

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: P775868

Luminaire Tested: HCDJBL510CSD-HCD8TRC-1000lm-4000K

Issue Date: 2/7/2024

Test Information

Test Method: LM-79-2019
Report Number: P775868
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: HCDJBL510CSD-HCD8TRC-1000lm-4000K
Description: 8 INCH ROUND MEDIUM SPECULAR CLEAR TRIM
Light Source: SELECTABLE LUMENS AND CCT ARRAY 90CRI / 4000K CCT
Ballast/Driver: -

Summary

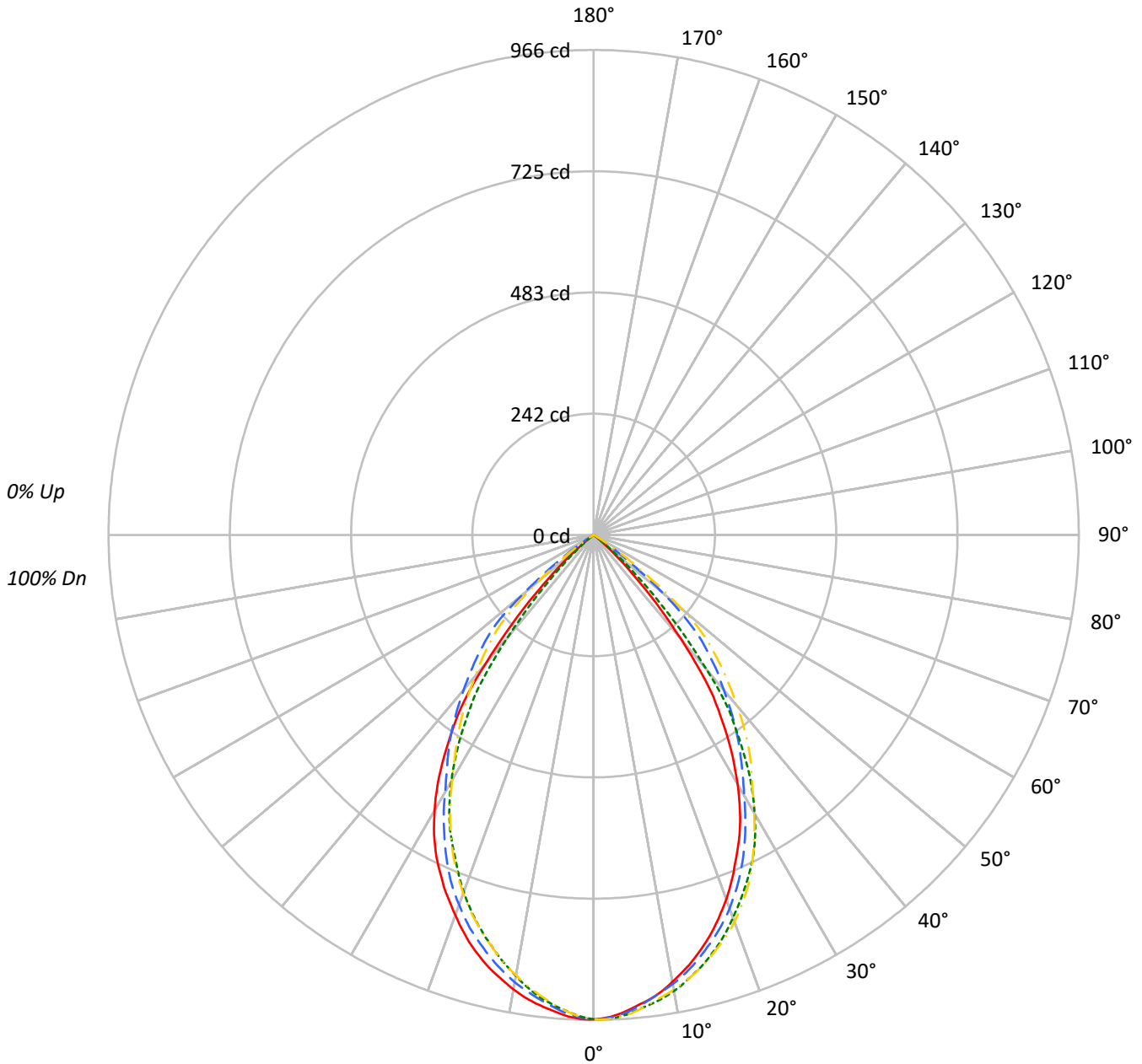
Lumens per Lamp: N/A
Luminaire Lumens: 1145.2 lumens
Efficiency: N/A
Efficacy: 114.5 lumens/watt
Spacing Criteria (0/90/45): 1 / 1 / 1.05
Luminous Opening: Circular (Dia: 0.67' x H: 0')
CIE Type: Direct

Input Watts (W): 10
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: P775868
CATALOG NUMBER: HCDJBL510CSD-HCD8TRC-1000lm-4000K

