

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: P859048

Luminaire Tested: **LX4C50D010 EX4C509050 4LBSWNH**

Issue Date: 2/18/2022



Test Information

Test Method: LM-79-08
Report Number: P859048
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 EX4C509050 4LBSWNH
Description: 4 INCH 5000 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 5000K, 90CRI LEDS
AND 4LCSW TRIM WITH H FINISH
Light Source: -
Ballast/Driver: -

Summary

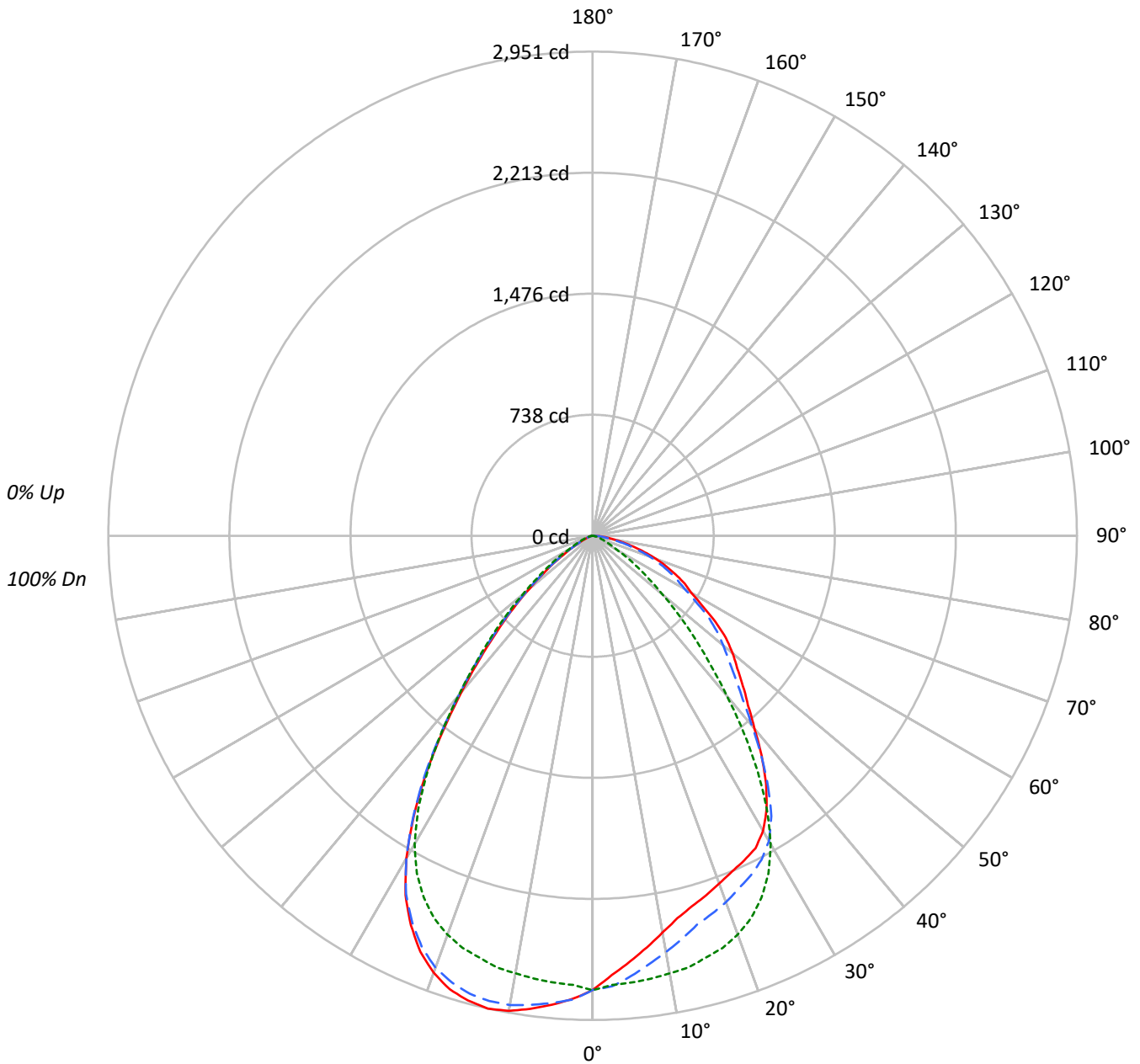
Lumens per Lamp: N/A
Luminaire Lumens: 4854.0 lumens
Efficiency: N/A
Efficacy: 83.1 lumens/watt
Spacing Criteria (0/90/45): 1.17 / 1.17 / 1.15
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 58.4
Input Voltage (V):
Input Current (A_{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	108	104	101	109	106	103	100	101	99	97	98	96	94	94	93	91	89			89
2	104	97	92	87	101	95	90	86	92	88	84	89	85	82	86	83	81	79			79
3	96	88	81	76	94	86	80	75	83	78	74	81	76	73	78	75	72	70			70
4	90	80	72	67	88	78	72	66	76	70	66	74	69	65	72	68	64	62			62
5	83	73	65	60	82	72	65	59	70	63	59	68	62	58	66	61	58	56			56
6	78	67	59	53	76	66	59	53	64	58	53	62	57	52	61	56	52	50			50
7	73	61	54	48	71	61	53	48	59	53	48	58	52	48	56	51	47	46			46
8	68	57	49	44	67	56	49	44	55	48	44	54	48	43	52	47	43	42			42
9	64	52	45	40	63	52	45	40	51	44	40	50	44	40	49	44	40	38			38
10	61	49	42	37	59	48	42	37	47	41	37	47	41	37	46	40	37	35			35

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	340194	340194	340194
5°	321243	337103	353813
10°	306271	337869	366811
15°	297275	338585	373066
20°	294840	338232	370420
25°	296036	329897	355043
30°	294627	307777	321949
35°	276152	262789	265443
40°	246078	203739	199168
45°	225047	151902	142589
50°	212781	106400	96175
55°	195683	71839	60380
60°	170963	42065	33293
65°	161831	26948	18663
70°	147415	19253	11566
75°	121990	13528	8497
80°	95864	7641	5023
85°	85562	5075	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	261.6	5.4
10°-20°	750.6	15.5
20°-30°	1112.7	22.9
30°-40°	1114.2	23.0
40°-50°	778.7	16.0
50°-60°	463.4	9.5
60°-70°	241.8	5.0
70°-80°	107.5	2.2
80°-90°	23.4	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°	2124.9	43.8
