

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: P879417

Luminaire Tested: **LD4C35D010 EU4359050 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: P879417
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 EU4359050 4LBLDWWLI
Description: 4 INCH 3500 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 5000K, 90CRI LEDS
AND 4LBLDWW TRIM WITH LI FINISH
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

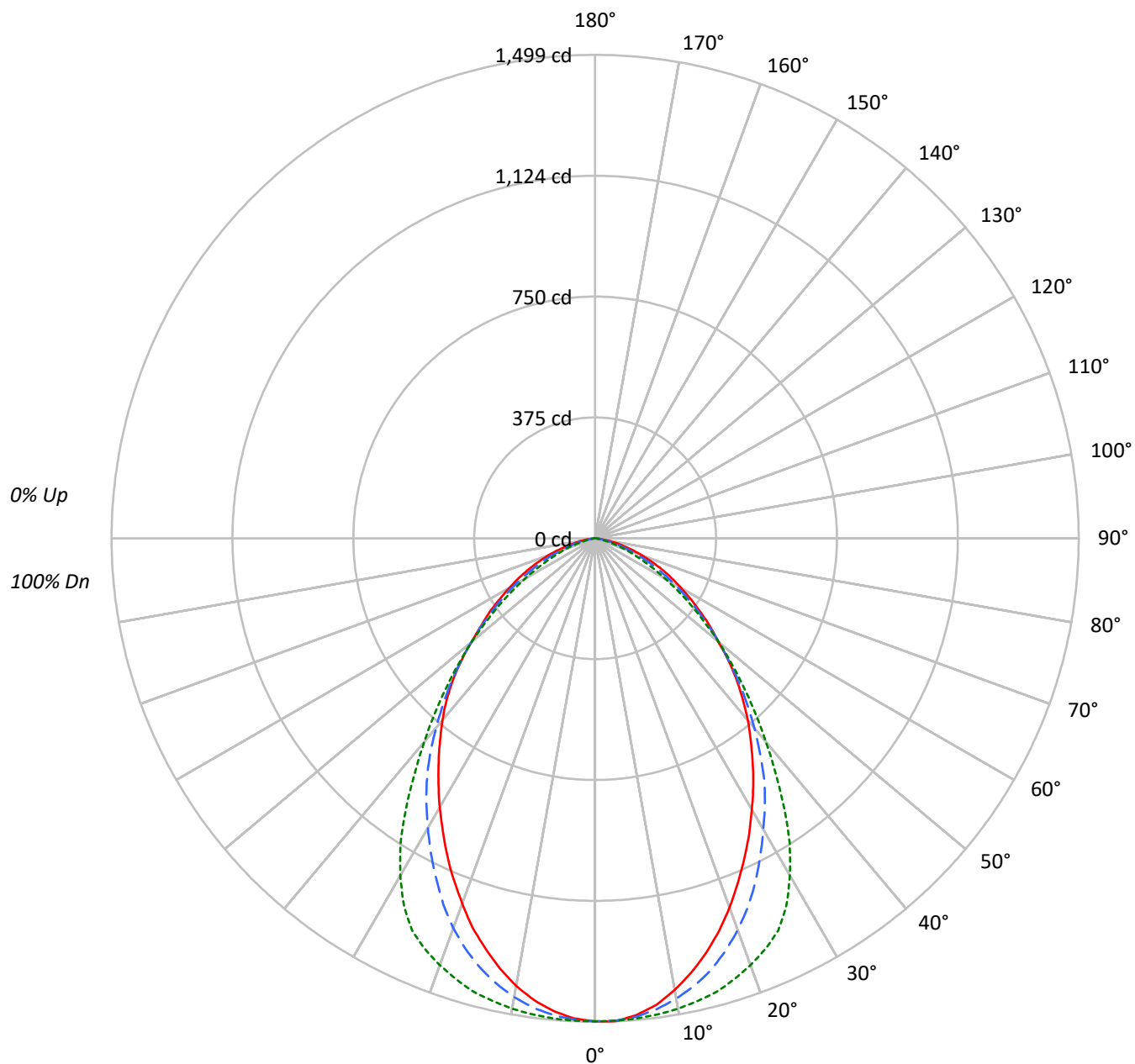
Lumens per Lamp: N/A
Luminaire Lumens: 2751.0 lumens
Efficiency: N/A
Efficacy: 68.1 lumens/watt
Spacing Criteria (0/90/45): 1 / 1.19 / 1.15
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

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	50	30	10
RCR																				
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100		
1	111	107	104	101	108	105	102	99	101	98	96	97	95	93	93	92	90	88		
2	103	96	90	85	100	94	89	84	91	86	83	87	84	81	85	82	79	77		
3	95	86	79	74	93	84	78	73	82	76	72	79	74	70	77	73	69	67		
4	88	78	70	64	86	76	69	64	74	68	63	72	66	62	70	65	61	59		
5	82	70	62	57	80	69	62	56	67	61	56	65	60	55	64	59	55	53		
6	76	64	56	50	74	63	56	50	61	55	50	60	54	49	58	53	49	47		
7	71	59	51	45	69	58	50	45	56	50	45	55	49	45	54	48	44	42		
8	66	54	46	41	65	53	46	41	52	45	41	51	45	40	50	44	40	38		
9	62	50	42	37	61	49	42	37	48	42	37	47	41	37	46	41	37	35		
10	59	46	39	34	57	46	39	34	45	39	34	44	38	34	43	38	34	32		

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	184022	184022	184022
5°	182925	184306	181543
10°	177355	184765	175821
15°	169210	185172	167353
20°	159213	184118	157461
25°	148296	181940	147089
30°	137788	171323	136681
35°	127780	153246	126865
40°	118131	132148	118051
45°	107650	112793	108519
50°	95066	95391	95601
55°	85183	77986	85547
60°	75285	61943	75432
65°	66279	47238	65610
70°	54922	33801	54922
75°	42815	19414	41201
80°	27733	4740	26531
85°	10290	1551	7894



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	140.6	5.1
10°-20°	389.0	14.1
20°-30°	543.8	19.8
30°-40°	573.6	20.9
40°-50°	488.0	17.7
50°-60°	344.4	12.5
60°-70°	195.2	7.1
70°-80°	69.6	2.5
