

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: P879424

Luminaire Tested: **LD4C40D010 EU4409040 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: P879424
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: LD4C40D010 EU4409040 4LBLDWWH
Description: 4 INCH 4000 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 4000K, 90CRI LEDS
AND 4LBLDWW TRIM WITH H FINISH
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

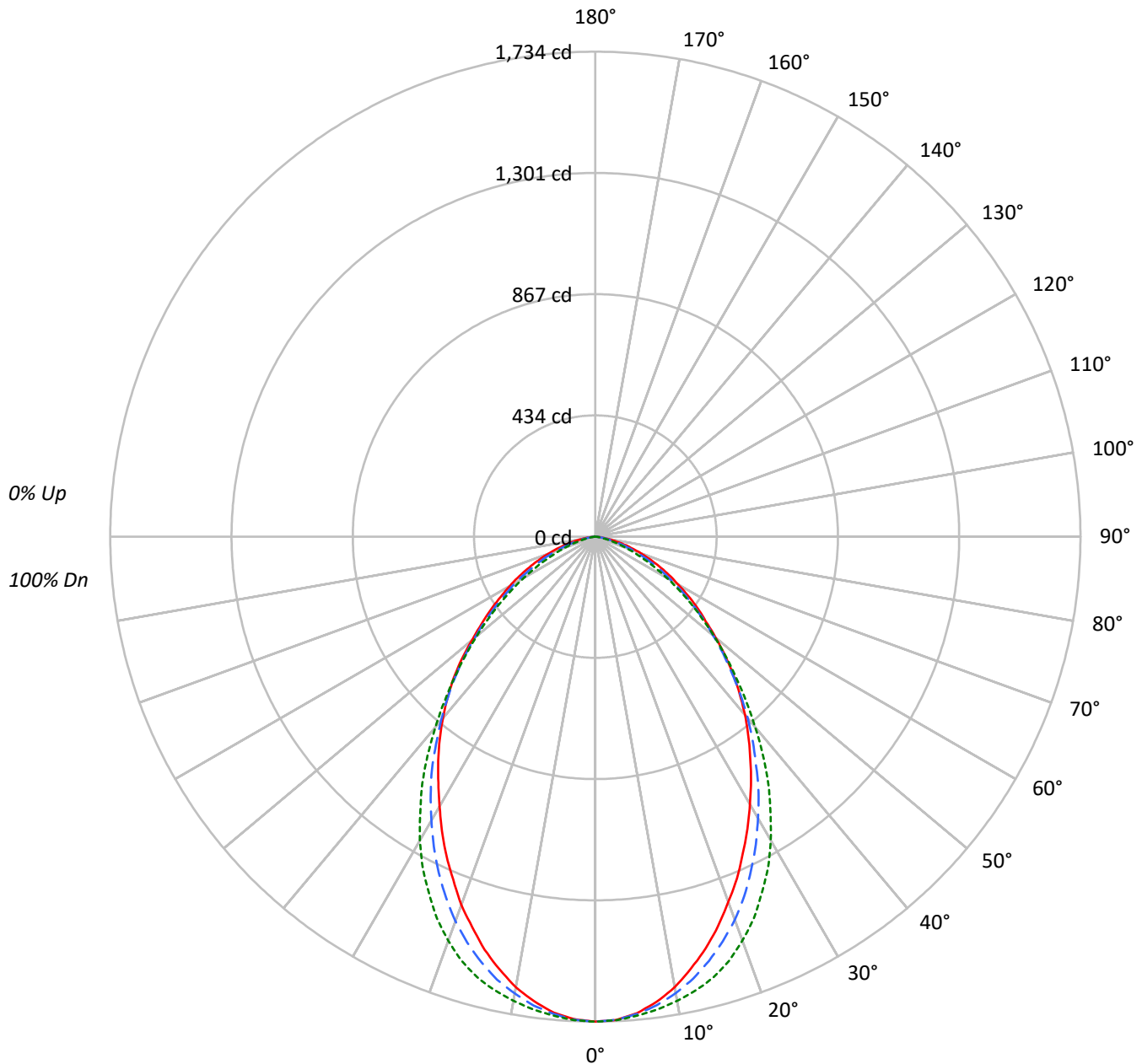
Lumens per Lamp: N/A
Luminaire Lumens: 3102.0 lumens
Efficiency: N/A
Efficacy: 66.0 lumens/watt
Spacing Criteria (0/90/45): 1 / 1.1 / 1.12
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 47
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	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°	213065	213065	213065
5°	210894	212066	210660
10°	204039	210226	204114
15°	193846	207531	194495
20°	181687	201010	183190
25°	169212	190711	170771
30°	156754	177905	157932
35°	144622	161720	146812
40°	133399	142492	135853
45°	120837	123495	124485
50°	107126	105788	109802
55°	95485	89081	97670
60°	83565	72287	86685
65°	73139	55901	75726
70°	61531	40949	64728
75°	48084	26581	50790
80°	31554	13937	34667
85°	10713	6343	14378



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	161.9	5.2
10°-20°	442.3	14.3
20°-30°	608.4	19.6
30°-40°	634.7	20.5
40°-50°	543.0	17.5
50°-60°	388.4	12.5
60°-70°	225.4	7.3
70°-80°	86.9	2.8
80°-90°	11.1	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°	1212.6	39.1
0°-40°	1847.3	59.6
0°-60°	2778.7	89.6
0°-90°	3102.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3102.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1734	1734	1734	1734	1734	
5°	1710	1713	1720	1713	1708	161
15°	1524	1570	1632	1576	1529	427
25°	1248	1317	1407	1325	1260	574
35°	964	1002	1078	1018	979	604
45°	696	690	711	707	716	536
55°	446	424	416	435	456	399
65°	252	222	192	230	260	251
75°	101	76	56	80	107	109
85°	8	6	4	6	10	15
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°	1734.3	1734.3	1734.3	1734.3	1734.3	1734.3	1734.3	1734.3	1734.3	1734.3	1734.3
