

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: P859335

Luminaire Tested: **LX4C65D010 EX4C659027 4LBSWNH**

Issue Date: 2/18/2022

Test Information

Test Method: LM-79-08
Report Number: P859335
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: LX4C65D010 EX4C659027 4LBSWNH
Description: 4 INCH 6500 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 2700K, 90CRI LEDS
AND 4LCSW TRIM WITH H FINISH
Light Source: -
Ballast/Driver: -

Summary

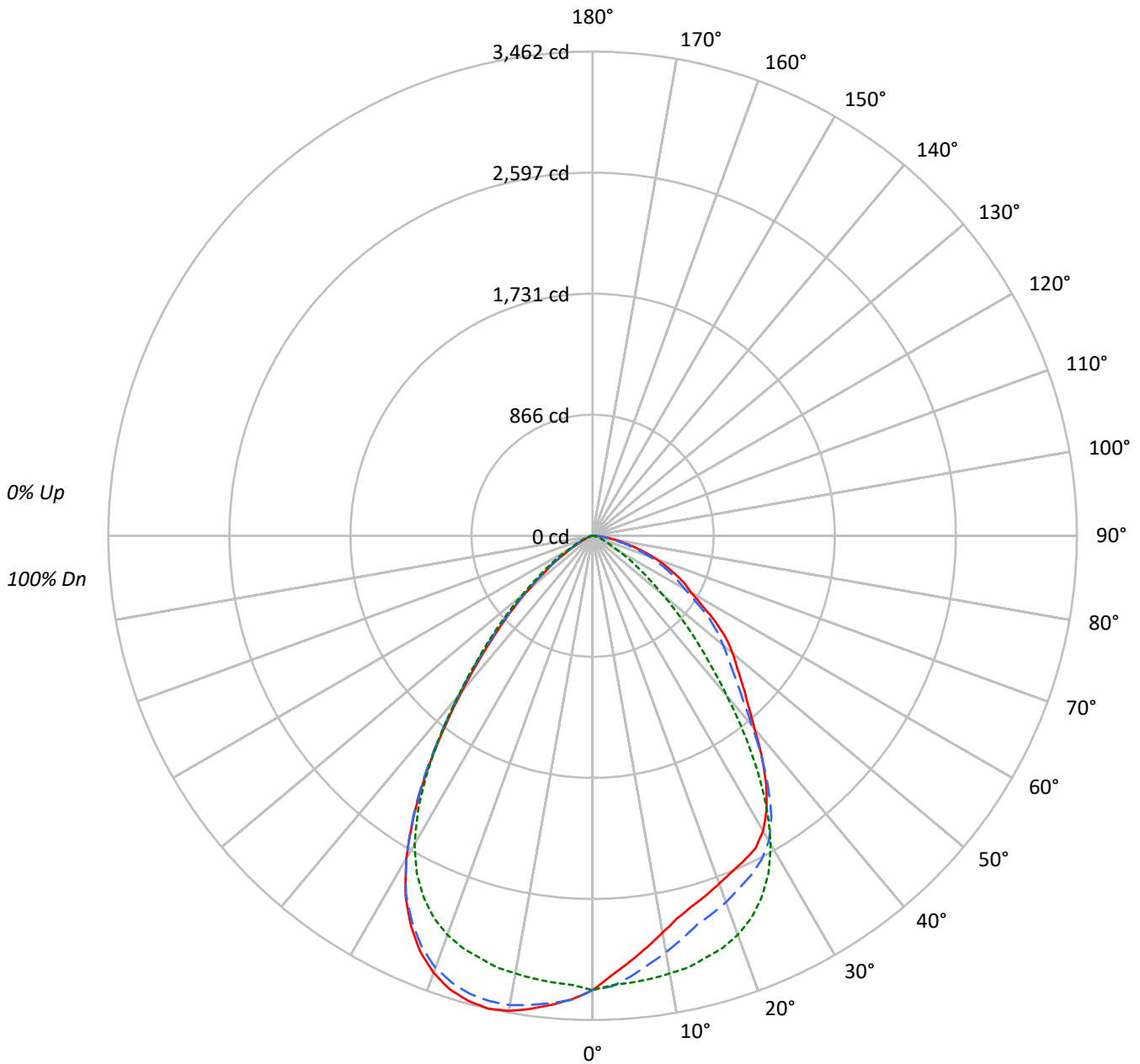
Lumens per Lamp: N/A
Luminaire Lumens: 5695.0 lumens
Efficiency: N/A
Efficacy: 78.7 lumens/watt
Spacing Criteria (0/90/45): 1.17 / 1.17 / 1.15
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 72.4
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									
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	108	104	101	109	106	103	100	101	99	97	98	96	94	94	93	91	89																			
2	104	97	92	87	101	95	90	86	92	88	84	89	85	82	86	83	81	79																			
3	96	88	81	76	94	86	80	75	83	78	74	81	76	73	78	75	72	70																			
4	90	80	72	67	88	78	72	66	76	70	66	74	69	65	72	68	64	62																			
5	83	73	65	60	82	72	65	59	70	63	59	68	62	58	66	61	58	56																			
6	78	67	59	53	76	66	59	53	64	58	53	62	57	52	61	56	52	50																			
7	73	61	54	48	71	61	53	48	59	53	48	58	52	48	56	51	47	46																			
8	68	57	49	44	67	56	49	44	55	48	44	54	48	43	52	47	43	42																			
9	64	52	45	40	63	52	45	40	51	44	40	50	44	40	49	44	40	38																			
10	61	49	42	37	59	48	42	37	47	41	37	47	41	37	46	40	37	35																			

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	399139	399139	399139
5°	376899	395508	415117
10°	359339	396414	430358
15°	348786	397257	437702
20°	345920	396842	434599
25°	347316	387060	416557
30°	345668	361102	377728
35°	323994	308321	311441
40°	288705	239037	233681
45°	264034	178206	167295
50°	249649	124844	112822
55°	229589	84305	70832
60°	200571	49363	39067
65°	189883	31628	21889
70°	172955	22594	13542
75°	143113	15901	9968
80°	112490	8914	5943
85°	100362	6061	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	307.0	5.4
10°-20°	880.6	15.5
20°-30°	1305.5	22.9
30°-40°	1307.2	23.0
40°-50°	913.6	16.0
