

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: P858985

Luminaire Tested: **LX4C50D010 EX4C509030 4LBSWNH**

Issue Date: 2/18/2022

Test Information

Test Method: LM-79-08
Report Number: P858985
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: LX4C50D010 EX4C509030 4LBSWNH
Description: 4 INCH 5000 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 3000K, 90CRI LEDS
AND 4LCSW TRIM WITH H FINISH
Light Source: -
Ballast/Driver: -

Summary

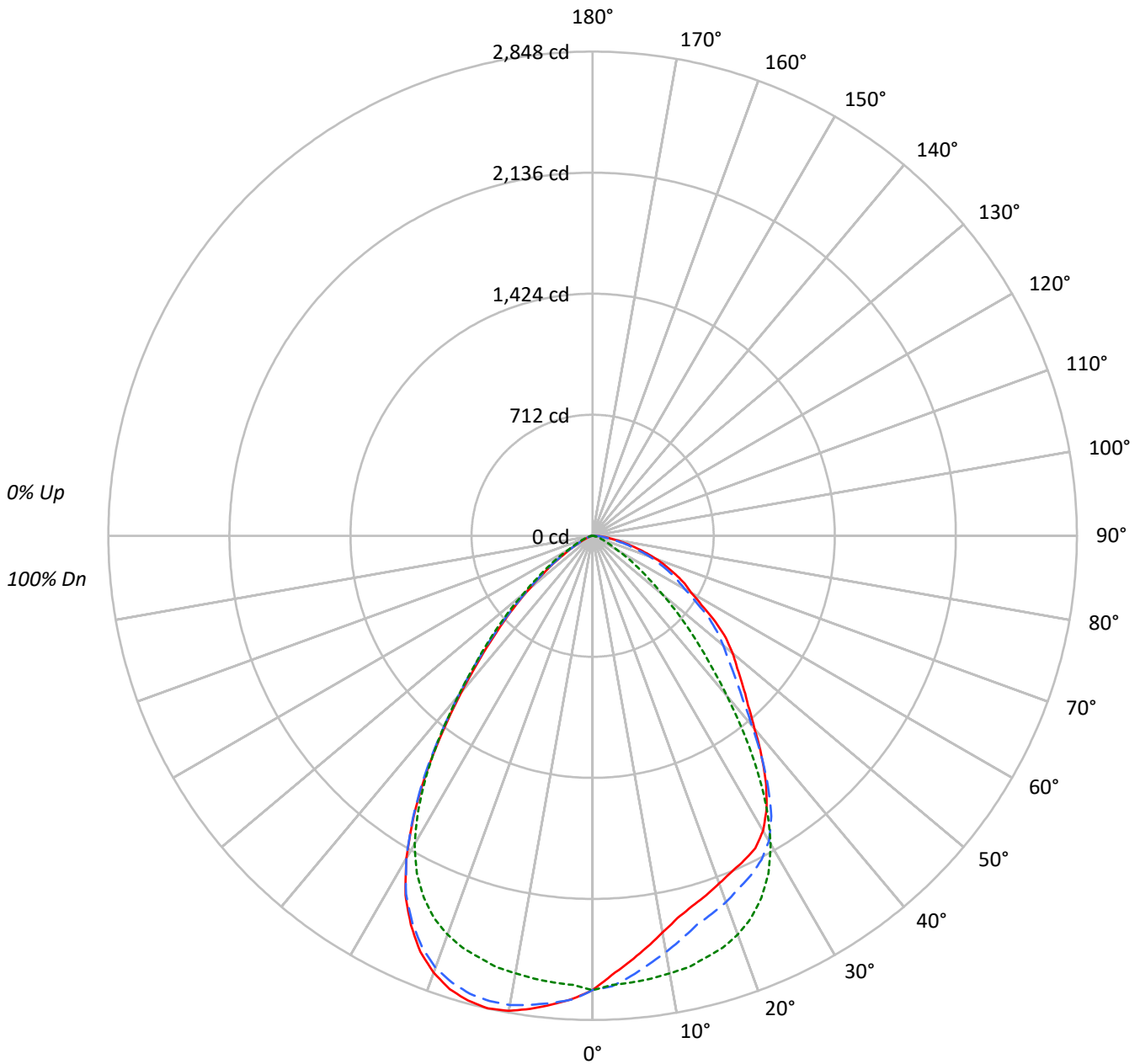
Lumens per Lamp: N/A
Luminaire Lumens: 4684.0 lumens
Efficiency: N/A
Efficacy: 80.2 lumens/watt
Spacing Criteria (0/90/45): 1.17 / 1.17 / 1.15
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 58.4
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																			
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°	328289	328289	328289
5°	309996	325288	341419
10°	295542	326043	353962
15°	286871	326731	360004
20°	284512	326387	357451
25°	285666	318348	342599
30°	284300	296996	310671
35°	266478	253580	256160
40°	237449	196602	192192
45°	217176	146585	137603
50°	205327	102673	92792
55°	188829	69333	58259
60°	164968	40591	32138
65°	156162	26017	18023
70°	142243	18571	11135
75°	117718	13053	8212
80°	92539	7358	4882
85°	82602	4934	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	252.5	5.4
10°-20°	724.3	15.5
20°-30°	1073.7	22.9
30°-40°	1075.2	23.0
40°-50°	751.4	16.0
50°-60°	447.1	9.5
60°-70°	233.4	5.0
70°-80°	103.8	2.2
80°-90°	22.6	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°	2050.5	43.8
0°-40°	3125.7	66.7
0°-60°	4324.2	92.3
0°-90°	4684.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4684.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	2672	2672	2672	2672	2672	
5°	2514	2600	2638	2758	2768	236
15°	2256	2369	2569	2789	2830	639
25°	2107	2204	2348	2510	2527	971
35°	1777	1798	1691	1722	1708	1102
45°	1250	1188	844	816	792	970
55°	882	826	324	282	272	782
65°	537	492	90	66	62	531
75°	248	217	28	17	17	268
85°	59	45	4	4	0	66
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°	2672.2	2672.2	2672.2	2672.2	2672.2	2672.2	2672.2	2672.2	2672.2	2672.2	2672.2
