

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: P858126

Luminaire Tested: **LX4C45D010 EX4C459030 4LBLWWH**

Issue Date: 2/14/2022



Test Information

Test Method: LM-79-08
Report Number: P858126
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 EX4C459030 4LBLWWH
Description: 4 INCH 4500 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 3000K, 90CRI LEDS
AND 4LRLWW TRIM WITH H FINISH
Light Source: -
Ballast/Driver: -

Summary

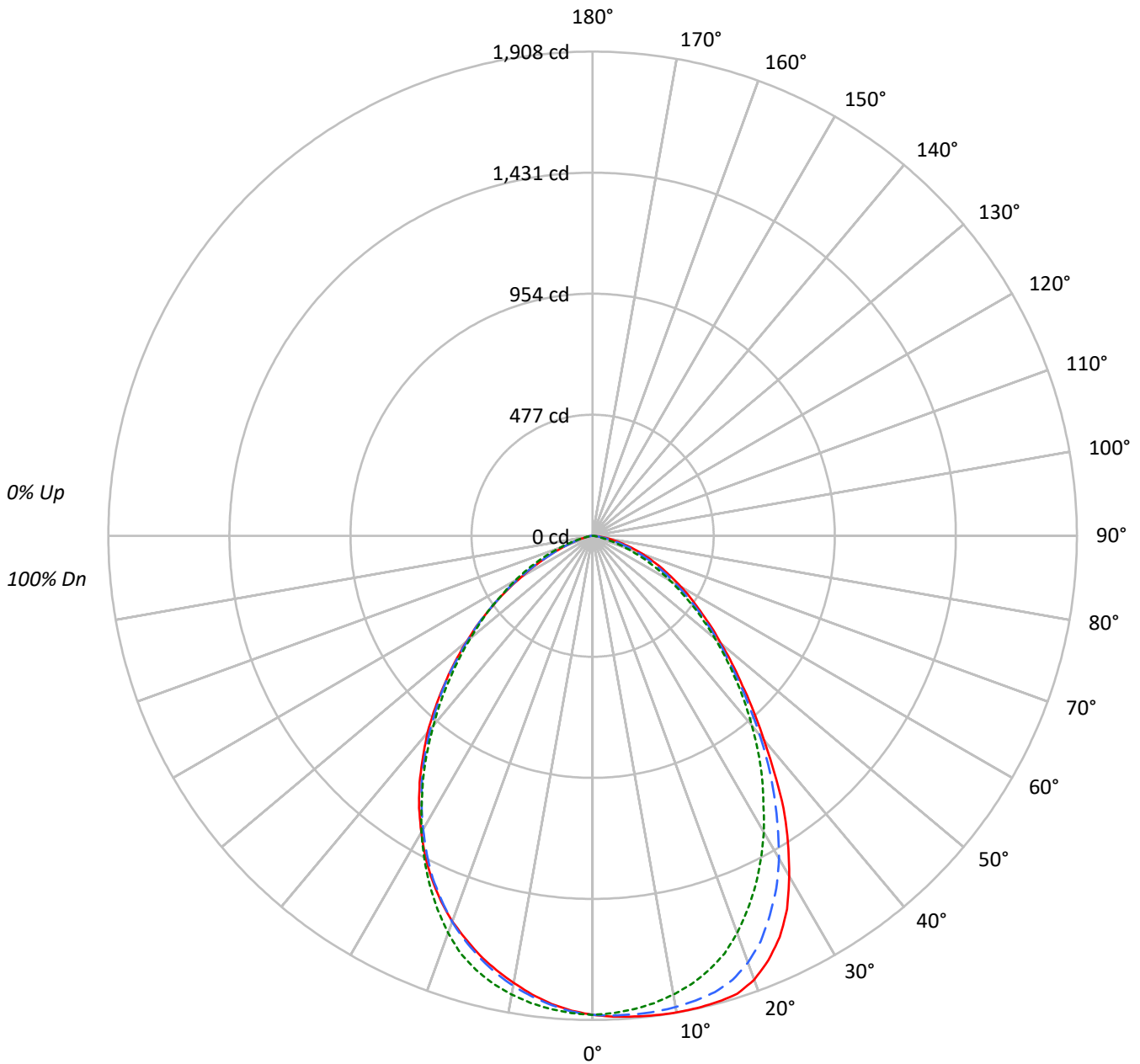
Lumens per Lamp: N/A
Luminaire Lumens: 3558.0 lumens
Efficiency: N/A
Efficacy: 71.7 lumens/watt
Spacing Criteria (0/90/45): 1.15 / 1.09 / 1.17
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