50°-60°	543.6	9.5
60°-70°	283.7	5.0
70°-80°	126.2	2.2
80°-90°	27.5	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°	2493.1	43.8
0°-40°	3800.3	66.7
0°-60°	5257.6	92.3
0°-90°	5695.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5695.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	3249	3249	3249	3249	3249	
5°	3056	3161	3207	3354	3366	287
15°	2742	2880	3123	3391	3441	776
25°	2562	2680	2855	3052	3073	1181
35°	2160	2185	2056	2093	2077	1339
45°	1520	1444	1026	992	963	1180
55°	1072	1005	394	343	331	951
65°	653	599	109	80	75	646
75°	302	264	34	21	21	326
85°	71	54	4	4	0	80
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°	3248.9	3248.9	3248.9	3248.9	3248.9	3248.9	3248.9	3248.9	3248.9	3248.9	3248.9
2.5°	3144.2	3182.0	3144.2	3156.8	3207.1	3160.9	3186.1	3186.1	3173.6	3202.8	3223.8
5°	3056.2	3094.0	3056.2	3073.0	3127.5	3081.3	3110.7	3102.4	3106.6	3131.7	3160.9
7.5°	2968.4	2997.6	2964.2	2985.2	3035.4	2997.6	3022.8	3022.8	3027.0	3064.6	3089.9
10°	2880.5	2905.6	2880.5	2897.2	2951.7	2918.2	2935.0	2939.1	2951.7	2985.2	3022.8
12.5°	2800.9	2821.9	2796.8	2821.9	2867.8	2834.3	2855.4	2859.5	2872.1	2909.8	2951.7
15°	2742.3	2763.3	2738.2	2759.0	2800.9	2775.8	2792.5	2800.9	2809.2	2842.7	2880.5
17.5°	2696.3	2713.1	2692.1	2717.2	2750.6	2721.4	2746.5	2746.5	2759.0	2792.5	2834.3
20°	2645.9	2662.7	2645.9	2666.9	2704.7	2679.6	2700.4	2700.4	2713.1	2750.6	2788.4
22.5°	2600.0	2608.4	2600.0	2616.7	2654.3	2633.5	2645.9	2650.2	2662.7	2696.3	2729.8
25°	2562.2	2579.0	2570.6	2587.3	2612.5	2591.6	2604.1	2608.4	2620.8	2650.2	2679.6
27.5°	2520.4	2528.8	2520.4	2541.4	2562.2	2545.5	2558.1	2553.9	2562.2	2587.3	2612.5
30°	2436.7	2445.1	2445.1	2457.5	2474.4	2466.1	2478.5	2466.1	2474.4	2495.3	2520.4
32.5°	2315.2	2319.5	2323.6	2336.2	2348.7	2336.2	2344.6	2344.6	2344.6	2361.4	2378.1
35°	2160.3	2168.7	2164.6	2172.9	2185.4	2181.3	2181.3	2177.0	2168.7	2177.0	2185.4
37.5°	1984.5	1971.9	1971.9	1984.5	1992.9	1976.2	1984.5	1976.2	1976.2	1980.3	1980.3
40°	1800.2	1787.8	1800.2	1804.5	1808.6	1800.2	1796.1	1787.8	1775.1	1779.4	1771.0
42.5°	1645.5	1636.9	1641.2	1641.2	1645.5	1636.9	1641.2	1624.5	1611.8	1603.4	1591.0
45°	1519.7	1507.3	1519.7	1511.4	1511.4	1507.3	1503.0	1494.6	1477.9	1465.4	1444.4
