

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: P858550

Luminaire Tested: **LD4C25W2N2050D010 4LBSWNL1_3500K**

Issue Date: 11/9/2023



Test Information

Test Method: LM-79-08
Report Number: P858550
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_3500K
Description: 4 INCH 2500 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 3500K, W2N2050 LEDS
AND 4LBSWNLI TRIM WITH FINISH

Light Source: -
Ballast/Driver: -

Summary

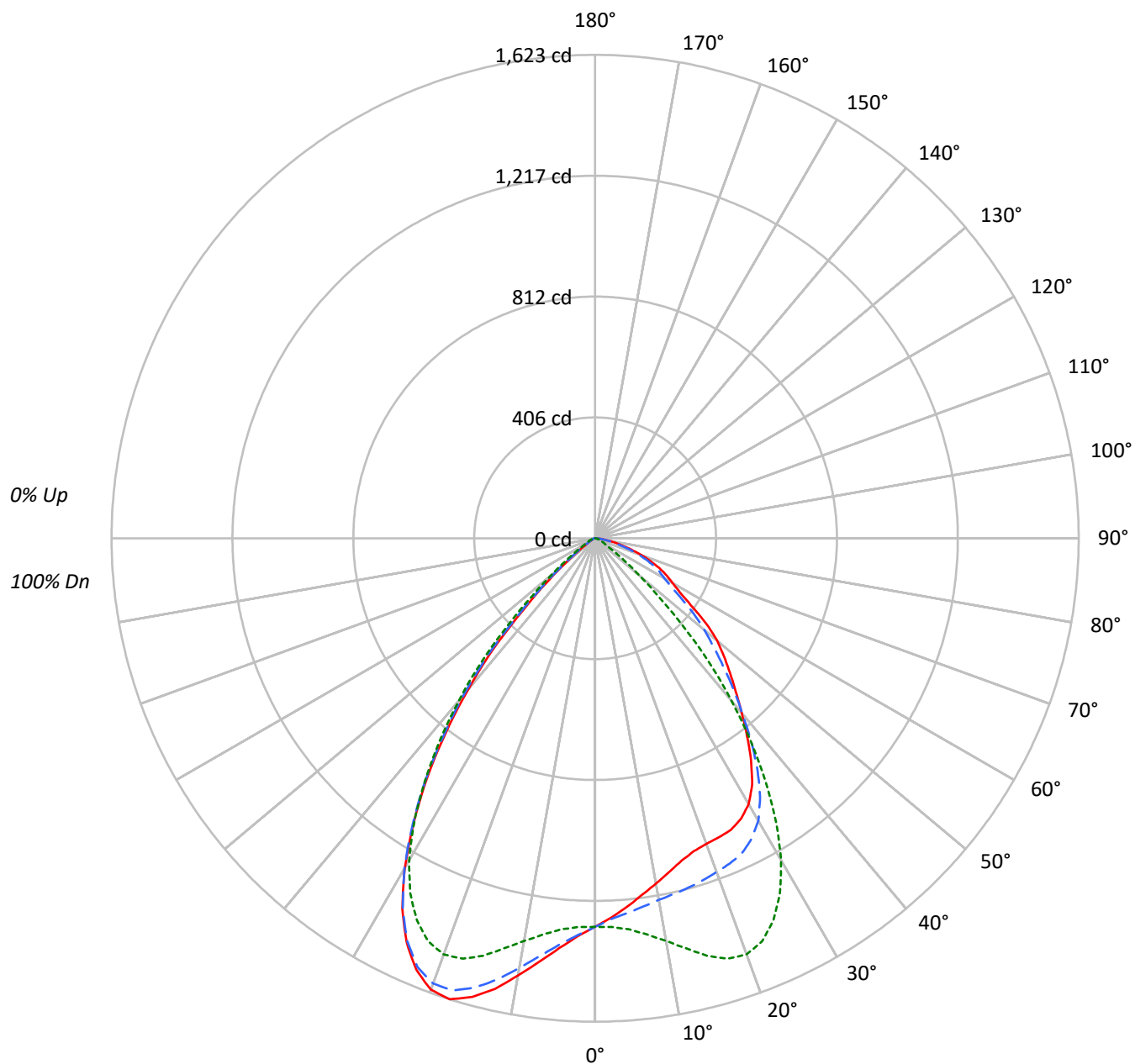
Lumens per Lamp: N/A
Luminaire Lumens: 2407.0 lumens
Efficiency: N/A
Efficacy: 71.8 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.3 / 1.19
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

