

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: P775694

Luminaire Tested: HCDJBL510CSD-HCD4TSQC-1000lm-5000K

Issue Date: 2/7/2024

Test Information

Test Method: LM-79-2019
Report Number: P775694
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-5000K
Description: 4 INCH SQUARE MEDIUM SPECULAR CLEAR TRIM
Light Source: SELECTABLE LUMENS AND CCT ARRAY 90CRI / 5000K CCT
Ballast/Driver: -

Summary

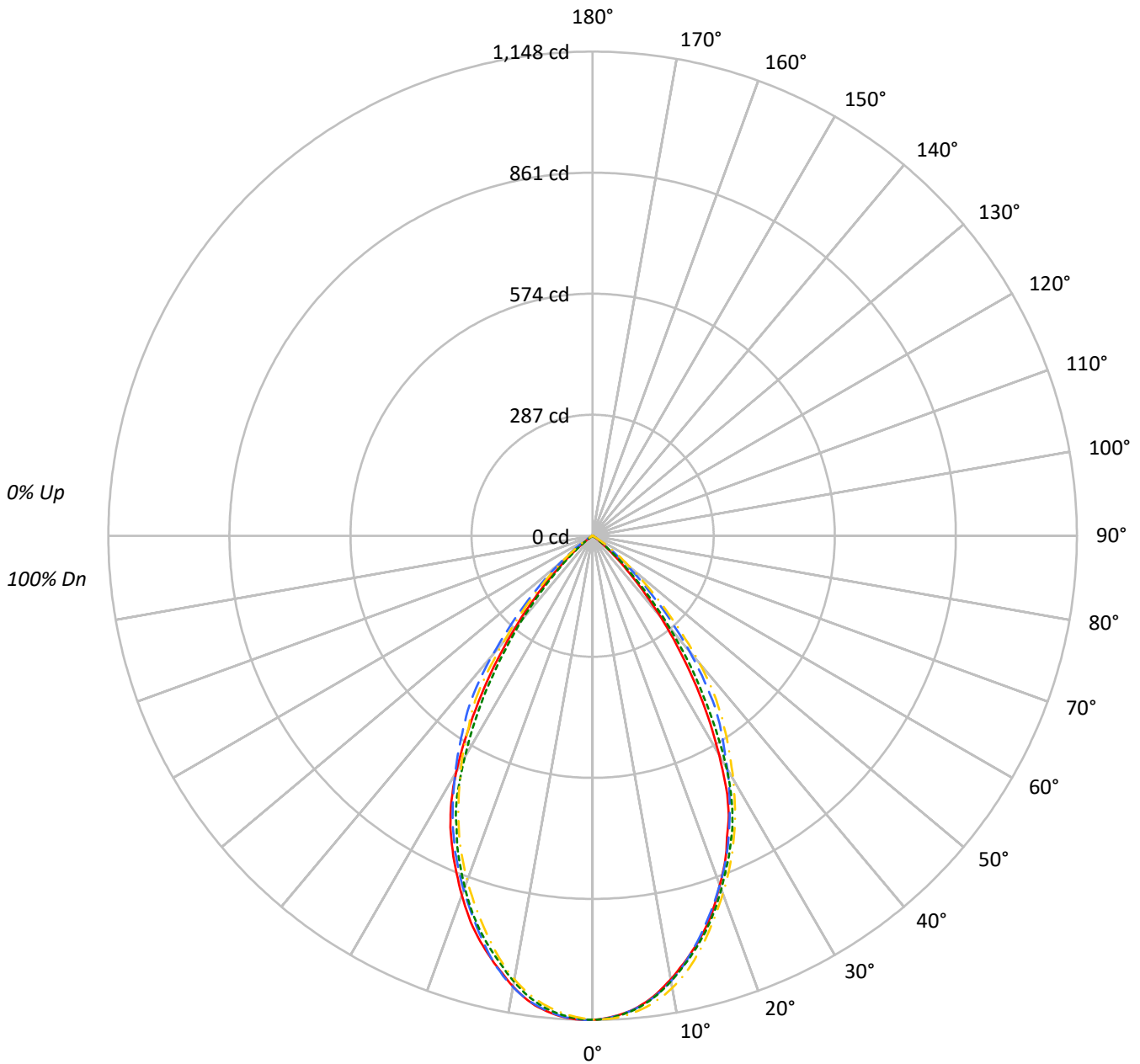
Lumens per Lamp: N/A
Luminaire Lumens: 1186.7 lumens
Efficiency: N/A
Efficacy: 118.7 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.93 / 0.98
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 10
Input Voltage (V): NR
Input Current (A_{in}): 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			
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°	113402	113402	113402	113402
5°	111761	111950	112704	112138
10°	107162	107613	108948	107734
15°	100978	101510	102963	101255
20°	92732	93794	95382	93247
25°	82875	85100	86441	83202
30°	68400	72463	73821	69176
35°	50329	54432	55469	51511
40°	32206	36425	37148	33483
45°	16285	19919	20534	17501
50°	5720	7627	8119	6489
55°	1068	1379	1568	1551
60°	395	376	336	455
65°	327	304	281	351
70°	260	260	202	289
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: 33101 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	106.2	8.9
10°-20°	277.8	23.4
20°-30°	352.8	29.7
30°-40°	291.7	24.6
40°-50°	133.5	11.2
50°-60°	22.4	1.9
60°-70°	1.6	0.1
70°-80°	0.6	0.0
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°	736.8	62.1
0°-40°	1028.5	86.7
0°-60°	1184.4	99.8
0°-90°	1186.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1186.7	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	1147	1147	1147	1147	1147	
5°	1126	1128	1136	1130	1126	106
15°	987	992	1006	990	987	276