2.5°	2586.0	2617.1	2586.0	2596.4	2637.7	2599.8	2620.5	2620.5	2610.2	2634.2	2651.5
5°	2513.7	2544.7	2513.7	2527.4	2572.3	2534.3	2558.5	2551.6	2555.1	2575.8	2599.8
7.5°	2441.5	2465.5	2438.0	2455.2	2496.5	2465.5	2486.1	2486.1	2489.7	2520.6	2541.4
10°	2369.1	2389.8	2369.1	2382.9	2427.7	2400.2	2413.9	2417.3	2427.7	2455.2	2486.1
12.5°	2303.6	2320.9	2300.3	2320.9	2358.7	2331.2	2348.5	2351.8	2362.2	2393.3	2427.7
15°	2255.5	2272.7	2252.1	2269.2	2303.6	2283.0	2296.8	2303.6	2310.5	2338.1	2369.1
17.5°	2217.7	2231.4	2214.2	2234.8	2262.3	2238.3	2259.0	2259.0	2269.2	2296.8	2331.2
20°	2176.2	2190.0	2176.2	2193.5	2224.5	2203.9	2221.0	2221.0	2231.4	2262.3	2293.4
22.5°	2138.4	2145.3	2138.4	2152.2	2183.1	2166.0	2176.2	2179.7	2190.0	2217.7	2245.2
25°	2107.4	2121.1	2114.3	2128.0	2148.7	2131.5	2141.8	2145.3	2155.6	2179.7	2203.9
27.5°	2073.0	2079.8	2073.0	2090.2	2107.4	2093.6	2104.0	2100.5	2107.4	2128.0	2148.7
30°	2004.1	2011.0	2011.0	2021.3	2035.2	2028.3	2038.5	2028.3	2035.2	2052.3	2073.0
32.5°	1904.2	1907.7	1911.1	1921.5	1931.8	1921.5	1928.4	1928.4	1928.4	1942.2	1955.9
35°	1776.8	1783.7	1780.3	1787.2	1797.5	1794.1	1794.1	1790.6	1783.7	1790.6	1797.5
37.5°	1632.2	1621.8	1621.8	1632.2	1639.1	1625.3	1632.2	1625.3	1625.3	1628.7	1628.7
40°	1480.6	1470.4	1480.6	1484.2	1487.5	1480.6	1477.3	1470.4	1460.0	1463.5	1456.6
42.5°	1353.4	1346.3	1349.8	1349.8	1353.4	1346.3	1349.8	1336.1	1325.7	1318.8	1308.5
45°	1250.0	1239.7	1250.0	1243.1	1243.1	1239.7	1236.2	1229.3	1215.5	1205.3	1188.0
47.5°	1153.6	1153.6	1157.0	1157.0	1157.0	1150.1	1150.1	1136.3	1122.5	1108.8	1084.7
50°	1074.3	1067.5	1081.2	1081.2	1071.0	1067.5	1071.0	1053.7	1043.4	1026.2	1002.0
52.5°	988.2	988.2	991.7	991.7	988.2	981.3	984.8	971.1	960.7	943.5	919.4
55°	881.6	874.7	885.0	885.0	881.6	878.1	881.6	871.2	860.9	847.2	826.4
57.5°	761.0	757.5	764.4	767.9	761.0	761.0	764.4	754.2	750.6	736.9	716.2
60°	671.4	668.0	674.9	678.4	671.4	671.4	671.4	657.6	650.8	637.0	623.2
62.5°	609.5	606.1	613.0	609.5	606.1	602.6	606.1	592.3	585.4	571.7	557.9
