

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: P252217

Luminaire Tested: **LD6B60D010TE EU6B60709727 6LBSW1LI**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P252217  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-1712-453-1)  
Test Lab: INNOVATION CENTER(G1)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: io LED  
Catalog Number: LD6B60D010TE EU6B60709727 6LBSW1LI  
Description: PORTFOLIO 6 INCH SINGLE WALLWASH RECESSED DOWNLIGHT, WITH SPECULAR CLEAR TRIM  
Light Source: (1) HIGH LUMEN LED 97CRI / 2700K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5430.0 lumens  
Efficiency: N/A  
Efficacy: 86.9 lumens/watt  
Spacing Criteria (0/90/45): 1.26 / 1.29 / 1.21  
Luminous Opening: Circular (Dia: 0.46' x H: 0')  
CIE Type: Direct

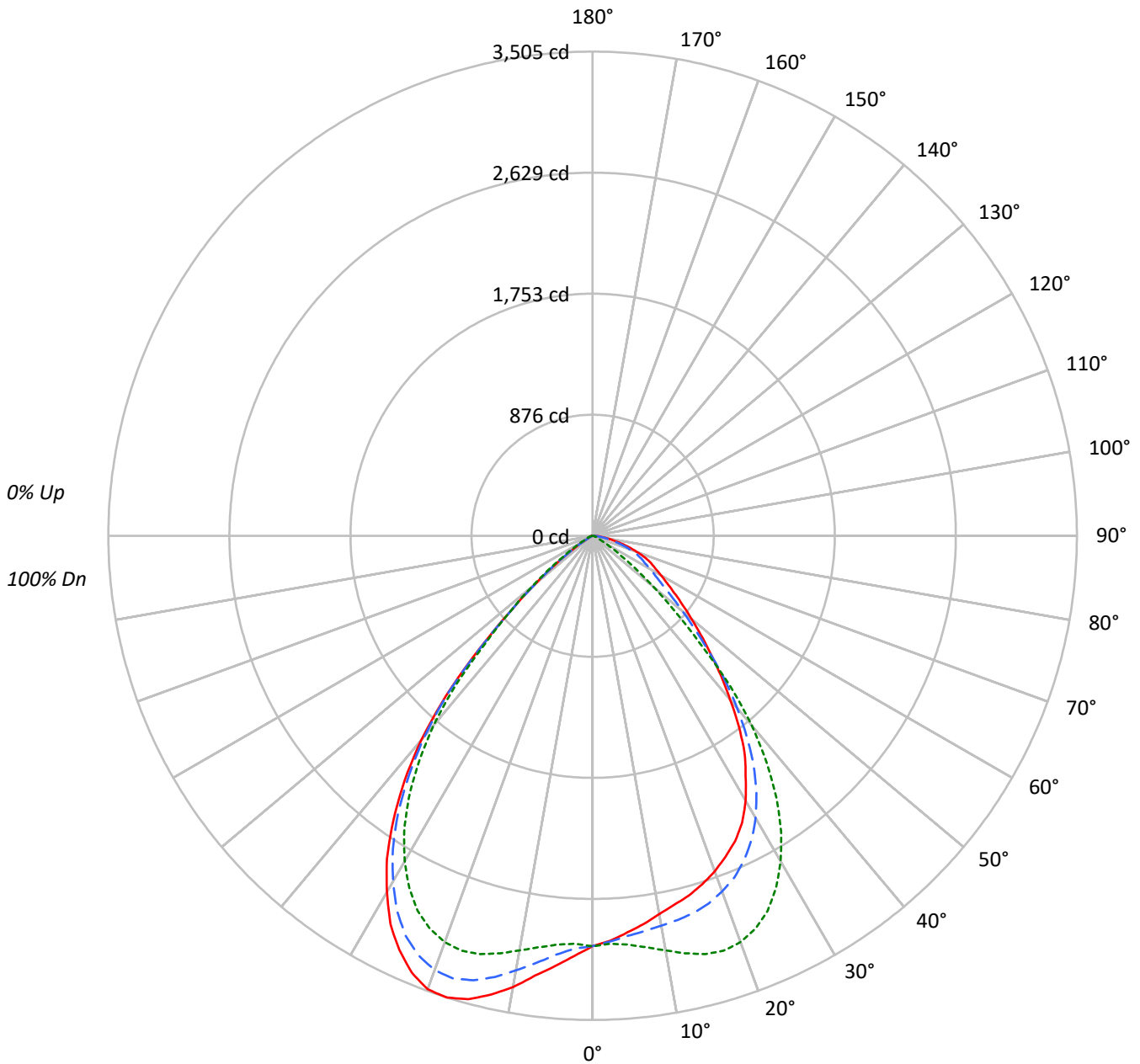
Input Watts (W): 62.48  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20				20				20				20				20				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	112	108	105	103	109	106	103	101	102	100	98	98	96	95	95	93	92	90				90
2	105	98	93	89	102	97	92	88	93	89	86	90	87	84	87	85	82	80				80
3	98	89	83	78	95	88	82	78	85	80	76	83	78	75	80	77	74	72				72
4	91	82	75	69	89	80	74	69	78	72	68	76	71	67	74	70	66	65				65
5	85	75	67	62	83	74	67	62	72	66	61	70	65	61	68	64	60	58				58
6	80	69	61	56	78	68	61	56	66	60	55	64	59	55	63	58	54	53				53
7	74	63	56	51	73	62	55	50	61	55	50	60	54	50	58	53	50	48				48
8	70	58	51	46	69	58	51	46	57	50	46	55	50	46	54	49	45	44				44
9	66	54	47	42	64	54	47	42	53	46	42	52	46	42	51	45	42	40				40
10	62	50	43	39	61	50	43	39	49	43	39	48	43	39	47	42	38	37				37

