

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: P879423

Luminaire Tested: **LD4C40D010 EU4409035 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: P879423
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: LD4C40D010 EU4409035 4LBDWWLI
Description: 4 INCH 4000 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 3500K, 90CRI LEDS
AND 4LBDWW TRIM WITH LI FINISH
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

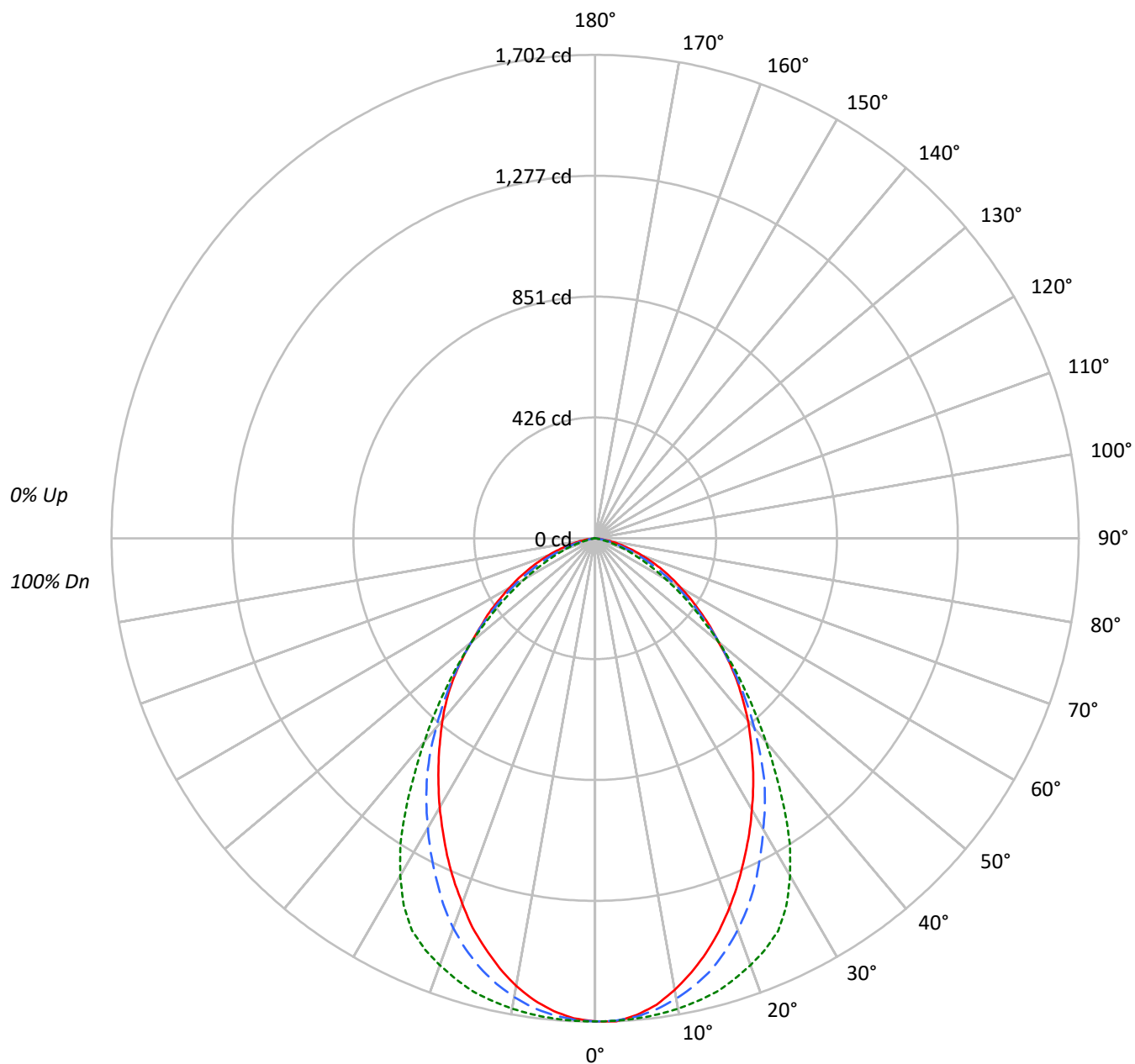
Lumens per Lamp: N/A
Luminaire Lumens: 3124.0 lumens
Efficiency: N/A
Efficacy: 66.5 lumens/watt
Spacing Criteria (0/90/45): 1 / 1.19 / 1.15
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 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	101	108	105	102	99		101	98	96			97	95	93			93
2	103	96	90	85	100	94	89	84		91	86	83			87	84	81			85
3	95	86	79	74	93	84	78	73		82	76	72			79	74	70			77
4	88	78	70	64	86	76	69	64		74	68	63			72	66	62			70
5	82	70	62	57	80	69	62	56		67	61	56			65	60	55			64
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	45			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°	208974	208974	208974
5°	207737	209303	206159
10°	201407	209815	199660
15°	192155	210279	190056
20°	180797	209076	178810
25°	168412	206611	167029
30°	156470	194560	155208
35°	145102	174018	144052
40°	134153	150062	134056
45°	122244	128099	123235
50°	107967	108330	108579
55°	96728	88567	97156
60°	85506	70346	85653
65°	75261	53633	74534
70°	62393	38398	62393
75°	48606	22025	46802
80°	31483	5377	30139
85°	11700	1832	9021



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	159.7	5.1
10°-20°	441.8	14.1
20°-30°	617.6	19.8
30°-40°	651.4	20.9
40°-50°	554.2	17.7
50°-60°	391.1	12.5
60°-70°	221.7	7.1
70°-80°	79.1	2.5
80°-90°	7.6	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°	1219.0	39.0
0°-40°	1870.4	59.9
0°-60°	2815.7	90.1
0°-90°	3124.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3124.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1701	1701	1701	1701	1701	
5°	1684	1690	1697	1685	1672	159
15°	1511	1574	1653	1566	1494	424
