

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: P859534

Luminaire Tested: **LX4C70D010 EX4C709727 4LBLWWH**

Issue Date: 2/14/2022



Test Information

Test Method: LM-79-08
Report Number: P859534
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 EX4C709727 4LBLWWH
Description: 4 INCH 7000 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 2700K, 97CRI LEDS
AND 4LRLWW TRIM WITH H FINISH
Light Source: -
Ballast/Driver: -

Summary

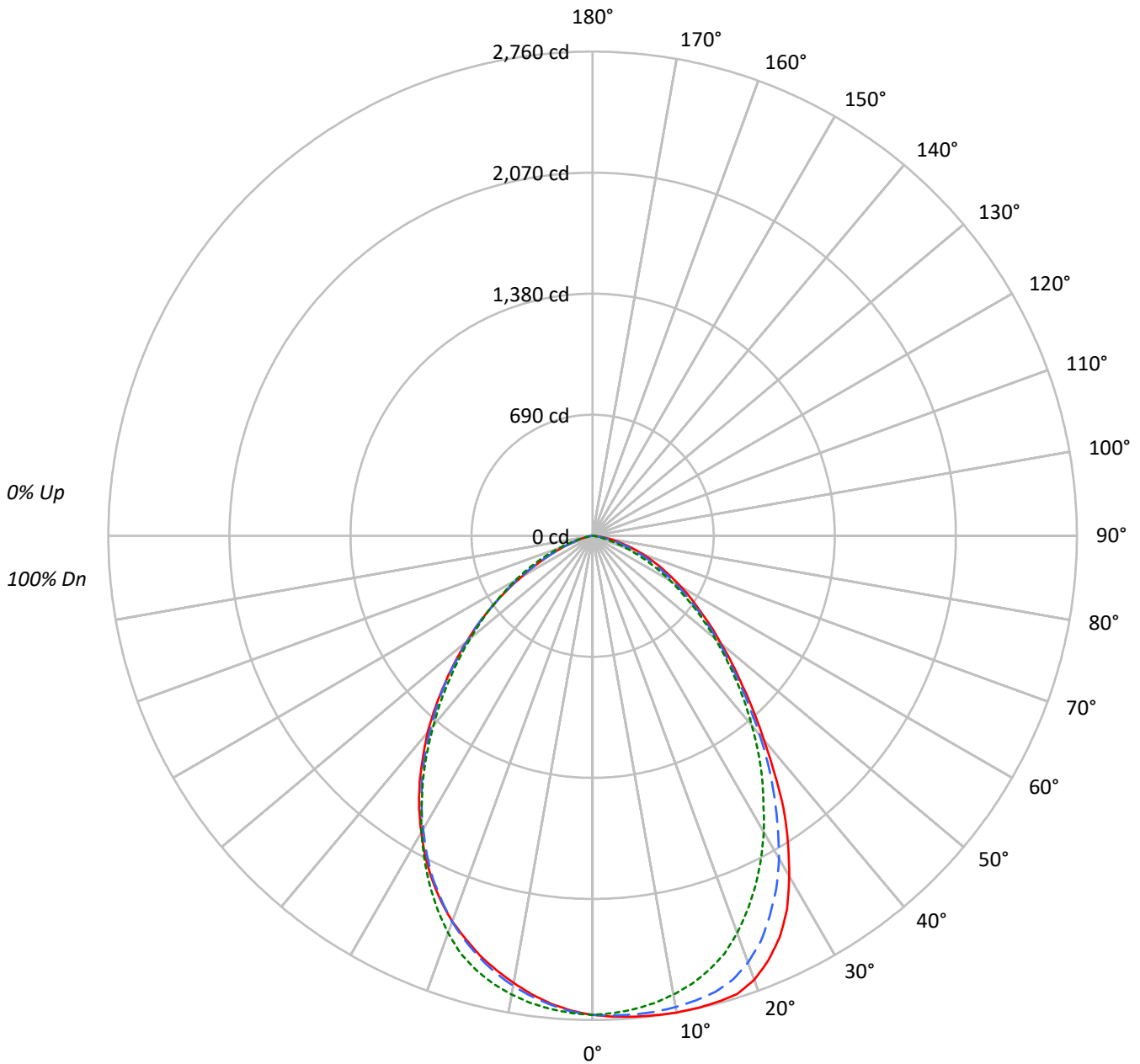
Lumens per Lamp: N/A
Luminaire Lumens: 5147.0 lumens
Efficiency: N/A
Efficacy: 66.0 lumens/watt
Spacing Criteria (0/90/45): 1.15 / 1.09 / 1.17
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 78
Input Voltage (V):
Input Current (A_{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									
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°	335525	335525	335525
5°	339273	334094	330468
10°	344244	331270	322887
15°	349905	325994	315170
20°	352116	314895	305835
25°	342016	297880	293325
30°	317849	276866	277022
35°	284520	252380	257734
40°	243592	226239	234499
45°	209688	199472	206960
50°	182296	173657	178875
55°	160427	149396	148047
60°	142731	124672	114843
65°	125203	99854	83052
70°	107544	70547	56215
75°	87244	40869	32895
80°	62400	17829	16343
85°	23681	7471	7471



