

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: P775690

Luminaire Tested: HCDJBL5510CSD-HCD4TSQC-1000lm-2700K

Issue Date: 2/7/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P775690  
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-HCD4TSQC-1000lm-2700K  
Description: 4 INCH SQUARE MEDIUM SPECULAR CLEAR TRIM  
Light Source: SELECTABLE LUMENS AND CCT ARRAY 90CRI / 2700K CCT  
Ballast/Driver: -

**Summary**

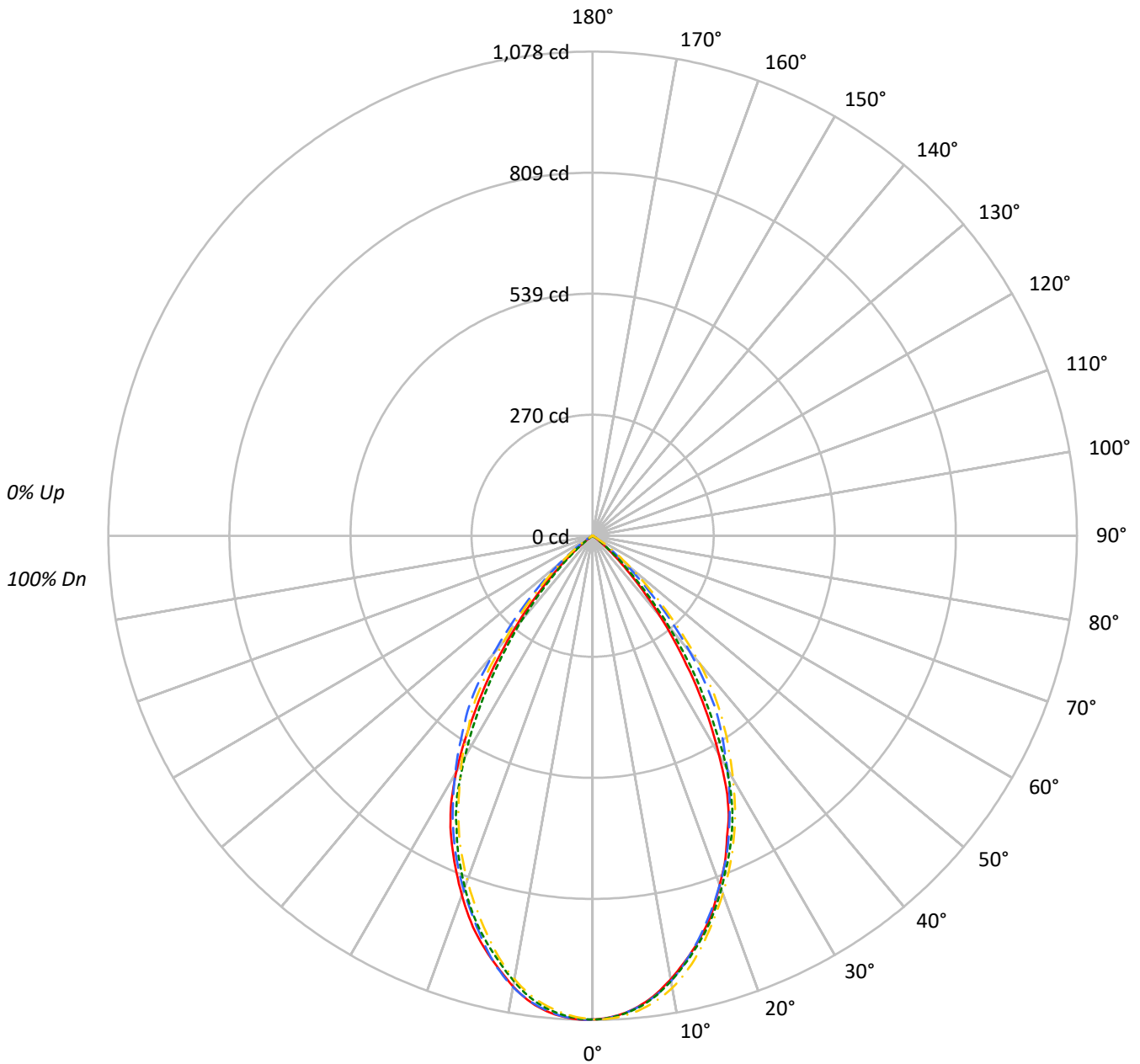
Lumens per Lamp: N/A  
Luminaire Lumens: 1114.0 lumens  
Efficiency: N/A  
Efficacy: 111.4 lumens/watt  
Spacing Criteria (0/90/45): 0.94 / 0.93 / 0.98  
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')  
CIE Type: Direct