25°	1242	1335	1524	1323	1232	572
35°	968	1038	1160	1032	960	605
45°	704	714	737	717	709	541
55°	452	436	414	438	454	406
65°	259	222	184	223	256	256
75°	102	70	46	69	99	111
85°	8	3	1	3	6	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°	1701.0	1701.0	1701.0	1701.0	1701.0	1701.0	1701.0	1701.0	1701.0	1701.0	1701.0
2.5°	1702.3	1699.1	1699.1	1699.1	1699.1	1699.1	1699.1	1699.1	1699.1	1699.7	1699.7
5°	1684.5	1683.2	1682.6	1682.6	1682.6	1682.6	1683.2	1685.7	1687.0	1688.9	1690.2
7.5°	1656.5	1653.9	1655.2	1655.2	1656.5	1657.7	1659.7	1662.2	1666.0	1668.6	1671.7
10°	1614.5	1611.9	1615.1	1616.4	1620.2	1622.1	1625.3	1629.1	1636.8	1640.6	1645.7
12.5°	1565.5	1564.2	1565.5	1570.6	1574.4	1577.0	1580.8	1589.0	1596.7	1604.9	1613.9
15°	1510.8	1507.6	1509.5	1515.9	1522.2	1526.7	1529.9	1540.7	1550.9	1563.6	1574.4
17.5°	1449.7	1445.3	1450.4	1455.5	1463.7	1467.5	1472.0	1484.1	1498.1	1512.1	1524.2
20°	1382.9	1381.7	1384.8	1391.8	1400.1	1405.2	1409.0	1422.4	1434.5	1453.5	1467.5
22.5°	1313.6	1314.9	1317.4	1325.0	1330.8	1337.8	1343.5	1355.6	1369.6	1387.4	1405.2
25°	1242.4	1244.3	1248.7	1253.8	1263.3	1267.2	1274.2	1286.9	1299.0	1315.5	1335.2
27.5°	1173.7	1174.3	1179.4	1181.9	1190.8	1199.1	1202.3	1215.6	1229.6	1242.4	1259.5
30°	1103.0	1104.9	1108.1	1115.1	1124.0	1127.2	1131.0	1143.1	1153.9	1169.8	1183.2
32.5°	1035.6	1034.3	1038.2	1042.0	1052.2	1057.9	1059.8	1073.8	1083.3	1099.2	1111.9
35°	967.5	964.4	970.1	973.9	982.8	987.9	990.4	1001.3	1010.2	1023.5	1037.5
37.5°	899.5	902.0	904.6	907.8	912.2	913.5	921.1	923.7	935.1	945.3	952.9
40°	836.5	835.2	834.0	837.1	842.9	845.4	846.0	853.0	855.6	865.8	871.5
42.5°	769.1	769.7	769.1	769.7	772.9	772.9	774.8	779.3	781.2	784.3	791.3
45°	703.6	703.6	701.6	702.3	702.9	702.3	702.9	704.8	708.6	708.6	713.7
47.5°	635.5	634.2	636.8	634.9	633.6	632.9	634.9	632.9	636.8	636.8	638.0
50°	564.9	564.9	568.1	567.4	568.7	566.2	566.8	566.8	567.4	566.8	569.3
52.5°	510.2	508.9	507.6	504.4	505.7	503.2	503.2	503.8	501.9	501.3	498.1
55°	451.6	452.9	451.0	449.7	449.7	447.2	446.6	442.7	440.2	438.3	436.4
