

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: P858549

Luminaire Tested: **LD4C25W2N2050D010 4LBSWNL1_3000K**

Issue Date: 11/9/2023



Test Information

Test Method: LM-79-08
Report Number: P858549
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: LD4C25W2N2050D010 4LBSWNLI_3000K
Description: 4 INCH 2500 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 3000K, W2N2050 LEDS
AND 4LBSWNLI TRIM WITH FINISH

Light Source: -
Ballast/Driver: -

Summary

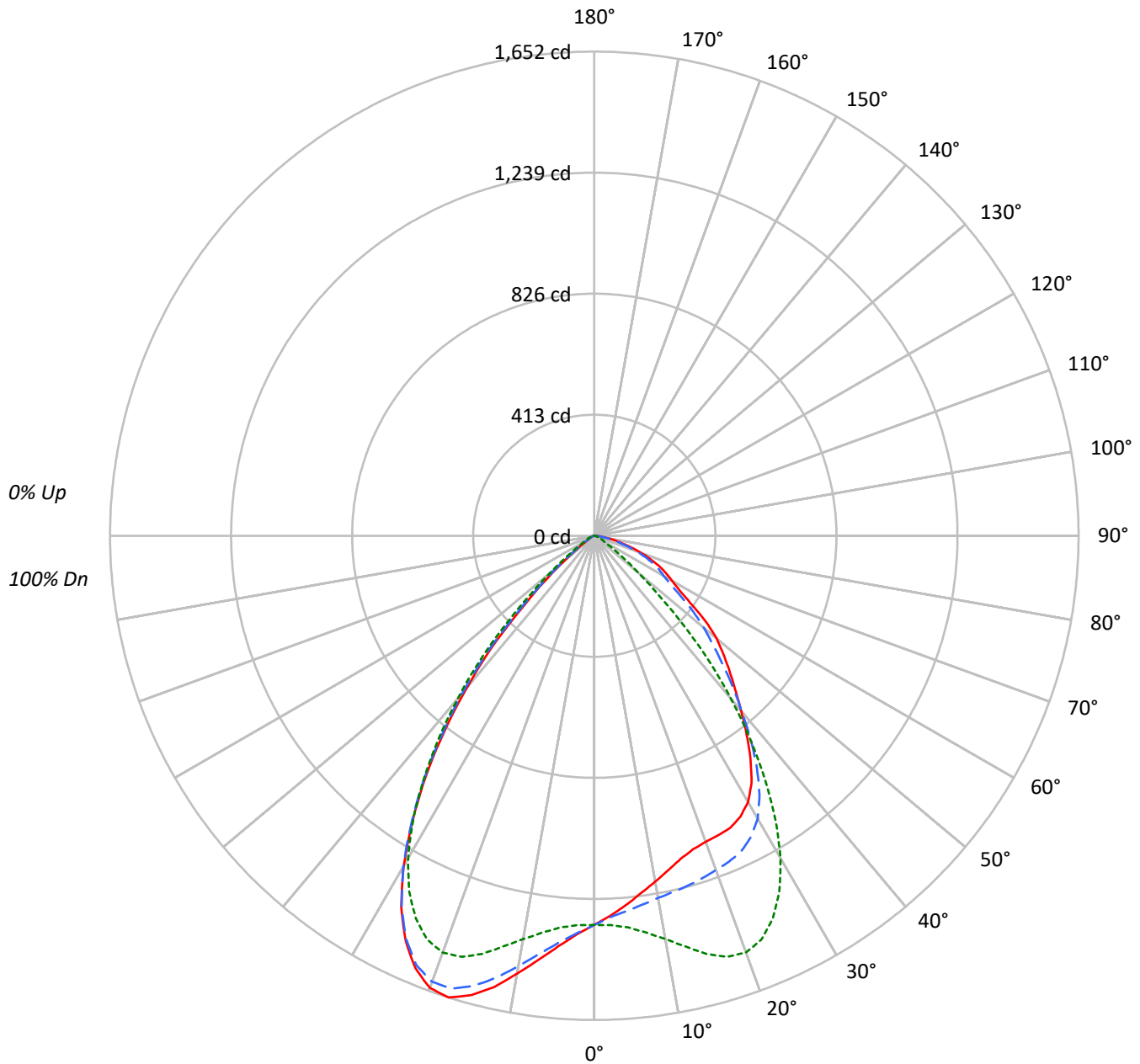
Lumens per Lamp: N/A
Luminaire Lumens: 2450.0 lumens
Efficiency: N/A
Efficacy: 73.1 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.3 / 1.19
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