Input Watts (W): 10  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



TEST NUMBER: P775690  
CATALOG NUMBER: HCDJBL510CSD-HCD4TSQC-1000lm-2700K

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

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

	0°	90°	180°	270°
0°	106453	106453	106453	106453
5°	104905	105084	105798	105272
10°	100598	101019	102274	101130
15°	94787	95289	96660	95043
20°	87052	88051	89534	87536
25°	77804	79887	81141	78109
30°	64211	68023	69302	64942
35°	47240	51089	52067	48350
40°	30232	34193	34864	31432
45°	15292	18703	19276	16425
50°	5367	7150	7612	6089
55°	999	1292	1465	1448
60°	376	356	316	435
65°	304	281	257	327
70°	231	231	202	260
75°	191	191	153	229
80°	114	114	114	171
85°	113	113	0	113

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 135°

Vertical Angle: 45°

Luminance: 31074 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	99.7	8.9
10°-20°	260.8	23.4
20°-30°	331.2	29.7
30°-40°	273.8	24.6
40°-50°	125.3	11.3
50°-60°	21.0	1.9
60°-70°	1.5	0.1
70°-80°	0.6	0.1
80°-90°	0.1	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°	691.6	62.1
0°-40°	965.5	86.7
0°-60°	1111.8	99.8
0°-90°	1114.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1114.0	100.0

**CANDELA DISTRIBUTION:**

	0°	90°	180°	270°	360°	Flux
0°	1077	1077	1077	1077	1077	
5°	1057	1059	1066	1061	1057	99
15°	926	931	945	929	926	259
25°	713	732	744	716	713	324
35°	392	423	432	401	392	243
45°	109	134	138	118	109	89
55°	6	8	8	8	6	9
65°	1	1	1	1	1	1
75°	0	0	0	1	0	1
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°	1077.0	1077.0	1077.0	1077.0	1077.0	1077.0	1077.0	1077.0	1077.0	1077.0	1077.0
0.5°	1076.8	1076.9	1076.9	1076.4	1076.8	1076.8	1076.8	1077.2	1077.8	1077.9	1077.7
1°	1075.7	1076.0	1076.1	1075.8	1076.3	1076.5	1076.8	1077.2	1077.8	1077.8	1077.5
1.5°	1074.6	1074.8	1075.0	1074.9	1075.3	1075.7	1076.4	1076.8	1077.5	1077.7	1077.0
2°	1072.9	1073.2	1073.5	1073.4	1074.0	1074.9	1075.7	1076.1	1076.9	1077.2	1076.4
2.5°	1071.0	1071.3	1071.7	1071.7	1072.3	1073.5	1074.9	1075.0	1075.8	1076.1	1075.6
3°	1069.1	1069.3	1069.5	1069.7	1070.4	1071.8	1073.5	1073.7	1074.6	1074.7	1074.0
3.5°	1066.7	1066.8	1067.1	1067.4	1068.1	1070.0	1072.0	1071.7	1073.0	1073.1	1072.2
4°	1064.1	1064.1	1064.3	1064.8	1065.5	1067.7	1069.9	1069.8	1071.1	1071.1	1070.1
4.5°	1060.9	1061.1	1061.5	1062.0	1062.7	1065.3	1067.6	1067.4	1069.0	1068.9	1067.7
5°	1057.3	1057.4	1058.1	1058.7	1059.1	1062.4	1065.1	1064.8	1066.3	1066.5	1064.9
5.5°	1053.4	1053.6	1054.5	1055.2	1055.7	1059.0	1062.3	1061.9	1063.4	1063.6	1062.0
6°	1049.1	1049.3	1050.6	1051.2	1051.7	1055.6	1058.8	1058.4	1060.1	1060.2	1058.5
6.5°	1044.6	1044.7	1046.2	1047.1	1047.4	1051.6	1055.4	1054.8	1056.7	1056.7	1055.2
7°	1039.5	1039.7	1041.5	1042.6	1042.8	1047.2	1051.7	1050.8	1052.7	1052.8	1051.2
7.5°	1034.3	1034.3	1036.6	1037.7	1037.5	1042.5	1047.5	1046.6	1048.1	1048.6	1047.0
8°	1028.6	1028.7	1030.9	1032.5	1032.0	1037.3	1043.0	1041.7	1043.1	1043.6	1042.3
8.5°	1022.5	1022.9	1025.4	1026.8	1025.9	1031.8	1038.2	1036.6	1037.7	1038.7	1037.2
9°	1015.6	1016.4	1019.2	1020.6	1019.7	1026.0	1033.0	1030.9	1031.7	1033.0	1032.1
9.5°	1008.8	1009.7	1012.9	1014.3	1013.2	1019.8	1027.6	1024.8	1025.6	1027.0	1026.4
10°	1002.3	1002.7	1006.1	1007.7	1006.5	1013.6	1021.8	1018.5	1019.0	1020.6	1020.0
10.5°	995.1	995.6	999.2	1000.6	999.5	1007.2	1015.5	1011.6	1012.1	1013.9	1013.5
11°	988.0	988.5	991.9	993.5	992.5	1000.0	1008.6	1004.6	1004.7	1007.1	1006.8
11.5°	980.6	981.2	984.0	985.9	985.0	993.0	1002.0	997.0	997.0	999.7	999.6
12°	973.5	973.7	976.0	978.0	977.6	985.8	994.7	989.4	989.6	991.8	991.6
12.5°	966.1	966.1	967.2	970.3	970.3	978.4	986.8	981.4	982.6	984.2	984.1
13°	958.3	958.5	958.9	962.2	963.0	971.0	978.8	973.3	975.4	976.6	975.4
13.5°	950.5	950.5	950.3	953.9	955.2	963.5	971.0	965.4	967.8	968.4	966.5
14°	942.6	942.4	941.3	945.8	947.3	955.8	961.8	957.4	960.1	960.4	957.2
14.5°	934.4	934.1	932.2	937.4	939.4	948.0	953.0	949.3	952.4	952.5	948.0
15°	926.3	925.9	923.4	929.1	931.2	940.0	944.1	941.2	944.6	944.4	937.9
15.5°	918.1	917.4	913.8	920.5	923.0	931.7	934.6	932.5	936.3	936.0	927.9
16°	909.2	908.3	904.6	911.5	914.5	923.3	924.8	924.1	928.2	927.7	917.8
16.5°	900.4	900.0	895.1	902.5	905.8	915.2	915.3	915.4	919.6	919.0	908.2
17°	891.2	891.1	885.7	893.5	896.8	906.1	905.5	906.6	910.7	910.2	898.0
17.5°	881.5	881.8	876.1	884.3	887.3	897.3	895.8	897.4	901.3	901.4	888.2
18°	871.0	871.5	866.5	875.0	877.5	888.1	886.3	888.0	891.6	892.3	878.1
18.5°	860.1	862.0	856.9	865.1	867.7	878.8	876.8	878.2	881.7	882.5	868.4
19°	849.0	851.2	847.1	855.0	857.7	868.6	867.1	868.3	871.9	872.6	858.7
19.5°	838.5	840.1	837.1	844.5	847.5	859.0	857.5	858.4	861.7	862.3	848.9
20°	827.6	829.1	827.4	834.3	837.1	848.5	847.7	847.7	851.2	852.0	838.9
20.5°	817.0	818.2	817.6	823.6	826.6	838.1	837.8	837.1	840.6	841.4	828.8
21°	806.5	807.1	807.4	812.9	815.9	827.4	827.8	826.4	830.0	830.7	818.4



