

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: P776723

Luminaire Tested: HCDJBS4050CSD-HCD6TSQC-5000lm-4000K

Issue Date: 2/7/2024

Test Information

Test Method: LM-79-2019
Report Number: P776723
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (A2310613A001)
Test Lab:
Issue Date: 2/7/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO COMMERCIAL
Catalog Number: HCDJBS4050CSD-HCD6TSQC-5000lm-4000K
Description: 6 INCH SQUARE MEDIUM SPECULAR CLEAR TRIM
Light Source: SELECTABLE LUMENS AND CCT ARRAY 90CRI / 4000K CCT
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5406.0 lumens
Efficiency: N/A
Efficacy: 112.6 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.94 / 0.99
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
CIE Type: Direct

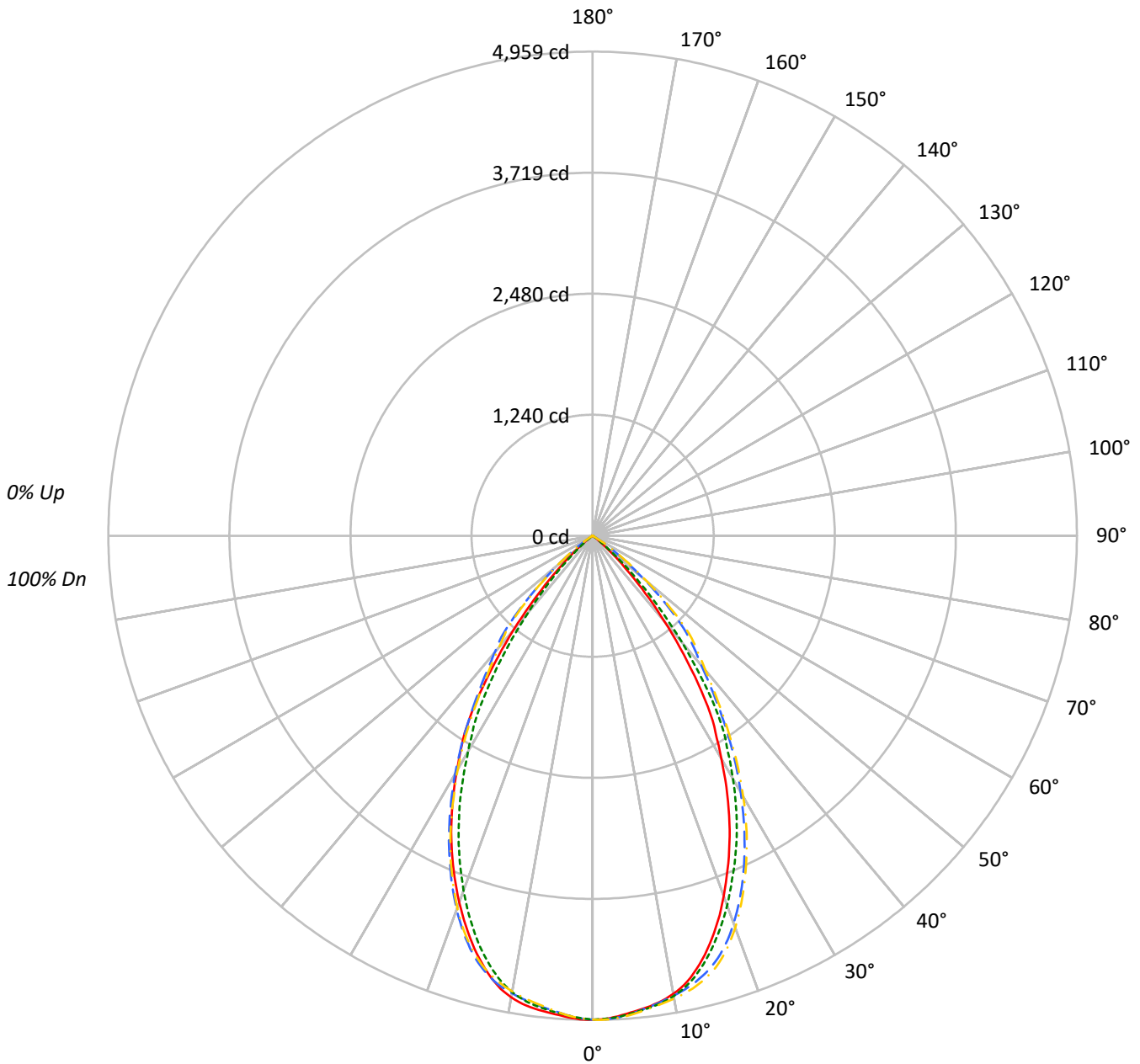
Input Watts (W): 48
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



TEST NUMBER: P776723

CATALOG NUMBER: HCDJBL54050CSD-HCD6TSQC-5000lm-4000K

Luminous Intensity Polar Plot





TEST NUMBER: P776723

CATALOG NUMBER: HCDJBL54050CSD-HCD6TSQC-5000lm-4000K

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20					20					20					20										
RC	80					70					50					30					10					0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0		
RCR																										
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100					100			
1	113	110	108	105	111	108	106	104	104	102	100	100	99	97	97	96	95	93					93			
2	107	102	98	94	105	100	96	93	97	94	91	94	91	89	91	89	87	85					85			
3	101	94	89	85	99	93	88	84	90	86	83	88	84	81	86	83	80	79					79			
4	96	87	82	77	94	86	81	77	84	79	76	82	78	75	80	77	74	72					72			
5	90	81	75	70	89	80	74	70	78	73	69	77	72	69	75	71	68	67					67			
6	85	76	69	65	84	75	69	64	73	68	64	72	67	64	71	66	63	62					62			
7	81	71	64	60	79	70	64	60	69	63	59	67	63	59	66	62	59	57					57			
8	76	66	60	55	75	65	59	55	64	59	55	63	58	55	62	58	54	53					53			
9	72	62	56	51	71	61	55	51	60	55	51	60	55	51	59	54	51	49					49			
10	69	58	52	48	68	58	52	48	57	51	48	56	51	48	55	51	47	46					46			

