

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: P858547

Luminaire Tested: **LD4C25W2N2050D010 4LBSWNL_2000K**

Issue Date: 11/9/2023



Test Information

Test Method: LM-79-08
Report Number: P858547
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_2000K
Description: 4 INCH 2500 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 2000K, W2N2050 LEDS
AND 4LBSWNLI TRIM WITH FINISH

Light Source: -
Ballast/Driver: -

Summary

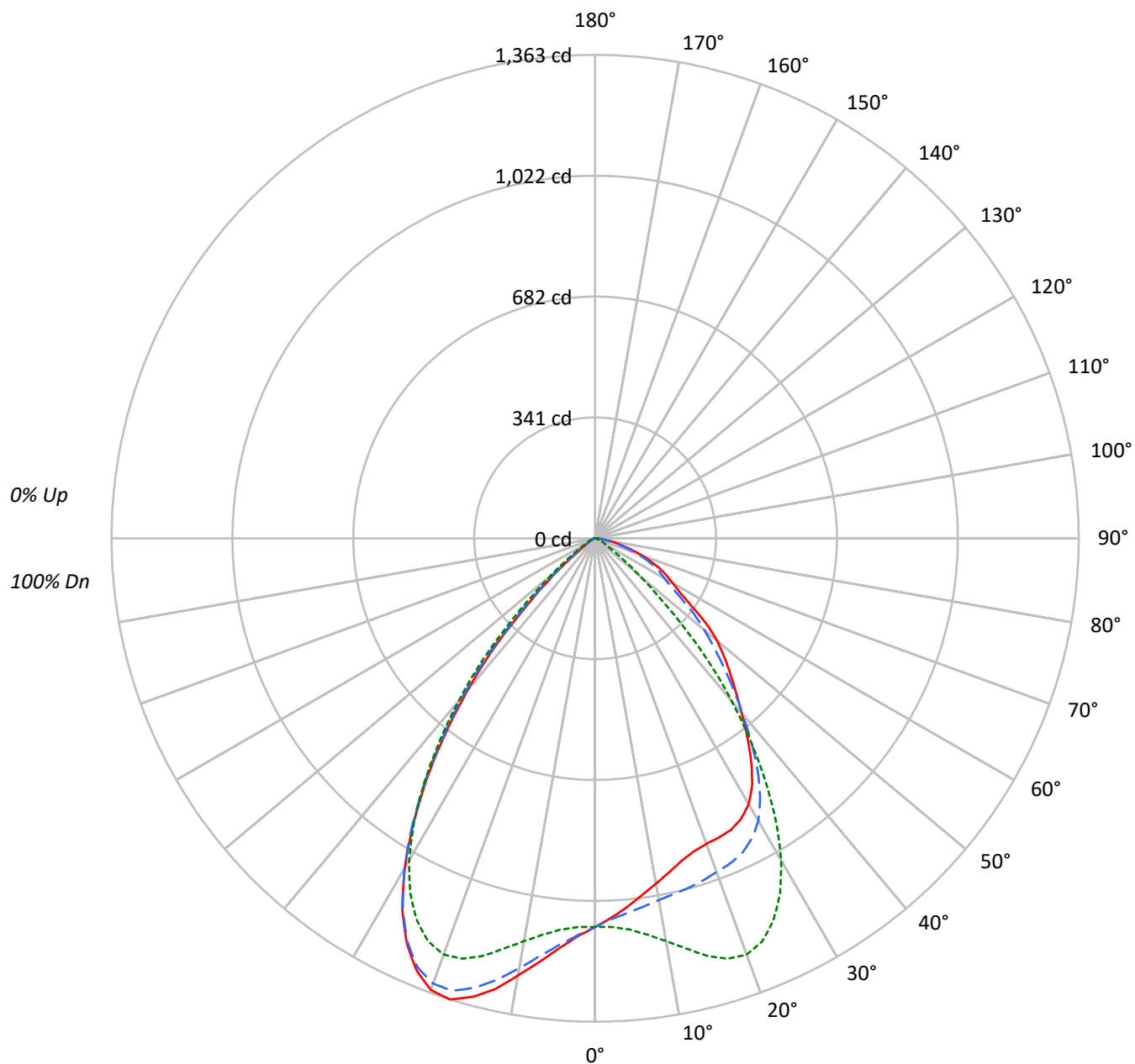
Lumens per Lamp: N/A
Luminaire Lumens: 2022.0 lumens
Efficiency: N/A
Efficacy: 60.4 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.3 / 1.19
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