25°	760	780	793	763	760	345
35°	417	451	460	427	417	259
45°	116	142	147	125	116	95
55°	6	8	9	9	6	10
65°	1	1	1	2	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°	1147.3	1147.3	1147.3	1147.3	1147.3	1147.3	1147.3	1147.3	1147.3	1147.3	1147.3
0.5°	1147.1	1147.2	1147.2	1146.6	1147.1	1147.1	1147.1	1147.5	1148.1	1148.2	1148.0
1°	1145.9	1146.2	1146.3	1146.0	1146.5	1146.7	1147.1	1147.5	1148.1	1148.1	1147.8
1.5°	1144.7	1144.9	1145.1	1145.0	1145.5	1145.9	1146.6	1147.1	1147.8	1148.0	1147.3
2°	1142.9	1143.2	1143.5	1143.4	1144.1	1145.0	1145.9	1146.3	1147.2	1147.5	1146.6
2.5°	1140.9	1141.2	1141.6	1141.6	1142.3	1143.5	1145.0	1145.1	1146.0	1146.3	1145.8
3°	1138.9	1139.1	1139.3	1139.5	1140.2	1141.7	1143.5	1143.8	1144.7	1144.8	1144.1
3.5°	1136.3	1136.4	1136.7	1137.0	1137.8	1139.8	1141.9	1141.6	1143.0	1143.1	1142.2
4°	1133.5	1133.5	1133.7	1134.3	1135.0	1137.4	1139.7	1139.6	1141.0	1141.0	1139.9
4.5°	1130.1	1130.3	1130.7	1131.3	1132.0	1134.8	1137.3	1137.0	1138.7	1138.6	1137.4
5°	1126.4	1126.5	1127.2	1127.9	1128.3	1131.7	1134.6	1134.3	1135.9	1136.1	1134.4
5.5°	1122.2	1122.4	1123.4	1124.1	1124.7	1128.2	1131.6	1131.2	1132.8	1133.0	1131.3
6°	1117.6	1117.8	1119.2	1119.9	1120.4	1124.6	1128.0	1127.5	1129.4	1129.5	1127.7
6.5°	1112.8	1112.9	1114.5	1115.5	1115.8	1120.3	1124.4	1123.7	1125.7	1125.7	1124.1
7°	1107.4	1107.6	1109.5	1110.7	1110.9	1115.6	1120.4	1119.4	1121.5	1121.6	1119.9
7.5°	1101.9	1101.9	1104.3	1105.5	1105.3	1110.6	1115.9	1115.0	1116.6	1117.1	1115.4
8°	1095.8	1095.9	1098.2	1099.9	1099.4	1105.1	1111.1	1109.7	1111.2	1111.8	1110.4
8.5°	1089.3	1089.7	1092.4	1093.9	1092.9	1099.2	1106.0	1104.3	1105.5	1106.5	1104.9
9°	1081.9	1082.8	1085.8	1087.2	1086.3	1093.0	1100.5	1098.2	1099.1	1100.5	1099.5
9.5°	1074.7	1075.6	1079.0	1080.5	1079.4	1086.4	1094.7	1091.7	1092.6	1094.1	1093.4
