

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: P776515

Luminaire Tested: HCDJBL3040CSD-HCD8TSQH-4000lm-2700K

Issue Date: 2/7/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P776515  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA ( A2312156B005-HCD4TSQC)  
Test Lab:  
Issue Date: 2/7/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: HALO COMMERCIAL  
Catalog Number: HCDJBL3040CSD-HCD8TSQH-4000lm-2700K  
Description: 8 INCH SQUARE MEDIUM HAZE TRIM  
Light Source: SELECTABLE LUMENS AND CCT ARRAY 90CRI / 2700K CCT  
Ballast/Driver: -

**Summary**

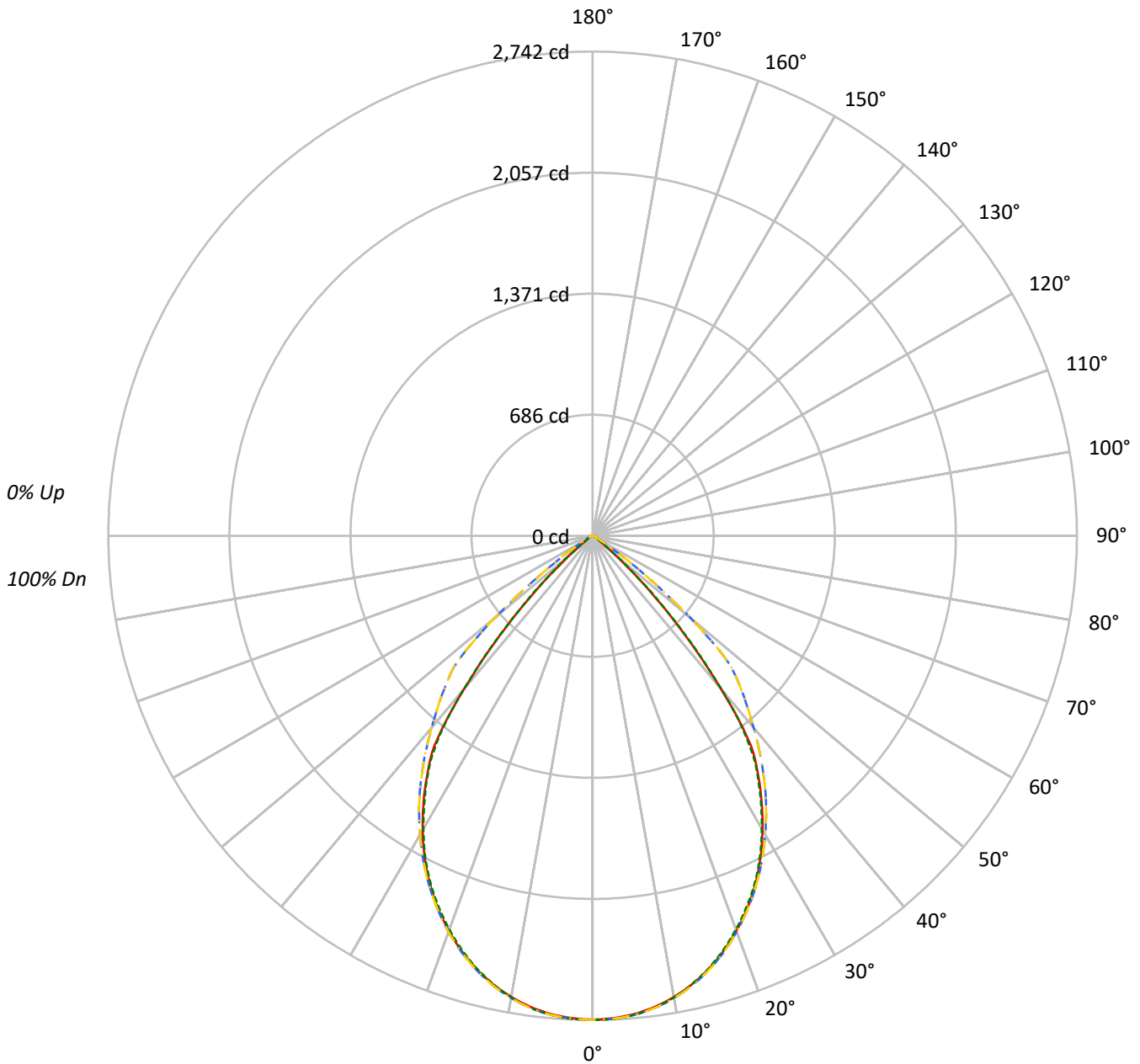
Lumens per Lamp: N/A  
Luminaire Lumens: 3774.9 lumens  
Efficiency: N/A  
Efficacy: 98.0 lumens/watt  
Spacing Criteria (0/90/45): 1.08 / 1.08 / 1.15  
Luminous Opening: Rectangular (W 0.67' x L: 0.67' x H: 0')  
CIE Type: Direct

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



TEST NUMBER: P776515  
CATALOG NUMBER: HCDJBL3040CSD-HCD8TSQH-4000lm-2700K

### Luminous Intensity Polar Plot





TEST NUMBER: P776515

CATALOG NUMBER: HCDJBL3040CSD-HCD8TSQH-4000lm-2700K

**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	0
RCR																					
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100	100	100	100
1	113	110	107	104	110	107	105	103	103	101	99	100	98	97	96	95	94	92	92	92	92
2	106	101	96	92	104	99	95	91	96	92	89	93	90	87	90	87	85	84	84	84	84
3	100	92	87	82	98	91	86	82	88	84	80	86	82	79	83	80	78	76	76	76	76
4	94	85	79	74	92	84	78	73	82	77	72	80	75	72	78	74	71	69	69	69	69
5	88	78	72	67	86	77	71	66	76	70	66	74	69	65	72	68	65	63	63	63	63
6	83	72	66	61	81	72	65	60	70	64	60	69	63	60	67	63	59	58	58	58	58
7	78	67	60	55	76	66	60	55	65	59	55	64	59	55	63	58	54	53	53	53	53
8	73	62	56	51	72	62	55	51	61	55	51	59	54	50	58	54	50	48	48	48	48
9	69	58	51	47	68	58	51	47	57	51	47	56	50	46	55	50	46	45	45	45	45
10	65	54	48	43	64	54	48	43	53	47	43	52	47	43	51	46	43	41	41	41	41