80°-90°	6.7	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°	1073.5	39.0
0°-40°	1647.1	59.9
0°-60°	2479.5	90.1
0°-90°	2751.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2751.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1498	1498	1498	1498	1498	
5°	1483	1488	1494	1484	1472	140
15°	1330	1386	1456	1379	1316	373
25°	1094	1176	1342	1165	1085	503
35°	852	914	1022	909	846	533
45°	620	628	649	631	625	476
55°	398	384	364	385	399	357
65°	228	196	162	196	226	226
75°	90	62	41	60	87	98
85°	7	3	1	3	6	13
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°	1497.9	1497.9	1497.9	1497.9	1497.9	1497.9	1497.9	1497.9	1497.9	1497.9	1497.9
2.5°	1499.0	1496.2	1496.2	1496.2	1496.2	1496.2	1496.2	1496.2	1496.2	1496.8	1496.8
5°	1483.3	1482.2	1481.7	1481.7	1481.7	1481.7	1482.2	1484.5	1485.6	1487.3	1488.4
7.5°	1458.7	1456.5	1457.6	1457.6	1458.7	1459.8	1461.5	1463.7	1467.1	1469.3	1472.1
10°	1421.7	1419.5	1422.3	1423.4	1426.8	1428.4	1431.2	1434.6	1441.3	1444.7	1449.2
12.5°	1378.6	1377.5	1378.6	1383.1	1386.4	1388.7	1392.0	1399.3	1406.0	1413.3	1421.2
15°	1330.4	1327.6	1329.3	1334.9	1340.5	1344.4	1347.2	1356.7	1365.7	1376.9	1386.4
17.5°	1276.6	1272.7	1277.2	1281.7	1289.0	1292.3	1296.2	1306.9	1319.2	1331.5	1342.2
20°	1217.8	1216.7	1219.5	1225.7	1232.9	1237.4	1240.8	1252.5	1263.2	1280.0	1292.3
22.5°	1156.8	1157.9	1160.1	1166.8	1171.9	1178.0	1183.1	1193.7	1206.1	1221.7	1237.4
25°	1094.0	1095.7	1099.6	1104.1	1112.5	1115.9	1122.0	1133.2	1143.9	1158.4	1175.8
27.5°	1033.5	1034.1	1038.6	1040.8	1048.6	1055.9	1058.7	1070.5	1082.8	1094.0	1109.1
30°	971.3	973.0	975.8	982.0	989.8	992.6	996.0	1006.6	1016.2	1030.2	1041.9
32.5°	912.0	910.8	914.2	917.6	926.5	931.6	933.2	945.6	954.0	968.0	979.2
35°	852.0	849.2	854.3	857.6	865.5	869.9	872.2	881.7	889.6	901.3	913.6
37.5°	792.1	794.3	796.6	799.4	803.3	804.4	811.1	813.4	823.5	832.4	839.1
40°	736.6	735.5	734.4	737.2	742.2	744.5	745.0	751.2	753.4	762.4	767.4
42.5°	677.2	677.8	677.2	677.8	680.6	680.6	682.3	686.2	687.9	690.7	696.9
45°	619.6	619.6	617.9	618.4	619.0	618.4	619.0	620.7	624.0	624.0	628.5
47.5°	559.6	558.5	560.7	559.1	557.9	557.4	559.1	557.4	560.7	560.7	561.9
