

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: P858168

Luminaire Tested: **LX4C45D010 EX4C459040 4LBLWWH**

Issue Date: 2/14/2022



Test Information

Test Method: LM-79-08
Report Number: P858168
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 EX4C459040 4LBLWWH
Description: 4 INCH 4500 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 4000K, 90CRI LEDS
AND 4LRLWW TRIM WITH H FINISH
Light Source: -
Ballast/Driver: -

Summary

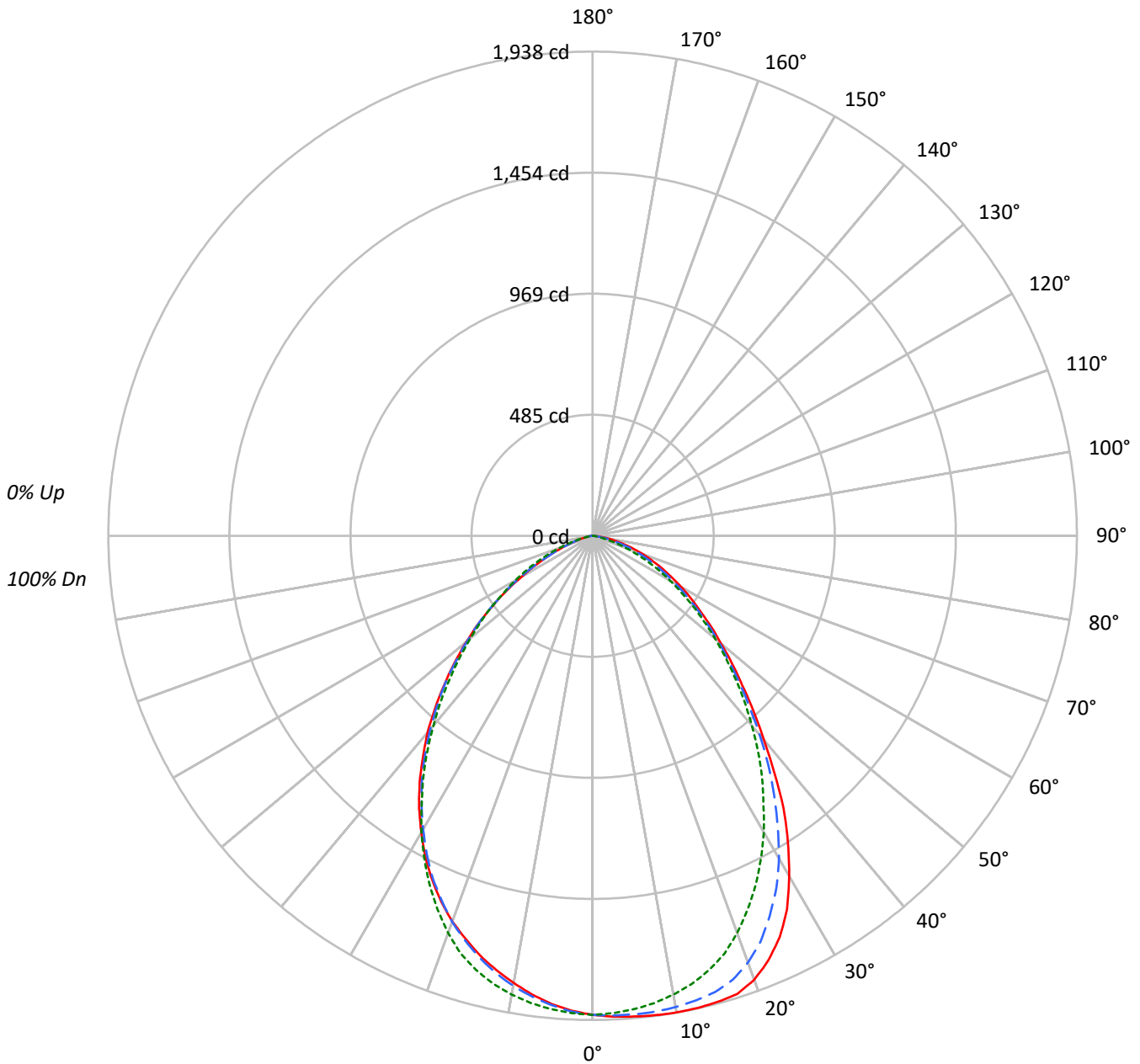
Lumens per Lamp: N/A
Luminaire Lumens: 3614.0 lumens
Efficiency: N/A
Efficacy: 72.9 lumens/watt
Spacing Criteria (0/90/45): 1.15 / 1.09 / 1.17
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

