

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: P858552

Luminaire Tested: **LD4C25W2N2050D010 4LBSWNL1_5000K**

Issue Date: 11/9/2023



Test Information

Test Method: LM-79-08
Report Number: P858552
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_5000K
Description: 4 INCH 2500 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 5000K, W2N2050 LEDS
AND 4LBSWNLI TRIM WITH FINISH

Light Source: -
Ballast/Driver: -

Summary

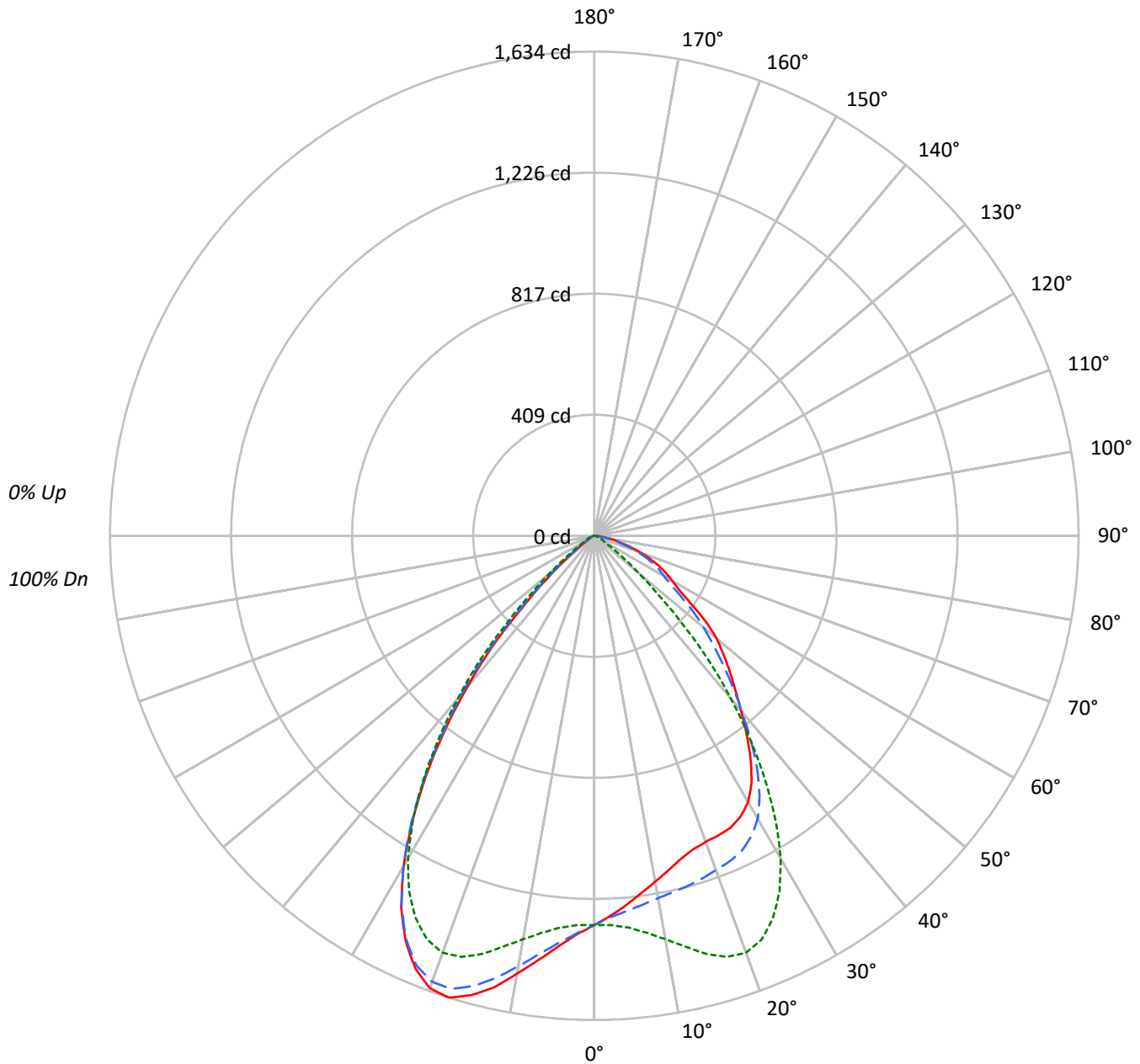
Lumens per Lamp: N/A
Luminaire Lumens: 2424.0 lumens
Efficiency: N/A
Efficacy: 72.4 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.3 / 1.19
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