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

	0°	90°	180°	270°
0°	65737	65737	65737	65737
5°	65425	65564	65425	65564
10°	64574	64630	64574	64630
15°	63036	62959	63036	62959
20°	60759	60535	60759	60535
25°	57627	57433	57627	57433
30°	53294	53050	53294	53050
35°	47626	47377	47626	47377
40°	35368	35562	35368	35562
45°	18532	19004	18532	19004
50°	6013	6498	6013	6498
55°	1990	1831	1990	1831
60°	1511	1420	1511	1420
65°	1152	1112	1152	1112
70°	911	890	911	890
75°	750	750	750	750
80°	580	635	580	635
85°	413	413	413	413

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 45°  
 Vertical Angle: 45°  
 Luminance: 39397 cd/sqm



TEST NUMBER: P776515

CATALOG NUMBER: HCDJBL3040CSD-HCD8TSQH-4000lm-2700K

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	257.8	6.8
10°-20°	714.2	18.9
20°-30°	1000.5	26.5
30°-40°	1027.8	27.2
40°-50°	622.6	16.5
50°-60°	117.0	3.1
60°-70°	22.7	0.6
70°-80°	10.2	0.3
80°-90°	2.2	0.1
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°	1972.5	52.3
0°-40°	3000.3	79.5
0°-60°	3739.9	99.1
0°-90°	3774.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3774.9	100.0

**CANDELA DISTRIBUTION:**

	0°	90°	180°	270°	360°	Flux
0°	2742	2742	2742	2742	2742	
5°	2718	2724	2718	2724	2718	257
15°	2539	2536	2539	2536	2539	714
25°	2178	2171	2178	2171	2178	998
35°	1627	1618	1627	1618	1627	994
45°	546	560	546	560	546	437
55°	48	44	48	44	48	54
65°	20	20	20	20	20	21
75°	8	8	8	8	8	9
85°	2	2	2	2	2	2
90°	0	0	0	0	0	



TEST NUMBER: P776515

CATALOG NUMBER: HCDJBL3040CSD-HCD8TSQH-4000lm-2700K

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
0°	2741.5	2741.5	2741.5	2741.5	2741.5	2741.5	2741.5	2741.5	2741.5	2741.5	2741.5
0.5°	2738.8	2740.0	2741.9	2743.1	2742.3	2743.1	2741.9	2740.0	2738.8	2740.0	2741.9
1°	2738.5	2739.6	2741.1	2742.3	2741.9	2742.3	2741.1	2739.6	2738.5	2739.6	2741.1
1.5°	2737.3	2738.5	2740.4	2741.5	2741.1	2741.5	2740.4	2738.5	2737.3	2738.5	2740.4
2°	2735.8	2736.9	2738.8	2740.4	2739.6	2740.4	2738.8	2736.9	2735.8	2736.9	2738.8
2.5°	2733.9	2735.0	2737.3	2738.5	2738.1	2738.5	2737.3	2735.0	2733.9	2735.0	2737.3
3°	2731.6	2733.1	2735.0	2736.5	2736.2	2736.5	2735.0	2733.1	2731.6	2733.1	2735.0
3.5°	2728.9	2730.4	2732.7	2734.2	2733.9	2734.2	2732.7	2730.4	2728.9	2730.4	2732.7
4°	2725.8	2727.3	2729.6	2731.6	2731.2	2731.6	2729.6	2727.3	2725.8	2727.3	2729.6
4.5°	2722.3	2723.5	2726.2	2728.1	2727.7	2728.1	2726.2	2723.5	2722.3	2723.5	2726.2
5°	2718.1	2719.7	2722.7	2724.6	2723.9	2724.6	2722.7	2719.7	2718.1	2719.7	2722.7
5.5°	2713.9	2715.4	2718.5	2720.4	2719.3	2720.4	2718.5	2715.4	2713.9	2715.4	2718.5
6°	2708.5	2710.4	2713.9	2715.8	2714.7	2715.8	2713.9	2710.4	2708.5	2710.4	2713.9
6.5°	2703.2	2705.5	2708.9	2710.4	2708.9	2710.4	2708.9	2705.5	2703.2	2705.5	2708.9
7°	2697.4	2699.7	2703.2	2704.3	2702.8	2704.3	2703.2	2699.7	2697.4	2699.7	2703.2
7.5°	2690.9	2693.6	2697.0	2697.8	2695.9	2697.8	2697.0	2693.6	2690.9	2693.6	2697.0
8°	2684.0	2687.0	2690.5	2690.9	2689.0	2690.9	2690.5	2687.0	2684.0	2687.0	2690.5
8.5°	2676.7	2679.7	2683.2	2682.8	2680.9	2682.8	2683.2	2679.7	2676.7	2679.7	2683.2
9°	2669.0	2672.1	2675.5	2674.8	2672.4	2674.8	2675.5	2672.1	2669.0	2672.1	2675.5
9.5°	2660.9	2664.0	2667.5	2665.9	2663.6	2665.9	2667.5	2664.0	2660.9	2664.0	2667.5
10°	2652.1	2655.9	2658.6	2657.1	2654.4	2657.1	2658.6	2655.9	2652.1	2655.9	2658.6
10.5°	2642.9	2646.7	2649.4	2647.5	2644.8	2647.5	2649.4	2646.7	2642.9	2646.7	2649.4
11°	2633.3	2637.5	2639.8	2637.5	2634.5	2637.5	2639.8	2637.5	2633.3	2637.5	2639.8
11.5°	2623.3	2627.5	2629.5	2626.8	2623.7	2626.8	2629.5	2627.5	2623.3	2627.5	2629.5
12°	2612.6	2617.2	2618.7	2616.0	2613.0	2616.0	2618.7	2617.2	2612.6	2617.2	2618.7
12.5°	2601.4	2606.4	2607.6	2604.5	2601.1	2604.5	2607.6	2606.4	2601.4	2606.4	2607.6
13°	2589.9	2594.9	2596.1	2592.6	2589.2	2592.6	2596.1	2594.9	2589.9	2594.9	2596.1
13.5°	2578.0	2583.0	2583.8	2580.3	2576.5	2580.3	2583.8	2583.0	2578.0	2583.0	2583.8
14°	2565.4	2571.1	2571.5	2567.7	2563.4	2567.7	2571.5	2571.1	2565.4	2571.1	2571.5
14.5°	2552.7	2558.1	2558.5	2554.2	2550.0	2554.2	2558.5	2558.1	2552.7	2558.1	2558.5
15°	2539.3	2545.0	2545.4	2540.4	2536.2	2540.4	2545.4	2545.0	2539.3	2545.0	2545.4
15.5°	2525.5	2531.6	2531.2	2526.2	2521.6	2526.2	2531.2	2531.6	2525.5	2531.6	2531.2
16°	2511.2	2517.4	2517.0	2511.6	2507.0	2511.6	2517.0	2517.4	2511.2	2517.4	2517.0
16.5°	2496.7	2502.8	2502.0	2496.7	2491.7	2496.7	2502.0	2502.8	2496.7	2502.8	2502.0
17°	2481.7	2487.8	2487.1	2480.9	2475.9	2480.9	2487.1	2487.8	2481.7	2487.8	2487.1
17.5°	2466.0	2472.5	2471.3	2465.2	2459.8	2465.2	2471.3	2472.5	2466.0	2472.5	2471.3
18°	2449.8	2456.4	2454.8	2448.7	2442.9	2448.7	2454.8	2456.4	2449.8	2456.4	2454.8
18.5°	2433.3	2439.9	2438.7	2432.2	2425.7	2432.2	2438.7	2439.9	2433.3	2439.9	2438.7
19°	2416.4	2423.4	2421.8	2414.9	2408.4	2414.9	2421.8	2423.4	2416.4	2423.4	2421.8
19.5°	2398.8	2406.1	2404.2	2397.3	2390.4	2397.3	2404.2	2406.1	2398.8	2406.1	2404.2
20°	2381.1	2388.4	2386.5	2379.6	2372.3	2379.6	2386.5	2388.4	2381.1	2388.4	2386.5
20.5°	2363.1	2370.4	2368.5	2360.8	2353.5	2360.8	2368.5	2370.4	2363.1	2370.4	2368.5
21°	2344.3	2351.6	2350.1	2342.0	2334.3	2342.0	2350.1	2351.6	2344.3	2351.6	2350.1