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	213410	213410	213410	213410
5°	211411	211865	212176	211122
10°	208273	209195	209820	207499
15°	197978	200197	199814	195785
20°	179867	184508	182978	177017
25°	157727	165385	162772	154074
30°	130928	142815	138246	126717
35°	102074	117758	109764	95714
40°	64344	79665	70796	58082
45°	31127	42544	35493	26615
50°	9451	14897	11179	7589
55°	1254	1148	1111	968
60°	861	904	904	741
65°	734	734	784	632
70°	604	667	667	478
75°	549	549	549	482
80°	471	471	471	347
85°	247	494	247	247

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 135°
 Vertical Angle: 45°
 Luminance: 82488 cd/sqm



TEST NUMBER: P776723

CATALOG NUMBER: HCDJBL54050CSD-HCD6TSQC-5000lm-4000K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	463.5	8.6
10°-20°	1256.0	23.2
20°-30°	1587.7	29.4
30°-40°	1341.5	24.8
40°-50°	647.6	12.0
50°-60°	97.1	1.8
60°-70°	8.2	0.2
70°-80°	3.6	0.1
80°-90°	0.8	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°	3307.2	61.2
0°-40°	4648.8	86.0
0°-60°	5393.4	99.8
0°-90°	5406.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5406.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	4957	4957	4957	4957	4957	
5°	4892	4902	4909	4885	4892	463
15°	4442	4491	4483	4392	4442	1237
25°	3320	3481	3426	3243	3320	1511
35°	1942	2240	2088	1821	1942	1187
45°	511	699	583	437	511	416
55°	17	15	15	13	17	33
65°	7	7	8	6	7	7
75°	3	3	3	3	3	3
85°	0	1	0	0	0	1
90°	0	0	0	0	0	



TEST NUMBER: P776723

CATALOG NUMBER: HCDJBL54050CSD-HCD6TSQC-5000lm-4000K

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
0°	4956.6	4956.6	4956.6	4956.6	4956.6	4956.6	4956.6	4956.6	4956.6	4956.6	4956.6
0.5°	4957.0	4957.5	4957.0	4957.5	4952.2	4955.6	4958.9	4961.8	4958.5	4955.1	4953.7
1°	4954.2	4956.6	4956.6	4957.5	4951.8	4956.6	4959.4	4960.9	4957.5	4950.8	4948.9
1.5°	4949.4	4953.7	4954.6	4956.6	4949.9	4954.6	4958.9	4958.5	4954.2	4946.0	4943.2
2°	4944.1	4949.9	4951.8	4954.6	4945.6	4952.2	4956.6	4953.7	4948.4	4939.3	4936.0
2.5°	4936.5	4945.6	4947.5	4950.8	4940.8	4947.9	4952.2	4948.4	4943.2	4931.7	4927.9
3°	4929.3	4938.4	4941.3	4946.0	4935.0	4942.7	4946.5	4941.3	4936.5	4923.1	4917.8
3.5°	4919.3	4930.7	4933.6	4939.3	4927.9	4935.5	4939.3	4935.0	4929.3	4914.5	4908.3
4°	4909.2	4921.6	4925.0	4931.2	4919.3	4928.8	4931.2	4926.9	4921.6	4905.4	4896.8
4.5°	4899.6	4911.1	4914.9	4922.6	4911.1	4919.7	4923.1	4919.7	4916.4	4896.3	4885.8
5°	4891.5	4901.1	4903.5	4913.0	4902.0	4910.6	4913.5	4913.0	4909.2	4887.7	4874.8
5.5°	4882.4	4891.5	4892.5	4902.5	4893.9	4901.6	4904.0	4905.4	4902.0	4878.6	4864.7
6°	4872.9	4882.4	4879.6	4891.0	4885.3	4892.5	4894.4	4897.3	4894.4	4869.0	4855.7
6.5°	4862.8	4873.3	4868.1	4880.0	4876.2	4883.4	4883.9	4888.6	4888.2	4859.5	4844.7
7°	4853.7	4862.8	4856.6	4869.5	4866.7	4873.3	4874.3	4880.5	4879.6	4848.5	4833.7
7.5°	4841.3	4851.8	4844.7	4858.0	4856.6	4862.8	4864.3	4871.0	4870.0	4836.5	4822.2
8°	4830.3	4840.8	4833.7	4846.1	4845.1	4852.3	4854.7	4861.4	4859.5	4824.1	4810.7
8.5°	4816.0	4828.4	4821.2	4833.7	4833.2	4839.9	4844.7	4850.4	4848.0	4810.7	4799.2
9°	4799.7	4815.5	4808.8	4820.7	4818.8	4827.0	4834.6	4838.0	4834.1	4795.9	4786.8
9.5°	4782.0	4800.2	4796.8	4806.4	4803.1	4814.0	4824.1	4825.5	4817.4	4779.1	4772.9
10°	4763.8	4783.4	4783.4	4792.1	4784.9	4798.7	4813.6	4808.8	4799.2	4760.0	4758.1
10.5°	4744.2	4766.2	4770.1	4776.3	4766.7	4781.5	4802.1	4791.6	4780.1	4740.9	4744.7
11°	4720.8	4748.1	4756.2	4758.6	4746.1	4762.9	4789.7	4771.5	4757.1	4720.3	4728.5
11.5°	4694.0	4728.0	4741.8	4740.9	4723.7	4744.2	4776.3	4752.4	4732.3	4695.9	4710.3
12°	4665.8	4706.0	4725.1	4720.8	4697.8	4724.1	4761.9	4729.4	4703.1	4669.6	4690.2
12.5°	4634.7	4680.6	4707.9	4700.2	4668.7	4700.2	4748.1	4704.5	4671.5	4640.5	4669.2
13°	4600.3	4652.9	4689.2	4677.3	4637.6	4675.8	4730.8	4676.8	4638.1	4607.9	4644.3
13.5°	4563.0	4623.2	4669.2	4653.9	4603.6	4647.2	4712.2	4647.2	4602.2	4574.5	4618.9
14°	4524.7	4591.7	4648.1	4627.1	4567.8	4617.5	4691.2	4614.6	4563.5	4539.1	4590.3
14.5°	4484.6	4557.7	4624.7	4596.9	4530.5	4584.5	4669.2	4579.7	4523.8	4501.8	4560.6
15°	4441.5	4520.9	4599.3	4564.4	4491.3	4550.6	4646.2	4544.3	4482.7	4462.6	4526.7
15.5°	4396.1	4483.6	4572.6	4531.4	4451.1	4515.2	4620.4	4507.5	4439.6	4424.3	4491.3
16°	4349.7	4443.4	4543.9	4497.0	4408.5	4479.3	4591.7	4469.7	4395.1	4381.8	4452.5
16.5°	4301.4	4402.3	4511.3	4459.7	4365.5	4441.5	4560.1	4429.1	4349.7	4338.7	4410.9
17°	4253.1	4359.3	4477.9	4421.0	4321.0	4401.4	4525.7	4386.1	4301.9	4293.8	4366.9
17.5°	4201.0	4314.3	4441.5	4381.3	4275.1	4360.7	4488.4	4343.5	4251.2	4249.3	4323.9
18°	4150.3	4269.9	4402.3	4341.1	4226.3	4319.1	4448.2	4299.5	4202.0	4201.0	4275.1
18.5°	4097.7	4223.0	4361.2	4298.5	4178.0	4276.1	4406.6	4253.6	4151.3	4152.2	4225.4
19°	4042.7	4174.7	4316.7	4255.0	4129.3	4231.6	4361.7	4206.3	4099.6	4103.0	4175.2
19.5°	3984.8	4125.4	4271.8	4209.1	4079.5	4186.2	4315.8	4158.9	4046.5	4054.7	4125.9
20°	3925.6	4073.8	4223.9	4164.7	4026.9	4139.3	4268.4	4109.7	3993.5	4001.6	4069.5
20.5°	3866.3	4023.6	4174.7	4118.3	3972.9	4092.0	4218.7	4059.4	3938.9	3949.0	4015.0
21°	3804.6	3970.0	4124.0	4070.9	3918.4	4041.8	4167.0	4008.8	3883.0	3897.3	3958.5



