

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State
Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: PORTFOLIO

Report Number: P858592

Luminaire Tested: **LD4C25W2N2765D010 4LBSWNL_4000K**

Issue Date: 11/9/2023



Test Information

Test Method: LM-79-08
Report Number: P858592
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P251556)
Test Lab: INNOVATION CENTER(G1)
Issue Date: 11/9/2023
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: PORTFOLIO
Catalog Number: LD4C25W2N2765D010 4LBSWNLI_4000K
Description: 4 INCH 2500 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 4000K, W2N2765 LEDS
AND 4LBSWNLI TRIM WITH FINISH

Light Source: -
Ballast/Driver: -

Summary

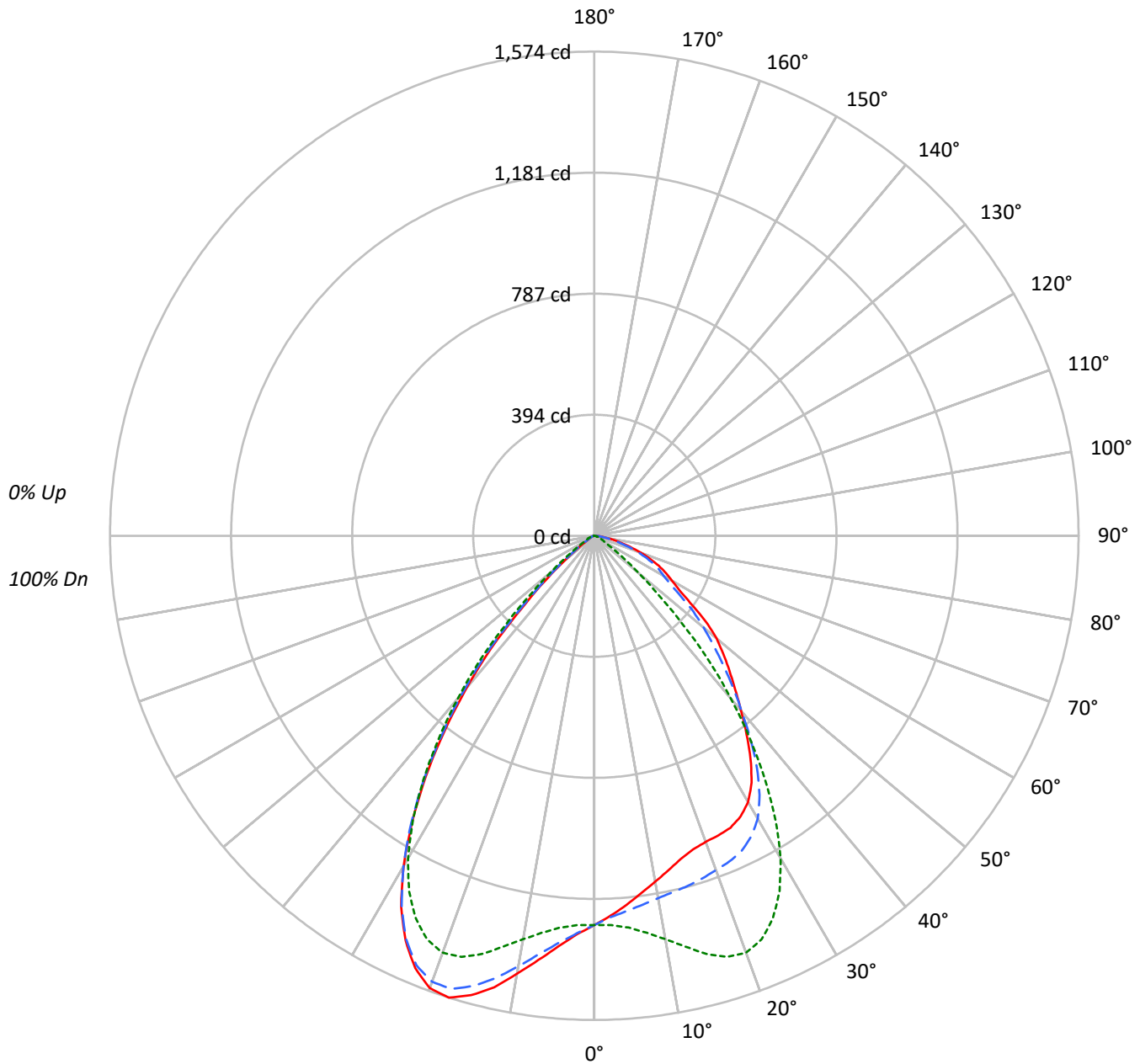
Lumens per Lamp: N/A
Luminaire Lumens: 2335.0 lumens
Efficiency: N/A
Efficacy: 69.7 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.3 / 1.19
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 33.5
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT

