

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: P859537

Luminaire Tested: **LX4C70D010 EX4C709730 4LBLWWH**

Issue Date: 2/14/2022



**Test Information**

Test Method: LM-79-08  
Report Number: P859537  
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: LX4C70D010 EX4C709730 4LBLWWH  
Description: 4 INCH 7000 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 3000K, 97CRI LEDS  
AND 4LRLWW TRIM WITH H FINISH  
Light Source: -  
Ballast/Driver: -

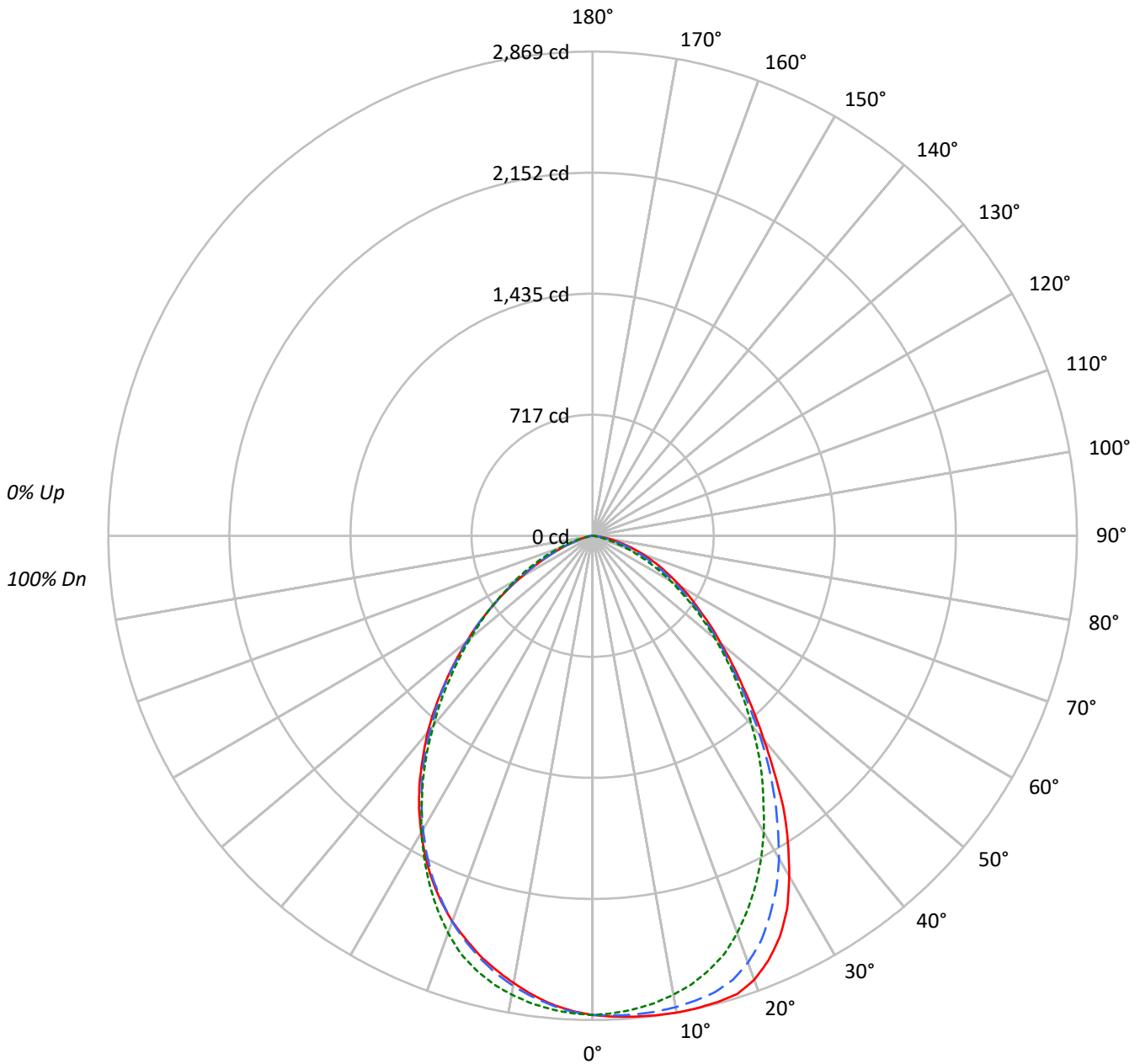
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5351.0 lumens  
Efficiency: N/A  
Efficacy: 68.6 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): 78  
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									
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	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°	348830	348830	348830
5°	352715	347326	343565
10°	357892	344394	335686
15°	363768	338903	327660
20°	366079	327381	317955
25°	355571	309686	304955
30°	330446	287846	288002
35°	295798	262384	267948
40°	253246	235204	243800
45°	218010	207377	215161
50°	189521	180538	185966
55°	166767	155308	153916
60°	148382	129610	119414
65°	130145	103808	86337
70°	111783	73349	58442
75°	90709	42483	34224
80°	64876	18536	16980
85°	24668	7753	7753



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	267.6	5.0
10°-20°	757.5	14.2
20°-30°	1081.6	20.2
30°-40°	1131.5	21.1
40°-50°	948.1	17.7
50°-60°	663.5	12.4
60°-70°	361.3	6.8
70°-80°	125.4	2.3
80°-90°	14.4	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°	2106.7	39.4
0°-40°	3238.3	60.5
0°-60°	4849.9	90.6
0°-90°	5351.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5351.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	2839	2839	2839	2839	2839	
5°	2860	2847	2816	2792	2786	273
15°	2860	2800	2665	2588	2576	808
25°	2623	2483	2285	2240	2250	1198
35°	1972	1875	1750	1763	1787	1223
45°	1255	1226	1194	1233	1238	976
55°	779	752	725	725	719	703
65°	448	408	357	300	297	446
75°	191	155	90	72	72	206
85°	18	10	6	6	6	31
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°	2839.4	2839.4	2839.4	2839.4	2839.4	2839.4	2839.4	2839.4	2839.4	2839.4	2839.4
