

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: P879418

Luminaire Tested: **LD4C40D010 EU4409027 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: P879418
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 EU4409027 4LBLDWWH
Description: 4 INCH 4000 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 2700K, 90CRI LEDS
AND 4LBLDWW TRIM WITH H FINISH
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

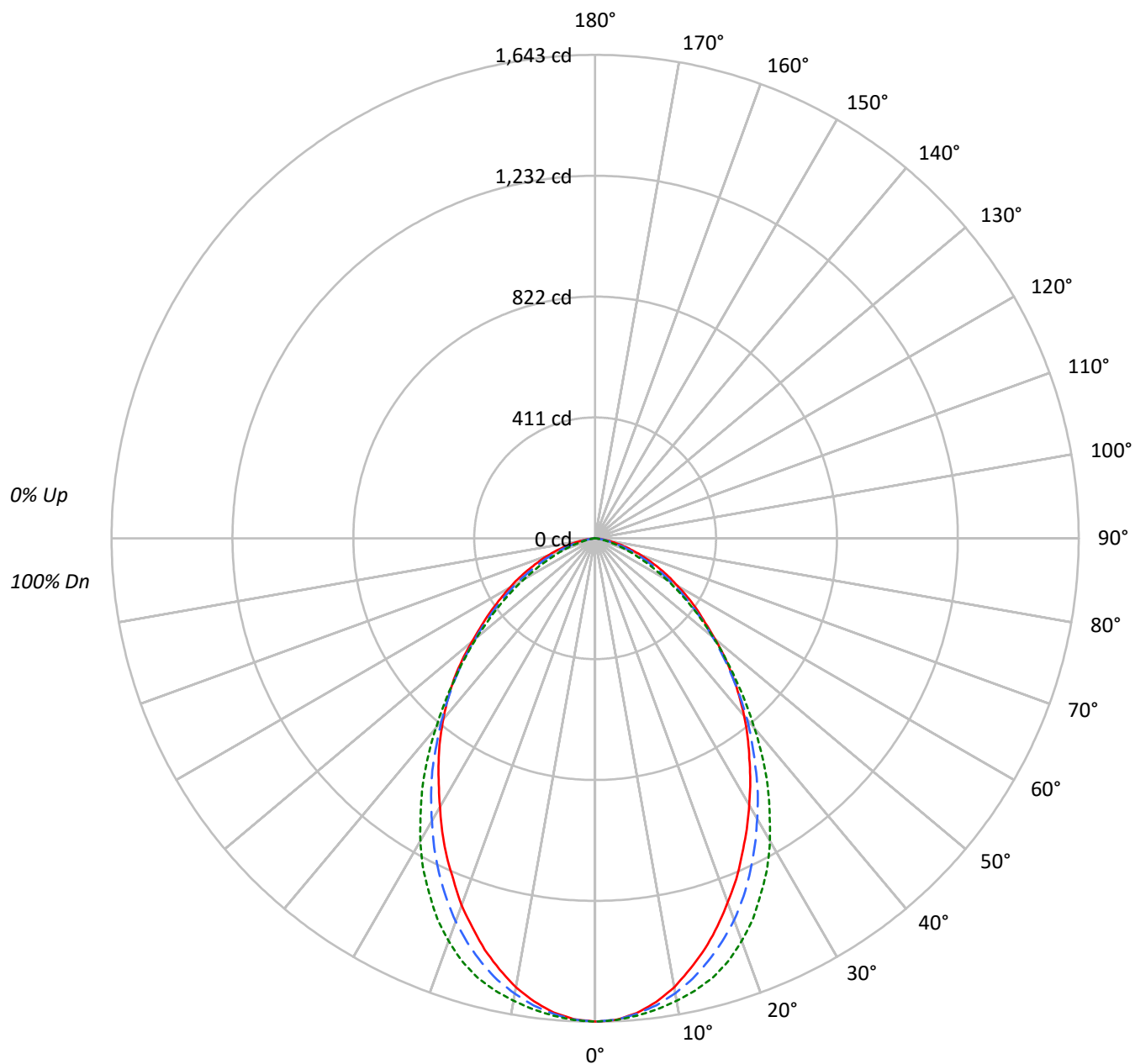
Lumens per Lamp: N/A
Luminaire Lumens: 2938.0 lumens
Efficiency: N/A
Efficacy: 62.5 lumens/watt
Spacing Criteria (0/90/45): 1 / 1.1 / 1.12
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 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	100	108	105	102	99	101	98	96	97	95	93	93	92	90	88		
2	103	96	90	85	100	94	89	84	90	86	82	87	84	80	84	81	79	77		
3	95	86	79	73	92	84	78	73	81	76	71	79	74	70	76	72	69	67		
4	88	77	70	64	86	76	69	63	74	68	63	71	66	62	69	65	61	59		
5	81	70	62	56	80	69	62	56	67	61	56	65	59	55	63	58	54	52		
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	44	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°	201799	201799	201799
5°	199746	200856	199524
10°	193248	199111	193323
15°	183595	196568	184205
20°	172077	190381	173502
25°	160265	180625	161743
30°	148470	168500	149576
35°	136973	153171	139058
40°	126342	134955	128668
45°	114443	116962	117901
50°	101450	100188	103992
55°	90452	84369	92508
60°	79142	68479	82115
65°	69273	52965	71715
70°	58298	38794	61315
75°	45521	25205	48084
80°	29856	13230	32827
85°	10149	5920	13673



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	153.3	5.2
10°-20°	419.0	14.3
20°-30°	576.2	19.6
30°-40°	601.1	20.5
40°-50°	514.3	17.5
50°-60°	367.9	12.5
60°-70°	213.5	7.3
70°-80°	82.3	2.8
80°-90°	10.5	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°	1148.5	39.1
0°-40°	1749.6	59.6
0°-60°	2631.8	89.6
0°-90°	2938.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2938.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1643	1643	1643	1643	1643	
5°	1620	1623	1629	1623	1618	152
15°	1444	1487	1546	1492	1448	405