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CATALOG NUMBER: LD4C25W2N2765D010 4LBSWNL1_4000K

Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20
RC	80				70				50				30				10
RW	70	50	30	10	70	50	30	10	50	30	10		50	30	10		50
RCR																	
0	119	119	119	119	116	116	116	116	111	111	111		106	106	106		102
1	112	108	105	102	109	106	103	101	102	100	98		98	96	95		95
2	104	98	93	89	102	96	92	88	93	89	86		90	87	84		87
3	97	89	83	78	95	88	82	77	85	80	76		82	78	75		80
4	91	81	75	69	89	80	74	69	78	72	68		76	71	67		74
5	85	75	67	62	83	74	67	62	72	66	61		70	65	60		68
6	79	69	61	56	78	68	61	56	66	60	55		64	59	55		63
7	75	63	56	51	73	62	55	51	61	55	50		60	54	50		58
8	70	58	51	46	69	58	51	46	57	50	46		55	50	46		54
9	66	54	47	42	65	54	47	42	53	46	42		52	46	42		51
10	62	51	44	39	61	50	43	39	49	43	39		48	43	39		47

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	155447	155447	155447
5°	148505	157680	165203
10°	142388	166090	180312
15°	138240	179003	196657
20°	138425	188537	204513
25°	141966	186075	196824
30°	141774	171763	175749
35°	132789	145177	143197
40°	118949	110738	103329
45°	107911	70313	57682
50°	99137	35664	24636
55°	81392	15936	8139
60°	71427	8944	4472
65°	67209	6715	3372
70°	57544	5352	2981
75°	43907	3940	2373
80°	31554	2335	1203
85°	23258	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	122.9	5.3
10°-20°	383.1	16.4
20°-30°	592.6	25.4
30°-40°	583.9	25.0
40°-50°	358.6	15.4
50°-60°	159.4	6.8
60°-70°	89.0	3.8
70°-80°	38.6	1.7
80°-90°	6.9	0.3
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°	1098.6	47.0
0°-40°	1682.5	72.1
0°-60°	2200.5	94.2
0°-90°	2335.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2335.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1265	1265	1265	1265	1265	
5°	1204	1224	1279	1328	1340	113
15°	1087	1178	1407	1515	1546	308
25°	1047	1132	1373	1447	1452	481
35°	885	922	968	965	955	550
45°	621	590	405	354	332	481
55°	380	344	74	43	38	349
65°	231	208	23	13	12	226
75°	92	79	8	5	5	102
85°	16	13	0	0	0	20
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	1265.3	1265.3	1265.3	1265.3	1265.3	1265.3	1265.3	1265.3	1265.3	1265.3	1265.3
2.5°	1235.6	1235.6	1235.6	1235.6	1238.9	1234.0	1238.9	1238.9	1243.9	1245.5	1240.6
5°	1204.2	1202.6	1204.2	1204.2	1207.5	1205.9	1210.8	1214.1	1220.8	1224.1	1224.1
7.5°	1171.2	1171.2	1171.2	1174.5	1179.4	1177.8	1182.7	1187.7	1197.6	1204.2	1209.2
10°	1141.4	1139.8	1144.7	1146.4	1151.3	1151.3	1159.6	1164.6	1176.1	1189.4	1196.0
12.5°	1113.3	1111.7	1115.0	1120.0	1128.2	1128.2	1134.8	1143.1	1159.6	1174.5	1186.0