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				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			
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	48	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°	235596	235596	235596
5°	238223	234585	232032
10°	241713	232606	226718
15°	245688	228899	221293
20°	247239	221104	214750
25°	240147	209160	205960
30°	223173	194404	194503
35°	199769	177212	180977
40°	171039	158866	164656
45°	147246	140070	145317
50°	127997	121938	125608
55°	112642	104888	103946
60°	100224	87521	80641
65°	87906	70116	58314
70°	75504	49534	39476
75°	61280	28717	23116
80°	43864	12522	11461
85°	16633	5215	5215



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	180.7	5.0
10°-20°	511.6	14.2
20°-30°	730.5	20.2
30°-40°	764.2	21.1
40°-50°	640.3	17.7
50°-60°	448.1	12.4
60°-70°	244.0	6.8
70°-80°	84.7	2.3
80°-90°	9.7	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°	1422.9	39.4
0°-40°	2187.1	60.5
0°-60°	3275.5	90.6
0°-90°	3614.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3614.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1918	1918	1918	1918	1918	
5°	1932	1923	1902	1886	1882	185
15°	1932	1891	1800	1748	1740	545
25°	1772	1677	1543	1513	1519	809
35°	1332	1266	1182	1190	1207	826
45°	848	828	806	833	836	659
55°	526	508	490	490	485	475
65°	302	276	241	203	201	301
75°	129	105	60	49	49	139
85°	12	7	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°	1917.7	1917.7	1917.7	1917.7	1917.7	1917.7	1917.7	1917.7	1917.7	1917.7	1917.7
2.5°	1926.5	1924.3	1925.1	1925.1	1925.1	1924.3	1925.1	1924.3	1924.3	1923.6	1922.1
5°	1931.7	1930.2	1930.2	1930.2	1929.5	1928.7	1928.7	1928.0	1926.5	1925.8	1922.8
7.5°	1935.4	1933.9	1933.9	1933.2	1932.4	1931.7	1931.0	1928.7	1926.5	1925.1	1921.4
10°	1937.6	1935.4	1935.4	1933.9	1932.4	1931.7	1930.2	1927.3	1924.3	1920.6	1915.5
12.5°	1936.1	1933.9	1933.2	1931.7	1928.7	1927.3	1925.8	1922.1	1916.9	1911.8	1905.1
15°	1931.7	1930.2	1928.7	1926.5	1922.8	1920.6	1919.2	1913.3	1906.6	1899.2	1891.1
17.5°	1922.8	1920.6	1917.7	1914.7	1909.6	1907.4	1903.7	1896.3	1886.7	1876.4	1863.8
20°	1891.1	1889.6	1886.7	1881.5	1873.4	1870.5	1865.3	1855.7	1843.2	1830.6	1817.4
22.5°	1838.8	1836.5	1832.1	1827.7	1820.3	1815.2	1810.7	1797.5	1783.4	1770.2	1757.6
25°	1771.6	1769.4	1763.5	1757.6	1750.2	1741.4	1737.0	1726.6	1712.6	1695.7	1677.2
