

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: P858204

Luminaire Tested: **LX4C45D010 EX4C459730 4LBLWW\***

Issue Date: 2/9/2022



**Test Information**

Test Method: LM-79-08  
Report Number: P858204  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2107-320-1)  
Test Lab: INNOVATION CENTER  
Issue Date: 2/9/2022  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: PORTFOLIO  
Catalog Number: LX4C45D010 EX4C459730 4LBLWW\*  
Description: 4 INCH 4500 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 3000K, 97CRI LEDS  
AND 4LRLWW TRIM WITH \* FINISH  
Light Source: -  
Ballast/Driver: -

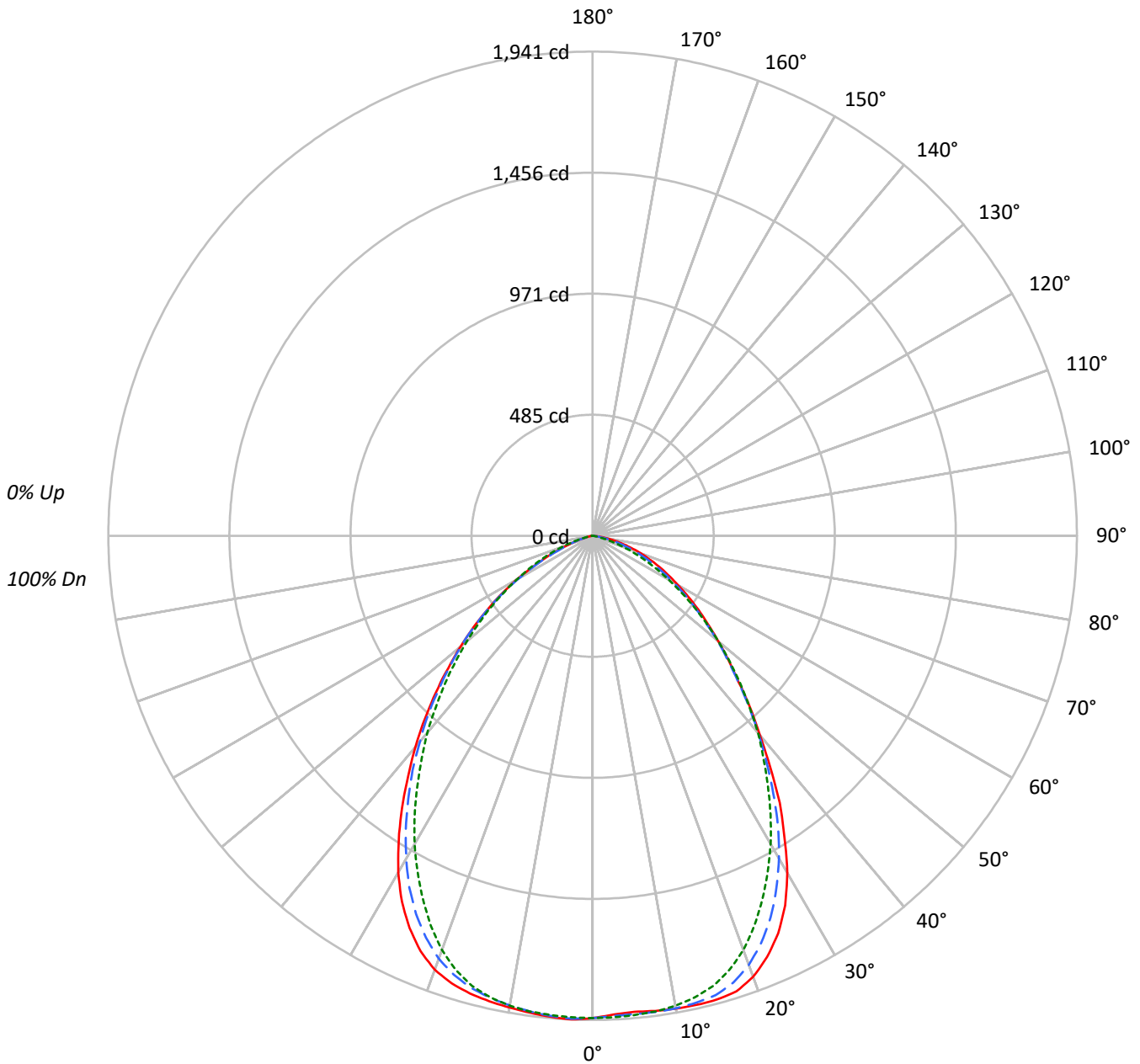
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3707.0 lumens  
Efficiency: N/A  
Efficacy: 74.7 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.12 / 1.18  
Luminous Opening: Circular (Dia: 0.33' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 49.6  
Input Voltage (V):  
Input Current (A<sub>in</sub>): 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: P858204

