

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: P859017

Luminaire Tested: **LX4C50D010 EX4C509040 4LBLWW***

Issue Date: 2/9/2022



Test Information

Test Method: LM-79-08
Report Number: P859017
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: LX4C50D010 EX4C509040 4LBLWW*
Description: 4 INCH 5000 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 4000K, 90CRI LEDS
AND 4LRLWW TRIM WITH * FINISH
Light Source: -
Ballast/Driver: -

Summary

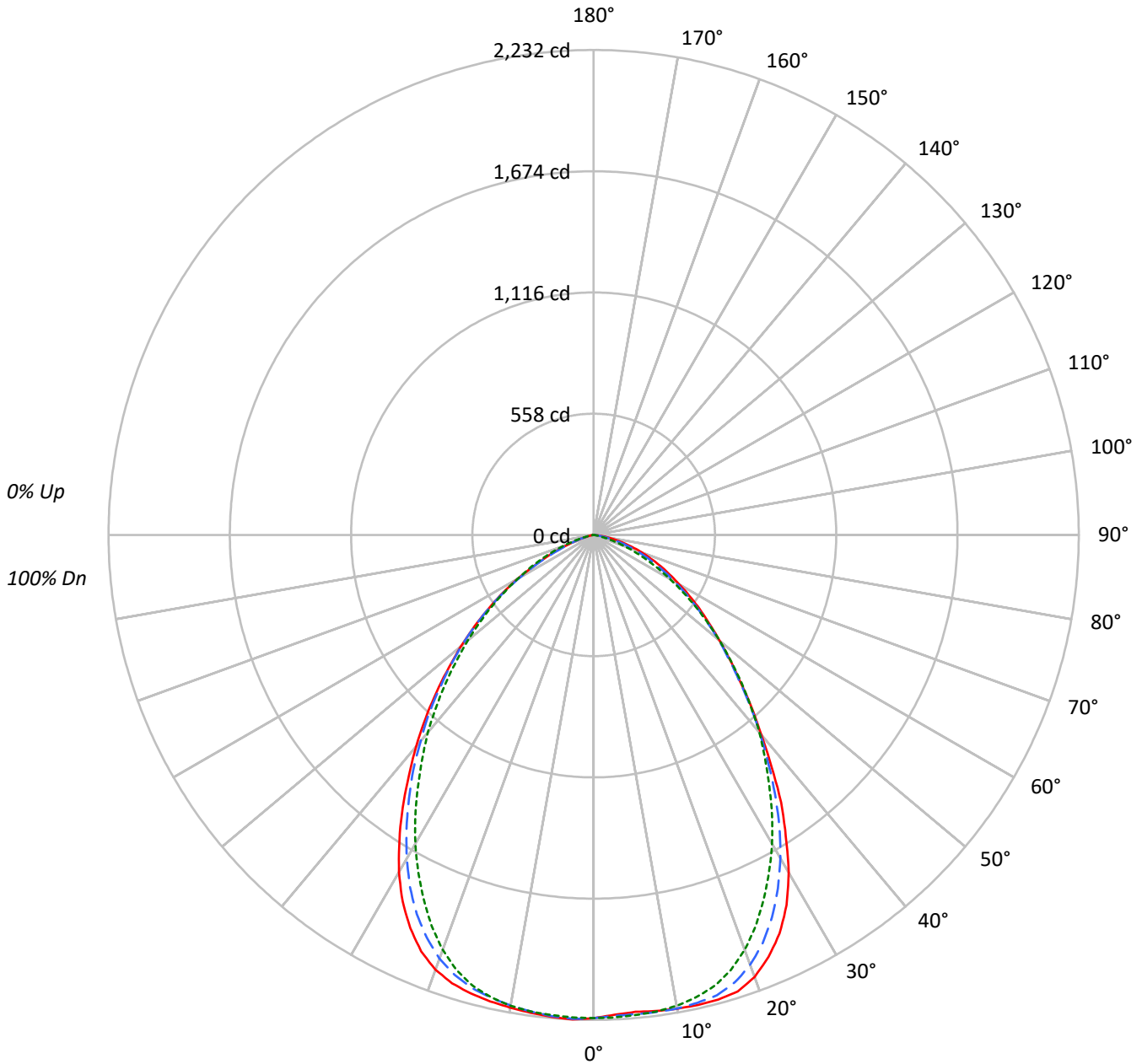
Lumens per Lamp: N/A
Luminaire Lumens: 4264.0 lumens
Efficiency: N/A
Efficacy: 73.0 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.12 / 1.18
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 58.4
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			100
1	111	107	104	101	109	105	102	99	101	99	96	97	95	93	94	92	91	89			89
2	103	96	91	86	101	95	89	85	91	87	83	88	84	81	85	82	80	78			78
3	95	87	80	74	93	85	79	74	82	77	72	80	75	71	77	73	70	68			68
4	88	78	71	65	86	77	70	65	75	69	64	72	67	63	70	66	62	60			60
5	82	71	63	57	80	70	63	57	68	61	57	66	60	56	64	59	55	54			54
6	76	65	57	51	75	64	56	51	62	56	51	61	55	50	59	54	50	48			48
7	71	59	51	46	70	59	51	46	57	50	46	56	50	45	54	49	45	43			43
8	67	55	47	42	65	54	47	42	53	46	41	52	46	41	50	45	41	39			39
9	63	51	43	38	61	50	43	38	49	42	38	48	42	38	47	41	37	36			36
10	59	47	40	35	58	46	39	35	45	39	35	45	39	35	44	38	34	33			33