25°	1182	1248	1332	1255	1193	544
35°	913	950	1021	965	927	572
45°	659	653	673	670	679	508
55°	422	401	394	412	432	378
65°	238	210	182	218	247	238
75°	96	72	53	76	101	103
85°	7	5	4	6	10	14
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°	1642.6	1642.6	1642.6	1642.6	1642.6	1642.6	1642.6	1642.6	1642.6	1642.6	1642.6
2.5°	1638.4	1637.2	1637.8	1637.8	1637.8	1637.2	1638.4	1638.4	1637.8	1637.8	1637.8
5°	1619.7	1618.5	1619.1	1619.7	1619.7	1619.7	1620.3	1620.9	1621.5	1622.1	1622.7
7.5°	1589.5	1587.7	1589.5	1591.9	1591.9	1592.5	1593.1	1593.7	1595.5	1598.5	1600.4
10°	1549.1	1549.1	1549.7	1551.5	1554.5	1553.9	1555.7	1558.7	1562.4	1566.6	1569.6
12.5°	1497.8	1499.0	1500.8	1502.6	1505.7	1507.5	1510.5	1514.1	1520.1	1526.2	1532.8
15°	1443.5	1444.1	1444.7	1448.9	1452.0	1456.2	1458.6	1465.8	1471.3	1479.7	1487.0
17.5°	1382.6	1382.0	1383.8	1387.4	1394.7	1396.5	1399.5	1407.3	1415.2	1426.6	1436.3
20°	1316.2	1319.9	1322.3	1327.1	1331.3	1336.1	1338.6	1348.2	1357.3	1368.1	1380.8
22.5°	1253.5	1250.5	1254.7	1260.1	1263.8	1267.4	1271.6	1281.9	1291.5	1304.8	1317.4
25°	1182.3	1184.1	1187.1	1191.4	1196.2	1201.0	1205.8	1216.7	1222.1	1236.0	1247.5
27.5°	1114.8	1117.8	1119.0	1124.4	1128.6	1132.3	1134.7	1147.3	1152.2	1164.2	1175.7
30°	1046.6	1049.6	1049.6	1055.6	1058.7	1062.3	1068.3	1076.8	1084.0	1092.4	1100.9
32.5°	980.8	980.8	983.3	988.7	991.7	995.9	997.7	1003.8	1011.0	1019.5	1028.5
35°	913.3	915.1	917.5	917.5	922.9	925.3	927.8	933.8	938.6	942.2	949.5
37.5°	851.2	851.2	849.3	852.4	856.0	855.4	859.0	862.0	865.0	869.2	875.3
40°	787.8	787.8	785.4	787.2	789.6	789.0	787.8	790.8	793.2	796.3	802.3
42.5°	723.3	722.1	721.5	721.5	722.7	721.5	722.7	723.3	723.3	723.3	726.9
45°	658.7	661.7	658.1	656.9	655.1	653.3	652.7	653.3	655.7	652.7	653.3
47.5°	595.4	596.6	594.2	592.4	590.6	589.4	590.6	586.9	588.1	588.7	586.3
50°	530.8	528.4	528.4	526.6	527.2	526.6	525.4	524.2	524.2	521.2	519.4
52.5°	471.1	472.3	473.5	469.3	469.9	466.9	467.5	464.5	464.5	460.9	462.1
55°	422.3	420.4	420.4	418.6	418.0	415.0	414.4	412.6	408.4	406.0	401.1
57.5°	371.6	371.0	368.6	369.2	365.6	365.0	363.7	360.7	357.7	354.7	349.3
