

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: P135614

Luminaire Tested: **LD6A30D010TE ERM6A30935 6LM111LI**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P135614  
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 ERM6A30935 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 3500K  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

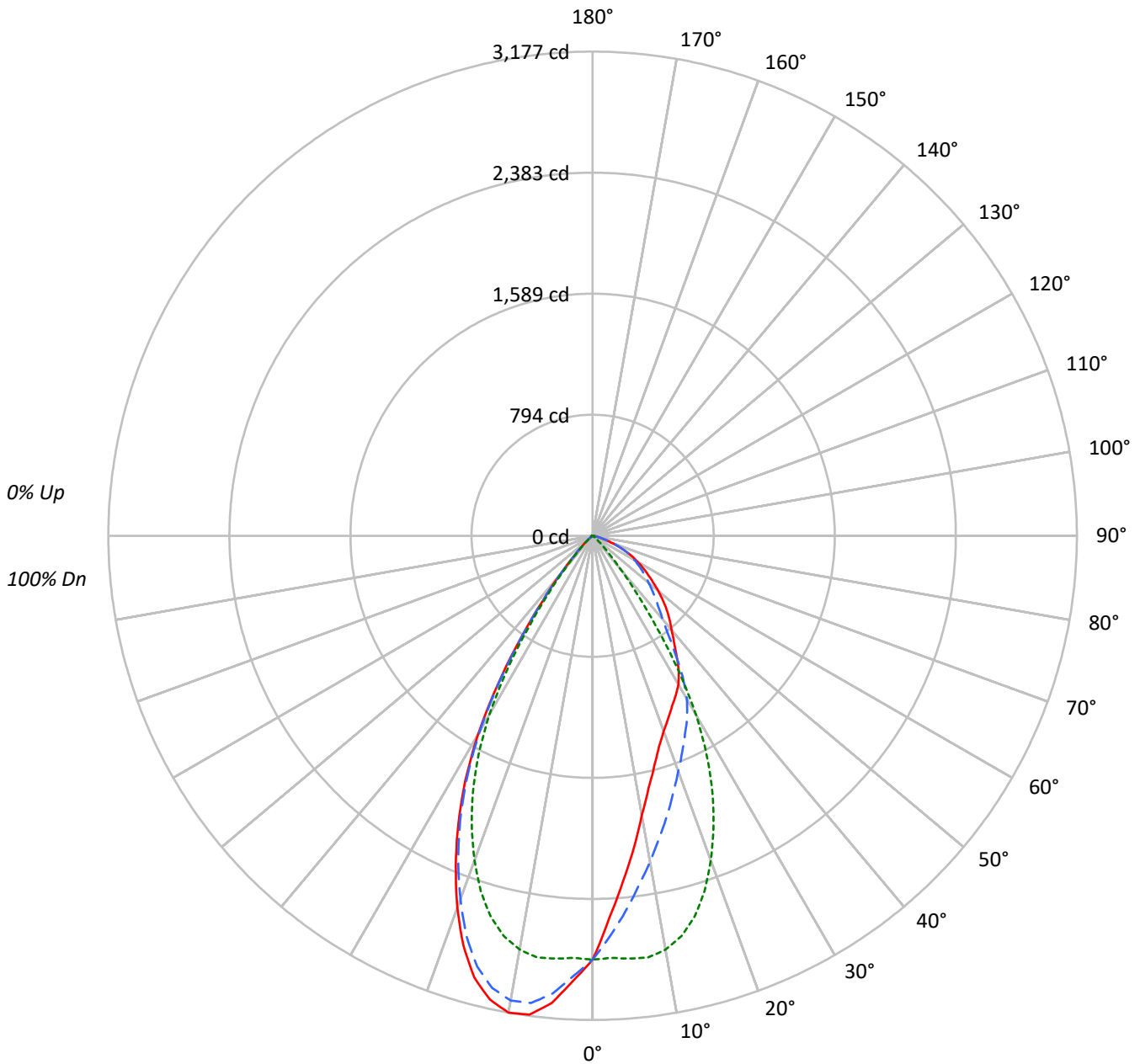
Lumens per Lamp: N/A  
Luminaire Lumens: 2738.1 lumens  
Efficiency: N/A  
Efficacy: 60.3 lumens/watt  
Spacing Criteria (0/90/45): 0.85 / 0.93 / 0.89  
Luminous Opening: Circular (Dia: 0.46' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 45.4  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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°	181460	181460	181460
5°	149101	182396	201512
10°	123253	182637	210460
15°	105568	174630	202613
20°	94658	157281	180158
25°	88794	133928	150197
30°	84833	102137	113068
35°	76490	57893	65539
40°	68643	23574	27747
45°	63413	8165	9383
50°	56950	2862	3055
55°	50332	1718	1490
60°	44468	1474	1227
65°	36633	1173	880
70°	24435	1087	706
75°	13309	933	479
80°	7063	2142	0
85°	2770	2770	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	258.9	9.5
10°-20°	673.6	24.6
20°-30°	795.8	29.1
30°-40°	530.4	19.4
40°-50°	230.0	8.4
50°-60°	138.0	5.0
60°-70°	82.8	3.0
70°-80°	25.4	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°	1728.3	63.1
0°-40°	2258.7	82.5
0°-60°	2626.7	95.9
0°-90°	2738.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2738.1	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	2781	2781	2781	2781	2781	
5°	2277	2474	2785	3015	3077	205
15°	1563	1894	2586	2926	3000	441
25°	1234	1435	1860	2054	2086	570
35°	960	945	727	808	823	601
45°	687	582	88	102	102	529
55°	442	394	15	13	13	398
65°	237	235	8	6	6	233
75°	53	58	4	2	2	64
85°	4	6	4	0	0	6
90°	0	0	0	0	0	