TEST NUMBER: P776723

CATALOG NUMBER: HCDJBL54050CSD-HCD6TSQC-5000lm-4000K

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
22.5°	3631.5	3798.8	3964.3	3921.2	3754.8	3887.8	4008.3	3853.3	3715.6	3731.9	3785.9
23°	3570.7	3741.0	3908.3	3868.6	3703.2	3832.8	3950.9	3799.8	3657.8	3677.4	3725.2
23.5°	3507.6	3684.1	3851.0	3816.0	3647.7	3778.3	3895.4	3746.2	3599.9	3618.5	3664.5
24°	3446.4	3629.1	3792.6	3761.5	3592.2	3724.7	3837.6	3691.2	3542.0	3559.7	3603.7
24.5°	3383.8	3572.6	3734.3	3707.0	3536.8	3673.5	3778.7	3632.9	3484.2	3500.4	3543.0
25°	3320.1	3513.8	3674.5	3653.5	3481.3	3616.6	3717.1	3575.0	3426.3	3441.6	3482.3
25.5°	3255.1	3452.6	3614.2	3600.4	3425.8	3560.2	3656.8	3516.7	3364.6	3385.7	3421.5
26°	3189.1	3391.4	3551.1	3544.4	3368.0	3503.3	3597.0	3458.3	3303.4	3324.0	3352.7
26.5°	3122.7	3328.3	3488.0	3486.1	3307.7	3446.4	3536.8	3400.5	3239.3	3261.8	3288.1
27°	3055.7	3266.6	3424.9	3428.7	3247.5	3394.3	3476.5	3338.8	3176.2	3199.2	3220.7
27.5°	2986.4	3202.0	3359.4	3371.3	3186.7	3335.5	3416.3	3276.6	3112.1	3136.5	3154.2
28°	2916.5	3139.4	3295.3	3312.0	3125.5	3274.2	3349.8	3214.9	3047.1	3074.8	3084.9
28.5°	2845.8	3072.9	3227.4	3253.2	3064.3	3214.0	3285.7	3152.3	2980.6	3011.7	3019.4
29°	2775.5	3009.8	3160.9	3191.0	3001.2	3153.3	3218.3	3087.7	2915.6	2946.7	2952.4
29.5°	2704.7	2942.8	3094.9	3128.9	2938.1	3094.9	3149.9	3023.7	2847.2	2884.0	2885.9
30°	2633.5	2879.2	3031.3	3070.1	2872.6	3031.3	3081.5	2959.6	2780.7	2819.5	2815.6
30.5°	2567.5	2810.4	2965.3	3007.4	2807.5	2970.1	3017.4	2895.5	2715.7	2754.9	2748.2
31°	2502.4	2743.9	2898.4	2948.6	2744.4	2907.5	2951.5	2830.9	2655.0	2688.9	2677.4
31.5°	2432.1	2675.5	2831.9	2885.9	2684.6	2849.1	2883.6	2765.0	2587.1	2625.3	2607.6
32°	2370.4	2608.6	2766.9	2823.8	2619.1	2784.1	2815.2	2701.4	2529.2	2563.6	2536.4
32.5°	2318.3	2540.2	2699.4	2759.2	2555.5	2722.9	2746.8	2636.3	2464.6	2504.8	2466.1
33°	2258.1	2478.0	2630.1	2699.4	2505.3	2659.3	2676.0	2577.0	2401.0	2441.2	2395.8
33.5°	2183.5	2415.4	2561.7	2637.8	2445.5	2603.8	2608.1	2513.4	2328.8	2384.3	2326.0
34°	2109.8	2349.9	2494.3	2577.0	2380.5	2539.2	2538.3	2451.7	2252.8	2324.1	2258.1
34.5°	2025.7	2291.5	2425.9	2516.3	2313.5	2475.2	2469.4	2397.7	2173.4	2263.3	2190.2
35°	1942.0	2241.3	2359.0	2455.6	2240.4	2423.5	2401.0	2332.2	2088.3	2197.3	2122.7
35.5°	1859.7	2184.4	2289.1	2393.4	2165.3	2373.3	2334.6	2271.5	2001.3	2127.0	2057.7
36°	1779.9	2113.6	2221.2	2345.1	2082.1	2306.8	2268.6	2203.1	1913.8	2050.5	1993.1
36.5°	1691.9	2045.7	2155.7	2284.4	1997.9	2248.5	2204.5	2129.4	1824.8	1974.0	1931.5
37°	1613.0	1965.4	2090.2	2224.1	1909.5	2179.2	2139.5	2053.4	1740.2	1894.2	1871.2
37.5°	1534.5	1887.9	2026.6	2162.4	1825.8	2108.9	2077.8	1974.0	1657.9	1813.3	1813.3
38°	1455.6	1811.4	1962.5	2093.6	1739.7	2032.4	2018.0	1892.7	1576.2	1732.5	1756.0
38.5°	1377.2	1737.8	1902.3	2021.8	1657.9	1956.8	1960.1	1808.6	1498.2	1651.7	1702.4
39°	1296.9	1662.7	1842.0	1944.8	1577.1	1876.0	1904.7	1728.2	1419.8	1574.7	1651.7
39.5°	1219.4	1587.6	1784.6	1865.9	1497.7	1795.6	1849.2	1648.4	1339.9	1500.1	1607.2
40°	1144.8	1512.5	1732.5	1787.0	1417.4	1715.3	1797.1	1571.8	1259.6	1427.9	1561.8
40.5°	1070.7	1437.5	1688.5	1704.8	1339.0	1637.8	1747.8	1497.7	1181.2	1357.1	1514.9
41°	1001.4	1362.9	1644.5	1629.7	1260.5	1559.9	1705.3	1424.1	1104.2	1284.0	1484.8
41.5°	933.9	1288.3	1600.5	1554.2	1182.6	1486.2	1662.2	1351.4	1029.6	1212.7	1443.7
42°	867.0	1214.6	1556.5	1479.1	1105.6	1412.6	1614.4	1279.2	958.3	1141.0	1394.9
42.5°	800.5	1141.0	1512.5	1404.0	1030.0	1341.8	1578.5	1206.5	890.9	1070.7	1347.1
43°	737.4	1072.1	1469.0	1332.7	959.3	1267.7	1548.4	1133.3	824.4	1001.8	1284.4
43.5°	676.7	1006.1	1423.1	1261.5	890.4	1194.1	1501.6	1060.6	760.8	934.9	1220.8



