

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: P135608

Luminaire Tested: **LD6A30D010TE ERM6A30827 6LM111LI**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P135608  
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 ERM6A30827 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 2700K  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

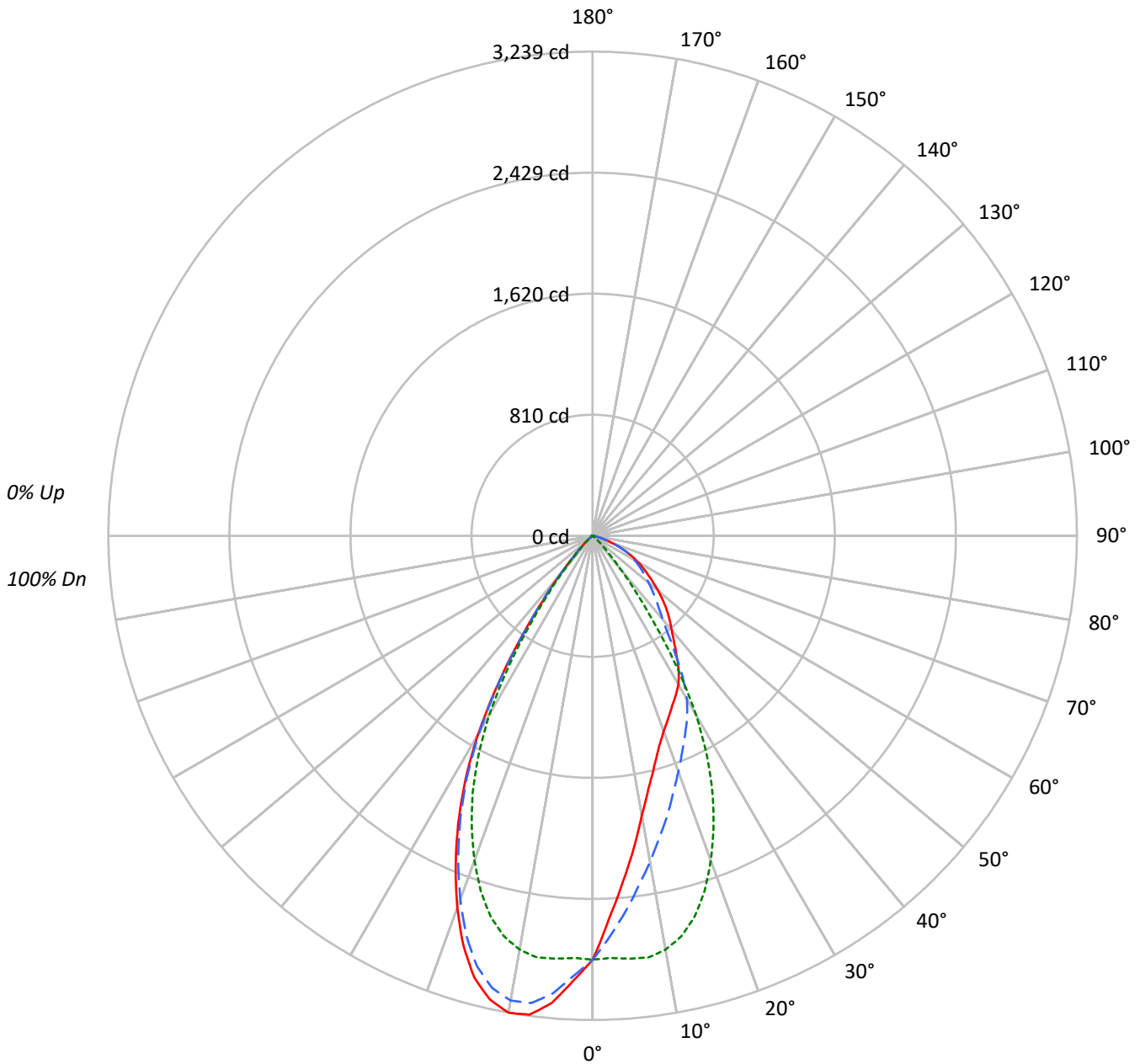
Lumens per Lamp: N/A  
Luminaire Lumens: 2792.0 lumens  
Efficiency: N/A  
Efficacy: 61.5 lumens/watt  
Spacing Criteria (0/90/45): 0.85 / 0.93 / 0.89  
Luminous Opening: Circular (Dia: 0.46' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 45.4  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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	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°	185029	185029	185029
5°	152035	185991	205481
10°	125684	186234	214601
15°	107649	178068	206604
20°	96518	160378	183705
25°	90536	136570	153155
30°	86505	104148	115290
35°	77995	59032	66829
40°	69989	24042	28292
45°	64668	8322	9568
50°	58076	2923	3116
55°	51321	1752	1524
60°	45355	1501	1253
65°	37343	1189	895
70°	24912	1106	725
75°	13561	958	479
80°	7214	2179	0
85°	2844	2844	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	264.0	9.5
10°-20°	686.9	24.6
20°-30°	811.5	29.1
30°-40°	540.8	19.4
40°-50°	234.6	8.4
50°-60°	140.7	5.0
60°-70°	84.4	3.0
70°-80°	25.9	0.9
80°-90°	3.2	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°	1762.4	63.1
0°-40°	2303.2	82.5
0°-60°	2678.5	95.9
0°-90°	2792.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2792.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	2836	2836	2836	2836	2836	
5°	2322	2523	2840	3074	3138	210
15°	1594	1932	2636	2984	3059	449
25°	1258	1463	1897	2095	2128	581
35°	979	964	741	824	839	613
45°	701	593	90	104	104	539
55°	451	401	15	13	13	406
65°	242	240	8	6	6	238
75°	54	60	4	2	2	65
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°	2836.1	2836.1	2836.1	2836.1	2836.1	2836.1	2836.1	2836.1	2836.1	2836.1	2836.1
2.5°	2559.6	2603.8	2623.0	2636.4	2586.5	2640.3	2623.0	2648.0	2655.6	2680.6	2703.6
5°	2321.5	2363.8	2384.9	2400.3	2361.9	2423.3	2421.4	2454.0	2480.9	2523.1	2552.0
7.5°	2108.4	2127.6	2148.7	2169.8	2152.5	2208.2	2217.8	2263.9	2304.2	2361.9	2415.6
10°	1897.2	1916.4	1937.5	1960.5	1952.8	2008.5	2029.7	2081.5	2135.3	2212.1	2269.7
12.5°	1728.2	1747.4	1766.6	1789.6	1785.8	1841.5	1868.4	1924.0	1989.3	2066.1	2131.4
