

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: P775641

Luminaire Tested: HCDJBL510CSD-HCD42TRC-1000lm-3000K

Issue Date: 2/13/2024

Test Information

Test Method: LM-79-2019
Report Number: P775641
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (A2312156B049)
Test Lab:
Issue Date: 2/13/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO COMMERCIAL
Catalog Number: HCDJBL510CSD-HCD42TRC-1000lm-3000K
Description: 4 INCH ROUND NARROW SPECULAR CLEAR TRIM
Light Source: SELECTABLE LUMENS AND CCT ARRAY 90CRI / 3000K CCT
Ballast/Driver: -

Summary

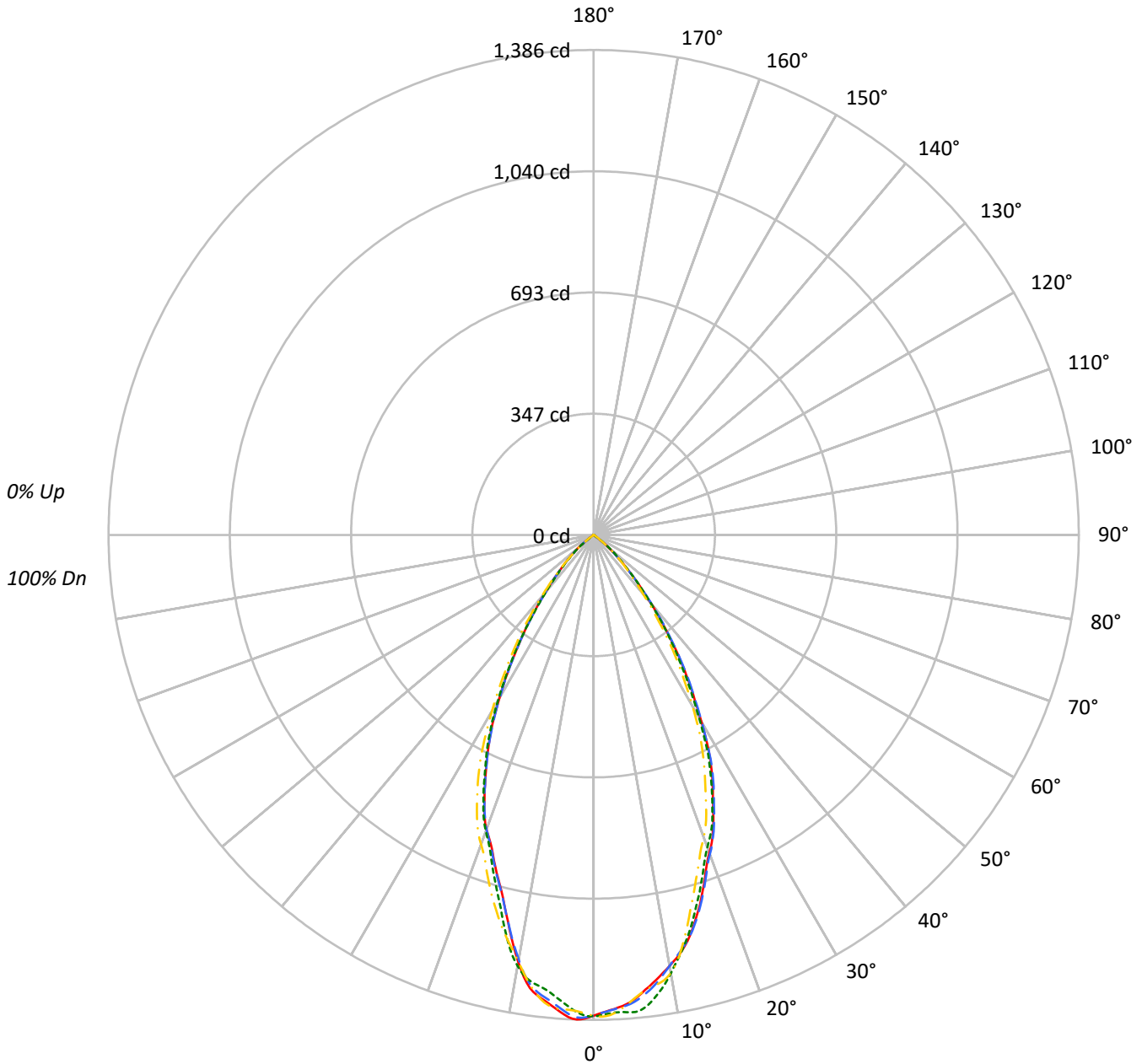
Lumens per Lamp: N/A
Luminaire Lumens: 1130.8 lumens
Efficiency: N/A
Efficacy: 113.1 lumens/watt
Spacing Criteria (0/90/45): 0.82 / 0.81 / 0.84
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

