

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: P880565

Luminaire Tested: **LD4C30D010 EU4309040 4LBDWNH**

Issue Date: 10/4/2024

This test was performed under the Supervised Manufacturer's Testing Program. The results of this test have not been influenced by sources from within Cooper Lighting Solutions or from external interests.



Test Information

Test Method: LM-79-08
Report Number: P880565
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P251940)
Test Lab: INNOVATION CENTER
Issue Date: 10/4/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: PORTFOLIO
Catalog Number: LD4C30D010 EU4309040 4LBDWNH
Description: 4 INCH 3000 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 4000K, 90CRI LEDS
AND 4LBDWN TRIM WITH H FINISH
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

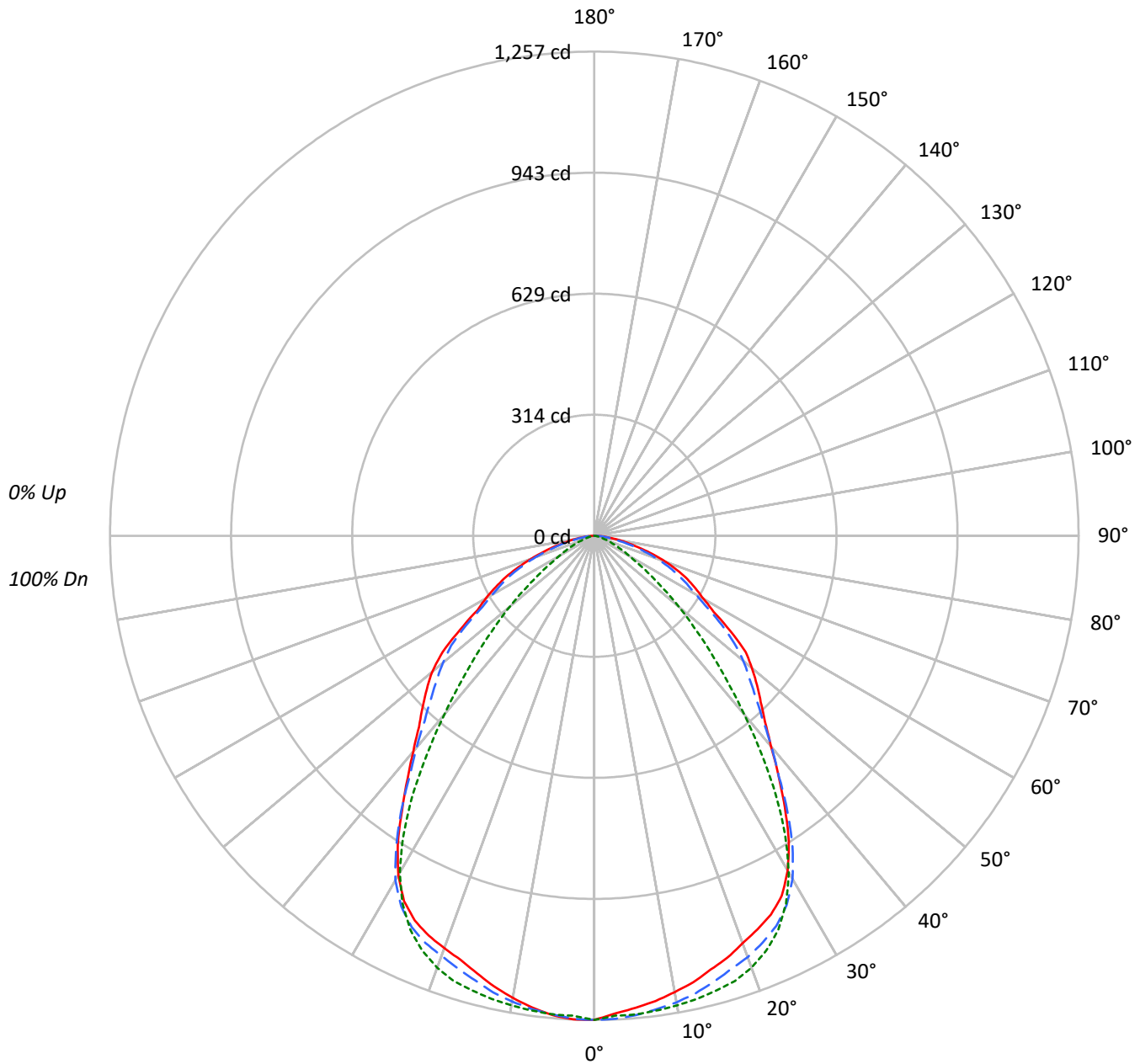
Lumens per Lamp: N/A
Luminaire Lumens: 2558.0 lumens
Efficiency: N/A
Efficacy: 80.9 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.18 / 1.19
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 31.6
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
RW	70	50	30	10	70	50	30	10		50	30	10			50	30	10			50
RCR																				
0	119	119	119	119	116	116	116	116		111	111	111			106	106	106			102
1	111	107	103	100	108	104	101	98		100	98	95			96	94	92			93
2	102	95	89	84	100	93	88	83		90	85	81			87	83	80			84
3	94	85	78	72	92	84	77	72		81	75	70			78	73	69			76
4	87	77	69	63	85	75	68	62		73	67	62			71	65	61			69
5	81	69	61	55	79	68	61	55		66	60	54			64	58	54			63
6	75	63	55	49	73	62	55	49		60	54	49			59	53	48			57
7	70	58	50	44	68	57	49	44		56	49	44			54	48	43			53
8	66	53	45	40	64	52	45	40		51	44	40			50	44	39			49
9	62	49	41	36	60	49	41	36		47	41	36			46	40	36			45
10	58	46	38	33	57	45	38	33		44	38	33			43	37	33			42

