

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: P776679

Luminaire Tested: HCDJBS4050CSD-HCD62TRH-5000lm-5000K

Issue Date: 2/13/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P776679  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA ( A2312156B056)  
Test Lab:  
Issue Date: 2/13/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: HALO COMMERCIAL  
Catalog Number: HCDJBL54050CSD-HCD62TRH-5000lm-5000K  
Description: 6 INCH ROUND NARROW HAZE TRIM  
Light Source: SELECTABLE LUMENS AND CCT ARRAY 90CRI / 5000K CCT  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5117.4 lumens  
Efficiency: N/A  
Efficacy: 106.6 lumens/watt  
Spacing Criteria (0/90/45): 0.83 / 0.82 / 0.91  
Luminous Opening: Circular (Dia: 0.5' x H: 0')  
CIE Type: Direct

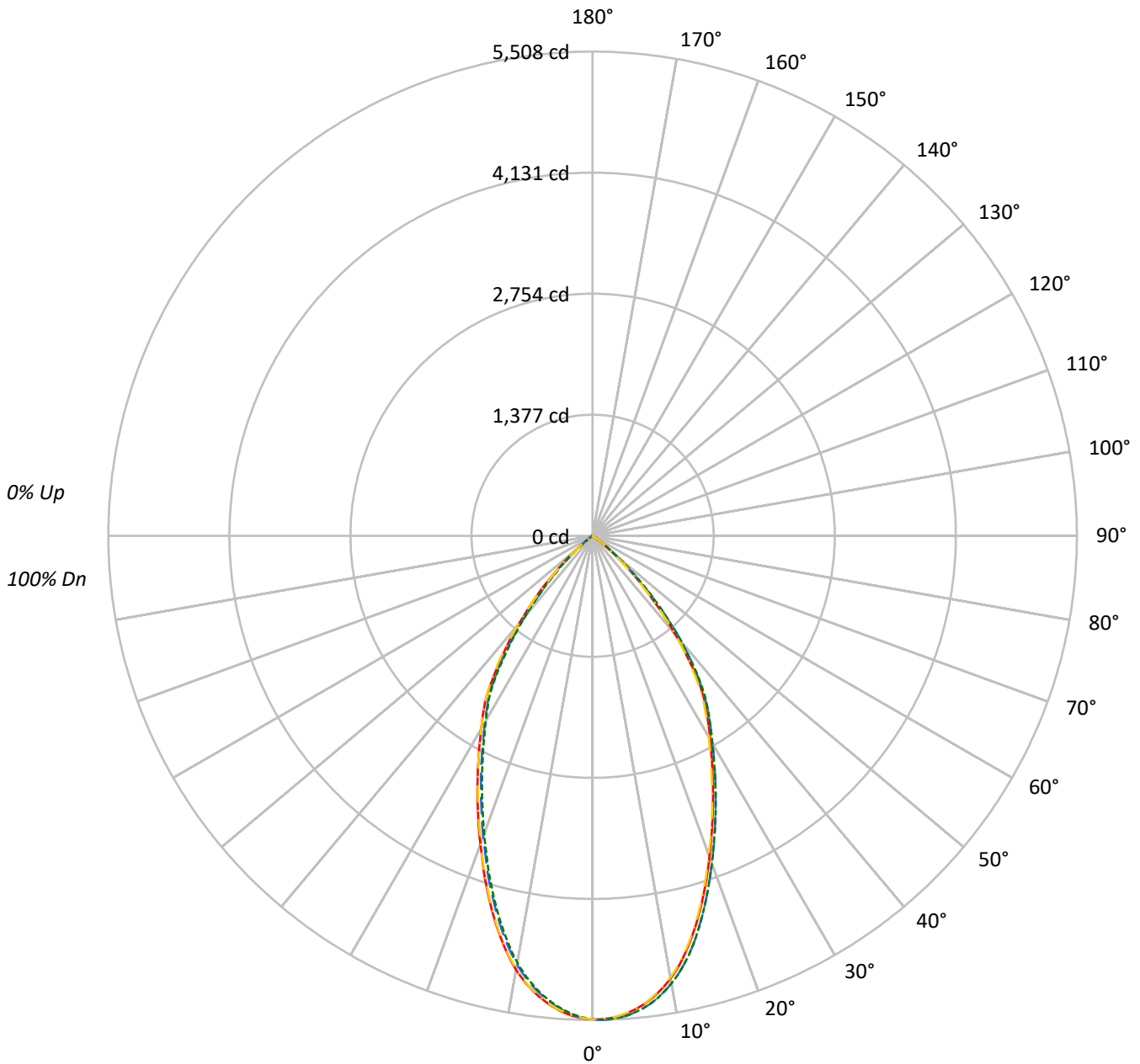
Input Watts (W): 48  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