2.5°	2852.5	2849.2	2850.3	2850.3	2850.3	2849.2	2850.3	2849.2	2849.2	2848.1	2845.9
5°	2860.1	2857.9	2857.9	2857.9	2856.8	2855.8	2855.8	2854.7	2852.5	2851.4	2847.0
7.5°	2865.6	2863.4	2863.4	2862.3	2861.2	2860.1	2859.0	2855.8	2852.5	2850.3	2844.8
10°	2868.9	2865.6	2865.6	2863.4	2861.2	2860.1	2857.9	2853.6	2849.2	2843.7	2836.1
12.5°	2866.7	2863.4	2862.3	2860.1	2855.8	2853.6	2851.4	2845.9	2838.3	2830.6	2820.8
15°	2860.1	2857.9	2855.8	2852.5	2847.0	2843.7	2841.6	2832.8	2823.0	2812.1	2800.1
17.5°	2847.0	2843.7	2839.4	2835.0	2827.4	2824.1	2818.6	2807.7	2793.5	2778.2	2759.7
20°	2800.1	2797.9	2793.5	2785.9	2773.8	2769.5	2761.8	2747.6	2729.1	2710.5	2690.9
22.5°	2722.5	2719.2	2712.7	2706.1	2695.2	2687.6	2681.0	2661.4	2640.6	2621.0	2602.4
25°	2623.1	2619.9	2611.1	2602.4	2591.5	2578.4	2571.8	2556.5	2535.8	2510.7	2483.4
27.5°	2495.4	2484.4	2481.2	2471.3	2455.0	2450.6	2440.8	2421.1	2401.5	2379.6	2356.7
30°	2329.4	2329.4	2322.8	2318.5	2303.2	2298.8	2287.9	2267.1	2256.2	2225.6	2208.2
32.5°	2153.6	2151.4	2145.9	2142.6	2133.9	2126.3	2115.3	2104.4	2080.4	2065.1	2041.1
35°	1972.3	1959.2	1961.4	1954.8	1949.3	1940.6	1939.5	1927.5	1905.7	1896.9	1875.1
37.5°	1765.9	1760.4	1768.1	1758.2	1752.8	1753.9	1745.1	1737.5	1728.7	1713.5	1709.1
40°	1579.1	1583.5	1582.4	1573.7	1578.0	1572.6	1563.8	1556.2	1551.8	1542.0	1538.7
42.5°	1412.0	1405.5	1403.3	1403.3	1404.4	1404.4	1400.0	1394.6	1394.6	1384.7	1374.9
45°	1254.8	1254.8	1252.6	1259.2	1249.3	1249.3	1246.0	1245.0	1240.6	1238.4	1226.4
47.5°	1119.4	1118.3	1117.2	1116.1	1115.0	1115.0	1108.4	1103.0	1101.9	1095.3	1088.8
50°	991.6	998.1	996.0	990.5	988.3	989.4	985.0	981.8	980.7	969.8	970.8
52.5°	884.6	883.5	885.7	882.4	876.9	878.0	873.7	869.3	864.9	859.5	855.1
55°	778.6	784.1	781.9	778.6	777.6	775.4	772.1	766.6	765.5	753.5	752.4
57.5°	690.2	689.1	686.9	681.4	680.4	677.1	677.1	672.7	666.2	659.6	654.1
60°	603.9	603.9	600.6	599.5	595.2	594.1	593.0	588.6	581.0	575.5	566.8
62.5°	520.9	523.1	520.9	517.6	514.4	510.0	507.8	504.5	498.0	492.5	484.9
65°	447.7	446.7	445.6	441.2	440.1	435.7	434.6	428.1	421.5	417.2	408.4
