

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: P879420

Luminaire Tested: **LD4C40D010 EU4409030 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: P879420
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 EU4409030 4LBLDWWH
Description: 4 INCH 4000 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 3000K, 90CRI LEDS
AND 4LBLDWW TRIM WITH H FINISH
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

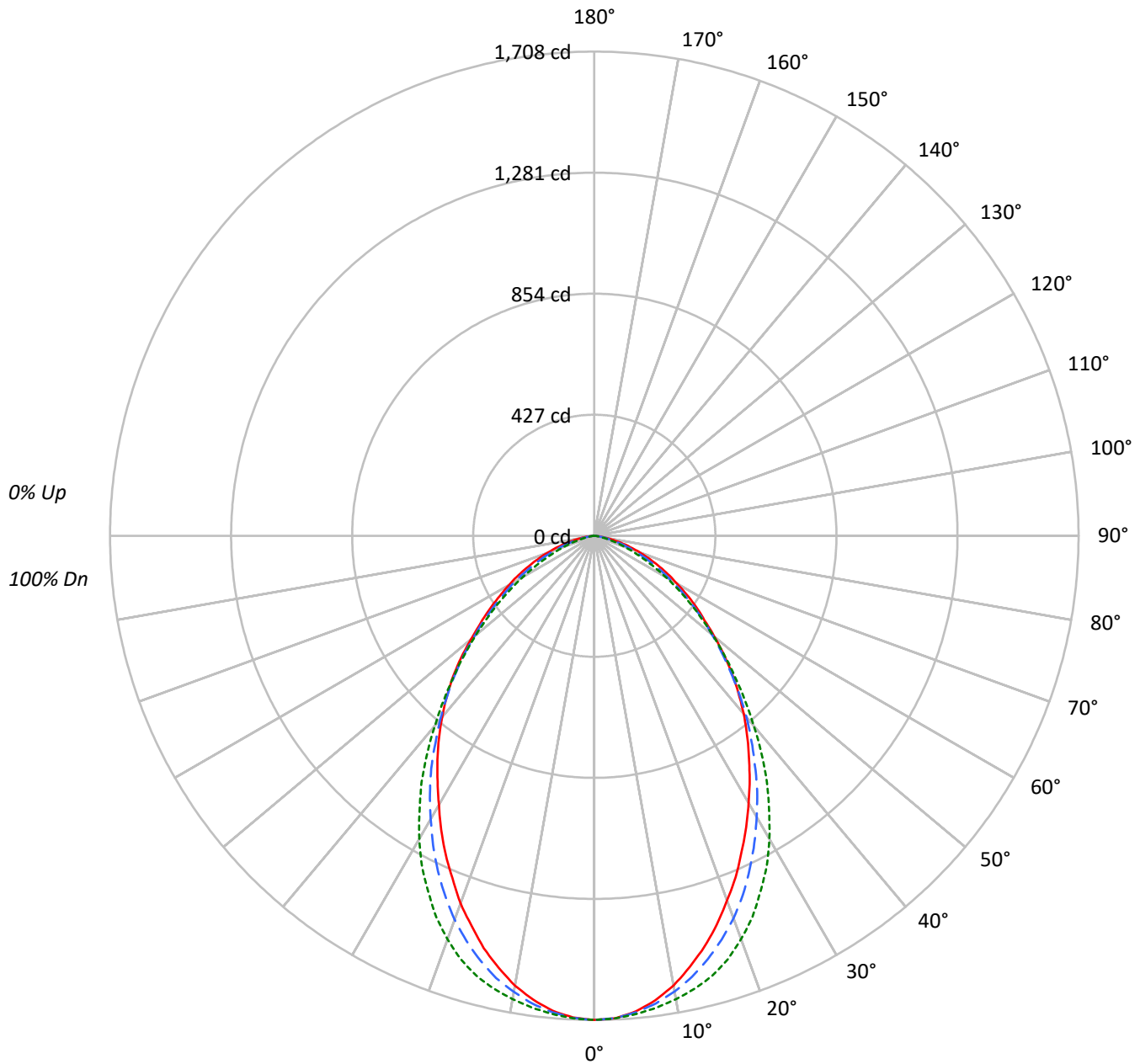
Lumens per Lamp: N/A
Luminaire Lumens: 3055.0 lumens
Efficiency: N/A
Efficacy: 65.0 lumens/watt
Spacing Criteria (0/90/45): 1 / 1.1 / 1.12
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

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°	209834	209834	209834
5°	207700	208859	207466
10°	200945	207045	201020
15°	190908	204390	191544
20°	178941	197963	180405
25°	166650	187823	168182
30°	154385	175210	155534
35°	142433	159260	144592
40°	131378	140327	133784
45°	119013	121619	122609
50°	105502	104183	108139
55°	94050	87732	96192
60°	82312	71206	85383
65°	72034	55058	74564
70°	60597	40338	63758
75°	47325	26202	50030
80°	31059	13725	34172
85°	10572	6202	14096



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	159.4	5.2
10°-20°	435.6	14.3
20°-30°	599.2	19.6
30°-40°	625.1	20.5
40°-50°	534.8	17.5
50°-60°	382.5	12.5
60°-70°	222.0	7.3
70°-80°	85.6	2.8
80°-90°	10.9	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°	1194.2	39.1
0°-40°	1819.3	59.6
0°-60°	2736.6	89.6
0°-90°	3055.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3055.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1708	1708	1708	1708	1708	
5°	1684	1687	1694	1687	1682	158
15°	1501	1546	1607	1552	1506	421
25°	1229	1297	1386	1305	1241	566
35°	950	987	1062	1003	964	595
45°	685	679	700	696	706	528
55°	439	417	410	428	449	393
65°	248	219	189	226	256	247
75°	100	75	55	79	105	107
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°	1708.0	1708.0	1708.0	1708.0	1708.0	1708.0	1708.0	1708.0	1708.0	1708.0	1708.0
