

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: P252190

Luminaire Tested: **LD6B40D010 EU6B30509050 6LBSW1LI**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P252190
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: LD6B40D010 EU6B30509050 6LBSW1LI
Description: PORTFOLIO 6 INCH SINGLE WALLWASH RECESSED DOWNLIGHT, WITH SPECULAR CLEAR TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 5000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4635.0 lumens
Efficiency: N/A
Efficacy: 107.7 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

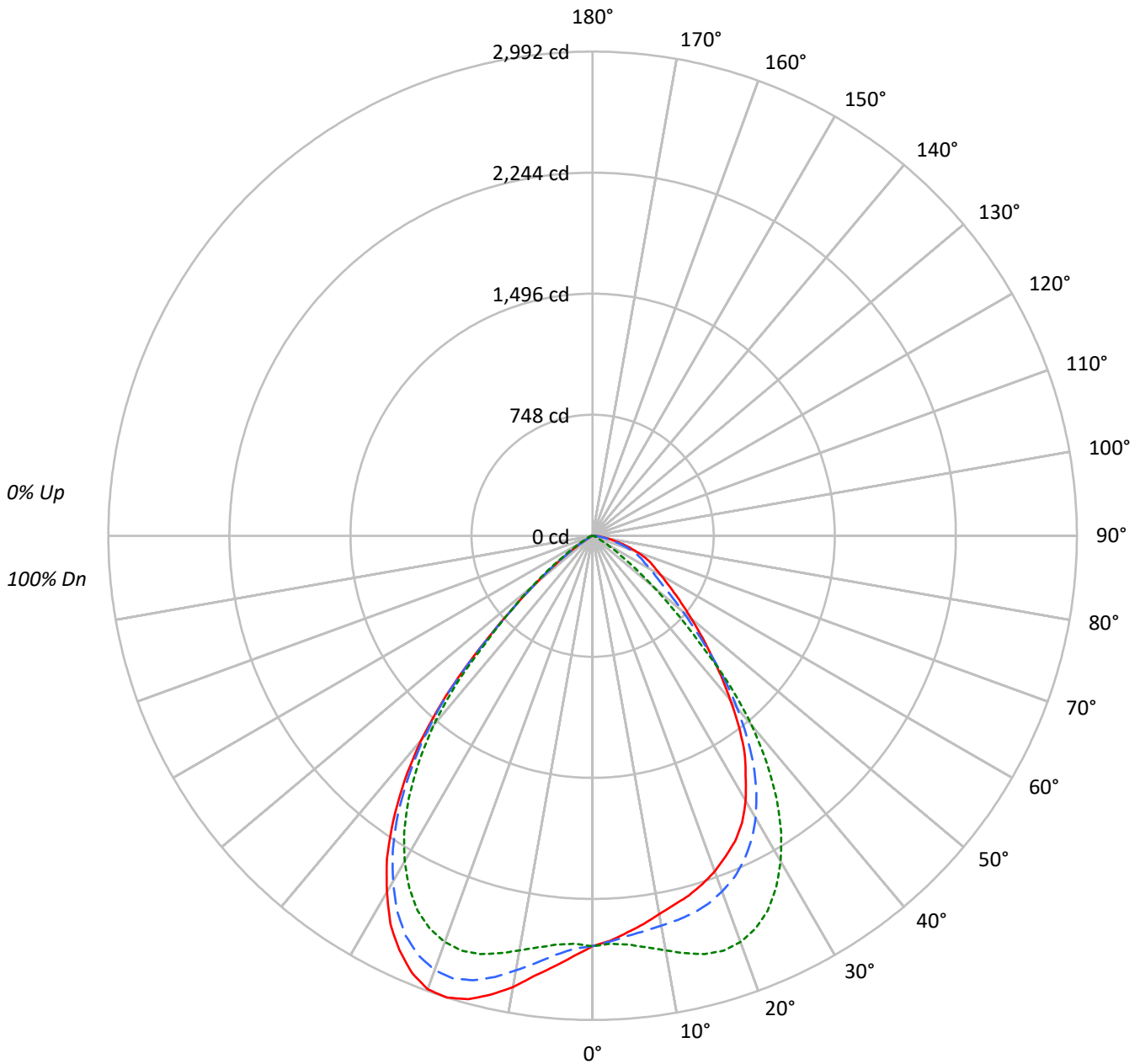
Input Watts (W): 43.02
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	165431	165431	165431
5°	161144	166063	174792
10°	157224	172322	187579
15°	155387	180763	200249
20°	153157	185476	207019
25°	149902	184102	203300
30°	142448	174954	191392
35°	130322	157743	170868
40°	112725	130278	140183
45°	95060	85437	91701
50°	80700	49459	46506
55°	70032	23716	17926
60°	63257	11065	4423
65°	61378	6360	1497
70°	55032	5093	1392
75°	45221	3655	605
80°	33701	1803	0
85°	29044	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	244.9	5.3
10°-20°	746.4	16.1
20°-30°	1140.5	24.6
30°-40°	1192.9	25.7
40°-50°	773.8	16.7
50°-60°	307.2	6.6
60°-70°	145.7	3.1
70°-80°	69.3	1.5
80°-90°	14.1	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°	2131.9	46.0
0°-40°	3324.7	71.7
0°-60°	4405.8	95.1
0°-90°	4635.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4635.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	2536	2536	2536	2536	2536	
5°	2461	2482	2536	2599	2669	232
15°	2301	2412	2676	2844	2965	648
25°	2082	2213	2558	2730	2824	954
35°	1636	1736	1981	2097	2145	1012
45°	1030	1021	926	982	994	802
55°	616	524	208	162	158	558
65°	398	330	41	10	10	388
75°	179	146	14	5	2	193
85°	39	24	0	0	0	45
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°	2535.7	2535.7	2535.7	2535.7	2535.7	2535.7	2535.7	2535.7	2535.7	2535.7	2535.7
2.5°	2504.2	2509.0	2482.4	2475.1	2494.5	2501.8	2504.2	2496.9	2499.3	2509.0	2509.0
5°	2460.6	2465.4	2441.2	2433.9	2453.3	2458.1	2465.4	2463.0	2470.3	2484.8	2482.4
7.5°	2419.3	2426.6	2400.0	2390.3	2414.5	2426.6	2431.5	2431.5	2441.2	2460.6	2463.0
10°	2373.3	2383.0	2358.7	2353.9	2380.6	2392.7	2395.1	2400.0	2414.5	2441.2	2446.0
12.5°	2334.5	2344.2	2327.2	2320.0	2349.0	2361.2	2366.0	2375.7	2392.7	2426.6	2431.5
