

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: P859467

Luminaire Tested: **LX4C70D010 EX4C709030 4LBSWNH**

Issue Date: 2/18/2022



Test Information

Test Method: LM-79-08
Report Number: P859467
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 EX4C709030 4LBSWNH
Description: 4 INCH 7000 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 3000K, 90CRI LEDS
AND 4LCSW TRIM WITH H FINISH
Light Source: -
Ballast/Driver: -

Summary

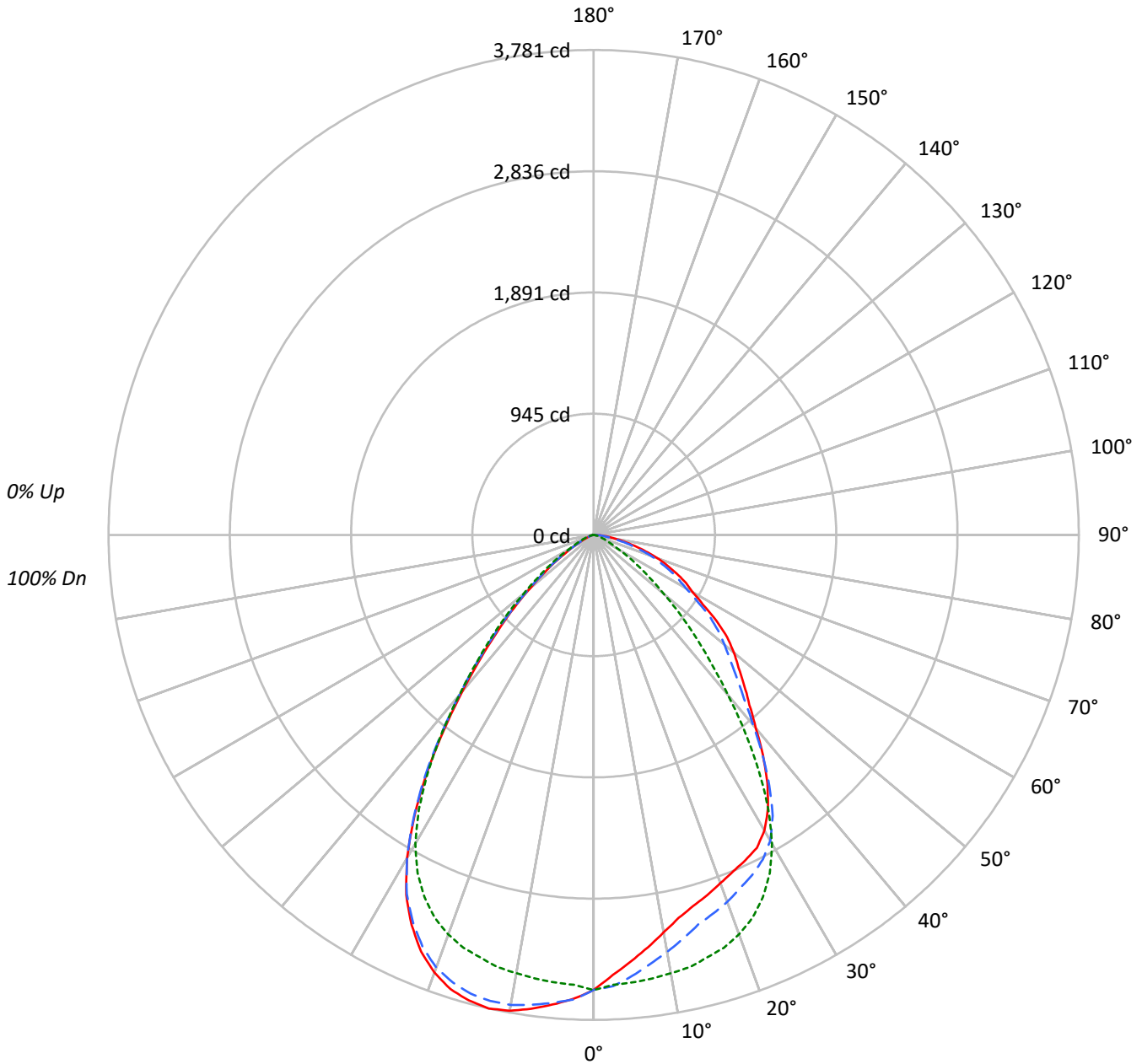
Lumens per Lamp: N/A
Luminaire Lumens: 6219.0 lumens
Efficiency: N/A
Efficacy: 79.7 lumens/watt
Spacing Criteria (0/90/45): 1.17 / 1.17 / 1.15
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 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°	435860	435860	435860
5°	411577	431889	453310
10°	392397	432890	469953
15°	380875	433798	477983
20°	377754	433357	474592
25°	379280	422670	454878
30°	377473	394325	412483
35°	353809	336682	340101
40°	315279	261040	255171
45°	288341	194607	182689
50°	272622	136330	123219
55°	250708	92058	77343
60°	219023	53908	42679
65°	207354	34535	23924
70°	188867	24641	14799
75°	156261	17373	10870
80°	122890	9763	6438
85°	109666	6625	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	335.2	5.4
10°-20°	961.7	15.5
20°-30°	1425.6	22.9
30°-40°	1427.5	23.0
40°-50°	997.7	16.0
50°-60°	593.7	9.5
60°-70°	309.8	5.0
70°-80°	137.8	2.2
80°-90°	30.1	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°	2722.5	43.8
0°-40°	4150.0	66.7
0°-60°	5741.3	92.3
0°-90°	6219.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6219.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	3548	3548	3548	3548	3548	
5°	3337	3452	3502	3662	3676	313
15°	2995	3146	3411	3703	3758	848
25°	2798	2926	3118	3333	3356	1289
35°	2359	2386	2245	2286	2268	1463
45°	1660	1577	1120	1084	1052	1288
55°	1170	1097	430	375	361	1039
65°	713	654	119	87	82	706
75°	329	288	37	23	23	356
85°	78	60	5	5	0	87
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°	3547.8	3547.8	3547.8	3547.8	3547.8	3547.8	3547.8	3547.8	3547.8	3547.8	3547.8