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					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°	134611	134611	134611
5°	128601	136543	143067
10°	123302	143835	156135
15°	119709	155003	170291
20°	119874	163266	177098
25°	122934	161133	170445
30°	122765	148739	152186
35°	114987	125710	124000
40°	102992	95888	89473
45°	93438	60879	49951
50°	85854	30886	21330
55°	70468	13794	7047
60°	61844	7740	3858
65°	58197	5814	2907
70°	49857	4634	2586
75°	38021	3418	2041
80°	27309	2052	1061
85°	20157	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	106.4	5.3
10°-20°	331.7	16.4
20°-30°	513.2	25.4
30°-40°	505.6	25.0
40°-50°	310.5	15.4
50°-60°	138.1	6.8
60°-70°	77.1	3.8
70°-80°	33.4	1.7
80°-90°	6.0	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°	951.3	47.0
0°-40°	1457.0	72.1
0°-60°	1905.5	94.2
0°-90°	2022.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2022.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1096	1096	1096	1096	1096	
5°	1043	1060	1107	1150	1160	98
15°	941	1020	1219	1312	1339	267
25°	907	980	1189	1253	1257	416
35°	767	798	838	835	827	476
45°	538	511	350	306	288	417
55°	329	298	64	37	33	302
65°	200	180	20	11	10	196
75°	80	69	7	4	4	88
85°	14	11	0	0	0	18
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°	1095.7	1095.7	1095.7	1095.7	1095.7	1095.7	1095.7	1095.7	1095.7	1095.7	1095.7
2.5°	1070.0	1070.0	1070.0	1070.0	1072.8	1068.6	1072.8	1072.8	1077.1	1078.5	1074.3
5°	1042.8	1041.4	1042.8	1042.8	1045.6	1044.2	1048.5	1051.3	1057.1	1060.0	1060.0
7.5°	1014.2	1014.2	1014.2	1017.1	1021.3	1019.9	1024.2	1028.5	1037.1	1042.8	1047.1
10°	988.4	987.0	991.3	992.7	997.0	997.0	1004.2	1008.5	1018.5	1029.9	1035.7
12.5°	964.1	962.7	965.5	969.9	977.0	977.0	982.7	989.9	1004.2	1017.1	1027.0
15°	941.2	942.7	946.9	949.8	958.4	958.4	965.5	974.1	989.9	1005.6	1019.9
17.5°	925.5	926.9	929.8	934.1	942.7	942.7	949.8	959.8	977.0	994.1	1011.3
20°	916.9	918.4	921.2	925.5	932.7	934.1	939.8	951.3	966.9	985.6	1001.3
22.5°	912.6	915.5	918.4	921.2	928.3	928.3	935.5	944.1	959.8	978.4	992.7
25°	906.9	909.7	911.2	915.5	921.2	921.2	925.5	935.5	949.8	965.5	979.8
27.5°	891.2	894.0	895.4	899.8	905.5	904.0	909.7	916.9	929.8	944.1	955.5
30°	865.4	866.9	869.7	871.1	875.4	875.4	879.7	886.9	895.4	908.3	919.8
32.5°	823.9	826.8	828.2	829.6	834.0	832.5	834.0	838.2	846.8	858.3	865.4
35°	766.7	772.4	772.4	775.3	776.7	775.3	775.3	781.0	785.3	793.9	798.2
37.5°	703.8	708.1	706.6	709.5	710.9	706.6	709.5	710.9	716.7	720.9	722.4
40°	642.2	643.7	643.7	643.7	643.7	642.2	643.7	645.1	649.4	649.4	645.1
42.5°	586.5	587.9	587.9	585.0	587.9	586.5	586.5	586.5	586.5	580.8	576.4
45°	537.8	539.3	539.3	537.8	537.8	535.0	533.6	532.1	527.8	520.7	510.7
47.5°	492.0	494.9	496.4	493.5	492.0	489.2	489.2	480.6	474.9	466.3	452.0
50°	449.2	452.0	452.0	449.2	449.2	444.9	440.6	437.7	429.1	419.1	401.9
52.5°	394.8	399.1	399.1	397.7	397.7	392.0	390.5	384.8	377.6	366.2	351.9
55°	329.0	334.7	333.3	331.9	329.0	329.0	329.0	324.7	320.4	311.8	297.5
57.5°	281.8	283.2	283.2	281.8	281.8	278.9	278.9	274.7	273.2	264.6	253.2
60°	251.7	251.7	253.2	251.7	250.3	248.9	247.5	244.6	240.3	234.6	226.0
62.5°	227.4	228.9	228.9	227.4	226.0	224.6	223.2	220.3	217.4	213.1	204.6
65°	200.2	203.1	201.7	200.2	198.8	197.4	197.4	194.5	191.7	188.8	180.2