15°	2300.6	2307.8	2288.4	2283.6	2312.7	2327.2	2329.7	2344.2	2366.0	2404.8	2412.1
17.5°	2256.9	2261.8	2247.2	2242.4	2271.5	2286.0	2288.4	2305.4	2332.1	2370.9	2383.0
20°	2206.0	2210.9	2196.3	2191.5	2220.6	2237.5	2240.0	2254.5	2286.0	2327.2	2339.4
22.5°	2145.4	2155.1	2138.1	2133.3	2162.4	2176.9	2184.2	2196.3	2227.8	2269.0	2286.0
25°	2082.4	2082.4	2070.3	2067.8	2094.5	2111.5	2109.1	2126.0	2157.5	2198.7	2213.3
27.5°	2000.0	1997.5	1985.4	1983.0	2012.1	2026.6	2021.8	2038.8	2067.8	2109.1	2123.6
30°	1890.9	1895.7	1878.8	1873.9	1898.1	1922.4	1920.0	1936.9	1966.0	2004.8	2014.5
32.5°	1760.0	1764.8	1762.4	1755.1	1776.9	1789.1	1796.3	1808.5	1832.7	1873.9	1883.6
35°	1636.3	1629.1	1619.4	1619.4	1641.2	1660.6	1653.3	1667.8	1692.1	1733.3	1735.7
37.5°	1483.6	1481.2	1476.3	1471.5	1495.7	1500.6	1503.0	1512.7	1534.5	1568.5	1563.6
40°	1323.6	1326.0	1323.6	1313.9	1328.5	1347.9	1345.4	1350.3	1369.7	1393.9	1386.6
42.5°	1173.3	1173.3	1173.3	1163.6	1180.6	1190.3	1195.1	1192.7	1197.6	1219.4	1209.7
45°	1030.3	1032.7	1030.3	1027.9	1030.3	1035.1	1030.3	1027.9	1027.9	1035.1	1020.6
47.5°	906.6	906.6	899.4	892.1	899.4	901.8	894.5	887.3	884.8	882.4	858.2
50°	795.1	792.7	790.3	778.2	785.4	787.9	778.2	773.3	763.6	751.5	722.4
52.5°	698.2	695.7	693.3	681.2	686.0	688.5	678.8	669.1	657.0	647.3	610.9
55°	615.7	613.3	613.3	606.0	601.2	606.0	596.4	589.1	572.1	560.0	523.6
57.5°	545.4	545.4	540.6	533.3	535.7	535.7	526.1	516.4	501.8	487.3	458.2
60°	484.8	484.8	484.8	477.6	477.6	477.6	472.7	463.0	450.9	436.4	407.3
62.5°	436.4	436.4	433.9	426.7	429.1	429.1	424.2	414.5	402.4	392.7	363.6
65°	397.6	397.6	397.6	390.3	390.3	392.7	387.9	378.2	368.5	356.4	329.7
67.5°	349.1	346.7	346.7	341.8	344.2	346.7	341.8	334.5	322.4	315.1	290.9
70°	288.5	290.9	293.3	286.1	288.5	288.5	286.1	278.8	271.5	264.2	242.4
72.5°	235.1	235.1	232.7	230.3	230.3	232.7	227.9	220.6	215.8	210.9	193.9
75°	179.4	177.0	179.4	174.5	174.5	174.5	169.7	167.3	164.8	157.6	145.5
77.5°	130.9	128.5	128.5	123.6	126.1	126.1	123.6	118.8	113.9	111.5	101.8
80°	89.7	89.7	89.7	87.3	87.3	84.8	84.8	82.4	77.6	75.2	70.3
82.5°	60.6	60.6	60.6	58.2	58.2	58.2	55.8	53.3	50.9	48.5	43.6
85°	38.8	38.8	38.8	36.4	36.4	36.4	33.9	33.9	31.5	29.1	24.2
87.5°	21.8	21.8	21.8	19.4	19.4	19.4	19.4	19.4	17.0	14.5	12.1
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°	2535.7	2535.7	2535.7	2535.7	2535.7	2535.7	2535.7	2535.7	2535.7	2535.7	2535.7
