

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: P858106

Luminaire Tested: **LX4C45D010 EX4C459027 4LBLWWH**

Issue Date: 2/14/2022



Test Information

Test Method: LM-79-08
Report Number: P858106
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2107-320-2)
Test Lab: INNOVATION CENTER
Issue Date: 2/14/2022
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: PORTFOLIO
Catalog Number: LX4C45D010 EX4C459027 4LBLWWH
Description: 4 INCH 4500 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 2700K, 90CRI LEDS
AND 4LRLWW TRIM WITH H FINISH
Light Source: -
Ballast/Driver: -

Summary

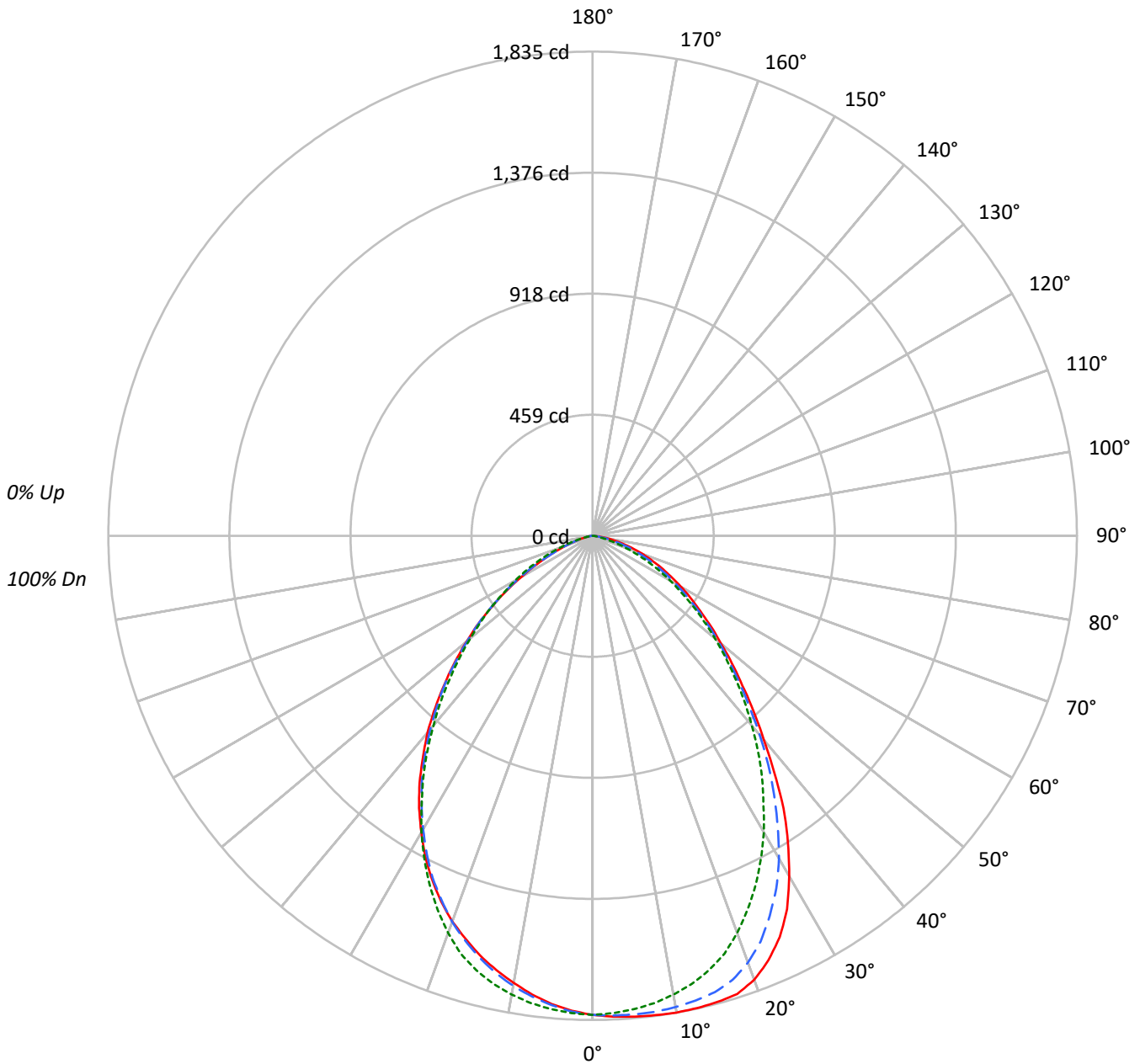
Lumens per Lamp: N/A
Luminaire Lumens: 3422.0 lumens
Efficiency: N/A
Efficacy: 69.0 lumens/watt
Spacing Criteria (0/90/45): 1.15 / 1.09 / 1.17
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 49.6
Input Voltage (V):
Input Current (A_{in}): 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

