

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: P135609

Luminaire Tested: **LD6A30D010TE ERM6A30830 6LM111LI**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P135609  
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 ERM6A30830 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**

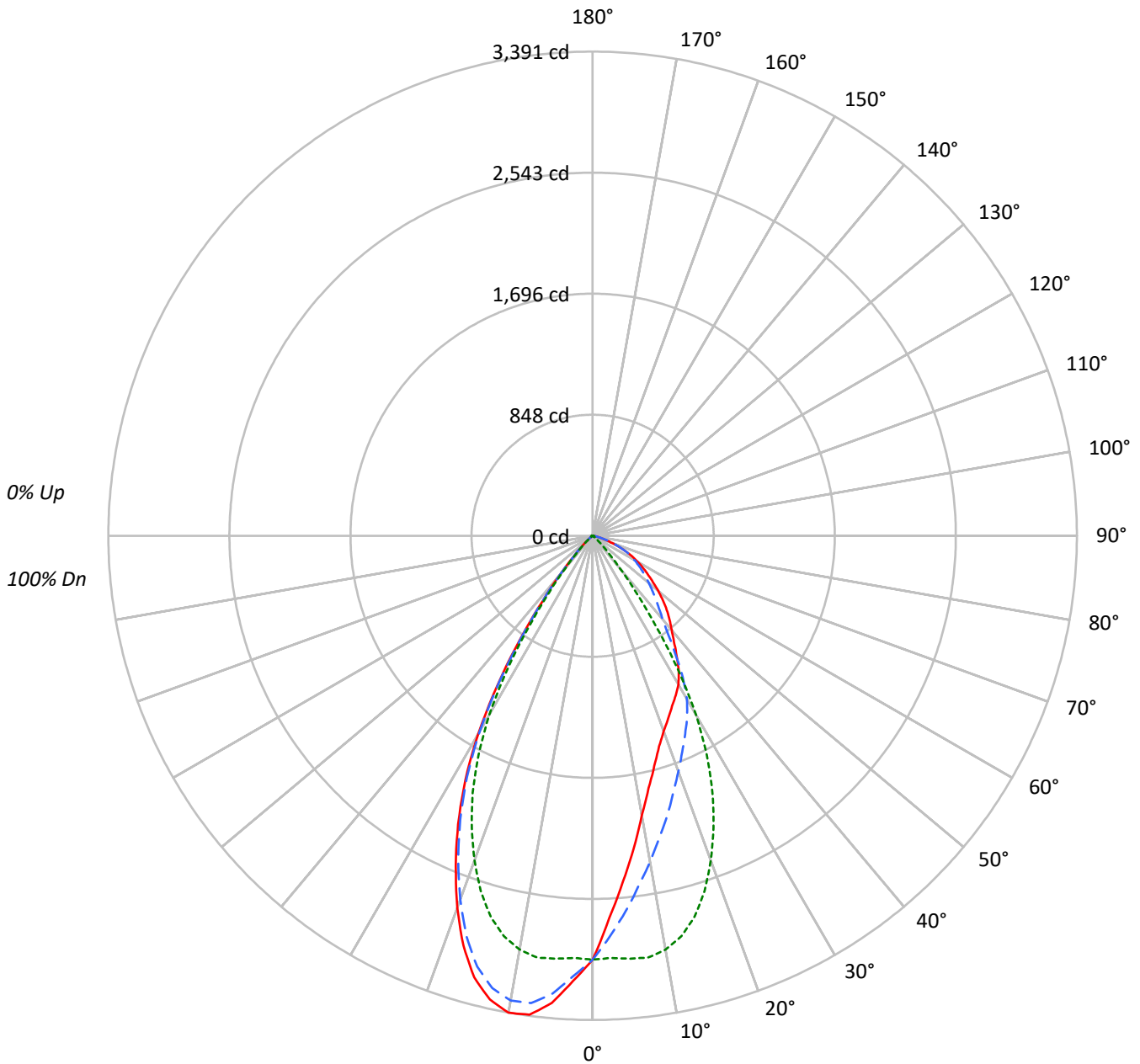
Lumens per Lamp: N/A  
Luminaire Lumens: 2923.0 lumens  
Efficiency: N/A  
Efficacy: 64.4 lumens/watt  
Spacing Criteria (0/90/45): 0.85 / 0.93 / 0.89  
Luminous Opening: Circular (Dia: 0.46' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 45.4  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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									
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°	193712	193712	193712
5°	159173	194714	215121
10°	131580	194972	224670
15°	112694	186423	216297
20°	101052	167904	192328
25°	94783	142977	160340
30°	90566	109038	120699
35°	81659	61804	69967
40°	73276	25166	29621
45°	67703	8719	10020
50°	60806	3065	3268
55°	53732	1831	1604
60°	47482	1579	1318
65°	39103	1235	926
70°	26076	1145	763
75°	14192	1008	504
80°	7552	2254	0
85°	2994	2994	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	276.4	9.5
10°-20°	719.1	24.6
20°-30°	849.6	29.1
30°-40°	566.2	19.4
40°-50°	245.6	8.4
50°-60°	147.3	5.0
60°-70°	88.4	3.0
70°-80°	27.1	0.9
80°-90°	3.4	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°	1845.1	63.1
0°-40°	2411.2	82.5
0°-60°	2804.2	95.9
0°-90°	2923.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2923.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	2969	2969	2969	2969	2969	
5°	2430	2642	2973	3218	3285	219
15°	1668	2022	2760	3124	3202	470
25°	1317	1532	1986	2193	2227	609
35°	1025	1009	776	862	878	642
45°	734	621	94	109	109	564
55°	472	420	16	14	14	425
65°	253	251	8	6	6	249
75°	56	62	4	2	2	68
85°	4	6	4	0	0	7
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°	2969.2	2969.2	2969.2	2969.2	2969.2	2969.2	2969.2	2969.2	2969.2	2969.2	2969.2
2.5°	2679.7	2726.0	2746.1	2760.1	2707.9	2764.2	2746.1	2772.2	2780.2	2806.4	2830.5
5°	2430.5	2474.7	2496.8	2512.9	2472.7	2537.0	2535.0	2569.2	2597.3	2641.5	2671.7
