

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: P879419

Luminaire Tested: **LD4C40D010 EU4409027 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: P879419
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 EU4409027 4LBDWWLI
Description: 4 INCH 4000 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 2700K, 90CRI LEDS
AND 4LBDWW TRIM WITH LI FINISH
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

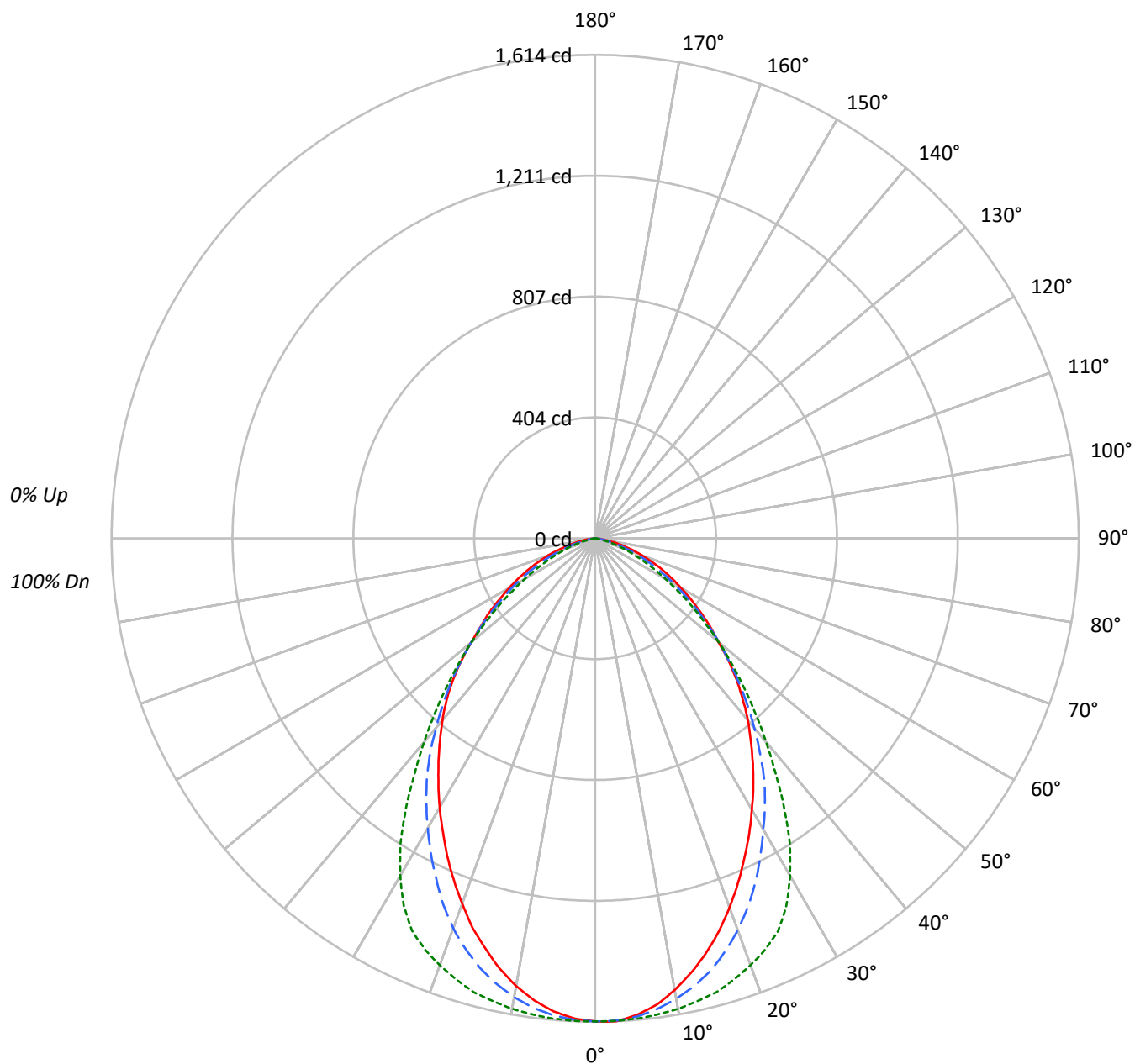
Lumens per Lamp: N/A
Luminaire Lumens: 2963.0 lumens
Efficiency: N/A
Efficacy: 63.0 lumens/watt
Spacing Criteria (0/90/45): 1 / 1.19 / 1.15
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

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°	198200	198200	198200
5°	197020	198513	195541
10°	191028	198999	189369
15°	182247	199442	180250
20°	171489	198303	169593
25°	159723	195957	158422
30°	148413	184530	147207
35°	137633	165049	136629
40°	127241	142332	127144
45°	115937	121497	116876
50°	102405	102749	102979
55°	91758	84005	92144
60°	81083	66709	81231
65°	71395	50872	70668
70°	59160	36423	59160
75°	46090	20885	44382
80°	29856	5094	28582
85°	10995	1692	8458



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	151.4	5.1
10°-20°	419.0	14.1
20°-30°	585.7	19.8
30°-40°	617.9	20.9
40°-50°	525.6	17.7
50°-60°	370.9	12.5
60°-70°	210.2	7.1
70°-80°	75.0	2.5
80°-90°	7.2	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°	1156.2	39.0
0°-40°	1774.0	59.9
0°-60°	2670.6	90.1
0°-90°	2963.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2963.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1613	1613	1613	1613	1613	
5°	1598	1603	1610	1598	1586	150
15°	1433	1493	1568	1485	1417	402
25°	1178	1266	1446	1255	1169	542
35°	918	984	1100	979	911	574
45°	667	677	699	680	673	513
55°	428	414	392	415	430	385
65°	246	211	175	211	243	243
75°	97	66	44	65	94	105
85°	8	3	1	3	6	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°	1613.3	1613.3	1613.3	1613.3	1613.3	1613.3	1613.3	1613.3	1613.3	1613.3	1613.3
