

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: P879411

Luminaire Tested: **LD4C35D010 EU4359030 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: P879411
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 EU4359030 4LBLDWWLI
Description: 4 INCH 3500 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 3000K, 90CRI LEDS
AND 4LBLDWW TRIM WITH LI FINISH
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

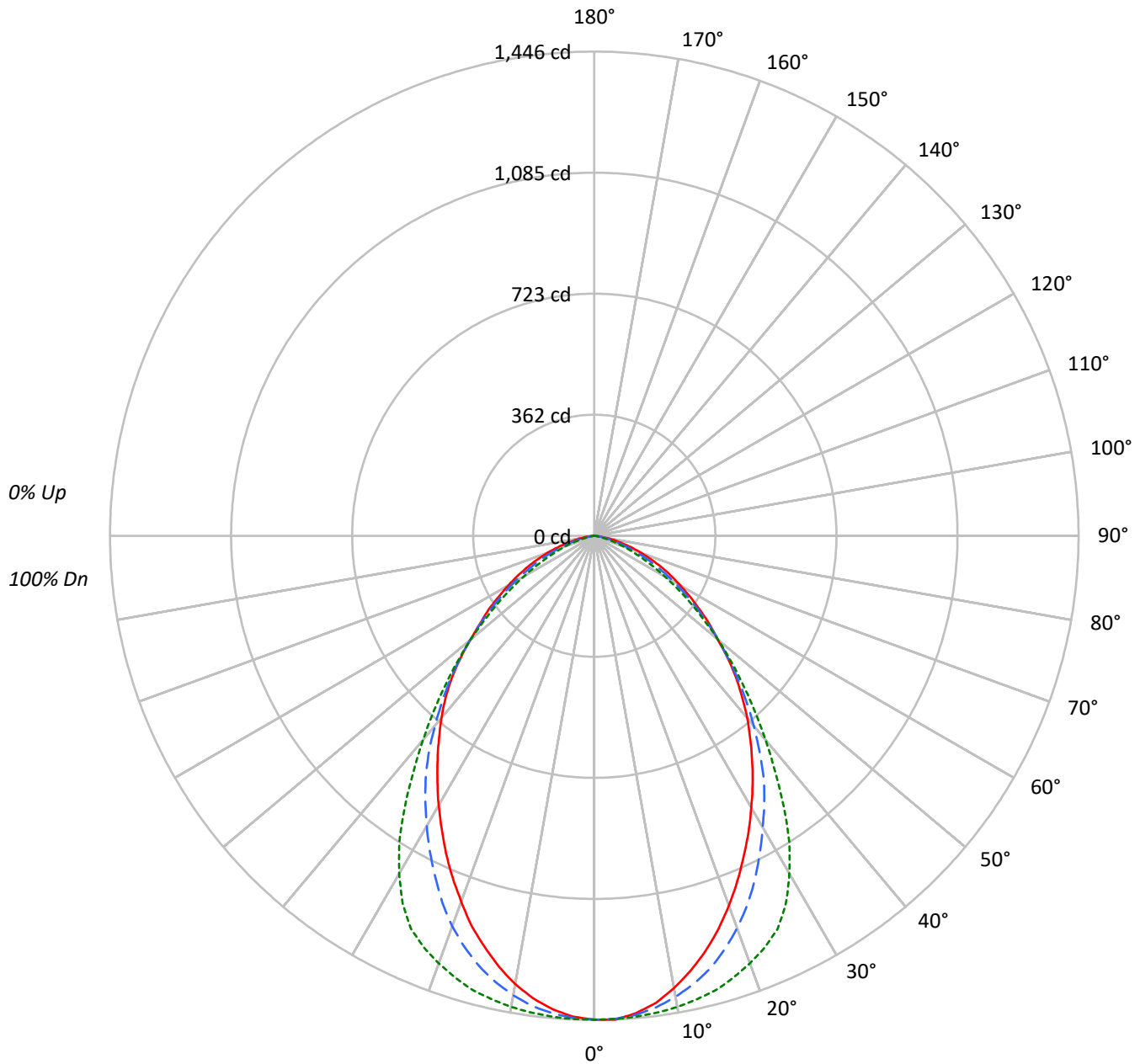
Lumens per Lamp: N/A
Luminaire Lumens: 2654.0 lumens
Efficiency: N/A
Efficacy: 65.7 lumens/watt
Spacing Criteria (0/90/45): 1 / 1.19 / 1.15
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

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	30	10
RCR																					
0	119	119	119	119		116	116	116	116		111	111	111		106	106	106		102	102	102
1	111	107	104	101		108	105	102	99		101	98	96		97	95	93		93	92	90
2	103	96	90	85		100	94	89	84		91	86	83		87	84	81		85	82	79
3	95	86	79	74		93	84	78	73		82	76	72		79	74	70		77	73	69
4	88	78	70	64		86	76	69	64		74	68	63		72	66	62		70	65	61
5	82	70	62	57		80	69	62	56		67	61	56		65	60	55		64	59	55
6	76	64	56	50		74	63	56	50		61	55	50		60	54	49		58	53	49
7	71	59	51	45		69	58	50	45		56	50	45		55	49	45		54	48	44
8	66	54	46	41		65	53	46	41		52	45	41		51	45	40		50	44	40
9	62	50	42	37		61	49	42	37		48	42	37		47	41	37		46	41	37
10	59	46	39	34		57	46	39	34		45	39	34		44	38	34		43	38	34

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	177536	177536	177536
5°	176475	177807	175143
10°	171105	178253	169621
15°	163245	178647	161464
20°	153604	177621	151904
25°	143063	175529	141898
30°	132936	165280	131858
35°	123281	147832	122381
40°	113978	127497	113881
45°	103845	108814	104696
50°	91721	92027	92237
55°	82184	75244	82527
60°	72631	59756	72778
65°	63953	45552	63314
70°	52982	32615	52982
75°	41296	18749	39777
80°	26743	4599	25611
85°	9867	1551	7612



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	135.6	5.1
10°-20°	375.3	14.1
20°-30°	524.6	19.8
30°-40°	553.4	20.9
40°-50°	470.8	17.7
50°-60°	332.2	12.5
60°-70°	188.3	7.1
70°-80°	67.2	2.5