Luminous Intensity Polar Plot





TEST NUMBER: P775868

CATALOG NUMBER: HCDJBL510CSD-HCD8TRC-1000lm-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	107	105	111	108	105	103	104	102	100	100	99	97	97	95	94	92					92			
2	107	101	97	93	104	100	96	92	96	93	90	93	91	88	91	88	86	85					85			
3	101	94	88	84	99	92	87	83	90	85	82	87	83	80	85	82	79	78					78			
4	95	86	80	76	93	85	80	75	83	78	74	81	77	74	79	76	73	71					71			
5	89	80	74	69	88	79	73	69	77	72	68	76	71	67	74	70	67	65					65			
6	84	74	68	63	83	73	67	63	72	66	62	70	66	62	69	65	61	60					60			
7	79	69	62	58	78	68	62	58	67	61	57	66	61	57	65	60	57	55					55			
8	75	64	58	53	74	64	58	53	63	57	53	62	56	53	61	56	52	51					51			
9	71	60	54	49	70	60	54	49	59	53	49	58	53	49	57	52	49	47					47			
10	67	56	50	46	66	56	50	46	55	50	46	54	49	45	54	49	45	44					44			

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	29453	29453	29453	29453
5°	28921	29170	29139	28777
10°	28028	28592	28496	27656
15°	26759	27663	27549	26247
20°	25082	26352	26180	24591
25°	22964	24810	24588	22560
30°	20225	22615	22340	20003
35°	16395	19135	18818	16272
40°	10769	13953	13391	10617
45°	4728	7167	6723	4624
50°	1035	2080	1857	997
55°	133	202	186	128
60°	110	159	147	104
65°	94	137	123	87
70°	71	116	107	62
75°	59	94	83	59
80°	53	88	70	53
85°	35	70	70	35

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 135°
 Vertical Angle: 45°
 Luminance: 15021 cd/sqm



TEST NUMBER: P775868

CATALOG NUMBER: HCDJBL510CSD-HCD8TRC-1000lm-4000K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	89.1	7.8
10°-20°	239.7	20.9
20°-30°	322.4	28.1
30°-40°	304.6	26.6
40°-50°	163.5	14.3
50°-60°	23.7	2.1
60°-70°	1.6	0.1
70°-80°	0.7	0.1
80°-90°	0.2	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°	651.1	56.9
0°-40°	955.7	83.5
0°-60°	1142.8	99.8
0°-90°	1145.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1145.2	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	965	965	965	965	965	
5°	944	952	951	939	944	89
15°	847	875	872	830	847	237
25°	682	736	730	670	682	311
35°	440	513	505	437	440	269
45°	110	166	156	107	110	91
55°	2	4	4	2	2	4
65°	1	2	2	1	1	1
75°	0	1	1	0	0	1
85°	0	0	0	0	0	0
90°	0	0	0	0	0	



