

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: P858589

Luminaire Tested: **LD4C25W2N2765D010 4LBSWNL_2700K**

Issue Date: 11/9/2023



Test Information

Test Method: LM-79-08
Report Number: P858589
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_2700K
Description: 4 INCH 2500 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 2700K, W2N2765 LEDS
AND 4LBSWNLI TRIM WITH FINISH

Light Source: -
Ballast/Driver: -

Summary

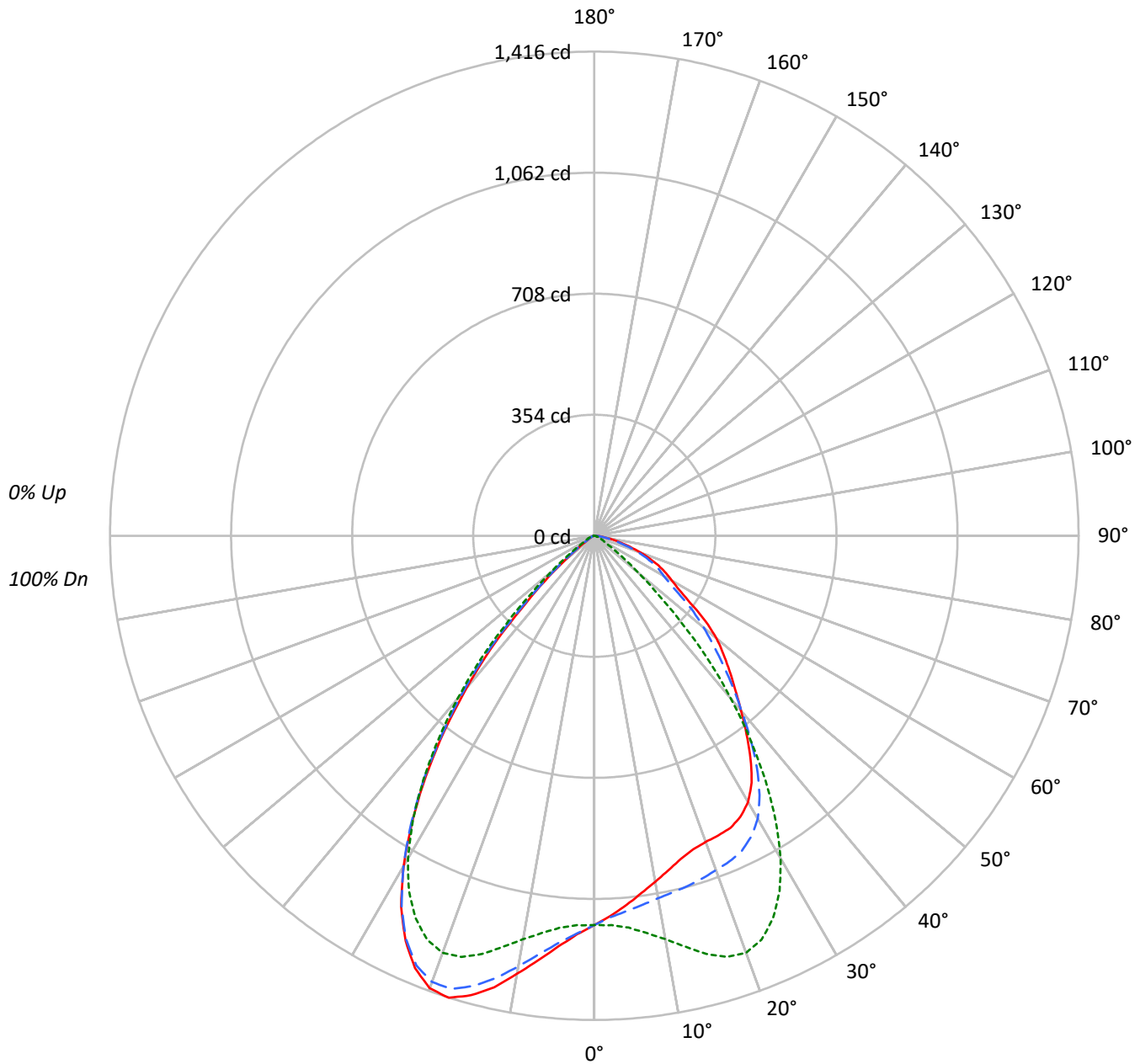
Lumens per Lamp: N/A
Luminaire Lumens: 2101.0 lumens
Efficiency: N/A
Efficacy: 62.7 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.3 / 1.19
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

