

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



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: P776678

Luminaire Tested: HCDJBS4050CSD-HCD62TRH-5000lm-4000K

Issue Date: 2/13/2024

Test Information

Test Method: LM-79-2019
Report Number: P776678
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: HCDJBS4050CSD-HCD62TRH-5000lm-4000K
Description: 6 INCH ROUND NARROW HAZE TRIM
Light Source: SELECTABLE LUMENS AND CCT ARRAY 90CRI / 4000K CCT
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5042.8 lumens
Efficiency: N/A
Efficacy: 105.1 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

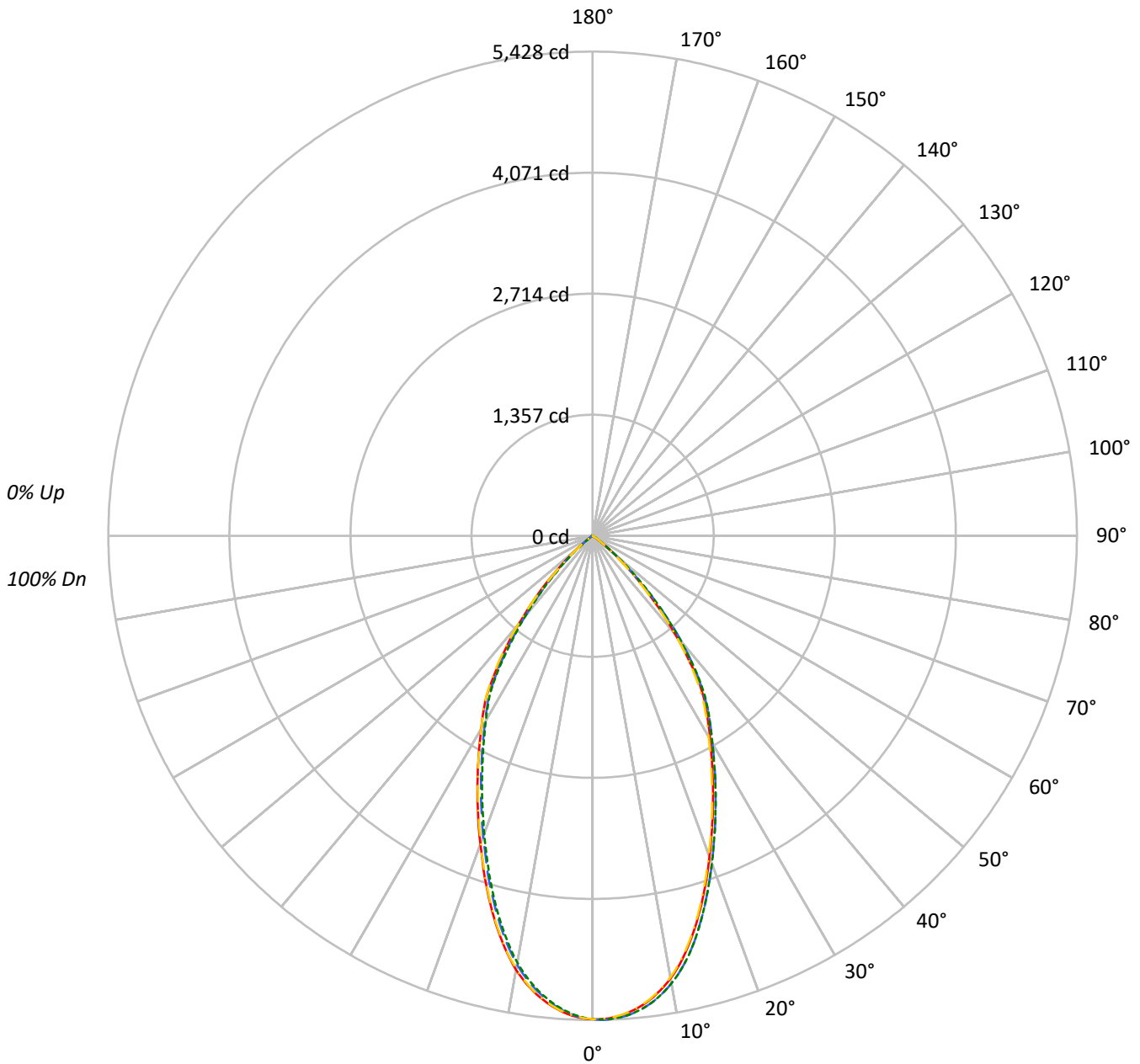
Input Watts (W): 48
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Luminous Intensity Polar Plot