80°-90°	6.4	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°	1035.6	39.0
0°-40°	1589.0	59.9
0°-60°	2392.1	90.1
0°-90°	2654.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2654.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1445	1445	1445	1445	1445	
5°	1431	1436	1442	1432	1420	135
15°	1284	1338	1405	1330	1270	360
25°	1055	1134	1295	1124	1047	486
35°	822	881	986	877	816	514
45°	598	606	626	609	603	460
55°	384	371	351	372	385	345
65°	220	189	157	189	218	218
75°	87	59	40	58	84	94
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°	1445.1	1445.1	1445.1	1445.1	1445.1	1445.1	1445.1	1445.1	1445.1	1445.1	1445.1
2.5°	1446.2	1443.5	1443.5	1443.5	1443.5	1443.5	1443.5	1443.5	1443.5	1444.0	1444.0
5°	1431.0	1430.0	1429.4	1429.4	1429.4	1429.4	1430.0	1432.1	1433.2	1434.8	1435.9
7.5°	1407.3	1405.1	1406.2	1406.2	1407.3	1408.3	1410.0	1412.1	1415.4	1417.5	1420.2
10°	1371.6	1369.4	1372.1	1373.2	1376.5	1378.1	1380.8	1384.0	1390.5	1393.7	1398.1
12.5°	1330.0	1328.9	1330.0	1334.3	1337.5	1339.7	1342.9	1350.0	1356.5	1363.5	1371.0
15°	1283.5	1280.8	1282.4	1287.8	1293.2	1297.0	1299.7	1308.9	1317.5	1328.4	1337.5
17.5°	1231.6	1227.8	1232.2	1236.5	1243.5	1246.8	1250.5	1260.8	1272.7	1284.6	1294.9
20°	1174.9	1173.8	1176.5	1182.4	1189.5	1193.8	1197.0	1208.4	1218.7	1234.9	1246.8
22.5°	1116.0	1117.1	1119.2	1125.7	1130.6	1136.5	1141.4	1151.6	1163.5	1178.7	1193.8
25°	1055.4	1057.1	1060.8	1065.2	1073.3	1076.5	1082.5	1093.3	1103.5	1117.6	1134.3
27.5°	997.1	997.6	1001.9	1004.1	1011.7	1018.7	1021.4	1032.7	1044.6	1055.4	1070.0
30°	937.1	938.7	941.4	947.4	954.9	957.6	960.9	971.1	980.3	993.8	1005.2
32.5°	879.8	878.7	882.0	885.2	893.9	898.7	900.3	912.2	920.3	933.8	944.7
35°	822.0	819.3	824.1	827.4	835.0	839.3	841.4	850.6	858.2	869.5	881.4
37.5°	764.2	766.3	768.5	771.2	775.0	776.0	782.5	784.7	794.4	803.1	809.6
40°	710.7	709.6	708.5	711.2	716.1	718.2	718.8	724.7	726.9	735.5	740.4
42.5°	653.4	653.9	653.4	653.9	656.6	656.6	658.2	662.0	663.6	666.3	672.3
45°	597.7	597.7	596.1	596.6	597.2	596.6	597.2	598.8	602.0	602.0	606.4
47.5°	539.9	538.8	541.0	539.3	538.3	537.7	539.3	537.7	541.0	541.0	542.0
