

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: P859006

Luminaire Tested: **LX4C50D010 EX4C509035 4LBSWNH**

Issue Date: 2/18/2022

**Test Information**

Test Method: LM-79-08  
Report Number: P859006  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P251634)  
Test Lab: INNOVATION CENTER  
Issue Date: 2/18/2022  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: PORTFOLIO  
Catalog Number: LX4C50D010 EX4C509035 4LBSWNH  
Description: 4 INCH 5000 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 3500K, 90CRI LEDS  
AND 4LCSW TRIM WITH H FINISH  
Light Source: -  
Ballast/Driver: -

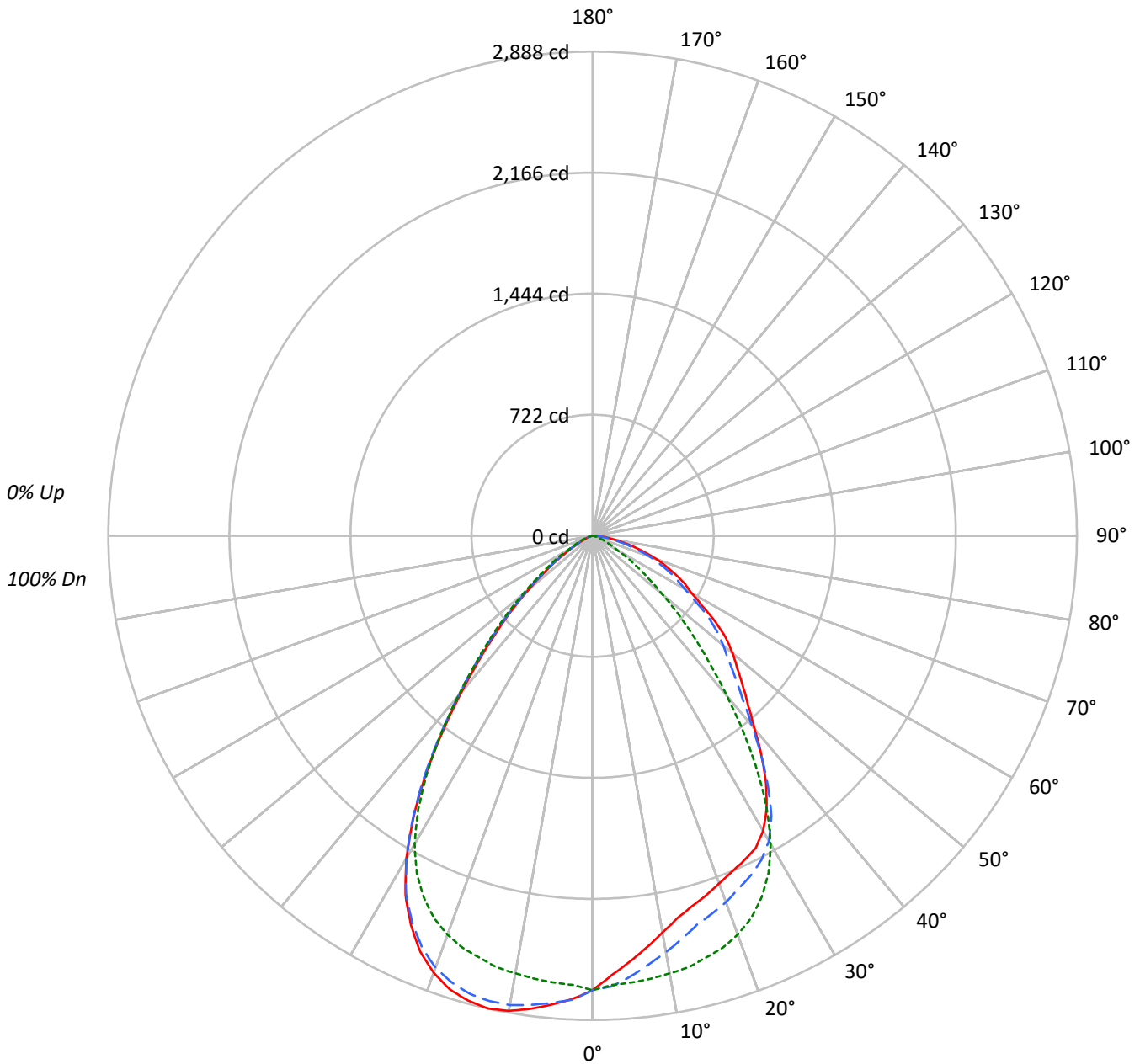
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4750.0 lumens  
Efficiency: N/A  
Efficacy: 81.3 lumens/watt  
Spacing Criteria (0/90/45): 1.17 / 1.17 / 1.15  
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	100	100	100
1	111	108	104	101	109	106	103	100	101	99	97	98	96	94	94	93	91	89	89	89	89
2	104	97	92	87	101	95	90	86	92	88	84	89	85	82	86	83	81	79	79	79	79
3	96	88	81	76	94	86	80	75	83	78	74	81	76	73	78	75	72	70	70	70	70
4	90	80	72	67	88	78	72	66	76	70	66	74	69	65	72	68	64	62	62	62	62
5	83	73	65	60	82	72	65	59	70	63	59	68	62	58	66	61	58	56	56	56	56
6	78	67	59	53	76	66	59	53	64	58	53	62	57	52	61	56	52	50	50	50	50
7	73	61	54	48	71	61	53	48	59	53	48	58	52	48	56	51	47	46	46	46	46
8	68	57	49	44	67	56	49	44	55	48	44	54	48	43	52	47	43	42	42	42	42
9	64	52	45	40	63	52	45	40	51	44	40	50	44	40	49	44	40	38	38	38	38
10	61	49	42	37	59	48	42	37	47	41	37	47	41	37	46	40	37	35	35	35	35