TEST NUMBER: P858106

CATALOG NUMBER: LX4C45D010 EX4C459027 4LBLWWH

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			0	
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																					
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100			100
1	111	107	104	101	108	105	102	99	101	98	96	97	95	93	94	92	90	88			88
2	103	96	90	86	100	94	89	85	91	86	83	88	84	81	85	82	79	77			77
3	95	86	79	74	93	85	78	73	82	76	72	79	75	71	77	73	70	68			68
4	88	78	70	64	86	77	69	64	74	68	63	72	67	62	70	65	62	60			60
5	82	71	63	57	80	69	62	57	67	61	56	66	60	55	64	59	55	53			53
6	76	64	56	51	74	63	56	50	62	55	50	60	54	50	59	53	49	47			47
7	71	59	51	46	69	58	51	45	57	50	45	55	49	45	54	49	44	43			43
8	67	54	47	41	65	54	46	41	52	46	41	51	45	41	50	45	40	39			39
9	62	50	43	38	61	50	42	37	48	42	37	47	41	37	47	41	37	35			35
10	59	47	39	34	58	46	39	34	45	39	34	44	38	34	43	38	34	32			32

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	223077	223077	223077
5°	225570	222117	219712
10°	228876	220244	214668
15°	232638	216740	209541
20°	234112	209364	203337
25°	227392	198044	195021
30°	211327	184076	184176
35°	189165	167794	171363
40°	161962	150415	155899
45°	139410	132617	137603
50°	121193	115459	118938
55°	106644	99319	98420
60°	94892	82877	76366
65°	83226	66395	55232
70°	71481	46911	37393
75°	58005	27199	21882
80°	41529	11886	10895
85°	15787	4934	4934



TEST NUMBER: P858106

CATALOG NUMBER: LX4C45D010 EX4C459027 4LBLWWH

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	171.1	5.0
10°-20°	484.4	14.2
20°-30°	691.7	20.2
30°-40°	723.6	21.1
40°-50°	606.3	17.7
50°-60°	424.3	12.4
60°-70°	231.1	6.8
70°-80°	80.2	2.3
80°-90°	9.2	0.3
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°	1347.3	39.4
0°-40°	2070.9	60.5
0°-60°	3101.5	90.6
0°-90°	3422.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3422.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1816	1816	1816	1816	1816	
5°	1829	1821	1801	1786	1782	175
15°	1829	1791	1704	1655	1648	517
25°	1678	1588	1461	1432	1439	766
35°	1261	1199	1119	1127	1143	782
45°	802	784	763	788	792	624
55°	498	481	464	464	460	450
65°	286	261	228	192	190	285
75°	122	99	57	46	46	132
85°	11	6	4	4	4	20
90°	0	0	0	0	0	