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				10				0			
RW	70	50	30	10	70	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	112	108	105	102	109	106	103	101	102	100	98	98	96	95	95	93	92	90						
2	104	98	93	89	102	96	92	88	93	89	86	90	87	84	87	85	82	80						
3	97	89	83	78	95	88	82	77	85	80	76	82	78	75	80	77	74	72						
4	91	81	75	69	89	80	74	69	78	72	68	76	71	67	74	70	66	64						
5	85	75	67	62	83	74	67	62	72	66	61	70	65	60	68	64	60	58						
6	79	69	61	56	78	68	61	56	66	60	55	64	59	55	63	58	54	53						
7	75	63	56	51	73	62	55	51	61	55	50	60	54	50	58	53	50	48						
8	70	58	51	46	69	58	51	46	57	50	46	55	50	46	54	49	45	44						
9	66	54	47	42	65	54	47	42	53	46	42	52	46	42	51	46	42	40						
10	62	51	44	39	61	50	43	39	49	43	39	48	43	39	47	42	39	37						

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	161380	161380	161380
5°	154166	163686	171505
10°	147815	172428	187185
15°	143518	185821	204148
20°	143707	195728	212318
25°	147374	193164	204320
30°	147179	178303	182445
35°	137843	150711	148657
40°	123472	114956	107258
45°	112028	72989	59889
50°	102921	37040	25573
55°	84476	16535	8439
60°	74154	9288	4644
65°	69767	6977	3488
70°	59735	5568	3089
75°	45568	4082	2468
80°	32757	2405	1203
85°	24104	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	127.6	5.3
10°-20°	397.7	16.4
20°-30°	615.2	25.4
30°-40°	606.2	25.0
40°-50°	372.2	15.4
50°-60°	165.5	6.8
60°-70°	92.4	3.8
70°-80°	40.0	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°	1140.5	47.0
0°-40°	1746.7	72.1
0°-60°	2284.4	94.2
0°-90°	2424.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2424.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1314	1314	1314	1314	1314	
5°	1250	1271	1327	1379	1391	117
15°	1128	1223	1461	1572	1605	320
25°	1087	1175	1425	1502	1507	499
35°	919	957	1005	1001	991	571
45°	645	612	420	367	345	499
55°	394	357	77	45	39	362
65°	240	216	24	14	12	235
75°	96	82	9	5	5	106
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°	1313.6	1313.6	1313.6	1313.6	1313.6	1313.6	1313.6	1313.6	1313.6	1313.6	1313.6
2.5°	1282.7	1282.7	1282.7	1282.7	1286.1	1281.0	1286.1	1286.1	1291.3	1293.0	1287.8
5°	1250.1	1248.4	1250.1	1250.1	1253.5	1251.8	1256.9	1260.4	1267.3	1270.7	1270.7
7.5°	1215.8	1215.8	1215.8	1219.3	1224.4	1222.7	1227.8	1233.0	1243.2	1250.1	1255.3
10°	1184.9	1183.2	1188.3	1190.1	1195.2	1195.2	1203.8	1209.0	1220.9	1234.7	1241.6
12.5°	1155.8	1154.1	1157.5	1162.7	1171.2	1171.2	1178.1	1186.7	1203.8	1219.3	1231.2
15°	1128.4	1130.1	1135.2	1138.6	1148.9	1148.9	1157.5	1167.8	1186.7	1205.5	1222.7
17.5°	1109.5	1111.2	1114.6	1119.8	1130.1	1130.1	1138.6	1150.7	1171.2	1191.8	1212.4
20°	1099.2	1100.9	1104.4	1109.5	1118.1	1119.8	1126.7	1140.4	1159.2	1181.5	1200.4
22.5°	1094.1	1097.5	1100.9	1104.4	1112.9	1112.9	1121.5	1131.8	1150.7	1173.0	1190.1
25°	1087.2	1090.6	1092.3	1097.5	1104.4	1104.4	1109.5	1121.5	1138.6	1157.5	1174.6
27.5°	1068.4	1071.8	1073.5	1078.6	1085.5	1083.7	1090.6	1099.2	1114.6	1131.8	1145.5
30°	1037.5	1039.2	1042.6	1044.3	1049.5	1049.5	1054.6	1063.2	1073.5	1088.9	1102.6
32.5°	987.7	991.2	992.9	994.6	999.8	998.0	999.8	1004.9	1015.1	1028.9	1037.5
35°	919.1	926.0	926.0	929.4	931.2	929.4	929.4	936.3	941.4	951.7	956.9
