

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: P775640

Luminaire Tested: HCDJBL510CSD-HCD42TRC-1000lm-2700K

Issue Date: 2/13/2024

Test Information

Test Method: LM-79-2019
Report Number: P775640
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-2700K
Description: 4 INCH ROUND NARROW SPECULAR CLEAR TRIM
Light Source: SELECTABLE LUMENS AND CCT ARRAY 90CRI / 2700K CCT
Ballast/Driver: -

Summary

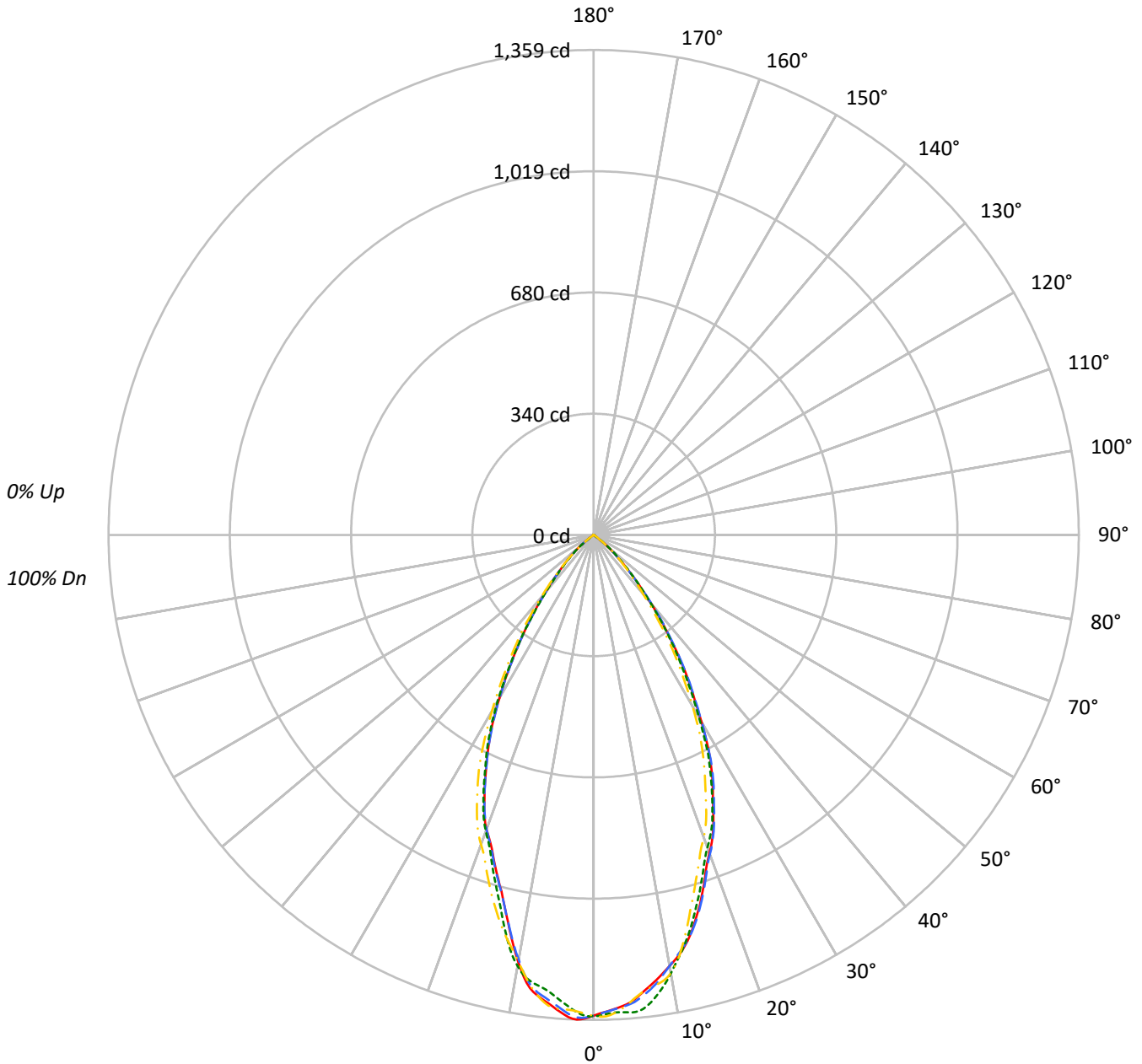
Lumens per Lamp: N/A
Luminaire Lumens: 1109.0 lumens
Efficiency: N/A
Efficacy: 110.9 lumens/watt
Spacing Criteria (0/90/45): 0.82 / 0.81 / 0.84
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