TEST NUMBER: P135614

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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	2781.4	2781.4	2781.4	2781.4	2781.4	2781.4	2781.4	2781.4	2781.4	2781.4	2781.4
2.5°	2510.2	2553.5	2572.4	2585.5	2536.6	2589.3	2572.4	2596.8	2604.3	2628.8	2651.4
5°	2276.7	2318.1	2338.8	2353.9	2316.3	2376.5	2374.6	2406.7	2433.0	2474.4	2502.7
7.5°	2067.7	2086.5	2107.2	2127.9	2110.9	2165.6	2175.0	2220.2	2259.8	2316.3	2369.0
10°	1860.5	1879.3	1900.0	1922.7	1915.1	1969.7	1990.4	2041.3	2094.1	2169.4	2225.9
12.5°	1694.8	1713.6	1732.5	1755.1	1751.3	1805.9	1832.3	1886.9	1950.9	2026.2	2090.3
15°	1563.0	1579.9	1598.8	1613.8	1617.6	1668.4	1696.7	1749.4	1817.2	1894.4	1960.3
17.5°	1448.1	1466.9	1483.9	1497.0	1500.9	1547.9	1576.2	1623.2	1689.1	1762.6	1826.6
20°	1363.4	1380.4	1395.4	1408.6	1408.6	1450.0	1474.5	1517.8	1576.2	1643.9	1698.5
22.5°	1295.5	1310.6	1323.9	1335.2	1335.2	1371.0	1391.6	1427.4	1478.2	1534.8	1579.9
25°	1233.5	1248.5	1259.8	1269.3	1267.3	1301.2	1318.2	1344.6	1387.9	1435.0	1468.8
27.5°	1180.7	1195.8	1205.2	1218.4	1210.8	1239.1	1252.3	1274.9	1308.8	1342.7	1361.5
30°	1126.1	1141.2	1150.6	1161.9	1154.4	1178.9	1186.4	1197.7	1220.2	1237.2	1239.1
32.5°	1050.8	1064.0	1073.4	1079.1	1069.6	1088.5	1088.5	1090.3	1097.9	1099.7	1084.6
35°	960.4	969.8	977.4	979.2	968.0	979.2	977.4	964.1	960.4	945.3	915.2
37.5°	875.7	887.0	890.7	890.7	875.7	881.3	873.7	853.0	838.0	811.7	770.2
40°	806.0	815.4	817.3	815.4	800.3	802.3	790.9	766.5	745.7	713.7	661.0
42.5°	747.6	755.1	757.1	755.1	740.1	740.1	728.8	702.4	677.9	642.1	587.5
45°	687.3	694.9	698.6	694.9	681.7	681.7	668.5	644.0	619.6	581.9	527.3
47.5°	625.2	630.9	634.6	632.7	619.6	619.6	608.2	583.8	563.0	529.2	476.4
50°	561.1	568.7	572.5	570.6	559.3	559.3	549.9	527.3	510.4	480.2	433.1
52.5°	499.0	508.4	510.4	506.5	499.0	497.1	491.5	470.7	457.6	436.9	391.7
55°	442.5	450.1	450.1	450.1	440.6	438.8	435.0	418.1	410.5	393.6	355.9
57.5°	391.7	397.3	395.4	393.6	389.9	386.0	382.3	369.1	365.3	354.1	322.0
60°	340.8	346.5	344.7	342.7	339.0	335.2	331.4	322.0	322.0	314.4	288.1
62.5°	291.9	295.6	293.8	291.9	291.9	288.1	286.2	278.7	280.6	276.8	254.2
65°	237.3	242.9	241.0	241.0	242.9	242.9	241.0	237.3	237.3	235.4	216.6
67.5°	180.8	186.4	184.5	186.4	192.1	193.9	193.9	192.1	192.1	188.4	171.4
70°	128.1	131.8	131.8	133.7	139.3	141.2	146.9	141.2	141.2	137.5	124.3
72.5°	84.7	86.6	88.5	92.3	94.1	96.0	99.8	99.8	98.0	92.3	82.9
75°	52.8	54.6	54.6	56.5	58.3	60.3	64.0	62.2	60.3	58.3	50.9
77.5°	32.0	32.0	33.9	33.9	35.8	37.7	37.7	37.7	35.8	33.9	30.1
80°	18.8	18.8	18.8	20.7	20.7	20.7	20.7	20.7	20.7	18.8	17.0
82.5°	9.4	9.4	9.4	11.3	11.3	11.3	11.3	11.3	11.3	9.4	9.4
85°	3.7	3.7	3.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	3.7
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