2.5°	1729.8	1728.5	1729.2	1729.2	1729.2	1728.5	1729.8	1729.8	1729.2	1729.2	1729.2
5°	1710.1	1708.8	1709.4	1710.1	1710.1	1710.1	1710.7	1711.3	1712.0	1712.6	1713.3
7.5°	1678.2	1676.3	1678.2	1680.8	1680.8	1681.4	1682.0	1682.7	1684.6	1687.8	1689.7
10°	1635.6	1635.6	1636.2	1638.1	1641.3	1640.6	1642.6	1645.7	1649.6	1654.0	1657.2
12.5°	1581.4	1582.7	1584.6	1586.5	1589.7	1591.6	1594.8	1598.6	1605.0	1611.4	1618.4
15°	1524.1	1524.7	1525.4	1529.8	1533.0	1537.5	1540.0	1547.7	1553.4	1562.3	1570.0
17.5°	1459.8	1459.1	1461.0	1464.9	1472.5	1474.4	1477.6	1485.9	1494.2	1506.3	1516.5
20°	1389.7	1393.5	1396.1	1401.2	1405.6	1410.7	1413.3	1423.5	1433.0	1444.5	1457.9
22.5°	1323.5	1320.3	1324.7	1330.5	1334.3	1338.1	1342.6	1353.4	1363.6	1377.6	1391.0
25°	1248.3	1250.2	1253.4	1257.9	1263.0	1268.1	1273.2	1284.6	1290.4	1305.0	1317.1
27.5°	1177.0	1180.2	1181.4	1187.2	1191.6	1195.5	1198.0	1211.4	1216.5	1229.2	1241.3
30°	1105.0	1108.2	1108.2	1114.6	1117.8	1121.6	1127.9	1136.9	1144.5	1153.4	1162.3
32.5°	1035.6	1035.6	1038.1	1043.9	1047.1	1051.5	1053.4	1059.8	1067.4	1076.4	1085.9
35°	964.3	966.2	968.7	968.7	974.5	977.0	979.5	985.9	991.0	994.8	1002.5
37.5°	898.7	898.7	896.8	899.9	903.8	903.1	906.9	910.1	913.3	917.8	924.1
40°	831.8	831.8	829.2	831.2	833.7	833.1	831.8	835.0	837.5	840.7	847.1
42.5°	763.6	762.4	761.7	761.7	763.0	761.7	763.0	763.6	763.6	763.6	767.5
45°	695.5	698.7	694.9	693.6	691.7	689.8	689.1	689.8	692.3	689.1	689.8
47.5°	628.6	629.9	627.3	625.4	623.5	622.2	623.5	619.7	621.0	621.6	619.1
50°	560.5	557.9	557.9	556.0	556.6	556.0	554.7	553.5	553.5	550.3	548.4
52.5°	497.4	498.7	500.0	495.5	496.1	493.0	493.6	490.4	490.4	486.6	487.9
55°	445.8	443.9	443.9	442.0	441.4	438.2	437.5	435.6	431.2	428.6	423.5
57.5°	392.3	391.7	389.1	389.8	386.0	385.3	384.0	380.9	377.7	374.5	368.8
60°	340.1	340.7	340.7	339.5	337.6	334.4	335.0	330.6	326.1	320.4	315.3
62.5°	296.8	294.9	294.2	293.0	289.2	289.2	286.0	282.8	278.3	272.6	268.1
65°	251.6	252.2	250.3	248.4	244.6	243.9	241.4	238.8	234.4	228.6	222.3
