

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: P859419

Luminaire Tested: **LX4C65D010 EX4C659050 4LBSWNH**

Issue Date: 2/18/2022

Test Information

Test Method: LM-79-08
Report Number: P859419
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 EX4C659050 4LBSWNH
Description: 4 INCH 6500 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 5000K, 90CRI LEDS
AND 4LCSW TRIM WITH H FINISH
Light Source: -
Ballast/Driver: -

Summary

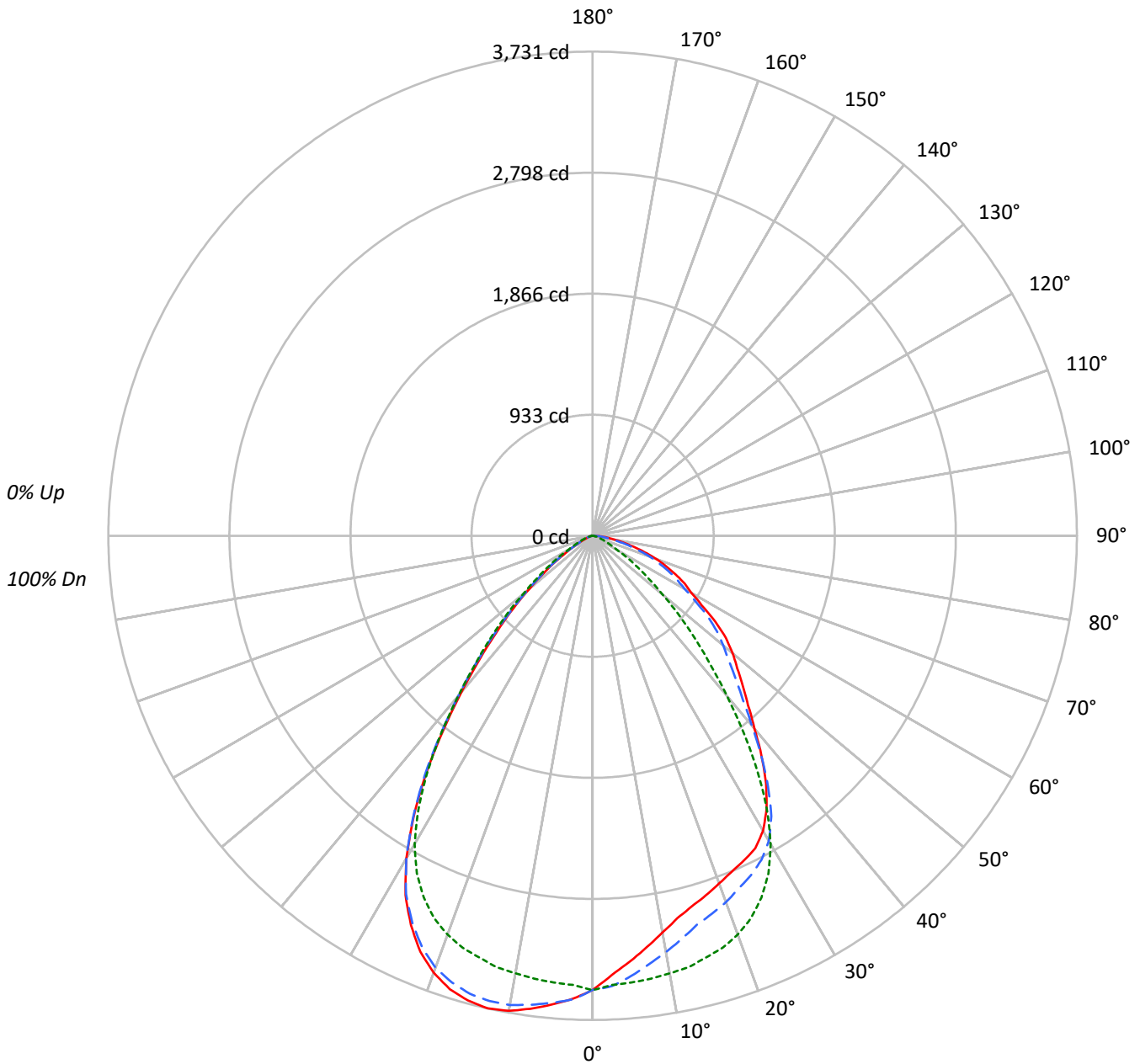
Lumens per Lamp: N/A
Luminaire Lumens: 6136.0 lumens
Efficiency: N/A
Efficacy: 84.8 lumens/watt
Spacing Criteria (0/90/45): 1.17 / 1.17 / 1.15
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

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				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°	430049	430049	430049
5°	406090	426129	447267
10°	387158	427115	463678
15°	375788	428011	471598
20°	372708	427565	468264
25°	374210	417031	448805
30°	372437	389062	406979
35°	349085	332198	335557
40°	311061	257560	251771
45°	284484	192019	180256
50°	268991	134515	121575
55°	247366	90816	76315
60°	216099	53171	42090
65°	204592	34070	23605
70°	186353	24318	14619
75°	154173	17136	10728
80°	121192	9622	6367
85°	108115	6484	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	330.7	5.4
10°-20°	948.8	15.5
20°-30°	1406.6	22.9
30°-40°	1408.5	23.0
40°-50°	984.4	16.0
50°-60°	585.7	9.5
60°-70°	305.7	5.0
70°-80°	135.9	2.2
80°-90°	29.6	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°	2686.1	43.8
0°-40°	4094.6	66.7
0°-60°	5664.7	92.3
0°-90°	6136.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6136.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	3500	3500	3500	3500	3500	
5°	3293	3406	3455	3613	3627	309
15°	2955	3104	3365	3654	3708	837
25°	2761	2887	3076	3288	3311	1272
35°	2328	2355	2215	2255	2237	1443
45°	1637	1556	1105	1069	1038	1271
55°	1155	1082	424	370	356	1025
65°	704	645	117	86	81	696
75°	325	284	36	23	23	351
85°	77	59	5	5	0	86
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°	3500.5	3500.5	3500.5	3500.5	3500.5	3500.5	3500.5	3500.5	3500.5	3500.5	3500.5