0°-40°	3239.1	66.7
0°-60°	4481.2	92.3
0°-90°	4854.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4854.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	2769	2769	2769	2769	2769	
5°	2605	2694	2734	2858	2869	244
15°	2337	2455	2662	2890	2933	662
25°	2184	2284	2434	2601	2619	1006
35°	1841	1863	1752	1784	1770	1142
45°	1295	1231	874	846	821	1006
55°	914	856	335	293	282	811
65°	557	510	93	68	64	551
75°	257	225	28	18	18	278
85°	61	46	4	4	0	68
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°	2769.1	2769.1	2769.1	2769.1	2769.1	2769.1	2769.1	2769.1	2769.1	2769.1	2769.1
2.5°	2679.9	2712.1	2679.9	2690.7	2733.5	2694.2	2715.6	2715.6	2704.9	2729.8	2747.7
5°	2604.9	2637.1	2604.9	2619.2	2665.6	2626.3	2651.4	2644.2	2647.9	2669.3	2694.2
7.5°	2530.1	2555.0	2526.4	2544.3	2587.1	2555.0	2576.4	2576.4	2580.0	2612.0	2633.6
10°	2455.1	2476.5	2455.1	2469.4	2515.8	2487.3	2501.5	2505.0	2515.8	2544.3	2576.4
12.5°	2387.3	2405.2	2383.8	2405.2	2444.3	2415.8	2433.7	2437.2	2448.0	2480.1	2515.8
15°	2337.3	2355.2	2333.8	2351.6	2387.3	2365.9	2380.1	2387.3	2394.4	2422.9	2455.1
17.5°	2298.1	2312.4	2294.5	2315.9	2344.4	2319.5	2341.0	2341.0	2351.6	2380.1	2415.8
20°	2255.2	2269.5	2255.2	2273.1	2305.3	2283.9	2301.6	2301.6	2312.4	2344.4	2376.6
22.5°	2216.0	2223.2	2216.0	2230.3	2262.3	2244.6	2255.2	2258.8	2269.5	2298.1	2326.7
25°	2183.9	2198.1	2191.0	2205.3	2226.7	2208.9	2219.5	2223.2	2233.8	2258.8	2283.9
27.5°	2148.2	2155.3	2148.2	2166.1	2183.9	2169.6	2180.4	2176.7	2183.9	2205.3	2226.7
30°	2076.9	2084.0	2084.0	2094.6	2109.0	2101.9	2112.5	2101.9	2109.0	2126.8	2148.2
32.5°	1973.3	1977.0	1980.5	1991.2	2001.9	1991.2	1998.4	1998.4	1998.4	2012.6	2026.9
35°	1841.3	1848.4	1844.9	1852.1	1862.7	1859.2	1859.2	1855.6	1848.4	1855.6	1862.7
37.5°	1691.5	1680.7	1680.7	1691.5	1698.6	1684.3	1691.5	1684.3	1684.3	1687.8	1687.8
40°	1534.4	1523.8	1534.4	1538.0	1541.5	1534.4	1530.9	1523.8	1513.0	1516.6	1509.5
42.5°	1402.5	1395.2	1398.8	1398.8	1402.5	1395.2	1398.8	1384.6	1373.8	1366.7	1356.0
45°	1295.3	1284.7	1295.3	1288.2	1288.2	1284.7	1281.1	1273.9	1259.7	1249.0	1231.1