67.5°	377.9	374.6	374.6	372.4	370.2	366.9	364.7	358.2	350.6	346.2	337.4
70°	311.2	309.1	309.1	309.1	303.6	300.3	299.2	295.9	285.0	280.7	271.9
72.5°	250.1	249.0	247.9	244.6	241.3	241.3	237.0	230.4	225.0	219.5	213.0
75°	191.1	193.3	191.1	186.7	185.7	183.5	180.2	174.7	169.3	162.7	155.1
77.5°	139.8	137.6	135.4	135.4	133.2	128.9	127.8	123.4	116.9	112.5	104.8
80°	91.7	90.6	88.5	86.3	85.2	84.1	83.0	78.6	72.1	68.8	62.2
82.5°	50.2	49.1	49.1	48.1	44.8	44.8	43.7	39.3	36.0	33.9	30.6
85°	17.5	17.5	17.5	16.4	16.4	16.4	15.3	14.2	13.1	12.0	9.8
87.5°	2.2	1.1	2.2	1.1	2.2	1.1	1.1	1.1	1.1	1.1	1.1
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°	2839.4	2839.4	2839.4	2839.4	2839.4	2839.4	2839.4	2839.4	2839.4	2839.4	2839.4
2.5°	2843.7	2841.6	2840.5	2839.4	2838.3	2837.2	2836.1	2833.9	2832.8	2831.7	2829.5
5°	2843.7	2839.4	2837.2	2833.9	2831.7	2829.5	2826.3	2823.0	2819.7	2816.4	2813.2
7.5°	2839.4	2832.8	2828.5	2821.9	2819.7	2816.4	2809.9	2805.5	2800.1	2793.5	2785.9
10°	2828.5	2820.8	2812.1	2803.3	2800.1	2794.6	2785.9	2778.2	2769.5	2760.7	2753.1
12.5°	2811.0	2799.0	2788.0	2776.0	2769.5	2764.0	2752.0	2741.1	2730.2	2720.3	2707.2
15°	2784.8	2770.6	2756.4	2740.0	2732.3	2725.8	2708.3	2695.2	2677.7	2664.6	2651.5
17.5°	2742.2	2720.3	2702.9	2682.1	2671.2	2663.5	2648.3	2627.5	2611.1	2596.9	2581.6
20°	2669.0	2648.3	2624.2	2601.3	2589.3	2579.5	2557.6	2535.8	2519.4	2504.1	2487.7
22.5°	2572.9	2546.7	2529.2	2500.8	2491.0	2479.0	2452.8	2433.1	2414.6	2399.3	2384.0
25°	2456.1	2433.1	2409.1	2382.9	2370.9	2356.7	2334.8	2314.1	2302.1	2284.6	2266.0
27.5°	2321.7	2303.2	2273.7	2250.7	2238.7	2227.8	2207.1	2188.5	2171.0	2159.0	2141.5
30°	2179.8	2157.9	2131.7	2107.7	2101.1	2088.0	2069.5	2055.3	2036.7	2029.1	2021.4
32.5°	2023.6	1998.5	1978.8	1963.5	1950.4	1939.5	1929.7	1906.7	1903.5	1883.8	1881.6
35°	1853.2	1842.3	1823.7	1810.6	1799.7	1792.1	1775.7	1764.8	1752.8	1749.5	1741.8
37.5°	1692.7	1679.6	1662.1	1650.1	1642.5	1641.4	1629.4	1622.8	1614.1	1609.7	1601.0
40°	1524.5	1519.1	1503.8	1501.6	1489.6	1488.5	1481.9	1474.3	1466.6	1466.6	1467.7
42.5°	1369.5	1362.9	1356.3	1348.7	1342.1	1342.1	1338.9	1336.7	1334.5	1331.2	1336.7
