

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: P879410

Luminaire Tested: **LD4C35D010 EU4359030 4LBDWWH**

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: P879410
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2107-320-6)
Test Lab: INNOVATION CENTER
Issue Date: 10/1/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: PORTFOLIO
Catalog Number: LD4C35D010 EU4359030 4LBLDWWH
Description: 4 INCH 3500 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 3000K, 90CRI LEDS
AND 4LBLDWW TRIM WITH H FINISH
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

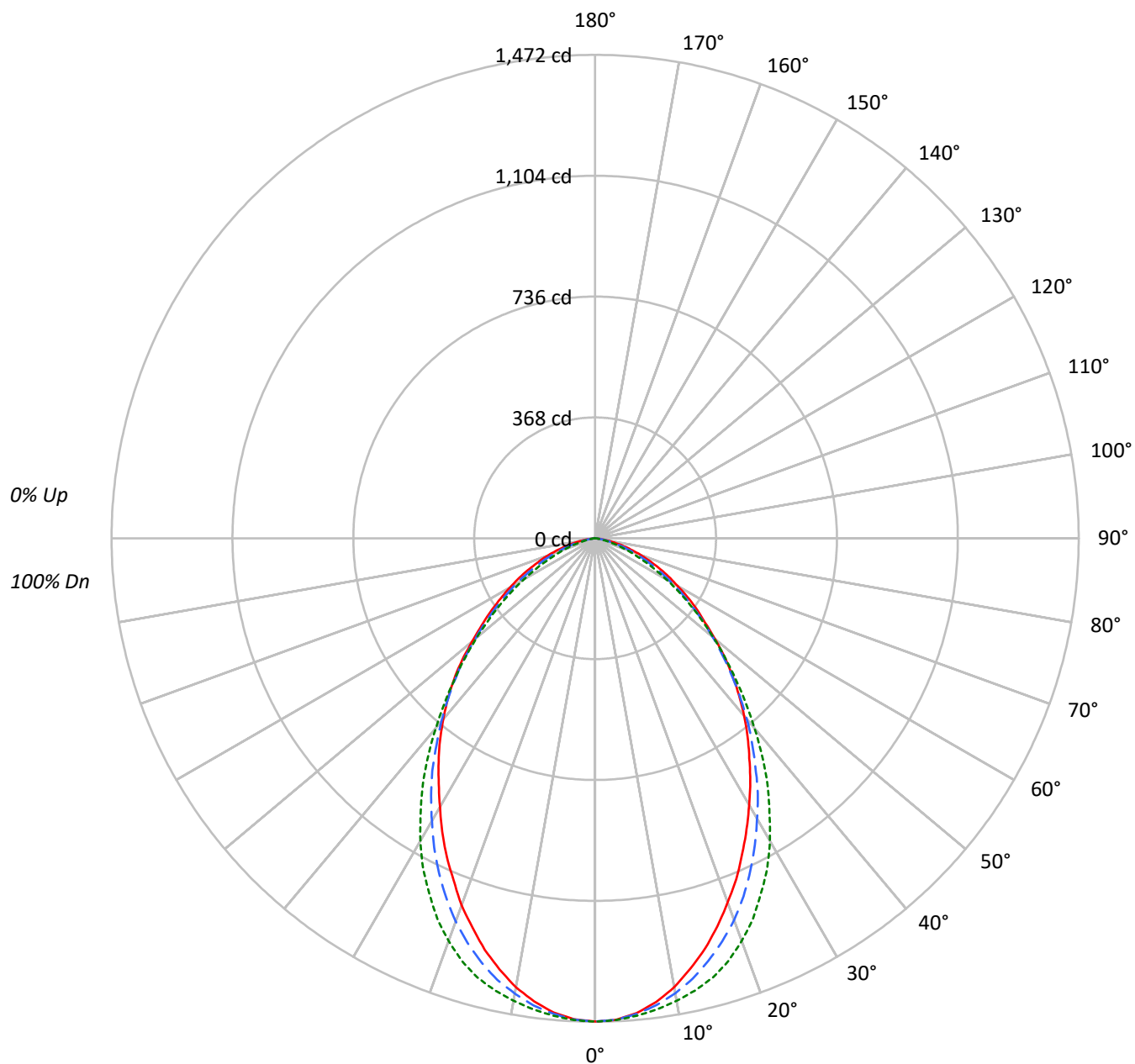
Lumens per Lamp: N/A
Luminaire Lumens: 2632.0 lumens
Efficiency: N/A
Efficacy: 65.1 lumens/watt
Spacing Criteria (0/90/45): 1 / 1.1 / 1.12
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

