

Scaled data based on original data using

LM-41-14 Approved Method for Photometric Testing Of Indoor Fluorescent Luminaires

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: io LED

Report Number: P135613

Luminaire Tested: **LD6A30D010TE ERM6A30930 6LM111LI**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P135613
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P23399)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: io LED
Catalog Number: LD6A30D010TE ERM6A30930 6LM111LI
Description: PORTFOLIO 6 INCH 50 DEGREE CUTOFF RECESSED SINGLE WALL WASH LUMINAIRE
SPECULAR CLEAR TRIM AND SPECULAR CLEAR KICKER
Light Source: (1) HIGH LUMEN LED 3000K
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2668.7 lumens
Efficiency: N/A
Efficacy: 58.8 lumens/watt
Spacing Criteria (0/90/45): 0.85 / 0.93 / 0.89
Luminous Opening: Circular (Dia: 0.46' x H: 0')
CIE Type: Direct

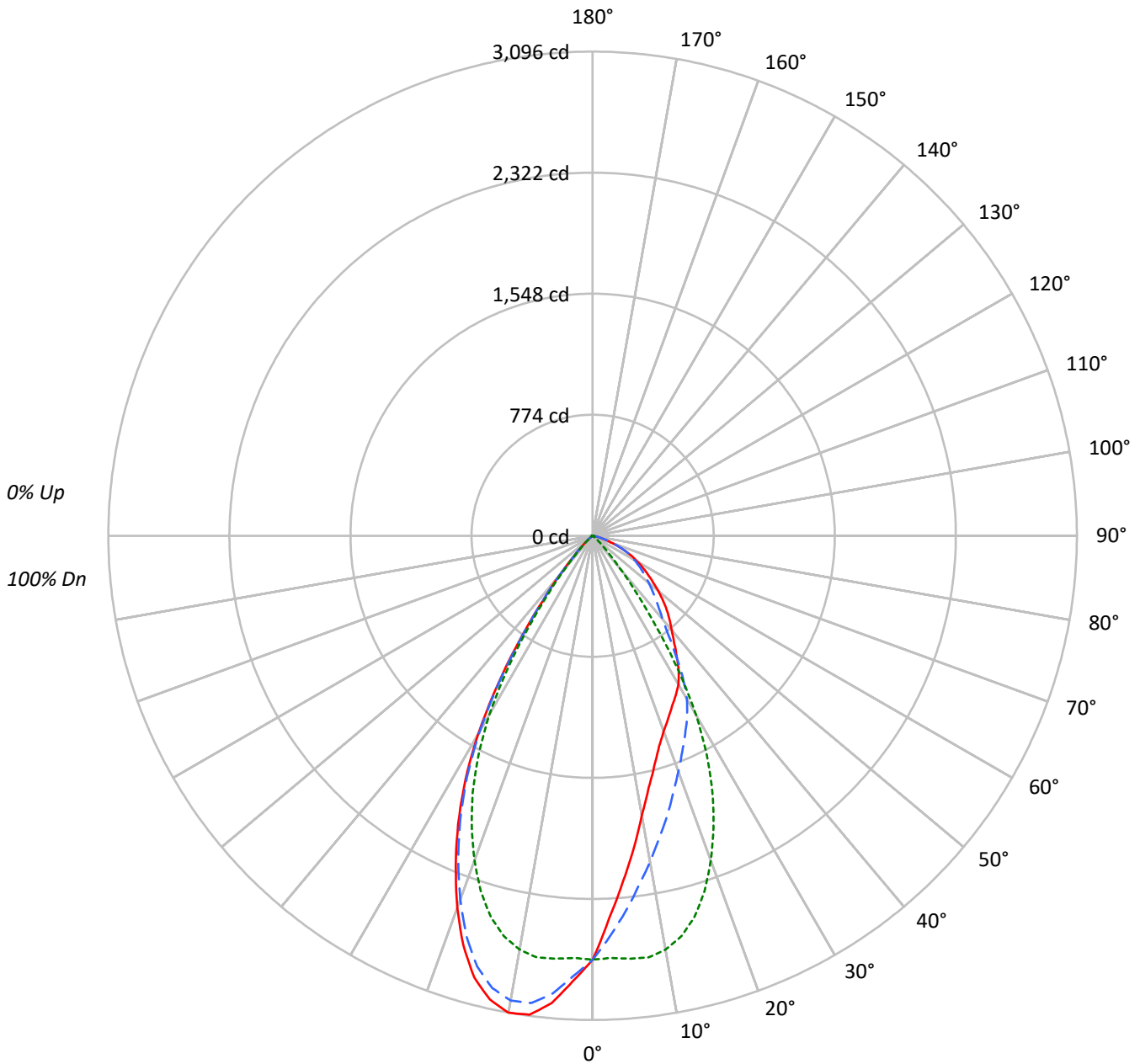
Input Watts (W): 45.4
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	113	110	107	104	110	107	105	103	103	101	100	100	98	97	96	95	94	92				92															
2	106	101	96	93	104	99	95	91	96	92	89	93	90	88	90	88	86	84				84															
3	100	93	87	83	98	92	86	82	89	85	81	86	83	80	84	81	78	77				77															
4	95	86	80	75	93	85	79	75	83	78	74	81	76	73	79	75	72	71				71															
5	89	80	74	69	88	79	73	69	77	72	68	75	71	67	74	70	67	65				65															
6	84	75	68	63	83	74	68	63	72	67	63	71	66	62	69	65	62	60				60															
7	80	70	63	59	78	69	63	59	68	62	58	67	62	58	65	61	58	56				56															
8	76	65	59	55	74	65	59	54	64	58	54	63	58	54	62	57	54	52				52															
9	72	62	55	51	71	61	55	51	60	55	51	59	54	50	58	54	50	49				49															
10	68	58	52	48	67	58	52	48	57	51	48	56	51	47	55	51	47	46				46															