**AVERAGE LUMINANCE (cd/sqm):**

	0°	90°	180°
0°	332908	332908	332908
5°	314362	329876	346229
10°	299709	330634	358952
15°	290903	331336	365078
20°	288526	330989	362484
25°	289692	322835	347438
30°	288314	301181	315040
35°	270227	257150	259759
40°	240801	199377	194902
45°	220234	148635	139531
50°	208232	104125	94110
55°	191485	70318	59073
60°	167302	41156	32581
65°	158371	26395	18256
70°	144255	18822	11315
75°	119379	13243	8307
80°	93813	7429	4952
85°	83729	5075	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	256.0	5.4
10°-20°	734.5	15.5
20°-30°	1088.8	22.9
30°-40°	1090.3	23.0
40°-50°	762.0	16.0
50°-60°	453.4	9.5
60°-70°	236.6	5.0
70°-80°	105.2	2.2
80°-90°	23.0	0.5
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°	2079.4	43.8
0°-40°	3169.7	66.7
0°-60°	4385.2	92.3
0°-90°	4750.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4750.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	2710	2710	2710	2710	2710	
5°	2549	2636	2675	2797	2808	239
15°	2287	2402	2605	2828	2870	648
25°	2137	2235	2382	2546	2563	985
35°	1802	1823	1715	1746	1732	1117
45°	1268	1205	856	828	803	984
55°	894	838	328	286	276	793
65°	545	499	91	66	63	539
75°	252	220	28	18	18	272
85°	59	45	4	4	0	66
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°	2709.8	2709.8	2709.8	2709.8	2709.8	2709.8	2709.8	2709.8	2709.8	2709.8	2709.8
2.5°	2622.5	2654.0	2622.5	2633.0	2674.9	2636.4	2657.4	2657.4	2647.0	2671.3	2688.9
5°	2549.1	2580.6	2549.1	2563.1	2608.5	2570.0	2594.5	2587.6	2591.1	2612.1	2636.4
7.5°	2475.9	2500.2	2472.3	2489.8	2531.7	2500.2	2521.2	2521.2	2524.7	2556.1	2577.2
10°	2402.5	2423.4	2402.5	2416.5	2461.9	2434.0	2447.9	2451.4	2461.9	2489.8	2521.2
12.5°	2336.1	2353.6	2332.7	2353.6	2392.0	2364.0	2381.6	2385.0	2395.5	2427.0	2461.9
15°	2287.2	2304.8	2283.8	2301.2	2336.1	2315.2	2329.1	2336.1	2343.1	2371.0	2402.5
17.5°	2248.9	2262.9	2245.3	2266.3	2294.2	2269.9	2290.8	2290.8	2301.2	2329.1	2364.0
20°	2206.9	2220.8	2206.9	2224.4	2255.9	2234.9	2252.3	2252.3	2262.9	2294.2	2325.7
22.5°	2168.6	2175.5	2168.6	2182.5	2213.9	2196.5	2206.9	2210.4	2220.8	2248.9	2276.8
25°	2137.1	2151.0	2144.1	2158.0	2179.0	2161.6	2172.0	2175.5	2185.9	2210.4	2234.9
27.5°	2102.2	2109.1	2102.2	2119.7	2137.1	2123.1	2133.6	2130.1	2137.1	2158.0	2179.0
