

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: P859509

Luminaire Tested: **LX4C70D010 EX4C709040 4LBSWNH**

Issue Date: 2/18/2022



Test Information

Test Method: LM-79-08
Report Number: P859509
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 EX4C709040 4LBSWNH
Description: 4 INCH 7000 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 4000K, 90CRI LEDS
AND 4LCSW TRIM WITH H FINISH
Light Source: -
Ballast/Driver: -

Summary

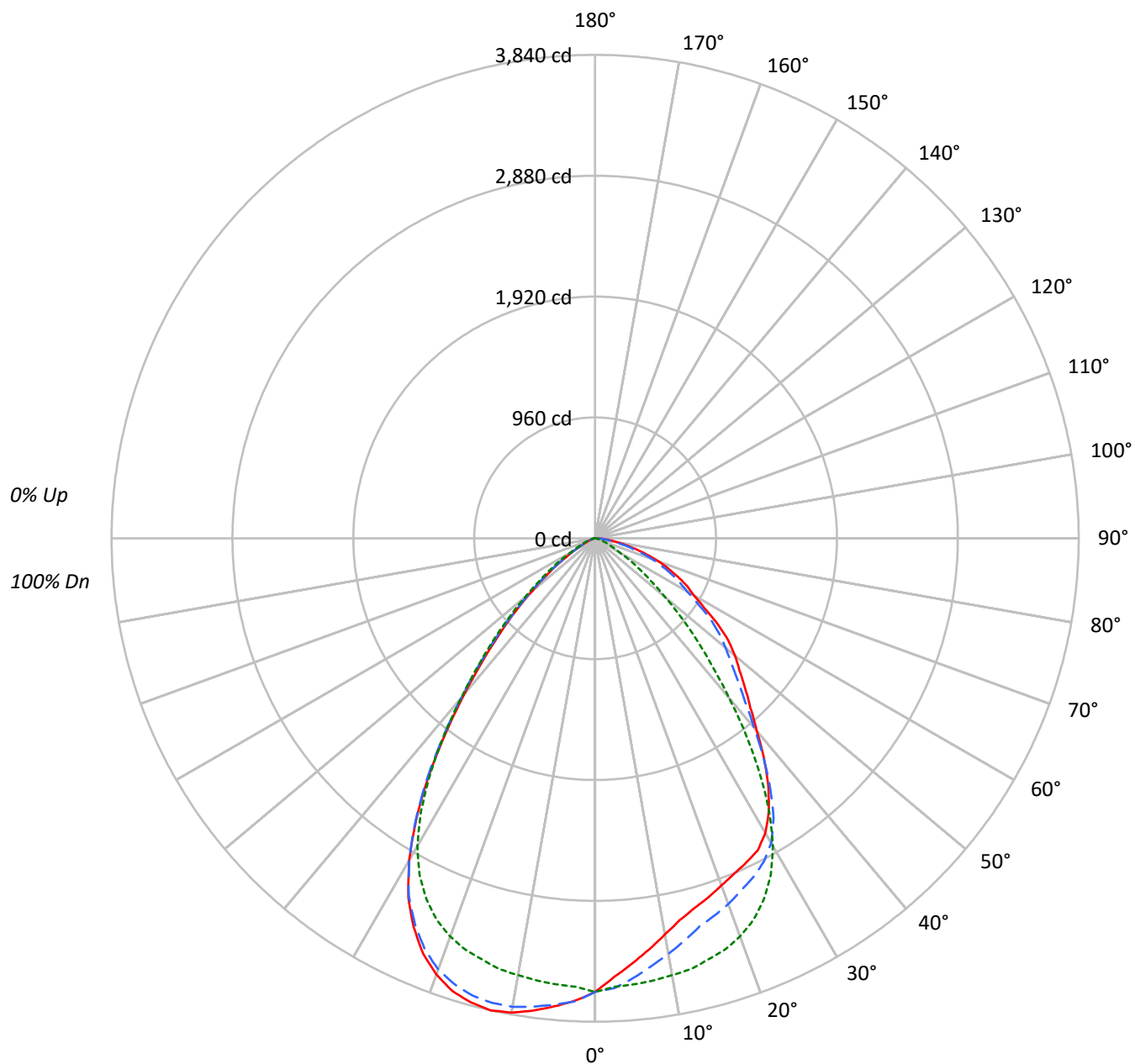
Lumens per Lamp: N/A
Luminaire Lumens: 6316.0 lumens
Efficiency: N/A
Efficacy: 81.0 lumens/watt
Spacing Criteria (0/90/45): 1.17 / 1.17 / 1.15
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 78
Input Voltage (V):
Input Current (Ain): 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
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10
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°	442666	442666	442666
5°	418002	438634	460376
10°	398522	439639	477288
15°	386815	440564	485436
20°	383650	440116	481992
25°	385190	429258	461981
30°	383360	400482	418910
35°	359328	341931	345396
40°	320186	265114	259148
45°	292841	197648	185538
50°	276884	138452	125130
55°	254606	93493	78564
60°	222439	54744	43343
65°	210580	35087	24273
70°	191813	25036	15050
75°	158729	17610	11060
80°	124800	9905	6580
85°	111357	6625	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	340.4	5.4
10°-20°	976.7	15.5
20°-30°	1447.8	22.9
30°-40°	1449.8	23.0
40°-50°	1013.2	16.0
50°-60°	602.9	9.5
60°-70°	314.7	5.0
70°-80°	139.9	2.2
80°-90°	30.5	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°	2764.9	43.8
0°-40°	4214.7	66.7
0°-60°	5830.9	92.3
0°-90°	6316.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6316.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	3603	3603	3603	3603	3603	
5°	3390	3506	3557	3719	3733	318
15°	3041	3195	3464	3761	3817	861
25°	2842	2972	3167	3385	3408	1309
35°	2396	2424	2280	2322	2303	1485
45°	1686	1602	1138	1100	1068	1309
55°	1189	1114	436	381	367	1055
65°	724	664	121	88	84	717
75°	334	292	37	23	23	361
85°	79	60	5	5	0	88