27.5°	1685.3	1678.0	1675.8	1669.1	1658.1	1655.1	1648.5	1635.2	1621.9	1607.2	1591.7
30°	1573.2	1573.2	1568.8	1565.9	1555.5	1552.6	1545.2	1531.2	1523.8	1503.2	1491.4
32.5°	1454.5	1453.0	1449.3	1447.1	1441.2	1436.0	1428.7	1421.3	1405.1	1394.7	1378.5
35°	1332.0	1323.2	1324.7	1320.2	1316.6	1310.7	1309.9	1301.8	1287.1	1281.2	1266.4
37.5°	1192.6	1189.0	1194.1	1187.5	1183.8	1184.5	1178.6	1173.5	1167.6	1157.2	1154.3
40°	1066.5	1069.5	1068.7	1062.8	1065.8	1062.1	1056.2	1051.0	1048.1	1041.4	1039.2
42.5°	953.7	949.2	947.8	947.8	948.5	948.5	945.6	941.9	941.9	935.2	928.6
45°	847.5	847.5	846.0	850.4	843.8	843.8	841.6	840.8	837.9	836.4	828.3
47.5°	756.0	755.3	754.5	753.8	753.1	753.1	748.6	744.9	744.2	739.8	735.4
50°	669.7	674.1	672.7	669.0	667.5	668.2	665.3	663.1	662.3	655.0	655.7
52.5°	597.4	596.7	598.2	596.0	592.3	593.0	590.1	587.1	584.2	580.5	577.5
55°	525.9	529.6	528.1	525.9	525.1	523.7	521.5	517.8	517.0	508.9	508.2
57.5°	466.1	465.4	463.9	460.2	459.5	457.3	457.3	454.3	449.9	445.5	441.8
60°	407.9	407.9	405.7	404.9	402.0	401.2	400.5	397.5	392.4	388.7	382.8
62.5°	351.8	353.3	351.8	349.6	347.4	344.4	343.0	340.8	336.3	332.6	327.5
65°	302.4	301.7	300.9	298.0	297.2	294.3	293.6	289.1	284.7	281.8	275.9
67.5°	255.2	253.0	253.0	251.5	250.0	247.8	246.3	241.9	236.8	233.8	227.9
70°	210.2	208.7	208.7	208.7	205.0	202.8	202.1	199.9	192.5	189.6	183.7
72.5°	168.9	168.2	167.4	165.2	163.0	163.0	160.1	155.6	151.9	148.3	143.8
75°	129.1	130.5	129.1	126.1	125.4	123.9	121.7	118.0	114.3	109.9	104.7
77.5°	94.4	92.9	91.5	91.5	90.0	87.0	86.3	83.3	78.9	76.0	70.8
80°	62.0	61.2	59.7	58.3	57.5	56.8	56.1	53.1	48.7	46.5	42.0
82.5°	33.9	33.2	33.2	32.5	30.2	30.2	29.5	26.6	24.3	22.9	20.7
85°	11.8	11.8	11.8	11.1	11.1	11.1	10.3	9.6	8.9	8.1	6.6
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°	1917.7	1917.7	1917.7	1917.7	1917.7	1917.7	1917.7	1917.7	1917.7	1917.7	1917.7
2.5°	1920.6	1919.2	1918.4	1917.7	1916.9	1916.2	1915.5	1914.0	1913.3	1912.5	1911.0
5°	1920.6	1917.7	1916.2	1914.0	1912.5	1911.0	1908.8	1906.6	1904.4	1902.2	1900.0
7.5°	1917.7	1913.3	1910.3	1905.9	1904.4	1902.2	1897.8	1894.8	1891.1	1886.7	1881.5
10°	1910.3	1905.1	1899.2	1893.3	1891.1	1887.4	1881.5	1876.4	1870.5	1864.6	1859.4
12.5°	1898.5	1890.4	1883.0	1874.9	1870.5	1866.8	1858.7	1851.3	1843.9	1837.3	1828.4
15°	1880.8	1871.2	1861.6	1850.6	1845.4	1841.0	1829.2	1820.3	1808.5	1799.7	1790.8
