

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: P859018

Luminaire Tested: **LX4C50D010 EX4C509040 4LBLWWH**

Issue Date: 2/14/2022

Test Information

Test Method: LM-79-08
Report Number: P859018
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: LX4C50D010 EX4C509040 4LBLWWH
Description: 4 INCH 5000 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 4000K, 90CRI LEDS
AND 4LRLWW TRIM WITH H FINISH
Light Source: -
Ballast/Driver: -

Summary

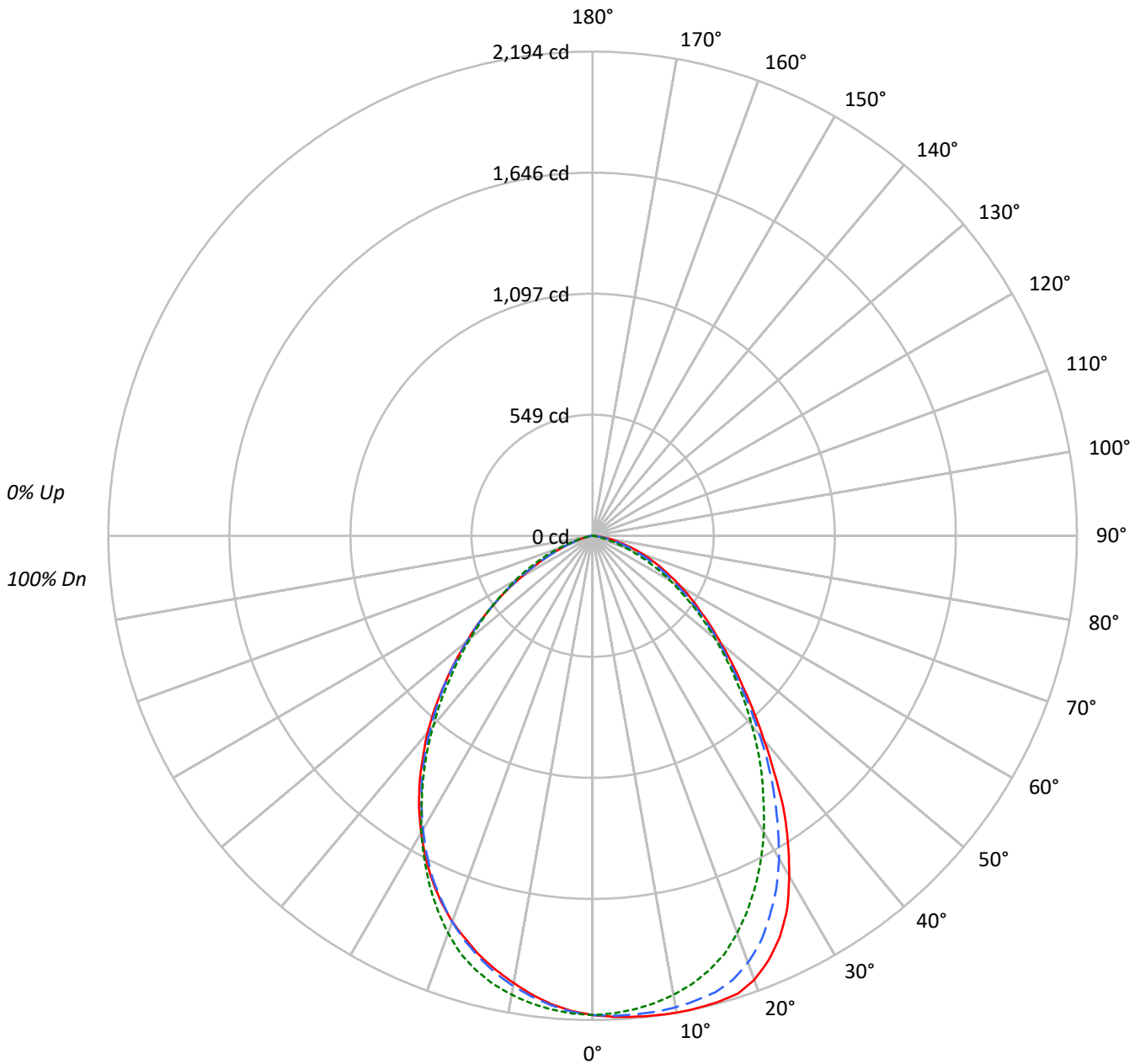
Lumens per Lamp: N/A
Luminaire Lumens: 4093.0 lumens
Efficiency: N/A
Efficacy: 70.1 lumens/watt
Spacing Criteria (0/90/45): 1.15 / 1.09 / 1.17
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