15°	1593.8	1611.1	1630.3	1645.6	1649.5	1701.3	1730.1	1783.9	1853.0	1931.7	1998.9
17.5°	1476.6	1495.8	1513.1	1526.6	1530.4	1578.4	1607.2	1655.2	1722.4	1797.3	1862.6
20°	1390.2	1407.5	1422.9	1436.3	1436.3	1478.6	1503.5	1547.7	1607.2	1676.3	1732.0
22.5°	1321.1	1336.5	1349.9	1361.4	1361.4	1397.9	1419.0	1455.5	1507.4	1565.0	1611.1
25°	1257.7	1273.1	1284.6	1294.2	1292.3	1326.9	1344.1	1371.0	1415.2	1463.2	1497.8
27.5°	1204.0	1219.3	1228.9	1242.4	1234.7	1263.5	1276.9	1300.0	1334.5	1369.1	1388.3
30°	1148.3	1163.6	1173.2	1184.8	1177.1	1202.0	1209.7	1221.3	1244.3	1261.6	1263.5
32.5°	1071.5	1084.9	1094.5	1100.3	1090.7	1109.9	1109.9	1111.8	1119.5	1121.4	1106.0
35°	979.3	988.9	996.6	998.5	987.0	998.5	996.6	983.1	979.3	963.9	933.2
37.5°	892.9	904.4	908.3	908.3	892.9	898.7	891.0	869.9	854.5	827.6	785.4
40°	821.8	831.4	833.4	831.4	816.1	818.0	806.5	781.5	760.4	727.8	674.0
42.5°	762.3	770.0	771.9	770.0	754.6	754.6	743.1	716.2	691.3	654.8	599.1
45°	700.9	708.6	712.4	708.6	695.1	695.1	681.7	656.7	631.7	593.3	537.7
47.5°	637.5	643.3	647.1	645.2	631.7	631.7	620.2	595.3	574.1	539.6	485.8
50°	572.2	579.9	583.7	581.8	570.3	570.3	560.7	537.7	520.4	489.7	441.6
52.5°	508.9	518.5	520.4	516.5	508.9	506.9	501.2	480.1	466.6	445.5	399.4
55°	451.2	458.9	458.9	458.9	449.3	447.4	443.6	426.3	418.6	401.3	362.9
57.5°	399.4	405.2	403.2	401.3	397.5	393.6	389.8	376.4	372.5	361.0	328.4
60°	347.6	353.3	351.4	349.5	345.6	341.8	338.0	328.4	328.4	320.7	293.8
62.5°	297.6	301.5	299.6	297.6	297.6	293.8	291.9	284.2	286.1	282.3	259.2
65°	241.9	247.7	245.8	245.8	247.7	247.7	245.8	241.9	241.9	240.0	220.8
67.5°	184.3	190.1	188.2	190.1	195.9	197.8	197.8	195.9	195.9	192.0	174.7
70°	130.6	134.4	134.4	136.3	142.1	144.0	149.8	144.0	144.0	140.2	126.7
72.5°	86.4	88.3	90.2	94.1	96.0	97.9	101.8	101.8	99.9	94.1	84.5
75°	53.8	55.7	55.7	57.6	59.5	61.4	65.3	63.4	61.4	59.5	51.8
77.5°	32.6	32.6	34.6	34.6	36.5	38.4	38.4	38.4	36.5	34.6	30.7
80°	19.2	19.2	19.2	21.1	21.1	21.1	21.1	21.1	21.1	19.2	17.3
82.5°	9.6	9.6	9.6	11.5	11.5	11.5	11.5	11.5	11.5	9.6	9.6
85°	3.8	3.8	3.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8	3.8
87.5°	0.0	0.0	0.0	1.9	0.0	0.0	0.0	0.0	1.9	1.9	1.9
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°	2836.1	2836.1	2836.1	2836.1	2836.1	2836.1	2836.1	2836.1	2836.1	2836.1	2836.1
2.5°	2726.7	2726.7	2720.9	2755.5	2799.7	2792.0	2793.9	2826.5	2840.0	2863.0	2884.1