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	176861	176861	176861
5°	145322	177772	196404
10°	120132	178012	205121
15°	102887	170206	197479
20°	92262	153296	175596
25°	86533	130538	146389
30°	82686	99553	110198
35°	74555	56428	63883
40°	66898	22978	27040
45°	61817	7962	9153
50°	55519	2801	2984
55°	49058	1672	1467
60°	43346	1435	1200
65°	35706	1127	849
70°	23806	1049	706
75°	12956	933	454
80°	6913	2066	0
85°	2770	2770	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	252.4	9.5
10°-20°	656.5	24.6
20°-30°	775.6	29.1
30°-40°	516.9	19.4
40°-50°	224.2	8.4
50°-60°	134.5	5.0
60°-70°	80.7	3.0
70°-80°	24.7	0.9
80°-90°	3.1	0.1
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°	1684.6	63.1
0°-40°	2201.5	82.5
0°-60°	2560.2	95.9
0°-90°	2668.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2668.7	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	2711	2711	2711	2711	2711	
5°	2219	2412	2714	2938	2999	200
15°	1523	1846	2520	2852	2924	429
25°	1202	1398	1813	2002	2034	556
35°	936	921	708	787	802	586
45°	670	567	86	99	99	515
55°	431	384	15	13	13	388
65°	231	229	7	6	6	227
75°	51	57	4	2	2	62
85°	4	6	4	0	0	6
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	2710.9	2710.9	2710.9	2710.9	2710.9	2710.9	2710.9	2710.9	2710.9	2710.9	2710.9
2.5°	2446.6	2488.8	2507.2	2520.0	2472.3	2523.7	2507.2	2531.0	2538.3	2562.2	2584.2
5°	2219.0	2259.4	2279.6	2294.3	2257.6	2316.3	2314.5	2345.7	2371.3	2411.7	2439.3
7.5°	2015.3	2033.6	2053.8	2074.0	2057.4	2110.7	2119.9	2163.9	2202.5	2257.6	2309.0
10°	1813.4	1831.8	1851.9	1873.9	1866.6	1919.9	1940.0	1989.6	2041.0	2114.4	2169.5
12.5°	1651.9	1670.2	1688.6	1710.6	1706.9	1760.2	1785.8	1839.1	1901.5	1974.9	2037.3
15°	1523.3	1539.9	1558.2	1572.9	1576.6	1626.1	1653.7	1705.1	1771.1	1846.5	1910.6
17.5°	1411.4	1429.8	1446.3	1459.2	1462.8	1508.7	1536.2	1582.1	1646.3	1717.9	1780.4
20°	1328.9	1345.3	1360.0	1372.9	1372.9	1413.2	1437.2	1479.3	1536.2	1602.3	1655.5
22.5°	1262.8	1277.5	1290.3	1301.3	1301.3	1336.2	1356.4	1391.2	1440.8	1495.9	1539.9
25°	1202.1	1216.8	1227.9	1237.0	1235.2	1268.2	1284.8	1310.5	1352.7	1398.5	1431.6
27.5°	1150.8	1165.4	1174.7	1187.5	1180.1	1207.7	1220.5	1242.6	1275.6	1308.6	1327.0
30°	1097.6	1112.2	1121.4	1132.5	1125.1	1148.9	1156.3	1167.4	1189.4	1205.9	1207.7
32.5°	1024.1	1037.0	1046.2	1051.7	1042.6	1060.9	1060.9	1062.7	1070.0	1071.9	1057.2
35°	936.1	945.2	952.5	954.5	943.4	954.5	952.5	939.8	936.1	921.4	892.0
37.5°	853.5	864.5	868.2	868.2	853.5	859.0	851.6	831.5	816.8	791.0	750.7
40°	785.5	794.8	796.6	794.8	780.1	781.9	770.8	747.0	726.8	695.6	644.2
42.5°	728.7	736.0	737.8	736.0	721.3	721.3	710.3	684.6	660.7	625.9	572.6
45°	670.0	677.3	680.9	677.3	664.4	664.4	651.6	627.7	603.9	567.2	513.9
47.5°	609.3	614.9	618.6	616.7	603.9	603.9	592.8	569.0	548.8	515.8	464.4
50°	547.0	554.3	557.9	556.1	545.2	545.2	535.9	513.9	497.4	468.0	422.2
52.5°	486.4	495.6	497.4	493.8	486.4	484.5	479.1	458.9	446.0	425.8	381.7
55°	431.3	438.7	438.7	438.7	429.5	427.6	424.0	407.5	400.1	383.6	346.8
