1940.0	1937.2	1932.8
33°	1916.9	1913.8	1906.2	1899.5	1893.9	1899.5	1906.2	1913.8	1916.9	1913.8	1906.2
33.5°	1890.3	1887.5	1877.2	1870.1	1864.5	1870.1	1877.2	1887.5	1890.3	1887.5	1877.2
34°	1860.1	1858.9	1846.6	1838.7	1833.9	1838.7	1846.6	1858.9	1860.1	1858.9	1846.6
34.5°	1827.1	1825.2	1814.0	1805.3	1800.9	1805.3	1814.0	1825.2	1827.1	1825.2	1814.0
35°	1792.2	1789.0	1779.5	1769.9	1766.0	1769.9	1779.5	1789.0	1792.2	1789.0	1779.5
35.5°	1755.2	1750.9	1743.3	1733.4	1728.2	1733.4	1743.3	1750.9	1755.2	1750.9	1743.3
36°	1715.9	1710.3	1705.6	1695.6	1689.3	1695.6	1705.6	1710.3	1715.9	1710.3	1705.6
36.5°	1674.6	1668.6	1665.4	1655.9	1648.0	1655.9	1665.4	1668.6	1674.6	1668.6	1665.4
37°	1631.3	1625.7	1623.3	1614.6	1606.6	1614.6	1623.3	1625.7	1631.3	1625.7	1623.3
37.5°	1586.0	1582.0	1579.6	1572.5	1564.5	1572.5	1579.6	1582.0	1586.0	1582.0	1579.6
38°	1539.1	1536.7	1534.3	1529.6	1522.8	1529.6	1534.3	1536.7	1539.1	1536.7	1534.3
38.5°	1491.0	1491.0	1487.1	1485.5	1479.5	1485.5	1487.1	1491.0	1491.0	1491.0	1487.1
39°	1443.4	1444.2	1440.2	1439.8	1437.4	1439.8	1440.2	1444.2	1443.4	1444.2	1440.2
39.5°	1394.5	1395.7	1391.7	1392.9	1392.5	1392.9	1391.7	1395.7	1394.5	1395.7	1391.7
40°	1345.2	1347.6	1344.0	1346.0	1346.8	1346.0	1344.0	1347.6	1345.2	1347.6	1344.0
40.5°	1295.2	1298.7	1296.4	1299.5	1300.3	1299.5	1296.4	1298.7	1295.2	1298.7	1296.4
41°	1246.3	1250.3	1249.5	1252.3	1255.0	1252.3	1249.5	1250.3	1246.3	1250.3	1249.5
41.5°	1197.8	1200.6	1203.0	1206.6	1207.8	1206.6	1203.0	1200.6	1197.8	1200.6	1203.0
42°	1149.4	1151.7	1156.5	1159.7	1162.9	1159.7	1156.5	1151.7	1149.4	1151.7	1156.5
42.5°	1101.3	1103.7	1110.4	1114.4	1117.2	1114.4	1110.4	1103.7	1101.3	1103.7	1110.4
43°	1053.2	1056.4	1065.1	1068.7	1071.5	1068.7	1065.1	1056.4	1053.2	1056.4	1065.1
43.5°	1005.9	1008.7	1019.4	1023.0	1025.4	1023.0	1019.4	1008.7	1005.9	1008.7	1019.4