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

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	266813	266813	266813
5°	269793	265674	262788
10°	273749	263432	256758
15°	278248	259233	250623
20°	280015	250415	243212
25°	271989	236880	233261
30°	252750	220165	220293
35°	226254	200698	204958
40°	193716	179907	186483
45°	166757	158626	164585
50°	144969	138108	142255
55°	127571	118810	117718
60°	113492	99143	91329
65°	99563	79418	66046
70°	85525	56107	44720
75°	69397	32515	26154
80°	49665	14150	13018
85°	18888	5920	5920



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	204.7	5.0
10°-20°	579.4	14.2
20°-30°	827.4	20.2
30°-40°	865.5	21.1
40°-50°	725.2	17.7
50°-60°	507.5	12.4
60°-70°	276.4	6.8
70°-80°	95.9	2.3
80°-90°	11.0	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°	1611.4	39.4
0°-40°	2476.9	60.5
0°-60°	3709.7	90.6
0°-90°	4093.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4093.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	2172	2172	2172	2172	2172	
5°	2188	2178	2154	2136	2131	209
15°	2188	2142	2038	1980	1970	618
25°	2006	1900	1748	1713	1721	916
35°	1509	1434	1338	1348	1367	935
45°	960	938	913	943	947	746
55°	596	576	555	555	550	538
65°	342	312	273	230	227	341
75°	146	119	68	55	55	158
85°	13	8	4	4	4	24
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°	2171.8	2171.8	2171.8	2171.8	2171.8	2171.8	2171.8	2171.8	2171.8	2171.8	2171.8
2.5°	2181.9	2179.4	2180.2	2180.2	2180.2	2179.4	2180.2	2179.4	2179.4	2178.5	2176.9
5°	2187.7	2186.0	2186.0	2186.0	2185.2	2184.4	2184.4	2183.5	2181.9	2181.0	2177.7
7.5°	2191.9	2190.2	2190.2	2189.4	2188.6	2187.7	2186.9	2184.4	2181.9	2180.2	2176.0
10°	2194.4	2191.9	2191.9	2190.2	2188.6	2187.7	2186.0	2182.7	2179.4	2175.2	2169.3
12.5°	2192.7	2190.2	2189.4	2187.7	2184.4	2182.7	2181.0	2176.9	2171.0	2165.2	2157.6
15°	2187.7	2186.0	2184.4	2181.9	2177.7	2175.2	2173.5	2166.8	2159.3	2151.0	2141.8
17.5°	2177.7	2175.2	2171.8	2168.5	2162.7	2160.2	2156.0	2147.6	2136.8	2125.1	2110.9
20°	2141.8	2140.1	2136.8	2130.9	2121.7	2118.4	2112.5	2101.7	2087.5	2073.3	2058.2
22.5°	2082.5	2080.0	2074.9	2069.9	2061.6	2055.7	2050.7	2035.7	2019.8	2004.8	1990.6
25°	2006.5	2003.9	1997.3	1990.6	1982.2	1972.2	1967.2	1955.5	1939.6	1920.4	1899.5
27.5°	1908.7	1900.4	1897.9	1890.3	1877.8	1874.5	1867.0	1851.9	1836.9	1820.2	1802.6
30°	1781.7	1781.7	1776.7	1773.4	1761.7	1758.4	1750.0	1734.1	1725.8	1702.4	1689.0