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	154415	154415	154415
5°	151675	153808	154055
10°	150048	154389	151969
15°	148300	155423	149534
20°	147132	155983	148897
25°	147049	153081	149407
30°	142370	143192	144285
35°	129340	123266	130494
40°	114427	97058	117217
45°	106156	73909	109526
50°	102004	54700	104966
55°	92358	37697	91116
60°	80297	25652	79830
65°	77587	18575	73633
70°	70152	12500	62501
75°	57815	8259	49555
80°	46553	5448	36931
85°	38200	2678	24527



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	118.7	4.6
10°-20°	339.2	13.3
20°-30°	512.5	20.0
30°-40°	536.4	21.0
40°-50°	434.4	17.0
50°-60°	316.0	12.4
60°-70°	194.9	7.6
70°-80°	88.1	3.4
80°-90°	17.9	0.7
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°	970.4	37.9
0°-40°	1506.8	58.9
0°-60°	2257.2	88.2
0°-90°	2558.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2558.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1257	1257	1257	1257	1257	
5°	1230	1249	1247	1247	1249	117
15°	1166	1199	1222	1195	1176	330
25°	1085	1118	1129	1122	1102	497
35°	862	874	822	874	870	538
45°	611	592	425	600	630	475
55°	431	404	176	408	425	385
65°	267	240	64	236	253	261
75°	122	104	17	91	104	132
85°	27	21	2	16	17	31
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°	1256.9	1256.9	1256.9	1256.9	1256.9	1256.9	1256.9	1256.9	1256.9	1256.9	1256.9
2.5°	1241.4	1241.4	1253.1	1266.5	1255.0	1243.3	1251.1	1247.2	1260.8	1260.8	1255.0
5°	1229.9	1233.7	1243.3	1255.0	1245.3	1233.7	1243.3	1239.5	1253.1	1253.1	1249.2
7.5°	1218.2	1220.1	1231.8	1245.3	1235.6	1224.1	1231.8	1229.9	1241.4	1243.3	1239.5
10°	1202.8	1204.7	1216.3	1229.9	1220.1	1210.5	1218.2	1216.3	1231.8	1231.8	1229.9
12.5°	1187.3	1189.2	1200.9	1212.4	1202.8	1193.1	1200.9	1200.9	1216.3	1218.2	1216.3
15°	1166.0	1169.8	1179.6	1191.1	1185.4	1173.8	1181.5	1181.5	1195.0	1198.8	1198.8
17.5°	1148.7	1150.6	1160.2	1171.9	1164.1	1154.4	1162.1	1162.1	1175.7	1179.6	1179.6
20°	1125.4	1129.3	1138.9	1150.6	1144.7	1137.0	1142.8	1142.8	1158.3	1162.1	1164.1
22.5°	1106.1	1109.9	1117.6	1133.2	1123.5	1117.6	1125.4	1123.5	1140.9	1142.8	1142.8
25°	1084.8	1088.7	1098.4	1108.0	1102.2	1096.5	1102.2	1102.2	1115.7	1117.6	1117.6
27.5°	1053.9	1055.8	1065.4	1075.2	1069.3	1061.6	1069.3	1067.4	1080.9	1082.9	1080.9
30°	1003.6	1007.5	1011.3	1024.9	1019.0	1013.2	1020.9	1017.1	1030.7	1030.7	1028.7