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

TEST NUMBER: P858589

CATALOG NUMBER: LD4C25W2N2765D010 4LBSWNL1_2700K

Luminous Intensity Polar Plot





TEST NUMBER: P858589

CATALOG NUMBER: LD4C25W2N2765D010 4LBSWNL1_2700K

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	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°	139869	139869	139869
5°	133620	141870	148653
10°	128117	149449	162236
15°	124389	161070	176943
20°	124554	169646	184027
25°	127732	167436	177101
30°	127560	154555	158130
35°	119486	130629	128845
40°	107017	99640	92969
45°	97086	63259	51896
50°	89199	32090	22152
55°	73231	14329	7325
60°	64277	8035	4030
65°	60494	6046	3023
70°	51797	4813	2694
75°	39492	3560	2136
80°	28370	2122	1061
85°	20862	0	0



TEST NUMBER: P858589

CATALOG NUMBER: LD4C25W2N2765D010 4LBSWNL1_2700K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	110.6	5.3
10°-20°	344.7	16.4
20°-30°	533.3	25.4
30°-40°	525.4	25.0
40°-50°	322.6	15.4
50°-60°	143.5	6.8
60°-70°	80.1	3.8
70°-80°	34.7	1.7
80°-90°	6.2	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°	988.5	47.0
0°-40°	1513.9	72.1
0°-60°	1980.0	94.2
0°-90°	2101.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2101.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1138	1138	1138	1138	1138	
5°	1084	1101	1150	1195	1205	102
15°	978	1060	1266	1363	1391	277
25°	942	1018	1235	1302	1306	432
35°	797	829	871	868	859	495
45°	559	531	364	318	299	433
55°	342	309	67	39	34	314
65°	208	187	21	12	10	204
75°	83	71	8	4	4	92
85°	15	12	0	0	0	18
90°	0	0	0	0	0	



TEST NUMBER: P858589

CATALOG NUMBER: LD4C25W2N2765D010 4LBSWNLI_2700K

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	1138.5	1138.5	1138.5	1138.5	1138.5	1138.5	1138.5	1138.5	1138.5	1138.5	1138.5
2.5°	1111.8	1111.8	1111.8	1111.8	1114.7	1110.3	1114.7	1114.7	1119.2	1120.7	1116.2
5°	1083.5	1082.1	1083.5	1083.5	1086.5	1085.0	1089.5	1092.4	1098.4	1101.4	1101.4
7.5°	1053.8	1053.8	1053.8	1056.8	1061.2	1059.8	1064.2	1068.7	1077.6	1083.5	1088.0
10°	1027.0	1025.6	1030.0	1031.5	1035.9	1035.9	1043.4	1047.9	1058.2	1070.2	1076.1
12.5°	1001.8	1000.3	1003.3	1007.8	1015.2	1015.2	1021.1	1028.5	1043.4	1056.8	1067.2
15°	978.0	979.5	983.9	986.9	995.8	995.8	1003.3	1012.2	1028.5	1044.9	1059.8
17.5°	961.6	963.2	966.1	970.5	979.5	979.5	986.9	997.3	1015.2	1033.0	1050.8
20°	952.7	954.2	957.2	961.6	969.1	970.5	976.5	988.4	1004.7	1024.1	1040.4
22.5°	948.3	951.3	954.2	957.2	964.6	964.6	972.1	981.0	997.3	1016.7	1031.5
25°	942.3	945.3	946.8	951.3	957.2	957.2	961.6	972.1	986.9	1003.3	1018.1
27.5°	926.0	929.0	930.4	934.9	940.8	939.3	945.3	952.7	966.1	981.0	992.8
30°	899.2	900.7	903.7	905.2	909.6	909.6	914.1	921.5	930.4	943.8	955.7
32.5°	856.1	859.1	860.6	862.1	866.5	865.0	866.5	871.0	879.9	891.8	899.2
35°	796.7	802.6	802.6	805.6	807.1	805.6	805.6	811.5	816.0	824.9	829.4
37.5°	731.3	735.8	734.2	737.2	738.7	734.2	737.2	738.7	744.7	749.1	750.6
40°	667.3	668.8	668.8	668.8	668.8	667.3	668.8	670.3	674.8	674.8	670.3
42.5°	609.4	610.9	610.9	607.9	610.9	609.4	609.4	609.4	609.4	603.5	599.0
45°	558.8	560.4	560.4	558.8	558.8	555.9	554.4	552.9	548.4	541.0	530.6
47.5°	511.3	514.2	515.8	512.8	511.3	508.3	508.3	499.4	493.5	484.5	469.7
50°	466.7	469.7	469.7	466.7	466.7	462.2	457.8	454.8	445.9	435.5	417.6
52.5°	410.2	414.7	414.7	413.2	413.2	407.3	405.8	399.8	392.4	380.5	365.6
55°	341.9	347.8	346.3	344.8	341.9	341.9	341.9	337.4	332.9	324.0	309.2
57.5°	292.8	294.3	294.3	292.8	292.8	289.8	289.8	285.4	283.9	275.0	263.1
60°	261.6	261.6	263.1	261.6	260.1	258.6	257.2	254.2	249.7	243.8	234.8
62.5°	236.3	237.8	237.8	236.3	234.8	233.3	231.9	228.9	225.9	221.5	212.5
65°	208.1	211.0	209.6	208.1	206.6	205.1	205.1	202.1	199.2	196.2	187.3
67.5°	176.8	178.4	179.8	176.8	176.8	175.4	175.4	172.4	170.9	165.0	159.0
70°	144.2	145.6	145.6	144.2	144.2	142.7	142.7	141.2	139.7	135.3	129.3
72.5°	113.0	114.4	113.0	111.5	111.5	111.5	110.0	108.5	107.0	104.1	99.6
75°	83.2	83.2	84.7	83.2	81.8	81.8	80.2	80.2	77.3	75.8	71.3
77.5°	59.5	60.9	59.5	59.5	57.9	56.5	56.5	55.0	55.0	53.5	50.5
80°	40.1	40.1	41.6	40.1	38.7	40.1	38.7	37.2	37.2	35.7	32.7
82.5°	25.3	26.7	25.3	25.3	25.3	25.3	25.3	23.8	23.8	22.3	20.8
85°	14.8	14.8	14.8	14.8	14.8	14.8	14.8	13.4	13.4	13.4	11.9
87.5°	7.5	7.5	5.9	5.9	7.5	7.5	7.5	5.9	5.9	5.9	5.9
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: P858589

