

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: P776570

Luminaire Tested: HCDJBS4050CSD-HCD42TRC-5000lm-2700K

Issue Date: 2/13/2024

Test Information

Test Method: LM-79-2019
Report Number: P776570
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (A2312156B049)
Test Lab:
Issue Date: 2/13/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO COMMERCIAL
Catalog Number: HCDJBS4050CSD-HCD42TRC-5000lm-2700K
Description: 4 INCH ROUND NARROW SPECULAR CLEAR TRIM
Light Source: SELECTABLE LUMENS AND CCT ARRAY 90CRI / 2700K CCT
Ballast/Driver: -

Summary

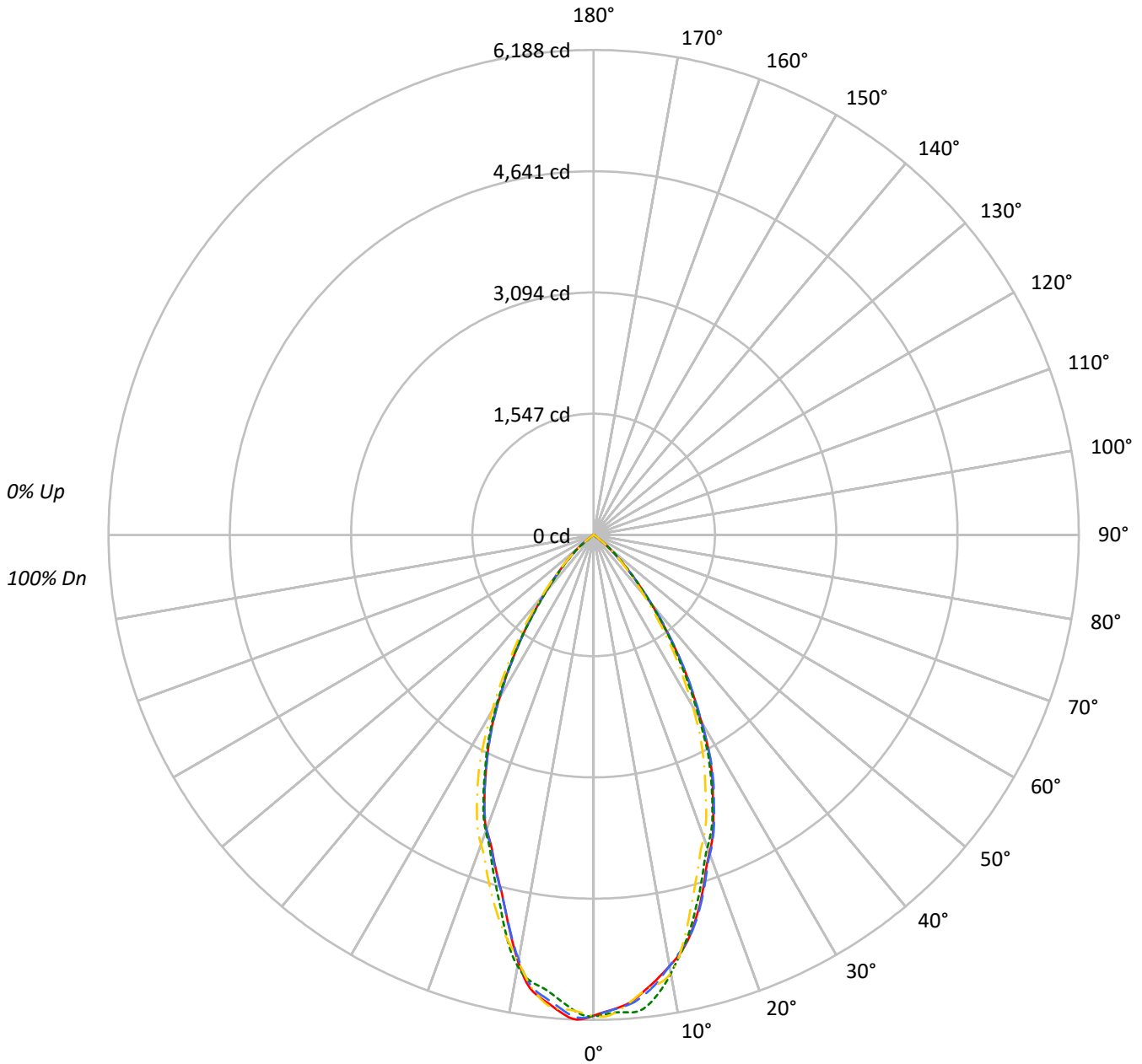
Lumens per Lamp: N/A
Luminaire Lumens: 5049.7 lumens
Efficiency: N/A
Efficacy: 105.2 lumens/watt
Spacing Criteria (0/90/45): 0.82 / 0.81 / 0.84
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

