

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: P252187

Luminaire Tested: **LD6B40D010 EU6B30509030 6LBSW1LI**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P252187
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 EU6B30509030 6LBSW1LI
Description: PORTFOLIO 6 INCH SINGLE WALLWASH RECESSED DOWNLIGHT, WITH SPECULAR CLEAR TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 3000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4542.0 lumens
Efficiency: N/A
Efficacy: 105.6 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

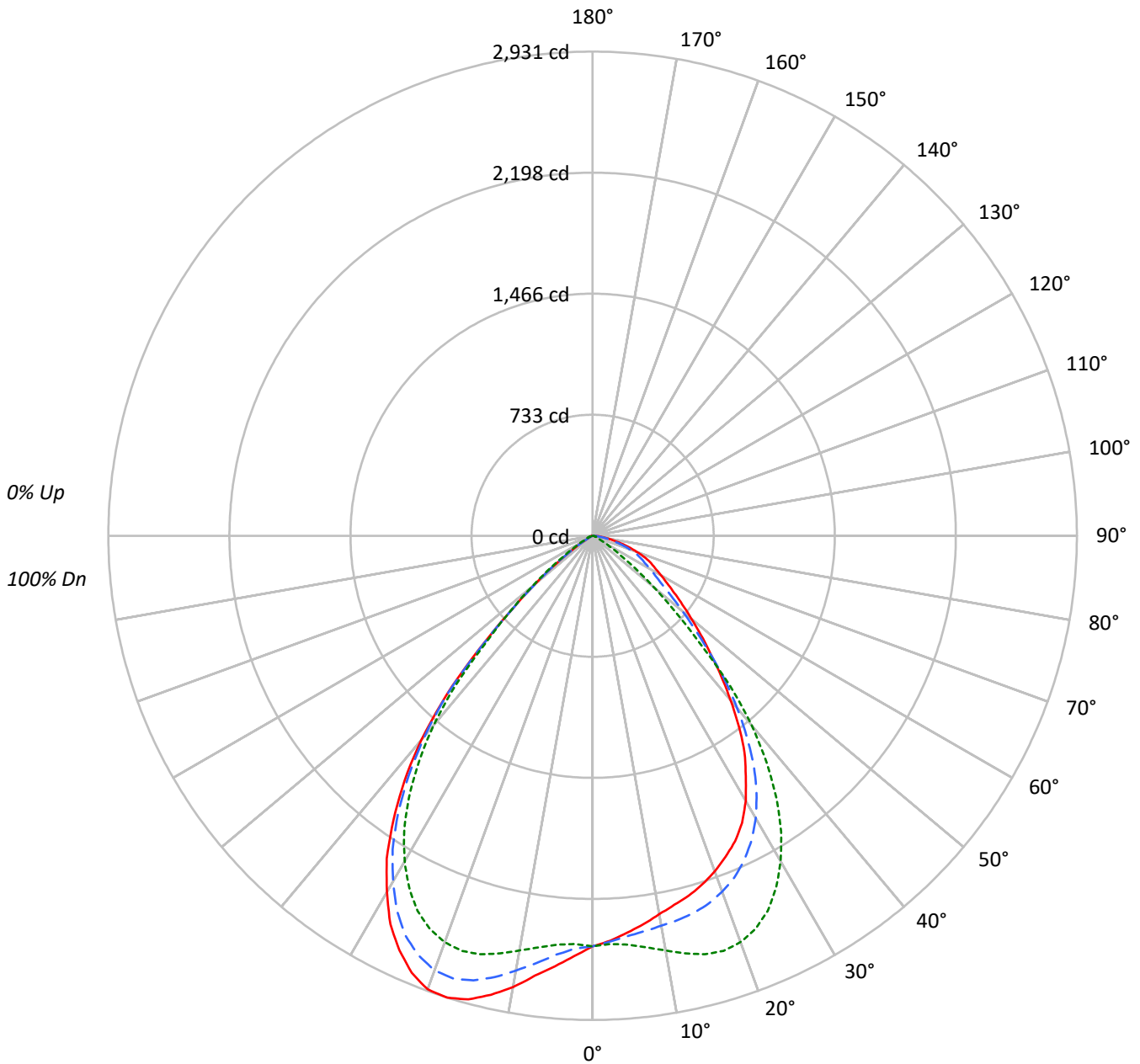
Input Watts (W): 43.02
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20									20									20									20									
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																			
1	112	108	105	103	109	106	103	101	102	100	98	98	96	95	95	93	92	90																			
2	105	98	93	89	102	97	92	88	93	89	86	90	87	84	87	85	82	80																			
3	98	89	83	78	95	88	82	78	85	80	76	83	78	75	80	77	74	72																			
4	91	82	75	69	89	80	74	69	78	72	68	76	71	67	74	70	66	65																			
5	85	75	67	62	83	74	67	62	72	66	61	70	65	61	68	64	60	58																			
6	80	69	61	56	78	68	61	56	66	60	55	64	59	55	63	58	54	53																			
7	74	63	56	51	73	62	55	50	61	55	50	60	54	50	58	53	50	48																			
8	70	58	51	46	69	58	51	46	57	50	46	55	50	46	54	49	45	44																			
9	66	54	47	42	64	54	47	42	53	46	42	52	46	42	51	45	42	40																			
10	62	50	43	39	61	50	43	39	49	43	39	48	43	39	47	42	38	37																			

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	162110	162110	162110
5°	157909	162729	171289
10°	154071	168864	183816
15°	152267	177136	196230
20°	150089	181755	202861
25°	146893	180409	199219
30°	139585	171444	187550
35°	127709	154573	167444
40°	110468	127663	137372
45°	93150	83730	89865
50°	79086	48465	45572
55°	68633	23238	17562
60°	61992	10843	4345
65°	60144	6237	1467
70°	53925	4979	1354
75°	44314	3605	605
80°	33025	1803	0
85°	28445	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	240.0	5.3