2.5°	3387.7	3428.4	3387.7	3401.3	3455.4	3405.7	3432.8	3432.8	3419.3	3450.8	3473.4
5°	3292.9	3333.6	3292.9	3310.9	3369.6	3320.0	3351.6	3342.6	3347.2	3374.2	3405.7
7.5°	3198.3	3229.8	3193.7	3216.3	3270.4	3229.8	3256.8	3256.8	3261.4	3301.9	3329.2
10°	3103.5	3130.6	3103.5	3121.6	3180.3	3144.2	3162.2	3166.6	3180.3	3216.3	3256.8
12.5°	3017.8	3040.4	3013.3	3040.4	3089.9	3053.8	3076.5	3080.9	3094.5	3135.2	3180.3
15°	2954.6	2977.3	2950.2	2972.7	3017.8	2990.7	3008.7	3017.8	3026.8	3062.8	3103.5
17.5°	2905.1	2923.2	2900.5	2927.6	2963.6	2932.2	2959.2	2959.2	2972.7	3008.7	3053.8
20°	2850.8	2868.9	2850.8	2873.5	2914.1	2887.1	2909.5	2909.5	2923.2	2963.6	3004.3
22.5°	2801.3	2810.3	2801.3	2819.4	2859.8	2837.4	2850.8	2855.4	2868.9	2905.1	2941.2
25°	2760.6	2778.7	2769.7	2787.7	2814.8	2792.3	2805.7	2810.3	2823.8	2855.4	2887.1
27.5°	2715.6	2724.6	2715.6	2738.2	2760.6	2742.6	2756.2	2751.6	2760.6	2787.7	2814.8
30°	2625.4	2634.4	2634.4	2647.8	2666.0	2657.0	2670.5	2657.0	2666.0	2688.5	2715.6
32.5°	2494.5	2499.1	2503.5	2517.2	2530.6	2517.2	2526.2	2526.2	2526.2	2544.2	2562.2
35°	2327.6	2336.6	2332.2	2341.2	2354.6	2350.2	2350.2	2345.6	2336.6	2345.6	2354.6
37.5°	2138.2	2124.6	2124.6	2138.2	2147.2	2129.2	2138.2	2129.2	2129.2	2133.6	2133.6
40°	1939.6	1926.2	1939.6	1944.2	1948.7	1939.6	1935.2	1926.2	1912.6	1917.2	1908.2
42.5°	1772.9	1763.7	1768.3	1768.3	1772.9	1763.7	1768.3	1750.2	1736.6	1727.6	1714.2
45°	1637.4	1624.0	1637.4	1628.4	1628.4	1624.0	1619.4	1610.4	1592.3	1578.9	1556.3
47.5°	1511.2	1511.2	1515.6	1515.6	1515.6	1506.6	1506.6	1488.5	1470.5	1452.5	1421.0
50°	1407.4	1398.4	1416.4	1416.4	1403.0	1398.4	1403.0	1380.3	1366.9	1344.3	1312.6
52.5°	1294.6	1294.6	1299.2	1299.2	1294.6	1285.5	1290.1	1272.1	1258.5	1236.0	1204.4
55°	1154.9	1145.8	1159.3	1159.3	1154.9	1150.3	1154.9	1141.3	1127.8	1109.8	1082.5
57.5°	997.0	992.4	1001.4	1006.0	997.0	997.0	1001.4	987.9	983.3	965.3	938.3
60°	879.5	875.1	884.1	888.7	879.5	879.5	879.5	861.5	852.5	834.5	816.4
62.5°	798.4	794.0	803.0	798.4	794.0	789.4	794.0	775.9	766.9	748.9	730.8