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



TEST NUMBER: P776570
CATALOG NUMBER: HCDJBL54050CSD-HCD42TRC-5000lm-2700K

Luminous Intensity Polar Plot





TEST NUMBER: P776570

CATALOG NUMBER: HCDJBL54050CSD-HCD42TRC-5000lm-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	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	114	111	108	106	111	109	106	104	105	103	101	101	99	98	97	96	95	93					93			
2	108	103	99	96	106	101	98	94	98	95	92	95	93	90	92	90	89	87					87			
3	102	96	91	87	100	95	90	86	92	88	85	89	86	84	87	85	82	81					81			
4	97	90	84	80	95	88	83	79	86	82	78	84	80	77	82	79	76	75					75			
5	92	84	78	74	90	83	77	73	81	76	73	79	75	72	78	74	71	70					70			
6	87	78	72	68	86	78	72	68	76	71	67	75	70	67	73	70	66	65					65			
7	83	74	68	63	82	73	67	63	72	67	63	71	66	63	69	65	62	61					61			
8	79	69	63	59	78	69	63	59	68	62	59	67	62	59	66	61	58	57					57			
9	75	65	59	55	74	65	59	55	64	59	55	63	58	55	62	58	55	53					53			
10	72	62	56	52	71	61	56	52	61	55	52	60	55	52	59	55	52	50					50			

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	772290	772290	772290	772290
5°	751793	772119	762733	744542
10°	713650	725586	707363	714174
15°	658638	649557	603044	617063
20°	578000	568170	535385	538867
25°	499340	495035	449573	454266
30°	399002	390196	349986	355159
35°	290937	282672	246537	248211
40°	185954	184394	158108	154576
45°	103850	106698	94524	91855
50°	47224	50435	46852	45070
55°	2808	2699	2194	2501
60°	805	1032	906	906
65°	417	536	536	536
70°	331	331	331	331
75°	243	243	243	243
80°	0	0	0	0
85°	0	0	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 45°

Luminance: 106698 cd/sqm



TEST NUMBER: P776570

CATALOG NUMBER: HCDJBL54050CSD-HCD42TRC-5000lm-2700K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	560.0	11.1
10°-20°	1354.9	26.8
20°-30°	1554.3	30.8
30°-40°	1086.4	21.5
40°-50°	443.1	8.8
50°-60°	48.8	1.0
60°-70°	1.9	0.0
70°-80°	0.5	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°	3469.1	68.7
0°-40°	4555.5	90.2
0°-60°	5047.4	100.0
0°-90°	5049.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5049.7	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	6137	6137	6137	6137	6137	
5°	5951	6112	6038	5894	5951	555
15°	5055	4986	4628	4736	5055	1401
25°	3596	3565	3238	3271	3596	1638
35°	1894	1840	1605	1616	1894	1176
45°	584	600	531	516	584	467
55°	13	12	10	11	13	47
65°	1	2	2	2	1	2
75°	0	0	0	0	0	0
85°	0	0	0	0	0	0
90°	0	0	0	0	0	