TEST NUMBER: P776679

CATALOG NUMBER: HCDJBL54050CSD-HCD62TRH-5000lm-5000K

### Luminous Intensity Polar Plot





TEST NUMBER: P776679

CATALOG NUMBER: HCDJBL54050CSD-HCD62TRH-5000lm-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	100	97	96	95	93		
1	113	110	108	106	111	108	106	104	104	102	101	100	99	98	97	96	95	93	93	93	92	91	90	89		
2	107	102	98	95	105	101	97	93	97	94	91	94	92	89	92	89	88	86	86	86	85	84	83	82		
3	102	95	90	85	100	93	89	85	91	87	83	88	85	82	86	83	81	79	79	79	78	77	76	75		
4	96	88	82	78	94	87	82	77	85	80	77	83	79	76	81	78	75	73	73	73	72	71	70	69		
5	91	82	76	71	89	81	75	71	79	74	70	78	73	70	76	72	69	68	68	68	67	66	65	64		
6	86	77	70	66	84	76	70	66	74	69	65	73	68	65	71	67	64	63	63	63	62	61	60	59		
7	81	72	65	61	80	71	65	61	70	64	60	68	64	60	67	63	60	58	58	58	57	56	55	54		
8	77	67	61	57	76	67	61	56	65	60	56	64	59	56	63	59	56	54	54	54	53	52	51	50		
9	73	63	57	53	72	63	57	53	62	56	52	61	56	52	60	55	52	51	51	51	50	49	48	47		
10	70	59	53	49	69	59	53	49	58	53	49	57	52	49	57	52	49	47	47	47	46	45	44	43		

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

	0°	90°	180°	270°
0°	301489	301489	301489	301489
5°	297991	299675	295371	293181
10°	284547	287759	279059	274410
15°	258832	263486	250620	244088
20°	226796	231358	217760	210339
25°	196124	200262	187311	179793
30°	169191	172419	160525	153796
35°	145404	148817	132508	125487
40°	104761	111080	92981	84852
45°	62037	69302	52928	45958
50°	25713	30063	18174	15155
55°	4358	5754	4358	2877
60°	1809	1699	1754	1436
65°	1077	1012	1077	882
70°	705	705	705	625
75°	508	402	508	402
80°	316	316	316	316
85°	0	314	0	0

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 67.5°

Vertical Angle: 45°

Luminance: 73744 cd/sqm



TEST NUMBER: P776679

CATALOG NUMBER: HCDJBL4050CSD-HCD62TRH-5000lm-5000K

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	503.9	9.8
10°-20°	1245.4	24.3
20°-30°	1448.9	28.3
30°-40°	1260.1	24.6
40°-50°	579.7	11.3
50°-60°	68.4	1.3
60°-70°	8.2	0.2
70°-80°	2.4	0.0
80°-90°	0.4	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°	3198.3	62.5
0°-40°	4458.4	87.1
0°-60°	5106.4	99.8
0°-90°	5117.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5117.4	100.0

**CANDELA DISTRIBUTION:**

	0°	90°	180°	270°	360°	Flux
0°	5500	5500	5500	5500	5500	
5°	5415	5446	5368	5328	5415	507
15°	4561	4643	4416	4301	4561	1268
25°	3242	3311	3097	2972	3242	1489
35°	2173	2224	1980	1875	2173	1320
45°	800	894	683	593	800	628
55°	46	60	46	30	46	76
65°	8	8	8	7	8	9
75°	2	2	2	2	2	3
85°	0	0	0	0	0	0
90°	0	0	0	0	0	