7.5°	2207.3	2227.4	2249.5	2271.6	2253.5	2311.8	2321.9	2370.1	2412.4	2472.7	2529.0
10°	1986.2	2006.3	2028.4	2052.5	2044.5	2102.8	2124.9	2179.2	2235.5	2315.9	2376.2
12.5°	1809.3	1829.4	1849.5	1873.6	1869.6	1927.9	1956.0	2014.3	2082.7	2163.1	2231.4
15°	1668.5	1686.6	1706.7	1722.8	1726.8	1781.1	1811.3	1867.6	1939.9	2022.4	2092.7
17.5°	1545.9	1566.0	1584.1	1598.2	1602.2	1652.5	1682.6	1732.9	1803.2	1881.6	1950.0
20°	1455.5	1473.5	1489.6	1503.7	1503.7	1547.9	1574.1	1620.3	1682.6	1755.0	1813.3
22.5°	1383.1	1399.2	1413.2	1425.3	1425.3	1463.5	1485.6	1523.8	1578.1	1638.4	1686.6
25°	1316.7	1332.8	1344.9	1354.9	1352.9	1389.1	1407.2	1435.4	1481.6	1531.8	1568.0
27.5°	1260.5	1276.5	1286.6	1300.7	1292.6	1322.8	1336.8	1361.0	1397.2	1433.3	1453.4
30°	1202.2	1218.2	1228.3	1240.4	1232.3	1258.4	1266.5	1278.6	1302.7	1320.8	1322.8
32.5°	1121.7	1135.8	1145.9	1151.9	1141.9	1162.0	1162.0	1164.0	1172.0	1174.0	1157.9
35°	1025.3	1035.3	1043.3	1045.4	1033.3	1045.4	1043.3	1029.3	1025.3	1009.2	977.0
37.5°	934.8	946.9	950.9	950.9	934.8	940.8	932.8	910.7	894.6	866.4	822.2
40°	860.4	870.5	872.5	870.5	854.4	856.4	844.3	818.2	796.1	761.9	705.6
42.5°	798.1	806.1	808.1	806.1	790.0	790.0	778.0	749.8	723.7	685.5	627.2
45°	733.8	741.8	745.8	741.8	727.7	727.7	713.7	687.5	661.4	621.2	562.9
47.5°	667.4	673.5	677.5	675.5	661.4	661.4	649.3	623.2	601.1	564.9	508.6
50°	599.1	607.1	611.1	609.1	597.1	597.1	587.0	562.9	544.8	512.6	462.4
52.5°	532.7	542.8	544.8	540.8	532.7	530.7	524.7	502.6	488.5	466.4	418.1
55°	472.4	480.5	480.5	480.5	470.4	468.4	464.4	446.3	438.2	420.2	379.9
57.5°	418.1	424.2	422.2	420.2	416.1	412.1	408.1	394.0	390.0	377.9	343.8
60°	363.9	369.9	367.9	365.9	361.9	357.8	353.8	343.8	343.8	335.7	307.6
62.5°	311.6	315.6	313.6	311.6	311.6	307.6	305.6	297.5	299.5	295.5	271.4
65°	253.3	259.3	257.3	257.3	259.3	259.3	257.3	253.3	253.3	251.3	231.2
67.5°	193.0	199.0	197.0	199.0	205.1	207.1	207.1	205.1	205.1	201.0	182.9
70°	136.7	140.7	140.7	142.7	148.8	150.8	156.8	150.8	150.8	146.8	132.7
72.5°	90.5	92.5	94.5	98.5	100.5	102.5	106.5	106.5	104.5	98.5	88.5
75°	56.3	58.3	58.3	60.3	62.3	64.3	68.4	66.3	64.3	62.3	54.3