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								
1	114	111	108	106	111	109	106	104	105	103	101	101	99	98	97	96	95	93								
2	108	103	99	96	106	101	98	94	98	95	92	95	93	90	92	90	89	87								
3	102	96	91	87	100	95	90	86	92	88	85	89	86	84	87	85	82	81								
4	97	90	84	80	95	88	83	79	86	82	78	84	80	77	82	79	76	75								
5	92	84	78	74	90	83	77	73	81	76	73	79	75	72	78	74	71	70								
6	87	78	72	68	86	78	72	68	76	71	67	75	70	67	73	70	66	65								
7	83	74	68	63	82	73	67	63	72	67	63	71	66	63	69	65	62	61								
8	79	69	63	59	78	69	63	59	68	62	59	67	62	59	66	61	58	57								
9	75	65	59	55	74	65	59	55	64	59	55	63	58	55	62	58	55	53								
10	72	62	56	52	71	61	56	52	61	55	52	60	55	52	59	55	52	50								

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	172943	172943	172943	172943
5°	168361	172909	170811	166731
10°	159816	162487	158410	159931
15°	147501	145468	135045	138185
20°	129440	127230	119891	120668
25°	111824	110852	100673	101729
30°	89357	87380	78370	79533
35°	65156	63297	55216	55585
40°	41646	41285	35403	34615
45°	23262	23885	21162	20574
50°	10573	11297	10494	10103
55°	636	614	483	570
60°	176	227	201	201
65°	89	119	119	119
70°	74	74	74	74
75°	49	49	49	49
80°	0	0	0	0
85°	0	0	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 45°