TEST NUMBER: P776679

CATALOG NUMBER: HCDJBL54050CSD-HCD62TRH-5000lm-5000K

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
0°	5499.6	5499.6	5499.6	5499.6	5499.6	5499.6	5499.6	5499.6	5499.6	5499.6	5499.6
0.5°	5502.0	5505.9	5506.4	5502.0	5503.0	5500.1	5498.1	5499.1	5498.1	5498.6	5497.6
1°	5501.0	5506.4	5508.3	5505.9	5504.4	5500.1	5497.6	5495.7	5492.8	5492.3	5490.4
1.5°	5496.7	5504.4	5508.3	5507.4	5504.4	5498.6	5494.2	5489.9	5485.0	5482.6	5479.7
2°	5491.8	5501.5	5505.9	5506.9	5502.0	5495.7	5489.4	5481.6	5475.3	5470.9	5466.1
2.5°	5484.1	5495.7	5501.0	5504.4	5498.1	5489.4	5481.1	5470.9	5463.2	5456.9	5450.6
3°	5474.3	5487.9	5493.8	5500.6	5491.3	5482.1	5470.9	5459.3	5448.1	5440.4	5432.6
3.5°	5463.2	5477.7	5485.5	5494.2	5483.6	5472.9	5458.8	5445.2	5431.6	5420.9	5413.2
4°	5449.1	5465.6	5474.3	5485.5	5473.9	5460.7	5445.2	5427.7	5412.2	5400.1	5391.3
4.5°	5433.1	5451.5	5462.2	5474.3	5461.2	5446.2	5428.7	5409.3	5390.8	5376.8	5367.0
5°	5415.1	5435.5	5446.2	5462.2	5445.7	5430.2	5409.8	5388.4	5367.5	5351.0	5339.4
5.5°	5395.7	5417.5	5429.7	5446.7	5429.2	5410.7	5388.9	5366.1	5342.8	5323.8	5311.2
6°	5372.9	5396.7	5411.2	5430.2	5409.8	5389.9	5366.6	5338.9	5314.1	5293.7	5280.1
6.5°	5349.1	5375.3	5389.9	5410.7	5387.9	5367.0	5341.3	5311.2	5285.0	5263.6	5247.6
7°	5321.4	5349.6	5365.6	5389.9	5365.1	5342.3	5313.6	5282.1	5253.4	5230.6	5213.6
7.5°	5291.8	5322.4	5339.4	5365.6	5338.4	5312.7	5283.5	5251.5	5218.5	5193.7	5176.2
8°	5260.2	5291.8	5309.3	5339.4	5309.7	5281.6	5251.5	5216.0	5182.5	5155.8	5136.4
8.5°	5226.7	5260.7	5278.7	5310.7	5277.7	5250.5	5217.0	5178.7	5143.7	5115.5	5095.1
9°	5190.3	5226.2	5244.2	5278.2	5244.2	5215.6	5180.6	5139.8	5102.9	5072.3	5051.0
9.5°	5152.0	5188.9	5209.2	5244.2	5208.3	5177.7	5140.8	5100.5	5059.2	5027.7	5004.4
10°	5111.7	5149.0	5169.9	5207.8	5169.4	5137.9	5100.0	5054.4	5013.1	4980.1	4954.3
10.5°	5067.5	5109.2	5129.6	5169.4	5130.1	5097.1	5054.8	5008.2	4963.1	4926.2	4900.0
11°	5021.8	5064.6	5085.9	5129.1	5085.9	5051.4	5008.7	4957.7	4910.2	4868.4	4842.7
11.5°	4972.3	5016.0	5038.8	5085.4	5039.8	5003.9	4958.7	4905.3	4853.8	4812.1	4784.9
12°	4918.9	4966.0	4988.3	5037.9	4990.3	4952.4	4904.3	4848.0	4797.0	4754.3	4724.7
12.5°	4864.0	4911.6	4936.4	4987.4	4938.8	4898.5	4848.5	4791.7	4736.3	4692.2	4662.1
13°	4807.2	4856.3	4882.5	4934.9	4883.9	4843.2	4792.2	4732.5	4675.6	4629.0	4598.0
13.5°	4748.5	4799.0	4826.2	4880.5	4827.1	4784.4	4732.5	4671.3	4612.5	4564.5	4531.4
14°	4687.3	4739.7	4766.4	4825.2	4766.9	4725.2	4670.8	4607.7	4548.0	4500.9	4466.9
14.5°	4625.2	4678.1	4706.2	4763.0	4705.3	4661.6	4606.7	4543.1	4483.4	4431.9	4399.4
15°	4560.6	4615.4	4641.7	4704.3	4642.6	4597.5	4542.6	4478.0	4415.9	4365.9	4331.4
15.5°	4495.0	4550.4	4576.6	4640.7	4579.0	4532.9	4478.0	4412.0	4348.9	4297.9	4262.5
16°	4429.5	4485.3	4512.0	4575.6	4512.5	4466.9	4412.5	4344.0	4281.4	4230.4	4194.5
16.5°	4363.9	4419.8	4447.4	4510.6	4446.0	4400.8	4346.0	4278.0	4214.9	4161.0	4126.0
17°	4297.9	4352.8	4379.0	4444.5	4379.5	4333.3	4276.5	4209.5	4145.9	4091.6	4055.6
17.5°	4229.0	4285.3	4311.0	4376.1	4310.5	4263.4	4208.6	4142.5	4076.5	4023.1	3984.3
18°	4161.0	4216.3	4243.0	4308.1	4242.1	4195.0	4140.1	4073.6	4006.6	3952.2	3912.4
18.5°	4093.0	4148.8	4174.1	4238.7	4172.6	4127.0	4071.6	4002.2	3937.6	3881.8	3842.0
19°	4024.1	4080.9	4103.7	4168.8	4104.2	4058.5	4001.2	3933.3	3866.8	3810.9	3772.1
19.5°	3956.6	4011.9	4035.7	4099.3	4034.7	3989.6	3931.3	3866.3	3797.3	3745.4	3706.5
20°	3887.6	3942.5	3965.3	4030.4	3965.8	3919.7	3863.8	3795.9	3732.7	3679.8	3640.5
20.5°	3819.2	3875.5	3897.8	3960.0	3895.9	3850.2	3794.9	3731.3	3668.2	3614.3	3574.5
21°	3752.2	3808.0	3831.3	3893.5	3827.4	3782.8	3730.3	3666.7	3603.6	3548.7	3508.4