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°	3603.2	3603.2	3603.2	3603.2	3603.2	3603.2	3603.2	3603.2	3603.2	3603.2	3603.2
2.5°	3487.1	3528.9	3487.1	3501.1	3556.8	3505.6	3533.5	3533.5	3519.6	3552.0	3575.3
5°	3389.5	3431.4	3389.5	3408.1	3468.5	3417.3	3449.9	3440.6	3445.4	3473.2	3505.6
7.5°	3292.1	3324.5	3287.4	3310.7	3366.4	3324.5	3352.4	3352.4	3357.1	3398.8	3426.8
10°	3194.6	3222.4	3194.6	3213.1	3273.6	3236.4	3255.0	3259.5	3273.6	3310.7	3352.4
12.5°	3106.3	3129.6	3101.7	3129.6	3180.5	3143.4	3166.7	3171.3	3185.3	3227.1	3273.6
15°	3041.3	3064.6	3036.8	3059.9	3106.3	3078.4	3097.0	3106.3	3115.6	3152.7	3194.6
17.5°	2990.3	3008.9	2985.6	3013.5	3050.6	3018.2	3046.0	3046.0	3059.9	3097.0	3143.4
20°	2934.5	2953.0	2934.5	2957.8	2999.6	2971.8	2994.9	2994.9	3008.9	3050.6	3092.4
22.5°	2883.5	2892.8	2883.5	2902.1	2943.7	2920.6	2934.5	2939.2	2953.0	2990.3	3027.5
25°	2841.6	2860.2	2850.9	2869.5	2897.3	2874.2	2888.0	2892.8	2906.6	2939.2	2971.8
27.5°	2795.2	2804.5	2795.2	2818.5	2841.6	2823.1	2837.1	2832.3	2841.6	2869.5	2897.3
30°	2702.4	2711.7	2711.7	2725.5	2744.3	2735.0	2748.8	2735.0	2744.3	2767.4	2795.2
32.5°	2567.7	2572.4	2577.0	2591.0	2604.8	2591.0	2600.3	2600.3	2600.3	2618.8	2637.4
35°	2395.9	2405.2	2400.6	2409.9	2423.7	2419.2	2419.2	2414.4	2405.2	2414.4	2423.7
37.5°	2200.9	2186.9	2186.9	2200.9	2210.2	2191.7	2200.9	2191.7	2191.7	2196.2	2196.2
40°	1996.5	1982.7	1996.5	2001.3	2005.8	1996.5	1992.0	1982.7	1968.7	1973.4	1964.1
42.5°	1824.9	1815.4	1820.2	1820.2	1824.9	1815.4	1820.2	1801.6	1787.6	1778.3	1764.5
45°	1685.5	1671.6	1685.5	1676.2	1676.2	1671.6	1666.9	1657.6	1639.1	1625.2	1601.9
47.5°	1555.5	1555.5	1560.1	1560.1	1560.1	1550.8	1550.8	1532.2	1513.6	1495.1	1462.7
50°	1448.7	1439.4	1457.9	1457.9	1444.1	1439.4	1444.1	1420.8	1407.0	1383.7	1351.1
52.5°	1332.5	1332.5	1337.3	1337.3	1332.5	1323.3	1328.0	1309.4	1295.4	1272.3	1239.7
55°	1188.7	1179.5	1193.3	1193.3	1188.7	1184.0	1188.7	1174.7	1160.9	1142.3	1114.3
57.5°	1026.2	1021.5	1030.8	1035.5	1026.2	1026.2	1030.8	1016.9	1012.2	993.6	965.8
60°	905.3	900.8	910.1	914.8	905.3	905.3	905.3	886.8	877.5	858.9	840.4
