

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: P135610

Luminaire Tested: **LD6A30D010TE ERM6A30835 6LM111LI**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P135610
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 ERM6A30835 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: 2999.0 lumens
Efficiency: N/A
Efficacy: 66.1 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

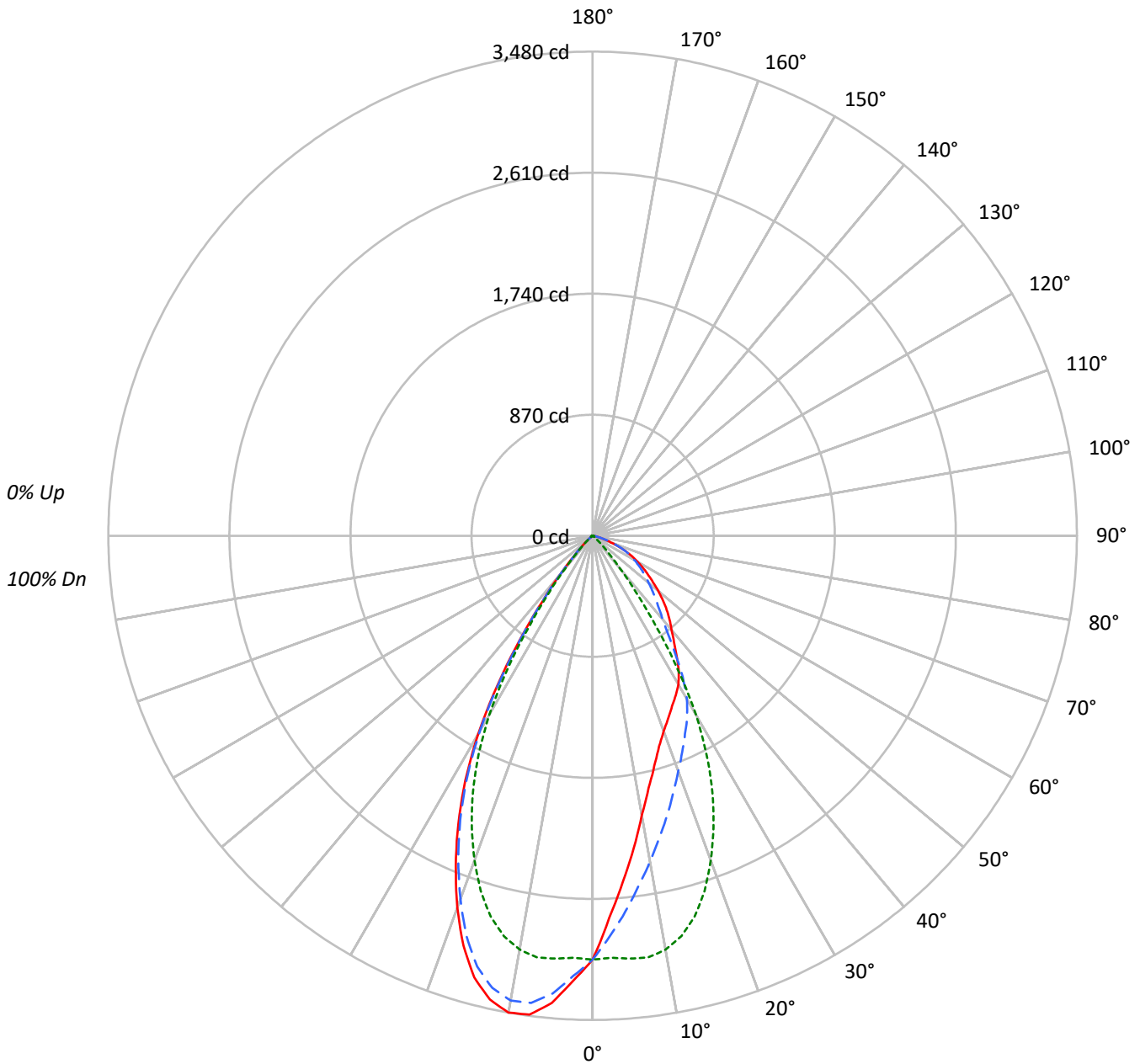
Input Watts (W): 45.4
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P135610

