

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: P859377

Luminaire Tested: **LX4C65D010 EX4C659035 4LBSWNH**

Issue Date: 2/18/2022



Test Information

Test Method: LM-79-08
Report Number: P859377
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 EX4C659035 4LBSWNH
Description: 4 INCH 6500 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 3500K, 90CRI LEDS
AND 4LCSW TRIM WITH H FINISH
Light Source: -
Ballast/Driver: -

Summary

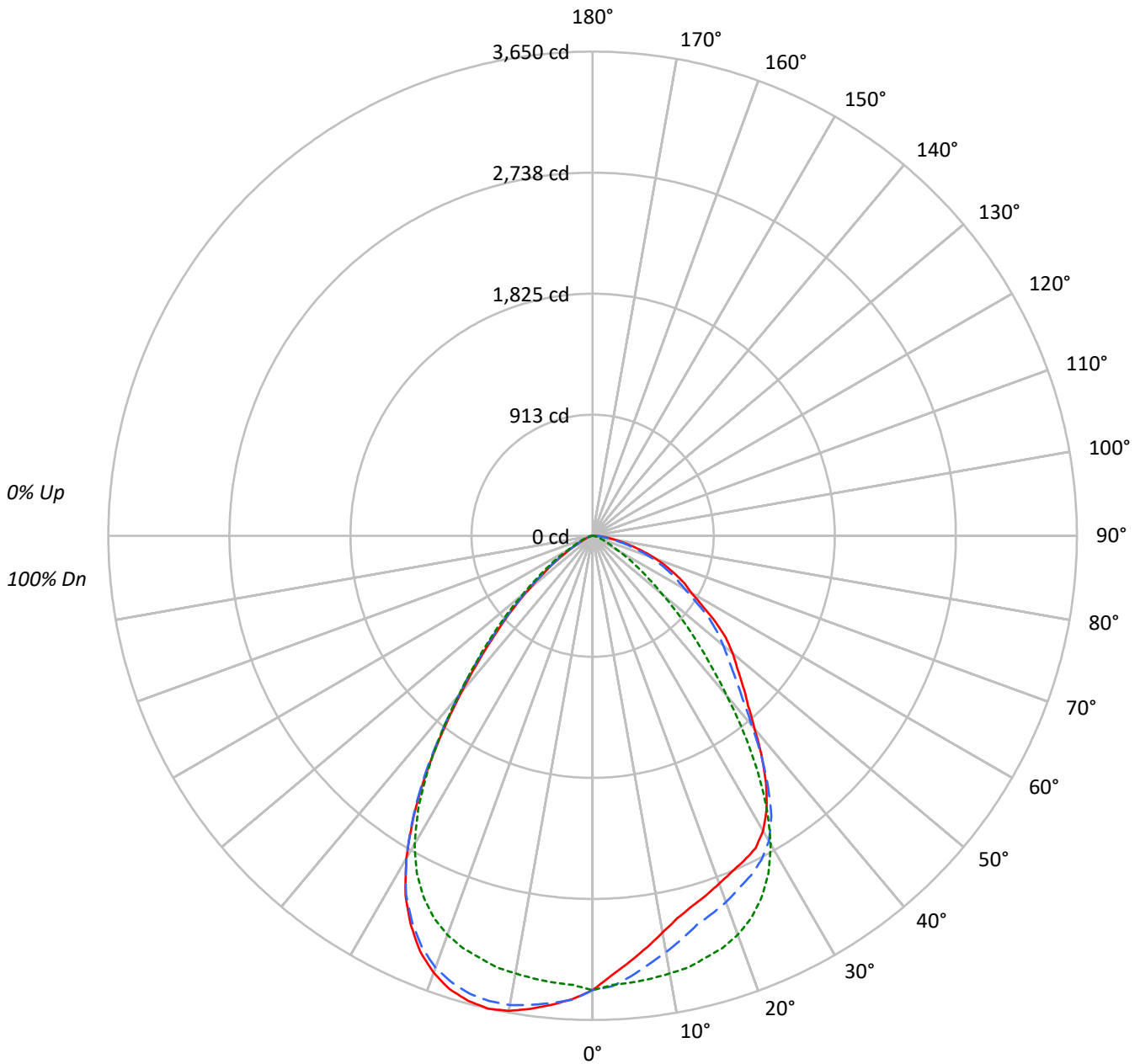
Lumens per Lamp: N/A
Luminaire Lumens: 6004.0 lumens
Efficiency: N/A
Efficacy: 82.9 lumens/watt
Spacing Criteria (0/90/45): 1.17 / 1.17 / 1.15
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

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					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°	420798	420798	420798
5°	397358	416967	437635
10°	378837	417921	453711
15°	367711	418802	461461
20°	364693	418374	458184
25°	366172	408058	439154
30°	364422	380693	398212
35°	341571	325044	328343
40°	304373	252011	246350
45°	278368	187884	176365
50°	263200	131609	118957
55°	242033	88867	74666
60°	211455	52041	41205
65°	200173	33343	23081
70°	182366	23815	14296
75°	150850	16756	10490
80°	118645	9410	6226
85°	105860	6343	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	323.6	5.4
10°-20°	928.4	15.5
20°-30°	1376.3	22.9
30°-40°	1378.2	23.0
40°-50°	963.2	16.0
50°-60°	573.1	9.5
60°-70°	299.1	5.0
70°-80°	133.0	2.2
80°-90°	29.0	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°	2628.3	43.8
0°-40°	4006.5	66.7
0°-60°	5542.8	92.3
0°-90°	6004.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6004.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	3425	3425	3425	3425	3425	
5°	3222	3332	3381	3536	3549	302
15°	2891	3037	3293	3575	3628	819
25°	2701	2825	3010	3218	3240	1245
35°	2278	2304	2167	2207	2189	1412
45°	1602	1523	1081	1046	1015	1244
55°	1130	1059	415	362	349	1003
65°	689	631	115	84	79	681
75°	318	278	35	22	22	344
85°	75	57	4	4	0	84
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°	3425.2	3425.2	3425.2	3425.2	3425.2	3425.2	3425.2	3425.2	3425.2	3425.2	3425.2