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CATALOG NUMBER: HCDJBL510CSD-HCD4TSQC-1000lm-2700K

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
22.5°	774.0	774.5	776.3	779.9	785.5	794.6	797.4	793.1	798.2	797.6	787.6
23°	761.4	763.7	765.4	768.8	775.2	783.6	787.1	781.8	787.9	786.5	776.9
23.5°	748.1	752.2	754.1	756.9	764.5	773.2	776.7	770.5	777.2	775.3	766.7
24°	735.4	739.8	742.8	746.3	753.8	761.6	766.0	759.2	766.0	764.0	755.4
24.5°	724.4	726.8	731.1	735.7	743.2	750.1	754.8	748.0	755.0	752.7	744.0
25°	713.4	713.2	719.3	724.9	732.5	738.6	743.6	736.7	744.0	741.3	732.7
25.5°	702.5	700.8	707.4	712.6	721.8	727.0	732.4	725.4	733.1	730.0	721.4
26°	691.0	689.5	695.6	700.3	709.7	715.5	721.2	714.2	722.1	718.7	710.6
26.5°	676.6	678.5	683.7	687.8	697.0	705.0	710.3	701.2	709.2	705.7	698.5
27°	662.8	667.3	672.1	676.7	684.6	694.3	698.2	689.6	696.8	694.7	686.1
27.5°	648.6	655.7	660.3	666.2	670.9	682.7	686.1	678.7	683.3	682.7	673.8
28°	631.5	641.0	648.8	655.6	657.2	669.3	673.5	667.0	669.4	669.4	661.0
28.5°	613.9	627.0	636.7	642.8	642.5	656.5	661.4	654.2	654.4	657.0	648.6
29°	596.7	613.0	624.7	630.3	627.7	643.2	649.2	642.1	639.3	643.4	636.1
29.5°	579.7	596.8	612.0	617.9	612.2	629.2	637.1	628.8	623.2	629.2	623.7
30°	562.6	579.8	599.4	604.8	596.0	614.7	625.4	615.0	607.2	614.8	611.2
30.5°	545.4	562.7	586.3	590.9	578.8	599.5	613.3	601.0	590.2	599.8	599.1
31°	528.4	545.8	573.9	576.6	561.7	584.5	600.7	586.5	572.3	584.7	587.2
31.5°	511.7	529.1	561.7	562.1	543.9	568.8	588.0	571.7	554.4	568.7	575.3
32°	495.2	512.9	550.7	547.1	526.1	552.7	575.2	556.0	536.7	552.6	562.8
32.5°	478.4	496.4	539.5	531.5	508.0	536.2	563.8	540.0	518.3	536.0	549.5
33°	461.1	480.2	528.5	515.8	490.7	518.9	552.5	523.8	500.7	519.3	537.2
33.5°	444.0	464.4	517.1	499.5	473.0	501.8	541.3	507.2	482.2	501.8	525.5
34°	426.8	448.3	505.2	483.0	456.2	484.7	529.3	490.1	465.2	484.0	513.5
34.5°	409.2	432.0	492.7	466.3	439.4	467.7	516.4	473.0	448.0	466.8	501.5
35°	391.5	415.7	481.7	449.7	423.4	451.0	505.5	456.6	431.5	450.6	490.8
35.5°	374.0	399.1	469.1	432.9	407.1	434.6	494.8	439.9	414.2	433.3	480.0
36°	356.2	382.7	454.1	416.6	391.2	418.6	481.6	423.5	398.0	417.0	466.9
36.5°	340.5	366.0	439.4	400.9	375.5	402.9	468.7	407.5	381.7	400.5	452.8
37°	324.8	350.5	425.0	385.3	359.3	387.4	456.4	391.6	365.9	385.6	440.0
37.5°	309.0	335.0	409.7	369.9	342.9	372.2	442.6	376.3	349.4	369.8	425.2
38°	293.2	319.5	394.5	353.8	327.0	357.2	428.7	361.2	332.7	354.9	409.8
38.5°	278.2	303.8	379.4	339.6	311.0	342.1	415.0	346.4	316.6	339.9	394.1
39°	263.5	288.4	364.5	325.3	295.4	327.9	400.0	331.6	301.2	325.1	378.2
39.5°	248.6	274.0	349.5	311.0	280.0	312.7	385.0	316.5	285.4	310.0	361.9
40°	234.3	260.0	334.6	296.8	265.0	297.7	370.1	301.8	270.2	295.5	346.1
40.5°	219.7	245.8	319.7	282.6	250.5	282.9	354.7	287.3	255.2	280.9	330.3
41°	205.6	232.5	304.7	268.6	236.4	268.9	339.1	272.9	241.3	266.7	314.9
41.5°	191.8	218.9	289.8	254.9	222.7	254.7	323.2	258.7	227.1	252.3	299.6
42°	178.3	205.9	274.9	241.1	208.9	241.2	307.4	245.1	213.7	238.9	284.7
42.5°	165.4	193.1	260.3	228.4	196.0	227.6	292.3	231.9	200.3	225.9	270.1
43°	153.3	180.3	245.6	215.8	182.7	215.4	277.3	219.1	186.8	212.9	256.2
43.5°	141.6	167.7	231.0	203.6	169.9	202.4	262.9	206.7	174.1	200.4	242.4