TEST NUMBER: P776515

CATALOG NUMBER: HCDJBL3040CSD-HCD8TSQH-4000lm-2700K

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
22.5°	2285.6	2293.6	2291.7	2283.3	2276.0	2283.3	2291.7	2293.6	2285.6	2293.6	2291.7
23°	2265.2	2273.3	2271.8	2262.9	2255.6	2262.9	2271.8	2273.3	2265.2	2273.3	2271.8
23.5°	2244.1	2252.9	2251.4	2242.6	2235.7	2242.6	2251.4	2252.9	2244.1	2252.9	2251.4
24°	2223.0	2231.5	2230.7	2221.9	2215.0	2221.9	2230.7	2231.5	2223.0	2231.5	2230.7
24.5°	2200.7	2210.0	2209.6	2201.1	2193.1	2201.1	2209.6	2210.0	2200.7	2210.0	2209.6
25°	2178.1	2188.1	2187.7	2180.0	2170.8	2180.0	2187.7	2188.1	2178.1	2188.1	2187.7
25.5°	2155.5	2165.8	2165.8	2157.8	2148.6	2157.8	2165.8	2165.8	2155.5	2165.8	2165.8
26°	2131.7	2142.8	2143.6	2136.3	2125.5	2136.3	2143.6	2142.8	2131.7	2142.8	2143.6
26.5°	2107.9	2119.4	2120.9	2113.6	2101.3	2113.6	2120.9	2119.4	2107.9	2119.4	2120.9
27°	2082.9	2095.6	2097.9	2090.6	2076.4	2090.6	2097.9	2095.6	2082.9	2095.6	2097.9
27.5°	2058.4	2071.4	2074.9	2066.8	2051.4	2066.8	2074.9	2071.4	2058.4	2071.4	2074.9
28°	2032.6	2046.5	2051.4	2042.2	2025.0	2042.2	2051.4	2046.5	2032.6	2046.5	2051.4
28.5°	2006.5	2021.1	2027.3	2017.3	1998.1	2017.3	2027.3	2021.1	2006.5	2021.1	2027.3
29°	1979.3	1996.2	2003.5	1992.0	1971.2	1992.0	2003.5	1996.2	1979.3	1996.2	2003.5
29.5°	1952.0	1970.5	1979.7	1965.5	1943.6	1965.5	1979.7	1970.5	1952.0	1970.5	1979.7
30°	1924.8	1944.0	1954.7	1939.0	1916.0	1939.0	1954.7	1944.0	1924.8	1944.0	1954.7
30.5°	1896.8	1917.1	1930.2	1911.7	1887.6	1911.7	1930.2	1917.1	1896.8	1917.1	1930.2
31°	1867.6	1889.9	1904.8	1884.9	1859.2	1884.9	1904.8	1889.9	1867.6	1889.9	1904.8
31.5°	1839.2	1862.6	1879.9	1857.2	1830.0	1857.2	1879.9	1862.6	1839.2	1862.6	1879.9
32°	1810.0	1834.6	1854.6	1829.6	1800.4	1829.6	1854.6	1834.6	1810.0	1834.6	1854.6
32.5°	1780.5	1806.2	1828.8	1800.8	1770.9	1800.8	1828.8	1806.2	1780.5	1806.2	1828.8
33°	1750.5	1777.8	1802.7	1773.2	1741.3	1773.2	1802.7	1777.8	1750.5	1777.8	1802.7
33.5°	1720.6	1749.8	1776.3	1744.8	1711.0	1744.8	1776.3	1749.8	1720.6	1749.8	1776.3
34°	1689.5	1721.0	1749.4	1716.4	1680.3	1716.4	1749.4	1721.0	1689.5	1721.0	1749.4
34.5°	1658.8	1691.8	1722.5	1688.0	1649.2	1688.0	1722.5	1691.8	1658.8	1691.8	1722.5
35°	1627.0	1662.7	1695.7	1658.8	1618.5	1658.8	1695.7	1662.7	1627.0	1662.7	1695.7
35.5°	1596.3	1633.9	1667.6	1630.0	1587.8	1630.0	1667.6	1633.9	1596.3	1633.9	1667.6
36°	1564.4	1604.3	1639.6	1600.9	1551.3	1600.9	1639.6	1604.3	1564.4	1604.3	1639.6
36.5°	1530.2	1574.0	1612.4	1571.3	1510.3	1571.3	1612.4	1574.0	1530.2	1574.0	1612.4
37°	1489.2	1544.4	1584.4	1541.8	1465.0	1541.8	1584.4	1544.4	1489.2	1544.4	1584.4
37.5°	1435.4	1514.1	1556.7	1511.8	1418.2	1511.8	1556.7	1514.1	1435.4	1514.1	1556.7
38°	1381.3	1484.2	1527.9	1482.3	1368.3	1482.3	1527.9	1484.2	1381.3	1484.2	1527.9
38.5°	1321.4	1453.9	1500.3	1449.6	1317.2	1449.6	1500.3	1453.9	1321.4	1453.9	1500.3
39°	1259.3	1422.4	1472.7	1411.6	1260.0	1411.6	1472.7	1422.4	1259.3	1422.4	1472.7
39.5°	1194.4	1376.7	1445.4	1369.0	1199.8	1369.0	1445.4	1376.7	1194.4	1376.7	1445.4
40°	1129.9	1327.6	1417.8	1322.6	1136.1	1322.6	1417.8	1327.6	1129.9	1327.6	1417.8
40.5°	1065.4	1271.9	1390.5	1273.1	1073.1	1273.1	1390.5	1271.9	1065.4	1271.9	1390.5
41°	1004.4	1214.4	1364.1	1220.1	1012.5	1220.1	1364.1	1214.4	1004.4	1214.4	1364.1
41.5°	943.8	1155.3	1338.3	1164.5	952.2	1164.5	1338.3	1155.3	943.8	1155.3	1338.3
42°	884.7	1096.2	1312.6	1106.1	893.9	1106.1	1312.6	1096.2	884.7	1096.2	1312.6
42.5°	825.6	1037.8	1287.3	1047.8	834.8	1047.8	1287.3	1037.8	825.6	1037.8	1287.3
43°	767.2	978.7	1262.0	989.1	777.6	989.1	1262.0	978.7	767.2	978.7	1262.0
43.5°	708.5	921.1	1237.0	931.5	720.0	931.5	1237.0	921.1	708.5	921.1	1237.0