57.5°	398.9	400.1	399.5	396.3	392.5	393.1	391.9	388.0	382.3	378.5	375.3
60°	348.0	349.2	348.0	344.8	343.5	341.0	340.3	335.2	330.8	325.7	321.9
62.5°	302.2	302.2	301.5	297.1	293.9	294.5	291.3	287.5	281.8	274.8	269.1
65°	258.9	258.3	255.1	253.2	250.6	247.5	245.5	239.8	235.4	229.6	222.0
67.5°	215.6	213.7	212.5	210.6	204.8	204.2	201.7	196.6	190.2	185.7	179.4
70°	173.7	173.0	170.5	170.5	166.0	164.1	160.3	155.9	150.1	143.8	138.7
72.5°	137.4	136.1	133.6	131.0	127.2	126.0	122.8	118.3	113.2	106.9	100.5
75°	102.4	101.1	100.5	97.3	94.1	91.0	89.7	85.2	80.2	75.7	70.0
77.5°	71.9	70.6	68.7	66.8	64.9	63.0	61.1	57.3	52.8	49.0	43.9
80°	44.5	43.3	42.0	41.3	39.4	38.8	36.3	34.4	30.5	28.0	24.8
82.5°	22.9	22.9	21.6	21.0	19.7	19.1	18.4	16.5	14.6	12.7	10.8
85°	8.3	8.3	7.6	7.0	7.0	6.4	6.4	5.7	4.5	4.5	3.2
87.5°	0.6	0.6	1.3	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°	1701.0	1701.0	1701.0	1701.0	1701.0	1701.0	1701.0	1701.0	1701.0	1701.0	1701.0
2.5°	1700.4	1699.7	1700.4	1700.4	1701.0	1701.0	1701.0	1700.4	1701.0	1700.4	1700.4
5°	1690.2	1692.1	1693.4	1694.6	1695.3	1695.9	1695.9	1696.5	1697.2	1697.2	1696.5
7.5°	1674.3	1678.1	1681.9	1684.5	1685.7	1687.0	1688.9	1690.2	1691.5	1690.8	1690.2
10°	1653.3	1659.7	1664.7	1669.8	1672.4	1674.3	1677.5	1680.0	1681.3	1681.9	1680.0
12.5°	1623.4	1632.3	1640.6	1648.8	1652.7	1655.2	1661.6	1666.0	1668.6	1668.6	1666.6
15°	1585.9	1598.6	1610.7	1621.5	1627.8	1631.7	1641.2	1647.6	1651.4	1653.3	1650.1
17.5°	1540.7	1555.3	1570.0	1584.0	1590.3	1596.0	1609.4	1618.3	1626.6	1627.8	1624.0
20°	1482.8	1501.3	1517.8	1535.0	1542.0	1550.9	1566.1	1580.8	1593.5	1599.2	1588.4
22.5°	1417.9	1438.3	1453.5	1474.5	1484.1	1493.6	1513.3	1531.8	1554.1	1566.1	1547.1
25°	1350.5	1367.7	1386.1	1406.5	1419.8	1430.0	1452.9	1476.4	1506.3	1524.2	1497.4
27.5°	1278.0	1293.2	1315.5	1337.8	1347.9	1360.7	1388.0	1413.5	1442.1	1458.0	1438.3
30°	1202.9	1222.0	1243.0	1263.3	1278.0	1290.1	1312.3	1334.0	1358.1	1371.5	1356.9
32.5°	1128.5	1146.9	1164.7	1187.0	1195.3	1206.1	1225.8	1244.3	1262.7	1274.8	1257.6
35°	1050.2	1066.8	1083.3	1098.6	1102.4	1115.1	1131.0	1141.8	1150.8	1160.3	1148.8