50°	497.4	497.4	500.2	499.7	500.8	498.6	499.1	499.1	499.7	499.1	501.4
52.5°	449.3	448.1	447.0	444.2	445.3	443.1	443.1	443.7	442.0	441.4	438.6
55°	397.7	398.8	397.2	396.0	396.0	393.8	393.2	389.9	387.6	386.0	384.3
57.5°	351.2	352.3	351.8	349.0	345.6	346.2	345.1	341.7	336.7	333.3	330.5
60°	306.4	307.5	306.4	303.6	302.5	300.3	299.7	295.2	291.3	286.8	283.4
62.5°	266.1	266.1	265.5	261.6	258.8	259.4	256.6	253.2	248.2	242.0	237.0
65°	228.0	227.4	224.6	222.9	220.7	217.9	216.2	211.2	207.3	202.2	195.5
67.5°	189.9	188.2	187.1	185.4	180.4	179.8	177.6	173.1	167.5	163.6	158.0
70°	152.9	152.4	150.1	150.1	146.2	144.5	141.2	137.2	132.2	126.6	122.1
72.5°	121.0	119.9	117.6	115.4	112.0	110.9	108.1	104.2	99.7	94.1	88.5
75°	90.2	89.1	88.5	85.7	82.9	80.1	79.0	75.1	70.6	66.7	61.6
77.5°	63.3	62.2	60.5	58.8	57.1	55.5	53.8	50.4	46.5	43.1	38.7
80°	39.2	38.1	37.0	36.4	34.7	34.2	31.9	30.2	26.9	24.6	21.8
82.5°	20.2	20.2	19.0	18.5	17.4	16.8	16.2	14.6	12.9	11.2	9.5
85°	7.3	7.3	6.7	6.2	6.2	5.6	5.6	5.0	3.9	3.9	2.8
87.5°	0.6	0.6	1.1	0.6	0.6	0.6	0.6	0.6	0.6	0.6	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°	1497.9	1497.9	1497.9	1497.9	1497.9	1497.9	1497.9	1497.9	1497.9	1497.9	1497.9
2.5°	1497.3	1496.8	1497.3	1497.3	1497.9	1497.9	1497.9	1497.3	1497.9	1497.3	1497.3
5°	1488.4	1490.1	1491.2	1492.3	1492.9	1493.4	1493.4	1494.0	1494.5	1494.5	1494.0
7.5°	1474.4	1477.7	1481.1	1483.3	1484.5	1485.6	1487.3	1488.4	1489.5	1488.9	1488.4
10°	1455.9	1461.5	1466.0	1470.5	1472.7	1474.4	1477.2	1479.4	1480.5	1481.1	1479.4
12.5°	1429.6	1437.4	1444.7	1452.0	1455.3	1457.6	1463.2	1467.1	1469.3	1469.3	1467.7
15°	1396.5	1407.7	1418.4	1427.9	1433.5	1436.8	1445.2	1450.8	1454.2	1455.9	1453.1
17.5°	1356.7	1369.6	1382.5	1394.8	1400.4	1405.5	1417.2	1425.1	1432.4	1433.5	1430.1
20°	1305.8	1322.0	1336.6	1351.7	1357.9	1365.7	1379.1	1392.0	1403.2	1408.3	1398.8
22.5°	1248.6	1266.6	1280.0	1298.5	1306.9	1315.3	1332.7	1348.9	1368.5	1379.1	1362.3
25°	1189.2	1204.4	1220.6	1238.5	1250.3	1259.3	1279.4	1300.2	1326.5	1342.2	1318.6
27.5°	1125.4	1138.8	1158.4	1178.0	1187.0	1198.2	1222.3	1244.7	1269.9	1283.9	1266.6
