

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: P859039

Luminaire Tested: **LX4C50D010 EX4C509050 4LBLWWH**

Issue Date: 2/14/2022



**Test Information**

Test Method: LM-79-08  
Report Number: P859039  
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 EX4C509050 4LBLWWH  
Description: 4 INCH 5000 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 5000K, 90CRI LEDS  
AND 4LRLWW TRIM WITH H FINISH  
Light Source: -  
Ballast/Driver: -

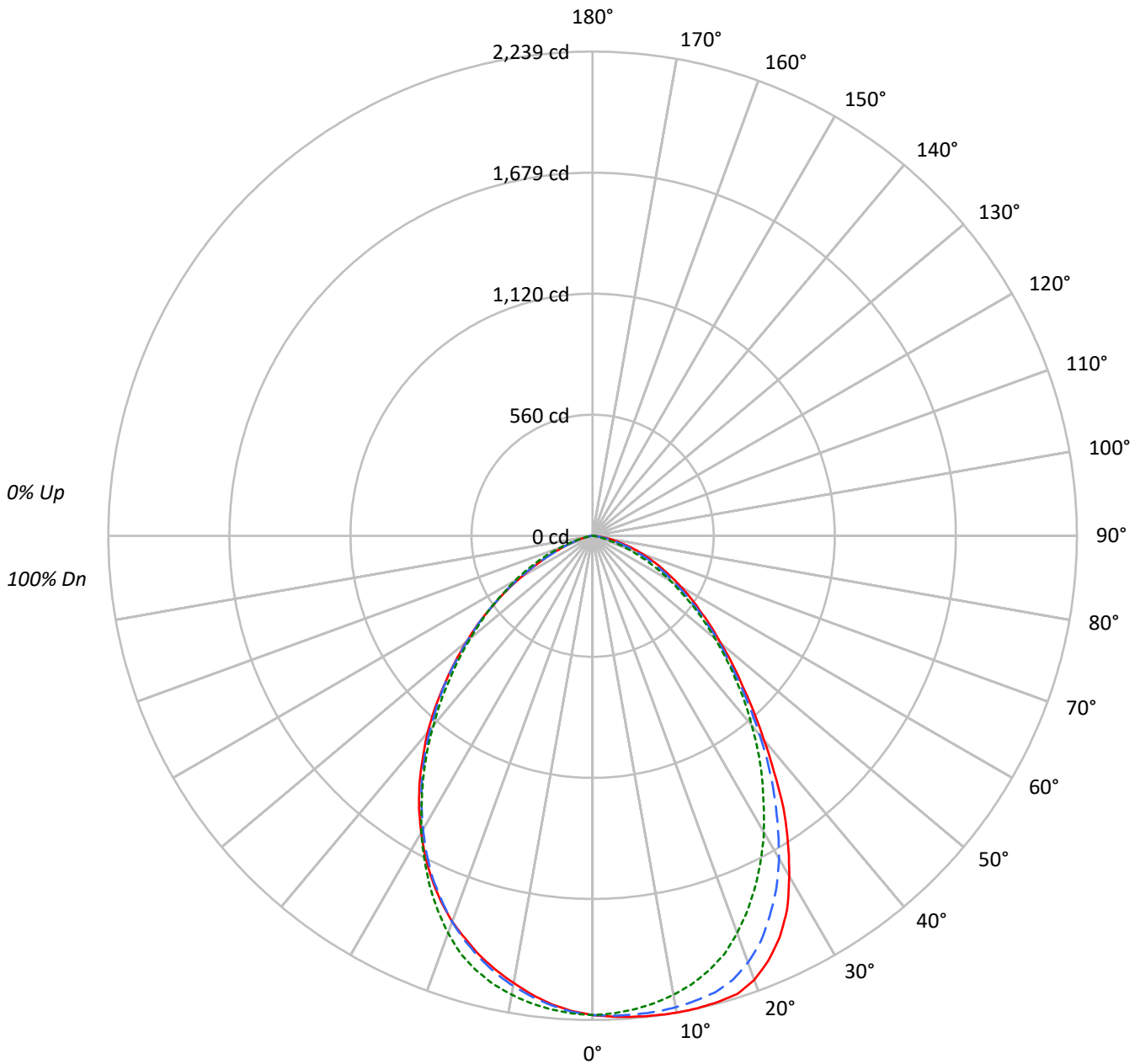
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4177.0 lumens  
Efficiency: N/A  
Efficacy: 71.5 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<sub>in</sub>): 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°	272292	272292	272292
5°	275330	271125	268178
10°	279362	268833	262035
15°	283958	264550	255774
20°	285754	255553	248193
25°	277560	241747	238046
30°	257942	224690	224804
35°	230904	204823	209157
40°	197693	183612	190300
45°	170179	161875	167955
50°	147932	140936	145160
55°	130184	121231	120138
60°	115826	101158	93197
65°	101598	81046	67412
70°	87285	57256	45618
75°	70821	33179	26724
80°	50656	14503	13301
85°	19170	6061	6061



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	208.9	5.0
10°-20°	591.3	14.2
20°-30°	844.3	20.2
30°-40°	883.3	21.1
40°-50°	740.1	17.7
50°-60°	518.0	12.4
60°-70°	282.0	6.8
70°-80°	97.9	2.3
80°-90°	11.3	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°	1644.5	39.4
0°-40°	2527.8	60.5
0°-60°	3785.8	90.6
0°-90°	4177.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4177.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	2216	2216	2216	2216	2216	
5°	2233	2222	2198	2180	2175	213
15°	2233	2186	2080	2020	2011	630
25°	2048	1938	1783	1748	1756	935
35°	1540	1464	1366	1376	1395	955
45°	980	957	932	962	967	762
55°	608	587	566	566	561	549
65°	350	319	279	234	232	348
75°	149	121	70	56	56	161
85°	14	8	4	4	4	25
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°	2216.4	2216.4	2216.4	2216.4	2216.4	2216.4	2216.4	2216.4	2216.4	2216.4	2216.4
2.5°	2226.6	2224.1	2224.9	2224.9	2224.9	2224.1	2224.9	2224.1	2224.1	2223.2	2221.5
