

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: P879416

Luminaire Tested: **LD4C35D010 EU4359050 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: P879416
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 EU4359050 4LBLDWWH
Description: 4 INCH 3500 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 5000K, 90CRI LEDS
AND 4LBLDWW TRIM WITH H FINISH
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

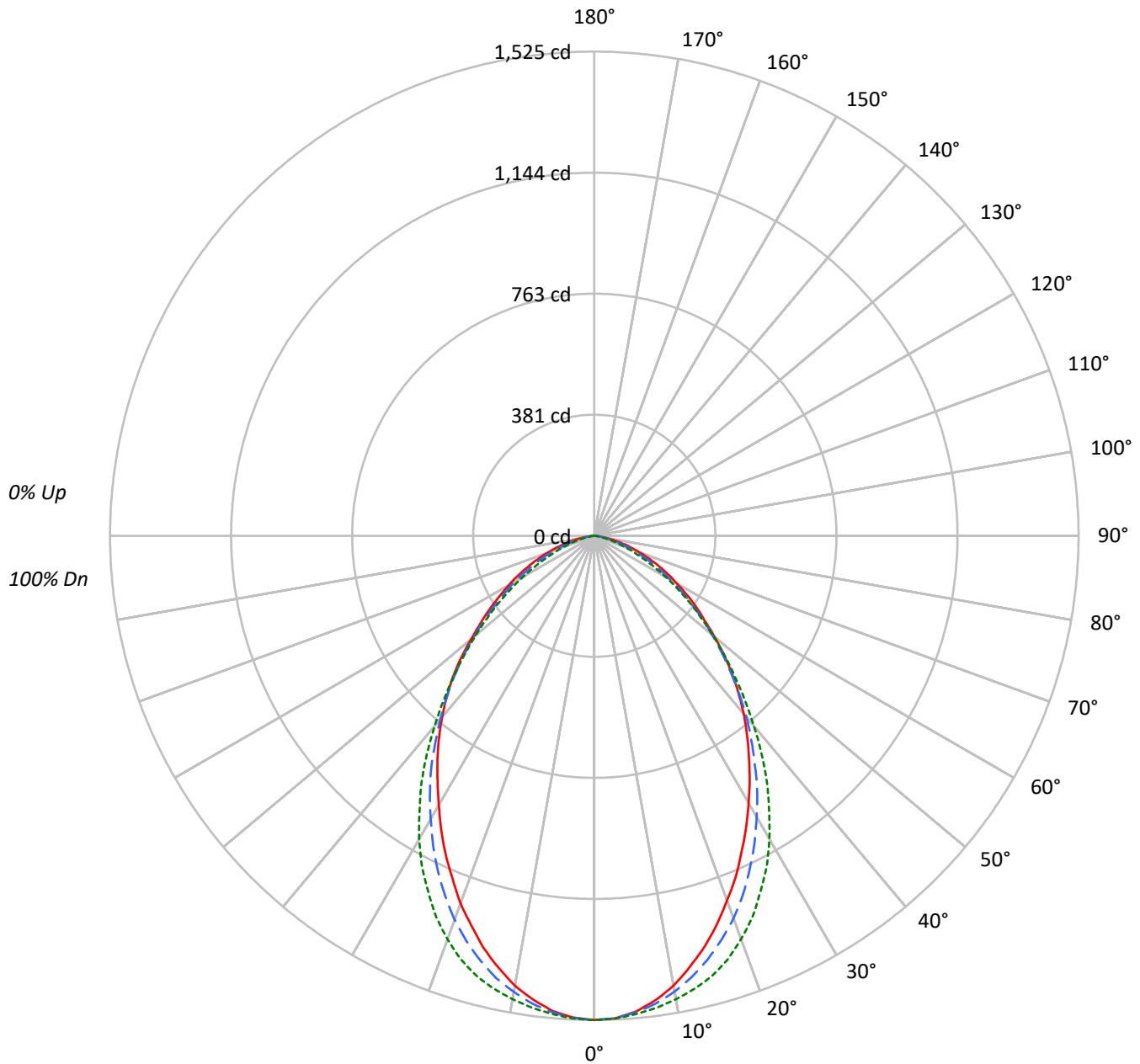
Lumens per Lamp: N/A
Luminaire Lumens: 2728.0 lumens
Efficiency: N/A
Efficacy: 67.5 lumens/watt
Spacing Criteria (0/90/45): 1 / 1.1 / 1.12
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

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

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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	100	108	105	102	99		101	98	96		97	95	93		93	92	90
2	103	96	90	85	100	94	89	84		90	86	82		87	84	80		84	81	79
3	95	86	79	73	92	84	78	73		81	76	71		79	74	70		76	72	69
4	88	77	70	64	86	76	69	63		74	68	63		71	66	62		69	65	61
5	81	70	62	56	80	69	62	56		67	61	56		65	59	55		63	58	54
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	44		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°	187376	187376	187376
5°	185465	186501	185255
10°	179439	184878	179501
15°	170469	182514	171041
20°	159788	176771	161095
25°	148811	167721	150180
30°	137859	156456	138894
35°	127180	142223	129115
40°	117313	125316	119462
45°	106260	108606	109474
50°	94206	93021	96557
55°	83983	78350	85890
60°	73491	63589	76243
65°	64302	49186	66598
70°	54131	36028	56933
75°	42293	23401	44666
80°	27733	12310	30493
85°	9444	5497	12686



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	142.4	5.2
10°-20°	389.0	14.3
20°-30°	535.0	19.6
30°-40°	558.2	20.5
40°-50°	477.5	17.5
50°-60°	341.6	12.5
60°-70°	198.2	7.3
70°-80°	76.4	2.8
80°-90°	9.7	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°	1066.4	39.1
0°-40°	1624.6	59.6
0°-60°	2443.7	89.6
0°-90°	2728.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2728.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1525	1525	1525	1525	1525	
