

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: P879409

Luminaire Tested: **LD4C35D010 EU4359027 4LBDWWLI**

Issue Date: 10/1/2024

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: P879409
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2107-320-5)
Test Lab: INNOVATION CENTER
Issue Date: 10/1/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: PORTFOLIO
Catalog Number: LD4C35D010 EU4359027 4LBLDWWLI
Description: 4 INCH 3500 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 2700K, 90CRI LEDS
AND 4LBLDWW TRIM WITH LI FINISH
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

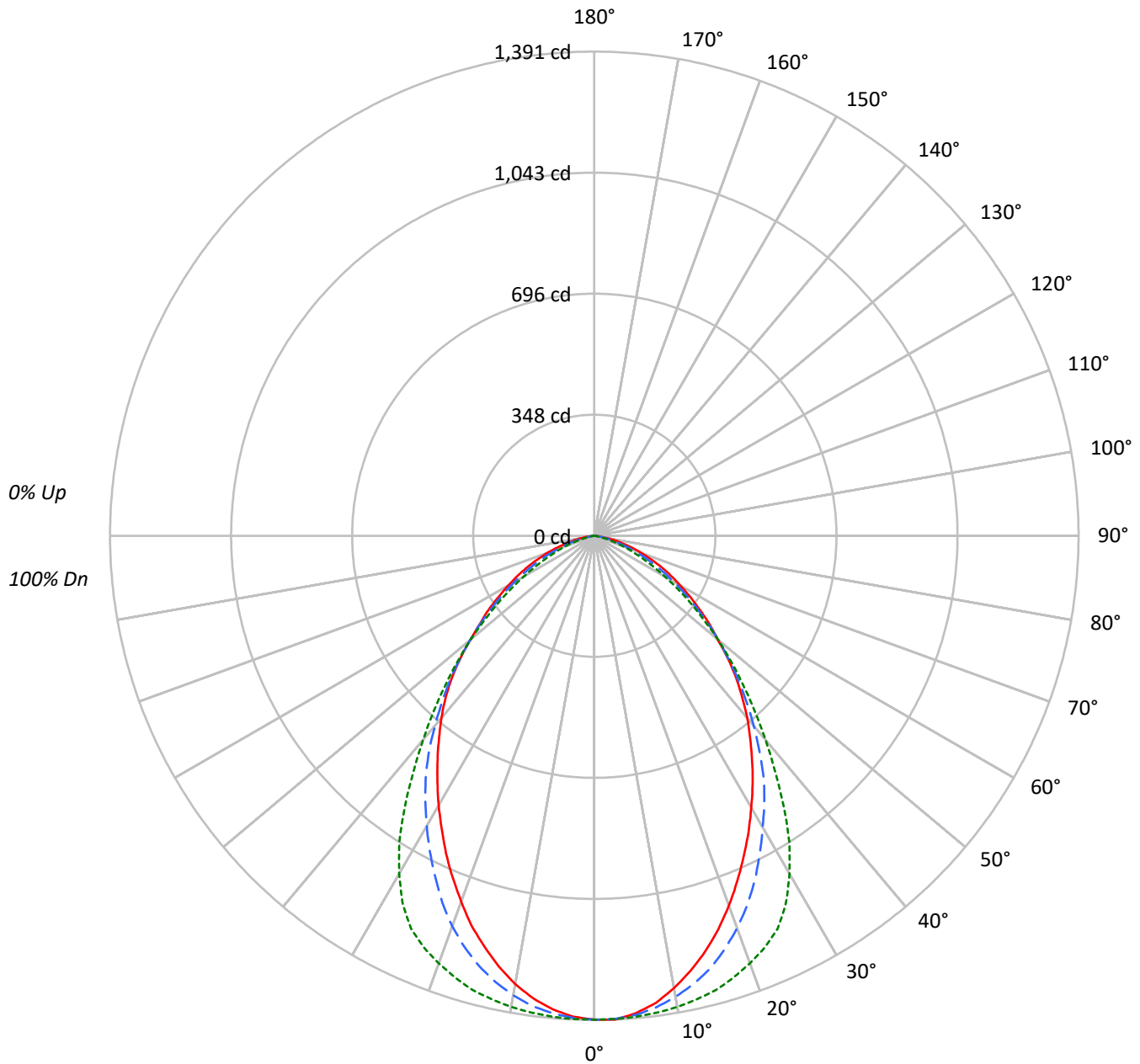
Lumens per Lamp: N/A
Luminaire Lumens: 2553.0 lumens
Efficiency: N/A
Efficacy: 63.2 lumens/watt
Spacing Criteria (0/90/45): 1 / 1.19 / 1.15
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 40.4
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	104	101	108	105	102	99		101	98	96			97	95	93			93
2	103	96	90	85	100	94	89	84		91	86	83			87	84	81			85
3	95	86	79	74	93	84	78	73		82	76	72			79	74	70			77
4	88	78	70	64	86	76	69	64		74	68	63			72	66	62			70
5	82	70	62	57	80	69	62	56		67	61	56			65	60	55			64
6	76	64	56	50	74	63	56	50		61	55	50			60	54	49			58
7	71	59	51	45	69	58	50	45		56	50	45			55	49	45			54
8	66	54	46	41	65	53	46	41		52	45	41			51	45	40			50
9	62	50	42	37	61	49	42	37		48	42	37			47	41	37			46
10	59	46	39	34	57	46	39	34		45	39	34			44	38	34			43

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	170779	170779	170779
5°	169766	171049	168484
10°	164593	171467	163171
15°	157038	171843	155308
20°	147760	170861	146126
25°	137628	168846	136503
30°	127872	158996	126850
35°	118586	142208	117731
40°	109632	122638	109551
45°	99901	104679	100700
50°	88224	88530	88721
55°	79057	72374	79400
60°	69879	57471	70002
65°	61511	43837	60901
70°	50970	31358	50970
75°	39730	17990	38258
80°	25752	4386	24620
85°	9585	1410	7330



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	130.5	5.1
10°-20°	361.0	14.1
20°-30°	504.7	19.8
30°-40°	532.4	20.9
40°-50°	452.9	17.7
50°-60°	319.6	12.5
60°-70°	181.1	7.1
70°-80°	64.6	2.5
80°-90°	6.2	0.2
