

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: P879425

Luminaire Tested: **LD4C40D010 EU4409040 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: P879425
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 EU4409040 4LBDWWLI
Description: 4 INCH 4000 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 4000K, 90CRI LEDS
AND 4LBDWW TRIM WITH LI FINISH
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

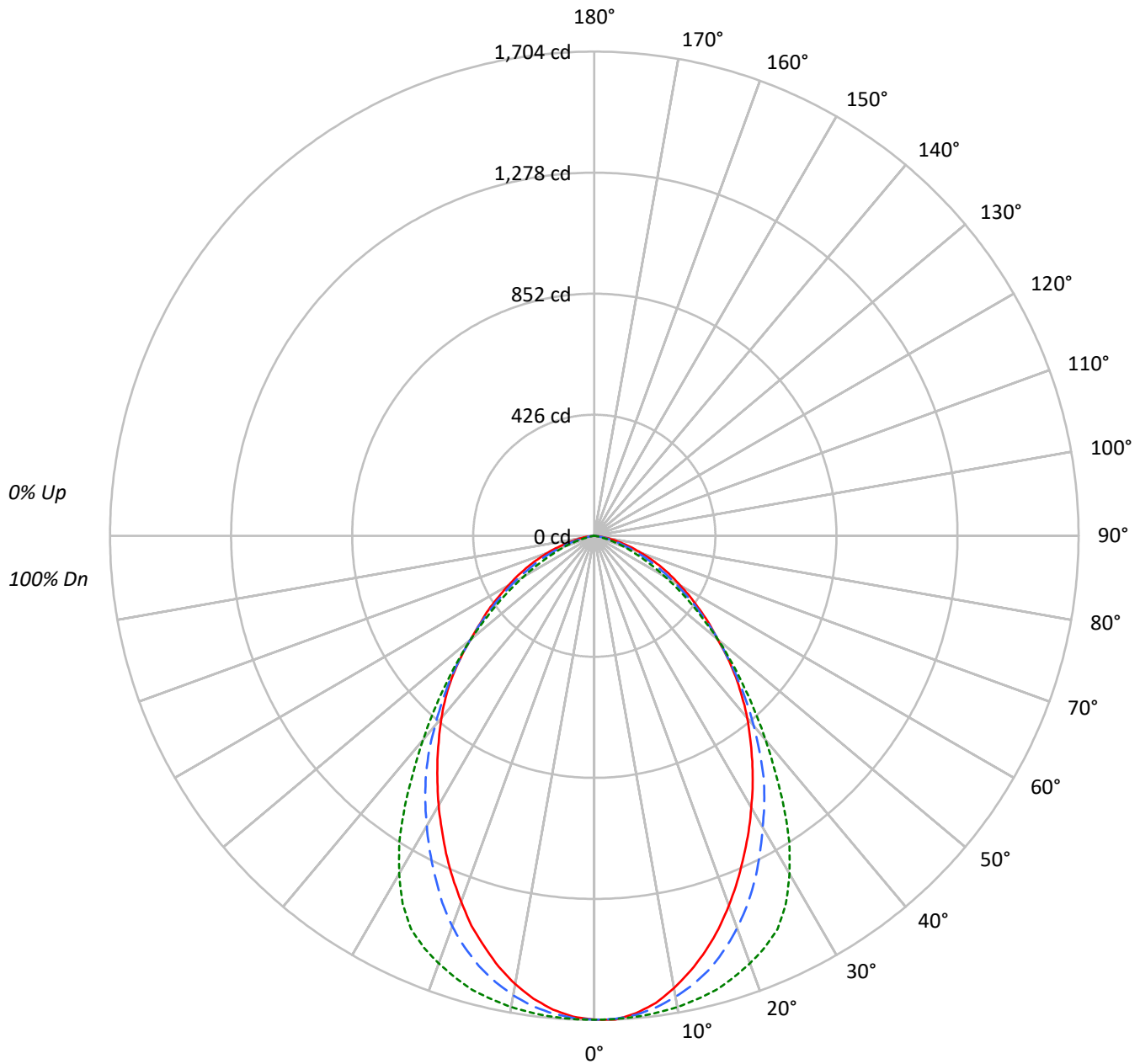
Lumens per Lamp: N/A
Luminaire Lumens: 3128.0 lumens
Efficiency: N/A
Efficacy: 66.6 lumens/watt
Spacing Criteria (0/90/45): 1 / 1.19 / 1.15
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

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	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°	209244	209244	209244
5°	207996	209575	206430
10°	201669	210089	199910
15°	192396	210546	190298
20°	181033	209351	179033
25°	168615	206869	167246
30°	156683	194801	155407
35°	145297	174243	144247
40°	134329	150254	134217
45°	122401	128256	123391
50°	108101	108464	108713
55°	96856	88674	97263
60°	85604	70420	85752
65°	75348	53692	74622
70°	62465	38434	62465
75°	48654	22072	46850
80°	31554	5377	30210
85°	11700	1832	9021



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	159.9	5.1
10°-20°	442.3	14.1
20°-30°	618.3	19.8
30°-40°	652.3	20.9
40°-50°	554.9	17.7
50°-60°	391.6	12.5
60°-70°	221.9	7.1
70°-80°	79.2	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°	1220.6	39.0
0°-40°	1872.8	59.9
0°-60°	2819.3	90.1
0°-90°	3128.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3128.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1703	1703	1703	1703	1703	
5°	1687	1692	1699	1687	1674	159
15°	1513	1576	1655	1568	1496	424
25°	1244	1337	1526	1325	1234	572
35°	969	1039	1162	1033	962	606
45°	704	715	738	718	710	542
55°	452	437	414	438	454	406
65°	259	222	185	223	257	257
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°	1703.2	1703.2	1703.2	1703.2	1703.2	1703.2	1703.2	1703.2	1703.2	1703.2	1703.2
2.5°	1704.5	1701.3	1701.3	1701.3	1701.3	1701.3	1701.3	1701.3	1701.3	1701.9	1701.9
5°	1686.6	1685.3	1684.7	1684.7	1684.7	1684.7	1685.3	1687.9	1689.2	1691.1	1692.3
7.5°	1658.6	1656.0	1657.3	1657.3	1658.6	1659.9	1661.8	1664.3	1668.1	1670.7	1673.9
10°	1616.6	1614.0	1617.2	1618.5	1622.3	1624.2	1627.4	1631.2	1638.8	1642.7	1647.8