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	273238	273238	273238
5°	271705	273555	274590
10°	276206	274534	275582
15°	281605	273313	277879
20°	283021	265659	278328
25°	274320	250883	270579
30°	254608	232805	254140
35°	225460	211182	229719
40°	192208	190203	203723
45°	165123	167017	177459
50°	144147	144453	152117
55°	127378	122002	126114
60°	111625	99536	99118
65°	98808	77209	68721
70°	84304	53090	40805
75°	68210	28528	18655
80°	46694	7075	4740
85°	14096	2396	2396



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	211.4	5.0
10°-20°	611.9	14.4
20°-30°	884.2	20.7
30°-40°	914.0	21.4
40°-50°	755.2	17.7
50°-60°	521.2	12.2
60°-70°	272.9	6.4
70°-80°	85.9	2.0
80°-90°	7.3	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°	1707.4	40.0
0°-40°	2621.5	61.5
0°-60°	3897.9	91.4
0°-90°	4264.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4264.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	2224	2224	2224	2224	2224	
5°	2203	2214	2218	2222	2227	211
15°	2214	2193	2149	2159	2185	625
25°	2024	1942	1851	1925	1996	924
35°	1503	1453	1408	1482	1532	933
45°	950	946	961	1006	1021	741
55°	595	576	570	586	589	534
65°	340	308	266	220	236	337
75°	144	113	60	41	39	154
85°	10	5	2	2	2	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°	2224.1	2224.1	2224.1	2224.1	2224.1	2224.1	2224.1	2224.1	2224.1	2224.1	2224.1
2.5°	2209.9	2210.7	2210.7	2212.4	2212.4	2212.4	2213.2	2213.2	2214.1	2214.9	2215.7
5°	2203.2	2203.2	2204.9	2205.7	2207.4	2208.2	2209.9	2210.7	2212.4	2213.2	2214.1
7.5°	2209.9	2209.9	2210.7	2211.6	2211.6	2212.4	2212.4	2213.2	2214.1	2214.9	2214.9
10°	2214.1	2214.1	2214.1	2214.1	2214.9	2214.9	2214.9	2214.1	2214.1	2214.1	2213.2
12.5°	2215.7	2215.7	2214.9	2214.1	2214.9	2214.1	2214.1	2211.6	2209.9	2208.2	2205.7
15°	2214.1	2214.1	2213.2	2212.4	2211.6	2209.9	2209.1	2204.9	2201.5	2196.5	2193.2
17.5°	2203.2	2201.5	2199.9	2198.2	2194.9	2192.4	2190.7	2183.2	2177.3	2169.0	2159.8
20°	2164.8	2163.1	2160.6	2156.4	2152.3	2148.9	2143.9	2133.1	2127.2	2114.7	2105.5
22.5°	2102.2	2100.5	2101.3	2093.8	2085.5	2080.4	2077.1	2067.9	2057.9	2042.0	2032.0
25°	2023.7	2018.6	2018.6	2006.9	2002.8	1999.4	1995.3	1984.4	1969.4	1955.2	1941.8
27.5°	1921.8	1915.1	1911.7	1910.1	1900.0	1892.5	1886.7	1878.3	1865.8	1853.3	1834.9
30°	1794.8	1794.0	1789.8	1782.3	1774.8	1771.4	1764.7	1750.5	1738.9	1729.7	1718.0