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
45°	109.4	133.9	190.9	168.9	133.8	166.8	222.3	171.2	137.9	165.3	203.1
45.5°	99.4	123.3	178.7	158.0	122.8	155.3	209.5	160.1	126.8	154.3	190.8
46°	90.1	113.7	166.7	147.1	112.3	144.3	197.3	149.4	116.2	143.5	178.5
46.5°	81.2	104.4	155.6	136.7	102.4	133.7	185.2	138.6	106.1	133.0	166.6
47°	72.7	95.1	144.7	126.4	93.6	123.5	173.9	128.4	97.5	123.1	155.3
47.5°	64.9	86.4	134.3	116.8	84.8	113.4	162.4	118.8	88.9	113.5	144.4
48°	57.6	78.1	124.1	107.6	76.1	104.2	151.7	109.2	80.3	104.3	134.0
48.5°	51.0	70.3	114.5	98.7	67.4	96.1	141.0	100.3	71.8	96.4	124.1
49°	45.1	62.8	105.2	90.5	59.8	87.9	131.0	92.4	63.2	88.5	114.7
49.5°	39.7	56.0	96.4	82.8	53.0	79.8	120.9	84.5	56.1	80.7	105.5
50°	34.9	49.8	87.7	75.3	46.5	71.7	111.5	76.6	49.5	72.8	97.7
50.5°	31.3	44.0	80.0	67.7	40.6	63.6	102.5	68.7	43.5	64.9	90.0
51°	27.7	38.7	72.4	60.8	35.3	56.8	94.6	61.5	38.1	58.4	82.2
51.5°	24.1	34.1	65.5	54.3	30.4	50.6	86.6	55.0	33.0	52.2	74.4
52°	20.5	30.6	58.8	48.3	26.0	44.9	78.6	48.8	28.2	46.4	66.7
52.5°	17.7	27.1	52.9	42.6	21.9	39.3	70.6	43.2	23.9	40.9	60.1
53°	15.1	23.5	46.9	37.2	18.3	34.2	63.8	37.7	20.1	35.8	54.0
53.5°	12.6	20.1	42.0	33.0	15.0	29.6	57.4	32.8	16.6	31.0	48.4
54°	10.3	17.4	37.0	28.8	12.5	25.3	51.2	28.1	13.9	26.6	43.0
54.5°	7.9	14.9	33.2	24.7	10.0	21.4	45.4	24.0	11.2	22.8	38.1
55°	5.8	12.6	29.6	20.5	7.5	18.0	40.2	20.1	8.5	19.1	33.6
55.5°	4.2	10.3	25.9	16.4	5.1	14.6	35.2	16.6	5.8	15.8	29.5
56°	3.8	8.0	22.2	13.3	2.6	12.2	30.6	13.9	3.1	13.2	25.8
56.5°	3.4	6.0	18.5	10.5	2.4	9.7	26.3	11.3	2.2	10.6	22.3
57°	3.0	4.2	15.6	8.0	2.3	7.3	22.5	8.7	2.1	8.1	19.2
57.5°	2.6	3.7	13.3	5.5	2.2	4.9	19.0	6.1	2.0	5.5	16.5
58°	2.2	3.3	11.2	3.6	2.1	2.4	15.9	3.5	1.9	2.9	14.1
58.5°	2.1	2.9	9.4	3.2	2.0	2.1	13.3	2.1	1.8	2.1	11.9
59°	2.0	2.5	7.8	2.8	1.9	2.0	11.6	1.9	1.7	1.9	10.5
59.5°	2.0	2.0	6.5	2.4	1.8	1.9	9.9	1.8	1.6	1.9	9.1
60°	1.9	1.9	5.5	1.9	1.8	1.8	8.3	1.7	1.6	1.8	7.6
60.5°	1.8	1.9	4.6	1.9	1.7	1.8	6.6	1.7	1.5	1.7	6.2
61°	1.7	1.8	3.8	1.8	1.6	1.7	4.9	1.6	1.5	1.6	4.8
61.5°	1.7	1.7	3.3	1.7	1.6	1.6	4.0	1.5	1.4	1.6	3.9
62°	1.6	1.7	2.8	1.6	1.5	1.6	3.3	1.5	1.3	1.5	3.3
62.5°	1.5	1.6	2.3	1.6	1.5	1.5	2.7	1.4	1.3	1.5	2.7
63°	1.5	1.5	1.8	1.5	1.4	1.4	2.2	1.4	1.2	1.4	2.2
63.5°	1.4	1.5	1.6	1.5	1.3	1.4	1.8	1.3	1.2	1.3	1.9
64°	1.4	1.4	1.5	1.4	1.3	1.3	1.5	1.3	1.2	1.3	1.6
64.5°	1.3	1.4	1.4	1.4	1.2	1.3	1.4	1.2	1.1	1.2	1.4
65°	1.3	1.3	1.4	1.3	1.2	1.2	1.3	1.2	1.1	1.2	1.4
65.5°	1.2	1.3	1.3	1.3	1.2	1.2	1.2	1.1	1.0	1.2	1.3
66°	1.2	1.2	1.2	1.2	1.1	1.1	1.2	1.1	1.0	1.1	1.2





TEST NUMBER: P775690  