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°	996.2	39.0
0°-40°	1528.6	59.9
0°-60°	2301.0	90.1
0°-90°	2553.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2553.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1390	1390	1390	1390	1390	
5°	1377	1381	1387	1377	1366	130
15°	1235	1287	1351	1279	1221	346
25°	1015	1091	1246	1081	1007	467
35°	791	848	948	843	785	494
45°	575	583	602	586	580	442
55°	369	357	338	358	371	332
65°	212	181	151	182	210	210
75°	84	57	38	56	81	91
85°	7	3	1	3	5	12
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°	1390.1	1390.1	1390.1	1390.1	1390.1	1390.1	1390.1	1390.1	1390.1	1390.1	1390.1
2.5°	1391.1	1388.5	1388.5	1388.5	1388.5	1388.5	1388.5	1388.5	1388.5	1389.1	1389.1
5°	1376.6	1375.5	1375.0	1375.0	1375.0	1375.0	1375.5	1377.6	1378.7	1380.2	1381.3
7.5°	1353.7	1351.6	1352.7	1352.7	1353.7	1354.7	1356.3	1358.4	1361.5	1363.6	1366.2
10°	1319.4	1317.3	1319.9	1321.0	1324.1	1325.6	1328.2	1331.3	1337.6	1340.7	1344.9
12.5°	1279.4	1278.3	1279.4	1283.5	1286.6	1288.7	1291.8	1298.6	1304.8	1311.6	1318.9
15°	1234.7	1232.1	1233.6	1238.8	1244.0	1247.7	1250.3	1259.1	1267.4	1277.8	1286.6
17.5°	1184.8	1181.1	1185.3	1189.4	1196.2	1199.3	1202.9	1212.8	1224.3	1235.7	1245.6
20°	1130.2	1129.1	1131.7	1137.4	1144.2	1148.4	1151.5	1162.4	1172.3	1187.9	1199.3
22.5°	1073.5	1074.5	1076.6	1082.9	1087.5	1093.3	1097.9	1107.8	1119.2	1133.8	1148.4
25°	1015.3	1016.8	1020.5	1024.6	1032.4	1035.6	1041.3	1051.7	1061.5	1075.1	1091.2
27.5°	959.1	959.7	963.8	965.9	973.2	979.9	982.5	993.4	1004.9	1015.3	1029.3
30°	901.4	903.0	905.6	911.3	918.6	921.2	924.3	934.2	943.0	956.0	966.9
32.5°	846.3	845.3	848.4	851.5	859.8	864.5	866.1	877.5	885.3	898.3	908.7
35°	790.7	788.1	792.8	795.9	803.2	807.3	809.4	818.3	825.5	836.4	847.9
37.5°	735.1	737.2	739.2	741.8	745.5	746.5	752.8	754.8	764.2	772.5	778.7
40°	683.6	682.6	681.5	684.1	688.8	690.9	691.4	697.1	699.2	707.5	712.2
42.5°	628.5	629.0	628.5	629.0	631.6	631.6	633.2	636.8	638.4	641.0	646.7
45°	575.0	575.0	573.4	573.9	574.4	573.9	574.4	576.0	579.1	579.1	583.3
47.5°	519.3	518.3	520.4	518.8	517.8	517.3	518.8	517.3	520.4	520.4	521.4
50°	461.6	461.6	464.2	463.7	464.8	462.7	463.2	463.2	463.7	463.2	465.3