77.5°	34.2	34.2	36.2	36.2	38.2	40.2	40.2	40.2	38.2	36.2	32.2
80°	20.1	20.1	20.1	22.1	22.1	22.1	22.1	22.1	22.1	20.1	18.1
82.5°	10.1	10.1	10.1	12.1	12.1	12.1	12.1	12.1	12.1	10.1	10.1
85°	4.0	4.0	4.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	4.0
87.5°	0.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0	2.0	2.0	2.0
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°	2969.2	2969.2	2969.2	2969.2	2969.2	2969.2	2969.2	2969.2	2969.2	2969.2	2969.2
2.5°	2854.6	2854.6	2848.6	2884.8	2931.0	2923.0	2925.0	2959.2	2973.2	2997.4	3019.5
5°	2724.0	2746.1	2762.2	2820.5	2886.8	2898.9	2921.0	2973.2	3005.4	3045.6	3083.8
7.5°	2593.3	2639.5	2677.7	2754.1	2840.6	2872.7	2912.9	2979.3	3021.5	3075.8	3128.0
10°	2458.6	2522.9	2579.2	2671.7	2772.2	2818.4	2868.7	2943.1	2999.4	3057.7	3116.0
12.5°	2323.9	2402.3	2472.7	2575.2	2681.7	2738.0	2794.3	2872.7	2933.0	2993.3	3053.6
15°	2191.2	2275.7	2350.0	2458.6	2567.2	2625.5	2681.7	2760.1	2824.5	2880.8	2941.1
17.5°	2044.5	2139.0	2207.3	2309.8	2414.4	2472.7	2535.0	2607.4	2663.6	2711.9	2770.2
20°	1901.7	1990.2	2052.5	2147.0	2241.5	2295.8	2354.1	2418.4	2468.6	2510.9	2565.1
22.5°	1763.0	1841.4	1899.7	1986.2	2058.5	2104.8	2155.0	2211.3	2255.6	2289.7	2338.0
25°	1628.3	1690.7	1734.9	1803.2	1861.5	1897.7	1939.9	1986.2	2024.4	2052.5	2096.7
27.5°	1493.7	1535.9	1552.0	1594.2	1630.4	1670.6	1692.7	1728.9	1763.0	1785.1	1823.3
30°	1338.9	1352.9	1338.9	1350.9	1361.0	1379.1	1405.2	1447.4	1463.5	1477.6	1515.8
32.5°	1145.9	1135.8	1089.6	1071.5	1059.4	1077.5	1081.5	1113.7	1123.8	1135.8	1166.0
35°	942.8	906.6	832.3	786.0	757.9	759.9	741.8	776.0	782.0	794.1	816.2
37.5°	769.9	711.6	615.2	550.8	508.6	498.6	476.4	496.5	498.6	506.6	522.7
40°	643.3	560.9	452.3	375.9	329.7	309.6	287.5	295.5	295.5	301.5	311.6
42.5°	554.8	466.4	343.8	261.3	211.1	187.0	168.9	168.9	168.9	170.9	176.9
45°	488.5	390.0	267.4	182.9	136.7	112.6	94.5	94.5	92.5	92.5	96.5
47.5°	434.2	335.7	211.1	134.7	88.5	66.3	54.3	50.3	48.2	50.3	52.3
50°	390.0	293.5	174.9	102.5	62.3	44.2	34.2	30.2	28.1	28.1	28.1
52.5°	351.8	259.3	146.8	82.4	48.2	32.2	24.1	20.1	18.1	18.1	18.1
55°	319.6	229.2	126.6	68.4	40.2	28.1	20.1	16.1	14.1	14.1	14.1