2.5°	3314.8	3354.6	3314.8	3328.1	3381.1	3332.5	3358.9	3358.9	3345.8	3376.6	3398.7
5°	3222.1	3261.9	3222.1	3239.7	3297.2	3248.5	3279.5	3270.7	3275.2	3301.7	3332.5
7.5°	3129.5	3160.3	3125.0	3147.1	3200.1	3160.3	3186.8	3186.8	3191.3	3230.9	3257.5
10°	3036.8	3063.2	3036.8	3054.4	3111.8	3076.5	3094.2	3098.5	3111.8	3147.1	3186.8
12.5°	2952.8	2975.0	2948.5	2975.0	3023.4	2988.1	3010.3	3014.6	3027.9	3067.7	3111.8
15°	2891.1	2913.2	2886.7	2908.7	2952.8	2926.4	2944.0	2952.8	2961.7	2997.0	3036.8
17.5°	2842.6	2860.3	2838.1	2864.6	2899.9	2869.1	2895.6	2895.6	2908.7	2944.0	2988.1
20°	2789.5	2807.1	2789.5	2811.6	2851.4	2825.0	2846.9	2846.9	2860.3	2899.9	2939.7
22.5°	2741.1	2749.9	2741.1	2758.7	2798.3	2776.4	2789.5	2794.0	2807.1	2842.6	2877.9
25°	2701.3	2718.9	2710.1	2727.7	2754.2	2732.2	2745.4	2749.9	2763.0	2794.0	2825.0
27.5°	2657.1	2666.0	2657.1	2679.3	2701.3	2683.6	2696.9	2692.4	2701.3	2727.7	2754.2
30°	2568.9	2577.7	2577.7	2590.9	2608.7	2599.9	2613.0	2599.9	2608.7	2630.7	2657.1
32.5°	2440.9	2445.4	2449.7	2463.0	2476.2	2463.0	2471.8	2471.8	2471.8	2489.5	2507.1
35°	2277.5	2286.3	2282.0	2290.8	2304.0	2299.7	2299.7	2295.2	2286.3	2295.2	2304.0
37.5°	2092.2	2078.9	2078.9	2092.2	2101.0	2083.4	2092.2	2083.4	2083.4	2087.7	2087.7
40°	1897.9	1884.8	1897.9	1902.4	1906.7	1897.9	1893.6	1884.8	1871.4	1875.9	1867.1
42.5°	1734.7	1725.7	1730.2	1730.2	1734.7	1725.7	1730.2	1712.6	1699.3	1690.4	1677.3
45°	1602.2	1589.1	1602.2	1593.4	1593.4	1589.1	1584.6	1575.7	1558.1	1544.9	1522.8
47.5°	1478.7	1478.7	1483.0	1483.0	1483.0	1474.2	1474.2	1456.5	1438.9	1421.2	1390.4
50°	1377.1	1368.3	1385.9	1385.9	1372.8	1368.3	1372.8	1350.6	1337.5	1315.3	1284.4
52.5°	1266.7	1266.7	1271.2	1271.2	1266.7	1257.9	1262.4	1244.7	1231.4	1209.4	1178.5
55°	1130.0	1121.2	1134.3	1134.3	1130.0	1125.5	1130.0	1116.7	1103.6	1085.9	1059.3
57.5°	975.5	971.0	979.8	984.3	975.5	975.5	979.8	966.7	962.2	944.5	918.1
60°	860.6	856.3	865.1	869.6	860.6	860.6	860.6	843.0	834.2	816.5	798.9
62.5°	781.2	776.9	785.7	781.2	776.9	772.4	776.9	759.2	750.4	732.8	715.1