30°	2032.4	2039.3	2039.3	2049.7	2063.8	2056.9	2067.3	2056.9	2063.8	2081.2	2102.2
32.5°	1931.1	1934.6	1938.0	1948.6	1959.0	1948.6	1955.6	1955.6	1955.6	1969.5	1983.5
35°	1801.8	1808.8	1805.4	1812.4	1822.8	1819.4	1819.4	1815.8	1808.8	1815.8	1822.8
37.5°	1655.2	1644.7	1644.7	1655.2	1662.2	1648.3	1655.2	1648.3	1648.3	1651.7	1651.7
40°	1501.5	1491.1	1501.5	1505.1	1508.5	1501.5	1498.1	1491.1	1480.6	1484.1	1477.1
42.5°	1372.4	1365.3	1368.9	1368.9	1372.4	1365.3	1368.9	1354.9	1344.4	1337.4	1327.0
45°	1267.6	1257.2	1267.6	1260.6	1260.6	1257.2	1253.6	1246.6	1232.7	1222.3	1204.7
47.5°	1169.8	1169.8	1173.3	1173.3	1173.3	1166.3	1166.3	1152.3	1138.3	1124.4	1100.0
50°	1089.5	1082.5	1096.5	1096.5	1086.1	1082.5	1086.1	1068.5	1058.1	1040.6	1016.1
52.5°	1002.1	1002.1	1005.7	1005.7	1002.1	995.2	998.7	984.8	974.2	956.8	932.3
55°	894.0	887.0	897.4	897.4	894.0	890.4	894.0	883.5	873.1	859.1	838.0
57.5°	771.8	768.2	775.2	778.7	771.8	771.8	775.2	764.8	761.2	747.3	726.3
60°	680.9	677.5	684.4	688.0	680.9	680.9	680.9	666.9	659.9	646.0	632.0
62.5°	618.0	614.6	621.6	618.0	614.6	611.1	614.6	600.7	593.7	579.7	565.8
65°	544.8	548.2	551.8	551.8	548.2	544.8	544.8	537.8	530.8	516.9	499.4
67.5°	474.9	474.9	478.4	481.8	478.4	478.4	478.4	467.9	460.9	450.5	429.5
70°	401.6	398.1	408.6	408.6	401.6	405.0	401.6	398.1	391.1	377.1	359.7
72.5°	324.7	324.7	328.3	328.3	324.7	324.7	324.7	321.3	310.7	303.8	286.4
75°	251.5	251.5	254.9	258.4	251.5	251.5	254.9	247.9	240.9	230.5	220.0
77.5°	188.6	185.1	188.6	188.6	185.1	185.1	185.1	181.6	178.1	167.5	157.1
80°	132.6	129.2	132.6	132.6	132.6	129.2	129.2	125.7	125.7	118.7	108.3
82.5°	90.8	87.3	90.8	90.8	90.8	87.3	87.3	87.3	83.8	80.4	73.4
85°	59.4	55.8	55.8	59.4	55.8	55.8	55.8	55.8	52.4	48.9	45.4
87.5°	27.9	27.9	27.9	27.9	27.9	27.9	27.9	24.5	24.5	24.5	20.9
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°	2709.8	2709.8	2709.8	2709.8	2709.8	2709.8	2709.8	2709.8	2709.8	2709.8	2709.8
2.5°	2674.9	2667.9	2688.9	2681.9	2685.3	2667.9	2695.8	2681.9	2699.3	2681.9	2716.8
5°	2629.5	2622.5	2654.0	2650.4	2654.0	2640.0	2671.3	2667.9	2688.9	2674.9	2713.2
7.5°	2580.6	2573.6	2608.5	2612.1	2619.0	2605.1	2647.0	2647.0	2667.9	2664.4	2706.2
10°	2524.7	2528.2	2563.1	2570.0	2584.1	2577.2	2615.5	2626.0	2654.0	2650.4	2702.8
12.5°	2472.3	2472.3	2517.8	2531.7	2542.1	2538.7	2584.1	2598.1	2629.5	2636.4	2685.3