15°	1086.9	1088.6	1093.5	1096.8	1106.7	1106.7	1115.0	1124.9	1143.1	1161.3	1177.8
17.5°	1068.7	1070.4	1073.7	1078.6	1088.6	1088.6	1096.8	1108.4	1128.2	1148.0	1167.9
20°	1058.8	1060.5	1063.8	1068.7	1077.0	1078.6	1085.3	1098.5	1116.6	1138.1	1156.3
22.5°	1053.9	1057.2	1060.5	1063.8	1072.0	1072.0	1080.3	1090.2	1108.4	1129.9	1146.4
25°	1047.3	1050.6	1052.2	1057.2	1063.8	1063.8	1068.7	1080.3	1096.8	1115.0	1131.5
27.5°	1029.1	1032.4	1034.1	1039.0	1045.6	1044.0	1050.6	1058.8	1073.7	1090.2	1103.4
30°	999.4	1001.0	1004.3	1006.0	1010.9	1010.9	1015.9	1024.1	1034.1	1048.9	1062.1
32.5°	951.5	954.8	956.5	958.1	963.1	961.4	963.1	968.0	977.9	991.1	999.4
35°	885.4	892.0	892.0	895.3	897.0	895.3	895.3	901.9	906.9	916.8	921.8
37.5°	812.7	817.7	816.0	819.3	821.0	816.0	819.3	821.0	827.6	832.5	834.2
40°	741.7	743.3	743.3	743.3	743.3	741.7	743.3	745.0	749.9	749.9	745.0
42.5°	677.3	678.9	678.9	675.6	678.9	677.3	677.3	677.3	677.3	670.7	665.7
45°	621.1	622.8	622.8	621.1	621.1	617.8	616.2	614.5	609.5	601.3	589.7
47.5°	568.2	571.5	573.2	569.9	568.2	564.9	564.9	555.0	548.4	538.5	522.0
50°	518.7	522.0	522.0	518.7	518.7	513.7	508.8	505.4	495.5	484.0	464.2
52.5°	455.9	460.9	460.9	459.2	459.2	452.6	450.9	444.3	436.1	422.9	406.4
55°	380.0	386.6	384.9	383.3	380.0	380.0	380.0	375.0	370.0	360.1	343.6
57.5°	325.4	327.1	327.1	325.4	325.4	322.1	322.1	317.2	315.5	305.6	292.4
60°	290.7	290.7	292.4	290.7	289.1	287.4	285.8	282.5	277.5	270.9	261.0
62.5°	262.6	264.3	264.3	262.6	261.0	259.3	257.7	254.4	251.1	246.1	236.2
65°	231.2	234.5	232.9	231.2	229.6	227.9	227.9	224.6	221.3	218.0	208.1
67.5°	196.5	198.2	199.8	196.5	196.5	194.9	194.9	191.6	189.9	183.3	176.7
70°	160.2	161.9	161.9	160.2	160.2	158.6	158.6	156.9	155.3	150.3	143.7
72.5°	125.6	127.2	125.6	123.9	123.9	123.9	122.3	120.6	119.0	115.6	110.7
75°	92.5	92.5	94.2	92.5	90.9	90.9	89.2	89.2	85.9	84.3	79.3
77.5°	66.1	67.7	66.1	66.1	64.4	62.8	62.8	61.1	61.1	59.5	56.2
80°	44.6	44.6	46.3	44.6	43.0	44.6	43.0	41.3	41.3	39.7	36.4
82.5°	28.1	29.7	28.1	28.1	28.1	28.1	28.1	26.4	26.4	24.8	23.1
85°	16.5	16.5	16.5	16.5	16.5	16.5	16.5	14.9	14.9	14.9	13.2
87.5°	8.3	8.3	6.6	6.6	8.3	8.3	8.3	6.6	6.6	6.6	6.6
90°	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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CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	1265.3	1265.3	1265.3	1265.3	1265.3	1265.3	1265.3	1265.3	1265.3	1265.3	1265.3
2.5°	1247.2	1248.8	1252.1	1257.1	1257.1	1253.8	1262.0	1262.0	1265.3	1267.0	1273.6
5°	1234.0	1237.3	1243.9	1252.1	1253.8	1252.1	1263.7	1268.7	1273.6	1278.6	1288.5