12.5°	1567.5	1566.2	1567.5	1572.6	1576.4	1579.0	1582.8	1591.1	1598.7	1607.0	1615.9
15°	1512.7	1509.5	1511.5	1517.8	1524.2	1528.7	1531.8	1542.7	1552.9	1565.6	1576.4
17.5°	1451.6	1447.1	1452.2	1457.3	1465.6	1469.4	1473.9	1486.0	1500.0	1514.0	1526.1
20°	1384.7	1383.4	1386.6	1393.6	1401.9	1407.0	1410.8	1424.2	1436.3	1455.4	1469.4
22.5°	1315.3	1316.6	1319.1	1326.7	1332.5	1339.5	1345.2	1357.3	1371.3	1389.2	1407.0
25°	1243.9	1245.9	1250.3	1255.4	1265.0	1268.8	1275.8	1288.5	1300.6	1317.2	1336.9
27.5°	1175.2	1175.8	1180.9	1183.4	1192.4	1200.6	1203.8	1217.2	1231.2	1243.9	1261.1
30°	1104.5	1106.4	1109.5	1116.6	1125.5	1128.7	1132.5	1144.6	1155.4	1171.3	1184.7
32.5°	1036.9	1035.7	1039.5	1043.3	1053.5	1059.2	1061.1	1075.2	1084.7	1100.6	1113.4
35°	968.8	965.6	971.3	975.2	984.1	989.2	991.7	1002.5	1011.5	1024.8	1038.8
37.5°	900.6	903.2	905.7	908.9	913.4	914.6	922.3	924.8	936.3	946.5	954.1
40°	837.6	836.3	835.0	838.2	843.9	846.5	847.1	854.1	856.7	866.9	872.6
42.5°	770.1	770.7	770.1	770.7	773.9	773.9	775.8	780.3	782.2	785.3	792.4
45°	704.5	704.5	702.5	703.2	703.8	703.2	703.8	705.7	709.6	709.6	714.6
47.5°	636.3	635.0	637.6	635.7	634.4	633.8	635.7	633.8	637.6	637.6	638.9
50°	565.6	565.6	568.8	568.2	569.4	566.9	567.5	567.5	568.2	567.5	570.1
52.5°	510.8	509.6	508.3	505.1	506.4	503.8	503.8	504.5	502.5	501.9	498.7
55°	452.2	453.5	451.6	450.3	450.3	447.8	447.1	443.3	440.8	438.9	436.9
57.5°	399.4	400.6	400.0	396.8	393.0	393.6	392.4	388.5	382.8	379.0	375.8
60°	348.4	349.7	348.4	345.2	343.9	341.4	340.8	335.7	331.2	326.1	322.3
62.5°	302.5	302.5	301.9	297.5	294.3	294.9	291.7	287.9	282.2	275.2	269.4
65°	259.2	258.6	255.4	253.5	251.0	247.8	245.9	240.1	235.7	229.9	222.3
67.5°	215.9	214.0	212.7	210.8	205.1	204.5	201.9	196.8	190.4	186.0	179.6
70°	173.9	173.2	170.7	170.7	166.2	164.3	160.5	156.1	150.3	143.9	138.9
72.5°	137.6	136.3	133.8	131.2	127.4	126.1	122.9	118.5	113.4	107.0	100.6
75°	102.5	101.3	100.6	97.5	94.3	91.1	89.8	85.3	80.3	75.8	70.1
77.5°	72.0	70.7	68.8	66.9	65.0	63.1	61.1	57.3	52.9	49.0	43.9
80°	44.6	43.3	42.0	41.4	39.5	38.9	36.3	34.4	30.6	28.0	24.8
82.5°	22.9	22.9	21.7	21.0	19.7	19.1	18.5	16.6	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°	1703.2	1703.2	1703.2	1703.2	1703.2	1703.2	1703.2	1703.2	1703.2	1703.2	1703.2
2.5°	1702.5	1701.9	1702.5	1702.5	1703.2	1703.2	1703.2	1702.5	1703.2	1702.5	1702.5
