

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: P858146

Luminaire Tested: **LX4C45D010 EX4C459035 4LBLWW***

Issue Date: 2/9/2022



Test Information

Test Method: LM-79-08
Report Number: P858146
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 EX4C459035 4LBLWW*
Description: 4 INCH 4500 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 3500K, 90CRI LEDS
AND 4LRLWW TRIM WITH * FINISH
Light Source: -
Ballast/Driver: -

Summary

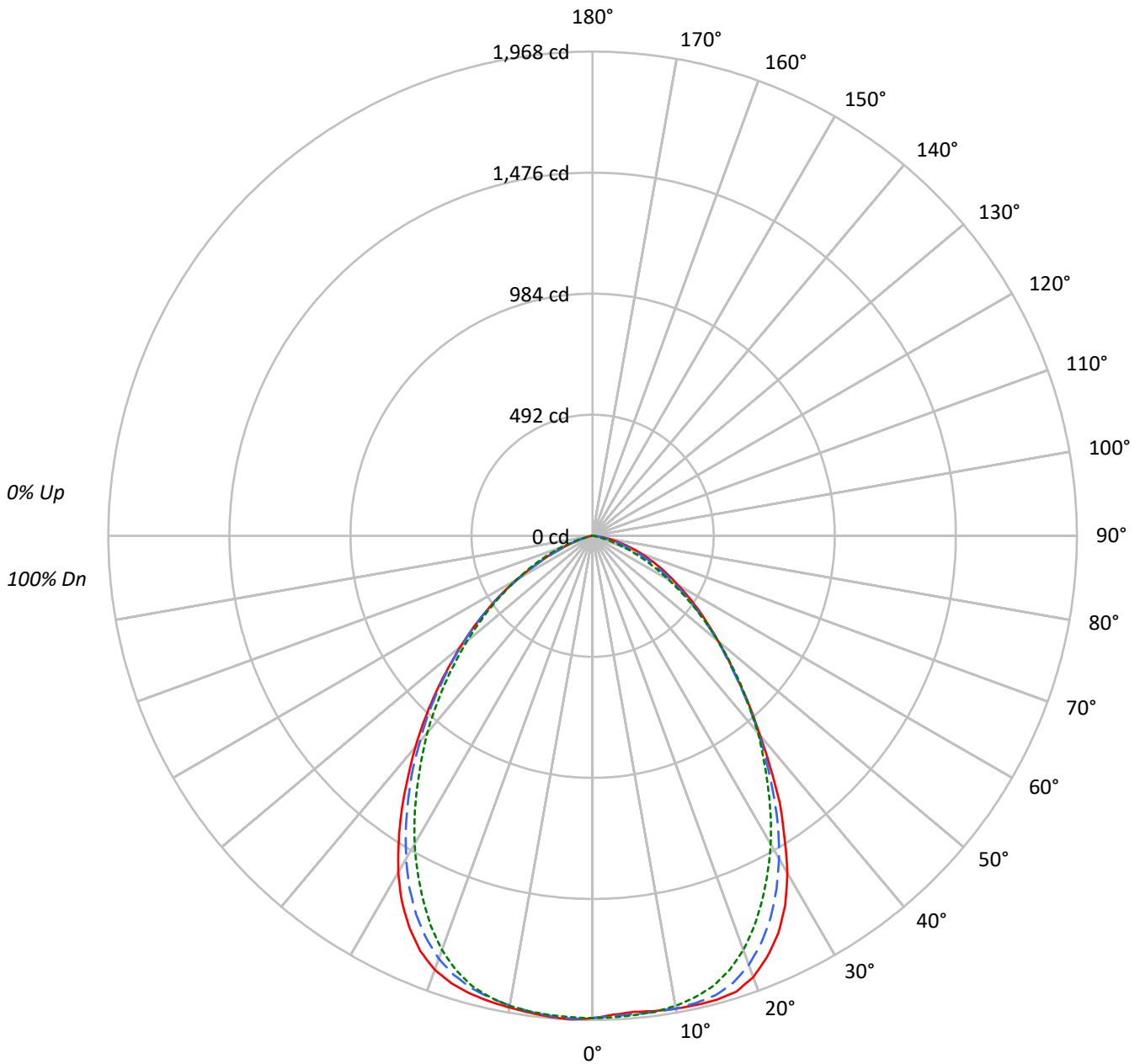
Lumens per Lamp: N/A
Luminaire Lumens: 3759.0 lumens
Efficiency: N/A
Efficacy: 75.8 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.12 / 1.18
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 49.6
Input Voltage (V):
Input Current (A_{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	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°	240879	240879	240879
5°	239530	241158	242070
10°	243497	242025	242936
15°	248257	240944	244975
20°	249500	234191	245369
25°	241828	221170	238534
30°	224449	205242	224038
35°	198764	186181	202513
40°	169435	167671	179603
45°	145578	147228	156454
50°	127080	127347	134113
55°	112278	107544	111185
60°	98406	87742	87373
65°	87122	68052	60581
70°	74318	46804	35956
75°	60093	25157	16424
80°	41176	6226	4174
85°	12404	2114	2114