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°	160250	160250	160250
5°	153081	162539	170309
10°	146779	171218	185876
15°	142501	184523	202711
20°	142700	194355	210828
25°	146330	191809	202897
30°	146143	177054	181168
35°	136883	149646	147607
40°	122606	114154	106504
45°	111229	72485	59454
50°	102195	36773	25382
55°	83898	16428	8396
60°	73638	9214	4595
65°	69302	6919	3459
70°	59340	5496	3053
75°	45236	4035	2421
80°	32544	2405	1203
85°	23963	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	126.7	5.3
10°-20°	394.9	16.4
20°-30°	610.9	25.4
30°-40°	601.9	25.0
40°-50°	369.6	15.4
50°-60°	164.4	6.8
60°-70°	91.8	3.8
70°-80°	39.7	1.7
80°-90°	7.1	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°	1132.5	47.1
0°-40°	1734.4	72.1
0°-60°	2268.4	94.2
0°-90°	2407.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2407.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1304	1304	1304	1304	1304	
5°	1241	1262	1318	1369	1381	116
15°	1120	1214	1451	1562	1594	318
25°	1080	1166	1415	1492	1497	495
35°	913	950	998	994	984	567
45°	640	608	417	364	342	496
55°	392	354	77	44	39	360
65°	238	214	24	14	12	233
75°	95	82	8	5	5	105
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°	1304.4	1304.4	1304.4	1304.4	1304.4	1304.4	1304.4	1304.4	1304.4	1304.4	1304.4
2.5°	1273.7	1273.7	1273.7	1273.7	1277.1	1272.0	1277.1	1277.1	1282.2	1283.9	1278.8
5°	1241.3	1239.7	1241.3	1241.3	1244.7	1243.1	1248.1	1251.5	1258.4	1261.8	1261.8
7.5°	1207.3	1207.3	1207.3	1210.7	1215.8	1214.1	1219.2	1224.3	1234.5	1241.3	1246.5
10°	1176.6	1174.9	1180.0	1181.7	1186.8	1186.8	1195.4	1200.5	1212.4	1226.0	1232.9
12.5°	1147.7	1146.0	1149.4	1154.5	1163.0	1163.0	1169.8	1178.3	1195.4	1210.7	1222.6
15°	1120.4	1122.2	1127.2	1130.6	1140.9	1140.9	1149.4	1159.6	1178.3	1197.1	1214.1
17.5°	1101.7	1103.4	1106.8	1111.9	1122.2	1122.2	1130.6	1142.6	1163.0	1183.4	1203.9
20°	1091.5	1093.2	1096.6	1101.7	1110.2	1111.9	1118.8	1132.4	1151.1	1173.2	1192.0
22.5°	1086.4	1089.8	1093.2	1096.6	1105.1	1105.1	1113.6	1123.8	1142.6	1164.7	1181.7
25°	1079.5	1082.9	1084.7	1089.8	1096.6	1096.6	1101.7	1113.6	1130.6	1149.4	1166.4
27.5°	1060.9	1064.3	1065.9	1071.1	1077.9	1076.1	1082.9	1091.5	1106.8	1123.8	1137.5
30°	1030.2	1031.9	1035.3	1037.0	1042.1	1042.1	1047.2	1055.7	1065.9	1081.3	1094.9
32.5°	980.8	984.2	985.9	987.6	992.8	991.0	992.8	997.8	1008.0	1021.7	1030.2
35°	912.7	919.5	919.5	922.9	924.6	922.9	922.9	929.7	934.8	945.1	950.2
37.5°	837.8	842.9	841.2	844.6	846.3	841.2	844.6	846.3	853.1	858.2	859.9
40°	764.5	766.3	766.3	766.3	766.3	764.5	766.3	767.9	773.1	773.1	767.9
42.5°	698.1	699.9	699.9	696.4	699.9	698.1	698.1	698.1	698.1	691.3	686.2
45°	640.2	642.0	642.0	640.2	640.2	636.8	635.2	633.4	628.3	619.8	607.9
47.5°	585.7	589.1	590.9	587.5	585.7	582.3	582.3	572.1	565.3	555.1	538.1
50°	534.7	538.1	538.1	534.7	534.7	529.6	524.5	521.0	510.8	498.9	478.5
52.5°	470.0	475.1	475.1	473.4	473.4	466.6	464.9	458.0	449.5	435.9	418.9