5°	1692.3	1694.3	1695.5	1696.8	1697.4	1698.1	1698.1	1698.7	1699.4	1699.4	1698.7
7.5°	1676.4	1680.2	1684.1	1686.6	1687.9	1689.2	1691.1	1692.3	1693.6	1693.0	1692.3
10°	1655.4	1661.8	1666.9	1672.0	1674.5	1676.4	1679.6	1682.2	1683.4	1684.1	1682.2
12.5°	1625.5	1634.4	1642.7	1650.9	1654.8	1657.3	1663.7	1668.1	1670.7	1670.7	1668.8
15°	1587.9	1600.6	1612.7	1623.6	1629.9	1633.8	1643.3	1649.7	1653.5	1655.4	1652.2
17.5°	1542.7	1557.3	1572.0	1586.0	1592.3	1598.1	1611.5	1620.4	1628.7	1629.9	1626.1
20°	1484.7	1503.2	1519.7	1536.9	1543.9	1552.9	1568.1	1582.8	1595.5	1601.3	1590.4
22.5°	1419.7	1440.1	1455.4	1476.4	1486.0	1495.5	1515.3	1533.8	1556.0	1568.1	1549.0
25°	1352.2	1369.4	1387.9	1408.3	1421.6	1431.8	1454.8	1478.3	1508.3	1526.1	1499.4
27.5°	1279.6	1294.9	1317.2	1339.5	1349.7	1362.4	1389.8	1415.3	1443.9	1459.9	1440.1
30°	1204.5	1223.6	1244.6	1265.0	1279.6	1291.7	1314.0	1335.7	1359.9	1373.2	1358.6
32.5°	1129.9	1148.4	1166.2	1188.5	1196.8	1207.6	1227.4	1245.9	1264.3	1276.4	1259.2
35°	1051.6	1068.1	1084.7	1100.0	1103.8	1116.6	1132.5	1143.3	1152.2	1161.8	1150.3
37.5°	966.2	979.0	987.3	1003.8	1010.2	1012.1	1024.8	1032.5	1042.0	1043.9	1043.3
40°	879.6	891.1	898.1	908.3	913.4	913.4	922.3	929.3	936.3	936.9	936.3
42.5°	798.7	804.5	810.2	816.6	815.3	822.9	826.7	829.9	835.0	835.0	836.3
45°	717.2	721.7	726.7	728.0	733.1	733.1	736.3	737.6	740.1	738.2	735.7
47.5°	641.4	643.3	643.9	649.7	651.0	646.5	650.3	651.0	650.3	650.3	649.0
50°	569.4	570.7	570.1	568.2	568.8	570.7	568.8	566.2	567.5	567.5	568.8
52.5°	499.4	496.8	495.5	495.5	493.0	493.0	489.8	488.5	487.9	485.3	488.5
55°	435.0	431.2	425.5	424.2	422.3	421.7	417.8	414.6	413.4	414.0	413.4
57.5°	373.2	367.5	363.7	362.4	360.5	356.7	352.2	349.0	348.4	347.1	347.1
60°	317.2	310.8	305.1	299.4	300.0	297.5	293.0	291.1	289.2	286.6	288.5
62.5°	266.2	259.2	252.9	247.1	243.3	241.4	238.2	235.0	233.1	231.2	233.8
65°	215.9	210.2	203.2	197.5	195.5	193.6	190.4	185.3	184.7	184.7	186.0
67.5°	170.7	164.3	158.0	154.1	151.6	149.0	147.8	145.2	143.3	142.0	142.7
70°	131.2	124.8	119.7	115.9	114.0	113.4	108.9	108.3	107.6	107.0	106.4
72.5°	95.5	90.4	86.0	83.4	80.9	79.0	77.7	75.8	75.2	75.2	75.2
75°	65.6	61.8	56.7	53.5	52.2	50.3	48.4	47.1	45.9	46.5	46.5
77.5°	39.5	35.7	32.5	29.9	29.3	27.4	25.5	24.2	22.3	22.3	22.9
80°	21.7	18.5	15.9	14.0	12.7	12.1	10.2	9.6	8.3	7.6	7.6