TEST NUMBER: P775868

CATALOG NUMBER: HCDJBL510CSD-HCD8TRC-1000lm-4000K

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
0°	964.7	964.7	964.7	964.7	964.7	964.7	964.7	964.7	964.7	964.7	964.7
0.5°	964.6	964.7	964.6	964.8	965.0	965.2	965.3	965.6	965.4	964.9	964.1
1°	963.6	964.0	964.1	964.7	965.2	965.4	965.6	965.6	965.2	964.3	963.0
1.5°	962.2	962.9	963.1	964.0	964.8	965.2	965.3	965.3	964.5	963.3	961.8
2°	960.5	961.5	961.8	962.9	964.2	964.5	964.6	964.6	963.5	962.0	960.2
2.5°	958.5	959.7	960.2	961.5	963.1	963.4	963.6	963.5	962.2	960.2	958.2
3°	956.0	957.4	958.2	959.6	961.5	962.1	962.2	962.0	960.6	958.3	955.8
3.5°	953.2	954.8	955.8	957.4	959.6	960.3	960.4	960.1	958.5	955.9	953.0
4°	949.9	951.8	953.1	955.0	957.3	958.1	958.3	958.0	956.1	953.1	949.9
4.5°	946.9	948.8	950.1	951.9	954.6	955.5	955.9	955.3	953.4	950.2	946.5
5°	943.7	946.0	946.6	948.7	951.8	952.6	953.0	952.6	950.8	947.0	942.9
5.5°	940.4	942.6	943.0	945.1	948.9	949.7	949.8	949.7	948.4	943.9	939.5
6°	937.0	939.2	939.4	942.0	946.4	946.8	946.4	947.1	945.7	940.8	935.9
6.5°	934.1	935.9	935.5	938.6	943.9	944.1	943.0	944.2	943.1	937.6	932.2
7°	930.8	932.7	931.5	935.3	941.3	941.3	939.4	941.4	940.5	934.4	928.7
7.5°	927.0	929.2	927.5	932.1	938.8	938.5	935.9	938.2	937.4	931.0	925.1
8°	923.1	925.4	923.7	928.9	936.0	935.7	932.7	934.8	934.2	927.4	921.2
8.5°	919.0	921.3	919.8	925.4	933.0	932.7	929.3	931.3	930.8	923.5	917.3
9°	914.1	916.9	916.0	921.4	929.4	929.3	926.2	927.7	927.1	919.7	913.4
9.5°	909.2	912.1	912.1	917.5	926.0	925.8	923.0	923.6	923.3	915.8	909.2
10°	904.1	907.2	908.3	913.4	922.3	922.2	919.5	919.4	919.2	911.6	904.8
10.5°	898.7	902.0	904.1	909.3	918.3	918.4	916.1	915.1	914.9	907.4	900.1
11°	893.3	896.2	899.7	904.7	914.2	914.2	912.4	910.7	910.3	902.7	895.2
11.5°	888.2	890.5	895.1	900.1	909.5	909.9	908.4	905.8	905.8	898.0	890.2
12°	882.8	884.9	890.1	895.0	904.7	905.2	904.4	901.0	901.5	893.1	885.0
12.5°	877.4	879.4	884.8	890.0	900.1	900.2	900.3	896.2	897.1	888.6	879.7
13°	871.7	873.6	879.8	884.7	895.5	895.1	896.2	891.8	892.8	884.0	874.5
13.5°	865.5	867.9	874.0	879.8	891.1	890.5	891.8	887.2	887.8	879.6	868.7
14°	859.3	861.9	868.5	874.8	886.3	885.9	887.2	882.9	882.4	874.8	862.9
14.5°	852.9	855.6	862.6	869.9	880.7	881.0	882.3	878.1	877.2	869.6	857.0
15°	846.6	849.1	857.0	864.6	875.2	876.0	877.2	872.9	871.6	864.0	850.9
15.5°	839.9	842.8	850.9	858.9	869.4	870.4	871.7	867.6	866.0	858.3	845.0
16°	833.2	836.2	845.4	853.0	863.8	864.9	866.2	862.5	860.1	852.5	839.0
16.5°	826.2	829.7	839.3	847.0	858.1	859.0	860.9	856.9	854.1	846.6	833.1
17°	818.9	822.8	832.9	840.8	852.0	853.4	855.5	851.3	848.0	840.3	826.6
17.5°	811.6	816.2	826.2	834.5	845.9	847.4	850.2	845.5	841.4	833.9	820.4
18°	803.9	809.1	820.1	828.1	839.3	841.4	845.2	839.6	834.4	827.0	813.4
18.5°	796.0	801.7	813.2	821.6	832.6	835.0	839.4	833.4	827.3	820.0	806.2
19°	788.1	794.3	806.1	814.6	825.7	828.4	833.4	826.8	820.4	812.7	799.0
19.5°	780.2	786.9	798.9	807.3	818.3	821.7	826.9	820.0	812.9	805.5	791.5
20°	772.0	779.0	791.5	799.9	811.1	814.6	820.3	813.0	805.8	798.0	783.9
20.5°	763.7	771.1	783.6	792.2	803.9	807.5	813.2	805.9	798.7	790.2	776.4
21°	754.8	763.1	775.5	784.5	796.7	800.1	806.2	798.8	791.4	782.5	768.8