32.5°	1645.3	1644.5	1644.5	1644.5	1639.5	1638.6	1628.6	1621.1	1611.9	1597.7	1590.2
35°	1503.3	1502.5	1503.3	1490.8	1487.5	1485.0	1484.1	1479.1	1466.6	1459.9	1453.2
37.5°	1343.0	1345.5	1343.8	1340.5	1344.6	1337.1	1343.0	1332.1	1327.1	1325.4	1317.9
40°	1198.5	1205.2	1198.5	1199.3	1203.5	1196.0	1196.0	1194.3	1191.0	1189.3	1187.6
42.5°	1074.9	1066.5	1071.5	1067.4	1071.5	1069.0	1064.9	1067.4	1068.2	1064.9	1064.0
45°	950.4	952.1	953.8	951.3	951.3	948.8	955.5	951.3	951.3	952.1	946.3
47.5°	849.4	846.9	848.5	846.9	847.7	846.0	847.7	848.5	846.9	846.9	841.9
50°	754.2	752.5	758.3	753.3	753.3	752.5	753.3	751.7	749.2	749.2	750.8
52.5°	671.5	668.1	667.3	671.5	665.6	665.6	666.5	664.8	661.5	659.8	655.6
55°	594.7	593.8	594.7	591.3	589.6	589.6	585.5	583.8	583.0	578.8	576.3
57.5°	522.8	520.3	521.2	520.3	517.0	516.1	512.8	512.8	509.5	506.1	501.9
60°	454.3	454.3	456.8	453.5	451.0	449.3	447.7	446.0	440.1	434.3	429.3
62.5°	393.4	394.2	393.4	390.9	389.2	387.5	385.9	380.8	375.8	372.5	366.6
65°	339.9	339.1	336.6	334.9	330.7	330.7	327.4	324.9	319.0	314.0	308.2
67.5°	284.8	283.1	283.1	283.1	278.1	277.3	275.6	270.6	265.6	258.9	253.9
70°	234.7	236.4	233.9	231.3	228.8	228.0	225.5	220.5	214.6	208.0	203.8
72.5°	187.1	188.8	186.2	185.4	180.4	178.7	177.9	173.7	167.0	162.9	156.2
75°	143.7	144.5	142.8	141.1	137.8	137.0	132.8	129.5	125.3	118.6	112.7
77.5°	103.6	101.9	101.9	98.6	95.2	95.2	94.4	89.4	83.5	78.5	73.5
80°	66.0	65.1	62.6	61.0	58.5	57.6	56.8	52.6	48.4	45.1	41.8
82.5°	33.4	32.6	31.7	30.9	29.2	27.6	28.4	25.1	23.4	20.0	17.5
85°	10.0	10.9	10.9	10.0	9.2	9.2	9.2	8.4	6.7	5.8	5.0
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°	2224.1	2224.1	2224.1	2224.1	2224.1	2224.1	2224.1	2224.1	2224.1	2224.1	2224.1
2.5°	2216.6	2217.4	2218.2	2219.1	2219.1	2219.9	2220.8	2221.6	2222.4	2222.4	2223.3
5°	2214.9	2216.6	2216.6	2217.4	2217.4	2217.4	2218.2	2218.2	2218.2	2218.2	2219.1
7.5°	2215.7	2215.7	2215.7	2214.9	2214.9	2214.1	2214.1	2214.1	2212.4	2212.4	2212.4
10°	2211.6	2210.7	2209.9	2208.2	2207.4	2206.6	2204.9	2203.2	2201.5	2200.7	2199.0
12.5°	2203.2	2199.9	2196.5	2193.2	2191.5	2190.7	2187.3	2184.8	2182.3	2179.8	2178.2
15°	2186.5	2181.5	2175.7	2169.0	2167.3	2165.6	2159.8	2154.8	2151.4	2148.9	2144.8
17.5°	2153.1	2143.1	2136.4	2126.4	2122.2	2120.5	2111.3	2106.3	2100.5	2098.8	2095.5
20°	2093.8	2084.6	2072.1	2062.9	2057.9	2052.9	2045.4	2038.7	2032.0	2032.0	2027.8