32.5°	1647.3	1645.6	1641.4	1638.9	1632.2	1626.4	1618.0	1609.7	1591.3	1579.6	1561.2
35°	1508.6	1498.6	1500.2	1495.2	1491.1	1484.4	1483.5	1474.3	1457.6	1451.0	1434.3
37.5°	1350.7	1346.5	1352.4	1344.9	1340.7	1341.5	1334.8	1329.0	1322.3	1310.6	1307.3
40°	1207.9	1211.2	1210.4	1203.7	1207.0	1202.9	1196.2	1190.3	1187.0	1179.5	1177.0
42.5°	1080.1	1075.1	1073.4	1073.4	1074.2	1074.2	1070.9	1066.7	1066.7	1059.2	1051.7
45°	959.8	959.8	958.1	963.1	955.6	955.6	953.1	952.3	948.9	947.3	938.1
47.5°	856.2	855.4	854.5	853.7	852.9	852.9	847.9	843.7	842.8	837.8	832.8
50°	758.5	763.5	761.8	757.6	756.0	756.8	753.5	751.0	750.1	741.8	742.6
52.5°	676.6	675.8	677.4	674.9	670.8	671.6	668.3	664.9	661.6	657.4	654.1
55°	595.6	599.8	598.1	595.6	594.8	593.1	590.6	586.4	585.6	576.4	575.5
57.5°	527.9	527.1	525.4	521.2	520.4	517.9	517.9	514.6	509.5	504.5	500.4
60°	461.9	461.9	459.4	458.6	455.3	454.4	453.6	450.2	444.4	440.2	433.5
62.5°	398.5	400.1	398.5	395.9	393.4	390.1	388.4	385.9	380.9	376.7	370.9
65°	342.5	341.6	340.8	337.5	336.6	333.3	332.5	327.4	322.4	319.1	312.4
67.5°	289.0	286.5	286.5	284.8	283.2	280.7	279.0	274.0	268.1	264.8	258.1
70°	238.1	236.4	236.4	236.4	232.2	229.7	228.9	226.4	218.0	214.7	208.0
72.5°	191.3	190.5	189.6	187.1	184.6	184.6	181.3	176.3	172.1	167.9	162.9
75°	146.2	147.9	146.2	142.8	142.0	140.3	137.8	133.7	129.5	124.5	118.6
77.5°	106.9	105.3	103.6	103.6	101.9	98.6	97.7	94.4	89.4	86.0	80.2
80°	70.2	69.3	67.7	66.0	65.2	64.3	63.5	60.1	55.1	52.6	47.6
82.5°	38.4	37.6	37.6	36.8	34.2	34.2	33.4	30.1	27.6	25.9	23.4
85°	13.4	13.4	13.4	12.5	12.5	12.5	11.7	10.9	10.0	9.2	7.5
87.5°	1.7	0.8	1.7	0.8	1.7	0.8	0.8	0.8	0.8	0.8	0.8
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°	2171.8	2171.8	2171.8	2171.8	2171.8	2171.8	2171.8	2171.8	2171.8	2171.8	2171.8
2.5°	2175.2	2173.5	2172.7	2171.8	2171.0	2170.2	2169.3	2167.7	2166.8	2166.0	2164.3
5°	2175.2	2171.8	2170.2	2167.7	2166.0	2164.3	2161.8	2159.3	2156.8	2154.3	2151.8
7.5°	2171.8	2166.8	2163.5	2158.5	2156.8	2154.3	2149.3	2146.0	2141.8	2136.8	2130.9
10°	2163.5	2157.6	2151.0	2144.3	2141.8	2137.6	2130.9	2125.1	2118.4	2111.7	2105.9
12.5°	2150.1	2140.9	2132.6	2123.4	2118.4	2114.2	2105.0	2096.7	2088.3	2080.8	2070.8
15°	2130.1	2119.2	2108.4	2095.8	2090.0	2085.0	2071.6	2061.6	2048.2	2038.2	2028.2
17.5°	2097.5	2080.8	2067.4	2051.6	2043.2	2037.4	2025.7	2009.8	1997.3	1986.4	1974.7
20°	2041.5	2025.7	2007.3	1989.7	1980.6	1973.0	1956.3	1939.6	1927.1	1915.4	1902.9