60°	322.1	322.7	322.7	321.5	319.7	316.7	317.3	313.1	308.9	303.4	298.6
62.5°	281.1	279.3	278.7	277.5	273.9	273.9	270.8	267.8	263.6	258.2	254.0
65°	238.3	238.9	237.1	235.3	231.6	231.0	228.6	226.2	222.0	216.6	210.5
67.5°	199.7	198.5	197.9	196.0	192.4	191.8	190.0	184.6	181.0	175.5	170.7
70°	162.3	161.1	161.7	158.6	155.0	153.2	152.6	148.4	143.0	138.7	133.9
72.5°	127.3	127.3	126.7	123.7	121.9	120.6	118.2	113.4	110.4	105.6	101.9
75°	95.9	95.3	94.1	92.3	89.9	88.7	87.5	84.5	80.2	74.8	71.8
77.5°	66.4	67.0	65.8	65.1	62.1	60.3	59.7	57.9	54.3	50.7	47.7
80°	42.2	41.6	41.0	39.8	39.2	38.6	36.8	35.6	32.0	30.2	28.4
82.5°	22.9	21.7	21.7	21.1	19.9	19.3	18.7	17.5	16.9	15.7	14.5
85°	7.2	7.8	7.2	7.2	7.2	6.6	6.6	6.6	6.0	6.0	5.4
87.5°	0.6	1.2	0.6	0.6	1.2	0.6	0.6	1.2	0.6	0.6	1.2
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°	1642.6	1642.6	1642.6	1642.6	1642.6	1642.6	1642.6	1642.6	1642.6	1642.6	1642.6
2.5°	1637.8	1638.4	1638.4	1639.0	1639.0	1639.0	1639.0	1639.0	1639.0	1639.0	1639.0
5°	1624.5	1624.5	1625.7	1626.9	1626.9	1626.9	1627.5	1628.7	1628.7	1628.7	1628.1
7.5°	1602.8	1605.2	1607.6	1610.0	1610.6	1611.2	1612.4	1614.8	1614.8	1614.8	1614.8
10°	1574.4	1579.8	1582.9	1586.5	1588.3	1589.5	1593.1	1593.7	1595.5	1596.1	1595.5
12.5°	1538.2	1545.5	1552.1	1558.1	1560.5	1563.0	1566.6	1570.2	1572.0	1573.8	1573.2
15°	1497.8	1505.7	1515.9	1522.5	1527.4	1531.0	1536.4	1541.2	1544.3	1545.5	1545.5
17.5°	1448.9	1458.6	1469.5	1480.3	1483.3	1489.4	1495.4	1502.0	1505.7	1506.3	1505.7
20°	1394.7	1405.5	1414.6	1425.4	1432.1	1435.1	1443.5	1452.0	1455.6	1456.2	1455.6
22.5°	1330.1	1340.4	1352.4	1363.9	1369.3	1374.8	1383.8	1392.2	1397.1	1400.7	1397.1
25°	1258.3	1272.8	1284.3	1293.9	1301.8	1307.2	1318.7	1325.3	1333.1	1332.5	1333.1
27.5°	1187.8	1199.8	1212.5	1223.9	1228.8	1234.8	1243.9	1254.7	1261.3	1265.6	1265.0
30°	1115.4	1125.0	1135.9	1146.1	1154.0	1158.8	1172.1	1176.9	1185.3	1187.8	1185.9
32.5°	1038.8	1045.4	1056.2	1070.1	1073.1	1078.0	1086.4	1098.5	1101.5	1102.7	1103.3
35°	957.3	970.0	979.0	987.5	989.9	994.1	1003.8	1012.8	1015.8	1021.3	1018.8