47.5°	1195.4	1195.4	1198.9	1198.9	1198.9	1191.8	1191.8	1177.5	1163.3	1149.0	1124.1
50°	1113.3	1106.2	1120.5	1120.5	1109.8	1106.2	1109.8	1091.9	1081.3	1063.4	1038.4
52.5°	1024.1	1024.1	1027.7	1027.7	1024.1	1017.0	1020.6	1006.3	995.6	977.8	952.7
55°	913.6	906.4	917.1	917.1	913.6	909.9	913.6	902.8	892.2	877.9	856.4
57.5°	788.7	785.0	792.2	795.8	788.7	788.7	792.2	781.5	777.9	763.6	742.2
60°	695.8	692.3	699.4	703.1	695.8	695.8	695.8	681.5	674.4	660.1	645.8
62.5°	631.6	628.1	635.2	631.6	628.1	624.4	628.1	613.8	606.7	592.4	578.1
65°	556.7	560.2	563.9	563.9	560.2	556.7	556.7	549.6	542.5	528.2	510.3
67.5°	485.3	485.3	488.9	492.4	488.9	488.9	488.9	478.1	471.0	460.4	439.0
70°	410.4	406.8	417.6	417.6	410.4	413.9	410.4	406.8	399.6	385.4	367.6
72.5°	331.8	331.8	335.4	335.4	331.8	331.8	331.8	328.3	317.5	310.4	292.6
75°	257.0	257.0	260.5	264.1	257.0	257.0	260.5	253.3	246.2	235.6	224.8
77.5°	192.8	189.1	192.8	192.8	189.1	189.1	189.1	185.6	182.0	171.2	160.6
80°	135.5	132.1	135.5	135.5	135.5	132.1	132.1	128.4	128.4	121.3	110.6
82.5°	92.7	89.2	92.7	92.7	92.7	89.2	89.2	89.2	85.6	82.1	75.0
85°	60.7	57.1	57.1	60.7	57.1	57.1	57.1	57.1	53.6	49.9	46.4
87.5°	28.5	28.5	28.5	28.5	28.5	28.5	28.5	25.0	25.0	25.0	21.4
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°	2769.1	2769.1	2769.1	2769.1	2769.1	2769.1	2769.1	2769.1	2769.1	2769.1	2769.1
2.5°	2733.5	2726.3	2747.7	2740.6	2744.1	2726.3	2754.9	2740.6	2758.4	2740.6	2776.3
5°	2687.0	2679.9	2712.1	2708.4	2712.1	2697.8	2729.8	2726.3	2747.7	2733.5	2772.6
7.5°	2637.1	2630.0	2665.6	2669.3	2676.4	2662.1	2704.9	2704.9	2726.3	2722.7	2765.5
10°	2580.0	2583.5	2619.2	2626.3	2640.7	2633.6	2672.8	2683.5	2712.1	2708.4	2762.0
12.5°	2526.4	2526.4	2572.9	2587.1	2597.8	2594.3	2640.7	2655.0	2687.0	2694.2	2744.1
15°	2473.0	2476.5	2519.3	2540.7	2555.0	2551.5	2601.4	2619.2	2658.5	2662.1	2722.7
17.5°	2430.1	2426.6	2473.0	2490.8	2512.2	2508.7	2562.1	2583.5	2622.8	2633.6	2690.7
20°	2394.4	2390.9	2433.7	2455.1	2469.4	2465.9	2519.3	2544.3	2580.0	2587.1	2644.2
22.5°	2351.6	2344.4	2387.3	2405.2	2419.4	2415.8	2462.2	2480.1	2515.8	2522.9	2576.4
25°	2301.6	2294.5	2333.8	2344.4	2355.2	2348.1	2387.3	2398.0	2426.6	2433.7	2487.3