22.5°	1968.0	1948.0	1934.6	1912.9	1905.4	1896.2	1876.1	1861.1	1846.9	1835.2	1823.5
25°	1878.6	1861.1	1842.7	1822.7	1813.5	1802.6	1785.9	1770.1	1760.9	1747.5	1733.3
27.5°	1775.9	1761.7	1739.1	1721.6	1712.4	1704.1	1688.2	1674.0	1660.6	1651.4	1638.1
30°	1667.3	1650.6	1630.6	1612.2	1607.2	1597.1	1582.9	1572.1	1557.9	1552.0	1546.2
32.5°	1547.9	1528.6	1513.6	1501.9	1491.9	1483.5	1476.0	1458.5	1456.0	1440.9	1439.3
35°	1417.5	1409.2	1395.0	1385.0	1376.6	1370.8	1358.2	1349.9	1340.7	1338.2	1332.3
37.5°	1294.8	1284.7	1271.4	1262.2	1256.3	1255.5	1246.3	1241.3	1234.6	1231.3	1224.6
40°	1166.1	1161.9	1150.2	1148.6	1139.4	1138.5	1133.5	1127.7	1121.8	1121.8	1122.7
42.5°	1047.5	1042.5	1037.5	1031.6	1026.6	1026.6	1024.1	1022.4	1020.8	1018.3	1022.4
45°	936.4	929.7	926.4	920.5	923.0	918.0	916.4	916.4	913.8	913.0	918.9
47.5°	832.8	825.3	822.0	820.3	820.3	821.1	813.6	816.1	815.3	816.9	819.5
50°	738.4	731.7	726.7	726.7	727.6	724.2	720.9	723.4	720.9	722.6	728.4
52.5°	650.7	644.0	641.5	641.5	636.5	635.7	637.4	634.0	634.8	635.7	639.0
55°	569.7	565.5	561.3	557.2	558.0	556.3	553.0	552.1	553.8	554.7	558.8
57.5°	497.0	491.2	485.3	483.7	482.0	482.0	477.8	477.0	478.6	474.5	474.5
60°	427.7	424.3	416.8	414.3	414.3	410.1	406.8	408.5	404.3	403.5	404.3
62.5°	363.4	360.9	355.8	350.8	349.2	347.5	343.3	341.6	340.0	336.6	331.6
65°	307.4	301.6	295.7	292.4	289.9	285.7	283.2	279.8	274.8	273.2	268.1
67.5°	251.4	245.6	239.7	237.2	234.7	232.2	228.0	223.9	218.0	211.3	205.5
70°	202.1	194.6	191.3	184.6	182.9	179.6	173.7	169.6	163.7	156.2	150.4
72.5°	154.5	149.5	144.5	138.7	134.5	132.0	127.0	120.3	113.6	109.4	103.6
75°	111.1	108.6	101.9	95.2	93.6	90.2	84.4	80.2	75.2	68.5	63.5
77.5°	75.2	70.2	66.0	60.1	58.5	55.1	51.8	47.6	44.3	40.1	36.8
80°	44.3	40.1	37.6	33.4	31.7	30.1	27.6	24.2	21.7	20.0	19.2
82.5°	21.7	18.4	17.5	15.0	14.2	13.4	11.7	10.9	9.2	9.2	9.2
85°	7.5	5.8	5.8	5.0	4.2	4.2	4.2	4.2	4.2	4.2	4.2
87.5°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	1.7	0.8
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°	2171.8	2171.8	2171.8	2171.8	2171.8	2171.8	2171.8	2171.8	2171.8	2171.8	2171.8
2.5°	2163.5	2162.7	2161.8	2161.0	2161.0	2160.2	2160.2	2159.3	2159.3	2158.5	2158.5
5°	2148.5	2146.0	2144.3	2142.6	2142.6	2140.1	2138.4	2136.8	2135.9	2135.9	2134.3
7.5°	2127.6	2124.2	2120.9	2118.4	2117.5	2113.4	2110.0	2110.0	2106.7	2105.0	2103.3