CATALOG NUMBER: LD4C25W2N2765D010 4LBSWNLI_2700K

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	1138.5	1138.5	1138.5	1138.5	1138.5	1138.5	1138.5	1138.5	1138.5	1138.5	1138.5
2.5°	1122.2	1123.6	1126.6	1131.1	1131.1	1128.1	1135.6	1135.6	1138.5	1140.0	1145.9
5°	1110.3	1113.3	1119.2	1126.6	1128.1	1126.6	1137.0	1141.5	1145.9	1150.4	1159.3
7.5°	1099.9	1105.8	1116.2	1126.6	1131.1	1131.1	1147.5	1153.4	1162.3	1171.2	1181.6
10°	1093.9	1102.8	1117.7	1134.1	1138.5	1143.0	1162.3	1174.2	1186.1	1198.0	1212.8
12.5°	1086.5	1102.8	1122.2	1143.0	1151.9	1157.8	1184.6	1199.5	1215.8	1230.7	1250.0
15°	1085.0	1104.4	1129.6	1156.4	1168.2	1177.2	1206.9	1227.7	1247.0	1266.4	1285.7
17.5°	1079.1	1102.8	1134.1	1163.8	1178.7	1190.5	1224.7	1250.0	1272.3	1291.6	1313.9
20°	1071.6	1098.4	1132.6	1165.3	1181.6	1193.5	1230.7	1254.5	1279.7	1297.6	1318.4
22.5°	1061.2	1088.0	1122.2	1154.8	1169.8	1180.1	1217.3	1238.1	1260.4	1278.2	1297.6
25°	1043.4	1068.7	1098.4	1125.2	1140.0	1148.9	1181.6	1201.0	1217.3	1235.2	1253.0
27.5°	1018.1	1037.5	1062.7	1082.1	1091.0	1099.9	1126.6	1143.0	1157.8	1172.7	1184.6
30°	973.5	988.4	1006.2	1022.6	1031.5	1033.0	1058.2	1067.2	1079.1	1089.5	1098.4
32.5°	914.1	926.0	936.4	945.3	951.3	952.7	972.1	975.0	986.9	986.9	1000.3
35°	838.3	844.2	851.6	851.6	856.1	851.6	865.0	868.0	869.5	871.0	881.4
37.5°	752.1	755.0	759.5	750.6	750.6	746.1	750.6	753.6	747.6	747.6	755.0
40°	670.3	664.4	658.4	649.5	645.1	636.1	636.1	628.7	624.2	621.3	622.8
42.5°	591.6	578.2	564.8	545.5	536.5	527.6	518.7	508.3	505.3	497.9	493.5
45°	515.8	496.4	478.6	447.4	429.6	420.6	401.3	380.5	367.2	364.1	352.2
47.5°	451.8	423.6	393.9	356.7	338.9	322.5	294.3	276.5	258.6	249.7	242.2
50°	395.3	370.1	331.5	291.3	269.0	252.7	221.5	200.7	181.3	167.9	159.0
52.5°	346.3	318.1	282.4	236.3	214.1	196.2	162.0	138.2	121.9	108.5	98.1
55°	291.3	269.0	233.3	190.2	167.9	147.2	117.4	92.2	75.8	66.9	59.5
57.5°	251.2	231.9	197.7	156.1	135.3	115.9	86.2	65.4	52.0	43.1	38.7
60°	224.4	206.6	176.8	136.7	117.4	99.6	71.3	52.0	40.1	32.7	29.7
62.5°	202.1	184.3	157.6	120.4	104.1	86.2	60.9	43.1	32.7	26.7	22.3
65°	176.8	160.5	136.7	104.1	89.2	74.3	52.0	35.7	26.7	20.8	17.8
67.5°	150.1	135.3	114.4	86.2	74.3	62.4	41.6	29.7	22.3	17.8	14.8
70°	121.9	110.0	90.7	69.9	59.5	49.0	34.2	23.8	16.4	13.4	11.9
72.5°	93.6	83.2	69.9	53.5	44.6	37.2	25.3	17.8	13.4	10.4	8.9
75°	66.9	59.5	49.0	38.7	32.7	26.7	19.3	13.4	8.9	7.5	5.9
77.5°	46.1	41.6	34.2	26.7	22.3	19.3	13.4	8.9	7.5	5.9	4.5
80°	29.7	26.7	22.3	16.4	13.4	11.9	7.5	5.9	4.5	3.0	3.0
82.5°	17.8	16.4	13.4	8.9	7.5	5.9	4.5	3.0	3.0	1.5	1.5
85°	10.4	8.9	5.9	4.5	4.5	3.0	3.0	1.5	1.5	0.0	0.0
87.5°	4.5	3.0	3.0	1.5	1.5	1.5	1.5	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: P858589