10°-20°	731.5	16.1
20°-30°	1117.6	24.6
30°-40°	1168.9	25.7
40°-50°	758.3	16.7
50°-60°	301.1	6.6
60°-70°	142.8	3.1
70°-80°	67.9	1.5
80°-90°	13.9	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°	2089.1	46.0
0°-40°	3258.0	71.7
0°-60°	4317.4	95.1
0°-90°	4542.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4542.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	2485	2485	2485	2485	2485	
5°	2411	2433	2485	2547	2616	228
15°	2254	2364	2623	2786	2905	635
25°	2041	2169	2506	2675	2768	934
35°	1604	1701	1941	2055	2102	992
45°	1010	1000	908	962	974	786
55°	603	513	204	159	154	547
65°	390	323	40	10	10	381
75°	176	142	14	5	2	190
85°	38	24	0	0	0	44
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°	2484.8	2484.8	2484.8	2484.8	2484.8	2484.8	2484.8	2484.8	2484.8	2484.8	2484.8
2.5°	2454.0	2458.7	2432.6	2425.4	2444.4	2451.6	2454.0	2446.8	2449.2	2458.7	2458.7
5°	2411.2	2415.9	2392.2	2385.1	2404.1	2408.8	2415.9	2413.6	2420.7	2434.9	2432.6
7.5°	2370.8	2377.9	2351.8	2342.3	2366.1	2377.9	2382.7	2382.7	2392.2	2411.2	2413.6
10°	2325.7	2335.2	2311.4	2306.7	2332.8	2344.7	2347.1	2351.8	2366.1	2392.2	2396.9
12.5°	2287.7	2297.2	2280.5	2273.4	2301.9	2313.8	2318.5	2328.0	2344.7	2377.9	2382.7
15°	2254.4	2261.5	2242.5	2237.8	2266.3	2280.5	2282.9	2297.2	2318.5	2356.6	2363.7
17.5°	2211.6	2216.4	2202.1	2197.4	2225.9	2240.2	2242.5	2259.2	2285.3	2323.3	2335.2
20°	2161.8	2166.5	2152.3	2147.5	2176.0	2192.6	2195.0	2209.3	2240.2	2280.5	2292.4
22.5°	2102.4	2111.9	2095.2	2090.5	2119.0	2133.3	2140.4	2152.3	2183.1	2223.5	2240.2
25°	2040.6	2040.6	2028.7	2026.3	2052.5	2069.1	2066.7	2083.4	2114.2	2154.6	2168.9
27.5°	1959.8	1957.5	1945.6	1943.2	1971.7	1986.0	1981.2	1997.8	2026.3	2066.7	2081.0
30°	1852.9	1857.7	1841.1	1836.3	1860.1	1883.8	1881.4	1898.1	1926.6	1964.6	1974.1
32.5°	1724.7	1729.4	1727.0	1719.9	1741.3	1753.2	1760.3	1772.2	1795.9	1836.3	1845.8
35°	1603.5	1596.4	1586.9	1586.9	1608.3	1627.3	1620.1	1634.4	1658.1	1698.5	1700.9
37.5°	1453.8	1451.5	1446.7	1442.0	1465.7	1470.5	1472.8	1482.3	1503.7	1537.0	1532.2