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	186.3	5.0
10°-20°	539.4	14.4
20°-30°	779.4	20.7
30°-40°	805.8	21.4
40°-50°	665.8	17.7
50°-60°	459.5	12.2
60°-70°	240.6	6.4
70°-80°	75.7	2.0
80°-90°	6.4	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°	1505.2	40.0
0°-40°	2311.0	61.5
0°-60°	3436.3	91.4
0°-90°	3759.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3759.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1961	1961	1961	1961	1961	
5°	1942	1952	1956	1959	1963	186
15°	1952	1933	1894	1903	1926	551
25°	1784	1712	1632	1697	1760	815
35°	1325	1281	1241	1306	1350	823
45°	838	834	847	886	900	653
55°	524	508	502	516	519	471
65°	300	272	234	194	208	297
75°	127	99	53	36	35	136
85°	9	4	2	2	2	18
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°	1960.7	1960.7	1960.7	1960.7	1960.7	1960.7	1960.7	1960.7	1960.7	1960.7	1960.7
2.5°	1948.2	1948.9	1948.9	1950.4	1950.4	1950.4	1951.1	1951.1	1951.9	1952.6	1953.3
5°	1942.3	1942.3	1943.8	1944.5	1946.0	1946.7	1948.2	1948.9	1950.4	1951.1	1951.9
7.5°	1948.2	1948.2	1948.9	1949.6	1949.6	1950.4	1950.4	1951.1	1951.9	1952.6	1952.6
10°	1951.9	1951.9	1951.9	1951.9	1952.6	1952.6	1952.6	1951.9	1951.9	1951.9	1951.1
12.5°	1953.3	1953.3	1952.6	1951.9	1952.6	1951.9	1951.9	1949.6	1948.2	1946.7	1944.5
15°	1951.9	1951.9	1951.1	1950.4	1949.6	1948.2	1947.4	1943.8	1940.8	1936.4	1933.4
17.5°	1942.3	1940.8	1939.3	1937.9	1934.9	1932.7	1931.2	1924.6	1919.5	1912.1	1904.0
20°	1908.4	1906.9	1904.7	1901.1	1897.4	1894.4	1890.0	1880.4	1875.3	1864.2	1856.1
22.5°	1853.2	1851.7	1852.5	1845.8	1838.5	1834.0	1831.1	1823.0	1814.2	1800.2	1791.3
25°	1784.0	1779.6	1779.6	1769.3	1765.6	1762.6	1759.0	1749.4	1736.1	1723.6	1711.8
27.5°	1694.2	1688.3	1685.3	1683.9	1675.0	1668.4	1663.2	1655.9	1644.8	1633.8	1617.6