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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	99	98	97	96	95	93
	1	113	110	108	106	111	108	106	104	104	102	101	100	99	98	97	96	95	93	93	92	91	90	89	88	86
	2	107	102	98	95	105	101	97	93	97	94	91	94	92	89	92	89	88	86	86	85	84	83	82	81	79
	3	102	95	90	85	100	93	89	85	91	87	83	88	85	82	86	83	81	79	79	78	77	76	75	73	73
	4	96	88	82	78	94	87	82	77	85	80	77	83	79	76	81	78	75	73	73	72	71	70	69	68	68
	5	91	82	76	71	89	81	75	71	79	74	70	78	73	70	76	72	69	68	68	67	66	65	64	63	63
	6	86	77	70	66	84	76	70	66	74	69	65	73	68	65	71	67	64	63	63	62	61	60	59	58	58
	7	81	72	65	61	80	71	65	61	70	64	60	68	64	60	67	63	60	58	58	57	56	55	54	53	53
	8	77	67	61	57	76	67	61	56	65	60	56	64	59	56	63	59	56	54	54	53	52	51	50	49	49
	9	73	63	57	53	72	63	57	53	62	56	52	61	56	52	60	55	52	51	51	50	49	48	47	46	46
	10	70	59	53	49	69	59	53	49	58	53	49	57	52	49	57	52	49	47	47	46	45	44	43	42	42

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	297087	297087	297087	297087
5°	293643	295300	291062	288905
10°	280394	283562	274984	270402
15°	255053	259644	246965	240529
20°	223489	227981	214586	207271
25°	193263	197340	184577	177167
30°	166722	169906	158183	151549
35°	143282	146649	130574	123660
40°	103229	109462	91622	83614
45°	61130	68286	52153	45292
50°	25338	29628	17910	14933
55°	4301	5668	4301	2839
60°	1787	1677	1732	1414
65°	1051	999	1051	869
70°	689	689	689	609
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: 72666 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	496.6	9.8
10°-20°	1227.3	24.3
20°-30°	1427.8	28.3
30°-40°	1241.7	24.6
40°-50°	571.2	11.3
50°-60°	67.4	1.3
60°-70°	8.1	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°	3151.6	62.5
0°-40°	4393.3	87.1
0°-60°	5031.9	99.8
0°-90°	5042.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5042.8	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	5419	5419	5419	5419	5419	
5°	5336	5366	5289	5250	5336	500
15°	4494	4575	4352	4238	4494	1250
25°	3195	3262	3052	2929	3195	1467
35°	2141	2191	1951	1848	2141	1301
45°	788	881	673	584	788	619
55°	45	59	45	30	45	75
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	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
0°	5419.3	5419.3	5419.3	5419.3	5419.3	5419.3	5419.3	5419.3	5419.3	5419.3	5419.3
0.5°	5421.7	5425.6	5426.0	5421.7	5422.7	5419.8	5417.9	5418.9	5417.9	5418.4	5417.4
1°	5420.8	5426.0	5428.0	5425.6	5424.1	5419.8	5417.4	5415.5	5412.6	5412.2	5410.3
1.5°	5416.5	5424.1	5428.0	5427.0	5424.1	5418.4	5414.1	5409.8	5405.0	5402.6	5399.7
2°	5411.7	5421.3	5425.6	5426.5	5421.7	5415.5	5409.3	5401.6	5395.4	5391.1	5386.3
2.5°	5404.0	5415.5	5420.8	5424.1	5417.9	5409.3	5401.2	5391.1	5383.5	5377.2	5371.0
3°	5394.5	5407.9	5413.6	5420.3	5411.2	5402.1	5391.1	5379.6	5368.6	5361.0	5353.3
3.5°	5383.5	5397.8	5405.5	5414.1	5403.6	5393.0	5379.2	5365.8	5352.4	5341.8	5334.2