10°	2100.0	2094.2	2089.1	2086.6	2083.3	2080.8	2076.6	2074.1	2071.6	2067.4	2066.6
12.5°	2062.4	2058.2	2050.7	2047.4	2045.7	2040.7	2034.0	2030.7	2029.8	2026.5	2024.0
15°	2019.8	2010.6	2003.9	1999.8	1999.8	1991.4	1988.1	1983.1	1979.7	1977.2	1976.4
17.5°	1964.7	1955.5	1948.8	1943.0	1941.3	1934.6	1929.6	1927.9	1923.8	1925.4	1921.2
20°	1893.7	1886.2	1881.2	1873.6	1873.6	1869.5	1867.8	1863.6	1861.9	1860.3	1861.9
22.5°	1817.7	1808.5	1800.1	1799.3	1799.3	1793.4	1792.6	1791.8	1788.4	1790.9	1790.1
25°	1728.3	1721.6	1716.6	1715.8	1715.8	1712.4	1709.1	1710.7	1713.3	1712.4	1714.9
27.5°	1635.6	1628.9	1627.2	1626.4	1624.7	1623.9	1625.5	1625.5	1628.0	1631.4	1634.7
30°	1535.3	1533.7	1531.2	1530.3	1528.6	1532.8	1534.5	1537.0	1536.2	1541.2	1544.5
32.5°	1435.1	1431.7	1430.9	1432.6	1435.1	1434.3	1439.3	1440.9	1442.6	1448.5	1451.0
35°	1334.0	1333.2	1331.5	1331.5	1332.3	1339.0	1339.0	1344.9	1348.2	1349.9	1356.6
37.5°	1225.4	1228.8	1230.4	1232.9	1233.8	1236.3	1238.0	1243.8	1247.1	1250.5	1253.8
40°	1126.0	1124.3	1131.9	1126.9	1128.5	1136.0	1139.4	1138.5	1143.6	1148.6	1151.9
42.5°	1019.9	1022.4	1024.1	1025.8	1030.0	1030.8	1035.0	1040.8	1042.5	1048.3	1050.0
45°	917.2	918.0	921.4	924.7	927.2	933.9	935.6	938.1	943.1	943.1	945.6
47.5°	820.3	823.6	823.6	828.6	832.8	832.0	837.8	839.5	838.7	842.8	844.5
50°	727.6	732.6	731.7	735.1	736.8	737.6	742.6	744.3	740.9	745.1	745.9
52.5°	639.0	641.5	644.9	645.7	644.0	648.2	646.5	649.9	649.0	652.4	649.0
55°	558.0	557.2	557.2	558.8	557.2	558.8	560.5	557.2	554.7	558.0	557.2
57.5°	477.0	477.0	475.3	477.8	475.3	472.8	472.0	469.5	466.9	466.9	466.1
60°	401.0	399.3	395.9	395.1	395.1	390.9	389.3	385.9	385.9	382.6	379.2
62.5°	330.0	325.8	323.3	323.3	321.6	317.4	309.9	304.9	303.2	298.2	297.4
65°	263.1	259.0	256.4	251.4	247.3	245.6	238.1	232.2	229.7	224.7	225.5
67.5°	202.1	195.5	187.9	184.6	182.1	176.3	173.7	169.6	167.1	167.1	167.1
70°	145.3	139.5	132.0	129.5	127.8	122.8	120.3	119.5	122.0	121.1	122.0
72.5°	97.7	91.9	88.5	86.9	85.2	82.7	84.4	85.2	83.5	84.4	85.2
75°	59.3	57.6	55.1	54.3	54.3	55.1	54.3	54.3	55.1	55.1	56.0
77.5°	34.2	32.6	32.6	31.7	33.4	32.6	32.6	32.6	33.4	33.4	33.4
80°	18.4	18.4	18.4	18.4	19.2	18.4	19.2	19.2	19.2	19.2	19.2
82.5°	9.2	9.2	9.2	10.0	10.0	10.0	10.0	10.0	10.0	10.0	9.2
85°	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2
87.5°	0.8	1.7	1.7	1.7	1.7	1.7	0.8	0.8	0.8	0.8	0.8
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: P859018

