

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: P135615

Luminaire Tested: **LD6A30D010TE ERM6A30940 6LM111LI**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P135615
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 ERM6A30940 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 4000K
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2793.8 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

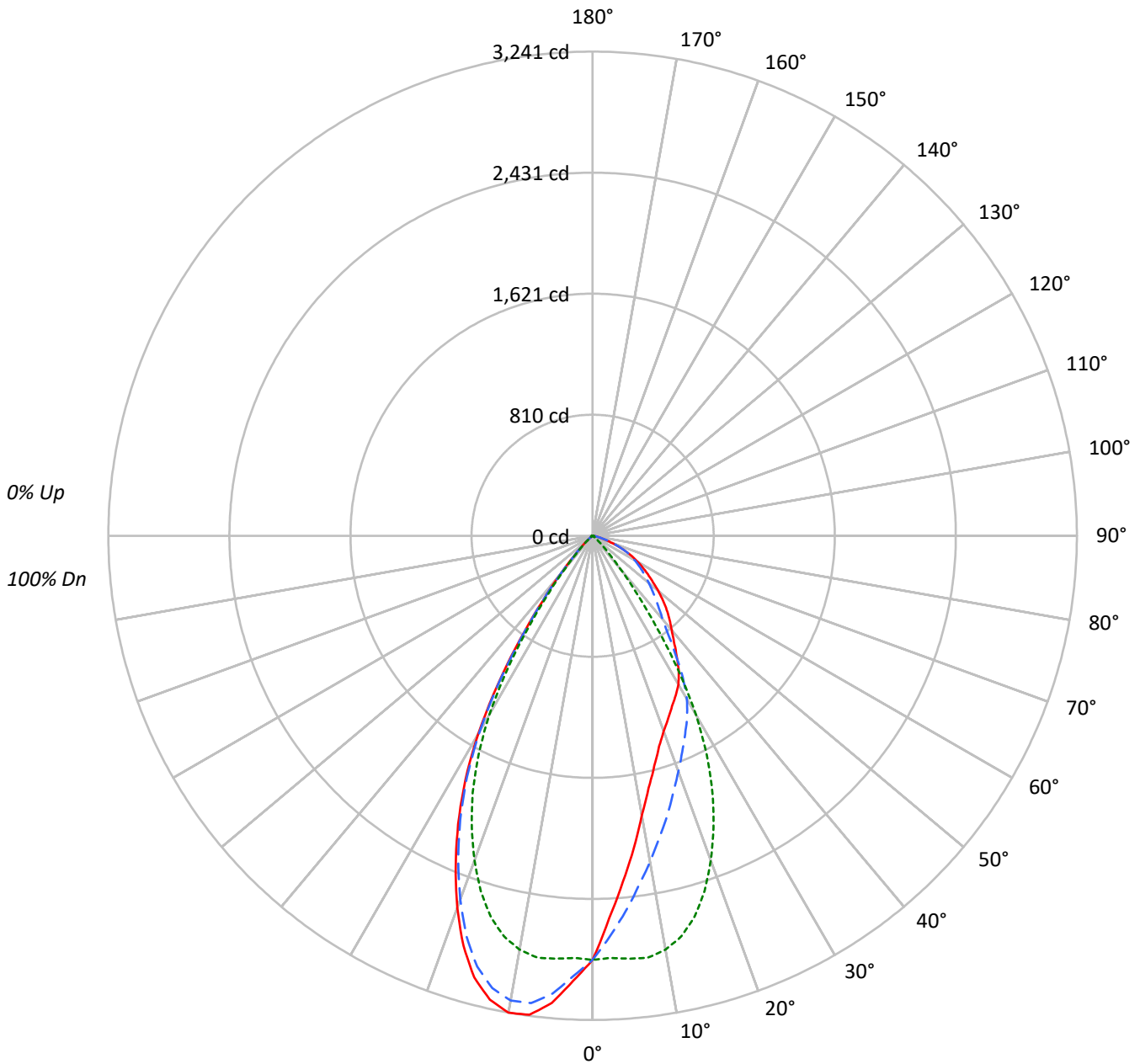
Input Watts (W): 45.4
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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			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°	185153	185153	185153
5°	152133	186109	205612
10°	125763	186353	214733
15°	107716	178183	206733
20°	96581	160475	183824
25°	90600	136656	153249
30°	86558	104224	115366
35°	78043	59064	66877
40°	70032	24059	28309
45°	64714	8331	9568
50°	58107	2933	3126
55°	51367	1740	1524
60°	45381	1501	1253
65°	37374	1189	895
70°	24931	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°	264.2	9.5
10°-20°	687.3	24.6
20°-30°	812.0	29.1
30°-40°	541.1	19.4
40°-50°	234.7	8.4
50°-60°	140.8	5.0
60°-70°	84.5	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°	1763.5	63.1
0°-40°	2304.6	82.5
0°-60°	2680.2	95.9
0°-90°	2793.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2793.8	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	2838	2838	2838	2838	2838	
5°	2323	2525	2842	3076	3140	210
15°	1595	1933	2638	2986	3061	450
25°	1259	1464	1898	2096	2129	582
35°	980	965	742	824	840	613
45°	701	594	90	104	104	539
55°	452	402	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°	2838.0	2838.0	2838.0	2838.0	2838.0	2838.0	2838.0	2838.0	2838.0	2838.0	2838.0
2.5°	2561.2	2605.4	2624.7	2638.1	2588.2	2641.9	2624.7	2649.6	2657.4	2682.3	2705.4
5°	2323.0	2365.3	2386.4	2401.8	2363.4	2424.8	2422.9	2455.6	2482.4	2524.7	2553.6
7.5°	2109.8	2128.9	2150.1	2171.2	2153.9	2209.6	2219.2	2265.3	2305.7	2363.4	2417.2
10°	1898.4	1917.6	1938.8	1961.8	1954.1	2009.8	2031.0	2082.8	2136.6	2213.5	2271.1
12.5°	1729.3	1748.5	1767.8	1790.8	1786.9	1842.6	1869.6	1925.2	1990.6	2067.5	2132.8
15°	1594.8	1612.1	1631.3	1646.7	1650.5	1702.4	1731.2	1785.0	1854.2	1932.9	2000.2
17.5°	1477.6	1496.8	1514.1	1527.5	1531.4	1579.4	1608.2	1656.3	1723.6	1798.4	1863.8
20°	1391.1	1408.4	1423.8	1437.2	1437.2	1479.5	1504.4	1548.6	1608.2	1677.4	1733.1
22.5°	1321.9	1337.3	1350.8	1362.3	1362.3	1398.8	1419.9	1456.4	1508.3	1566.0	1612.1
25°	1258.6	1273.9	1285.4	1295.0	1293.1	1327.7	1345.0	1371.9	1416.1	1464.1	1498.7
27.5°	1204.7	1220.1	1229.7	1243.1	1235.5	1264.3	1277.7	1300.8	1335.4	1370.0	1389.2
30°	1149.0	1164.3	1174.0	1185.5	1177.9	1202.8	1210.5	1222.1	1245.1	1262.4	1264.3