4°	5369.6	5385.9	5394.5	5405.5	5394.0	5381.1	5365.8	5348.5	5333.2	5321.3	5312.7
4.5°	5353.8	5372.0	5382.5	5394.5	5381.5	5366.7	5349.5	5330.4	5312.2	5298.3	5288.7
5°	5336.1	5356.2	5366.7	5382.5	5366.2	5350.9	5330.8	5309.8	5289.2	5272.9	5261.5
5.5°	5317.0	5338.5	5350.4	5367.2	5350.0	5331.8	5310.3	5287.8	5264.8	5246.1	5233.7
6°	5294.5	5317.9	5332.3	5350.9	5330.8	5311.2	5288.2	5261.0	5236.6	5216.5	5203.1
6.5°	5271.0	5296.9	5311.2	5331.8	5309.3	5288.7	5263.4	5233.7	5207.9	5186.8	5171.0
7°	5243.8	5271.5	5287.3	5311.2	5286.8	5264.3	5236.1	5205.0	5176.8	5154.3	5137.5
7.5°	5214.6	5244.7	5261.5	5287.3	5260.5	5235.1	5206.4	5174.9	5142.3	5117.9	5100.7
8°	5183.5	5214.6	5231.8	5261.5	5232.3	5204.5	5174.9	5139.9	5106.9	5080.6	5061.5
8.5°	5150.5	5183.9	5201.7	5233.2	5200.7	5173.9	5140.9	5103.1	5068.6	5040.9	5020.8
9°	5114.6	5150.0	5167.7	5201.2	5167.7	5139.5	5105.0	5064.8	5028.5	4998.3	4977.3
9.5°	5076.8	5113.1	5133.2	5167.7	5132.3	5102.1	5065.8	5026.1	4985.4	4954.3	4931.3
10°	5037.1	5073.9	5094.5	5131.8	5094.0	5062.9	5025.6	4980.6	4939.9	4907.4	4882.0
10.5°	4993.5	5034.7	5054.8	5094.0	5055.2	5022.7	4981.1	4935.2	4890.7	4854.3	4828.5
11°	4948.6	4990.7	5011.7	5054.3	5011.7	4977.7	4935.6	4885.4	4838.5	4797.4	4772.0
11.5°	4899.8	4942.8	4965.3	5011.2	4966.3	4930.9	4886.4	4833.7	4783.0	4741.9	4715.1
12°	4847.1	4893.5	4915.5	4964.3	4917.5	4880.1	4832.8	4777.3	4727.0	4684.9	4655.7
12.5°	4793.1	4839.9	4864.3	4914.6	4866.7	4827.0	4777.7	4721.8	4667.2	4623.7	4594.0
13°	4737.1	4785.4	4811.2	4862.9	4812.7	4772.5	4722.2	4663.4	4607.4	4561.5	4530.9
13.5°	4679.2	4728.9	4755.7	4809.3	4756.7	4714.6	4663.4	4603.1	4545.2	4497.9	4465.3
14°	4618.9	4670.6	4696.9	4754.8	4697.4	4656.2	4602.6	4540.4	4481.6	4435.2	4401.7
14.5°	4557.7	4609.8	4637.6	4693.5	4636.6	4593.5	4539.5	4476.8	4418.0	4367.2	4335.2
15°	4494.0	4548.1	4573.9	4635.7	4574.9	4530.4	4476.3	4412.7	4351.5	4302.2	4268.2
15.5°	4429.4	4484.0	4509.8	4573.0	4512.2	4466.8	4412.7	4347.6	4285.4	4235.2	4200.3
16°	4364.9	4419.9	4446.2	4508.9	4446.7	4401.7	4348.1	4280.6	4218.9	4168.7	4133.3
16.5°	4300.3	4355.3	4382.6	4444.8	4381.1	4336.6	4282.6	4215.6	4153.4	4100.3	4065.8
17°	4235.2	4289.3	4315.1	4379.7	4315.6	4270.1	4214.1	4148.1	4085.4	4031.9	3996.4
17.5°	4167.3	4222.8	4248.1	4312.2	4247.6	4201.2	4147.2	4082.1	4017.0	3964.4	3926.1
18°	4100.3	4154.8	4181.1	4245.2	4180.2	4133.8	4079.7	4014.2	3948.1	3894.5	3855.3
18.5°	4033.3	4088.3	4113.2	4176.8	4111.8	4066.8	4012.2	3943.8	3880.2	3825.2	3785.9
19°	3965.3	4021.3	4043.8	4107.9	4044.3	3999.3	3942.9	3875.9	3810.3	3755.3	3717.0
19.5°	3898.8	3953.4	3976.8	4039.5	3975.9	3931.4	3874.0	3809.9	3741.9	3690.7	3652.4
20°	3830.9	3885.0	3907.5	3971.6	3907.9	3862.5	3807.5	3740.5	3678.3	3626.1	3587.4
20.5°	3763.4	3818.9	3841.0	3902.2	3839.0	3794.1	3739.5	3676.8	3614.6	3561.5	3522.3
21°	3697.4	3752.4	3775.4	3836.6	3771.6	3727.6	3675.9	3613.2	3551.0	3497.0	3457.2