Luminance: 23885 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	125.4	11.1
10°-20°	303.4	26.8
20°-30°	348.1	30.8
30°-40°	243.3	21.5
40°-50°	99.2	8.8
50°-60°	10.9	1.0
60°-70°	0.4	0.0
70°-80°	0.1	0.0
80°-90°	0.0	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°	776.9	68.7
0°-40°	1020.2	90.2
0°-60°	1130.3	100.0
0°-90°	1130.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1130.8	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	1374	1374	1374	1374	1374	
5°	1333	1369	1352	1320	1333	124
15°	1132	1116	1036	1061	1132	314
25°	805	798	725	733	805	367
35°	424	412	359	362	424	263
45°	131	134	119	116	131	105
55°	3	3	2	3	3	11
65°	0	0	0	0	0	0
75°	0	0	0	0	0	0
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°	1374.2	1374.2	1374.2	1374.2	1374.2	1374.2	1374.2	1374.2	1374.2	1374.2	1374.2
0.5°	1369.8	1369.7	1369.7	1370.0	1374.8	1375.3	1376.5	1377.7	1378.2	1378.1	1376.8
1°	1366.2	1365.9	1366.4	1367.2	1372.4	1374.1	1377.0	1380.0	1382.1	1382.0	1379.4
1.5°	1362.6	1362.2	1363.1	1364.7	1370.1	1372.0	1375.8	1380.7	1384.8	1385.1	1380.7
2°	1359.2	1358.3	1360.0	1363.0	1367.9	1369.0	1372.6	1379.0	1385.9	1386.7	1379.6
2.5°	1356.0	1354.2	1357.0	1362.0	1366.5	1365.7	1367.7	1374.7	1383.9	1385.9	1376.2
3°	1352.6	1349.4	1354.2	1362.0	1366.0	1362.0	1361.7	1368.7	1379.7	1382.1	1370.6
3.5°	1348.9	1343.9	1351.3	1363.2	1366.4	1358.2	1354.6	1361.6	1373.8	1376.8	1363.8
4°	1344.7	1338.0	1348.1	1364.8	1367.7	1354.0	1346.8	1353.6	1367.0	1369.9	1356.7
4.5°	1339.3	1330.6	1344.2	1366.7	1368.7	1349.1	1338.5	1345.4	1359.6	1362.8	1349.2
5°	1332.7	1322.7	1339.6	1367.4	1368.7	1343.0	1330.2	1337.4	1352.1	1355.8	1342.0
5.5°	1324.9	1314.3	1333.5	1366.0	1366.4	1335.8	1322.2	1330.1	1345.1	1348.5	1335.2
6°	1316.8	1305.9	1326.4	1362.0	1361.3	1327.5	1314.9	1323.7	1338.7	1341.4	1329.1
6.5°	1308.3	1298.5	1318.7	1355.0	1354.2	1319.7	1308.8	1318.4	1332.4	1334.3	1323.1
7°	1300.4	1292.3	1310.7	1345.4	1345.4	1312.2	1304.2	1313.8	1325.3	1326.6	1316.5
7.5°	1292.4	1286.7	1302.3	1333.4	1335.1	1304.9	1300.6	1309.6	1317.5	1316.9	1308.6
8°	1284.6	1281.8	1293.1	1319.0	1324.3	1298.3	1297.3	1304.6	1307.4	1304.7	1298.4
8.5°	1275.9	1277.6	1282.8	1302.4	1312.5	1291.3	1293.7	1298.0	1293.9	1289.7	1285.3
9°	1267.4	1273.6	1272.0	1284.7	1300.0	1283.8	1288.1	1288.9	1278.0	1271.8	1270.2
9.5°	1258.8	1269.8	1261.3	1267.0	1285.9	1276.0	1280.5	1277.0	1259.1	1251.3	1252.0
10°	1250.6	1266.5	1250.6	1249.6	1271.5	1267.3	1270.9	1262.7	1239.6	1229.3	1233.2
10.5°	1242.0	1263.3	1240.3	1234.0	1256.8	1257.5	1258.6	1246.7	1219.1	1205.2	1213.8
11°	1233.7	1259.5	1230.5	1219.6	1242.2	1246.2	1244.2	1229.3	1197.8	1180.9	1194.1
11.5°	1224.4	1253.9	1220.7	1206.8	1228.3	1233.1	1227.0	1211.1	1175.8	1156.5	1173.4
12°	1214.5	1245.5	1211.0	1195.2	1213.8	1218.1	1208.8	1192.4	1154.2	1131.8	1152.4
12.5°	1203.1	1234.1	1200.8	1184.4	1199.0	1201.0	1188.5	1173.0	1132.4	1108.0	1131.0
13°	1191.3	1220.1	1190.5	1173.7	1184.2	1182.9	1168.0	1153.1	1110.7	1085.8	1111.0
13.5°	1177.6	1204.3	1178.5	1162.0	1168.2	1163.0	1146.7	1131.9	1090.1	1064.9	1090.7
14°	1163.4	1187.0	1165.7	1148.9	1151.1	1142.8	1125.6	1112.3	1070.6	1046.0	1071.6
14.5°	1148.1	1169.0	1151.5	1135.3	1133.8	1121.9	1104.8	1092.1	1052.4	1028.1	1054.1
15°	1132.1	1150.0	1136.5	1121.0	1116.5	1101.7	1085.3	1073.3	1036.5	1011.6	1038.3
15.5°	1116.2	1132.1	1120.7	1106.9	1099.1	1082.7	1066.5	1054.8	1020.5	996.5	1022.7
16°	1099.8	1113.7	1104.6	1091.9	1081.9	1064.2	1048.0	1036.9	1005.1	981.6	1007.4
16.5°	1082.9	1094.7	1088.0	1076.1	1064.8	1045.6	1029.1	1018.3	988.9	966.6	991.4
17°	1064.9	1075.6	1070.6	1059.3	1046.9	1027.0	1011.3	999.8	973.1	951.6	975.7
17.5°	1047.1	1055.9	1053.0	1042.3	1028.8	1008.3	993.4	981.4	957.0	936.8	959.6
18°	1028.8	1036.5	1034.6	1025.1	1011.3	989.9	976.0	964.1	941.8	922.9	944.7
18.5°	1010.9	1017.8	1016.4	1007.9	993.6	972.5	959.3	947.2	928.3	910.5	930.7
19°	994.3	1000.5	999.4	991.9	977.6	956.8	944.6	933.0	916.6	899.8	919.0
19.5°	979.7	985.2	984.1	978.0	962.7	943.4	931.8	920.1	905.9	889.6	907.1
20°	966.5	971.3	970.7	965.6	950.0	931.0	919.6	907.7	895.2	878.8	895.2
20.5°	954.6	958.2	958.2	954.2	938.2	918.6	906.9	894.0	882.9	866.1	881.6
21°	941.2	944.3	944.3	942.4	926.3	905.1	891.9	878.5	868.6	851.8	866.5