**AVERAGE LUMINANCE (cd/sqm):**

	0°	90°	180°
0°	193804	193804	193804
5°	188781	194544	204774
10°	184193	201875	219748
15°	182039	211771	234594
20°	179429	217288	242525
25°	175615	215682	238170
30°	166879	204960	224215
35°	152678	184798	200177
40°	132058	152617	164233
45°	111363	100097	107432
50°	94544	57934	54483
55°	82055	27776	20997
60°	74113	12970	5193
65°	71907	7456	1760
70°	64474	5951	1621
75°	52985	4285	706
80°	39487	2142	0
85°	33984	0	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	286.9	5.3
10°-20°	874.5	16.1
20°-30°	1336.1	24.6
30°-40°	1397.5	25.7
40°-50°	906.5	16.7
50°-60°	359.9	6.6
60°-70°	170.7	3.1
70°-80°	81.2	1.5
80°-90°	16.6	0.3
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°	2497.5	46.0
0°-40°	3895.0	71.7
0°-60°	5161.5	95.1
0°-90°	5430.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5430.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	2971	2971	2971	2971	2971	
5°	2883	2908	2971	3044	3127	272
15°	2695	2826	3135	3331	3473	760
25°	2440	2593	2996	3198	3309	1117
35°	1917	2033	2320	2457	2513	1186
45°	1207	1196	1085	1150	1164	939
55°	721	613	244	190	185	654
65°	466	386	48	11	11	455
75°	210	170	17	6	3	227
85°	45	28	0	0	0	53
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	2970.6	2970.6	2970.6	2970.6	2970.6	2970.6	2970.6	2970.6	2970.6	2970.6	2970.6
2.5°	2933.7	2939.4	2908.2	2899.6	2922.4	2930.9	2933.7	2925.2	2928.0	2939.4	2939.4
5°	2882.6	2888.3	2859.9	2851.4	2874.1	2879.8	2888.3	2885.4	2894.0	2911.0	2908.2
7.5°	2834.3	2842.8	2811.6	2800.2	2828.6	2842.8	2848.5	2848.5	2859.9	2882.6	2885.4
10°	2780.4	2791.7	2763.3	2757.6	2788.9	2803.1	2805.9	2811.6	2828.6	2859.9	2865.6
12.5°	2734.9	2746.3	2726.4	2717.9	2752.0	2766.2	2771.8	2783.2	2803.1	2842.8	2848.5
15°	2695.2	2703.7	2681.0	2675.3	2709.4	2726.4	2729.2	2746.3	2771.8	2817.3	2825.8
17.5°	2644.0	2649.7	2632.7	2627.0	2661.1	2678.1	2681.0	2700.8	2732.1	2777.5	2791.7
20°	2584.4	2590.1	2573.0	2567.4	2601.4	2621.3	2624.2	2641.2	2678.1	2726.4	2740.6
22.5°	2513.4	2524.8	2504.9	2499.2	2533.3	2550.3	2558.8	2573.0	2610.0	2658.2	2678.1