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	257.4	5.0
10°-20°	728.6	14.2
20°-30°	1040.4	20.2
30°-40°	1088.4	21.1
40°-50°	911.9	17.7
50°-60°	638.2	12.4
60°-70°	347.5	6.8
70°-80°	120.6	2.3
80°-90°	13.9	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°	2026.4	39.4
0°-40°	3114.8	60.5
0°-60°	4665.0	90.6
0°-90°	5147.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5147.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	2731	2731	2731	2731	2731	
5°	2751	2738	2709	2686	2680	263
15°	2751	2693	2563	2490	2478	777
25°	2523	2389	2198	2154	2164	1152
35°	1897	1804	1683	1695	1718	1176
45°	1207	1180	1148	1186	1191	938
55°	749	724	698	698	691	677
65°	431	393	344	289	286	429
75°	184	149	86	69	69	198
85°	17	10	5	5	5	30
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°	2731.1	2731.1	2731.1	2731.1	2731.1	2731.1	2731.1	2731.1	2731.1	2731.1	2731.1
2.5°	2743.7	2740.6	2741.6	2741.6	2741.6	2740.6	2741.6	2740.6	2740.6	2739.5	2737.4
5°	2751.1	2749.0	2749.0	2749.0	2747.9	2746.9	2746.9	2745.8	2743.7	2742.7	2738.5
7.5°	2756.3	2754.2	2754.2	2753.2	2752.1	2751.1	2750.0	2746.9	2743.7	2741.6	2736.4
10°	2759.5	2756.3	2756.3	2754.2	2752.1	2751.1	2749.0	2744.8	2740.6	2735.3	2728.0
12.5°	2757.4	2754.2	2753.2	2751.1	2746.9	2744.8	2742.7	2737.4	2730.1	2722.7	2713.3
15°	2751.1	2749.0	2746.9	2743.7	2738.5	2735.3	2733.2	2724.8	2715.4	2704.9	2693.3
17.5°	2738.5	2735.3	2731.1	2726.9	2719.6	2716.4	2711.2	2700.7	2687.0	2672.3	2654.4
20°	2693.3	2691.2	2687.0	2679.7	2668.1	2663.9	2656.5	2642.9	2625.0	2607.2	2588.3
22.5°	2618.7	2615.6	2609.3	2603.0	2592.5	2585.1	2578.8	2559.9	2539.9	2521.0	2503.2
25°	2523.1	2520.0	2511.6	2503.2	2492.7	2480.1	2473.8	2459.1	2439.1	2414.9	2388.7
27.5°	2400.2	2389.7	2386.6	2377.1	2361.4	2357.2	2347.7	2328.8	2309.9	2288.9	2266.8
30°	2240.6	2240.6	2234.3	2230.1	2215.4	2211.2	2200.7	2180.7	2170.2	2140.8	2124.0
32.5°	2071.5	2069.4	2064.1	2060.9	2052.5	2045.2	2034.7	2024.2	2001.1	1986.4	1963.3
35°	1897.1	1884.5	1886.6	1880.3	1875.0	1866.6	1865.6	1854.0	1833.0	1824.6	1803.6
37.5°	1698.5	1693.3	1700.6	1691.2	1685.9	1687.0	1678.6	1671.2	1662.8	1648.1	1643.9
40°	1518.9	1523.1	1522.1	1513.7	1517.9	1512.6	1504.2	1496.9	1492.7	1483.2	1480.1
42.5°	1358.2	1351.9	1349.8	1349.8	1350.9	1350.9	1346.7	1341.4	1341.4	1331.9	1322.5