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

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

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	231947	231947	231947
5°	234535	230947	228443
10°	237971	229001	223200
15°	241885	225350	217872
20°	243408	217679	211416
25°	236433	205920	202761
30°	219725	191396	191495
35°	196679	174468	178172
40°	168393	156397	162106
45°	144952	137898	143058
50°	126009	120046	123659
55°	110885	103282	102339
60°	98676	86169	79388
65°	86540	69011	57412
70°	74318	48779	38865
75°	60330	28243	22737
80°	43157	12310	11320
85°	16351	5075	5075



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	177.9	5.0
10°-20°	503.7	14.2
20°-30°	719.2	20.2
30°-40°	752.4	21.1
40°-50°	630.4	17.7
50°-60°	441.2	12.4
60°-70°	240.2	6.8
70°-80°	83.4	2.3
80°-90°	9.6	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°	1400.8	39.4
0°-40°	2153.2	60.5
0°-60°	3224.8	90.6
0°-90°	3558.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3558.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1888	1888	1888	1888	1888	
5°	1902	1893	1873	1857	1852	182
15°	1902	1862	1772	1721	1713	537
25°	1744	1651	1519	1489	1496	796
35°	1311	1247	1163	1172	1188	813
45°	834	816	794	820	823	649
55°	518	500	482	482	478	468
65°	298	272	237	200	198	296
75°	127	103	60	48	48	137
85°	12	6	4	4	4	21
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°	1888.0	1888.0	1888.0	1888.0	1888.0	1888.0	1888.0	1888.0	1888.0	1888.0	1888.0
2.5°	1896.7	1894.5	1895.2	1895.2	1895.2	1894.5	1895.2	1894.5	1894.5	1893.8	1892.3
5°	1901.8	1900.3	1900.3	1900.3	1899.6	1898.9	1898.9	1898.1	1896.7	1895.9	1893.0
7.5°	1905.4	1903.9	1903.9	1903.2	1902.5	1901.8	1901.0	1898.9	1896.7	1895.2	1891.6
10°	1907.6	1905.4	1905.4	1903.9	1902.5	1901.8	1900.3	1897.4	1894.5	1890.9	1885.8
12.5°	1906.1	1903.9	1903.2	1901.8	1898.9	1897.4	1895.9	1892.3	1887.2	1882.2	1875.6
15°	1901.8	1900.3	1898.9	1896.7	1893.0	1890.9	1889.4	1883.6	1877.1	1869.8	1861.8
17.5°	1893.0	1890.9	1888.0	1885.1	1880.0	1877.8	1874.2	1866.9	1857.5	1847.3	1835.0