5°	1504	1507	1512	1507	1502	141
15°	1340	1381	1435	1386	1345	376
25°	1098	1158	1237	1166	1108	505
35°	848	882	948	896	861	531
45°	612	607	625	622	630	471
55°	392	372	366	383	401	351
65°	221	196	169	202	229	221
75°	89	67	49	71	94	96
85°	7	5	4	6	9	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°	1525.2	1525.2	1525.2	1525.2	1525.2	1525.2	1525.2	1525.2	1525.2	1525.2	1525.2
2.5°	1521.3	1520.1	1520.7	1520.7	1520.7	1520.1	1521.3	1521.3	1520.7	1520.7	1520.7
5°	1503.9	1502.8	1503.3	1503.9	1503.9	1503.9	1504.5	1505.0	1505.6	1506.1	1506.7
7.5°	1475.9	1474.2	1475.9	1478.1	1478.1	1478.7	1479.2	1479.8	1481.5	1484.3	1486.0
10°	1438.4	1438.4	1438.9	1440.6	1443.4	1442.8	1444.5	1447.3	1450.7	1454.6	1457.4
12.5°	1390.8	1391.9	1393.6	1395.2	1398.0	1399.7	1402.5	1405.9	1411.5	1417.1	1423.2
15°	1340.3	1340.9	1341.5	1345.4	1348.2	1352.1	1354.3	1361.1	1366.1	1373.9	1380.7
17.5°	1283.8	1283.2	1284.9	1288.3	1295.0	1296.7	1299.5	1306.7	1314.0	1324.7	1333.6
20°	1222.2	1225.5	1227.8	1232.2	1236.2	1240.6	1242.9	1251.8	1260.2	1270.3	1282.1
22.5°	1163.9	1161.1	1165.0	1170.1	1173.4	1176.8	1180.7	1190.2	1199.2	1211.5	1223.3
25°	1097.8	1099.5	1102.3	1106.2	1110.7	1115.2	1119.7	1129.7	1134.8	1147.7	1158.3
27.5°	1035.1	1037.9	1039.0	1044.0	1048.0	1051.3	1053.6	1065.3	1069.8	1081.0	1091.7
30°	971.8	974.6	974.6	980.2	983.0	986.4	992.0	999.8	1006.5	1014.4	1022.2
32.5°	910.7	910.7	913.0	918.0	920.8	924.7	926.4	932.0	938.7	946.6	955.0
35°	848.0	849.7	851.9	851.9	857.0	859.2	861.4	867.0	871.5	874.9	881.6
37.5°	790.3	790.3	788.6	791.4	794.8	794.2	797.6	800.4	803.2	807.1	812.7
40°	731.5	731.5	729.3	730.9	733.2	732.6	731.5	734.3	736.5	739.3	744.9
42.5°	671.6	670.5	669.9	669.9	671.0	669.9	671.0	671.6	671.6	671.6	674.9
45°	611.6	614.4	611.1	610.0	608.3	606.6	606.0	606.6	608.8	606.0	606.6
47.5°	552.8	553.9	551.7	550.0	548.3	547.2	548.3	545.0	546.1	546.7	544.4
50°	492.9	490.7	490.7	489.0	489.5	489.0	487.9	486.7	486.7	483.9	482.3
52.5°	437.4	438.6	439.7	435.8	436.3	433.5	434.1	431.3	431.3	427.9	429.0
55°	392.1	390.4	390.4	388.7	388.2	385.4	384.8	383.1	379.2	377.0	372.5
