

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: P859530

Luminaire Tested: **LX4C70D010 EX4C709050 4LBSWNH**

Issue Date: 2/18/2022



Test Information

Test Method: LM-79-08
Report Number: P859530
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: LX4C70D010 EX4C709050 4LBSWNH
Description: 4 INCH 7000 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 5000K, 90CRI LEDS
AND 4LCSW TRIM WITH H FINISH
Light Source: -
Ballast/Driver: -

Summary

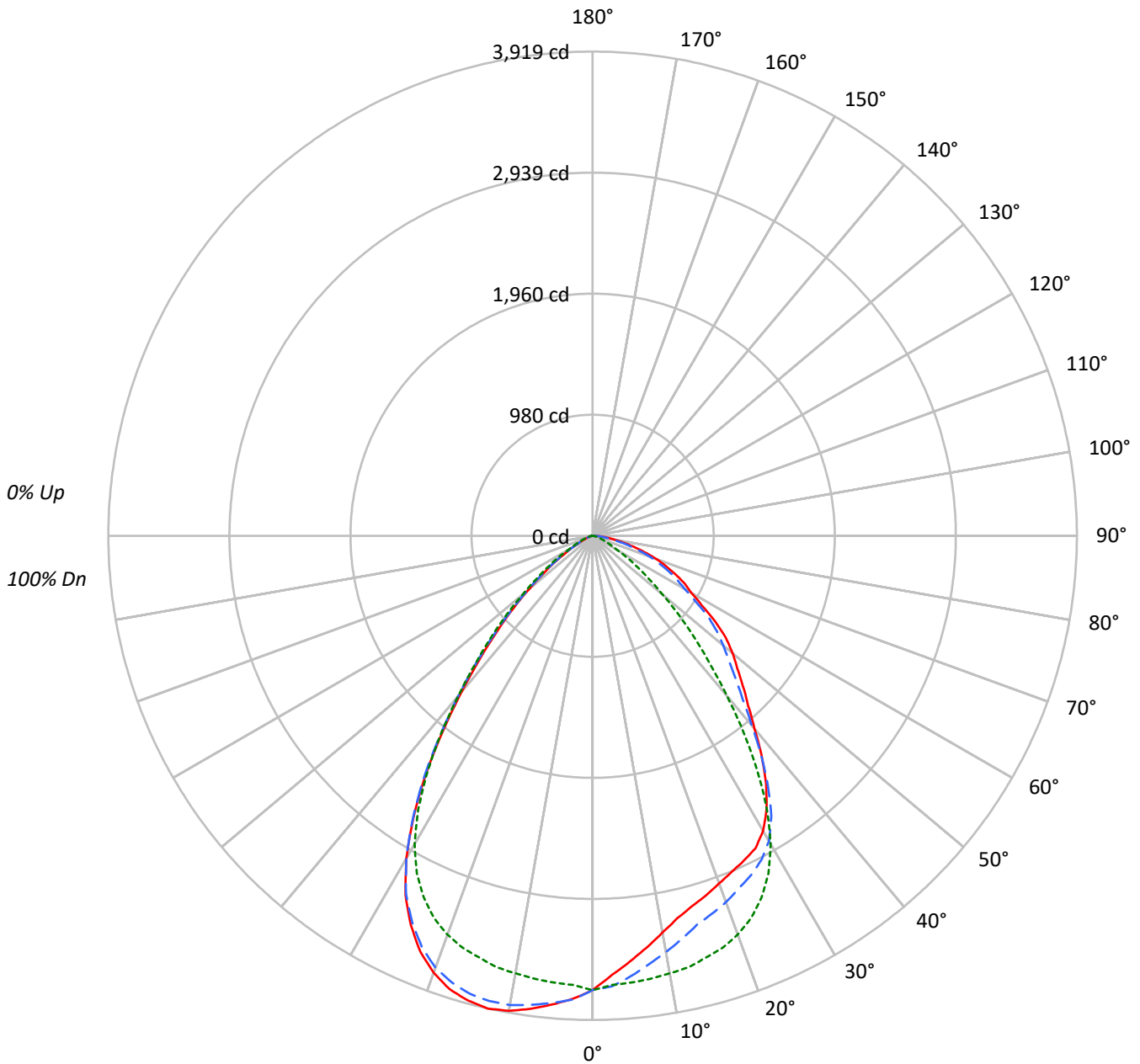
Lumens per Lamp: N/A
Luminaire Lumens: 6446.0 lumens
Efficiency: N/A
Efficacy: 82.6 lumens/watt
Spacing Criteria (0/90/45): 1.17 / 1.17 / 1.15
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 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					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°	451769	451769	451769
5°	426610	447662	469860
10°	406718	448684	487106
15°	394777	449632	495420
20°	391547	449176	491915
25°	393120	438096	471483
30°	391247	408724	427535
35°	366722	348980	352505
40°	326778	270567	264489
45°	298869	201713	189360
50°	282580	141300	127710
55°	259853	95421	80171
60°	227033	55874	44227
65°	214912	35814	24796
70°	195764	25539	15338
75°	161957	17990	11297
80°	127347	10117	6721
85°	113613	6766	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	347.4	5.4
10°-20°	996.8	15.5
20°-30°	1477.6	22.9
30°-40°	1479.6	23.0
40°-50°	1034.1	16.0
50°-60°	615.3	9.5
60°-70°	321.1	5.0
70°-80°	142.8	2.2
80°-90°	31.1	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°	2821.8	43.8
0°-40°	4301.5	66.7
0°-60°	5950.9	92.3
0°-90°	6446.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6446.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	3677	3677	3677	3677	3677	
5°	3459	3578	3630	3796	3810	324
15°	3104	3260	3535	3838	3895	879
25°	2900	3033	3232	3455	3478	1336
35°	2445	2474	2327	2369	2350	1516
45°	1720	1635	1161	1123	1090	1336
55°	1213	1137	446	389	374	1076
65°	739	678	123	90	85	731
75°	341	298	38	24	24	369
85°	81	62	5	5	0	90
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°	3677.3	3677.3	3677.3	3677.3	3677.3	3677.3	3677.3	3677.3	3677.3	3677.3	3677.3