TEST NUMBER: P776570

CATALOG NUMBER: HCDJBL54050CSD-HCD42TRC-5000lm-2700K

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
0°	6136.6	6136.6	6136.6	6136.6	6136.6	6136.6	6136.6	6136.6	6136.6	6136.6	6136.6
0.5°	6117.0	6116.5	6116.5	6117.9	6139.3	6141.1	6146.6	6152.1	6154.3	6153.9	6148.0
1°	6100.5	6099.2	6101.5	6105.1	6128.3	6136.1	6148.9	6162.5	6171.7	6171.2	6159.8
1.5°	6084.6	6082.8	6086.9	6094.2	6118.3	6126.5	6143.4	6165.3	6184.0	6184.9	6165.3
2°	6069.5	6065.4	6073.2	6086.4	6108.3	6113.3	6129.3	6158.0	6188.5	6192.2	6160.7
2.5°	6055.0	6047.2	6059.5	6081.8	6101.9	6098.3	6107.4	6138.8	6179.9	6188.5	6145.2
3°	6039.9	6025.8	6047.2	6081.8	6099.6	6081.8	6080.5	6111.9	6161.2	6171.7	6120.1
3.5°	6023.5	6001.2	6034.0	6087.3	6101.5	6065.0	6049.0	6080.0	6134.7	6148.0	6090.1
4°	6004.8	5974.7	6019.9	6094.6	6107.4	6046.3	6013.9	6044.5	6104.2	6117.4	6058.1
4.5°	5980.6	5941.9	6002.5	6102.8	6111.9	6024.4	5977.0	6008.0	6071.4	6085.5	6024.9
5°	5951.0	5906.3	5982.0	6106.0	6111.9	5997.1	5940.1	5972.0	6037.6	6054.0	5992.5
5.5°	5916.4	5869.0	5954.7	6099.6	6101.5	5965.1	5904.1	5939.6	6006.6	6021.7	5962.4
6°	5879.9	5831.6	5922.7	6081.8	6078.7	5927.8	5871.7	5910.9	5977.9	5989.8	5935.1
6.5°	5842.1	5798.3	5888.6	6050.8	6047.2	5893.1	5844.3	5887.2	5949.6	5958.3	5908.2
7°	5807.0	5770.5	5853.0	6008.0	6008.0	5859.4	5823.8	5866.7	5918.2	5923.7	5879.0
7.5°	5770.9	5745.9	5815.2	5954.2	5962.0	5827.0	5807.9	5848.0	5883.1	5880.4	5843.4
8°	5736.3	5724.0	5774.1	5889.9	5913.6	5797.4	5792.8	5825.6	5838.0	5826.1	5797.8
8.5°	5697.5	5704.8	5728.1	5815.6	5860.7	5766.4	5776.9	5796.0	5777.8	5759.1	5739.5
9°	5659.7	5687.1	5680.2	5736.8	5805.1	5732.6	5751.8	5755.4	5706.7	5679.3	5672.0
9.5°	5621.0	5670.2	5632.4	5657.9	5742.2	5698.0	5718.1	5702.6	5622.3	5587.7	5590.9
10°	5584.5	5655.6	5584.5	5579.9	5677.9	5659.3	5675.2	5638.7	5535.3	5489.2	5507.0
10.5°	5546.2	5641.0	5538.4	5510.2	5612.3	5615.5	5620.0	5567.2	5443.6	5381.6	5420.4
11°	5508.8	5624.1	5494.7	5445.9	5547.1	5564.9	5555.8	5489.2	5348.8	5273.1	5332.4
11.5°	5467.3	5599.1	5450.9	5388.9	5485.1	5506.5	5479.2	5408.1	5250.3	5164.2	5239.8
12°	5423.1	5561.7	5407.6	5336.9	5420.4	5439.5	5398.0	5324.6	5154.1	5053.8	5145.9
12.5°	5372.5	5510.6	5362.0	5289.1	5354.3	5362.9	5307.3	5238.0	5056.6	4947.6	5050.2
13°	5319.6	5448.2	5316.0	5241.2	5288.2	5282.2	5215.7	5149.1	4959.9	4848.7	4961.3
13.5°	5258.5	5377.5	5262.6	5188.8	5216.6	5193.3	5120.4	5054.3	4867.8	4755.2	4870.6
14°	5195.2	5300.5	5205.2	5130.4	5140.0	5103.1	5026.5	4966.8	4780.8	4670.9	4785.3
14.5°	5126.8	5220.2	5141.8	5069.8	5063.0	5009.6	4933.5	4876.5	4699.6	4591.1	4706.9
15°	5055.2	5135.4	5074.8	5006.0	4985.5	4919.4	4846.4	4792.6	4628.5	4517.3	4636.3
15.5°	4984.6	5055.2	5004.6	4942.6	4908.0	4834.6	4762.5	4710.1	4556.9	4449.8	4567.0
16°	4911.2	4973.2	4932.6	4875.6	4831.4	4752.1	4679.6	4630.3	4488.1	4383.3	4498.6
16.5°	4835.5	4888.4	4858.3	4805.4	4754.8	4669.1	4595.2	4547.4	4416.1	4316.2	4427.0
17°	4755.2	4803.1	4780.8	4730.2	4675.0	4586.1	4515.9	4464.4	4345.4	4249.2	4356.8
17.5°	4675.9	4715.1	4701.9	4654.5	4593.9	4502.7	4436.1	4382.3	4273.4	4183.1	4285.2
18°	4593.9	4628.5	4619.9	4577.5	4515.9	4420.2	4358.2	4305.3	4205.5	4121.1	4218.7
18.5°	4514.1	4545.1	4538.7	4500.9	4437.0	4342.7	4283.9	4229.6	4145.3	4066.0	4155.8
19°	4439.8	4467.6	4462.6	4429.3	4365.5	4272.5	4218.2	4166.3	4092.9	4018.1	4103.8
19.5°	4374.6	4399.2	4394.7	4367.3	4298.9	4212.8	4160.8	4108.8	4045.4	3972.5	4050.5
20°	4315.8	4337.2	4334.5	4311.7	4242.4	4157.1	4106.5	4053.2	3997.6	3924.2	3997.6
20.5°	4262.9	4278.9	4278.9	4261.1	4189.5	4102.0	4049.6	3992.1	3942.4	3867.7	3937.0
21°	4202.7	4216.9	4216.9	4208.2	4136.2	4041.8	3982.5	3922.8	3878.6	3803.8	3869.5