TEST NUMBER: P776723

CATALOG NUMBER: HCDJBL54050CSD-HCD6TSQC-5000lm-4000K

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
45°	511.2	812.9	1269.6	1049.2	698.7	984.1	1354.7	863.2	582.9	749.3	1027.2
45.5°	460.0	751.7	1213.7	981.7	639.4	917.2	1295.9	802.4	527.9	690.0	962.1
46°	411.7	692.0	1153.9	915.8	582.4	853.1	1233.8	741.2	482.0	632.7	899.0
46.5°	365.8	634.1	1094.1	853.1	526.5	792.4	1168.7	682.9	436.1	577.7	837.3
47°	321.8	578.1	1032.9	791.9	480.1	730.7	1099.4	626.4	390.2	527.0	778.0
47.5°	280.2	525.1	971.2	733.6	433.3	672.4	1031.5	571.9	344.3	481.5	718.7
48°	242.4	473.4	907.1	676.7	386.9	615.4	966.4	519.3	298.9	436.1	663.3
48.5°	209.0	426.6	843.5	620.7	340.5	561.4	903.3	474.9	261.6	390.7	609.2
49°	179.3	379.7	780.4	566.2	294.1	506.9	842.1	430.4	227.6	345.7	557.1
49.5°	159.7	335.7	722.6	514.5	256.8	460.5	782.3	385.9	196.1	300.3	506.9
50°	141.1	294.1	664.7	465.8	222.4	413.6	725.9	341.4	166.9	263.5	462.9
50.5°	121.9	256.8	611.6	419.4	190.3	367.3	671.4	297.0	141.5	228.1	418.9
51°	102.8	221.4	558.1	373.5	161.2	320.9	619.3	258.2	117.2	196.5	374.9
51.5°	84.2	189.8	509.3	330.9	135.3	281.2	566.2	224.8	96.1	165.9	330.4
52°	69.8	161.6	461.0	291.7	111.4	243.9	514.5	191.8	80.3	139.2	293.6
52.5°	56.4	142.5	417.0	254.9	89.4	209.0	470.1	163.1	64.6	114.3	258.2
53°	43.0	123.4	374.0	220.0	74.6	177.4	425.6	134.9	48.8	93.2	225.7
53.5°	30.1	104.2	332.3	188.4	59.8	148.2	380.6	111.4	32.5	77.5	195.6
54°	20.6	85.1	293.1	158.8	44.5	122.9	336.2	89.4	17.2	61.7	168.8
54.5°	18.2	71.3	258.7	135.3	29.6	99.5	291.7	74.6	15.8	45.9	143.9
55°	16.7	57.4	225.2	111.9	15.3	82.7	256.8	59.3	14.8	30.6	121.5
55.5°	14.8	44.5	195.6	88.5	14.3	66.0	221.9	44.5	14.3	15.8	101.9
56°	13.4	31.6	168.3	65.5	13.9	49.7	190.3	29.2	13.9	14.3	84.6
56.5°	12.9	21.0	148.2	47.3	13.4	33.5	161.2	14.3	13.4	13.9	69.8
57°	12.4	19.1	128.2	31.6	12.9	16.7	135.3	13.4	12.9	13.4	60.7
57.5°	12.0	17.2	108.6	18.6	12.4	13.9	111.4	13.4	12.4	12.9	51.6
58°	11.5	15.3	88.5	16.7	12.0	13.4	90.9	12.9	12.4	12.4	42.6
58.5°	11.0	13.9	68.4	14.8	11.5	12.9	73.2	12.4	12.0	12.0	34.0
59°	11.0	12.0	55.5	13.4	11.0	12.4	63.1	12.0	11.5	11.5	24.9
59.5°	10.5	11.5	45.0	11.5	11.0	12.0	53.1	11.5	11.0	11.5	20.1
60°	10.0	11.0	36.3	11.0	10.5	11.5	43.0	11.0	10.5	11.0	16.7
60.5°	9.6	11.0	29.6	11.0	10.0	11.0	33.5	11.0	10.5	10.5	13.9
61°	9.6	10.5	23.9	10.5	9.6	11.0	23.4	10.5	10.0	10.0	12.0
61.5°	9.1	10.0	19.6	10.0	9.6	10.5	19.1	10.0	9.6	10.0	10.5
62°	9.1	10.0	17.7	10.0	9.1	10.0	15.8	10.0	9.1	9.6	10.0
62.5°	8.6	9.6	15.8	9.6	8.6	10.0	13.4	9.6	9.1	9.1	9.6
63°	8.1	9.1	13.4	9.1	8.6	9.6	11.5	9.1	8.6	9.1	9.1
63.5°	8.1	9.1	11.5	9.1	8.1	9.1	10.5	9.1	8.6	8.6	8.6