2.5°	3558.8	3601.6	3558.8	3573.1	3630.0	3577.8	3606.2	3606.2	3592.1	3625.1	3648.9
5°	3459.3	3502.0	3459.3	3478.2	3539.9	3487.7	3520.9	3511.5	3516.3	3544.7	3577.8
7.5°	3359.9	3392.9	3355.1	3378.8	3435.7	3392.9	3421.4	3421.4	3426.2	3468.7	3497.3
10°	3260.3	3288.7	3260.3	3279.3	3340.9	3303.0	3322.0	3326.6	3340.9	3378.8	3421.4
12.5°	3170.2	3194.0	3165.6	3194.0	3246.0	3208.1	3231.9	3236.5	3250.8	3293.6	3340.9
15°	3103.9	3127.7	3099.3	3122.8	3170.2	3141.8	3160.7	3170.2	3179.7	3217.6	3260.3
17.5°	3051.9	3070.8	3047.1	3075.5	3113.4	3080.3	3108.7	3108.7	3122.8	3160.7	3208.1
20°	2994.9	3013.8	2994.9	3018.6	3061.4	3032.9	3056.5	3056.5	3070.8	3113.4	3156.1
22.5°	2942.8	2952.3	2942.8	2961.8	3004.3	2980.7	2994.9	2999.7	3013.8	3051.9	3089.8
25°	2900.1	2919.1	2909.6	2928.5	2957.0	2933.4	2947.5	2952.3	2966.4	2999.7	3032.9
27.5°	2852.7	2862.2	2852.7	2876.5	2900.1	2881.2	2895.5	2890.6	2900.1	2928.5	2957.0
30°	2758.0	2767.5	2767.5	2781.6	2800.7	2791.3	2805.4	2791.3	2800.7	2824.3	2852.7
32.5°	2620.5	2625.4	2630.0	2644.3	2658.4	2644.3	2653.8	2653.8	2653.8	2672.7	2691.7
35°	2445.2	2454.7	2450.0	2459.5	2473.6	2469.0	2469.0	2464.1	2454.7	2464.1	2473.6
37.5°	2246.2	2231.9	2231.9	2246.2	2255.7	2236.8	2246.2	2236.8	2236.8	2241.4	2241.4
40°	2037.6	2023.5	2037.6	2042.5	2047.1	2037.6	2033.0	2023.5	2009.2	2014.0	2004.6
42.5°	1862.5	1852.8	1857.6	1857.6	1862.5	1852.8	1857.6	1838.7	1824.4	1814.9	1800.8
45°	1720.2	1706.0	1720.2	1710.7	1710.7	1706.0	1701.2	1691.7	1672.8	1658.7	1634.9
47.5°	1587.5	1587.5	1592.2	1592.2	1592.2	1582.7	1582.7	1563.7	1544.8	1525.9	1492.8
50°	1478.5	1469.0	1488.0	1488.0	1473.8	1469.0	1473.8	1450.1	1435.9	1412.2	1378.9
52.5°	1360.0	1360.0	1364.8	1364.8	1360.0	1350.5	1355.3	1336.4	1322.1	1298.5	1265.2
55°	1213.2	1203.7	1217.9	1217.9	1213.2	1208.4	1213.2	1198.9	1184.8	1165.8	1137.2
57.5°	1047.3	1042.5	1052.0	1056.8	1047.3	1047.3	1052.0	1037.9	1033.0	1014.1	985.7
60°	924.0	919.3	928.8	933.6	924.0	924.0	924.0	905.0	895.6	876.6	857.7
62.5°	838.7	834.1	843.5	838.7	834.1	829.2	834.1	815.1	805.7	786.7	767.8