10°	1067.7	1068.2	1071.8	1073.5	1072.2	1079.8	1088.5	1085.0	1085.5	1087.2	1086.6
10.5°	1060.1	1060.6	1064.4	1065.9	1064.8	1073.0	1081.8	1077.7	1078.2	1080.1	1079.7
11°	1052.5	1053.0	1056.7	1058.4	1057.3	1065.3	1074.5	1070.2	1070.3	1072.9	1072.5
11.5°	1044.6	1045.2	1048.2	1050.3	1049.3	1057.8	1067.4	1062.1	1062.1	1065.0	1064.9
12°	1037.0	1037.2	1039.7	1041.8	1041.4	1050.1	1059.6	1054.0	1054.2	1056.5	1056.3
12.5°	1029.1	1029.1	1030.3	1033.6	1033.6	1042.3	1051.2	1045.5	1046.7	1048.4	1048.3
13°	1020.8	1021.0	1021.5	1025.0	1025.8	1034.4	1042.7	1036.8	1039.1	1040.3	1039.1
13.5°	1012.5	1012.5	1012.3	1016.1	1017.5	1026.4	1034.4	1028.4	1031.0	1031.6	1029.6
14°	1004.1	1003.9	1002.7	1007.5	1009.1	1018.2	1024.6	1019.9	1022.7	1023.1	1019.7
14.5°	995.5	995.1	993.1	998.5	1000.7	1009.8	1015.2	1011.2	1014.5	1014.6	1009.8
15°	986.8	986.4	983.7	989.8	992.0	1001.3	1005.7	1002.6	1006.2	1006.0	999.1
15.5°	978.1	977.3	973.5	980.6	983.3	992.6	995.7	993.4	997.4	997.1	988.5
16°	968.6	967.6	963.7	971.0	974.2	983.6	985.2	984.5	988.8	988.3	977.8
16.5°	959.2	958.8	953.6	961.4	965.0	975.0	975.1	975.2	979.7	979.0	967.5
17°	949.4	949.3	943.5	951.8	955.4	965.3	964.6	965.8	970.2	969.7	956.6
17.5°	939.1	939.4	933.3	942.0	945.2	955.9	954.3	956.0	960.2	960.3	946.2
18°	927.9	928.4	923.1	932.1	934.8	946.1	944.2	946.0	949.8	950.6	935.4
18.5°	916.2	918.3	912.8	921.6	924.3	936.2	934.0	935.5	939.3	940.1	925.1
19°	904.4	906.8	902.4	910.8	913.7	925.3	923.7	925.0	928.8	929.6	914.7
19.5°	893.2	894.9	891.7	899.6	902.8	915.1	913.5	914.4	917.9	918.6	904.3
20°	881.6	883.2	881.4	888.7	891.7	903.9	903.0	903.0	906.8	907.6	893.6
20.5°	870.3	871.6	870.9	877.3	880.5	892.8	892.5	891.7	895.5	896.3	882.9
21°	859.2	859.8	860.2	865.9	869.1	881.4	881.8	880.3	884.1	884.9	871.8