5°	2232.6	2230.9	2230.9	2230.9	2230.1	2229.2	2229.2	2228.4	2226.6	2225.8	2222.4
7.5°	2236.9	2235.2	2235.2	2234.3	2233.5	2232.6	2231.8	2229.2	2226.6	2224.9	2220.7
10°	2239.4	2236.9	2236.9	2235.2	2233.5	2232.6	2230.9	2227.5	2224.1	2219.8	2213.9
12.5°	2237.7	2235.2	2234.3	2232.6	2229.2	2227.5	2225.8	2221.5	2215.6	2209.6	2201.9
15°	2232.6	2230.9	2229.2	2226.6	2222.4	2219.8	2218.1	2211.3	2203.6	2195.1	2185.7
17.5°	2222.4	2219.8	2216.4	2213.0	2207.0	2204.5	2200.2	2191.7	2180.6	2168.7	2154.2
20°	2185.7	2184.0	2180.6	2174.6	2165.3	2161.9	2155.9	2144.8	2130.3	2115.8	2100.5
22.5°	2125.2	2122.6	2117.5	2112.4	2103.9	2097.9	2092.8	2077.5	2061.3	2045.9	2031.4
25°	2047.6	2045.1	2038.3	2031.4	2022.9	2012.7	2007.6	1995.6	1979.4	1959.8	1938.5
27.5°	1947.9	1939.4	1936.8	1929.1	1916.3	1912.9	1905.3	1889.9	1874.6	1857.5	1839.6
30°	1818.3	1818.3	1813.2	1809.8	1797.9	1794.4	1785.9	1769.7	1761.2	1737.3	1723.7
32.5°	1681.1	1679.4	1675.1	1672.5	1665.7	1659.8	1651.2	1642.7	1624.0	1612.0	1593.3
35°	1539.6	1529.3	1531.0	1525.9	1521.7	1514.8	1514.0	1504.6	1487.6	1480.7	1463.7
37.5°	1378.4	1374.2	1380.1	1372.5	1368.2	1369.1	1362.2	1356.3	1349.5	1337.5	1334.1
40°	1232.7	1236.1	1235.2	1228.4	1231.8	1227.6	1220.7	1214.8	1211.4	1203.7	1201.1
42.5°	1102.2	1097.1	1095.4	1095.4	1096.3	1096.3	1092.9	1088.6	1088.6	1080.9	1073.3
45°	979.5	979.5	977.8	982.9	975.2	975.2	972.7	971.8	968.4	966.7	957.3
47.5°	873.8	872.9	872.1	871.2	870.4	870.4	865.3	861.0	860.1	855.0	849.9
50°	774.0	779.2	777.5	773.2	771.5	772.3	768.9	766.4	765.5	757.0	757.8
52.5°	690.5	689.6	691.4	688.8	684.5	685.4	682.0	678.6	675.2	670.9	667.5
55°	607.8	612.1	610.4	607.8	607.0	605.3	602.7	598.4	597.6	588.2	587.4
57.5°	538.8	537.9	536.2	531.9	531.1	528.5	528.5	525.1	520.0	514.9	510.6
60°	471.4	471.4	468.9	468.0	464.6	463.7	462.9	459.5	453.5	449.3	442.4
62.5°	406.6	408.3	406.6	404.1	401.5	398.1	396.4	393.8	388.7	384.5	378.5
65°	349.5	348.7	347.8	344.4	343.5	340.1	339.3	334.2	329.1	325.6	318.8
67.5°	295.0	292.4	292.4	290.7	289.0	286.4	284.7	279.6	273.6	270.2	263.4