TEST NUMBER: P858106

CATALOG NUMBER: LX4C45D010 EX4C459027 4LBLWWH

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	1815.8	1815.8	1815.8	1815.8	1815.8	1815.8	1815.8	1815.8	1815.8	1815.8	1815.8
2.5°	1824.2	1822.1	1822.8	1822.8	1822.8	1822.1	1822.8	1822.1	1822.1	1821.4	1820.0
5°	1829.1	1827.7	1827.7	1827.7	1827.0	1826.3	1826.3	1825.6	1824.2	1823.5	1820.7
7.5°	1832.6	1831.2	1831.2	1830.5	1829.8	1829.1	1828.4	1826.3	1824.2	1822.8	1819.3
10°	1834.7	1832.6	1832.6	1831.2	1829.8	1829.1	1827.7	1824.9	1822.1	1818.6	1813.7
12.5°	1833.3	1831.2	1830.5	1829.1	1826.3	1824.9	1823.5	1820.0	1815.1	1810.2	1803.9
15°	1829.1	1827.7	1826.3	1824.2	1820.7	1818.6	1817.2	1811.6	1805.3	1798.3	1790.7
17.5°	1820.7	1818.6	1815.8	1813.0	1808.1	1806.0	1802.5	1795.5	1786.5	1776.7	1764.8
20°	1790.7	1789.3	1786.5	1781.6	1773.9	1771.1	1766.2	1757.1	1745.3	1733.4	1720.8
22.5°	1741.1	1739.0	1734.8	1730.6	1723.6	1718.7	1714.5	1702.0	1688.7	1676.1	1664.2
25°	1677.5	1675.4	1669.8	1664.2	1657.3	1648.9	1644.7	1634.9	1621.6	1605.6	1588.1
27.5°	1595.8	1588.8	1586.7	1580.4	1570.0	1567.2	1560.9	1548.3	1535.7	1521.8	1507.1
30°	1489.7	1489.7	1485.5	1482.7	1472.9	1470.1	1463.1	1449.8	1442.9	1423.3	1412.1
32.5°	1377.2	1375.8	1372.3	1370.2	1364.6	1359.8	1352.8	1345.8	1330.4	1320.6	1305.3
35°	1261.3	1252.9	1254.3	1250.1	1246.6	1241.0	1240.3	1232.6	1218.7	1213.1	1199.1
37.5°	1129.3	1125.8	1130.7	1124.4	1120.9	1121.6	1116.0	1111.1	1105.5	1095.8	1093.0
40°	1009.9	1012.7	1012.0	1006.4	1009.2	1005.7	1000.1	995.2	992.4	986.1	984.0
42.5°	903.0	898.8	897.4	897.4	898.1	898.1	895.3	891.8	891.8	885.6	879.3
45°	802.4	802.4	801.0	805.2	799.0	799.0	796.9	796.2	793.4	792.0	784.3
47.5°	715.8	715.1	714.4	713.7	713.0	713.0	708.9	705.4	704.7	700.5	696.3
50°	634.1	638.3	636.9	633.4	632.0	632.7	629.9	627.8	627.1	620.2	620.9
52.5°	565.7	565.0	566.4	564.3	560.8	561.5	558.7	555.9	553.1	549.6	546.8
55°	497.9	501.4	500.0	497.9	497.2	495.9	493.8	490.3	489.6	481.9	481.2
57.5°	441.4	440.7	439.3	435.8	435.1	433.0	433.0	430.2	426.0	421.8	418.3
60°	386.2	386.2	384.1	383.4	380.6	379.9	379.2	376.4	371.5	368.0	362.5
62.5°	333.1	334.5	333.1	331.0	328.9	326.1	324.7	322.7	318.5	315.0	310.1
65°	286.3	285.6	284.9	282.1	281.4	278.7	278.0	273.8	269.6	266.8	261.2
67.5°	241.6	239.5	239.5	238.1	236.8	234.7	233.3	229.1	224.2	221.4	215.8
70°	199.0	197.6	197.6	197.6	194.2	192.1	191.4	189.3	182.3	179.5	173.9
72.5°	159.9	159.2	158.5	156.4	154.3	154.3	151.5	147.4	143.9	140.4	136.2
75°	122.2	123.6	122.2	119.4	118.7	117.3	115.2	111.7	108.2	104.1	99.2
77.5°	89.4	88.0	86.6	86.6	85.2	82.4	81.7	78.9	74.7	71.9	67.0
80°	58.7	58.0	56.6	55.2	54.5	53.8	53.1	50.3	46.1	44.0	39.8
82.5°	32.1	31.4	31.4	30.7	28.6	28.6	27.9	25.1	23.0	21.6	19.6
85°	11.2	11.2	11.2	10.5	10.5	10.5	9.8	9.1	8.4	7.7	6.3
87.5°	1.4	0.7	1.4	0.7	1.4	0.7	0.7	0.7	0.7	0.7	0.7
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: P858106