32.5°	939.7	939.7	947.6	957.2	949.5	945.5	951.4	953.3	963.0	963.0	957.2
35°	862.4	866.3	872.1	877.9	872.1	868.2	874.1	872.1	883.7	879.8	874.1
37.5°	785.1	787.0	792.8	800.6	792.8	787.0	788.9	787.0	796.7	796.7	787.0
40°	713.5	717.5	721.3	729.0	721.3	717.5	719.4	713.5	725.2	721.3	715.4
42.5°	655.5	657.4	663.2	667.1	659.4	657.4	659.4	655.5	661.3	657.4	645.9
45°	611.0	611.0	613.0	618.7	611.0	609.1	609.1	605.2	611.0	603.3	591.8
47.5°	572.4	574.3	576.3	580.1	574.3	568.6	570.5	562.7	566.5	560.7	545.3
50°	533.7	537.5	539.5	543.4	537.5	533.7	535.6	527.9	527.9	518.3	504.7
52.5°	495.1	497.0	495.1	498.9	495.1	489.2	491.1	483.4	483.4	471.9	458.3
55°	431.2	433.1	435.1	438.9	435.1	429.3	433.1	427.4	427.4	419.6	404.1
57.5°	367.3	369.4	371.3	373.2	373.2	369.4	371.3	367.3	365.4	359.6	348.1
60°	326.8	326.8	326.8	328.7	326.8	324.9	324.9	321.0	321.0	313.2	301.7
62.5°	295.9	297.8	297.8	299.7	297.8	295.9	294.0	290.0	288.1	280.4	270.7
65°	266.9	266.9	265.0	268.8	266.9	265.0	265.0	261.0	257.2	249.5	239.7
67.5°	232.0	233.9	232.0	233.9	233.9	232.0	230.1	226.2	224.3	218.5	206.9
70°	195.3	195.3	195.3	197.3	195.3	195.3	197.3	191.5	189.6	181.7	172.1
72.5°	158.5	160.5	160.5	158.5	160.5	156.6	156.6	156.6	154.7	147.0	137.2
75°	121.8	123.8	123.8	125.7	123.8	121.8	121.8	119.9	118.0	112.1	104.4
77.5°	90.9	90.9	92.8	92.8	92.8	90.9	90.9	87.1	87.1	83.1	75.4
80°	65.8	65.8	63.9	65.8	65.8	63.9	63.9	61.8	61.8	58.0	52.2
82.5°	42.6	44.5	44.5	44.5	44.5	42.6	42.6	42.6	40.6	38.6	34.8
85°	27.1	27.1	27.1	27.1	29.0	27.1	29.0	27.1	27.1	23.2	21.3
87.5°	11.7	11.7	11.7	13.6	13.6	11.7	11.7	11.7	11.7	11.7	9.6
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°	1256.9	1256.9	1256.9	1256.9	1256.9	1256.9	1256.9	1256.9	1256.9	1256.9	1256.9
2.5°	1255.0	1256.9	1251.1	1258.8	1253.1	1255.0	1256.9	1255.0	1247.2	1247.2	1268.5
5°	1247.2	1251.1	1245.3	1255.0	1251.1	1251.1	1255.0	1253.1	1245.3	1247.2	1266.5
7.5°	1239.5	1245.3	1241.4	1251.1	1245.3	1245.3	1249.2	1249.2	1241.4	1243.3	1260.8
10°	1227.9	1235.6	1233.7	1243.3	1237.6	1237.6	1243.3	1243.3	1235.6	1237.6	1255.0
12.5°	1218.2	1226.0	1224.1	1233.7	1229.9	1231.8	1233.7	1237.6	1227.9	1231.8	1247.2
15°	1202.8	1210.5	1210.5	1220.1	1216.3	1220.1	1224.1	1229.9	1222.0	1222.0	1237.6
17.5°	1185.4	1195.0	1195.0	1202.8	1202.8	1204.7	1212.4	1218.2	1210.5	1212.4	1226.0