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



TEST NUMBER: P775640
CATALOG NUMBER: HCDJBL510CSD-HCD42TRC-1000lm-2700K

Luminous Intensity Polar Plot





TEST NUMBER: P775640

CATALOG NUMBER: HCDJBL510CSD-HCD42TRC-1000lm-2700K

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°	169608	169608	169608	169608
5°	165101	169573	167514	163510
10°	156736	159356	155343	156851
15°	144647	142654	132439	135514
20°	126936	124779	117574	118338
25°	109658	108713	98729	99771
30°	87627	85695	76859	77993
35°	63896	62084	54141	54509
40°	40841	40496	34730	33941
45°	22817	23440	20752	20165
50°	10377	11082	10298	9907
55°	614	592	483	549
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: 23440 cd/sqm



TEST NUMBER: P775640

CATALOG NUMBER: HCDJBL510CSD-HCD42TRC-1000lm-2700K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	123.0	11.1
10°-20°	297.6	26.8
20°-30°	341.3	30.8
30°-40°	238.6	21.5
40°-50°	97.3	8.8
50°-60°	10.7	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°	761.9	68.7
0°-40°	1000.5	90.2
0°-60°	1108.5	100.0
0°-90°	1109.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1109.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	1348	1348	1348	1348	1348	
5°	1307	1342	1326	1294	1307	122
15°	1110	1095	1016	1040	1110	308
25°	790	783	711	718	790	360
35°	416	404	352	355	416	258
45°	128	132	117	113	128	103
55°	3	3	2	2	3	10
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	