45°	1224.2	1215.5	1211.1	1203.5	1206.7	1200.2	1198.0	1198.0	1194.7	1193.6	1201.3
47.5°	1088.8	1079.0	1074.6	1072.4	1072.4	1073.5	1063.7	1066.9	1065.9	1068.0	1071.3
50°	965.4	956.6	950.1	950.1	951.2	946.8	942.5	945.7	942.5	944.6	952.3
52.5°	850.7	842.0	838.7	838.7	832.2	831.1	833.2	828.9	830.0	831.1	835.4
55°	744.8	739.3	733.9	728.4	729.5	727.3	722.9	721.9	724.0	725.1	730.6
57.5°	649.8	642.1	634.5	632.3	630.1	630.1	624.7	623.6	625.8	620.3	620.3
60°	559.1	554.8	544.9	541.7	541.7	536.2	531.8	534.0	528.6	527.5	528.6
62.5°	475.0	471.8	465.2	458.7	456.5	454.3	448.8	446.7	444.5	440.1	433.6
65°	401.9	394.2	386.6	382.2	378.9	373.5	370.2	365.8	359.3	357.1	350.6
67.5°	328.7	321.1	313.4	310.1	306.9	303.6	298.1	292.7	285.0	276.3	268.6
70°	264.3	254.5	250.1	241.3	239.2	234.8	227.1	221.7	214.0	204.2	196.6
72.5°	202.0	195.5	188.9	181.3	175.8	172.5	166.0	157.3	148.5	143.1	135.4
75°	145.2	142.0	133.2	124.5	122.3	117.9	110.3	104.8	98.3	89.5	83.0
77.5°	98.3	91.7	86.3	78.6	76.4	72.1	67.7	62.2	57.9	52.4	48.1
80°	57.9	52.4	49.1	43.7	41.5	39.3	36.0	31.7	28.4	26.2	25.1
82.5°	28.4	24.0	22.9	19.7	18.6	17.5	15.3	14.2	12.0	12.0	12.0
85°	9.8	7.6	7.6	6.6	5.5	5.5	5.5	5.5	5.5	5.5	5.5
87.5°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	2.2	1.1
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°	2839.4	2839.4	2839.4	2839.4	2839.4	2839.4	2839.4	2839.4	2839.4	2839.4	2839.4
2.5°	2828.5	2827.4	2826.3	2825.2	2825.2	2824.1	2824.1	2823.0	2823.0	2821.9	2821.9
5°	2808.8	2805.5	2803.3	2801.1	2801.1	2797.9	2795.7	2793.5	2792.4	2792.4	2790.2
7.5°	2781.5	2777.1	2772.8	2769.5	2768.4	2762.9	2758.6	2758.6	2754.2	2752.0	2749.8
10°	2745.5	2737.8	2731.3	2728.0	2723.6	2720.3	2714.9	2711.6	2708.3	2702.9	2701.8
12.5°	2696.3	2690.9	2681.0	2676.7	2674.5	2667.9	2659.2	2654.8	2653.7	2649.4	2646.1
15°	2640.6	2628.6	2619.9	2614.4	2614.4	2603.5	2599.1	2592.6	2588.2	2584.9	2583.8
17.5°	2568.5	2556.5	2547.8	2540.1	2538.0	2529.2	2522.7	2520.5	2515.0	2517.2	2511.8
20°	2475.7	2465.9	2459.3	2449.5	2449.5	2444.0	2441.9	2436.4	2434.2	2432.0	2434.2
22.5°	2376.3	2364.3	2353.4	2352.3	2352.3	2344.7	2343.6	2342.5	2338.1	2341.4	2340.3