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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°	893.6	896.9	898.5	901.7	884.9	859.5	839.9	821.8	815.3	801.2	815.5
23°	874.7	879.2	880.6	885.3	868.0	842.2	820.6	801.6	797.2	784.7	797.1
23.5°	856.3	861.9	863.2	868.8	850.5	825.6	801.0	783.0	779.1	768.0	778.8
24°	838.6	844.8	845.4	851.1	833.3	809.4	784.2	764.4	761.2	751.5	760.6
24.5°	821.6	828.8	828.9	832.8	815.6	792.2	767.3	745.9	743.1	734.8	742.3
25°	805.3	812.9	811.7	813.5	798.3	775.7	750.5	727.3	725.0	718.2	723.9
25.5°	789.7	797.5	795.7	794.8	780.5	759.2	733.6	709.9	707.8	702.0	705.6
26°	773.2	782.0	778.5	774.9	762.6	742.7	716.8	693.2	690.8	684.6	688.6
26.5°	756.4	765.7	761.3	755.4	744.6	726.2	699.9	676.0	673.0	666.7	670.6
27°	738.7	748.1	742.6	734.6	726.7	707.1	682.7	659.1	655.1	648.4	652.5
27.5°	720.2	729.9	723.4	715.0	708.7	688.2	664.7	641.4	636.6	629.5	634.1
28°	700.4	710.9	703.0	694.5	687.4	668.5	646.3	622.2	617.7	610.2	614.9
28.5°	679.6	691.1	681.7	674.9	665.5	648.4	626.1	602.8	597.8	589.8	595.1
29°	657.7	671.8	659.9	654.6	643.9	628.5	605.8	583.2	578.3	569.6	575.8
29.5°	636.4	651.2	638.4	634.9	622.4	607.8	585.2	562.8	558.8	549.3	556.0
30°	614.9	630.5	617.3	615.1	601.3	587.2	564.8	542.8	539.3	530.2	536.5
30.5°	593.8	609.8	596.7	595.4	580.5	566.8	544.2	523.7	519.9	510.1	516.9
31°	573.3	588.6	576.8	575.1	561.4	547.5	524.5	505.3	501.2	491.1	498.6
31.5°	553.5	568.2	557.9	555.4	540.3	527.8	505.9	487.1	482.6	472.5	479.8
32°	534.4	547.9	539.2	535.6	521.2	508.4	487.4	469.6	464.0	455.6	461.7
32.5°	515.7	527.6	520.9	516.2	502.0	488.3	469.2	451.7	445.1	437.8	443.7
33°	497.6	507.9	503.0	497.2	484.4	469.4	451.0	434.5	427.2	420.8	425.7
33.5°	479.3	488.4	484.3	478.7	464.9	450.1	433.5	417.5	409.2	403.9	408.4
34°	461.0	469.0	465.8	460.7	446.5	431.9	415.7	400.4	392.6	388.2	391.0
34.5°	442.5	449.3	447.3	443.2	429.0	413.2	398.0	382.6	375.6	371.7	374.5
35°	424.1	430.0	428.9	425.3	412.0	395.3	379.9	365.6	359.4	355.9	358.1
35.5°	405.9	411.1	410.6	407.8	394.5	377.5	362.2	348.9	343.4	340.2	342.1
36°	387.8	392.6	392.2	390.2	377.4	361.0	344.6	332.6	328.2	325.3	326.1
36.5°	369.4	374.5	374.5	371.9	360.8	343.2	327.0	315.7	312.4	309.7	310.6
37°	352.3	357.6	357.4	355.0	345.1	326.6	309.8	299.2	297.1	295.7	295.2
37.5°	335.3	340.8	340.4	338.0	328.1	310.3	293.6	284.0	282.1	281.6	280.4
38°	318.2	323.8	323.4	321.0	312.4	295.0	277.8	268.8	267.9	267.9	265.8
38.5°	301.2	307.0	306.4	304.0	296.7	279.7	262.8	253.8	254.1	254.6	252.1
39°	284.1	290.1	289.3	287.1	281.9	265.0	248.2	239.2	240.7	242.0	238.7
39.5°	268.3	274.1	273.3	271.8	265.8	250.9	234.0	225.2	227.7	229.3	225.9
40°	253.5	258.8	257.4	257.0	251.3	237.5	220.3	211.5	215.5	217.3	213.4
40.5°	238.7	244.1	241.6	242.8	237.2	224.4	207.1	198.8	204.0	205.8	201.8
41°	224.0	230.0	227.0	228.7	223.8	212.0	194.8	186.4	192.8	195.0	190.6
41.5°	210.1	216.1	213.0	215.1	210.5	200.0	183.1	175.4	182.2	184.5	179.9
42°	197.6	203.3	199.8	201.8	198.7	188.7	172.2	164.9	171.8	174.5	169.7
42.5°	185.4	190.6	186.9	188.7	186.6	177.8	162.1	155.5	162.3	164.9	159.8
43°	173.6	178.2	174.8	176.4	175.4	167.3	152.7	146.7	152.9	155.6	150.5
43.5°	161.7	166.0	163.2	164.3	164.5	157.2	143.8	138.6	143.8	146.5	141.6