82.5°	9.6	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°	1703.2	1703.2	1703.2	1703.2	1703.2	1703.2	1703.2	1703.2	1703.2	1703.2	1703.2
2.5°	1701.9	1701.9	1701.3	1701.3	1701.3	1700.0	1700.0	1699.4	1698.7	1698.1	1696.8
5°	1697.4	1696.8	1695.5	1694.9	1694.3	1692.3	1690.4	1689.2	1687.3	1684.7	1683.4
7.5°	1691.1	1689.2	1686.6	1685.3	1683.4	1679.0	1675.8	1672.6	1669.4	1665.0	1659.9
10°	1680.2	1676.4	1672.6	1670.1	1666.9	1661.1	1654.8	1649.7	1642.7	1636.3	1629.3
12.5°	1665.0	1660.5	1652.9	1649.0	1645.2	1636.9	1628.7	1617.8	1608.3	1599.4	1591.1
15°	1645.9	1637.6	1628.7	1623.6	1617.8	1604.5	1591.7	1580.2	1567.5	1556.7	1543.3
17.5°	1617.8	1605.7	1593.0	1587.3	1579.6	1564.3	1549.0	1533.1	1518.5	1505.1	1488.5
20°	1575.8	1562.4	1545.9	1536.9	1530.6	1510.2	1495.5	1477.7	1462.4	1445.9	1427.4
22.5°	1526.7	1508.3	1489.8	1477.1	1470.1	1449.7	1429.9	1414.0	1397.4	1378.3	1365.0
25°	1471.3	1448.4	1426.1	1413.4	1402.5	1380.9	1361.8	1345.2	1324.8	1308.3	1294.9
27.5°	1408.9	1382.8	1356.7	1343.9	1333.8	1310.2	1289.8	1272.6	1252.9	1238.2	1224.2
30°	1334.4	1310.8	1286.0	1275.8	1263.7	1239.5	1215.9	1200.6	1179.0	1163.7	1148.4
32.5°	1241.4	1226.1	1206.4	1192.4	1186.0	1163.7	1143.9	1125.5	1107.0	1094.9	1079.6
35°	1139.5	1126.1	1109.5	1101.9	1093.6	1079.6	1063.7	1047.8	1033.1	1021.7	1007.6
37.5°	1036.3	1022.9	1012.7	1004.5	999.4	986.6	977.1	965.0	954.8	943.9	936.3
40°	929.3	925.5	914.6	910.8	909.6	895.5	887.3	877.7	871.3	865.0	860.5
42.5°	834.4	828.0	819.7	820.4	816.6	808.9	803.2	796.8	792.4	789.2	784.7
45°	740.8	735.7	731.8	735.0	728.7	726.1	721.7	721.0	717.8	712.1	710.2
47.5°	651.6	651.0	651.6	649.7	648.4	647.1	647.8	644.6	641.4	639.5	636.9
50°	570.1	570.7	572.0	573.9	569.4	571.3	570.7	570.1	570.1	568.2	569.4
52.5°	491.1	491.7	493.0	494.9	495.5	495.5	497.5	498.7	501.3	504.5	504.5
55°	416.6	421.0	423.6	426.7	424.8	428.7	430.6	436.3	438.2	438.2	440.8
57.5°	350.3	354.8	356.7	360.5	361.8	365.0	370.1	373.2	377.7	381.5	385.3
60°	289.8	291.7	296.8	302.5	301.3	308.9	312.7	317.8	323.6	326.1	331.2
62.5°	235.7	238.2	242.0	243.9	248.4	252.2	261.1	266.2	271.3	277.7	282.8
65°	187.3	189.8	193.6	197.5	199.4	205.1	209.6	218.5	222.9	229.9	235.7
67.5°	143.3	147.1	150.3	152.9	154.1	159.9	166.9	170.7	179.0	186.0	190.4
70°	107.0	110.2	114.0	113.4	115.9	120.4	125.5	131.2	137.6	143.9	149.0