37.5°	843.7	848.9	847.1	850.5	852.3	847.1	850.5	852.3	859.1	864.3	866.0
40°	769.9	771.7	771.7	771.7	771.7	769.9	771.7	773.4	778.5	778.5	773.4
42.5°	703.1	704.8	704.8	701.3	704.8	703.1	703.1	703.1	703.1	696.2	691.1
45°	644.8	646.5	646.5	644.8	644.8	641.3	639.7	637.9	632.7	624.2	612.2
47.5°	589.9	593.3	595.0	591.6	589.9	586.4	586.4	576.2	569.3	559.0	541.9
50°	538.5	541.9	541.9	538.5	538.5	533.3	528.2	524.7	514.4	502.5	481.8
52.5°	473.3	478.4	478.4	476.7	476.7	469.9	468.1	461.3	452.7	439.0	421.8
55°	394.4	401.3	399.5	397.9	394.4	394.4	394.4	389.3	384.1	373.8	356.7
57.5°	337.8	339.5	339.5	337.8	337.8	334.4	334.4	329.3	327.5	317.2	303.5
60°	301.8	301.8	303.5	301.8	300.1	298.4	296.7	293.3	288.1	281.2	271.0
62.5°	272.6	274.4	274.4	272.6	271.0	269.2	267.5	264.1	260.7	255.5	245.2
65°	240.0	243.5	241.8	240.0	238.4	236.6	236.6	233.2	229.8	226.3	216.1
67.5°	204.0	205.8	207.5	204.0	204.0	202.4	202.4	198.9	197.2	190.3	183.5
70°	166.3	168.0	168.0	166.3	166.3	164.6	164.6	162.9	161.2	156.1	149.2
72.5°	130.3	132.0	130.3	128.6	128.6	128.6	126.9	125.2	123.5	120.1	114.9
75°	96.0	96.0	97.8	96.0	94.3	94.3	92.6	92.6	89.2	87.5	82.3
77.5°	68.6	70.3	68.6	68.6	66.8	65.2	65.2	63.4	63.4	61.7	58.3
80°	46.3	46.3	48.0	46.3	44.6	46.3	44.6	42.9	42.9	41.2	37.8
82.5°	29.2	30.8	29.2	29.2	29.2	29.2	29.2	27.4	27.4	25.7	24.0
85°	17.1	17.1	17.1	17.1	17.1	17.1	17.1	15.5	15.5	15.5	13.7
87.5°	8.6	8.6	6.9	6.9	8.6	8.6	8.6	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°	1313.6	1313.6	1313.6	1313.6	1313.6	1313.6	1313.6	1313.6	1313.6	1313.6	1313.6
2.5°	1294.7	1296.4	1299.8	1305.0	1305.0	1301.6	1310.2	1310.2	1313.6	1315.3	1322.1
5°	1281.0	1284.4	1291.3	1299.8	1301.6	1299.8	1311.8	1317.0	1322.1	1327.3	1337.6
7.5°	1269.0	1275.8	1287.8	1299.8	1305.0	1305.0	1323.9	1330.7	1341.0	1351.3	1363.3
10°	1262.1	1272.4	1289.5	1308.4	1313.6	1318.7	1341.0	1354.7	1368.4	1382.2	1399.3
12.5°	1253.5	1272.4	1294.7	1318.7	1329.0	1335.8	1366.7	1383.9	1402.7	1419.9	1442.2
15°	1251.8	1274.1	1303.3	1334.1	1347.8	1358.1	1392.5	1416.4	1438.7	1461.0	1483.4
17.5°	1245.0	1272.4	1308.4	1342.7	1359.9	1373.6	1413.0	1442.2	1467.9	1490.2	1515.9
20°	1236.4	1267.3	1306.7	1344.4	1363.3	1377.0	1419.9	1447.3	1476.4	1497.1	1521.0
22.5°	1224.4	1255.3	1294.7	1332.4	1349.6	1361.5	1404.4	1428.5	1454.2	1474.8	1497.1
25°	1203.8	1233.0	1267.3	1298.1	1315.3	1325.5	1363.3	1385.6	1404.4	1425.0	1445.6
27.5°	1174.6	1196.9	1226.1	1248.4	1258.7	1269.0	1299.8	1318.7	1335.8	1353.0	1366.7
30°	1123.2	1140.4	1160.9	1179.8	1190.1	1191.8	1220.9	1231.2	1245.0	1256.9	1267.3
32.5°	1054.6	1068.4	1080.3	1090.6	1097.5	1099.2	1121.5	1124.9	1138.6	1138.6	1154.1
35°	967.2	974.0	982.6	982.6	987.7	982.6	998.0	1001.4	1003.2	1004.9	1016.9
37.5°	867.7	871.1	876.3	866.0	866.0	860.8	866.0	869.4	862.6	862.6	871.1
40°	773.4	766.5	759.6	749.4	744.3	733.9	733.9	725.4	720.2	716.8	718.5
42.5°	682.5	667.1	651.6	629.3	619.0	608.8	598.5	586.4	583.0	574.5	569.3
45°	595.0	572.7	552.2	516.2	495.6	485.3	463.0	439.0	423.6	420.1	406.4
47.5°	521.3	488.7	454.4	411.6	391.0	372.1	339.5	319.0	298.4	288.1	279.5
50°	456.1	427.0	382.4	336.1	310.4	291.5	255.5	231.5	209.2	193.8	183.5
52.5°	399.5	367.0	325.8	272.6	247.0	226.3	186.9	159.5	140.6	125.2	113.2