15°	2420.0	2423.4	2465.3	2486.3	2500.2	2496.8	2545.7	2563.1	2601.5	2605.1	2664.4
17.5°	2378.0	2374.6	2420.0	2437.4	2458.3	2454.9	2507.2	2528.2	2566.6	2577.2	2633.0
20°	2343.1	2339.7	2381.6	2402.5	2416.5	2413.0	2465.3	2489.8	2524.7	2531.7	2587.6
22.5°	2301.2	2294.2	2336.1	2353.6	2367.6	2364.0	2409.5	2427.0	2461.9	2468.9	2521.2
25°	2252.3	2245.3	2283.8	2294.2	2304.8	2297.8	2336.1	2346.6	2374.6	2381.6	2434.0
27.5°	2196.5	2179.0	2210.4	2210.4	2217.4	2206.9	2234.9	2245.3	2269.9	2269.9	2318.7
30°	2109.1	2084.8	2102.2	2098.7	2102.2	2088.2	2105.7	2109.1	2126.7	2123.1	2158.0
32.5°	1986.9	1952.0	1962.5	1952.0	1941.6	1920.7	1941.6	1934.6	1948.6	1934.6	1966.0
35°	1819.4	1784.5	1780.9	1766.9	1756.5	1739.0	1739.0	1721.6	1725.0	1714.6	1735.6
37.5°	1637.7	1592.4	1585.4	1557.5	1540.0	1519.0	1519.0	1505.1	1487.5	1480.6	1498.1
40°	1459.6	1410.8	1393.4	1347.9	1330.4	1309.5	1295.5	1278.1	1271.1	1243.2	1257.2
42.5°	1306.0	1253.6	1215.3	1166.3	1148.9	1117.4	1096.5	1075.5	1065.1	1033.6	1047.6
45°	1176.8	1114.0	1072.1	1009.1	984.8	949.9	918.4	894.0	869.5	855.5	848.6
47.5°	1068.5	1002.1	946.3	876.5	838.0	806.7	764.8	740.3	708.9	691.4	680.9
50°	977.8	904.4	841.6	761.2	722.9	688.0	639.0	600.7	572.7	544.8	537.8
52.5°	897.4	820.6	750.8	659.9	614.6	572.7	520.3	478.4	453.9	422.6	419.0
55°	803.1	736.9	659.9	565.8	520.3	478.4	422.6	380.7	349.2	328.3	321.3
57.5°	702.0	639.0	565.8	471.4	426.0	380.7	328.3	289.8	261.9	244.5	240.9
60°	607.6	548.2	478.4	384.1	338.7	300.3	244.5	206.0	181.6	167.5	160.6
62.5°	537.8	481.8	415.6	328.3	286.4	247.9	195.6	160.6	139.6	125.7	118.7
65°	471.4	415.6	356.2	275.8	240.9	206.0	157.1	125.7	104.7	90.8	83.8
67.5°	401.6	352.8	296.8	230.5	195.6	167.5	125.7	97.7	80.4	69.8	62.8
70°	331.7	286.4	240.9	185.1	160.6	132.6	97.7	76.8	59.4	52.4	45.4
72.5°	261.9	227.0	188.6	143.2	122.2	104.7	76.8	55.8	45.4	38.5	31.5
75°	195.6	171.1	139.6	108.3	90.8	76.8	55.8	41.9	34.9	27.9	24.5
77.5°	139.6	118.7	97.7	73.4	66.4	55.8	38.5	31.5	24.5	17.5	14.0
80°	94.3	83.8	66.4	52.4	41.9	38.5	27.9	20.9	14.0	10.5	10.5
82.5°	62.8	52.4	41.9	31.5	27.9	24.5	17.5	14.0	10.5	7.0	7.0
85°	38.5	31.5	24.5	17.5	17.5	14.0	10.5	7.0	3.6	3.6	3.6
87.5°	17.5	14.0	10.5	7.0	7.0	3.6	3.6	3.6	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):**