47.5°	1402.6	1402.6	1406.7	1406.7	1406.7	1398.3	1398.3	1381.6	1364.8	1348.1	1318.9
50°	1306.2	1297.9	1314.6	1314.6	1302.1	1297.9	1302.1	1281.1	1268.6	1247.6	1218.3
52.5°	1201.5	1201.5	1205.8	1205.8	1201.5	1193.2	1197.4	1180.7	1168.0	1147.2	1117.8
55°	1071.9	1063.5	1076.0	1076.0	1071.9	1067.6	1071.9	1059.2	1046.8	1030.0	1004.7
57.5°	925.3	921.0	929.4	933.7	925.3	925.3	929.4	916.9	912.7	895.9	870.8
60°	816.3	812.2	820.6	824.9	816.3	816.3	816.3	799.6	791.2	774.5	757.7
62.5°	741.0	736.9	745.3	741.0	736.9	732.6	736.9	720.2	711.8	695.0	678.3
65°	653.2	657.3	661.6	661.6	657.3	653.2	653.2	644.8	636.5	619.7	598.7
67.5°	569.3	569.3	573.6	577.7	573.6	573.6	573.6	561.0	552.6	540.1	515.0
70°	481.5	477.3	489.9	489.9	481.5	485.6	481.5	477.3	468.9	452.1	431.3
72.5°	389.3	389.3	393.6	393.6	389.3	389.3	389.3	385.2	372.6	364.2	343.3
75°	301.5	301.5	305.6	309.9	301.5	301.5	305.6	297.2	288.9	276.4	263.7
77.5°	226.2	221.9	226.2	226.2	221.9	221.9	221.9	217.8	213.5	200.9	188.4
80°	159.0	154.9	159.0	159.0	159.0	154.9	154.9	150.7	150.7	142.3	129.8
82.5°	108.8	104.7	108.8	108.8	108.8	104.7	104.7	104.7	100.4	96.3	88.0
85°	71.2	67.0	67.0	71.2	67.0	67.0	67.0	67.0	62.9	58.6	54.5
87.5°	33.5	33.5	33.5	33.5	33.5	33.5	33.5	29.4	29.4	29.4	25.1
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°	3248.9	3248.9	3248.9	3248.9	3248.9	3248.9	3248.9	3248.9	3248.9	3248.9	3248.9
2.5°	3207.1	3198.7	3223.8	3215.4	3219.5	3198.7	3232.2	3215.4	3236.3	3215.4	3257.3
5°	3152.6	3144.2	3182.0	3177.7	3182.0	3165.2	3202.8	3198.7	3223.8	3207.1	3253.0
7.5°	3094.0	3085.6	3127.5	3131.7	3140.1	3123.4	3173.6	3173.6	3198.7	3194.4	3244.6
10°	3027.0	3031.1	3073.0	3081.3	3098.3	3089.9	3135.8	3148.5	3182.0	3177.7	3240.5
12.5°	2964.2	2964.2	3018.7	3035.4	3047.9	3043.8	3098.3	3115.0	3152.6	3160.9	3219.5
15°	2901.5	2905.6	2955.8	2980.9	2997.6	2993.5	3052.1	3073.0	3119.1	3123.4	3194.4
17.5°	2851.1	2847.0	2901.5	2922.3	2947.4	2943.3	3006.0	3031.1	3077.2	3089.9	3156.8
20°	2809.2	2805.1	2855.4	2880.5	2897.2	2893.1	2955.8	2985.2	3027.0	3035.4	3102.4
22.5°	2759.0	2750.6	2800.9	2821.9	2838.6	2834.3	2888.8	2909.8	2951.7	2960.1	3022.8
25°	2700.4	2692.1	2738.2	2750.6	2763.3	2754.9	2800.9	2813.5	2847.0	2855.4	2918.2