65°	703.8	708.2	712.8	712.8	708.2	703.8	703.8	694.8	685.7	667.7	645.1
67.5°	613.4	613.4	618.0	622.4	618.0	618.0	618.0	604.4	595.4	581.9	554.9
70°	518.8	514.2	527.8	527.8	518.8	523.2	518.8	514.2	505.2	487.2	464.7
72.5°	419.4	419.4	424.0	424.0	419.4	419.4	419.4	415.0	401.4	392.4	369.9
75°	324.8	324.8	329.3	333.9	324.8	324.8	329.3	320.2	311.2	297.8	284.2
77.5°	243.7	239.1	243.7	243.7	239.1	239.1	239.1	234.7	230.1	216.4	203.0
80°	171.3	166.9	171.3	171.3	171.3	166.9	166.9	162.3	162.3	153.3	139.9
82.5°	117.2	112.8	117.2	117.2	117.2	112.8	112.8	112.8	108.2	103.8	94.8
85°	76.7	72.1	72.1	76.7	72.1	72.1	72.1	72.1	67.7	63.1	58.7
87.5°	36.1	36.1	36.1	36.1	36.1	36.1	36.1	31.7	31.7	31.7	27.1
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°	3500.5	3500.5	3500.5	3500.5	3500.5	3500.5	3500.5	3500.5	3500.5	3500.5	3500.5
2.5°	3455.4	3446.4	3473.4	3464.4	3468.8	3446.4	3482.5	3464.4	3486.9	3464.4	3509.5
5°	3396.7	3387.7	3428.4	3423.8	3428.4	3410.3	3450.8	3446.4	3473.4	3455.4	3504.9
7.5°	3333.6	3324.6	3369.6	3374.2	3383.3	3365.2	3419.3	3419.3	3446.4	3441.8	3495.9
10°	3261.4	3265.8	3310.9	3320.0	3338.2	3329.2	3378.7	3392.3	3428.4	3423.8	3491.5
12.5°	3193.7	3193.7	3252.4	3270.4	3283.9	3279.5	3338.2	3356.2	3396.7	3405.7	3468.8
15°	3126.2	3130.6	3184.7	3211.7	3229.8	3225.4	3288.5	3310.9	3360.6	3365.2	3441.8
17.5°	3071.9	3067.4	3126.2	3148.6	3175.7	3171.2	3238.8	3265.8	3315.5	3329.2	3401.3
20°	3026.8	3022.4	3076.5	3103.5	3121.6	3117.1	3184.7	3216.3	3261.4	3270.4	3342.6
22.5°	2972.7	2963.6	3017.8	3040.4	3058.4	3053.8	3112.5	3135.2	3180.3	3189.3	3256.8
25°	2909.5	2900.5	2950.2	2963.6	2977.3	2968.2	3017.8	3031.4	3067.4	3076.5	3144.2
27.5°	2837.4	2814.8	2855.4	2855.4	2864.4	2850.8	2887.1	2900.5	2932.2	2932.2	2995.3
30°	2724.6	2693.1	2715.6	2711.1	2715.6	2697.5	2720.2	2724.6	2747.2	2742.6	2787.7
32.5°	2566.7	2521.6	2535.2	2521.6	2508.1	2481.1	2508.1	2499.1	2517.2	2499.1	2539.6
35°	2350.2	2305.1	2300.5	2282.5	2269.1	2246.4	2246.4	2224.0	2228.4	2215.0	2242.0
37.5°	2115.6	2057.0	2048.0	2012.0	1989.3	1962.3	1962.3	1944.2	1921.6	1912.6	1935.2