70°	243.0	241.2	241.2	241.2	237.0	234.4	233.6	231.0	222.5	219.1	212.3
72.5°	195.2	194.4	193.5	191.0	188.4	188.4	185.0	179.9	175.6	171.3	166.2
75°	149.2	150.9	149.2	145.8	144.9	143.2	140.7	136.4	132.1	127.0	121.1
77.5°	109.1	107.4	105.7	105.7	104.0	100.6	99.7	96.3	91.2	87.8	81.8
80°	71.6	70.8	69.0	67.3	66.5	65.6	64.8	61.4	56.3	53.7	48.6
82.5°	39.2	38.4	38.4	37.5	35.0	35.0	34.1	30.7	28.1	26.4	23.9
85°	13.6	13.6	13.6	12.8	12.8	12.8	11.9	11.1	10.2	9.4	7.7
87.5°	1.7	0.9	1.7	0.9	1.7	0.9	0.9	0.9	0.9	0.9	0.9
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°	2216.4	2216.4	2216.4	2216.4	2216.4	2216.4	2216.4	2216.4	2216.4	2216.4	2216.4
2.5°	2219.8	2218.1	2217.3	2216.4	2215.6	2214.7	2213.9	2212.2	2211.3	2210.5	2208.7
5°	2219.8	2216.4	2214.7	2212.2	2210.5	2208.7	2206.2	2203.6	2201.1	2198.5	2196.0
7.5°	2216.4	2211.3	2207.9	2202.8	2201.1	2198.5	2193.4	2190.0	2185.7	2180.6	2174.6
10°	2207.9	2201.9	2195.1	2188.3	2185.7	2181.5	2174.6	2168.7	2161.9	2155.0	2149.1
12.5°	2194.3	2184.9	2176.4	2167.0	2161.9	2157.6	2148.2	2139.7	2131.2	2123.5	2113.3
15°	2173.8	2162.7	2151.6	2138.8	2132.9	2127.8	2114.1	2103.9	2090.3	2080.0	2069.8
17.5°	2140.5	2123.5	2109.9	2093.7	2085.1	2079.2	2067.2	2051.0	2038.3	2027.2	2015.2
20°	2083.4	2067.2	2048.5	2030.6	2021.2	2013.5	1996.5	1979.4	1966.6	1954.7	1941.9
22.5°	2008.4	1988.0	1974.3	1952.2	1944.5	1935.1	1914.6	1899.3	1884.8	1872.9	1860.9
25°	1917.2	1899.3	1880.5	1860.1	1850.7	1839.6	1822.6	1806.4	1797.0	1783.4	1768.9
27.5°	1812.3	1797.9	1774.8	1756.9	1747.6	1739.0	1722.8	1708.3	1694.7	1685.3	1671.7
30°	1701.5	1684.5	1664.0	1645.3	1640.1	1629.9	1615.4	1604.3	1589.9	1583.9	1577.9
32.5°	1579.6	1560.0	1544.7	1532.7	1522.5	1514.0	1506.3	1488.4	1485.9	1470.5	1468.8
35°	1446.6	1438.1	1423.6	1413.4	1404.9	1398.9	1386.1	1377.6	1368.2	1365.7	1359.7
37.5°	1321.3	1311.1	1297.5	1288.1	1282.1	1281.3	1271.9	1266.8	1259.9	1256.5	1249.7
40°	1190.0	1185.8	1173.8	1172.1	1162.8	1161.9	1156.8	1150.8	1144.9	1144.9	1145.7
42.5°	1069.0	1063.9	1058.8	1052.8	1047.7	1047.7	1045.1	1043.4	1041.7	1039.2	1043.4