67.5°	170.2	171.7	173.1	170.2	170.2	168.8	168.8	165.9	164.5	158.8	153.1
70°	138.8	140.2	140.2	138.8	138.8	137.3	137.3	135.9	134.4	130.2	124.5
72.5°	108.7	110.1	108.7	107.3	107.3	107.3	105.9	104.4	103.0	100.1	95.8
75°	80.1	80.1	81.5	80.1	78.7	78.7	77.2	77.2	74.4	73.0	68.7
77.5°	57.2	58.6	57.2	57.2	55.8	54.4	54.4	52.9	52.9	51.5	48.6
80°	38.6	38.6	40.1	38.6	37.2	38.6	37.2	35.8	35.8	34.4	31.5
82.5°	24.3	25.7	24.3	24.3	24.3	24.3	24.3	22.9	22.9	21.5	20.0
85°	14.3	14.3	14.3	14.3	14.3	14.3	14.3	12.9	12.9	12.9	11.4
87.5°	7.2	7.2	5.7	5.7	7.2	7.2	7.2	5.7	5.7	5.7	5.7
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°	1095.7	1095.7	1095.7	1095.7	1095.7	1095.7	1095.7	1095.7	1095.7	1095.7	1095.7
2.5°	1080.0	1081.4	1084.2	1088.6	1088.6	1085.7	1092.9	1092.9	1095.7	1097.1	1102.9
5°	1068.6	1071.4	1077.1	1084.2	1085.7	1084.2	1094.3	1098.6	1102.9	1107.2	1115.7
7.5°	1058.5	1064.2	1074.3	1084.2	1088.6	1088.6	1104.3	1110.0	1118.6	1127.2	1137.2
10°	1052.8	1061.4	1075.7	1091.4	1095.7	1100.0	1118.6	1130.0	1141.5	1153.0	1167.2
12.5°	1045.6	1061.4	1080.0	1100.0	1108.6	1114.3	1140.1	1154.4	1170.1	1184.4	1203.0
15°	1044.2	1062.8	1087.2	1112.9	1124.3	1132.9	1161.5	1181.5	1200.1	1218.7	1237.4
17.5°	1038.5	1061.4	1091.4	1120.1	1134.3	1145.8	1178.7	1203.0	1224.5	1243.1	1264.5
20°	1031.3	1057.1	1090.0	1121.5	1137.2	1148.6	1184.4	1207.3	1231.6	1248.8	1268.8
22.5°	1021.3	1047.1	1080.0	1111.4	1125.8	1135.7	1171.5	1191.6	1213.0	1230.2	1248.8
25°	1004.2	1028.5	1057.1	1082.8	1097.1	1105.7	1137.2	1155.8	1171.5	1188.7	1205.9
27.5°	979.8	998.4	1022.8	1041.4	1049.9	1058.5	1084.2	1100.0	1114.3	1128.6	1140.1
30°	936.9	951.3	968.4	984.2	992.7	994.1	1018.5	1027.0	1038.5	1048.5	1057.1
32.5°	879.7	891.2	901.2	909.7	915.5	916.9	935.5	938.4	949.8	949.8	962.7
35°	806.8	812.5	819.6	819.6	823.9	819.6	832.5	835.4	836.8	838.2	848.3
37.5°	723.8	726.6	731.0	722.4	722.4	718.1	722.4	725.2	719.5	719.5	726.6
40°	645.1	639.4	633.7	625.1	620.8	612.2	612.2	605.1	600.8	597.9	599.4
42.5°	569.3	556.4	543.6	524.9	516.4	507.8	499.2	489.2	486.3	479.2	474.9
45°	496.4	477.8	460.6	430.6	413.4	404.8	386.2	366.2	353.3	350.4	339.0
47.5°	434.8	407.6	379.1	343.3	326.2	310.4	283.2	266.1	248.9	240.3	233.1
50°	380.5	356.2	319.0	280.4	258.9	243.2	213.1	193.1	174.5	161.6	153.1
52.5°	333.3	306.1	271.8	227.4	206.0	188.8	155.9	133.0	117.3	104.4	94.4
55°	280.4	258.9	224.6	183.1	161.6	141.6	113.0	88.7	73.0	64.4	57.2
57.5°	241.8	223.2	190.3	150.2	130.2	111.6	82.9	62.9	50.0	41.5	37.2
60°	216.0	198.8	170.2	131.6	113.0	95.8	68.7	50.0	38.6	31.5	28.6
62.5°	194.5	177.4	151.6	115.8	100.1	82.9	58.6	41.5	31.5	25.7	21.5
65°	170.2	154.5	131.6	100.1	85.8	71.5	50.0	34.4	25.7	20.0	17.1
67.5°	144.5	130.2	110.1	82.9	71.5	60.1	40.1	28.6	21.5	17.1	14.3
70°	117.3	105.9	87.3	67.3	57.2	47.2	32.9	22.9	15.7	12.9	11.4
72.5°	90.1	80.1	67.3	51.5	42.9	35.8	24.3	17.1	12.9	10.0	8.6
75°	64.4	57.2	47.2	37.2	31.5	25.7	18.6	12.9	8.6	7.2	5.7
77.5°	44.3	40.1	32.9	25.7	21.5	18.6	12.9	8.6	7.2	5.7	4.3
80°	28.6	25.7	21.5	15.7	12.9	11.4	7.2	5.7	4.3	2.9	2.9
82.5°	17.1	15.7	12.9	8.6	7.2	5.7	4.3	2.9	2.9	1.5	1.5
85°	10.0	8.6	5.7	4.3	4.3	2.9	2.9	1.5	1.5	0.0	0.0
87.5°	4.3	2.9	2.9	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