52.5°	416.9	415.9	414.8	412.2	413.3	411.2	411.2	411.7	410.2	409.6	407.0
55°	369.1	370.1	368.6	367.5	367.5	365.5	364.9	361.8	359.7	358.2	356.6
57.5°	325.9	327.0	326.5	323.9	320.8	321.3	320.2	317.1	312.4	309.3	306.7
60°	284.4	285.4	284.4	281.8	280.7	278.6	278.1	274.0	270.3	266.2	263.0
62.5°	246.9	246.9	246.4	242.8	240.2	240.7	238.1	235.0	230.3	224.6	219.9
65°	211.6	211.1	208.5	206.9	204.8	202.2	200.7	196.0	192.3	187.7	181.4
67.5°	176.2	174.7	173.6	172.1	167.4	166.9	164.8	160.6	155.4	151.8	146.6
70°	141.9	141.4	139.3	139.3	135.7	134.1	131.0	127.4	122.7	117.5	113.3
72.5°	112.3	111.2	109.2	107.1	104.0	102.9	100.3	96.7	92.5	87.3	82.1
75°	83.7	82.7	82.1	79.5	76.9	74.3	73.3	69.7	65.5	61.9	57.2
77.5°	58.7	57.7	56.1	54.6	53.0	51.5	49.9	46.8	43.1	40.0	35.9
80°	36.4	35.4	34.3	33.8	32.2	31.7	29.6	28.1	25.0	22.9	20.3
82.5°	18.7	18.7	17.7	17.2	16.1	15.6	15.1	13.5	12.0	10.4	8.8
85°	6.8	6.8	6.2	5.7	5.7	5.2	5.2	4.7	3.6	3.6	2.6
87.5°	0.5	0.5	1.0	0.5	0.5	0.5	0.5	0.5	0.5	0.5	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):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	1390.1	1390.1	1390.1	1390.1	1390.1	1390.1	1390.1	1390.1	1390.1	1390.1	1390.1
2.5°	1389.6	1389.1	1389.6	1389.6	1390.1	1390.1	1390.1	1389.6	1390.1	1389.6	1389.6
5°	1381.3	1382.8	1383.9	1384.9	1385.4	1385.9	1385.9	1386.5	1387.0	1387.0	1386.5
7.5°	1368.3	1371.4	1374.5	1376.6	1377.6	1378.7	1380.2	1381.3	1382.3	1381.8	1381.3
10°	1351.1	1356.3	1360.5	1364.6	1366.7	1368.3	1370.9	1372.9	1374.0	1374.5	1372.9
12.5°	1326.7	1333.9	1340.7	1347.5	1350.6	1352.7	1357.9	1361.5	1363.6	1363.6	1362.0
15°	1296.0	1306.4	1316.3	1325.1	1330.3	1333.4	1341.2	1346.4	1349.5	1351.1	1348.5
17.5°	1259.1	1271.0	1283.0	1294.4	1299.6	1304.3	1315.2	1322.5	1329.3	1330.3	1327.2
20°	1211.8	1226.9	1240.4	1254.4	1260.1	1267.4	1279.9	1291.8	1302.2	1306.9	1298.1
22.5°	1158.8	1175.4	1187.9	1205.0	1212.8	1220.6	1236.7	1251.8	1270.0	1279.9	1264.3
25°	1103.7	1117.7	1132.8	1149.4	1160.3	1168.6	1187.3	1206.6	1231.0	1245.6	1223.7
27.5°	1044.4	1056.9	1075.1	1093.3	1101.6	1112.0	1134.3	1155.1	1178.5	1191.5	1175.4