CATALOG NUMBER: LD6A30D010TE ERM6A30835 6LM111LI

Luminous Intensity Polar Plot





TEST NUMBER: P135610

CATALOG NUMBER: LD6A30D010TE ERM6A30835 6LM111LI

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	87	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°	198749	198749	198749
5°	163305	199777	220714
10°	134998	200040	230513
15°	115625	191272	221923
20°	103676	172271	197327
25°	97252	146691	164507
30°	92916	111870	123841
35°	83778	63413	71783
40°	75184	25822	30387
45°	69456	8940	10278
50°	62380	3136	3349
55°	55132	1877	1638
60°	48709	1618	1344
65°	40121	1281	957
70°	26762	1183	782
75°	14570	1033	529
80°	7740	2329	0
85°	3069	3069	0



TEST NUMBER: P135610

CATALOG NUMBER: LD6A30D010TE ERM6A30835 6LM111LI

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	283.6	9.5
10°-20°	737.8	24.6
20°-30°	871.6	29.1
30°-40°	580.9	19.4
40°-50°	252.0	8.4
50°-60°	151.2	5.0
60°-70°	90.7	3.0
70°-80°	27.8	0.9
80°-90°	3.5	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°	1893.0	63.1
0°-40°	2473.9	82.5
0°-60°	2877.1	95.9
0°-90°	2999.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2999.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	3046	3046	3046	3046	3046	
5°	2494	2710	3050	3302	3370	225
15°	1712	2075	2832	3205	3286	483
25°	1351	1572	2038	2250	2285	624
35°	1052	1035	796	885	901	658
45°	753	637	97	111	111	579
55°	485	431	16	14	14	436
65°	260	258	8	6	6	255
75°	58	64	4	2	2	70
85°	4	6	4	0	0	7
90°	0	0	0	0	0	