20°	1861.8	1860.4	1857.5	1852.4	1844.4	1841.5	1836.4	1827.0	1814.6	1802.3	1789.2
22.5°	1810.3	1808.1	1803.7	1799.4	1792.1	1787.0	1782.7	1769.6	1755.8	1742.7	1730.4
25°	1744.2	1742.0	1736.2	1730.4	1723.1	1714.4	1710.1	1699.9	1686.1	1669.4	1651.2
27.5°	1659.2	1652.0	1649.8	1643.3	1632.4	1629.5	1622.9	1609.9	1596.8	1582.3	1567.0
30°	1548.9	1548.9	1544.5	1541.6	1531.4	1528.5	1521.3	1507.5	1500.2	1479.9	1468.3
32.5°	1431.9	1430.5	1426.9	1424.7	1418.9	1413.8	1406.5	1399.3	1383.3	1373.1	1357.2
35°	1311.4	1302.7	1304.1	1299.8	1296.2	1290.3	1289.6	1281.6	1267.1	1261.3	1246.8
37.5°	1174.2	1170.5	1175.6	1169.1	1165.5	1166.2	1160.4	1155.3	1149.5	1139.3	1136.4
40°	1050.0	1052.9	1052.2	1046.4	1049.3	1045.6	1039.8	1034.7	1031.8	1025.3	1023.1
42.5°	938.9	934.5	933.1	933.1	933.8	933.8	930.9	927.3	927.3	920.7	914.2
45°	834.3	834.3	832.9	837.2	830.7	830.7	828.5	827.8	824.9	823.4	815.5
47.5°	744.3	743.6	742.8	742.1	741.4	741.4	737.0	733.4	732.7	728.3	724.0
50°	659.3	663.7	662.2	658.6	657.2	657.9	655.0	652.8	652.1	644.8	645.5
52.5°	588.2	587.4	588.9	586.7	583.1	583.8	580.9	578.0	575.1	571.5	568.6
55°	517.7	521.4	519.9	517.7	517.0	515.6	513.4	509.7	509.0	501.0	500.3
57.5°	458.9	458.2	456.7	453.1	452.4	450.2	450.2	447.3	442.9	438.6	435.0
60°	401.6	401.6	399.4	398.7	395.7	395.0	394.3	391.4	386.3	382.7	376.9
62.5°	346.4	347.8	346.4	344.2	342.0	339.1	337.7	335.5	331.1	327.5	322.4
65°	297.7	297.0	296.3	293.4	292.6	289.7	289.0	284.6	280.3	277.4	271.6
67.5°	251.2	249.1	249.1	247.6	246.2	244.0	242.5	238.2	233.1	230.2	224.4
70°	206.9	205.5	205.5	205.5	201.9	199.7	199.0	196.8	189.5	186.6	180.8
72.5°	166.3	165.6	164.8	162.7	160.5	160.5	157.6	153.2	149.6	146.0	141.6
75°	127.1	128.5	127.1	124.2	123.4	122.0	119.8	116.2	112.6	108.2	103.1
77.5°	92.9	91.5	90.0	90.0	88.6	85.7	85.0	82.1	77.7	74.8	69.7
80°	61.0	60.3	58.8	57.4	56.6	55.9	55.2	52.3	47.9	45.7	41.4
82.5°	33.4	32.7	32.7	32.0	29.8	29.8	29.0	26.1	24.0	22.5	20.3
85°	11.6	11.6	11.6	10.9	10.9	10.9	10.2	9.4	8.7	8.0	6.5
87.5°	1.5	0.7	1.5	0.7	1.5	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