TEST NUMBER: P775868

CATALOG NUMBER: HCDJBL510CSD-HCD8TRC-1000lm-4000K

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
22.5°	727.7	737.6	751.0	760.3	774.9	778.5	783.3	776.9	769.6	759.2	744.2
23°	717.9	728.3	742.1	752.0	767.5	771.2	775.4	769.5	762.4	750.9	735.3
23.5°	708.5	719.3	733.4	744.1	760.3	764.0	767.5	762.2	753.8	742.6	726.1
24°	699.2	709.5	724.1	735.9	752.1	755.9	759.7	753.9	745.6	734.2	716.7
24.5°	690.4	700.3	714.6	727.8	744.2	748.1	750.6	745.6	737.6	725.7	707.1
25°	681.7	691.3	705.0	719.4	736.5	739.9	741.4	737.2	729.9	717.1	697.1
25.5°	672.3	682.4	695.1	710.9	729.2	731.5	731.7	728.3	722.1	708.9	687.3
26°	662.7	674.2	685.2	702.4	721.1	723.4	722.0	719.8	714.0	701.0	677.2
26.5°	652.8	665.7	675.1	694.0	712.3	715.6	711.6	711.5	705.1	693.1	667.0
27°	642.4	656.8	664.5	686.0	703.2	708.3	701.1	703.8	695.9	685.2	656.8
27.5°	631.8	647.4	653.9	678.1	693.9	700.4	690.9	695.9	686.4	676.8	646.4
28°	620.5	637.4	642.9	669.6	684.1	692.1	680.7	687.7	676.5	667.8	635.9
28.5°	609.4	627.7	632.2	660.9	674.0	683.5	670.4	678.6	666.5	658.7	625.4
29°	597.6	617.6	621.3	651.3	663.4	674.3	660.6	669.9	655.8	649.1	614.6
29.5°	585.9	607.2	610.3	641.8	652.6	665.0	649.8	660.3	644.7	639.1	603.4
30°	573.7	596.3	599.7	631.8	641.5	655.2	639.7	650.4	633.7	628.8	592.1
30.5°	561.3	584.8	589.2	621.4	630.0	644.9	628.9	640.2	622.0	617.9	581.2
31°	547.8	573.3	578.8	610.7	618.3	634.4	618.3	629.8	610.5	607.0	570.8
31.5°	535.8	562.0	569.1	599.6	606.1	623.5	607.5	618.6	598.4	595.6	560.8
32°	522.5	550.3	559.5	588.5	593.9	612.3	597.4	607.7	586.3	584.3	551.6
32.5°	509.5	538.2	549.9	577.3	581.4	601.0	587.5	596.3	573.1	572.7	542.6
33°	495.5	526.3	540.4	566.1	568.7	589.4	578.4	584.7	560.3	561.1	534.2
33.5°	482.4	514.0	530.7	554.5	555.5	577.7	569.6	572.8	546.7	548.7	525.5
34°	468.2	501.5	521.4	542.8	541.8	566.0	561.1	560.7	532.9	536.6	516.9
34.5°	454.3	488.6	512.2	530.7	527.5	553.5	552.4	548.7	518.7	523.6	507.8
35°	439.9	475.6	502.8	518.9	513.4	540.8	543.9	536.3	504.9	510.9	498.9
35.5°	426.8	462.5	493.4	506.6	499.5	528.0	534.9	523.9	490.5	497.9	489.4
36°	413.3	449.3	483.3	494.0	485.3	515.1	525.5	510.9	476.6	484.8	480.0
36.5°	400.4	435.9	473.3	481.3	471.4	501.5	516.0	497.8	463.1	471.3	470.3
37°	383.6	423.0	463.2	468.3	458.0	487.8	506.1	484.7	449.6	458.2	460.5
37.5°	364.8	410.3	453.2	455.3	445.1	474.1	495.8	471.5	433.7	444.7	450.5
38°	345.9	397.7	442.9	442.3	428.9	460.7	485.5	458.5	417.1	431.8	440.8
38.5°	327.2	385.0	432.7	429.6	411.2	447.7	475.3	445.4	398.2	419.1	431.2
39°	308.4	367.8	423.1	417.7	392.4	435.1	465.1	433.2	378.3	406.6	421.6
39.5°	289.6	350.4	413.2	405.4	371.2	423.2	454.6	420.8	356.9	392.2	411.8
40°	270.2	332.9	403.7	394.0	350.1	408.2	444.4	408.0	336.0	376.1	402.4
40.5°	250.8	315.5	393.9	380.4	329.3	392.0	434.4	394.6	315.7	358.8	393.0
41°	233.1	298.0	384.5	363.4	309.4	374.5	424.4	378.8	296.1	340.5	383.8
41.5°	215.3	279.5	379.4	346.3	290.2	355.3	414.8	362.1	277.3	321.6	374.8
42°	199.0	261.8	369.2	329.1	271.0	335.7	404.8	344.3	258.1	303.0	365.7
42.5°	183.2	244.0	358.9	312.1	253.2	316.5	395.4	326.1	240.0	285.4	357.0
43°	167.8	226.2	348.7	295.0	233.8	298.1	386.1	308.1	221.4	268.1	348.3
43.5°	152.0	209.3	338.4	277.6	216.1	280.4	376.5	290.5	203.7	251.6	339.3