TEST NUMBER: P135610

CATALOG NUMBER: LD6A30D010TE ERM6A30835 6LM111LI

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	3046.4	3046.4	3046.4	3046.4	3046.4	3046.4	3046.4	3046.4	3046.4	3046.4	3046.4
2.5°	2749.4	2796.8	2817.5	2831.9	2778.3	2836.0	2817.5	2844.3	2852.5	2879.3	2904.1
5°	2493.6	2539.0	2561.7	2578.2	2537.0	2603.0	2600.9	2636.0	2664.8	2710.2	2741.2
7.5°	2264.7	2285.3	2308.0	2330.7	2312.1	2372.0	2382.3	2431.8	2475.1	2537.0	2594.7
10°	2037.8	2058.4	2081.1	2105.9	2097.6	2157.4	2180.1	2235.8	2293.6	2376.1	2438.0
12.5°	1856.3	1876.9	1897.6	1922.3	1918.2	1978.0	2006.9	2066.7	2136.8	2219.3	2289.5
15°	1711.9	1730.5	1751.1	1767.6	1771.7	1827.4	1858.4	1916.1	1990.4	2074.9	2147.1
17.5°	1586.1	1606.7	1625.3	1639.7	1643.9	1695.4	1726.4	1777.9	1850.1	1930.6	2000.7
20°	1493.3	1511.9	1528.4	1542.8	1542.8	1588.2	1615.0	1662.4	1726.4	1800.6	1860.4
22.5°	1419.0	1435.5	1450.0	1462.4	1462.4	1501.6	1524.2	1563.4	1619.1	1681.0	1730.5
25°	1351.0	1367.5	1379.9	1390.2	1388.1	1425.2	1443.8	1472.7	1520.1	1571.7	1608.8
27.5°	1293.2	1309.7	1320.0	1334.5	1326.2	1357.2	1371.6	1396.4	1433.5	1470.6	1491.2
30°	1233.4	1249.9	1260.2	1272.6	1264.4	1291.2	1299.4	1311.8	1336.5	1355.1	1357.2
32.5°	1150.9	1165.4	1175.7	1181.9	1171.5	1192.2	1192.2	1194.2	1202.5	1204.5	1188.0
35°	1051.9	1062.2	1070.5	1072.5	1060.2	1072.5	1070.5	1056.0	1051.9	1035.4	1002.4
37.5°	959.1	971.5	975.6	975.6	959.1	965.3	957.0	934.3	917.8	889.0	843.6
40°	882.8	893.1	895.2	893.1	876.6	878.7	866.3	839.5	816.8	781.7	724.0
42.5°	818.8	827.1	829.2	827.1	810.6	810.6	798.2	769.3	742.5	703.3	643.5
45°	752.8	761.1	765.2	761.1	746.7	746.7	732.2	705.4	678.6	637.3	577.5
47.5°	684.8	691.0	695.1	693.0	678.6	678.6	666.2	639.4	616.7	579.6	521.8
50°	614.6	622.9	627.0	625.0	612.6	612.6	602.3	577.5	559.0	526.0	474.4
52.5°	546.6	556.9	559.0	554.8	546.6	544.5	538.3	515.6	501.2	478.5	429.0
55°	484.7	493.0	493.0	493.0	482.6	480.6	476.5	457.9	449.6	431.1	389.8
57.5°	429.0	435.2	433.1	431.1	427.0	422.8	418.7	404.3	400.1	387.8	352.7
60°	373.3	379.5	377.5	375.4	371.3	367.1	363.0	352.7	352.7	344.4	315.6
62.5°	319.7	323.8	321.8	319.7	319.7	315.6	313.5	305.3	307.3	303.2	278.4
65°	259.9	266.1	264.0	264.0	266.1	266.1	264.0	259.9	259.9	257.8	237.2
67.5°	198.0	204.2	202.1	204.2	210.4	212.4	212.4	210.4	210.4	206.3	187.7
70°	140.3	144.4	144.4	146.4	152.6	154.7	160.9	154.7	154.7	150.6	136.1
72.5°	92.8	94.9	96.9	101.1	103.1	105.2	109.3	109.3	107.3	101.1	90.8
75°	57.8	59.8	59.8	61.9	63.9	66.0	70.1	68.1	66.0	63.9	55.7
77.5°	35.1	35.1	37.1	37.1	39.2	41.3	41.3	41.3	39.2	37.1	33.0
80°	20.6	20.6	20.6	22.7	22.7	22.7	22.7	22.7	22.7	20.6	18.6
82.5°	10.3	10.3	10.3	12.4	12.4	12.4	12.4	12.4	12.4	10.3	10.3
85°	4.1	4.1	4.1	6.2	6.2	6.2	6.2	6.2	6.2	6.2	4.1
87.5°	0.0	0.0	0.0	2.1	0.0	0.0	0.0	0.0	2.1	2.1	2.1
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: P135610