30°	1059.3	1076.1	1094.6	1112.5	1125.4	1136.0	1155.6	1174.7	1196.0	1207.7	1194.8
32.5°	993.7	1010.0	1025.7	1045.3	1052.6	1062.1	1079.5	1095.7	1111.9	1122.6	1107.5
35°	924.8	939.4	954.0	967.4	970.8	982.0	996.0	1005.5	1013.4	1021.8	1011.7
37.5°	849.8	861.0	868.3	882.8	888.4	890.1	901.3	908.0	916.4	918.1	917.6
40°	773.6	783.7	789.8	798.8	803.3	803.3	811.1	817.3	823.5	824.0	823.5
42.5°	702.5	707.5	712.5	718.1	717.0	723.7	727.1	729.9	734.4	734.4	735.5
45°	630.8	634.7	639.2	640.3	644.8	644.8	647.6	648.7	650.9	649.2	647.0
47.5°	564.1	565.8	566.3	571.4	572.5	568.6	571.9	572.5	571.9	571.9	570.8
50°	500.8	501.9	501.4	499.7	500.2	501.9	500.2	498.0	499.1	499.1	500.2
52.5°	439.2	436.9	435.8	435.8	433.6	433.6	430.8	429.7	429.1	426.9	429.7
55°	382.6	379.2	374.2	373.1	371.4	370.8	367.5	364.7	363.6	364.1	363.6
57.5°	328.3	323.2	319.9	318.7	317.1	313.7	309.8	307.0	306.4	305.3	305.3
60°	279.0	273.4	268.3	263.3	263.8	261.6	257.7	256.0	254.3	252.1	253.8
62.5°	234.2	228.0	222.4	217.3	214.0	212.3	209.5	206.7	205.0	203.3	205.6
65°	189.9	184.9	178.7	173.7	172.0	170.3	167.5	163.0	162.5	162.5	163.6
67.5°	150.1	144.5	138.9	135.6	133.3	131.1	130.0	127.7	126.0	124.9	125.5
70°	115.4	109.8	105.3	102.0	100.3	99.7	95.8	95.2	94.7	94.1	93.5
72.5°	84.0	79.5	75.6	73.4	71.1	69.5	68.3	66.7	66.1	66.1	66.1
75°	57.7	54.3	49.9	47.1	45.9	44.3	42.6	41.5	40.3	40.9	40.9
77.5°	34.7	31.4	28.6	26.3	25.8	24.1	22.4	21.3	19.6	19.6	20.2
80°	19.0	16.2	14.0	12.3	11.2	10.6	9.0	8.4	7.3	6.7	6.7
82.5°	8.4	6.7	5.6	5.0	4.5	3.9	3.4	2.8	2.8	2.2	2.8
85°	2.8	2.2	1.7	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
87.5°	0.6	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°	1497.9	1497.9	1497.9	1497.9	1497.9	1497.9	1497.9	1497.9	1497.9	1497.9	1497.9
2.5°	1496.8	1496.8	1496.2	1496.2	1496.2	1495.1	1495.1	1494.5	1494.0	1493.4	1492.3
5°	1492.9	1492.3	1491.2	1490.6	1490.1	1488.4	1486.7	1485.6	1483.9	1481.7	1480.5
7.5°	1487.3	1485.6	1483.3	1482.2	1480.5	1476.6	1473.8	1471.0	1468.2	1464.3	1459.8
10°	1477.7	1474.4	1471.0	1468.8	1466.0	1460.9	1455.3	1450.8	1444.7	1439.1	1432.9
12.5°	1464.3	1460.4	1453.6	1450.3	1446.9	1439.6	1432.4	1422.8	1414.4	1406.6	1399.3