30°	983.0	998.6	1015.8	1032.4	1044.4	1054.3	1072.5	1090.1	1109.9	1120.8	1108.9
32.5°	922.2	937.3	951.9	970.1	976.8	985.6	1001.8	1016.8	1031.9	1041.8	1027.8
35°	858.3	871.8	885.3	897.8	900.9	911.3	924.3	933.1	940.4	948.2	938.9
37.5°	788.6	799.0	805.8	819.3	824.5	826.1	836.4	842.7	850.5	852.0	851.5
40°	717.9	727.3	733.0	741.3	745.5	745.5	752.8	758.5	764.2	764.7	764.2
42.5°	651.9	656.6	661.3	666.5	665.4	671.7	674.8	677.4	681.5	681.5	682.6
45°	585.4	589.0	593.2	594.2	598.4	598.4	601.0	602.0	604.1	602.5	600.4
47.5°	523.5	525.1	525.6	530.3	531.3	527.7	530.8	531.3	530.8	530.8	529.7
50°	464.8	465.8	465.3	463.7	464.2	465.8	464.2	462.2	463.2	463.2	464.2
52.5°	407.6	405.5	404.4	404.4	402.4	402.4	399.8	398.7	398.2	396.1	398.7
55°	355.1	351.9	347.3	346.2	344.7	344.1	341.0	338.4	337.4	337.9	337.4
57.5°	304.6	300.0	296.8	295.8	294.2	291.1	287.5	284.9	284.4	283.3	283.3
60°	258.9	253.7	249.0	244.3	244.9	242.8	239.1	237.6	236.0	233.9	235.5
62.5°	217.3	211.6	206.4	201.7	198.6	197.0	194.4	191.8	190.3	188.7	190.8
65°	176.2	171.6	165.8	161.2	159.6	158.0	155.4	151.3	150.8	150.8	151.8
67.5°	139.3	134.1	128.9	125.8	123.7	121.6	120.6	118.5	117.0	115.9	116.4
70°	107.1	101.9	97.7	94.6	93.1	92.5	88.9	88.4	87.9	87.3	86.8
72.5°	78.0	73.8	70.2	68.1	66.0	64.5	63.4	61.9	61.3	61.3	61.3
75°	53.5	50.4	46.3	43.7	42.6	41.1	39.5	38.5	37.4	37.9	37.9
77.5°	32.2	29.1	26.5	24.4	23.9	22.4	20.8	19.8	18.2	18.2	18.7
80°	17.7	15.1	13.0	11.4	10.4	9.9	8.3	7.8	6.8	6.2	6.2
82.5°	7.8	6.2	5.2	4.7	4.2	3.6	3.1	2.6	2.6	2.1	2.6
85°	2.6	2.1	1.6	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
87.5°	0.5	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



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CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	1390.1	1390.1	1390.1	1390.1	1390.1	1390.1	1390.1	1390.1	1390.1	1390.1	1390.1
2.5°	1389.1	1389.1	1388.5	1388.5	1388.5	1387.5	1387.5	1387.0	1386.5	1385.9	1384.9
5°	1385.4	1384.9	1383.9	1383.3	1382.8	1381.3	1379.7	1378.7	1377.1	1375.0	1374.0
7.5°	1380.2	1378.7	1376.6	1375.5	1374.0	1370.3	1367.7	1365.1	1362.5	1358.9	1354.7
10°	1371.4	1368.3	1365.1	1363.1	1360.5	1355.8	1350.6	1346.4	1340.7	1335.5	1329.8