2.5°	3433.5	3474.7	3433.5	3447.3	3502.1	3451.8	3479.2	3479.2	3465.6	3497.5	3520.4
5°	3337.4	3378.7	3337.4	3355.7	3415.2	3364.9	3396.9	3387.8	3392.5	3419.9	3451.8
7.5°	3241.6	3273.5	3236.9	3259.8	3314.7	3273.5	3300.9	3300.9	3305.5	3346.6	3374.2
10°	3145.5	3172.9	3145.5	3163.8	3223.3	3186.7	3205.0	3209.5	3223.3	3259.8	3300.9
12.5°	3058.6	3081.5	3054.1	3081.5	3131.7	3095.1	3118.1	3122.6	3136.4	3177.6	3223.3
15°	2994.6	3017.5	2990.1	3012.9	3058.6	3031.2	3049.4	3058.6	3067.7	3104.3	3145.5
17.5°	2944.4	2962.7	2939.8	2967.2	3003.7	2971.8	2999.3	2999.3	3012.9	3049.4	3095.1
20°	2889.4	2907.7	2889.4	2912.3	2953.6	2926.1	2948.9	2948.9	2962.7	3003.7	3045.0
22.5°	2839.2	2848.4	2839.2	2857.5	2898.5	2875.8	2889.4	2894.1	2907.7	2944.4	2981.0
25°	2798.0	2816.3	2807.1	2825.4	2852.8	2830.1	2843.7	2848.4	2862.0	2894.1	2926.1
27.5°	2752.3	2761.4	2752.3	2775.2	2798.0	2779.7	2793.5	2788.8	2798.0	2825.4	2852.8
30°	2660.9	2670.0	2670.0	2683.6	2702.1	2693.0	2706.6	2693.0	2702.1	2724.9	2752.3
32.5°	2528.3	2532.9	2537.4	2551.2	2564.8	2551.2	2560.3	2560.3	2560.3	2578.6	2596.9
35°	2359.1	2368.2	2363.7	2372.9	2386.5	2382.0	2382.0	2377.4	2368.2	2377.4	2386.5
37.5°	2167.1	2153.3	2153.3	2167.1	2176.3	2158.0	2167.1	2158.0	2158.0	2162.5	2162.5
40°	1965.9	1952.2	1965.9	1970.5	1975.0	1965.9	1961.4	1952.2	1938.4	1943.1	1934.0
42.5°	1796.9	1787.5	1792.2	1792.2	1796.9	1787.5	1792.2	1773.9	1760.1	1751.0	1737.4
45°	1659.6	1646.0	1659.6	1650.4	1650.4	1646.0	1641.3	1632.2	1613.9	1600.3	1577.3
47.5°	1531.6	1531.6	1536.1	1536.1	1536.1	1527.0	1527.0	1508.7	1490.4	1472.1	1440.2
50°	1426.4	1417.3	1435.6	1435.6	1421.9	1417.3	1421.9	1399.0	1385.4	1362.4	1330.4
52.5°	1312.1	1312.1	1316.7	1316.7	1312.1	1302.9	1307.6	1289.3	1275.5	1252.8	1220.7
55°	1170.5	1161.3	1175.0	1175.0	1170.5	1165.8	1170.5	1156.7	1143.1	1124.8	1097.2
57.5°	1010.4	1005.8	1014.9	1019.6	1010.4	1010.4	1014.9	1001.3	996.6	978.4	950.9
60°	891.4	887.0	896.1	900.8	891.4	891.4	891.4	873.2	864.0	845.7	827.5
62.5°	809.2	804.7	813.8	809.2	804.7	800.0	804.7	786.4	777.3	759.0	740.7