TEST NUMBER: P776570

CATALOG NUMBER: HCDJBL54050CSD-HCD42TRC-5000lm-2700K

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
22.5°	3990.3	4004.9	4012.2	4026.3	3951.5	3838.0	3750.5	3669.8	3640.6	3577.7	3641.5
23°	3906.0	3926.0	3932.4	3953.4	3875.9	3761.0	3664.3	3579.5	3559.9	3503.9	3559.5
23.5°	3823.9	3849.0	3854.4	3879.5	3797.9	3686.7	3576.8	3496.6	3479.2	3429.6	3477.9
24°	3744.6	3772.4	3775.1	3800.6	3720.9	3614.2	3501.6	3413.6	3399.0	3355.7	3396.3
24.5°	3668.9	3700.8	3701.3	3719.0	3642.0	3537.6	3426.4	3330.6	3318.3	3281.4	3314.7
25°	3596.0	3630.1	3624.7	3632.4	3565.0	3463.8	3351.1	3247.7	3237.6	3207.1	3232.6
25.5°	3526.2	3561.3	3553.1	3549.0	3485.2	3390.4	3275.9	3170.2	3160.6	3134.6	3151.0
26°	3452.8	3492.0	3476.5	3460.1	3405.4	3316.5	3200.7	3095.4	3084.9	3057.1	3074.9
26.5°	3377.6	3419.1	3399.5	3373.0	3325.2	3242.6	3125.5	3018.8	3005.1	2977.3	2994.7
27°	3298.7	3340.7	3316.0	3280.5	3244.9	3157.4	3048.4	2943.1	2925.4	2895.3	2913.5
27.5°	3216.2	3259.5	3230.3	3193.0	3164.7	3073.1	2968.2	2864.3	2842.8	2810.9	2831.4
28°	3127.8	3174.3	3139.2	3101.3	3069.4	2985.1	2886.2	2778.6	2758.5	2724.8	2745.7
28.5°	3034.8	3086.3	3043.9	3013.8	2971.9	2895.3	2795.9	2692.0	2669.6	2633.6	2657.3
29°	2936.8	2999.7	2946.8	2923.1	2875.2	2806.4	2705.2	2604.4	2582.5	2543.3	2571.1
29.5°	2841.9	2908.0	2850.6	2835.1	2779.5	2714.3	2613.1	2513.2	2495.5	2453.1	2482.7
30°	2745.7	2815.5	2756.7	2746.7	2685.1	2622.2	2521.9	2423.9	2408.4	2367.4	2395.6
30.5°	2651.4	2723.0	2664.6	2658.7	2592.1	2531.0	2430.3	2338.6	2321.8	2278.0	2308.1
31°	2560.2	2628.6	2575.7	2568.0	2506.9	2444.9	2342.3	2256.6	2237.9	2192.8	2226.5
31.5°	2471.8	2537.4	2491.4	2480.0	2412.5	2356.9	2258.9	2175.0	2154.9	2109.8	2142.6
32°	2386.5	2446.7	2407.9	2391.5	2327.2	2270.3	2176.4	2097.0	2072.0	2034.6	2061.5
32.5°	2302.6	2356.0	2325.9	2304.9	2241.5	2180.5	2095.2	2017.3	1987.6	1954.8	1981.2
33°	2221.9	2268.0	2246.1	2220.1	2163.1	2096.1	2014.1	1940.2	1907.8	1879.1	1901.0
33.5°	2140.3	2180.9	2162.7	2137.6	2076.1	2010.0	1935.7	1864.5	1827.2	1803.4	1823.5
34°	2058.7	2094.3	2080.2	2057.4	1994.0	1928.8	1856.3	1787.9	1753.3	1733.7	1746.0
34.5°	1975.8	2006.3	1997.2	1979.0	1915.6	1844.9	1777.5	1708.6	1677.2	1659.8	1672.2
35°	1893.7	1920.2	1915.1	1899.2	1839.9	1765.2	1696.3	1632.5	1604.7	1589.2	1599.2
35.5°	1812.6	1835.8	1833.5	1821.2	1761.5	1685.8	1617.5	1558.2	1533.6	1519.0	1527.6
36°	1731.9	1753.3	1751.5	1742.4	1685.4	1612.0	1538.6	1485.2	1465.6	1452.4	1456.1
36.5°	1649.4	1672.2	1672.2	1660.8	1611.1	1532.7	1460.2	1409.6	1395.0	1383.1	1386.8
37°	1573.2	1596.9	1596.0	1585.1	1540.9	1458.3	1383.6	1336.2	1326.6	1320.2	1318.4
37.5°	1497.1	1521.7	1519.9	1509.4	1465.2	1385.4	1311.1	1268.2	1259.6	1257.3	1252.3
38°	1421.0	1446.0	1444.2	1433.3	1395.0	1317.5	1240.4	1200.3	1196.2	1196.2	1187.1
38.5°	1344.8	1370.8	1368.1	1357.6	1324.8	1249.1	1173.4	1133.3	1134.7	1137.0	1125.6
39°	1268.7	1295.6	1292.0	1281.9	1258.7	1183.5	1108.2	1068.1	1075.0	1080.4	1065.8
39.5°	1198.0	1224.0	1220.4	1213.5	1187.1	1120.5	1044.9	1005.7	1016.6	1023.9	1008.9
40°	1131.9	1155.6	1149.3	1147.4	1122.4	1060.4	983.8	944.6	962.4	970.6	952.8
40.5°	1065.8	1090.0	1079.1	1084.1	1059.0	1002.0	925.0	887.6	910.8	919.0	901.3
41°	1000.2	1027.1	1013.9	1021.2	999.3	946.9	869.8	832.4	861.2	870.7	851.1
41.5°	938.2	965.1	951.0	960.5	940.0	893.1	817.8	783.2	813.7	823.8	803.3
42°	882.6	907.7	892.2	901.3	887.1	842.5	769.1	736.2	767.2	779.1	757.7
42.5°	827.9	851.1	834.7	842.5	833.3	794.1	723.9	694.3	724.8	736.2	713.4
43°	775.0	796.0	780.5	787.8	783.2	747.2	682.0	655.1	682.9	694.8	672.0
43.5°	722.1	741.3	728.9	733.5	734.4	702.0	642.3	619.1	642.3	654.2	632.3