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
22.5°	824.6	825.1	827.0	830.8	836.8	846.5	849.5	844.9	850.4	849.7	839.1
23°	811.1	813.6	815.4	819.0	825.8	834.8	838.5	832.9	839.4	837.9	827.6
23.5°	796.9	801.3	803.3	806.3	814.4	823.7	827.4	820.8	828.0	825.9	816.8
24°	783.4	788.1	791.3	795.0	803.0	811.3	816.0	808.8	816.0	813.9	804.7
24.5°	771.7	774.2	778.8	783.7	791.7	799.1	804.1	796.8	804.3	801.8	792.6
25°	759.9	759.7	766.2	772.2	780.3	786.8	792.1	784.8	792.6	789.7	780.5
25.5°	748.3	746.5	753.5	759.1	768.9	774.4	780.2	772.7	780.9	777.6	768.5
26°	736.1	734.5	741.0	746.0	756.0	762.2	768.3	760.8	769.2	765.6	757.0
26.5°	720.8	722.8	728.4	732.7	742.5	751.0	756.6	746.9	755.5	751.7	744.1
27°	706.1	710.9	716.0	720.9	729.3	739.6	743.7	734.6	742.2	740.0	730.9
27.5°	691.0	698.5	703.4	709.7	714.7	727.3	730.9	723.1	728.0	727.3	717.8
28°	672.7	682.9	691.2	698.4	700.1	713.0	717.5	710.6	713.1	713.1	704.2
28.5°	654.0	667.9	678.3	684.8	684.5	699.4	704.6	696.9	697.1	699.9	691.0
29°	635.6	653.0	665.5	671.5	668.7	685.2	691.6	684.0	681.0	685.4	677.6
29.5°	617.5	635.7	651.9	658.2	652.2	670.3	678.7	669.9	663.9	670.3	664.4
30°	599.3	617.6	638.5	644.3	634.9	654.8	666.2	655.1	646.8	654.9	651.1
30.5°	581.0	599.4	624.5	629.4	616.5	638.6	653.3	640.2	628.7	638.9	638.2
31°	562.9	581.5	611.3	614.2	598.3	622.6	639.9	624.8	609.6	622.8	625.5
31.5°	545.1	563.7	598.3	598.7	579.4	605.9	626.4	609.0	590.6	605.8	612.8
32°	527.5	546.4	586.7	582.9	560.5	588.8	612.7	592.3	571.8	588.7	599.5
32.5°	509.6	528.8	574.8	566.2	541.2	571.2	600.6	575.3	552.2	571.0	585.4
33°	491.2	511.5	563.0	549.5	522.7	552.8	588.6	558.0	533.4	553.2	572.3
33.5°	472.9	494.7	550.9	532.1	503.9	534.6	576.7	540.3	513.7	534.6	559.8
34°	454.7	477.5	538.2	514.5	485.9	516.3	563.9	522.1	495.5	515.6	547.0
34.5°	435.9	460.3	524.9	496.7	468.0	498.2	550.1	503.9	477.2	497.2	534.2
35°	417.1	442.9	513.1	479.0	451.1	480.4	538.5	486.4	459.7	480.0	522.8
35.5°	398.4	425.2	499.7	461.2	433.7	463.0	527.1	468.6	441.3	461.6	511.3
36°	379.4	407.7	483.7	443.8	416.8	446.0	513.0	451.2	424.0	444.3	497.4
36.5°	362.7	389.9	468.0	427.1	400.0	429.2	499.3	434.1	406.6	426.7	482.3
37°	346.0	373.4	452.8	410.5	382.7	412.7	486.2	417.2	389.8	410.8	468.7
37.5°	329.2	356.8	436.5	394.0	365.3	396.5	471.4	400.9	372.2	393.9	453.0
38°	312.4	340.3	420.3	376.9	348.3	380.5	456.7	384.8	354.4	378.1	436.6
38.5°	296.4	323.7	404.2	361.7	331.4	364.4	442.1	369.0	337.2	362.1	419.8
39°	280.7	307.3	388.3	346.5	314.7	349.3	426.1	353.2	320.9	346.3	402.9
39.5°	264.8	291.9	372.3	331.4	298.3	333.1	410.1	337.1	304.1	330.3	385.5
40°	249.6	277.0	356.4	316.2	282.3	317.2	394.3	321.5	287.9	314.8	368.7
40.5°	234.0	261.8	340.5	301.1	266.9	301.4	377.8	306.1	271.9	299.3	351.8
41°	219.0	247.7	324.6	286.2	251.8	286.5	361.2	290.7	257.0	284.1	335.4
41.5°	204.3	233.2	308.8	271.5	237.2	271.3	344.3	275.6	241.9	268.8	319.2
42°	190.0	219.3	292.9	256.8	222.5	256.9	327.5	261.1	227.6	254.5	303.3
42.5°	176.2	205.7	277.3	243.3	208.8	242.4	311.4	247.0	213.3	240.6	287.8
43°	163.3	192.1	261.6	229.9	194.7	229.4	295.4	233.4	199.0	226.8	272.9
43.5°	150.9	178.7	246.1	216.9	181.0	215.6	280.1	220.2	185.5	213.4	258.2