57.5°	287.5	203.0	108.6	58.3	34.2	24.1	18.1	14.1	12.1	12.1	12.1
60°	255.3	176.9	94.5	48.2	28.1	20.1	16.1	12.1	10.1	10.1	10.1
62.5°	223.1	150.8	78.4	40.2	24.1	18.1	12.1	10.1	10.1	8.0	8.0
65°	184.9	122.6	64.3	34.2	20.1	14.1	12.1	8.0	8.0	8.0	8.0
67.5°	144.7	94.5	48.2	26.1	16.1	12.1	10.1	8.0	6.0	6.0	6.0
70°	102.5	66.3	36.2	20.1	14.1	10.1	8.0	6.0	6.0	6.0	4.0
72.5°	68.4	44.2	26.1	16.1	12.1	8.0	6.0	6.0	4.0	4.0	4.0
75°	44.2	28.1	18.1	12.1	8.0	8.0	6.0	4.0	4.0	4.0	2.0
77.5°	26.1	18.1	12.1	8.0	6.0	6.0	6.0	6.0	6.0	4.0	2.0
80°	14.1	10.1	8.0	6.0	4.0	6.0	6.0	6.0	6.0	4.0	2.0
82.5°	8.0	6.0	4.0	4.0	4.0	4.0	4.0	6.0	6.0	4.0	2.0
85°	4.0	4.0	2.0	2.0	2.0	4.0	4.0	4.0	4.0	2.0	2.0
87.5°	2.0	2.0	2.0	2.0	2.0	2.0	2.0	4.0	4.0	2.0	2.0
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°	2969.2	2969.2	2969.2	2969.2	2969.2	2969.2	2969.2	2969.2	2969.2	2969.2	2969.2
2.5°	3037.6	3049.6	3053.6	3059.7	3093.9	3085.8	3116.0	3116.0	3140.1	3126.0	3140.1
5°	3116.0	3142.1	3154.2	3170.2	3218.5	3218.5	3254.7	3260.7	3292.9	3282.8	3296.9
7.5°	3166.2	3198.4	3214.5	3240.6	3292.9	3300.9	3335.1	3345.1	3383.3	3377.3	3385.3
10°	3156.2	3190.3	3210.4	3238.6	3292.9	3304.9	3335.1	3353.2	3389.4	3381.3	3385.3
12.5°	3093.9	3126.0	3148.1	3174.3	3230.6	3244.6	3270.8	3290.9	3325.0	3319.0	3319.0
15°	2977.3	3013.4	3031.5	3053.6	3107.9	3124.0	3144.1	3160.2	3198.4	3194.4	3188.3
17.5°	2802.4	2836.5	2850.6	2868.7	2921.0	2939.1	2955.1	2967.2	3003.4	3001.4	2991.3
20°	2589.3	2619.4	2631.5	2643.5	2689.8	2707.9	2719.9	2732.0	2762.2	2762.2	2748.1
22.5°	2356.1	2382.2	2390.2	2400.3	2440.5	2458.6	2464.6	2474.7	2502.8	2502.8	2484.7
25°	2108.8	2130.9	2134.9	2143.0	2177.2	2193.2	2195.2	2201.3	2229.4	2229.4	2211.3
27.5°	1831.4	1849.5	1853.5	1857.5	1887.7	1903.8	1901.7	1923.9	1931.9	1935.9	1913.8
30°	1519.8	1549.9	1533.9	1552.0	1562.0	1578.1	1572.1	1594.2	1600.2	1606.2	1578.1
32.5°	1170.0	1198.1	1180.0	1198.1	1202.2	1218.2	1210.2	1230.3	1234.3	1240.4	1214.2
35°	820.2	842.3	826.2	832.3	846.3	862.4	852.4	870.5	874.5	876.5	856.4
37.5°	526.7	542.8	546.8	552.8	552.8	564.9	568.9	568.9	570.9	572.9	556.9
40°	315.6	327.7	329.7	327.7	333.7	343.8	345.8	343.8	345.8	347.8	337.7