CATALOG NUMBER: LX4C45D010 EX4C459027 4LBLWWH

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	1815.8	1815.8	1815.8	1815.8	1815.8	1815.8	1815.8	1815.8	1815.8	1815.8	1815.8
2.5°	1818.6	1817.2	1816.5	1815.8	1815.1	1814.4	1813.7	1812.3	1811.6	1810.9	1809.5
5°	1818.6	1815.8	1814.4	1812.3	1810.9	1809.5	1807.4	1805.3	1803.2	1801.1	1799.0
7.5°	1815.8	1811.6	1808.8	1804.6	1803.2	1801.1	1796.9	1794.1	1790.7	1786.5	1781.6
10°	1808.8	1803.9	1798.3	1792.7	1790.7	1787.2	1781.6	1776.7	1771.1	1765.5	1760.6
12.5°	1797.6	1790.0	1783.0	1775.3	1771.1	1767.6	1759.9	1752.9	1746.0	1739.7	1731.3
15°	1780.9	1771.8	1762.7	1752.2	1747.4	1743.2	1732.0	1723.6	1712.4	1704.1	1695.7
17.5°	1753.6	1739.7	1728.5	1715.2	1708.2	1703.4	1693.6	1680.3	1669.8	1660.8	1651.0
20°	1706.8	1693.6	1678.2	1663.5	1655.9	1649.6	1635.6	1621.6	1611.2	1601.4	1590.9
22.5°	1645.4	1628.6	1617.5	1599.3	1593.0	1585.3	1568.6	1556.0	1544.1	1534.3	1524.6
25°	1570.7	1556.0	1540.6	1523.9	1516.2	1507.1	1493.1	1479.9	1472.2	1461.0	1449.1
27.5°	1484.8	1472.9	1454.0	1439.4	1431.7	1424.7	1411.4	1399.6	1388.4	1380.7	1369.5
30°	1394.0	1380.0	1363.2	1347.9	1343.7	1335.3	1323.4	1314.4	1302.5	1297.6	1292.7
32.5°	1294.1	1278.0	1265.5	1255.7	1247.3	1240.3	1234.0	1219.4	1217.3	1204.7	1203.3
35°	1185.2	1178.2	1166.3	1157.9	1150.9	1146.0	1135.6	1128.6	1120.9	1118.8	1113.9
37.5°	1082.5	1074.1	1062.9	1055.3	1050.4	1049.7	1042.0	1037.8	1032.2	1029.4	1023.8
40°	974.9	971.5	961.7	960.3	952.6	951.9	947.7	942.8	937.9	937.9	938.6
42.5°	875.8	871.6	867.4	862.5	858.3	858.3	856.2	854.8	853.4	851.3	854.8
45°	782.9	777.3	774.5	769.6	771.7	767.5	766.1	766.1	764.0	763.3	768.2
47.5°	696.3	690.0	687.2	685.8	685.8	686.5	680.2	682.3	681.6	683.0	685.1
50°	617.4	611.8	607.6	607.6	608.3	605.5	602.7	604.8	602.7	604.1	609.0
52.5°	544.0	538.5	536.4	536.4	532.2	531.5	532.9	530.1	530.8	531.5	534.3
55°	476.3	472.8	469.3	465.8	466.5	465.1	462.3	461.6	463.0	463.7	467.2
57.5°	415.5	410.6	405.8	404.4	403.0	403.0	399.5	398.8	400.2	396.7	396.7
60°	357.6	354.8	348.5	346.4	346.4	342.9	340.1	341.5	338.0	337.3	338.0
62.5°	303.8	301.7	297.5	293.3	291.9	290.5	287.0	285.6	284.2	281.4	277.3
65°	257.0	252.1	247.2	244.4	242.3	238.8	236.8	234.0	229.8	228.4	224.2
67.5°	210.2	205.3	200.4	198.3	196.2	194.2	190.7	187.2	182.3	176.7	171.8
70°	169.0	162.7	159.9	154.3	152.9	150.2	145.3	141.8	136.9	130.6	125.7
72.5°	129.2	125.0	120.8	115.9	112.4	110.3	106.2	100.6	95.0	91.5	86.6
75°	92.9	90.8	85.2	79.6	78.2	75.4	70.5	67.0	62.9	57.3	53.1
77.5°	62.9	58.7	55.2	50.3	48.9	46.1	43.3	39.8	37.0	33.5	30.7
80°	37.0	33.5	31.4	27.9	26.5	25.1	23.0	20.3	18.2	16.8	16.1
82.5°	18.2	15.4	14.7	12.6	11.9	11.2	9.8	9.1	7.7	7.7	7.7
85°	6.3	4.9	4.9	4.2	3.5	3.5	3.5	3.5	3.5	3.5	3.5
87.5°	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	1.4	0.7
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: P858106