40°	1297.1	1299.4	1297.1	1287.6	1301.8	1320.8	1318.4	1323.2	1342.2	1365.9	1358.8
42.5°	1149.8	1149.8	1149.8	1140.3	1156.9	1166.4	1171.1	1168.8	1173.5	1194.9	1185.4
45°	1009.6	1012.0	1009.6	1007.2	1009.6	1014.4	1009.6	1007.2	1007.2	1014.4	1000.1
47.5°	888.5	888.5	881.3	874.2	881.3	883.7	876.6	869.5	867.1	864.7	840.9
50°	779.2	776.8	774.4	762.6	769.7	772.1	762.6	757.8	748.3	736.4	707.9
52.5°	684.2	681.8	679.4	667.5	672.3	674.7	665.2	655.7	643.8	634.3	598.6
55°	603.4	601.0	601.0	593.9	589.1	593.9	584.4	577.3	560.6	548.8	513.1
57.5°	534.5	534.5	529.7	522.6	525.0	525.0	515.5	506.0	491.7	477.5	449.0
60°	475.1	475.1	475.1	468.0	468.0	468.0	463.2	453.7	441.9	427.6	399.1
62.5°	427.6	427.6	425.2	418.1	420.5	420.5	415.7	406.2	394.3	384.8	356.3
65°	389.6	389.6	389.6	382.5	382.5	384.8	380.1	370.6	361.1	349.2	323.1
67.5°	342.1	339.7	339.7	335.0	337.3	339.7	335.0	327.8	315.9	308.8	285.1
70°	282.7	285.1	287.4	280.3	282.7	282.7	280.3	273.2	266.1	258.9	237.6
72.5°	230.4	230.4	228.1	225.7	225.7	228.1	223.3	216.2	211.4	206.7	190.0
75°	175.8	173.4	175.8	171.0	171.0	171.0	166.3	163.9	161.5	154.4	142.5
77.5°	128.3	125.9	125.9	121.2	123.5	123.5	121.2	116.4	111.7	109.3	99.8
80°	87.9	87.9	87.9	85.5	85.5	83.1	83.1	80.8	76.0	73.6	68.9
82.5°	59.4	59.4	59.4	57.0	57.0	57.0	54.6	52.3	49.9	47.5	42.8
85°	38.0	38.0	38.0	35.6	35.6	35.6	33.3	33.3	30.9	28.5	23.8
87.5°	21.4	21.4	21.4	19.0	19.0	19.0	19.0	19.0	16.6	14.3	11.9
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):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	2484.8	2484.8	2484.8	2484.8	2484.8	2484.8	2484.8	2484.8	2484.8	2484.8	2484.8
2.5°	2475.3	2442.1	2463.5	2463.5	2456.3	2475.3	2487.2	2496.7	2494.3	2473.0	2470.6
5°	2456.3	2427.8	2451.6	2454.0	2446.8	2473.0	2489.6	2501.5	2503.8	2484.8	2487.2
7.5°	2442.1	2418.3	2449.2	2458.7	2456.3	2480.1	2499.1	2518.1	2527.6	2513.3	2515.7
10°	2434.9	2415.9	2449.2	2463.5	2465.8	2492.0	2520.5	2546.6	2558.5	2549.0	2556.1
12.5°	2425.4	2413.6	2451.6	2473.0	2482.5	2508.6	2544.2	2575.1	2594.1	2589.4	2603.6
15°	2415.9	2406.4	2451.6	2482.5	2494.3	2518.1	2558.5	2603.6	2625.0	2622.6	2641.6