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

TEST NUMBER: P879410

CATALOG NUMBER: LD4C35D010 EU4359030 4LBLDWWH

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	100	108	105	102	99	101	98	96		97	95	93		93
2	103	96	90	85	100	94	89	84	90	86	82		87	84	80		84
3	95	86	79	73	92	84	78	73	81	76	71		79	74	70		76
4	88	77	70	64	86	76	69	63	74	68	63		71	66	62		69
5	81	70	62	56	80	69	62	56	67	61	56		65	59	55		63
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	44		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°	180779	180779	180779
5°	178941	179940	178732
10°	173114	178378	173189
15°	164479	176091	165025
20°	154153	170548	155434
25°	143579	161811	144893
30°	133007	150938	134000
35°	122711	137213	124570
40°	113192	120906	115261
45°	102525	104783	105617
50°	90900	89753	93155
55°	81028	75587	82870
60°	70911	61353	73565
65°	62064	47442	64244
70°	52228	34735	54922
75°	40774	22594	43100
80°	26743	11886	29431
85°	9162	5356	12122



TEST NUMBER: P879410

CATALOG NUMBER: LD4C35D010 EU4359030 4LBLDWWH

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	137.4	5.2
10°-20°	375.3	14.3
20°-30°	516.2	19.6
30°-40°	538.5	20.5
40°-50°	460.7	17.5
50°-60°	329.6	12.5
60°-70°	191.2	7.3
70°-80°	73.7	2.8
80°-90°	9.4	0.4
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°	1028.9	39.1
0°-40°	1567.4	59.6
0°-60°	2357.7	89.6
0°-90°	2632.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2632.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1472	1472	1472	1472	1472	
5°	1451	1454	1459	1454	1449	136
15°	1293	1332	1384	1337	1298	362
25°	1059	1118	1194	1125	1069	487
35°	818	851	915	864	831	512
45°	590	585	603	600	608	455
55°	378	359	353	369	387	338
65°	214	189	163	195	221	213
75°	86	64	48	68	91	92
85°	6	5	4	5	9	13
90°	0	0	0	0	0	



