

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: P252189

Luminaire Tested: **LD6B40D010 EU6B30509040 6LBSW1LI**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P252189
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 EU6B30509040 6LBSW1LI
Description: PORTFOLIO 6 INCH SINGLE WALLWASH RECESSED DOWNLIGHT, WITH SPECULAR CLEAR TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 4000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4614.0 lumens
Efficiency: N/A
Efficacy: 107.3 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

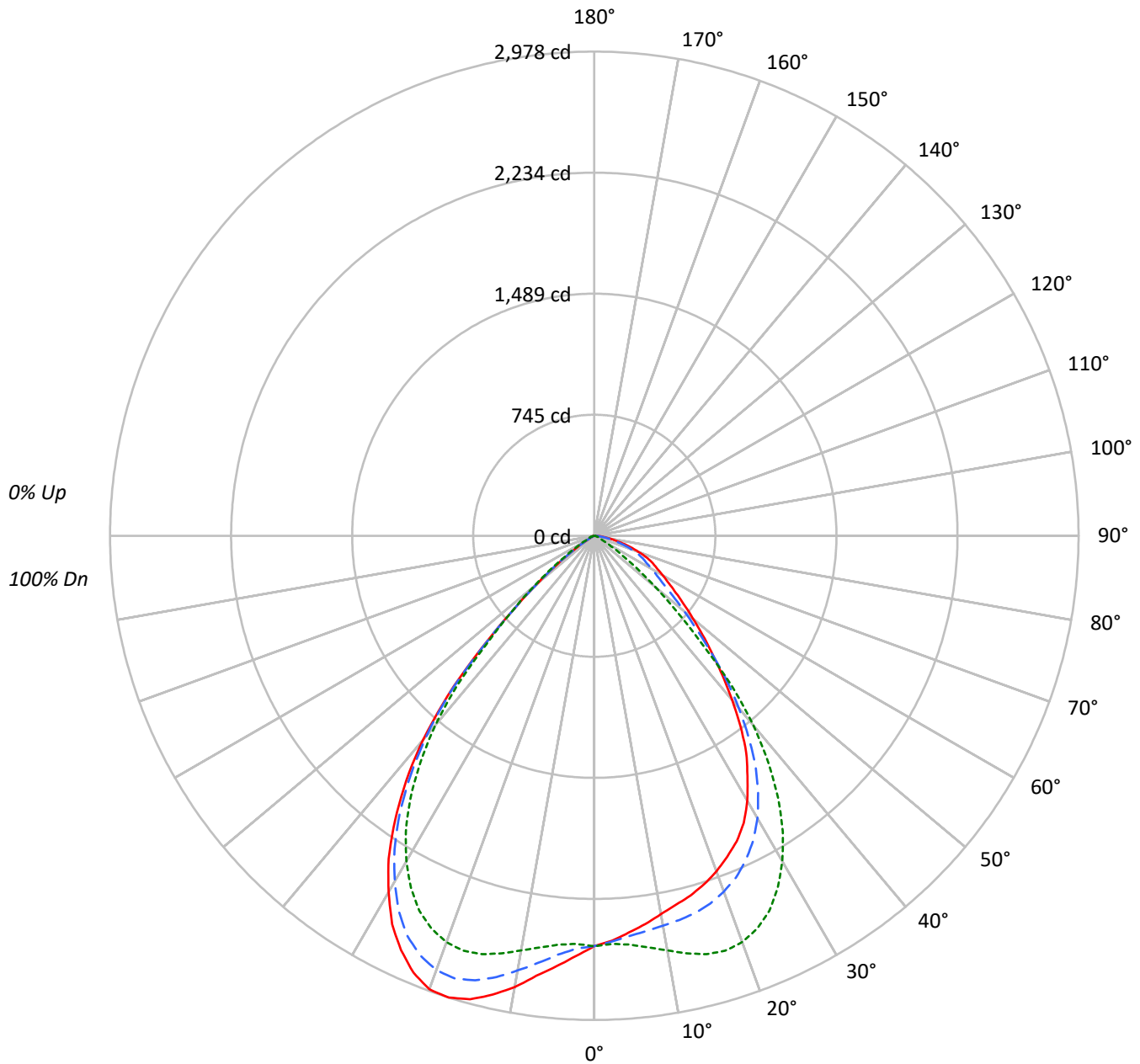
Input Watts (W): 43.02
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P252189