17.5°	2392.2	2389.8	2437.3	2470.6	2487.2	2515.7	2553.7	2608.4	2629.7	2634.5	2658.2
20°	2354.2	2354.2	2406.4	2442.1	2461.1	2487.2	2534.7	2587.0	2613.1	2617.9	2644.0
22.5°	2301.9	2306.7	2356.6	2392.2	2420.7	2439.7	2489.6	2544.2	2568.0	2575.1	2603.6
25°	2233.0	2237.8	2285.3	2320.9	2351.8	2373.2	2420.7	2470.6	2499.1	2506.2	2527.6
27.5°	2142.8	2152.3	2197.4	2233.0	2259.2	2273.4	2323.3	2375.6	2396.9	2404.1	2425.4
30°	2038.2	2040.6	2085.7	2116.6	2142.8	2154.6	2197.4	2252.0	2268.7	2275.8	2306.7
32.5°	1909.9	1907.6	1950.3	1978.8	2000.2	2014.5	2059.6	2095.2	2111.9	2123.7	2140.4
35°	1755.5	1753.2	1784.0	1817.3	1833.9	1838.7	1883.8	1921.8	1931.3	1940.8	1962.2
37.5°	1582.1	1582.1	1608.3	1624.9	1643.9	1651.0	1672.4	1715.2	1731.8	1729.4	1746.0
40°	1399.2	1389.7	1408.7	1425.3	1430.1	1432.5	1453.8	1487.1	1499.0	1499.0	1510.9
42.5°	1206.8	1192.5	1194.9	1204.4	1209.2	1192.5	1206.8	1228.2	1221.0	1230.5	1232.9
45°	1002.5	981.1	971.6	950.2	955.0	938.3	928.8	933.6	931.2	907.5	912.2
47.5°	836.2	798.2	781.6	750.7	743.5	724.5	712.7	691.3	672.3	672.3	660.4
50°	696.0	658.0	624.8	589.1	577.3	560.6	534.5	506.0	491.7	477.5	465.6
52.5°	584.4	544.0	503.6	465.6	449.0	427.6	392.0	363.5	337.3	323.1	308.8
55°	494.1	449.0	406.2	365.8	344.5	323.1	287.4	254.2	223.3	204.3	192.4
57.5°	425.2	382.5	337.3	294.6	275.6	251.8	213.8	178.2	149.7	128.3	116.4
60°	375.3	332.6	292.2	247.1	228.1	204.3	163.9	130.7	102.1	83.1	68.9
62.5°	332.6	294.6	251.8	211.4	192.4	168.7	130.7	97.4	71.3	52.3	40.4
65°	301.7	263.7	228.1	187.7	171.0	147.3	111.7	80.8	57.0	40.4	28.5
67.5°	266.1	232.8	197.2	163.9	147.3	128.3	95.0	68.9	47.5	33.3	23.8
70°	223.3	197.2	166.3	135.4	123.5	106.9	78.4	57.0	38.0	26.1	19.0
72.5°	178.2	156.8	133.0	109.3	99.8	83.1	64.1	45.1	28.5	19.0	14.3
75°	135.4	118.8	99.8	83.1	73.6	64.1	47.5	33.3	21.4	14.3	9.5
77.5°	92.6	85.5	71.3	57.0	52.3	45.1	30.9	21.4	14.3	9.5	4.8
80°	64.1	57.0	47.5	38.0	33.3	28.5	19.0	14.3	7.1	4.8	2.4
82.5°	40.4	33.3	28.5	23.8	21.4	16.6	11.9	7.1	4.8	2.4	2.4
85°	21.4	19.0	16.6	11.9	11.9	9.5	7.1	4.8	2.4	0.0	0.0