20°	1166.0	1177.7	1177.7	1187.3	1185.4	1189.2	1195.0	1200.9	1193.1	1193.1	1208.6
22.5°	1146.6	1156.4	1158.3	1164.1	1164.1	1166.0	1171.9	1175.7	1166.0	1166.0	1181.5
25°	1119.6	1129.3	1131.2	1135.1	1131.2	1131.2	1135.1	1138.9	1129.3	1129.3	1142.8
27.5°	1082.9	1092.5	1092.5	1090.6	1086.7	1088.7	1086.7	1088.7	1079.0	1077.1	1090.6
30°	1028.7	1034.5	1034.5	1032.6	1026.8	1026.8	1020.9	1023.0	1009.4	1009.4	1020.9
32.5°	955.3	961.0	957.2	953.3	945.5	941.7	937.8	935.9	922.4	922.4	935.9
35°	868.2	872.1	866.3	858.6	848.9	843.0	837.3	829.6	819.8	821.9	829.6
37.5°	779.3	779.3	771.6	756.1	748.4	738.6	729.0	729.0	713.5	711.6	717.5
40°	703.9	696.2	682.6	661.3	647.8	638.1	624.6	616.8	605.2	605.2	614.9
42.5°	636.2	620.8	603.3	574.3	560.7	549.2	531.8	524.1	510.5	508.5	514.3
45°	576.3	560.7	535.6	504.7	487.3	473.8	448.6	438.9	427.4	425.4	429.3
47.5°	527.9	510.5	479.6	438.9	421.6	404.1	379.0	365.4	355.8	350.0	355.8
50°	485.3	462.1	429.3	386.7	363.5	348.1	317.2	303.6	290.0	286.2	288.1
52.5°	438.9	415.7	380.9	336.4	315.1	292.0	262.9	243.7	232.0	226.2	232.0
55°	388.6	365.4	330.7	286.2	262.9	241.8	210.7	195.3	181.7	176.0	181.7
57.5°	334.5	313.2	282.3	237.8	216.6	197.3	168.3	152.8	139.3	135.3	139.3
60°	288.1	270.7	239.7	197.3	179.8	158.5	133.4	118.0	106.3	104.4	106.3
62.5°	257.2	237.8	208.8	168.3	150.8	133.4	110.2	94.8	85.0	83.1	85.0
65°	226.2	205.0	177.9	143.1	125.7	112.1	89.0	75.4	65.8	63.9	65.8
67.5°	191.5	172.1	148.9	118.0	104.4	90.9	71.6	58.0	50.3	48.4	50.3
70°	158.5	141.2	118.0	94.8	81.2	71.6	54.1	44.5	36.7	34.8	36.7
72.5°	125.7	110.2	90.9	71.6	63.9	54.1	42.6	32.8	27.1	25.1	27.1
75°	96.7	85.0	69.6	52.2	46.4	40.6	29.0	23.2	19.4	17.4	19.4
77.5°	67.7	59.9	48.4	38.6	32.8	29.0	21.3	15.5	13.6	11.7	13.6
80°	46.4	40.6	32.8	25.1	21.3	17.4	13.6	9.6	7.7	7.7	7.7
82.5°	30.9	25.1	19.4	15.5	13.6	11.7	7.7	5.8	5.8	3.9	3.9
85°	17.4	15.5	11.7	9.6	7.7	5.8	3.9	3.9	1.9	1.9	1.9
87.5°	7.7	5.8	3.9	3.9	1.9	1.9	1.9	1.9	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°	1256.9	1256.9	1256.9	1256.9	1256.9	1256.9	1256.9	1256.9	1256.9	1256.9	1256.9
2.5°	1262.7	1256.9	1264.6	1256.9	1253.1	1256.9	1253.1	1264.6	1255.0	1247.2	1255.0
5°	1260.8	1253.1	1260.8	1255.0	1249.2	1251.1	1247.2	1258.8	1247.2	1241.4	1245.3
7.5°	1256.9	1251.1	1255.0	1249.2	1243.3	1245.3	1241.4	1251.1	1239.5	1233.7	1237.6