CATALOG NUMBER: LD4C25W2N2765D010 4LBSWNL1_2700K

CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	1138.5	1138.5	1138.5	1138.5	1138.5	1138.5	1138.5	1138.5	1138.5	1138.5	1138.5
2.5°	1143.0	1150.4	1148.9	1153.4	1151.9	1151.9	1159.3	1156.4	1163.8	1163.8	1165.3
5°	1159.3	1169.8	1169.8	1177.2	1175.7	1178.7	1186.1	1186.1	1195.0	1198.0	1198.0
7.5°	1183.1	1196.5	1199.5	1206.9	1208.4	1214.3	1220.3	1221.8	1233.6	1236.6	1238.1
10°	1215.8	1232.2	1236.6	1244.1	1247.0	1253.0	1260.4	1263.4	1278.2	1279.7	1285.7
12.5°	1255.9	1273.8	1278.2	1287.2	1288.7	1296.1	1306.5	1309.5	1324.3	1328.8	1333.2
15°	1294.6	1310.9	1318.4	1327.3	1328.8	1337.7	1346.6	1349.6	1363.0	1368.9	1373.4
17.5°	1321.3	1340.7	1345.1	1357.0	1357.0	1364.4	1373.4	1376.4	1389.7	1394.2	1397.2
20°	1327.3	1345.1	1351.1	1360.0	1361.5	1365.9	1373.4	1376.4	1388.2	1389.7	1394.2
22.5°	1305.0	1322.8	1325.8	1334.7	1336.2	1340.7	1346.6	1345.1	1360.0	1358.5	1360.0
25°	1257.5	1273.8	1273.8	1284.2	1282.7	1287.2	1290.1	1288.7	1302.0	1302.0	1302.0
27.5°	1189.0	1203.9	1205.4	1212.8	1208.4	1209.9	1212.8	1211.3	1220.3	1220.3	1220.3
30°	1104.4	1116.2	1111.8	1117.7	1114.7	1117.7	1114.7	1113.3	1116.2	1119.2	1117.7
32.5°	998.8	1007.8	1007.8	1009.2	1009.2	1000.3	997.3	997.3	995.8	994.4	994.4
35°	876.9	884.4	881.4	881.4	879.9	871.0	866.5	863.6	868.0	859.1	865.0
37.5°	752.1	753.6	749.1	747.6	740.2	740.2	732.8	726.8	729.8	728.3	722.4
40°	615.3	621.3	612.4	609.4	613.9	607.9	600.5	593.0	599.0	591.6	594.5
42.5°	481.6	480.1	477.1	477.1	477.1	468.2	466.7	465.2	466.7	460.8	456.3
45°	347.8	343.3	338.9	338.9	332.9	329.9	329.9	325.5	318.1	318.1	309.2
47.5°	234.8	224.4	221.5	220.0	217.0	217.0	214.1	211.0	209.6	202.1	202.1
50°	153.1	142.7	139.7	138.2	139.7	136.7	133.8	130.8	127.8	126.4	123.4
52.5°	92.2	87.7	84.7	83.2	80.2	78.8	77.3	74.3	72.8	72.8	71.3
55°	55.0	50.5	44.6	44.6	44.6	43.1	41.6	40.1	38.7	38.7	37.2
57.5°	34.2	31.2	28.2	26.7	26.7	26.7	25.3	25.3	25.3	25.3	23.8
60°	25.3	22.3	20.8	20.8	20.8	19.3	19.3	19.3	19.3	17.8	17.8
62.5°	19.3	17.8	16.4	16.4	14.8	14.8	14.8	14.8	14.8	14.8	13.4
65°	16.4	13.4	13.4	11.9	11.9	11.9	11.9	11.9	11.9	11.9	11.9
67.5°	11.9	10.4	10.4	10.4	10.4	8.9	8.9	8.9	8.9	8.9	8.9
70°	8.9	8.9	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5
72.5°	7.5	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9
75°	5.9	5.9	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
77.5°	4.5	4.5	4.5	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
80°	3.0	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
82.5°	1.5	1.5	1.5	1.5	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: P858589