65°	688.6	693.0	697.5	697.5	693.0	688.6	688.6	679.8	671.0	653.3	631.2
67.5°	600.2	600.2	604.7	609.0	604.7	604.7	604.7	591.4	582.6	569.4	543.0
70°	507.7	503.2	516.5	516.5	507.7	512.0	507.7	503.2	494.3	476.7	454.7
72.5°	410.4	410.4	414.9	414.9	410.4	410.4	410.4	406.1	392.8	383.9	362.0
75°	317.8	317.8	322.2	326.7	317.8	317.8	322.2	313.3	304.5	291.4	278.1
77.5°	238.4	233.9	238.4	238.4	233.9	233.9	233.9	229.6	225.1	211.8	198.6
80°	167.7	163.3	167.7	167.7	167.7	163.3	163.3	158.8	158.8	150.0	136.9
82.5°	114.7	110.4	114.7	114.7	114.7	110.4	110.4	110.4	105.9	101.6	92.7
85°	75.1	70.6	70.6	75.1	70.6	70.6	70.6	70.6	66.3	61.8	57.4
87.5°	35.3	35.3	35.3	35.3	35.3	35.3	35.3	31.0	31.0	31.0	26.5
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°	3425.2	3425.2	3425.2	3425.2	3425.2	3425.2	3425.2	3425.2	3425.2	3425.2	3425.2
2.5°	3381.1	3372.2	3398.7	3389.9	3394.2	3372.2	3407.5	3389.9	3411.9	3389.9	3434.0
5°	3323.6	3314.8	3354.6	3350.1	3354.6	3337.0	3376.6	3372.2	3398.7	3381.1	3429.5
7.5°	3261.9	3253.0	3297.2	3301.7	3310.5	3292.8	3345.8	3345.8	3372.2	3367.7	3420.7
10°	3191.3	3195.6	3239.7	3248.5	3266.4	3257.5	3306.0	3319.3	3354.6	3350.1	3416.4
12.5°	3125.0	3125.0	3182.4	3200.1	3213.2	3208.9	3266.4	3284.0	3323.6	3332.5	3394.2
15°	3058.9	3063.2	3116.2	3142.6	3160.3	3156.0	3217.7	3239.7	3288.3	3292.8	3367.7
17.5°	3005.8	3001.5	3058.9	3080.9	3107.3	3103.0	3169.1	3195.6	3244.2	3257.5	3328.1
20°	2961.7	2957.3	3010.3	3036.8	3054.4	3050.1	3116.2	3147.1	3191.3	3200.1	3270.7
22.5°	2908.7	2899.9	2952.8	2975.0	2992.6	2988.1	3045.6	3067.7	3111.8	3120.7	3186.8
25°	2846.9	2838.1	2886.7	2899.9	2913.2	2904.4	2952.8	2966.2	3001.5	3010.3	3076.5
27.5°	2776.4	2754.2	2794.0	2794.0	2802.8	2789.5	2825.0	2838.1	2869.1	2869.1	2930.9
30°	2666.0	2635.2	2657.1	2652.8	2657.1	2639.5	2661.6	2666.0	2688.1	2683.6	2727.7
32.5°	2511.5	2467.3	2480.7	2467.3	2454.2	2427.7	2454.2	2445.4	2463.0	2445.4	2485.0
35°	2299.7	2255.5	2251.0	2233.4	2220.3	2198.1	2198.1	2176.1	2180.5	2167.3	2193.8
37.5°	2070.1	2012.8	2004.0	1968.7	1946.5	1920.1	1920.1	1902.4	1880.3	1871.4	1893.6