42.5°	178.9	187.0	189.0	189.0	193.0	199.0	199.0	197.0	199.0	199.0	193.0
45°	98.5	102.5	104.5	102.5	104.5	108.6	108.6	108.6	108.6	108.6	106.5
47.5°	52.3	54.3	54.3	56.3	54.3	56.3	56.3	56.3	58.3	58.3	56.3
50°	28.1	30.2	30.2	30.2	30.2	32.2	32.2	32.2	32.2	32.2	30.2
52.5°	18.1	18.1	18.1	18.1	18.1	18.1	18.1	18.1	18.1	18.1	18.1
55°	14.1	14.1	14.1	14.1	14.1	14.1	14.1	14.1	14.1	14.1	14.1
57.5°	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1
60°	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1
62.5°	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0
65°	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
67.5°	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
70°	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
72.5°	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
75°	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
77.5°	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
80°	2.0	2.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	2.0	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: P135609

CATALOG NUMBER: LD6A30D010TE ERM6A30830 6LM111LI

**CANDELA DISTRIBUTION (continued):**

	165°	170°	175°	180°
0°	2969.2	2969.2	2969.2	2969.2
2.5°	3146.1	3156.2	3142.1	3120.0
5°	3306.9	3319.0	3304.9	3284.8
7.5°	3395.4	3413.5	3397.4	3383.3
10°	3399.4	3417.5	3399.4	3391.4
12.5°	3333.1	3351.2	3331.1	3327.0
15°	3206.4	3220.5	3200.4	3202.4
17.5°	3011.4	3023.5	3003.4	3009.4
20°	2766.2	2778.2	2758.1	2770.2
22.5°	2502.8	2510.9	2506.8	2504.8
25°	2227.4	2233.4	2215.4	2227.4
27.5°	1925.9	1929.9	1931.9	1929.9
30°	1592.2	1594.2	1582.1	1602.2
32.5°	1226.3	1224.3	1220.3	1238.3
35°	862.4	862.4	862.4	878.5
37.5°	560.9	558.9	560.9	572.9
40°	339.7	337.7	339.7	347.8
42.5°	193.0	193.0	195.0	199.0
45°	108.6	106.5	106.5	108.6
47.5°	58.3	58.3	56.3	58.3
50°	32.2	32.2	30.2	32.2
52.5°	18.1	18.1	18.1	18.1
55°	14.1	14.1	14.1	14.1
57.5°	12.1	12.1	12.1	12.1
60°	10.1	10.1	10.1	10.1
62.5°	8.0	8.0	8.0	8.0
65°	6.0	8.0	6.0	6.0
67.5°	6.0	6.0	6.0	6.0
70°	4.0	4.0	4.0	4.0
72.5°	4.0	4.0	4.0	4.0
75°	2.0	2.0	2.0	2.0
77.5°	2.0	2.0	2.0	2.0
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)