57.5°	345.0	344.5	342.2	342.8	339.4	338.9	337.7	334.9	332.1	329.3	324.3
60°	299.1	299.7	299.7	298.5	296.9	294.1	294.6	290.7	286.8	281.7	277.3
62.5°	261.0	259.3	258.8	257.7	254.3	254.3	251.5	248.7	244.8	239.7	235.8
65°	221.2	221.8	220.1	218.4	215.1	214.5	212.3	210.0	206.1	201.1	195.5
67.5°	185.4	184.3	183.7	182.0	178.7	178.1	176.4	171.4	168.0	163.0	158.5
70°	150.7	149.5	150.1	147.3	143.9	142.3	141.7	137.8	132.7	128.8	124.3
72.5°	118.2	118.2	117.6	114.8	113.1	112.0	109.8	105.3	102.5	98.0	94.7
75°	89.1	88.5	87.4	85.7	83.5	82.3	81.2	78.4	74.5	69.5	66.7
77.5°	61.6	62.2	61.1	60.5	57.7	56.0	55.5	53.8	50.4	47.0	44.2
80°	39.2	38.6	38.1	37.0	36.4	35.8	34.2	33.0	29.7	28.0	26.3
82.5°	21.3	20.2	20.2	19.6	18.5	17.9	17.4	16.2	15.7	14.6	13.4
85°	6.7	7.3	6.7	6.7	6.7	6.2	6.2	6.2	5.6	5.6	5.0
87.5°	0.6	1.1	0.6	0.6	1.1	0.6	0.6	1.1	0.6	0.6	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



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CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	1525.2	1525.2	1525.2	1525.2	1525.2	1525.2	1525.2	1525.2	1525.2	1525.2	1525.2
2.5°	1520.7	1521.3	1521.3	1521.8	1521.8	1521.8	1521.8	1521.8	1521.8	1521.8	1521.8
5°	1508.4	1508.4	1509.5	1510.6	1510.6	1510.6	1511.2	1512.3	1512.3	1512.3	1511.7
7.5°	1488.2	1490.4	1492.7	1494.9	1495.5	1496.1	1497.2	1499.4	1499.4	1499.4	1499.4
10°	1461.9	1466.9	1469.7	1473.1	1474.8	1475.9	1479.2	1479.8	1481.5	1482.0	1481.5
12.5°	1428.3	1435.0	1441.2	1446.8	1449.0	1451.2	1454.6	1458.0	1459.6	1461.3	1460.8
15°	1390.8	1398.0	1407.6	1413.7	1418.2	1421.6	1426.6	1431.1	1433.9	1435.0	1435.0
17.5°	1345.4	1354.3	1364.4	1374.5	1377.3	1382.9	1388.5	1394.7	1398.0	1398.6	1398.0
20°	1295.0	1305.1	1313.5	1323.5	1329.7	1332.5	1340.3	1348.2	1351.5	1352.1	1351.5
22.5°	1235.0	1244.6	1255.8	1266.4	1271.4	1276.5	1284.9	1292.7	1297.2	1300.6	1297.2
25°	1168.4	1181.8	1192.5	1201.4	1208.7	1213.8	1224.4	1230.6	1237.8	1237.3	1237.8
27.5°	1102.9	1114.1	1125.8	1136.5	1140.9	1146.5	1154.9	1165.0	1171.2	1175.1	1174.5
30°	1035.6	1044.6	1054.7	1064.2	1071.5	1076.0	1088.3	1092.8	1100.6	1102.9	1101.2
32.5°	964.5	970.7	980.8	993.6	996.4	1000.9	1008.8	1020.0	1022.8	1023.9	1024.4