5°	2601.9	2623.0	2638.4	2694.0	2757.4	2768.9	2790.1	2840.0	2870.7	2909.1	2945.6
7.5°	2477.1	2521.2	2557.7	2630.7	2713.2	2744.0	2782.4	2845.7	2886.1	2937.9	2987.8
10°	2348.4	2409.9	2463.6	2552.0	2648.0	2692.1	2740.1	2811.2	2864.9	2920.6	2976.3
12.5°	2219.8	2294.6	2361.9	2459.8	2561.6	2615.3	2669.1	2744.0	2801.6	2859.2	2916.8
15°	2093.0	2173.7	2244.7	2348.4	2452.1	2507.8	2561.6	2636.4	2697.9	2751.7	2809.3
17.5°	1952.8	2043.1	2108.4	2206.3	2306.2	2361.9	2421.4	2490.5	2544.3	2590.4	2646.0
20°	1816.5	1901.0	1960.5	2050.8	2141.0	2192.9	2248.6	2310.0	2358.0	2398.3	2450.2
22.5°	1684.0	1758.9	1814.6	1897.2	1966.3	2010.5	2058.5	2112.2	2154.5	2187.1	2233.2
25°	1555.4	1614.9	1657.1	1722.4	1778.1	1812.7	1853.0	1897.2	1933.6	1960.5	2002.8
27.5°	1426.7	1467.0	1482.4	1522.7	1557.3	1595.7	1616.8	1651.4	1684.0	1705.1	1741.6
30°	1278.9	1292.3	1278.9	1290.4	1300.0	1317.3	1342.2	1382.5	1397.9	1411.4	1447.8
32.5°	1094.5	1084.9	1040.8	1023.5	1011.9	1029.2	1033.1	1063.8	1073.4	1084.9	1113.7
35°	900.6	866.0	795.0	750.8	723.9	725.8	708.6	741.2	747.0	758.5	779.6
37.5°	735.4	679.8	587.6	526.1	485.8	476.2	455.1	474.3	476.2	483.9	499.3
40°	614.5	535.7	432.0	359.1	314.9	295.7	274.6	282.3	282.3	288.0	297.6
42.5°	530.0	445.5	328.4	249.6	201.6	178.6	161.3	161.3	161.3	163.2	169.0
45°	466.6	372.5	255.4	174.7	130.6	107.5	90.2	90.2	88.3	88.3	92.2
47.5°	414.8	320.7	201.6	128.7	84.5	63.4	51.8	48.0	46.1	48.0	49.9
50°	372.5	280.3	167.1	97.9	59.5	42.2	32.6	28.8	26.9	26.9	26.9
52.5°	336.0	247.7	140.2	78.7	46.1	30.7	23.0	19.2	17.3	17.3	17.3
55°	305.3	218.9	121.0	65.3	38.4	26.9	19.2	15.4	13.4	13.4	13.4
57.5°	274.6	193.9	103.7	55.7	32.6	23.0	17.3	13.4	11.5	11.5	11.5
60°	243.9	169.0	90.2	46.1	26.9	19.2	15.4	11.5	9.6	9.6	9.6
62.5°	213.1	144.0	74.9	38.4	23.0	17.3	11.5	9.6	9.6	7.7	7.7
65°	176.7	117.1	61.4	32.6	19.2	13.4	11.5	7.7	7.7	7.7	7.7
67.5°	138.3	90.2	46.1	25.0	15.4	11.5	9.6	7.7	5.8	5.8	5.8
70°	97.9	63.4	34.6	19.2	13.4	9.6	7.7	5.8	5.8	5.8	3.8
72.5°	65.3	42.2	25.0	15.4	11.5	7.7	5.8	5.8	3.8	3.8	3.8
75°	42.2	26.9	17.3	11.5	7.7	7.7	5.8	3.8	3.8	3.8	1.9
77.5°	25.0	17.3	11.5	7.7	5.8	5.8	5.8	5.8	5.8	3.8	1.9
80°	13.4	9.6	7.7	5.8	3.8	5.8	5.8	5.8	5.8	3.8	1.9
82.5°	7.7	5.8	3.8	3.8	3.8	3.8	3.8	5.8	5.8	3.8	1.9
85°	3.8	3.8	1.9	1.9	1.9	3.8	3.8	3.8	3.8	1.9	1.9
87.5°	1.9	1.9	1.9	1.9	1.9	1.9	1.9	3.8	3.8	1.9	1.9
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°	2836.1	2836.1	2836.1	2836.1	2836.1	2836.1	2836.1	2836.1	2836.1	2836.1	2836.1