CATALOG NUMBER: LX4C45D010 EX4C459730 4LBLWW\*

### Luminous Intensity Polar Plot





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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20									20									20									20									
RC	80									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																			
1	111	107	104	101	109	105	102	99	101	99	96	97	95	93	94	92	91	89																			
2	103	96	91	86	101	95	89	85	91	87	83	88	84	81	85	82	80	78																			
3	95	87	80	74	93	85	79	74	82	77	72	80	75	71	77	73	70	68																			
4	88	78	71	65	86	77	70	65	75	69	64	72	67	63	70	66	62	60																			
5	82	71	63	57	80	70	63	57	68	61	57	66	60	56	64	59	55	54																			
6	76	65	57	51	75	64	56	51	62	56	51	61	55	50	59	54	50	48																			
7	71	59	51	46	70	59	51	46	57	50	46	56	50	45	54	49	45	43																			
8	67	55	47	42	65	54	47	42	53	46	41	52	46	41	50	45	41	39																			
9	63	51	43	38	61	50	43	38	49	42	38	48	42	38	47	41	37	36																			
10	59	47	40	35	58	46	39	35	45	39	35	45	39	35	44	38	34	33																			

**AVERAGE LUMINANCE (cd/sqm):**

	0°	90°	180°
0°	237549	237549	237549
5°	236212	237828	238716
10°	240129	238669	239580
15°	244823	237611	241580
20°	246049	230962	241970
25°	238480	218106	235227
30°	221357	202404	220945
35°	196019	183601	199709
40°	167093	165345	177117
45°	143562	145195	154282
50°	125321	125589	132259
55°	110735	106066	109643
60°	97054	86538	86169
65°	85901	67122	59738
70°	73277	46157	35453
75°	59286	24825	16186
80°	40610	6155	4103
85°	12263	2114	2114



TEST NUMBER: P858204

CATALOG NUMBER: LX4C45D010 EX4C459730 4LBLWW\*

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	183.8	5.0
10°-20°	532.0	14.4
20°-30°	768.7	20.7
30°-40°	794.6	21.4
40°-50°	656.6	17.7
50°-60°	453.1	12.2
60°-70°	237.2	6.4
70°-80°	74.7	2.0
80°-90°	6.3	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°	1484.4	40.0
0°-40°	2279.0	61.5
0°-60°	3388.8	91.4
0°-90°	3707.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3707.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	1934	1934	1934	1934	1934	
5°	1915	1925	1928	1932	1936	183
15°	1925	1907	1868	1877	1899	543
25°	1759	1688	1609	1674	1735	803
35°	1307	1263	1224	1288	1332	811
45°	826	823	836	874	888	644
55°	517	501	495	509	512	464
65°	296	268	231	192	206	293
75°	125	98	52	36	34	134
85°	9	4	2	2	2	18
90°	0	0	0	0	0	