15°	1447.5	1440.2	1432.4	1427.9	1422.8	1411.1	1399.9	1389.8	1378.6	1369.1	1357.3
17.5°	1422.8	1412.2	1401.0	1396.0	1389.2	1375.8	1362.3	1348.3	1335.5	1323.7	1309.1
20°	1385.9	1374.1	1359.5	1351.7	1346.1	1328.2	1315.3	1299.6	1286.2	1271.6	1255.3
22.5°	1342.7	1326.5	1310.2	1299.0	1292.9	1275.0	1257.6	1243.6	1229.0	1212.2	1200.5
25°	1294.0	1273.8	1254.2	1243.0	1233.5	1214.5	1197.7	1183.1	1165.2	1150.6	1138.8
27.5°	1239.1	1216.1	1193.2	1182.0	1173.0	1152.3	1134.4	1119.2	1101.9	1089.0	1076.7
30°	1173.6	1152.8	1131.0	1122.0	1111.4	1090.1	1069.4	1055.9	1036.9	1023.4	1010.0
32.5°	1091.8	1078.3	1061.0	1048.6	1043.0	1023.4	1006.1	989.8	973.6	962.9	949.5
35°	1002.1	990.4	975.8	969.1	961.8	949.5	935.5	921.5	908.6	898.5	886.2
37.5°	911.4	899.6	890.7	883.4	878.9	867.7	859.3	848.7	839.7	830.2	823.5
40°	817.3	813.9	804.4	801.0	799.9	787.6	780.3	771.9	766.3	760.7	756.8
42.5°	733.8	728.2	720.9	721.5	718.1	711.4	706.4	700.8	696.9	694.1	690.1
45°	651.5	647.0	643.6	646.4	640.8	638.6	634.7	634.1	631.3	626.3	624.6
47.5°	573.1	572.5	573.1	571.4	570.3	569.1	569.7	566.9	564.1	562.4	560.2
50°	501.4	501.9	503.0	504.7	500.8	502.5	501.9	501.4	501.4	499.7	500.8
52.5°	431.9	432.5	433.6	435.3	435.8	435.8	437.5	438.6	440.9	443.7	443.7
55°	366.4	370.3	372.5	375.3	373.6	377.0	378.7	383.7	385.4	385.4	387.6
57.5°	308.1	312.0	313.7	317.1	318.2	321.0	325.5	328.3	332.2	335.5	338.9
60°	254.9	256.6	261.0	266.1	265.0	271.7	275.0	279.5	284.6	286.8	291.3
62.5°	207.3	209.5	212.9	214.5	218.5	221.8	229.7	234.2	238.6	244.2	248.7
65°	164.7	166.9	170.3	173.7	175.3	180.4	184.3	192.1	196.1	202.2	207.3
67.5°	126.0	129.4	132.2	134.4	135.6	140.6	146.8	150.1	157.4	163.6	167.5
70°	94.1	96.9	100.3	99.7	102.0	105.9	110.4	115.4	121.0	126.6	131.1
72.5°	65.5	68.3	70.6	71.1	73.4	76.2	79.5	83.5	87.9	93.5	99.7
75°	41.5	42.0	44.3	45.4	46.5	49.9	52.7	56.6	60.5	65.0	68.9
77.5°	20.7	22.4	23.5	24.6	25.2	28.0	30.8	34.2	37.5	42.0	45.9
80°	7.8	8.4	10.1	10.6	11.8	13.4	15.7	17.4	20.2	23.5	25.8
82.5°	2.8	3.4	3.9	3.9	4.5	5.6	6.2	7.8	9.5	10.6	11.8
85°	1.1	1.1	1.1	1.1	1.1	1.7	1.7	2.2	2.8	3.4	3.4
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: P879417