65°	713.3	717.8	722.4	722.4	717.8	713.3	713.3	704.2	695.0	676.7	653.8
67.5°	621.7	621.7	626.4	630.9	626.4	626.4	626.4	612.6	603.4	589.8	562.4
70°	525.8	521.2	535.0	535.0	525.8	530.3	525.8	521.2	512.0	493.8	471.0
72.5°	425.1	425.1	429.8	429.8	425.1	425.1	425.1	420.6	406.8	397.7	374.9
75°	329.2	329.2	333.7	338.4	329.2	329.2	333.7	324.6	315.4	301.8	288.0
77.5°	247.0	242.3	247.0	247.0	242.3	242.3	242.3	237.8	233.2	219.4	205.7
80°	173.7	169.2	173.7	173.7	173.7	169.2	169.2	164.5	164.5	155.4	141.8
82.5°	118.8	114.3	118.8	118.8	118.8	114.3	114.3	114.3	109.7	105.2	96.1
85°	77.8	73.1	73.1	77.8	73.1	73.1	73.1	73.1	68.6	64.0	59.5
87.5°	36.6	36.6	36.6	36.6	36.6	36.6	36.6	32.1	32.1	32.1	27.4
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°	3547.8	3547.8	3547.8	3547.8	3547.8	3547.8	3547.8	3547.8	3547.8	3547.8	3547.8
2.5°	3502.1	3493.0	3520.4	3511.3	3515.8	3493.0	3529.6	3511.3	3534.0	3511.3	3557.0
5°	3442.6	3433.5	3474.7	3470.1	3474.7	3456.4	3497.5	3493.0	3520.4	3502.1	3552.3
7.5°	3378.7	3369.5	3415.2	3419.9	3429.0	3410.7	3465.6	3465.6	3493.0	3488.3	3543.2
10°	3305.5	3310.0	3355.7	3364.9	3383.3	3374.2	3424.4	3438.2	3474.7	3470.1	3538.7
12.5°	3236.9	3236.9	3296.4	3314.7	3328.3	3323.8	3383.3	3401.6	3442.6	3451.8	3515.8
15°	3168.4	3172.9	3227.8	3255.2	3273.5	3269.0	3333.0	3355.7	3406.1	3410.7	3488.3
17.5°	3113.4	3108.9	3168.4	3191.2	3218.6	3214.1	3282.6	3310.0	3360.4	3374.2	3447.3
20°	3067.7	3063.2	3118.1	3145.5	3163.8	3159.3	3227.8	3259.8	3305.5	3314.7	3387.8
22.5°	3012.9	3003.7	3058.6	3081.5	3099.8	3095.1	3154.6	3177.6	3223.3	3232.4	3300.9
25°	2948.9	2939.8	2990.1	3003.7	3017.5	3008.4	3058.6	3072.4	3108.9	3118.1	3186.7
27.5°	2875.8	2852.8	2894.1	2894.1	2903.2	2889.4	2926.1	2939.8	2971.8	2971.8	3035.8
30°	2761.4	2729.5	2752.3	2747.8	2752.3	2734.0	2756.9	2761.4	2784.4	2779.7	2825.4
32.5°	2601.4	2555.7	2569.5	2555.7	2542.1	2514.6	2542.1	2532.9	2551.2	2532.9	2574.0
35°	2382.0	2336.3	2331.7	2313.4	2299.8	2276.8	2276.8	2254.1	2258.5	2244.9	2272.3