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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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					0
RW	70	50	30	10	70	50	30	10		50	30	10		50	30	10		50	30	10
RCR																				
0	119	119	119	119	116	116	116	116		111	111	111		106	106	106		102	102	102
1	112	108	105	102	109	106	103	101		102	100	98		98	96	95		95	93	92
2	104	98	93	89	102	96	92	88		93	89	86		90	87	84		87	85	82
3	97	89	83	78	95	88	82	77		85	80	76		82	78	75		80	77	74
4	91	81	75	69	89	80	74	69		78	72	68		76	71	67		74	70	66
5	85	75	67	62	83	74	67	62		72	66	61		70	65	60		68	64	60
6	79	69	61	56	78	68	61	56		66	60	55		64	59	55		63	58	54
7	75	63	56	51	73	62	55	51		61	55	50		60	54	50		58	53	50
8	70	58	51	46	69	58	51	46		57	50	46		55	50	46		54	49	45
9	66	54	47	42	65	54	47	42		53	46	42		52	46	42		51	46	42
10	62	51	44	39	61	50	43	39		49	43	39		48	43	39		47	42	39

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	163113	163113	163113
5°	155818	165437	173342
10°	149399	174274	189194
15°	145057	187817	206336
20°	145250	197820	214593
25°	148947	195238	206516
30°	148753	180218	184402
35°	139328	152316	150246
40°	124803	116191	108413
45°	113227	73770	60531
50°	104030	37422	25840
55°	85397	16707	8546
60°	74941	9386	4693
65°	70523	7035	3546
70°	60381	5604	3125
75°	46043	4130	2468
80°	33110	2476	1273
85°	24386	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	129.0	5.3
10°-20°	401.9	16.4
20°-30°	621.8	25.4
30°-40°	612.7	25.0
40°-50°	376.2	15.4
50°-60°	167.3	6.8
60°-70°	93.4	3.8
70°-80°	40.4	1.7
80°-90°	7.2	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°	1152.7	47.0
0°-40°	1765.4	72.1
0°-60°	2308.9	94.2
0°-90°	2450.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2450.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1328	1328	1328	1328	1328	
5°	1264	1284	1342	1394	1406	119
15°	1140	1236	1477	1589	1622	324
25°	1099	1187	1440	1518	1524	504
35°	929	967	1016	1012	1002	577
45°	652	619	425	371	348	505
55°	399	360	78	45	40	366
65°	243	218	24	14	12	238
75°	97	83	9	5	5	107
85°	17	14	0	0	0	21
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°	1327.7	1327.7	1327.7	1327.7	1327.7	1327.7	1327.7	1327.7	1327.7	1327.7	1327.7
2.5°	1296.4	1296.4	1296.4	1296.4	1299.9	1294.7	1299.9	1299.9	1305.1	1306.8	1301.7
5°	1263.5	1261.8	1263.5	1263.5	1267.0	1265.3	1270.4	1273.9	1280.9	1284.3	1284.3
7.5°	1228.9	1228.9	1228.9	1232.3	1237.5	1235.8	1241.0	1246.2	1256.6	1263.5	1268.7
10°	1197.6	1195.9	1201.1	1202.9	1208.0	1208.0	1216.7	1221.9	1234.0	1247.9	1254.9