2.5°	1614.5	1611.5	1611.5	1611.5	1611.5	1611.5	1611.5	1611.5	1611.5	1612.1	1612.1
5°	1597.6	1596.4	1595.8	1595.8	1595.8	1595.8	1596.4	1598.9	1600.1	1601.9	1603.1
7.5°	1571.1	1568.7	1569.9	1569.9	1571.1	1572.3	1574.1	1576.5	1580.2	1582.6	1585.6
10°	1531.3	1528.9	1531.9	1533.1	1536.7	1538.5	1541.5	1545.2	1552.4	1556.0	1560.8
12.5°	1484.8	1483.6	1484.8	1489.7	1493.3	1495.7	1499.3	1507.1	1514.4	1522.2	1530.7
15°	1432.9	1429.9	1431.7	1437.8	1443.8	1448.0	1451.0	1461.3	1470.9	1483.0	1493.3
17.5°	1375.0	1370.8	1375.6	1380.4	1388.3	1391.9	1396.1	1407.6	1420.9	1434.1	1445.6
20°	1311.7	1310.5	1313.5	1320.1	1328.0	1332.8	1336.4	1349.1	1360.5	1378.6	1391.9
22.5°	1245.9	1247.1	1249.5	1256.8	1262.2	1268.8	1274.3	1285.7	1299.0	1315.9	1332.8
25°	1178.3	1180.1	1184.4	1189.2	1198.2	1201.9	1208.5	1220.6	1232.0	1247.7	1266.4
27.5°	1113.2	1113.8	1118.6	1121.0	1129.5	1137.3	1140.3	1153.0	1166.3	1178.3	1194.6
30°	1046.2	1048.0	1051.0	1057.7	1066.1	1069.1	1072.7	1084.2	1094.5	1109.5	1122.2
32.5°	982.2	981.0	984.7	988.3	997.9	1003.4	1005.2	1018.4	1027.5	1042.6	1054.6
35°	917.7	914.7	920.1	923.7	932.2	937.0	939.4	949.7	958.1	970.8	984.1
37.5°	853.1	855.5	858.0	861.0	865.2	866.4	873.6	876.1	886.9	896.6	903.8
40°	793.4	792.2	791.0	794.0	799.4	801.8	802.4	809.1	811.5	821.1	826.6
42.5°	729.4	730.0	729.4	730.0	733.1	733.1	734.9	739.1	740.9	743.9	750.6
45°	667.3	667.3	665.5	666.1	666.7	666.1	666.7	668.5	672.1	672.1	676.9
47.5°	602.7	601.5	603.9	602.1	600.9	600.3	602.1	600.3	603.9	603.9	605.2
50°	535.8	535.8	538.8	538.2	539.4	537.0	537.6	537.6	538.2	537.6	540.0
52.5°	483.9	482.7	481.5	478.5	479.7	477.2	477.2	477.8	476.0	475.4	472.4
55°	428.4	429.6	427.8	426.6	426.6	424.1	423.5	419.9	417.5	415.7	413.9
57.5°	378.3	379.5	378.9	375.9	372.3	372.9	371.7	368.0	362.6	359.0	356.0
60°	330.0	331.2	330.0	327.0	325.8	323.4	322.8	318.0	313.7	308.9	305.3
62.5°	286.6	286.6	286.0	281.8	278.7	279.3	276.3	272.7	267.3	260.6	255.2
65°	245.6	245.0	241.9	240.1	237.7	234.7	232.9	227.5	223.2	217.8	210.6