45°	955.6	948.8	945.4	939.4	942.0	936.9	935.2	935.2	932.6	931.7	937.7
47.5°	849.9	842.2	838.8	837.1	837.1	838.0	830.3	832.9	832.0	833.7	836.3
50°	753.6	746.8	741.6	741.6	742.5	739.1	735.7	738.2	735.7	737.4	743.4
52.5°	664.1	657.3	654.7	654.7	649.6	648.7	650.4	647.0	647.9	648.7	652.1
55°	581.4	577.1	572.9	568.6	569.4	567.7	564.3	563.5	565.2	566.0	570.3
57.5°	507.2	501.3	495.3	493.6	491.9	491.9	487.6	486.8	488.5	484.2	484.2
60°	436.5	433.1	425.4	422.8	422.8	418.6	415.2	416.9	412.6	411.7	412.6
62.5°	370.8	368.3	363.2	358.0	356.3	354.6	350.4	348.7	347.0	343.5	338.4
65°	313.7	307.7	301.8	298.4	295.8	291.5	289.0	285.6	280.5	278.8	273.6
67.5°	256.6	250.6	244.7	242.1	239.5	237.0	232.7	228.5	222.5	215.7	209.7
70°	206.3	198.6	195.2	188.4	186.7	183.3	177.3	173.1	167.1	159.4	153.4
72.5°	157.7	152.6	147.5	141.5	137.2	134.7	129.6	122.8	115.9	111.7	105.7
75°	113.4	110.8	104.0	97.2	95.5	92.1	86.1	81.8	76.7	69.9	64.8
77.5°	76.7	71.6	67.3	61.4	59.7	56.3	52.9	48.6	45.2	40.9	37.5
80°	45.2	40.9	38.4	34.1	32.4	30.7	28.1	24.7	22.2	20.5	19.6
82.5°	22.2	18.8	17.9	15.3	14.5	13.6	11.9	11.1	9.4	9.4	9.4
85°	7.7	6.0	6.0	5.1	4.3	4.3	4.3	4.3	4.3	4.3	4.3
87.5°	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	1.7	0.9
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°	2216.4	2216.4	2216.4	2216.4	2216.4	2216.4	2216.4	2216.4	2216.4	2216.4	2216.4
2.5°	2207.9	2207.0	2206.2	2205.3	2205.3	2204.5	2204.5	2203.6	2203.6	2202.8	2202.8
5°	2192.5	2190.0	2188.3	2186.6	2186.6	2184.0	2182.3	2180.6	2179.8	2179.8	2178.1
7.5°	2171.2	2167.8	2164.4	2161.9	2161.0	2156.7	2153.3	2153.3	2149.9	2148.2	2146.5
10°	2143.1	2137.1	2132.0	2129.5	2126.1	2123.5	2119.2	2116.7	2114.1	2109.9	2109.0
12.5°	2104.7	2100.5	2092.8	2089.4	2087.7	2082.6	2075.8	2072.4	2071.5	2068.1	2065.5
15°	2061.3	2051.9	2045.1	2040.8	2040.8	2032.3	2028.9	2023.8	2020.4	2017.8	2016.9
17.5°	2005.0	1995.6	1988.8	1982.8	1981.1	1974.3	1969.2	1967.5	1963.2	1964.9	1960.7
20°	1932.5	1924.9	1919.8	1912.1	1912.1	1907.8	1906.1	1901.9	1900.2	1898.4	1900.2
22.5°	1855.0	1845.6	1837.1	1836.2	1836.2	1830.2	1829.4	1828.5	1825.1	1827.7	1826.8