TEST NUMBER: P776570

CATALOG NUMBER: HCDJBL54050CSD-HCD42TRC-5000lm-2700K

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
45°	583.5	593.1	588.5	590.8	599.5	580.8	536.1	517.4	531.1	540.7	524.3
45.5°	538.4	548.4	545.2	549.8	559.4	541.1	503.7	486.9	497.4	505.1	491.4
46°	499.6	507.8	504.7	510.1	518.8	504.2	471.8	456.8	464.5	470.5	459.5
46.5°	459.5	467.3	465.0	470.9	481.9	469.6	442.2	428.5	434.5	439.5	429.9
47°	423.5	429.0	428.1	434.9	445.8	438.1	413.0	400.3	404.8	408.9	400.7
47.5°	386.1	391.6	391.6	399.8	412.6	406.2	383.8	372.0	374.7	377.9	371.1
48°	353.3	357.9	357.4	365.6	379.3	374.7	354.7	343.7	344.6	346.9	341.9
48.5°	321.8	326.0	326.0	334.2	346.0	342.8	325.5	315.9	315.0	315.9	312.7
49°	294.5	296.8	296.8	304.1	313.2	311.4	299.1	289.9	289.0	290.4	287.2
49.5°	267.6	268.5	269.0	274.4	284.5	283.6	274.0	265.3	263.5	265.3	262.6
50°	241.2	241.2	241.6	247.1	257.6	256.7	247.1	240.2	239.3	240.7	237.5
50.5°	213.4	213.4	212.9	217.9	229.3	228.4	220.6	213.8	213.8	214.7	211.5
51°	183.3	182.8	181.9	186.0	198.3	197.9	190.6	184.6	185.1	185.1	181.9
51.5°	150.0	149.5	149.1	149.5	165.5	165.0	160.0	155.0	155.5	154.5	151.8
52°	122.6	122.2	122.2	122.6	131.7	129.9	126.3	123.5	124.0	122.2	119.4
52.5°	95.3	94.8	95.7	95.7	100.7	98.0	95.3	93.9	93.0	92.1	89.8
53°	67.9	67.9	68.8	68.4	83.0	80.7	78.0	77.0	76.1	75.7	73.9
53.5°	40.6	41.0	42.4	41.9	65.2	63.4	61.1	60.2	59.7	59.3	57.4
54°	24.6	25.1	26.0	26.0	47.0	45.6	44.2	43.3	43.3	42.9	41.5
54.5°	14.6	15.0	16.0	15.5	29.2	28.3	27.4	26.9	26.9	26.4	25.1
55°	12.8	12.8	13.2	13.2	12.3	11.4	10.5	10.0	10.0	10.0	10.0
55.5°	10.5	10.5	10.9	10.9	9.6	9.1	8.2	8.2	7.7	7.7	8.2
56°	8.2	8.2	8.7	9.1	8.2	7.7	7.3	6.8	6.8	6.8	7.3
56.5°	5.9	5.9	6.4	6.8	7.3	6.8	6.4	6.4	5.9	6.4	6.4
57°	5.5	5.5	5.9	6.4	6.8	6.4	5.9	5.5	5.5	5.5	5.9
57.5°	5.0	5.0	5.5	5.9	5.9	5.9	5.5	5.0	5.0	5.0	5.5
58°	4.6	4.6	5.0	5.5	5.5	5.5	5.0	5.0	4.6	4.6	5.0
58.5°	4.1	4.1	4.6	5.0	5.0	5.0	4.6	4.6	4.1	4.6	4.6
59°	3.6	4.1	4.1	4.6	5.0	4.6	4.1	4.1	4.1	4.1	4.1
59.5°	3.6	3.6	4.1	4.1	4.6	4.1	4.1	3.6	3.6	3.6	4.1
60°	3.2	3.2	3.6	4.1	4.1	4.1	3.6	3.6	3.6	3.6	3.6
60.5°	3.2	3.2	3.2	3.6	3.6	3.6	3.2	3.2	3.2	3.2	3.2
61°	2.7	2.7	3.2	3.2	3.6	3.2	3.2	3.2	2.7	3.2	3.2
61.5°	2.7	2.7	2.7	3.2	3.2	3.2	2.7	2.7	2.7	2.7	2.7
62°	2.3	2.3	2.7	2.7	3.2	2.7	2.7	2.7	2.7	2.7	2.7
62.5°	2.3	2.3	2.3	2.7	2.7	2.7	2.7	2.3	2.3	2.3	2.7
63°	2.3	2.3	2.3	2.3	2.7	2.7	2.3	2.3	2.3	2.3	2.3
63.5°	1.8	1.8	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
64°	1.8	1.8	1.8	2.3	2.3	2.3	1.8	1.8	1.8	1.8	2.3
64.5°	1.8	1.8	1.8	1.8	2.3	1.8	1.8	1.8	1.8	1.8	1.8
65°	1.4	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8
65.5°	1.4	1.4	1.8	1.8	1.8	1.8	1.8	1.4	1.4	1.8	1.8
66°	1.4	1.4	1.4	1.8	1.8	1.8	1.4	1.4	1.4	1.4	1.4