35°	888.9	900.7	909.1	916.9	919.1	923.1	932.0	940.4	943.2	948.3	946.0
37.5°	818.9	825.6	829.5	837.4	844.1	847.4	851.9	857.5	863.1	865.4	864.8
40°	748.9	752.2	755.6	764.0	764.5	764.5	771.3	779.1	779.1	781.4	781.4
42.5°	677.2	677.7	682.2	686.7	687.8	688.9	695.7	696.8	700.1	701.8	704.1
45°	607.7	611.1	613.9	614.4	617.2	617.8	619.5	621.2	626.2	625.1	626.2
47.5°	544.4	546.1	547.8	547.8	549.5	548.9	551.7	550.0	553.4	554.5	556.2
50°	482.3	485.1	483.4	484.5	483.9	485.6	484.5	484.5	484.5	486.7	488.4
52.5°	425.1	425.7	424.0	424.6	424.6	423.4	424.6	424.0	423.4	423.4	424.0
55°	372.5	370.2	369.1	366.9	364.1	367.4	365.8	364.6	366.9	365.8	366.9
57.5°	321.5	318.7	316.5	315.3	311.4	313.7	311.4	310.3	310.3	310.3	313.1
60°	273.3	270.5	267.7	264.4	263.8	262.7	261.6	258.8	259.3	258.8	259.9
62.5°	231.3	225.7	221.8	219.0	218.4	216.8	215.1	212.3	212.8	212.8	213.4
65°	192.7	186.5	180.9	177.0	177.0	174.2	171.4	171.4	168.0	169.2	169.7
67.5°	154.0	149.0	143.4	140.6	138.9	136.7	135.0	133.9	132.2	132.2	133.3
70°	119.3	114.3	111.5	107.0	106.4	104.7	102.5	100.8	100.3	100.3	99.7
72.5°	90.2	85.7	82.3	79.5	77.9	76.2	73.9	73.4	72.3	72.3	73.4
75°	62.7	59.9	57.1	54.3	53.2	52.7	51.0	49.8	49.8	49.3	49.8
77.5°	42.0	39.2	36.4	35.3	34.2	33.0	32.5	31.9	30.2	30.2	30.2
80°	24.1	23.0	21.8	20.2	20.2	19.6	18.5	17.9	17.4	17.4	17.4
82.5°	12.3	11.8	10.6	10.1	10.1	10.1	9.5	9.5	9.0	9.0	9.0
85°	5.0	4.5	3.9	3.9	3.9	3.9	3.9	3.9	4.5	3.9	4.5
87.5°	0.6	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



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CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	1525.2	1525.2	1525.2	1525.2	1525.2	1525.2	1525.2	1525.2	1525.2	1525.2	1525.2
2.5°	1521.8	1521.3	1521.3	1521.3	1521.3	1521.3	1520.7	1520.7	1520.1	1520.1	1520.1
5°	1512.3	1511.7	1511.2	1510.6	1510.1	1509.5	1508.9	1508.4	1506.7	1506.1	1505.0
7.5°	1498.9	1497.7	1496.1	1495.5	1494.4	1492.7	1490.4	1489.3	1487.1	1484.3	1483.2
10°	1480.9	1478.7	1477.0	1474.2	1473.6	1471.4	1465.8	1463.0	1459.1	1455.7	1451.8
12.5°	1459.1	1456.8	1452.9	1449.0	1446.8	1441.7	1436.7	1432.2	1427.2	1419.9	1414.3