CATALOG NUMBER: LD6B40D010 EU6B30509040 6LBSW1LI

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
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10
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°	164680	164680	164680
5°	160411	165309	174000
10°	156509	171540	186724
15°	154678	179946	199344
20°	152463	184636	206082
25°	149225	183267	202379
30°	141800	174163	190518
35°	129732	157026	170096
40°	112214	129682	139552
45°	94626	85049	91286
50°	80334	49236	46293
55°	69725	23602	17846
60°	62970	11026	4410
65°	61101	6329	1497
70°	54784	5055	1373
75°	45020	3655	605
80°	33551	1803	0
85°	28894	0	0



TEST NUMBER: P252189

CATALOG NUMBER: LD6B40D010 EU6B30509040 6LBSW1LI

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	243.8	5.3
10°-20°	743.1	16.1
20°-30°	1135.3	24.6
30°-40°	1187.5	25.7
40°-50°	770.3	16.7
50°-60°	305.8	6.6
60°-70°	145.1	3.1
70°-80°	69.0	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°	2122.2	46.0
0°-40°	3309.7	71.7
0°-60°	4385.8	95.1
0°-90°	4614.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4614.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	2524	2524	2524	2524	2524	
5°	2449	2471	2524	2587	2657	231
15°	2290	2401	2664	2831	2951	645
25°	2073	2203	2546	2717	2811	949
35°	1629	1728	1972	2087	2136	1007
45°	1026	1016	922	977	989	798
55°	613	521	208	162	157	555
65°	396	328	41	10	10	387
75°	179	145	14	5	2	193
85°	39	24	0	0	0	45
90°	0	0	0	0	0	



TEST NUMBER: P252189

CATALOG NUMBER: LD6B40D010 EU6B30509040 6LBSW1LI

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	2524.2	2524.2	2524.2	2524.2	2524.2	2524.2	2524.2	2524.2	2524.2	2524.2	2524.2
2.5°	2492.9	2497.7	2471.1	2463.9	2483.2	2490.4	2492.9	2485.6	2488.0	2497.7	2497.7
5°	2449.4	2454.2	2430.1	2422.9	2442.2	2447.0	2454.2	2451.8	2459.1	2473.5	2471.1
7.5°	2408.4	2415.6	2389.1	2379.4	2403.6	2415.6	2420.5	2420.5	2430.1	2449.4	2451.8
10°	2362.5	2372.2	2348.1	2343.2	2369.8	2381.8	2384.3	2389.1	2403.6	2430.1	2434.9
12.5°	2323.9	2333.6	2316.7	2309.4	2338.4	2350.5	2355.3	2364.9	2381.8	2415.6	2420.5
15°	2290.1	2297.4	2278.1	2273.2	2302.2	2316.7	2319.1	2333.6	2355.3	2393.9	2401.1
17.5°	2246.7	2251.5	2237.0	2232.2	2261.2	2275.7	2278.1	2295.0	2321.5	2360.1	2372.2
20°	2196.0	2200.9	2186.4	2181.5	2210.5	2227.4	2229.8	2244.3	2275.7	2316.7	2328.8
22.5°	2135.7	2145.3	2128.5	2123.6	2152.6	2167.1	2174.3	2186.4	2217.7	2258.8	2275.7
25°	2073.0	2073.0	2060.9	2058.5	2085.0	2101.9	2099.5	2116.4	2147.8	2188.8	2203.3
27.5°	1990.9	1988.5	1976.4	1974.0	2003.0	2017.4	2012.6	2029.5	2058.5	2099.5	2114.0
30°	1882.3	1887.1	1870.2	1865.4	1889.5	1913.7	1911.3	1928.2	1957.1	1995.7	2005.4
32.5°	1752.0	1756.8	1754.4	1747.2	1768.9	1781.0	1788.2	1800.3	1824.4	1865.4	1875.1
35°	1628.9	1621.7	1612.0	1612.0	1633.7	1653.1	1645.8	1660.3	1684.4	1725.4	1727.9
37.5°	1476.9	1474.5	1469.6	1464.8	1489.0	1493.8	1496.2	1505.8	1527.6	1561.3	1556.5
40°	1317.6	1320.0	1317.6	1308.0	1322.4	1341.7	1339.3	1344.2	1363.5	1387.6	1380.4
42.5°	1168.0	1168.0	1168.0	1158.3	1175.2	1184.9	1189.7	1187.3	1192.1	1213.8	1204.2
45°	1025.6	1028.0	1025.6	1023.2	1025.6	1030.4	1025.6	1023.2	1023.2	1030.4	1016.0
47.5°	902.5	902.5	895.3	888.1	895.3	897.7	890.5	883.2	880.8	878.4	854.3
50°	791.5	789.1	786.7	774.6	781.9	784.3	774.6	769.8	760.2	748.1	719.1
52.5°	695.0	692.6	690.2	678.1	682.9	685.4	675.7	666.0	654.0	644.3	608.1
55°	613.0	610.5	610.5	603.3	598.5	603.3	593.7	586.4	569.5	557.5	521.3
57.5°	543.0	543.0	538.1	530.9	533.3	533.3	523.7	514.0	499.5	485.1	456.1
60°	482.6	482.6	482.6	475.4	475.4	475.4	470.6	460.9	448.9	434.4	405.4
62.5°	434.4	434.4	432.0	424.7	427.1	427.1	422.3	412.7	400.6	390.9	362.0
65°	395.8	395.8	395.8	388.5	388.5	390.9	386.1	376.5	366.8	354.7	328.2
67.5°	347.5	345.1	345.1	340.3	342.7	345.1	340.3	333.0	321.0	313.7	289.6
70°	287.2	289.6	292.0	284.8	287.2	287.2	284.8	277.5	270.3	263.0	241.3
72.5°	234.1	234.1	231.7	229.3	229.3	231.7	226.8	219.6	214.8	209.9	193.1
75°	178.6	176.2	178.6	173.8	173.8	173.8	168.9	166.5	164.1	156.9	144.8
77.5°	130.3	127.9	127.9	123.1	125.5	125.5	123.1	118.2	113.4	111.0	101.4
80°	89.3	89.3	89.3	86.9	86.9	84.5	84.5	82.0	77.2	74.8	70.0
82.5°	60.3	60.3	60.3	57.9	57.9	57.9	55.5	53.1	50.7	48.3	43.4
85°	38.6	38.6	38.6	36.2	36.2	36.2	33.8	33.8	31.4	29.0	24.1
87.5°	21.7	21.7	21.7	19.3	19.3	19.3	19.3	19.3	16.9	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