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
45°	130.7	132.8	131.8	132.3	134.2	130.1	120.1	115.9	118.9	121.1	117.4
45.5°	120.6	122.8	122.1	123.1	125.3	121.2	112.8	109.0	111.4	113.1	110.1
46°	111.9	113.7	113.0	114.2	116.2	112.9	105.7	102.3	104.0	105.4	102.9
46.5°	102.9	104.6	104.1	105.5	107.9	105.2	99.0	96.0	97.3	98.4	96.3
47°	94.8	96.1	95.9	97.4	99.8	98.1	92.5	89.6	90.7	91.6	89.7
47.5°	86.5	87.7	87.7	89.5	92.4	91.0	86.0	83.3	83.9	84.6	83.1
48°	79.1	80.1	80.0	81.9	84.9	83.9	79.4	77.0	77.2	77.7	76.6
48.5°	72.1	73.0	73.0	74.8	77.5	76.8	72.9	70.7	70.5	70.7	70.0
49°	66.0	66.5	66.5	68.1	70.1	69.7	67.0	64.9	64.7	65.0	64.3
49.5°	59.9	60.1	60.2	61.5	63.7	63.5	61.4	59.4	59.0	59.4	58.8
50°	54.0	54.0	54.1	55.3	57.7	57.5	55.3	53.8	53.6	53.9	53.2
50.5°	47.8	47.8	47.7	48.8	51.4	51.1	49.4	47.9	47.9	48.1	47.4
51°	41.0	40.9	40.7	41.7	44.4	44.3	42.7	41.3	41.4	41.4	40.7
51.5°	33.6	33.5	33.4	33.5	37.1	37.0	35.8	34.7	34.8	34.6	34.0
52°	27.5	27.4	27.4	27.5	29.5	29.1	28.3	27.7	27.8	27.4	26.7
52.5°	21.3	21.2	21.4	21.4	22.6	21.9	21.3	21.0	20.8	20.6	20.1
53°	15.2	15.2	15.4	15.3	18.6	18.1	17.5	17.3	17.0	16.9	16.5
53.5°	9.1	9.2	9.5	9.4	14.6	14.2	13.7	13.5	13.4	13.3	12.9
54°	5.5	5.6	5.8	5.8	10.5	10.2	9.9	9.7	9.7	9.6	9.3
54.5°	3.3	3.4	3.6	3.5	6.5	6.3	6.1	6.0	6.0	5.9	5.6
55°	2.9	2.9	3.0	3.0	2.8	2.6	2.3	2.2	2.2	2.2	2.2
55.5°	2.3	2.3	2.5	2.5	2.1	2.0	1.8	1.8	1.7	1.7	1.8
56°	1.8	1.8	1.9	2.0	1.8	1.7	1.6	1.5	1.5	1.5	1.6
56.5°	1.3	1.3	1.4	1.5	1.6	1.5	1.4	1.4	1.3	1.4	1.4
57°	1.2	1.2	1.3	1.4	1.5	1.4	1.3	1.2	1.2	1.2	1.3
57.5°	1.1	1.1	1.2	1.3	1.3	1.3	1.2	1.1	1.1	1.1	1.2
58°	1.0	1.0	1.1	1.2	1.2	1.2	1.1	1.1	1.0	1.0	1.1
58.5°	0.9	0.9	1.0	1.1	1.1	1.1	1.0	1.0	0.9	1.0	1.0
59°	0.8	0.9	0.9	1.0	1.1	1.0	0.9	0.9	0.9	0.9	0.9
59.5°	0.8	0.8	0.9	0.9	1.0	0.9	0.9	0.8	0.8	0.8	0.9
60°	0.7	0.7	0.8	0.9	0.9	0.9	0.8	0.8	0.8	0.8	0.8
60.5°	0.7	0.7	0.7	0.8	0.8	0.8	0.7	0.7	0.7	0.7	0.7
61°	0.6	0.6	0.7	0.7	0.8	0.7	0.7	0.7	0.6	0.7	0.7
61.5°	0.6	0.6	0.6	0.7	0.7	0.7	0.6	0.6	0.6	0.6	0.6
62°	0.5	0.5	0.6	0.6	0.7	0.6	0.6	0.6	0.6	0.6	0.6
62.5°	0.5	0.5	0.5	0.6	0.6	0.6	0.6	0.5	0.5	0.5	0.6
63°	0.5	0.5	0.5	0.5	0.6	0.6	0.5	0.5	0.5	0.5	0.5
63.5°	0.4	0.4	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
64°	0.4	0.4	0.4	0.5	0.5	0.5	0.4	0.4	0.4	0.4	0.5
64.5°	0.4	0.4	0.4	0.4	0.5	0.4	0.4	0.4	0.4	0.4	0.4
65°	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
65.5°	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.4	0.4
66°	0.3	0.3	0.3	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3