CATALOG NUMBER: LD6A30D010TE ERM6A30835 6LM111LI

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	3046.4	3046.4	3046.4	3046.4	3046.4	3046.4	3046.4	3046.4	3046.4	3046.4	3046.4
2.5°	2928.8	2928.8	2922.7	2959.8	3007.2	2999.0	3001.0	3036.1	3050.5	3075.3	3098.0
5°	2794.8	2817.5	2834.0	2893.8	2961.8	2974.2	2996.9	3050.5	3083.5	3124.8	3164.0
7.5°	2660.7	2708.2	2747.3	2825.7	2914.4	2947.4	2988.7	3056.7	3100.0	3155.7	3209.4
10°	2522.5	2588.5	2646.3	2741.2	2844.3	2891.7	2943.3	3019.6	3077.4	3137.2	3197.0
12.5°	2384.3	2464.8	2537.0	2642.2	2751.5	2809.2	2867.0	2947.4	3009.3	3071.2	3133.0
15°	2248.2	2334.8	2411.1	2522.5	2633.9	2693.7	2751.5	2831.9	2897.9	2955.7	3017.5
17.5°	2097.6	2194.6	2264.7	2369.9	2477.1	2537.0	2600.9	2675.2	2732.9	2782.4	2842.2
20°	1951.2	2041.9	2105.9	2202.8	2299.8	2355.5	2415.3	2481.3	2532.8	2576.1	2631.8
22.5°	1808.9	1889.3	1949.1	2037.8	2112.1	2159.5	2211.1	2268.8	2314.2	2349.3	2398.8
25°	1670.7	1734.6	1780.0	1850.1	1909.9	1947.1	1990.4	2037.8	2077.0	2105.9	2151.3
27.5°	1532.5	1575.8	1592.3	1635.6	1672.7	1714.0	1736.7	1773.8	1808.9	1831.6	1870.8
30°	1373.7	1388.1	1373.7	1386.0	1396.4	1414.9	1441.7	1485.0	1501.6	1516.0	1555.2
32.5°	1175.7	1165.4	1117.9	1099.3	1087.0	1105.5	1109.7	1142.7	1153.0	1165.4	1196.3
35°	967.3	930.2	853.9	806.5	777.6	779.7	761.1	796.2	802.3	814.7	837.4
37.5°	790.0	730.1	631.1	565.1	521.8	511.5	488.8	509.5	511.5	519.8	536.3
40°	660.0	575.5	464.1	385.7	338.3	317.6	294.9	303.2	303.2	309.4	319.7
42.5°	569.3	478.5	352.7	268.1	216.6	191.8	173.3	173.3	173.3	175.3	181.5
45°	501.2	400.1	274.3	187.7	140.3	115.5	96.9	96.9	94.9	94.9	99.0
47.5°	445.5	344.4	216.6	138.2	90.8	68.1	55.7	51.6	49.5	51.6	53.6
50°	400.1	301.1	179.4	105.2	63.9	45.4	35.1	30.9	28.9	28.9	28.9
52.5°	360.9	266.1	150.6	84.6	49.5	33.0	24.8	20.6	18.6	18.6	18.6
55°	327.9	235.1	129.9	70.1	41.3	28.9	20.6	16.5	14.4	14.4	14.4
57.5°	294.9	208.3	111.4	59.8	35.1	24.8	18.6	14.4	12.4	12.4	12.4
60°	261.9	181.5	96.9	49.5	28.9	20.6	16.5	12.4	10.3	10.3	10.3
62.5°	228.9	154.7	80.4	41.3	24.8	18.6	12.4	10.3	10.3	8.3	8.3
65°	189.8	125.8	66.0	35.1	20.6	14.4	12.4	8.3	8.3	8.3	8.3
67.5°	148.5	96.9	49.5	26.8	16.5	12.4	10.3	8.3	6.2	6.2	6.2
70°	105.2	68.1	37.1	20.6	14.4	10.3	8.3	6.2	6.2	6.2	4.1
72.5°	70.1	45.4	26.8	16.5	12.4	8.3	6.2	6.2	4.1	4.1	4.1
75°	45.4	28.9	18.6	12.4	8.3	8.3	6.2	4.1	4.1	4.1	2.1
77.5°	26.8	18.6	12.4	8.3	6.2	6.2	6.2	6.2	6.2	4.1	2.1
80°	14.4	10.3	8.3	6.2	4.1	6.2	6.2	6.2	6.2	4.1	2.1
82.5°	8.3	6.2	4.1	4.1	4.1	4.1	4.1	6.2	6.2	4.1	2.1
85°	4.1	4.1	2.1	2.1	2.1	4.1	4.1	4.1	4.1	2.1	2.1
87.5°	2.1	2.1	2.1	2.1	2.1	2.1	2.1	4.1	4.1	2.1	2.1
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: P135610