TEST NUMBER: P135614

CATALOG NUMBER: LD6A30D010TE ERM6A30935 6LM111LI

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	2781.4	2781.4	2781.4	2781.4	2781.4	2781.4	2781.4	2781.4	2781.4	2781.4	2781.4
2.5°	2674.0	2674.0	2668.4	2702.3	2745.6	2738.1	2739.9	2772.0	2785.1	2807.7	2828.5
5°	2551.7	2572.4	2587.4	2642.0	2704.1	2715.4	2736.2	2785.1	2815.2	2852.9	2888.7
7.5°	2429.2	2472.6	2508.3	2579.9	2660.8	2691.0	2728.7	2790.8	2830.3	2881.2	2930.2
10°	2303.0	2363.3	2416.1	2502.7	2596.8	2640.1	2687.2	2756.9	2809.7	2864.3	2918.9
12.5°	2176.9	2250.4	2316.3	2412.3	2512.1	2564.8	2617.6	2691.0	2747.5	2804.0	2860.4
15°	2052.6	2131.7	2201.3	2303.0	2404.8	2459.3	2512.1	2585.5	2645.8	2698.6	2755.0
17.5°	1915.1	2003.7	2067.7	2163.7	2261.6	2316.3	2374.6	2442.5	2495.1	2540.3	2594.9
20°	1781.4	1864.3	1922.7	2011.2	2099.7	2150.6	2205.2	2265.4	2312.4	2352.0	2402.8
22.5°	1651.5	1724.9	1779.5	1860.5	1928.3	1971.6	2018.7	2071.4	2112.9	2144.9	2190.1
25°	1525.3	1583.7	1625.1	1689.1	1743.7	1777.7	1817.2	1860.5	1896.3	1922.7	1964.1
27.5°	1399.2	1438.7	1453.8	1493.3	1527.2	1564.9	1585.6	1619.5	1651.5	1672.3	1708.0
30°	1254.2	1267.3	1254.2	1265.4	1274.9	1291.8	1316.3	1355.8	1371.0	1384.1	1419.9
32.5°	1073.4	1064.0	1020.6	1003.7	992.4	1009.3	1013.2	1043.3	1052.7	1064.0	1092.2
35°	883.1	849.3	779.6	736.3	709.9	711.9	694.9	726.9	732.5	743.8	764.5
37.5°	721.3	666.6	576.2	515.9	476.4	467.0	446.3	465.2	467.0	474.6	489.6
40°	602.6	525.4	423.7	352.1	308.9	290.0	269.2	276.8	276.8	282.5	291.9
42.5°	519.8	436.9	322.0	244.8	197.8	175.1	158.2	158.2	158.2	160.0	165.7
45°	457.6	365.3	250.4	171.4	128.1	105.5	88.5	88.5	86.6	86.6	90.4
47.5°	406.7	314.4	197.8	126.2	82.9	62.2	50.9	47.1	45.2	47.1	48.9
50°	365.3	274.9	163.8	96.0	58.3	41.5	32.0	28.2	26.4	26.4	26.4
52.5°	329.5	242.9	137.5	77.2	45.2	30.1	22.6	18.8	17.0	17.0	17.0
55°	299.4	214.6	118.6	64.0	37.7	26.4	18.8	15.1	13.1	13.1	13.1
57.5°	269.2	190.2	101.7	54.6	32.0	22.6	17.0	13.1	11.3	11.3	11.3
60°	239.1	165.7	88.5	45.2	26.4	18.8	15.1	11.3	9.4	9.4	9.4
62.5°	209.0	141.2	73.4	37.7	22.6	17.0	11.3	9.4	9.4	7.6	7.6
65°	173.3	114.9	60.3	32.0	18.8	13.1	11.3	7.6	7.6	7.6	7.6
67.5°	135.6	88.5	45.2	24.5	15.1	11.3	9.4	7.6	5.7	5.7	5.7
70°	96.0	62.2	33.9	18.8	13.1	9.4	7.6	5.7	5.7	5.7	3.7
72.5°	64.0	41.5	24.5	15.1	11.3	7.6	5.7	5.7	3.7	3.7	3.7
75°	41.5	26.4	17.0	11.3	7.6	7.6	5.7	3.7	3.7	3.7	1.9
77.5°	24.5	17.0	11.3	7.6	5.7	5.7	5.7	5.7	5.7	3.7	1.9
80°	13.1	9.4	7.6	5.7	3.7	5.7	5.7	5.7	5.7	3.7	1.9
82.5°	7.6	5.7	3.7	3.7	3.7	3.7	3.7	5.7	5.7	3.7	1.9
85°	3.7	3.7	1.9	1.9	1.9	3.7	3.7	3.7	3.7	1.9	1.9
87.5°	1.9	1.9	1.9	1.9	1.9	1.9	1.9	3.7	3.7	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