TEST NUMBER: P775641
 CATALOG NUMBER: HCDJBL510CSD-HCD42TRC-1000lm-3000K

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
67.5°	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
68°	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.3
68.5°	0.2	0.2	0.2	0.2	0.3	0.3	0.2	0.2	0.2	0.2	0.2
69°	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2
69.5°	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
70°	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
70.5°	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
71°	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
71.5°	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.2
72°	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1
72.5°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
73°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
73.5°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
74°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
74.5°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
75°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
75.5°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
76°	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
76.5°	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
77°	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1
77.5°	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.1
78°	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0
78.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
79°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
79.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
81°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
81.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
83°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
83.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
84°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
84.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85.5°	0.0	0.0	0.0	0.0	0.0	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	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: P775641
CATALOG NUMBER: HCDJBL510CSD-HCD42TRC-1000lm-3000K

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: P775641

CATALOG NUMBER: HCDJBL510CSD-HCD42TRC-1000lm-3000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	1374.2	1374.2	1374.2	1374.2	1374.2	1374.2
0.5°	1374.8	1376.1	1373.1	1371.6	1370.6	1369.8
1°	1375.7	1374.2	1370.4	1368.3	1367.1	1366.2
1.5°	1374.5	1370.5	1366.8	1365.0	1364.0	1362.6
2°	1371.1	1365.1	1362.3	1362.2	1361.5	1359.2
2.5°	1365.2	1358.3	1357.7	1360.1	1359.7	1356.0
3°	1358.1	1350.8	1353.2	1358.9	1358.7	1352.6
3.5°	1349.9	1342.9	1348.6	1358.4	1358.4	1348.9
4°	1341.9	1335.3	1343.8	1358.1	1358.4	1344.7
4.5°	1333.8	1327.6	1338.2	1357.5	1357.8	1339.3
5°	1326.4	1319.8	1331.9	1355.3	1355.7	1332.7
5.5°	1319.5	1312.7	1324.2	1350.6	1351.5	1324.9
6°	1313.5	1306.6	1316.2	1343.7	1345.0	1316.8
6.5°	1308.8	1301.6	1308.1	1334.8	1336.5	1308.3
7°	1304.9	1297.4	1300.1	1324.5	1326.2	1300.4
7.5°	1301.2	1293.5	1292.2	1312.6	1312.9	1292.4
8°	1297.1	1288.8	1283.7	1300.3	1299.6	1284.6
8.5°	1290.7	1282.5	1275.2	1285.9	1283.8	1275.9
9°	1282.0	1274.3	1265.7	1270.4	1268.0	1267.4
9.5°	1270.3	1263.9	1255.4	1254.1	1251.2	1258.8
10°	1256.0	1251.5	1244.3	1238.6	1236.0	1250.6
10.5°	1239.3	1238.1	1232.3	1223.4	1222.0	1242.0
11°	1221.3	1222.3	1219.3	1209.7	1208.9	1233.7
11.5°	1202.7	1203.6	1204.8	1196.2	1196.7	1224.4
12°	1182.6	1183.6	1189.0	1183.1	1185.8	1214.5
12.5°	1161.8	1162.8	1172.1	1169.5	1175.0	1203.1
13°	1141.3	1141.3	1154.4	1156.0	1164.2	1191.3
13.5°	1119.9	1119.7	1135.3	1141.0	1152.5	1177.6
14°	1098.0	1098.9	1115.5	1125.7	1140.2	1163.4
14.5°	1077.6	1079.3	1096.1	1110.1	1126.9	1148.1
15°	1058.1	1060.6	1076.9	1094.6	1113.3	1132.1
15.5°	1039.5	1042.5	1058.5	1079.1	1099.6	1116.2
16°	1021.2	1024.6	1040.0	1063.2	1085.0	1099.8
16.5°	1002.9	1007.1	1021.6	1046.5	1069.7	1082.9
17°	984.3	989.5	1003.7	1029.7	1053.4	1064.9
17.5°	965.9	971.7	985.4	1012.8	1036.8	1047.1
18°	948.0	954.5	967.6	995.8	1020.0	1028.8
18.5°	931.3	939.5	951.0	979.0	1003.1	1010.9
19°	916.8	925.5	936.7	964.2	987.8	994.3
19.5°	903.7	913.4	924.0	952.0	974.9	979.7
20°	891.0	901.0	911.5	941.0	963.5	966.5
20.5°	877.2	888.5	898.8	929.6	952.2	954.6
21°	861.7	874.1	885.0	917.0	939.9	941.2