62.5°	821.8	817.3	826.5	821.8	817.3	812.5	817.3	798.7	789.4	770.8	752.3
65°	724.4	729.0	733.7	733.7	729.0	724.4	724.4	715.1	705.9	687.3	664.0
67.5°	631.4	631.4	636.1	640.7	636.1	636.1	636.1	622.1	612.8	599.0	571.2
70°	534.0	529.3	543.3	543.3	534.0	538.6	534.0	529.3	520.0	501.5	478.3
72.5°	431.7	431.7	436.5	436.5	431.7	431.7	431.7	427.2	413.2	403.9	380.8
75°	334.4	334.4	338.9	343.6	334.4	334.4	338.9	329.6	320.3	306.5	292.5
77.5°	250.8	246.1	250.8	250.8	246.1	246.1	246.1	241.5	236.8	222.8	209.0
80°	176.4	171.8	176.4	176.4	176.4	171.8	171.8	167.1	167.1	157.8	144.0
82.5°	120.7	116.1	120.7	120.7	120.7	116.1	116.1	116.1	111.4	106.8	97.6
85°	79.0	74.3	74.3	79.0	74.3	74.3	74.3	74.3	69.7	65.0	60.4
87.5°	37.1	37.1	37.1	37.1	37.1	37.1	37.1	32.6	32.6	32.6	27.8
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°	3603.2	3603.2	3603.2	3603.2	3603.2	3603.2	3603.2	3603.2	3603.2	3603.2	3603.2
2.5°	3556.8	3547.5	3575.3	3566.1	3570.6	3547.5	3584.6	3566.1	3589.2	3566.1	3612.5
5°	3496.3	3487.1	3528.9	3524.2	3528.9	3510.4	3552.0	3547.5	3575.3	3556.8	3607.7
7.5°	3431.4	3422.1	3468.5	3473.2	3482.5	3463.9	3519.6	3519.6	3547.5	3542.8	3598.5
10°	3357.1	3361.6	3408.1	3417.3	3436.1	3426.8	3477.8	3491.8	3528.9	3524.2	3593.9
12.5°	3287.4	3287.4	3347.8	3366.4	3380.2	3375.7	3436.1	3454.7	3496.3	3505.6	3570.6
15°	3217.9	3222.4	3278.1	3306.0	3324.5	3320.0	3384.9	3408.1	3459.2	3463.9	3542.8
17.5°	3162.0	3157.4	3217.9	3241.0	3268.8	3264.3	3333.8	3361.6	3412.8	3426.8	3501.1
20°	3115.6	3111.0	3166.7	3194.6	3213.1	3208.6	3278.1	3310.7	3357.1	3366.4	3440.6
22.5°	3059.9	3050.6	3106.3	3129.6	3148.1	3143.4	3203.8	3227.1	3273.6	3282.8	3352.4
25°	2994.9	2985.6	3036.8	3050.6	3064.6	3055.3	3106.3	3120.3	3157.4	3166.7	3236.4
27.5°	2920.6	2897.3	2939.2	2939.2	2948.5	2934.5	2971.8	2985.6	3018.2	3018.2	3083.2
30°	2804.5	2772.1	2795.2	2790.7	2795.2	2776.7	2799.9	2804.5	2827.8	2823.1	2869.5
32.5°	2642.0	2595.5	2609.6	2595.5	2581.7	2553.9	2581.7	2572.4	2591.0	2572.4	2614.1
35°	2419.2	2372.8	2368.0	2349.5	2335.6	2312.3	2312.3	2289.2	2293.8	2279.9	2307.8
37.5°	2177.6	2117.4	2108.1	2071.0	2047.7	2019.8	2019.8	2001.3	1978.0	1968.7	1992.0