CATALOG NUMBER: LD6A30D010TE ERM6A30835 6LM111LI

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	3046.4	3046.4	3046.4	3046.4	3046.4	3046.4	3046.4	3046.4	3046.4	3046.4	3046.4
2.5°	3116.5	3128.9	3133.0	3139.2	3174.3	3166.0	3197.0	3197.0	3221.7	3207.3	3221.7
5°	3197.0	3223.8	3236.2	3252.7	3302.2	3302.2	3339.3	3345.5	3378.5	3368.2	3382.6
7.5°	3248.5	3281.5	3298.0	3324.9	3378.5	3386.7	3421.8	3432.1	3471.3	3465.1	3473.4
10°	3238.2	3273.3	3293.9	3322.8	3378.5	3390.9	3421.8	3440.4	3477.5	3469.2	3473.4
12.5°	3174.3	3207.3	3230.0	3256.8	3314.5	3329.0	3355.8	3376.4	3411.5	3405.3	3405.3
15°	3054.7	3091.8	3110.4	3133.0	3188.7	3205.2	3225.9	3242.4	3281.5	3277.4	3271.2
17.5°	2875.2	2910.3	2924.7	2943.3	2996.9	3015.5	3032.0	3044.4	3081.5	3079.4	3069.1
20°	2656.6	2687.5	2699.9	2712.3	2759.7	2778.3	2790.7	2803.0	2834.0	2834.0	2819.5
22.5°	2417.3	2444.1	2452.4	2462.7	2504.0	2522.5	2528.7	2539.0	2567.9	2567.9	2549.3
25°	2163.6	2186.3	2190.4	2198.7	2233.8	2250.3	2252.3	2258.5	2287.4	2287.4	2268.8
27.5°	1879.0	1897.6	1901.7	1905.8	1936.8	1953.3	1951.2	1973.9	1982.1	1986.3	1963.6
30°	1559.3	1590.2	1573.7	1592.3	1602.6	1619.1	1612.9	1635.6	1641.8	1648.0	1619.1
32.5°	1200.4	1229.3	1210.7	1229.3	1233.4	1249.9	1241.7	1262.3	1266.4	1272.6	1245.8
35°	841.5	864.2	847.7	853.9	868.3	884.8	874.5	893.1	897.2	899.3	878.7
37.5°	540.4	556.9	561.0	567.2	567.2	579.6	583.7	583.7	585.8	587.8	571.3
40°	323.8	336.2	338.3	336.2	342.4	352.7	354.8	352.7	354.8	356.8	346.5
42.5°	183.6	191.8	193.9	193.9	198.0	204.2	204.2	202.1	204.2	204.2	198.0
45°	101.1	105.2	107.3	105.2	107.3	111.4	111.4	111.4	111.4	111.4	109.3
47.5°	53.6	55.7	55.7	57.8	55.7	57.8	57.8	57.8	59.8	59.8	57.8
50°	28.9	30.9	30.9	30.9	30.9	33.0	33.0	33.0	33.0	33.0	30.9
52.5°	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6
55°	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4
57.5°	12.4	12.4	12.4	12.4	12.4	12.4	12.4	12.4	12.4	12.4	12.4
60°	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3
62.5°	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3
65°	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2
67.5°	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2
70°	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1
72.5°	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1
75°	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
77.5°	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
80°	2.1	2.1	2.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	2.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	2.1	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: P135610

CATALOG NUMBER: LD6A30D010TE ERM6A30835 6LM111LI

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	3046.4	3046.4	3046.4	3046.4
2.5°	3227.9	3238.2	3223.8	3201.1
5°	3392.9	3405.3	3390.9	3370.2
7.5°	3483.7	3502.2	3485.7	3471.3
10°	3487.8	3506.4	3487.8	3479.6
12.5°	3419.7	3438.3	3417.7	3413.6
15°	3289.8	3304.2	3283.6	3285.7
17.5°	3089.7	3102.1	3081.5	3087.7
20°	2838.1	2850.5	2829.8	2842.2
22.5°	2567.9	2576.1	2572.0	2570.0
25°	2285.3	2291.5	2273.0	2285.3
27.5°	1975.9	1980.1	1982.1	1980.1
30°	1633.6	1635.6	1623.2	1643.9
32.5°	1258.2	1256.1	1252.0	1270.5
35°	884.8	884.8	884.8	901.3
37.5°	575.5	573.4	575.5	587.8
40°	348.6	346.5	348.6	356.8
42.5°	198.0	198.0	200.1	204.2
45°	111.4	109.3	109.3	111.4
47.5°	59.8	59.8	57.8	59.8
50°	33.0	33.0	30.9	33.0
52.5°	18.6	18.6	18.6	18.6
55°	14.4	14.4	14.4	14.4
57.5°	12.4	12.4	12.4	12.4
60°	10.3	10.3	10.3	10.3
62.5°	8.3	8.3	8.3	8.3
65°	6.2	8.3	6.2	6.2
67.5°	6.2	6.2	6.2	6.2
70°	4.1	4.1	4.1	4.1
72.5°	4.1	4.1	4.1	4.1
75°	2.1	2.1	2.1	2.1
77.5°	2.1	2.1	2.1	2.1
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



Report Generated By E9808895 / USPTCWHP6082093





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













(END OF REPORT)