55°	391.7	398.5	396.7	395.1	391.7	391.7	391.7	386.5	381.4	371.2	354.2
57.5°	335.4	337.2	337.2	335.4	335.4	332.0	332.0	327.0	325.2	315.0	301.4
60°	299.7	299.7	301.4	299.7	298.0	296.3	294.6	291.2	286.1	279.3	269.1
62.5°	270.7	272.5	272.5	270.7	269.1	267.3	265.7	262.2	258.8	253.7	243.5
65°	238.4	241.8	240.1	238.4	236.7	235.0	235.0	231.6	228.2	224.8	214.5
67.5°	202.6	204.3	206.0	202.6	202.6	200.9	200.9	197.5	195.8	189.0	182.2
70°	165.2	166.8	166.8	165.2	165.2	163.4	163.4	161.8	160.0	155.0	148.2
72.5°	129.4	131.1	129.4	127.7	127.7	127.7	126.0	124.3	122.6	119.2	114.1
75°	95.3	95.3	97.1	95.3	93.7	93.7	91.9	91.9	88.5	86.9	81.7
77.5°	68.1	69.8	68.1	68.1	66.4	64.7	64.7	63.0	63.0	61.3	57.9
80°	46.0	46.0	47.7	46.0	44.3	46.0	44.3	42.6	42.6	40.9	37.5
82.5°	29.0	30.6	29.0	29.0	29.0	29.0	29.0	27.2	27.2	25.6	23.8
85°	17.0	17.0	17.0	17.0	17.0	17.0	17.0	15.3	15.3	15.3	13.6
87.5°	8.5	8.5	6.8	6.8	8.5	8.5	8.5	6.8	6.8	6.8	6.8
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°	1304.4	1304.4	1304.4	1304.4	1304.4	1304.4	1304.4	1304.4	1304.4	1304.4	1304.4
2.5°	1285.6	1287.3	1290.7	1295.8	1295.8	1292.4	1301.0	1301.0	1304.4	1306.0	1312.8
5°	1272.0	1275.4	1282.2	1290.7	1292.4	1290.7	1302.6	1307.8	1312.8	1318.0	1328.2
7.5°	1260.1	1266.9	1278.8	1290.7	1295.8	1295.8	1314.6	1321.4	1331.6	1341.8	1353.7
10°	1253.3	1263.5	1280.5	1299.2	1304.4	1309.4	1331.6	1345.2	1358.8	1372.5	1389.5
12.5°	1244.7	1263.5	1285.6	1309.4	1319.6	1326.4	1357.1	1374.1	1392.9	1409.9	1432.1
15°	1243.1	1265.2	1294.2	1324.8	1338.4	1348.6	1382.7	1406.5	1428.7	1450.8	1473.0
17.5°	1236.3	1263.5	1299.2	1333.3	1350.3	1363.9	1403.1	1432.1	1457.6	1479.8	1505.3
20°	1227.7	1258.4	1297.6	1335.0	1353.7	1367.3	1409.9	1437.2	1466.1	1486.6	1510.4
22.5°	1215.8	1246.5	1285.6	1323.0	1340.1	1352.0	1394.6	1418.4	1444.0	1464.4	1486.6
25°	1195.4	1224.3	1258.4	1289.0	1306.0	1316.2	1353.7	1375.9	1394.6	1415.0	1435.5
27.5°	1166.4	1188.6	1217.5	1239.7	1249.9	1260.1	1290.7	1309.4	1326.4	1343.5	1357.1
30°	1115.3	1132.4	1152.8	1171.5	1181.7	1183.4	1212.4	1222.6	1236.3	1248.1	1258.4
32.5°	1047.2	1060.9	1072.7	1082.9	1089.8	1091.5	1113.6	1117.0	1130.6	1130.6	1146.0
35°	960.4	967.2	975.7	975.7	980.8	975.7	991.0	994.4	996.2	997.8	1009.8
37.5°	861.6	865.0	870.1	859.9	859.9	854.8	859.9	863.3	856.5	856.5	865.0
40°	767.9	761.1	754.3	744.1	739.0	728.8	728.8	720.3	715.2	711.8	713.5
42.5°	677.7	662.4	647.0	624.9	614.7	604.5	594.3	582.3	578.9	570.5	565.3
45°	590.9	568.7	548.3	512.6	492.1	481.9	459.8	435.9	420.6	417.2	403.5
47.5°	517.6	485.3	451.2	408.7	388.3	369.5	337.2	316.8	296.3	286.1	277.5
50°	452.9	424.0	379.7	333.8	308.2	289.5	253.7	229.9	207.7	192.4	182.2
52.5°	396.7	364.4	323.6	270.7	245.2	224.8	185.6	158.4	139.6	124.3	112.4
55°	333.8	308.2	267.3	218.0	192.4	168.6	134.5	105.6	86.9	76.7	68.1
57.5°	287.8	265.7	226.5	178.8	155.0	132.8	98.7	74.9	59.6	49.4	44.3
60°	257.1	236.7	202.6	156.6	134.5	114.1	81.7	59.6	46.0	37.5	34.0
62.5°	231.6	211.1	180.5	137.9	119.2	98.7	69.8	49.4	37.5	30.6	25.6