7.5°	1222.4	1229.0	1240.6	1252.1	1257.1	1257.1	1275.3	1281.9	1291.8	1301.7	1313.2
10°	1215.8	1225.7	1242.2	1260.4	1265.3	1270.3	1291.8	1305.0	1318.2	1331.4	1347.9
12.5°	1207.5	1225.7	1247.2	1270.3	1280.2	1286.8	1316.5	1333.0	1351.2	1367.7	1389.2
15°	1205.9	1227.4	1255.4	1285.2	1298.4	1308.3	1341.3	1364.4	1385.9	1407.4	1428.9
17.5°	1199.3	1225.7	1260.4	1293.4	1309.9	1323.1	1361.1	1389.2	1414.0	1435.5	1460.3
20°	1191.0	1220.8	1258.7	1295.1	1313.2	1326.4	1367.7	1394.2	1422.2	1442.1	1465.2
22.5°	1179.4	1209.2	1247.2	1283.5	1300.0	1311.6	1352.8	1376.0	1400.8	1420.6	1442.1
25°	1159.6	1187.7	1220.8	1250.5	1267.0	1276.9	1313.2	1334.7	1352.8	1372.7	1392.5
27.5°	1131.5	1153.0	1181.1	1202.6	1212.5	1222.4	1252.1	1270.3	1286.8	1303.3	1316.5
30°	1081.9	1098.5	1118.3	1136.5	1146.4	1148.0	1176.1	1186.0	1199.3	1210.8	1220.8
32.5°	1015.9	1029.1	1040.7	1050.6	1057.2	1058.8	1080.3	1083.6	1096.8	1096.8	1111.7
35°	931.7	938.3	946.5	946.5	951.5	946.5	961.4	964.7	966.4	968.0	979.6
37.5°	835.8	839.1	844.1	834.2	834.2	829.2	834.2	837.5	830.9	830.9	839.1
40°	745.0	738.4	731.8	721.9	716.9	707.0	707.0	698.8	693.8	690.5	692.2
42.5°	657.5	642.6	627.7	606.2	596.3	586.4	576.5	564.9	561.6	553.4	548.4
45°	573.2	551.7	531.9	497.2	477.4	467.5	446.0	422.9	408.0	404.7	391.5
47.5°	502.1	470.8	437.7	396.5	376.7	358.5	327.1	307.3	287.4	277.5	269.2
50°	439.4	411.3	368.4	323.8	299.0	280.8	246.1	223.0	201.5	186.6	176.7
52.5°	384.9	353.5	313.9	262.6	237.9	218.0	180.0	153.6	135.5	120.6	109.0
55°	323.8	299.0	259.3	211.4	186.6	163.5	130.5	102.4	84.3	74.4	66.1
57.5°	279.2	257.7	219.7	173.4	150.3	128.9	95.8	72.7	57.8	47.9	43.0
60°	249.4	229.6	196.5	152.0	130.5	110.7	79.3	57.8	44.6	36.4	33.0
62.5°	224.6	204.8	175.1	133.8	115.6	95.8	67.7	47.9	36.4	29.7	24.8
65°	196.5	178.4	152.0	115.6	99.1	82.6	57.8	39.7	29.7	23.1	19.8
67.5°	166.8	150.3	127.2	95.8	82.6	69.4	46.3	33.0	24.8	19.8	16.5
70°	135.5	122.3	100.8	77.7	66.1	54.5	38.0	26.4	18.2	14.9	13.2
72.5°	104.1	92.5	77.7	59.5	49.6	41.3	28.1	19.8	14.9	11.6	9.9
75°	74.4	66.1	54.5	43.0	36.4	29.7	21.5	14.9	9.9	8.3	6.6
77.5°	51.2	46.3	38.0	29.7	24.8	21.5	14.9	9.9	8.3	6.6	5.0
80°	33.0	29.7	24.8	18.2	14.9	13.2	8.3	6.6	5.0	3.3	3.3
82.5°	19.8	18.2	14.9	9.9	8.3	6.6	5.0	3.3	3.3	1.7	1.7
85°	11.6	9.9	6.6	5.0	5.0	3.3	3.3	1.7	1.7	0.0	0.0
87.5°	5.0	3.3	3.3	1.7	1.7	1.7	1.7	0.0	0.0	0.0	0.0
90°	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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CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	1265.3	1265.3	1265.3	1265.3	1265.3	1265.3	1265.3	1265.3	1265.3	1265.3	1265.3