65°	537.2	540.6	544.1	544.1	540.6	537.2	537.2	530.4	523.5	509.7	492.4
67.5°	468.3	468.3	471.8	475.1	471.8	471.8	471.8	461.4	454.5	444.2	423.6
70°	396.0	392.5	402.9	402.9	396.0	399.4	396.0	392.5	385.7	371.9	354.7
72.5°	320.2	320.2	323.7	323.7	320.2	320.2	320.2	316.8	306.4	299.5	282.4
75°	248.0	248.0	251.3	254.9	248.0	248.0	251.3	244.5	237.6	227.3	216.9
77.5°	186.0	182.5	186.0	186.0	182.5	182.5	182.5	179.1	175.6	165.2	155.0
80°	130.8	127.4	130.8	130.8	130.8	127.4	127.4	123.9	123.9	117.0	106.8
82.5°	89.5	86.1	89.5	89.5	89.5	86.1	86.1	86.1	82.6	79.2	72.4
85°	58.6	55.1	55.1	58.6	55.1	55.1	55.1	55.1	51.7	48.2	44.8
87.5°	27.5	27.5	27.5	27.5	27.5	27.5	27.5	24.2	24.2	24.2	20.7
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°	2672.2	2672.2	2672.2	2672.2	2672.2	2672.2	2672.2	2672.2	2672.2	2672.2	2672.2
2.5°	2637.7	2630.8	2651.5	2644.6	2648.0	2630.8	2658.4	2644.6	2661.8	2644.6	2679.0
5°	2592.9	2586.0	2617.1	2613.6	2617.1	2603.3	2634.2	2630.8	2651.5	2637.7	2675.5
7.5°	2544.7	2537.8	2572.3	2575.8	2582.7	2568.9	2610.2	2610.2	2630.8	2627.3	2668.6
10°	2489.7	2493.0	2527.4	2534.3	2548.2	2541.4	2579.1	2589.5	2617.1	2613.6	2665.3
12.5°	2438.0	2438.0	2482.8	2496.5	2506.8	2503.4	2548.2	2562.0	2592.9	2599.8	2648.0
15°	2386.4	2389.8	2431.1	2451.7	2465.5	2462.1	2510.3	2527.4	2565.4	2568.9	2627.3
17.5°	2345.0	2341.6	2386.4	2403.5	2424.2	2420.8	2472.4	2493.0	2531.0	2541.4	2596.4
20°	2310.5	2307.2	2348.5	2369.1	2382.9	2379.5	2431.1	2455.2	2489.7	2496.5	2551.6
22.5°	2269.2	2262.3	2303.6	2320.9	2334.7	2331.2	2376.0	2393.3	2427.7	2434.6	2486.1
25°	2221.0	2214.2	2252.1	2262.3	2272.7	2265.8	2303.6	2314.0	2341.6	2348.5	2400.2
27.5°	2166.0	2148.7	2179.7	2179.7	2186.6	2176.2	2203.9	2214.2	2238.3	2238.3	2286.5
30°	2079.8	2055.8	2073.0	2069.6	2073.0	2059.2	2076.5	2079.8	2097.1	2093.6	2128.0
32.5°	1959.3	1924.9	1935.3	1924.9	1914.6	1894.0	1914.6	1907.7	1921.5	1907.7	1938.6
35°	1794.1	1759.7	1756.1	1742.4	1732.1	1714.8	1714.8	1697.7	1701.1	1690.8	1711.5
37.5°	1615.0	1570.3	1563.4	1535.9	1518.6	1497.9	1497.9	1484.2	1466.9	1460.0	1477.3