67.5°	210.8	209.5	208.9	207.0	203.2	202.5	200.6	194.9	191.1	185.3	180.2
70°	171.3	170.1	170.7	167.5	163.7	161.8	161.1	156.7	150.9	146.5	141.4
72.5°	134.4	134.4	133.7	130.6	128.7	127.4	124.8	119.7	116.6	111.5	107.6
75°	101.3	100.6	99.4	97.4	94.9	93.6	92.4	89.2	84.7	79.0	75.8
77.5°	70.1	70.7	69.4	68.8	65.6	63.7	63.1	61.1	57.3	53.5	50.3
80°	44.6	43.9	43.3	42.0	41.4	40.8	38.9	37.6	33.8	31.8	29.9
82.5°	24.2	22.9	22.9	22.3	21.0	20.4	19.7	18.5	17.8	16.6	15.3
85°	7.6	8.3	7.6	7.6	7.6	7.0	7.0	7.0	6.4	6.4	5.7
87.5°	0.6	1.3	0.6	0.6	1.3	0.6	0.6	1.3	0.6	0.6	1.3
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°	1734.3	1734.3	1734.3	1734.3	1734.3	1734.3	1734.3	1734.3	1734.3	1734.3	1734.3
2.5°	1729.2	1729.8	1729.8	1730.5	1730.5	1730.5	1730.5	1730.5	1730.5	1730.5	1730.5
5°	1715.2	1715.2	1716.4	1717.7	1717.7	1717.7	1718.4	1719.6	1719.6	1719.6	1719.0
7.5°	1692.2	1694.8	1697.3	1699.9	1700.5	1701.2	1702.4	1705.0	1705.0	1705.0	1705.0
10°	1662.3	1668.0	1671.2	1675.0	1677.0	1678.2	1682.0	1682.7	1684.6	1685.2	1684.6
12.5°	1624.1	1631.7	1638.7	1645.1	1647.7	1650.2	1654.0	1657.8	1659.8	1661.7	1661.0
15°	1581.4	1589.7	1600.5	1607.5	1612.6	1616.4	1622.2	1627.3	1630.5	1631.7	1631.7
17.5°	1529.8	1540.0	1551.5	1562.9	1566.1	1572.5	1578.9	1585.9	1589.7	1590.3	1589.7
20°	1472.5	1484.0	1493.5	1505.0	1512.0	1515.2	1524.1	1533.0	1536.8	1537.5	1536.8
22.5°	1404.4	1415.2	1427.9	1440.0	1445.8	1451.5	1461.0	1470.0	1475.1	1478.9	1475.1
25°	1328.6	1343.9	1356.0	1366.1	1374.4	1380.2	1392.3	1399.3	1407.5	1406.9	1407.5
27.5°	1254.1	1266.8	1280.2	1292.3	1297.4	1303.7	1313.3	1324.7	1331.8	1336.2	1335.6
30°	1177.6	1187.8	1199.3	1210.1	1218.4	1223.5	1237.5	1242.6	1251.5	1254.1	1252.1
32.5°	1096.7	1103.7	1115.2	1129.9	1133.0	1138.1	1147.1	1159.8	1163.0	1164.2	1164.9
35°	1010.8	1024.1	1033.7	1042.6	1045.1	1049.6	1059.8	1069.4	1072.5	1078.3	1075.7
37.5°	931.1	938.8	943.2	952.2	959.8	963.6	968.7	975.1	981.5	984.0	983.4
40°	851.5	855.4	859.2	868.7	869.4	869.4	877.0	885.9	885.9	888.5	888.5
42.5°	770.0	770.6	775.7	780.8	782.1	783.4	791.0	792.3	796.1	798.0	800.6