57.5°	381.7	387.3	385.5	383.6	379.9	376.2	372.6	359.7	356.1	345.0	313.9
60°	332.2	337.7	335.9	334.1	330.4	326.7	323.0	313.9	313.9	306.5	280.8
62.5°	284.5	288.1	286.3	284.5	284.5	280.8	279.0	271.6	273.4	269.8	247.8
65°	231.3	236.7	234.9	234.9	236.7	236.7	234.9	231.3	231.3	229.4	211.1
67.5°	176.2	181.7	179.9	181.7	187.3	189.1	189.1	187.3	187.3	183.5	167.0
70°	124.8	128.5	128.5	130.3	135.9	137.7	143.2	137.7	137.7	134.0	121.2
72.5°	82.6	84.5	86.3	89.9	91.8	93.6	97.2	97.2	95.4	89.9	80.8
75°	51.4	53.2	53.2	55.1	56.9	58.7	62.4	60.5	58.7	56.9	49.6
77.5°	31.2	31.2	33.1	33.1	34.9	36.7	36.7	36.7	34.9	33.1	29.4
80°	18.4	18.4	18.4	20.2	20.2	20.2	20.2	20.2	20.2	18.4	16.5
82.5°	9.2	9.2	9.2	11.0	11.0	11.0	11.0	11.0	11.0	9.2	9.2
85°	3.7	3.7	3.7	5.5	5.5	5.5	5.5	5.5	5.5	5.5	3.7
87.5°	0.0	0.0	0.0	1.8	0.0	0.0	0.0	0.0	1.8	1.8	1.8
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):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	2710.9	2710.9	2710.9	2710.9	2710.9	2710.9	2710.9	2710.9	2710.9	2710.9	2710.9
2.5°	2606.2	2606.2	2600.8	2633.8	2676.0	2668.7	2670.5	2701.7	2714.5	2736.6	2756.8
5°	2487.0	2507.2	2521.9	2575.1	2635.6	2646.7	2666.9	2714.5	2743.9	2780.6	2815.5
7.5°	2367.7	2409.9	2444.7	2514.5	2593.5	2622.8	2659.5	2720.1	2758.6	2808.2	2855.9
10°	2244.7	2303.4	2354.8	2439.3	2531.0	2573.2	2619.1	2687.1	2738.5	2791.7	2844.9
12.5°	2121.7	2193.3	2257.6	2351.2	2448.4	2499.8	2551.2	2622.8	2677.8	2732.9	2787.9
15°	2000.6	2077.7	2145.6	2244.7	2343.9	2397.1	2448.4	2520.0	2578.8	2630.2	2685.2
17.5°	1866.6	1952.9	2015.3	2108.8	2204.3	2257.6	2314.5	2380.6	2431.9	2476.0	2529.2
20°	1736.3	1817.1	1873.9	1960.2	2046.5	2096.1	2149.3	2208.0	2253.8	2292.5	2341.9
22.5°	1609.6	1681.2	1734.4	1813.4	1879.4	1921.7	1967.5	2018.9	2059.4	2090.5	2134.6
25°	1486.6	1543.6	1584.0	1646.3	1699.5	1732.6	1771.1	1813.4	1848.3	1873.9	1914.3
27.5°	1363.7	1402.3	1417.0	1455.5	1488.6	1525.3	1545.4	1578.5	1609.6	1629.8	1664.7
30°	1222.4	1235.2	1222.4	1233.4	1242.6	1259.1	1282.9	1321.5	1336.2	1349.0	1383.9
32.5°	1046.2	1037.0	994.8	978.3	967.2	983.8	987.4	1016.8	1026.0	1037.0	1064.6
35°	860.8	827.7	759.9	717.6	692.0	693.8	677.3	708.5	714.0	725.0	745.2
37.5°	702.9	649.7	561.7	502.9	464.4	455.2	435.0	453.3	455.2	462.5	477.2
40°	587.3	512.1	412.9	343.2	301.0	282.7	262.5	269.8	269.8	275.3	284.5
42.5°	506.5	425.8	313.9	238.6	192.7	170.7	154.2	154.2	154.2	156.0	161.5
45°	446.0	356.1	244.1	167.0	124.8	102.8	86.3	86.3	84.5	84.5	88.1
47.5°	396.4	306.5	192.7	123.0	80.8	60.5	49.6	45.9	44.0	45.9	47.7
50°	356.1	268.0	159.7	93.6	56.9	40.4	31.2	27.6	25.7	25.7	25.7
52.5°	321.2	236.7	134.0	75.2	44.0	29.4	22.0	18.4	16.5	16.5	16.5
55°	291.8	209.3	115.6	62.4	36.7	25.7	18.4	14.7	12.9	12.9	12.9
57.5°	262.5	185.3	99.2	53.2	31.2	22.0	16.5	12.9	11.0	11.0	11.0
60°	233.1	161.5	86.3	44.0	25.7	18.4	14.7	11.0	9.2	9.2	9.2
62.5°	203.7	137.7	71.6	36.7	22.0	16.5	11.0	9.2	9.2	7.3	7.3
65°	168.8	111.9	58.7	31.2	18.4	12.9	11.0	7.3	7.3	7.3	7.3