2.5°	1703.6	1702.4	1703.0	1703.0	1703.0	1702.4	1703.6	1703.6	1703.0	1703.0	1703.0
5°	1684.2	1682.9	1683.5	1684.2	1684.2	1684.2	1684.8	1685.4	1686.0	1686.7	1687.3
7.5°	1652.8	1650.9	1652.8	1655.3	1655.3	1655.9	1656.6	1657.2	1659.1	1662.2	1664.1
10°	1610.8	1610.8	1611.4	1613.3	1616.4	1615.8	1617.7	1620.8	1624.6	1629.0	1632.1
12.5°	1557.5	1558.7	1560.6	1562.5	1565.6	1567.5	1570.6	1574.4	1580.7	1586.9	1593.8
15°	1501.0	1501.6	1502.3	1506.6	1509.8	1514.2	1516.7	1524.2	1529.9	1538.6	1546.2
17.5°	1437.7	1437.0	1438.9	1442.7	1450.2	1452.1	1455.2	1463.4	1471.5	1483.4	1493.5
20°	1368.7	1372.4	1374.9	1379.9	1384.3	1389.4	1391.9	1401.9	1411.3	1422.6	1435.8
22.5°	1303.4	1300.3	1304.7	1310.3	1314.1	1317.8	1322.2	1332.9	1342.9	1356.7	1369.9
25°	1229.4	1231.3	1234.4	1238.8	1243.8	1248.9	1253.9	1265.2	1270.8	1285.2	1297.1
27.5°	1159.2	1162.3	1163.5	1169.2	1173.6	1177.3	1179.9	1193.0	1198.0	1210.6	1222.5
30°	1088.3	1091.4	1091.4	1097.7	1100.8	1104.6	1110.9	1119.6	1127.2	1135.9	1144.7
32.5°	1019.9	1019.9	1022.4	1028.1	1031.2	1035.6	1037.5	1043.7	1051.3	1060.0	1069.5
35°	949.7	951.5	954.0	954.0	959.7	962.2	964.7	971.0	976.0	979.8	987.3
37.5°	885.0	885.0	883.2	886.3	890.1	889.4	893.2	896.3	899.5	903.9	910.1
40°	819.2	819.2	816.7	818.6	821.1	820.4	819.2	822.3	824.8	828.0	834.2
42.5°	752.1	750.8	750.2	750.2	751.4	750.2	751.4	752.1	752.1	752.1	755.8
45°	685.0	688.1	684.3	683.1	681.2	679.3	678.7	679.3	681.8	678.7	679.3
47.5°	619.1	620.3	617.8	616.0	614.1	612.8	614.1	610.3	611.6	612.2	609.7
50°	552.0	549.5	549.5	547.6	548.2	547.6	546.3	545.1	545.1	541.9	540.1
52.5°	489.9	491.1	492.4	488.0	488.6	485.5	486.1	483.0	483.0	479.2	480.5
55°	439.1	437.2	437.2	435.3	434.7	431.5	430.9	429.0	424.6	422.1	417.1
57.5°	386.4	385.8	383.2	383.9	380.1	379.5	378.2	375.1	372.0	368.8	363.2
60°	335.0	335.6	335.6	334.3	332.4	329.3	329.9	325.5	321.2	315.5	310.5
62.5°	292.3	290.4	289.8	288.5	284.8	284.8	281.6	278.5	274.1	268.5	264.1
65°	247.8	248.4	246.5	244.6	240.9	240.2	237.7	235.2	230.8	225.2	218.9