65°	739.3	744.0	748.8	748.8	744.0	739.3	739.3	729.9	720.4	701.4	677.7
67.5°	644.4	644.4	649.2	653.9	649.2	649.2	649.2	634.9	625.5	611.3	582.9
70°	545.0	540.2	554.5	554.5	545.0	549.7	545.0	540.2	530.7	511.8	488.2
72.5°	440.6	440.6	445.5	445.5	440.6	440.6	440.6	436.0	421.7	412.2	388.6
75°	341.2	341.2	345.9	350.7	341.2	341.2	345.9	336.4	326.9	312.8	298.5
77.5°	256.0	251.2	256.0	256.0	251.2	251.2	251.2	246.5	241.7	227.4	213.3
80°	180.0	175.4	180.0	180.0	180.0	175.4	175.4	170.5	170.5	161.1	146.9
82.5°	123.2	118.5	123.2	123.2	123.2	118.5	118.5	118.5	113.7	109.0	99.6
85°	80.6	75.8	75.8	80.6	75.8	75.8	75.8	75.8	71.1	66.3	61.7
87.5°	37.9	37.9	37.9	37.9	37.9	37.9	37.9	33.3	33.3	33.3	28.4
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°	3677.3	3677.3	3677.3	3677.3	3677.3	3677.3	3677.3	3677.3	3677.3	3677.3	3677.3
2.5°	3630.0	3620.5	3648.9	3639.5	3644.1	3620.5	3658.4	3639.5	3663.0	3639.5	3686.8
5°	3568.3	3558.8	3601.6	3596.7	3601.6	3582.6	3625.1	3620.5	3648.9	3630.0	3682.0
7.5°	3502.0	3492.5	3539.9	3544.7	3554.2	3535.2	3592.1	3592.1	3620.5	3615.7	3672.5
10°	3426.2	3430.8	3478.2	3487.7	3506.8	3497.3	3549.4	3563.7	3601.6	3596.7	3667.9
12.5°	3355.1	3355.1	3416.7	3435.7	3449.8	3445.1	3506.8	3525.8	3568.3	3577.8	3644.1
15°	3284.1	3288.7	3345.6	3374.0	3392.9	3388.3	3454.6	3478.2	3530.4	3535.2	3615.7
17.5°	3227.1	3222.4	3284.1	3307.7	3336.1	3331.5	3402.4	3430.8	3483.0	3497.3	3573.1
20°	3179.7	3175.0	3231.9	3260.3	3279.3	3274.6	3345.6	3378.8	3426.2	3435.7	3511.5
22.5°	3122.8	3113.4	3170.2	3194.0	3212.9	3208.1	3269.8	3293.6	3340.9	3350.4	3421.4
25°	3056.5	3047.1	3099.3	3113.4	3127.7	3118.2	3170.2	3184.5	3222.4	3231.9	3303.0
27.5°	2980.7	2957.0	2999.7	2999.7	3009.2	2994.9	3032.9	3047.1	3080.3	3080.3	3146.6
30°	2862.2	2829.2	2852.7	2848.1	2852.7	2833.8	2857.6	2862.2	2886.0	2881.2	2928.5
32.5°	2696.3	2649.0	2663.3	2649.0	2634.9	2606.4	2634.9	2625.4	2644.3	2625.4	2667.9
35°	2469.0	2421.6	2416.8	2397.8	2383.7	2359.9	2359.9	2336.3	2341.0	2326.9	2355.3
37.5°	2222.5	2161.0	2151.5	2113.6	2089.8	2061.4	2061.4	2042.5	2018.7	2009.2	2033.0