TEST NUMBER: P879410

CATALOG NUMBER: LD4C35D010 EU4359030 4LBLDWWH

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	1471.5	1471.5	1471.5	1471.5	1471.5	1471.5	1471.5	1471.5	1471.5	1471.5	1471.5
2.5°	1467.7	1466.6	1467.2	1467.2	1467.2	1466.6	1467.7	1467.7	1467.2	1467.2	1467.2
5°	1451.0	1449.9	1450.4	1451.0	1451.0	1451.0	1451.5	1452.1	1452.6	1453.1	1453.7
7.5°	1423.9	1422.3	1423.9	1426.1	1426.1	1426.7	1427.2	1427.7	1429.4	1432.1	1433.7
10°	1387.7	1387.7	1388.3	1389.9	1392.6	1392.1	1393.7	1396.4	1399.6	1403.4	1406.1
12.5°	1341.8	1342.9	1344.5	1346.1	1348.8	1350.5	1353.2	1356.4	1361.8	1367.2	1373.2
15°	1293.2	1293.7	1294.3	1298.0	1300.7	1304.5	1306.7	1313.2	1318.0	1325.6	1332.1
17.5°	1238.6	1238.1	1239.7	1242.9	1249.4	1251.0	1253.7	1260.7	1267.8	1278.0	1286.7
20°	1179.1	1182.4	1184.6	1188.9	1192.7	1197.0	1199.1	1207.8	1215.9	1225.6	1237.0
22.5°	1122.9	1120.2	1124.0	1128.9	1132.1	1135.4	1139.2	1148.3	1157.0	1168.9	1180.2
25°	1059.2	1060.8	1063.5	1067.3	1071.6	1075.9	1080.3	1090.0	1094.8	1107.3	1117.5
27.5°	998.7	1001.4	1002.4	1007.3	1011.1	1014.3	1016.5	1027.8	1032.2	1043.0	1053.2
30°	937.6	940.3	940.3	945.7	948.4	951.6	957.0	964.6	971.1	978.7	986.2
32.5°	878.7	878.7	880.8	885.7	888.4	892.2	893.8	899.2	905.7	913.3	921.4
35°	818.2	819.8	821.9	821.9	826.8	829.0	831.1	836.5	840.9	844.1	850.6
37.5°	762.5	762.5	760.9	763.6	766.8	766.3	769.5	772.2	774.9	778.7	784.1
40°	705.8	705.8	703.6	705.2	707.4	706.8	705.8	708.5	710.6	713.3	718.7
42.5°	647.9	646.9	646.3	646.3	647.4	646.3	647.4	647.9	647.9	647.9	651.2
45°	590.1	592.8	589.6	588.5	586.9	585.3	584.7	585.3	587.4	584.7	585.3
47.5°	533.4	534.5	532.3	530.7	529.0	528.0	529.0	525.8	526.9	527.4	525.3
50°	475.6	473.4	473.4	471.8	472.3	471.8	470.7	469.6	469.6	466.9	465.3
52.5°	422.1	423.1	424.2	420.4	421.0	418.3	418.8	416.1	416.1	412.9	413.9
55°	378.3	376.7	376.7	375.0	374.5	371.8	371.3	369.6	365.8	363.7	359.4
57.5°	332.9	332.3	330.2	330.7	327.5	326.9	325.9	323.2	320.5	317.8	312.9
60°	288.6	289.1	289.1	288.0	286.4	283.7	284.2	280.5	276.7	271.8	267.5
62.5°	251.8	250.2	249.7	248.6	245.3	245.3	242.6	239.9	236.2	231.3	227.5
65°	213.5	214.0	212.4	210.8	207.5	207.0	204.8	202.6	198.9	194.0	188.6
67.5°	178.9	177.8	177.3	175.6	172.4	171.8	170.2	165.4	162.1	157.3	152.9
70°	145.4	144.3	144.8	142.1	138.9	137.3	136.7	132.9	128.1	124.3	120.0
72.5°	114.0	114.0	113.5	110.8	109.2	108.1	105.9	101.6	98.9	94.6	91.3
75°	85.9	85.4	84.3	82.7	80.5	79.4	78.4	75.7	71.9	67.0	64.3
77.5°	59.4	60.0	58.9	58.4	55.7	54.0	53.5	51.9	48.6	45.4	42.7
80°	37.8	37.3	36.7	35.7	35.1	34.6	33.0	31.9	28.6	27.0	25.4
82.5°	20.5	19.5	19.5	18.9	17.8	17.3	16.8	15.7	15.1	14.1	13.0
85°	6.5	7.0	6.5	6.5	6.5	5.9	5.9	5.9	5.4	5.4	4.9
87.5°	0.5	1.1	0.5	0.5	1.1	0.5	0.5	1.1	0.5	0.5	1.1
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: P879410