67.5°	207.6	206.4	205.7	203.9	200.1	199.5	197.6	191.9	188.2	182.5	177.5
70°	168.7	167.5	168.1	165.0	161.2	159.3	158.7	154.3	148.7	144.3	139.2
72.5°	132.3	132.3	131.7	128.6	126.7	125.4	122.9	117.9	114.8	109.8	106.0
75°	99.7	99.1	97.9	96.0	93.5	92.2	91.0	87.8	83.4	77.8	74.6
77.5°	69.0	69.6	68.4	67.7	64.6	62.7	62.1	60.2	56.5	52.7	49.6
80°	43.9	43.3	42.7	41.4	40.8	40.1	38.3	37.0	33.2	31.4	29.5
82.5°	23.8	22.6	22.6	22.0	20.7	20.1	19.4	18.2	17.6	16.3	15.1
85°	7.5	8.2	7.5	7.5	7.5	6.9	6.9	6.9	6.3	6.3	5.6
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°	1708.0	1708.0	1708.0	1708.0	1708.0	1708.0	1708.0	1708.0	1708.0	1708.0	1708.0
2.5°	1703.0	1703.6	1703.6	1704.2	1704.2	1704.2	1704.2	1704.2	1704.2	1704.2	1704.2
5°	1689.2	1689.2	1690.4	1691.7	1691.7	1691.7	1692.3	1693.6	1693.6	1693.6	1692.9
7.5°	1666.6	1669.1	1671.6	1674.1	1674.8	1675.4	1676.6	1679.1	1679.1	1679.1	1679.1
10°	1637.1	1642.8	1645.9	1649.7	1651.5	1652.8	1656.6	1657.2	1659.1	1659.7	1659.1
12.5°	1599.5	1607.0	1613.9	1620.2	1622.7	1625.2	1629.0	1632.7	1634.6	1636.5	1635.9
15°	1557.5	1565.6	1576.3	1583.2	1588.2	1592.0	1597.6	1602.6	1605.8	1607.0	1607.0
17.5°	1506.6	1516.7	1528.0	1539.3	1542.4	1548.7	1554.9	1561.8	1565.6	1566.2	1565.6
20°	1450.2	1461.5	1470.9	1482.2	1489.1	1492.2	1501.0	1509.8	1513.5	1514.2	1513.5
22.5°	1383.1	1393.7	1406.3	1418.2	1423.9	1429.5	1438.9	1447.7	1452.7	1456.5	1452.7
25°	1308.4	1323.5	1335.4	1345.4	1353.6	1359.2	1371.2	1378.1	1386.2	1385.6	1386.2
27.5°	1235.1	1247.6	1260.8	1272.7	1277.7	1284.0	1293.4	1304.7	1311.6	1316.0	1315.3
30°	1159.8	1169.8	1181.1	1191.8	1199.9	1204.9	1218.7	1223.8	1232.5	1235.1	1233.2
32.5°	1080.1	1087.0	1098.3	1112.7	1115.9	1120.9	1129.7	1142.2	1145.4	1146.6	1147.2
35°	995.4	1008.6	1018.0	1026.8	1029.3	1033.7	1043.7	1053.1	1056.3	1061.9	1059.4
37.5°	917.0	924.6	929.0	937.7	945.3	949.0	954.0	960.3	966.6	969.1	968.5
40°	838.6	842.4	846.2	855.6	856.2	856.2	863.7	872.5	872.5	875.0	875.0
42.5°	758.3	759.0	764.0	769.0	770.3	771.5	779.0	780.3	784.1	785.9	788.5