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CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	1888.0	1888.0	1888.0	1888.0	1888.0	1888.0	1888.0	1888.0	1888.0	1888.0	1888.0
2.5°	1890.9	1889.4	1888.7	1888.0	1887.2	1886.5	1885.8	1884.3	1883.6	1882.9	1881.4
5°	1890.9	1888.0	1886.5	1884.3	1882.9	1881.4	1879.2	1877.1	1874.9	1872.7	1870.5
7.5°	1888.0	1883.6	1880.7	1876.3	1874.9	1872.7	1868.4	1865.5	1861.8	1857.5	1852.4
10°	1880.7	1875.6	1869.8	1864.0	1861.8	1858.2	1852.4	1847.3	1841.5	1835.7	1830.6
12.5°	1869.1	1861.1	1853.8	1845.8	1841.5	1837.9	1829.9	1822.6	1815.3	1808.8	1800.1
15°	1851.7	1842.2	1832.8	1821.9	1816.8	1812.4	1800.8	1792.1	1780.5	1771.8	1763.1
17.5°	1823.3	1808.8	1797.2	1783.4	1776.1	1771.1	1760.9	1747.1	1736.2	1726.8	1716.6
20°	1774.7	1760.9	1744.9	1729.7	1721.7	1715.1	1700.6	1686.1	1675.2	1665.0	1654.1
22.5°	1710.8	1693.4	1681.7	1662.9	1656.3	1648.3	1630.9	1617.8	1605.5	1595.3	1585.2
25°	1633.1	1617.8	1601.9	1584.4	1576.4	1567.0	1552.5	1538.7	1530.7	1519.1	1506.7
27.5°	1543.8	1531.4	1511.8	1496.6	1488.6	1481.3	1467.5	1455.2	1443.6	1435.6	1424.0
30°	1449.4	1434.9	1417.4	1401.4	1397.1	1388.4	1376.0	1366.6	1354.2	1349.2	1344.1
32.5°	1345.5	1328.8	1315.8	1305.6	1296.9	1289.6	1283.1	1267.8	1265.7	1252.6	1251.1
35°	1232.3	1225.0	1212.7	1203.9	1196.7	1191.6	1180.7	1173.4	1165.5	1163.3	1158.2
37.5°	1125.5	1116.8	1105.2	1097.2	1092.1	1091.4	1083.4	1079.0	1073.2	1070.3	1064.5
40°	1013.7	1010.1	999.9	998.4	990.5	989.7	985.4	980.3	975.2	975.2	975.9
42.5°	910.6	906.2	901.9	896.8	892.4	892.4	890.2	888.8	887.3	885.2	888.8
45°	814.0	808.2	805.3	800.2	802.4	798.0	796.6	796.6	794.4	793.7	798.8
47.5°	724.0	717.4	714.5	713.1	713.1	713.8	707.3	709.4	708.7	710.2	712.3
50°	641.9	636.1	631.7	631.7	632.5	629.6	626.7	628.8	626.7	628.1	633.2
52.5°	565.7	559.9	557.7	557.7	553.3	552.6	554.0	551.1	551.9	552.6	555.5
55°	495.2	491.6	488.0	484.3	485.1	483.6	480.7	480.0	481.4	482.2	485.8
57.5°	432.1	427.0	421.9	420.4	419.0	419.0	415.4	414.6	416.1	412.4	412.4
60°	371.8	368.9	362.3	360.2	360.2	356.5	353.6	355.1	351.5	350.7	351.5
62.5°	315.9	313.7	309.3	305.0	303.5	302.1	298.4	297.0	295.5	292.6	288.3
65°	267.2	262.1	257.1	254.1	252.0	248.3	246.2	243.3	238.9	237.4	233.1
67.5°	218.6	213.5	208.4	206.2	204.0	201.9	198.2	194.6	189.5	183.7	178.6
70°	175.7	169.2	166.3	160.5	159.0	156.1	151.0	147.4	142.3	135.8	130.7
72.5°	134.3	130.0	125.6	120.5	116.9	114.7	110.4	104.6	98.8	95.1	90.0
75°	96.6	94.4	88.6	82.8	81.3	78.4	73.3	69.7	65.4	59.5	55.2
77.5°	65.4	61.0	57.4	52.3	50.8	47.9	45.0	41.4	38.5	34.9	32.0
80°	38.5	34.9	32.7	29.0	27.6	26.1	24.0	21.1	18.9	17.4	16.7
82.5°	18.9	16.0	15.2	13.1	12.3	11.6	10.2	9.4	8.0	8.0	8.0
85°	6.5	5.1	5.1	4.4	3.6	3.6	3.6	3.6	3.6	3.6	3.6
87.5°	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	1.5	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