40°	1845.0	1783.2	1761.2	1703.8	1681.6	1655.2	1637.5	1615.5	1606.7	1571.4	1589.1
42.5°	1650.8	1584.6	1536.1	1474.2	1452.2	1412.4	1385.9	1359.5	1346.3	1306.5	1324.2
45°	1487.5	1408.1	1355.1	1275.5	1244.7	1200.6	1160.8	1130.0	1099.1	1081.4	1072.6
47.5°	1350.6	1266.7	1196.1	1107.9	1059.3	1019.6	966.7	935.7	896.1	873.9	860.6
50°	1235.9	1143.2	1063.8	962.2	913.7	869.6	807.7	759.2	723.9	688.6	679.8
52.5°	1134.3	1037.3	949.0	834.2	776.9	723.9	657.7	604.7	573.7	534.1	529.6
55°	1015.1	931.4	834.2	715.1	657.7	604.7	534.1	481.2	441.4	414.9	406.1
57.5°	887.3	807.7	715.1	595.9	538.5	481.2	414.9	366.3	331.0	309.0	304.5
60°	768.1	693.0	604.7	485.5	428.1	379.6	309.0	260.4	229.6	211.8	203.0
62.5°	679.8	609.0	525.3	414.9	362.0	313.3	247.3	203.0	176.5	158.8	150.0
65°	595.9	525.3	450.2	348.6	304.5	260.4	198.6	158.8	132.4	114.7	105.9
67.5°	507.7	445.9	375.1	291.4	247.3	211.8	158.8	123.5	101.6	88.2	79.4
70°	419.2	362.0	304.5	233.9	203.0	167.7	123.5	97.1	75.1	66.3	57.4
72.5°	331.0	286.9	238.4	181.0	154.5	132.4	97.1	70.6	57.4	48.6	39.8
75°	247.3	216.3	176.5	136.9	114.7	97.1	70.6	52.9	44.1	35.3	31.0
77.5°	176.5	150.0	123.5	92.7	83.9	70.6	48.6	39.8	31.0	22.1	17.6
80°	119.2	105.9	83.9	66.3	52.9	48.6	35.3	26.5	17.6	13.3	13.3
82.5°	79.4	66.3	52.9	39.8	35.3	31.0	22.1	17.6	13.3	8.8	8.8
85°	48.6	39.8	31.0	22.1	22.1	17.6	13.3	8.8	4.5	4.5	4.5
87.5°	22.1	17.6	13.3	8.8	8.8	4.5	4.5	4.5	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°	3425.2	3425.2	3425.2	3425.2	3425.2	3425.2	3425.2	3425.2	3425.2	3425.2	3425.2
2.5°	3469.3	3442.8	3425.2	3447.2	3456.0	3442.8	3456.0	3478.1	3500.3	3504.6	3442.8
5°	3473.8	3447.2	3438.3	3464.8	3469.3	3464.8	3478.1	3509.1	3535.6	3544.4	3482.6
7.5°	3473.8	3456.0	3451.7	3482.6	3487.0	3482.6	3504.6	3539.9	3566.4	3584.0	3522.3
10°	3464.8	3456.0	3460.5	3487.0	3495.8	3495.8	3526.8	3566.4	3592.9	3610.5	3548.7
12.5°	3451.7	3451.7	3451.7	3482.6	3491.5	3495.8	3522.3	3575.2	3592.9	3619.3	3557.6
15°	3429.5	3429.5	3429.5	3460.5	3473.8	3473.8	3504.6	3553.2	3575.2	3601.7	3539.9
17.5°	3389.9	3389.9	3394.2	3420.7	3434.0	3434.0	3464.8	3517.9	3531.1	3562.1	3500.3