22.5°	2019.5	2007.8	1991.9	1980.2	1979.4	1969.4	1962.7	1955.2	1952.7	1947.6	1947.6
25°	1925.9	1915.9	1898.4	1888.4	1883.3	1880.8	1870.0	1860.0	1854.9	1850.8	1854.1
27.5°	1822.4	1807.3	1794.0	1781.4	1777.3	1772.3	1762.2	1758.1	1748.9	1748.0	1747.2
30°	1703.8	1688.7	1675.4	1669.5	1661.2	1657.0	1649.5	1644.5	1641.1	1641.1	1639.5
32.5°	1579.3	1566.0	1559.3	1546.8	1542.6	1536.7	1531.7	1526.7	1528.4	1526.7	1527.6
35°	1444.9	1441.5	1429.0	1421.5	1421.5	1420.6	1412.3	1409.0	1407.3	1408.1	1412.3
37.5°	1317.1	1307.1	1298.7	1293.7	1297.9	1292.9	1292.0	1292.0	1297.0	1293.7	1300.4
40°	1181.0	1180.1	1176.8	1178.4	1179.3	1173.4	1175.1	1175.9	1179.3	1186.0	1186.8
42.5°	1062.4	1061.5	1061.5	1061.5	1059.8	1056.5	1059.8	1065.7	1064.9	1069.9	1074.0
45°	947.9	946.3	949.6	947.1	952.1	953.8	951.3	952.9	958.0	961.3	968.0
47.5°	843.5	843.5	844.4	846.0	841.0	845.2	846.9	850.2	852.7	854.4	857.7
50°	746.7	746.7	745.0	745.0	745.0	747.5	744.1	748.3	749.2	755.8	760.0
52.5°	657.3	653.1	655.6	653.9	650.6	648.9	650.6	651.4	656.5	658.1	663.1
55°	572.1	572.1	565.4	563.7	566.3	565.4	564.6	564.6	567.1	569.6	573.8
57.5°	496.9	491.9	486.9	486.1	483.6	484.4	484.4	483.6	481.9	482.7	483.6
60°	425.9	422.6	415.1	415.1	414.3	413.4	409.2	408.4	404.2	405.1	401.7
62.5°	360.8	359.1	349.1	345.8	345.8	343.3	339.1	338.2	332.4	332.4	329.1
65°	302.3	297.3	291.5	285.6	285.6	282.3	279.8	272.3	268.1	265.6	260.6
67.5°	248.9	241.4	235.5	230.5	227.2	226.3	220.5	215.5	208.8	204.6	197.1
70°	197.1	191.3	185.4	180.4	177.1	173.7	167.9	160.4	155.3	147.8	142.8
72.5°	148.7	143.7	138.6	132.0	127.8	125.3	119.4	112.7	104.4	99.4	92.7
75°	106.9	101.1	94.4	88.5	86.0	83.5	76.8	71.8	66.0	60.1	53.5
77.5°	69.3	62.6	57.6	50.9	50.1	48.4	41.8	36.7	32.6	29.2	25.1
80°	36.7	33.4	29.2	25.1	23.4	20.9	17.5	15.0	12.5	10.0	8.4
82.5°	15.9	13.4	10.9	9.2	8.4	7.5	5.8	5.0	4.2	4.2	3.3
85°	4.2	3.3	3.3	2.5	1.7	1.7	1.7	1.7	1.7	1.7	1.7
87.5°	0.0	0.0	0.0	0.0	0.8	0.8	0.8	0.0	0.8	0.8	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°	2224.1	2224.1	2224.1	2224.1	2224.1	2224.1	2224.1	2224.1	2224.1	2224.1	2224.1
2.5°	2224.1	2224.9	2225.8	2225.8	2226.6	2227.4	2227.4	2228.3	2229.1	2229.9	2229.9
5°	2219.9	2219.9	2219.9	2220.8	2220.8	2220.8	2220.8	2222.4	2222.4	2223.3	2224.1
7.5°	2211.6	2211.6	2211.6	2211.6	2210.7	2211.6	2210.7	2210.7	2212.4	2213.2	2214.1
10°	2198.2	2197.4	2197.4	2196.5	2196.5	2196.5	2197.4	2198.2	2199.0	2199.9	2202.4