64°	7.7	8.6	9.6	8.6	8.1	9.1	9.6	8.6	8.1	8.1	8.6
64.5°	7.7	8.1	9.1	8.6	7.7	8.6	9.6	8.6	7.7	8.1	8.1
65°	7.2	8.1	9.1	8.1	7.2	8.1	9.1	8.1	7.7	7.7	8.1
65.5°	7.2	7.7	8.6	7.7	7.2	8.1	8.6	7.7	7.2	7.7	7.7
66°	6.7	7.7	8.1	7.7	6.7	7.7	8.6	7.7	7.2	7.2	7.7



TEST NUMBER: P776723

CATALOG NUMBER: HCDJBL54050CSD-HCD6TSQC-5000lm-4000K

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
67.5°	6.2	6.7	7.7	6.7	6.2	7.2	7.7	6.7	6.2	6.7	6.7
68°	5.7	6.7	7.2	6.7	5.7	6.7	7.2	6.7	6.2	6.2	6.2
68.5°	5.7	6.2	7.2	6.2	5.7	6.2	7.2	6.2	5.7	5.7	6.2
69°	5.3	6.2	6.7	6.2	5.3	6.2	6.7	6.2	5.7	5.7	5.7
69.5°	5.3	5.7	6.7	6.2	5.3	5.7	6.7	5.7	5.3	5.3	5.7
70°	4.8	5.7	6.2	5.7	5.3	5.7	6.2	5.7	5.3	5.3	5.3
70.5°	4.8	5.3	6.2	5.7	4.8	5.7	6.2	5.3	4.8	5.3	5.3
71°	4.8	5.3	5.7	5.3	4.8	5.3	5.7	5.3	4.8	4.8	4.8
71.5°	4.3	4.8	5.7	5.3	4.3	5.3	5.7	4.8	4.3	4.8	4.8
72°	4.3	4.8	5.3	4.8	4.3	4.8	5.3	4.8	4.3	4.3	4.3
72.5°	3.8	4.3	5.3	4.8	4.3	4.8	5.3	4.8	4.3	4.3	4.3
73°	3.8	4.3	4.8	4.8	3.8	4.3	4.8	4.3	3.8	3.8	4.3
73.5°	3.8	4.3	4.8	4.3	3.8	4.3	4.8	4.3	3.8	3.8	3.8
74°	3.3	3.8	4.3	4.3	3.8	4.3	4.3	3.8	3.8	3.8	3.8
74.5°	3.3	3.8	4.3	3.8	3.3	3.8	4.3	3.8	3.3	3.3	3.3
75°	3.3	3.3	3.8	3.8	3.3	3.8	4.3	3.8	3.3	3.3	3.3
75.5°	2.9	3.3	3.8	3.8	3.3	3.8	3.8	3.3	3.3	3.3	2.9
76°	2.9	3.3	3.8	3.3	3.3	3.3	3.8	3.3	2.9	2.9	2.9
76.5°	2.9	2.9	3.3	3.3	2.9	3.3	3.3	3.3	2.9	2.9	2.9
77°	2.9	2.9	3.3	3.3	2.9	3.3	3.3	2.9	2.9	2.9	2.4
77.5°	2.4	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.4	2.4	2.4
78°	2.4	2.4	2.9	2.9	2.4	2.9	2.9	2.4	2.4	2.4	1.9
78.5°	2.4	2.4	2.4	2.9	2.4	2.9	2.9	2.4	2.4	2.4	1.9
79°	1.9	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	1.9	1.9
79.5°	1.9	2.4	2.4	2.4	2.4	2.4	2.4	1.9	1.9	1.9	1.4
80°	1.9	1.9	1.9	2.4	1.9	2.4	2.4	1.9	1.9	1.9	1.4
80.5°	1.9	1.9	1.9	1.9	1.9	2.4	1.9	1.9	1.9	1.4	1.4
81°	1.4	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.4	1.4	1.4
81.5°	1.4	1.4	1.4	1.9	1.9	1.9	1.9	1.4	1.4	1.4	1.0
82°	1.4	1.4	1.4	1.9	1.4	1.9	1.4	1.4	1.4	1.0	1.0
82.5°	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.0	1.0
83°	1.0	1.4	1.4	1.4	1.4	1.4	1.4	1.0	1.0	1.0	1.0
83.5°	1.0	1.0	1.0	1.4	1.4	1.4	1.0	1.0	1.0	0.5	1.0
84°	1.0	1.0	1.0	1.4	1.0	1.4	1.0	1.0	1.0	0.5	0.5
84.5°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.5	1.0	0.5	0.5
85°	0.5	0.5	1.0	1.0	1.0	1.0	1.0	0.5	0.5	0.5	0.5
85.5°	0.5	0.5	0.5	1.0	1.0	1.0	1.0	0.5	0.5	0.5	0.5
86°	0.5	0.5	0.5	1.0	1.0	1.0	0.5	0.5	0.5	0.0	0.5
86.5°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.0	0.0
87°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.5	0.5	0.5	0.5	0.5	0.0	0.0	0.0	0.0
88°	0.0	0.0	0.5	0.5	0.5	0.5	0.5	0.0	0.0	0.0	0.0
88.5°	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P776723