TEST NUMBER: P775868

CATALOG NUMBER: HCDJBL510CSD-HCD8TRC-1000lm-4000K

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
45°	109.5	163.5	311.4	229.3	166.0	228.0	347.9	240.6	155.7	201.7	312.3
45.5°	96.6	148.6	302.4	213.1	151.3	210.9	338.3	223.9	141.1	186.1	303.6
46°	84.7	134.4	292.7	198.0	136.1	194.5	328.8	207.4	126.9	170.6	294.8
46.5°	72.9	120.5	281.1	182.3	122.5	179.0	319.6	191.6	113.5	156.9	284.6
47°	62.1	107.6	267.8	167.7	110.3	163.8	310.9	176.1	101.7	142.4	274.7
47.5°	52.0	95.1	254.1	153.2	98.3	148.9	299.9	161.4	90.0	129.2	263.1
48°	43.6	83.2	240.5	140.0	86.2	134.7	289.0	147.0	78.1	115.7	251.8
48.5°	36.3	72.0	227.5	126.3	74.0	121.1	276.5	133.2	66.4	104.0	236.5
49°	31.3	61.5	212.4	113.6	62.0	109.0	261.5	119.7	56.5	92.3	220.3
49.5°	26.6	51.7	197.0	101.0	52.4	97.1	245.9	108.0	47.6	80.6	202.8
50°	21.8	42.9	180.3	89.1	43.8	85.1	228.9	96.3	39.1	68.9	185.8
50.5°	17.0	35.1	163.5	77.4	35.9	73.2	212.1	84.6	31.6	59.1	169.6
51°	13.2	30.4	147.1	67.1	28.9	61.3	195.0	72.9	25.0	50.0	154.0
51.5°	9.6	25.6	131.8	57.3	23.0	51.9	178.5	61.3	20.8	41.8	138.8
52°	6.0	20.8	117.3	48.2	19.2	43.3	161.8	51.7	16.5	33.8	123.9
52.5°	3.7	16.1	103.6	40.0	15.4	35.2	146.4	42.9	12.3	26.8	111.5
53°	3.3	12.4	90.5	34.0	11.6	28.3	130.9	35.0	8.0	20.7	99.0
53.5°	3.0	8.9	78.2	28.2	7.8	22.4	116.4	27.7	3.9	17.1	86.6
54°	2.8	5.5	66.9	22.2	4.1	18.5	103.7	21.4	3.7	13.6	74.1
54.5°	2.6	3.0	56.7	16.2	3.9	14.7	91.0	17.8	3.6	10.0	61.7
55°	2.5	2.8	47.5	10.3	3.8	10.9	78.4	14.1	3.5	6.4	52.2
55.5°	2.4	2.6	39.3	6.0	3.6	7.1	65.7	10.3	3.4	2.9	43.6
56°	2.3	2.5	33.7	3.3	3.5	3.4	55.3	6.6	3.3	2.8	35.7
56.5°	2.3	2.3	28.3	3.0	3.4	3.2	45.7	3.0	3.2	2.7	28.9
57°	2.2	2.2	22.7	2.9	3.3	3.0	37.2	2.9	3.0	2.6	22.9
57.5°	2.1	2.2	17.2	2.8	3.2	2.9	29.6	2.8	2.9	2.6	18.1
58°	2.0	2.1	11.8	2.7	3.0	2.8	23.1	2.8	2.8	2.5	15.2
58.5°	2.0	2.0	9.0	2.6	2.9	2.7	17.8	2.7	2.7	2.4	12.5
59°	1.9	2.0	6.9	2.5	2.8	2.7	14.9	2.6	2.6	2.3	9.7
59.5°	1.9	1.9	5.4	2.4	2.7	2.6	12.2	2.5	2.5	2.3	6.9
60°	1.8	1.9	4.1	2.4	2.6	2.5	9.6	2.4	2.4	2.2	4.2
60.5°	1.7	1.8	3.5	2.3	2.5	2.4	6.8	2.4	2.4	2.1	3.2
61°	1.7	1.8	2.9	2.2	2.5	2.3	4.1	2.3	2.3	2.1	2.3
61.5°	1.6	1.7	2.4	2.2	2.4	2.3	3.0	2.2	2.2	2.0	1.9
62°	1.6	1.7	1.8	2.1	2.3	2.2	2.4	2.2	2.1	1.9	1.7
62.5°	1.5	1.6	1.8	2.0	2.2	2.1	2.0	2.1	2.1	1.9	1.7
63°	1.5	1.6	1.7	2.0	2.2	2.1	1.9	2.0	2.0	1.8	1.6
63.5°	1.4	1.5	1.7	1.9	2.1	2.0	1.9	2.0	1.9	1.8	1.6
64°	1.4	1.5	1.6	1.9	2.0	2.0	1.8	1.9	1.9	1.7	1.5
64.5°	1.3	1.4	1.6	1.8	2.0	1.9	1.8	1.8	1.8	1.7	1.5
65°	1.3	1.4	1.5	1.7	1.9	1.8	1.7	1.8	1.7	1.6	1.4
65.5°	1.2	1.4	1.5	1.7	1.8	1.8	1.7	1.7	1.7	1.6	1.4
66°	1.2	1.3	1.4	1.6	1.8	1.7	1.6	1.7	1.6	1.5	1.3



TEST NUMBER: P775868

CATALOG NUMBER: HCDJBL510CSD-HCD8TRC-1000lm-4000K

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
67.5°	1.1	1.2	1.3	1.5	1.6	1.6	1.5	1.5	1.4	1.4	1.2
68°	0.9	1.1	1.3	1.4	1.5	1.5	1.4	1.4	1.4	1.3	1.2
68.5°	0.9	1.1	1.2	1.4	1.5	1.5	1.4	1.4	1.3	1.3	1.1
69°	0.9	0.9	1.2	1.3	1.4	1.4	1.3	1.3	1.3	1.2	1.1
69.5°	0.8	0.9	1.1	1.3	1.4	1.4	1.3	1.3	1.2	1.2	1.1
70°	0.8	0.9	1.1	1.2	1.3	1.3	1.2	1.2	1.2	1.1	0.9
70.5°	0.8	0.8	0.9	1.2	1.3	1.3	1.2	1.2	1.2	1.1	0.9
71°	0.7	0.8	0.9	1.1	1.3	1.2	1.1	1.1	1.1	1.1	0.8
71.5°	0.7	0.8	0.9	1.1	1.2	1.2	1.1	1.1	1.1	0.9	0.8
72°	0.7	0.7	0.8	1.1	1.2	1.1	0.9	1.1	0.9	0.9	0.8
72.5°	0.7	0.7	0.8	0.9	1.1	1.1	0.9	0.9	0.9	0.8	0.7
73°	0.6	0.7	0.7	0.9	1.1	1.1	0.8	0.9	0.9	0.8	0.7
73.5°	0.6	0.7	0.7	0.8	0.9	0.9	0.8	0.8	0.8	0.8	0.6
74°	0.6	0.6	0.7	0.8	0.9	0.9	0.8	0.8	0.8	0.7	0.6
74.5°	0.6	0.6	0.6	0.8	0.9	0.9	0.7	0.8	0.8	0.7	0.6
75°	0.5	0.6	0.6	0.7	0.8	0.8	0.7	0.7	0.7	0.7	0.5
75.5°	0.5	0.5	0.6	0.7	0.8	0.8	0.6	0.7	0.7	0.6	0.5
76°	0.5	0.5	0.5	0.7	0.8	0.7	0.6	0.7	0.7	0.6	0.5
76.5°	0.5	0.5	0.5	0.6	0.7	0.7	0.6	0.6	0.6	0.6	0.5
77°	0.4	0.5	0.5	0.6	0.7	0.7	0.5	0.6	0.6	0.5	0.4
77.5°	0.4	0.4	0.4	0.6	0.7	0.6	0.5	0.6	0.6	0.5	0.4
78°	0.4	0.4	0.4	0.5	0.6	0.6	0.5	0.5	0.5	0.5	0.4
78.5°	0.4	0.4	0.4	0.5	0.6	0.6	0.4	0.5	0.5	0.5	0.4
79°	0.4	0.4	0.4	0.5	0.6	0.5	0.4	0.5	0.5	0.4	0.3
79.5°	0.3	0.3	0.3	0.5	0.5	0.5	0.4	0.4	0.5	0.4	0.3
80°	0.3	0.3	0.3	0.4	0.5	0.5	0.4	0.4	0.4	0.4	0.3
80.5°	0.3	0.3	0.3	0.4	0.5	0.4	0.3	0.4	0.4	0.3	0.3
81°	0.3	0.3	0.3	0.4	0.4	0.4	0.3	0.3	0.4	0.3	0.2
81.5°	0.2	0.3	0.2	0.3	0.4	0.4	0.3	0.3	0.4	0.3	0.2
82°	0.2	0.2	0.2	0.3	0.4	0.4	0.3	0.3	0.3	0.3	0.2
82.5°	0.2	0.2	0.2	0.3	0.4	0.3	0.2	0.3	0.3	0.2	0.2
83°	0.2	0.2	0.2	0.2	0.3	0.3	0.2	0.2	0.3	0.2	0.2
83.5°	0.2	0.2	0.2	0.2	0.3	0.3	0.2	0.2	0.3	0.2	0.1
84°	0.1	0.1	0.1	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.1
84.5°	0.1	0.1	0.1	0.2	0.3	0.2	0.2	0.2	0.2	0.1	0.1
85°	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.2	0.1	0.1
85.5°	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.2	0.1	0.1
86°	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1
86.5°	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
87°	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.0	0.1	0.0	0.0
88°	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.1	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: P775868
CATALOG NUMBER: HCDJBL510CSD-HCD8TRC-1000lm-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: P775868