TEST NUMBER: P775640

CATALOG NUMBER: HCDJBL510CSD-HCD42TRC-1000lm-2700K

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
0°	1347.7	1347.7	1347.7	1347.7	1347.7	1347.7	1347.7	1347.7	1347.7	1347.7	1347.7
0.5°	1343.4	1343.3	1343.3	1343.6	1348.3	1348.7	1349.9	1351.1	1351.6	1351.5	1350.2
1°	1339.8	1339.5	1340.0	1340.8	1345.9	1347.6	1350.4	1353.4	1355.4	1355.3	1352.8
1.5°	1336.3	1335.9	1336.8	1338.4	1343.7	1345.5	1349.2	1354.0	1358.1	1358.3	1354.0
2°	1333.0	1332.1	1333.8	1336.7	1341.5	1342.6	1346.1	1352.4	1359.1	1359.9	1353.0
2.5°	1329.8	1328.1	1330.8	1335.7	1340.1	1339.3	1341.3	1348.2	1357.2	1359.1	1349.6
3°	1326.5	1323.4	1328.1	1335.7	1339.6	1335.7	1335.4	1342.3	1353.1	1355.4	1344.1
3.5°	1322.9	1318.0	1325.2	1336.9	1340.0	1332.0	1328.5	1335.3	1347.3	1350.2	1337.5
4°	1318.8	1312.2	1322.1	1338.5	1341.3	1327.9	1320.8	1327.5	1340.6	1343.5	1330.5
4.5°	1313.5	1304.9	1318.3	1340.3	1342.3	1323.1	1312.7	1319.5	1333.4	1336.5	1323.2
5°	1306.9	1297.1	1313.8	1341.0	1342.3	1317.1	1304.5	1311.6	1326.0	1329.6	1316.1
5.5°	1299.3	1288.9	1307.7	1339.6	1340.0	1310.1	1296.6	1304.4	1319.2	1322.5	1309.5
6°	1291.3	1280.7	1300.7	1335.7	1335.0	1301.8	1289.5	1298.1	1312.9	1315.5	1303.4
6.5°	1283.0	1273.4	1293.2	1328.9	1328.1	1294.2	1283.5	1292.9	1306.6	1308.5	1297.5
7°	1275.3	1267.3	1285.4	1319.5	1319.5	1286.8	1279.0	1288.4	1299.7	1300.9	1291.1
7.5°	1267.4	1261.9	1277.1	1307.6	1309.4	1279.7	1275.5	1284.3	1292.0	1291.4	1283.3
8°	1259.8	1257.1	1268.1	1293.5	1298.7	1273.2	1272.2	1279.4	1282.1	1279.5	1273.3
8.5°	1251.3	1252.9	1258.0	1277.2	1287.1	1266.4	1268.7	1272.9	1268.9	1264.8	1260.5
9°	1243.0	1249.0	1247.5	1259.9	1274.9	1259.0	1263.2	1264.0	1253.3	1247.3	1245.7
9.5°	1234.5	1245.3	1237.0	1242.6	1261.1	1251.4	1255.8	1252.4	1234.8	1227.2	1227.9
10°	1226.5	1242.1	1226.5	1225.5	1247.0	1242.9	1246.4	1238.4	1215.6	1205.5	1209.4
10.5°	1218.0	1238.9	1216.3	1210.1	1232.6	1233.3	1234.3	1222.6	1195.5	1181.9	1190.4
11°	1209.8	1235.2	1206.7	1196.0	1218.2	1222.1	1220.1	1205.5	1174.7	1158.1	1171.1
11.5°	1200.7	1229.7	1197.1	1183.5	1204.6	1209.3	1203.3	1187.7	1153.1	1134.1	1150.8
12°	1191.0	1221.4	1187.6	1172.1	1190.4	1194.6	1185.5	1169.4	1131.9	1109.9	1130.1
12.5°	1179.9	1210.2	1177.6	1161.6	1175.9	1177.8	1165.6	1150.4	1110.5	1086.6	1109.1
13°	1168.3	1196.5	1167.5	1151.1	1161.4	1160.1	1145.5	1130.8	1089.3	1064.9	1089.6
13.5°	1154.9	1181.0	1155.8	1139.5	1145.7	1140.6	1124.5	1110.0	1069.1	1044.3	1069.7
14°	1141.0	1164.1	1143.2	1126.7	1128.8	1120.7	1103.9	1090.8	1049.9	1025.8	1050.9
14.5°	1125.9	1146.5	1129.2	1113.4	1111.9	1100.2	1083.5	1071.0	1032.1	1008.3	1033.7
15°	1110.2	1127.8	1114.5	1099.4	1094.9	1080.4	1064.4	1052.5	1016.5	992.1	1018.2
15.5°	1094.7	1110.2	1099.1	1085.5	1077.9	1061.8	1045.9	1034.4	1000.8	977.3	1003.0
16°	1078.6	1092.2	1083.3	1070.8	1061.1	1043.6	1027.7	1016.9	985.7	962.6	988.0
16.5°	1062.0	1073.6	1067.0	1055.3	1044.2	1025.4	1009.2	998.7	969.8	947.9	972.3
17°	1044.3	1054.8	1049.9	1038.8	1026.7	1007.2	991.8	980.5	954.3	933.2	956.8
17.5°	1026.9	1035.5	1032.6	1022.2	1008.9	988.9	974.3	962.4	938.5	918.7	941.1
18°	1008.9	1016.5	1014.6	1005.3	991.8	970.7	957.1	945.5	923.6	905.1	926.5
18.5°	991.4	998.2	996.8	988.5	974.5	953.7	940.8	928.9	910.4	893.0	912.7
19°	975.1	981.2	980.1	972.8	958.7	938.3	926.4	915.0	898.9	882.4	901.3
19.5°	960.7	966.1	965.1	959.1	944.1	925.2	913.8	902.4	888.5	872.4	889.6
20°	947.8	952.5	951.9	946.9	931.7	913.0	901.9	890.2	877.9	861.8	877.9
20.5°	936.2	939.7	939.7	935.8	920.1	900.9	889.4	876.7	865.8	849.4	864.6
21°	923.0	926.1	926.1	924.2	908.4	887.7	874.6	861.5	851.8	835.4	849.8