40°	1885.5	1822.4	1799.9	1741.2	1718.6	1691.5	1673.5	1651.0	1642.0	1606.0	1624.0
42.5°	1687.1	1619.4	1569.9	1506.6	1484.1	1443.5	1416.4	1389.3	1375.9	1335.2	1353.3
45°	1520.2	1439.0	1384.9	1303.6	1272.1	1227.0	1186.3	1154.9	1123.2	1105.2	1096.2
47.5°	1380.3	1294.6	1222.4	1132.2	1082.5	1042.1	987.9	956.3	915.8	893.2	879.5
50°	1263.1	1168.3	1087.1	983.3	933.8	888.7	825.4	775.9	739.9	703.8	694.8
52.5°	1159.3	1060.1	969.9	852.5	794.0	739.9	672.1	618.0	586.4	545.9	541.3
55°	1037.5	951.9	852.5	730.8	672.1	618.0	545.9	491.8	451.1	424.0	415.0
57.5°	906.8	825.4	730.8	609.0	550.3	491.8	424.0	374.3	338.3	315.8	311.2
60°	784.9	708.2	618.0	496.2	437.5	388.0	315.8	266.1	234.7	216.4	207.4
62.5°	694.8	622.4	536.9	424.0	369.9	320.2	252.7	207.4	180.4	162.3	153.3
65°	609.0	536.9	460.1	356.3	311.2	266.1	203.0	162.3	135.3	117.2	108.2
67.5°	518.8	455.7	383.4	297.8	252.7	216.4	162.3	126.3	103.8	90.2	81.2
70°	428.5	369.9	311.2	239.1	207.4	171.3	126.3	99.2	76.7	67.7	58.7
72.5°	338.3	293.2	243.7	185.0	157.9	135.3	99.2	72.1	58.7	49.7	40.7
75°	252.7	221.0	180.4	139.9	117.2	99.2	72.1	54.1	45.1	36.1	31.7
77.5°	180.4	153.3	126.3	94.8	85.8	72.1	49.7	40.7	31.7	22.6	18.0
80°	121.8	108.2	85.8	67.7	54.1	49.7	36.1	27.1	18.0	13.6	13.6
82.5°	81.2	67.7	54.1	40.7	36.1	31.7	22.6	18.0	13.6	9.0	9.0
85°	49.7	40.7	31.7	22.6	22.6	18.0	13.6	9.0	4.6	4.6	4.6
87.5°	22.6	18.0	13.6	9.0	9.0	4.6	4.6	4.6	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°	3500.5	3500.5	3500.5	3500.5	3500.5	3500.5	3500.5	3500.5	3500.5	3500.5	3500.5
2.5°	3545.6	3518.5	3500.5	3523.0	3532.0	3518.5	3532.0	3554.6	3577.2	3581.7	3518.5
5°	3550.2	3523.0	3513.9	3541.0	3545.6	3541.0	3554.6	3586.3	3613.3	3622.3	3559.2
7.5°	3550.2	3532.0	3527.6	3559.2	3563.6	3559.2	3581.7	3617.7	3644.8	3662.8	3599.7
10°	3541.0	3532.0	3536.6	3563.6	3572.6	3572.6	3604.3	3644.8	3671.8	3689.9	3626.8
12.5°	3527.6	3527.6	3527.6	3559.2	3568.2	3572.6	3599.7	3653.8	3671.8	3698.9	3635.8
15°	3504.9	3504.9	3504.9	3536.6	3550.2	3550.2	3581.7	3631.4	3653.8	3680.9	3617.7
17.5°	3464.4	3464.4	3468.8	3495.9	3509.5	3509.5	3541.0	3595.3	3608.7	3640.4	3577.2