2.5°	2526.0	2492.1	2513.9	2513.9	2506.6	2526.0	2538.1	2547.8	2545.4	2523.6	2521.2
5°	2506.6	2477.5	2501.8	2504.2	2496.9	2523.6	2540.6	2552.7	2555.1	2535.7	2538.1
7.5°	2492.1	2467.8	2499.3	2509.0	2506.6	2530.9	2550.3	2569.6	2579.3	2564.8	2567.2
10°	2484.8	2465.4	2499.3	2513.9	2516.3	2543.0	2572.1	2598.7	2610.9	2601.2	2608.4
12.5°	2475.1	2463.0	2501.8	2523.6	2533.3	2560.0	2596.3	2627.8	2647.2	2642.4	2656.9
15°	2465.4	2455.7	2501.8	2533.3	2545.4	2569.6	2610.9	2656.9	2678.7	2676.3	2695.7
17.5°	2441.2	2438.7	2487.2	2521.2	2538.1	2567.2	2606.0	2661.8	2683.6	2688.4	2712.7
20°	2402.4	2402.4	2455.7	2492.1	2511.5	2538.1	2586.6	2640.0	2666.6	2671.5	2698.1
22.5°	2349.0	2353.9	2404.8	2441.2	2470.3	2489.7	2540.6	2596.3	2620.6	2627.8	2656.9
25°	2278.7	2283.6	2332.1	2368.4	2400.0	2421.8	2470.3	2521.2	2550.3	2557.5	2579.3
27.5°	2186.6	2196.3	2242.4	2278.7	2305.4	2320.0	2370.9	2424.2	2446.0	2453.3	2475.1
30°	2080.0	2082.4	2128.4	2160.0	2186.6	2198.7	2242.4	2298.1	2315.1	2322.4	2353.9
32.5°	1949.1	1946.6	1990.3	2019.4	2041.2	2055.7	2101.8	2138.1	2155.1	2167.2	2184.2
35°	1791.5	1789.1	1820.6	1854.5	1871.5	1876.3	1922.4	1961.2	1970.9	1980.6	2002.4
37.5°	1614.5	1614.5	1641.2	1658.2	1677.5	1684.8	1706.6	1750.3	1767.2	1764.8	1781.8
40°	1427.9	1418.2	1437.5	1454.5	1459.4	1461.8	1483.6	1517.5	1529.7	1529.7	1541.8
42.5°	1231.5	1216.9	1219.4	1229.1	1233.9	1216.9	1231.5	1253.3	1246.0	1255.7	1258.2
45°	1023.0	1001.2	991.5	969.7	974.5	957.6	947.9	952.7	950.3	926.0	930.9
47.5°	853.3	814.5	797.6	766.0	758.8	739.4	727.3	705.4	686.0	686.0	673.9
50°	710.3	671.5	637.6	601.2	589.1	572.1	545.4	516.4	501.8	487.3	475.1
52.5°	596.4	555.1	513.9	475.1	458.2	436.4	400.0	370.9	344.2	329.7	315.1
55°	504.2	458.2	414.5	373.3	351.5	329.7	293.3	259.4	227.9	208.5	196.4
57.5°	433.9	390.3	344.2	300.6	281.2	257.0	218.2	181.8	152.7	130.9	118.8
60°	383.0	339.4	298.2	252.1	232.7	208.5	167.3	133.3	104.2	84.8	70.3
62.5°	339.4	300.6	257.0	215.8	196.4	172.1	133.3	99.4	72.7	53.3	41.2
65°	307.9	269.1	232.7	191.5	174.5	150.3	113.9	82.4	58.2	41.2	29.1
67.5°	271.5	237.6	201.2	167.3	150.3	130.9	97.0	70.3	48.5	33.9	24.2
70°	227.9	201.2	169.7	138.2	126.1	109.1	80.0	58.2	38.8	26.7	19.4
72.5°	181.8	160.0	135.8	111.5	101.8	84.8	65.5	46.1	29.1	19.4	14.5
75°	138.2	121.2	101.8	84.8	75.2	65.5	48.5	33.9	21.8	14.5	9.7