40°	1940.8	1875.9	1852.7	1792.3	1769.0	1741.2	1722.6	1699.5	1690.2	1653.1	1671.6
42.5°	1736.6	1666.9	1615.9	1550.8	1527.7	1485.8	1457.9	1430.1	1416.3	1374.4	1393.0
45°	1564.8	1481.2	1425.5	1341.8	1309.4	1263.0	1221.1	1188.7	1156.2	1137.6	1128.3
47.5°	1420.8	1332.5	1258.3	1165.4	1114.3	1072.6	1016.9	984.3	942.7	919.4	905.3
50°	1300.1	1202.6	1119.0	1012.2	961.2	914.8	849.6	798.7	761.6	724.4	715.1
52.5°	1193.3	1091.2	998.4	877.5	817.3	761.6	691.8	636.1	603.6	561.9	557.2
55°	1067.9	979.8	877.5	752.3	691.8	636.1	561.9	506.2	464.3	436.5	427.2
57.5°	933.4	849.6	752.3	626.9	566.4	506.2	436.5	385.3	348.2	325.1	320.3
60°	808.0	729.0	636.1	510.7	450.3	399.3	325.1	273.9	241.5	222.8	213.5
62.5°	715.1	640.7	552.6	436.5	380.8	329.6	260.1	213.5	185.7	167.1	157.8
65°	626.9	552.6	473.6	366.8	320.3	273.9	209.0	167.1	139.2	120.7	111.4
67.5°	534.0	469.1	394.6	306.5	260.1	222.8	167.1	130.0	106.8	92.8	83.5
70°	441.0	380.8	320.3	246.1	213.5	176.4	130.0	102.1	79.0	69.7	60.4
72.5°	348.2	301.8	250.8	190.4	162.5	139.2	102.1	74.3	60.4	51.1	41.9
75°	260.1	227.5	185.7	144.0	120.7	102.1	74.3	55.7	46.4	37.1	32.6
77.5°	185.7	157.8	130.0	97.6	88.3	74.3	51.1	41.9	32.6	23.3	18.6
80°	125.4	111.4	88.3	69.7	55.7	51.1	37.1	27.8	18.6	14.0	14.0
82.5°	83.5	69.7	55.7	41.9	37.1	32.6	23.3	18.6	14.0	9.3	9.3
85°	51.1	41.9	32.6	23.3	23.3	18.6	14.0	9.3	4.7	4.7	4.7
87.5°	23.3	18.6	14.0	9.3	9.3	4.7	4.7	4.7	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°	3603.2	3603.2	3603.2	3603.2	3603.2	3603.2	3603.2	3603.2	3603.2	3603.2	3603.2
2.5°	3649.6	3621.8	3603.2	3626.3	3635.6	3621.8	3635.6	3658.9	3682.2	3686.7	3621.8
5°	3654.3	3626.3	3617.0	3644.9	3649.6	3644.9	3658.9	3691.5	3719.3	3728.6	3663.6
7.5°	3654.3	3635.6	3631.0	3663.6	3668.2	3663.6	3686.7	3723.9	3751.7	3770.3	3705.3
10°	3644.9	3635.6	3640.3	3668.2	3677.4	3677.4	3710.0	3751.7	3779.6	3798.1	3733.1
12.5°	3631.0	3631.0	3631.0	3663.6	3672.9	3677.4	3705.3	3761.0	3779.6	3807.4	3742.4
15°	3607.7	3607.7	3607.7	3640.3	3654.3	3654.3	3686.7	3737.9	3761.0	3788.8	3723.9
17.5°	3566.1	3566.1	3570.6	3598.5	3612.5	3612.5	3644.9	3700.7	3714.6	3747.2	3682.2