TEST NUMBER: P776515

CATALOG NUMBER: HCDJBL3040CSD-HCD8TSQH-4000lm-2700K

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
45°	546.5	753.8	1161.8	766.8	560.4	766.8	1161.8	753.8	546.5	753.8	1161.8
45.5°	495.9	698.9	1136.8	712.3	511.6	712.3	1136.8	698.9	495.9	698.9	1136.8
46°	448.7	645.9	1111.5	658.6	464.8	658.6	1111.5	645.9	448.7	645.9	1111.5
46.5°	402.2	594.5	1085.4	606.4	417.2	606.4	1085.4	594.5	402.2	594.5	1085.4
47°	356.6	543.9	1048.9	555.4	371.1	555.4	1048.9	543.9	356.6	543.9	1048.9
47.5°	312.8	495.1	1004.4	507.8	330.1	507.8	1004.4	495.1	312.8	495.1	1004.4
48°	275.6	447.9	951.5	461.0	294.0	461.0	951.5	447.9	275.6	447.9	951.5
48.5°	241.4	403.0	895.4	415.7	260.2	415.7	895.4	403.0	241.4	403.0	895.4
49°	211.1	359.2	836.7	371.1	229.5	371.1	836.7	359.2	211.1	359.2	836.7
49.5°	184.6	317.0	776.4	331.2	200.7	331.2	776.4	317.0	184.6	317.0	776.4
50°	161.2	277.5	715.4	292.8	174.2	292.8	715.4	277.5	161.2	277.5	715.4
50.5°	139.3	241.8	655.2	257.5	149.3	257.5	655.2	241.8	139.3	241.8	655.2
51°	119.4	209.9	595.7	224.5	125.5	224.5	595.7	209.9	119.4	209.9	595.7
51.5°	103.2	181.9	540.0	194.6	105.5	194.6	540.0	181.9	103.2	181.9	540.0
52°	87.1	157.4	489.0	168.5	89.8	168.5	489.0	157.4	87.1	157.4	489.0
52.5°	73.3	135.5	439.1	144.3	79.1	144.3	439.1	135.5	73.3	135.5	439.1
53°	63.3	115.5	392.6	122.1	68.7	122.1	392.6	115.5	63.3	115.5	392.6
53.5°	54.1	98.6	347.0	101.3	58.0	101.3	347.0	98.6	54.1	98.6	347.0
54°	51.8	82.5	305.1	82.9	47.6	82.9	305.1	82.5	51.8	82.5	305.1
54.5°	49.5	69.1	265.2	68.7	45.3	68.7	265.2	69.1	49.5	69.1	265.2
55°	47.6	57.2	229.9	57.6	43.8	57.6	229.9	57.2	47.6	57.2	229.9
55.5°	45.7	48.7	198.0	49.5	41.8	49.5	198.0	48.7	45.7	48.7	198.0
56°	43.8	44.9	169.3	43.4	40.3	43.4	169.3	44.9	43.8	44.9	169.3
56.5°	41.8	43.0	143.5	40.3	38.8	40.3	143.5	43.0	41.8	43.0	143.5
57°	40.3	41.5	122.1	38.8	37.2	38.8	122.1	41.5	40.3	41.5	122.1
57.5°	38.4	39.9	103.2	37.2	35.7	37.2	103.2	39.9	38.4	39.9	103.2
58°	36.8	38.4	87.9	36.1	34.5	36.1	87.9	38.4	36.8	38.4	87.9
58.5°	35.3	36.8	74.1	34.5	33.0	34.5	74.1	36.8	35.3	36.8	74.1
59°	34.2	35.7	62.9	33.4	31.9	33.4	62.9	35.7	34.2	35.7	62.9
59.5°	32.6	34.5	53.3	32.2	30.7	32.2	53.3	34.5	32.6	34.5	53.3
60°	31.5	33.0	44.9	31.1	29.6	31.1	44.9	33.0	31.5	33.0	44.9
60.5°	29.9	31.9	39.9	29.9	28.0	29.9	39.9	31.9	29.9	31.9	39.9
61°	28.8	30.7	36.1	29.2	27.3	29.2	36.1	30.7	28.8	30.7	36.1
61.5°	27.6	29.6	33.0	28.0	26.1	28.0	33.0	29.6	27.6	29.6	33.0
62°	26.5	28.8	31.1	26.9	24.9	26.9	31.1	28.8	26.5	28.8	31.1
62.5°	25.3	27.6	29.6	26.1	24.2	26.1	29.6	27.6	25.3	27.6	29.6
63°	24.2	26.5	28.4	25.3	23.0	25.3	28.4	26.5	24.2	26.5	28.4
63.5°	23.4	25.7	27.3	24.2	22.3	24.2	27.3	25.7	23.4	25.7	27.3
64°	22.3	24.6	26.5	23.4	21.1	23.4	26.5	24.6	22.3	24.6	26.5