12.5°	1168.2	1166.5	1169.9	1175.2	1183.8	1183.8	1190.7	1199.4	1216.7	1232.3	1244.4
15°	1140.5	1142.2	1147.4	1150.8	1161.2	1161.2	1169.9	1180.3	1199.4	1218.5	1235.8
17.5°	1121.4	1123.1	1126.6	1131.8	1142.2	1142.2	1150.8	1163.0	1183.8	1204.6	1225.4
20°	1111.0	1112.8	1116.2	1121.4	1130.1	1131.8	1138.8	1152.6	1171.6	1194.2	1213.3
22.5°	1105.8	1109.3	1112.8	1116.2	1124.8	1124.8	1133.5	1143.9	1163.0	1185.5	1202.9
25°	1098.8	1102.3	1104.1	1109.3	1116.2	1116.2	1121.4	1133.5	1150.8	1169.9	1187.2
27.5°	1079.8	1083.3	1085.0	1090.2	1097.1	1095.4	1102.3	1111.0	1126.6	1143.9	1157.8
30°	1048.6	1050.3	1053.8	1055.5	1060.7	1060.7	1065.9	1074.6	1085.0	1100.6	1114.4
32.5°	998.3	1001.8	1003.6	1005.3	1010.5	1008.7	1010.5	1015.6	1026.0	1040.0	1048.6
35°	929.0	935.9	935.9	939.4	941.2	939.4	939.4	946.3	951.5	961.9	967.2
37.5°	852.7	858.0	856.2	859.7	861.4	856.2	859.7	861.4	868.4	873.5	875.3
40°	778.2	780.0	780.0	780.0	780.0	778.2	780.0	781.6	786.9	786.9	781.6
42.5°	710.6	712.4	712.4	708.9	712.4	710.6	710.6	710.6	710.6	703.7	698.5
45°	651.7	653.4	653.4	651.7	651.7	648.2	646.5	644.8	639.5	630.9	618.7
47.5°	596.2	599.7	601.4	598.0	596.2	592.7	592.7	582.3	575.4	565.0	547.7
50°	544.3	547.7	547.7	544.3	544.3	539.0	533.9	530.3	519.9	507.9	487.0
52.5°	478.4	483.5	483.5	481.9	481.9	474.9	473.2	466.2	457.5	443.7	426.4
55°	398.7	405.6	403.8	402.1	398.7	398.7	398.7	393.4	388.2	377.8	360.5
57.5°	341.4	343.2	343.2	341.4	341.4	338.0	338.0	332.8	331.0	320.6	306.8
60°	305.0	305.0	306.8	305.0	303.3	301.6	299.9	296.4	291.2	284.2	273.9
62.5°	275.6	277.3	277.3	275.6	273.9	272.1	270.4	266.9	263.5	258.2	247.9
65°	242.6	246.1	244.4	242.6	240.9	239.2	239.2	235.7	232.2	228.8	218.4
67.5°	206.2	208.0	209.7	206.2	206.2	204.5	204.5	201.1	199.3	192.4	185.4
70°	168.1	169.8	169.8	168.1	168.1	166.4	166.4	164.7	162.9	157.7	150.8
72.5°	131.7	133.4	131.7	130.0	130.0	130.0	128.3	126.5	124.8	121.3	116.1
75°	97.0	97.0	98.8	97.0	95.3	95.3	93.6	93.6	90.1	88.4	83.2
77.5°	69.3	71.0	69.3	69.3	67.6	65.9	65.9	64.1	64.1	62.4	58.9
80°	46.8	46.8	48.6	46.8	45.1	46.8	45.1	43.3	43.3	41.6	38.2
82.5°	29.5	31.2	29.5	29.5	29.5	29.5	29.5	27.7	27.7	26.0	24.2
85°	17.3	17.3	17.3	17.3	17.3	17.3	17.3	15.6	15.6	15.6	13.9
87.5°	8.7	8.7	6.9	6.9	8.7	8.7	8.7	6.9	6.9	6.9	6.9
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°	1327.7	1327.7	1327.7	1327.7	1327.7	1327.7	1327.7	1327.7	1327.7	1327.7	1327.7
2.5°	1308.6	1310.3	1313.7	1319.0	1319.0	1315.5	1324.2	1324.2	1327.7	1329.4	1336.3