TEST NUMBER: P776570

CATALOG NUMBER: HCDJBL54050CSD-HCD42TRC-5000lm-2700K

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
67.5°	0.9	0.9	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
68°	0.9	0.9	0.9	1.4	1.4	1.4	1.4	0.9	0.9	0.9	1.4
68.5°	0.9	0.9	0.9	0.9	1.4	1.4	0.9	0.9	0.9	0.9	0.9
69°	0.9	0.9	0.9	0.9	1.4	0.9	0.9	0.9	0.9	0.9	0.9
69.5°	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
70°	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
70.5°	0.5	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
71°	0.5	0.5	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
71.5°	0.5	0.5	0.5	0.9	0.9	0.9	0.9	0.5	0.5	0.5	0.9
72°	0.5	0.5	0.5	0.5	0.9	0.9	0.5	0.5	0.5	0.5	0.5
72.5°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
73°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
73.5°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
74°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
74.5°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
75°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
75.5°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
76°	0.0	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
76.5°	0.0	0.0	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
77°	0.0	0.0	0.0	0.5	0.5	0.5	0.5	0.5	0.0	0.5	0.5
77.5°	0.0	0.0	0.0	0.5	0.5	0.5	0.5	0.0	0.0	0.0	0.5
78°	0.0	0.0	0.0	0.0	0.5	0.5	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: P776570
CATALOG NUMBER: HCDJBL54050CSD-HCD42TRC-5000lm-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: P776570

CATALOG NUMBER: HCDJBL54050CSD-HCD42TRC-5000lm-2700K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	6136.6	6136.6	6136.6	6136.6	6136.6	6136.6
0.5°	6139.3	6144.8	6131.5	6124.7	6120.1	6117.0
1°	6142.9	6136.6	6119.2	6110.1	6104.6	6100.5
1.5°	6137.9	6119.7	6103.3	6095.5	6091.0	6084.6
2°	6122.4	6096.0	6083.2	6082.8	6079.6	6069.5
2.5°	6096.4	6065.4	6062.7	6073.6	6071.8	6055.0
3°	6064.5	6031.7	6042.6	6068.2	6067.3	6039.9
3.5°	6028.1	5996.6	6022.1	6065.9	6065.9	6023.5
4°	5992.0	5962.9	6000.7	6064.5	6065.9	6004.8
4.5°	5956.0	5928.2	5975.6	6061.8	6063.2	5980.6
5°	5922.7	5893.6	5947.4	6052.2	6053.6	5951.0
5.5°	5892.2	5861.7	5913.2	6031.2	6034.9	5916.4
6°	5865.3	5834.8	5877.6	6000.2	6006.2	5879.9
6.5°	5844.3	5812.4	5841.1	5960.6	5967.9	5842.1
7°	5827.0	5793.3	5805.6	5914.5	5922.3	5807.0
7.5°	5810.6	5776.0	5770.0	5861.2	5862.6	5770.9
8°	5791.9	5755.0	5732.2	5806.5	5803.3	5736.3
8.5°	5763.6	5726.7	5694.4	5742.2	5732.6	5697.5
9°	5724.9	5690.3	5652.0	5672.9	5662.0	5659.7
9.5°	5672.5	5643.8	5605.9	5600.0	5587.2	5621.0
10°	5608.6	5588.6	5556.2	5530.7	5519.3	5584.5
10.5°	5533.9	5528.9	5502.9	5463.2	5456.8	5546.2
11°	5453.7	5458.2	5444.5	5401.7	5398.5	5508.8
11.5°	5370.7	5374.8	5379.8	5341.5	5343.8	5467.3
12°	5280.9	5285.4	5309.6	5283.2	5295.0	5423.1
12.5°	5187.9	5192.4	5233.9	5222.5	5246.7	5372.5
13°	5096.2	5096.2	5155.1	5161.9	5198.8	5319.6
13.5°	5001.0	5000.1	5069.8	5094.9	5146.4	5258.5
14°	4903.0	4907.1	4981.4	5027.0	5091.7	5195.2
14.5°	4811.8	4819.5	4894.7	4957.2	5032.0	5126.8
15°	4724.7	4736.1	4809.0	4887.9	4971.3	5055.2
15.5°	4641.7	4655.4	4726.5	4818.6	4910.2	4984.6
16°	4560.1	4575.2	4644.0	4747.5	4845.1	4911.2
16.5°	4478.5	4497.2	4562.0	4673.2	4776.7	4835.5
17°	4395.6	4418.4	4482.2	4598.0	4703.7	4755.2
17.5°	4313.0	4339.0	4400.1	4522.8	4629.9	4675.9
18°	4233.3	4262.4	4320.8	4446.6	4554.7	4593.9
18.5°	4158.5	4195.4	4246.5	4371.9	4479.4	4514.1
19°	4093.8	4133.0	4182.7	4305.8	4411.1	4439.8
19.5°	4035.4	4078.7	4126.1	4251.0	4353.2	4374.6
20°	3978.9	4023.6	4070.1	4201.8	4302.6	4315.8
20.5°	3916.9	3967.5	4013.5	4151.2	4252.0	4262.9
21°	3848.1	3903.2	3952.0	4094.7	4197.3	4202.7