25°	2259.5	2250.7	2244.2	2243.1	2243.1	2238.7	2234.4	2236.6	2239.8	2238.7	2242.0
27.5°	2138.3	2129.5	2127.3	2126.3	2124.1	2123.0	2125.2	2125.2	2128.4	2132.8	2137.2
30°	2007.2	2005.0	2001.8	2000.7	1998.5	2003.9	2006.1	2009.4	2008.3	2014.9	2019.2
32.5°	1876.2	1871.8	1870.7	1872.9	1876.2	1875.1	1881.6	1883.8	1886.0	1893.6	1896.9
35°	1744.0	1742.9	1740.8	1740.8	1741.8	1750.6	1750.6	1758.2	1762.6	1764.8	1773.5
37.5°	1602.1	1606.4	1608.6	1611.9	1613.0	1616.3	1618.4	1626.1	1630.5	1634.8	1639.2
40°	1472.1	1469.9	1479.7	1473.2	1475.4	1485.2	1489.6	1488.5	1495.0	1501.6	1506.0
42.5°	1333.4	1336.7	1338.9	1341.1	1346.5	1347.6	1353.1	1360.7	1362.9	1370.5	1372.7
45°	1199.1	1200.2	1204.5	1208.9	1212.2	1220.9	1223.1	1226.4	1232.9	1232.9	1236.2
47.5°	1072.4	1076.8	1076.8	1083.3	1088.8	1087.7	1095.3	1097.5	1096.4	1101.9	1104.1
50°	951.2	957.7	956.6	961.0	963.2	964.3	970.8	973.0	968.7	974.1	975.2
52.5°	835.4	838.7	843.1	844.2	842.0	847.4	845.3	849.6	848.5	852.9	848.5
55°	729.5	728.4	728.4	730.6	728.4	730.6	732.8	728.4	725.1	729.5	728.4
57.5°	623.6	623.6	621.4	624.7	621.4	618.1	617.0	613.7	610.5	610.5	609.4
60°	524.2	522.0	517.6	516.5	516.5	511.1	508.9	504.5	504.5	500.2	495.8
62.5°	431.4	425.9	422.6	422.6	420.4	415.0	405.2	398.6	396.4	389.9	388.8
65°	344.0	338.5	335.3	328.7	323.3	321.1	311.2	303.6	300.3	293.8	294.9
67.5°	264.3	255.5	245.7	241.3	238.1	230.4	227.1	221.7	218.4	218.4	218.4
70°	190.0	182.4	172.5	169.3	167.1	160.5	157.3	156.2	159.4	158.3	159.4
72.5°	127.8	120.1	115.8	113.6	111.4	108.1	110.3	111.4	109.2	110.3	111.4
75°	77.5	75.4	72.1	71.0	71.0	72.1	71.0	71.0	72.1	72.1	73.2
77.5°	44.8	42.6	42.6	41.5	43.7	42.6	42.6	42.6	43.7	43.7	43.7
80°	24.0	24.0	24.0	24.0	25.1	24.0	25.1	25.1	25.1	25.1	25.1
82.5°	12.0	12.0	12.0	13.1	13.1	13.1	13.1	13.1	13.1	13.1	12.0
85°	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
87.5°	1.1	2.2	2.2	2.2	2.2	2.2	1.1	1.1	1.1	1.1	1.1
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: P859537

CATALOG NUMBER: LX4C70D010 EX4C709730 4LBLWWH

**CANDELA DISTRIBUTION (continued):**

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	2839.4	2839.4	2839.4	2839.4	2839.4	2839.4	2839.4	2839.4