50°	479.9	479.9	482.6	482.1	483.1	481.0	481.5	481.5	482.1	481.5	483.7
52.5°	433.4	432.3	431.3	428.6	429.6	427.5	427.5	428.0	426.4	425.9	423.2
55°	383.7	384.8	383.2	382.1	382.1	379.9	379.4	376.1	374.0	372.4	370.7
57.5°	338.8	339.9	339.4	336.7	333.4	334.0	332.9	329.7	324.8	321.6	318.8
60°	295.6	296.7	295.6	292.9	291.8	289.7	289.1	284.8	281.0	276.7	273.5
62.5°	256.7	256.7	256.2	252.4	249.7	250.2	247.5	244.3	239.4	233.5	228.6
65°	220.0	219.4	216.7	215.1	212.9	210.2	208.6	203.7	200.0	195.1	188.6
67.5°	183.2	181.6	180.5	178.9	174.0	173.5	171.3	167.0	161.6	157.8	152.4
70°	147.5	147.0	144.8	144.8	141.1	139.4	136.2	132.4	127.5	122.1	117.8
72.5°	116.7	115.7	113.5	111.3	108.1	107.0	104.3	100.5	96.2	90.8	85.4
75°	87.0	85.9	85.4	82.7	80.0	77.3	76.2	72.4	68.1	64.3	59.4
77.5°	61.1	60.0	58.4	56.7	55.1	53.5	51.9	48.6	44.9	41.6	37.3
80°	37.8	36.7	35.7	35.1	33.5	33.0	30.8	29.2	25.9	23.8	21.1
82.5°	19.5	19.5	18.4	17.8	16.8	16.2	15.7	14.1	12.4	10.8	9.2
85°	7.0	7.0	6.5	5.9	5.9	5.4	5.4	4.9	3.8	3.8	2.7
87.5°	0.5	0.5	1.1	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°	1445.1	1445.1	1445.1	1445.1	1445.1	1445.1	1445.1	1445.1	1445.1	1445.1	1445.1
2.5°	1444.5	1444.0	1444.5	1444.5	1445.1	1445.1	1445.1	1444.5	1445.1	1444.5	1444.5
5°	1435.9	1437.5	1438.6	1439.7	1440.2	1440.8	1440.8	1441.3	1441.8	1441.8	1441.3
7.5°	1422.4	1425.6	1428.9	1431.0	1432.1	1433.2	1434.8	1435.9	1437.0	1436.4	1435.9
10°	1404.6	1410.0	1414.3	1418.6	1420.8	1422.4	1425.1	1427.3	1428.3	1428.9	1427.3
12.5°	1379.2	1386.7	1393.7	1400.8	1404.0	1406.2	1411.6	1415.4	1417.5	1417.5	1415.9
15°	1347.3	1358.1	1368.3	1377.5	1382.9	1386.2	1394.3	1399.7	1402.9	1404.6	1401.9
17.5°	1308.9	1321.3	1333.8	1345.6	1351.1	1355.9	1367.3	1374.8	1381.9	1382.9	1379.7
20°	1259.7	1275.4	1289.4	1304.0	1310.0	1317.5	1330.5	1342.9	1353.8	1358.6	1349.4
22.5°	1204.6	1221.9	1234.9	1252.7	1260.8	1268.9	1285.7	1301.3	1320.2	1330.5	1314.3
25°	1147.3	1161.9	1177.6	1194.9	1206.2	1214.9	1234.3	1254.3	1279.7	1294.9	1272.2
27.5°	1085.7	1098.7	1117.6	1136.5	1145.2	1156.0	1179.2	1200.8	1225.1	1238.6	1221.9