45°	1206.9	1206.9	1204.8	1211.1	1201.7	1201.7	1198.5	1197.5	1193.3	1191.2	1179.6
47.5°	1076.7	1075.6	1074.6	1073.5	1072.5	1072.5	1066.2	1060.9	1059.9	1053.6	1047.3
50°	953.8	960.1	958.0	952.7	950.6	951.7	947.5	944.3	943.3	932.8	933.8
52.5°	850.9	849.8	851.9	848.7	843.5	844.5	840.3	836.1	831.9	826.7	822.5
55°	749.0	754.2	752.1	749.0	747.9	745.8	742.7	737.4	736.4	724.8	723.7
57.5°	663.9	662.8	660.7	655.5	654.4	651.3	651.3	647.1	640.8	634.5	629.2
60°	580.9	580.9	577.7	576.7	572.5	571.4	570.4	566.2	558.8	553.6	545.2
62.5°	501.1	503.2	501.1	497.9	494.8	490.6	488.5	485.3	479.0	473.7	466.4
65°	430.7	429.6	428.6	424.4	423.3	419.1	418.1	411.8	405.5	401.3	392.9
67.5°	363.4	360.3	360.3	358.2	356.1	352.9	350.8	344.5	337.2	333.0	324.6
70°	299.4	297.3	297.3	297.3	292.0	288.9	287.8	284.7	274.2	270.0	261.6
72.5°	240.5	239.5	238.4	235.3	232.1	232.1	227.9	221.6	216.4	211.1	204.8
75°	183.8	185.9	183.8	179.6	178.6	176.5	173.3	168.1	162.8	156.5	149.2
77.5°	134.5	132.4	130.3	130.3	128.2	124.0	122.9	118.7	112.4	108.2	100.8
80°	88.2	87.2	85.1	83.0	81.9	80.9	79.8	75.6	69.3	66.2	59.9
82.5°	48.3	47.3	47.3	46.2	43.1	43.1	42.0	37.8	34.7	32.6	29.4
85°	16.8	16.8	16.8	15.8	15.8	15.8	14.7	13.7	12.6	11.6	9.5
87.5°	2.1	1.1	2.1	1.1	2.1	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	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°	2731.1	2731.1	2731.1	2731.1	2731.1	2731.1	2731.1	2731.1	2731.1	2731.1	2731.1
2.5°	2735.3	2733.2	2732.2	2731.1	2730.1	2729.0	2728.0	2725.9	2724.8	2723.8	2721.7
5°	2735.3	2731.1	2729.0	2725.9	2723.8	2721.7	2718.5	2715.4	2712.2	2709.1	2705.9
7.5°	2731.1	2724.8	2720.6	2714.3	2712.2	2709.1	2702.8	2698.6	2693.3	2687.0	2679.7
10°	2720.6	2713.3	2704.9	2696.5	2693.3	2688.1	2679.7	2672.3	2663.9	2655.5	2648.1
12.5°	2703.8	2692.3	2681.8	2670.2	2663.9	2658.6	2647.1	2636.6	2626.1	2616.6	2604.0
15°	2678.6	2664.9	2651.3	2635.5	2628.2	2621.9	2605.1	2592.5	2575.7	2563.1	2550.4
17.5°	2637.6	2616.6	2599.8	2579.9	2569.4	2562.0	2547.3	2527.3	2511.6	2497.9	2483.2
20°	2567.3	2547.3	2524.2	2502.1	2490.6	2481.1	2460.1	2439.1	2423.3	2408.6	2392.9
22.5°	2474.8	2449.6	2432.8	2405.5	2396.0	2384.5	2359.3	2340.4	2322.5	2307.8	2293.1
25°	2362.4	2340.4	2317.3	2292.0	2280.5	2266.8	2245.8	2225.9	2214.3	2197.5	2179.6
27.5°	2233.2	2215.4	2187.0	2164.9	2153.4	2142.9	2122.9	2105.1	2088.3	2076.7	2059.9