TEST NUMBER: P775640

CATALOG NUMBER: HCDJBL510CSD-HCD42TRC-1000lm-2700K

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
22.5°	876.3	879.5	881.1	884.2	867.8	842.9	823.7	806.0	799.5	785.7	799.7
23°	857.8	862.2	863.6	868.2	851.2	826.0	804.8	786.1	781.8	769.5	781.7
23.5°	839.8	845.3	846.5	852.0	834.1	809.7	785.5	767.9	764.1	753.2	763.8
24°	822.4	828.5	829.1	834.7	817.2	793.7	769.0	749.7	746.5	737.0	745.9
24.5°	805.8	812.8	812.9	816.8	799.8	776.9	752.5	731.5	728.8	720.7	728.0
25°	789.7	797.2	796.0	797.7	782.9	760.7	736.0	713.2	711.0	704.3	709.9
25.5°	774.4	782.1	780.3	779.4	765.4	744.6	719.5	696.2	694.1	688.4	692.0
26°	758.3	766.9	763.5	759.9	747.9	728.4	702.9	679.8	677.5	671.4	675.3
26.5°	741.8	750.9	746.6	740.8	730.3	712.1	686.4	663.0	660.0	653.9	657.7
27°	724.5	733.7	728.3	720.5	712.6	693.4	669.5	646.4	642.5	635.9	639.9
27.5°	706.3	715.8	709.4	701.2	695.0	674.9	651.9	629.0	624.3	617.3	621.8
28°	686.9	697.1	689.4	681.1	674.1	655.6	633.9	610.2	605.8	598.4	603.0
28.5°	666.5	677.8	668.5	661.9	652.7	635.9	614.0	591.2	586.3	578.4	583.6
29°	645.0	658.8	647.2	642.0	631.4	616.3	594.1	572.0	567.2	558.6	564.7
29.5°	624.1	638.7	626.0	622.6	610.4	596.1	573.9	552.0	548.0	538.7	545.2
30°	603.0	618.3	605.4	603.2	589.7	575.9	553.9	532.3	528.9	519.9	526.1
30.5°	582.3	598.0	585.2	583.9	569.3	555.9	533.7	513.6	509.9	500.3	506.9
31°	562.3	577.3	565.7	564.0	550.6	536.9	514.4	495.6	491.5	481.6	489.0
31.5°	542.8	557.3	547.1	544.6	529.8	517.6	496.1	477.7	473.3	463.3	470.6
32°	524.1	537.3	528.8	525.2	511.1	498.6	478.0	460.5	455.0	446.8	452.7
32.5°	505.7	517.4	510.8	506.2	492.3	478.9	460.1	443.0	436.5	429.3	435.1
33°	488.0	498.1	493.3	487.6	475.1	460.3	442.3	426.1	419.0	412.7	417.5
33.5°	470.1	479.0	475.0	469.5	455.9	441.4	425.1	409.5	401.3	396.1	400.5
34°	452.1	459.9	456.8	451.8	437.9	423.6	407.7	392.7	385.1	380.8	383.5
34.5°	433.9	440.6	438.6	434.6	420.7	405.2	390.4	375.2	368.3	364.5	367.2
35°	415.9	421.7	420.6	417.1	404.1	387.7	372.5	358.5	352.4	349.0	351.2
35.5°	398.1	403.2	402.7	400.0	386.9	370.2	355.2	342.2	336.8	333.6	335.5
36°	380.4	385.1	384.7	382.7	370.1	354.0	337.9	326.2	321.9	319.0	319.8
36.5°	362.2	367.2	367.2	364.7	353.8	336.6	320.7	309.6	306.4	303.8	304.6
37°	345.5	350.7	350.5	348.1	338.4	320.3	303.9	293.4	291.3	289.9	289.5
37.5°	328.8	334.2	333.8	331.5	321.8	304.3	287.9	278.5	276.6	276.1	275.0
38°	312.1	317.6	317.2	314.8	306.4	289.3	272.4	263.6	262.7	262.7	260.7
38.5°	295.3	301.1	300.5	298.2	290.9	274.3	257.7	248.9	249.2	249.7	247.2
39°	278.6	284.5	283.7	281.5	276.4	259.9	243.4	234.6	236.1	237.3	234.1
39.5°	263.1	268.8	268.0	266.5	260.7	246.1	229.5	220.9	223.3	224.9	221.6
40°	248.6	253.8	252.4	252.0	246.5	232.9	216.1	207.4	211.4	213.2	209.2
40.5°	234.1	239.4	237.0	238.1	232.6	220.1	203.1	194.9	200.0	201.8	197.9
41°	219.7	225.6	222.7	224.3	219.5	207.9	191.0	182.8	189.1	191.2	186.9
41.5°	206.0	212.0	208.8	210.9	206.4	196.1	179.6	172.0	178.7	180.9	176.4
42°	193.8	199.3	195.9	197.9	194.8	185.0	168.9	161.7	168.5	171.1	166.4
42.5°	181.8	186.9	183.3	185.0	183.0	174.4	159.0	152.5	159.2	161.7	156.7
43°	170.2	174.8	171.4	173.0	172.0	164.1	149.8	143.9	150.0	152.6	147.6
43.5°	158.6	162.8	160.1	161.1	161.3	154.2	141.1	136.0	141.1	143.7	138.9



