

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: P135731

Luminaire Tested: **LD6A30D010TE ERM6A30840 6LM111H**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P135731
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P23372)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: io LED
Catalog Number: LD6A30D010TE ERM6A30840 6LM111H
Description: PORTFOLIO 6 INCH 50 DEGREE CUTOFF RECESSED SINGLE WALL WASH LUMINAIRE
SEMI-SPECULAR CLEAR TRIM AND SPECULAR CLEAR KICKER
Light Source: (1) HIGH LUMEN LED 4000K
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2836.0 lumens
Efficiency: N/A
Efficacy: 62.5 lumens/watt
Spacing Criteria (0/90/45): 0.9 / 0.96 / 0.92
Luminous Opening: Circular (Dia: 0.46' x H: 0')
CIE Type: Direct

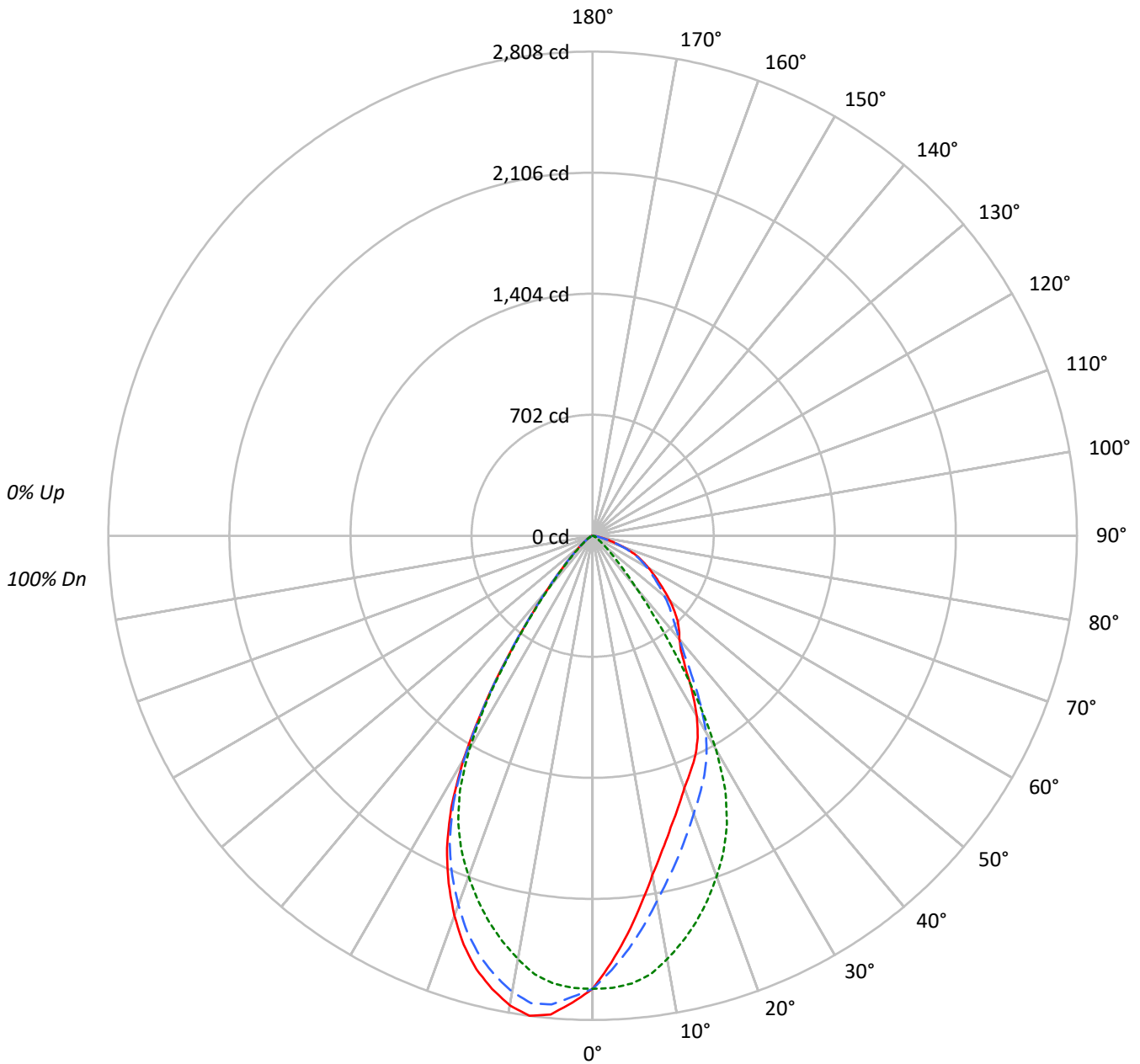
Input Watts (W): 45.4
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20					20					20					20					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								
1	112	109	106	104	110	107	104	102	103	101	99	99	97	96	96	94	93	91								
2	106	100	95	91	103	98	94	90	95	91	88	92	89	86	89	87	84	83								
3	99	92	86	81	97	90	85	81	88	83	79	85	81	78	83	80	77	75								
4	93	85	78	73	91	83	77	73	81	76	72	79	75	71	77	73	70	68								
5	88	78	72	67	86	77	71	66	75	70	66	74	69	65	72	68	64	63								
6	83	73	66	61	81	72	65	61	70	65	60	69	64	60	67	63	59	58								
7	78	68	61	56	77	67	61	56	66	60	56	64	59	55	63	59	55	53								
8	74	63	57	52	73	63	56	52	62	56	52	60	55	51	59	55	51	50								
9	70	59	53	48	69	59	53	48	58	52	48	57	52	48	56	51	48	46								
10	67	56	49	45	65	55	49	45	54	49	45	54	48	45	53	48	45	43								

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	171420	171420	171420
5°	151864	170673	182481
10°	132368	165161	183173
15°	118246	156623	175819
20°	107967	145937	162697
25°	101391	132618	143833
30°	90912	107719	112548
35°	74706	66670	68374
40°	66608	32789	34603
45°	64271	16349	17475
50°	59233	8678	9307
55°	53516	5209	5562
60°	49035	3588	3588
65°	44799	2825	2362
70°	36128	2327	1755
75°	22333	1538	781
80°	12624	1165	0
85°	6887	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	241.0	8.5
10°-20°	625.7	22.1
20°-30°	796.3	28.1
30°-40°	570.6	20.1
40°-50°	284.6	10.0
50°-60°	172.3	6.1
60°-70°	105.3	3.7
70°-80°	36.3	1.3
80°-90°	3.9	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°	1663.0	58.6