40°	1439.3	1391.2	1374.0	1329.2	1311.9	1291.3	1277.5	1260.4	1253.5	1225.9	1239.7
42.5°	1287.9	1236.2	1198.4	1150.1	1132.9	1101.9	1081.2	1060.6	1050.3	1019.3	1033.0
45°	1160.5	1098.5	1057.2	995.1	971.1	936.7	905.6	881.6	857.4	843.7	836.8
47.5°	1053.7	988.2	933.1	864.3	826.4	795.5	754.2	730.0	699.1	681.8	671.4
50°	964.2	891.8	829.9	750.6	712.9	678.4	630.1	592.3	564.8	537.2	530.4
52.5°	885.0	809.2	740.4	650.8	606.1	564.8	513.1	471.8	447.6	416.7	413.2
55°	792.0	726.6	650.8	557.9	513.1	471.8	416.7	375.4	344.3	323.7	316.8
57.5°	692.2	630.1	557.9	464.9	420.1	375.4	323.7	285.8	258.2	241.1	237.6
60°	599.2	540.6	471.8	378.8	334.0	296.2	241.1	203.2	179.1	165.2	158.3
62.5°	530.4	475.1	409.8	323.7	282.4	244.5	192.9	158.3	137.7	123.9	117.0
65°	464.9	409.8	351.2	272.0	237.6	203.2	155.0	123.9	103.3	89.5	82.6
67.5°	396.0	347.9	292.6	227.3	192.9	165.2	123.9	96.4	79.2	68.8	62.0
70°	327.1	282.4	237.6	182.5	158.3	130.8	96.4	75.7	58.6	51.7	44.8
72.5°	258.2	223.8	186.0	141.2	120.5	103.3	75.7	55.1	44.8	37.9	31.0
75°	192.9	168.7	137.7	106.8	89.5	75.7	55.1	41.3	34.4	27.5	24.2
77.5°	137.7	117.0	96.4	72.4	65.5	55.1	37.9	31.0	24.2	17.3	13.8
80°	93.0	82.6	65.5	51.7	41.3	37.9	27.5	20.7	13.8	10.4	10.4
82.5°	62.0	51.7	41.3	31.0	27.5	24.2	17.3	13.8	10.4	6.9	6.9
85°	37.9	31.0	24.2	17.3	17.3	13.8	10.4	6.9	3.5	3.5	3.5
87.5°	17.3	13.8	10.4	6.9	6.9	3.5	3.5	3.5	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°	2672.2	2672.2	2672.2	2672.2	2672.2	2672.2	2672.2	2672.2	2672.2	2672.2	2672.2
2.5°	2706.6	2685.9	2672.2	2689.3	2696.2	2685.9	2696.2	2713.5	2730.7	2734.1	2685.9
5°	2710.1	2689.3	2682.4	2703.1	2706.6	2703.1	2713.5	2737.6	2758.3	2765.2	2717.0
7.5°	2710.1	2696.2	2692.8	2717.0	2720.3	2717.0	2734.1	2761.6	2782.3	2796.1	2747.9
10°	2703.1	2696.2	2699.7	2720.3	2727.2	2727.2	2751.4	2782.3	2803.0	2816.7	2768.5
12.5°	2692.8	2692.8	2692.8	2717.0	2723.9	2727.2	2747.9	2789.2	2803.0	2823.6	2775.4
15°	2675.5	2675.5	2675.5	2699.7	2710.1	2710.1	2734.1	2772.0	2789.2	2809.8	2761.6
17.5°	2644.6	2644.6	2648.0	2668.6	2679.0	2679.0	2703.1	2744.5	2754.8	2778.9	2730.7