CATALOG NUMBER: HCDJBL54050CSD-HCD6TSQC-5000lm-4000K

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: P776723

CATALOG NUMBER: HCDJBL54050CSD-HCD6TSQC-5000lm-4000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	4956.6	4956.6	4956.6	4956.6	4956.6	4956.6
0.5°	4951.8	4949.4	4951.8	4954.2	4958.9	4957.0
1°	4946.0	4946.0	4947.5	4948.9	4955.1	4954.2
1.5°	4940.3	4940.8	4941.7	4943.2	4951.3	4949.4
2°	4933.1	4934.6	4934.1	4936.0	4946.0	4944.1
2.5°	4925.0	4926.9	4926.4	4926.9	4937.4	4936.5
3°	4915.9	4918.8	4917.3	4917.3	4929.8	4929.3
3.5°	4907.3	4909.2	4906.8	4906.8	4919.3	4919.3
4°	4898.2	4901.6	4896.8	4895.3	4908.3	4909.2
4.5°	4889.6	4893.4	4886.7	4882.0	4897.3	4899.6
5°	4880.0	4884.8	4877.2	4868.6	4886.3	4891.5
5.5°	4869.5	4876.7	4866.7	4856.1	4875.7	4882.4
6°	4858.0	4867.6	4855.7	4844.2	4865.2	4872.9
6.5°	4847.0	4857.6	4844.2	4832.7	4853.7	4862.8
7°	4834.1	4846.6	4832.2	4821.2	4841.8	4853.7
7.5°	4820.7	4834.6	4818.4	4808.8	4828.9	4841.3
8°	4805.9	4821.2	4803.5	4795.4	4816.0	4830.3
8.5°	4789.2	4805.4	4787.7	4782.0	4801.6	4816.0
9°	4770.1	4786.3	4770.5	4767.7	4786.3	4799.7
9.5°	4750.4	4766.7	4751.9	4753.8	4769.1	4782.0
10°	4728.5	4746.1	4731.3	4738.0	4751.9	4763.8
10.5°	4704.1	4720.8	4708.4	4721.8	4733.2	4744.2
11°	4678.2	4694.5	4684.5	4704.5	4713.1	4720.8
11.5°	4650.5	4664.4	4658.6	4685.4	4691.6	4694.0
12°	4620.4	4631.9	4629.5	4664.9	4667.7	4665.8
12.5°	4587.9	4596.9	4598.4	4641.9	4640.5	4634.7
13°	4553.4	4561.1	4564.4	4618.5	4611.8	4600.3
13.5°	4517.1	4521.9	4529.5	4593.1	4581.2	4563.0
14°	4479.3	4480.3	4492.7	4565.9	4547.7	4524.7
14.5°	4440.6	4437.2	4454.0	4536.2	4513.3	4484.6
15°	4399.4	4392.3	4412.8	4503.2	4475.0	4441.5
15.5°	4357.4	4345.9	4369.8	4468.3	4435.8	4396.1
16°	4312.9	4298.1	4325.8	4430.5	4394.7	4349.7
16.5°	4267.5	4247.4	4280.4	4390.8	4352.1	4301.4
17°	4221.1	4196.7	4234.9	4349.2	4308.6	4253.1
17.5°	4173.7	4144.6	4186.6	4303.8	4261.7	4201.0
18°	4124.0	4092.4	4136.4	4257.9	4214.9	4150.3
18.5°	4076.7	4037.0	4085.7	4209.6	4166.6	4097.7
19°	4024.5	3980.1	4035.1	4159.4	4117.3	4042.7
19.5°	3972.9	3922.2	3982.5	4107.3	4066.6	3984.8
20°	3917.4	3863.4	3929.4	4053.7	4014.5	3925.6
20.5°	3863.9	3802.2	3871.5	3994.9	3961.9	3866.3
21°	3807.4	3742.9	3816.0	3940.4	3905.9	3804.6