TEST NUMBER: P775641

CATALOG NUMBER: HCDJBL510CSD-HCD42TRC-1000lm-3000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
22.5°	808.2	823.6	839.4	871.3	894.9	893.6
23°	790.1	805.3	822.3	853.8	876.8	874.7
23.5°	772.0	787.1	805.6	835.7	858.9	856.3
24°	753.8	768.4	788.7	818.0	840.2	838.6
24.5°	735.8	750.4	772.0	800.6	822.1	821.6
25°	717.6	732.6	754.0	783.2	803.9	805.3
25.5°	701.4	715.8	737.3	765.8	785.5	789.7
26°	684.7	698.7	719.6	747.4	766.4	773.2
26.5°	667.5	681.7	701.8	728.4	747.5	756.4
27°	650.1	664.3	682.5	708.5	727.5	738.7
27.5°	631.6	645.8	663.6	687.7	707.3	720.2
28°	612.8	627.0	643.3	665.4	686.9	700.4
28.5°	592.6	607.5	622.6	644.0	667.7	679.6
29°	572.4	587.9	601.5	622.5	646.8	657.7
29.5°	552.5	567.2	580.9	601.6	626.8	636.4
30°	533.4	547.3	560.7	580.9	606.2	614.9
30.5°	514.6	527.2	540.1	561.1	586.1	593.8
31°	497.0	507.4	520.6	541.1	566.0	573.3
31.5°	479.1	488.0	501.5	521.7	546.2	553.5
32°	462.5	468.8	482.7	502.6	526.3	534.4
32.5°	444.8	450.6	464.0	482.9	506.8	515.7
33°	428.0	432.7	445.9	464.1	488.2	497.6
33.5°	410.5	415.2	427.7	445.7	470.0	479.3
34°	392.9	397.4	409.5	427.7	451.8	461.0
34.5°	375.8	379.4	392.0	410.4	434.2	442.5
35°	359.2	361.8	374.2	392.8	416.4	424.1
35.5°	342.6	345.1	357.8	376.4	399.4	405.9
36°	326.8	328.2	341.5	365.0	381.6	387.8
36.5°	310.8	311.5	325.3	347.9	362.3	369.4
37°	296.0	294.7	308.9	330.7	345.6	352.3
37.5°	280.2	279.1	292.7	313.5	328.9	335.3
38°	265.1	264.5	277.6	296.4	312.2	318.2
38.5°	250.3	250.1	263.3	281.1	295.5	301.2
39°	235.5	236.8	249.5	266.3	280.1	284.1
39.5°	221.2	223.1	236.0	251.8	264.7	268.3
40°	207.7	210.7	222.9	237.4	250.2	253.5
40.5°	194.8	198.3	210.7	223.9	236.0	238.7
41°	183.1	187.1	198.9	210.8	222.4	224.0
41.5°	172.3	176.2	187.6	198.6	209.2	210.1
42°	162.2	165.9	177.5	186.8	196.1	197.6
42.5°	153.1	156.6	167.1	175.8	184.0	185.4
43°	144.6	147.4	157.2	164.6	172.0	173.6
43.5°	136.6	138.8	147.7	154.0	160.6	161.7



TEST NUMBER: P775641

CATALOG NUMBER: HCDJBL510CSD-HCD42TRC-1000lm-3000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
45°	114.6	115.6	121.9	125.1	129.0	130.7
45.5°	107.8	108.4	113.7	116.3	119.8	120.6
46°	101.2	101.5	105.8	108.0	111.2	111.9
46.5°	94.8	94.4	98.0	99.8	102.7	102.9
47°	88.6	87.8	90.6	92.0	94.6	94.8
47.5°	82.4	81.3	83.2	84.5	87.0	86.5
48°	76.2	74.9	76.6	77.5	79.6	79.1
48.5°	69.8	69.0	70.1	70.7	72.6	72.1
49°	64.3	63.3	64.3	64.6	66.4	66.0
49.5°	58.8	57.6	58.5	58.5	60.2	59.9
50°	53.1	51.6	52.5	52.6	54.2	54.0
50.5°	47.2	45.2	46.2	46.2	47.9	47.8
51°	40.5	38.2	39.1	39.5	41.1	41.0
51.5°	33.9	32.2	33.0	33.3	33.7	33.6
52°	26.5	26.1	26.7	27.1	27.5	27.5
52.5°	20.3	20.1	20.6	20.8	21.2	21.3
53°	16.6	14.1	14.4	14.6	15.1	15.2
53.5°	13.1	8.1	8.3	8.5	8.9	9.1
54°	9.4	4.8	5.0	5.1	5.4	5.5
54.5°	5.8	2.9	3.1	3.1	3.2	3.3
55°	2.3	2.6	2.7	2.6	2.7	2.9
55.5°	1.9	2.2	2.2	2.2	2.2	2.3
56°	1.7	1.8	1.8	1.8	1.8	1.8
56.5°	1.5	1.5	1.4	1.4	1.3	1.3
57°	1.4	1.3	1.3	1.2	1.2	1.2
57.5°	1.3	1.2	1.2	1.1	1.1	1.1
58°	1.2	1.1	1.1	1.0	1.0	1.0
58.5°	1.1	1.1	1.0	1.0	0.9	0.9
59°	1.0	1.0	0.9	0.9	0.9	0.8
59.5°	0.9	0.9	0.9	0.8	0.8	0.8
60°	0.9	0.8	0.8	0.8	0.7	0.7
60.5°	0.8	0.8	0.8	0.7	0.7	0.7
61°	0.7	0.7	0.7	0.7	0.6	0.6
61.5°	0.7	0.7	0.7	0.6	0.6	0.6
62°	0.6	0.6	0.6	0.6	0.5	0.5
62.5°	0.6	0.6	0.6	0.5	0.5	0.5
63°	0.6	0.6	0.5	0.5	0.5	0.5
63.5°	0.5	0.5	0.5	0.5	0.4	0.4
64°	0.5	0.5	0.5	0.4	0.4	0.4
64.5°	0.5	0.5	0.4	0.4	0.4	0.4
65°	0.4	0.4	0.4	0.4	0.3	0.3
65.5°	0.4	0.4	0.4	0.3	0.3	0.3
66°	0.4	0.4	0.3	0.3	0.3	0.3