64.5°	21.5	23.8	25.3	22.6	20.3	22.6	25.3	23.8	21.5	23.8	25.3
65°	20.3	23.0	24.6	21.9	19.6	21.9	24.6	23.0	20.3	23.0	24.6
65.5°	19.6	21.9	23.4	21.1	18.8	21.1	23.4	21.9	19.6	21.9	23.4
66°	18.8	21.1	22.6	20.3	18.0	20.3	22.6	21.1	18.8	21.1	22.6





TEST NUMBER: P776515

CATALOG NUMBER: HCDJBL3040CSD-HCD8TSQH-4000lm-2700K

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
67.5°	16.5	18.8	20.3	18.0	15.7	18.0	20.3	18.8	16.5	18.8	20.3
68°	15.7	18.0	19.6	17.3	15.4	17.3	19.6	18.0	15.7	18.0	19.6
68.5°	15.0	17.3	18.8	16.9	14.6	16.9	18.8	17.3	15.0	17.3	18.8
69°	14.6	16.5	18.0	16.1	13.8	16.1	18.0	16.5	14.6	16.5	18.0
69.5°	13.8	16.1	17.3	15.4	13.4	15.4	17.3	16.1	13.8	16.1	17.3
70°	13.0	15.4	16.5	15.0	12.7	15.0	16.5	15.4	13.0	15.4	16.5
70.5°	12.7	14.6	16.1	14.2	12.3	14.2	16.1	14.6	12.7	14.6	16.1
71°	11.9	14.2	15.4	13.8	11.9	13.8	15.4	14.2	11.9	14.2	15.4
71.5°	11.5	13.4	14.6	13.0	11.1	13.0	14.6	13.4	11.5	13.4	14.6
72°	10.7	13.0	14.2	12.7	10.7	12.7	14.2	13.0	10.7	13.0	14.2
72.5°	10.4	12.3	13.4	11.9	10.4	11.9	13.4	12.3	10.4	12.3	13.4
73°	10.0	11.9	12.7	11.5	9.6	11.5	12.7	11.9	10.0	11.9	12.7
73.5°	9.2	11.1	12.3	11.1	9.2	11.1	12.3	11.1	9.2	11.1	12.3
74°	8.8	10.7	11.5	10.4	8.8	10.4	11.5	10.7	8.8	10.7	11.5
74.5°	8.4	10.4	11.1	10.0	8.4	10.0	11.1	10.4	8.4	10.4	11.1
75°	8.1	9.6	10.4	9.6	8.1	9.6	10.4	9.6	8.1	9.6	10.4
75.5°	7.7	9.2	10.0	9.2	7.7	9.2	10.0	9.2	7.7	9.2	10.0
76°	7.3	8.8	9.6	8.4	7.3	8.4	9.6	8.8	7.3	8.8	9.6
76.5°	6.9	8.1	8.8	8.1	6.9	8.1	8.8	8.1	6.9	8.1	8.8
77°	6.1	7.7	8.4	7.7	6.5	7.7	8.4	7.7	6.1	7.7	8.4
77.5°	5.8	7.3	8.1	7.3	6.1	7.3	8.1	7.3	5.8	7.3	8.1
78°	5.8	6.9	7.3	6.9	5.8	6.9	7.3	6.9	5.8	6.9	7.3
78.5°	5.4	6.5	6.9	6.5	5.4	6.5	6.9	6.5	5.4	6.5	6.9
79°	5.0	6.1	6.5	6.1	5.0	6.1	6.5	6.1	5.0	6.1	6.5
79.5°	4.6	5.4	6.1	5.8	4.6	5.8	6.1	5.4	4.6	5.4	6.1
80°	4.2	5.0	5.8	5.4	4.2	5.4	5.8	5.0	4.2	5.0	5.8
80.5°	3.8	4.6	5.4	5.0	4.2	5.0	5.4	4.6	3.8	4.6	5.4
81°	3.5	4.2	5.0	4.6	3.8	4.6	5.0	4.2	3.5	4.2	5.0
81.5°	3.5	3.8	4.6	4.2	3.5	4.2	4.6	3.8	3.5	3.8	4.6
82°	3.1	3.5	4.2	3.8	3.5	3.8	4.2	3.5	3.1	3.5	4.2
82.5°	2.7	3.1	3.8	3.5	3.1	3.5	3.8	3.1	2.7	3.1	3.8
83°	2.3	3.1	3.5	3.1	2.7	3.1	3.5	3.1	2.3	3.1	3.5
83.5°	2.3	2.7	3.1	3.1	2.3	3.1	3.1	2.7	2.3	2.7	3.1
84°	1.9	2.3	2.7	2.7	2.3	2.7	2.7	2.3	1.9	2.3	2.7
84.5°	1.5	1.9	2.3	2.3	1.9	2.3	2.3	1.9	1.5	1.9	2.3
85°	1.5	1.5	1.9	1.9	1.5	1.9	1.9	1.5	1.5	1.5	1.9
85.5°	1.2	1.2	1.5	1.5	1.5	1.5	1.5	1.2	1.2	1.2	1.5
86°	0.8	1.2	1.5	1.5	1.2	1.5	1.5	1.2	0.8	1.2	1.5
86.5°	0.8	0.8	1.2	1.2	1.2	1.2	1.2	0.8	0.8	0.8	1.2
87°	0.4	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.4	0.8	0.8
87.5°	0.4	0.4	0.8	0.8	0.8	0.8	0.8	0.4	0.4	0.4	0.8
88°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
88.5°	0.0	0.0	0.4	0.4	0.4	0.4	0.4	0.0	0.0	0.0	0.4