25°	2439.6	2439.6	2425.4	2422.5	2453.8	2473.6	2470.8	2490.7	2527.6	2575.9	2592.9
27.5°	2343.0	2340.2	2326.0	2323.1	2357.2	2374.2	2368.6	2388.4	2422.5	2470.8	2487.8
30°	2215.2	2220.9	2201.0	2195.3	2223.7	2252.1	2249.3	2269.2	2303.2	2348.7	2360.0
32.5°	2061.8	2067.5	2064.7	2056.2	2081.7	2095.9	2104.4	2118.6	2147.0	2195.3	2206.7
35°	1917.0	1908.5	1897.1	1897.1	1922.7	1945.4	1936.9	1953.9	1982.3	2030.6	2033.4
37.5°	1738.1	1735.2	1729.6	1723.9	1752.3	1758.0	1760.8	1772.2	1797.7	1837.5	1831.8
40°	1550.6	1553.5	1550.6	1539.3	1556.3	1579.0	1576.2	1581.9	1604.6	1633.0	1624.5
42.5°	1374.6	1374.6	1374.6	1363.2	1383.1	1394.4	1400.1	1397.3	1403.0	1428.5	1417.2
45°	1207.0	1209.8	1207.0	1204.2	1207.0	1212.7	1207.0	1204.2	1204.2	1212.7	1195.6
47.5°	1062.2	1062.2	1053.6	1045.1	1053.6	1056.5	1048.0	1039.4	1036.6	1033.8	1005.4
50°	931.5	928.7	925.8	911.6	920.2	923.0	911.6	906.0	894.6	880.4	846.3
52.5°	817.9	815.1	812.2	798.0	803.7	806.6	795.2	783.8	769.6	758.3	715.7
55°	721.4	718.5	718.5	710.0	704.3	710.0	698.6	690.1	670.2	656.0	613.4
57.5°	639.0	639.0	633.3	624.8	627.6	627.6	616.3	604.9	587.9	570.8	536.8
60°	568.0	568.0	568.0	559.5	559.5	559.5	553.8	542.4	528.2	511.2	477.1
62.5°	511.2	511.2	508.4	499.8	502.7	502.7	497.0	485.6	471.4	460.1	426.0
65°	465.8	465.8	465.8	457.2	457.2	460.1	454.4	443.0	431.7	417.5	386.2
67.5°	409.0	406.1	406.1	400.4	403.3	406.1	400.4	391.9	377.7	369.2	340.8
70°	338.0	340.8	343.6	335.1	338.0	338.0	335.1	326.6	318.1	309.6	284.0
72.5°	275.5	275.5	272.6	269.8	269.8	272.6	267.0	258.4	252.8	247.1	227.2
75°	210.2	207.3	210.2	204.5	204.5	204.5	198.8	196.0	193.1	184.6	170.4
77.5°	153.4	150.5	150.5	144.8	147.7	147.7	144.8	139.2	133.5	130.6	119.3
80°	105.1	105.1	105.1	102.2	102.2	99.4	99.4	96.6	90.9	88.0	82.4
82.5°	71.0	71.0	71.0	68.2	68.2	68.2	65.3	62.5	59.6	56.8	51.1
85°	45.4	45.4	45.4	42.6	42.6	42.6	39.8	39.8	36.9	34.1	28.4
87.5°	25.6	25.6	25.6	22.7	22.7	22.7	22.7	22.7	19.9	17.0	14.2
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):**