45°	691.0	694.9	698.0	698.7	701.9	702.5	704.4	706.3	712.1	710.8	712.1
47.5°	619.1	621.0	622.9	622.9	624.8	624.2	627.3	625.4	629.3	630.5	632.4
50°	548.4	551.6	549.6	550.9	550.3	552.2	550.9	550.9	550.9	553.5	555.4
52.5°	483.4	484.0	482.1	482.8	482.8	481.5	482.8	482.1	481.5	481.5	482.1
55°	423.5	421.0	419.7	417.2	414.0	417.8	415.9	414.6	417.2	415.9	417.2
57.5°	365.6	362.4	359.8	358.6	354.1	356.7	354.1	352.8	352.8	352.8	356.0
60°	310.8	307.6	304.4	300.6	300.0	298.7	297.4	294.2	294.9	294.2	295.5
62.5°	263.0	256.7	252.2	249.0	248.4	246.5	244.6	241.4	242.0	242.0	242.7
65°	219.1	212.1	205.7	201.3	201.3	198.1	194.9	194.9	191.1	192.3	193.0
67.5°	175.1	169.4	163.0	159.9	158.0	155.4	153.5	152.2	150.3	150.3	151.6
70°	135.7	129.9	126.7	121.6	121.0	119.1	116.6	114.6	114.0	114.0	113.4
72.5°	102.5	97.4	93.6	90.4	88.5	86.6	84.1	83.4	82.2	82.2	83.4
75°	71.3	68.1	65.0	61.8	60.5	59.9	58.0	56.7	56.7	56.0	56.7
77.5°	47.8	44.6	41.4	40.1	38.9	37.6	36.9	36.3	34.4	34.4	34.4
80°	27.4	26.1	24.8	22.9	22.9	22.3	21.0	20.4	19.7	19.7	19.7
82.5°	14.0	13.4	12.1	11.5	11.5	11.5	10.8	10.8	10.2	10.2	10.2
85°	5.7	5.1	4.5	4.5	4.5	4.5	4.5	4.5	5.1	4.5	5.1
87.5°	0.6	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
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°	1734.3	1734.3	1734.3	1734.3	1734.3	1734.3	1734.3	1734.3	1734.3	1734.3	1734.3
2.5°	1730.5	1729.8	1729.8	1729.8	1729.8	1729.8	1729.2	1729.2	1728.5	1728.5	1728.5
5°	1719.6	1719.0	1718.4	1717.7	1717.1	1716.4	1715.8	1715.2	1713.3	1712.6	1711.3
7.5°	1704.3	1703.1	1701.2	1700.5	1699.2	1697.3	1694.8	1693.5	1691.0	1687.8	1686.5
10°	1684.0	1681.4	1679.5	1676.3	1675.7	1673.1	1666.8	1663.6	1659.1	1655.3	1650.8
12.5°	1659.1	1656.6	1652.1	1647.7	1645.1	1639.4	1633.6	1628.5	1622.8	1614.5	1608.2
15°	1628.5	1624.7	1615.8	1614.5	1610.7	1601.8	1594.2	1584.6	1575.7	1566.8	1559.1
17.5°	1587.8	1579.5	1575.0	1569.3	1564.9	1553.4	1545.1	1534.3	1522.2	1512.0	1501.2
20°	1534.3	1525.4	1517.7	1514.5	1508.8	1498.6	1488.4	1475.1	1463.0	1450.2	1440.7