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CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	1095.7	1095.7	1095.7	1095.7	1095.7	1095.7	1095.7	1095.7	1095.7	1095.7	1095.7
2.5°	1100.0	1107.2	1105.7	1110.0	1108.6	1108.6	1115.7	1112.9	1120.1	1120.1	1121.5
5°	1115.7	1125.8	1125.8	1132.9	1131.5	1134.3	1141.5	1141.5	1150.1	1153.0	1153.0
7.5°	1138.6	1151.5	1154.4	1161.5	1162.9	1168.6	1174.4	1175.8	1187.3	1190.1	1191.6
10°	1170.1	1185.8	1190.1	1197.3	1200.1	1205.9	1213.0	1215.9	1230.2	1231.6	1237.4
12.5°	1208.7	1225.9	1230.2	1238.8	1240.2	1247.3	1257.4	1260.2	1274.5	1278.8	1283.1
15°	1245.9	1261.6	1268.8	1277.4	1278.8	1287.4	1296.0	1298.8	1311.7	1317.4	1321.8
17.5°	1271.6	1290.3	1294.6	1306.0	1306.0	1313.1	1321.8	1324.6	1337.4	1341.8	1344.6
20°	1277.4	1294.6	1300.3	1308.9	1310.3	1314.6	1321.8	1324.6	1336.0	1337.4	1341.8
22.5°	1255.9	1273.1	1276.0	1284.5	1285.9	1290.3	1296.0	1294.6	1308.9	1307.4	1308.9
25°	1210.2	1225.9	1225.9	1235.9	1234.5	1238.8	1241.6	1240.2	1253.0	1253.0	1253.0
27.5°	1144.3	1158.7	1160.1	1167.2	1162.9	1164.4	1167.2	1165.8	1174.4	1174.4	1174.4
30°	1062.8	1074.3	1070.0	1075.7	1072.8	1075.7	1072.8	1071.4	1074.3	1077.1	1075.7
32.5°	961.2	969.9	969.9	971.3	971.3	962.7	959.8	959.8	958.4	957.0	957.0
35°	843.9	851.1	848.3	848.3	846.8	838.2	834.0	831.1	835.4	826.8	832.5
37.5°	723.8	725.2	720.9	719.5	712.4	712.4	705.2	699.5	702.3	700.9	695.2
40°	592.2	597.9	589.3	586.5	590.8	585.0	577.9	570.7	576.4	569.3	572.2
42.5°	463.5	462.0	459.2	459.2	459.2	450.6	449.2	447.7	449.2	443.5	439.1
45°	334.7	330.4	326.2	326.2	320.4	317.5	317.5	313.3	306.1	306.1	297.5
47.5°	226.0	216.0	213.1	211.7	208.9	208.9	206.0	203.1	201.7	194.5	194.5
50°	147.3	137.3	134.4	133.0	134.4	131.6	128.7	125.9	123.0	121.6	118.8
52.5°	88.7	84.4	81.5	80.1	77.2	75.8	74.4	71.5	70.1	70.1	68.7
55°	52.9	48.6	42.9	42.9	42.9	41.5	40.1	38.6	37.2	37.2	35.8
57.5°	32.9	30.0	27.2	25.7	25.7	25.7	24.3	24.3	24.3	24.3	22.9
60°	24.3	21.5	20.0	20.0	20.0	18.6	18.6	18.6	18.6	17.1	17.1
62.5°	18.6	17.1	15.7	15.7	14.3	14.3	14.3	14.3	14.3	14.3	12.9
65°	15.7	12.9	12.9	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.4
67.5°	11.4	10.0	10.0	10.0	10.0	8.6	8.6	8.6	8.6	8.6	8.6
70°	8.6	8.6	7.2	7.2	7.2	7.2	7.2	7.2	7.2	7.2	7.2
72.5°	7.2	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7
75°	5.7	5.7	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3
77.5°	4.3	4.3	4.3	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9
80°	2.9	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: P858547