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CATALOG NUMBER: HCDJBL54050CSD-HCD62TRH-5000lm-4000K

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
22.5°	3503.7	3555.8	3576.9	3634.3	3578.3	3535.7	3485.5	3422.3	3358.2	3304.1	3263.9
23°	3440.5	3490.7	3512.7	3569.2	3514.2	3471.6	3421.8	3357.7	3296.0	3240.0	3202.2
23.5°	3378.8	3427.6	3449.1	3504.6	3450.5	3407.5	3356.8	3295.5	3233.3	3178.8	3140.5
24°	3315.6	3365.9	3385.5	3439.5	3386.4	3344.3	3293.6	3234.3	3172.1	3117.5	3078.3
24.5°	3255.8	3304.1	3322.3	3375.9	3324.2	3279.3	3231.9	3173.0	3110.8	3057.7	3018.5
25°	3195.1	3242.9	3261.1	3314.7	3262.5	3218.5	3169.7	3111.3	3051.5	2997.9	2959.2
25.5°	3135.2	3182.1	3200.3	3253.4	3200.3	3159.2	3109.4	3052.5	2993.2	2938.6	2901.8
26°	3076.4	3124.7	3140.5	3191.7	3140.0	3100.3	3050.6	2994.1	2934.8	2881.2	2844.4
26.5°	3019.0	3063.5	3081.7	3129.5	3080.7	3039.6	2991.7	2935.3	2876.4	2823.8	2785.0
27°	2960.6	3005.1	3021.9	3070.7	3021.4	2979.3	2932.9	2877.8	2819.5	2767.3	2729.0
27.5°	2903.2	2947.7	2963.5	3012.3	2962.5	2924.3	2875.9	2820.4	2763.0	2711.8	2673.5
28°	2847.2	2892.7	2906.1	2954.4	2904.2	2866.4	2818.5	2765.4	2708.0	2655.8	2619.5
28.5°	2791.2	2836.7	2849.6	2897.0	2848.2	2808.9	2763.0	2709.4	2652.5	2601.8	2565.4
29°	2738.1	2780.2	2794.1	2839.1	2792.2	2753.9	2709.9	2655.8	2600.8	2549.6	2512.8
29.5°	2686.0	2727.1	2738.6	2784.1	2738.1	2700.3	2655.8	2603.7	2548.7	2498.9	2462.6
30°	2633.8	2675.5	2686.9	2731.0	2684.1	2648.2	2603.7	2552.5	2498.9	2448.2	2413.3
30.5°	2583.1	2623.8	2635.8	2678.3	2632.4	2596.0	2553.0	2501.3	2448.7	2398.9	2365.0
31°	2533.8	2573.6	2585.0	2625.7	2582.6	2546.8	2502.7	2452.5	2399.4	2350.6	2316.2
31.5°	2484.1	2523.3	2534.8	2575.5	2532.9	2498.0	2453.9	2404.7	2352.0	2303.7	2270.2
32°	2437.7	2476.9	2487.0	2525.7	2485.0	2448.7	2407.5	2358.3	2305.1	2256.8	2222.9
32.5°	2391.3	2429.1	2439.1	2476.9	2436.2	2401.3	2359.2	2309.5	2258.3	2209.5	2176.9
33°	2344.9	2382.2	2392.2	2429.5	2390.8	2354.4	2311.8	2260.2	2207.5	2157.3	2123.3
33.5°	2296.1	2333.4	2342.5	2381.7	2342.5	2307.5	2261.1	2204.2	2150.6	2097.0	2060.2
34°	2247.7	2283.6	2288.9	2333.4	2295.1	2258.3	2207.5	2145.3	2088.9	2034.3	1998.0
34.5°	2193.7	2229.6	2231.0	2281.2	2244.9	2206.6	2149.2	2084.1	2020.0	1969.8	1930.0
35°	2141.0	2172.1	2173.1	2223.8	2191.3	2153.5	2090.8	2023.3	1951.1	1903.7	1864.0
35.5°	2082.7	2112.8	2115.2	2167.4	2136.3	2098.5	2031.5	1959.2	1878.9	1830.5	1799.4
36°	2020.5	2051.1	2056.4	2108.5	2078.8	2039.6	1972.1	1894.6	1811.4	1757.8	1734.4
36.5°	1952.1	1987.5	1997.5	2051.1	2015.7	1975.5	1909.5	1828.1	1744.4	1686.5	1664.0
37°	1877.9	1922.4	1938.2	1992.2	1951.1	1907.6	1845.4	1761.2	1680.3	1616.2	1596.1
37.5°	1800.9	1855.4	1877.4	1932.0	1882.7	1839.1	1779.8	1691.3	1615.2	1546.8	1524.8
38°	1726.2	1789.4	1813.8	1870.2	1812.3	1769.8	1713.3	1624.8	1551.1	1478.9	1455.0
38.5°	1655.4	1720.0	1748.7	1808.5	1740.1	1695.6	1644.4	1557.8	1484.1	1413.8	1380.8
39°	1584.6	1648.7	1683.2	1745.8	1668.3	1620.0	1576.0	1492.3	1418.1	1351.1	1313.3
39.5°	1513.3	1577.4	1617.1	1678.9	1599.0	1547.8	1504.2	1426.2	1349.7	1284.1	1243.0
40°	1442.5	1506.1	1551.1	1611.9	1529.6	1478.9	1432.0	1361.2	1280.3	1217.2	1176.5
40.5°	1371.7	1435.3	1485.1	1544.9	1460.7	1409.5	1358.3	1296.1	1212.4	1153.1	1107.6
41°	1304.2	1364.0	1419.5	1477.9	1394.7	1342.0	1285.1	1230.6	1149.2	1088.9	1042.1
41.5°	1234.9	1294.7	1350.2	1410.9	1328.6	1271.7	1213.3	1164.1	1086.5	1025.8	975.5
42°	1168.8	1229.6	1280.3	1340.6	1264.1	1205.7	1143.5	1096.6	1025.8	963.1	911.4
42.5°	1100.9	1165.5	1211.4	1271.2	1198.0	1140.6	1075.5	1030.1	966.9	902.8	850.7
43°	1035.4	1100.4	1141.1	1203.8	1133.0	1075.5	1010.0	965.0	907.6	846.8	793.3
43.5°	969.3	1033.0	1070.3	1135.8	1068.4	1009.0	944.9	900.0	847.3	787.5	735.4