TEST NUMBER: P776723

CATALOG NUMBER: HCDJBL54050CSD-HCD6TSQC-5000lm-4000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
22.5°	3637.2	3562.6	3640.1	3760.6	3730.4	3631.5
23°	3580.3	3500.9	3582.7	3702.7	3670.2	3570.7
23.5°	3522.9	3438.7	3525.3	3639.1	3612.3	3507.6
24°	3465.5	3374.2	3462.7	3575.5	3556.4	3446.4
24.5°	3408.1	3309.2	3400.0	3508.6	3498.5	3383.8
25°	3344.5	3243.2	3337.4	3446.4	3434.9	3320.1
25.5°	3279.5	3177.2	3272.8	3379.4	3372.8	3255.1
26°	3214.9	3108.8	3208.3	3311.1	3308.7	3189.1
26.5°	3150.4	3041.8	3143.7	3238.4	3246.5	3122.7
27°	3083.9	2971.5	3079.1	3172.9	3179.6	3055.7
27.5°	3016.5	2900.8	3010.8	3103.0	3114.5	2986.4
28°	2949.5	2829.5	2943.3	3031.8	3047.1	2916.5
28.5°	2881.2	2757.8	2876.4	2962.9	2980.6	2845.8
29°	2811.8	2685.6	2807.5	2895.0	2912.7	2775.5
29.5°	2742.0	2615.8	2738.7	2829.0	2847.2	2704.7
30°	2672.7	2548.8	2668.8	2761.6	2777.9	2633.5
30.5°	2604.3	2483.8	2600.0	2693.2	2709.5	2567.5
31°	2535.4	2413.5	2531.6	2622.9	2640.1	2502.4
31.5°	2471.3	2352.7	2463.7	2551.7	2572.7	2432.1
32°	2407.3	2297.8	2400.6	2480.4	2503.9	2370.4
32.5°	2340.3	2225.5	2337.4	2409.7	2436.0	2318.3
33°	2282.0	2156.7	2269.1	2339.8	2374.3	2258.1
33.5°	2227.9	2072.5	2214.5	2268.1	2309.7	2183.5
34°	2158.6	1986.4	2159.1	2197.3	2244.2	2109.8
34.5°	2094.5	1903.2	2087.8	2127.0	2191.1	2025.7
35°	2015.6	1821.0	2020.4	2058.2	2138.0	1942.0
35.5°	1936.2	1743.0	1940.1	1990.8	2071.6	1859.7
36°	1857.8	1661.7	1861.2	1926.2	2007.0	1779.9
36.5°	1781.3	1580.0	1785.1	1861.2	1931.9	1691.9
37°	1705.3	1498.2	1707.2	1799.9	1854.0	1613.0
37.5°	1630.7	1416.9	1633.5	1740.7	1775.1	1534.5
38°	1556.1	1335.1	1559.4	1689.5	1691.4	1455.6
38.5°	1479.6	1255.3	1485.8	1638.3	1622.1	1377.2
39°	1402.1	1177.3	1412.1	1587.1	1552.2	1296.9
39.5°	1325.1	1104.2	1337.5	1536.0	1482.9	1219.4
40°	1249.1	1033.4	1261.0	1484.8	1413.1	1144.8
40.5°	1176.9	965.5	1188.3	1442.3	1338.5	1070.7
41°	1106.6	896.6	1116.1	1405.4	1264.8	1001.4
41.5°	1038.7	830.6	1049.7	1364.8	1191.2	933.9
42°	972.2	764.2	983.7	1327.5	1120.9	867.0
42.5°	907.1	705.3	921.5	1288.3	1054.0	800.5
43°	843.5	646.5	858.8	1228.5	989.4	737.4
43.5°	782.3	590.6	797.2	1172.1	925.8	676.7



TEST NUMBER: P776723

CATALOG NUMBER: HCDJBL54050CSD-HCD6TSQC-5000lm-4000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
45°	607.8	437.1	623.6	983.2	745.0	511.2
45.5°	553.3	390.2	569.5	925.8	686.7	460.0
46°	501.6	345.7	518.8	868.4	631.2	411.7
46.5°	455.7	302.7	470.5	811.5	577.2	365.8
47°	409.8	263.5	424.2	754.6	526.0	321.8
47.5°	364.4	227.1	378.3	702.5	477.2	280.2
48°	318.5	195.6	336.2	648.9	429.9	242.4
48.5°	278.8	167.8	297.0	597.8	384.0	209.0
49°	241.5	149.7	259.7	549.0	342.4	179.3
49.5°	207.5	131.5	225.7	502.1	301.7	159.7
50°	178.4	113.3	194.1	457.2	263.5	141.1
50.5°	152.5	95.2	165.9	415.1	227.6	121.9
51°	130.1	77.5	147.3	375.9	197.0	102.8
51.5°	110.5	63.6	128.6	338.6	169.3	84.2
52°	93.7	50.2	110.0	303.2	150.2	69.8
52.5°	78.9	37.3	90.9	270.7	131.0	56.4
53°	66.5	24.9	72.7	239.1	112.4	43.0
53.5°	54.0	16.3	58.8	209.9	93.2	30.1
54°	41.6	14.8	45.4	183.2	74.6	20.6
54.5°	29.2	13.9	33.0	158.8	60.7	18.2
55°	17.2	12.9	21.5	136.3	47.3	16.7
55.5°	12.9	12.0	19.1	120.0	34.4	14.8
56°	12.4	11.5	17.2	103.8	23.0	13.4
56.5°	12.0	11.0	14.8	88.0	14.8	12.9
57°	11.5	10.5	12.4	71.7	13.9	12.4
57.5°	11.0	10.0	10.0	55.5	13.4	12.0
58°	10.5	10.0	10.0	44.5	12.4	11.5
58.5°	10.5	9.6	9.6	35.4	11.5	11.0
59°	10.0	9.1	9.6	28.2	11.0	11.0
59.5°	9.6	9.1	9.1	23.0	11.0	10.5
60°	9.6	8.6	8.6	18.2	10.5	10.0
60.5°	9.1	8.1	8.6	16.3	10.0	9.6
61°	8.6	8.1	8.1	13.9	10.0	9.6
61.5°	8.6	7.7	8.1	11.5	9.6	9.1
62°	8.1	7.7	7.7	9.1	9.1	9.1
62.5°	8.1	7.2	7.7	8.6	9.1	8.6
63°	7.7	7.2	7.2	8.6	8.6	8.1
63.5°	7.2	6.7	7.2	8.1	8.6	8.1
64°	7.2	6.7	6.7	8.1	8.1	7.7
64.5°	6.7	6.2	6.7	7.7	7.7	7.7
65°	6.7	6.2	6.2	7.7	7.7	7.2
65.5°	6.2	5.7	6.2	7.2	7.2	7.2
66°	6.2	5.7	5.7	7.2	7.2	6.7