TEST NUMBER: P135614

CATALOG NUMBER: LD6A30D010TE ERM6A30935 6LM111LI

**CANDELA DISTRIBUTION (continued):**

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	2781.4	2781.4	2781.4	2781.4	2781.4	2781.4	2781.4	2781.4	2781.4	2781.4	2781.4
2.5°	2845.4	2856.7	2860.4	2866.1	2898.1	2890.6	2918.9	2918.9	2941.4	2928.3	2941.4
5°	2918.9	2943.3	2954.7	2969.7	3014.9	3014.9	3048.8	3054.4	3084.6	3075.2	3088.3
7.5°	2965.9	2996.0	3011.1	3035.6	3084.6	3092.1	3124.1	3133.5	3169.3	3163.6	3171.2
10°	2956.5	2988.5	3007.3	3033.7	3084.6	3095.9	3124.1	3141.1	3175.0	3167.4	3171.2
12.5°	2898.1	2928.3	2949.0	2973.5	3026.1	3039.4	3063.8	3082.7	3114.7	3109.0	3109.0
15°	2788.9	2822.8	2839.8	2860.4	2911.3	2926.3	2945.2	2960.3	2996.0	2992.3	2986.6
17.5°	2625.1	2657.1	2670.3	2687.2	2736.2	2753.2	2768.2	2779.5	2813.4	2811.5	2802.1
20°	2425.5	2453.7	2465.0	2476.3	2519.6	2536.6	2547.9	2559.1	2587.4	2587.4	2574.2
22.5°	2207.0	2231.5	2239.0	2248.4	2286.2	2303.0	2308.7	2318.1	2344.5	2344.5	2327.5
25°	1975.4	1996.1	1999.8	2007.4	2039.5	2054.5	2056.3	2062.0	2088.4	2088.4	2071.4
27.5°	1715.5	1732.5	1736.3	1740.0	1768.3	1783.4	1781.4	1802.2	1809.7	1813.5	1792.8
30°	1423.6	1451.9	1436.8	1453.8	1463.2	1478.2	1472.6	1493.3	1499.0	1504.6	1478.2
32.5°	1096.0	1122.4	1105.4	1122.4	1126.1	1141.2	1133.7	1152.5	1156.2	1161.9	1137.4
35°	768.3	789.0	774.0	779.6	792.8	807.8	798.4	815.4	819.1	821.1	802.3
37.5°	493.4	508.4	512.2	517.9	517.9	529.2	532.9	532.9	534.8	536.7	521.6
40°	295.6	307.0	308.9	307.0	312.6	322.0	323.9	322.0	323.9	325.8	316.4
42.5°	167.6	175.1	177.0	177.0	180.8	186.4	186.4	184.5	186.4	186.4	180.8
45°	92.3	96.0	98.0	96.0	98.0	101.7	101.7	101.7	101.7	101.7	99.8
47.5°	48.9	50.9	50.9	52.8	50.9	52.8	52.8	52.8	54.6	54.6	52.8
50°	26.4	28.2	28.2	28.2	28.2	30.1	30.1	30.1	30.1	30.1	28.2
52.5°	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0
55°	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1
57.5°	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.3
60°	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4
62.5°	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6
65°	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7
67.5°	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7
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°	1.9	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: P135614

CATALOG NUMBER: LD6A30D010TE ERM6A30935 6LM111LI

**CANDELA DISTRIBUTION (continued):**

	165°	170°	175°	180°
0°	2781.4	2781.4	2781.4	2781.4
2.5°	2947.1	2956.5	2943.3	2922.6
5°	3097.7	3109.0	3095.9	3077.0
7.5°	3180.6	3197.5	3182.4	3169.3
10°	3184.4	3201.3	3184.4	3176.9
12.5°	3122.2	3139.2	3120.4	3116.6
15°	3003.6	3016.7	2997.9	2999.8
17.5°	2820.9	2832.2	2813.4	2819.1
20°	2591.2	2602.5	2583.6	2594.9
22.5°	2344.5	2352.0	2348.2	2346.4
25°	2086.5	2092.1	2075.2	2086.5
27.5°	1804.0	1807.8	1809.7	1807.8
30°	1491.5	1493.3	1482.0	1500.9
32.5°	1148.7	1146.8	1143.1	1160.0
35°	807.8	807.8	807.8	822.9
37.5°	525.4	523.5	525.4	536.7
40°	318.3	316.4	318.3	325.8
42.5°	180.8	180.8	182.7	186.4
45°	101.7	99.8	99.8	101.7
47.5°	54.6	54.6	52.8	54.6
50°	30.1	30.1	28.2	30.1
52.5°	17.0	17.0	17.0	17.0
55°	13.1	13.1	13.1	13.1
57.5°	11.3	11.3	11.3	11.3
60°	9.4	9.4	9.4	9.4
62.5°	7.6	7.6	7.6	7.6
65°	5.7	7.6	5.7	5.7
67.5°	5.7	5.7	5.7	5.7
70°	3.7	3.7	3.7	3.7
72.5°	3.7	3.7	3.7	3.7
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



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















(END OF REPORT)