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	2970.6	2970.6	2970.6	2970.6	2970.6	2970.6	2970.6	2970.6	2970.6	2970.6	2970.6
2.5°	2959.3	2919.5	2945.1	2945.1	2936.6	2959.3	2973.5	2984.8	2982.0	2956.4	2953.6
5°	2936.6	2902.5	2930.9	2933.7	2925.2	2956.4	2976.3	2990.5	2993.4	2970.6	2973.5
7.5°	2919.5	2891.1	2928.0	2939.4	2936.6	2965.0	2987.7	3010.4	3021.8	3004.7	3007.6
10°	2911.0	2888.3	2928.0	2945.1	2947.9	2979.2	3013.2	3044.5	3058.7	3047.3	3055.8
12.5°	2899.6	2885.4	2930.9	2956.4	2967.8	2999.0	3041.6	3078.6	3101.3	3095.6	3112.6
15°	2888.3	2876.9	2930.9	2967.8	2982.0	3010.4	3058.7	3112.6	3138.2	3135.4	3158.1
17.5°	2859.9	2857.0	2913.8	2953.6	2973.5	3007.6	3053.0	3118.3	3143.9	3149.6	3178.0
20°	2814.4	2814.4	2876.9	2919.5	2942.2	2973.5	3030.3	3092.8	3124.0	3129.7	3160.9
22.5°	2752.0	2757.6	2817.3	2859.9	2894.0	2916.7	2976.3	3041.6	3070.0	3078.6	3112.6
25°	2669.6	2675.3	2732.1	2774.7	2811.6	2837.2	2894.0	2953.6	2987.7	2996.2	3021.8
27.5°	2561.7	2573.0	2627.0	2669.6	2700.8	2717.9	2777.5	2840.0	2865.6	2874.1	2899.6
30°	2436.7	2439.6	2493.5	2530.4	2561.7	2575.9	2627.0	2692.3	2712.2	2720.7	2757.6
32.5°	2283.4	2280.5	2331.6	2365.7	2391.3	2408.3	2462.3	2504.9	2524.8	2539.0	2558.8
35°	2098.8	2095.9	2132.8	2172.6	2192.5	2198.2	2252.1	2297.6	2308.9	2320.3	2345.8
37.5°	1891.4	1891.4	1922.7	1942.6	1965.3	1973.8	1999.4	2050.5	2070.4	2067.5	2087.4
40°	1672.8	1661.4	1684.1	1704.0	1709.7	1712.5	1738.1	1777.8	1792.0	1792.0	1806.2
42.5°	1442.7	1425.7	1428.5	1439.9	1445.6	1425.7	1442.7	1468.3	1459.8	1471.1	1474.0
45°	1198.5	1172.9	1161.6	1136.0	1141.7	1121.8	1110.4	1116.1	1113.3	1084.9	1090.6
47.5°	999.7	954.2	934.4	897.4	888.9	866.2	852.0	826.4	803.7	803.7	789.5
50°	832.1	786.7	746.9	704.3	690.1	670.2	639.0	604.9	587.9	570.8	556.6
52.5°	698.6	650.4	602.1	556.6	536.8	511.2	468.6	434.5	403.3	386.2	369.2
55°	590.7	536.8	485.6	437.4	411.8	386.2	343.6	303.9	267.0	244.2	230.0
57.5°	508.4	457.2	403.3	352.2	329.4	301.0	255.6	213.0	178.9	153.4	139.2
60°	448.7	397.6	349.3	295.4	272.6	244.2	196.0	156.2	122.1	99.4	82.4
62.5°	397.6	352.2	301.0	252.8	230.0	201.6	156.2	116.4	85.2	62.5	48.3
65°	360.7	315.2	272.6	224.4	204.5	176.1	133.5	96.6	68.2	48.3	34.1
67.5°	318.1	278.3	235.7	196.0	176.1	153.4	113.6	82.4	56.8	39.8	28.4
70°	267.0	235.7	198.8	161.9	147.7	127.8	93.7	68.2	45.4	31.2	22.7
72.5°	213.0	187.4	159.0	130.6	119.3	99.4	76.7	54.0	34.1	22.7	17.0
75°	161.9	142.0	119.3	99.4	88.0	76.7	56.8	39.8	25.6	17.0	11.4
77.5°	110.8	102.2	85.2	68.2	62.5	54.0	36.9	25.6	17.0	11.4	5.7
80°	76.7	68.2	56.8	45.4	39.8	34.1	22.7	17.0	8.5	5.7	2.8
82.5°	48.3	39.8	34.1	28.4	25.6	19.9	14.2	8.5	5.7	2.8	2.8
85°	25.6	22.7	19.9	14.2	14.2	11.4	8.5	5.7	2.8	0.0	0.0
87.5°	14.2	11.4	8.5	5.7	5.7	2.8	2.8	2.8	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