67.5°	204.5	202.7	201.5	199.7	194.3	193.7	191.3	186.4	180.4	176.2	170.1
70°	164.7	164.1	161.7	161.7	157.5	155.7	152.0	147.8	142.4	136.4	131.5
72.5°	130.3	129.1	126.7	124.3	120.7	119.5	116.4	112.2	107.4	101.4	95.3
75°	97.1	95.9	95.3	92.3	89.3	86.3	85.1	80.8	76.0	71.8	66.4
77.5°	68.2	67.0	65.2	63.4	61.5	59.7	57.9	54.3	50.1	46.5	41.6
80°	42.2	41.0	39.8	39.2	37.4	36.8	34.4	32.6	29.0	26.5	23.5
82.5°	21.7	21.7	20.5	19.9	18.7	18.1	17.5	15.7	13.9	12.1	10.3
85°	7.8	7.8	7.2	6.6	6.6	6.0	6.0	5.4	4.2	4.2	3.0
87.5°	0.6	0.6	1.2	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°	1613.3	1613.3	1613.3	1613.3	1613.3	1613.3	1613.3	1613.3	1613.3	1613.3	1613.3
2.5°	1612.7	1612.1	1612.7	1612.7	1613.3	1613.3	1613.3	1612.7	1613.3	1612.7	1612.7
5°	1603.1	1604.9	1606.1	1607.3	1607.9	1608.5	1608.5	1609.1	1609.7	1609.7	1609.1
7.5°	1588.0	1591.6	1595.2	1597.6	1598.9	1600.1	1601.9	1603.1	1604.3	1603.7	1603.1
10°	1568.1	1574.1	1578.9	1583.8	1586.2	1588.0	1591.0	1593.4	1594.6	1595.2	1593.4
12.5°	1539.7	1548.2	1556.0	1563.9	1567.5	1569.9	1575.9	1580.2	1582.6	1582.6	1580.8
15°	1504.1	1516.2	1527.7	1537.9	1544.0	1547.6	1556.6	1562.7	1566.3	1568.1	1565.1
17.5°	1461.3	1475.2	1489.0	1502.3	1508.4	1513.8	1526.5	1534.9	1542.7	1544.0	1540.3
20°	1406.4	1423.9	1439.6	1455.9	1462.5	1470.9	1485.4	1499.3	1511.4	1516.8	1506.5
22.5°	1344.8	1364.2	1378.6	1398.5	1407.6	1416.6	1435.4	1452.8	1474.0	1485.4	1467.3
25°	1280.9	1297.2	1314.7	1334.0	1346.7	1356.3	1378.0	1400.4	1428.7	1445.6	1420.3
27.5°	1212.1	1226.6	1247.7	1268.8	1278.5	1290.5	1316.5	1340.6	1367.8	1382.9	1364.2
30°	1140.9	1159.0	1178.9	1198.2	1212.1	1223.6	1244.7	1265.2	1288.1	1300.8	1286.9
32.5°	1070.3	1087.8	1104.7	1125.8	1133.7	1143.9	1162.6	1180.1	1197.6	1209.1	1192.8
35°	996.1	1011.8	1027.5	1042.0	1045.6	1057.7	1072.7	1083.0	1091.4	1100.5	1089.6
37.5°	915.3	927.3	935.2	950.9	956.9	958.7	970.8	978.0	987.1	988.9	988.3
40°	833.2	844.1	850.7	860.4	865.2	865.2	873.6	880.3	886.9	887.5	886.9