87.5°	11.9	9.5	7.1	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°	2484.8	2484.8	2484.8	2484.8	2484.8	2484.8	2484.8	2484.8	2484.8	2484.8	2484.8
2.5°	2499.1	2499.1	2496.7	2525.2	2492.0	2525.2	2508.6	2525.2	2501.5	2499.1	2501.5
5°	2518.1	2525.2	2527.6	2553.7	2522.8	2563.2	2549.0	2563.2	2546.6	2551.3	2558.5
7.5°	2556.1	2568.0	2565.6	2598.9	2568.0	2613.1	2603.6	2625.0	2608.4	2613.1	2622.6
10°	2598.9	2613.1	2615.5	2648.7	2620.2	2674.9	2663.0	2686.8	2672.5	2679.6	2691.5
12.5°	2648.7	2665.4	2667.8	2705.8	2674.9	2731.9	2724.8	2748.5	2736.6	2743.8	2758.0
15°	2686.8	2710.5	2715.3	2753.3	2720.0	2779.4	2774.7	2805.5	2786.5	2798.4	2810.3
17.5°	2705.8	2727.1	2736.6	2772.3	2743.8	2803.2	2798.4	2824.5	2810.3	2822.2	2836.4
20°	2693.9	2720.0	2727.1	2762.8	2734.3	2793.7	2786.5	2812.7	2798.4	2807.9	2822.2
22.5°	2651.1	2677.3	2686.8	2720.0	2693.9	2748.5	2746.1	2769.9	2750.9	2762.8	2774.7
25°	2575.1	2603.6	2608.4	2639.2	2610.7	2667.8	2663.0	2689.1	2674.9	2682.0	2698.6
27.5°	2465.8	2499.1	2506.2	2532.3	2511.0	2558.5	2558.5	2579.9	2563.2	2563.2	2579.9
30°	2335.2	2368.4	2373.2	2394.6	2375.6	2418.3	2420.7	2442.1	2415.9	2430.2	2432.6
32.5°	2176.0	2197.4	2211.6	2230.6	2202.1	2256.8	2249.7	2266.3	2252.0	2252.0	2263.9
35°	1983.6	2009.7	2016.8	2040.6	2016.8	2059.6	2059.6	2069.1	2054.9	2054.9	2073.9
37.5°	1774.5	1793.5	1795.9	1819.7	1800.7	1836.3	1833.9	1841.1	1826.8	1836.3	1836.3
40°	1529.9	1544.1	1548.9	1560.7	1558.4	1584.5	1582.1	1586.9	1579.7	1582.1	1586.9
42.5°	1244.8	1263.8	1273.3	1282.8	1268.5	1304.2	1297.1	1304.2	1301.8	1304.2	1311.3
45°	917.0	931.2	938.3	940.7	936.0	957.3	974.0	959.7	962.1	957.3	966.9
47.5°	662.8	665.2	660.4	674.7	662.8	672.3	677.0	679.4	665.2	662.8	672.3
50°	453.7	465.6	449.0	456.1	453.7	463.2	458.5	460.9	446.6	453.7	449.0
52.5°	301.7	299.3	294.6	296.9	292.2	292.2	292.2	296.9	287.4	282.7	277.9
55°	182.9	178.2	168.7	166.3	166.3	168.7	163.9	159.2	159.2	156.8	156.8
57.5°	106.9	99.8	95.0	92.6	87.9	85.5	83.1	83.1	78.4	78.4	78.4
60°	59.4	52.3	47.5	42.8	42.8	40.4	38.0	35.6	35.6	35.6	33.3
62.5°	30.9	26.1	21.4	19.0	19.0	16.6	14.3	14.3	14.3	14.3	11.9
65°	21.4	16.6	14.3	11.9	11.9	9.5	9.5	9.5	9.5	9.5	9.5