 CATALOG NUMBER: HCDJBL510CSD-HCD4TSQC-1000lm-2700K

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
67.5°	1.0	1.1	1.1	1.1	1.0	1.0	1.1	1.0	0.9	1.0	1.1
68°	1.0	1.0	1.1	1.0	0.9	1.0	1.0	0.9	0.8	1.0	1.0
68.5°	0.9	1.0	1.0	1.0	0.9	0.9	1.0	0.9	0.8	0.9	1.0
69°	0.9	0.9	1.0	0.9	0.9	0.9	0.9	0.8	0.8	0.9	1.0
69.5°	0.9	0.9	0.9	0.9	0.8	0.9	0.9	0.8	0.7	0.8	0.9
70°	0.8	0.9	0.9	0.9	0.8	0.8	0.9	0.8	0.7	0.8	0.9
70.5°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.7	0.7	0.8	0.8
71°	0.7	0.8	0.8	0.8	0.7	0.8	0.8	0.7	0.7	0.7	0.8
71.5°	0.7	0.8	0.8	0.8	0.7	0.7	0.7	0.7	0.6	0.7	0.8
72°	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.6	0.6	0.7	0.7
72.5°	0.6	0.7	0.7	0.7	0.6	0.7	0.7	0.6	0.6	0.6	0.7
73°	0.6	0.6	0.7	0.7	0.6	0.6	0.6	0.6	0.5	0.6	0.7
73.5°	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.5	0.6	0.6
74°	0.5	0.6	0.6	0.6	0.5	0.6	0.6	0.5	0.5	0.6	0.6
74.5°	0.5	0.5	0.6	0.6	0.5	0.5	0.6	0.5	0.5	0.5	0.6
75°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.4	0.5	0.5
75.5°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.4	0.4	0.5	0.5
76°	0.4	0.5	0.5	0.5	0.4	0.5	0.5	0.4	0.4	0.4	0.5
76.5°	0.4	0.4	0.5	0.5	0.4	0.4	0.5	0.4	0.4	0.4	0.5
77°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.4	0.4
77.5°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.4	0.4
78°	0.3	0.3	0.4	0.4	0.3	0.4	0.4	0.3	0.3	0.3	0.4
78.5°	0.3	0.3	0.4	0.3	0.3	0.3	0.4	0.3	0.3	0.3	0.4
79°	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.3	0.3
79.5°	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.3	0.3
80°	0.2	0.2	0.3	0.3	0.2	0.3	0.3	0.2	0.2	0.2	0.3
80.5°	0.2	0.2	0.3	0.3	0.2	0.3	0.3	0.2	0.2	0.2	0.3
81°	0.2	0.2	0.3	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2
81.5°	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2
82°	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.2
82.5°	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.2
83°	0.1	0.1	0.2	0.2	0.1	0.2	0.2	0.1	0.1	0.1	0.2
83.5°	0.1	0.1	0.2	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1
84°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
84.5°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1
85°	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.1
85.5°	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.1
86°	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.1
86.5°	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.1
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: P775690  
CATALOG NUMBER: HCDJBL510CSD-HCD4TSQC-1000lm-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: P775690