55°	336.1	310.4	269.2	219.5	193.8	169.8	135.4	106.4	87.5	77.2	68.6
57.5°	289.8	267.5	228.1	180.1	156.1	133.8	99.4	75.4	60.0	49.7	44.6
60°	258.9	238.4	204.0	157.7	135.4	114.9	82.3	60.0	46.3	37.8	34.3
62.5°	233.2	212.6	181.8	138.9	120.1	99.4	70.3	49.7	37.8	30.8	25.7
65°	204.0	185.2	157.7	120.1	102.9	85.7	60.0	41.2	30.8	24.0	20.6
67.5°	173.2	156.1	132.0	99.4	85.7	72.0	48.0	34.3	25.7	20.6	17.1
70°	140.6	126.9	104.6	80.6	68.6	56.6	39.4	27.4	18.9	15.5	13.7
72.5°	108.0	96.0	80.6	61.7	51.5	42.9	29.2	20.6	15.5	12.0	10.3
75°	77.2	68.6	56.6	44.6	37.8	30.8	22.3	15.5	10.3	8.6	6.9
77.5°	53.1	48.0	39.4	30.8	25.7	22.3	15.5	10.3	8.6	6.9	5.2
80°	34.3	30.8	25.7	18.9	15.5	13.7	8.6	6.9	5.2	3.4	3.4
82.5°	20.6	18.9	15.5	10.3	8.6	6.9	5.2	3.4	3.4	1.7	1.7
85°	12.0	10.3	6.9	5.2	5.2	3.4	3.4	1.7	1.7	0.0	0.0
87.5°	5.2	3.4	3.4	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°	1313.6	1313.6	1313.6	1313.6	1313.6	1313.6	1313.6	1313.6	1313.6	1313.6	1313.6
2.5°	1318.7	1327.3	1325.5	1330.7	1329.0	1329.0	1337.6	1334.1	1342.7	1342.7	1344.4
5°	1337.6	1349.6	1349.6	1358.1	1356.4	1359.9	1368.4	1368.4	1378.7	1382.2	1382.2
7.5°	1365.0	1380.4	1383.9	1392.5	1394.1	1401.0	1407.9	1409.6	1423.3	1426.7	1428.5
10°	1402.7	1421.6	1426.7	1435.3	1438.7	1445.6	1454.2	1457.6	1474.8	1476.4	1483.4
12.5°	1449.0	1469.6	1474.8	1485.0	1486.8	1495.3	1507.3	1510.8	1527.9	1533.1	1538.2
15°	1493.6	1512.4	1521.0	1531.3	1533.1	1543.3	1553.6	1557.1	1572.5	1579.4	1584.5
17.5°	1524.5	1546.8	1551.9	1565.7	1565.7	1574.2	1584.5	1588.0	1603.3	1608.5	1611.9
20°	1531.3	1551.9	1558.8	1569.1	1570.8	1575.9	1584.5	1588.0	1601.7	1603.3	1608.5
22.5°	1505.6	1526.2	1529.6	1539.9	1541.6	1546.8	1553.6	1551.9	1569.1	1567.3	1569.1
25°	1450.8	1469.6	1469.6	1481.6	1479.9	1485.0	1488.5	1486.8	1502.2	1502.2	1502.2
27.5°	1371.8	1389.0	1390.7	1399.3	1394.1	1395.9	1399.3	1397.6	1407.9	1407.9	1407.9
30°	1274.1	1287.8	1282.7	1289.5	1286.1	1289.5	1286.1	1284.4	1287.8	1291.3	1289.5
32.5°	1152.3	1162.7	1162.7	1164.4	1164.4	1154.1	1150.7	1150.7	1148.9	1147.2	1147.2
35°	1011.7	1020.3	1016.9	1016.9	1015.1	1004.9	999.8	996.3	1001.4	991.2	998.0
37.5°	867.7	869.4	864.3	862.6	854.0	854.0	845.4	838.5	841.9	840.3	833.4
40°	709.9	716.8	706.5	703.1	708.3	701.3	692.8	684.2	691.1	682.5	685.9
42.5°	555.6	553.9	550.4	550.4	550.4	540.2	538.5	536.7	538.5	531.6	526.5
45°	401.3	396.1	391.0	391.0	384.1	380.7	380.7	375.6	367.0	367.0	356.7
47.5°	271.0	258.9	255.5	253.8	250.4	250.4	247.0	243.5	241.8	233.2	233.2
50°	176.6	164.6	161.2	159.5	161.2	157.7	154.3	150.9	147.5	145.8	142.4
52.5°	106.4	101.2	97.8	96.0	92.6	90.9	89.2	85.7	84.0	84.0	82.3
55°	63.4	58.3	51.5	51.5	51.5	49.7	48.0	46.3	44.6	44.6	42.9
57.5°	39.4	36.0	32.6	30.8	30.8	30.8	29.2	29.2	29.2	29.2	27.4
60°	29.2	25.7	24.0	24.0	24.0	22.3	22.3	22.3	22.3	20.6	20.6
62.5°	22.3	20.6	18.9	18.9	17.1	17.1	17.1	17.1	17.1	17.1	15.5
65°	18.9	15.5	15.5	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7
67.5°	13.7	12.0	12.0	12.0	12.0	10.3	10.3	10.3	10.3	10.3	10.3
70°	10.3	10.3	8.6	8.6	8.6	8.6	8.6	8.6	8.6	8.6	8.6
72.5°	8.6	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	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4
80°	3.4	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: P858552