0°-40°	2233.6	78.8
0°-60°	2690.5	94.9
0°-90°	2836.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2836.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	2628	2628	2628	2628	2628	
5°	2319	2404	2606	2728	2786	212
15°	1751	1925	2319	2524	2603	493
25°	1408	1534	1842	1962	1998	642
35°	938	1011	837	858	858	599
45°	697	651	177	196	189	533
55°	470	443	46	49	49	424
65°	290	281	18	15	15	284
75°	89	79	6	3	3	102
85°	9	6	0	0	0	13
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°	2627.5	2627.5	2627.5	2627.5	2627.5	2627.5	2627.5	2627.5	2627.5	2627.5	2627.5
2.5°	2477.8	2480.9	2487.0	2480.9	2483.9	2499.2	2493.1	2496.1	2505.3	2520.6	2511.4
5°	2318.9	2322.0	2337.3	2328.1	2334.2	2352.5	2352.5	2364.8	2383.1	2404.5	2404.5
7.5°	2153.9	2160.1	2175.3	2169.2	2178.4	2202.8	2205.9	2224.2	2248.7	2279.2	2294.5
10°	1998.1	2004.2	2019.5	2016.5	2028.7	2053.1	2065.3	2083.7	2114.2	2150.9	2169.2
12.5°	1866.8	1872.9	1885.1	1885.1	1900.4	1924.8	1937.0	1961.5	1992.0	2031.7	2056.2
15°	1750.7	1759.8	1772.0	1772.0	1787.3	1811.8	1827.0	1848.4	1882.0	1924.8	1952.3
17.5°	1649.8	1652.9	1665.1	1665.1	1680.4	1704.8	1720.1	1741.5	1775.1	1814.8	1845.4
20°	1555.1	1558.2	1570.4	1573.5	1585.7	1607.1	1622.3	1643.7	1674.3	1714.0	1741.5
22.5°	1481.8	1487.9	1497.1	1500.1	1506.2	1527.6	1546.0	1561.2	1588.7	1622.3	1649.8
25°	1408.5	1411.5	1420.7	1423.7	1432.9	1448.2	1460.4	1475.7	1500.1	1533.7	1555.1
27.5°	1319.9	1329.0	1332.1	1335.1	1344.3	1356.5	1368.7	1381.0	1402.4	1429.9	1448.2
30°	1206.8	1209.9	1219.0	1225.2	1234.3	1246.5	1261.8	1274.0	1292.4	1313.8	1326.0
32.5°	1075.4	1078.5	1087.7	1093.8	1109.1	1121.3	1133.5	1142.7	1154.9	1167.1	1167.1
35°	938.0	947.1	950.2	959.3	974.6	986.8	996.0	999.1	1005.2	1011.3	989.9
37.5°	840.2	846.3	852.4	858.5	870.7	879.9	886.0	886.0	883.0	876.9	849.4
40°	782.1	785.2	791.3	794.4	806.6	812.7	812.7	806.6	794.4	779.1	736.3
42.5°	742.4	745.5	748.5	751.6	757.7	760.8	757.7	745.5	730.2	708.8	659.9
45°	696.6	699.7	702.7	702.7	708.8	708.8	705.8	693.5	675.2	650.8	598.8
47.5°	641.6	644.7	647.7	650.8	653.8	653.8	650.8	638.5	620.2	598.8	543.8
50°	583.6	586.6	589.7	589.7	595.8	595.8	592.7	580.5	565.2	543.8	494.9
52.5°	525.5	528.6	528.6	534.7	534.7	534.7	531.6	519.4	507.2	491.9	446.1
55°	470.5	473.6	473.6	479.7	482.7	479.7	476.6	467.5	455.2	443.0	406.3
57.5°	421.6	424.7	424.7	427.7	430.8	427.7	424.7	418.6	412.5	400.2	369.7