42.5°	756.6	762.0	767.5	773.5	772.3	779.5	783.1	786.2	791.0	791.0	792.2
45°	679.4	683.6	688.4	689.6	694.4	694.4	697.5	698.7	701.1	699.3	696.9
47.5°	607.6	609.4	610.0	615.4	616.6	612.4	616.0	616.6	616.0	616.0	614.8
50°	539.4	540.6	540.0	538.2	538.8	540.6	538.8	536.4	537.6	537.6	538.8
52.5°	473.0	470.6	469.4	469.4	467.0	467.0	464.0	462.8	462.2	459.7	462.8
55°	412.1	408.5	403.0	401.8	400.0	399.4	395.8	392.8	391.6	392.2	391.6
57.5°	353.6	348.1	344.5	343.3	341.5	337.9	333.6	330.6	330.0	328.8	328.8
60°	300.5	294.4	289.0	283.6	284.2	281.8	277.5	275.7	273.9	271.5	273.3
62.5°	252.2	245.6	239.5	234.1	230.5	228.7	225.6	222.6	220.8	219.0	221.4
65°	204.5	199.1	192.5	187.0	185.2	183.4	180.4	175.6	175.0	175.0	176.2
67.5°	161.7	155.7	149.6	146.0	143.6	141.2	140.0	137.6	135.8	134.5	135.1
70°	124.3	118.3	113.4	109.8	108.0	107.4	103.2	102.6	102.0	101.4	100.8
72.5°	90.5	85.7	81.5	79.0	76.6	74.8	73.6	71.8	71.2	71.2	71.2
75°	62.1	58.5	53.7	50.7	49.5	47.7	45.9	44.6	43.4	44.0	44.0
77.5°	37.4	33.8	30.8	28.4	27.8	25.9	24.1	22.9	21.1	21.1	21.7
80°	20.5	17.5	15.1	13.3	12.1	11.5	9.7	9.1	7.8	7.2	7.2
82.5°	9.1	7.2	6.0	5.4	4.8	4.2	3.6	3.0	3.0	2.4	3.0
85°	3.0	2.4	1.8	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
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°	1613.3	1613.3	1613.3	1613.3	1613.3	1613.3	1613.3	1613.3	1613.3	1613.3	1613.3
2.5°	1612.1	1612.1	1611.5	1611.5	1611.5	1610.3	1610.3	1609.7	1609.1	1608.5	1607.3
5°	1607.9	1607.3	1606.1	1605.5	1604.9	1603.1	1601.3	1600.1	1598.3	1595.8	1594.6
7.5°	1601.9	1600.1	1597.6	1596.4	1594.6	1590.4	1587.4	1584.4	1581.4	1577.1	1572.3
10°	1591.6	1588.0	1584.4	1582.0	1578.9	1573.5	1567.5	1562.7	1556.0	1550.0	1543.3
12.5°	1577.1	1572.9	1565.7	1562.1	1558.4	1550.6	1542.7	1532.5	1523.4	1515.0	1507.1
15°	1559.0	1551.2	1542.7	1537.9	1532.5	1519.8	1507.8	1496.9	1484.8	1474.6	1461.9
17.5°	1532.5	1521.0	1509.0	1503.5	1496.3	1481.8	1467.3	1452.2	1438.4	1425.7	1410.0
20°	1492.7	1480.0	1464.3	1455.9	1449.8	1430.5	1416.6	1399.8	1385.3	1369.6	1352.1