30°	1021.9	1038.1	1056.0	1073.3	1085.7	1096.0	1114.9	1133.3	1153.8	1165.1	1152.7
32.5°	958.7	974.4	989.5	1008.4	1015.5	1024.6	1041.4	1057.1	1072.7	1083.0	1068.4
35°	892.2	906.3	920.3	933.3	936.6	947.4	960.9	970.1	977.6	985.7	976.0
37.5°	819.8	830.6	837.7	851.7	857.1	858.7	869.5	876.0	884.1	885.8	885.2
40°	746.3	756.0	762.0	770.6	775.0	775.0	782.5	788.5	794.4	795.0	794.4
42.5°	677.7	682.6	687.4	692.8	691.7	698.2	701.5	704.2	708.5	708.5	709.6
45°	608.5	612.3	616.6	617.7	622.0	622.0	624.7	625.8	628.0	626.3	624.2
47.5°	544.2	545.8	546.4	551.2	552.3	548.5	551.8	552.3	551.8	551.8	550.7
50°	483.1	484.2	483.7	482.1	482.6	484.2	482.6	480.4	481.5	481.5	482.6
52.5°	423.7	421.5	420.4	420.4	418.3	418.3	415.6	414.5	414.0	411.8	414.5
55°	369.1	365.9	361.0	359.9	358.3	357.8	354.5	351.8	350.7	351.3	350.7
57.5°	316.7	311.8	308.6	307.5	305.9	302.6	298.9	296.2	295.6	294.5	294.5
60°	269.1	263.7	258.9	254.0	254.5	252.4	248.6	247.0	245.4	243.2	244.8
62.5°	225.9	220.0	214.5	209.7	206.4	204.8	202.1	199.4	197.8	196.2	198.3
65°	183.2	178.3	172.4	167.5	165.9	164.3	161.6	157.3	156.7	156.7	157.8
67.5°	144.8	139.4	134.0	130.8	128.6	126.5	125.4	123.2	121.6	120.5	121.1
70°	111.3	105.9	101.6	98.4	96.7	96.2	92.4	91.9	91.3	90.8	90.3
72.5°	81.1	76.7	73.0	70.8	68.6	67.0	65.9	64.3	63.8	63.8	63.8
75°	55.7	52.4	48.1	45.4	44.3	42.7	41.1	40.0	38.9	39.5	39.5
77.5°	33.5	30.3	27.6	25.4	24.9	23.2	21.6	20.5	18.9	18.9	19.5
80°	18.4	15.7	13.5	11.9	10.8	10.3	8.6	8.1	7.0	6.5	6.5
82.5°	8.1	6.5	5.4	4.9	4.3	3.8	3.2	2.7	2.7	2.2	2.7
85°	2.7	2.2	1.6	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
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°	1445.1	1445.1	1445.1	1445.1	1445.1	1445.1	1445.1	1445.1	1445.1	1445.1	1445.1
2.5°	1444.0	1444.0	1443.5	1443.5	1443.5	1442.4	1442.4	1441.8	1441.3	1440.8	1439.7
5°	1440.2	1439.7	1438.6	1438.1	1437.5	1435.9	1434.3	1433.2	1431.6	1429.4	1428.3
7.5°	1434.8	1433.2	1431.0	1430.0	1428.3	1424.6	1421.8	1419.1	1416.4	1412.7	1408.3
10°	1425.6	1422.4	1419.1	1417.0	1414.3	1409.4	1404.0	1399.7	1393.7	1388.3	1382.4
12.5°	1412.7	1408.9	1402.4	1399.2	1395.9	1388.9	1381.9	1372.7	1364.6	1357.0	1350.0