25°	1763.8	1756.9	1751.8	1751.0	1751.0	1747.6	1744.2	1745.9	1748.4	1747.6	1750.1
27.5°	1669.1	1662.3	1660.6	1659.8	1658.1	1657.2	1658.9	1658.9	1661.5	1664.9	1668.3
30°	1566.8	1565.1	1562.6	1561.7	1560.0	1564.3	1566.0	1568.5	1567.7	1572.8	1576.2
32.5°	1464.5	1461.1	1460.3	1462.0	1464.5	1463.7	1468.8	1470.5	1472.2	1478.2	1480.7
35°	1361.4	1360.5	1358.8	1358.8	1359.7	1366.5	1366.5	1372.5	1375.9	1377.6	1384.4
37.5°	1250.6	1254.0	1255.7	1258.2	1259.1	1261.7	1263.4	1269.3	1272.7	1276.1	1279.6
40°	1149.1	1147.4	1155.1	1150.0	1151.7	1159.4	1162.8	1161.9	1167.0	1172.1	1175.6
42.5°	1040.9	1043.4	1045.1	1046.8	1051.1	1051.9	1056.2	1062.2	1063.9	1069.8	1071.6
45°	936.0	936.9	940.3	943.7	946.2	953.1	954.8	957.3	962.4	962.4	965.0
47.5°	837.1	840.5	840.5	845.6	849.9	849.1	855.0	856.7	855.9	860.1	861.8
50°	742.5	747.6	746.8	750.2	751.9	752.7	757.8	759.5	756.1	760.4	761.3
52.5°	652.1	654.7	658.1	659.0	657.3	661.5	659.8	663.2	662.4	665.8	662.4
55°	569.4	568.6	568.6	570.3	568.6	570.3	572.0	568.6	566.0	569.4	568.6
57.5°	486.8	486.8	485.1	487.6	485.1	482.5	481.6	479.1	476.5	476.5	475.7
60°	409.2	407.5	404.1	403.2	403.2	399.0	397.3	393.8	393.8	390.4	387.0
62.5°	336.7	332.5	329.9	329.9	328.2	323.9	316.3	311.2	309.4	304.3	303.5
65°	268.5	264.3	261.7	256.6	252.3	250.6	243.0	237.0	234.4	229.3	230.2
67.5°	206.3	199.5	191.8	188.4	185.8	179.9	177.3	173.1	170.5	170.5	170.5
70°	148.3	142.4	134.7	132.1	130.4	125.3	122.8	121.9	124.5	123.6	124.5
72.5°	99.7	93.8	90.4	88.7	87.0	84.4	86.1	87.0	85.2	86.1	87.0
75°	60.5	58.8	56.3	55.4	55.4	56.3	55.4	55.4	56.3	56.3	57.1
77.5°	35.0	33.2	33.2	32.4	34.1	33.2	33.2	33.2	34.1	34.1	34.1
80°	18.8	18.8	18.8	18.8	19.6	18.8	19.6	19.6	19.6	19.6	19.6
82.5°	9.4	9.4	9.4	10.2	10.2	10.2	10.2	10.2	10.2	10.2	9.4
85°	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3
87.5°	0.9	1.7	1.7	1.7	1.7	1.7	0.9	0.9	0.9	0.9	0.9
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: P859039

CATALOG NUMBER: LX4C50D010 EX4C509050 4LBLWWH

**CANDELA DISTRIBUTION (continued):**

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	2216.4	2216.4	2216.4	2216.4	2216.4	2216.4	2216.4	2216.4