27.5°	2633.5	2612.5	2650.2	2650.2	2658.6	2645.9	2679.6	2692.1	2721.4	2721.4	2780.0
30°	2528.8	2499.5	2520.4	2516.3	2520.4	2503.6	2524.7	2528.8	2549.8	2545.5	2587.3
32.5°	2382.2	2340.3	2353.0	2340.3	2327.9	2302.8	2327.9	2319.5	2336.2	2319.5	2357.1
35°	2181.3	2139.5	2135.2	2118.5	2106.0	2085.0	2085.0	2064.1	2068.2	2055.8	2080.9
37.5°	1963.5	1909.2	1900.8	1867.4	1846.3	1821.2	1821.2	1804.5	1783.5	1775.1	1796.1
40°	1750.0	1691.4	1670.6	1616.1	1595.1	1570.0	1553.2	1532.4	1524.0	1490.5	1507.3
42.5°	1565.9	1503.0	1457.1	1398.3	1377.5	1339.7	1314.6	1289.5	1277.0	1239.3	1256.0
45°	1410.9	1335.6	1285.4	1209.9	1180.7	1138.8	1101.1	1071.9	1042.5	1025.7	1017.4
47.5°	1281.1	1201.5	1134.6	1050.9	1004.7	967.2	916.9	887.6	850.0	829.0	816.3
50°	1172.3	1084.3	1009.0	912.7	866.7	824.9	766.1	720.2	686.7	653.2	644.8
52.5°	1076.0	983.9	900.2	791.2	736.9	686.7	623.8	573.6	544.2	506.6	502.4
55°	962.9	883.5	791.2	678.3	623.8	573.6	506.6	456.4	418.7	393.6	385.2
57.5°	841.6	766.1	678.3	565.2	510.7	456.4	393.6	347.4	314.0	293.1	288.9
60°	728.5	657.3	573.6	460.5	406.0	360.1	293.1	247.0	217.8	200.9	192.5
62.5°	644.8	577.7	498.3	393.6	343.3	297.2	234.5	192.5	167.4	150.7	142.3
65°	565.2	498.3	427.0	330.7	288.9	247.0	188.4	150.7	125.6	108.8	100.4
67.5°	481.5	422.9	355.8	276.4	234.5	200.9	150.7	117.2	96.3	83.7	75.3
70°	397.7	343.3	288.9	221.9	192.5	159.0	117.2	92.1	71.2	62.9	54.5
72.5°	314.0	272.1	226.2	171.7	146.6	125.6	92.1	67.0	54.5	46.1	37.7
75°	234.5	205.1	167.4	129.8	108.8	92.1	67.0	50.2	41.9	33.5	29.4
77.5°	167.4	142.3	117.2	88.0	79.6	67.0	46.1	37.7	29.4	21.0	16.7
80°	113.1	100.4	79.6	62.9	50.2	46.1	33.5	25.1	16.7	12.6	12.6
82.5°	75.3	62.9	50.2	37.7	33.5	29.4	21.0	16.7	12.6	8.4	8.4
85°	46.1	37.7	29.4	21.0	21.0	16.7	12.6	8.4	4.3	4.3	4.3
87.5°	21.0	16.7	12.6	8.4	8.4	4.3	4.3	4.3	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°	3248.9	3248.9	3248.9	3248.9	3248.9	3248.9	3248.9	3248.9	3248.9	3248.9	3248.9
2.5°	3290.8	3265.7	3248.9	3269.8	3278.1	3265.7	3278.1	3299.1	3320.1	3324.2	3265.7
5°	3295.0	3269.8	3261.4	3286.5	3290.8	3286.5	3299.1	3328.5	3353.6	3362.0	3303.4
7.5°	3295.0	3278.1	3274.0	3303.4	3307.5	3303.4	3324.2	3357.7	3382.8	3399.6	3341.0
10°	3286.5	3278.1	3282.4	3307.5	3315.9	3315.9	3345.3	3382.8	3407.9	3424.7	3366.1