TEST NUMBER: P776382

CATALOG NUMBER: HCDJBL3040CSD-HCD62TRMW-4000lm-3500K

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
45°	868.9	873.6	885.6	892.3	895.1	892.3	885.6	873.6	868.9	873.6	885.6
45.5°	824.8	830.7	843.1	850.6	853.4	850.6	843.1	830.7	824.8	830.7	843.1
46°	782.7	789.4	801.3	810.1	813.7	810.1	801.3	789.4	782.7	789.4	801.3
46.5°	741.7	749.3	760.8	770.7	774.7	770.7	760.8	749.3	741.7	749.3	760.8
47°	702.0	710.4	721.5	732.2	736.6	732.2	721.5	710.4	702.0	710.4	721.5
47.5°	664.3	672.2	684.1	695.3	699.2	695.3	684.1	672.2	664.3	672.2	684.1
48°	628.5	636.5	648.4	659.9	664.3	659.9	648.4	636.5	628.5	636.5	648.4
48.5°	595.1	601.9	613.8	625.7	630.5	625.7	613.8	601.9	595.1	601.9	613.8
49°	563.0	569.3	580.8	593.6	597.9	593.6	580.8	569.3	563.0	569.3	580.8
49.5°	532.8	538.3	550.2	562.2	567.3	562.2	550.2	538.3	532.8	538.3	550.2
50°	505.0	508.9	521.2	533.2	537.9	533.2	521.2	508.9	505.0	508.9	521.2
50.5°	479.1	481.9	494.2	505.4	510.1	505.4	494.2	481.9	479.1	481.9	494.2
51°	455.3	457.7	468.8	478.7	484.3	478.7	468.8	457.7	455.3	457.7	468.8
51.5°	433.0	435.0	445.4	454.5	459.7	454.5	445.4	435.0	433.0	435.0	445.4
52°	412.8	414.8	424.3	431.9	436.2	431.9	424.3	414.8	412.8	414.8	424.3
52.5°	394.1	395.7	404.0	410.4	414.4	410.4	404.0	395.7	394.1	395.7	404.0
53°	377.0	379.8	385.8	390.9	394.1	390.9	385.8	379.8	377.0	379.8	385.8
53.5°	363.5	365.1	369.1	373.5	375.8	373.5	369.1	365.1	363.5	365.1	369.1
54°	350.8	351.2	354.0	357.2	359.2	357.2	354.0	351.2	350.8	351.2	354.0
54.5°	339.3	339.3	340.5	342.9	345.2	342.9	340.5	339.3	339.3	339.3	340.5
55°	327.8	328.2	329.8	331.3	332.9	331.3	329.8	328.2	327.8	328.2	329.8
55.5°	317.0	318.6	320.2	321.4	324.2	321.4	320.2	318.6	317.0	318.6	320.2
56°	309.5	310.3	311.5	312.3	315.4	312.3	311.5	310.3	309.5	310.3	311.5
56.5°	303.1	303.1	303.1	303.9	306.7	303.9	303.1	303.1	303.1	303.1	303.1
57°	297.2	297.2	296.4	296.0	298.0	296.0	296.4	297.2	297.2	297.2	296.4
57.5°	291.6	291.2	290.4	289.6	289.2	289.6	290.4	291.2	291.6	291.2	290.4
58°	285.7	285.3	284.5	283.7	282.9	283.7	284.5	285.3	285.7	285.3	284.5
58.5°	279.3	278.9	278.1	277.3	276.9	277.3	278.1	278.9	279.3	278.9	278.1
59°	272.9	272.5	272.1	271.4	270.6	271.4	272.1	272.5	272.9	272.5	272.1
59.5°	266.2	266.2	265.4	265.0	264.6	265.0	265.4	266.2	266.2	266.2	265.4
60°	259.4	259.4	259.0	258.6	258.2	258.6	259.0	259.4	259.4	259.4	259.0
60.5°	252.7	252.7	252.3	251.9	251.5	251.9	252.3	252.7	252.7	252.7	252.3
61°	246.3	246.3	245.9	245.5	245.1	245.5	245.9	246.3	246.3	246.3	245.9
61.5°	240.0	240.0	239.6	239.2	238.8	239.2	239.6	240.0	240.0	240.0	239.6
62°	233.6	233.6	233.2	232.8	232.4	232.8	233.2	233.6	233.6	233.6	233.2
62.5°	227.3	227.3	226.9	226.5	226.1	226.5	226.9	227.3	227.3	227.3	226.9
63°	221.3	220.9	220.9	220.1	220.1	220.1	220.9	220.9	221.3	220.9	220.9
63.5°	214.9	214.9	214.5	214.1	214.1	214.1	214.5	214.9	214.9	214.9	214.5
64°	209.0	209.0	208.6	208.2	207.8	208.2	208.6	209.0	209.0	209.0	208.6
64.5°	203.0	203.0	202.6	202.2	202.2	202.2	202.6	203.0	203.0	203.0	202.6
65°	197.1	197.5	197.1	196.7	196.3	196.7	197.1	197.5	197.1	197.5	197.1
65.5°	191.1	191.5	191.5	191.1	190.7	191.1	191.5	191.5	191.1	191.5	191.5
66°	185.5	185.9	185.5	185.1	185.1	185.1	185.5	185.9	185.5	185.9	185.5