22.5°	1446.2	1428.7	1411.2	1399.1	1392.5	1373.2	1354.5	1339.4	1323.7	1305.6	1293.0
25°	1393.7	1372.0	1350.9	1338.8	1328.6	1308.0	1289.9	1274.3	1255.0	1239.3	1226.6
27.5°	1334.6	1309.9	1285.1	1273.1	1263.4	1241.1	1221.8	1205.5	1186.8	1172.9	1159.6
30°	1264.0	1241.7	1218.1	1208.5	1197.0	1174.1	1151.8	1137.3	1116.8	1102.3	1087.8
32.5°	1175.9	1161.4	1142.7	1129.5	1123.4	1102.3	1083.6	1066.1	1048.6	1037.1	1022.7
35°	1079.4	1066.7	1051.0	1043.8	1035.9	1022.7	1007.6	992.5	978.6	967.8	954.5
37.5°	981.6	969.0	959.3	951.5	946.6	934.6	925.5	914.1	904.4	894.2	886.9
40°	880.3	876.7	866.4	862.8	861.6	848.3	840.5	831.4	825.4	819.3	815.1
42.5°	790.4	784.3	776.5	777.1	773.5	766.2	760.8	754.8	750.6	747.5	743.3
45°	701.7	696.9	693.2	696.3	690.2	687.8	683.6	683.0	680.0	674.5	672.7
47.5°	617.2	616.6	617.2	615.4	614.2	613.0	613.6	610.6	607.6	605.8	603.3
50°	540.0	540.6	541.8	543.6	539.4	541.2	540.6	540.0	540.0	538.2	539.4
52.5°	465.2	465.8	467.0	468.8	469.4	469.4	471.2	472.4	474.8	477.8	477.8
55°	394.6	398.8	401.2	404.2	402.4	406.0	407.9	413.3	415.1	415.1	417.5
57.5°	331.8	336.1	337.9	341.5	342.7	345.7	350.5	353.6	357.8	361.4	365.0
60°	274.5	276.3	281.2	286.6	285.4	292.6	296.2	301.1	306.5	308.9	313.7
62.5°	223.2	225.6	229.3	231.1	235.3	238.9	247.4	252.2	257.0	263.1	267.9
65°	177.4	179.8	183.4	187.0	188.8	194.3	198.5	206.9	211.2	217.8	223.2
67.5°	135.8	139.4	142.4	144.8	146.0	151.4	158.1	161.7	169.5	176.2	180.4
70°	101.4	104.4	108.0	107.4	109.8	114.0	118.9	124.3	130.3	136.4	141.2
72.5°	70.6	73.6	76.0	76.6	79.0	82.1	85.7	89.9	94.7	100.8	107.4
75°	44.6	45.3	47.7	48.9	50.1	53.7	56.7	60.9	65.2	70.0	74.2
77.5°	22.3	24.1	25.3	26.5	27.2	30.2	33.2	36.8	40.4	45.3	49.5
80°	8.4	9.1	10.9	11.5	12.7	14.5	16.9	18.7	21.7	25.3	27.8
82.5°	3.0	3.6	4.2	4.2	4.8	6.0	6.6	8.4	10.3	11.5	12.7
85°	1.2	1.2	1.2	1.2	1.2	1.8	1.8	2.4	3.0	3.6	3.6
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: P879419

CATALOG NUMBER: LD4C40D010 EU4409027 4LBLDWWLI