30°	1582.2	1581.5	1577.8	1571.2	1564.6	1561.6	1555.7	1543.2	1532.9	1524.8	1514.5
32.5°	1450.5	1449.7	1449.7	1449.7	1445.3	1444.6	1435.7	1429.1	1421.0	1408.5	1401.9
35°	1325.3	1324.6	1325.3	1314.2	1311.3	1309.1	1308.4	1303.9	1292.9	1287.0	1281.1
37.5°	1183.9	1186.1	1184.7	1181.7	1185.4	1178.8	1183.9	1174.4	1169.9	1168.5	1161.8
40°	1056.5	1062.4	1056.5	1057.3	1061.0	1054.3	1054.3	1052.9	1049.9	1048.4	1047.0
42.5°	947.6	940.2	944.6	941.0	944.6	942.4	938.7	941.0	941.7	938.7	938.0
45°	837.9	839.3	840.8	838.6	838.6	836.4	842.3	838.6	838.6	839.3	834.2
47.5°	748.8	746.6	748.1	746.6	747.3	745.8	747.3	748.1	746.6	746.6	742.2
50°	664.9	663.4	668.5	664.1	664.1	663.4	664.1	662.6	660.4	660.4	661.9
52.5°	592.0	589.0	588.3	592.0	586.8	586.8	587.5	586.1	583.1	581.7	578.0
55°	524.2	523.5	524.2	521.3	519.8	519.8	516.1	514.7	513.9	510.2	508.0
57.5°	460.9	458.7	459.4	458.7	455.8	455.0	452.1	452.1	449.1	446.2	442.5
60°	400.5	400.5	402.7	399.8	397.6	396.1	394.6	393.2	388.0	382.9	378.4
62.5°	346.8	347.5	346.8	344.6	343.1	341.6	340.2	335.7	331.3	328.4	323.2
65°	299.7	298.9	296.7	295.2	291.6	291.6	288.6	286.4	281.3	276.8	271.7
67.5°	251.1	249.6	249.6	249.6	245.2	244.4	243.0	238.6	234.1	228.2	223.8
70°	206.9	208.4	206.2	203.9	201.7	201.0	198.8	194.4	189.2	183.3	179.7
72.5°	164.9	166.4	164.2	163.5	159.0	157.6	156.8	153.1	147.3	143.6	137.7
75°	126.6	127.4	125.9	124.4	121.5	120.7	117.1	114.1	110.4	104.6	99.4
77.5°	91.3	89.8	89.8	86.9	83.9	83.9	83.2	78.8	73.6	69.2	64.8
80°	58.2	57.4	55.2	53.7	51.5	50.8	50.1	46.4	42.7	39.8	36.8
82.5°	29.5	28.7	28.0	27.2	25.8	24.3	25.0	22.1	20.6	17.7	15.5
85°	8.8	9.6	9.6	8.8	8.1	8.1	8.1	7.4	5.9	5.2	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