10°	1251.1	1245.3	1247.2	1243.3	1237.6	1237.6	1233.7	1241.4	1227.9	1220.1	1224.1
12.5°	1243.3	1235.6	1239.5	1233.7	1226.0	1226.0	1222.0	1227.9	1214.3	1206.6	1208.6
15°	1233.7	1226.0	1226.0	1220.1	1212.4	1212.4	1204.7	1210.5	1195.0	1187.3	1187.3
17.5°	1222.0	1212.4	1212.4	1206.6	1196.9	1195.0	1189.2	1195.0	1177.7	1169.8	1169.8
20°	1204.7	1196.9	1195.0	1191.1	1181.5	1179.6	1171.9	1173.8	1160.2	1154.4	1152.5
22.5°	1181.5	1173.8	1175.7	1169.8	1162.1	1160.2	1152.5	1158.3	1144.7	1138.9	1140.9
25°	1140.9	1137.0	1140.9	1138.9	1133.2	1133.2	1129.3	1133.2	1121.5	1117.6	1119.6
27.5°	1094.4	1092.5	1094.4	1094.4	1090.6	1090.6	1090.6	1096.5	1084.8	1082.9	1082.9
30°	1026.8	1026.8	1028.7	1030.7	1030.7	1034.5	1032.6	1040.3	1032.6	1028.7	1032.6
32.5°	937.8	945.5	951.4	951.4	951.4	955.3	959.1	964.9	957.2	959.1	959.1
35°	837.3	843.0	847.0	856.6	850.9	864.3	868.2	876.0	874.1	877.9	876.0
37.5°	725.2	732.9	740.6	754.2	752.2	767.6	775.4	790.8	787.0	794.8	798.6
40°	620.8	632.3	644.0	653.6	661.3	676.8	692.2	711.6	717.5	723.2	725.2
42.5°	520.2	531.8	551.1	564.6	576.3	601.4	622.7	645.9	651.7	663.2	667.1
45°	438.9	448.6	471.9	489.2	498.9	535.6	560.7	589.7	599.5	613.0	618.7
47.5°	363.5	380.9	404.1	425.4	438.9	477.6	510.5	541.4	555.0	570.5	578.2
50°	297.8	317.2	348.1	367.3	386.7	429.3	466.1	498.9	512.4	529.8	537.5
52.5°	243.7	265.0	294.0	315.1	336.4	380.9	419.6	450.6	468.0	479.6	491.1
55°	191.5	214.7	243.7	266.9	284.2	332.6	365.4	396.4	408.0	417.7	423.5
57.5°	148.9	166.3	195.3	214.7	235.9	278.4	311.3	334.5	344.2	355.8	359.6
60°	116.1	133.4	160.5	179.8	199.2	239.7	272.7	295.9	305.5	315.1	321.0
62.5°	92.8	110.2	135.3	152.8	170.2	206.9	235.9	259.1	270.7	280.4	286.2
65°	73.5	89.0	110.2	127.6	141.2	174.0	203.0	224.3	235.9	245.6	251.4
67.5°	58.0	71.6	90.9	102.5	116.1	143.1	168.3	187.5	197.3	208.8	214.7
70°	44.5	54.1	71.6	81.2	90.9	114.0	133.4	152.8	162.4	170.2	174.0
72.5°	32.8	40.6	54.1	61.8	67.7	87.1	102.5	116.1	123.8	131.5	135.3
75°	23.2	29.0	38.6	44.5	48.4	61.8	75.4	85.0	90.9	96.7	102.5
77.5°	15.5	19.4	25.1	29.0	32.8	42.6	50.3	58.0	63.9	69.6	71.6
80°	9.6	13.6	17.4	19.4	21.3	27.1	34.8	38.6	42.6	46.4	48.4
82.5°	5.8	7.7	9.6	11.7	13.6	17.4	21.3	25.1	27.1	30.9	32.8
85°	1.9	3.9	3.9	5.8	5.8	9.6	11.7	13.6	15.5	17.4	19.4
87.5°	0.0	0.0	1.9	1.9	1.9	1.9	3.9	3.9	3.9	3.9	3.9
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: P880565