12.5°	3274.0	3274.0	3274.0	3303.4	3311.8	3315.9	3341.0	3391.2	3407.9	3433.1	3374.5
15°	3253.0	3253.0	3253.0	3282.4	3295.0	3295.0	3324.2	3370.4	3391.2	3416.3	3357.7
17.5°	3215.4	3215.4	3219.5	3244.6	3257.3	3257.3	3286.5	3336.9	3349.4	3378.7	3320.1
20°	3160.9	3160.9	3165.2	3190.3	3202.8	3194.4	3232.2	3274.0	3286.5	3311.8	3253.0
22.5°	3081.3	3081.3	3081.3	3106.6	3115.0	3110.7	3148.5	3186.1	3186.1	3219.5	3156.8
25°	2964.2	2972.5	2964.2	2989.3	2997.6	2993.5	3027.0	3060.5	3052.1	3089.9	3027.0
27.5°	2821.9	2817.6	2817.6	2838.6	2838.6	2834.3	2859.5	2897.2	2888.8	2913.9	2855.4
30°	2625.1	2637.6	2616.7	2645.9	2633.5	2625.1	2641.8	2675.3	2662.7	2683.7	2637.6
32.5°	2398.9	2382.2	2382.2	2382.2	2390.6	2369.7	2386.5	2403.2	2390.6	2411.6	2361.4
35°	2101.7	2106.0	2093.3	2097.6	2101.7	2076.6	2093.3	2110.1	2093.3	2106.0	2059.9
37.5°	1804.5	1808.6	1779.4	1796.1	1779.4	1771.0	1787.8	1796.1	1779.4	1791.9	1741.6
40°	1507.3	1498.9	1494.6	1494.6	1498.9	1477.9	1490.5	1503.0	1490.5	1498.9	1452.8
42.5°	1247.6	1243.5	1235.2	1239.3	1226.6	1222.5	1226.6	1239.3	1226.6	1235.2	1201.5
45°	1021.5	1013.1	1000.6	1004.7	1004.7	983.9	996.4	1004.7	992.3	996.4	967.2
47.5°	812.2	799.6	799.6	795.5	795.5	787.1	799.6	795.5	782.9	791.2	762.0
50°	632.2	623.8	623.8	623.8	623.8	611.2	615.4	623.8	611.2	611.2	594.4
52.5°	494.0	481.5	473.2	473.2	473.2	468.9	468.9	473.2	460.5	460.5	456.4
55°	372.6	368.4	355.8	355.8	355.8	343.3	347.4	347.4	343.3	343.3	330.7
57.5°	276.4	263.7	255.4	255.4	247.0	247.0	242.9	247.0	238.6	238.6	230.3
60°	184.1	175.8	171.7	167.4	167.4	163.3	167.4	163.3	163.3	159.0	154.9
62.5°	133.9	125.6	117.2	117.2	117.2	113.1	113.1	113.1	113.1	113.1	108.8
65°	96.3	88.0	88.0	83.7	83.7	79.6	79.6	79.6	79.6	79.6	75.3
67.5°	67.0	62.9	58.6	58.6	58.6	58.6	58.6	58.6	54.5	54.5	54.5
70°	50.2	46.1	41.9	41.9	41.9	41.9	41.9	37.7	41.9	41.9	37.7
72.5°	33.5	33.5	29.4	29.4	29.4	29.4	29.4	29.4	29.4	29.4	29.4
75°	25.1	25.1	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0
77.5°	16.7	16.7	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6
80°	12.6	8.4	8.4	8.4	8.4	8.4	8.4	8.4	8.4	8.4	8.4
82.5°	8.4	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3