20°	2599.8	2599.8	2603.3	2624.0	2634.2	2627.3	2658.4	2692.8	2703.1	2723.9	2675.5
22.5°	2534.3	2534.3	2534.3	2555.1	2562.0	2558.5	2589.5	2620.5	2620.5	2648.0	2596.4
25°	2438.0	2444.8	2438.0	2458.6	2465.5	2462.1	2489.7	2517.2	2510.3	2541.4	2489.7
27.5°	2320.9	2317.4	2317.4	2334.7	2334.7	2331.2	2351.8	2382.9	2376.0	2396.6	2348.5
30°	2159.1	2169.3	2152.2	2176.2	2166.0	2159.1	2172.8	2200.4	2190.0	2207.3	2169.3
32.5°	1973.1	1959.3	1959.3	1959.3	1966.2	1949.0	1962.8	1976.6	1966.2	1983.5	1942.2
35°	1728.6	1732.1	1721.7	1725.2	1728.6	1708.0	1721.7	1735.5	1721.7	1732.1	1694.2
37.5°	1484.2	1487.5	1463.5	1477.3	1463.5	1456.6	1470.4	1477.3	1463.5	1473.8	1432.5
40°	1239.7	1232.8	1229.3	1229.3	1232.8	1215.5	1225.9	1236.2	1225.9	1232.8	1194.9
42.5°	1026.2	1022.8	1015.9	1019.3	1008.9	1005.5	1008.9	1019.3	1008.9	1015.9	988.2
45°	840.1	833.3	823.0	826.4	826.4	809.2	819.5	826.4	816.1	819.5	795.5
47.5°	668.0	657.6	657.6	654.3	654.3	647.4	657.6	654.3	643.9	650.8	626.7
50°	520.0	513.1	513.1	513.1	513.1	502.7	506.2	513.1	502.7	502.7	488.9
52.5°	406.3	396.0	389.2	389.2	389.2	385.7	385.7	389.2	378.8	378.8	375.4
55°	306.4	303.0	292.6	292.6	292.6	282.4	285.8	285.8	282.4	282.4	272.0
57.5°	227.3	216.9	210.0	210.0	203.2	203.2	199.8	203.2	196.3	196.3	189.4
60°	151.5	144.6	141.2	137.7	137.7	134.3	137.7	134.3	134.3	130.8	127.4
62.5°	110.1	103.3	96.4	96.4	96.4	93.0	93.0	93.0	93.0	93.0	89.5
65°	79.2	72.4	72.4	68.8	68.8	65.5	65.5	65.5	65.5	65.5	62.0
67.5°	55.1	51.7	48.2	48.2	48.2	48.2	48.2	48.2	44.8	44.8	44.8
70°	41.3	37.9	34.4	34.4	34.4	34.4	34.4	31.0	34.4	34.4	31.0
72.5°	27.5	27.5	24.2	24.2	24.2	24.2	24.2	24.2	24.2	24.2	24.2
75°	20.7	20.7	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3
77.5°	13.8	13.8	10.4	10.4	10.4	10.4	10.4	10.4	10.4	10.4	10.4
80°	10.4	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9
82.5°	6.9	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
85°	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	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: P858985

CATALOG NUMBER: LX4C50D010 EX4C509030 4LBSWNH