45°	680.6	684.3	687.5	688.1	691.2	691.9	693.7	695.6	701.3	700.0	701.3
47.5°	609.7	611.6	613.4	613.4	615.3	614.7	617.8	616.0	619.7	621.0	622.9
50°	540.1	543.2	541.3	542.6	541.9	543.8	542.6	542.6	542.6	545.1	547.0
52.5°	476.1	476.7	474.8	475.5	475.5	474.2	475.5	474.8	474.2	474.2	474.8
55°	417.1	414.6	413.4	410.8	407.7	411.5	409.6	408.3	410.8	409.6	410.8
57.5°	360.0	356.9	354.4	353.1	348.7	351.3	348.7	347.5	347.5	347.5	350.6
60°	306.1	303.0	299.8	296.1	295.4	294.2	292.9	289.8	290.4	289.8	291.0
62.5°	259.1	252.8	248.4	245.3	244.6	242.7	240.9	237.7	238.4	238.4	239.0
65°	215.8	208.9	202.6	198.2	198.2	195.1	191.9	191.9	188.2	189.4	190.1
67.5°	172.5	166.8	160.6	157.4	155.6	153.0	151.2	149.9	148.0	148.0	149.3
70°	133.6	128.0	124.8	119.8	119.2	117.3	114.8	112.9	112.3	112.3	111.7
72.5°	101.0	96.0	92.2	89.1	87.2	85.3	82.8	82.2	80.9	80.9	82.2
75°	70.3	67.1	64.0	60.8	59.6	59.0	57.1	55.8	55.8	55.2	55.8
77.5°	47.0	43.9	40.8	39.5	38.3	37.0	36.4	35.8	33.9	33.9	33.9
80°	27.0	25.7	24.5	22.6	22.6	22.0	20.7	20.1	19.4	19.4	19.4
82.5°	13.8	13.2	11.9	11.3	11.3	11.3	10.7	10.7	10.0	10.0	10.0
85°	5.6	5.0	4.4	4.4	4.4	4.4	4.4	4.4	5.0	4.4	5.0
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°	1708.0	1708.0	1708.0	1708.0	1708.0	1708.0	1708.0	1708.0	1708.0	1708.0	1708.0
2.5°	1704.2	1703.6	1703.6	1703.6	1703.6	1703.6	1703.0	1703.0	1702.4	1702.4	1702.4
5°	1693.6	1692.9	1692.3	1691.7	1691.1	1690.4	1689.8	1689.2	1687.3	1686.7	1685.4
7.5°	1678.5	1677.3	1675.4	1674.8	1673.5	1671.6	1669.1	1667.9	1665.3	1662.2	1661.0
10°	1658.4	1655.9	1654.1	1650.9	1650.3	1647.8	1641.5	1638.4	1634.0	1630.2	1625.8
12.5°	1634.0	1631.5	1627.1	1622.7	1620.2	1614.5	1608.9	1603.9	1598.2	1590.1	1583.8
15°	1603.9	1600.1	1591.3	1590.1	1586.3	1577.5	1570.0	1560.6	1551.8	1543.0	1535.5
17.5°	1563.7	1555.6	1551.2	1545.5	1541.1	1529.9	1521.7	1511.0	1499.1	1489.1	1478.4
20°	1511.0	1502.3	1494.7	1491.6	1486.0	1475.9	1465.9	1452.7	1440.8	1428.2	1418.8