TEST NUMBER: P775640

CATALOG NUMBER: HCDJBL510CSD-HCD42TRC-1000lm-2700K

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
45°	128.2	130.3	129.3	129.8	131.7	127.6	117.7	113.6	116.6	118.7	115.1
45.5°	118.2	120.4	119.7	120.7	122.8	118.8	110.6	106.9	109.2	110.9	107.9
46°	109.7	111.5	110.8	112.0	113.9	110.7	103.6	100.3	102.0	103.3	100.9
46.5°	100.9	102.6	102.1	103.4	105.8	103.1	97.1	94.1	95.4	96.5	94.4
47°	93.0	94.2	94.0	95.5	97.9	96.2	90.7	87.9	88.9	89.8	88.0
47.5°	84.8	86.0	86.0	87.8	90.6	89.2	84.3	81.7	82.3	83.0	81.5
48°	77.6	78.6	78.5	80.3	83.3	82.3	77.9	75.5	75.7	76.2	75.1
48.5°	70.7	71.6	71.6	73.4	76.0	75.3	71.5	69.4	69.2	69.4	68.7
49°	64.7	65.2	65.2	66.8	68.8	68.4	65.7	63.7	63.5	63.8	63.1
49.5°	58.8	59.0	59.1	60.3	62.5	62.3	60.2	58.3	57.9	58.3	57.7
50°	53.0	53.0	53.1	54.3	56.6	56.4	54.3	52.8	52.6	52.9	52.2
50.5°	46.9	46.9	46.8	47.9	50.4	50.2	48.5	47.0	47.0	47.2	46.5
51°	40.2	40.1	39.9	40.8	43.6	43.5	41.8	40.5	40.6	40.6	39.9
51.5°	32.9	32.8	32.7	32.8	36.3	36.2	35.1	34.0	34.1	33.9	33.3
52°	26.9	26.8	26.8	26.9	28.9	28.5	27.7	27.1	27.2	26.8	26.2
52.5°	20.9	20.8	21.0	21.0	22.1	21.5	20.9	20.6	20.4	20.2	19.7
53°	14.9	14.9	15.1	15.0	18.2	17.7	17.1	16.9	16.7	16.6	16.2
53.5°	8.9	9.0	9.3	9.2	14.3	13.9	13.4	13.2	13.1	13.0	12.6
54°	5.4	5.5	5.7	5.7	10.3	10.0	9.7	9.5	9.5	9.4	9.1
54.5°	3.2	3.3	3.5	3.4	6.4	6.2	6.0	5.9	5.9	5.8	5.5
55°	2.8	2.8	2.9	2.9	2.7	2.5	2.3	2.2	2.2	2.2	2.2
55.5°	2.3	2.3	2.4	2.4	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: P775640
 CATALOG NUMBER: HCDJBL510CSD-HCD42TRC-1000lm-2700K

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: P775640
CATALOG NUMBER: HCDJBL510CSD-HCD42TRC-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: P775640