37.5°	2144.2	2084.9	2075.7	2039.2	2016.2	1988.8	1988.8	1970.5	1947.6	1938.4	1961.4
40°	1911.0	1847.0	1824.3	1764.8	1741.8	1714.4	1696.1	1673.4	1664.2	1627.7	1646.0
42.5°	1709.9	1641.3	1591.1	1527.0	1504.2	1463.0	1435.6	1408.1	1394.5	1353.3	1371.6
45°	1540.8	1458.5	1403.7	1321.2	1289.3	1243.6	1202.4	1170.5	1138.4	1120.1	1111.0
47.5°	1399.0	1312.1	1239.0	1147.5	1097.2	1056.1	1001.3	969.2	928.2	905.2	891.4
50°	1280.2	1184.1	1101.8	996.6	946.5	900.8	836.6	786.4	749.9	713.3	704.2
52.5°	1175.0	1074.4	983.0	864.0	804.7	749.9	681.2	626.4	594.3	553.3	548.6
55°	1051.5	964.7	864.0	740.7	681.2	626.4	553.3	498.4	457.2	429.8	420.6
57.5°	919.0	836.6	740.7	617.2	557.7	498.4	429.8	379.4	342.8	320.1	315.4
60°	795.6	717.8	626.4	502.9	443.4	393.2	320.1	269.7	237.8	219.4	210.2
62.5°	704.2	630.9	544.1	429.8	374.9	324.6	256.1	210.2	182.8	164.5	155.4
65°	617.2	544.1	466.3	361.1	315.4	269.7	205.7	164.5	137.1	118.8	109.7
67.5°	525.8	461.9	388.5	301.8	256.1	219.4	164.5	128.0	105.2	91.4	82.3
70°	434.3	374.9	315.4	242.3	210.2	173.7	128.0	100.5	77.8	68.6	59.5
72.5°	342.8	297.1	247.0	187.5	160.0	137.1	100.5	73.1	59.5	50.4	41.2
75°	256.1	224.0	182.8	141.8	118.8	100.5	73.1	54.8	45.7	36.6	32.1
77.5°	182.8	155.4	128.0	96.1	86.9	73.1	50.4	41.2	32.1	22.9	18.3
80°	123.5	109.7	86.9	68.6	54.8	50.4	36.6	27.4	18.3	13.8	13.8
82.5°	82.3	68.6	54.8	41.2	36.6	32.1	22.9	18.3	13.8	9.1	9.1
85°	50.4	41.2	32.1	22.9	22.9	18.3	13.8	9.1	4.7	4.7	4.7
87.5°	22.9	18.3	13.8	9.1	9.1	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°	3547.8	3547.8	3547.8	3547.8	3547.8	3547.8	3547.8	3547.8	3547.8	3547.8	3547.8
2.5°	3593.5	3566.1	3547.8	3570.6	3579.7	3566.1	3579.7	3602.7	3625.6	3630.1	3566.1
5°	3598.2	3570.6	3561.5	3588.9	3593.5	3588.9	3602.7	3634.8	3662.2	3671.3	3607.3
7.5°	3598.2	3579.7	3575.3	3607.3	3611.8	3607.3	3630.1	3666.7	3694.1	3712.4	3648.4
10°	3588.9	3579.7	3584.4	3611.8	3621.0	3621.0	3653.1	3694.1	3721.5	3739.8	3675.8
12.5°	3575.3	3575.3	3575.3	3607.3	3616.5	3621.0	3648.4	3703.2	3721.5	3748.9	3685.0
15°	3552.3	3552.3	3552.3	3584.4	3598.2	3598.2	3630.1	3680.5	3703.2	3730.7	3666.7