CATALOG NUMBER: HCDJBL510CSD-HCD4TSQC-1000lm-2700K

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
0°	1077.0	1077.0	1077.0	1077.0	1077.0	1077.0
0.5°	1076.8	1076.8	1076.2	1075.6	1076.3	1076.8
1°	1076.4	1076.3	1075.4	1074.6	1075.5	1075.7
1.5°	1075.7	1075.6	1074.5	1073.4	1074.2	1074.6
2°	1074.8	1074.5	1073.2	1071.7	1072.8	1072.9
2.5°	1073.4	1073.0	1071.4	1069.9	1071.0	1071.0
3°	1071.8	1071.3	1069.3	1067.5	1069.1	1069.1
3.5°	1070.0	1069.2	1067.0	1065.2	1066.9	1066.7
4°	1067.8	1067.0	1064.4	1062.3	1064.3	1064.1
4.5°	1065.2	1064.1	1061.4	1059.3	1061.3	1060.9
5°	1062.4	1061.0	1058.1	1055.8	1058.0	1057.3
5.5°	1059.0	1057.5	1054.4	1052.1	1054.2	1053.4
6°	1055.4	1053.7	1050.4	1048.3	1050.2	1049.1
6.5°	1051.3	1049.4	1046.1	1043.7	1045.7	1044.6
7°	1046.9	1044.7	1041.2	1038.8	1040.9	1039.5
7.5°	1041.9	1039.7	1036.2	1033.7	1035.9	1034.3
8°	1036.8	1034.1	1030.4	1028.1	1030.4	1028.6
8.5°	1031.1	1028.1	1024.4	1022.2	1024.8	1022.5
9°	1025.0	1021.4	1018.0	1016.0	1018.4	1015.6
9.5°	1018.5	1014.6	1011.2	1009.5	1011.8	1008.8
10°	1011.7	1007.6	1003.9	1002.0	1004.9	1002.3
10.5°	1004.7	1000.1	996.3	995.4	998.0	995.1
11°	997.3	992.7	988.8	987.6	990.9	988.0
11.5°	989.9	984.7	980.9	979.3	983.5	980.6
12°	981.9	976.8	972.7	970.5	975.8	973.5
12.5°	974.1	969.1	964.4	962.0	968.1	966.1
13°	966.1	961.2	956.0	952.9	960.4	958.3
13.5°	958.0	953.4	947.8	943.7	952.4	950.5
14°	949.8	945.4	939.2	933.9	944.1	942.6
14.5°	941.5	937.5	930.9	924.5	935.9	934.4
15°	933.2	928.8	922.2	914.7	927.3	926.3
15.5°	924.8	920.3	913.3	905.0	918.5	918.1
16°	916.1	911.8	904.2	895.2	909.8	909.2
16.5°	907.2	903.0	895.3	885.5	900.9	900.4
17°	897.9	893.7	886.0	875.6	891.6	891.2
17.5°	888.9	884.5	876.5	865.9	882.3	881.5
18°	879.3	874.4	866.6	856.1	872.7	871.0
18.5°	869.7	864.0	856.7	846.1	862.7	860.1
19°	859.6	853.8	846.3	836.2	852.1	849.0
19.5°	849.1	843.2	835.7	826.2	841.1	838.5
20°	838.6	832.2	825.1	815.6	829.9	827.6
20.5°	827.6	821.5	813.9	805.3	818.7	817.0
21°	816.7	810.3	802.8	794.9	807.0	806.5