12.5°	2177.3	2176.5	2176.5	2175.7	2175.7	2176.5	2177.3	2179.0	2182.3	2184.0	2187.3
15°	2143.9	2143.1	2143.9	2144.8	2146.4	2148.9	2151.4	2153.9	2159.0	2163.1	2167.3
17.5°	2095.5	2096.3	2097.1	2098.8	2101.3	2104.7	2111.3	2118.0	2123.9	2130.6	2137.2
20°	2028.7	2032.0	2032.8	2038.7	2040.4	2047.9	2055.4	2065.4	2074.6	2082.9	2092.1
22.5°	1948.5	1951.0	1954.3	1961.0	1965.2	1975.2	1984.4	1996.1	2006.1	2017.0	2030.3
25°	1857.4	1858.3	1868.3	1868.3	1878.3	1886.7	1897.5	1910.1	1925.1	1939.3	1948.5
27.5°	1753.9	1758.1	1765.6	1768.9	1776.4	1789.8	1799.0	1814.0	1829.1	1841.6	1851.6
30°	1645.3	1648.7	1661.2	1662.9	1668.7	1680.4	1692.9	1707.1	1718.8	1733.0	1742.2
32.5°	1530.9	1540.1	1547.6	1553.4	1555.1	1572.7	1579.3	1589.4	1602.7	1616.9	1626.1
35°	1419.8	1424.0	1434.8	1438.2	1443.2	1453.2	1466.6	1474.9	1481.6	1490.8	1501.7
37.5°	1302.1	1314.6	1317.1	1327.1	1328.8	1338.0	1344.6	1354.7	1363.0	1371.4	1373.0
40°	1192.6	1196.8	1206.0	1208.5	1210.2	1222.7	1231.1	1233.6	1237.7	1245.3	1255.3
42.5°	1081.6	1085.7	1095.8	1093.3	1100.8	1106.6	1110.8	1120.8	1125.0	1127.5	1127.5
45°	972.2	973.8	980.5	983.8	988.0	991.4	998.9	1003.9	1005.6	1013.1	1015.6
47.5°	867.8	869.4	874.4	880.3	878.6	882.8	891.1	893.6	894.5	899.5	902.0
50°	765.0	769.2	775.9	774.2	779.2	781.7	789.2	790.9	790.9	791.8	792.6
52.5°	669.0	672.3	674.0	675.7	678.2	682.3	685.7	684.0	687.4	690.7	688.2
55°	573.8	576.3	580.5	582.1	582.1	583.0	581.3	588.8	585.5	584.6	585.5
57.5°	486.9	483.6	482.7	486.9	488.6	487.7	485.2	488.6	488.6	486.9	484.4
60°	402.6	400.1	399.2	400.1	396.7	394.2	395.9	394.2	390.0	388.4	389.2
62.5°	325.7	323.2	316.5	316.5	314.9	314.0	307.3	308.2	304.8	299.8	301.5
65°	254.7	248.0	244.7	243.9	238.0	233.0	231.3	225.5	220.5	219.7	220.5
67.5°	191.3	183.7	177.9	175.4	172.0	167.9	162.0	157.0	158.7	157.8	161.2
70°	132.8	127.8	121.9	117.8	119.4	114.4	111.1	111.1	111.9	112.7	114.4
72.5°	88.5	81.8	79.3	76.8	75.2	71.8	73.5	73.5	72.7	73.5	71.8
75°	50.1	46.8	44.3	43.4	41.8	41.8	41.8	41.8	40.9	40.1	40.1
77.5°	22.5	20.9	20.0	19.2	19.2	19.2	18.4	17.5	17.5	17.5	16.7
80°	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5
82.5°	3.3	3.3	4.2	4.2	4.2	3.3	4.2	4.2	3.3	3.3	4.2
85°	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
87.5°	0.8	0.8	0.8	0.0	0.8	0.8	0.8	0.8	0.0	0.8	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: P859017