TEST NUMBER: P776723

CATALOG NUMBER: HCDJBL54050CSD-HCD6TSQC-5000lm-4000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
67.5°	5.7	4.8	5.3	6.2	6.2	6.2
68°	5.3	4.8	5.3	6.2	6.2	5.7
68.5°	5.3	4.8	4.8	5.7	5.7	5.7
69°	4.8	4.3	4.8	5.7	5.7	5.3
69.5°	4.8	4.3	4.8	5.3	5.7	5.3
70°	4.3	3.8	4.3	5.3	5.3	4.8
70.5°	4.3	3.8	4.3	5.3	5.3	4.8
71°	4.3	3.8	3.8	4.8	4.8	4.8
71.5°	3.8	3.3	3.8	4.8	4.8	4.3
72°	3.8	3.3	3.8	4.3	4.3	4.3
72.5°	3.3	3.3	3.3	4.3	4.3	3.8
73°	3.3	3.3	3.3	3.8	4.3	3.8
73.5°	3.3	2.9	3.3	3.8	3.8	3.8
74°	2.9	2.9	3.3	3.8	3.8	3.3
74.5°	2.9	2.9	2.9	3.3	3.8	3.3
75°	2.9	2.9	2.9	3.3	3.3	3.3
75.5°	2.9	2.4	2.9	2.9	3.3	2.9
76°	2.4	2.4	2.4	2.9	2.9	2.9
76.5°	2.4	2.4	2.4	2.9	2.9	2.9
77°	2.4	2.4	2.4	2.4	2.9	2.9
77.5°	1.9	1.9	2.4	2.4	2.4	2.4
78°	1.9	1.9	1.9	2.4	2.4	2.4
78.5°	1.9	1.9	1.9	1.9	2.4	2.4
79°	1.9	1.9	1.9	1.9	2.4	1.9
79.5°	1.4	1.4	1.9	1.9	1.9	1.9
80°	1.4	1.4	1.4	1.4	1.9	1.9
80.5°	1.4	1.4	1.4	1.4	1.9	1.9
81°	1.4	1.4	1.4	1.4	1.4	1.4
81.5°	1.0	1.4	1.4	1.4	1.4	1.4
82°	1.0	1.0	1.0	1.0	1.4	1.4
82.5°	1.0	1.0	1.0	1.0	1.0	1.4
83°	1.0	1.0	1.0	1.0	1.0	1.0
83.5°	1.0	1.0	1.0	1.0	1.0	1.0
84°	0.5	1.0	1.0	0.5	1.0	1.0
84.5°	0.5	0.5	0.5	0.5	0.5	1.0
85°	0.5	0.5	0.5	0.5	0.5	0.5
85.5°	0.5	0.5	0.5	0.5	0.5	0.5
86°	0.5	0.5	0.5	0.5	0.5	0.5
86.5°	0.0	0.5	0.5	0.5	0.5	0.5
87°	0.0	0.0	0.0	0.0	0.0	0.5
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: P776723

CATALOG NUMBER: HCDJBL4050CSD-HCD6TSQC-5000lm-4000K

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°	3746.2	3914.1	4071.4	4022.6	3863.4	3990.6	4115.9	3958.1	3828.5	3844.7	3904.0
22°	3688.8	3857.2	4017.8	3972.4	3808.4	3939.4	4062.8	3906.9	3774.9	3786.9	3844.7



44°	618.3	941.6	1384.9	1190.7	823.0	1122.3	1459.5	992.3	699.6	870.8	1157.2
44.5°	563.3	876.1	1327.5	1119.0	760.8	1054.0	1410.2	927.2	639.8	809.1	1092.2



66.5°	6.7	7.2	8.1	7.2	6.7	7.7	8.1	7.2	6.7	7.2	7.2
67°	6.2	7.2	7.7	7.2	6.2	7.2	8.1	7.2	6.7	6.7	6.7



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°	3750.5	3685.0	3757.2	3882.5	3848.6	3746.2
22°	3694.6	3625.7	3699.8	3823.7	3788.3	3688.8

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

Scaled Data Report



44°	722.1	535.6	736.0	1109.9	865.5	618.3
44.5°	662.3	485.9	679.0	1046.8	804.3	563.3

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

Scaled Data Report



66.5°	6.2	5.3	5.7	6.7	6.7	6.7
67°	5.7	5.3	5.7	6.7	6.7	6.2

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

Scaled Data Report



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

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

Scaled Data Report



(END OF REPORT)