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
45°	788.5	845.9	870.3	937.3	880.8	822.4	763.6	713.4	672.7	622.0	579.9
45.5°	730.1	785.6	805.7	874.1	821.0	763.6	705.2	655.5	617.2	568.9	531.6
46°	675.6	726.8	744.5	811.0	764.6	705.7	650.2	599.5	564.1	519.1	486.6
46.5°	621.0	669.3	684.2	749.7	705.2	649.7	596.1	544.9	512.4	476.1	446.9
47°	568.4	614.3	624.8	689.0	647.3	599.0	544.0	498.5	465.0	433.5	407.6
47.5°	517.2	560.7	569.3	631.5	592.8	548.3	494.7	452.6	418.2	390.4	367.9
48°	469.4	508.1	516.2	574.1	541.1	498.5	450.7	406.7	370.8	347.8	328.2
48.5°	423.4	456.0	466.0	519.1	492.8	454.0	406.7	360.7	323.4	304.8	294.2
49°	379.9	407.6	418.2	469.4	444.0	409.5	363.1	314.8	282.8	269.8	262.2
49.5°	338.3	360.7	371.8	418.6	395.7	365.1	319.1	277.5	244.5	235.9	232.5
50°	297.1	316.3	328.2	372.2	347.4	321.0	281.8	243.0	210.0	206.2	204.8
50.5°	259.3	274.6	287.5	327.3	299.0	281.8	245.9	211.5	179.9	178.0	178.5
51°	223.4	236.8	249.7	286.6	258.8	244.0	213.9	182.3	153.6	153.6	154.5
51.5°	189.9	201.9	214.3	246.4	223.0	210.0	185.2	156.9	132.1	131.6	133.5
52°	158.8	171.3	181.3	211.0	189.0	177.5	158.4	133.0	112.9	112.0	113.9
52.5°	136.8	149.3	157.9	178.5	157.4	148.8	134.0	112.0	96.2	94.3	95.2
53°	114.8	127.3	134.4	155.5	130.1	123.0	111.5	93.8	81.8	78.9	78.9
53.5°	92.8	105.7	111.0	132.5	106.2	100.0	92.3	78.0	68.9	65.5	64.6
54°	71.3	83.7	87.6	109.6	85.6	80.9	75.6	64.1	57.4	57.9	56.9
54.5°	56.5	62.2	64.1	86.6	68.4	64.6	65.5	56.5	51.2	50.2	48.8
55°	45.0	48.8	50.2	63.6	59.3	56.5	55.5	48.8	45.0	42.1	40.7
55.5°	35.9	38.3	38.8	49.8	50.7	48.3	45.9	41.1	38.8	34.4	33.0
56°	30.1	31.1	30.6	38.3	41.6	40.2	36.4	34.0	32.5	26.8	24.9
56.5°	26.8	27.3	26.8	30.1	32.5	32.1	26.8	26.3	26.3	24.4	23.0
57°	24.9	24.9	24.4	25.8	23.9	23.9	24.4	24.4	24.4	23.0	21.5
57.5°	23.4	23.4	22.5	23.4	22.0	22.0	22.5	23.0	22.5	21.5	20.1
58°	21.5	21.5	21.1	21.5	20.6	20.6	21.1	21.5	21.1	20.1	18.7
58.5°	20.1	20.1	19.1	20.1	19.1	19.1	19.6	20.1	19.6	18.7	17.2
59°	18.7	18.7	18.2	18.7	17.7	17.7	18.2	18.7	18.2	17.2	16.3
59.5°	17.7	17.2	16.7	17.2	16.3	16.3	16.7	17.2	17.2	16.3	14.8
60°	16.3	16.3	15.8	16.3	15.3	15.3	15.8	15.8	15.8	14.8	13.9
60.5°	15.3	14.8	14.4	14.8	14.4	14.4	14.4	14.8	14.8	13.9	12.9
61°	13.9	13.9	13.4	13.9	12.9	13.4	13.4	13.9	13.9	12.9	12.0
61.5°	12.9	12.9	12.4	12.9	12.4	12.4	12.4	12.9	12.9	12.0	11.5
62°	12.0	12.0	11.5	12.0	11.5	11.5	12.0	12.0	12.0	11.5	10.5
62.5°	11.5	11.5	10.5	11.0	10.5	10.5	11.0	11.5	11.5	10.5	10.0
63°	10.5	10.5	10.0	10.5	10.0	10.0	10.0	10.5	10.5	10.0	9.1
63.5°	10.0	10.0	9.6	9.6	9.1	9.6	9.6	10.0	10.0	9.6	8.6
64°	9.6	9.1	8.6	9.1	8.6	8.6	9.1	9.6	9.6	9.1	8.1
64.5°	8.6	8.6	8.1	8.6	8.1	8.1	8.6	8.6	8.6	8.1	7.7
65°	8.1	8.1	7.7	8.1	7.7	7.7	8.1	8.1	8.1	7.7	7.2
65.5°	7.7	7.7	7.2	7.7	7.2	7.2	7.7	7.7	7.7	7.2	6.7
66°	7.2	7.2	6.7	7.2	6.7	6.7	7.2	7.2	7.2	6.7	6.2