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	2709.8	2709.8	2709.8	2709.8	2709.8	2709.8	2709.8	2709.8	2709.8	2709.8	2709.8
2.5°	2744.7	2723.8	2709.8	2727.2	2734.2	2723.8	2734.2	2751.7	2769.2	2772.6	2723.8
5°	2748.3	2727.2	2720.2	2741.2	2744.7	2741.2	2751.7	2776.2	2797.1	2804.1	2755.3
7.5°	2748.3	2734.2	2730.7	2755.3	2758.7	2755.3	2772.6	2800.6	2821.5	2835.5	2786.6
10°	2741.2	2734.2	2737.7	2758.7	2765.7	2765.7	2790.2	2821.5	2842.4	2856.4	2807.5
12.5°	2730.7	2730.7	2730.7	2755.3	2762.2	2765.7	2786.6	2828.5	2842.4	2863.4	2814.5
15°	2713.2	2713.2	2713.2	2737.7	2748.3	2748.3	2772.6	2811.1	2828.5	2849.4	2800.6
17.5°	2681.9	2681.9	2685.3	2706.2	2716.8	2716.8	2741.2	2783.2	2793.6	2818.1	2769.2
20°	2636.4	2636.4	2640.0	2660.9	2671.3	2664.4	2695.8	2730.7	2741.2	2762.2	2713.2
22.5°	2570.0	2570.0	2570.0	2591.1	2598.1	2594.5	2626.0	2657.4	2657.4	2685.3	2633.0
25°	2472.3	2479.3	2472.3	2493.3	2500.2	2496.8	2524.7	2552.7	2545.7	2577.2	2524.7
27.5°	2353.6	2350.1	2350.1	2367.6	2367.6	2364.0	2385.0	2416.5	2409.5	2430.4	2381.6
30°	2189.5	2199.9	2182.5	2206.9	2196.5	2189.5	2203.5	2231.4	2220.8	2238.4	2199.9
32.5°	2000.9	1986.9	1986.9	1986.9	1993.9	1976.5	1990.5	2004.4	1993.9	2011.4	1969.5
35°	1753.0	1756.5	1746.0	1749.5	1753.0	1732.0	1746.0	1759.9	1746.0	1756.5	1718.1
37.5°	1505.1	1508.5	1484.1	1498.1	1484.1	1477.1	1491.1	1498.1	1484.1	1494.5	1452.6
40°	1257.2	1250.2	1246.6	1246.6	1250.2	1232.7	1243.2	1253.6	1243.2	1250.2	1211.7
42.5°	1040.6	1037.2	1030.2	1033.6	1023.1	1019.7	1023.1	1033.6	1023.1	1030.2	1002.1
45°	852.0	845.0	834.6	838.0	838.0	820.6	831.0	838.0	827.6	831.0	806.7
47.5°	677.5	666.9	666.9	663.5	663.5	656.5	666.9	663.5	652.9	659.9	635.6
50°	527.3	520.3	520.3	520.3	520.3	509.8	513.3	520.3	509.8	509.8	495.8
52.5°	412.0	401.6	394.6	394.6	394.6	391.1	391.1	394.6	384.1	384.1	380.7
55°	310.7	307.3	296.8	296.8	296.8	286.4	289.8	289.8	286.4	286.4	275.8
57.5°	230.5	220.0	213.0	213.0	206.0	206.0	202.6	206.0	199.0	199.0	192.1
60°	153.6	146.6	143.2	139.6	139.6	136.2	139.6	136.2	136.2	132.6	129.2
62.5°	111.7	104.7	97.7	97.7	97.7	94.3	94.3	94.3	94.3	94.3	90.8
65°	80.4	73.4	73.4	69.8	69.8	66.4	66.4	66.4	66.4	66.4	62.8
67.5°	55.8	52.4	48.9	48.9	48.9	48.9	48.9	48.9	45.4	45.4	45.4
70°	41.9	38.5	34.9	34.9	34.9	34.9	34.9	31.5	34.9	34.9	31.5
72.5°	27.9	27.9	24.5	24.5	24.5	24.5	24.5	24.5	24.5	24.5	24.5
75°	20.9	20.9	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5
77.5°	14.0	14.0	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5
80°	10.5	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
82.5°	7.0	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
85°	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	0.0
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