37.5°	965.0	977.7	986.0	1002.5	1008.9	1010.8	1023.5	1031.2	1040.7	1042.6	1042.0
40°	878.5	889.9	896.9	907.1	912.2	912.2	921.1	928.1	935.1	935.7	935.1
42.5°	797.7	803.4	809.2	815.5	814.2	821.9	825.7	828.9	834.0	834.0	835.2
45°	716.3	720.7	725.8	727.1	732.2	732.2	735.4	736.6	739.2	737.3	734.7
47.5°	640.6	642.5	643.1	648.8	650.1	645.7	649.5	650.1	649.5	649.5	648.2
50°	568.7	570.0	569.3	567.4	568.1	570.0	568.1	565.5	566.8	566.8	568.1
52.5°	498.7	496.2	494.9	494.9	492.4	492.4	489.2	487.9	487.3	484.7	487.9
55°	434.5	430.7	424.9	423.7	421.8	421.1	417.3	414.1	412.8	413.5	412.8
57.5°	372.8	367.0	363.2	362.0	360.0	356.2	351.8	348.6	348.0	346.7	346.7
60°	316.8	310.4	304.7	299.0	299.6	297.1	292.6	290.7	288.8	286.3	288.2
62.5°	265.9	258.9	252.5	246.8	243.0	241.1	237.9	234.7	232.8	230.9	233.5
65°	215.6	209.9	202.9	197.2	195.3	193.4	190.2	185.1	184.5	184.5	185.7
67.5°	170.5	164.1	157.8	153.9	151.4	148.9	147.6	145.0	143.1	141.9	142.5
70°	131.0	124.7	119.6	115.8	113.9	113.2	108.8	108.1	107.5	106.9	106.2
72.5°	95.4	90.3	85.9	83.3	80.8	78.9	77.6	75.7	75.1	75.1	75.1
75°	65.5	61.7	56.6	53.4	52.2	50.3	48.3	47.1	45.8	46.4	46.4
77.5°	39.4	35.6	32.4	29.9	29.3	27.4	25.4	24.2	22.3	22.3	22.9
80°	21.6	18.4	15.9	14.0	12.7	12.1	10.2	9.5	8.3	7.6	7.6
82.5°	9.5	7.6	6.4	5.7	5.1	4.5	3.8	3.2	3.2	2.5	3.2
85°	3.2	2.5	1.9	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
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°	1701.0	1701.0	1701.0	1701.0	1701.0	1701.0	1701.0	1701.0	1701.0	1701.0	1701.0
2.5°	1699.7	1699.7	1699.1	1699.1	1699.1	1697.8	1697.8	1697.2	1696.5	1695.9	1694.6
5°	1695.3	1694.6	1693.4	1692.7	1692.1	1690.2	1688.3	1687.0	1685.1	1682.6	1681.3
7.5°	1688.9	1687.0	1684.5	1683.2	1681.3	1676.8	1673.6	1670.5	1667.3	1662.8	1657.7
10°	1678.1	1674.3	1670.5	1667.9	1664.7	1659.0	1652.7	1647.6	1640.6	1634.2	1627.2
12.5°	1662.8	1658.4	1650.7	1646.9	1643.1	1634.8	1626.6	1615.8	1606.2	1597.3	1589.0
15°	1643.7	1635.5	1626.6	1621.5	1615.8	1602.4	1589.7	1578.2	1565.5	1554.7	1541.3