CATALOG NUMBER: HCDJBL510CSD-HCD42TRC-1000lm-2700K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	1347.7	1347.7	1347.7	1347.7	1347.7	1347.7
0.5°	1348.3	1349.5	1346.6	1345.1	1344.1	1343.4
1°	1349.1	1347.7	1343.9	1341.9	1340.7	1339.8
1.5°	1348.0	1344.0	1340.4	1338.7	1337.7	1336.3
2°	1344.6	1338.8	1336.0	1335.9	1335.2	1333.0
2.5°	1338.9	1332.1	1331.5	1333.9	1333.5	1329.8
3°	1331.9	1324.7	1327.1	1332.7	1332.5	1326.5
3.5°	1323.9	1317.0	1322.6	1332.2	1332.2	1322.9
4°	1316.0	1309.6	1317.9	1331.9	1332.2	1318.8
4.5°	1308.0	1301.9	1312.4	1331.3	1331.6	1313.5
5°	1300.7	1294.3	1306.1	1329.2	1329.5	1306.9
5.5°	1294.0	1287.3	1298.6	1324.6	1325.4	1299.3
6°	1288.1	1281.4	1290.8	1317.8	1319.1	1291.3
6.5°	1283.5	1276.5	1282.8	1309.0	1310.7	1283.0
7°	1279.7	1272.3	1275.0	1298.9	1300.6	1275.3
7.5°	1276.1	1268.5	1267.2	1287.2	1287.5	1267.4
8°	1272.0	1263.9	1258.9	1275.2	1274.5	1259.8
8.5°	1265.8	1257.7	1250.6	1261.1	1259.0	1251.3
9°	1257.3	1249.7	1241.3	1245.9	1243.5	1243.0
9.5°	1245.8	1239.5	1231.2	1229.9	1227.1	1234.5
10°	1231.8	1227.4	1220.2	1214.6	1212.1	1226.5
10.5°	1215.3	1214.2	1208.5	1199.8	1198.4	1218.0
11°	1197.7	1198.7	1195.7	1186.3	1185.6	1209.8
11.5°	1179.5	1180.4	1181.5	1173.1	1173.6	1200.7
12°	1159.8	1160.8	1166.1	1160.3	1162.9	1191.0
12.5°	1139.3	1140.4	1149.5	1147.0	1152.3	1179.9
13°	1119.2	1119.2	1132.1	1133.6	1141.8	1168.3
13.5°	1098.3	1098.1	1113.4	1118.9	1130.2	1154.9
14°	1076.8	1077.7	1094.0	1104.0	1118.2	1141.0
14.5°	1056.8	1058.5	1075.0	1088.7	1105.1	1125.9
15°	1037.6	1040.1	1056.2	1073.5	1091.8	1110.2
15.5°	1019.4	1022.4	1038.0	1058.3	1078.4	1094.7
16°	1001.5	1004.8	1019.9	1042.6	1064.1	1078.6
16.5°	983.6	987.7	1001.9	1026.3	1049.0	1062.0
17°	965.3	970.3	984.4	1009.8	1033.0	1044.3
17.5°	947.2	952.9	966.3	993.3	1016.8	1026.9
18°	929.7	936.1	948.9	976.6	1000.3	1008.9
18.5°	913.3	921.4	932.6	960.1	983.8	991.4
19°	899.1	907.7	918.6	945.6	968.7	975.1
19.5°	886.2	895.8	906.2	933.6	956.0	960.7
20°	873.8	883.6	893.9	922.8	944.9	947.8
20.5°	860.2	871.3	881.4	911.7	933.8	936.2
21°	845.1	857.2	867.9	899.3	921.8	923.0