CATALOG NUMBER: HCDJBL510CSD-HCD8TRC-1000lm-4000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	964.7	964.7	964.7	964.7	964.7	964.7
0.5°	963.8	963.2	963.4	963.6	964.2	964.6
1°	962.7	961.8	961.6	962.2	963.0	963.6
1.5°	961.0	959.7	959.6	960.2	961.3	962.2
2°	959.0	957.4	957.0	957.8	959.1	960.5
2.5°	956.7	954.6	954.2	955.0	956.7	958.5
3°	953.9	951.6	951.2	952.0	954.0	956.0
3.5°	950.8	948.5	947.7	948.7	950.7	953.2
4°	947.8	945.5	944.6	944.8	947.2	949.9
4.5°	944.8	942.4	941.1	940.9	943.5	946.9
5°	941.7	939.0	937.6	937.2	939.8	943.7
5.5°	938.3	935.4	933.7	933.0	935.9	940.4
6°	934.6	931.9	929.8	928.6	931.7	937.0
6.5°	931.0	927.8	925.8	924.4	927.7	934.1
7°	927.2	923.7	921.2	920.0	923.9	930.8
7.5°	922.9	918.9	916.5	915.4	919.7	927.0
8°	918.2	914.0	911.5	911.0	915.4	923.1
8.5°	913.2	908.8	906.0	905.9	910.9	919.0
9°	908.0	903.3	900.6	901.1	906.2	914.1
9.5°	902.6	897.9	894.7	896.2	901.2	909.2
10°	897.0	892.1	889.0	891.0	896.0	904.1
10.5°	891.4	886.2	882.8	885.8	890.5	898.7
11°	885.6	880.4	876.6	880.3	884.9	893.3
11.5°	879.7	874.7	870.4	874.6	879.4	888.2
12°	873.9	868.8	864.6	868.7	873.6	882.8
12.5°	868.3	862.5	858.6	862.8	868.0	877.4
13°	862.6	856.2	852.7	856.7	862.3	871.7
13.5°	856.4	849.8	845.9	850.4	856.8	865.5
14°	850.6	843.3	839.3	843.7	851.0	859.3
14.5°	844.2	836.9	832.6	837.3	844.9	852.9
15°	838.0	830.4	826.2	830.9	838.5	846.6
15.5°	831.4	823.7	819.4	824.4	831.9	839.9
16°	825.1	816.7	812.6	817.8	825.2	833.2
16.5°	818.6	810.0	805.7	810.9	818.5	826.2
17°	812.0	802.9	798.9	804.3	811.6	818.9
17.5°	805.2	795.5	791.8	797.2	804.5	811.6
18°	798.3	787.9	784.5	790.0	797.2	803.9
18.5°	791.0	780.6	777.2	782.8	789.6	796.0
19°	783.6	772.8	769.5	775.0	781.9	788.1
19.5°	776.3	764.9	761.9	767.4	774.0	780.2
20°	768.9	756.9	753.9	759.6	765.5	772.0
20.5°	761.5	748.5	746.1	751.5	757.2	763.7
21°	753.5	740.0	738.1	743.2	748.7	754.8