65°	202.6	183.9	156.6	119.2	102.1	85.1	59.6	40.9	30.6	23.8	20.4
67.5°	172.0	155.0	131.1	98.7	85.1	71.5	47.7	34.0	25.6	20.4	17.0
70°	139.6	126.0	103.9	80.1	68.1	56.2	39.2	27.2	18.7	15.3	13.6
72.5°	107.3	95.3	80.1	61.3	51.1	42.6	29.0	20.4	15.3	11.9	10.2
75°	76.7	68.1	56.2	44.3	37.5	30.6	22.1	15.3	10.2	8.5	6.8
77.5°	52.8	47.7	39.2	30.6	25.6	22.1	15.3	10.2	8.5	6.8	5.1
80°	34.0	30.6	25.6	18.7	15.3	13.6	8.5	6.8	5.1	3.4	3.4
82.5°	20.4	18.7	15.3	10.2	8.5	6.8	5.1	3.4	3.4	1.7	1.7
85°	11.9	10.2	6.8	5.1	5.1	3.4	3.4	1.7	1.7	0.0	0.0
87.5°	5.1	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°	1304.4	1304.4	1304.4	1304.4	1304.4	1304.4	1304.4	1304.4	1304.4	1304.4	1304.4
2.5°	1309.4	1318.0	1316.2	1321.4	1319.6	1319.6	1328.2	1324.8	1333.3	1333.3	1335.0
5°	1328.2	1340.1	1340.1	1348.6	1346.9	1350.3	1358.8	1358.8	1369.1	1372.5	1372.5
7.5°	1355.4	1370.7	1374.1	1382.7	1384.4	1391.2	1398.0	1399.7	1413.3	1416.7	1418.4
10°	1392.9	1411.6	1416.7	1425.3	1428.7	1435.5	1444.0	1447.4	1464.4	1466.1	1473.0
12.5°	1438.9	1459.3	1464.4	1474.6	1476.4	1484.8	1496.8	1500.2	1517.2	1522.3	1527.4
15°	1483.2	1501.8	1510.4	1520.6	1522.3	1532.5	1542.7	1546.1	1561.5	1568.3	1573.4
17.5°	1513.8	1535.9	1541.1	1554.7	1554.7	1563.1	1573.4	1576.8	1592.1	1597.2	1600.6
20°	1520.6	1541.1	1547.9	1558.1	1559.7	1564.9	1573.4	1576.8	1590.4	1592.1	1597.2
22.5°	1495.0	1515.5	1518.9	1529.1	1530.8	1535.9	1542.7	1541.1	1558.1	1556.3	1558.1
25°	1440.6	1459.3	1459.3	1471.2	1469.5	1474.6	1478.0	1476.4	1491.6	1491.6	1491.6
27.5°	1362.2	1379.3	1381.0	1389.5	1384.4	1386.1	1389.5	1387.8	1398.0	1398.0	1398.0
30°	1265.2	1278.8	1273.7	1280.5	1277.1	1280.5	1277.1	1275.4	1278.8	1282.2	1280.5
32.5°	1144.3	1154.5	1154.5	1156.2	1156.2	1146.0	1142.6	1142.6	1140.9	1139.2	1139.2
35°	1004.6	1013.2	1009.8	1009.8	1008.0	997.8	992.8	989.3	994.4	984.2	991.0
37.5°	861.6	863.3	858.2	856.5	848.0	848.0	839.5	832.6	836.0	834.4	827.6
40°	705.0	711.8	701.6	698.1	703.3	696.4	687.9	679.4	686.2	677.7	681.1
42.5°	551.7	550.0	546.6	546.6	546.6	536.4	534.7	533.0	534.7	527.9	522.8
45°	398.5	393.3	388.3	388.3	381.4	378.0	378.0	372.9	364.4	364.4	354.2
47.5°	269.1	257.1	253.7	252.0	248.6	248.6	245.2	241.8	240.1	231.6	231.6
50°	175.4	163.4	160.0	158.4	160.0	156.6	153.2	149.8	146.4	144.8	141.4
52.5°	105.6	100.5	97.1	95.3	91.9	90.3	88.5	85.1	83.5	83.5	81.7
55°	63.0	57.9	51.1	51.1	51.1	49.4	47.7	46.0	44.3	44.3	42.6
57.5°	39.2	35.8	32.4	30.6	30.6	30.6	29.0	29.0	29.0	29.0	27.2
60°	29.0	25.6	23.8	23.8	23.8	22.1	22.1	22.1	22.1	20.4	20.4
62.5°	22.1	20.4	18.7	18.7	17.0	17.0	17.0	17.0	17.0	17.0	15.3
65°	18.7	15.3	15.3	13.6	13.6	13.6	13.6	13.6	13.6	13.6	13.6
67.5°	13.6	11.9	11.9	11.9	11.9	10.2	10.2	10.2	10.2	10.2	10.2
70°	10.2	10.2	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5
72.5°	8.5	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8
75°	6.8	6.8	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1
77.5°	5.1	5.1	5.1	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: P858550