CATALOG NUMBER: LD4C25W2N2050D010 4LBSWNL1_2000K

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	1095.7	1095.7	1095.7	1095.7	1095.7	1095.7	1095.7	1095.7
2.5°	1121.5	1128.6	1121.5	1121.5	1125.8	1124.3	1127.2	1122.9
5°	1154.4	1164.4	1157.2	1155.8	1162.9	1161.5	1162.9	1160.1
7.5°	1194.4	1204.5	1197.3	1197.3	1204.5	1203.0	1207.3	1204.5
10°	1240.2	1251.6	1241.6	1243.1	1253.0	1251.6	1251.6	1251.6
12.5°	1287.4	1298.8	1293.1	1293.1	1300.3	1301.7	1303.1	1301.7
15°	1326.0	1337.4	1330.3	1330.3	1340.3	1338.9	1340.3	1338.9
17.5°	1348.9	1360.4	1351.8	1351.8	1360.4	1360.4	1361.8	1363.2
20°	1343.2	1356.0	1348.9	1346.0	1356.0	1356.0	1354.6	1354.6
22.5°	1310.3	1321.8	1316.0	1313.1	1320.3	1317.4	1316.0	1317.4
25°	1253.0	1264.5	1253.0	1253.0	1258.8	1257.4	1258.8	1257.4
27.5°	1175.8	1184.4	1173.0	1171.5	1177.3	1174.4	1173.0	1177.3
30°	1072.8	1081.4	1075.7	1071.4	1078.5	1074.3	1071.4	1072.8
32.5°	955.5	961.2	958.4	951.3	955.5	952.7	951.3	952.7
35°	826.8	834.0	822.5	821.1	828.2	822.5	819.6	826.8
37.5°	693.7	702.3	692.3	693.7	689.5	690.9	688.0	692.3
40°	567.9	566.5	563.6	562.2	563.6	559.3	562.2	557.9
42.5°	432.0	434.8	433.4	432.0	433.4	427.7	424.9	430.6
45°	300.4	299.0	296.1	293.2	293.2	291.8	291.8	287.5
47.5°	193.1	191.7	185.9	187.4	190.3	187.4	183.1	188.8
50°	117.3	115.8	115.8	114.4	117.3	114.4	111.6	111.6
52.5°	65.8	65.8	64.4	64.4	64.4	64.4	62.9	61.5
55°	35.8	34.4	34.4	34.4	32.9	32.9	32.9	32.9
57.5°	22.9	22.9	22.9	22.9	22.9	22.9	21.5	21.5
60°	17.1	17.1	17.1	17.1	15.7	17.1	15.7	15.7
62.5°	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9
65°	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
67.5°	8.6	8.6	8.6	8.6	8.6	8.6	8.6	8.6
70°	7.2	7.2	7.2	7.2	7.2	7.2	7.2	7.2
72.5°	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7
75°	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3
77.5°	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9
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)