CATALOG NUMBER: LX4C45D010 EX4C459027 4LBLWWH

CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	1815.8	1815.8	1815.8	1815.8	1815.8	1815.8	1815.8	1815.8	1815.8	1815.8	1815.8
2.5°	1808.8	1808.1	1807.4	1806.7	1806.7	1806.0	1806.0	1805.3	1805.3	1804.6	1804.6
5°	1796.2	1794.1	1792.7	1791.4	1791.4	1789.3	1787.9	1786.5	1785.8	1785.8	1784.4
7.5°	1778.8	1776.0	1773.2	1771.1	1770.4	1766.9	1764.1	1764.1	1761.3	1759.9	1758.5
10°	1755.7	1750.8	1746.7	1744.6	1741.8	1739.7	1736.2	1734.1	1732.0	1728.5	1727.8
12.5°	1724.3	1720.8	1714.5	1711.7	1710.3	1706.2	1700.6	1697.8	1697.1	1694.3	1692.2
15°	1688.7	1681.0	1675.4	1671.9	1671.9	1664.9	1662.2	1658.0	1655.2	1653.1	1652.4
17.5°	1642.6	1634.9	1629.3	1624.4	1623.0	1617.5	1613.3	1611.9	1608.4	1609.8	1606.3
20°	1583.2	1576.9	1572.8	1566.5	1566.5	1563.0	1561.6	1558.1	1556.7	1555.3	1556.7
22.5°	1519.7	1512.0	1505.0	1504.3	1504.3	1499.4	1498.7	1498.0	1495.2	1497.3	1496.6
25°	1445.0	1439.4	1435.2	1434.5	1434.5	1431.7	1428.9	1430.3	1432.4	1431.7	1433.8
27.5°	1367.4	1361.8	1360.5	1359.8	1358.4	1357.7	1359.1	1359.1	1361.1	1363.9	1366.7
30°	1283.6	1282.2	1280.1	1279.4	1278.0	1281.5	1282.9	1285.0	1284.3	1288.5	1291.3
32.5°	1199.8	1197.0	1196.3	1197.7	1199.8	1199.1	1203.3	1204.7	1206.1	1211.0	1213.1
35°	1115.3	1114.6	1113.2	1113.2	1113.9	1119.5	1119.5	1124.4	1127.2	1128.6	1134.2
37.5°	1024.5	1027.3	1028.7	1030.8	1031.5	1033.6	1035.0	1039.9	1042.7	1045.5	1048.3
40°	941.4	940.0	946.3	942.1	943.5	949.8	952.6	951.9	956.1	960.3	963.1
42.5°	852.7	854.8	856.2	857.6	861.1	861.8	865.3	870.2	871.6	876.5	877.9
45°	766.8	767.5	770.3	773.1	775.2	780.8	782.2	784.3	788.5	788.5	790.6
47.5°	685.8	688.6	688.6	692.8	696.3	695.6	700.5	701.9	701.2	704.7	706.1
50°	608.3	612.5	611.8	614.6	616.0	616.7	620.9	622.3	619.5	623.0	623.7
52.5°	534.3	536.4	539.2	539.9	538.5	541.9	540.5	543.3	542.6	545.4	542.6
55°	466.5	465.8	465.8	467.2	465.8	467.2	468.6	465.8	463.7	466.5	465.8
57.5°	398.8	398.8	397.4	399.5	397.4	395.3	394.6	392.5	390.4	390.4	389.7
60°	335.2	333.8	331.0	330.3	330.3	326.8	325.4	322.7	322.7	319.9	317.1
62.5°	275.9	272.4	270.3	270.3	268.9	265.4	259.1	254.9	253.5	249.3	248.6
65°	220.0	216.5	214.4	210.2	206.7	205.3	199.0	194.2	192.1	187.9	188.6
67.5°	169.0	163.4	157.1	154.3	152.2	147.4	145.3	141.8	139.7	139.7	139.7
70°	121.5	116.6	110.3	108.2	106.9	102.7	100.6	99.9	102.0	101.3	102.0
72.5°	81.7	76.8	74.0	72.6	71.2	69.1	70.5	71.2	69.8	70.5	71.2
75°	49.6	48.2	46.1	45.4	45.4	46.1	45.4	45.4	46.1	46.1	46.8
77.5°	28.6	27.2	27.2	26.5	27.9	27.2	27.2	27.2	27.9	27.9	27.9
80°	15.4	15.4	15.4	15.4	16.1	15.4	16.1	16.1	16.1	16.1	16.1
82.5°	7.7	7.7	7.7	8.4	8.4	8.4	8.4	8.4	8.4	8.4	7.7
85°	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
87.5°	0.7	1.4	1.4	1.4	1.4	1.4	0.7	0.7	0.7	0.7	0.7
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: P858106