12.5°	1358.9	1355.3	1349.0	1345.9	1342.8	1336.0	1329.3	1320.4	1312.6	1305.4	1298.6
15°	1343.3	1336.5	1329.3	1325.1	1320.4	1309.5	1299.1	1289.8	1279.4	1270.5	1259.6
17.5°	1320.4	1310.6	1300.2	1295.5	1289.2	1276.8	1264.3	1251.3	1239.3	1228.4	1214.9
20°	1286.1	1275.2	1261.7	1254.4	1249.2	1232.6	1220.6	1206.1	1193.6	1180.1	1165.0
22.5°	1246.1	1231.0	1215.9	1205.5	1199.8	1183.2	1167.1	1154.1	1140.6	1125.0	1114.1
25°	1200.9	1182.2	1164.0	1153.6	1144.7	1127.0	1111.5	1097.9	1081.3	1067.8	1056.9
27.5°	1149.9	1128.6	1107.3	1096.9	1088.6	1069.3	1052.7	1038.7	1022.6	1010.6	999.2
30°	1089.1	1069.9	1049.6	1041.3	1031.4	1011.6	992.4	979.9	962.3	949.8	937.3
32.5°	1013.2	1000.7	984.6	973.2	968.0	949.8	933.7	918.6	903.5	893.6	881.2
35°	930.0	919.1	905.6	899.3	892.6	881.2	868.2	855.2	843.2	833.8	822.4
37.5°	845.8	834.9	826.6	819.8	815.7	805.3	797.5	787.6	779.3	770.4	764.2
40°	758.5	755.3	746.5	743.4	742.4	730.9	724.2	716.4	711.2	706.0	702.3
42.5°	681.0	675.8	669.1	669.6	666.5	660.2	655.5	650.3	646.7	644.1	640.5
45°	604.6	600.4	597.3	599.9	594.7	592.6	589.0	588.5	585.9	581.2	579.6
47.5°	531.8	531.3	531.8	530.3	529.2	528.2	528.7	526.1	523.5	521.9	519.9
50°	465.3	465.8	466.8	468.4	464.8	466.3	465.8	465.3	465.3	463.7	464.8
52.5°	400.8	401.3	402.4	403.9	404.4	404.4	406.0	407.0	409.1	411.7	411.7
55°	340.0	343.6	345.7	348.3	346.7	349.9	351.4	356.1	357.7	357.7	359.7
57.5°	285.9	289.6	291.1	294.2	295.3	297.9	302.0	304.6	308.3	311.4	314.5
60°	236.5	238.1	242.3	246.9	245.9	252.1	255.2	259.4	264.1	266.2	270.3
62.5°	192.3	194.4	197.5	199.1	202.7	205.9	213.1	217.3	221.5	226.7	230.8
65°	152.8	154.9	158.0	161.2	162.7	167.4	171.0	178.3	181.9	187.7	192.3
67.5°	117.0	120.1	122.7	124.8	125.8	130.5	136.2	139.3	146.1	151.8	155.4
70°	87.3	89.9	93.1	92.5	94.6	98.3	102.4	107.1	112.3	117.5	121.6
72.5°	60.8	63.4	65.5	66.0	68.1	70.7	73.8	77.5	81.6	86.8	92.5
75°	38.5	39.0	41.1	42.1	43.1	46.3	48.9	52.5	56.1	60.3	63.9
77.5°	19.2	20.8	21.8	22.9	23.4	26.0	28.6	31.7	34.8	39.0	42.6
80°	7.3	7.8	9.4	9.9	10.9	12.5	14.6	16.1	18.7	21.8	23.9
82.5°	2.6	3.1	3.6	3.6	4.2	5.2	5.7	7.3	8.8	9.9	10.9
85°	1.0	1.0	1.0	1.0	1.0	1.6	1.6	2.1	2.6	3.1	3.1