17.5°	1615.8	1603.7	1590.9	1585.2	1577.6	1562.3	1547.1	1531.2	1516.5	1503.2	1486.6
20°	1573.8	1560.4	1543.9	1535.0	1528.6	1508.3	1493.6	1475.8	1460.5	1444.0	1425.6
22.5°	1524.8	1506.3	1487.9	1475.2	1468.2	1447.8	1428.1	1412.2	1395.7	1376.6	1363.2
25°	1469.4	1446.5	1424.3	1411.6	1400.7	1379.1	1360.0	1343.5	1323.1	1306.6	1293.2
27.5°	1407.1	1381.0	1354.9	1342.2	1332.0	1308.5	1288.2	1271.0	1251.3	1236.6	1222.6
30°	1332.7	1309.1	1284.3	1274.2	1262.1	1237.9	1214.4	1199.1	1177.5	1162.2	1146.9
32.5°	1239.8	1224.5	1204.8	1190.8	1184.5	1162.2	1142.5	1124.0	1105.6	1093.5	1078.2
35°	1138.0	1124.7	1108.1	1100.5	1092.2	1078.2	1062.3	1046.4	1031.8	1020.3	1006.4
37.5°	1035.0	1021.6	1011.4	1003.2	998.1	985.4	975.8	963.7	953.6	942.7	935.1
40°	928.1	924.3	913.5	909.7	908.4	894.4	886.1	876.6	870.2	863.9	859.4
42.5°	833.3	827.0	818.7	819.3	815.5	807.9	802.2	795.8	791.3	788.2	783.7
45°	739.8	734.7	730.9	734.1	727.7	725.2	720.7	720.1	716.9	711.2	709.3
47.5°	650.8	650.1	650.8	648.8	647.6	646.3	646.9	643.8	640.6	638.7	636.1
50°	569.3	570.0	571.2	573.1	568.7	570.6	570.0	569.3	569.3	567.4	568.7
52.5°	490.5	491.1	492.4	494.3	494.9	494.9	496.8	498.1	500.6	503.8	503.8
55°	416.0	420.5	423.0	426.2	424.3	428.1	430.0	435.7	437.7	437.7	440.2
57.5°	349.9	354.3	356.2	360.0	361.3	364.5	369.6	372.8	377.2	381.0	384.9
60°	289.4	291.3	296.4	302.2	300.9	308.5	312.3	317.4	323.2	325.7	330.8
62.5°	235.4	237.9	241.7	243.6	248.1	251.9	260.8	265.9	271.0	277.4	282.4
65°	187.0	189.6	193.4	197.2	199.1	204.8	209.3	218.2	222.6	229.6	235.4
67.5°	143.1	146.9	150.1	152.7	153.9	159.7	166.7	170.5	178.8	185.7	190.2
70°	106.9	110.0	113.9	113.2	115.8	120.2	125.3	131.0	137.4	143.8	148.9
72.5°	74.4	77.6	80.2	80.8	83.3	86.5	90.3	94.8	99.9	106.2	113.2
75°	47.1	47.7	50.3	51.5	52.8	56.6	59.8	64.2	68.7	73.8	78.2
77.5°	23.5	25.4	26.7	28.0	28.6	31.8	35.0	38.8	42.6	47.7	52.2
80°	8.9	9.5	11.5	12.1	13.4	15.3	17.8	19.7	22.9	26.7	29.3
82.5°	3.2	3.8	4.5	4.5	5.1	6.4	7.0	8.9	10.8	12.1	13.4
85°	1.3	1.3	1.3	1.3	1.3	1.9	1.9	2.5	3.2	3.8	3.8
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: P879423