CATALOG NUMBER: LX4C45D010 EX4C459027 4LBLWWH

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	1815.8	1815.8	1815.8	1815.8	1815.8	1815.8	1815.8	1815.8
2.5°	1803.2	1803.2	1803.2	1801.8	1802.5	1802.5	1801.8	1801.8
5°	1783.7	1783.0	1781.6	1781.6	1780.2	1781.6	1780.9	1781.6
7.5°	1757.1	1757.1	1755.0	1755.0	1754.3	1753.6	1752.9	1753.6
10°	1725.7	1725.7	1724.3	1723.6	1724.3	1721.5	1721.5	1720.8
12.5°	1690.8	1689.4	1688.0	1688.7	1688.0	1685.9	1685.2	1685.9
15°	1650.3	1648.2	1648.9	1646.8	1646.8	1646.1	1647.5	1647.5
17.5°	1605.6	1604.2	1602.8	1603.5	1602.1	1602.8	1602.1	1601.4
20°	1556.0	1555.3	1555.3	1552.5	1553.2	1552.5	1553.2	1555.3
22.5°	1498.7	1498.0	1498.7	1496.6	1498.0	1498.0	1500.1	1500.1
25°	1435.9	1435.2	1436.6	1437.3	1438.0	1440.1	1438.0	1438.7
27.5°	1366.0	1368.1	1370.2	1370.9	1373.7	1371.6	1370.2	1372.3
30°	1295.5	1295.5	1294.8	1297.6	1299.7	1301.8	1298.3	1298.3
32.5°	1214.5	1218.0	1218.0	1218.7	1220.8	1220.8	1220.8	1223.6
35°	1137.0	1139.1	1139.8	1137.0	1138.4	1137.7	1142.6	1142.6
37.5°	1050.4	1050.4	1051.1	1056.0	1056.0	1053.9	1055.3	1055.3
40°	968.0	968.7	965.9	967.3	970.8	969.4	970.8	972.1
42.5°	877.9	882.8	880.0	881.4	880.7	881.4	882.1	882.1
45°	792.0	793.4	793.4	794.1	795.5	796.9	792.7	792.0
47.5°	708.2	708.9	711.0	707.5	711.7	707.5	711.7	706.8
50°	623.7	626.4	624.4	625.8	623.7	623.7	623.0	622.3
52.5°	543.3	542.6	542.6	541.9	541.9	543.3	541.9	544.0
55°	463.0	463.7	462.3	461.6	460.9	463.0	460.9	459.5
57.5°	386.9	388.3	385.5	386.9	382.0	384.1	384.8	385.5
60°	316.4	314.3	314.3	311.5	311.5	313.6	310.8	310.8
62.5°	245.1	246.5	244.4	247.2	247.2	250.0	248.6	250.0
65°	187.9	188.6	189.3	189.3	189.3	193.5	192.1	190.0
67.5°	141.8	142.5	143.2	142.5	144.6	143.2	143.2	143.9
70°	102.7	103.4	104.1	104.1	103.4	104.1	104.1	104.1
72.5°	71.2	71.9	71.2	71.9	72.6	71.9	71.9	72.6
75°	46.8	46.8	46.1	46.1	46.1	46.1	46.8	46.1
77.5°	27.2	27.9	27.2	27.9	27.9	27.9	27.9	27.9
80°	16.1	16.1	16.1	15.4	16.1	16.1	16.1	15.4
82.5°	8.4	8.4	7.7	7.7	8.4	8.4	8.4	8.4
85°	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
87.5°	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
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)