CATALOG NUMBER: LD4C35D010 EU4359030 4LBLDWWH

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	1471.5	1471.5	1471.5	1471.5	1471.5	1471.5	1471.5	1471.5	1471.5	1471.5	1471.5
2.5°	1467.2	1467.7	1467.7	1468.3	1468.3	1468.3	1468.3	1468.3	1468.3	1468.3	1468.3
5°	1455.3	1455.3	1456.4	1457.5	1457.5	1457.5	1458.0	1459.1	1459.1	1459.1	1458.5
7.5°	1435.8	1438.0	1440.2	1442.3	1442.9	1443.4	1444.5	1446.6	1446.6	1446.6	1446.6
10°	1410.4	1415.3	1418.0	1421.2	1422.9	1423.9	1427.2	1427.7	1429.4	1429.9	1429.4
12.5°	1378.0	1384.5	1390.4	1395.8	1398.0	1400.2	1403.4	1406.7	1408.3	1409.9	1409.4
15°	1341.8	1348.8	1358.0	1364.0	1368.3	1371.5	1376.4	1380.7	1383.4	1384.5	1384.5
17.5°	1298.0	1306.7	1316.4	1326.1	1328.8	1334.2	1339.6	1345.6	1348.8	1349.4	1348.8
20°	1249.4	1259.1	1267.2	1277.0	1282.9	1285.6	1293.2	1300.7	1304.0	1304.5	1304.0
22.5°	1191.6	1200.8	1211.6	1221.8	1226.7	1231.6	1239.7	1247.2	1251.6	1254.8	1251.6
25°	1127.3	1140.2	1150.5	1159.2	1166.2	1171.0	1181.3	1187.3	1194.3	1193.7	1194.3
27.5°	1064.0	1074.9	1086.2	1096.5	1100.8	1106.2	1114.3	1124.0	1130.0	1133.8	1133.2
30°	999.2	1007.8	1017.6	1026.8	1033.8	1038.1	1050.0	1054.3	1061.9	1064.0	1062.4
32.5°	930.6	936.5	946.2	958.7	961.4	965.7	973.3	984.1	986.8	987.8	988.4
35°	857.6	869.0	877.1	884.6	886.8	890.6	899.2	907.3	910.0	914.9	912.7
37.5°	790.1	796.5	800.3	807.9	814.4	817.6	821.9	827.3	832.8	834.9	834.4
40°	722.5	725.8	729.0	737.1	737.6	737.6	744.1	751.7	751.7	753.9	753.9
42.5°	653.3	653.9	658.2	662.5	663.6	664.7	671.2	672.3	675.5	677.1	679.3
45°	586.3	589.6	592.3	592.8	595.5	596.1	597.7	599.3	604.2	603.1	604.2
47.5°	525.3	526.9	528.5	528.5	530.1	529.6	532.3	530.7	533.9	535.0	536.6
50°	465.3	468.0	466.4	467.4	466.9	468.5	467.4	467.4	467.4	469.6	471.2
52.5°	410.2	410.7	409.1	409.6	409.6	408.5	409.6	409.1	408.5	408.5	409.1
55°	359.4	357.2	356.1	354.0	351.3	354.5	352.9	351.8	354.0	352.9	354.0
57.5°	310.2	307.5	305.3	304.2	300.5	302.6	300.5	299.4	299.4	299.4	302.1
60°	263.7	261.0	258.3	255.1	254.5	253.4	252.4	249.7	250.2	249.7	250.7
62.5°	223.2	217.8	214.0	211.3	210.8	209.1	207.5	204.8	205.4	205.4	205.9
65°	185.9	180.0	174.5	170.8	170.8	168.1	165.4	165.4	162.1	163.2	163.7
67.5°	148.6	143.7	138.3	135.6	134.0	131.9	130.2	129.2	127.5	127.5	128.6
70°	115.1	110.2	107.5	103.2	102.7	101.1	98.9	97.3	96.7	96.7	96.2
72.5°	87.0	82.7	79.4	76.7	75.1	73.5	71.3	70.8	69.7	69.7	70.8
75°	60.5	57.8	55.1	52.4	51.3	50.8	49.2	48.1	48.1	47.6	48.1
77.5°	40.5	37.8	35.1	34.0	33.0	31.9	31.3	30.8	29.2	29.2	29.2
80°	23.2	22.2	21.1	19.5	19.5	18.9	17.8	17.3	16.8	16.8	16.8
82.5°	11.9	11.3	10.3	9.7	9.7	9.7	9.2	9.2	8.6	8.6	8.6
85°	4.9	4.3	3.8	3.8	3.8	3.8	3.8	3.8	4.3	3.8	4.3
87.5°	0.5	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
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: P879410