67.5°	132.1	86.3	44.0	23.8	14.7	11.0	9.2	7.3	5.5	5.5	5.5
70°	93.6	60.5	33.1	18.4	12.9	9.2	7.3	5.5	5.5	5.5	3.7
72.5°	62.4	40.4	23.8	14.7	11.0	7.3	5.5	5.5	3.7	3.7	3.7
75°	40.4	25.7	16.5	11.0	7.3	7.3	5.5	3.7	3.7	3.7	1.8
77.5°	23.8	16.5	11.0	7.3	5.5	5.5	5.5	5.5	5.5	3.7	1.8
80°	12.9	9.2	7.3	5.5	3.7	5.5	5.5	5.5	5.5	3.7	1.8
82.5°	7.3	5.5	3.7	3.7	3.7	3.7	3.7	5.5	5.5	3.7	1.8
85°	3.7	3.7	1.8	1.8	1.8	3.7	3.7	3.7	3.7	1.8	1.8
87.5°	1.8	1.8	1.8	1.8	1.8	1.8	1.8	3.7	3.7	1.8	1.8
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):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	2710.9	2710.9	2710.9	2710.9	2710.9	2710.9	2710.9	2710.9	2710.9	2710.9	2710.9
2.5°	2773.3	2784.3	2787.9	2793.5	2824.7	2817.3	2844.9	2844.9	2866.9	2854.0	2866.9
5°	2844.9	2868.7	2879.8	2894.4	2938.5	2938.5	2971.5	2977.0	3006.4	2997.2	3010.1
7.5°	2890.7	2920.1	2934.8	2958.7	3006.4	3013.7	3044.9	3054.1	3089.0	3083.5	3090.8
10°	2881.6	2912.7	2931.1	2956.8	3006.4	3017.4	3044.9	3061.5	3094.5	3087.1	3090.8
12.5°	2824.7	2854.0	2874.2	2898.1	2949.5	2962.3	2986.2	3004.6	3035.7	3030.2	3030.2
15°	2718.3	2751.2	2767.8	2787.9	2837.5	2852.2	2870.6	2885.3	2920.1	2916.5	2910.9
17.5°	2558.6	2589.7	2602.6	2619.1	2666.9	2683.4	2698.0	2709.1	2742.1	2740.3	2731.1
20°	2364.0	2391.5	2402.6	2413.5	2455.8	2472.3	2483.3	2494.3	2521.9	2521.9	2509.0
22.5°	2151.1	2174.9	2182.3	2191.5	2228.2	2244.7	2250.2	2259.4	2285.1	2285.1	2268.5
25°	1925.3	1945.5	1949.2	1956.6	1987.8	2002.4	2004.2	2009.8	2035.4	2035.4	2018.9
27.5°	1672.1	1688.6	1692.2	1695.9	1723.5	1738.2	1736.3	1756.5	1763.8	1767.5	1747.3
30°	1387.6	1415.1	1400.5	1417.0	1426.1	1440.8	1435.3	1455.5	1461.0	1466.5	1440.8
32.5°	1068.2	1093.9	1077.3	1093.9	1097.6	1112.2	1104.9	1123.3	1126.9	1132.5	1108.6
35°	748.8	769.0	754.3	759.9	772.7	787.4	778.2	794.8	798.4	800.2	781.9
37.5°	480.9	495.6	499.2	504.7	504.7	515.8	519.4	519.4	521.2	523.1	508.4
40°	288.1	299.2	301.0	299.2	304.7	313.9	315.7	313.9	315.7	317.5	308.3
42.5°	163.3	170.7	172.6	172.6	176.2	181.7	181.7	179.9	181.7	181.7	176.2
45°	89.9	93.6	95.4	93.6	95.4	99.2	99.2	99.2	99.2	99.2	97.2
47.5°	47.7	49.6	49.6	51.4	49.6	51.4	51.4	51.4	53.2	53.2	51.4
50°	25.7	27.6	27.6	27.6	27.6	29.4	29.4	29.4	29.4	29.4	27.6
52.5°	16.5	16.5	16.5	16.5	16.5	16.5	16.5	16.5	16.5	16.5	16.5
55°	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9
57.5°	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0
60°	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2
62.5°	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3
65°	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
67.5°	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
70°	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7
72.5°	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7
75°	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8
77.5°	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8
80°	1.8	1.8	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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: P135613