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	1613.3	1613.3	1613.3	1613.3	1613.3	1613.3	1613.3	1613.3
2.5°	1606.7	1606.7	1606.1	1605.5	1605.5	1605.5	1604.9	1604.9
5°	1592.2	1590.4	1589.8	1588.6	1588.0	1587.4	1585.6	1585.6
7.5°	1568.7	1566.3	1564.5	1562.7	1560.2	1558.4	1558.4	1556.0
10°	1537.3	1532.5	1530.1	1527.7	1524.6	1521.0	1519.8	1518.0
12.5°	1499.3	1489.7	1487.2	1483.0	1478.2	1475.8	1471.6	1471.6
15°	1452.2	1442.0	1436.6	1434.1	1428.1	1423.9	1422.1	1417.2
17.5°	1397.3	1389.5	1381.0	1377.4	1370.8	1365.4	1362.9	1362.3
20°	1341.8	1329.2	1323.7	1318.3	1310.5	1305.6	1302.0	1297.2
22.5°	1277.9	1266.4	1258.6	1255.0	1248.3	1239.9	1233.8	1233.8
25°	1210.3	1200.0	1195.8	1188.0	1180.1	1177.1	1169.9	1168.7
27.5°	1145.7	1135.5	1127.0	1122.8	1113.8	1109.5	1103.5	1101.1
30°	1078.8	1066.7	1060.7	1060.1	1049.2	1045.0	1040.2	1037.7
32.5°	1011.8	1001.5	995.5	991.9	987.1	979.8	975.6	973.2
35°	945.4	938.8	933.4	929.1	921.3	917.7	914.1	911.0
37.5°	876.1	870.0	867.6	864.0	860.4	853.7	852.5	850.1
40°	809.1	801.2	801.2	798.8	795.2	794.6	792.8	792.8
42.5°	739.1	735.5	734.9	735.5	733.1	731.9	730.0	734.3
45°	669.7	671.5	668.5	669.1	667.9	670.3	670.3	672.7
47.5°	605.8	603.3	604.5	605.8	607.6	607.6	607.0	606.4
50°	537.6	540.0	542.4	539.4	540.6	541.2	538.2	538.8
52.5°	479.1	479.7	481.5	479.7	481.5	480.9	482.1	479.7
55°	422.3	422.3	424.8	425.4	426.0	427.8	428.4	430.2
57.5°	367.4	370.5	373.5	372.9	375.3	377.7	375.9	377.7
60°	319.8	322.2	325.2	326.4	328.2	329.4	329.4	330.6
62.5°	271.5	276.3	278.7	281.2	281.2	283.6	286.0	286.6
65°	228.1	233.5	235.3	237.1	238.3	240.7	243.8	243.1
67.5°	187.0	190.7	193.1	194.3	197.9	199.1	201.5	203.9
70°	146.6	151.4	153.2	155.7	158.7	161.1	163.5	164.7
72.5°	112.2	115.8	117.0	119.5	122.5	124.9	126.1	127.9
75°	78.4	84.5	85.1	86.9	89.3	92.3	94.1	93.5
77.5°	51.9	56.1	56.7	59.1	61.5	64.0	64.6	65.2
80°	30.8	33.2	33.8	35.0	36.8	38.0	39.2	40.4
82.5°	14.5	15.7	16.9	16.9	18.1	19.3	19.3	19.9
85°	4.8	4.8	5.4	5.4	6.0	6.0	6.6	6.0
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)