60°	375.8	378.9	378.9	381.9	381.9	378.9	378.9	372.7	366.6	360.5	333.0
62.5°	333.0	333.0	333.0	336.1	336.1	333.0	333.0	326.9	323.9	320.8	299.4
65°	290.2	290.2	290.2	290.2	290.2	284.1	284.1	281.1	278.0	281.1	262.8
67.5°	241.4	241.4	238.3	238.3	238.3	232.2	232.2	232.2	229.1	232.2	216.9
70°	189.4	189.4	186.4	186.4	183.3	177.2	177.2	177.2	174.1	177.2	168.0
72.5°	134.4	137.5	131.4	131.4	128.3	122.2	125.3	122.2	125.3	125.3	119.2
75°	88.6	91.7	85.5	85.5	82.5	79.4	79.4	79.4	82.5	79.4	76.4
77.5°	55.0	58.0	55.0	55.0	51.9	48.9	48.9	48.9	48.9	48.9	45.8
80°	33.6	33.6	33.6	30.6	30.6	27.5	27.5	27.5	27.5	27.5	24.4
82.5°	18.3	18.3	18.3	18.3	18.3	15.3	15.3	15.3	15.3	15.3	12.2
85°	9.2	9.2	9.2	9.2	9.2	6.1	6.1	6.1	6.1	6.1	6.1
87.5°	3.1	3.1	3.1	3.1	3.1	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



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	2627.5	2627.5	2627.5	2627.5	2627.5	2627.5	2627.5	2627.5	2627.5	2627.5	2627.5
2.5°	2538.9	2551.1	2542.0	2578.6	2572.5	2600.0	2597.0	2624.5	2621.4	2624.5	2630.6
5°	2441.1	2465.6	2468.6	2514.5	2517.5	2560.3	2569.5	2606.1	2612.2	2624.5	2639.7
7.5°	2334.2	2370.9	2383.1	2435.0	2453.4	2499.2	2517.5	2566.4	2578.6	2600.0	2618.3
10°	2218.1	2260.9	2279.2	2340.3	2364.8	2416.7	2441.1	2493.1	2511.4	2535.9	2557.2
12.5°	2108.1	2153.9	2178.4	2242.5	2276.2	2328.1	2355.6	2410.6	2428.9	2459.5	2480.9
15°	2004.2	2053.1	2080.6	2144.8	2178.4	2236.4	2263.9	2318.9	2340.3	2370.9	2392.3
17.5°	1897.3	1946.2	1976.7	2037.8	2080.6	2129.5	2160.1	2215.1	2236.4	2263.9	2285.3
20°	1793.4	1842.3	1869.8	1930.9	1970.6	2019.5	2047.0	2102.0	2117.3	2144.8	2163.1
22.5°	1695.7	1741.5	1765.9	1830.1	1863.7	1906.5	1934.0	1982.9	2001.2	2022.6	2034.8
25°	1597.9	1637.6	1655.9	1710.9	1738.4	1778.2	1799.5	1842.3	1860.6	1879.0	1894.3
27.5°	1487.9	1509.3	1515.4	1558.2	1579.6	1616.2	1625.4	1665.1	1680.4	1692.6	1704.8
30°	1350.4	1353.5	1335.1	1356.5	1365.7	1393.2	1393.2	1429.9	1442.1	1451.2	1463.5
32.5°	1176.3	1157.9	1115.2	1109.1	1102.9	1118.2	1112.1	1142.7	1154.9	1161.0	1170.2
35°	983.8	944.1	873.8	846.3	828.0	824.9	815.8	837.1	846.3	852.4	858.5
37.5°	815.8	757.7	669.1	620.2	589.7	577.4	565.2	577.4	583.6	589.7	595.8
40°	693.5	620.2	516.3	455.2	412.5	394.1	378.9	385.0	391.1	397.2	400.2
42.5°	604.9	522.4	409.4	336.1	293.3	271.9	256.6	259.7	262.8	265.8	271.9