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CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	1960.7	1960.7	1960.7	1960.7	1960.7	1960.7	1960.7	1960.7	1960.7	1960.7	1960.7
2.5°	1954.1	1954.8	1955.5	1956.3	1956.3	1957.0	1957.7	1958.5	1959.2	1959.2	1960.0
5°	1952.6	1954.1	1954.1	1954.8	1954.8	1954.8	1955.5	1955.5	1955.5	1955.5	1956.3
7.5°	1953.3	1953.3	1953.3	1952.6	1952.6	1951.9	1951.9	1951.9	1950.4	1950.4	1950.4
10°	1949.6	1948.9	1948.2	1946.7	1946.0	1945.2	1943.8	1942.3	1940.8	1940.1	1938.6
12.5°	1942.3	1939.3	1936.4	1933.4	1932.0	1931.2	1928.3	1926.1	1923.9	1921.7	1920.2
15°	1927.6	1923.1	1918.0	1912.1	1910.6	1909.1	1904.0	1899.6	1896.6	1894.4	1890.7
17.5°	1898.1	1889.3	1883.4	1874.5	1870.9	1869.4	1861.3	1856.9	1851.7	1850.2	1847.3
20°	1845.8	1837.7	1826.7	1818.6	1814.2	1809.8	1803.1	1797.2	1791.3	1791.3	1787.7
22.5°	1780.3	1770.0	1756.0	1745.7	1745.0	1736.1	1730.2	1723.6	1721.4	1717.0	1717.0
25°	1697.8	1689.0	1673.5	1664.7	1660.3	1658.1	1648.5	1639.7	1635.3	1631.6	1634.5
27.5°	1606.5	1593.3	1581.5	1570.5	1566.8	1562.4	1553.5	1549.8	1541.8	1541.0	1540.3
30°	1502.0	1488.7	1477.0	1471.8	1464.4	1460.8	1454.1	1449.7	1446.8	1446.8	1445.3
32.5°	1392.3	1380.5	1374.6	1363.6	1359.9	1354.7	1350.3	1345.9	1347.4	1345.9	1346.6
35°	1273.7	1270.8	1259.8	1253.1	1253.1	1252.4	1245.0	1242.1	1240.6	1241.4	1245.0
37.5°	1161.1	1152.3	1144.9	1140.5	1144.2	1139.7	1139.0	1139.0	1143.4	1140.5	1146.4
40°	1041.1	1040.4	1037.4	1038.9	1039.6	1034.5	1035.9	1036.7	1039.6	1045.5	1046.2
42.5°	936.5	935.8	935.8	935.8	934.3	931.4	934.3	939.5	938.7	943.2	946.8
45°	835.7	834.2	837.1	834.9	839.3	840.8	838.6	840.1	844.5	847.4	853.3
47.5°	743.6	743.6	744.4	745.8	741.4	745.1	746.6	749.5	751.7	753.2	756.1
50°	658.2	658.2	656.8	656.8	656.8	659.0	656.0	659.7	660.4	666.3	670.0
52.5°	579.4	575.8	578.0	576.5	573.6	572.1	573.6	574.3	578.7	580.2	584.6
55°	504.3	504.3	498.5	497.0	499.2	498.5	497.7	497.7	499.9	502.1	505.8
57.5°	438.1	433.7	429.2	428.5	426.3	427.0	427.0	426.3	424.8	425.6	426.3
60°	375.5	372.6	365.9	365.9	365.2	364.5	360.8	360.0	356.4	357.1	354.1
62.5°	318.1	316.6	307.8	304.8	304.8	302.6	298.9	298.2	293.0	293.0	290.1
65°	266.5	262.1	257.0	251.8	251.8	248.9	246.7	240.0	236.3	234.1	229.7
67.5°	219.4	212.8	207.6	203.2	200.3	199.5	194.4	190.0	184.1	180.4	173.8
70°	173.8	168.6	163.5	159.0	156.1	153.1	148.0	141.4	136.9	130.3	125.9
72.5°	131.1	126.6	122.2	116.3	112.6	110.4	105.3	99.4	92.0	87.6	81.7
75°	94.2	89.1	83.2	78.0	75.8	73.6	67.7	63.3	58.2	53.0	47.1
77.5°	61.1	55.2	50.8	44.9	44.2	42.7	36.8	32.4	28.7	25.8	22.1
80°	32.4	29.5	25.8	22.1	20.6	18.4	15.5	13.3	11.0	8.8	7.4
82.5°	14.0	11.8	9.6	8.1	7.4	6.6	5.2	4.4	3.7	3.7	2.9
85°	3.7	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