TEST NUMBER: P775694

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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
45°	116.5	142.6	203.3	180.0	142.5	177.7	236.8	182.4	146.9	176.1	216.3
45.5°	105.9	131.3	190.4	168.3	130.8	165.5	223.1	170.6	135.1	164.4	203.2
46°	96.0	121.1	177.6	156.7	119.6	153.7	210.1	159.2	123.8	152.9	190.2
46.5°	86.5	111.2	165.8	145.6	109.1	142.4	197.3	147.7	113.0	141.7	177.5
47°	77.4	101.3	154.2	134.7	99.7	131.6	185.3	136.8	103.8	131.1	165.5
47.5°	69.1	92.0	143.1	124.4	90.3	120.8	173.0	126.6	94.7	120.9	153.8
48°	61.4	83.2	132.2	114.6	81.0	111.0	161.6	116.3	85.5	111.1	142.8
48.5°	54.4	74.8	122.0	105.1	71.8	102.3	150.2	106.8	76.4	102.7	132.2
49°	48.1	66.8	112.1	96.4	63.8	93.6	139.6	98.4	67.3	94.2	122.2
49.5°	42.3	59.7	102.7	88.2	56.5	85.0	128.8	90.0	59.8	85.9	112.4
50°	37.2	53.1	93.4	80.2	49.6	76.3	118.8	81.6	52.8	77.5	104.1
50.5°	33.4	46.9	85.2	72.1	43.3	67.7	109.2	73.1	46.4	69.1	95.8
51°	29.5	41.3	77.1	64.8	37.6	60.6	100.8	65.6	40.6	62.3	87.5
51.5°	25.7	36.4	69.7	57.9	32.4	53.9	92.2	58.6	35.2	55.7	79.2
52°	21.9	32.6	62.7	51.5	27.7	47.9	83.7	52.0	30.1	49.5	71.0
52.5°	18.9	28.9	56.4	45.4	23.3	41.9	75.2	46.1	25.5	43.6	64.1
53°	16.1	25.1	50.0	39.7	19.5	36.5	67.9	40.2	21.4	38.2	57.6
53.5°	13.4	21.4	44.8	35.2	16.0	31.6	61.2	35.0	17.7	33.1	51.6
54°	11.0	18.6	39.4	30.7	13.3	27.0	54.6	30.0	14.8	28.4	45.8
54.5°	8.4	15.9	35.4	26.3	10.7	22.8	48.4	25.6	11.9	24.3	40.6
55°	6.2	13.4	31.6	21.9	8.0	19.2	42.9	21.4	9.1	20.4	35.8
55.5°	4.5	11.0	27.6	17.5	5.4	15.6	37.5	17.7	6.2	16.8	31.5
56°	4.1	8.5	23.7	14.2	2.8	13.0	32.6	14.8	3.3	14.1	27.5
56.5°	3.6	6.4	19.7	11.2	2.6	10.3	28.0	12.0	2.3	11.3	23.8
57°	3.2	4.5	16.6	8.5	2.5	7.8	24.0	9.3	2.2	8.6	20.5
57.5°	2.8	3.9	14.2	5.9	2.3	5.2	20.3	6.5	2.1	5.9	17.6
58°	2.3	3.5	11.9	3.8	2.2	2.6	17.0	3.7	2.0	3.1	15.0
58.5°	2.2	3.1	10.0	3.4	2.1	2.2	14.2	2.2	1.9	2.2	12.7
59°	2.1	2.7	8.3	3.0	2.0	2.1	12.4	2.0	1.8	2.0	11.2
59.5°	2.1	2.1	6.9	2.6	1.9	2.0	10.6	1.9	1.7	2.0	9.7
60°	2.0	2.0	5.9	2.0	1.9	1.9	8.8	1.8	1.7	1.9	8.1
60.5°	1.9	2.0	4.9	2.0	1.8	1.9	7.0	1.8	1.6	1.8	6.6
61°	1.8	1.9	4.1	1.9	1.7	1.8	5.2	1.7	1.6	1.7	5.1
61.5°	1.8	1.8	3.5	1.8	1.7	1.7	4.3	1.6	1.5	1.7	4.2
62°	1.7	1.8	3.0	1.7	1.6	1.7	3.5	1.6	1.4	1.6	3.5
62.5°	1.6	1.7	2.5	1.7	1.6	1.6	2.9	1.5	1.4	1.6	2.9
63°	1.6	1.6	1.9	1.6	1.5	1.5	2.3	1.5	1.3	1.5	2.3
63.5°	1.5	1.6	1.7	1.6	1.4	1.5	1.9	1.4	1.3	1.4	2.0
64°	1.5	1.5	1.6	1.5	1.4	1.4	1.6	1.4	1.3	1.4	1.7
64.5°	1.4	1.5	1.5	1.5	1.3	1.4	1.5	1.3	1.2	1.3	1.5
65°	1.4	1.4	1.5	1.4	1.3	1.3	1.4	1.3	1.2	1.3	1.5
65.5°	1.3	1.4	1.4	1.4	1.3	1.3	1.3	1.2	1.1	1.3	1.4
66°	1.3	1.3	1.3	1.3	1.2	1.2	1.3	1.2	1.1	1.2	1.3