17.5°	3511.3	3511.3	3515.8	3543.2	3557.0	3557.0	3588.9	3643.9	3657.5	3689.6	3625.6
20°	3451.8	3451.8	3456.4	3483.9	3497.5	3488.3	3529.6	3575.3	3588.9	3616.5	3552.3
22.5°	3364.9	3364.9	3364.9	3392.5	3401.6	3396.9	3438.2	3479.2	3479.2	3515.8	3447.3
25°	3236.9	3246.0	3236.9	3264.3	3273.5	3269.0	3305.5	3342.1	3333.0	3374.2	3305.5
27.5°	3081.5	3076.9	3076.9	3099.8	3099.8	3095.1	3122.6	3163.8	3154.6	3182.1	3118.1
30°	2866.6	2880.3	2857.5	2889.4	2875.8	2866.6	2884.9	2921.5	2907.7	2930.6	2880.3
32.5°	2619.7	2601.4	2601.4	2601.4	2610.5	2587.8	2606.0	2624.3	2610.5	2633.5	2578.6
35°	2295.1	2299.8	2286.0	2290.6	2295.1	2267.7	2286.0	2304.2	2286.0	2299.8	2249.4
37.5°	1970.5	1975.0	1943.1	1961.4	1943.1	1934.0	1952.2	1961.4	1943.1	1956.7	1901.9
40°	1646.0	1636.8	1632.2	1632.2	1636.8	1613.9	1627.7	1641.3	1627.7	1636.8	1586.5
42.5°	1362.4	1358.0	1348.8	1353.3	1339.5	1335.0	1339.5	1353.3	1339.5	1348.8	1312.1
45°	1115.5	1106.3	1092.7	1097.2	1097.2	1074.4	1088.0	1097.2	1083.6	1088.0	1056.1
47.5°	887.0	873.2	873.2	868.7	868.7	859.5	873.2	868.7	854.9	864.0	832.1
50°	690.4	681.2	681.2	681.2	681.2	667.4	672.1	681.2	667.4	667.4	649.1
52.5°	539.5	525.8	516.7	516.7	516.7	512.0	512.0	516.7	502.9	502.9	498.4
55°	406.8	402.3	388.5	388.5	388.5	374.9	379.4	379.4	374.9	374.9	361.1
57.5°	301.8	288.0	278.9	278.9	269.7	269.7	265.2	269.7	260.6	260.6	251.4
60°	201.1	191.9	187.5	182.8	182.8	178.3	182.8	178.3	178.3	173.7	169.2
62.5°	146.2	137.1	128.0	128.0	128.0	123.5	123.5	123.5	123.5	123.5	118.8
65°	105.2	96.1	96.1	91.4	91.4	86.9	86.9	86.9	86.9	86.9	82.3
67.5°	73.1	68.6	64.0	64.0	64.0	64.0	64.0	64.0	59.5	59.5	59.5
70°	54.8	50.4	45.7	45.7	45.7	45.7	45.7	41.2	45.7	45.7	41.2
72.5°	36.6	36.6	32.1	32.1	32.1	32.1	32.1	32.1	32.1	32.1	32.1
75°	27.4	27.4	22.9	22.9	22.9	22.9	22.9	22.9	22.9	22.9	22.9
77.5°	18.3	18.3	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8
80°	13.8	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1
82.5°	9.1	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: P859467