TEST NUMBER: P776382

CATALOG NUMBER: HCDJBL3040CSD-HCD62TRMW-4000lm-3500K

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
67.5°	168.5	169.2	169.2	168.8	168.8	168.8	169.2	169.2	168.5	169.2	169.2
68°	162.9	163.7	164.1	163.7	163.7	163.7	164.1	163.7	162.9	163.7	164.1
68.5°	157.7	158.5	158.9	158.5	158.5	158.5	158.9	158.5	157.7	158.5	158.9
69°	152.2	153.4	153.8	153.8	153.4	153.8	153.8	153.4	152.2	153.4	153.8
69.5°	146.6	148.2	149.0	148.6	148.6	148.6	149.0	148.2	146.6	148.2	149.0
70°	141.4	142.6	143.8	143.8	143.4	143.8	143.8	142.6	141.4	142.6	143.8
70.5°	136.3	137.9	139.1	138.7	138.7	138.7	139.1	137.9	136.3	137.9	139.1
71°	131.5	133.1	134.3	134.3	133.9	134.3	134.3	133.1	131.5	133.1	134.3
71.5°	126.3	127.9	129.5	129.5	129.1	129.5	129.5	127.9	126.3	127.9	129.5
72°	121.6	123.2	124.7	124.7	124.4	124.7	124.7	123.2	121.6	123.2	124.7
72.5°	116.8	118.4	120.4	120.0	120.0	120.0	120.4	118.4	116.8	118.4	120.4
73°	111.6	113.6	115.6	115.6	115.2	115.6	115.6	113.6	111.6	113.6	115.6
73.5°	106.9	108.9	111.2	111.2	110.8	111.2	111.2	108.9	106.9	108.9	111.2
74°	102.5	104.1	106.5	106.9	106.5	106.9	106.5	104.1	102.5	104.1	106.5
74.5°	97.7	99.7	102.1	102.5	102.1	102.5	102.1	99.7	97.7	99.7	102.1
75°	93.4	95.0	97.7	98.1	98.1	98.1	97.7	95.0	93.4	95.0	97.7
75.5°	89.0	90.6	93.8	93.8	93.8	93.8	93.8	90.6	89.0	90.6	93.8
76°	84.6	86.2	89.4	89.8	89.8	89.8	89.4	86.2	84.6	86.2	89.4
76.5°	80.3	81.8	85.0	85.8	85.4	85.8	85.0	81.8	80.3	81.8	85.0
77°	75.9	77.9	81.0	81.8	81.4	81.8	81.0	77.9	75.9	77.9	81.0
77.5°	71.5	73.5	77.1	77.9	77.5	77.9	77.1	73.5	71.5	73.5	77.1
78°	67.5	69.5	72.7	73.9	73.5	73.9	72.7	69.5	67.5	69.5	72.7
78.5°	63.6	65.2	68.7	69.9	69.9	69.9	68.7	65.2	63.6	65.2	68.7
79°	59.6	61.2	64.8	66.0	66.0	66.0	64.8	61.2	59.6	61.2	64.8
79.5°	55.6	57.2	61.2	62.4	62.4	62.4	61.2	57.2	55.6	57.2	61.2
80°	51.6	53.2	57.2	58.4	58.4	58.4	57.2	53.2	51.6	53.2	57.2
80.5°	48.1	49.7	53.6	54.8	54.8	54.8	53.6	49.7	48.1	49.7	53.6
81°	44.1	45.7	49.7	51.3	51.3	51.3	49.7	45.7	44.1	45.7	49.7
81.5°	40.5	41.7	46.1	47.7	47.7	47.7	46.1	41.7	40.5	41.7	46.1
82°	36.9	38.1	42.5	44.1	44.1	44.1	42.5	38.1	36.9	38.1	42.5
82.5°	33.0	34.6	38.9	40.9	40.9	40.9	38.9	34.6	33.0	34.6	38.9
83°	29.4	31.0	35.4	37.3	37.3	37.3	35.4	31.0	29.4	31.0	35.4
83.5°	25.8	27.4	32.2	34.2	33.8	34.2	32.2	27.4	25.8	27.4	32.2
84°	22.6	23.8	29.0	30.6	30.6	30.6	29.0	23.8	22.6	23.8	29.0
84.5°	19.1	20.3	25.8	27.4	27.4	27.4	25.8	20.3	19.1	20.3	25.8
85°	15.9	17.1	22.6	24.2	24.2	24.2	22.6	17.1	15.9	17.1	22.6
85.5°	12.7	14.3	19.5	21.1	21.1	21.1	19.5	14.3	12.7	14.3	19.5
86°	10.3	11.5	16.7	17.9	17.9	17.9	16.7	11.5	10.3	11.5	16.7
86.5°	8.3	9.5	13.5	14.7	15.1	14.7	13.5	9.5	8.3	9.5	13.5
87°	6.4	7.5	11.1	11.9	11.9	11.9	11.1	7.5	6.4	7.5	11.1
87.5°	4.8	5.6	8.3	9.1	9.1	9.1	8.3	5.6	4.8	5.6	8.3
88°	3.2	4.0	6.0	6.4	6.8	6.4	6.0	4.0	3.2	4.0	6.0
88.5°	1.6	2.4	4.0	4.8	5.2	4.8	4.0	2.4	1.6	2.4	4.0