TEST NUMBER: P775868

CATALOG NUMBER: HCDJBL510CSD-HCD8TRC-1000lm-4000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
22.5°	727.9	713.0	712.5	717.7	722.4	727.7
23°	719.2	703.7	703.7	708.6	713.1	717.9
23.5°	709.9	695.2	694.2	699.8	703.9	708.5
24°	700.5	686.7	684.8	690.1	694.4	699.2
24.5°	690.7	678.2	676.1	680.6	684.4	690.4
25°	681.6	669.7	667.5	670.8	674.2	681.7
25.5°	672.7	661.1	659.5	661.2	664.8	672.3
26°	664.4	652.2	651.0	650.8	655.4	662.7
26.5°	656.3	642.8	642.6	640.5	646.7	652.8
27°	648.2	633.0	634.2	629.9	637.8	642.4
27.5°	639.7	622.7	625.3	619.0	628.4	631.8
28°	630.9	612.0	616.2	607.8	619.0	620.5
28.5°	621.7	601.3	606.7	596.9	609.2	609.4
29°	612.2	590.4	596.8	585.6	599.0	597.6
29.5°	602.2	578.8	586.7	574.6	588.4	585.9
30°	592.3	567.4	576.1	563.5	577.6	573.7
30.5°	581.8	555.4	565.3	553.0	566.5	561.3
31°	571.4	543.1	554.0	542.5	555.2	547.8
31.5°	560.2	530.6	542.8	532.3	543.6	535.8
32°	549.5	518.1	531.3	522.0	531.8	522.5
32.5°	538.2	504.8	519.9	512.4	520.0	509.5
33°	526.8	491.7	507.8	502.8	508.1	495.5
33.5°	515.3	478.1	495.3	493.7	496.1	482.4
34°	503.7	464.3	483.0	484.6	484.1	468.2
34.5°	491.4	450.4	469.7	475.0	471.5	454.3
35°	479.4	436.6	456.7	465.3	459.1	439.9
35.5°	467.2	423.6	443.6	455.7	446.7	426.8
36°	454.9	411.0	430.4	445.5	434.1	413.3
36.5°	442.2	398.1	417.1	435.5	421.6	400.4
37°	429.6	381.7	404.4	425.7	408.9	383.6
37.5°	417.1	362.4	391.8	415.8	396.3	364.8
38°	404.8	343.2	380.7	405.9	383.8	345.9
38.5°	393.2	324.1	363.6	396.0	370.3	327.2
39°	382.5	304.9	346.4	386.6	356.9	308.4
39.5°	370.8	285.6	329.1	375.8	343.3	289.6
40°	356.0	266.4	312.0	367.2	329.9	270.2
40.5°	339.0	247.4	294.9	358.4	316.3	250.8
41°	321.8	229.2	277.6	349.7	300.2	233.1
41.5°	304.6	211.5	260.0	341.0	284.3	215.3
42°	288.0	195.4	242.3	332.2	268.5	199.0
42.5°	271.2	179.9	224.9	323.2	252.0	183.2
43°	254.2	164.4	208.3	314.5	235.6	167.8
43.5°	236.9	148.9	192.5	305.6	219.4	152.0



TEST NUMBER: P775868

CATALOG NUMBER: HCDJBL510CSD-HCD8TRC-1000lm-4000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
45°	189.0	107.1	148.8	280.3	175.0	109.5
45.5°	174.3	94.7	134.7	270.3	161.1	96.6
46°	159.7	82.7	121.6	259.4	147.4	84.7
46.5°	145.5	71.2	108.7	245.6	133.4	72.9
47°	131.8	60.4	96.6	232.3	120.5	62.1
47.5°	118.3	50.9	84.5	219.6	107.7	52.0
48°	106.7	42.6	73.2	206.4	95.7	43.6
48.5°	95.0	35.5	62.7	192.2	83.9	36.3
49°	83.4	30.6	53.1	175.8	73.1	31.3
49.5°	71.8	25.7	44.5	159.5	62.3	26.6
50°	60.1	21.0	36.8	144.7	52.6	21.8
50.5°	50.5	16.3	31.9	130.3	43.8	17.0
51°	42.0	12.5	27.2	117.1	36.4	13.2
51.5°	34.7	8.8	22.4	104.2	31.6	9.6
52°	28.6	5.4	17.7	92.2	26.9	6.0
52.5°	23.4	3.2	12.8	80.8	22.2	3.7
53°	19.1	2.9	9.1	70.2	17.4	3.3
53.5°	15.9	2.8	5.7	60.1	12.8	3.0
54°	12.6	2.6	3.2	51.3	9.1	2.8
54.5°	9.2	2.5	2.9	43.2	5.8	2.6
55°	6.0	2.4	2.6	35.8	3.3	2.5
55.5°	2.7	2.3	2.4	30.5	2.9	2.4
56°	2.2	2.2	2.2	25.1	2.6	2.3
56.5°	2.2	2.2	2.1	19.8	2.3	2.3
57°	2.1	2.1	2.0	14.4	2.1	2.2
57.5°	2.0	2.0	2.0	10.9	2.0	2.1
58°	2.0	2.0	1.9	8.3	1.9	2.0
58.5°	1.9	1.9	1.9	6.1	1.9	2.0
59°	1.9	1.8	1.8	4.5	1.8	1.9
59.5°	1.8	1.8	1.8	4.0	1.8	1.9
60°	1.8	1.7	1.7	3.4	1.7	1.8
60.5°	1.7	1.7	1.7	2.7	1.7	1.7
61°	1.7	1.6	1.6	2.1	1.6	1.7
61.5°	1.6	1.6	1.6	1.6	1.6	1.6
62°	1.6	1.5	1.5	1.5	1.5	1.6
62.5°	1.5	1.5	1.5	1.5	1.5	1.5
63°	1.5	1.4	1.4	1.4	1.5	1.5
63.5°	1.4	1.3	1.4	1.4	1.4	1.4
64°	1.4	1.3	1.3	1.4	1.4	1.4
64.5°	1.3	1.2	1.3	1.3	1.3	1.3
65°	1.3	1.2	1.3	1.3	1.3	1.3
65.5°	1.3	1.2	1.2	1.2	1.3	1.2
66°	1.2	1.1	1.2	1.2	1.2	1.2