TEST NUMBER: P775641
 CATALOG NUMBER: HCDJBL510CSD-HCD42TRC-1000lm-3000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
67.5°	0.3	0.3	0.3	0.3	0.2	0.2
68°	0.3	0.3	0.3	0.2	0.2	0.2
68.5°	0.3	0.3	0.2	0.2	0.2	0.2
69°	0.2	0.2	0.2	0.2	0.2	0.2
69.5°	0.2	0.2	0.2	0.2	0.2	0.2
70°	0.2	0.2	0.2	0.2	0.2	0.2
70.5°	0.2	0.2	0.2	0.2	0.2	0.1
71°	0.2	0.2	0.2	0.2	0.1	0.1
71.5°	0.2	0.2	0.2	0.1	0.1	0.1
72°	0.2	0.2	0.1	0.1	0.1	0.1
72.5°	0.1	0.1	0.1	0.1	0.1	0.1
73°	0.1	0.1	0.1	0.1	0.1	0.1
73.5°	0.1	0.1	0.1	0.1	0.1	0.1
74°	0.1	0.1	0.1	0.1	0.1	0.1
74.5°	0.1	0.1	0.1	0.1	0.1	0.1
75°	0.1	0.1	0.1	0.1	0.1	0.1
75.5°	0.1	0.1	0.1	0.1	0.1	0.1
76°	0.1	0.1	0.1	0.1	0.1	0.0
76.5°	0.1	0.1	0.1	0.1	0.0	0.0
77°	0.1	0.1	0.1	0.1	0.0	0.0
77.5°	0.1	0.1	0.1	0.0	0.0	0.0
78°	0.1	0.1	0.0	0.0	0.0	0.0
78.5°	0.1	0.0	0.0	0.0	0.0	0.0
79°	0.0	0.0	0.0	0.0	0.0	0.0
79.5°	0.0	0.0	0.0	0.0	0.0	0.0
80°	0.0	0.0	0.0	0.0	0.0	0.0
80.5°	0.0	0.0	0.0	0.0	0.0	0.0
81°	0.0	0.0	0.0	0.0	0.0	0.0
81.5°	0.0	0.0	0.0	0.0	0.0	0.0
82°	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0	0.0
83°	0.0	0.0	0.0	0.0	0.0	0.0
83.5°	0.0	0.0	0.0	0.0	0.0	0.0
84°	0.0	0.0	0.0	0.0	0.0	0.0
84.5°	0.0	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	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: P775641
CATALOG NUMBER: HCDJBL510CSD-HCD42TRC-1000lm-3000K

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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21.5°	926.4	929.6	929.9	930.4	913.4	891.0	875.9	861.0	852.2	835.6	850.5
22°	910.0	913.3	914.3	916.9	899.8	876.0	858.6	842.1	834.3	818.9	833.5



44°	151.1	154.6	152.1	152.7	154.0	147.5	135.6	130.4	135.2	137.7	133.2
44.5°	140.8	143.3	141.6	142.1	143.7	138.7	127.9	123.1	126.8	129.2	125.2



66.5°	0.3	0.3	0.3	0.3	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3
67°	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3



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°	845.4	858.6	870.8	903.1	926.5	926.4
22°	827.2	841.4	854.9	888.2	911.2	910.0



44°	128.8	130.6	138.9	143.8	149.5	151.1
44.5°	121.6	123.0	130.1	134.2	138.8	140.8

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66.5°	0.3	0.3	0.3	0.3	0.3	0.3
67°	0.3	0.3	0.3	0.3	0.3	0.3

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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)