TEST NUMBER: P776382
CATALOG NUMBER: HCDJBL3040CSD-HCD62TRMW-4000lm-3500K

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
90°	0.0	0.4	0.4	0.8	1.2	0.8	0.4	0.4	0.0	0.4	0.4



TEST NUMBER: P776382

CATALOG NUMBER: HCDJBL3040CSD-HCD62TRMW-4000lm-3500K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	2769.1	2769.1	2769.1	2769.1	2769.1	2769.1
0.5°	2768.7	2767.5	2768.7	2768.7	2769.1	2768.7
1°	2767.9	2766.7	2767.9	2768.3	2768.3	2767.9
1.5°	2766.7	2765.5	2766.7	2766.7	2767.1	2766.7
2°	2765.1	2763.6	2765.1	2765.1	2765.1	2765.1
2.5°	2762.8	2761.6	2762.8	2763.2	2762.8	2762.8
3°	2760.4	2758.8	2760.4	2760.4	2760.4	2760.0
3.5°	2757.2	2755.6	2757.2	2757.2	2756.8	2756.8
4°	2753.2	2752.0	2753.2	2753.2	2753.2	2753.2
4.5°	2749.3	2747.7	2749.3	2749.3	2749.3	2748.9
5°	2744.5	2742.9	2744.5	2744.5	2744.5	2744.1
5.5°	2739.3	2737.7	2739.3	2739.3	2739.3	2738.9
6°	2733.4	2732.2	2733.4	2733.4	2733.4	2733.4
6.5°	2727.4	2726.2	2727.4	2727.4	2727.0	2727.0
7°	2720.7	2719.5	2720.7	2720.7	2720.7	2720.3
7.5°	2713.5	2712.3	2713.5	2713.5	2713.1	2713.1
8°	2706.0	2704.8	2706.0	2706.0	2705.6	2705.2
8.5°	2697.6	2696.4	2697.6	2697.6	2697.2	2696.8
9°	2689.3	2688.1	2689.3	2688.9	2688.5	2688.1
9.5°	2680.1	2678.9	2680.1	2679.7	2679.3	2678.9
10°	2670.6	2669.4	2670.6	2669.8	2669.4	2669.4
10.5°	2660.3	2659.1	2660.3	2659.9	2659.1	2659.1
11°	2649.9	2648.3	2649.9	2649.1	2648.3	2648.3
11.5°	2638.8	2637.6	2638.8	2638.0	2637.2	2636.8
12°	2627.3	2626.1	2627.3	2626.5	2625.7	2625.3
12.5°	2615.0	2614.2	2615.0	2614.2	2613.8	2613.4
13°	2602.7	2601.9	2602.7	2601.9	2601.1	2600.7
13.5°	2589.9	2588.8	2589.9	2589.1	2588.4	2588.0
14°	2576.4	2575.6	2576.4	2576.0	2575.2	2574.4
14.5°	2562.9	2562.1	2562.9	2562.1	2561.3	2560.9
15°	2549.0	2547.8	2549.0	2548.2	2547.4	2546.6
15.5°	2534.3	2533.1	2534.3	2533.5	2532.7	2532.3
16°	2519.6	2518.4	2519.6	2518.8	2518.0	2517.2
16.5°	2504.5	2503.3	2504.5	2503.7	2502.9	2502.5
17°	2489.0	2487.8	2489.0	2488.2	2487.4	2487.0
17.5°	2473.1	2471.9	2473.1	2472.3	2471.5	2471.5
18°	2456.8	2455.7	2456.8	2456.5	2456.1	2455.3
18.5°	2440.6	2439.4	2440.6	2440.2	2439.8	2439.0
19°	2423.9	2423.1	2423.9	2423.9	2423.5	2422.7
19.5°	2407.6	2406.4	2407.6	2407.2	2406.8	2406.4
20°	2390.5	2388.9	2390.5	2390.5	2390.1	2389.7
20.5°	2373.0	2371.8	2373.0	2373.0	2373.0	2373.0
21°	2355.5	2354.3	2355.5	2355.9	2355.5	2355.1