TEST NUMBER: P859006

CATALOG NUMBER: LX4C50D010 EX4C509035 4LBSWNH

**CANDELA DISTRIBUTION (continued):**

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	2709.8	2709.8	2709.8	2709.8	2709.8	2709.8	2709.8	2709.8
2.5°	2776.2	2772.6	2765.7	2776.2	2748.3	2737.7	2734.2	2765.7
5°	2814.5	2807.5	2807.5	2818.1	2786.6	2779.6	2772.6	2807.5
7.5°	2849.4	2842.4	2842.4	2853.0	2825.1	2818.1	2811.1	2846.0
10°	2870.4	2870.4	2870.4	2877.4	2853.0	2846.0	2842.4	2877.4
12.5°	2880.9	2880.9	2877.4	2891.3	2860.0	2860.0	2853.0	2887.9
15°	2867.0	2867.0	2867.0	2877.4	2849.4	2842.4	2842.4	2870.4
17.5°	2832.0	2832.0	2828.5	2839.0	2807.5	2807.5	2804.1	2835.5
20°	2779.6	2779.6	2772.6	2786.6	2755.3	2744.7	2741.2	2772.6
22.5°	2695.8	2692.3	2688.9	2695.8	2667.9	2660.9	2657.4	2685.3
25°	2587.6	2584.1	2577.2	2584.1	2552.7	2542.1	2542.1	2563.1
27.5°	2434.0	2434.0	2423.4	2434.0	2398.9	2395.5	2392.0	2416.5
30°	2245.3	2231.4	2224.4	2238.4	2203.5	2203.5	2196.5	2220.8
32.5°	2011.4	1997.4	1993.9	2000.9	1969.5	1959.0	1972.9	1986.9
35°	1742.6	1746.0	1732.0	1732.0	1704.1	1707.5	1711.1	1732.0
37.5°	1484.1	1477.1	1473.6	1477.1	1456.2	1449.2	1442.2	1463.2
40°	1243.2	1225.7	1222.3	1222.3	1204.7	1201.3	1204.7	1215.3
42.5°	1016.1	1012.7	998.7	1005.7	988.2	995.2	991.7	991.7
45°	820.6	824.1	810.1	820.6	806.7	796.1	796.1	803.1
47.5°	649.5	649.5	646.0	646.0	635.6	639.0	632.0	642.5
50°	502.8	502.8	495.8	499.4	492.4	492.4	488.8	492.4
52.5°	384.1	380.7	380.7	377.1	370.1	373.7	377.1	370.1
55°	279.4	282.8	275.8	279.4	272.4	275.8	272.4	275.8
57.5°	192.1	195.6	188.6	195.6	188.6	192.1	188.6	188.6
60°	132.6	132.6	129.2	132.6	129.2	129.2	125.7	132.6
62.5°	90.8	90.8	90.8	90.8	90.8	87.3	90.8	90.8
65°	66.4	62.8	62.8	62.8	62.8	62.8	62.8	62.8
67.5°	45.4	45.4	45.4	45.4	45.4	45.4	45.4	45.4
70°	31.5	31.5	31.5	31.5	31.5	31.5	31.5	31.5
72.5°	24.5	24.5	24.5	24.5	24.5	24.5	24.5	24.5
75°	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5
77.5°	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5
80°	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
82.5°	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
85°	3.6	3.6	3.6	0.0	3.6	0.0	0.0	0.0
87.5°	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



Report Generated By 670246072 / DESKTOP-50001EG





— 0°-180°    - - 45°-225°    - - - - 90°-270°















(END OF REPORT)