67.5°	16.6	14.3	11.9	9.5	9.5	9.5	7.1	7.1	7.1	7.1	7.1
70°	14.3	9.5	9.5	7.1	7.1	7.1	7.1	7.1	7.1	7.1	7.1
72.5°	9.5	9.5	7.1	7.1	7.1	7.1	7.1	7.1	7.1	7.1	7.1
75°	7.1	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: P252187

CATALOG NUMBER: LD6B40D010 EU6B30509030 6LBSW1LI

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	2484.8	2484.8	2484.8	2484.8	2484.8	2484.8	2484.8	2484.8
2.5°	2522.8	2520.5	2522.8	2527.6	2518.1	2546.6	2532.3	2546.6
5°	2577.5	2579.9	2582.2	2589.4	2577.5	2613.1	2594.1	2615.5
7.5°	2648.7	2651.1	2653.5	2660.6	2653.5	2689.1	2667.8	2686.8
10°	2722.4	2727.1	2727.1	2739.0	2731.9	2765.1	2750.9	2774.7
12.5°	2791.3	2796.0	2800.8	2807.9	2803.2	2838.8	2826.9	2845.9
15°	2845.9	2855.4	2857.8	2867.3	2862.5	2900.6	2886.3	2905.3
17.5°	2872.0	2881.6	2881.6	2893.4	2888.7	2929.1	2910.1	2931.4
20°	2857.8	2864.9	2867.3	2879.2	2874.4	2914.8	2895.8	2921.9
22.5°	2812.7	2815.0	2817.4	2829.3	2826.9	2862.5	2845.9	2862.5
25°	2729.5	2736.6	2734.3	2743.8	2743.8	2772.3	2753.3	2767.5
27.5°	2610.7	2617.9	2617.9	2629.7	2620.2	2648.7	2629.7	2651.1
30°	2465.8	2473.0	2468.2	2477.7	2468.2	2496.7	2482.5	2489.6
32.5°	2292.4	2292.4	2294.8	2297.2	2292.4	2318.5	2304.3	2318.5
35°	2085.7	2090.5	2092.9	2095.2	2090.5	2109.5	2092.9	2102.4
37.5°	1852.9	1864.8	1862.4	1864.8	1857.7	1881.4	1867.2	1871.9
40°	1603.5	1603.5	1601.1	1605.9	1598.7	1617.8	1608.3	1613.0
42.5°	1313.7	1320.8	1311.3	1323.2	1304.2	1330.3	1320.8	1313.7
45°	985.9	976.4	974.0	976.4	969.2	971.6	978.7	974.0
47.5°	672.3	672.3	667.5	660.4	669.9	672.3	662.8	662.8
50°	451.4	451.4	446.6	444.2	449.0	446.6	441.9	449.0
52.5°	287.4	277.9	277.9	282.7	277.9	273.2	280.3	275.6
55°	156.8	152.0	152.0	156.8	152.0	152.0	149.7	154.4
57.5°	76.0	78.4	76.0	76.0	76.0	76.0	73.6	76.0
60°	33.3	33.3	33.3	33.3	33.3	33.3	33.3	33.3
62.5°	14.3	14.3	11.9	11.9	11.9	11.9	11.9	11.9
65°	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5
67.5°	7.1	7.1	7.1	7.1	7.1	9.5	7.1	7.1
70°	7.1	7.1	7.1	7.1	7.1	7.1	7.1	7.1
72.5°	7.1	7.1	9.5	9.5	9.5	9.5	9.5	9.5
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)