20°	3505.6	3505.6	3510.4	3538.2	3552.0	3542.8	3584.6	3631.0	3644.9	3672.9	3607.7
22.5°	3417.3	3417.3	3417.3	3445.4	3454.7	3449.9	3491.8	3533.5	3533.5	3570.6	3501.1
25°	3287.4	3296.7	3287.4	3315.2	3324.5	3320.0	3357.1	3394.2	3384.9	3426.8	3357.1
27.5°	3129.6	3124.8	3124.8	3148.1	3148.1	3143.4	3171.3	3213.1	3203.8	3231.7	3166.7
30°	2911.3	2925.2	2902.1	2934.5	2920.6	2911.3	2929.9	2967.0	2953.0	2976.3	2925.2
32.5°	2660.5	2642.0	2642.0	2642.0	2651.2	2628.1	2646.7	2665.3	2651.2	2674.5	2618.8
35°	2330.9	2335.6	2321.6	2326.3	2330.9	2303.0	2321.6	2340.2	2321.6	2335.6	2284.5
37.5°	2001.3	2005.8	1973.4	1992.0	1973.4	1964.1	1982.7	1992.0	1973.4	1987.2	1931.6
40°	1671.6	1662.4	1657.6	1657.6	1662.4	1639.1	1653.1	1666.9	1653.1	1662.4	1611.2
42.5°	1383.7	1379.1	1369.9	1374.4	1360.4	1355.8	1360.4	1374.4	1360.4	1369.9	1332.5
45°	1132.9	1123.6	1109.8	1114.3	1114.3	1091.2	1105.0	1114.3	1100.5	1105.0	1072.6
47.5°	900.8	886.8	886.8	882.2	882.2	872.9	886.8	882.2	868.2	877.5	845.1
50°	701.1	691.8	691.8	691.8	691.8	677.8	682.6	691.8	677.8	677.8	659.3
52.5°	547.9	534.0	524.8	524.8	524.8	520.0	520.0	524.8	510.7	510.7	506.2
55°	413.2	408.6	394.6	394.6	394.6	380.8	385.3	385.3	380.8	380.8	366.8
57.5°	306.5	292.5	283.2	283.2	273.9	273.9	269.4	273.9	264.7	264.7	255.4
60°	204.2	194.9	190.4	185.7	185.7	181.1	185.7	181.1	181.1	176.4	171.8
62.5°	148.5	139.2	130.0	130.0	130.0	125.4	125.4	125.4	125.4	125.4	120.7
65°	106.8	97.6	97.6	92.8	92.8	88.3	88.3	88.3	88.3	88.3	83.5
67.5°	74.3	69.7	65.0	65.0	65.0	65.0	65.0	65.0	60.4	60.4	60.4
70°	55.7	51.1	46.4	46.4	46.4	46.4	46.4	41.9	46.4	46.4	41.9
72.5°	37.1	37.1	32.6	32.6	32.6	32.6	32.6	32.6	32.6	32.6	32.6
75°	27.8	27.8	23.3	23.3	23.3	23.3	23.3	23.3	23.3	23.3	23.3
77.5°	18.6	18.6	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0
80°	14.0	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3
82.5°	9.3	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7
85°	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	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: P859509

CATALOG NUMBER: LX4C70D010 EX4C709040 4LBSWNH