CATALOG NUMBER: LD4C25W2N2050D010 4LBSWNL1_5000K

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	1313.6	1313.6	1313.6	1313.6	1313.6	1313.6	1313.6	1313.6
2.5°	1344.4	1353.0	1344.4	1344.4	1349.6	1347.8	1351.3	1346.2
5°	1383.9	1395.9	1387.3	1385.6	1394.1	1392.5	1394.1	1390.7
7.5°	1431.9	1443.9	1435.3	1435.3	1443.9	1442.2	1447.3	1443.9
10°	1486.8	1500.5	1488.5	1490.2	1502.2	1500.5	1500.5	1500.5
12.5°	1543.3	1557.1	1550.2	1550.2	1558.8	1560.5	1562.2	1560.5
15°	1589.6	1603.3	1594.8	1594.8	1606.8	1605.1	1606.8	1605.1
17.5°	1617.0	1630.8	1620.5	1620.5	1630.8	1630.8	1632.5	1634.2
20°	1610.2	1625.6	1617.0	1613.6	1625.6	1625.6	1624.0	1624.0
22.5°	1570.8	1584.5	1577.6	1574.2	1582.8	1579.4	1577.6	1579.4
25°	1502.2	1515.9	1502.2	1502.2	1509.0	1507.3	1509.0	1507.3
27.5°	1409.6	1419.9	1406.2	1404.4	1411.3	1407.9	1406.2	1411.3
30°	1286.1	1296.4	1289.5	1284.4	1293.0	1287.8	1284.4	1286.1
32.5°	1145.5	1152.3	1148.9	1140.4	1145.5	1142.1	1140.4	1142.1
35°	991.2	999.8	986.1	984.3	992.9	986.1	982.6	991.2
37.5°	831.7	841.9	830.0	831.7	826.6	828.2	824.8	830.0
40°	680.8	679.1	675.7	673.9	675.7	670.5	673.9	668.8
42.5°	517.9	521.3	519.6	517.9	519.6	512.7	509.3	516.2
45°	360.1	358.4	355.0	351.5	351.5	349.8	349.8	344.7
47.5°	231.5	229.8	222.9	224.7	228.1	224.7	219.5	226.3
50°	140.6	138.9	138.9	137.2	140.6	137.2	133.8	133.8
52.5°	78.9	78.9	77.2	77.2	77.2	77.2	75.4	73.8
55°	42.9	41.2	41.2	41.2	39.4	39.4	39.4	39.4
57.5°	27.4	27.4	27.4	27.4	27.4	27.4	25.7	25.7
60°	20.6	20.6	20.6	20.6	18.9	20.6	18.9	18.9
62.5°	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5
65°	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0
67.5°	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3
70°	8.6	8.6	8.6	8.6	8.6	8.6	8.6	8.6
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°	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4
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)