CATALOG NUMBER: LD4C35D010 EU4359030 4LBLDWWH

CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	1471.5	1471.5	1471.5	1471.5	1471.5	1471.5	1471.5	1471.5	1471.5	1471.5	1471.5
2.5°	1468.3	1467.7	1467.7	1467.7	1467.7	1467.7	1467.2	1467.2	1466.6	1466.6	1466.6
5°	1459.1	1458.5	1458.0	1457.5	1456.9	1456.4	1455.8	1455.3	1453.7	1453.1	1452.1
7.5°	1446.1	1445.0	1443.4	1442.9	1441.8	1440.2	1438.0	1436.9	1434.8	1432.1	1431.0
10°	1428.8	1426.7	1425.0	1422.3	1421.8	1419.6	1414.2	1411.5	1407.7	1404.5	1400.7
12.5°	1407.7	1405.6	1401.8	1398.0	1395.8	1391.0	1386.1	1381.8	1376.9	1369.9	1364.5
15°	1381.8	1378.6	1371.0	1369.9	1366.7	1359.1	1352.6	1344.5	1336.9	1329.4	1322.9
17.5°	1347.2	1340.2	1336.4	1331.5	1327.8	1318.0	1311.0	1301.8	1291.6	1282.9	1273.7
20°	1301.8	1294.3	1287.8	1285.1	1280.2	1271.6	1262.9	1251.6	1241.3	1230.5	1222.4
22.5°	1247.8	1242.9	1233.2	1229.9	1224.0	1215.4	1205.1	1194.3	1184.6	1172.7	1161.9
25°	1190.0	1182.9	1175.4	1168.9	1164.6	1156.5	1143.5	1135.4	1124.6	1111.6	1103.5
27.5°	1128.4	1120.2	1109.4	1105.1	1101.3	1090.5	1079.7	1069.4	1060.8	1049.5	1042.4
30°	1057.0	1051.1	1044.0	1038.6	1033.2	1024.6	1014.9	1003.0	993.8	988.4	978.7
32.5°	984.6	979.7	970.6	967.9	961.9	954.9	947.9	939.2	929.5	921.4	913.8
35°	907.3	902.5	896.0	891.1	889.0	884.1	876.5	869.0	864.1	854.9	851.1
37.5°	830.1	828.4	821.9	817.1	815.5	809.5	805.7	800.3	793.3	791.1	786.8
40°	750.6	749.5	745.7	745.2	742.0	740.3	734.9	730.6	727.4	725.8	723.1
42.5°	677.7	676.6	673.3	673.9	670.6	669.6	669.0	665.2	662.5	659.3	659.8
45°	605.8	604.7	602.5	601.5	603.1	602.5	601.5	599.8	599.8	600.4	598.8
47.5°	536.6	537.7	535.5	536.6	536.6	535.0	535.0	537.2	537.7	538.8	539.9
50°	471.2	474.5	473.4	475.0	475.6	476.1	474.5	477.2	476.6	481.5	480.4
52.5°	411.8	412.3	414.5	415.0	415.6	416.1	418.8	421.0	421.5	423.7	427.5
55°	354.5	355.0	359.4	359.4	362.1	362.6	366.4	367.5	369.1	375.0	376.1
57.5°	300.5	303.7	305.9	306.9	308.6	311.3	313.4	318.3	321.0	324.8	328.6
60°	251.8	255.6	258.3	259.4	261.6	264.8	267.5	272.9	277.8	282.1	284.8
62.5°	207.0	210.2	212.4	216.2	216.2	218.9	225.3	228.6	234.0	237.8	242.6
65°	167.0	169.1	172.9	172.9	175.1	179.4	184.8	189.7	195.1	200.5	205.4
67.5°	130.8	132.4	134.6	136.7	137.8	143.2	147.5	154.6	159.4	163.2	169.1
70°	98.9	100.0	102.7	104.8	106.5	110.2	115.1	120.0	124.8	129.2	135.1
72.5°	70.8	73.0	75.7	77.3	78.4	81.1	85.9	90.8	95.1	99.4	102.7
75°	48.6	50.3	51.3	53.0	54.6	56.7	60.0	63.2	68.1	72.4	76.2
77.5°	30.3	31.9	33.5	34.0	34.6	36.7	38.9	42.2	45.4	48.6	51.3
80°	17.8	18.4	18.9	19.5	20.5	22.2	23.2	25.4	27.6	29.7	32.4
82.5°	9.2	9.7	10.3	10.3	10.3	10.8	12.4	13.5	14.1	15.1	16.8
85°	3.8	3.8	3.8	4.3	4.3	4.9	4.9	5.4	5.4	5.9	6.5
87.5°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
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: P879410