22.5°	1470.6	1464.9	1453.4	1449.6	1442.6	1432.4	1420.3	1407.5	1396.1	1382.1	1369.3
25°	1402.4	1394.2	1385.3	1377.6	1372.5	1363.0	1347.7	1338.1	1325.4	1310.1	1300.5
27.5°	1329.8	1320.3	1307.6	1302.5	1298.0	1285.3	1272.5	1260.4	1250.2	1236.9	1228.6
30°	1245.8	1238.8	1230.5	1224.1	1217.7	1207.6	1196.1	1182.1	1171.3	1164.9	1153.4
32.5°	1160.4	1154.7	1143.9	1140.7	1133.7	1125.4	1117.1	1106.9	1095.5	1085.9	1077.0
35°	1069.4	1063.6	1056.0	1050.2	1047.7	1042.0	1033.0	1024.1	1018.4	1007.6	1003.1
37.5°	978.3	976.4	968.7	963.0	961.1	954.1	949.6	943.2	935.0	932.4	927.3
40°	884.7	883.4	878.9	878.3	874.5	872.6	866.2	861.1	857.3	855.4	852.2
42.5°	798.7	797.4	793.6	794.2	790.4	789.1	788.5	784.0	780.8	777.0	777.7
45°	714.0	712.7	710.1	708.9	710.8	710.1	708.9	707.0	707.0	707.6	705.7
47.5°	632.4	633.7	631.2	632.4	632.4	630.5	630.5	633.1	633.7	635.0	636.3
50°	555.4	559.2	557.9	559.8	560.5	561.1	559.2	562.4	561.7	567.5	566.2
52.5°	485.3	486.0	488.5	489.1	489.8	490.4	493.6	496.1	496.8	499.3	503.8
55°	417.8	418.4	423.5	423.5	426.7	427.4	431.8	433.1	435.0	442.0	443.3
57.5°	354.1	357.9	360.5	361.8	363.7	366.9	369.4	375.1	378.3	382.8	387.2
60°	296.8	301.3	304.4	305.7	308.3	312.1	315.3	321.6	327.4	332.5	335.6
62.5°	243.9	247.8	250.3	254.8	254.8	257.9	265.6	269.4	275.8	280.2	286.0
65°	196.8	199.3	203.8	203.8	206.4	211.5	217.8	223.6	229.9	236.3	242.0
67.5°	154.1	156.0	158.6	161.1	162.4	168.8	173.9	182.2	187.9	192.3	199.3
70°	116.6	117.8	121.0	123.6	125.5	129.9	135.7	141.4	147.1	152.2	159.2
72.5°	83.4	86.0	89.2	91.1	92.4	95.5	101.3	107.0	112.1	117.2	121.0
75°	57.3	59.2	60.5	62.4	64.3	66.9	70.7	74.5	80.2	85.3	89.8
77.5°	35.7	37.6	39.5	40.1	40.8	43.3	45.9	49.7	53.5	57.3	60.5
80°	21.0	21.7	22.3	22.9	24.2	26.1	27.4	29.9	32.5	35.0	38.2
82.5°	10.8	11.5	12.1	12.1	12.1	12.7	14.6	15.9	16.6	17.8	19.7
85°	4.5	4.5	4.5	5.1	5.1	5.7	5.7	6.4	6.4	7.0	7.6
87.5°	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
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: P879424

CATALOG NUMBER: LD4C40D010 EU4409040 4LBLDWWH