TEST NUMBER: P776515

CATALOG NUMBER: HCDJBL3040CSD-HCD8TSQH-4000lm-2700K

**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: P776515

CATALOG NUMBER: HCDJBL3040CSD-HCD8TSQH-4000lm-2700K

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
0°	2741.5	2741.5	2741.5	2741.5	2741.5	2741.5
0.5°	2743.1	2742.3	2743.1	2741.9	2740.0	2738.8
1°	2742.3	2741.9	2742.3	2741.1	2739.6	2738.5
1.5°	2741.5	2741.1	2741.5	2740.4	2738.5	2737.3
2°	2740.4	2739.6	2740.4	2738.8	2736.9	2735.8
2.5°	2738.5	2738.1	2738.5	2737.3	2735.0	2733.9
3°	2736.5	2736.2	2736.5	2735.0	2733.1	2731.6
3.5°	2734.2	2733.9	2734.2	2732.7	2730.4	2728.9
4°	2731.6	2731.2	2731.6	2729.6	2727.3	2725.8
4.5°	2728.1	2727.7	2728.1	2726.2	2723.5	2722.3
5°	2724.6	2723.9	2724.6	2722.7	2719.7	2718.1
5.5°	2720.4	2719.3	2720.4	2718.5	2715.4	2713.9
6°	2715.8	2714.7	2715.8	2713.9	2710.4	2708.5
6.5°	2710.4	2708.9	2710.4	2708.9	2705.5	2703.2
7°	2704.3	2702.8	2704.3	2703.2	2699.7	2697.4
7.5°	2697.8	2695.9	2697.8	2697.0	2693.6	2690.9
8°	2690.9	2689.0	2690.9	2690.5	2687.0	2684.0
8.5°	2682.8	2680.9	2682.8	2683.2	2679.7	2676.7
9°	2674.8	2672.4	2674.8	2675.5	2672.1	2669.0
9.5°	2665.9	2663.6	2665.9	2667.5	2664.0	2660.9
10°	2657.1	2654.4	2657.1	2658.6	2655.9	2652.1
10.5°	2647.5	2644.8	2647.5	2649.4	2646.7	2642.9
11°	2637.5	2634.5	2637.5	2639.8	2637.5	2633.3
11.5°	2626.8	2623.7	2626.8	2629.5	2627.5	2623.3
12°	2616.0	2613.0	2616.0	2618.7	2617.2	2612.6
12.5°	2604.5	2601.1	2604.5	2607.6	2606.4	2601.4
13°	2592.6	2589.2	2592.6	2596.1	2594.9	2589.9
13.5°	2580.3	2576.5	2580.3	2583.8	2583.0	2578.0
14°	2567.7	2563.4	2567.7	2571.5	2571.1	2565.4
14.5°	2554.2	2550.0	2554.2	2558.5	2558.1	2552.7
15°	2540.4	2536.2	2540.4	2545.4	2545.0	2539.3
15.5°	2526.2	2521.6	2526.2	2531.2	2531.6	2525.5
16°	2511.6	2507.0	2511.6	2517.0	2517.4	2511.2
16.5°	2496.7	2491.7	2496.7	2502.0	2502.8	2496.7
17°	2480.9	2475.9	2480.9	2487.1	2487.8	2481.7
17.5°	2465.2	2459.8	2465.2	2471.3	2472.5	2466.0
18°	2448.7	2442.9	2448.7	2454.8	2456.4	2449.8
18.5°	2432.2	2425.7	2432.2	2438.7	2439.9	2433.3
19°	2414.9	2408.4	2414.9	2421.8	2423.4	2416.4
19.5°	2397.3	2390.4	2397.3	2404.2	2406.1	2398.8
20°	2379.6	2372.3	2379.6	2386.5	2388.4	2381.1
20.5°	2360.8	2353.5	2360.8	2368.5	2370.4	2363.1
21°	2342.0	2334.3	2342.0	2350.1	2351.6	2344.3