22.5°	1448.3	1442.7	1431.4	1427.6	1420.7	1410.7	1398.8	1386.2	1374.9	1361.1	1348.6
25°	1381.2	1373.0	1364.3	1356.7	1351.7	1342.3	1327.3	1317.8	1305.3	1290.2	1280.8
27.5°	1309.7	1300.3	1287.7	1282.7	1278.3	1265.8	1253.2	1241.3	1231.3	1218.1	1210.0
30°	1226.9	1220.0	1211.8	1205.6	1199.3	1189.3	1178.0	1164.2	1153.5	1147.2	1135.9
32.5°	1142.8	1137.2	1126.5	1123.4	1116.5	1108.3	1100.2	1090.2	1078.9	1069.5	1060.7
35°	1053.1	1047.5	1040.0	1034.3	1031.8	1026.2	1017.4	1008.6	1003.0	992.3	987.9
37.5°	963.5	961.6	954.0	948.4	946.5	939.6	935.2	929.0	920.8	918.3	913.3
40°	871.2	870.0	865.6	865.0	861.2	859.3	853.1	848.0	844.3	842.4	839.3
42.5°	786.6	785.3	781.6	782.2	778.4	777.2	776.5	772.1	769.0	765.2	765.9
45°	703.1	701.9	699.4	698.1	700.0	699.4	698.1	696.2	696.2	696.9	695.0
47.5°	622.9	624.1	621.6	622.9	622.9	621.0	621.0	623.5	624.1	625.4	626.6
50°	547.0	550.7	549.5	551.4	552.0	552.6	550.7	553.9	553.2	558.9	557.6
52.5°	478.0	478.6	481.1	481.7	482.4	483.0	486.1	488.6	489.3	491.8	496.2
55°	411.5	412.1	417.1	417.1	420.3	420.9	425.3	426.5	428.4	435.3	436.6
57.5°	348.7	352.5	355.0	356.3	358.2	361.3	363.8	369.4	372.6	377.0	381.4
60°	292.3	296.7	299.8	301.1	303.6	307.4	310.5	316.8	322.4	327.4	330.6
62.5°	240.2	244.0	246.5	250.9	250.9	254.0	261.6	265.3	271.6	276.0	281.6
65°	193.8	196.3	200.7	200.7	203.2	208.2	214.5	220.2	226.4	232.7	238.4
67.5°	151.8	153.7	156.2	158.7	159.9	166.2	171.2	179.4	185.0	189.4	196.3
70°	114.8	116.0	119.2	121.7	123.6	128.0	133.6	139.2	144.9	149.9	156.8
72.5°	82.2	84.7	87.8	89.7	91.0	94.1	99.7	105.4	110.4	115.4	119.2
75°	56.5	58.3	59.6	61.5	63.4	65.9	69.6	73.4	79.0	84.1	88.4
77.5°	35.1	37.0	38.9	39.5	40.1	42.7	45.2	48.9	52.7	56.5	59.6
80°	20.7	21.3	22.0	22.6	23.8	25.7	27.0	29.5	32.0	34.5	37.6
82.5°	10.7	11.3	11.9	11.9	11.9	12.5	14.4	15.7	16.3	17.6	19.4
85°	4.4	4.4	4.4	5.0	5.0	5.6	5.6	6.3	6.3	6.9	7.5
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: P879420

CATALOG NUMBER: LD4C40D010 EU4409030 4LBLDWWH