TEST NUMBER: P776382

CATALOG NUMBER: HCDJBL3040CSD-HCD62TRMW-4000lm-3500K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
22.5°	2302.7	2301.1	2302.7	2303.1	2303.5	2303.5
23°	2284.8	2283.2	2284.8	2285.2	2285.6	2285.6
23.5°	2266.5	2265.4	2266.5	2267.3	2267.7	2267.7
24°	2248.3	2246.7	2248.3	2249.5	2249.9	2249.9
24.5°	2230.0	2228.4	2230.0	2231.2	2231.6	2232.0
25°	2211.7	2209.7	2211.7	2212.9	2213.3	2213.3
25.5°	2193.0	2191.5	2193.0	2194.6	2195.0	2195.0
26°	2175.2	2173.2	2175.2	2176.4	2176.8	2176.8
26.5°	2156.1	2154.5	2156.1	2157.7	2158.1	2158.1
27°	2137.8	2135.8	2137.8	2139.4	2139.8	2139.4
27.5°	2119.5	2117.6	2119.5	2120.7	2121.1	2121.1
28°	2101.3	2099.7	2101.3	2102.5	2102.9	2102.1
28.5°	2083.4	2081.8	2083.4	2084.6	2085.0	2084.2
29°	2065.9	2063.9	2065.9	2066.7	2067.1	2066.3
29.5°	2048.0	2046.4	2048.0	2049.2	2049.2	2048.8
30°	2030.2	2028.6	2030.2	2031.7	2031.7	2031.7
30.5°	2012.7	2010.7	2012.7	2013.9	2014.7	2014.3
31°	1994.4	1992.0	1994.4	1996.4	1997.2	1997.2
31.5°	1975.3	1972.2	1975.3	1977.3	1978.9	1978.9
32°	1952.7	1948.3	1952.7	1956.3	1959.0	1960.2
32.5°	1926.9	1921.7	1926.9	1932.8	1937.2	1940.0
33°	1899.5	1893.9	1899.5	1906.2	1913.8	1916.9
33.5°	1870.1	1864.5	1870.1	1877.2	1887.5	1890.3
34°	1838.7	1833.9	1838.7	1846.6	1858.9	1860.1
34.5°	1805.3	1800.9	1805.3	1814.0	1825.2	1827.1
35°	1769.9	1766.0	1769.9	1779.5	1789.0	1792.2
35.5°	1733.4	1728.2	1733.4	1743.3	1750.9	1755.2
36°	1695.6	1689.3	1695.6	1705.6	1710.3	1715.9
36.5°	1655.9	1648.0	1655.9	1665.4	1668.6	1674.6
37°	1614.6	1606.6	1614.6	1623.3	1625.7	1631.3
37.5°	1572.5	1564.5	1572.5	1579.6	1582.0	1586.0
38°	1529.6	1522.8	1529.6	1534.3	1536.7	1539.1
38.5°	1485.5	1479.5	1485.5	1487.1	1491.0	1491.0
39°	1439.8	1437.4	1439.8	1440.2	1444.2	1443.4
39.5°	1392.9	1392.5	1392.9	1391.7	1395.7	1394.5
40°	1346.0	1346.8	1346.0	1344.0	1347.6	1345.2
40.5°	1299.5	1300.3	1299.5	1296.4	1298.7	1295.2
41°	1252.3	1255.0	1252.3	1249.5	1250.3	1246.3
41.5°	1206.6	1207.8	1206.6	1203.0	1200.6	1197.8
42°	1159.7	1162.9	1159.7	1156.5	1151.7	1149.4
42.5°	1114.4	1117.2	1114.4	1110.4	1103.7	1101.3
43°	1068.7	1071.5	1068.7	1065.1	1056.4	1053.2
43.5°	1023.0	1025.4	1023.0	1019.4	1008.7	1005.9