TEST NUMBER: P776678

CATALOG NUMBER: HCDJBL54050CSD-HCD62TRH-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	5.7	5.7	5.7	5.7	5.7	5.7	6.2	6.2	5.7	5.3
68°	5.7	5.7	5.3	5.3	5.3	5.3	5.3	5.7	5.7	5.3	5.3
68.5°	5.3	5.3	4.8	5.3	4.8	4.8	5.3	5.3	5.3	5.3	4.8
69°	4.8	4.8	4.8	4.8	4.8	4.8	4.8	5.3	5.3	4.8	4.3
69.5°	4.8	4.8	4.3	4.3	4.3	4.3	4.8	4.8	4.8	4.3	4.3
70°	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	3.8
70.5°	4.3	3.8	3.8	3.8	3.8	3.8	3.8	4.3	4.3	3.8	3.8
71°	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.3
71.5°	3.8	3.3	3.3	3.3	3.3	3.3	3.3	3.8	3.8	3.3	3.3
72°	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	2.9
72.5°	3.3	3.3	2.9	2.9	2.9	2.9	3.3	3.3	3.3	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	1.4
77°	1.9	1.4	1.4	1.9	1.4	1.4	1.9	1.9	1.9	1.4	1.4
77.5°	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
78°	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
78.5°	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
79°	1.4	1.0	1.0	1.4	1.4	1.4	1.4	1.4	1.4	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: P776678

CATALOG NUMBER: HCDJBL54050CSD-HCD62TRH-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: P776678

CATALOG NUMBER: HCDJBL54050CSD-HCD62TRH-5000lm-4000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	5419.3	5419.3	5419.3	5419.3	5419.3	5419.3
0.5°	5407.9	5411.7	5411.7	5414.1	5417.9	5421.7
1°	5397.8	5403.6	5404.5	5408.8	5414.1	5420.8
1.5°	5384.9	5391.6	5394.0	5400.2	5408.8	5416.5
2°	5369.1	5378.7	5382.5	5390.6	5401.2	5411.7
2.5°	5351.4	5362.4	5367.2	5378.7	5392.1	5404.0
3°	5331.3	5344.2	5350.9	5363.8	5380.1	5394.5
3.5°	5308.8	5325.1	5332.3	5347.6	5365.8	5383.5
4°	5284.9	5301.2	5311.7	5328.4	5349.5	5369.6
4.5°	5258.1	5277.2	5288.2	5307.4	5331.3	5353.8
5°	5229.9	5250.0	5262.9	5283.9	5311.2	5336.1
5.5°	5198.3	5221.7	5235.1	5258.6	5289.2	5317.0
6°	5166.2	5191.6	5206.4	5231.3	5265.3	5294.5
6.5°	5131.3	5157.6	5175.3	5202.6	5238.5	5271.0
7°	5095.0	5122.7	5141.8	5171.5	5209.3	5243.8
7.5°	5056.7	5084.9	5105.5	5137.1	5177.7	5214.6
8°	5014.1	5045.2	5066.7	5101.2	5143.8	5183.5
8.5°	4969.6	5003.1	5027.0	5061.9	5108.4	5150.5
9°	4923.2	4957.2	4982.5	5020.8	5069.1	5114.6
9.5°	4873.4	4910.3	4936.6	4977.7	5028.9	5076.8
10°	4820.3	4857.6	4885.4	4931.8	4987.3	5037.1
10.5°	4762.9	4804.5	4834.2	4882.5	4941.4	4993.5
11°	4703.6	4749.0	4779.7	4828.9	4892.6	4948.6
11.5°	4644.7	4688.3	4724.6	4774.4	4839.9	4899.8
12°	4583.0	4628.5	4662.4	4718.9	4785.4	4847.1
12.5°	4519.9	4565.3	4601.2	4659.6	4729.4	4793.1
13°	4455.8	4502.2	4541.4	4600.2	4672.5	4737.1
13.5°	4390.2	4437.1	4478.2	4536.6	4611.3	4679.2
14°	4324.2	4373.0	4411.7	4472.5	4550.0	4618.9
14.5°	4255.8	4306.5	4345.7	4410.3	4486.4	4557.7
15°	4190.2	4238.1	4279.2	4343.8	4422.7	4494.0
15.5°	4121.3	4170.1	4213.2	4277.8	4357.7	4429.4
16°	4051.9	4101.7	4144.8	4208.4	4291.6	4364.9
16.5°	3983.5	4033.8	4077.3	4143.3	4225.6	4300.3
17°	3913.7	3965.3	4008.4	4075.9	4160.1	4235.2
17.5°	3845.3	3895.5	3939.5	4007.5	4092.6	4167.3
18°	3772.5	3825.2	3868.7	3937.1	4024.7	4100.3
18.5°	3705.1	3754.4	3799.3	3867.7	3956.7	4033.3
19°	3638.1	3686.4	3730.0	3802.2	3888.3	3965.3
19.5°	3571.1	3619.9	3663.9	3736.2	3822.3	3898.8
20°	3504.1	3552.9	3599.3	3668.7	3755.3	3830.9
20.5°	3437.6	3487.9	3533.8	3602.7	3689.8	3763.4
21°	3378.8	3420.4	3466.8	3536.2	3622.3	3697.4