40°	1980.8	1914.5	1890.9	1829.2	1805.4	1777.0	1758.1	1734.5	1725.0	1687.1	1706.0
42.5°	1772.4	1701.2	1649.2	1582.7	1559.1	1516.4	1488.0	1459.5	1445.4	1402.7	1421.6
45°	1597.0	1511.7	1454.9	1369.4	1336.4	1289.0	1246.3	1213.2	1180.0	1161.0	1151.5
47.5°	1450.1	1360.0	1284.2	1189.4	1137.2	1094.7	1037.9	1004.6	962.1	938.3	924.0
50°	1326.9	1227.3	1142.1	1033.0	981.0	933.6	867.1	815.1	777.2	739.3	729.9
52.5°	1217.9	1113.6	1018.9	895.6	834.1	777.2	706.1	649.2	616.0	573.4	568.6
55°	1089.9	1000.0	895.6	767.8	706.1	649.2	573.4	516.6	473.9	445.5	436.0
57.5°	952.6	867.1	767.8	639.8	578.1	516.6	445.5	393.3	355.4	331.8	326.9
60°	824.6	744.0	649.2	521.2	459.6	407.6	331.8	279.6	246.5	227.4	217.9
62.5°	729.9	653.9	564.0	445.5	388.6	336.4	265.5	217.9	189.5	170.5	161.1
65°	639.8	564.0	483.4	374.3	326.9	279.6	213.3	170.5	142.1	123.2	113.7
67.5°	545.0	478.7	402.7	312.8	265.5	227.4	170.5	132.6	109.0	94.7	85.3
70°	450.1	388.6	326.9	251.2	217.9	180.0	132.6	104.2	80.6	71.1	61.7
72.5°	355.4	308.0	256.0	194.3	165.9	142.1	104.2	75.8	61.7	52.2	42.7
75°	265.5	232.2	189.5	146.9	123.2	104.2	75.8	56.8	47.4	37.9	33.3
77.5°	189.5	161.1	132.6	99.6	90.1	75.8	52.2	42.7	33.3	23.8	18.9
80°	128.0	113.7	90.1	71.1	56.8	52.2	37.9	28.4	18.9	14.3	14.3
82.5°	85.3	71.1	56.8	42.7	37.9	33.3	23.8	18.9	14.3	9.5	9.5
85°	52.2	42.7	33.3	23.8	23.8	18.9	14.3	9.5	4.8	4.8	4.8
87.5°	23.8	18.9	14.3	9.5	9.5	4.8	4.8	4.8	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°	3677.3	3677.3	3677.3	3677.3	3677.3	3677.3	3677.3	3677.3	3677.3	3677.3	3677.3
2.5°	3724.7	3696.3	3677.3	3700.9	3710.4	3696.3	3710.4	3734.2	3758.0	3762.6	3696.3
5°	3729.5	3700.9	3691.5	3719.9	3724.7	3719.9	3734.2	3767.4	3795.9	3805.3	3739.0
7.5°	3729.5	3710.4	3705.8	3739.0	3743.7	3739.0	3762.6	3800.5	3828.9	3847.9	3781.6
10°	3719.9	3710.4	3715.2	3743.7	3753.1	3753.1	3786.4	3828.9	3857.4	3876.3	3810.0
12.5°	3705.8	3705.8	3705.8	3739.0	3748.5	3753.1	3781.6	3838.4	3857.4	3885.8	3819.5
15°	3682.0	3682.0	3682.0	3715.2	3729.5	3729.5	3762.6	3814.8	3838.4	3866.8	3800.5
17.5°	3639.5	3639.5	3644.1	3672.5	3686.8	3686.8	3719.9	3776.9	3791.0	3824.3	3758.0