5°	1294.7	1298.2	1305.1	1313.7	1315.5	1313.7	1325.9	1331.1	1336.3	1341.5	1351.9
7.5°	1282.6	1289.5	1301.7	1313.7	1319.0	1319.0	1338.1	1345.0	1355.4	1365.8	1377.9
10°	1275.7	1286.0	1303.4	1322.4	1327.7	1332.8	1355.4	1369.2	1383.1	1397.0	1414.3
12.5°	1267.0	1286.0	1308.6	1332.8	1343.2	1350.1	1381.4	1398.7	1417.8	1435.1	1457.6
15°	1265.3	1287.8	1317.3	1348.4	1362.3	1372.7	1407.4	1431.6	1454.2	1476.7	1499.3
17.5°	1258.3	1286.0	1322.4	1357.1	1374.5	1388.3	1428.2	1457.6	1483.6	1506.2	1532.2
20°	1249.6	1280.9	1320.7	1358.8	1377.9	1391.8	1435.1	1462.9	1492.3	1513.1	1537.4
22.5°	1237.5	1268.7	1308.6	1346.7	1364.1	1376.2	1419.5	1443.8	1469.8	1490.6	1513.1
25°	1216.7	1246.2	1280.9	1312.1	1329.4	1339.8	1377.9	1400.5	1419.5	1440.3	1461.1
27.5°	1187.2	1209.8	1239.3	1261.8	1272.2	1282.6	1313.7	1332.8	1350.1	1367.5	1381.4
30°	1135.2	1152.6	1173.4	1192.5	1202.9	1204.6	1234.0	1244.4	1258.3	1270.4	1280.9
32.5°	1065.9	1079.8	1091.9	1102.3	1109.3	1111.0	1133.5	1137.0	1150.8	1150.8	1166.5
35°	977.6	984.5	993.1	993.1	998.3	993.1	1008.7	1012.2	1014.0	1015.6	1027.8
37.5°	877.0	880.4	885.7	875.3	875.3	870.1	875.3	878.8	871.8	871.8	880.4
40°	781.6	774.7	767.8	757.4	752.2	741.8	741.8	733.2	727.9	724.5	726.2
42.5°	689.8	674.2	658.6	636.1	625.7	615.3	604.9	592.7	589.3	580.7	575.4
45°	601.4	578.9	558.1	521.7	500.9	490.5	468.0	443.7	428.1	424.6	410.8
47.5°	526.9	493.9	459.3	416.0	395.2	376.1	343.2	322.4	301.6	291.2	282.5
50°	461.0	431.6	386.5	339.7	313.7	294.6	258.2	234.0	211.5	195.8	185.4
52.5°	403.8	370.9	329.3	275.6	249.6	228.8	188.9	161.2	142.1	126.5	114.4
55°	339.7	313.7	272.1	221.8	195.8	171.6	136.9	107.5	88.4	78.0	69.3
57.5°	292.9	270.4	230.5	182.0	157.7	135.2	100.5	76.3	60.6	50.2	45.1
60°	261.7	240.9	206.2	159.4	136.9	116.1	83.2	60.6	46.8	38.2	34.6
62.5°	235.7	214.9	183.7	140.4	121.3	100.5	71.0	50.2	38.2	31.2	26.0
65°	206.2	187.2	159.4	121.3	104.0	86.6	60.6	41.6	31.2	24.2	20.8
67.5°	175.1	157.7	133.4	100.5	86.6	72.8	48.6	34.6	26.0	20.8	17.3
70°	142.1	128.3	105.7	81.5	69.3	57.2	39.9	27.7	19.1	15.6	13.9
72.5°	109.2	97.0	81.5	62.4	52.0	43.3	29.5	20.8	15.6	12.2	10.4
75°	78.0	69.3	57.2	45.1	38.2	31.2	22.5	15.6	10.4	8.7	6.9
77.5°	53.7	48.6	39.9	31.2	26.0	22.5	15.6	10.4	8.7	6.9	5.2
80°	34.6	31.2	26.0	19.1	15.6	13.9	8.7	6.9	5.2	3.5	3.5
82.5°	20.8	19.1	15.6	10.4	8.7	6.9	5.2	3.5	3.5	1.8	1.8
85°	12.2	10.4	6.9	5.2	5.2	3.5	3.5	1.8	1.8	0.0	0.0
87.5°	5.2	3.5	3.5	1.8	1.8	1.8	1.8	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°	1327.7	1327.7	1327.7	1327.7	1327.7	1327.7	1327.7	1327.7	1327.7	1327.7	1327.7