85°	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	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: P859335

CATALOG NUMBER: LX4C65D010 EX4C659027 4LBSWNH

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	3248.9	3248.9	3248.9	3248.9	3248.9	3248.9	3248.9	3248.9
2.5°	3328.5	3324.2	3315.9	3328.5	3295.0	3282.4	3278.1	3315.9
5°	3374.5	3366.1	3366.1	3378.7	3341.0	3332.6	3324.2	3366.1
7.5°	3416.3	3407.9	3407.9	3420.6	3387.1	3378.7	3370.4	3412.2
10°	3441.4	3441.4	3441.4	3449.8	3420.6	3412.2	3407.9	3449.8
12.5°	3454.1	3454.1	3449.8	3466.5	3429.0	3429.0	3420.6	3462.4
15°	3437.3	3437.3	3437.3	3449.8	3416.3	3407.9	3407.9	3441.4
17.5°	3395.5	3395.5	3391.2	3403.8	3366.1	3366.1	3362.0	3399.6
20°	3332.6	3332.6	3324.2	3341.0	3303.4	3290.8	3286.5	3324.2
22.5°	3232.2	3227.9	3223.8	3232.2	3198.7	3190.3	3186.1	3219.5
25°	3102.4	3098.3	3089.9	3098.3	3060.5	3047.9	3047.9	3073.0
27.5°	2918.2	2918.2	2905.6	2918.2	2876.2	2872.1	2867.8	2897.2
30°	2692.1	2675.3	2666.9	2683.7	2641.8	2641.8	2633.5	2662.7
32.5°	2411.6	2394.8	2390.6	2398.9	2361.4	2348.7	2365.5	2382.2
35°	2089.2	2093.3	2076.6	2076.6	2043.1	2047.2	2051.5	2076.6
37.5°	1779.4	1771.0	1766.7	1771.0	1745.9	1737.5	1729.2	1754.3
40°	1490.5	1469.5	1465.4	1465.4	1444.4	1440.3	1444.4	1457.1
42.5°	1218.3	1214.2	1197.4	1205.8	1184.8	1193.2	1189.0	1189.0
45°	983.9	988.0	971.3	983.9	967.2	954.5	954.5	962.9
47.5°	778.7	778.7	774.5	774.5	762.0	766.1	757.7	770.4
50°	602.8	602.8	594.4	598.7	590.3	590.3	586.1	590.3
52.5°	460.5	456.4	456.4	452.1	443.8	448.0	452.1	443.8
55°	335.0	339.1	330.7	335.0	326.6	330.7	326.6	330.7
57.5°	230.3	234.5	226.2	234.5	226.2	230.3	226.2	226.2
60°	159.0	159.0	154.9	159.0	154.9	154.9	150.7	159.0
62.5°	108.8	108.8	108.8	108.8	108.8	104.7	108.8	108.8
65°	79.6	75.3	75.3	75.3	75.3	75.3	75.3	75.3
67.5°	54.5	54.5	54.5	54.5	54.5	54.5	54.5	54.5
70°	37.7	37.7	37.7	37.7	37.7	37.7	37.7	37.7
72.5°	29.4	29.4	29.4	29.4	29.4	29.4	29.4	29.4
75°	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0
77.5°	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6
80°	8.4	8.4	8.4	8.4	8.4	8.4	8.4	8.4
82.5°	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3
85°	4.3	4.3	4.3	0.0	4.3	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)