TEST NUMBER: P776679

CATALOG NUMBER: HCDJBL54050CSD-HCD62TRH-5000lm-5000K

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
22.5°	3555.5	3608.5	3629.8	3688.1	3631.3	3588.1	3537.1	3473.0	3407.9	3353.1	3312.3
23°	3491.4	3542.4	3564.8	3622.0	3566.2	3523.0	3472.5	3407.4	3344.8	3288.0	3249.6
23.5°	3428.8	3478.3	3500.2	3556.5	3501.6	3457.9	3406.5	3344.3	3281.2	3225.9	3187.0
24°	3364.7	3415.7	3435.6	3490.5	3436.6	3393.8	3342.4	3282.2	3219.1	3163.7	3123.9
24.5°	3304.0	3353.1	3371.5	3425.9	3373.5	3327.8	3279.8	3220.0	3156.9	3103.0	3063.2
25°	3242.4	3290.9	3309.4	3363.7	3310.8	3266.2	3216.6	3157.4	3096.7	3042.3	3003.0
25.5°	3181.7	3229.3	3247.7	3301.6	3247.7	3205.9	3155.5	3097.7	3037.5	2982.1	2944.7
26°	3122.0	3171.0	3187.0	3239.0	3186.5	3146.2	3095.7	3038.4	2978.2	2923.9	2886.5
26.5°	3063.7	3108.8	3127.3	3175.8	3126.3	3084.6	3036.0	2978.7	2919.0	2865.6	2826.3
27°	3004.5	3049.6	3066.6	3116.1	3066.1	3023.4	2976.3	2920.5	2861.2	2808.3	2769.5
27.5°	2946.2	2991.3	3007.4	3056.9	3006.4	2967.6	2918.5	2862.2	2803.9	2752.0	2713.1
28°	2889.4	2935.5	2949.1	2998.1	2947.2	2908.8	2860.3	2806.4	2748.1	2695.2	2658.3
28.5°	2832.6	2878.7	2891.8	2939.9	2890.4	2850.5	2803.9	2749.6	2691.8	2640.3	2603.4
29°	2778.7	2821.4	2835.5	2881.1	2833.5	2794.7	2750.0	2695.2	2639.3	2587.4	2550.0
29.5°	2725.8	2767.5	2779.2	2825.3	2778.7	2740.3	2695.2	2642.3	2586.4	2535.9	2499.0
30°	2672.8	2715.1	2726.7	2771.4	2723.8	2687.4	2642.3	2590.3	2535.9	2484.5	2449.0
30.5°	2621.4	2662.6	2674.8	2718.0	2671.4	2634.5	2590.8	2538.3	2484.9	2434.4	2400.0
31°	2571.4	2611.7	2623.3	2664.6	2620.9	2584.5	2539.8	2488.8	2434.9	2385.4	2350.4
31.5°	2520.9	2560.7	2572.3	2613.6	2570.4	2534.9	2490.3	2440.3	2386.9	2337.8	2303.8
32°	2473.8	2513.6	2523.8	2563.1	2521.8	2484.9	2443.2	2393.2	2339.3	2290.2	2255.8
32.5°	2426.7	2465.0	2475.2	2513.6	2472.3	2436.9	2394.1	2343.6	2291.7	2242.2	2209.2
33°	2379.6	2417.5	2427.6	2465.5	2426.2	2389.3	2346.1	2293.6	2240.2	2189.3	2154.8
33.5°	2330.1	2367.9	2377.2	2417.0	2377.2	2341.7	2294.6	2236.8	2182.5	2128.1	2090.7
34°	2281.0	2317.4	2322.8	2367.9	2329.1	2291.7	2240.2	2177.1	2119.8	2064.5	2027.6
34.5°	2226.2	2262.6	2264.0	2315.0	2278.1	2239.3	2181.0	2115.0	2049.9	1998.9	1958.6
35°	2172.7	2204.3	2205.3	2256.7	2223.7	2185.4	2121.8	2053.3	1980.0	1931.9	1891.6
35.5°	2113.5	2144.1	2146.5	2199.4	2167.9	2129.5	2061.6	1988.2	1906.7	1857.6	1826.1
36°	2050.4	2081.5	2086.8	2139.7	2109.6	2069.8	2001.4	1922.7	1838.2	1783.8	1760.0
36.5°	1981.0	2016.9	2027.1	2081.5	2045.5	2004.8	1937.7	1855.2	1770.2	1711.5	1688.7
37°	1905.7	1950.9	1966.9	2021.7	1980.0	1935.8	1872.7	1787.2	1705.2	1640.1	1619.7
37.5°	1827.5	1882.9	1905.2	1960.6	1910.6	1866.4	1806.2	1716.3	1639.1	1569.7	1547.4
38°	1751.8	1815.9	1840.6	1897.9	1839.2	1796.0	1738.7	1648.9	1574.1	1500.8	1476.5
38.5°	1679.9	1745.5	1774.6	1835.3	1765.9	1720.7	1668.8	1580.9	1506.1	1434.7	1401.2
39°	1608.1	1673.1	1708.1	1771.7	1693.0	1644.0	1599.3	1514.4	1439.1	1371.1	1332.8
39.5°	1535.7	1600.8	1641.1	1703.7	1622.6	1570.7	1526.5	1447.4	1369.7	1303.2	1261.4
40°	1463.9	1528.4	1574.1	1635.7	1552.2	1500.8	1453.2	1381.3	1299.3	1235.2	1193.9
40.5°	1392.0	1456.6	1507.1	1567.8	1482.3	1430.4	1378.4	1315.3	1230.3	1170.1	1124.0
41°	1323.6	1384.2	1440.6	1499.8	1415.3	1361.9	1304.1	1248.8	1166.2	1105.1	1057.5
41.5°	1253.2	1313.8	1370.2	1431.8	1348.3	1290.5	1231.3	1181.3	1102.6	1041.0	990.0
42°	1186.1	1247.8	1299.3	1360.5	1282.8	1223.5	1160.4	1112.8	1041.0	977.4	924.9
42.5°	1117.2	1182.7	1229.4	1290.1	1215.8	1157.5	1091.5	1045.3	981.3	916.2	863.3
43°	1050.7	1116.7	1158.0	1221.6	1149.7	1091.5	1025.0	979.3	921.0	859.4	805.0
43.5°	983.7	1048.3	1086.1	1152.6	1084.2	1024.0	958.9	913.3	859.9	799.2	746.3