TEST NUMBER: P858204

CATALOG NUMBER: LX4C45D010 EX4C459730 4LBLWW\*

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	1933.6	1933.6	1933.6	1933.6	1933.6	1933.6	1933.6	1933.6	1933.6	1933.6	1933.6
2.5°	1921.2	1921.9	1921.9	1923.4	1923.4	1923.4	1924.1	1924.1	1924.9	1925.6	1926.3
5°	1915.4	1915.4	1916.9	1917.6	1919.0	1919.8	1921.2	1921.9	1923.4	1924.1	1924.9
7.5°	1921.2	1921.2	1921.9	1922.7	1922.7	1923.4	1923.4	1924.1	1924.9	1925.6	1925.6
10°	1924.9	1924.9	1924.9	1924.9	1925.6	1925.6	1925.6	1924.9	1924.9	1924.9	1924.1
12.5°	1926.3	1926.3	1925.6	1924.9	1925.6	1924.9	1924.9	1922.7	1921.2	1919.8	1917.6
15°	1924.9	1924.9	1924.1	1923.4	1922.7	1921.2	1920.5	1916.9	1914.0	1909.6	1906.7
17.5°	1915.4	1914.0	1912.5	1911.1	1908.2	1906.0	1904.5	1898.0	1892.9	1885.6	1877.7
20°	1882.0	1880.6	1878.4	1874.8	1871.1	1868.2	1863.9	1854.4	1849.3	1838.4	1830.5
22.5°	1827.6	1826.1	1826.8	1820.3	1813.0	1808.7	1805.8	1797.8	1789.1	1775.3	1766.6
25°	1759.3	1754.9	1754.9	1744.8	1741.2	1738.2	1734.6	1725.2	1712.1	1699.8	1688.1
27.5°	1670.7	1664.9	1662.0	1660.6	1651.8	1645.3	1640.2	1633.0	1622.1	1611.2	1595.2
30°	1560.4	1559.6	1556.0	1549.5	1542.9	1540.0	1534.2	1521.9	1511.7	1503.7	1493.6
32.5°	1430.4	1429.7	1429.7	1429.7	1425.3	1424.6	1415.9	1409.3	1401.3	1389.0	1382.5
35°	1307.0	1306.2	1307.0	1296.1	1293.2	1291.0	1290.3	1285.9	1275.0	1269.2	1263.4
37.5°	1167.5	1169.7	1168.3	1165.4	1169.0	1162.5	1167.5	1158.1	1153.7	1152.3	1145.8
40°	1041.9	1047.7	1041.9	1042.7	1046.3	1039.8	1039.8	1038.3	1035.4	1033.9	1032.5
42.5°	934.5	927.2	931.6	927.9	931.6	929.4	925.8	927.9	928.7	925.8	925.0
45°	826.3	827.7	829.2	827.0	827.0	824.8	830.6	827.0	827.0	827.7	822.7
47.5°	738.4	736.3	737.7	736.3	737.0	735.5	737.0	737.7	736.3	736.3	731.9
50°	655.7	654.2	659.3	654.9	654.9	654.2	654.9	653.5	651.3	651.3	652.8
52.5°	583.8	580.9	580.1	583.8	578.7	578.7	579.4	578.0	575.1	573.6	570.0
55°	517.0	516.2	517.0	514.1	512.6	512.6	509.0	507.5	506.8	503.2	501.0
57.5°	454.5	452.4	453.1	452.4	449.4	448.7	445.8	445.8	442.9	440.0	436.4
60°	395.0	395.0	397.2	394.3	392.1	390.6	389.2	387.7	382.6	377.6	373.2
62.5°	342.0	342.7	342.0	339.8	338.4	336.9	335.5	331.1	326.7	323.8	318.8
65°	295.5	294.8	292.6	291.2	287.5	287.5	284.6	282.4	277.4	273.0	267.9
67.5°	247.6	246.1	246.1	246.1	241.8	241.1	239.6	235.3	230.9	225.1	220.7
70°	204.0	205.5	203.3	201.1	198.9	198.2	196.0	191.7	186.6	180.8	177.2
72.5°	162.6	164.1	161.9	161.2	156.8	155.4	154.7	151.0	145.2	141.6	135.8
75°	124.9	125.6	124.2	122.7	119.8	119.1	115.4	112.5	108.9	103.1	98.0
77.5°	90.0	88.6	88.6	85.7	82.8	82.8	82.0	77.7	72.6	68.3	63.9
80°	57.4	56.6	54.5	53.0	50.8	50.1	49.4	45.7	42.1	39.2	36.3
82.5°	29.0	28.3	27.6	26.9	25.4	24.0	24.7	21.8	20.3	17.4	15.2
85°	8.7	9.4	9.4	8.7	8.0	8.0	8.0	7.3	5.8	5.1	4.4
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: P858204