32.5°	1072.1	1085.6	1095.2	1101.0	1091.4	1110.6	1110.6	1112.5	1120.2	1122.1	1106.7
35°	979.9	989.5	997.2	999.2	987.6	999.2	997.2	983.8	979.9	964.6	933.8
37.5°	893.5	905.0	908.8	908.8	893.5	899.2	891.5	870.4	855.0	828.1	785.8
40°	822.3	832.0	833.9	832.0	816.6	818.5	807.0	782.0	760.9	728.2	674.4
42.5°	762.8	770.5	772.4	770.5	755.1	755.1	743.6	716.7	691.7	655.2	599.5
45°	701.4	709.0	712.9	709.0	695.5	695.5	682.1	657.1	632.2	593.7	538.0
47.5°	637.9	643.7	647.5	645.6	632.2	632.2	620.7	595.6	574.6	539.9	486.1
50°	572.5	580.3	584.1	582.2	570.6	570.6	561.0	538.0	520.7	490.0	441.9
52.5°	509.2	518.8	520.7	516.8	509.2	507.3	501.5	480.3	466.9	445.7	399.6
55°	451.6	459.2	459.2	459.2	449.7	447.7	443.8	426.6	418.9	401.5	363.2
57.5°	399.6	405.5	403.5	401.5	397.7	393.9	390.0	376.6	372.8	361.3	328.6
60°	347.8	353.5	351.6	349.7	345.8	342.0	338.2	328.6	328.6	320.9	294.0
62.5°	297.8	301.7	299.7	297.8	297.8	294.0	292.1	284.4	286.3	282.5	259.4
65°	242.1	247.9	246.0	246.0	247.9	247.9	246.0	242.1	242.1	240.2	220.9
67.5°	184.4	190.2	188.3	190.2	196.0	197.9	197.9	196.0	196.0	192.2	174.8
70°	130.7	134.5	134.5	136.4	142.2	144.1	149.9	144.1	144.1	140.2	126.8
72.5°	86.5	88.4	90.3	94.1	96.0	98.0	101.8	101.8	99.9	94.1	84.5
75°	53.8	55.7	55.7	57.6	59.5	61.4	65.4	63.4	61.4	59.5	51.9
77.5°	32.7	32.7	34.6	34.6	36.5	38.4	38.4	38.4	36.5	34.6	30.8
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°	2838.0	2838.0	2838.0	2838.0	2838.0	2838.0	2838.0	2838.0	2838.0	2838.0	2838.0
2.5°	2728.4	2728.4	2722.7	2757.3	2801.4	2793.8	2795.7	2828.4	2841.8	2864.8	2886.0
5°	2603.5	2624.7	2640.0	2695.7	2759.2	2770.7	2791.9	2841.8	2872.6	2911.0	2947.4
7.5°	2478.6	2522.8	2559.3	2632.4	2715.0	2745.8	2784.2	2847.6	2887.9	2939.8	2989.7
10°	2349.9	2411.4	2465.2	2553.6	2649.6	2693.8	2741.9	2813.0	2866.7	2922.5	2978.2
12.5°	2221.1	2296.1	2363.4	2461.4	2563.2	2617.0	2670.8	2745.8	2803.4	2861.0	2918.7
15°	2094.3	2175.0	2246.2	2349.9	2453.7	2509.4	2563.2	2638.1	2699.6	2753.4	2811.0
17.5°	1954.1	2044.4	2109.8	2207.7	2307.6	2363.4	2422.9	2492.1	2545.9	2592.0	2647.7
20°	1817.7	1902.2	1961.8	2052.1	2142.4	2194.3	2250.0	2311.4	2359.6	2399.8	2451.8
22.5°	1685.1	1760.0	1815.8	1898.4	1967.5	2011.7	2059.7	2113.6	2155.9	2188.6	2234.7
25°	1556.4	1615.9	1658.2	1723.6	1779.3	1813.9	1854.2	1898.4	1934.9	1961.8	2004.0
27.5°	1427.7	1468.0	1483.4	1523.7	1558.3	1596.7	1617.8	1652.4	1685.1	1706.2	1742.7
30°	1279.7	1293.1	1279.7	1291.2	1300.8	1318.1	1343.1	1383.5	1398.8	1412.2	1448.7
32.5°	1095.2	1085.6	1041.5	1024.1	1012.6	1029.9	1033.7	1064.5	1074.1	1085.6	1114.4
35°	901.1	866.5	795.5	751.3	724.4	726.3	709.0	741.6	747.5	759.0	780.1