CATALOG NUMBER: LX4C50D010 EX4C509040 4LBLWW*

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	2224.1	2224.1	2224.1	2224.1	2224.1	2224.1	2224.1	2224.1
2.5°	2230.8	2231.6	2231.6	2231.6	2232.4	2232.4	2232.4	2232.4
5°	2224.9	2225.8	2225.8	2225.8	2226.6	2226.6	2226.6	2226.6
7.5°	2214.9	2215.7	2215.7	2216.6	2216.6	2217.4	2217.4	2218.2
10°	2203.2	2204.9	2205.7	2206.6	2207.4	2208.2	2208.2	2209.1
12.5°	2190.7	2192.4	2193.2	2194.9	2196.5	2197.4	2198.2	2199.0
15°	2172.3	2175.7	2177.3	2178.2	2181.5	2183.2	2184.0	2184.8
17.5°	2143.1	2149.8	2152.3	2153.9	2157.3	2160.6	2163.1	2164.0
20°	2101.3	2108.8	2112.2	2116.4	2121.4	2125.5	2127.2	2128.9
22.5°	2042.9	2051.2	2056.2	2061.2	2065.4	2069.6	2076.3	2073.8
25°	1959.3	1973.5	1979.4	1981.9	1991.1	1996.1	1999.4	1996.1
27.5°	1865.8	1874.2	1879.2	1885.0	1891.7	1896.7	1898.4	1903.4
30°	1753.1	1767.2	1766.4	1772.3	1780.6	1785.6	1787.3	1791.5
32.5°	1636.1	1642.8	1647.8	1647.0	1650.3	1659.5	1656.2	1663.7
35°	1511.7	1512.5	1520.9	1520.0	1526.7	1526.7	1526.7	1531.7
37.5°	1378.9	1388.9	1384.7	1394.8	1391.4	1393.9	1393.9	1395.6
40°	1257.8	1261.1	1261.1	1264.5	1267.0	1264.5	1266.1	1270.3
42.5°	1132.5	1135.9	1136.7	1135.0	1137.5	1145.0	1139.2	1144.2
45°	1015.6	1018.1	1021.4	1018.9	1023.1	1020.6	1023.1	1021.4
47.5°	905.3	904.5	903.7	910.4	904.5	905.3	908.7	902.8
50°	792.6	797.6	794.3	796.8	798.4	798.4	795.9	795.9
52.5°	692.4	691.5	689.0	691.5	689.9	690.7	692.4	690.7
55°	588.8	592.1	590.5	589.6	590.5	590.5	595.5	588.8
57.5°	486.9	485.2	487.7	493.6	487.7	491.9	494.4	495.3
60°	390.0	390.0	395.0	392.5	397.5	401.7	405.1	403.4
62.5°	297.3	301.5	303.2	304.0	309.0	312.4	312.4	311.5
65°	220.5	226.3	226.3	229.7	231.3	231.3	233.0	236.4
67.5°	162.9	162.9	163.7	165.4	164.5	164.5	166.2	167.0
70°	113.6	111.9	114.4	113.6	113.6	112.7	113.6	113.6
72.5°	71.8	71.8	72.7	71.8	70.2	71.0	71.0	72.7
75°	38.4	40.1	38.4	38.4	39.3	37.6	38.4	39.3
77.5°	15.9	15.9	15.9	15.9	15.9	15.0	15.0	15.0
80°	7.5	7.5	7.5	7.5	7.5	7.5	6.7	6.7
82.5°	3.3	4.2	3.3	4.2	3.3	3.3	3.3	3.3
85°	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
87.5°	0.0	0.8	0.0	0.8	0.0	0.0	0.0	0.8
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)