30°	2096.7	2075.7	2050.4	2027.3	2021.0	2008.4	1990.6	1976.9	1959.1	1951.7	1944.3
32.5°	1946.5	1922.3	1903.4	1888.7	1876.1	1865.6	1856.1	1834.1	1830.9	1812.0	1809.9
35°	1782.6	1772.1	1754.2	1741.6	1731.1	1723.8	1708.0	1697.5	1685.9	1682.8	1675.4
37.5°	1628.2	1615.6	1598.8	1587.2	1579.8	1578.8	1567.2	1560.9	1552.5	1548.3	1539.9
40°	1466.4	1461.2	1446.4	1444.3	1432.8	1431.7	1425.4	1418.1	1410.7	1410.7	1411.8
42.5°	1317.2	1310.9	1304.6	1297.3	1291.0	1291.0	1287.8	1285.7	1283.6	1280.5	1285.7
45°	1177.5	1169.1	1164.9	1157.6	1160.7	1154.4	1152.3	1152.3	1149.2	1148.1	1155.5
47.5°	1047.3	1037.8	1033.6	1031.5	1031.5	1032.6	1023.1	1026.3	1025.2	1027.3	1030.5
50°	928.6	920.2	913.9	913.9	914.9	910.7	906.5	909.7	906.5	908.6	916.0
52.5°	818.3	809.9	806.7	806.7	800.4	799.4	801.5	797.3	798.3	799.4	803.6
55°	716.4	711.1	705.9	700.6	701.7	699.6	695.4	694.3	696.4	697.5	702.7
57.5°	625.0	617.7	610.3	608.2	606.1	606.1	600.8	599.8	601.9	596.6	596.6
60°	537.8	533.6	524.2	521.0	521.0	515.8	511.6	513.7	508.4	507.4	508.4
62.5°	456.9	453.8	447.5	441.2	439.1	437.0	431.7	429.6	427.5	423.3	417.0
65°	386.6	379.2	371.9	367.7	364.5	359.2	356.1	351.9	345.6	343.5	337.2
67.5°	316.2	308.8	301.5	298.3	295.2	292.0	286.8	281.5	274.2	265.8	258.4
70°	254.2	244.8	240.5	232.1	230.0	225.8	218.5	213.2	205.9	196.4	189.1
72.5°	194.3	188.0	181.7	174.4	169.1	166.0	159.7	151.3	142.9	137.6	130.3
75°	139.7	136.6	128.2	119.7	117.6	113.4	106.1	100.8	94.5	86.1	79.8
77.5°	94.5	88.2	83.0	75.6	73.5	69.3	65.1	59.9	55.7	50.4	46.2
80°	55.7	50.4	47.3	42.0	39.9	37.8	34.7	30.5	27.3	25.2	24.2
82.5°	27.3	23.1	22.1	18.9	17.9	16.8	14.7	13.7	11.6	11.6	11.6
85°	9.5	7.4	7.4	6.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3
87.5°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	2.1	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):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	2731.1	2731.1	2731.1	2731.1	2731.1	2731.1	2731.1	2731.1	2731.1	2731.1	2731.1
2.5°	2720.6	2719.6	2718.5	2717.5	2717.5	2716.4	2716.4	2715.4	2715.4	2714.3	2714.3
5°	2701.7	2698.6	2696.5	2694.4	2694.4	2691.2	2689.1	2687.0	2686.0	2686.0	2683.9
7.5°	2675.5	2671.2	2667.0	2663.9	2662.8	2657.6	2653.4	2653.4	2649.2	2647.1	2645.0
10°	2640.8	2633.4	2627.1	2624.0	2619.8	2616.6	2611.4	2608.2	2605.1	2599.8	2598.8
12.5°	2593.5	2588.3	2578.8	2574.6	2572.5	2566.2	2557.8	2553.6	2552.6	2548.3	2545.2