17.5°	1852.0	1837.3	1825.5	1811.5	1804.1	1798.9	1788.6	1774.6	1763.5	1753.9	1743.6
20°	1802.6	1788.6	1772.4	1756.9	1748.8	1742.1	1727.4	1712.6	1701.6	1691.2	1680.2
22.5°	1737.7	1720.0	1708.2	1689.0	1682.4	1674.3	1656.6	1643.3	1630.8	1620.4	1610.1
25°	1658.8	1643.3	1627.1	1609.4	1601.3	1591.7	1576.9	1562.9	1554.8	1543.0	1530.5
27.5°	1568.1	1555.5	1535.6	1520.1	1512.0	1504.6	1490.6	1478.1	1466.3	1458.2	1446.4
30°	1472.2	1457.4	1439.7	1423.5	1419.1	1410.2	1397.7	1388.1	1375.6	1370.4	1365.2
32.5°	1366.7	1349.7	1336.5	1326.1	1317.3	1309.9	1303.3	1287.8	1285.6	1272.3	1270.8
35°	1251.7	1244.3	1231.7	1222.9	1215.5	1210.3	1199.3	1191.9	1183.8	1181.6	1176.4
37.5°	1143.2	1134.4	1122.6	1114.5	1109.3	1108.6	1100.5	1096.0	1090.1	1087.2	1081.3
40°	1029.6	1026.0	1015.6	1014.2	1006.0	1005.3	1000.9	995.7	990.6	990.6	991.3
42.5°	924.9	920.5	916.1	910.9	906.5	906.5	904.3	902.8	901.3	899.1	902.8
45°	826.8	820.9	818.0	812.8	815.0	810.6	809.1	809.1	806.9	806.2	811.3
47.5°	735.4	728.7	725.8	724.3	724.3	725.0	718.4	720.6	719.9	721.3	723.6
50°	652.0	646.1	641.7	641.7	642.4	639.5	636.5	638.7	636.5	638.0	643.2
52.5°	574.6	568.7	566.5	566.5	562.0	561.3	562.8	559.8	560.6	561.3	564.2
55°	503.0	499.3	495.6	492.0	492.7	491.2	488.3	487.5	489.0	489.7	493.4
57.5°	438.9	433.7	428.5	427.1	425.6	425.6	421.9	421.2	422.6	418.9	418.9
60°	377.6	374.7	368.0	365.8	365.8	362.1	359.2	360.7	357.0	356.2	357.0
62.5°	320.8	318.6	314.2	309.8	308.3	306.8	303.1	301.7	300.2	297.2	292.8
65°	271.4	266.3	261.1	258.1	255.9	252.2	250.0	247.1	242.7	241.2	236.8
67.5°	222.0	216.8	211.7	209.5	207.3	205.0	201.4	197.7	192.5	186.6	181.4
70°	178.5	171.9	168.9	163.0	161.5	158.6	153.4	149.7	144.6	137.9	132.8
72.5°	136.5	132.0	127.6	122.4	118.7	116.5	112.1	106.2	100.3	96.6	91.5
75°	98.1	95.9	90.0	84.1	82.6	79.7	74.5	70.8	66.4	60.5	56.1
77.5°	66.4	62.0	58.3	53.1	51.6	48.7	45.7	42.0	39.1	35.4	32.5
80°	39.1	35.4	33.2	29.5	28.0	26.6	24.3	21.4	19.2	17.7	17.0
82.5°	19.2	16.2	15.5	13.3	12.5	11.8	10.3	9.6	8.1	8.1	8.1
85°	6.6	5.2	5.2	4.4	3.7	3.7	3.7	3.7	3.7	3.7	3.7
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°	1917.7	1917.7	1917.7	1917.7	1917.7	1917.7	1917.7	1917.7	1917.7	1917.7	1917.7
2.5°	1910.3	1909.6	1908.8	1908.1	1908.1	1907.4	1907.4	1906.6	1906.6	1905.9	1905.9
5°	1897.0	1894.8	1893.3	1891.9	1891.9	1889.6	1888.2	1886.7	1886.0	1886.0	1884.5
7.5°	1878.6	1875.6	1872.7	1870.5	1869.7	1866.0	1863.1	1863.1	1860.1	1858.7	1857.2