2.5°	1332.8	1341.5	1339.8	1345.0	1343.2	1343.2	1351.9	1348.4	1357.1	1357.1	1358.8
5°	1351.9	1364.1	1364.1	1372.7	1371.0	1374.5	1383.1	1383.1	1393.5	1397.0	1397.0
7.5°	1379.6	1395.2	1398.7	1407.4	1409.1	1416.0	1423.0	1424.7	1438.6	1442.0	1443.8
10°	1417.8	1436.9	1442.0	1450.7	1454.2	1461.1	1469.8	1473.3	1490.6	1492.3	1499.3
12.5°	1464.6	1485.3	1490.6	1501.0	1502.7	1511.4	1523.5	1527.0	1544.3	1549.5	1554.7
15°	1509.7	1528.7	1537.4	1547.7	1549.5	1559.9	1570.3	1573.8	1589.4	1596.3	1601.5
17.5°	1540.8	1563.4	1568.6	1582.4	1582.4	1591.1	1601.5	1605.0	1620.5	1625.8	1629.2
20°	1547.7	1568.6	1575.5	1585.9	1587.6	1592.8	1601.5	1605.0	1618.8	1620.5	1625.8
22.5°	1521.7	1542.6	1546.1	1556.4	1558.1	1563.4	1570.3	1568.6	1585.9	1584.1	1585.9
25°	1466.3	1485.3	1485.3	1497.5	1495.8	1501.0	1504.4	1502.7	1518.3	1518.3	1518.3
27.5°	1386.5	1403.9	1405.6	1414.3	1409.1	1410.9	1414.3	1412.5	1423.0	1423.0	1423.0
30°	1287.8	1301.7	1296.4	1303.4	1299.9	1303.4	1299.9	1298.2	1301.7	1305.1	1303.4
32.5°	1164.7	1175.2	1175.2	1176.9	1176.9	1166.5	1163.0	1163.0	1161.2	1159.5	1159.5
35°	1022.6	1031.3	1027.8	1027.8	1026.0	1015.6	1010.5	1007.0	1012.2	1001.8	1008.7
37.5°	877.0	878.8	873.5	871.8	863.1	863.1	854.5	847.5	851.0	849.3	842.4
40°	717.5	724.5	714.1	710.6	715.8	708.9	700.2	691.5	698.5	689.8	693.3
42.5°	561.6	559.8	556.3	556.3	556.3	546.0	544.3	542.5	544.3	537.3	532.1
45°	405.6	400.4	395.2	395.2	388.2	384.7	384.7	379.6	370.9	370.9	360.5
47.5°	273.9	261.7	258.2	256.5	253.1	253.1	249.6	246.1	244.4	235.7	235.7
50°	178.5	166.4	162.9	161.2	162.9	159.4	156.0	152.5	149.1	147.4	143.9
52.5°	107.5	102.3	98.8	97.0	93.6	91.9	90.1	86.6	84.9	84.9	83.2
55°	64.1	58.9	52.0	52.0	52.0	50.2	48.6	46.8	45.1	45.1	43.3
57.5°	39.9	36.4	32.9	31.2	31.2	31.2	29.5	29.5	29.5	29.5	27.7
60°	29.5	26.0	24.2	24.2	24.2	22.5	22.5	22.5	22.5	20.8	20.8
62.5°	22.5	20.8	19.1	19.1	17.3	17.3	17.3	17.3	17.3	17.3	15.6
65°	19.1	15.6	15.6	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9
67.5°	13.9	12.2	12.2	12.2	12.2	10.4	10.4	10.4	10.4	10.4	10.4
70°	10.4	10.4	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7
72.5°	8.7	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9
75°	6.9	6.9	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2
77.5°	5.2	5.2	5.2	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
80°	3.5	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8
82.5°	1.8	1.8	1.8	1.8	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: P858549