TEST NUMBER: P775694

CATALOG NUMBER: HCDJBL510CSD-HCD4TSQC-1000lm-5000K

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	1.2	1.2	1.1	1.1	1.2	1.1	1.0	1.1	1.2
68°	1.1	1.1	1.2	1.1	1.0	1.1	1.1	1.0	0.9	1.1	1.1
68.5°	1.0	1.1	1.1	1.1	1.0	1.0	1.1	1.0	0.9	1.0	1.1
69°	1.0	1.0	1.1	1.0	1.0	1.0	1.0	0.9	0.9	1.0	1.1
69.5°	1.0	1.0	1.0	1.0	0.9	1.0	1.0	0.9	0.7	0.9	1.0
70°	0.9	1.0	1.0	1.0	0.9	0.9	1.0	0.9	0.7	0.9	1.0
70.5°	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.7	0.7	0.9	0.9
71°	0.7	0.9	0.9	0.9	0.7	0.9	0.9	0.7	0.7	0.7	0.9
71.5°	0.7	0.9	0.9	0.9	0.7	0.7	0.7	0.7	0.6	0.7	0.9
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: P775694
CATALOG NUMBER: HCDJBL510CSD-HCD4TSQC-1000lm-5000K

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: P775694

CATALOG NUMBER: HCDJBL510CSD-HCD4TSQC-1000lm-5000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	1147.3	1147.3	1147.3	1147.3	1147.3	1147.3
0.5°	1147.1	1147.1	1146.4	1145.8	1146.5	1147.1
1°	1146.6	1146.5	1145.6	1144.7	1145.7	1145.9
1.5°	1145.9	1145.8	1144.6	1143.4	1144.3	1144.7
2°	1144.9	1144.6	1143.2	1141.6	1142.8	1142.9
2.5°	1143.4	1143.0	1141.3	1139.7	1140.9	1140.9
3°	1141.7	1141.2	1139.1	1137.1	1138.9	1138.9
3.5°	1139.8	1139.0	1136.6	1134.7	1136.5	1136.3
4°	1137.5	1136.6	1133.8	1131.6	1133.7	1133.5
4.5°	1134.7	1133.5	1130.6	1128.5	1130.5	1130.1
5°	1131.7	1130.2	1127.2	1124.8	1127.1	1126.4
5.5°	1128.2	1126.6	1123.3	1120.8	1123.1	1122.2
6°	1124.4	1122.5	1119.0	1116.8	1118.8	1117.6
6.5°	1120.0	1118.0	1114.4	1111.9	1114.0	1112.8
7°	1115.3	1112.9	1109.2	1106.7	1108.9	1107.4
7.5°	1110.0	1107.6	1103.9	1101.2	1103.6	1101.9
8°	1104.5	1101.6	1097.7	1095.2	1097.7	1095.8
8.5°	1098.4	1095.2	1091.3	1089.0	1091.7	1089.3
9°	1091.9	1088.1	1084.5	1082.3	1084.9	1081.9
9.5°	1085.0	1080.9	1077.2	1075.4	1077.9	1074.7
10°	1077.8	1073.4	1069.4	1067.4	1070.5	1067.7
10.5°	1070.3	1065.4	1061.3	1060.4	1063.2	1060.1
11°	1062.4	1057.5	1053.3	1052.1	1055.6	1052.5
11.5°	1054.5	1049.0	1044.9	1043.2	1047.7	1044.6
12°	1046.0	1040.6	1036.2	1033.8	1039.5	1037.0
12.5°	1037.7	1032.3	1027.3	1024.8	1031.3	1029.1
13°	1029.1	1023.9	1018.4	1015.1	1023.1	1020.8
13.5°	1020.5	1015.6	1009.6	1005.3	1014.5	1012.5
14°	1011.8	1007.1	1000.5	994.9	1005.7	1004.1
14.5°	1002.9	998.7	991.7	984.9	996.9	995.5
15°	994.2	989.5	982.4	974.5	987.9	986.8
15.5°	985.2	980.4	973.0	964.1	978.5	978.1
16°	975.9	971.4	963.3	953.7	969.2	968.6
16.5°	966.5	962.0	953.8	943.3	959.7	959.2
17°	956.5	952.1	943.9	932.8	949.8	949.4
17.5°	946.9	942.3	933.7	922.4	939.9	939.1
18°	936.7	931.5	923.2	912.0	929.7	927.9
18.5°	926.5	920.4	912.6	901.3	919.0	916.2
19°	915.7	909.5	901.5	890.8	907.7	904.4
19.5°	904.5	898.2	890.2	880.1	896.0	893.2
20°	893.3	886.5	878.9	868.8	884.0	881.6
20.5°	881.6	875.1	867.0	857.9	872.1	870.3
21°	870.0	863.3	855.3	846.8	859.7	859.2