CATALOG NUMBER: LD4C35D010 EU4359030 4LBLDWWH

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	1471.5	1471.5	1471.5	1471.5	1471.5	1471.5	1471.5	1471.5
2.5°	1466.1	1466.1	1466.1	1465.6	1466.1	1466.1	1466.1	1465.6
5°	1452.1	1451.0	1451.0	1450.4	1449.9	1449.9	1450.4	1449.3
7.5°	1428.8	1427.2	1426.1	1426.1	1425.6	1425.0	1425.0	1422.3
10°	1398.6	1395.3	1395.3	1394.2	1389.9	1389.4	1388.3	1388.3
12.5°	1360.7	1356.9	1354.8	1352.1	1349.4	1347.2	1346.7	1344.5
15°	1315.9	1311.0	1307.2	1306.1	1301.8	1298.6	1298.6	1297.5
17.5°	1267.2	1259.7	1257.0	1254.3	1248.3	1247.8	1246.7	1241.8
20°	1212.1	1205.1	1201.3	1198.6	1194.8	1189.4	1188.3	1188.9
22.5°	1154.3	1144.6	1141.3	1138.6	1134.8	1130.0	1130.0	1126.2
25°	1094.3	1085.7	1082.4	1079.2	1073.2	1071.1	1068.4	1068.9
27.5°	1033.2	1025.1	1022.4	1016.5	1012.7	1010.0	1007.3	1007.3
30°	969.5	965.2	960.8	960.3	952.7	949.5	946.8	944.6
32.5°	907.9	902.5	900.3	898.1	894.4	890.0	889.5	885.7
35°	847.3	841.9	839.2	837.1	832.8	831.1	829.5	830.6
37.5°	783.6	782.5	780.9	778.2	775.5	774.9	772.8	775.5
40°	720.9	720.4	718.2	718.7	718.7	717.6	718.7	718.7
42.5°	660.4	660.4	658.2	659.3	659.8	660.9	662.5	663.6
45°	601.5	600.9	601.5	602.5	601.5	604.2	606.3	607.9
47.5°	540.9	541.5	543.6	544.2	545.3	549.0	549.0	549.0
50°	483.1	485.8	484.7	488.0	487.4	489.6	487.4	487.4
52.5°	428.0	430.7	431.2	431.8	435.0	435.6	435.6	435.0
55°	378.8	382.6	381.0	383.7	385.3	386.4	388.0	386.9
57.5°	333.4	335.0	336.7	337.2	339.4	340.5	341.5	340.5
60°	288.6	291.8	294.5	295.1	296.1	297.2	297.8	299.4
62.5°	246.4	251.8	252.9	253.4	256.1	257.8	258.9	259.9
65°	209.1	212.9	215.6	217.2	219.4	219.4	221.0	221.0
67.5°	172.9	176.7	178.3	179.4	182.7	183.2	185.9	185.9
70°	140.0	142.7	143.7	145.4	148.6	150.8	151.9	152.9
72.5°	108.1	111.3	112.9	115.1	117.3	118.9	119.4	121.0
75°	78.9	83.8	84.3	86.5	88.1	90.2	91.3	90.8
77.5°	55.1	56.7	58.9	60.0	61.6	63.2	64.8	64.8
80°	34.0	36.2	36.7	37.3	39.4	40.5	41.6	41.6
82.5°	17.8	18.9	20.0	20.5	21.6	21.6	22.2	22.7
85°	7.0	7.6	7.6	7.6	8.1	8.6	8.6	8.6
87.5°	1.1	1.6	1.1	1.1	1.6	1.6	1.6	1.6
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)