27.5°	2244.6	2226.7	2258.8	2258.8	2266.0	2255.2	2283.9	2294.5	2319.5	2319.5	2369.5
30°	2155.3	2130.4	2148.2	2144.7	2148.2	2133.9	2151.8	2155.3	2173.2	2169.6	2205.3
32.5°	2030.4	1994.7	2005.5	1994.7	1984.1	1962.7	1984.1	1977.0	1991.2	1977.0	2009.0
35°	1859.2	1823.5	1819.9	1805.6	1795.0	1777.1	1777.1	1759.3	1762.8	1752.2	1773.6
37.5°	1673.6	1627.3	1620.1	1591.6	1573.7	1552.3	1552.3	1538.0	1520.1	1513.0	1530.9
40°	1491.6	1441.6	1423.9	1377.4	1359.5	1338.1	1323.9	1306.1	1299.0	1270.4	1284.7
42.5°	1334.6	1281.1	1241.9	1191.8	1174.0	1141.9	1120.5	1099.1	1088.4	1056.3	1070.5
45°	1202.6	1138.4	1095.6	1031.2	1006.3	970.7	938.5	913.6	888.5	874.3	867.1
47.5°	1091.9	1024.1	967.0	895.7	856.4	824.3	781.5	756.5	724.5	706.6	695.8
50°	999.2	924.2	860.0	777.9	738.7	703.1	653.0	613.8	585.3	556.7	549.6
52.5°	917.1	838.6	767.3	674.4	628.1	585.3	531.7	488.9	463.9	431.8	428.2
55°	820.7	753.0	674.4	578.1	531.7	488.9	431.8	389.0	356.8	335.4	328.3
57.5°	717.3	653.0	578.1	481.8	435.3	389.0	335.4	296.1	267.6	249.8	246.2
60°	620.9	560.2	488.9	392.5	346.1	306.9	249.8	210.5	185.6	171.2	164.1
62.5°	549.6	492.4	424.7	335.4	292.6	253.3	199.9	164.1	142.7	128.4	121.3
65°	481.8	424.7	364.0	281.9	246.2	210.5	160.6	128.4	107.0	92.7	85.6
67.5°	410.4	360.5	303.3	235.6	199.9	171.2	128.4	99.9	82.1	71.3	64.2
70°	338.9	292.6	246.2	189.1	164.1	135.5	99.9	78.5	60.7	53.6	46.4
72.5°	267.6	231.9	192.8	146.3	124.9	107.0	78.5	57.1	46.4	39.3	32.2
75°	199.9	174.9	142.7	110.6	92.7	78.5	57.1	42.8	35.7	28.5	25.0
77.5°	142.7	121.3	99.9	75.0	67.8	57.1	39.3	32.2	25.0	17.9	14.3
80°	96.4	85.6	67.8	53.6	42.8	39.3	28.5	21.4	14.3	10.8	10.8
82.5°	64.2	53.6	42.8	32.2	28.5	25.0	17.9	14.3	10.8	7.1	7.1
85°	39.3	32.2	25.0	17.9	17.9	14.3	10.8	7.1	3.6	3.6	3.6
87.5°	17.9	14.3	10.8	7.1	7.1	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°	2769.1	2769.1	2769.1	2769.1	2769.1	2769.1	2769.1	2769.1	2769.1	2769.1	2769.1
2.5°	2804.8	2783.4	2769.1	2786.9	2794.0	2783.4	2794.0	2811.9	2829.8	2833.3	2783.4
5°	2808.4	2786.9	2779.8	2801.2	2804.8	2801.2	2811.9	2837.0	2858.4	2865.5	2815.6
7.5°	2808.4	2794.0	2790.5	2815.6	2819.1	2815.6	2833.3	2861.9	2883.3	2897.5	2847.6