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CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	1960.7	1960.7	1960.7	1960.7	1960.7	1960.7	1960.7	1960.7	1960.7	1960.7	1960.7
2.5°	1960.7	1961.4	1962.2	1962.2	1962.9	1963.6	1963.6	1964.4	1965.1	1965.8	1965.8
5°	1957.0	1957.0	1957.0	1957.7	1957.7	1957.7	1957.7	1959.2	1959.2	1960.0	1960.7
7.5°	1949.6	1949.6	1949.6	1949.6	1948.9	1949.6	1948.9	1948.9	1950.4	1951.1	1951.9
10°	1937.9	1937.1	1937.1	1936.4	1936.4	1936.4	1937.1	1937.9	1938.6	1939.3	1941.5
12.5°	1919.5	1918.7	1918.7	1918.0	1918.0	1918.7	1919.5	1920.9	1923.9	1925.3	1928.3
15°	1890.0	1889.3	1890.0	1890.7	1892.2	1894.4	1896.6	1898.8	1903.3	1906.9	1910.6
17.5°	1847.3	1848.0	1848.8	1850.2	1852.5	1855.4	1861.3	1867.2	1872.3	1878.2	1884.1
20°	1788.4	1791.3	1792.1	1797.2	1798.7	1805.3	1812.0	1820.8	1828.9	1836.3	1844.4
22.5°	1717.7	1719.9	1722.9	1728.8	1732.4	1741.3	1749.4	1759.7	1768.5	1778.1	1789.9
25°	1637.5	1638.2	1647.0	1647.0	1655.9	1663.2	1672.8	1683.9	1697.1	1709.6	1717.7
27.5°	1546.2	1549.8	1556.5	1559.4	1566.0	1577.8	1585.9	1599.2	1612.4	1623.5	1632.3
30°	1450.5	1453.4	1464.4	1465.9	1471.1	1481.4	1492.4	1504.9	1515.2	1527.8	1535.9
32.5°	1349.6	1357.7	1364.3	1369.5	1370.9	1386.4	1392.3	1401.1	1412.9	1425.4	1433.5
35°	1251.7	1255.3	1264.9	1267.9	1272.3	1281.1	1292.9	1300.3	1306.1	1314.2	1323.8
37.5°	1147.8	1158.9	1161.1	1169.9	1171.4	1179.5	1185.4	1194.2	1201.6	1209.0	1210.4
40°	1051.4	1055.1	1063.2	1065.4	1066.9	1077.9	1085.3	1087.5	1091.2	1097.8	1106.6
42.5°	953.5	957.2	966.0	963.8	970.4	975.6	979.2	988.1	991.8	994.0	994.0
45°	857.0	858.5	864.4	867.3	871.0	874.0	880.6	885.0	886.5	893.1	895.3
47.5°	765.0	766.5	770.9	776.0	774.6	778.2	785.6	787.8	788.5	793.0	795.2
50°	674.4	678.1	684.0	682.5	686.9	689.1	695.8	697.2	697.2	698.0	698.7
52.5°	589.8	592.7	594.2	595.6	597.9	601.5	604.5	603.0	606.0	608.9	606.7
55°	505.8	508.0	511.7	513.2	513.2	513.9	512.4	519.1	516.1	515.4	516.1
57.5°	429.2	426.3	425.6	429.2	430.7	430.0	427.8	430.7	430.7	429.2	427.0
60°	354.9	352.7	351.9	352.7	349.7	347.5	349.0	347.5	343.8	342.4	343.1
62.5°	287.1	284.9	279.0	279.0	277.6	276.8	270.9	271.7	268.7	264.3	265.8
65°	224.6	218.7	215.7	215.0	209.8	205.4	203.9	198.8	194.4	193.6	194.4
67.5°	168.6	162.0	156.8	154.6	151.7	148.0	142.8	138.4	139.9	139.2	142.1
70°	117.1	112.6	107.5	103.8	105.3	100.9	97.9	97.9	98.7	99.4	100.9
72.5°	78.0	72.2	69.9	67.7	66.3	63.3	64.8	64.8	64.1	64.8	63.3
75°	44.2	41.2	39.0	38.3	36.8	36.8	36.8	36.8	36.1	35.3	35.3
77.5°	19.9	18.4	17.7	16.9	16.9	16.9	16.2	15.5	15.5	15.5	14.7
80°	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6
82.5°	2.9	2.9	3.7	3.7	3.7	2.9	3.7	3.7	2.9	2.9	3.7
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: P858146