TEST NUMBER: P775694

CATALOG NUMBER: HCDJBL510CSD-HCD4TSQC-1000lm-5000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
22.5°	834.3	828.0	818.5	813.3	823.3	824.6
23°	821.7	816.2	806.0	801.7	811.1	811.1
23.5°	809.4	804.2	793.5	790.0	799.3	796.9
24°	797.0	790.6	781.3	777.7	786.7	783.4
24.5°	784.7	776.4	768.7	764.8	773.4	771.7
25°	772.4	762.9	755.6	752.1	759.3	759.9
25.5°	760.1	751.3	741.9	739.3	745.1	748.3
26°	745.8	739.9	727.5	726.3	730.7	736.1
26.5°	731.4	725.7	714.0	712.7	718.3	720.8
27°	717.9	710.4	701.9	699.7	706.1	706.1
27.5°	705.5	696.4	689.8	686.1	694.3	691.0
28°	693.4	678.7	675.5	672.7	681.8	672.7
28.5°	679.7	660.7	659.9	659.6	667.7	654.0
29°	663.7	642.2	646.0	646.9	652.5	635.6
29.5°	649.6	624.1	629.0	634.1	638.4	617.5
30°	632.3	606.1	611.2	621.3	621.9	599.3
30.5°	615.4	588.4	593.0	608.1	604.8	581.0
31°	597.0	570.6	575.3	594.6	587.2	562.9
31.5°	579.4	552.8	557.8	579.8	569.4	545.1
32°	562.3	535.4	540.6	565.3	551.9	527.5
32.5°	545.4	518.1	523.2	551.5	534.7	509.6
33°	527.7	500.6	506.8	539.0	518.1	491.2
33.5°	511.4	482.4	490.2	528.4	501.3	472.9
34°	494.5	464.0	473.8	518.0	484.7	454.7
34.5°	478.5	445.4	456.6	504.4	467.7	435.9
35°	461.2	426.9	440.2	491.8	451.4	417.1
35.5°	444.8	408.7	422.9	478.9	434.7	398.4
36°	427.5	390.5	406.0	462.3	418.2	379.4
36.5°	411.2	373.6	388.7	446.6	401.3	362.7
37°	393.5	356.6	372.4	430.1	385.0	346.0
37.5°	376.3	339.8	356.1	412.3	368.8	329.2
38°	359.3	322.8	339.9	394.4	352.5	312.4
38.5°	342.8	306.0	323.7	376.2	336.3	296.4
39°	326.6	290.5	307.5	360.2	320.1	280.7
39.5°	311.0	275.2	292.2	344.4	303.8	264.8
40°	295.5	259.5	277.9	328.4	289.1	249.6
40.5°	280.8	243.8	263.3	312.5	274.4	234.0
41°	266.5	229.2	249.4	297.5	260.4	219.0
41.5°	252.5	213.5	235.4	282.8	246.1	204.3
42°	238.6	199.9	221.7	268.6	232.5	190.0
42.5°	224.7	186.0	208.1	254.8	219.1	176.2
43°	211.2	173.1	194.7	240.9	206.3	163.3
43.5°	198.1	159.8	181.8	227.5	193.3	150.9