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**CANDELA DISTRIBUTION (continued):**

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	2970.6	2970.6	2970.6	2970.6	2970.6	2970.6	2970.6	2970.6	2970.6	2970.6	2970.6
2.5°	2987.7	2987.7	2984.8	3018.9	2979.2	3018.9	2999.0	3018.9	2990.5	2987.7	2990.5
5°	3010.4	3018.9	3021.8	3053.0	3016.1	3064.4	3047.3	3064.4	3044.5	3050.2	3058.7
7.5°	3055.8	3070.0	3067.2	3107.0	3070.0	3124.0	3112.6	3138.2	3118.3	3124.0	3135.4
10°	3107.0	3124.0	3126.8	3166.6	3132.5	3197.8	3183.6	3212.0	3195.0	3203.5	3217.7
12.5°	3166.6	3186.5	3189.3	3234.8	3197.8	3266.0	3257.5	3285.9	3271.7	3280.2	3297.2
15°	3212.0	3240.4	3246.1	3291.6	3251.8	3322.8	3317.1	3354.0	3331.3	3345.5	3359.7
17.5°	3234.8	3260.3	3271.7	3314.3	3280.2	3351.2	3345.5	3376.8	3359.7	3373.9	3391.0
20°	3220.6	3251.8	3260.3	3302.9	3268.8	3339.8	3331.3	3362.6	3345.5	3356.9	3373.9
22.5°	3169.4	3200.7	3212.0	3251.8	3220.6	3285.9	3283.0	3311.4	3288.7	3302.9	3317.1
25°	3078.6	3112.6	3118.3	3155.2	3121.2	3189.3	3183.6	3214.9	3197.8	3206.4	3226.2
27.5°	2947.9	2987.7	2996.2	3027.4	3001.9	3058.7	3058.7	3084.2	3064.4	3064.4	3084.2
30°	2791.7	2831.5	2837.2	2862.7	2840.0	2891.1	2894.0	2919.5	2888.3	2905.3	2908.2
32.5°	2601.4	2627.0	2644.0	2666.8	2632.7	2698.0	2689.5	2709.4	2692.3	2692.3	2706.5
35°	2371.4	2402.6	2411.2	2439.6	2411.2	2462.3	2462.3	2473.6	2456.6	2456.6	2479.3
37.5°	2121.5	2144.2	2147.0	2175.4	2152.7	2195.3	2192.5	2201.0	2184.0	2195.3	2195.3
40°	1829.0	1846.0	1851.7	1865.9	1863.0	1894.3	1891.4	1897.1	1888.6	1891.4	1897.1
42.5°	1488.2	1510.9	1522.2	1533.6	1516.6	1559.2	1550.6	1559.2	1556.3	1559.2	1567.7
45°	1096.2	1113.3	1121.8	1124.6	1119.0	1144.5	1164.4	1147.4	1150.2	1144.5	1155.9
47.5°	792.4	795.2	789.5	806.6	792.4	803.7	809.4	812.2	795.2	792.4	803.7
50°	542.4	556.6	536.8	545.3	542.4	553.8	548.1	551.0	533.9	542.4	536.8
52.5°	360.7	357.8	352.2	355.0	349.3	349.3	349.3	355.0	343.6	338.0	332.3
55°	218.7	213.0	201.6	198.8	198.8	201.6	196.0	190.3	190.3	187.4	187.4
57.5°	127.8	119.3	113.6	110.8	105.1	102.2	99.4	99.4	93.7	93.7	93.7
60°	71.0	62.5	56.8	51.1	51.1	48.3	45.4	42.6	42.6	42.6	39.8
62.5°	36.9	31.2	25.6	22.7	22.7	19.9	17.0	17.0	17.0	17.0	14.2
65°	25.6	19.9	17.0	14.2	14.2	11.4	11.4	11.4	11.4	11.4	11.4
67.5°	19.9	17.0	14.2	11.4	11.4	11.4	8.5	8.5	8.5	8.5	8.5
70°	17.0	11.4	11.4	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5
72.5°	11.4	11.4	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5
75°	8.5	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7
77.5°	2.8	2.8	2.8	2.8	2.8	2.8	0.0	0.0	0.0	0.0	0.0
80°	2.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	0.0	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: P252217