TEST NUMBER: P776679

CATALOG NUMBER: HCDJBL4050CSD-HCD62TRH-5000lm-5000K

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
45°	800.2	858.4	883.2	951.2	893.9	834.6	774.9	723.9	682.7	631.2	588.5
45.5°	740.9	797.2	817.6	887.1	833.2	774.9	715.7	665.2	626.3	577.3	539.4
46°	685.6	737.5	755.5	823.0	775.9	716.2	659.8	608.4	572.4	526.8	493.8
46.5°	630.2	679.3	694.3	760.8	715.7	659.3	605.0	553.0	520.0	483.1	453.5
47°	576.8	623.4	634.1	699.2	656.9	607.9	552.0	505.9	471.9	439.9	413.7
47.5°	524.9	569.0	577.8	640.9	601.6	556.4	502.0	459.3	424.4	396.2	373.4
48°	476.3	515.6	523.9	582.6	549.1	505.9	457.4	412.7	376.3	353.0	333.1
48.5°	429.7	462.7	472.9	526.8	500.1	460.8	412.7	366.1	328.2	309.3	298.6
49°	385.5	413.7	424.4	476.3	450.6	415.6	368.5	319.5	286.9	273.8	266.1
49.5°	343.3	366.1	377.3	424.8	401.5	370.5	323.8	281.6	248.1	239.4	236.0
50°	301.5	320.9	333.1	377.7	352.5	325.8	286.0	246.6	213.1	209.3	207.8
50.5°	263.2	278.7	291.8	332.1	303.5	286.0	249.6	214.6	182.6	180.6	181.1
51°	226.7	240.3	253.4	290.8	262.7	247.6	217.0	185.0	155.9	155.9	156.8
51.5°	192.8	204.9	217.5	250.0	226.3	213.1	187.9	159.3	134.0	133.5	135.5
52°	161.2	173.8	184.0	214.1	191.8	180.1	160.7	135.0	114.6	113.6	115.6
52.5°	138.9	151.5	160.2	181.1	159.7	151.0	135.9	113.6	97.6	95.6	96.6
53°	116.5	129.2	136.4	157.8	132.1	124.8	113.1	95.2	83.0	80.1	80.1
53.5°	94.2	107.3	112.6	134.5	107.8	101.5	93.7	79.1	69.9	66.5	65.5
54°	72.3	85.0	88.9	111.2	86.9	82.1	76.7	65.1	58.3	58.7	57.8
54.5°	57.3	63.1	65.1	87.9	69.4	65.5	66.5	57.3	52.0	51.0	49.5
55°	45.6	49.5	51.0	64.6	60.2	57.3	56.3	49.5	45.6	42.7	41.3
55.5°	36.4	38.8	39.3	50.5	51.5	49.0	46.6	41.8	39.3	35.0	33.5
56°	30.6	31.6	31.1	38.8	42.2	40.8	36.9	34.5	33.0	27.2	25.2
56.5°	27.2	27.7	27.2	30.6	33.0	32.5	27.2	26.7	26.7	24.8	23.3
57°	25.2	25.2	24.8	26.2	24.3	24.3	24.8	24.8	24.8	23.3	21.8
57.5°	23.8	23.8	22.8	23.8	22.3	22.3	22.8	23.3	22.8	21.8	20.4
58°	21.8	21.8	21.4	21.8	20.9	20.9	21.4	21.8	21.4	20.4	18.9
58.5°	20.4	20.4	19.4	20.4	19.4	19.4	19.9	20.4	19.9	18.9	17.5
59°	18.9	18.9	18.5	18.9	18.0	18.0	18.5	18.9	18.5	17.5	16.5
59.5°	18.0	17.5	17.0	17.5	16.5	16.5	17.0	17.5	17.5	16.5	15.1
60°	16.5	16.5	16.0	16.5	15.5	15.5	16.0	16.0	16.0	15.1	14.1
60.5°	15.5	15.1	14.6	15.1	14.6	14.6	14.6	15.1	15.1	14.1	13.1
61°	14.1	14.1	13.6	14.1	13.1	13.6	13.6	14.1	14.1	13.1	12.1
61.5°	13.1	13.1	12.6	13.1	12.6	12.6	12.6	13.1	13.1	12.1	11.7
62°	12.1	12.1	11.7	12.1	11.7	11.7	12.1	12.1	12.1	11.7	10.7
62.5°	11.7	11.7	10.7	11.2	10.7	10.7	11.2	11.7	11.7	10.7	10.2
63°	10.7	10.7	10.2	10.7	10.2	10.2	10.2	10.7	10.7	10.2	9.2
63.5°	10.2	10.2	9.7	9.7	9.2	9.7	9.7	10.2	10.2	9.7	8.7
64°	9.7	9.2	8.7	9.2	8.7	8.7	9.2	9.7	9.7	9.2	8.3
64.5°	8.7	8.7	8.3	8.7	8.3	8.3	8.7	8.7	8.7	8.3	7.8
65°	8.3	8.3	7.8	8.3	7.8	7.8	8.3	8.3	8.3	7.8	7.3
65.5°	7.8	7.8	7.3	7.8	7.3	7.3	7.8	7.8	7.8	7.3	6.8
66°	7.3	7.3	6.8	7.3	6.8	6.8	7.3	7.3	7.3	6.8	6.3