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	2672.2	2672.2	2672.2	2672.2	2672.2	2672.2	2672.2	2672.2
2.5°	2737.6	2734.1	2727.2	2737.6	2710.1	2699.7	2696.2	2727.2
5°	2775.4	2768.5	2768.5	2778.9	2747.9	2741.0	2734.1	2768.5
7.5°	2809.8	2803.0	2803.0	2813.3	2785.8	2778.9	2772.0	2806.5
10°	2830.5	2830.5	2830.5	2837.4	2813.3	2806.5	2803.0	2837.4
12.5°	2840.9	2840.9	2837.4	2851.1	2820.2	2820.2	2813.3	2847.8
15°	2827.1	2827.1	2827.1	2837.4	2809.8	2803.0	2803.0	2830.5
17.5°	2792.7	2792.7	2789.2	2799.6	2768.5	2768.5	2765.2	2796.1
20°	2741.0	2741.0	2734.1	2747.9	2717.0	2706.6	2703.1	2734.1
22.5°	2658.4	2654.9	2651.5	2658.4	2630.8	2624.0	2620.5	2648.0
25°	2551.6	2548.2	2541.4	2548.2	2517.2	2506.8	2506.8	2527.4
27.5°	2400.2	2400.2	2389.8	2400.2	2365.6	2362.2	2358.7	2382.9
30°	2214.2	2200.4	2193.5	2207.3	2172.8	2172.8	2166.0	2190.0
32.5°	1983.5	1969.7	1966.2	1973.1	1942.2	1931.8	1945.5	1959.3
35°	1718.4	1721.7	1708.0	1708.0	1680.4	1683.8	1687.3	1708.0
37.5°	1463.5	1456.6	1453.1	1456.6	1436.0	1429.1	1422.2	1442.8
40°	1225.9	1208.7	1205.3	1205.3	1188.0	1184.6	1188.0	1198.4
42.5°	1002.0	998.6	984.8	991.7	974.5	981.3	978.0	978.0
45°	809.2	812.6	798.8	809.2	795.5	785.1	785.1	792.0
47.5°	640.5	640.5	637.0	637.0	626.7	630.1	623.2	633.6
50°	495.8	495.8	488.9	492.4	485.5	485.5	482.0	485.5
52.5°	378.8	375.4	375.4	371.9	365.0	368.5	371.9	365.0
55°	275.5	278.9	272.0	275.5	268.6	272.0	268.6	272.0
57.5°	189.4	192.9	186.0	192.9	186.0	189.4	186.0	186.0
60°	130.8	130.8	127.4	130.8	127.4	127.4	123.9	130.8
62.5°	89.5	89.5	89.5	89.5	89.5	86.1	89.5	89.5
65°	65.5	62.0	62.0	62.0	62.0	62.0	62.0	62.0
67.5°	44.8	44.8	44.8	44.8	44.8	44.8	44.8	44.8
70°	31.0	31.0	31.0	31.0	31.0	31.0	31.0	31.0
72.5°	24.2	24.2	24.2	24.2	24.2	24.2	24.2	24.2
75°	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3
77.5°	10.4	10.4	10.4	10.4	10.4	10.4	10.4	10.4
80°	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9
82.5°	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
85°	3.5	3.5	3.5	0.0	3.5	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)