37.5°	881.9	889.2	893.4	901.8	909.1	912.7	917.5	923.5	929.6	932.0	931.4
40°	806.5	810.1	813.8	822.8	823.4	823.4	830.6	839.1	839.1	841.5	841.5
42.5°	729.3	729.9	734.7	739.6	740.8	742.0	749.2	750.4	754.0	755.8	758.3
45°	654.5	658.1	661.1	661.7	664.8	665.4	667.2	669.0	674.4	673.2	674.4
47.5°	586.3	588.1	590.0	590.0	591.8	591.2	594.2	592.4	596.0	597.2	599.0
50°	519.4	522.4	520.6	521.8	521.2	523.0	521.8	521.8	521.8	524.2	526.0
52.5°	457.8	458.5	456.6	457.2	457.2	456.0	457.2	456.6	456.0	456.0	456.6
55°	401.1	398.7	397.5	395.1	392.1	395.7	393.9	392.7	395.1	393.9	395.1
57.5°	346.3	343.2	340.8	339.6	335.4	337.8	335.4	334.2	334.2	334.2	337.2
60°	294.4	291.4	288.3	284.7	284.1	282.9	281.7	278.7	279.3	278.7	279.9
62.5°	249.1	243.1	238.9	235.9	235.3	233.4	231.6	228.6	229.2	229.2	229.8
65°	207.5	200.9	194.8	190.6	190.6	187.6	184.6	184.6	181.0	182.2	182.8
67.5°	165.9	160.5	154.4	151.4	149.6	147.2	145.4	144.2	142.4	142.4	143.6
70°	128.5	123.1	120.0	115.2	114.6	112.8	110.4	108.6	108.0	108.0	107.4
72.5°	97.1	92.3	88.7	85.7	83.8	82.0	79.6	79.0	77.8	77.8	79.0
75°	67.6	64.5	61.5	58.5	57.3	56.7	54.9	53.7	53.7	53.1	53.7
77.5°	45.2	42.2	39.2	38.0	36.8	35.6	35.0	34.4	32.6	32.6	32.6
80°	25.9	24.7	23.5	21.7	21.7	21.1	19.9	19.3	18.7	18.7	18.7
82.5°	13.3	12.7	11.5	10.9	10.9	10.9	10.3	10.3	9.7	9.7	9.7
85°	5.4	4.8	4.2	4.2	4.2	4.2	4.2	4.2	4.8	4.2	4.8
87.5°	0.6	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
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°	1642.6	1642.6	1642.6	1642.6	1642.6	1642.6	1642.6	1642.6	1642.6	1642.6	1642.6
2.5°	1639.0	1638.4	1638.4	1638.4	1638.4	1638.4	1637.8	1637.8	1637.2	1637.2	1637.2
5°	1628.7	1628.1	1627.5	1626.9	1626.3	1625.7	1625.1	1624.5	1622.7	1622.1	1620.9
7.5°	1614.2	1613.0	1611.2	1610.6	1609.4	1607.6	1605.2	1604.0	1601.6	1598.5	1597.3
10°	1594.9	1592.5	1590.7	1587.7	1587.1	1584.7	1578.6	1575.6	1571.4	1567.8	1563.6
12.5°	1571.4	1569.0	1564.8	1560.5	1558.1	1552.7	1547.3	1542.4	1537.0	1529.2	1523.1
15°	1542.4	1538.8	1530.4	1529.2	1525.6	1517.1	1509.9	1500.8	1492.4	1483.9	1476.7
17.5°	1503.8	1496.0	1491.8	1486.3	1482.1	1471.3	1463.4	1453.2	1441.7	1432.1	1421.8