TEST NUMBER: P252189

CATALOG NUMBER: LD6B40D010 EU6B30509040 6LBSW1LI

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	2524.2	2524.2	2524.2	2524.2	2524.2	2524.2	2524.2	2524.2	2524.2	2524.2	2524.2
2.5°	2514.6	2480.8	2502.5	2502.5	2495.3	2514.6	2526.6	2536.3	2533.9	2512.2	2509.7
5°	2495.3	2466.3	2490.4	2492.9	2485.6	2512.2	2529.0	2541.1	2543.5	2524.2	2526.6
7.5°	2480.8	2456.7	2488.0	2497.7	2495.3	2519.4	2538.7	2558.0	2567.7	2553.2	2555.6
10°	2473.5	2454.2	2488.0	2502.5	2504.9	2531.5	2560.4	2587.0	2599.0	2589.4	2596.6
12.5°	2463.9	2451.8	2490.4	2512.2	2521.8	2548.4	2584.6	2615.9	2635.2	2630.4	2644.9
15°	2454.2	2444.6	2490.4	2521.8	2533.9	2558.0	2599.0	2644.9	2666.6	2664.2	2683.5
17.5°	2430.1	2427.7	2476.0	2509.7	2526.6	2555.6	2594.2	2649.7	2671.4	2676.3	2700.4
20°	2391.5	2391.5	2444.6	2480.8	2500.1	2526.6	2574.9	2628.0	2654.5	2659.4	2685.9
22.5°	2338.4	2343.2	2393.9	2430.1	2459.1	2478.4	2529.0	2584.6	2608.7	2615.9	2644.9
25°	2268.4	2273.2	2321.5	2357.7	2389.1	2410.8	2459.1	2509.7	2538.7	2545.9	2567.7
27.5°	2176.7	2186.4	2232.2	2268.4	2295.0	2309.4	2360.1	2413.2	2434.9	2442.2	2463.9
30°	2070.5	2073.0	2118.8	2150.2	2176.7	2188.8	2232.2	2287.7	2304.6	2311.9	2343.2
32.5°	1940.2	1937.8	1981.2	2010.2	2031.9	2046.4	2092.3	2128.5	2145.3	2157.4	2174.3
35°	1783.4	1781.0	1812.3	1846.1	1863.0	1867.8	1913.7	1952.3	1961.9	1971.6	1993.3
37.5°	1607.2	1607.2	1633.7	1650.6	1669.9	1677.2	1698.9	1742.3	1759.2	1756.8	1773.7
40°	1421.4	1411.7	1431.0	1447.9	1452.8	1455.2	1476.9	1510.7	1522.7	1522.7	1534.8
42.5°	1225.9	1211.4	1213.8	1223.5	1228.3	1211.4	1225.9	1247.6	1240.4	1250.0	1252.5
45°	1018.4	996.7	987.0	965.3	970.1	953.2	943.6	948.4	946.0	921.8	926.7
47.5°	849.5	810.8	793.9	762.6	755.3	736.0	724.0	702.2	682.9	682.9	670.9
50°	707.1	668.5	634.7	598.5	586.4	569.5	543.0	514.0	499.5	485.1	473.0
52.5°	593.7	552.6	511.6	473.0	456.1	434.4	398.2	369.2	342.7	328.2	313.7
55°	501.9	456.1	412.7	371.6	349.9	328.2	292.0	258.2	226.8	207.5	195.5
57.5°	432.0	388.5	342.7	299.2	279.9	255.8	217.2	181.0	152.0	130.3	118.2
60°	381.3	337.8	296.8	251.0	231.7	207.5	166.5	132.7	103.8	84.5	70.0
62.5°	337.8	299.2	255.8	214.8	195.5	171.3	132.7	98.9	72.4	53.1	41.0
65°	306.5	267.9	231.7	190.6	173.8	149.6	113.4	82.0	57.9	41.0	29.0
67.5°	270.3	236.5	200.3	166.5	149.6	130.3	96.5	70.0	48.3	33.8	24.1
70°	226.8	200.3	168.9	137.6	125.5	108.6	79.6	57.9	38.6	26.5	19.3
72.5°	181.0	159.3	135.1	111.0	101.4	84.5	65.2	45.9	29.0	19.3	14.5
75°	137.6	120.7	101.4	84.5	74.8	65.2	48.3	33.8	21.7	14.5	9.7
77.5°	94.1	86.9	72.4	57.9	53.1	45.9	31.4	21.7	14.5	9.7	4.8