CATALOG NUMBER: LX4C50D010 EX4C509040 4LBLWWH

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	2171.8	2171.8	2171.8	2171.8	2171.8	2171.8	2171.8	2171.8
2.5°	2156.8	2156.8	2156.8	2155.1	2156.0	2156.0	2155.1	2155.1
5°	2133.4	2132.6	2130.9	2130.9	2129.2	2130.9	2130.1	2130.9
7.5°	2101.7	2101.7	2099.2	2099.2	2098.3	2097.5	2096.7	2097.5
10°	2064.1	2064.1	2062.4	2061.6	2062.4	2059.1	2059.1	2058.2
12.5°	2022.3	2020.7	2019.0	2019.8	2019.0	2016.5	2015.6	2016.5
15°	1973.9	1971.4	1972.2	1969.7	1969.7	1968.9	1970.5	1970.5
17.5°	1920.4	1918.7	1917.1	1917.9	1916.2	1917.1	1916.2	1915.4
20°	1861.1	1860.3	1860.3	1856.9	1857.8	1856.9	1857.8	1860.3
22.5°	1792.6	1791.8	1792.6	1790.1	1791.8	1791.8	1794.3	1794.3
25°	1717.4	1716.6	1718.3	1719.1	1719.9	1722.4	1719.9	1720.8
27.5°	1633.9	1636.4	1638.9	1639.7	1643.1	1640.6	1638.9	1641.4
30°	1549.5	1549.5	1548.7	1552.0	1554.5	1557.0	1552.9	1552.9
32.5°	1452.6	1456.8	1456.8	1457.6	1460.1	1460.1	1460.1	1463.5
35°	1359.9	1362.4	1363.3	1359.9	1361.6	1360.7	1366.6	1366.6
37.5°	1256.3	1256.3	1257.2	1263.0	1263.0	1260.5	1262.2	1262.2
40°	1157.8	1158.6	1155.3	1156.9	1161.1	1159.4	1161.1	1162.8
42.5°	1050.0	1055.9	1052.5	1054.2	1053.3	1054.2	1055.0	1055.0
45°	947.3	948.9	948.9	949.8	951.4	953.1	948.1	947.3
47.5°	847.0	847.9	850.4	846.2	851.2	846.2	851.2	845.3
50°	745.9	749.3	746.8	748.5	745.9	745.9	745.1	744.3
52.5°	649.9	649.0	649.0	648.2	648.2	649.9	648.2	650.7
55°	553.8	554.7	553.0	552.1	551.3	553.8	551.3	549.6
57.5°	462.8	464.4	461.1	462.8	456.9	459.4	460.3	461.1
60°	378.4	375.9	375.9	372.6	372.6	375.1	371.7	371.7
62.5°	293.2	294.9	292.4	295.7	295.7	299.0	297.4	299.0
65°	224.7	225.5	226.4	226.4	226.4	231.4	229.7	227.2
67.5°	169.6	170.4	171.2	170.4	172.9	171.2	171.2	172.1
70°	122.8	123.6	124.5	124.5	123.6	124.5	124.5	124.5
72.5°	85.2	86.0	85.2	86.0	86.9	86.0	86.0	86.9
75°	56.0	56.0	55.1	55.1	55.1	55.1	56.0	55.1
77.5°	32.6	33.4	32.6	33.4	33.4	33.4	33.4	33.4
80°	19.2	19.2	19.2	18.4	19.2	19.2	19.2	18.4
82.5°	10.0	10.0	9.2	9.2	10.0	10.0	10.0	10.0
85°	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2
87.5°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	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)