TEST NUMBER: P775640

CATALOG NUMBER: HCDJBL510CSD-HCD42TRC-1000lm-2700K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
22.5°	792.6	807.7	823.2	854.5	877.6	876.3
23°	774.8	789.7	806.5	837.3	859.9	857.8
23.5°	757.1	771.9	790.0	819.6	842.3	839.8
24°	739.3	753.6	773.5	802.2	824.0	822.4
24.5°	721.6	735.9	757.1	785.1	806.3	805.8
25°	703.7	718.5	739.5	768.1	788.3	789.7
25.5°	687.8	701.9	723.1	751.0	770.3	774.4
26°	671.5	685.2	705.7	733.0	751.6	758.3
26.5°	654.6	668.5	688.2	714.3	733.1	741.8
27°	637.6	651.5	669.3	694.8	713.4	724.5
27.5°	619.4	633.3	650.8	674.4	693.6	706.3
28°	601.0	614.9	630.8	652.6	673.6	686.9
28.5°	581.2	595.8	610.6	631.5	654.8	666.5
29°	561.4	576.6	589.9	610.5	634.4	645.0
29.5°	541.8	556.3	569.7	590.0	614.7	624.1
30°	523.1	536.7	549.9	569.7	594.5	603.0
30.5°	504.7	517.0	529.6	550.3	574.8	582.3
31°	487.4	497.6	510.5	530.6	555.1	562.3
31.5°	469.9	478.6	491.8	511.6	535.6	542.8
32°	453.5	459.7	473.4	492.9	516.1	524.1
32.5°	436.2	441.9	455.0	473.6	497.0	505.7
33°	419.7	424.3	437.3	455.1	478.8	488.0
33.5°	402.6	407.2	419.4	437.1	460.9	470.1
34°	385.4	389.8	401.6	419.4	443.1	452.1
34.5°	368.5	372.0	384.5	402.5	425.8	433.9
35°	352.2	354.8	366.9	385.3	408.4	415.9
35.5°	336.0	338.4	350.9	369.1	391.7	398.1
36°	320.5	321.9	334.9	357.9	374.2	380.4
36.5°	304.8	305.5	319.0	341.2	355.3	362.2
37°	290.2	289.0	303.0	324.3	338.9	345.5
37.5°	274.8	273.7	287.0	307.5	322.6	328.8
38°	260.0	259.4	272.2	290.6	306.2	312.1
38.5°	245.5	245.3	258.2	275.6	289.8	295.3
39°	231.0	232.3	244.7	261.1	274.7	278.6
39.5°	217.0	218.8	231.5	246.9	259.6	263.1
40°	203.6	206.6	218.6	232.8	245.4	248.6
40.5°	191.0	194.4	206.6	219.6	231.5	234.1
41°	179.6	183.5	195.0	206.7	218.1	219.7
41.5°	169.0	172.8	184.0	194.7	205.1	206.0
42°	159.1	162.7	174.1	183.2	192.3	193.8
42.5°	150.2	153.6	163.9	172.4	180.4	181.8
43°	141.8	144.6	154.2	161.4	168.7	170.2
43.5°	134.0	136.2	144.9	151.0	157.5	158.6



TEST NUMBER: P775640

CATALOG NUMBER: HCDJBL510CSD-HCD42TRC-1000lm-2700K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
45°	112.4	113.3	119.5	122.6	126.5	128.2
45.5°	105.7	106.3	111.5	114.0	117.4	118.2
46°	99.2	99.5	103.7	105.9	109.0	109.7
46.5°	93.0	92.6	96.1	97.9	100.7	100.9
47°	86.9	86.1	88.8	90.2	92.8	93.0
47.5°	80.8	79.7	81.6	82.9	85.3	84.8
48°	74.7	73.5	75.1	76.0	78.1	77.6
48.5°	68.5	67.7	68.8	69.4	71.2	70.7
49°	63.1	62.1	63.1	63.4	65.1	64.7
49.5°	57.7	56.5	57.4	57.4	59.1	58.8
50°	52.1	50.6	51.5	51.6	53.2	53.0
50.5°	46.3	44.4	45.4	45.4	47.0	46.9
51°	39.7	37.4	38.3	38.7	40.3	40.2
51.5°	33.2	31.5	32.3	32.6	33.0	32.9
52°	26.0	25.6	26.2	26.5	26.9	26.9
52.5°	19.9	19.7	20.2	20.4	20.8	20.9
53°	16.3	13.8	14.1	14.3	14.8	14.9
53.5°	12.8	7.9	8.1	8.3	8.7	8.9
54°	9.2	4.7	4.9	5.0	5.3	5.4
54.5°	5.7	2.8	3.0	3.0	3.1	3.2
55°	2.3	2.5	2.6	2.5	2.6	2.8
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: P775640

CATALOG NUMBER: HCDJBL510CSD-HCD42TRC-1000lm-2700K

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: P775640
CATALOG NUMBER: HCDJBL510CSD-HCD42TRC-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

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°	908.5	911.7	912.0	912.5	895.8	873.8	859.0	844.4	835.8	819.5	834.1
22°	892.5	895.7	896.7	899.2	882.4	859.1	842.0	825.9	818.2	803.1	817.4



44°	148.2	151.6	149.2	149.8	151.0	144.7	133.0	127.9	132.6	135.1	130.7
44.5°	138.1	140.6	138.9	139.4	141.0	136.1	125.4	120.7	124.3	126.8	122.7



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

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

Scaled Data Report





21.5°	829.1	842.0	854.0	885.6	908.6	908.5
22°	811.3	825.2	838.4	871.0	893.6	892.5



44°	126.3	128.1	136.3	141.1	146.6	148.2
44.5°	119.2	120.6	127.6	131.7	136.2	138.1

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

Scaled Data Report



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

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)