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	3603.2	3603.2	3603.2	3603.2	3603.2	3603.2	3603.2	3603.2
2.5°	3691.5	3686.7	3677.4	3691.5	3654.3	3640.3	3635.6	3677.4
5°	3742.4	3733.1	3733.1	3747.2	3705.3	3696.0	3686.7	3733.1
7.5°	3788.8	3779.6	3779.6	3793.6	3756.4	3747.2	3737.9	3784.3
10°	3816.7	3816.7	3816.7	3826.0	3793.6	3784.3	3779.6	3826.0
12.5°	3830.7	3830.7	3826.0	3844.5	3802.9	3802.9	3793.6	3840.0
15°	3812.1	3812.1	3812.1	3826.0	3788.8	3779.6	3779.6	3816.7
17.5°	3765.7	3765.7	3761.0	3775.0	3733.1	3733.1	3728.6	3770.3
20°	3696.0	3696.0	3686.7	3705.3	3663.6	3649.6	3644.9	3686.7
22.5°	3584.6	3579.9	3575.3	3584.6	3547.5	3538.2	3533.5	3570.6
25°	3440.6	3436.1	3426.8	3436.1	3394.2	3380.2	3380.2	3408.1
27.5°	3236.4	3236.4	3222.4	3236.4	3189.8	3185.3	3180.5	3213.1
30°	2985.6	2967.0	2957.8	2976.3	2929.9	2929.9	2920.6	2953.0
32.5°	2674.5	2656.0	2651.2	2660.5	2618.8	2604.8	2623.4	2642.0
35°	2317.1	2321.6	2303.0	2303.0	2265.9	2270.5	2275.2	2303.0
37.5°	1973.4	1964.1	1959.4	1964.1	1936.3	1927.0	1917.7	1945.6
40°	1653.1	1629.8	1625.2	1625.2	1601.9	1597.4	1601.9	1615.9
42.5°	1351.1	1346.6	1328.0	1337.3	1314.0	1323.3	1318.7	1318.7
45°	1091.2	1095.7	1077.2	1091.2	1072.6	1058.6	1058.6	1067.9
47.5°	863.7	863.7	858.9	858.9	845.1	849.6	840.4	854.4
50°	668.5	668.5	659.3	664.0	654.7	654.7	650.0	654.7
52.5°	510.7	506.2	506.2	501.5	492.2	496.9	501.5	492.2
55°	371.5	376.0	366.8	371.5	362.2	366.8	362.2	366.8
57.5°	255.4	260.1	250.8	260.1	250.8	255.4	250.8	250.8
60°	176.4	176.4	171.8	176.4	171.8	171.8	167.1	176.4
62.5°	120.7	120.7	120.7	120.7	120.7	116.1	120.7	120.7
65°	88.3	83.5	83.5	83.5	83.5	83.5	83.5	83.5
67.5°	60.4	60.4	60.4	60.4	60.4	60.4	60.4	60.4
70°	41.9	41.9	41.9	41.9	41.9	41.9	41.9	41.9
72.5°	32.6	32.6	32.6	32.6	32.6	32.6	32.6	32.6
75°	23.3	23.3	23.3	23.3	23.3	23.3	23.3	23.3
77.5°	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0
80°	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3
82.5°	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7
85°	4.7	4.7	4.7	0.0	4.7	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)