TEST NUMBER: P776679

CATALOG NUMBER: HCDJBL54050CSD-HCD62TRH-5000lm-5000K

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
67.5°	6.3	5.8	5.8	5.8	5.8	5.8	5.8	6.3	6.3	5.8	5.3
68°	5.8	5.8	5.3	5.3	5.3	5.3	5.3	5.8	5.8	5.3	5.3
68.5°	5.3	5.3	4.9	5.3	4.9	4.9	5.3	5.3	5.3	5.3	4.9
69°	4.9	4.9	4.9	4.9	4.9	4.9	4.9	5.3	5.3	4.9	4.4
69.5°	4.9	4.9	4.4	4.4	4.4	4.4	4.9	4.9	4.9	4.4	4.4
70°	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	3.9
70.5°	4.4	3.9	3.9	3.9	3.9	3.9	3.9	4.4	4.4	3.9	3.9
71°	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.4
71.5°	3.9	3.4	3.4	3.4	3.4	3.4	3.4	3.9	3.9	3.4	3.4
72°	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	2.9
72.5°	3.4	3.4	2.9	2.9	2.9	2.9	3.4	3.4	3.4	2.9	2.9
73°	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9
73.5°	2.9	2.9	2.9	2.9	2.4	2.9	2.9	2.9	2.9	2.9	2.4
74°	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.9	2.9	2.4	2.4
74.5°	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4
75°	2.4	2.4	1.9	2.4	1.9	2.4	2.4	2.4	2.4	2.4	1.9
75.5°	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.4	2.4	1.9	1.9
76°	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
76.5°	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.5
77°	1.9	1.5	1.5	1.9	1.5	1.5	1.9	1.9	1.9	1.5	1.5
77.5°	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
78°	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
78.5°	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
79°	1.5	1.0	1.0	1.5	1.5	1.5	1.5	1.5	1.5	1.0	1.0
79.5°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
80°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
80.5°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
81°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
81.5°	1.0	0.5	0.5	1.0	1.0	1.0	1.0	1.0	1.0	0.5	0.5
82°	0.5	0.5	0.5	1.0	0.5	0.5	0.5	0.5	0.5	0.5	0.5
82.5°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
83°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
83.5°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
84°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
84.5°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.0	0.5
85°	0.0	0.0	0.5	0.5	0.5	0.5	0.5	0.0	0.0	0.0	0.0
85.5°	0.0	0.0	0.0	0.5	0.5	0.5	0.5	0.0	0.0	0.0	0.0
86°	0.0	0.0	0.0	0.5	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: P776679  
CATALOG NUMBER: HCDJBL54050CSD-HCD62TRH-5000lm-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: P776679

CATALOG NUMBER: HCDJBL54050CSD-HCD62TRH-5000lm-5000K

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
0°	5499.6	5499.6	5499.6	5499.6	5499.6	5499.6
0.5°	5487.9	5491.8	5491.8	5494.2	5498.1	5502.0
1°	5477.7	5483.6	5484.5	5488.9	5494.2	5501.0
1.5°	5464.6	5471.4	5473.9	5480.2	5488.9	5496.7
2°	5448.6	5458.3	5462.2	5470.5	5481.1	5491.8
2.5°	5430.6	5441.8	5446.7	5458.3	5471.9	5484.1
3°	5410.3	5423.4	5430.2	5443.3	5459.8	5474.3
3.5°	5387.4	5403.9	5411.2	5426.8	5445.2	5463.2
4°	5363.2	5379.7	5390.3	5407.3	5428.7	5449.1
4.5°	5336.0	5355.4	5366.6	5386.0	5410.3	5433.1
5°	5307.3	5327.7	5340.8	5362.2	5389.9	5415.1
5.5°	5275.3	5299.1	5312.7	5336.5	5367.5	5395.7
6°	5242.7	5268.5	5283.5	5308.8	5343.2	5372.9
6.5°	5207.3	5234.0	5252.0	5279.6	5316.1	5349.1
7°	5170.4	5198.6	5218.0	5248.1	5286.4	5321.4
7.5°	5131.6	5160.2	5181.1	5213.1	5254.4	5291.8
8°	5088.3	5119.9	5141.8	5176.7	5219.9	5260.2
8.5°	5043.2	5077.2	5101.5	5136.9	5184.0	5226.7
9°	4996.1	5030.6	5056.3	5095.1	5144.2	5190.3
9.5°	4945.6	4983.0	5009.7	5051.4	5103.4	5152.0
10°	4891.7	4929.6	4957.7	5004.8	5061.2	5111.7
10.5°	4833.4	4875.7	4905.8	4954.8	5014.5	5067.5
11°	4773.2	4819.4	4850.4	4900.4	4965.0	5021.8
11.5°	4713.5	4757.7	4794.6	4845.1	4911.6	4972.3
12°	4650.9	4697.0	4731.5	4788.8	4856.3	4918.9
12.5°	4586.8	4632.9	4669.3	4728.6	4799.5	4864.0
13°	4521.7	4568.8	4608.6	4668.4	4741.7	4807.2
13.5°	4455.2	4502.8	4544.6	4603.8	4679.5	4748.5
14°	4388.2	4437.7	4477.1	4538.7	4617.4	4687.3
14.5°	4318.8	4370.2	4410.1	4475.6	4552.8	4625.2
15°	4252.3	4300.8	4342.6	4408.1	4488.2	4560.6
15.5°	4182.3	4231.9	4275.6	4341.1	4422.2	4495.0
16°	4111.9	4162.4	4206.1	4270.7	4355.2	4429.5
16.5°	4042.5	4093.5	4137.7	4204.7	4288.2	4363.9
17°	3971.6	4024.1	4067.8	4136.2	4221.7	4297.9
17.5°	3902.2	3953.2	3997.8	4066.8	4153.2	4229.0
18°	3828.4	3881.8	3926.0	3995.4	4084.3	4161.0
18.5°	3759.9	3809.9	3855.6	3925.0	4015.3	4093.0
19°	3692.0	3741.0	3785.2	3858.5	3945.9	4024.1
19.5°	3624.0	3673.5	3718.2	3791.5	3878.9	3956.6
20°	3556.0	3605.5	3652.6	3723.0	3810.9	3887.6
20.5°	3488.5	3539.5	3586.1	3656.0	3744.4	3819.2
21°	3428.8	3471.0	3518.1	3588.5	3675.9	3752.2