TEST NUMBER: P776515

CATALOG NUMBER: HCDJBL3040CSD-HCD8TSQH-4000lm-2700K

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
22.5°	2283.3	2276.0	2283.3	2291.7	2293.6	2285.6
23°	2262.9	2255.6	2262.9	2271.8	2273.3	2265.2
23.5°	2242.6	2235.7	2242.6	2251.4	2252.9	2244.1
24°	2221.9	2215.0	2221.9	2230.7	2231.5	2223.0
24.5°	2201.1	2193.1	2201.1	2209.6	2210.0	2200.7
25°	2180.0	2170.8	2180.0	2187.7	2188.1	2178.1
25.5°	2157.8	2148.6	2157.8	2165.8	2165.8	2155.5
26°	2136.3	2125.5	2136.3	2143.6	2142.8	2131.7
26.5°	2113.6	2101.3	2113.6	2120.9	2119.4	2107.9
27°	2090.6	2076.4	2090.6	2097.9	2095.6	2082.9
27.5°	2066.8	2051.4	2066.8	2074.9	2071.4	2058.4
28°	2042.2	2025.0	2042.2	2051.4	2046.5	2032.6
28.5°	2017.3	1998.1	2017.3	2027.3	2021.1	2006.5
29°	1992.0	1971.2	1992.0	2003.5	1996.2	1979.3
29.5°	1965.5	1943.6	1965.5	1979.7	1970.5	1952.0
30°	1939.0	1916.0	1939.0	1954.7	1944.0	1924.8
30.5°	1911.7	1887.6	1911.7	1930.2	1917.1	1896.8
31°	1884.9	1859.2	1884.9	1904.8	1889.9	1867.6
31.5°	1857.2	1830.0	1857.2	1879.9	1862.6	1839.2
32°	1829.6	1800.4	1829.6	1854.6	1834.6	1810.0
32.5°	1800.8	1770.9	1800.8	1828.8	1806.2	1780.5
33°	1773.2	1741.3	1773.2	1802.7	1777.8	1750.5
33.5°	1744.8	1711.0	1744.8	1776.3	1749.8	1720.6
34°	1716.4	1680.3	1716.4	1749.4	1721.0	1689.5
34.5°	1688.0	1649.2	1688.0	1722.5	1691.8	1658.8
35°	1658.8	1618.5	1658.8	1695.7	1662.7	1627.0
35.5°	1630.0	1587.8	1630.0	1667.6	1633.9	1596.3
36°	1600.9	1551.3	1600.9	1639.6	1604.3	1564.4
36.5°	1571.3	1510.3	1571.3	1612.4	1574.0	1530.2
37°	1541.8	1465.0	1541.8	1584.4	1544.4	1489.2
37.5°	1511.8	1418.2	1511.8	1556.7	1514.1	1435.4
38°	1482.3	1368.3	1482.3	1527.9	1484.2	1381.3
38.5°	1449.6	1317.2	1449.6	1500.3	1453.9	1321.4
39°	1411.6	1260.0	1411.6	1472.7	1422.4	1259.3
39.5°	1369.0	1199.8	1369.0	1445.4	1376.7	1194.4
40°	1322.6	1136.1	1322.6	1417.8	1327.6	1129.9
40.5°	1273.1	1073.1	1273.1	1390.5	1271.9	1065.4
41°	1220.1	1012.5	1220.1	1364.1	1214.4	1004.4
41.5°	1164.5	952.2	1164.5	1338.3	1155.3	943.8
42°	1106.1	893.9	1106.1	1312.6	1096.2	884.7
42.5°	1047.8	834.8	1047.8	1287.3	1037.8	825.6
43°	989.1	777.6	989.1	1262.0	978.7	767.2
43.5°	931.5	720.0	931.5	1237.0	921.1	708.5



TEST NUMBER: P776515

CATALOG NUMBER: HCDJBL3040CSD-HCD8TSQH-4000lm-2700K

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
45°	766.8	560.4	766.8	1161.8	753.8	546.5
45.5°	712.3	511.6	712.3	1136.8	698.9	495.9
46°	658.6	464.8	658.6	1111.5	645.9	448.7
46.5°	606.4	417.2	606.4	1085.4	594.5	402.2
47°	555.4	371.1	555.4	1048.9	543.9	356.6
47.5°	507.8	330.1	507.8	1004.4	495.1	312.8
48°	461.0	294.0	461.0	951.5	447.9	275.6
48.5°	415.7	260.2	415.7	895.4	403.0	241.4
49°	371.1	229.5	371.1	836.7	359.2	211.1
49.5°	331.2	200.7	331.2	776.4	317.0	184.6
50°	292.8	174.2	292.8	715.4	277.5	161.2
50.5°	257.5	149.3	257.5	655.2	241.8	139.3
51°	224.5	125.5	224.5	595.7	209.9	119.4
51.5°	194.6	105.5	194.6	540.0	181.9	103.2
52°	168.5	89.8	168.5	489.0	157.4	87.1
52.5°	144.3	79.1	144.3	439.1	135.5	73.3
53°	122.1	68.7	122.1	392.6	115.5	63.3
53.5°	101.3	58.0	101.3	347.0	98.6	54.1
54°	82.9	47.6	82.9	305.1	82.5	51.8
54.5°	68.7	45.3	68.7	265.2	69.1	49.5
55°	57.6	43.8	57.6	229.9	57.2	47.6
55.5°	49.5	41.8	49.5	198.0	48.7	45.7
56°	43.4	40.3	43.4	169.3	44.9	43.8
56.5°	40.3	38.8	40.3	143.5	43.0	41.8
57°	38.8	37.2	38.8	122.1	41.5	40.3
57.5°	37.2	35.7	37.2	103.2	39.9	38.4
58°	36.1	34.5	36.1	87.9	38.4	36.8
58.5°	34.5	33.0	34.5	74.1	36.8	35.3
59°	33.4	31.9	33.4	62.9	35.7	34.2
59.5°	32.2	30.7	32.2	53.3	34.5	32.6
60°	31.1	29.6	31.1	44.9	33.0	31.5
60.5°	29.9	28.0	29.9	39.9	31.9	29.9
61°	29.2	27.3	29.2	36.1	30.7	28.8
61.5°	28.0	26.1	28.0	33.0	29.6	27.6
62°	26.9	24.9	26.9	31.1	28.8	26.5
62.5°	26.1	24.2	26.1	29.6	27.6	25.3
63°	25.3	23.0	25.3	28.4	26.5	24.2
63.5°	24.2	22.3	24.2	27.3	25.7	23.4
64°	23.4	21.1	23.4	26.5	24.6	22.3
64.5°	22.6	20.3	22.6	25.3	23.8	21.5
65°	21.9	19.6	21.9	24.6	23.0	20.3
65.5°	21.1	18.8	21.1	23.4	21.9	19.6
66°	20.3	18.0	20.3	22.6	21.1	18.8