77.5°	94.5	87.3	72.7	58.2	53.3	46.1	31.5	21.8	14.5	9.7	4.8
80°	65.5	58.2	48.5	38.8	33.9	29.1	19.4	14.5	7.3	4.8	2.4
82.5°	41.2	33.9	29.1	24.2	21.8	17.0	12.1	7.3	4.8	2.4	2.4
85°	21.8	19.4	17.0	12.1	12.1	9.7	7.3	4.8	2.4	0.0	0.0
87.5°	12.1	9.7	7.3	4.8	4.8	2.4	2.4	2.4	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°	2535.7	2535.7	2535.7	2535.7	2535.7	2535.7	2535.7	2535.7	2535.7	2535.7	2535.7
2.5°	2550.3	2550.3	2547.8	2576.9	2543.0	2576.9	2560.0	2576.9	2552.7	2550.3	2552.7
5°	2569.6	2576.9	2579.3	2606.0	2574.5	2615.7	2601.2	2615.7	2598.7	2603.6	2610.9
7.5°	2608.4	2620.6	2618.1	2652.1	2620.6	2666.6	2656.9	2678.7	2661.8	2666.6	2676.3
10°	2652.1	2666.6	2669.0	2703.0	2673.9	2729.6	2717.5	2741.8	2727.2	2734.5	2746.6
12.5°	2703.0	2719.9	2722.4	2761.2	2729.6	2787.8	2780.6	2804.8	2792.7	2799.9	2814.5
15°	2741.8	2766.0	2770.9	2809.6	2775.7	2836.3	2831.5	2863.0	2843.6	2855.7	2867.8
17.5°	2761.2	2783.0	2792.7	2829.0	2799.9	2860.6	2855.7	2882.4	2867.8	2879.9	2894.5
20°	2749.0	2775.7	2783.0	2819.3	2790.3	2850.9	2843.6	2870.3	2855.7	2865.4	2879.9
22.5°	2705.4	2732.1	2741.8	2775.7	2749.0	2804.8	2802.4	2826.6	2807.2	2819.3	2831.5
25°	2627.8	2656.9	2661.8	2693.3	2664.2	2722.4	2717.5	2744.2	2729.6	2736.9	2753.9
27.5°	2516.3	2550.3	2557.5	2584.2	2562.4	2610.9	2610.9	2632.7	2615.7	2615.7	2632.7
30°	2383.0	2416.9	2421.8	2443.6	2424.2	2467.8	2470.3	2492.1	2465.4	2480.0	2482.4
32.5°	2220.6	2242.4	2256.9	2276.3	2247.2	2303.0	2295.7	2312.7	2298.1	2298.1	2310.3
35°	2024.2	2050.9	2058.1	2082.4	2058.1	2101.8	2101.8	2111.5	2096.9	2096.9	2116.3
37.5°	1810.9	1830.3	1832.7	1856.9	1837.5	1873.9	1871.5	1878.8	1864.2	1873.9	1873.9
40°	1561.2	1575.7	1580.6	1592.7	1590.3	1616.9	1614.5	1619.4	1612.1	1614.5	1619.4
42.5°	1270.3	1289.7	1299.4	1309.1	1294.5	1330.9	1323.6	1330.9	1328.5	1330.9	1338.2
45°	935.7	950.3	957.6	960.0	955.1	977.0	993.9	979.4	981.8	977.0	986.6
47.5°	676.4	678.8	673.9	688.5	676.4	686.0	690.9	693.3	678.8	676.4	686.0
50°	463.0	475.1	458.2	465.4	463.0	472.7	467.9	470.3	455.7	463.0	458.2
52.5°	307.9	305.4	300.6	303.0	298.2	298.2	298.2	303.0	293.3	288.5	283.6
55°	186.7	181.8	172.1	169.7	169.7	172.1	167.3	162.4	162.4	160.0	160.0
57.5°	109.1	101.8	97.0	94.5	89.7	87.3	84.8	84.8	80.0	80.0	80.0
60°	60.6	53.3	48.5	43.6	43.6	41.2	38.8	36.4	36.4	36.4	33.9
62.5°	31.5	26.7	21.8	19.4	19.4	17.0	14.5	14.5	14.5	14.5	12.1