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CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	1888.0	1888.0	1888.0	1888.0	1888.0	1888.0	1888.0	1888.0	1888.0	1888.0	1888.0
2.5°	1880.7	1880.0	1879.2	1878.5	1878.5	1877.8	1877.8	1877.1	1877.1	1876.3	1876.3
5°	1867.6	1865.5	1864.0	1862.5	1862.5	1860.4	1858.9	1857.5	1856.7	1856.7	1855.3
7.5°	1849.5	1846.6	1843.7	1841.5	1840.8	1837.1	1834.2	1834.2	1831.3	1829.9	1828.4
10°	1825.5	1820.4	1816.1	1813.9	1811.0	1808.8	1805.2	1803.0	1800.8	1797.2	1796.5
12.5°	1792.8	1789.2	1782.7	1779.8	1778.3	1774.0	1768.1	1765.2	1764.5	1761.6	1759.4
15°	1755.8	1747.8	1742.0	1738.4	1738.4	1731.1	1728.2	1723.9	1720.9	1718.8	1718.0
17.5°	1707.9	1699.9	1694.1	1689.0	1687.5	1681.7	1677.4	1675.9	1672.3	1673.8	1670.1
20°	1646.2	1639.6	1635.3	1628.7	1628.7	1625.1	1623.6	1620.0	1618.6	1617.1	1618.6
22.5°	1580.1	1572.1	1564.8	1564.1	1564.1	1559.0	1558.3	1557.6	1554.7	1556.8	1556.1
25°	1502.4	1496.6	1492.2	1491.5	1491.5	1488.6	1485.7	1487.1	1489.3	1488.6	1490.8
27.5°	1421.8	1416.0	1414.5	1413.8	1412.3	1411.6	1413.1	1413.1	1415.2	1418.1	1421.1
30°	1334.6	1333.2	1331.0	1330.3	1328.8	1332.5	1333.9	1336.1	1335.4	1339.7	1342.6
32.5°	1247.5	1244.6	1243.9	1245.3	1247.5	1246.8	1251.1	1252.6	1254.0	1259.1	1261.3
35°	1159.6	1158.9	1157.5	1157.5	1158.2	1164.0	1164.0	1169.1	1172.0	1173.4	1179.2
37.5°	1065.2	1068.2	1069.6	1071.8	1072.5	1074.7	1076.1	1081.2	1084.1	1087.0	1089.9
40°	978.8	977.4	983.9	979.6	981.0	987.5	990.5	989.7	994.1	998.4	1001.3
42.5°	886.6	888.8	890.2	891.7	895.3	896.1	899.7	904.8	906.2	911.3	912.8
45°	797.3	798.0	800.9	803.8	806.0	811.8	813.3	815.5	819.8	819.8	822.0
47.5°	713.1	716.0	716.0	720.3	724.0	723.2	728.3	729.8	729.0	732.7	734.1
50°	632.5	636.8	636.1	639.0	640.5	641.2	645.5	647.0	644.1	647.7	648.4
52.5°	555.5	557.7	560.6	561.3	559.9	563.5	562.0	564.9	564.2	567.1	564.2
55°	485.1	484.3	484.3	485.8	484.3	485.8	487.2	484.3	482.2	485.1	484.3
57.5°	414.6	414.6	413.2	415.4	413.2	411.0	410.3	408.1	405.9	405.9	405.2
60°	348.5	347.1	344.2	343.5	343.5	339.8	338.4	335.5	335.5	332.6	329.7
62.5°	286.8	283.2	281.0	281.0	279.6	275.9	269.4	265.0	263.6	259.2	258.5
65°	228.7	225.1	222.9	218.6	214.9	213.5	206.9	201.9	199.7	195.3	196.1
67.5°	175.7	169.9	163.4	160.5	158.3	153.2	151.0	147.4	145.2	145.2	145.2
70°	126.3	121.3	114.7	112.6	111.1	106.7	104.6	103.8	106.0	105.3	106.0
72.5°	85.0	79.9	77.0	75.5	74.1	71.9	73.3	74.1	72.6	73.3	74.1
75°	51.6	50.1	47.9	47.2	47.2	47.9	47.2	47.2	47.9	47.9	48.7
77.5°	29.8	28.3	28.3	27.6	29.0	28.3	28.3	28.3	29.0	29.0	29.0
80°	16.0	16.0	16.0	16.0	16.7	16.0	16.7	16.7	16.7	16.7	16.7
82.5°	8.0	8.0	8.0	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.0
85°	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
87.5°	0.7	1.5	1.5	1.5	1.5	1.5	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: P858126