2.5°	2819.7	2819.7	2819.7	2817.5	2818.6	2818.6	2817.5	2817.5
5°	2789.1	2788.0	2785.9	2785.9	2783.7	2785.9	2784.8	2785.9
7.5°	2747.6	2747.6	2744.4	2744.4	2743.3	2742.2	2741.1	2742.2
10°	2698.5	2698.5	2696.3	2695.2	2696.3	2691.9	2691.9	2690.9
12.5°	2643.9	2641.7	2639.5	2640.6	2639.5	2636.2	2635.2	2636.2
15°	2580.6	2577.3	2578.4	2575.1	2575.1	2574.0	2576.2	2576.2
17.5°	2510.7	2508.5	2506.3	2507.4	2505.2	2506.3	2505.2	2504.1
20°	2433.1	2432.0	2432.0	2427.7	2428.8	2427.7	2428.8	2432.0
22.5°	2343.6	2342.5	2343.6	2340.3	2342.5	2342.5	2345.8	2345.8
25°	2245.3	2244.2	2246.4	2247.5	2248.6	2251.8	2248.6	2249.7
27.5°	2136.1	2139.4	2142.6	2143.7	2148.1	2144.8	2142.6	2145.9
30°	2025.8	2025.8	2024.7	2029.1	2032.3	2035.6	2030.2	2030.2
32.5°	1899.1	1904.6	1904.6	1905.7	1908.9	1908.9	1908.9	1913.3
35°	1777.9	1781.2	1782.3	1777.9	1780.1	1779.0	1786.6	1786.6
37.5°	1642.5	1642.5	1643.6	1651.2	1651.2	1647.9	1650.1	1650.1
40°	1513.6	1514.7	1510.3	1512.5	1518.0	1515.8	1518.0	1520.2
42.5°	1372.7	1380.4	1376.0	1378.2	1377.1	1378.2	1379.3	1379.3
45°	1238.4	1240.6	1240.6	1241.7	1243.9	1246.0	1239.5	1238.4
47.5°	1107.4	1108.4	1111.7	1106.3	1112.8	1106.3	1112.8	1105.2
50°	975.2	979.6	976.3	978.5	975.2	975.2	974.1	973.0
52.5°	849.6	848.5	848.5	847.4	847.4	849.6	847.4	850.7
55°	724.0	725.1	722.9	721.9	720.8	724.0	720.8	718.6
57.5°	605.0	607.2	602.8	605.0	597.4	600.6	601.7	602.8
60°	494.7	491.4	491.4	487.1	487.1	490.3	486.0	486.0
62.5°	383.3	385.5	382.2	386.6	386.6	391.0	388.8	391.0
65°	293.8	294.9	295.9	295.9	295.9	302.5	300.3	297.0
67.5°	221.7	222.8	223.9	222.8	226.1	223.9	223.9	225.0
70°	160.5	161.6	162.7	162.7	161.6	162.7	162.7	162.7
72.5°	111.4	112.5	111.4	112.5	113.6	112.5	112.5	113.6
75°	73.2	73.2	72.1	72.1	72.1	72.1	73.2	72.1
77.5°	42.6	43.7	42.6	43.7	43.7	43.7	43.7	43.7
80°	25.1	25.1	25.1	24.0	25.1	25.1	25.1	24.0
82.5°	13.1	13.1	12.0	12.0	13.1	13.1	13.1	13.1
85°	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
87.5°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
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)