CATALOG NUMBER: LX4C45D010 EX4C459730 4LBLWW\*

**CANDELA DISTRIBUTION (continued):**

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	1933.6	1933.6	1933.6	1933.6	1933.6	1933.6	1933.6	1933.6	1933.6	1933.6	1933.6
2.5°	1927.0	1927.8	1928.5	1929.2	1929.2	1929.9	1930.7	1931.4	1932.1	1932.1	1932.8
5°	1925.6	1927.0	1927.0	1927.8	1927.8	1927.8	1928.5	1928.5	1928.5	1928.5	1929.2
7.5°	1926.3	1926.3	1926.3	1925.6	1925.6	1924.9	1924.9	1924.9	1923.4	1923.4	1923.4
10°	1922.7	1921.9	1921.2	1919.8	1919.0	1918.3	1916.9	1915.4	1914.0	1913.2	1911.8
12.5°	1915.4	1912.5	1909.6	1906.7	1905.2	1904.5	1901.6	1899.4	1897.3	1895.1	1893.6
15°	1900.9	1896.5	1891.5	1885.6	1884.2	1882.7	1877.7	1873.3	1870.4	1868.2	1864.6
17.5°	1871.8	1863.1	1857.3	1848.6	1845.0	1843.5	1835.5	1831.2	1826.1	1824.7	1821.7
20°	1820.3	1812.3	1801.4	1793.4	1789.1	1784.7	1778.2	1772.4	1766.6	1766.6	1762.9
22.5°	1755.7	1745.5	1731.7	1721.5	1720.8	1712.1	1706.3	1699.8	1697.6	1693.2	1693.2
25°	1674.4	1665.6	1650.4	1641.7	1637.3	1635.1	1625.7	1617.0	1612.6	1609.0	1611.9
27.5°	1584.3	1571.2	1559.6	1548.7	1545.1	1540.8	1532.0	1528.4	1520.4	1519.7	1519.0
30°	1481.2	1468.1	1456.5	1451.4	1444.2	1440.6	1434.0	1429.7	1426.8	1426.8	1425.3
32.5°	1373.0	1361.4	1355.6	1344.7	1341.1	1336.0	1331.6	1327.3	1328.7	1327.3	1328.0
35°	1256.1	1253.2	1242.3	1235.8	1235.8	1235.1	1227.8	1224.9	1223.5	1224.2	1227.8
37.5°	1145.0	1136.3	1129.1	1124.7	1128.3	1124.0	1123.3	1123.3	1127.6	1124.7	1130.5
40°	1026.7	1026.0	1023.1	1024.5	1025.2	1020.1	1021.6	1022.3	1025.2	1031.0	1031.8
42.5°	923.6	922.9	922.9	922.9	921.4	918.5	921.4	926.5	925.8	930.1	933.7
45°	824.1	822.7	825.6	823.4	827.7	829.2	827.0	828.5	832.8	835.7	841.5
47.5°	733.3	733.3	734.1	735.5	731.2	734.8	736.3	739.2	741.3	742.8	745.7
50°	649.1	649.1	647.7	647.7	647.7	649.8	646.9	650.6	651.3	657.1	660.7
52.5°	571.4	567.8	570.0	568.5	565.6	564.2	565.6	566.3	570.7	572.2	576.5
55°	497.4	497.4	491.6	490.1	492.3	491.6	490.8	490.8	493.0	495.2	498.8
57.5°	432.0	427.7	423.3	422.6	420.4	421.1	421.1	420.4	419.0	419.7	420.4
60°	370.3	367.4	360.9	360.9	360.1	359.4	355.8	355.1	351.4	352.2	349.2
62.5°	313.7	312.2	303.5	300.6	300.6	298.4	294.8	294.1	289.0	289.0	286.1
65°	262.8	258.5	253.4	248.3	248.3	245.4	243.2	236.7	233.1	230.9	226.5
67.5°	216.4	209.8	204.8	200.4	197.5	196.8	191.7	187.3	181.5	177.9	171.4
70°	171.4	166.3	161.2	156.8	153.9	151.0	145.9	139.4	135.1	128.5	124.2
72.5°	129.2	124.9	120.5	114.7	111.1	108.9	103.8	98.0	90.8	86.4	80.6
75°	92.9	87.9	82.0	77.0	74.8	72.6	66.8	62.4	57.4	52.3	46.5
77.5°	60.3	54.5	50.1	44.3	43.6	42.1	36.3	31.9	28.3	25.4	21.8
80°	31.9	29.0	25.4	21.8	20.3	18.2	15.2	13.1	10.9	8.7	7.3
82.5°	13.8	11.6	9.4	8.0	7.3	6.5	5.1	4.4	3.6	3.6	2.9
85°	3.6	2.9	2.9	2.2	1.5	1.5	1.5	1.5	1.5	1.5	1.5
87.5°	0.0	0.0	0.0	0.0	0.7	0.7	0.7	0.0	0.7	0.7	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: P858204