15°	1432.2	1428.8	1421.0	1419.9	1416.5	1408.7	1402.0	1393.6	1385.7	1377.9	1371.1
17.5°	1396.4	1389.1	1385.1	1380.1	1376.2	1366.1	1358.8	1349.3	1338.7	1329.7	1320.2
20°	1349.3	1341.5	1334.7	1331.9	1326.9	1317.9	1309.0	1297.2	1286.6	1275.4	1267.0
22.5°	1293.3	1288.3	1278.2	1274.8	1268.6	1259.7	1249.0	1237.8	1227.8	1215.4	1204.2
25°	1233.4	1226.1	1218.2	1211.5	1207.0	1198.6	1185.2	1176.8	1165.6	1152.1	1143.7
27.5°	1169.5	1161.1	1149.9	1145.4	1141.5	1130.3	1119.1	1108.5	1099.5	1087.7	1080.5
30°	1095.6	1089.4	1082.1	1076.5	1070.9	1062.0	1051.9	1039.6	1030.0	1024.4	1014.4
32.5°	1020.5	1015.5	1006.0	1003.2	997.0	989.7	982.4	973.5	963.4	955.0	947.1
35°	940.4	935.4	928.7	923.6	921.4	916.3	908.5	900.7	895.6	886.1	882.2
37.5°	860.3	858.6	851.9	846.9	845.2	839.0	835.1	829.5	822.2	820.0	815.5
40°	778.0	776.9	773.0	772.4	769.0	767.3	761.7	757.3	753.9	752.2	749.4
42.5°	702.4	701.3	697.9	698.5	695.1	694.0	693.4	689.5	686.7	683.3	683.9
45°	627.9	626.8	624.5	623.4	625.1	624.5	623.4	621.7	621.7	622.3	620.6
47.5°	556.2	557.3	555.1	556.2	556.2	554.5	554.5	556.7	557.3	558.4	559.5
50°	488.4	491.8	490.7	492.3	492.9	493.5	491.8	494.6	494.0	499.1	497.9
52.5°	426.8	427.4	429.6	430.2	430.7	431.3	434.1	436.3	436.9	439.1	443.0
55°	367.4	368.0	372.5	372.5	375.3	375.8	379.8	380.9	382.6	388.7	389.8
57.5°	311.4	314.8	317.0	318.1	319.8	322.6	324.9	329.9	332.7	336.6	340.5
60°	261.0	264.9	267.7	268.9	271.1	274.5	277.3	282.9	287.9	292.4	295.2
62.5°	214.5	217.9	220.1	224.0	224.0	226.8	233.6	236.9	242.5	246.4	251.5
65°	173.1	175.3	179.2	179.2	181.5	186.0	191.6	196.6	202.2	207.8	212.8
67.5°	135.5	137.2	139.5	141.7	142.8	148.4	152.9	160.2	165.2	169.2	175.3
70°	102.5	103.6	106.4	108.7	110.3	114.3	119.3	124.3	129.4	133.9	140.0
72.5°	73.4	75.6	78.4	80.1	81.2	84.0	89.1	94.1	98.6	103.1	106.4
75°	50.4	52.1	53.2	54.9	56.6	58.8	62.2	65.5	70.6	75.1	79.0
77.5°	31.4	33.0	34.7	35.3	35.8	38.1	40.3	43.7	47.0	50.4	53.2
80°	18.5	19.0	19.6	20.2	21.3	23.0	24.1	26.3	28.6	30.8	33.6
82.5°	9.5	10.1	10.6	10.6	10.6	11.2	12.9	14.0	14.6	15.7	17.4
85°	3.9	3.9	3.9	4.5	4.5	5.0	5.0	5.6	5.6	6.2	6.7
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: P879416