CATALOG NUMBER: LD6A30D010TE ERM6A30930 6LM111LI

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	2710.9	2710.9	2710.9	2710.9
2.5°	2872.4	2881.6	2868.7	2848.6
5°	3019.2	3030.2	3017.4	2999.0
7.5°	3100.0	3116.5	3101.8	3089.0
10°	3103.7	3120.2	3103.7	3096.3
12.5°	3043.1	3059.6	3041.3	3037.6
15°	2927.4	2940.3	2922.0	2923.8
17.5°	2749.4	2760.5	2742.1	2747.6
20°	2525.5	2536.5	2518.1	2529.2
22.5°	2285.1	2292.5	2288.7	2286.9
25°	2033.6	2039.1	2022.7	2033.6
27.5°	1758.3	1762.0	1763.8	1762.0
30°	1453.7	1455.5	1444.5	1462.8
32.5°	1119.6	1117.8	1114.1	1130.6
35°	787.4	787.4	787.4	802.1
37.5°	512.1	510.3	512.1	523.1
40°	310.1	308.3	310.1	317.5
42.5°	176.2	176.2	178.0	181.7
45°	99.2	97.2	97.2	99.2
47.5°	53.2	53.2	51.4	53.2
50°	29.4	29.4	27.6	29.4
52.5°	16.5	16.5	16.5	16.5
55°	12.9	12.9	12.9	12.9
57.5°	11.0	11.0	11.0	11.0
60°	9.2	9.2	9.2	9.2
62.5°	7.3	7.3	7.3	7.3
65°	5.5	7.3	5.5	5.5
67.5°	5.5	5.5	5.5	5.5
70°	3.7	3.7	3.7	3.7
72.5°	3.7	3.7	3.7	3.7
75°	1.8	1.8	1.8	1.8
77.5°	1.8	1.8	1.8	1.8
80°	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0



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— 0°-180° - - 45°-225° - - - - 90°-270°













(END OF REPORT)