20°	1453.2	1444.7	1437.5	1434.5	1429.0	1419.4	1409.7	1397.1	1385.6	1373.5	1364.5
22.5°	1392.8	1387.4	1376.6	1372.9	1366.3	1356.7	1345.2	1333.1	1322.3	1309.0	1296.9
25°	1328.3	1320.5	1312.0	1304.8	1300.0	1290.9	1276.4	1267.4	1255.3	1240.8	1231.8
27.5°	1259.5	1250.5	1238.4	1233.6	1229.4	1217.3	1205.2	1193.8	1184.1	1171.5	1163.6
30°	1179.9	1173.3	1165.4	1159.4	1153.4	1143.7	1132.9	1119.6	1109.3	1103.3	1092.4
32.5°	1099.1	1093.6	1083.4	1080.4	1073.7	1065.9	1058.1	1048.4	1037.5	1028.5	1020.1
35°	1012.8	1007.4	1000.1	994.7	992.3	986.9	978.4	970.0	964.6	954.3	950.1
37.5°	926.6	924.7	917.5	912.1	910.3	903.6	899.4	893.4	885.5	883.1	878.3
40°	837.9	836.7	832.5	831.8	828.2	826.4	820.4	815.6	811.9	810.1	807.1
42.5°	756.4	755.2	751.6	752.2	748.6	747.4	746.8	742.6	739.6	735.9	736.5
45°	676.2	675.0	672.6	671.4	673.2	672.6	671.4	669.6	669.6	670.2	668.4
47.5°	599.0	600.2	597.8	599.0	599.0	597.2	597.2	599.6	600.2	601.4	602.6
50°	526.0	529.6	528.4	530.2	530.8	531.4	529.6	532.6	532.0	537.5	536.3
52.5°	459.7	460.3	462.7	463.3	463.9	464.5	467.5	469.9	470.5	472.9	477.2
55°	395.7	396.3	401.1	401.1	404.2	404.8	409.0	410.2	412.0	418.6	419.8
57.5°	335.4	339.0	341.4	342.6	344.4	347.5	349.9	355.3	358.3	362.5	366.8
60°	281.1	285.3	288.3	289.5	292.0	295.6	298.6	304.6	310.1	314.9	317.9
62.5°	231.0	234.7	237.1	241.3	241.3	244.3	251.5	255.2	261.2	265.4	270.8
65°	186.4	188.8	193.0	193.0	195.4	200.3	206.3	211.7	217.8	223.8	229.2
67.5°	146.0	147.8	150.2	152.6	153.8	159.9	164.7	172.5	178.0	182.2	188.8
70°	110.4	111.6	114.6	117.0	118.8	123.1	128.5	133.9	139.3	144.2	150.8
72.5°	79.0	81.4	84.5	86.3	87.5	90.5	95.9	101.3	106.2	111.0	114.6
75°	54.3	56.1	57.3	59.1	60.9	63.3	67.0	70.6	76.0	80.8	85.1
77.5°	33.8	35.6	37.4	38.0	38.6	41.0	43.4	47.1	50.7	54.3	57.3
80°	19.9	20.5	21.1	21.7	22.9	24.7	25.9	28.4	30.8	33.2	36.2
82.5°	10.3	10.9	11.5	11.5	11.5	12.1	13.9	15.1	15.7	16.9	18.7
85°	4.2	4.2	4.2	4.8	4.8	5.4	5.4	6.0	6.0	6.6	7.2
87.5°	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
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: P879418

CATALOG NUMBER: LD4C40D010 EU4409027 4LBLDWWH