TEST NUMBER: P776678

CATALOG NUMBER: HCDJBL54050CSD-HCD62TRH-5000lm-4000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
22.5°	3189.8	3230.5	3277.3	3347.7	3430.4	3503.7
23°	3128.1	3168.7	3214.2	3283.6	3367.3	3440.5
23.5°	3067.3	3107.5	3154.4	3223.8	3306.1	3378.8
24°	3008.9	3048.2	3094.6	3161.6	3245.3	3315.6
24.5°	2948.2	2988.8	3034.3	3103.2	3183.6	3255.8
25°	2891.2	2929.0	2975.4	3041.5	3124.2	3195.1
25.5°	2832.4	2872.1	2918.5	2984.5	3065.4	3135.2
26°	2775.5	2815.2	2861.6	2927.1	3007.5	3076.4
26.5°	2720.0	2759.7	2805.6	2870.7	2949.6	3019.0
27°	2664.0	2703.7	2749.1	2814.7	2892.7	2960.6
27.5°	2609.0	2649.6	2693.6	2758.7	2836.2	2903.2
28°	2556.3	2595.1	2639.6	2702.3	2780.7	2847.2
28.5°	2505.1	2542.5	2587.4	2649.6	2726.2	2791.2
29°	2455.4	2492.2	2536.7	2598.9	2673.5	2738.1
29.5°	2404.2	2442.5	2485.0	2547.2	2620.9	2686.0
30°	2355.4	2394.1	2436.7	2497.5	2571.2	2633.8
30.5°	2308.5	2346.3	2388.4	2447.7	2521.4	2583.1
31°	2262.6	2299.4	2342.5	2401.3	2472.6	2533.8
31.5°	2215.7	2253.0	2296.5	2354.9	2423.8	2484.1
32°	2168.3	2207.1	2249.2	2308.0	2377.4	2437.7
32.5°	2116.6	2161.1	2203.2	2262.6	2331.9	2391.3
33°	2058.7	2107.1	2151.6	2211.4	2286.0	2344.9
33.5°	1995.6	2047.3	2094.2	2155.4	2235.3	2296.1
34°	1927.2	1984.1	2032.4	2096.1	2179.8	2247.7
34.5°	1859.2	1916.2	1965.0	2038.2	2123.3	2193.7
35°	1792.7	1847.8	1896.6	1975.0	2064.0	2141.0
35.5°	1725.8	1775.5	1828.1	1913.3	2002.8	2082.7
36°	1657.3	1696.6	1761.6	1848.7	1939.1	2020.5
36.5°	1586.0	1629.6	1719.5	1782.7	1874.5	1952.1
37°	1515.2	1563.6	1649.2	1717.1	1808.5	1877.9
37.5°	1445.9	1497.5	1578.4	1648.2	1739.1	1800.9
38°	1373.6	1431.0	1507.6	1579.3	1666.4	1726.2
38.5°	1303.8	1366.4	1436.8	1510.4	1593.7	1655.4
39°	1236.8	1300.4	1370.3	1441.6	1521.0	1584.6
39.5°	1171.2	1234.4	1300.9	1372.7	1448.3	1513.3
40°	1105.2	1168.4	1232.0	1304.7	1375.1	1442.5
40.5°	1042.1	1103.8	1164.1	1237.7	1301.8	1371.7
41°	978.9	1040.1	1097.1	1170.8	1228.6	1304.2
41.5°	914.8	976.5	1033.0	1101.9	1155.4	1234.9
42°	852.1	918.1	970.8	1037.3	1087.5	1168.8
42.5°	794.7	857.4	911.4	969.8	1019.6	1100.9
43°	735.8	803.3	852.1	903.8	956.9	1035.4
43.5°	680.8	746.4	792.3	836.3	892.3	969.3