TEST NUMBER: P775694

CATALOG NUMBER: HCDJBL510CSD-HCD4TSQC-1000lm-5000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
45°	160.8	125.2	146.1	188.5	156.4	116.5
45.5°	149.3	114.1	135.2	176.4	145.2	105.9
46°	138.3	104.1	124.8	164.5	134.2	96.0
46.5°	127.7	94.2	114.8	153.5	124.0	86.5
47°	117.6	84.9	105.2	142.8	114.0	77.4
47.5°	108.0	75.9	95.7	132.6	104.2	69.1
48°	99.3	68.2	86.9	122.7	95.2	61.4
48.5°	90.5	60.7	78.6	113.8	86.4	54.4
49°	81.8	53.9	70.7	105.0	78.0	48.1
49.5°	73.1	47.9	63.4	96.9	69.9	42.3
50°	65.6	42.2	56.5	88.7	63.1	37.2
50.5°	58.5	37.1	50.2	81.2	56.4	33.4
51°	52.3	33.4	44.6	73.9	50.0	29.5
51.5°	46.4	29.6	39.6	67.3	44.0	25.7
52°	40.8	26.0	35.8	61.0	39.0	21.9
52.5°	35.9	22.3	32.1	54.9	35.2	18.9
53°	31.6	19.3	28.4	49.1	31.3	16.1
53.5°	27.7	16.5	24.6	44.0	27.5	13.4
54°	24.2	13.9	20.9	39.2	23.7	11.0
54.5°	21.1	11.4	18.2	35.4	19.8	8.4
55°	18.3	9.0	15.6	31.7	17.1	6.2
55.5°	15.7	6.6	13.1	27.8	14.6	4.5
56°	13.6	4.9	10.6	24.1	12.2	4.1
56.5°	11.6	3.5	8.3	20.3	9.9	3.6
57°	9.6	3.3	6.1	17.4	7.8	3.2
57.5°	7.6	3.1	4.4	14.9	5.8	2.8
58°	5.5	3.0	3.9	12.7	4.1	2.3
58.5°	3.5	2.8	3.5	10.7	3.6	2.2
59°	2.8	2.7	3.2	9.0	3.2	2.1
59.5°	2.6	2.6	2.8	7.5	2.7	2.1
60°	2.5	2.3	2.5	6.2	2.2	2.0
60.5°	2.3	2.2	2.3	5.1	2.1	1.9
61°	2.2	2.1	2.2	4.3	2.0	1.8
61.5°	2.1	2.0	2.1	3.7	1.9	1.8
62°	2.0	2.0	2.0	3.2	1.8	1.7
62.5°	1.9	1.9	1.9	2.7	1.8	1.6
63°	1.8	1.8	1.8	2.1	1.7	1.6
63.5°	1.7	1.7	1.7	1.8	1.6	1.5
64°	1.7	1.6	1.7	1.6	1.6	1.5
64.5°	1.6	1.6	1.6	1.6	1.5	1.4
65°	1.5	1.5	1.5	1.5	1.5	1.4
65.5°	1.5	1.5	1.5	1.5	1.4	1.3
66°	1.4	1.4	1.4	1.4	1.4	1.3



TEST NUMBER: P775694

CATALOG NUMBER: HCDJBL510CSD-HCD4TSQC-1000lm-5000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
67.5°	1.3	1.2	1.3	1.2	1.2	1.1
68°	1.2	1.2	1.2	1.2	1.2	1.1
68.5°	1.2	1.1	1.2	1.1	1.1	1.0
69°	1.1	1.1	1.1	1.1	1.1	1.0
69.5°	1.1	1.1	1.1	1.1	1.0	1.0
70°	1.0	1.0	1.0	1.0	1.0	0.9
70.5°	1.0	1.0	1.0	1.0	1.0	0.9
71°	0.9	0.9	0.9	0.9	0.9	0.7
71.5°	0.9	0.9	0.9	0.9	0.9	0.7
72°	0.9	0.9	0.9	0.9	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: P775694
CATALOG NUMBER: HCDJBL510CSD-HCD4TSQC-1000lm-5000K

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°	848.3	848.2	849.0	854.2	857.9	870.1	871.1	868.7	872.8	873.3	861.1
22°	836.9	836.2	838.1	842.7	847.5	858.2	860.2	857.4	861.7	861.4	850.1



44°	138.8	166.2	231.1	204.0	167.8	202.8	264.8	206.9	172.4	200.4	244.1
44.5°	127.2	154.2	216.7	192.0	154.8	190.0	250.4	194.6	159.6	188.2	230.0



66.5°	1.2	1.3	1.3	1.3	1.2	1.2	1.2	1.1	1.1	1.2	1.3
67°	1.2	1.2	1.2	1.2	1.1	1.2	1.2	1.1	1.0	1.1	1.2



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°	858.2	851.1	843.1	835.5	847.7	848.3
22°	846.2	839.6	830.9	824.6	835.5	836.9



44°	185.3	148.0	169.4	214.1	180.3	138.8
44.5°	172.6	136.5	157.7	201.3	167.9	127.2



66.5°	1.4	1.3	1.4	1.3	1.3	1.2
67°	1.3	1.3	1.3	1.3	1.3	1.2

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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)