45°	537.7	449.1	333.0	253.6	210.8	189.4	177.2	177.2	180.3	183.3	186.4
47.5°	482.7	388.0	271.9	195.5	155.8	134.4	122.2	122.2	125.3	125.3	128.3
50°	430.8	336.1	223.0	152.8	116.1	97.8	88.6	85.5	88.6	88.6	91.7
52.5°	388.0	296.4	186.4	122.2	88.6	73.3	64.2	64.2	64.2	64.2	64.2
55°	348.3	259.7	155.8	97.8	70.3	58.0	48.9	45.8	45.8	45.8	45.8
57.5°	317.7	232.2	134.4	82.5	58.0	45.8	39.7	36.7	36.7	36.7	36.7
60°	287.2	204.7	116.1	67.2	45.8	39.7	33.6	27.5	27.5	27.5	27.5
62.5°	256.6	177.2	97.8	58.0	39.7	30.6	27.5	21.4	21.4	21.4	21.4
65°	223.0	152.8	82.5	45.8	30.6	24.4	21.4	18.3	18.3	15.3	15.3
67.5°	183.3	122.2	67.2	39.7	27.5	21.4	18.3	15.3	12.2	12.2	12.2
70°	140.5	91.7	51.9	30.6	21.4	18.3	12.2	12.2	9.2	9.2	9.2
72.5°	100.8	64.2	36.7	24.4	15.3	12.2	12.2	9.2	9.2	9.2	6.1
75°	64.2	42.8	24.4	15.3	12.2	9.2	9.2	6.1	6.1	6.1	6.1
77.5°	39.7	27.5	18.3	12.2	9.2	6.1	6.1	6.1	3.1	3.1	3.1
80°	21.4	15.3	9.2	6.1	6.1	3.1	3.1	3.1	3.1	3.1	3.1
82.5°	12.2	9.2	6.1	3.1	3.1	3.1	3.1	3.1	0.0	0.0	0.0
85°	6.1	3.1	3.1	3.1	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



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CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	2627.5	2627.5	2627.5	2627.5	2627.5	2627.5	2627.5	2627.5	2627.5	2627.5	2627.5
2.5°	2648.9	2664.2	2655.0	2661.1	2688.6	2676.4	2697.8	2697.8	2722.2	2722.2	2703.9
5°	2667.2	2685.6	2688.6	2697.8	2734.4	2728.3	2752.8	2758.9	2786.4	2792.5	2777.2
7.5°	2655.0	2676.4	2685.6	2700.8	2737.5	2734.4	2761.9	2774.2	2798.6	2807.8	2795.5
10°	2597.0	2621.4	2633.6	2648.9	2688.6	2685.6	2716.1	2731.4	2752.8	2761.9	2752.8
12.5°	2520.6	2548.1	2560.3	2575.6	2615.3	2612.2	2642.8	2658.1	2676.4	2688.6	2679.4
15°	2435.0	2453.4	2474.7	2490.0	2526.7	2523.6	2554.2	2569.5	2584.7	2600.0	2590.8
17.5°	2325.0	2343.4	2364.8	2377.0	2413.6	2413.6	2438.1	2450.3	2471.7	2483.9	2471.7
20°	2199.8	2221.2	2236.4	2245.6	2279.2	2276.2	2300.6	2312.8	2331.2	2340.3	2331.2
22.5°	2068.4	2086.7	2099.0	2105.1	2132.6	2129.5	2147.8	2160.1	2175.3	2184.5	2175.3
25°	1918.7	1930.9	1940.1	1943.1	1967.6	1961.5	1985.9	1985.9	1998.1	2007.3	1998.1
27.5°	1726.2	1735.4	1741.5	1738.4	1756.8	1747.6	1769.0	1753.7	1778.2	1784.3	1775.1
30°	1478.7	1484.8	1491.0	1478.7	1491.0	1478.7	1497.1	1475.7	1497.1	1506.2	1497.1
32.5°	1185.4	1185.4	1191.5	1176.3	1182.4	1170.2	1179.3	1173.2	1179.3	1188.5	1179.3