15°	2539.9	2528.4	2520.0	2514.7	2514.7	2504.2	2500.0	2493.7	2489.5	2486.4	2485.3
17.5°	2470.6	2459.1	2450.7	2443.3	2441.2	2432.8	2426.5	2424.4	2419.1	2421.2	2416.0
20°	2381.3	2371.9	2365.6	2356.1	2356.1	2350.9	2348.8	2343.5	2341.4	2339.3	2341.4
22.5°	2285.7	2274.2	2263.7	2262.6	2262.6	2255.3	2254.2	2253.2	2249.0	2252.1	2251.1
25°	2173.3	2164.9	2158.6	2157.6	2157.6	2153.4	2149.2	2151.3	2154.4	2153.4	2156.5
27.5°	2056.7	2048.3	2046.2	2045.2	2043.1	2042.0	2044.1	2044.1	2047.3	2051.5	2055.7
30°	1930.7	1928.6	1925.4	1924.4	1922.3	1927.5	1929.6	1932.8	1931.7	1938.0	1942.2
32.5°	1804.6	1800.4	1799.4	1801.5	1804.6	1803.6	1809.9	1812.0	1814.1	1821.4	1824.6
35°	1677.5	1676.5	1674.4	1674.4	1675.4	1683.8	1683.8	1691.2	1695.4	1697.5	1705.9
37.5°	1541.0	1545.2	1547.3	1550.4	1551.5	1554.6	1556.7	1564.1	1568.3	1572.5	1576.7
40°	1416.0	1413.9	1423.3	1417.0	1419.1	1428.6	1432.8	1431.7	1438.0	1444.3	1448.5
42.5°	1282.6	1285.7	1287.8	1289.9	1295.2	1296.2	1301.5	1308.8	1310.9	1318.3	1320.4
45°	1153.4	1154.4	1158.6	1162.8	1166.0	1174.4	1176.5	1179.6	1185.9	1185.9	1189.1
47.5°	1031.5	1035.7	1035.7	1042.0	1047.3	1046.2	1053.6	1055.7	1054.6	1059.9	1062.0
50°	914.9	921.2	920.2	924.4	926.5	927.5	933.8	935.9	931.7	937.0	938.0
52.5°	803.6	806.7	810.9	812.0	809.9	815.1	813.0	817.2	816.2	820.4	816.2
55°	701.7	700.6	700.6	702.7	700.6	702.7	704.8	700.6	697.5	701.7	700.6
57.5°	599.8	599.8	597.7	600.8	597.7	594.5	593.5	590.3	587.2	587.2	586.1
60°	504.2	502.1	497.9	496.9	496.9	491.6	489.5	485.3	485.3	481.1	476.9
62.5°	414.9	409.7	406.5	406.5	404.4	399.2	389.7	383.4	381.3	375.0	374.0
65°	330.9	325.6	322.5	316.2	310.9	308.8	299.4	292.0	288.9	282.6	283.6
67.5°	254.2	245.8	236.3	232.1	229.0	221.6	218.5	213.2	210.1	210.1	210.1
70°	182.8	175.4	166.0	162.8	160.7	154.4	151.3	150.2	153.4	152.3	153.4
72.5°	122.9	115.5	111.3	109.2	107.1	104.0	106.1	107.1	105.0	106.1	107.1
75°	74.6	72.5	69.3	68.3	68.3	69.3	68.3	68.3	69.3	69.3	70.4
77.5°	43.1	41.0	41.0	39.9	42.0	41.0	41.0	41.0	42.0	42.0	42.0
80°	23.1	23.1	23.1	23.1	24.2	23.1	24.2	24.2	24.2	24.2	24.2
82.5°	11.6	11.6	11.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6	11.6
85°	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3
87.5°	1.1	2.1	2.1	2.1	2.1	2.1	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