TEST NUMBER: P776382

CATALOG NUMBER: HCDJBL3040CSD-HCD62TRMW-4000lm-3500K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
45°	892.3	895.1	892.3	885.6	873.6	868.9
45.5°	850.6	853.4	850.6	843.1	830.7	824.8
46°	810.1	813.7	810.1	801.3	789.4	782.7
46.5°	770.7	774.7	770.7	760.8	749.3	741.7
47°	732.2	736.6	732.2	721.5	710.4	702.0
47.5°	695.3	699.2	695.3	684.1	672.2	664.3
48°	659.9	664.3	659.9	648.4	636.5	628.5
48.5°	625.7	630.5	625.7	613.8	601.9	595.1
49°	593.6	597.9	593.6	580.8	569.3	563.0
49.5°	562.2	567.3	562.2	550.2	538.3	532.8
50°	533.2	537.9	533.2	521.2	508.9	505.0
50.5°	505.4	510.1	505.4	494.2	481.9	479.1
51°	478.7	484.3	478.7	468.8	457.7	455.3
51.5°	454.5	459.7	454.5	445.4	435.0	433.0
52°	431.9	436.2	431.9	424.3	414.8	412.8
52.5°	410.4	414.4	410.4	404.0	395.7	394.1
53°	390.9	394.1	390.9	385.8	379.8	377.0
53.5°	373.5	375.8	373.5	369.1	365.1	363.5
54°	357.2	359.2	357.2	354.0	351.2	350.8
54.5°	342.9	345.2	342.9	340.5	339.3	339.3
55°	331.3	332.9	331.3	329.8	328.2	327.8
55.5°	321.4	324.2	321.4	320.2	318.6	317.0
56°	312.3	315.4	312.3	311.5	310.3	309.5
56.5°	303.9	306.7	303.9	303.1	303.1	303.1
57°	296.0	298.0	296.0	296.4	297.2	297.2
57.5°	289.6	289.2	289.6	290.4	291.2	291.6
58°	283.7	282.9	283.7	284.5	285.3	285.7
58.5°	277.3	276.9	277.3	278.1	278.9	279.3
59°	271.4	270.6	271.4	272.1	272.5	272.9
59.5°	265.0	264.6	265.0	265.4	266.2	266.2
60°	258.6	258.2	258.6	259.0	259.4	259.4
60.5°	251.9	251.5	251.9	252.3	252.7	252.7
61°	245.5	245.1	245.5	245.9	246.3	246.3
61.5°	239.2	238.8	239.2	239.6	240.0	240.0
62°	232.8	232.4	232.8	233.2	233.6	233.6
62.5°	226.5	226.1	226.5	226.9	227.3	227.3
63°	220.1	220.1	220.1	220.9	220.9	221.3
63.5°	214.1	214.1	214.1	214.5	214.9	214.9
64°	208.2	207.8	208.2	208.6	209.0	209.0
64.5°	202.2	202.2	202.2	202.6	203.0	203.0
65°	196.7	196.3	196.7	197.1	197.5	197.1
65.5°	191.1	190.7	191.1	191.5	191.5	191.1
66°	185.1	185.1	185.1	185.5	185.9	185.5