TEST NUMBER: P776570

CATALOG NUMBER: HCDJBL54050CSD-HCD42TRC-5000lm-2700K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
22.5°	3609.2	3677.6	3748.2	3890.9	3996.2	3990.3
23°	3528.0	3596.0	3672.1	3812.5	3915.5	3906.0
23.5°	3447.3	3514.8	3597.3	3731.8	3835.3	3823.9
24°	3366.2	3431.4	3522.1	3652.9	3751.9	3744.6
24.5°	3285.5	3350.7	3447.3	3575.0	3671.2	3668.9
25°	3204.4	3271.4	3367.1	3497.5	3589.6	3596.0
25.5°	3131.9	3196.2	3292.3	3419.5	3507.5	3526.2
26°	3057.6	3120.0	3213.5	3337.5	3422.3	3452.8
26.5°	2980.5	3043.9	3133.7	3252.7	3337.9	3377.6
27°	2903.0	2966.4	3047.5	3163.8	3248.6	3298.7
27.5°	2820.5	2883.9	2963.2	3070.8	3158.3	3216.2
28°	2736.6	2800.0	2872.5	2971.4	3067.1	3127.8
28.5°	2646.4	2712.9	2780.4	2875.7	2981.4	3034.8
29°	2556.1	2625.4	2686.0	2779.9	2888.4	2936.8
29.5°	2467.2	2532.9	2593.9	2686.5	2799.1	2841.9
30°	2382.0	2444.0	2503.7	2593.9	2707.0	2745.7
30.5°	2298.1	2354.1	2411.6	2505.5	2617.2	2651.4
31°	2219.2	2265.7	2324.5	2416.1	2527.4	2560.2
31.5°	2139.4	2179.1	2239.3	2329.5	2438.9	2471.8
32°	2065.1	2093.4	2155.4	2244.3	2350.0	2386.5
32.5°	1986.3	2012.2	2072.0	2156.3	2263.0	2302.6
33°	1911.0	1932.0	1991.3	2072.4	2180.0	2221.9
33.5°	1833.1	1854.0	1909.7	1990.4	2098.9	2140.3
34°	1754.7	1774.7	1828.5	1909.7	2017.7	2058.7
34.5°	1678.1	1694.0	1750.6	1832.6	1938.8	1975.8
35°	1603.8	1615.6	1670.8	1754.2	1859.5	1893.7
35.5°	1529.9	1540.9	1597.8	1680.8	1783.4	1812.6
36°	1459.3	1465.6	1524.9	1629.8	1704.1	1731.9
36.5°	1387.7	1390.9	1452.4	1553.6	1617.9	1649.4
37°	1321.6	1316.1	1379.5	1476.6	1543.1	1573.2
37.5°	1251.4	1246.4	1307.0	1400.0	1468.8	1497.1
38°	1183.9	1181.2	1239.5	1323.4	1394.1	1421.0
38.5°	1117.8	1116.9	1175.7	1255.0	1319.8	1344.8
39°	1051.7	1057.6	1114.2	1188.9	1250.9	1268.7
39.5°	987.9	996.1	1054.0	1124.2	1182.1	1198.0
40°	927.3	940.9	995.2	1059.9	1117.4	1131.9
40.5°	869.8	885.3	940.9	999.7	1054.0	1065.8
41°	817.8	835.6	888.0	941.4	992.9	1000.2
41.5°	769.5	786.8	837.9	886.7	934.1	938.2
42°	724.4	740.8	792.8	834.3	875.7	882.6
42.5°	683.8	699.3	746.3	785.0	821.5	827.9
43°	645.5	658.3	702.0	734.9	768.2	775.0
43.5°	610.0	620.0	659.7	687.5	717.1	722.1