TEST NUMBER: P776515

CATALOG NUMBER: HCDJBL3040CSD-HCD8TSQH-4000lm-2700K

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
67.5°	18.0	15.7	18.0	20.3	18.8	16.5
68°	17.3	15.4	17.3	19.6	18.0	15.7
68.5°	16.9	14.6	16.9	18.8	17.3	15.0
69°	16.1	13.8	16.1	18.0	16.5	14.6
69.5°	15.4	13.4	15.4	17.3	16.1	13.8
70°	15.0	12.7	15.0	16.5	15.4	13.0
70.5°	14.2	12.3	14.2	16.1	14.6	12.7
71°	13.8	11.9	13.8	15.4	14.2	11.9
71.5°	13.0	11.1	13.0	14.6	13.4	11.5
72°	12.7	10.7	12.7	14.2	13.0	10.7
72.5°	11.9	10.4	11.9	13.4	12.3	10.4
73°	11.5	9.6	11.5	12.7	11.9	10.0
73.5°	11.1	9.2	11.1	12.3	11.1	9.2
74°	10.4	8.8	10.4	11.5	10.7	8.8
74.5°	10.0	8.4	10.0	11.1	10.4	8.4
75°	9.6	8.1	9.6	10.4	9.6	8.1
75.5°	9.2	7.7	9.2	10.0	9.2	7.7
76°	8.4	7.3	8.4	9.6	8.8	7.3
76.5°	8.1	6.9	8.1	8.8	8.1	6.9
77°	7.7	6.5	7.7	8.4	7.7	6.1
77.5°	7.3	6.1	7.3	8.1	7.3	5.8
78°	6.9	5.8	6.9	7.3	6.9	5.8
78.5°	6.5	5.4	6.5	6.9	6.5	5.4
79°	6.1	5.0	6.1	6.5	6.1	5.0
79.5°	5.8	4.6	5.8	6.1	5.4	4.6
80°	5.4	4.6	5.4	5.8	5.0	4.2
80.5°	5.0	4.2	5.0	5.4	4.6	3.8
81°	4.6	3.8	4.6	5.0	4.2	3.5
81.5°	4.2	3.5	4.2	4.6	3.8	3.5
82°	3.8	3.5	3.8	4.2	3.5	3.1
82.5°	3.5	3.1	3.5	3.8	3.1	2.7
83°	3.1	2.7	3.1	3.5	3.1	2.3
83.5°	3.1	2.3	3.1	3.1	2.7	2.3
84°	2.7	2.3	2.7	2.7	2.3	1.9
84.5°	2.3	1.9	2.3	2.3	1.9	1.5
85°	1.9	1.5	1.9	1.9	1.5	1.5
85.5°	1.5	1.5	1.5	1.5	1.2	1.2
86°	1.5	1.2	1.5	1.5	1.2	0.8
86.5°	1.2	1.2	1.2	1.2	0.8	0.8
87°	0.8	0.8	0.8	0.8	0.8	0.4
87.5°	0.8	0.8	0.8	0.8	0.4	0.4
88°	0.4	0.4	0.4	0.4	0.4	0.4
88.5°	0.4	0.4	0.4	0.4	0.0	0.0



TEST NUMBER: P776515

CATALOG NUMBER: HCDJBL3040CSD-HCD8TSQH-4000lm-2700K

**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°	2325.5	2332.8	2330.9	2322.8	2315.5	2322.8	2330.9	2332.8	2325.5	2332.8	2330.9
22°	2305.1	2313.6	2311.3	2303.2	2295.5	2303.2	2311.3	2313.6	2305.1	2313.6	2311.3



44°	652.1	865.1	1211.7	876.2	664.0	876.2	1211.7	865.1	652.1	865.1	1211.7
44.5°	599.1	810.2	1187.1	821.3	609.1	821.3	1187.1	810.2	599.1	810.2	1187.1



66.5°	18.0	20.3	21.9	19.6	17.3	19.6	21.9	20.3	18.0	20.3	21.9
67°	17.3	19.6	21.1	18.8	16.5	18.8	21.1	19.6	17.3	19.6	21.1



89°	0.0	0.0	0.0	0.0	0.4	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	0.0



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

Scaled Data Report





21.5°	2322.8	2315.5	2322.8	2330.9	2332.8	2325.5
22°	2303.2	2295.5	2303.2	2311.3	2313.6	2305.1



44°	876.2	664.0	876.2	1211.7	865.1	652.1
44.5°	821.3	609.1	821.3	1187.1	810.2	599.1



66.5°	19.6	17.3	19.6	21.9	20.3	18.0
67°	18.8	16.5	18.8	21.1	19.6	17.3

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

Scaled Data Report



89°	0.0	0.4	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)