15°	1396.4	1389.4	1381.9	1377.5	1372.7	1361.3	1350.5	1340.8	1330.0	1320.8	1309.4
17.5°	1372.7	1362.4	1351.6	1346.7	1340.2	1327.3	1314.3	1300.8	1288.4	1277.0	1263.0
20°	1337.0	1325.7	1311.6	1304.0	1298.6	1281.3	1268.9	1253.8	1240.8	1226.8	1211.1
22.5°	1295.4	1279.7	1264.0	1253.2	1247.3	1230.0	1213.2	1199.7	1185.7	1169.5	1158.1
25°	1248.4	1228.9	1210.0	1199.2	1190.0	1171.6	1155.4	1141.4	1124.1	1110.0	1098.7
27.5°	1195.4	1173.3	1151.1	1140.3	1131.6	1111.6	1094.4	1079.8	1063.0	1050.6	1038.7
30°	1132.2	1112.2	1091.1	1082.5	1072.2	1051.7	1031.7	1018.7	1000.3	987.4	974.4
32.5°	1053.3	1040.3	1023.6	1011.7	1006.3	987.4	970.6	954.9	939.3	929.0	916.0
35°	966.8	955.5	941.4	934.9	927.9	916.0	902.5	889.0	876.6	866.8	854.9
37.5°	879.3	867.9	859.3	852.2	847.9	837.1	829.0	818.7	810.1	800.9	794.4
40°	788.5	785.2	776.0	772.8	771.7	759.8	752.8	744.7	739.3	733.9	730.1
42.5°	708.0	702.5	695.5	696.1	692.8	686.3	681.5	676.1	672.3	669.6	665.8
45°	628.5	624.2	620.9	623.6	618.2	616.1	612.3	611.8	609.1	604.2	602.6
47.5°	552.9	552.3	552.9	551.2	550.1	549.1	549.6	546.9	544.2	542.6	540.4
50°	483.7	484.2	485.3	486.9	483.1	484.8	484.2	483.7	483.7	482.1	483.1
52.5°	416.7	417.2	418.3	419.9	420.4	420.4	422.1	423.2	425.3	428.0	428.0
55°	353.4	357.2	359.4	362.1	360.5	363.7	365.3	370.2	371.8	371.8	374.0
57.5°	297.2	301.0	302.6	305.9	307.0	309.7	314.0	316.7	320.5	323.7	327.0
60°	245.9	247.5	251.8	256.7	255.6	262.1	265.3	269.7	274.5	276.7	281.0
62.5°	200.0	202.1	205.4	207.0	210.8	214.0	221.6	225.9	230.2	235.6	239.9
65°	158.9	161.0	164.3	167.5	169.2	174.0	177.8	185.4	189.1	195.1	200.0
67.5°	121.6	124.8	127.5	129.7	130.8	135.6	141.6	144.8	151.9	157.8	161.6
70°	90.8	93.5	96.7	96.2	98.4	102.1	106.5	111.3	116.7	122.1	126.5
72.5°	63.2	65.9	68.1	68.6	70.8	73.5	76.7	80.5	84.8	90.3	96.2
75°	40.0	40.5	42.7	43.8	44.9	48.1	50.8	54.6	58.4	62.7	66.5
77.5°	20.0	21.6	22.7	23.8	24.3	27.0	29.7	33.0	36.2	40.5	44.3
80°	7.6	8.1	9.7	10.3	11.3	13.0	15.1	16.8	19.5	22.7	24.9
82.5°	2.7	3.2	3.8	3.8	4.3	5.4	5.9	7.6	9.2	10.3	11.3
85°	1.1	1.1	1.1	1.1	1.1	1.6	1.6	2.2	2.7	3.2	3.2