CATALOG NUMBER: LD4C25W2N2050D010 4LBSWNL1_3500K

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	1304.4	1304.4	1304.4	1304.4	1304.4	1304.4	1304.4	1304.4
2.5°	1335.0	1343.5	1335.0	1335.0	1340.1	1338.4	1341.8	1336.7
5°	1374.1	1386.1	1377.6	1375.9	1384.4	1382.7	1384.4	1381.0
7.5°	1421.8	1433.8	1425.3	1425.3	1433.8	1432.1	1437.2	1433.8
10°	1476.4	1490.0	1478.0	1479.8	1491.6	1490.0	1490.0	1490.0
12.5°	1532.5	1546.1	1539.3	1539.3	1547.9	1549.5	1551.3	1549.5
15°	1578.5	1592.1	1583.6	1583.6	1595.5	1593.8	1595.5	1593.8
17.5°	1605.7	1619.4	1609.2	1609.2	1619.4	1619.4	1621.1	1622.8
20°	1598.9	1614.2	1605.7	1602.3	1614.2	1614.2	1612.6	1612.6
22.5°	1559.7	1573.4	1566.5	1563.1	1571.7	1568.3	1566.5	1568.3
25°	1491.6	1505.3	1491.6	1491.6	1498.4	1496.8	1498.4	1496.8
27.5°	1399.7	1409.9	1396.3	1394.6	1401.4	1398.0	1396.3	1401.4
30°	1277.1	1287.3	1280.5	1275.4	1283.9	1278.8	1275.4	1277.1
32.5°	1137.5	1144.3	1140.9	1132.4	1137.5	1134.0	1132.4	1134.0
35°	984.2	992.8	979.1	977.4	985.9	979.1	975.7	984.2
37.5°	825.8	836.0	824.2	825.8	820.8	822.4	819.0	824.2
40°	676.0	674.3	670.9	669.2	670.9	665.8	669.2	664.1
42.5°	514.2	517.6	516.0	514.2	516.0	509.2	505.7	512.6
45°	357.6	355.9	352.5	349.0	349.0	347.4	347.4	342.2
47.5°	229.9	228.2	221.4	223.1	226.5	223.1	218.0	224.8
50°	139.6	137.9	137.9	136.2	139.6	136.2	132.8	132.8
52.5°	78.3	78.3	76.7	76.7	76.7	76.7	74.9	73.3
55°	42.6	40.9	40.9	40.9	39.2	39.2	39.2	39.2
57.5°	27.2	27.2	27.2	27.2	27.2	27.2	25.6	25.6
60°	20.4	20.4	20.4	20.4	18.7	20.4	18.7	18.7
62.5°	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3
65°	11.9	11.9	11.9	11.9	11.9	11.9	11.9	11.9
67.5°	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2
70°	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5
72.5°	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8
75°	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1
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)