CATALOG NUMBER: LX4C45D010 EX4C459030 4LBLWWH

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	1888.0	1888.0	1888.0	1888.0	1888.0	1888.0	1888.0	1888.0
2.5°	1874.9	1874.9	1874.9	1873.4	1874.2	1874.2	1873.4	1873.4
5°	1854.6	1853.8	1852.4	1852.4	1850.9	1852.4	1851.7	1852.4
7.5°	1827.0	1827.0	1824.8	1824.8	1824.1	1823.3	1822.6	1823.3
10°	1794.3	1794.3	1792.8	1792.1	1792.8	1789.9	1789.9	1789.2
12.5°	1758.0	1756.5	1755.1	1755.8	1755.1	1752.9	1752.2	1752.9
15°	1715.9	1713.7	1714.4	1712.2	1712.2	1711.5	1713.0	1713.0
17.5°	1669.4	1667.9	1666.5	1667.2	1665.8	1666.5	1665.8	1665.0
20°	1617.8	1617.1	1617.1	1614.2	1614.9	1614.2	1614.9	1617.1
22.5°	1558.3	1557.6	1558.3	1556.1	1557.6	1557.6	1559.7	1559.7
25°	1492.9	1492.2	1493.7	1494.4	1495.1	1497.3	1495.1	1495.8
27.5°	1420.3	1422.5	1424.7	1425.4	1428.3	1426.1	1424.7	1426.9
30°	1347.0	1347.0	1346.3	1349.2	1351.3	1353.5	1349.9	1349.9
32.5°	1262.8	1266.4	1266.4	1267.1	1269.3	1269.3	1269.3	1272.2
35°	1182.2	1184.3	1185.1	1182.2	1183.6	1182.9	1188.0	1188.0
37.5°	1092.1	1092.1	1092.8	1097.9	1097.9	1095.7	1097.2	1097.2
40°	1006.4	1007.2	1004.3	1005.7	1009.3	1007.9	1009.3	1010.8
42.5°	912.8	917.8	914.9	916.4	915.7	916.4	917.1	917.1
45°	823.4	824.9	824.9	825.6	827.1	828.5	824.2	823.4
47.5°	736.3	737.0	739.2	735.6	739.9	735.6	739.9	734.9
50°	648.4	651.3	649.2	650.6	648.4	648.4	647.7	647.0
52.5°	564.9	564.2	564.2	563.5	563.5	564.9	563.5	565.7
55°	481.4	482.2	480.7	480.0	479.3	481.4	479.3	477.8
57.5°	402.3	403.7	400.8	402.3	397.2	399.4	400.1	400.8
60°	328.9	326.8	326.8	323.9	323.9	326.0	323.1	323.1
62.5°	254.9	256.3	254.1	257.1	257.1	260.0	258.5	260.0
65°	195.3	196.1	196.8	196.8	196.8	201.1	199.7	197.5
67.5°	147.4	148.1	148.9	148.1	150.3	148.9	148.9	149.6
70°	106.7	107.5	108.2	108.2	107.5	108.2	108.2	108.2
72.5°	74.1	74.8	74.1	74.8	75.5	74.8	74.8	75.5
75°	48.7	48.7	47.9	47.9	47.9	47.9	48.7	47.9
77.5°	28.3	29.0	28.3	29.0	29.0	29.0	29.0	29.0
80°	16.7	16.7	16.7	16.0	16.7	16.7	16.7	16.0
82.5°	8.7	8.7	8.0	8.0	8.7	8.7	8.7	8.7
85°	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
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)