2.5°	2201.1	2201.1	2201.1	2199.4	2200.2	2200.2	2199.4	2199.4
5°	2177.2	2176.4	2174.6	2174.6	2172.9	2174.6	2173.8	2174.6
7.5°	2144.8	2144.8	2142.3	2142.3	2141.4	2140.5	2139.7	2140.5
10°	2106.4	2106.4	2104.7	2103.9	2104.7	2101.3	2101.3	2100.5
12.5°	2063.8	2062.1	2060.4	2061.3	2060.4	2057.9	2057.0	2057.9
15°	2014.4	2011.8	2012.7	2010.1	2010.1	2009.3	2011.0	2011.0
17.5°	1959.8	1958.1	1956.4	1957.3	1955.6	1956.4	1955.6	1954.7
20°	1899.3	1898.4	1898.4	1895.0	1895.9	1895.0	1895.9	1898.4
22.5°	1829.4	1828.5	1829.4	1826.8	1828.5	1828.5	1831.1	1831.1
25°	1752.7	1751.8	1753.5	1754.4	1755.2	1757.8	1755.2	1756.1
27.5°	1667.4	1670.0	1672.5	1673.4	1676.8	1674.2	1672.5	1675.1
30°	1581.3	1581.3	1580.5	1583.9	1586.4	1589.0	1584.7	1584.7
32.5°	1482.4	1486.7	1486.7	1487.6	1490.1	1490.1	1490.1	1493.5
35°	1387.8	1390.4	1391.2	1387.8	1389.5	1388.7	1394.6	1394.6
37.5°	1282.1	1282.1	1283.0	1288.9	1288.9	1286.4	1288.1	1288.1
40°	1181.5	1182.4	1179.0	1180.7	1184.9	1183.2	1184.9	1186.6
42.5°	1071.6	1077.5	1074.1	1075.8	1075.0	1075.8	1076.7	1076.7
45°	966.7	968.4	968.4	969.3	971.0	972.7	967.6	966.7
47.5°	864.4	865.3	867.8	863.6	868.7	863.6	868.7	862.7
50°	761.3	764.7	762.1	763.8	761.3	761.3	760.4	759.5
52.5°	663.2	662.4	662.4	661.5	661.5	663.2	661.5	664.1
55°	565.2	566.0	564.3	563.5	562.6	565.2	562.6	560.9
57.5°	472.3	474.0	470.6	472.3	466.3	468.9	469.7	470.6
60°	386.2	383.6	383.6	380.2	380.2	382.8	379.3	379.3
62.5°	299.2	300.9	298.4	301.8	301.8	305.2	303.5	305.2
65°	229.3	230.2	231.0	231.0	231.0	236.1	234.4	231.9
67.5°	173.1	173.9	174.8	173.9	176.5	174.8	174.8	175.6
70°	125.3	126.2	127.0	127.0	126.2	127.0	127.0	127.0
72.5°	87.0	87.8	87.0	87.8	88.7	87.8	87.8	88.7
75°	57.1	57.1	56.3	56.3	56.3	56.3	57.1	56.3
77.5°	33.2	34.1	33.2	34.1	34.1	34.1	34.1	34.1
80°	19.6	19.6	19.6	18.8	19.6	19.6	19.6	18.8
82.5°	10.2	10.2	9.4	9.4	10.2	10.2	10.2	10.2
85°	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3
87.5°	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
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)