37.5°	735.9	680.2	588.0	526.4	486.1	476.5	455.4	474.6	476.5	484.2	499.6
40°	614.8	536.1	432.3	359.3	315.1	295.9	274.7	282.5	282.5	288.2	297.8
42.5°	530.3	445.7	328.6	249.8	201.8	178.7	161.4	161.4	161.4	163.3	169.1
45°	466.9	372.8	255.5	174.8	130.7	107.6	90.3	90.3	88.4	88.4	92.2
47.5°	415.0	320.9	201.8	128.7	84.5	63.4	51.9	48.0	46.1	48.0	49.9
50°	372.8	280.6	167.2	98.0	59.5	42.3	32.7	28.9	26.9	26.9	26.9
52.5°	336.3	247.9	140.2	78.8	46.1	30.8	23.1	19.2	17.3	17.3	17.3
55°	305.5	219.0	121.1	65.4	38.4	26.9	19.2	15.3	13.4	13.4	13.4
57.5°	274.7	194.1	103.7	55.7	32.7	23.1	17.3	13.4	11.5	11.5	11.5
60°	244.0	169.1	90.3	46.1	26.9	19.2	15.3	11.5	9.6	9.6	9.6
62.5°	213.3	144.1	75.0	38.4	23.1	17.3	11.5	9.6	9.6	7.7	7.7
65°	176.8	117.2	61.4	32.7	19.2	13.4	11.5	7.7	7.7	7.7	7.7
67.5°	138.3	90.3	46.1	25.0	15.3	11.5	9.6	7.7	5.8	5.8	5.8
70°	98.0	63.4	34.6	19.2	13.4	9.6	7.7	5.8	5.8	5.8	3.8
72.5°	65.4	42.3	25.0	15.3	11.5	7.7	5.8	5.8	3.8	3.8	3.8
75°	42.3	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°	2838.0	2838.0	2838.0	2838.0	2838.0	2838.0	2838.0	2838.0	2838.0	2838.0	2838.0
2.5°	2903.2	2914.8	2918.7	2924.4	2957.1	2949.4	2978.2	2978.2	3001.3	2987.8	3001.3
5°	2978.2	3003.2	3014.7	3030.1	3076.2	3076.2	3110.8	3116.5	3147.3	3137.7	3151.1
7.5°	3026.2	3057.0	3072.3	3097.4	3147.3	3155.0	3187.6	3197.2	3233.8	3228.0	3235.7
10°	3016.6	3049.3	3068.5	3095.4	3147.3	3158.8	3187.6	3204.9	3239.5	3231.8	3235.7
12.5°	2957.1	2987.8	3009.0	3033.9	3087.8	3101.2	3126.2	3145.4	3178.1	3172.3	3172.3
15°	2845.6	2880.2	2897.5	2918.7	2970.5	2985.9	3005.1	3020.5	3057.0	3053.2	3047.4
17.5°	2678.5	2711.2	2724.6	2741.9	2791.9	2809.1	2824.5	2836.1	2870.7	2868.7	2859.1
20°	2474.8	2503.6	2515.1	2526.6	2570.9	2588.2	2599.7	2611.2	2640.0	2640.0	2626.6
22.5°	2251.9	2276.9	2284.6	2294.2	2332.6	2349.9	2355.6	2365.3	2392.2	2392.2	2374.9
25°	2015.5	2036.7	2040.6	2048.2	2080.9	2096.2	2098.2	2104.0	2130.9	2130.9	2113.6
27.5°	1750.4	1767.8	1771.6	1775.4	1804.2	1819.6	1817.7	1838.8	1846.5	1850.4	1829.2
30°	1452.6	1481.4	1466.1	1483.4	1492.9	1508.3	1502.5	1523.7	1529.5	1535.2	1508.3
32.5°	1118.2	1145.2	1127.9	1145.2	1149.0	1164.3	1156.7	1175.9	1179.8	1185.5	1160.5
35°	783.9	805.1	789.7	795.5	808.9	824.3	814.7	832.0	835.9	837.8	818.5
37.5°	503.4	518.8	522.6	528.4	528.4	539.9	543.8	543.8	545.7	547.6	532.3
40°	301.7	313.2	315.1	313.2	319.0	328.6	330.5	328.6	330.5	332.4	322.8
42.5°	171.0	178.7	180.6	180.6	184.4	190.2	190.2	188.3	190.2	190.2	184.4
45°	94.1	98.0	99.9	98.0	99.9	103.7	103.7	103.7	103.7	103.7	101.8
47.5°	49.9	51.9	51.9	53.8	51.9	53.8	53.8	53.8	55.7	55.7	53.8
50°	26.9	28.9	28.9	28.9	28.9	30.8	30.8	30.8	30.8	30.8	28.9
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: P135615