CATALOG NUMBER: LD6B60D010TE EU6B60709727 6LBSW1LI

**CANDELA DISTRIBUTION (continued):**

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	2970.6	2970.6	2970.6	2970.6	2970.6	2970.6	2970.6	2970.6
2.5°	3016.1	3013.2	3016.1	3021.8	3010.4	3044.5	3027.4	3044.5
5°	3081.4	3084.2	3087.1	3095.6	3081.4	3124.0	3101.3	3126.8
7.5°	3166.6	3169.4	3172.3	3180.8	3172.3	3214.9	3189.3	3212.0
10°	3254.6	3260.3	3260.3	3274.5	3266.0	3305.8	3288.7	3317.1
12.5°	3337.0	3342.7	3348.4	3356.9	3351.2	3393.8	3379.6	3402.3
15°	3402.3	3413.7	3416.5	3427.9	3422.2	3467.6	3450.6	3473.3
17.5°	3433.6	3444.9	3444.9	3459.1	3453.4	3501.7	3479.0	3504.6
20°	3416.5	3425.0	3427.9	3442.1	3436.4	3484.7	3462.0	3493.2
22.5°	3362.6	3365.4	3368.2	3382.4	3379.6	3422.2	3402.3	3422.2
25°	3263.2	3271.7	3268.8	3280.2	3280.2	3314.3	3291.6	3308.6
27.5°	3121.2	3129.7	3129.7	3143.9	3132.5	3166.6	3143.9	3169.4
30°	2947.9	2956.4	2950.8	2962.1	2950.8	2984.8	2967.8	2976.3
32.5°	2740.6	2740.6	2743.4	2746.3	2740.6	2771.8	2754.8	2771.8
35°	2493.5	2499.2	2502.0	2504.9	2499.2	2521.9	2502.0	2513.4
37.5°	2215.2	2229.4	2226.6	2229.4	2220.9	2249.3	2232.2	2237.9
40°	1917.0	1917.0	1914.2	1919.8	1911.3	1934.0	1922.7	1928.4
42.5°	1570.5	1579.0	1567.7	1581.9	1559.2	1590.4	1579.0	1570.5
45°	1178.6	1167.2	1164.4	1167.2	1158.7	1161.6	1170.1	1164.4
47.5°	803.7	803.7	798.0	789.5	800.9	803.7	792.4	792.4
50°	539.6	539.6	533.9	531.1	536.8	533.9	528.2	536.8
52.5°	343.6	332.3	332.3	338.0	332.3	326.6	335.1	329.4
55°	187.4	181.8	181.8	187.4	181.8	181.8	178.9	184.6
57.5°	90.9	93.7	90.9	90.9	90.9	90.9	88.0	90.9
60°	39.8	39.8	39.8	39.8	39.8	39.8	39.8	39.8
62.5°	17.0	17.0	14.2	14.2	14.2	14.2	14.2	14.2
65°	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.4
67.5°	8.5	8.5	8.5	8.5	8.5	11.4	8.5	8.5
70°	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5
72.5°	8.5	8.5	11.4	11.4	11.4	11.4	11.4	11.4
75°	5.7	5.7	5.7	2.8	2.8	2.8	2.8	2.8
77.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	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
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



Report Generated By E9808895 / USPTCWHP6082093





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















(END OF REPORT)