20°	3332.5	3332.5	3337.0	3363.4	3376.6	3367.7	3407.5	3451.7	3464.8	3491.5	3429.5
22.5°	3248.5	3248.5	3248.5	3275.2	3284.0	3279.5	3319.3	3358.9	3358.9	3394.2	3328.1
25°	3125.0	3133.8	3125.0	3151.5	3160.3	3156.0	3191.3	3226.6	3217.7	3257.5	3191.3
27.5°	2975.0	2970.5	2970.5	2992.6	2992.6	2988.1	3014.6	3054.4	3045.6	3072.1	3010.3
30°	2767.5	2780.7	2758.7	2789.5	2776.4	2767.5	2785.2	2820.5	2807.1	2829.3	2780.7
32.5°	2529.1	2511.5	2511.5	2511.5	2520.3	2498.3	2515.9	2533.6	2520.3	2542.4	2489.5
35°	2215.8	2220.3	2206.9	2211.4	2215.8	2189.3	2206.9	2224.6	2206.9	2220.3	2171.6
37.5°	1902.4	1906.7	1875.9	1893.6	1875.9	1867.1	1884.8	1893.6	1875.9	1889.1	1836.1
40°	1589.1	1580.2	1575.7	1575.7	1580.2	1558.1	1571.4	1584.6	1571.4	1580.2	1531.6
42.5°	1315.3	1311.0	1302.2	1306.5	1293.2	1288.9	1293.2	1306.5	1293.2	1302.2	1266.7
45°	1076.9	1068.1	1054.9	1059.3	1059.3	1037.3	1050.4	1059.3	1046.1	1050.4	1019.6
47.5°	856.3	843.0	843.0	838.6	838.6	829.8	843.0	838.6	825.3	834.2	803.4
50°	666.5	657.7	657.7	657.7	657.7	644.3	648.8	657.7	644.3	644.3	626.7
52.5°	520.8	507.7	498.8	498.8	498.8	494.3	494.3	498.8	485.5	485.5	481.2
55°	392.8	388.4	375.1	375.1	375.1	362.0	366.3	366.3	362.0	362.0	348.6
57.5°	291.4	278.1	269.2	269.2	260.4	260.4	256.1	260.4	251.6	251.6	242.8
60°	194.1	185.3	181.0	176.5	176.5	172.2	176.5	172.2	172.2	167.7	163.3
62.5°	141.2	132.4	123.5	123.5	123.5	119.2	119.2	119.2	119.2	119.2	114.7
65°	101.6	92.7	92.7	88.2	88.2	83.9	83.9	83.9	83.9	83.9	79.4
67.5°	70.6	66.3	61.8	61.8	61.8	61.8	61.8	61.8	57.4	57.4	57.4
70°	52.9	48.6	44.1	44.1	44.1	44.1	44.1	39.8	44.1	44.1	39.8
72.5°	35.3	35.3	31.0	31.0	31.0	31.0	31.0	31.0	31.0	31.0	31.0
75°	26.5	26.5	22.1	22.1	22.1	22.1	22.1	22.1	22.1	22.1	22.1
77.5°	17.6	17.6	13.3	13.3	13.3	13.3	13.3	13.3	13.3	13.3	13.3
80°	13.3	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8
82.5°	8.8	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
85°	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	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: P859377

CATALOG NUMBER: LX4C65D010 EX4C659035 4LBSWNH