TEST NUMBER: P776382

CATALOG NUMBER: HCDJBL3040CSD-HCD62TRMW-4000lm-3500K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
67.5°	168.8	168.8	168.8	169.2	169.2	168.5
68°	163.7	163.7	163.7	164.1	163.7	162.9
68.5°	158.5	158.5	158.5	158.9	158.5	157.7
69°	153.8	153.4	153.8	153.8	153.4	152.2
69.5°	148.6	148.6	148.6	149.0	148.2	146.6
70°	143.8	143.4	143.8	143.8	142.6	141.4
70.5°	138.7	138.7	138.7	139.1	137.9	136.3
71°	134.3	133.9	134.3	134.3	133.1	131.5
71.5°	129.5	129.1	129.5	129.5	127.9	126.3
72°	124.7	124.4	124.7	124.7	123.2	121.6
72.5°	120.0	120.0	120.0	120.4	118.4	116.8
73°	115.6	115.2	115.6	115.6	113.6	111.6
73.5°	111.2	110.8	111.2	111.2	108.9	106.9
74°	106.9	106.5	106.9	106.5	104.1	102.5
74.5°	102.5	102.1	102.5	102.1	99.7	97.7
75°	98.1	98.1	98.1	97.7	95.0	93.4
75.5°	93.8	93.8	93.8	93.8	90.6	89.0
76°	89.8	89.8	89.8	89.4	86.2	84.6
76.5°	85.8	85.4	85.8	85.0	81.8	80.3
77°	81.8	81.4	81.8	81.0	77.9	75.9
77.5°	77.9	77.5	77.9	77.1	73.5	71.5
78°	73.9	73.5	73.9	72.7	69.5	67.5
78.5°	69.9	69.9	69.9	68.7	65.2	63.6
79°	66.0	66.0	66.0	64.8	61.2	59.6
79.5°	62.4	62.4	62.4	61.2	57.2	55.6
80°	58.4	58.4	58.4	57.2	53.2	51.6
80.5°	54.8	54.8	54.8	53.6	49.7	48.1
81°	51.3	51.3	51.3	49.7	45.7	44.1
81.5°	47.7	47.7	47.7	46.1	41.7	40.5
82°	44.1	44.1	44.1	42.5	38.1	36.9
82.5°	40.9	40.9	40.9	38.9	34.6	33.0
83°	37.3	37.3	37.3	35.4	31.0	29.4
83.5°	34.2	33.8	34.2	32.2	27.4	25.8
84°	30.6	30.6	30.6	29.0	23.8	22.6
84.5°	27.4	27.4	27.4	25.8	20.3	19.1
85°	24.2	24.2	24.2	22.6	17.1	15.9
85.5°	21.1	21.1	21.1	19.5	14.3	12.7
86°	17.9	17.9	17.9	16.7	11.5	10.3
86.5°	14.7	15.1	14.7	13.5	9.5	8.3
87°	11.9	11.9	11.9	11.1	7.5	6.4
87.5°	9.1	9.1	9.1	8.3	5.6	4.8
88°	6.4	6.8	6.4	6.0	4.0	3.2
88.5°	4.8	5.2	4.8	4.0	2.4	1.6



TEST NUMBER: P776382

CATALOG NUMBER: HCDJBL3040CSD-HCD62TRMW-4000lm-3500K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
90°	0.8	1.2	0.8	0.4	0.4	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°	2338.1	2338.5	2338.1	2338.1	2336.9	2338.1	2338.1	2338.5	2338.1	2338.5	2338.1
22°	2321.0	2321.0	2321.0	2320.2	2319.0	2320.2	2321.0	2321.0	2321.0	2321.0	2321.0



44°	959.1	961.8	973.8	978.9	981.3	978.9	973.8	961.8	959.1	961.8	973.8
44.5°	913.0	917.3	928.9	935.2	937.6	935.2	928.9	917.3	913.0	917.3	928.9



66.5°	179.6	180.4	180.4	180.0	179.6	180.0	180.4	180.4	179.6	180.4	180.4
67°	174.0	174.8	174.8	174.4	174.0	174.4	174.8	174.8	174.0	174.8	174.8



89°	0.8	1.2	2.4	3.2	3.6	3.2	2.4	1.2	0.8	1.2	2.4
89.5°	0.4	0.4	1.2	2.0	2.4	2.0	1.2	0.4	0.4	0.4	1.2

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

Scaled Data Report





21.5°	2338.1	2336.9	2338.1	2338.1	2338.5	2338.1
22°	2320.2	2319.0	2320.2	2321.0	2321.0	2321.0



44°	978.9	981.3	978.9	973.8	961.8	959.1
44.5°	935.2	937.6	935.2	928.9	917.3	913.0



66.5°	180.0	179.6	180.0	180.4	180.4	179.6
67°	174.4	174.0	174.4	174.8	174.8	174.0

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

Scaled Data Report



89°	3.2	3.6	3.2	2.4	1.2	0.8
89.5°	2.0	2.4	2.0	1.2	0.4	0.4

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

Scaled Data Report



(END OF REPORT)