2.5°	2901.4	2913.0	2916.8	2922.6	2955.2	2947.5	2976.3	2976.3	2999.4	2985.9	2999.4
5°	2976.3	3001.3	3012.8	3028.2	3074.2	3074.2	3108.8	3114.6	3145.3	3135.7	3149.1
7.5°	3024.3	3055.0	3070.4	3095.4	3145.3	3153.0	3185.6	3195.2	3231.7	3225.9	3233.6
10°	3014.7	3047.4	3066.6	3093.4	3145.3	3156.8	3185.6	3202.9	3237.5	3229.8	3233.6
12.5°	2955.2	2985.9	3007.0	3032.0	3085.8	3099.2	3124.2	3143.4	3176.0	3170.3	3170.3
15°	2843.8	2878.4	2895.7	2916.8	2968.6	2984.0	3003.2	3018.6	3055.0	3051.2	3045.4
17.5°	2676.8	2709.4	2722.8	2740.1	2790.1	2807.3	2822.7	2834.2	2868.8	2866.9	2857.3
20°	2473.2	2502.0	2513.5	2525.1	2569.2	2586.5	2598.0	2609.6	2638.4	2638.4	2624.9
22.5°	2250.5	2275.4	2283.1	2292.7	2331.1	2348.4	2354.2	2363.8	2390.7	2390.7	2373.4
25°	2014.3	2035.4	2039.3	2046.9	2079.6	2094.9	2096.9	2102.6	2129.5	2129.5	2112.2
27.5°	1749.3	1766.6	1770.4	1774.3	1803.1	1818.4	1816.5	1837.6	1845.3	1849.2	1828.0
30°	1451.7	1480.5	1465.1	1482.4	1492.0	1507.4	1501.6	1522.7	1528.5	1534.2	1507.4
32.5°	1117.6	1144.4	1127.2	1144.4	1148.3	1163.6	1156.0	1175.2	1179.0	1184.8	1159.8
35°	783.4	804.6	789.2	795.0	808.4	823.8	814.2	831.4	835.3	837.2	818.0
37.5°	503.1	518.5	522.3	528.1	528.1	539.6	543.4	543.4	545.3	547.3	531.9
40°	301.5	313.0	314.9	313.0	318.8	328.4	330.3	328.4	330.3	332.2	322.6
42.5°	170.9	178.6	180.5	180.5	184.3	190.1	190.1	188.2	190.1	190.1	184.3
45°	94.1	97.9	99.9	97.9	99.9	103.7	103.7	103.7	103.7	103.7	101.8
47.5°	49.9	51.8	51.8	53.8	51.8	53.8	53.8	53.8	55.7	55.7	53.8
50°	26.9	28.8	28.8	28.8	28.8	30.7	30.7	30.7	30.7	30.7	28.8
52.5°	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3
55°	13.4	13.4	13.4	13.4	13.4	13.4	13.4	13.4	13.4	13.4	13.4
57.5°	11.5	11.5	11.5	11.5	11.5	11.5	11.5	11.5	11.5	11.5	11.5
60°	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6
62.5°	7.7	7.7	7.7	7.7	7.7	7.7	7.7	7.7	7.7	7.7	7.7
65°	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8
67.5°	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8
70°	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8
72.5°	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8
75°	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
77.5°	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
80°	1.9	1.9	1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	1.9	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: P135608