CATALOG NUMBER: LX4C45D010 EX4C459730 4LBLWW\*

**CANDELA DISTRIBUTION (continued):**

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	1933.6	1933.6	1933.6	1933.6	1933.6	1933.6	1933.6	1933.6	1933.6	1933.6	1933.6
2.5°	1933.6	1934.3	1935.0	1935.0	1935.7	1936.5	1936.5	1937.2	1937.9	1938.6	1938.6
5°	1929.9	1929.9	1929.9	1930.7	1930.7	1930.7	1930.7	1932.1	1932.1	1932.8	1933.6
7.5°	1922.7	1922.7	1922.7	1922.7	1921.9	1922.7	1921.9	1921.9	1923.4	1924.1	1924.9
10°	1911.1	1910.3	1910.3	1909.6	1909.6	1909.6	1910.3	1911.1	1911.8	1912.5	1914.7
12.5°	1892.9	1892.2	1892.2	1891.5	1891.5	1892.2	1892.9	1894.4	1897.3	1898.7	1901.6
15°	1863.9	1863.1	1863.9	1864.6	1866.0	1868.2	1870.4	1872.6	1876.9	1880.6	1884.2
17.5°	1821.7	1822.5	1823.2	1824.7	1826.8	1829.7	1835.5	1841.4	1846.4	1852.2	1858.1
20°	1763.7	1766.6	1767.3	1772.4	1773.8	1780.4	1786.9	1795.6	1803.6	1810.9	1818.8
22.5°	1694.0	1696.1	1699.0	1704.8	1708.5	1717.2	1725.2	1735.3	1744.1	1753.5	1765.1
25°	1614.8	1615.5	1624.3	1624.3	1633.0	1640.2	1649.7	1660.6	1673.6	1686.0	1694.0
27.5°	1524.8	1528.4	1534.9	1537.8	1544.4	1556.0	1564.0	1577.1	1590.1	1601.0	1609.7
30°	1430.4	1433.3	1444.2	1445.6	1450.7	1460.9	1471.8	1484.1	1494.3	1506.6	1514.6
32.5°	1330.9	1338.9	1345.4	1350.5	1352.0	1367.2	1373.0	1381.7	1393.4	1405.7	1413.7
35°	1234.3	1238.0	1247.4	1250.3	1254.7	1263.4	1275.0	1282.3	1288.1	1296.1	1305.5
37.5°	1132.0	1142.9	1145.0	1153.7	1155.2	1163.2	1169.0	1177.7	1185.0	1192.2	1193.7
40°	1036.8	1040.5	1048.5	1050.6	1052.1	1063.0	1070.2	1072.4	1076.1	1082.6	1091.3
42.5°	940.3	943.9	952.6	950.4	957.0	962.1	965.7	974.4	978.0	980.2	980.2
45°	845.2	846.6	852.4	855.3	859.0	861.9	868.4	872.8	874.2	880.7	882.9
47.5°	754.4	755.9	760.2	765.3	763.8	767.5	774.7	776.9	777.6	782.0	784.2
50°	665.1	668.7	674.5	673.1	677.4	679.6	686.2	687.6	687.6	688.3	689.1
52.5°	581.6	584.5	586.0	587.4	589.6	593.2	596.1	594.7	597.6	600.5	598.3
55°	498.8	501.0	504.6	506.1	506.1	506.8	505.4	511.9	509.0	508.3	509.0
57.5°	423.3	420.4	419.7	423.3	424.8	424.0	421.9	424.8	424.8	423.3	421.1
60°	350.0	347.8	347.1	347.8	344.9	342.7	344.2	342.7	339.1	337.6	338.4
62.5°	283.2	281.0	275.2	275.2	273.7	273.0	267.2	267.9	265.0	260.7	262.1
65°	221.5	215.6	212.7	212.0	206.9	202.6	201.1	196.0	191.7	191.0	191.7
67.5°	166.3	159.7	154.7	152.5	149.6	145.9	140.9	136.5	138.0	137.2	140.1
70°	115.4	111.1	106.0	102.4	103.8	99.5	96.6	96.6	97.3	98.0	99.5
72.5°	77.0	71.2	69.0	66.8	65.3	62.4	63.9	63.9	63.2	63.9	62.4
75°	43.6	40.7	38.5	37.8	36.3	36.3	36.3	36.3	35.6	34.9	34.9
77.5°	19.6	18.2	17.4	16.7	16.7	16.7	16.0	15.2	15.2	15.2	14.5
80°	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5
82.5°	2.9	2.9	3.6	3.6	3.6	2.9	3.6	3.6	2.9	2.9	3.6
85°	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
87.5°	0.7	0.7	0.7	0.0	0.7	0.7	0.7	0.7	0.0	0.7	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: P858204