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: P879409

CATALOG NUMBER: LD4C35D010 EU4359027 4LBLDWWLI

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	1390.1	1390.1	1390.1	1390.1	1390.1	1390.1	1390.1	1390.1
2.5°	1384.4	1384.4	1383.9	1383.3	1383.3	1383.3	1382.8	1382.8
5°	1371.9	1370.3	1369.8	1368.8	1368.3	1367.7	1366.2	1366.2
7.5°	1351.6	1349.5	1348.0	1346.4	1344.3	1342.8	1342.8	1340.7
10°	1324.6	1320.4	1318.4	1316.3	1313.7	1310.6	1309.5	1308.0
12.5°	1291.8	1283.5	1281.4	1277.8	1273.6	1271.6	1267.9	1267.9
15°	1251.3	1242.5	1237.8	1235.7	1230.5	1226.9	1225.3	1221.1
17.5°	1204.0	1197.2	1189.9	1186.8	1181.1	1176.4	1174.4	1173.8
20°	1156.2	1145.2	1140.6	1135.9	1129.1	1125.0	1121.8	1117.7
22.5°	1101.1	1091.2	1084.4	1081.3	1075.6	1068.3	1063.1	1063.1
25°	1042.8	1034.0	1030.4	1023.6	1016.8	1014.2	1008.0	1007.0
27.5°	987.2	978.4	971.1	967.5	959.7	956.0	950.8	948.7
30°	929.5	919.1	913.9	913.4	904.0	900.4	896.2	894.2
32.5°	871.8	863.0	857.8	854.6	850.5	844.2	840.6	838.5
35°	814.6	808.9	804.2	800.6	793.8	790.7	787.6	785.0
37.5°	754.8	749.6	747.6	744.4	741.3	735.6	734.6	732.5
40°	697.1	690.4	690.4	688.3	685.2	684.6	683.1	683.1
42.5°	636.8	633.7	633.2	633.7	631.6	630.6	629.0	632.7
45°	577.0	578.6	576.0	576.5	575.5	577.6	577.6	579.6
47.5°	521.9	519.9	520.9	521.9	523.5	523.5	523.0	522.5
50°	463.2	465.3	467.3	464.8	465.8	466.3	463.7	464.2
52.5°	412.8	413.3	414.8	413.3	414.8	414.3	415.4	413.3
55°	363.9	363.9	366.0	366.5	367.0	368.6	369.1	370.7
57.5°	316.6	319.2	321.8	321.3	323.4	325.4	323.9	325.4
60°	275.5	277.6	280.2	281.2	282.8	283.8	283.8	284.9
62.5°	233.9	238.1	240.2	242.3	242.3	244.3	246.4	246.9
65°	196.5	201.2	202.7	204.3	205.3	207.4	210.0	209.5
67.5°	161.2	164.3	166.4	167.4	170.5	171.6	173.6	175.7
70°	126.3	130.5	132.0	134.1	136.7	138.8	140.9	141.9
72.5°	96.7	99.8	100.9	102.9	105.5	107.6	108.6	110.2
75°	67.6	72.8	73.3	74.9	76.9	79.5	81.1	80.6
77.5°	44.7	48.3	48.9	50.9	53.0	55.1	55.6	56.1
80°	26.5	28.6	29.1	30.2	31.7	32.8	33.8	34.8
82.5°	12.5	13.5	14.6	14.6	15.6	16.6	16.6	17.2
85°	4.2	4.2	4.7	4.7	5.2	5.2	5.7	5.2
87.5°	0.5	0.5	0.0	0.5	0.5	0.5	0.5	0.5
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)