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	3425.2	3425.2	3425.2	3425.2	3425.2	3425.2	3425.2	3425.2
2.5°	3509.1	3504.6	3495.8	3509.1	3473.8	3460.5	3456.0	3495.8
5°	3557.6	3548.7	3548.7	3562.1	3522.3	3513.4	3504.6	3548.7
7.5°	3601.7	3592.9	3592.9	3606.2	3570.9	3562.1	3553.2	3597.4
10°	3628.2	3628.2	3628.2	3637.0	3606.2	3597.4	3592.9	3637.0
12.5°	3641.5	3641.5	3637.0	3654.6	3615.0	3615.0	3606.2	3650.3
15°	3623.8	3623.8	3623.8	3637.0	3601.7	3592.9	3592.9	3628.2
17.5°	3579.7	3579.7	3575.2	3588.5	3548.7	3548.7	3544.4	3584.0
20°	3513.4	3513.4	3504.6	3522.3	3482.6	3469.3	3464.8	3504.6
22.5°	3407.5	3403.0	3398.7	3407.5	3372.2	3363.4	3358.9	3394.2
25°	3270.7	3266.4	3257.5	3266.4	3226.6	3213.2	3213.2	3239.7
27.5°	3076.5	3076.5	3063.2	3076.5	3032.3	3027.9	3023.4	3054.4
30°	2838.1	2820.5	2811.6	2829.3	2785.2	2785.2	2776.4	2807.1
32.5°	2542.4	2524.8	2520.3	2529.1	2489.5	2476.2	2493.8	2511.5
35°	2202.6	2206.9	2189.3	2189.3	2154.0	2158.3	2162.8	2189.3
37.5°	1875.9	1867.1	1862.6	1867.1	1840.6	1831.8	1823.0	1849.5
40°	1571.4	1549.3	1544.9	1544.9	1522.8	1518.5	1522.8	1536.1
42.5°	1284.4	1280.0	1262.4	1271.2	1249.1	1257.9	1253.6	1253.6
45°	1037.3	1041.6	1024.0	1037.3	1019.6	1006.3	1006.3	1015.1
47.5°	821.0	821.0	816.5	816.5	803.4	807.7	798.9	812.2
50°	635.5	635.5	626.7	631.2	622.4	622.4	617.9	622.4
52.5°	485.5	481.2	481.2	476.7	467.9	472.4	476.7	467.9
55°	353.1	357.5	348.6	353.1	344.3	348.6	344.3	348.6
57.5°	242.8	247.3	238.4	247.3	238.4	242.8	238.4	238.4
60°	167.7	167.7	163.3	167.7	163.3	163.3	158.8	167.7
62.5°	114.7	114.7	114.7	114.7	114.7	110.4	114.7	114.7
65°	83.9	79.4	79.4	79.4	79.4	79.4	79.4	79.4
67.5°	57.4	57.4	57.4	57.4	57.4	57.4	57.4	57.4
70°	39.8	39.8	39.8	39.8	39.8	39.8	39.8	39.8
72.5°	31.0	31.0	31.0	31.0	31.0	31.0	31.0	31.0
75°	22.1	22.1	22.1	22.1	22.1	22.1	22.1	22.1
77.5°	13.3	13.3	13.3	13.3	13.3	13.3	13.3	13.3
80°	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8
82.5°	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
85°	4.5	4.5	4.5	0.0	4.5	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)