CATALOG NUMBER: LD4C35D010 EU4359050 4LBLDWWH

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	1525.2	1525.2	1525.2	1525.2	1525.2	1525.2	1525.2	1525.2
2.5°	1519.6	1519.6	1519.6	1519.0	1519.6	1519.6	1519.6	1519.0
5°	1505.0	1503.9	1503.9	1503.3	1502.8	1502.8	1503.3	1502.2
7.5°	1480.9	1479.2	1478.1	1478.1	1477.6	1477.0	1477.0	1474.2
10°	1449.6	1446.2	1446.2	1445.1	1440.6	1440.0	1438.9	1438.9
12.5°	1410.4	1406.4	1404.2	1401.4	1398.6	1396.4	1395.8	1393.6
15°	1363.9	1358.8	1354.9	1353.8	1349.3	1345.9	1345.9	1344.8
17.5°	1313.5	1305.6	1302.8	1300.0	1293.9	1293.3	1292.2	1287.1
20°	1256.3	1249.0	1245.1	1242.3	1238.4	1232.8	1231.7	1232.2
22.5°	1196.4	1186.3	1182.9	1180.1	1176.2	1171.2	1171.2	1167.3
25°	1134.2	1125.3	1121.9	1118.5	1112.4	1110.1	1107.3	1107.9
27.5°	1070.9	1062.5	1059.7	1053.6	1049.6	1046.8	1044.0	1044.0
30°	1004.8	1000.4	995.9	995.3	987.5	984.1	981.3	979.1
32.5°	941.0	935.4	933.1	930.9	927.0	922.5	921.9	918.0
35°	878.3	872.6	869.8	867.6	863.1	861.4	859.8	860.9
37.5°	812.2	811.0	809.4	806.6	803.8	803.2	801.0	803.8
40°	747.2	746.6	744.4	744.9	744.9	743.8	744.9	744.9
42.5°	684.5	684.5	682.2	683.3	683.9	685.0	686.7	687.8
45°	623.4	622.8	623.4	624.5	623.4	626.2	628.4	630.1
47.5°	560.7	561.2	563.5	564.0	565.1	569.1	569.1	569.1
50°	500.7	503.5	502.4	505.8	505.2	507.5	505.2	505.2
52.5°	443.6	446.4	447.0	447.5	450.9	451.4	451.4	450.9
55°	392.6	396.6	394.9	397.7	399.4	400.5	402.2	401.0
57.5°	345.6	347.3	348.9	349.5	351.7	352.9	354.0	352.9
60°	299.1	302.5	305.3	305.8	306.9	308.1	308.6	310.3
62.5°	255.4	261.0	262.1	262.7	265.5	267.2	268.3	269.4
65°	216.8	220.7	223.5	225.2	227.4	227.4	229.1	229.1
67.5°	179.2	183.2	184.8	186.0	189.3	189.9	192.7	192.7
70°	145.1	147.9	149.0	150.7	154.0	156.3	157.4	158.5
72.5°	112.0	115.4	117.1	119.3	121.5	123.2	123.8	125.5
75°	81.8	86.8	87.4	89.6	91.3	93.5	94.7	94.1
77.5°	57.1	58.8	61.1	62.2	63.9	65.5	67.2	67.2
80°	35.3	37.5	38.1	38.6	40.9	42.0	43.1	43.1
82.5°	18.5	19.6	20.7	21.3	22.4	22.4	23.0	23.5
85°	7.3	7.8	7.8	7.8	8.4	9.0	9.0	9.0
87.5°	1.1	1.7	1.1	1.1	1.7	1.7	1.7	1.7
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)