CATALOG NUMBER: LD6A30D010TE ERM6A30827 6LM111LI

**CANDELA DISTRIBUTION (continued):**

	165°	170°	175°	180°
0°	2836.1	2836.1	2836.1	2836.1
2.5°	3005.1	3014.7	3001.3	2980.2
5°	3158.7	3170.3	3156.8	3137.6
7.5°	3243.2	3260.5	3245.1	3231.7
10°	3247.1	3264.3	3247.1	3239.4
12.5°	3183.7	3201.0	3181.8	3177.9
15°	3062.7	3076.2	3057.0	3058.9
17.5°	2876.5	2888.0	2868.8	2874.5
20°	2642.2	2653.7	2634.5	2646.0
22.5°	2390.7	2398.3	2394.5	2392.6
25°	2127.6	2133.3	2116.1	2127.6
27.5°	1839.6	1843.4	1845.3	1843.4
30°	1520.8	1522.7	1511.2	1530.4
32.5°	1171.3	1169.4	1165.6	1182.8
35°	823.8	823.8	823.8	839.1
37.5°	535.7	533.8	535.7	547.3
40°	324.5	322.6	324.5	332.2
42.5°	184.3	184.3	186.3	190.1
45°	103.7	101.8	101.8	103.7
47.5°	55.7	55.7	53.8	55.7
50°	30.7	30.7	28.8	30.7
52.5°	17.3	17.3	17.3	17.3
55°	13.4	13.4	13.4	13.4
57.5°	11.5	11.5	11.5	11.5
60°	9.6	9.6	9.6	9.6
62.5°	7.7	7.7	7.7	7.7
65°	5.8	7.7	5.8	5.8
67.5°	5.8	5.8	5.8	5.8
70°	3.8	3.8	3.8	3.8
72.5°	3.8	3.8	3.8	3.8
75°	1.9	1.9	1.9	1.9
77.5°	1.9	1.9	1.9	1.9
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



Report Generated By E9808895 / USPTCWHP6082093





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















(END OF REPORT)