80°	65.2	57.9	48.3	38.6	33.8	29.0	19.3	14.5	7.2	4.8	2.4
82.5°	41.0	33.8	29.0	24.1	21.7	16.9	12.1	7.2	4.8	2.4	2.4
85°	21.7	19.3	16.9	12.1	12.1	9.7	7.2	4.8	2.4	0.0	0.0
87.5°	12.1	9.7	7.2	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°	2524.2	2524.2	2524.2	2524.2	2524.2	2524.2	2524.2	2524.2	2524.2	2524.2	2524.2
2.5°	2538.7	2538.7	2536.3	2565.2	2531.5	2565.2	2548.4	2565.2	2541.1	2538.7	2541.1
5°	2558.0	2565.2	2567.7	2594.2	2562.8	2603.9	2589.4	2603.9	2587.0	2591.8	2599.0
7.5°	2596.6	2608.7	2606.3	2640.1	2608.7	2654.5	2644.9	2666.6	2649.7	2654.5	2664.2
10°	2640.1	2654.5	2656.9	2690.7	2661.8	2717.3	2705.2	2729.3	2714.9	2722.1	2734.2
12.5°	2690.7	2707.6	2710.0	2748.7	2717.3	2775.2	2768.0	2792.1	2780.0	2787.3	2801.7
15°	2729.3	2753.5	2758.3	2796.9	2763.1	2823.5	2818.6	2850.0	2830.7	2842.8	2854.8
17.5°	2748.7	2770.4	2780.0	2816.2	2787.3	2847.6	2842.8	2869.3	2854.8	2866.9	2881.4
20°	2736.6	2763.1	2770.4	2806.6	2777.6	2837.9	2830.7	2857.2	2842.8	2852.4	2866.9
22.5°	2693.1	2719.7	2729.3	2763.1	2736.6	2792.1	2789.7	2813.8	2794.5	2806.6	2818.6
25°	2615.9	2644.9	2649.7	2681.1	2652.1	2710.0	2705.2	2731.8	2717.3	2724.5	2741.4
27.5°	2504.9	2538.7	2545.9	2572.5	2550.8	2599.0	2599.0	2620.8	2603.9	2603.9	2620.8
30°	2372.2	2406.0	2410.8	2432.5	2413.2	2456.7	2459.1	2480.8	2454.2	2468.7	2471.1
32.5°	2210.5	2232.2	2246.7	2266.0	2237.0	2292.6	2285.3	2302.2	2287.7	2287.7	2299.8
35°	2015.0	2041.6	2048.8	2073.0	2048.8	2092.3	2092.3	2101.9	2087.4	2087.4	2106.7
37.5°	1802.7	1822.0	1824.4	1848.5	1829.2	1865.4	1863.0	1870.2	1855.8	1865.4	1865.4
40°	1554.1	1568.6	1573.4	1585.5	1583.1	1609.6	1607.2	1612.0	1604.8	1607.2	1612.0
42.5°	1264.5	1283.8	1293.5	1303.1	1288.7	1324.9	1317.6	1324.9	1322.4	1324.9	1332.1
45°	931.5	946.0	953.2	955.6	950.8	972.5	989.4	974.9	977.4	972.5	982.2
47.5°	673.3	675.7	670.9	685.4	673.3	682.9	687.8	690.2	675.7	673.3	682.9
50°	460.9	473.0	456.1	463.3	460.9	470.6	465.8	468.2	453.7	460.9	456.1
52.5°	306.5	304.1	299.2	301.7	296.8	296.8	296.8	301.7	292.0	287.2	282.3
55°	185.8	181.0	171.3	168.9	168.9	171.3	166.5	161.7	161.7	159.3	159.3
57.5°	108.6	101.4	96.5	94.1	89.3	86.9	84.5	84.5	79.6	79.6	79.6
60°	60.3	53.1	48.3	43.4	43.4	41.0	38.6	36.2	36.2	36.2	33.8
62.5°	31.4	26.5	21.7	19.3	19.3	16.9	14.5	14.5	14.5	14.5	12.1
65°	21.7	16.9	14.5	12.1	12.1	9.7	9.7	9.7	9.7	9.7	9.7
67.5°	16.9	14.5	12.1	9.7	9.7	9.7	7.2	7.2	7.2	7.2	7.2
70°	14.5	9.7	9.7	7.2	7.2	7.2	7.2	7.2	7.2	7.2	7.2
72.5°	9.7	9.7	7.2	7.2	7.2	7.2	7.2	7.2	7.2	7.2	7.2
75°	7.2	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: P252189