20°	3577.8	3577.8	3582.6	3611.0	3625.1	3615.7	3658.4	3705.8	3719.9	3748.5	3682.0
22.5°	3487.7	3487.7	3487.7	3516.3	3525.8	3520.9	3563.7	3606.2	3606.2	3644.1	3573.1
25°	3355.1	3364.5	3355.1	3383.5	3392.9	3388.3	3426.2	3464.1	3454.6	3497.3	3426.2
27.5°	3194.0	3189.2	3189.2	3212.9	3212.9	3208.1	3236.5	3279.3	3269.8	3298.2	3231.9
30°	2971.3	2985.4	2961.8	2994.9	2980.7	2971.3	2990.2	3028.1	3013.8	3037.6	2985.4
32.5°	2715.3	2696.3	2696.3	2696.3	2705.8	2682.2	2701.2	2720.1	2705.8	2729.6	2672.7
35°	2378.9	2383.7	2369.4	2374.2	2378.9	2350.4	2369.4	2388.3	2369.4	2383.7	2331.5
37.5°	2042.5	2047.1	2014.0	2033.0	2014.0	2004.6	2023.5	2033.0	2014.0	2028.2	1971.3
40°	1706.0	1696.6	1691.7	1691.7	1696.6	1672.8	1687.1	1701.2	1687.1	1696.6	1644.4
42.5°	1412.2	1407.5	1398.0	1402.7	1388.4	1383.7	1388.4	1402.7	1388.4	1398.0	1360.0
45°	1156.2	1146.7	1132.6	1137.2	1137.2	1113.6	1127.8	1137.2	1123.1	1127.8	1094.7
47.5°	919.3	905.0	905.0	900.4	900.4	890.9	905.0	900.4	886.1	895.6	862.5
50°	715.6	706.1	706.1	706.1	706.1	691.8	696.6	706.1	691.8	691.8	672.8
52.5°	559.1	545.0	535.6	535.6	535.6	530.7	530.7	535.6	521.2	521.2	516.6
55°	421.7	417.0	402.7	402.7	402.7	388.6	393.3	393.3	388.6	388.6	374.3
57.5°	312.8	298.5	289.0	289.0	279.6	279.6	274.9	279.6	270.1	270.1	260.6
60°	208.4	199.0	194.3	189.5	189.5	184.8	189.5	184.8	184.8	180.0	175.4
62.5°	151.6	142.1	132.6	132.6	132.6	128.0	128.0	128.0	128.0	128.0	123.2
65°	109.0	99.6	99.6	94.7	94.7	90.1	90.1	90.1	90.1	90.1	85.3
67.5°	75.8	71.1	66.3	66.3	66.3	66.3	66.3	66.3	61.7	61.7	61.7
70°	56.8	52.2	47.4	47.4	47.4	47.4	47.4	42.7	47.4	47.4	42.7
72.5°	37.9	37.9	33.3	33.3	33.3	33.3	33.3	33.3	33.3	33.3	33.3
75°	28.4	28.4	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8
77.5°	18.9	18.9	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.3
80°	14.3	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5
82.5°	9.5	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8
85°	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	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: P859530

CATALOG NUMBER: LX4C70D010 EX4C709050 4LBSWNH