CATALOG NUMBER: LX4C45D010 EX4C459035 4LBLWW*

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	1960.7	1960.7	1960.7	1960.7	1960.7	1960.7	1960.7	1960.7
2.5°	1966.6	1967.3	1967.3	1967.3	1968.1	1968.1	1968.1	1968.1
5°	1961.4	1962.2	1962.2	1962.2	1962.9	1962.9	1962.9	1962.9
7.5°	1952.6	1953.3	1953.3	1954.1	1954.1	1954.8	1954.8	1955.5
10°	1942.3	1943.8	1944.5	1945.2	1946.0	1946.7	1946.7	1947.4
12.5°	1931.2	1932.7	1933.4	1934.9	1936.4	1937.1	1937.9	1938.6
15°	1915.0	1918.0	1919.5	1920.2	1923.1	1924.6	1925.3	1926.1
17.5°	1889.3	1895.2	1897.4	1898.8	1901.8	1904.7	1906.9	1907.7
20°	1852.5	1859.1	1862.0	1865.7	1870.1	1873.8	1875.3	1876.8
22.5°	1800.9	1808.3	1812.7	1817.1	1820.8	1824.5	1830.4	1828.2
25°	1727.3	1739.8	1745.0	1747.2	1755.3	1759.7	1762.6	1759.7
27.5°	1644.8	1652.2	1656.6	1661.8	1667.7	1672.1	1673.5	1678.0
30°	1545.4	1557.9	1557.2	1562.4	1569.7	1574.1	1575.6	1579.3
32.5°	1442.4	1448.2	1452.7	1451.9	1454.9	1463.0	1460.0	1466.7
35°	1332.6	1333.4	1340.7	1340.0	1345.9	1345.9	1345.9	1350.3
37.5°	1215.6	1224.4	1220.7	1229.6	1226.6	1228.8	1228.8	1230.3
40°	1108.8	1111.8	1111.8	1114.7	1116.9	1114.7	1116.2	1119.9
42.5°	998.4	1001.3	1002.1	1000.6	1002.8	1009.4	1004.3	1008.7
45°	895.3	897.5	900.5	898.3	901.9	899.7	901.9	900.5
47.5°	798.1	797.4	796.6	802.5	797.4	798.1	801.1	795.9
50°	698.7	703.1	700.2	702.4	703.9	703.9	701.7	701.7
52.5°	610.4	609.6	607.4	609.6	608.2	608.9	610.4	608.9
55°	519.1	522.0	520.5	519.8	520.5	520.5	525.0	519.1
57.5°	429.2	427.8	430.0	435.1	430.0	433.7	435.9	436.6
60°	343.8	343.8	348.3	346.0	350.5	354.1	357.1	355.6
62.5°	262.1	265.8	267.3	268.0	272.4	275.4	275.4	274.6
65°	194.4	199.5	199.5	202.5	203.9	203.9	205.4	208.4
67.5°	143.6	143.6	144.3	145.8	145.0	145.0	146.5	147.3
70°	100.1	98.7	100.9	100.1	100.1	99.4	100.1	100.1
72.5°	63.3	63.3	64.1	63.3	61.8	62.6	62.6	64.1
75°	33.9	35.3	33.9	33.9	34.6	33.1	33.9	34.6
77.5°	14.0	14.0	14.0	14.0	14.0	13.3	13.3	13.3
80°	6.6	6.6	6.6	6.6	6.6	6.6	5.9	5.9
82.5°	2.9	3.7	2.9	3.7	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)