CATALOG NUMBER: LD4C25W2N2765D010 4LBSWNL1_2700K

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	1138.5	1138.5	1138.5	1138.5	1138.5	1138.5	1138.5	1138.5
2.5°	1165.3	1172.7	1165.3	1165.3	1169.8	1168.2	1171.2	1166.8
5°	1199.5	1209.9	1202.4	1201.0	1208.4	1206.9	1208.4	1205.4
7.5°	1241.1	1251.5	1244.1	1244.1	1251.5	1250.0	1254.5	1251.5
10°	1288.7	1300.5	1290.1	1291.6	1302.0	1300.5	1300.5	1300.5
12.5°	1337.7	1349.6	1343.6	1343.6	1351.1	1352.5	1354.1	1352.5
15°	1377.8	1389.7	1382.3	1382.3	1392.7	1391.2	1392.7	1391.2
17.5°	1401.6	1413.5	1404.6	1404.6	1413.5	1413.5	1415.0	1416.5
20°	1395.6	1409.0	1401.6	1398.6	1409.0	1409.0	1407.6	1407.6
22.5°	1361.5	1373.4	1367.4	1364.4	1371.9	1368.9	1367.4	1368.9
25°	1302.0	1313.9	1302.0	1302.0	1307.9	1306.5	1307.9	1306.5
27.5°	1221.8	1230.7	1218.8	1217.3	1223.3	1220.3	1218.8	1223.3
30°	1114.7	1123.6	1117.7	1113.3	1120.7	1116.2	1113.3	1114.7
32.5°	992.8	998.8	995.8	988.4	992.8	989.9	988.4	989.9
35°	859.1	866.5	854.7	853.2	860.6	854.7	851.6	859.1
37.5°	720.8	729.8	719.4	720.8	716.4	717.9	714.9	719.4
40°	590.1	588.6	585.6	584.1	585.6	581.2	584.1	579.7
42.5°	448.8	451.8	450.4	448.8	450.4	444.4	441.5	447.4
45°	312.1	310.7	307.7	304.7	304.7	303.2	303.2	298.7
47.5°	200.7	199.2	193.2	194.7	197.7	194.7	190.2	196.2
50°	121.9	120.4	120.4	118.9	121.9	118.9	115.9	115.9
52.5°	68.4	68.4	66.9	66.9	66.9	66.9	65.4	63.9
55°	37.2	35.7	35.7	35.7	34.2	34.2	34.2	34.2
57.5°	23.8	23.8	23.8	23.8	23.8	23.8	22.3	22.3
60°	17.8	17.8	17.8	17.8	16.4	17.8	16.4	16.4
62.5°	13.4	13.4	13.4	13.4	13.4	13.4	13.4	13.4
65°	10.4	10.4	10.4	10.4	10.4	10.4	10.4	10.4
67.5°	8.9	8.9	8.9	8.9	8.9	8.9	8.9	8.9
70°	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5
72.5°	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9
75°	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
77.5°	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
80°	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
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)