CATALOG NUMBER: LX4C70D010 EX4C709030 4LBSWNH

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	3547.8	3547.8	3547.8	3547.8	3547.8	3547.8	3547.8	3547.8
2.5°	3634.8	3630.1	3621.0	3634.8	3598.2	3584.4	3579.7	3621.0
5°	3685.0	3675.8	3675.8	3689.6	3648.4	3639.3	3630.1	3675.8
7.5°	3730.7	3721.5	3721.5	3735.3	3698.8	3689.6	3680.5	3726.2
10°	3758.1	3758.1	3758.1	3767.2	3735.3	3726.2	3721.5	3767.2
12.5°	3771.9	3771.9	3767.2	3785.5	3744.5	3744.5	3735.3	3781.0
15°	3753.6	3753.6	3753.6	3767.2	3730.7	3721.5	3721.5	3758.1
17.5°	3707.9	3707.9	3703.2	3717.0	3675.8	3675.8	3671.3	3712.4
20°	3639.3	3639.3	3630.1	3648.4	3607.3	3593.5	3588.9	3630.1
22.5°	3529.6	3524.9	3520.4	3529.6	3493.0	3483.9	3479.2	3515.8
25°	3387.8	3383.3	3374.2	3383.3	3342.1	3328.3	3328.3	3355.7
27.5°	3186.7	3186.7	3172.9	3186.7	3140.8	3136.4	3131.7	3163.8
30°	2939.8	2921.5	2912.3	2930.6	2884.9	2884.9	2875.8	2907.7
32.5°	2633.5	2615.2	2610.5	2619.7	2578.6	2564.8	2583.1	2601.4
35°	2281.5	2286.0	2267.7	2267.7	2231.1	2235.6	2240.3	2267.7
37.5°	1943.1	1934.0	1929.3	1934.0	1906.5	1897.4	1888.3	1915.7
40°	1627.7	1604.7	1600.3	1600.3	1577.3	1572.8	1577.3	1591.1
42.5°	1330.4	1325.9	1307.6	1316.7	1293.8	1302.9	1298.5	1298.5
45°	1074.4	1078.9	1060.6	1074.4	1056.1	1042.3	1042.3	1051.5
47.5°	850.4	850.4	845.7	845.7	832.1	836.6	827.5	841.3
50°	658.3	658.3	649.1	653.8	644.7	644.7	640.0	644.7
52.5°	502.9	498.4	498.4	493.8	484.6	489.3	493.8	484.6
55°	365.8	370.3	361.1	365.8	356.6	361.1	356.6	361.1
57.5°	251.4	256.1	247.0	256.1	247.0	251.4	247.0	247.0
60°	173.7	173.7	169.2	173.7	169.2	169.2	164.5	173.7
62.5°	118.8	118.8	118.8	118.8	118.8	114.3	118.8	118.8
65°	86.9	82.3	82.3	82.3	82.3	82.3	82.3	82.3
67.5°	59.5	59.5	59.5	59.5	59.5	59.5	59.5	59.5
70°	41.2	41.2	41.2	41.2	41.2	41.2	41.2	41.2
72.5°	32.1	32.1	32.1	32.1	32.1	32.1	32.1	32.1
75°	22.9	22.9	22.9	22.9	22.9	22.9	22.9	22.9
77.5°	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8
80°	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1
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)