CATALOG NUMBER: LD6A30D010TE ERM6A30940 6LM111LI

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	2838.0	2838.0	2838.0	2838.0
2.5°	3007.1	3016.6	3003.2	2982.0
5°	3160.7	3172.3	3158.8	3139.6
7.5°	3245.3	3262.6	3247.2	3233.8
10°	3249.1	3266.4	3249.1	3241.4
12.5°	3185.7	3203.0	3183.8	3180.0
15°	3064.7	3078.1	3058.9	3060.8
17.5°	2878.3	2889.8	2870.7	2876.4
20°	2643.9	2655.4	2636.2	2647.7
22.5°	2392.2	2399.8	2396.0	2394.1
25°	2128.9	2134.7	2117.4	2128.9
27.5°	1840.7	1844.5	1846.5	1844.5
30°	1521.8	1523.7	1512.2	1531.4
32.5°	1172.1	1170.2	1166.3	1183.6
35°	824.3	824.3	824.3	839.7
37.5°	536.1	534.2	536.1	547.6
40°	324.8	322.8	324.8	332.4
42.5°	184.4	184.4	186.3	190.2
45°	103.7	101.8	101.8	103.7
47.5°	55.7	55.7	53.8	55.7
50°	30.8	30.8	28.9	30.8
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



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













(END OF REPORT)