10°	2801.2	2794.0	2797.7	2819.1	2826.2	2826.2	2851.2	2883.3	2904.7	2919.0	2869.0
12.5°	2790.5	2790.5	2790.5	2815.6	2822.7	2826.2	2847.6	2890.4	2904.7	2926.1	2876.1
15°	2772.6	2772.6	2772.6	2797.7	2808.4	2808.4	2833.3	2872.6	2890.4	2911.8	2861.9
17.5°	2740.6	2740.6	2744.1	2765.5	2776.3	2776.3	2801.2	2844.1	2854.7	2879.8	2829.8
20°	2694.2	2694.2	2697.8	2719.2	2729.8	2722.7	2754.9	2790.5	2801.2	2822.7	2772.6
22.5°	2626.3	2626.3	2626.3	2647.9	2655.0	2651.4	2683.5	2715.6	2715.6	2744.1	2690.7
25°	2526.4	2533.6	2526.4	2547.8	2555.0	2551.5	2580.0	2608.5	2601.4	2633.6	2580.0
27.5°	2405.2	2401.5	2401.5	2419.4	2419.4	2415.8	2437.2	2469.4	2462.2	2483.6	2433.7
30°	2237.4	2248.1	2230.3	2255.2	2244.6	2237.4	2251.7	2280.2	2269.5	2287.4	2248.1
32.5°	2044.7	2030.4	2030.4	2030.4	2037.5	2019.8	2034.0	2048.3	2037.5	2055.4	2012.6
35°	1791.3	1795.0	1784.2	1787.9	1791.3	1769.9	1784.2	1798.5	1784.2	1795.0	1755.7
37.5°	1538.0	1541.5	1516.6	1530.9	1516.6	1509.5	1523.8	1530.9	1516.6	1527.2	1484.4
40°	1284.7	1277.6	1273.9	1273.9	1277.6	1259.7	1270.4	1281.1	1270.4	1277.6	1238.2
42.5°	1063.4	1059.9	1052.8	1056.3	1045.5	1042.0	1045.5	1056.3	1045.5	1052.8	1024.1
45°	870.6	863.5	852.9	856.4	856.4	838.6	849.2	856.4	845.7	849.2	824.3
47.5°	692.3	681.5	681.5	678.0	678.0	670.9	681.5	678.0	667.2	674.4	649.5
50°	538.8	531.7	531.7	531.7	531.7	520.9	524.6	531.7	520.9	520.9	506.7
52.5°	421.0	410.4	403.3	403.3	403.3	399.6	399.6	403.3	392.5	392.5	389.0
55°	317.5	314.0	303.3	303.3	303.3	292.6	296.1	296.1	292.6	292.6	281.9
57.5°	235.6	224.8	217.7	217.7	210.5	210.5	207.0	210.5	203.4	203.4	196.3
60°	156.9	149.8	146.3	142.7	142.7	139.2	142.7	139.2	139.2	135.5	132.1
62.5°	114.1	107.0	99.9	99.9	99.9	96.4	96.4	96.4	96.4	96.4	92.7
65°	82.1	75.0	75.0	71.3	71.3	67.8	67.8	67.8	67.8	67.8	64.2
67.5°	57.1	53.6	49.9	49.9	49.9	49.9	49.9	49.9	46.4	46.4	46.4
70°	42.8	39.3	35.7	35.7	35.7	35.7	35.7	32.2	35.7	35.7	32.2
72.5°	28.5	28.5	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0
75°	21.4	21.4	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9
77.5°	14.3	14.3	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.8