65°	21.8	17.0	14.5	12.1	12.1	9.7	9.7	9.7	9.7	9.7	9.7
67.5°	17.0	14.5	12.1	9.7	9.7	9.7	7.3	7.3	7.3	7.3	7.3
70°	14.5	9.7	9.7	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3
72.5°	9.7	9.7	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3
75°	7.3	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8
77.5°	2.4	2.4	2.4	2.4	2.4	2.4	0.0	0.0	0.0	0.0	0.0
80°	2.4	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: P252190

CATALOG NUMBER: LD6B40D010 EU6B30509050 6LBSW1LI

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	2535.7	2535.7	2535.7	2535.7	2535.7	2535.7	2535.7	2535.7
2.5°	2574.5	2572.1	2574.5	2579.3	2569.6	2598.7	2584.2	2598.7
5°	2630.3	2632.7	2635.1	2642.4	2630.3	2666.6	2647.2	2669.0
7.5°	2703.0	2705.4	2707.8	2715.1	2707.8	2744.2	2722.4	2741.8
10°	2778.1	2783.0	2783.0	2795.1	2787.8	2821.8	2807.2	2831.5
12.5°	2848.4	2853.3	2858.1	2865.4	2860.6	2896.9	2884.8	2904.2
15°	2904.2	2913.9	2916.3	2926.0	2921.2	2959.9	2945.4	2964.8
17.5°	2930.9	2940.6	2940.6	2952.7	2947.8	2989.0	2969.6	2991.5
20°	2916.3	2923.6	2926.0	2938.1	2933.3	2974.5	2955.1	2981.8
22.5°	2870.3	2872.7	2875.1	2887.2	2884.8	2921.2	2904.2	2921.2
25°	2785.4	2792.7	2790.3	2799.9	2799.9	2829.0	2809.6	2824.2
27.5°	2664.2	2671.5	2671.5	2683.6	2673.9	2703.0	2683.6	2705.4
30°	2516.3	2523.6	2518.7	2528.4	2518.7	2547.8	2533.3	2540.6
32.5°	2339.4	2339.4	2341.8	2344.2	2339.4	2366.0	2351.5	2366.0
35°	2128.4	2133.3	2135.7	2138.1	2133.3	2152.7	2135.7	2145.4
37.5°	1890.9	1903.0	1900.6	1903.0	1895.7	1920.0	1905.4	1910.3
40°	1636.3	1636.3	1633.9	1638.8	1631.5	1650.9	1641.2	1646.0
42.5°	1340.6	1347.9	1338.2	1350.3	1330.9	1357.6	1347.9	1340.6
45°	1006.0	996.3	993.9	996.3	989.1	991.5	998.8	993.9
47.5°	686.0	686.0	681.2	673.9	683.6	686.0	676.4	676.4
50°	460.6	460.6	455.7	453.3	458.2	455.7	450.9	458.2
52.5°	293.3	283.6	283.6	288.5	283.6	278.8	286.1	281.2
55°	160.0	155.1	155.1	160.0	155.1	155.1	152.7	157.6
57.5°	77.6	80.0	77.6	77.6	77.6	77.6	75.2	77.6
60°	33.9	33.9	33.9	33.9	33.9	33.9	33.9	33.9
62.5°	14.5	14.5	12.1	12.1	12.1	12.1	12.1	12.1
65°	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7
67.5°	7.3	7.3	7.3	7.3	7.3	9.7	7.3	7.3
70°	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3
72.5°	7.3	7.3	9.7	9.7	9.7	9.7	9.7	9.7
75°	4.8	4.8	4.8	2.4	2.4	2.4	2.4	2.4
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)