CATALOG NUMBER: LD4C40D010 EU4409035 4LBLDWWLI

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	1701.0	1701.0	1701.0	1701.0	1701.0	1701.0	1701.0	1701.0
2.5°	1694.0	1694.0	1693.4	1692.7	1692.7	1692.7	1692.1	1692.1
5°	1678.7	1676.8	1676.2	1674.9	1674.3	1673.6	1671.7	1671.7
7.5°	1653.9	1651.4	1649.5	1647.6	1645.0	1643.1	1643.1	1640.6
10°	1620.8	1615.8	1613.2	1610.7	1607.5	1603.7	1602.4	1600.5
12.5°	1580.8	1570.6	1568.0	1563.6	1558.5	1556.0	1551.5	1551.5
15°	1531.2	1520.3	1514.6	1512.1	1505.7	1501.3	1499.3	1494.3
17.5°	1473.3	1465.0	1456.1	1452.3	1445.3	1439.6	1437.0	1436.4
20°	1414.7	1401.4	1395.7	1389.9	1381.7	1376.6	1372.8	1367.7
22.5°	1347.3	1335.2	1327.0	1323.1	1316.1	1307.2	1300.9	1300.9
25°	1276.1	1265.3	1260.8	1252.5	1244.3	1241.1	1233.4	1232.2
27.5°	1208.0	1197.2	1188.3	1183.8	1174.3	1169.8	1163.5	1160.9
30°	1137.4	1124.7	1118.3	1117.7	1106.2	1101.8	1096.7	1094.1
32.5°	1066.8	1056.0	1049.6	1045.8	1040.7	1033.1	1028.6	1026.1
35°	996.8	989.8	984.1	979.6	971.4	967.5	963.7	960.5
37.5°	923.7	917.3	914.7	910.9	907.1	900.1	898.8	896.3
40°	853.0	844.8	844.8	842.2	838.4	837.8	835.9	835.9
42.5°	779.3	775.4	774.8	775.4	772.9	771.6	769.7	774.2
45°	706.1	708.0	704.8	705.5	704.2	706.7	706.7	709.3
47.5°	638.7	636.1	637.4	638.7	640.6	640.6	639.9	639.3
50°	566.8	569.3	571.9	568.7	570.0	570.6	567.4	568.1
52.5°	505.1	505.7	507.6	505.7	507.6	507.0	508.3	505.7
55°	445.3	445.3	447.8	448.5	449.1	451.0	451.6	453.6
57.5°	387.4	390.6	393.8	393.1	395.7	398.2	396.3	398.2
60°	337.1	339.7	342.9	344.1	346.1	347.3	347.3	348.6
62.5°	286.3	291.3	293.9	296.4	296.4	299.0	301.5	302.2
65°	240.5	246.2	248.1	250.0	251.3	253.8	257.0	256.4
67.5°	197.2	201.0	203.6	204.8	208.6	209.9	212.5	215.0
70°	154.6	159.7	161.6	164.1	167.3	169.8	172.4	173.7
72.5°	118.3	122.1	123.4	126.0	129.1	131.7	133.0	134.9
75°	82.7	89.1	89.7	91.6	94.1	97.3	99.2	98.6
77.5°	54.7	59.2	59.8	62.3	64.9	67.4	68.1	68.7
80°	32.4	35.0	35.6	36.9	38.8	40.1	41.3	42.6
82.5°	15.3	16.5	17.8	17.8	19.1	20.4	20.4	21.0
85°	5.1	5.1	5.7	5.7	6.4	6.4	7.0	6.4
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)