2.5°	1270.3	1278.6	1276.9	1281.9	1280.2	1280.2	1288.5	1285.2	1293.4	1293.4	1295.1
5°	1288.5	1300.0	1300.0	1308.3	1306.6	1309.9	1318.2	1318.2	1328.1	1331.4	1331.4
7.5°	1314.9	1329.7	1333.0	1341.3	1342.9	1349.5	1356.2	1357.8	1371.0	1374.3	1376.0
10°	1351.2	1369.4	1374.3	1382.6	1385.9	1392.5	1400.8	1404.1	1420.6	1422.2	1428.9
12.5°	1395.8	1415.6	1420.6	1430.5	1432.2	1440.4	1452.0	1455.3	1471.8	1476.8	1481.7
15°	1438.8	1456.9	1465.2	1475.1	1476.8	1486.7	1496.6	1499.9	1514.8	1521.4	1526.4
17.5°	1468.5	1490.0	1495.0	1508.2	1508.2	1516.4	1526.4	1529.7	1544.5	1549.5	1552.8
20°	1475.1	1495.0	1501.6	1511.5	1513.1	1518.1	1526.4	1529.7	1542.9	1544.5	1549.5
22.5°	1450.3	1470.2	1473.5	1483.4	1485.0	1490.0	1496.6	1495.0	1511.5	1509.8	1511.5
25°	1397.5	1415.6	1415.6	1427.2	1425.6	1430.5	1433.8	1432.2	1447.0	1447.0	1447.0
27.5°	1321.5	1338.0	1339.6	1347.9	1342.9	1344.6	1347.9	1346.2	1356.2	1356.2	1356.2
30°	1227.4	1240.6	1235.6	1242.2	1238.9	1242.2	1238.9	1237.3	1240.6	1243.9	1242.2
32.5°	1110.0	1120.0	1120.0	1121.6	1121.6	1111.7	1108.4	1108.4	1106.7	1105.1	1105.1
35°	974.6	982.9	979.6	979.6	977.9	968.0	963.1	959.8	964.7	954.8	961.4
37.5°	835.8	837.5	832.5	830.9	822.6	822.6	814.4	807.7	811.0	809.4	802.8
40°	683.9	690.5	680.6	677.3	682.2	675.6	667.4	659.1	665.7	657.5	660.8
42.5°	535.2	533.5	530.2	530.2	530.2	520.3	518.7	517.0	518.7	512.1	507.1
45°	386.6	381.6	376.7	376.7	370.0	366.7	366.7	361.8	353.5	353.5	343.6
47.5°	261.0	249.4	246.1	244.5	241.2	241.2	237.9	234.5	232.9	224.6	224.6
50°	170.1	158.6	155.3	153.6	155.3	152.0	148.7	145.4	142.1	140.4	137.1
52.5°	102.4	97.5	94.2	92.5	89.2	87.6	85.9	82.6	81.0	81.0	79.3
55°	61.1	56.2	49.6	49.6	49.6	47.9	46.3	44.6	43.0	43.0	41.3
57.5°	38.0	34.7	31.4	29.7	29.7	29.7	28.1	28.1	28.1	28.1	26.4
60°	28.1	24.8	23.1	23.1	23.1	21.5	21.5	21.5	21.5	19.8	19.8
62.5°	21.5	19.8	18.2	18.2	16.5	16.5	16.5	16.5	16.5	16.5	14.9
65°	18.2	14.9	14.9	13.2	13.2	13.2	13.2	13.2	13.2	13.2	13.2
67.5°	13.2	11.6	11.6	11.6	11.6	9.9	9.9	9.9	9.9	9.9	9.9
70°	9.9	9.9	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3
72.5°	8.3	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6
75°	6.6	6.6	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
77.5°	5.0	5.0	5.0	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3
80°	3.3	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
82.5°	1.7	1.7	1.7	1.7	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
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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: P858592