TEST NUMBER: P776678

CATALOG NUMBER: HCDJBL54050CSD-HCD62TRH-5000lm-4000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
45°	530.1	584.2	619.6	651.6	716.7	788.5
45.5°	485.1	533.5	565.0	596.1	660.7	730.1
46°	445.0	483.2	512.4	542.6	608.1	675.6
46.5°	404.8	434.9	461.2	492.3	556.9	621.0
47°	364.6	390.4	413.4	445.0	507.6	568.4
47.5°	324.4	348.3	367.9	399.5	459.8	517.2
48°	290.4	307.6	325.3	356.9	414.3	469.4
48.5°	258.4	270.3	285.2	317.2	370.8	423.4
49°	227.3	236.4	247.4	280.8	329.2	379.9
49.5°	199.5	204.8	212.9	247.4	290.9	338.3
50°	174.2	175.1	182.3	215.3	254.5	297.1
50.5°	150.2	156.0	162.2	186.6	221.5	259.3
51°	128.7	136.4	142.1	160.3	191.4	223.4
51.5°	108.6	117.2	122.0	140.2	163.1	189.9
52°	91.4	98.1	101.9	120.6	142.1	158.8
52.5°	75.6	78.5	81.8	100.5	121.0	136.8
53°	61.7	65.5	68.9	80.9	100.5	114.8
53.5°	54.1	53.6	56.9	66.5	79.9	92.8
54°	46.9	44.0	46.9	53.6	64.1	71.3
54.5°	39.2	35.9	38.3	43.1	51.2	56.5
55°	31.6	29.7	31.1	34.4	40.7	45.0
55.5°	23.9	25.4	26.3	28.7	32.5	35.9
56°	22.0	23.0	23.9	25.4	28.2	30.1
56.5°	20.6	21.5	22.0	23.4	25.4	26.8
57°	19.1	20.1	20.6	22.0	23.4	24.9
57.5°	18.2	18.7	19.1	20.1	22.0	23.4
58°	16.7	17.7	18.2	18.7	20.6	21.5
58.5°	15.3	16.3	16.7	17.7	19.1	20.1
59°	14.4	15.3	15.8	16.3	17.7	18.7
59.5°	13.4	13.9	14.4	15.3	16.7	17.7
60°	12.4	12.9	13.4	13.9	15.3	16.3
60.5°	11.5	12.0	12.4	12.9	14.4	15.3
61°	11.0	11.5	11.5	12.0	12.9	13.9
61.5°	10.0	10.5	11.0	11.5	12.4	12.9
62°	9.6	10.0	10.0	10.5	11.5	12.0
62.5°	9.1	9.1	9.6	10.0	10.5	11.5
63°	8.6	8.6	9.1	9.1	10.0	10.5
63.5°	8.1	8.1	8.1	8.6	9.6	10.0
64°	7.7	7.7	7.7	8.1	9.1	9.6
64.5°	7.2	7.2	7.2	7.7	8.1	8.6
65°	6.7	6.7	6.7	7.2	7.7	8.1
65.5°	6.2	6.2	6.7	6.7	7.2	7.7
66°	5.7	6.2	6.2	6.2	6.7	7.2



TEST NUMBER: P776678

CATALOG NUMBER: HCDJBL54050CSD-HCD62TRH-5000lm-4000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
67.5°	4.8	4.8	5.3	5.3	5.7	6.2
68°	4.8	4.8	4.8	4.8	5.3	5.7
68.5°	4.3	4.3	4.3	4.8	5.3	5.3
69°	3.8	4.3	4.3	4.3	4.8	4.8
69.5°	3.8	3.8	3.8	4.3	4.3	4.8
70°	3.3	3.8	3.8	3.8	4.3	4.3
70.5°	3.3	3.3	3.3	3.8	3.8	4.3
71°	3.3	3.3	3.3	3.3	3.8	3.8
71.5°	2.9	2.9	2.9	3.3	3.3	3.8
72°	2.9	2.9	2.9	2.9	3.3	3.3
72.5°	2.4	2.9	2.9	2.9	2.9	3.3
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°	1.4	1.9	1.9	1.9	1.9	1.9
76.5°	1.4	1.4	1.4	1.4	1.9	1.9
77°	1.4	1.4	1.4	1.4	1.4	1.9
77.5°	1.4	1.4	1.4	1.4	1.4	1.4
78°	1.4	1.4	1.4	1.4	1.4	1.4
78.5°	1.0	1.0	1.0	1.0	1.4	1.4
79°	1.0	1.0	1.0	1.0	1.0	1.4
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: P776678

CATALOG NUMBER: HCDJBL54050CSD-HCD62TRH-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



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Cooper Lighting Solutions Photometric Lab
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Peachtree City, GA 30269

Scaled Data Report





— 0°-180° - - 45°-225° - - - - 90°-270° - · - 135°-315°

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Scaled Data Report



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Scaled Data Report





21.5°	3632.8	3684.0	3708.9	3770.6	3706.0	3663.5	3612.3	3549.6	3486.9	3432.4	3392.7
22°	3566.8	3618.5	3641.0	3702.2	3642.4	3599.8	3549.1	3485.9	3423.3	3366.8	3328.1



44°	908.1	969.3	1003.8	1068.4	1004.3	942.5	882.3	835.8	787.5	731.1	681.3
44.5°	848.8	907.1	936.3	1001.4	941.6	881.8	822.4	772.7	729.1	674.6	629.2



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



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

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21.5°	3316.1	3356.8	3404.1	3473.5	3558.2	3632.8
22°	3252.0	3292.7	3338.6	3408.4	3494.6	3566.8



44°	627.2	690.9	733.5	773.2	831.1	908.1
44.5°	578.0	636.3	676.0	709.5	772.7	848.8

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

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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

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Scaled Data Report



(END OF REPORT)