TEST NUMBER: P775868

CATALOG NUMBER: HCDJBL510CSD-HCD8TRC-1000lm-4000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
67.5°	1.1	0.9	1.1	1.1	1.1	1.1
68°	0.9	0.9	0.9	1.1	1.1	0.9
68.5°	0.9	0.8	0.9	0.9	0.9	0.9
69°	0.9	0.8	0.9	0.9	0.9	0.9
69.5°	0.8	0.8	0.8	0.9	0.9	0.8
70°	0.8	0.7	0.8	0.8	0.8	0.8
70.5°	0.8	0.7	0.8	0.8	0.8	0.8
71°	0.7	0.7	0.7	0.7	0.8	0.7
71.5°	0.7	0.7	0.7	0.7	0.7	0.7
72°	0.7	0.6	0.7	0.7	0.7	0.7
72.5°	0.7	0.6	0.6	0.6	0.7	0.7
73°	0.6	0.6	0.6	0.6	0.7	0.6
73.5°	0.6	0.6	0.6	0.6	0.6	0.6
74°	0.6	0.5	0.6	0.5	0.6	0.6
74.5°	0.5	0.5	0.5	0.5	0.6	0.6
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	0.4	0.5	0.4	0.5	0.5
76.5°	0.5	0.4	0.4	0.4	0.5	0.5
77°	0.4	0.4	0.4	0.4	0.4	0.4
77.5°	0.4	0.4	0.4	0.4	0.4	0.4
78°	0.4	0.4	0.4	0.3	0.4	0.4
78.5°	0.4	0.4	0.4	0.3	0.4	0.4
79°	0.3	0.3	0.3	0.3	0.4	0.4
79.5°	0.3	0.3	0.3	0.3	0.3	0.3
80°	0.3	0.3	0.3	0.3	0.3	0.3
80.5°	0.3	0.3	0.3	0.2	0.3	0.3
81°	0.3	0.3	0.3	0.2	0.3	0.3
81.5°	0.2	0.2	0.2	0.2	0.2	0.2
82°	0.2	0.2	0.2	0.2	0.2	0.2
82.5°	0.2	0.2	0.2	0.2	0.2	0.2
83°	0.2	0.2	0.2	0.1	0.2	0.2
83.5°	0.2	0.2	0.2	0.1	0.1	0.2
84°	0.1	0.2	0.1	0.1	0.1	0.1
84.5°	0.1	0.1	0.1	0.1	0.1	0.1
85°	0.1	0.1	0.1	0.1	0.1	0.1
85.5°	0.1	0.1	0.1	0.1	0.1	0.1
86°	0.1	0.1	0.1	0.1	0.1	0.1
86.5°	0.1	0.1	0.1	0.0	0.0	0.1
87°	0.0	0.1	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: P775868

CATALOG NUMBER: HCDJBL510CSD-HCD8TRC-1000lm-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



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°	746.1	754.7	767.5	776.4	789.4	792.9	799.1	791.5	784.1	774.7	761.2
22°	737.2	746.3	759.3	768.2	782.2	785.6	791.3	784.1	776.9	767.0	752.9



44°	137.0	193.8	329.2	261.5	198.0	262.9	367.1	273.4	186.5	234.4	330.4
44.5°	122.7	178.4	320.0	245.2	182.2	245.8	357.4	257.1	170.7	218.2	321.4



66.5°	1.1	1.3	1.4	1.6	1.7	1.7	1.5	1.6	1.5	1.5	1.3
67°	1.1	1.2	1.4	1.5	1.6	1.6	1.5	1.5	1.5	1.4	1.3



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°	745.3	731.4	729.5	735.1	740.2	746.1
22°	736.7	722.1	720.9	726.5	731.4	737.2



44°	220.0	134.5	177.9	296.8	203.7	137.0
44.5°	204.3	120.2	163.2	287.9	189.0	122.7



66.5°	1.2	1.1	1.1	1.2	1.2	1.1
67°	1.1	0.9	1.1	1.1	1.1	1.1

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)