10°	1854.2	1849.1	1844.7	1842.4	1839.5	1837.3	1833.6	1831.4	1829.2	1825.5	1824.7
12.5°	1821.1	1817.4	1810.7	1807.8	1806.3	1801.9	1796.0	1793.0	1792.3	1789.3	1787.1
15°	1783.4	1775.3	1769.4	1765.7	1765.7	1758.4	1755.4	1751.0	1748.0	1745.8	1745.1
17.5°	1734.8	1726.6	1720.7	1715.6	1714.1	1708.2	1703.8	1702.3	1698.6	1700.1	1696.4
20°	1672.1	1665.4	1661.0	1654.4	1654.4	1650.7	1649.2	1645.5	1644.0	1642.6	1644.0
22.5°	1604.9	1596.8	1589.5	1588.7	1588.7	1583.6	1582.8	1582.1	1579.1	1581.3	1580.6
25°	1526.0	1520.1	1515.7	1515.0	1515.0	1512.0	1509.1	1510.5	1512.8	1512.0	1514.2
27.5°	1444.2	1438.3	1436.8	1436.0	1434.6	1433.8	1435.3	1435.3	1437.5	1440.5	1443.4
30°	1355.6	1354.2	1352.0	1351.2	1349.7	1353.4	1354.9	1357.1	1356.4	1360.8	1363.8
32.5°	1267.1	1264.2	1263.5	1264.9	1267.1	1266.4	1270.8	1272.3	1273.8	1278.9	1281.2
35°	1177.9	1177.2	1175.7	1175.7	1176.4	1182.3	1182.3	1187.5	1190.4	1191.9	1197.8
37.5°	1082.0	1085.0	1086.4	1088.7	1089.4	1091.6	1093.1	1098.2	1101.2	1104.1	1107.1
40°	994.2	992.8	999.4	995.0	996.5	1003.1	1006.0	1005.3	1009.7	1014.2	1017.1
42.5°	900.6	902.8	904.3	905.7	909.4	910.2	913.8	919.0	920.5	925.6	927.1
45°	809.8	810.6	813.5	816.5	818.7	824.6	826.1	828.3	832.7	832.7	834.9
47.5°	724.3	727.2	727.2	731.7	735.4	734.6	739.8	741.3	740.5	744.2	745.7
50°	642.4	646.8	646.1	649.1	650.5	651.3	655.7	657.2	654.2	657.9	658.6
52.5°	564.2	566.5	569.4	570.1	568.7	572.4	570.9	573.8	573.1	576.0	573.1
55°	492.7	492.0	492.0	493.4	492.0	493.4	494.9	492.0	489.7	492.7	492.0
57.5°	421.2	421.2	419.7	421.9	419.7	417.5	416.7	414.5	412.3	412.3	411.6
60°	354.0	352.6	349.6	348.9	348.9	345.2	343.7	340.8	340.8	337.8	334.9
62.5°	291.3	287.7	285.4	285.4	284.0	280.3	273.6	269.2	267.7	263.3	262.6
65°	232.3	228.6	226.4	222.0	218.3	216.8	210.2	205.0	202.8	198.4	199.1
67.5°	178.5	172.6	166.0	163.0	160.8	155.6	153.4	149.7	147.5	147.5	147.5
70°	128.3	123.2	116.5	114.3	112.8	108.4	106.2	105.5	107.7	106.9	107.7
72.5°	86.3	81.1	78.2	76.7	75.2	73.0	74.5	75.2	73.8	74.5	75.2
75°	52.4	50.9	48.7	47.9	47.9	48.7	47.9	47.9	48.7	48.7	49.4
77.5°	30.2	28.8	28.8	28.0	29.5	28.8	28.8	28.8	29.5	29.5	29.5
80°	16.2	16.2	16.2	16.2	17.0	16.2	17.0	17.0	17.0	17.0	17.0
82.5°	8.1	8.1	8.1	8.9	8.9	8.9	8.9	8.9	8.9	8.9	8.1
85°	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7
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: P858168