CATALOG NUMBER: LD4C25W2N2050D010 4LBSWNL1_3000K

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	1327.7	1327.7	1327.7	1327.7	1327.7	1327.7	1327.7	1327.7
2.5°	1358.8	1367.5	1358.8	1358.8	1364.1	1362.3	1365.8	1360.6
5°	1398.7	1410.9	1402.2	1400.5	1409.1	1407.4	1409.1	1405.6
7.5°	1447.2	1459.4	1450.7	1450.7	1459.4	1457.6	1462.9	1459.4
10°	1502.7	1516.6	1504.4	1506.2	1518.3	1516.6	1516.6	1516.6
12.5°	1559.9	1573.8	1566.8	1566.8	1575.5	1577.2	1579.0	1577.2
15°	1606.7	1620.5	1611.9	1611.9	1624.0	1622.3	1624.0	1622.3
17.5°	1634.4	1648.3	1637.9	1637.9	1648.3	1648.3	1650.0	1651.8
20°	1627.5	1643.1	1634.4	1630.9	1643.1	1643.1	1641.4	1641.4
22.5°	1587.6	1601.5	1594.5	1591.1	1599.8	1596.3	1594.5	1596.3
25°	1518.3	1532.2	1518.3	1518.3	1525.2	1523.5	1525.2	1523.5
27.5°	1424.7	1435.1	1421.2	1419.5	1426.5	1423.0	1421.2	1426.5
30°	1299.9	1310.3	1303.4	1298.2	1306.8	1301.7	1298.2	1299.9
32.5°	1157.8	1164.7	1161.2	1152.6	1157.8	1154.3	1152.6	1154.3
35°	1001.8	1010.5	996.6	994.9	1003.6	996.6	993.1	1001.8
37.5°	840.6	851.0	838.9	840.6	835.4	837.1	833.7	838.9
40°	688.1	686.4	682.9	681.2	682.9	677.7	681.2	676.0
42.5°	523.4	526.9	525.2	523.4	525.2	518.2	514.8	521.7
45°	364.0	362.3	358.8	355.3	355.3	353.6	353.6	348.4
47.5°	234.0	232.2	225.3	227.1	230.5	227.1	221.8	228.8
50°	142.1	140.4	140.4	138.7	142.1	138.7	135.2	135.2
52.5°	79.7	79.7	78.0	78.0	78.0	78.0	76.3	74.6
55°	43.3	41.6	41.6	41.6	39.9	39.9	39.9	39.9
57.5°	27.7	27.7	27.7	27.7	27.7	27.7	26.0	26.0
60°	20.8	20.8	20.8	20.8	19.1	20.8	19.1	19.1
62.5°	15.6	15.6	15.6	15.6	15.6	15.6	15.6	15.6
65°	12.2	12.2	12.2	12.2	12.2	12.2	12.2	12.2
67.5°	10.4	10.4	10.4	10.4	10.4	10.4	10.4	10.4
70°	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7
72.5°	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9
75°	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2
77.5°	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
80°	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8
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)