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: P879411

CATALOG NUMBER: LD4C35D010 EU4359030 4LBLDWWLI

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	1445.1	1445.1	1445.1	1445.1	1445.1	1445.1	1445.1	1445.1
2.5°	1439.1	1439.1	1438.6	1438.1	1438.1	1438.1	1437.5	1437.5
5°	1426.2	1424.6	1424.0	1422.9	1422.4	1421.8	1420.2	1420.2
7.5°	1405.1	1402.9	1401.3	1399.7	1397.5	1395.9	1395.9	1393.7
10°	1377.0	1372.7	1370.5	1368.3	1365.6	1362.4	1361.3	1359.7
12.5°	1342.9	1334.3	1332.1	1328.4	1324.0	1321.9	1318.1	1318.1
15°	1300.8	1291.6	1286.7	1284.6	1279.2	1275.4	1273.8	1269.5
17.5°	1251.6	1244.6	1237.0	1233.8	1227.8	1223.0	1220.8	1220.3
20°	1201.9	1190.5	1185.7	1180.8	1173.8	1169.5	1166.2	1161.9
22.5°	1144.6	1134.3	1127.3	1124.1	1118.1	1110.6	1105.2	1105.2
25°	1084.1	1074.9	1071.1	1064.1	1057.1	1054.4	1047.9	1046.8
27.5°	1026.3	1017.1	1009.5	1005.7	997.6	993.8	988.4	986.3
30°	966.3	955.5	950.1	949.5	939.8	936.0	931.7	929.5
32.5°	906.3	897.1	891.7	888.5	884.1	877.6	873.9	871.7
35°	846.8	840.9	836.0	832.2	825.2	822.0	818.7	816.0
37.5°	784.7	779.3	777.1	773.9	770.6	764.7	763.6	761.5
40°	724.7	717.7	717.7	715.5	712.3	711.7	710.1	710.1
42.5°	662.0	658.8	658.2	658.8	656.6	655.5	653.9	657.7
45°	599.9	601.5	598.8	599.3	598.2	600.4	600.4	602.6
47.5°	542.6	540.4	541.5	542.6	544.2	544.2	543.7	543.1
50°	481.5	483.7	485.8	483.1	484.2	484.8	482.1	482.6
52.5°	429.1	429.6	431.3	429.6	431.3	430.7	431.8	429.6
55°	378.3	378.3	380.5	381.0	381.5	383.2	383.7	385.3
57.5°	329.1	331.8	334.5	334.0	336.1	338.3	336.7	338.3
60°	286.4	288.6	291.3	292.4	294.0	295.1	295.1	296.2
62.5°	243.2	247.5	249.7	251.8	251.8	254.0	256.2	256.7
65°	204.3	209.1	210.8	212.4	213.5	215.6	218.3	217.8
67.5°	167.5	170.8	172.9	174.0	177.3	178.3	180.5	182.7
70°	131.3	135.6	137.3	139.4	142.1	144.3	146.5	147.5
72.5°	100.5	103.8	104.8	107.0	109.7	111.9	112.9	114.6
75°	70.3	75.7	76.2	77.8	80.0	82.7	84.3	83.8
77.5°	46.5	50.3	50.8	53.0	55.1	57.3	57.8	58.4
80°	27.6	29.7	30.3	31.3	33.0	34.0	35.1	36.2
82.5°	13.0	14.1	15.1	15.1	16.2	17.3	17.3	17.8
85°	4.3	4.3	4.9	4.9	5.4	5.4	5.9	5.4
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)