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	3677.3	3677.3	3677.3	3677.3	3677.3	3677.3	3677.3	3677.3
2.5°	3767.4	3762.6	3753.1	3767.4	3729.5	3715.2	3710.4	3753.1
5°	3819.5	3810.0	3810.0	3824.3	3781.6	3772.1	3762.6	3810.0
7.5°	3866.8	3857.4	3857.4	3871.7	3833.8	3824.3	3814.8	3862.2
10°	3895.2	3895.2	3895.2	3904.7	3871.7	3862.2	3857.4	3904.7
12.5°	3909.6	3909.6	3904.7	3923.7	3881.1	3881.1	3871.7	3919.0
15°	3890.6	3890.6	3890.6	3904.7	3866.8	3857.4	3857.4	3895.2
17.5°	3843.2	3843.2	3838.4	3852.7	3810.0	3810.0	3805.3	3847.9
20°	3772.1	3772.1	3762.6	3781.6	3739.0	3724.7	3719.9	3762.6
22.5°	3658.4	3653.6	3648.9	3658.4	3620.5	3611.0	3606.2	3644.1
25°	3511.5	3506.8	3497.3	3506.8	3464.1	3449.8	3449.8	3478.2
27.5°	3303.0	3303.0	3288.7	3303.0	3255.5	3250.8	3246.0	3279.3
30°	3047.1	3028.1	3018.6	3037.6	2990.2	2990.2	2980.7	3013.8
32.5°	2729.6	2710.6	2705.8	2715.3	2672.7	2658.4	2677.4	2696.3
35°	2364.8	2369.4	2350.4	2350.4	2312.6	2317.2	2322.0	2350.4
37.5°	2014.0	2004.6	1999.7	2004.6	1976.1	1966.7	1957.2	1985.6
40°	1687.1	1663.3	1658.7	1658.7	1634.9	1630.2	1634.9	1649.2
42.5°	1378.9	1374.3	1355.3	1364.8	1341.0	1350.5	1345.8	1345.8
45°	1113.6	1118.3	1099.3	1113.6	1094.7	1080.4	1080.4	1089.9
47.5°	881.4	881.4	876.6	876.6	862.5	867.1	857.7	872.0
50°	682.3	682.3	672.8	677.7	668.2	668.2	663.4	668.2
52.5°	521.2	516.6	516.6	511.8	502.3	507.1	511.8	502.3
55°	379.1	383.8	374.3	379.1	369.7	374.3	369.7	374.3
57.5°	260.6	265.5	256.0	265.5	256.0	260.6	256.0	256.0
60°	180.0	180.0	175.4	180.0	175.4	175.4	170.5	180.0
62.5°	123.2	123.2	123.2	123.2	123.2	118.5	123.2	123.2
65°	90.1	85.3	85.3	85.3	85.3	85.3	85.3	85.3
67.5°	61.7	61.7	61.7	61.7	61.7	61.7	61.7	61.7
70°	42.7	42.7	42.7	42.7	42.7	42.7	42.7	42.7
72.5°	33.3	33.3	33.3	33.3	33.3	33.3	33.3	33.3
75°	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8
77.5°	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.3
80°	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5
82.5°	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8
85°	4.8	4.8	4.8	0.0	4.8	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)