TEST NUMBER: P776679

CATALOG NUMBER: HCDJBL54050CSD-HCD62TRH-5000lm-5000K

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
22.5°	3237.0	3278.3	3325.9	3397.2	3481.2	3555.5
23°	3174.4	3215.7	3261.8	3332.2	3417.2	3491.4
23.5°	3112.7	3153.5	3201.1	3271.5	3355.0	3428.8
24°	3053.5	3093.3	3140.4	3208.4	3293.3	3364.7
24.5°	2991.8	3033.1	3079.2	3149.1	3230.7	3304.0
25°	2934.1	2972.4	3019.5	3086.5	3170.5	3242.4
25.5°	2874.3	2914.6	2961.7	3028.7	3110.8	3181.7
26°	2816.6	2856.9	2904.0	2970.5	3052.0	3122.0
26.5°	2760.2	2800.5	2847.1	2913.2	2993.3	3063.7
27°	2703.4	2743.7	2789.9	2856.4	2935.5	3004.5
27.5°	2647.6	2688.9	2733.5	2799.6	2878.2	2946.2
28°	2594.2	2633.5	2678.7	2742.3	2821.9	2889.4
28.5°	2542.2	2580.1	2625.7	2688.9	2766.5	2832.6
29°	2491.7	2529.1	2574.3	2637.4	2713.1	2778.7
29.5°	2439.8	2478.6	2521.8	2585.0	2659.7	2725.8
30°	2390.3	2429.6	2472.8	2534.5	2609.2	2672.8
30.5°	2342.7	2381.0	2423.8	2484.0	2558.7	2621.4
31°	2296.1	2333.5	2377.2	2436.9	2509.2	2571.4
31.5°	2248.5	2286.4	2330.5	2389.8	2459.7	2520.9
32°	2200.4	2239.7	2282.5	2342.2	2412.6	2473.8
32.5°	2148.0	2193.1	2235.9	2296.1	2366.5	2426.7
33°	2089.2	2138.3	2183.4	2244.1	2319.9	2379.6
33.5°	2025.1	2077.6	2125.2	2187.3	2268.4	2330.1
34°	1955.7	2013.5	2062.5	2127.1	2212.1	2281.0
34.5°	1886.8	1944.5	1994.1	2068.4	2154.8	2226.2
35°	1819.3	1875.1	1924.6	2004.3	2094.6	2172.7
35.5°	1751.3	1801.8	1855.2	1941.6	2032.4	2113.5
36°	1681.9	1721.7	1787.7	1876.1	1967.9	2050.4
36.5°	1609.5	1653.7	1745.0	1809.1	1902.3	1981.0
37°	1537.7	1586.7	1673.6	1742.6	1835.3	1905.7
37.5°	1467.3	1519.7	1601.8	1672.6	1764.9	1827.5
38°	1394.0	1452.2	1529.9	1602.7	1691.1	1751.8
38.5°	1323.1	1386.7	1458.0	1532.8	1617.3	1679.9
39°	1255.1	1319.7	1390.6	1462.9	1543.5	1608.1
39.5°	1188.6	1252.7	1320.2	1393.0	1469.7	1535.7
40°	1121.6	1185.7	1250.2	1324.0	1395.4	1463.9
40.5°	1057.5	1120.1	1181.3	1256.1	1321.1	1392.0
41°	993.4	1055.5	1113.3	1188.1	1246.8	1323.6
41.5°	928.3	991.0	1048.3	1118.2	1172.6	1253.2
42°	864.7	931.7	985.1	1052.6	1103.6	1186.1
42.5°	806.5	870.1	924.9	984.2	1034.7	1117.2
43°	746.7	815.2	864.7	917.2	971.1	1050.7
43.5°	690.9	757.4	804.0	848.7	905.5	983.7



TEST NUMBER: P776679

CATALOG NUMBER: HCDJBL54050CSD-HCD62TRH-5000lm-5000K

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
45°	538.0	592.8	628.8	661.3	727.3	800.2
45.5°	492.3	541.4	573.4	605.0	670.5	740.9
46°	451.5	490.4	520.0	550.6	617.1	685.6
46.5°	410.8	441.3	468.1	499.6	565.2	630.2
47°	370.0	396.2	419.5	451.5	515.1	576.8
47.5°	329.2	353.5	373.4	405.4	466.6	524.9
48°	294.7	312.2	330.2	362.2	420.5	476.3
48.5°	262.2	274.3	289.4	321.9	376.3	429.7
49°	230.6	239.9	251.0	285.0	334.0	385.5
49.5°	202.5	207.8	216.1	251.0	295.2	343.3
50°	176.7	177.7	185.0	218.5	258.3	301.5
50.5°	152.5	158.3	164.6	189.4	224.8	263.2
51°	130.6	138.4	144.2	162.7	194.2	226.7
51.5°	110.2	119.0	123.8	142.3	165.6	192.8
52°	92.7	99.5	103.4	122.4	144.2	161.2
52.5°	76.7	79.6	83.0	102.0	122.8	138.9
53°	62.6	66.5	69.9	82.1	102.0	116.5
53.5°	54.9	54.4	57.8	67.5	81.1	94.2
54°	47.6	44.7	47.6	54.4	65.1	72.3
54.5°	39.8	36.4	38.8	43.7	52.0	57.3
55°	32.0	30.1	31.6	35.0	41.3	45.6
55.5°	24.3	25.7	26.7	29.1	33.0	36.4
56°	22.3	23.3	24.3	25.7	28.6	30.6
56.5°	20.9	21.8	22.3	23.8	25.7	27.2
57°	19.4	20.4	20.9	22.3	23.8	25.2
57.5°	18.5	18.9	19.4	20.4	22.3	23.8
58°	17.0	18.0	18.5	18.9	20.9	21.8
58.5°	15.5	16.5	17.0	18.0	19.4	20.4
59°	14.6	15.5	16.0	16.5	18.0	18.9
59.5°	13.6	14.1	14.6	15.5	17.0	18.0
60°	12.6	13.1	13.6	14.1	15.5	16.5
60.5°	11.7	12.1	12.6	13.1	14.6	15.5
61°	11.2	11.7	11.7	12.1	13.1	14.1
61.5°	10.2	10.7	11.2	11.7	12.6	13.1
62°	9.7	10.2	10.2	10.7	11.7	12.1
62.5°	9.2	9.2	9.7	10.2	10.7	11.7
63°	8.7	8.7	9.2	9.2	10.2	10.7
63.5°	8.3	8.3	8.3	8.7	9.7	10.2
64°	7.8	7.8	7.8	8.3	9.2	9.7
64.5°	7.3	7.3	7.3	7.8	8.3	8.7
65°	6.8	6.8	6.8	7.3	7.8	8.3
65.5°	6.3	6.3	6.8	6.8	7.3	7.8
66°	5.8	6.3	6.3	6.3	6.8	7.3