CATALOG NUMBER: LX4C45D010 EX4C459730 4LBLWW\*

**CANDELA DISTRIBUTION (continued):**

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	1933.6	1933.6	1933.6	1933.6	1933.6	1933.6	1933.6	1933.6
2.5°	1939.4	1940.1	1940.1	1940.1	1940.8	1940.8	1940.8	1940.8
5°	1934.3	1935.0	1935.0	1935.0	1935.7	1935.7	1935.7	1935.7
7.5°	1925.6	1926.3	1926.3	1927.0	1927.0	1927.8	1927.8	1928.5
10°	1915.4	1916.9	1917.6	1918.3	1919.0	1919.8	1919.8	1920.5
12.5°	1904.5	1906.0	1906.7	1908.2	1909.6	1910.3	1911.1	1911.8
15°	1888.5	1891.5	1892.9	1893.6	1896.5	1898.0	1898.7	1899.4
17.5°	1863.1	1868.9	1871.1	1872.6	1875.5	1878.4	1880.6	1881.3
20°	1826.8	1833.4	1836.3	1839.9	1844.3	1847.9	1849.3	1850.8
22.5°	1776.0	1783.3	1787.6	1792.0	1795.6	1799.2	1805.0	1802.9
25°	1703.4	1715.7	1720.8	1723.0	1731.0	1735.3	1738.2	1735.3
27.5°	1622.1	1629.3	1633.7	1638.8	1644.6	1648.9	1650.4	1654.7
30°	1524.1	1536.4	1535.7	1540.8	1548.0	1552.4	1553.8	1557.5
32.5°	1422.4	1428.2	1432.6	1431.8	1434.7	1442.7	1439.8	1446.4
35°	1314.2	1314.9	1322.2	1321.5	1327.3	1327.3	1327.3	1331.6
37.5°	1198.8	1207.5	1203.8	1212.6	1209.7	1211.8	1211.8	1213.3
40°	1093.5	1096.4	1096.4	1099.3	1101.5	1099.3	1100.7	1104.4
42.5°	984.6	987.5	988.2	986.8	988.9	995.5	990.4	994.7
45°	882.9	885.1	888.0	885.8	889.5	887.3	889.5	888.0
47.5°	787.1	786.4	785.6	791.4	786.4	787.1	790.0	784.9
50°	689.1	693.4	690.5	692.7	694.1	694.1	692.0	692.0
52.5°	601.9	601.2	599.0	601.2	599.7	600.5	601.9	600.5
55°	511.9	514.8	513.3	512.6	513.3	513.3	517.7	511.9
57.5°	423.3	421.9	424.0	429.1	424.0	427.7	429.8	430.6
60°	339.1	339.1	343.4	341.3	345.6	349.2	352.2	350.7
62.5°	258.5	262.1	263.6	264.3	268.7	271.6	271.6	270.8
65°	191.7	196.8	196.8	199.7	201.1	201.1	202.6	205.5
67.5°	141.6	141.6	142.3	143.8	143.0	143.0	144.5	145.2
70°	98.7	97.3	99.5	98.7	98.7	98.0	98.7	98.7
72.5°	62.4	62.4	63.2	62.4	61.0	61.7	61.7	63.2
75°	33.4	34.9	33.4	33.4	34.1	32.7	33.4	34.1
77.5°	13.8	13.8	13.8	13.8	13.8	13.1	13.1	13.1
80°	6.5	6.5	6.5	6.5	6.5	6.5	5.8	5.8
82.5°	2.9	3.6	2.9	3.6	2.9	2.9	2.9	2.9
85°	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
87.5°	0.0	0.7	0.0	0.7	0.0	0.0	0.0	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)