CATALOG NUMBER: LD4C35D010 EU4359050 4LBLDWWLI

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	1497.9	1497.9	1497.9	1497.9	1497.9	1497.9	1497.9	1497.9
2.5°	1491.7	1491.7	1491.2	1490.6	1490.6	1490.6	1490.1	1490.1
5°	1478.3	1476.6	1476.1	1474.9	1474.4	1473.8	1472.1	1472.1
7.5°	1456.5	1454.2	1452.5	1450.8	1448.6	1446.9	1446.9	1444.7
10°	1427.3	1422.8	1420.6	1418.4	1415.6	1412.2	1411.1	1409.4
12.5°	1392.0	1383.1	1380.8	1376.9	1372.4	1370.2	1366.3	1366.3
15°	1348.3	1338.8	1333.8	1331.5	1325.9	1322.0	1320.3	1315.8
17.5°	1297.4	1290.1	1282.2	1278.9	1272.7	1267.7	1265.4	1264.9
20°	1245.8	1234.1	1229.0	1224.0	1216.7	1212.2	1208.9	1204.4
22.5°	1186.4	1175.8	1168.5	1165.2	1159.0	1151.2	1145.6	1145.6
25°	1123.7	1114.2	1110.3	1103.0	1095.7	1092.9	1086.2	1085.1
27.5°	1063.8	1054.2	1046.4	1042.5	1034.1	1030.2	1024.6	1022.3
30°	1001.6	990.4	984.8	984.2	974.1	970.2	965.7	963.5
32.5°	939.4	929.9	924.3	920.9	916.4	909.7	905.8	903.6
35°	877.8	871.6	866.6	862.7	855.4	852.0	848.7	845.9
37.5°	813.4	807.8	805.5	802.2	798.8	792.6	791.5	789.3
40°	751.2	743.9	743.9	741.7	738.3	737.7	736.1	736.1
42.5°	686.2	682.9	682.3	682.9	680.6	679.5	677.8	681.7
45°	621.8	623.5	620.7	621.2	620.1	622.4	622.4	624.6
47.5°	562.4	560.2	561.3	562.4	564.1	564.1	563.5	563.0
50°	499.1	501.4	503.6	500.8	501.9	502.5	499.7	500.2
52.5°	444.8	445.3	447.0	445.3	447.0	446.5	447.6	445.3
55°	392.1	392.1	394.4	394.9	395.5	397.2	397.7	399.4
57.5°	341.1	343.9	346.7	346.2	348.4	350.7	349.0	350.7
60°	296.9	299.1	301.9	303.1	304.7	305.9	305.9	307.0
62.5°	252.1	256.6	258.8	261.0	261.0	263.3	265.5	266.1
65°	211.7	216.8	218.5	220.1	221.3	223.5	226.3	225.7
67.5°	173.7	177.0	179.3	180.4	183.7	184.9	187.1	189.3
70°	136.1	140.6	142.3	144.5	147.3	149.6	151.8	152.9
72.5°	104.2	107.6	108.7	110.9	113.7	116.0	117.1	118.8
75°	72.8	78.4	79.0	80.7	82.9	85.7	87.4	86.8
77.5°	48.2	52.1	52.7	54.9	57.1	59.4	59.9	60.5
80°	28.6	30.8	31.4	32.5	34.2	35.3	36.4	37.5
82.5°	13.4	14.6	15.7	15.7	16.8	17.9	17.9	18.5
85°	4.5	4.5	5.0	5.0	5.6	5.6	6.2	5.6
87.5°	0.6	0.6	0.0	0.6	0.6	0.6	0.6	0.6
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)