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	1708.0	1708.0	1708.0	1708.0	1708.0	1708.0	1708.0	1708.0
2.5°	1701.7	1701.7	1701.7	1701.1	1701.7	1701.7	1701.7	1701.1
5°	1685.4	1684.2	1684.2	1683.5	1682.9	1682.9	1683.5	1682.3
7.5°	1658.4	1656.6	1655.3	1655.3	1654.7	1654.1	1654.1	1650.9
10°	1623.3	1619.6	1619.6	1618.3	1613.3	1612.7	1611.4	1611.4
12.5°	1579.4	1575.0	1572.5	1569.4	1566.2	1563.7	1563.1	1560.6
15°	1527.3	1521.7	1517.3	1516.1	1511.0	1507.3	1507.3	1506.0
17.5°	1470.9	1462.1	1459.0	1455.8	1448.9	1448.3	1447.1	1441.4
20°	1406.9	1398.8	1394.4	1391.2	1386.8	1380.6	1379.3	1379.9
22.5°	1339.8	1328.5	1324.7	1321.6	1317.2	1311.6	1311.6	1307.2
25°	1270.2	1260.1	1256.4	1252.6	1245.7	1243.2	1240.1	1240.7
27.5°	1199.3	1189.9	1186.8	1179.9	1175.5	1172.3	1169.2	1169.2
30°	1125.3	1120.3	1115.2	1114.6	1105.8	1102.1	1098.9	1096.4
32.5°	1053.8	1047.5	1045.0	1042.5	1038.1	1033.1	1032.5	1028.1
35°	983.5	977.3	974.1	971.6	966.6	964.7	962.8	964.1
37.5°	909.5	908.3	906.4	903.2	900.1	899.5	897.0	900.1
40°	836.7	836.1	833.6	834.2	834.2	833.0	834.2	834.2
42.5°	766.5	766.5	764.0	765.2	765.9	767.1	769.0	770.3
45°	698.1	697.5	698.1	699.4	698.1	701.3	703.8	705.7
47.5°	627.9	628.5	631.0	631.6	632.9	637.3	637.3	637.3
50°	560.8	563.9	562.6	566.4	565.8	568.3	565.8	565.8
52.5°	496.8	499.9	500.5	501.2	504.9	505.6	505.6	504.9
55°	439.7	444.1	442.2	445.3	447.2	448.5	450.4	449.1
57.5°	387.0	388.9	390.8	391.4	393.9	395.2	396.4	395.2
60°	335.0	338.7	341.9	342.5	343.7	345.0	345.6	347.5
62.5°	286.0	292.3	293.6	294.2	297.3	299.2	300.5	301.7
65°	242.7	247.1	250.3	252.2	254.7	254.7	256.5	256.5
67.5°	200.7	205.1	207.0	208.2	212.0	212.6	215.8	215.8
70°	162.5	165.6	166.8	168.7	172.5	175.0	176.3	177.5
72.5°	125.4	129.2	131.1	133.6	136.1	138.0	138.6	140.5
75°	91.6	97.2	97.9	100.4	102.2	104.8	106.0	105.4
77.5°	64.0	65.9	68.4	69.6	71.5	73.4	75.3	75.3
80°	39.5	42.0	42.7	43.3	45.8	47.0	48.3	48.3
82.5°	20.7	22.0	23.2	23.8	25.1	25.1	25.7	26.3
85°	8.2	8.8	8.8	8.8	9.4	10.0	10.0	10.0
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)