TEST NUMBER: P775690

CATALOG NUMBER: HCDJBL510CSD-HCD4TSQC-1000lm-2700K

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
22.5°	783.1	777.2	768.3	763.4	772.8	774.0
23°	771.3	766.2	756.6	752.6	761.4	761.4
23.5°	759.8	754.9	744.9	741.6	750.3	748.1
24°	748.2	742.2	733.4	730.1	738.5	735.4
24.5°	736.6	728.8	721.6	718.0	726.0	724.4
25°	725.1	716.2	709.3	706.0	712.8	713.4
25.5°	713.5	705.3	696.5	694.0	699.5	702.5
26°	700.1	694.6	682.9	681.7	685.9	691.0
26.5°	686.6	681.2	670.2	669.0	674.2	676.6
27°	673.9	666.8	658.9	656.8	662.8	662.8
27.5°	662.2	653.7	647.5	644.0	651.7	648.6
28°	650.9	637.1	634.1	631.5	640.0	631.5
28.5°	638.0	620.2	619.5	619.2	626.8	613.9
29°	623.0	602.9	606.4	607.3	612.5	596.7
29.5°	609.8	585.9	590.5	595.3	599.3	579.7
30°	593.6	569.0	573.8	583.3	583.8	562.6
30.5°	577.7	552.3	556.6	570.9	567.8	545.4
31°	560.4	535.6	540.0	558.1	551.2	528.4
31.5°	543.9	518.9	523.6	544.2	534.5	511.7
32°	527.8	502.6	507.5	530.6	518.1	495.2
32.5°	512.0	486.4	491.1	517.7	501.9	478.4
33°	495.4	469.9	475.8	506.0	486.4	461.1
33.5°	480.1	452.9	460.2	496.0	470.6	444.0
34°	464.2	435.5	444.8	486.3	455.0	426.8
34.5°	449.2	418.1	428.6	473.5	439.1	409.2
35°	432.9	400.7	413.2	461.7	423.7	391.5
35.5°	417.5	383.6	397.0	449.6	408.0	374.0
36°	401.3	366.6	381.1	433.9	392.6	356.2
36.5°	386.0	350.7	364.9	419.2	376.7	340.5
37°	369.4	334.8	349.6	403.7	361.4	324.8
37.5°	353.3	319.0	334.3	387.0	346.2	309.0
38°	337.3	303.0	319.1	370.2	330.9	293.2
38.5°	321.8	287.2	303.8	353.2	315.7	278.2
39°	306.5	272.7	288.6	338.2	300.4	263.5
39.5°	291.9	258.3	274.3	323.3	285.2	248.6
40°	277.4	243.6	260.9	308.2	271.4	234.3
40.5°	263.6	228.9	247.2	293.3	257.6	219.7
41°	250.2	215.2	234.1	279.2	244.4	205.6
41.5°	237.0	200.5	221.0	265.5	231.0	191.8
42°	224.0	187.7	208.1	252.1	218.3	178.3
42.5°	211.0	174.6	195.4	239.2	205.7	165.4
43°	198.3	162.5	182.7	226.2	193.7	153.3
43.5°	185.9	150.0	170.6	213.6	181.4	141.6



TEST NUMBER: P775690

CATALOG NUMBER: HCDJBL510CSD-HCD4TSQC-1000lm-2700K

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
45°	150.9	117.5	137.1	176.9	146.8	109.4
45.5°	140.1	107.1	126.9	165.6	136.3	99.4
46°	129.8	97.7	117.2	154.4	126.0	90.1
46.5°	119.9	88.5	107.8	144.1	116.4	81.2
47°	110.4	79.7	98.8	134.0	107.0	72.7
47.5°	101.4	71.3	89.9	124.5	97.8	64.9
48°	93.2	64.1	81.6	115.2	89.4	57.6
48.5°	85.0	56.9	73.8	106.8	81.1	51.0
49°	76.8	50.6	66.4	98.6	73.3	45.1
49.5°	68.7	44.9	59.5	91.0	65.7	39.7
50°	61.5	39.6	53.0	83.3	59.2	34.9
50.5°	54.9	34.8	47.1	76.3	52.9	31.3
51°	49.1	31.3	41.8	69.4	46.9	27.7
51.5°	43.5	27.8	37.1	63.2	41.3	24.1
52°	38.3	24.4	33.6	57.2	36.6	20.5
52.5°	33.7	20.9	30.1	51.5	33.0	17.7
53°	29.6	18.1	26.6	46.1	29.4	15.1
53.5°	26.0	15.5	23.1	41.3	25.8	12.6
54°	22.7	13.0	19.6	36.8	22.2	10.3
54.5°	19.8	10.7	17.1	33.2	18.6	7.9
55°	17.2	8.4	14.6	29.7	16.0	5.8
55.5°	14.7	6.2	12.3	26.1	13.7	4.2
56°	12.8	4.6	9.9	22.6	11.4	3.8
56.5°	10.9	3.3	7.8	19.0	9.3	3.4
57°	9.0	3.1	5.7	16.3	7.3	3.0
57.5°	7.1	2.9	4.1	14.0	5.4	2.6
58°	5.2	2.8	3.7	11.9	3.8	2.2
58.5°	3.3	2.6	3.3	10.0	3.4	2.1
59°	2.6	2.5	3.0	8.4	3.0	2.0
59.5°	2.4	2.4	2.6	7.0	2.5	2.0
60°	2.3	2.2	2.3	5.8	2.1	1.9
60.5°	2.2	2.1	2.2	4.8	2.0	1.8
61°	2.1	2.0	2.1	4.0	1.9	1.7
61.5°	2.0	1.9	2.0	3.5	1.8	1.7
62°	1.9	1.9	1.9	3.0	1.7	1.6
62.5°	1.8	1.8	1.8	2.5	1.7	1.5
63°	1.7	1.7	1.7	2.0	1.6	1.5
63.5°	1.6	1.6	1.6	1.7	1.5	1.4
64°	1.6	1.5	1.6	1.5	1.5	1.4
64.5°	1.5	1.5	1.5	1.5	1.4	1.3
65°	1.4	1.4	1.4	1.4	1.4	1.3
65.5°	1.4	1.4	1.4	1.4	1.3	1.2
66°	1.3	1.3	1.3	1.3	1.3	1.2