TEST NUMBER: P776570

CATALOG NUMBER: HCDJBL54050CSD-HCD42TRC-5000lm-2700K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
45°	511.9	516.1	544.3	558.4	576.2	583.5
45.5°	481.4	484.1	507.8	519.2	534.7	538.4
46°	451.8	453.1	472.3	482.3	496.4	499.6
46.5°	423.5	421.7	437.6	445.8	458.6	459.5
47°	395.7	392.1	404.4	410.7	422.6	423.5
47.5°	367.9	362.9	371.5	377.5	388.4	386.1
48°	340.1	334.6	341.9	346.0	355.6	353.3
48.5°	311.8	308.2	313.2	315.9	324.1	321.8
49°	287.2	282.6	287.2	288.6	296.3	294.5
49.5°	262.6	257.1	261.2	261.2	269.0	267.6
50°	237.1	230.2	234.3	234.8	242.1	241.2
50.5°	210.6	202.0	206.5	206.5	213.8	213.4
51°	181.0	170.5	174.6	176.4	183.7	183.3
51.5°	151.4	143.6	147.2	148.6	150.4	150.0
52°	118.5	116.7	119.4	120.8	122.6	122.6
52.5°	90.7	89.8	92.1	93.0	94.8	95.3
53°	74.3	62.9	64.3	65.2	67.5	67.9
53.5°	58.4	36.0	36.9	37.8	39.7	40.6
54°	41.9	21.4	22.3	22.8	24.2	24.6
54.5°	26.0	12.8	13.7	13.7	14.1	14.6
55°	10.5	11.4	11.9	11.4	11.9	12.8
55.5°	8.7	10.0	10.0	10.0	10.0	10.5
56°	7.7	8.2	8.2	8.2	8.2	8.2
56.5°	6.8	6.8	6.4	6.4	5.9	5.9
57°	6.4	5.9	5.9	5.5	5.5	5.5
57.5°	5.9	5.5	5.5	5.0	5.0	5.0
58°	5.5	5.0	5.0	4.6	4.6	4.6
58.5°	5.0	5.0	4.6	4.6	4.1	4.1
59°	4.6	4.6	4.1	4.1	4.1	3.6
59.5°	4.1	4.1	4.1	3.6	3.6	3.6
60°	4.1	3.6	3.6	3.6	3.2	3.2
60.5°	3.6	3.6	3.6	3.2	3.2	3.2
61°	3.2	3.2	3.2	3.2	2.7	2.7
61.5°	3.2	3.2	3.2	2.7	2.7	2.7
62°	2.7	2.7	2.7	2.7	2.3	2.3
62.5°	2.7	2.7	2.7	2.3	2.3	2.3
63°	2.7	2.7	2.3	2.3	2.3	2.3
63.5°	2.3	2.3	2.3	2.3	1.8	1.8
64°	2.3	2.3	2.3	1.8	1.8	1.8
64.5°	2.3	2.3	1.8	1.8	1.8	1.8
65°	1.8	1.8	1.8	1.8	1.4	1.4
65.5°	1.8	1.8	1.8	1.4	1.4	1.4
66°	1.8	1.8	1.4	1.4	1.4	1.4



TEST NUMBER: P776570

CATALOG NUMBER: HCDJBL54050CSD-HCD42TRC-5000lm-2700K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
67.5°	1.4	1.4	1.4	1.4	0.9	0.9
68°	1.4	1.4	1.4	0.9	0.9	0.9
68.5°	1.4	1.4	0.9	0.9	0.9	0.9
69°	0.9	0.9	0.9	0.9	0.9	0.9
69.5°	0.9	0.9	0.9	0.9	0.9	0.9
70°	0.9	0.9	0.9	0.9	0.9	0.9
70.5°	0.9	0.9	0.9	0.9	0.9	0.5
71°	0.9	0.9	0.9	0.9	0.5	0.5
71.5°	0.9	0.9	0.9	0.5	0.5	0.5
72°	0.9	0.9	0.5	0.5	0.5	0.5
72.5°	0.5	0.5	0.5	0.5	0.5	0.5
73°	0.5	0.5	0.5	0.5	0.5	0.5
73.5°	0.5	0.5	0.5	0.5	0.5	0.5
74°	0.5	0.5	0.5	0.5	0.5	0.5
74.5°	0.5	0.5	0.5	0.5	0.5	0.5
75°	0.5	0.5	0.5	0.5	0.5	0.5
75.5°	0.5	0.5	0.5	0.5	0.5	0.5
76°	0.5	0.5	0.5	0.5	0.5	0.0
76.5°	0.5	0.5	0.5	0.5	0.0	0.0
77°	0.5	0.5	0.5	0.5	0.0	0.0
77.5°	0.5	0.5	0.5	0.0	0.0	0.0
78°	0.5	0.5	0.0	0.0	0.0	0.0
78.5°	0.5	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: P776570

CATALOG NUMBER: HCDJBS4050CSD-HCD42TRC-5000lm-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

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°	4136.6	4151.2	4152.6	4154.9	4078.7	3978.9	3911.4	3844.9	3805.7	3731.3	3797.9
22°	4063.7	4078.3	4082.8	4094.2	4018.1	3911.9	3833.9	3760.5	3725.4	3656.6	3721.8



44°	674.7	690.2	679.3	682.0	687.5	658.7	605.4	582.2	603.6	615.0	594.9
44.5°	628.7	640.1	632.3	634.6	641.9	619.5	571.2	549.8	566.2	577.1	558.9



66.5°	1.4	1.4	1.4	1.4	1.8	1.4	1.4	1.4	1.4	1.4	1.4	1.4
67°	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4



89°	0.0	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	0.0

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

Scaled Data Report





21.5°	3775.1	3833.9	3888.6	4032.7	4137.1	4136.6
22°	3694.0	3757.3	3817.5	3966.1	4068.7	4063.7



44°	575.3	583.1	620.4	642.3	667.4	674.7
44.5°	542.9	549.3	580.8	599.5	620.0	628.7

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

Scaled Data Report



66.5°	1.4	1.4	1.4	1.4	1.4	1.4
67°	1.4	1.4	1.4	1.4	1.4	1.4

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)