80°	10.8	7.1	7.1	7.1	7.1	7.1	7.1	7.1	7.1	7.1	7.1
82.5°	7.1	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: P859048

CATALOG NUMBER: LX4C50D010 EX4C509050 4LBSWNH

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	2769.1	2769.1	2769.1	2769.1	2769.1	2769.1	2769.1	2769.1
2.5°	2837.0	2833.3	2826.2	2837.0	2808.4	2797.7	2794.0	2826.2
5°	2876.1	2869.0	2869.0	2879.8	2847.6	2840.5	2833.3	2869.0
7.5°	2911.8	2904.7	2904.7	2915.5	2886.9	2879.8	2872.6	2908.3
10°	2933.2	2933.2	2933.2	2940.4	2915.5	2908.3	2904.7	2940.4
12.5°	2944.0	2944.0	2940.4	2954.6	2922.6	2922.6	2915.5	2951.1
15°	2929.7	2929.7	2929.7	2940.4	2911.8	2904.7	2904.7	2933.2
17.5°	2894.1	2894.1	2890.4	2901.2	2869.0	2869.0	2865.5	2897.5
20°	2840.5	2840.5	2833.3	2847.6	2815.6	2804.8	2801.2	2833.3
22.5°	2754.9	2751.2	2747.7	2754.9	2726.3	2719.2	2715.6	2744.1
25°	2644.2	2640.7	2633.6	2640.7	2608.5	2597.8	2597.8	2619.2
27.5°	2487.3	2487.3	2476.5	2487.3	2451.5	2448.0	2444.3	2469.4
30°	2294.5	2280.2	2273.1	2287.4	2251.7	2251.7	2244.6	2269.5
32.5°	2055.4	2041.2	2037.5	2044.7	2012.6	2001.9	2016.1	2030.4
35°	1780.7	1784.2	1769.9	1769.9	1741.4	1744.9	1748.5	1769.9
37.5°	1516.6	1509.5	1505.8	1509.5	1488.1	1480.9	1473.8	1495.2
40°	1270.4	1252.5	1249.0	1249.0	1231.1	1227.6	1231.1	1241.9
42.5°	1038.4	1034.9	1020.6	1027.7	1009.8	1017.0	1013.5	1013.5
45°	838.6	842.1	827.8	838.6	824.3	813.6	813.6	820.7
47.5°	663.7	663.7	660.1	660.1	649.5	653.0	645.8	656.6
50°	513.8	513.8	506.7	510.3	503.2	503.2	499.5	503.2
52.5°	392.5	389.0	389.0	385.4	378.2	381.9	385.4	378.2
55°	285.5	289.0	281.9	285.5	278.4	281.9	278.4	281.9
57.5°	196.3	199.9	192.8	199.9	192.8	196.3	192.8	192.8
60°	135.5	135.5	132.1	135.5	132.1	132.1	128.4	135.5
62.5°	92.7	92.7	92.7	92.7	92.7	89.2	92.7	92.7
65°	67.8	64.2	64.2	64.2	64.2	64.2	64.2	64.2
67.5°	46.4	46.4	46.4	46.4	46.4	46.4	46.4	46.4
70°	32.2	32.2	32.2	32.2	32.2	32.2	32.2	32.2
72.5°	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0
75°	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9
77.5°	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.8
80°	7.1	7.1	7.1	7.1	7.1	7.1	7.1	7.1
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)