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	1734.3	1734.3	1734.3	1734.3	1734.3	1734.3	1734.3	1734.3
2.5°	1727.9	1727.9	1727.9	1727.3	1727.9	1727.9	1727.9	1727.3
5°	1711.3	1710.1	1710.1	1709.4	1708.8	1708.8	1709.4	1708.2
7.5°	1684.0	1682.0	1680.8	1680.8	1680.1	1679.5	1679.5	1676.3
10°	1648.3	1644.5	1644.5	1643.2	1638.1	1637.5	1636.2	1636.2
12.5°	1603.7	1599.3	1596.7	1593.5	1590.3	1587.8	1587.1	1584.6
15°	1550.8	1545.1	1540.7	1539.4	1534.3	1530.5	1530.5	1529.2
17.5°	1493.5	1484.6	1481.4	1478.2	1471.2	1470.6	1469.3	1463.6
20°	1428.6	1420.3	1415.8	1412.6	1408.2	1401.8	1400.5	1401.2
22.5°	1360.4	1348.9	1345.1	1341.9	1337.5	1331.8	1331.8	1327.3
25°	1289.7	1279.5	1275.7	1271.9	1264.9	1262.3	1259.1	1259.8
27.5°	1217.7	1208.2	1205.0	1198.0	1193.5	1190.4	1187.2	1187.2
30°	1142.6	1137.5	1132.4	1131.8	1122.9	1119.0	1115.8	1113.3
32.5°	1070.0	1063.6	1061.1	1058.5	1054.1	1049.0	1048.3	1043.9
35°	998.7	992.3	989.1	986.6	981.5	979.5	977.6	978.9
37.5°	923.5	922.2	920.3	917.1	913.9	913.3	910.8	913.9
40°	849.6	849.0	846.4	847.1	847.1	845.8	847.1	847.1
42.5°	778.3	778.3	775.7	777.0	777.7	778.9	780.8	782.1
45°	708.9	708.2	708.9	710.1	708.9	712.1	714.6	716.5
47.5°	637.5	638.2	640.7	641.4	642.6	647.1	647.1	647.1
50°	569.4	572.6	571.3	575.1	574.5	577.0	574.5	574.5
52.5°	504.4	507.6	508.2	508.9	512.7	513.3	513.3	512.7
55°	446.5	450.9	449.0	452.2	454.1	455.4	457.3	456.0
57.5°	393.0	394.9	396.8	397.4	400.0	401.2	402.5	401.2
60°	340.1	343.9	347.1	347.7	349.0	350.3	350.9	352.8
62.5°	290.4	296.8	298.1	298.7	301.9	303.8	305.1	306.3
65°	246.5	250.9	254.1	256.0	258.6	258.6	260.5	260.5
67.5°	203.8	208.3	210.2	211.5	215.3	215.9	219.1	219.1
70°	165.0	168.1	169.4	171.3	175.1	177.7	179.0	180.2
72.5°	127.4	131.2	133.1	135.7	138.2	140.1	140.8	142.7
75°	93.0	98.7	99.4	101.9	103.8	106.4	107.6	107.0
77.5°	65.0	66.9	69.4	70.7	72.6	74.5	76.4	76.4
80°	40.1	42.7	43.3	43.9	46.5	47.8	49.0	49.0
82.5°	21.0	22.3	23.6	24.2	25.5	25.5	26.1	26.7
85°	8.3	8.9	8.9	8.9	9.6	10.2	10.2	10.2
87.5°	1.3	1.9	1.3	1.3	1.9	1.9	1.9	1.9
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)