TEST NUMBER: P776679

CATALOG NUMBER: HCDJBL54050CSD-HCD62TRH-5000lm-5000K

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
67.5°	4.9	4.9	5.3	5.3	5.8	6.3
68°	4.9	4.9	4.9	4.9	5.3	5.8
68.5°	4.4	4.4	4.4	4.9	5.3	5.3
69°	3.9	4.4	4.4	4.4	4.9	4.9
69.5°	3.9	3.9	3.9	4.4	4.4	4.9
70°	3.4	3.9	3.9	3.9	4.4	4.4
70.5°	3.4	3.4	3.4	3.9	3.9	4.4
71°	3.4	3.4	3.4	3.4	3.9	3.9
71.5°	2.9	2.9	2.9	3.4	3.4	3.9
72°	2.9	2.9	2.9	2.9	3.4	3.4
72.5°	2.4	2.9	2.9	2.9	2.9	3.4
73°	2.4	2.4	2.4	2.9	2.9	2.9
73.5°	2.4	2.4	2.4	2.4	2.9	2.9
74°	2.4	2.4	2.4	2.4	2.4	2.4
74.5°	1.9	1.9	1.9	2.4	2.4	2.4
75°	1.9	1.9	1.9	1.9	1.9	2.4
75.5°	1.9	1.9	1.9	1.9	1.9	1.9
76°	1.5	1.9	1.9	1.9	1.9	1.9
76.5°	1.5	1.5	1.5	1.5	1.9	1.9
77°	1.5	1.5	1.5	1.5	1.5	1.9
77.5°	1.5	1.5	1.5	1.5	1.5	1.5
78°	1.5	1.5	1.5	1.5	1.5	1.5
78.5°	1.0	1.0	1.0	1.0	1.5	1.5
79°	1.0	1.0	1.0	1.0	1.0	1.5
79.5°	1.0	1.0	1.0	1.0	1.0	1.0
80°	1.0	1.0	1.0	1.0	1.0	1.0
80.5°	1.0	1.0	1.0	1.0	1.0	1.0
81°	0.5	1.0	1.0	1.0	1.0	1.0
81.5°	0.5	0.5	0.5	0.5	0.5	1.0
82°	0.5	0.5	0.5	0.5	0.5	0.5
82.5°	0.5	0.5	0.5	0.5	0.5	0.5
83°	0.5	0.5	0.5	0.5	0.5	0.5
83.5°	0.5	0.5	0.5	0.5	0.5	0.5
84°	0.5	0.5	0.5	0.5	0.5	0.5
84.5°	0.5	0.5	0.5	0.5	0.0	0.5
85°	0.0	0.0	0.5	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: P776679

CATALOG NUMBER: HCDJBL54050CSD-HCD62TRH-5000lm-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

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



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°	3686.6	3738.6	3763.8	3826.5	3760.9	3717.7	3665.7	3602.1	3538.5	3483.2	3442.9
22°	3619.6	3672.1	3694.9	3757.0	3696.3	3653.1	3601.7	3537.6	3474.0	3416.7	3377.3



44°	921.5	983.7	1018.6	1084.2	1019.1	956.5	895.3	848.2	799.2	741.9	691.4
44.5°	861.3	920.6	950.2	1016.2	955.5	894.8	834.6	784.1	739.9	684.6	638.5



66.5°	6.8	6.8	6.3	6.8	6.3	6.3	6.8	6.8	6.8	6.8	6.3
67°	6.3	6.3	6.3	6.3	5.8	6.3	6.3	6.3	6.8	6.3	5.8



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°	3365.2	3406.5	3454.5	3524.9	3610.9	3686.6
22°	3300.1	3341.4	3388.0	3458.9	3546.3	3619.6



44°	636.5	701.1	744.3	784.6	843.4	921.5
44.5°	586.5	645.8	686.1	720.0	784.1	861.3



66.5°	5.3	5.8	5.8	6.3	6.8	6.8
67°	5.3	5.3	5.3	5.8	6.3	6.3

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)