35°	870.7	870.7	876.9	867.7	870.7	858.5	864.6	858.5	861.6	867.7	864.6
37.5°	604.9	601.9	611.0	604.9	608.0	601.9	604.9	598.8	601.9	604.9	601.9
40°	409.4	409.4	415.5	412.5	415.5	412.5	415.5	412.5	412.5	412.5	409.4
42.5°	275.0	278.0	281.1	281.1	284.1	281.1	284.1	281.1	281.1	281.1	278.0
45°	189.4	189.4	192.5	192.5	195.5	195.5	195.5	192.5	192.5	192.5	192.5
47.5°	131.4	134.4	134.4	134.4	134.4	134.4	134.4	134.4	134.4	134.4	131.4
50°	91.7	94.7	94.7	94.7	94.7	94.7	94.7	91.7	91.7	91.7	91.7
52.5°	67.2	67.2	67.2	67.2	67.2	67.2	67.2	67.2	67.2	64.2	64.2
55°	48.9	48.9	48.9	48.9	48.9	48.9	48.9	48.9	48.9	48.9	48.9
57.5°	36.7	36.7	36.7	36.7	36.7	36.7	36.7	36.7	36.7	36.7	36.7
60°	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5
62.5°	21.4	21.4	21.4	21.4	21.4	21.4	21.4	21.4	21.4	21.4	21.4
65°	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3
67.5°	12.2	12.2	12.2	12.2	12.2	12.2	12.2	12.2	12.2	12.2	12.2
70°	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2
72.5°	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1
75°	6.1	6.1	6.1	6.1	6.1	3.1	3.1	3.1	3.1	3.1	3.1
77.5°	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1
80°	0.0	3.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	0.0	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: P135731

CATALOG NUMBER: LD6A30D010TE ERM6A30840 6LM111H

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	2627.5	2627.5	2627.5	2627.5
2.5°	2694.7	2719.2	2710.0	2710.0
5°	2768.1	2795.5	2789.4	2786.4
7.5°	2789.4	2813.9	2807.8	2807.8
10°	2746.7	2771.1	2765.0	2765.0
12.5°	2676.4	2697.8	2694.7	2691.7
15°	2587.8	2609.2	2606.1	2603.1
17.5°	2468.6	2493.1	2490.0	2487.0
20°	2325.0	2346.4	2346.4	2343.4
22.5°	2169.2	2184.5	2187.6	2181.4
25°	1992.0	2004.2	2004.2	1998.1
27.5°	1769.0	1778.2	1778.2	1775.1
30°	1494.0	1497.1	1500.1	1494.0
32.5°	1173.2	1173.2	1179.3	1173.2
35°	855.5	855.5	861.6	858.5
37.5°	595.8	595.8	598.8	595.8
40°	406.3	406.3	409.4	406.3
42.5°	278.0	275.0	278.0	278.0
45°	189.4	189.4	192.5	189.4
47.5°	131.4	131.4	131.4	131.4
50°	91.7	91.7	91.7	91.7
52.5°	64.2	64.2	64.2	64.2
55°	45.8	48.9	48.9	48.9
57.5°	33.6	36.7	36.7	36.7
60°	27.5	27.5	27.5	27.5
62.5°	21.4	21.4	21.4	21.4
65°	15.3	15.3	15.3	15.3
67.5°	12.2	12.2	12.2	12.2
70°	9.2	9.2	9.2	9.2
72.5°	6.1	6.1	6.1	6.1
75°	3.1	3.1	3.1	3.1
77.5°	3.1	3.1	3.1	3.1
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)