20°	3405.7	3405.7	3410.3	3437.4	3450.8	3441.8	3482.5	3527.6	3541.0	3568.2	3504.9
22.5°	3320.0	3320.0	3320.0	3347.2	3356.2	3351.6	3392.3	3432.8	3432.8	3468.8	3401.3
25°	3193.7	3202.7	3193.7	3220.8	3229.8	3225.4	3261.4	3297.5	3288.5	3329.2	3261.4
27.5°	3040.4	3035.8	3035.8	3058.4	3058.4	3053.8	3080.9	3121.6	3112.5	3139.6	3076.5
30°	2828.4	2841.8	2819.4	2850.8	2837.4	2828.4	2846.4	2882.5	2868.9	2891.5	2841.8
32.5°	2584.7	2566.7	2566.7	2566.7	2575.7	2553.2	2571.3	2589.3	2575.7	2598.3	2544.2
35°	2264.5	2269.1	2255.4	2260.0	2264.5	2237.4	2255.4	2273.5	2255.4	2269.1	2219.4
37.5°	1944.2	1948.7	1917.2	1935.2	1917.2	1908.2	1926.2	1935.2	1917.2	1930.6	1876.5
40°	1624.0	1615.0	1610.4	1610.4	1615.0	1592.3	1606.0	1619.4	1606.0	1615.0	1565.3
42.5°	1344.3	1339.8	1330.8	1335.2	1321.6	1317.2	1321.6	1335.2	1321.6	1330.8	1294.6
45°	1100.6	1091.6	1078.1	1082.5	1082.5	1060.1	1073.5	1082.5	1069.1	1073.5	1042.1
47.5°	875.1	861.5	861.5	857.1	857.1	848.1	861.5	857.1	843.5	852.5	821.0
50°	681.1	672.1	672.1	672.1	672.1	658.5	663.1	672.1	658.5	658.5	640.5
52.5°	532.3	518.8	509.8	509.8	509.8	505.2	505.2	509.8	496.2	496.2	491.8
55°	401.4	397.0	383.4	383.4	383.4	369.9	374.3	374.3	369.9	369.9	356.3
57.5°	297.8	284.2	275.1	275.1	266.1	266.1	261.7	266.1	257.1	257.1	248.1
60°	198.4	189.4	185.0	180.4	180.4	175.9	180.4	175.9	175.9	171.3	166.9
62.5°	144.3	135.3	126.3	126.3	126.3	121.8	121.8	121.8	121.8	121.8	117.2
65°	103.8	94.8	94.8	90.2	90.2	85.8	85.8	85.8	85.8	85.8	81.2
67.5°	72.1	67.7	63.1	63.1	63.1	63.1	63.1	63.1	58.7	58.7	58.7
70°	54.1	49.7	45.1	45.1	45.1	45.1	45.1	40.7	45.1	45.1	40.7
72.5°	36.1	36.1	31.7	31.7	31.7	31.7	31.7	31.7	31.7	31.7	31.7
75°	27.1	27.1	22.6	22.6	22.6	22.6	22.6	22.6	22.6	22.6	22.6
77.5°	18.0	18.0	13.6	13.6	13.6	13.6	13.6	13.6	13.6	13.6	13.6
80°	13.6	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0
82.5°	9.0	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6
85°	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	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: P859419

CATALOG NUMBER: LX4C65D010 EX4C659050 4LBSWNH