CATALOG NUMBER: LX4C45D010 EX4C459040 4LBLWWH

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	1917.7	1917.7	1917.7	1917.7	1917.7	1917.7	1917.7	1917.7
2.5°	1904.4	1904.4	1904.4	1902.9	1903.7	1903.7	1902.9	1902.9
5°	1883.7	1883.0	1881.5	1881.5	1880.1	1881.5	1880.8	1881.5
7.5°	1855.7	1855.7	1853.5	1853.5	1852.8	1852.0	1851.3	1852.0
10°	1822.5	1822.5	1821.1	1820.3	1821.1	1818.1	1818.1	1817.4
12.5°	1785.7	1784.2	1782.7	1783.4	1782.7	1780.5	1779.8	1780.5
15°	1742.9	1740.7	1741.4	1739.2	1739.2	1738.4	1739.9	1739.9
17.5°	1695.7	1694.2	1692.7	1693.5	1692.0	1692.7	1692.0	1691.2
20°	1643.3	1642.6	1642.6	1639.6	1640.4	1639.6	1640.4	1642.6
22.5°	1582.8	1582.1	1582.8	1580.6	1582.1	1582.1	1584.3	1584.3
25°	1516.4	1515.7	1517.2	1517.9	1518.7	1520.9	1518.7	1519.4
27.5°	1442.7	1444.9	1447.1	1447.8	1450.8	1448.6	1447.1	1449.3
30°	1368.2	1368.2	1367.5	1370.4	1372.6	1374.8	1371.1	1371.1
32.5°	1282.6	1286.3	1286.3	1287.1	1289.3	1289.3	1289.3	1292.2
35°	1200.8	1203.0	1203.7	1200.8	1202.2	1201.5	1206.7	1206.7
37.5°	1109.3	1109.3	1110.0	1115.2	1115.2	1113.0	1114.5	1114.5
40°	1022.3	1023.0	1020.1	1021.5	1025.2	1023.7	1025.2	1026.7
42.5°	927.1	932.3	929.3	930.8	930.1	930.8	931.5	931.5
45°	836.4	837.9	837.9	838.6	840.1	841.6	837.1	836.4
47.5°	747.9	748.6	750.8	747.2	751.6	747.2	751.6	746.4
50°	658.6	661.6	659.4	660.9	658.6	658.6	657.9	657.2
52.5°	573.8	573.1	573.1	572.4	572.4	573.8	572.4	574.6
55°	489.0	489.7	488.3	487.5	486.8	489.0	486.8	485.3
57.5°	408.6	410.1	407.1	408.6	403.4	405.7	406.4	407.1
60°	334.1	331.9	331.9	329.0	329.0	331.2	328.2	328.2
62.5°	258.9	260.4	258.1	261.1	261.1	264.0	262.6	264.0
65°	198.4	199.1	199.9	199.9	199.9	204.3	202.8	200.6
67.5°	149.7	150.5	151.2	150.5	152.7	151.2	151.2	151.9
70°	108.4	109.2	109.9	109.9	109.2	109.9	109.9	109.9
72.5°	75.2	76.0	75.2	76.0	76.7	76.0	76.0	76.7
75°	49.4	49.4	48.7	48.7	48.7	48.7	49.4	48.7
77.5°	28.8	29.5	28.8	29.5	29.5	29.5	29.5	29.5
80°	17.0	17.0	17.0	16.2	17.0	17.0	17.0	16.2
82.5°	8.9	8.9	8.1	8.1	8.9	8.9	8.9	8.9
85°	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7
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)