72.5°	74.5	77.7	80.3	80.9	83.4	86.6	90.4	94.9	100.0	106.4	113.4
75°	47.1	47.8	50.3	51.6	52.9	56.7	59.9	64.3	68.8	73.9	78.3
77.5°	23.6	25.5	26.8	28.0	28.7	31.8	35.0	38.9	42.7	47.8	52.2
80°	8.9	9.6	11.5	12.1	13.4	15.3	17.8	19.7	22.9	26.8	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: P879425

CATALOG NUMBER: LD4C40D010 EU4409040 4LBLDWWLI

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	1703.2	1703.2	1703.2	1703.2	1703.2	1703.2	1703.2	1703.2
2.5°	1696.2	1696.2	1695.5	1694.9	1694.9	1694.9	1694.3	1694.3
5°	1680.9	1679.0	1678.3	1677.1	1676.4	1675.8	1673.9	1673.9
7.5°	1656.0	1653.5	1651.6	1649.7	1647.1	1645.2	1645.2	1642.7
10°	1622.9	1617.8	1615.3	1612.7	1609.5	1605.7	1604.5	1602.5
12.5°	1582.8	1572.6	1570.1	1565.6	1560.5	1558.0	1553.5	1553.5
15°	1533.1	1522.3	1516.6	1514.0	1507.6	1503.2	1501.3	1496.2
17.5°	1475.2	1466.9	1458.0	1454.1	1447.1	1441.4	1438.8	1438.2
20°	1416.6	1403.2	1397.4	1391.7	1383.4	1378.3	1374.5	1369.4
22.5°	1349.0	1336.9	1328.7	1324.8	1317.8	1308.9	1302.5	1302.5
25°	1277.7	1266.9	1262.4	1254.1	1245.9	1242.7	1235.0	1233.8
27.5°	1209.5	1198.7	1189.8	1185.3	1175.8	1171.3	1165.0	1162.4
30°	1138.8	1126.1	1119.7	1119.1	1107.6	1103.2	1098.1	1095.5
32.5°	1068.1	1057.3	1051.0	1047.1	1042.0	1034.4	1029.9	1027.4
35°	998.1	991.1	985.3	980.9	972.6	968.8	965.0	961.8
37.5°	924.8	918.5	915.9	912.1	908.3	901.3	900.0	897.4
40°	854.1	845.9	845.9	843.3	839.5	838.8	836.9	836.9
42.5°	780.3	776.4	775.8	776.4	773.9	772.6	770.7	775.2
45°	707.0	708.9	705.7	706.4	705.1	707.6	707.6	710.2
47.5°	639.5	636.9	638.2	639.5	641.4	641.4	640.8	640.1
50°	567.5	570.1	572.6	569.4	570.7	571.3	568.2	568.8
52.5°	505.7	506.4	508.3	506.4	508.3	507.6	508.9	506.4
55°	445.9	445.9	448.4	449.0	449.7	451.6	452.2	454.1
57.5°	387.9	391.1	394.3	393.6	396.2	398.7	396.8	398.7
60°	337.6	340.1	343.3	344.6	346.5	347.8	347.8	349.0
62.5°	286.6	291.7	294.3	296.8	296.8	299.4	301.9	302.5
65°	240.8	246.5	248.4	250.3	251.6	254.1	257.3	256.7
67.5°	197.5	201.3	203.8	205.1	208.9	210.2	212.7	215.3
70°	154.8	159.9	161.8	164.3	167.5	170.1	172.6	173.9
72.5°	118.5	122.3	123.6	126.1	129.3	131.8	133.1	135.0
75°	82.8	89.2	89.8	91.7	94.3	97.5	99.4	98.7
77.5°	54.8	59.2	59.9	62.4	65.0	67.5	68.2	68.8
80°	32.5	35.0	35.7	36.9	38.9	40.1	41.4	42.7
82.5°	15.3	16.6	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)