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	1642.6	1642.6	1642.6	1642.6	1642.6	1642.6	1642.6	1642.6
2.5°	1636.6	1636.6	1636.6	1635.9	1636.6	1636.6	1636.6	1635.9
5°	1620.9	1619.7	1619.7	1619.1	1618.5	1618.5	1619.1	1617.9
7.5°	1594.9	1593.1	1591.9	1591.9	1591.3	1590.7	1590.7	1587.7
10°	1561.1	1557.5	1557.5	1556.3	1551.5	1550.9	1549.7	1549.7
12.5°	1518.9	1514.7	1512.3	1509.3	1506.3	1503.8	1503.2	1500.8
15°	1468.9	1463.4	1459.2	1458.0	1453.2	1449.6	1449.6	1448.3
17.5°	1414.6	1406.1	1403.1	1400.1	1393.5	1392.8	1391.6	1386.2
20°	1353.0	1345.2	1341.0	1338.0	1333.7	1327.7	1326.5	1327.1
22.5°	1288.5	1277.6	1274.0	1271.0	1266.8	1261.3	1261.3	1257.1
25°	1221.5	1211.9	1208.3	1204.6	1198.0	1195.6	1192.6	1193.2
27.5°	1153.4	1144.3	1141.3	1134.7	1130.4	1127.4	1124.4	1124.4
30°	1082.2	1077.4	1072.5	1071.9	1063.5	1059.9	1056.9	1054.4
32.5°	1013.4	1007.4	1005.0	1002.6	998.3	993.5	992.9	988.7
35°	945.9	939.8	936.8	934.4	929.6	927.8	926.0	927.2
37.5°	874.7	873.5	871.7	868.6	865.6	865.0	862.6	865.6
40°	804.7	804.1	801.7	802.3	802.3	801.1	802.3	802.3
42.5°	737.1	737.1	734.7	735.9	736.5	737.7	739.6	740.8
45°	671.4	670.8	671.4	672.6	671.4	674.4	676.8	678.6
47.5°	603.8	604.4	606.8	607.4	608.7	612.9	612.9	612.9
50°	539.3	542.3	541.1	544.7	544.1	546.5	544.1	544.1
52.5°	477.8	480.8	481.4	482.0	485.6	486.2	486.2	485.6
55°	422.9	427.1	425.3	428.3	430.1	431.3	433.1	431.9
57.5°	372.2	374.0	375.8	376.4	378.8	380.0	381.2	380.0
60°	322.1	325.7	328.8	329.4	330.6	331.8	332.4	334.2
62.5°	275.1	281.1	282.3	282.9	285.9	287.7	288.9	290.2
65°	233.4	237.7	240.7	242.5	244.9	244.9	246.7	246.7
67.5°	193.0	197.3	199.1	200.3	203.9	204.5	207.5	207.5
70°	156.2	159.3	160.5	162.3	165.9	168.3	169.5	170.7
72.5°	120.6	124.3	126.1	128.5	130.9	132.7	133.3	135.1
75°	88.1	93.5	94.1	96.5	98.3	100.7	101.9	101.3
77.5°	61.5	63.3	65.8	67.0	68.8	70.6	72.4	72.4
80°	38.0	40.4	41.0	41.6	44.0	45.2	46.4	46.4
82.5°	19.9	21.1	22.3	22.9	24.1	24.1	24.7	25.3
85°	7.8	8.4	8.4	8.4	9.0	9.7	9.7	9.7
87.5°	1.2	1.8	1.2	1.2	1.8	1.8	1.8	1.8
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)