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	3500.5	3500.5	3500.5	3500.5	3500.5	3500.5	3500.5	3500.5
2.5°	3586.3	3581.7	3572.6	3586.3	3550.2	3536.6	3532.0	3572.6
5°	3635.8	3626.8	3626.8	3640.4	3599.7	3590.7	3581.7	3626.8
7.5°	3680.9	3671.8	3671.8	3685.5	3649.4	3640.4	3631.4	3676.4
10°	3707.9	3707.9	3707.9	3716.9	3685.5	3676.4	3671.8	3716.9
12.5°	3721.5	3721.5	3716.9	3735.0	3694.5	3694.5	3685.5	3730.6
15°	3703.5	3703.5	3703.5	3716.9	3680.9	3671.8	3671.8	3707.9
17.5°	3658.4	3658.4	3653.8	3667.4	3626.8	3626.8	3622.3	3662.8
20°	3590.7	3590.7	3581.7	3599.7	3559.2	3545.6	3541.0	3581.7
22.5°	3482.5	3477.9	3473.4	3482.5	3446.4	3437.4	3432.8	3468.8
25°	3342.6	3338.2	3329.2	3338.2	3297.5	3283.9	3283.9	3310.9
27.5°	3144.2	3144.2	3130.6	3144.2	3098.9	3094.5	3089.9	3121.6
30°	2900.5	2882.5	2873.5	2891.5	2846.4	2846.4	2837.4	2868.9
32.5°	2598.3	2580.3	2575.7	2584.7	2544.2	2530.6	2548.6	2566.7
35°	2251.0	2255.4	2237.4	2237.4	2201.3	2205.8	2210.4	2237.4
37.5°	1917.2	1908.2	1903.6	1908.2	1881.1	1872.1	1863.1	1890.1
40°	1606.0	1583.3	1578.9	1578.9	1556.3	1551.8	1556.3	1569.9
42.5°	1312.6	1308.2	1290.1	1299.2	1276.5	1285.5	1281.1	1281.1
45°	1060.1	1064.5	1046.5	1060.1	1042.1	1028.4	1028.4	1037.5
47.5°	839.1	839.1	834.5	834.5	821.0	825.4	816.4	830.0
50°	649.5	649.5	640.5	645.1	636.1	636.1	631.5	636.1
52.5°	496.2	491.8	491.8	487.2	478.1	482.7	487.2	478.1
55°	360.9	365.3	356.3	360.9	351.9	356.3	351.9	356.3
57.5°	248.1	252.7	243.7	252.7	243.7	248.1	243.7	243.7
60°	171.3	171.3	166.9	171.3	166.9	166.9	162.3	171.3
62.5°	117.2	117.2	117.2	117.2	117.2	112.8	117.2	117.2
65°	85.8	81.2	81.2	81.2	81.2	81.2	81.2	81.2
67.5°	58.7	58.7	58.7	58.7	58.7	58.7	58.7	58.7
70°	40.7	40.7	40.7	40.7	40.7	40.7	40.7	40.7
72.5°	31.7	31.7	31.7	31.7	31.7	31.7	31.7	31.7
75°	22.6	22.6	22.6	22.6	22.6	22.6	22.6	22.6
77.5°	13.6	13.6	13.6	13.6	13.6	13.6	13.6	13.6
80°	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0
82.5°	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6
85°	4.6	4.6	4.6	0.0	4.6	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)