TEST NUMBER: P859534

CATALOG NUMBER: LX4C70D010 EX4C709727 4LBLWWH

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	2731.1	2731.1	2731.1	2731.1	2731.1	2731.1	2731.1	2731.1
2.5°	2712.2	2712.2	2712.2	2710.1	2711.2	2711.2	2710.1	2710.1
5°	2682.8	2681.8	2679.7	2679.7	2677.6	2679.7	2678.6	2679.7
7.5°	2642.9	2642.9	2639.7	2639.7	2638.7	2637.6	2636.6	2637.6
10°	2595.6	2595.6	2593.5	2592.5	2593.5	2589.3	2589.3	2588.3
12.5°	2543.1	2541.0	2538.9	2539.9	2538.9	2535.7	2534.7	2535.7
15°	2482.2	2479.0	2480.1	2476.9	2476.9	2475.9	2478.0	2478.0
17.5°	2414.9	2412.8	2410.7	2411.8	2409.7	2410.7	2409.7	2408.6
20°	2340.4	2339.3	2339.3	2335.1	2336.2	2335.1	2336.2	2339.3
22.5°	2254.2	2253.2	2254.2	2251.1	2253.2	2253.2	2256.3	2256.3
25°	2159.7	2158.6	2160.7	2161.8	2162.8	2166.0	2162.8	2163.9
27.5°	2054.6	2057.8	2060.9	2062.0	2066.2	2063.0	2060.9	2064.1
30°	1948.6	1948.6	1947.5	1951.7	1954.9	1958.0	1952.8	1952.8
32.5°	1826.7	1832.0	1832.0	1833.0	1836.2	1836.2	1836.2	1840.4
35°	1710.1	1713.3	1714.3	1710.1	1712.2	1711.2	1718.5	1718.5
37.5°	1579.8	1579.8	1580.9	1588.3	1588.3	1585.1	1587.2	1587.2
40°	1455.9	1456.9	1452.7	1454.8	1460.1	1458.0	1460.1	1462.2
42.5°	1320.4	1327.7	1323.5	1325.6	1324.6	1325.6	1326.7	1326.7
45°	1191.2	1193.3	1193.3	1194.3	1196.4	1198.5	1192.2	1191.2
47.5°	1065.1	1066.2	1069.3	1064.1	1070.4	1064.1	1070.4	1063.0
50°	938.0	942.2	939.1	941.2	938.0	938.0	937.0	935.9
52.5°	817.2	816.2	816.2	815.1	815.1	817.2	815.1	818.3
55°	696.4	697.5	695.4	694.3	693.3	696.4	693.3	691.2
57.5°	581.9	584.0	579.8	581.9	574.6	577.7	578.8	579.8
60°	475.8	472.7	472.7	468.5	468.5	471.6	467.4	467.4
62.5°	368.7	370.8	367.7	371.9	371.9	376.1	374.0	376.1
65°	282.6	283.6	284.7	284.7	284.7	291.0	288.9	285.7
67.5°	213.2	214.3	215.3	214.3	217.4	215.3	215.3	216.4
70°	154.4	155.5	156.5	156.5	155.5	156.5	156.5	156.5
72.5°	107.1	108.2	107.1	108.2	109.2	108.2	108.2	109.2
75°	70.4	70.4	69.3	69.3	69.3	69.3	70.4	69.3
77.5°	41.0	42.0	41.0	42.0	42.0	42.0	42.0	42.0
80°	24.2	24.2	24.2	23.1	24.2	24.2	24.2	23.1
82.5°	12.6	12.6	11.6	11.6	12.6	12.6	12.6	12.6
85°	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3
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



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













(END OF REPORT)