CATALOG NUMBER: LD4C30D010 EU4309040 4LBDWNH

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	1256.9	1256.9	1256.9	1256.9	1256.9	1256.9	1256.9	1256.9
2.5°	1262.7	1256.9	1253.1	1251.1	1264.6	1247.2	1255.0	1256.9
5°	1255.0	1249.2	1245.3	1243.3	1255.0	1239.5	1245.3	1249.2
7.5°	1243.3	1239.5	1233.7	1231.8	1243.3	1226.0	1233.7	1235.6
10°	1229.9	1224.1	1220.1	1218.2	1227.9	1210.5	1218.2	1218.2
12.5°	1212.4	1208.6	1200.9	1200.9	1208.6	1193.1	1198.8	1198.8
15°	1189.2	1185.4	1177.7	1177.7	1185.4	1169.8	1175.7	1175.7
17.5°	1169.8	1166.0	1160.2	1158.3	1166.0	1150.6	1156.4	1154.4
20°	1154.4	1150.6	1142.8	1142.8	1148.7	1133.2	1138.9	1138.9
22.5°	1140.9	1138.9	1131.2	1131.2	1138.9	1123.5	1127.4	1123.5
25°	1119.6	1117.6	1109.9	1111.9	1115.7	1100.3	1106.1	1102.2
27.5°	1084.8	1084.8	1077.1	1075.2	1080.9	1067.4	1071.2	1069.3
30°	1030.7	1032.6	1023.0	1023.0	1024.9	1013.2	1019.0	1017.1
32.5°	957.2	959.1	951.4	949.5	955.3	945.5	949.5	949.5
35°	876.0	877.9	872.1	872.1	877.9	872.1	872.1	870.1
37.5°	794.8	798.6	794.8	796.7	800.6	794.8	798.6	796.7
40°	729.0	732.9	727.1	730.9	734.8	729.0	734.8	730.9
42.5°	669.1	674.9	671.0	674.9	678.7	674.9	678.7	673.0
45°	624.6	628.5	626.5	628.5	632.3	630.4	632.3	630.4
47.5°	582.0	589.7	585.9	589.7	595.6	591.8	595.6	589.7
50°	543.4	549.2	547.3	551.1	553.0	551.1	555.0	549.2
52.5°	493.0	498.9	497.0	497.0	500.8	497.0	500.8	497.0
55°	427.4	429.3	429.3	431.2	429.3	427.4	429.3	425.4
57.5°	363.5	367.3	361.6	367.3	365.4	363.5	363.5	359.6
60°	322.9	328.7	324.9	328.7	326.8	326.8	326.8	324.9
62.5°	290.0	294.0	290.0	292.0	292.0	292.0	290.0	288.1
65°	253.3	259.1	255.2	257.2	255.2	253.3	255.2	253.3
67.5°	216.6	218.5	218.5	216.6	216.6	216.6	216.6	212.8
70°	176.0	177.9	176.0	179.8	177.9	176.0	177.9	174.0
72.5°	137.2	139.3	137.2	139.3	137.2	137.2	137.2	137.2
75°	102.5	104.4	104.4	104.4	104.4	104.4	100.6	104.4
77.5°	73.5	73.5	73.5	75.4	73.5	73.5	73.5	73.5
80°	50.3	50.3	50.3	52.2	50.3	52.2	50.3	52.2
82.5°	32.8	32.8	32.8	32.8	32.8	32.8	32.8	32.8
85°	17.4	19.4	19.4	17.4	17.4	17.4	17.4	17.4
87.5°	3.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
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)