CATALOG NUMBER: LD4C25W2N2765D010 4LBSWNL_4000K

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	1265.3	1265.3	1265.3	1265.3	1265.3	1265.3	1265.3	1265.3
2.5°	1295.1	1303.3	1295.1	1295.1	1300.0	1298.4	1301.7	1296.7
5°	1333.0	1344.6	1336.3	1334.7	1342.9	1341.3	1342.9	1339.6
7.5°	1379.3	1390.9	1382.6	1382.6	1390.9	1389.2	1394.2	1390.9
10°	1432.2	1445.4	1433.8	1435.5	1447.0	1445.4	1445.4	1445.4
12.5°	1486.7	1499.9	1493.3	1493.3	1501.6	1503.2	1504.9	1503.2
15°	1531.3	1544.5	1536.3	1536.3	1547.8	1546.2	1547.8	1546.2
17.5°	1557.7	1570.9	1561.0	1561.0	1570.9	1570.9	1572.6	1574.2
20°	1551.1	1566.0	1557.7	1554.4	1566.0	1566.0	1564.3	1564.3
22.5°	1513.1	1526.4	1519.7	1516.4	1524.7	1521.4	1519.7	1521.4
25°	1447.0	1460.3	1447.0	1447.0	1453.6	1452.0	1453.6	1452.0
27.5°	1357.8	1367.7	1354.5	1352.8	1359.5	1356.2	1354.5	1359.5
30°	1238.9	1248.8	1242.2	1237.3	1245.5	1240.6	1237.3	1238.9
32.5°	1103.4	1110.0	1106.7	1098.5	1103.4	1100.1	1098.5	1100.1
35°	954.8	963.1	949.9	948.2	956.5	949.9	946.5	954.8
37.5°	801.1	811.0	799.5	801.1	796.2	797.8	794.5	799.5
40°	655.8	654.2	650.9	649.2	650.9	645.9	649.2	644.3
42.5°	498.8	502.1	500.5	498.8	500.5	493.9	490.6	497.2
45°	346.9	345.3	342.0	338.6	338.6	337.0	337.0	332.0
47.5°	223.0	221.3	214.7	216.4	219.7	216.4	211.4	218.0
50°	135.5	133.8	133.8	132.2	135.5	132.2	128.9	128.9
52.5°	76.0	76.0	74.4	74.4	74.4	74.4	72.7	71.1
55°	41.3	39.7	39.7	39.7	38.0	38.0	38.0	38.0
57.5°	26.4	26.4	26.4	26.4	26.4	26.4	24.8	24.8
60°	19.8	19.8	19.8	19.8	18.2	19.8	18.2	18.2
62.5°	14.9	14.9	14.9	14.9	14.9	14.9	14.9	14.9
65°	11.6	11.6	11.6	11.6	11.6	11.6	11.6	11.6
67.5°	9.9	9.9	9.9	9.9	9.9	9.9	9.9	9.9
70°	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3
72.5°	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6
75°	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
77.5°	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3
80°	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
82.5°	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
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



Report Generated By 670246072 / DESKTOP-50001EG





— 0°-180° - - 45°-225° - - - 90°-270°













(END OF REPORT)