TEST NUMBER: P775690

CATALOG NUMBER: HCDJBL510CSD-HCD4TSQC-1000lm-2700K

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
67.5°	1.2	1.1	1.2	1.1	1.1	1.0
68°	1.1	1.1	1.1	1.1	1.1	1.0
68.5°	1.1	1.0	1.1	1.0	1.0	0.9
69°	1.0	1.0	1.0	1.0	1.0	0.9
69.5°	1.0	1.0	1.0	1.0	0.9	0.9
70°	0.9	0.9	0.9	0.9	0.9	0.8
70.5°	0.9	0.9	0.9	0.9	0.9	0.8
71°	0.8	0.8	0.8	0.8	0.8	0.7
71.5°	0.8	0.8	0.8	0.8	0.8	0.7
72°	0.8	0.8	0.8	0.8	0.7	0.7
72.5°	0.7	0.7	0.7	0.7	0.7	0.6
73°	0.7	0.7	0.7	0.7	0.7	0.6
73.5°	0.7	0.7	0.7	0.7	0.6	0.6
74°	0.6	0.6	0.6	0.6	0.6	0.5
74.5°	0.6	0.6	0.6	0.6	0.6	0.5
75°	0.6	0.6	0.6	0.6	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	0.4
76.5°	0.5	0.5	0.5	0.5	0.5	0.4
77°	0.5	0.4	0.5	0.5	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	0.4	0.4	0.3
78.5°	0.4	0.4	0.4	0.4	0.3	0.3
79°	0.3	0.3	0.4	0.4	0.3	0.3
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	0.2
80.5°	0.3	0.3	0.3	0.3	0.2	0.2
81°	0.3	0.3	0.3	0.3	0.2	0.2
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	0.1	0.1
83°	0.2	0.2	0.2	0.2	0.1	0.1
83.5°	0.2	0.2	0.2	0.2	0.1	0.1
84°	0.1	0.1	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	0.0	0.1
85.5°	0.1	0.1	0.1	0.1	0.0	0.0
86°	0.1	0.1	0.1	0.1	0.0	0.0
86.5°	0.1	0.1	0.1	0.1	0.0	0.0
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: P775690

CATALOG NUMBER: HCDJBL510CSD-HCD4TSQC-1000lm-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



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Scaled Data Report





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

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Scaled Data Report





21.5°	796.3	796.2	796.9	801.8	805.3	816.8	817.8	815.5	819.4	819.8	808.3
22°	785.6	784.9	786.7	791.0	795.5	805.6	807.4	804.8	808.8	808.6	798.0



44°	130.3	156.0	217.0	191.5	157.5	190.4	248.6	194.3	161.8	188.2	229.2
44.5°	119.4	144.7	203.5	180.2	145.3	178.3	235.1	182.6	149.8	176.6	215.9



66.5°	1.1	1.2	1.2	1.2	1.1	1.1	1.1	1.0	1.0	1.1	1.2
67°	1.1	1.1	1.1	1.1	1.0	1.1	1.1	1.0	0.9	1.0	1.1



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



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21.5°	805.6	798.9	791.4	784.3	795.7	796.3
22°	794.3	788.1	780.0	774.0	784.3	785.6



44°	173.9	138.9	159.0	201.0	169.2	130.3
44.5°	162.0	128.1	148.0	189.0	157.6	119.4

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66.5°	1.3	1.2	1.3	1.2	1.2	1.1
67°	1.2	1.2	1.2	1.2	1.2	1.1

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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)