CATALOG NUMBER: LD6B40D010 EU6B30509040 6LBSW1LI

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	2524.2	2524.2	2524.2	2524.2	2524.2	2524.2	2524.2	2524.2
2.5°	2562.8	2560.4	2562.8	2567.7	2558.0	2587.0	2572.5	2587.0
5°	2618.3	2620.8	2623.2	2630.4	2618.3	2654.5	2635.2	2656.9
7.5°	2690.7	2693.1	2695.6	2702.8	2695.6	2731.8	2710.0	2729.3
10°	2765.5	2770.4	2770.4	2782.4	2775.2	2809.0	2794.5	2818.6
12.5°	2835.5	2840.4	2845.2	2852.4	2847.6	2883.8	2871.7	2891.0
15°	2891.0	2900.7	2903.1	2912.7	2907.9	2946.5	2932.1	2951.4
17.5°	2917.6	2927.2	2927.2	2939.3	2934.5	2975.5	2956.2	2977.9
20°	2903.1	2910.3	2912.7	2924.8	2920.0	2961.0	2941.7	2968.3
22.5°	2857.2	2859.7	2862.1	2874.1	2871.7	2907.9	2891.0	2907.9
25°	2772.8	2780.0	2777.6	2787.3	2787.3	2816.2	2796.9	2811.4
27.5°	2652.1	2659.4	2659.4	2671.4	2661.8	2690.7	2671.4	2693.1
30°	2504.9	2512.2	2507.3	2517.0	2507.3	2536.3	2521.8	2529.0
32.5°	2328.8	2328.8	2331.2	2333.6	2328.8	2355.3	2340.8	2355.3
35°	2118.8	2123.6	2126.0	2128.5	2123.6	2142.9	2126.0	2135.7
37.5°	1882.3	1894.4	1892.0	1894.4	1887.1	1911.3	1896.8	1901.6
40°	1628.9	1628.9	1626.5	1631.3	1624.1	1643.4	1633.7	1638.6
42.5°	1334.5	1341.7	1332.1	1344.2	1324.9	1351.4	1341.7	1334.5
45°	1001.5	991.8	989.4	991.8	984.6	987.0	994.2	989.4
47.5°	682.9	682.9	678.1	670.9	680.5	682.9	673.3	673.3
50°	458.5	458.5	453.7	451.3	456.1	453.7	448.9	456.1
52.5°	292.0	282.3	282.3	287.2	282.3	277.5	284.8	279.9
55°	159.3	154.4	154.4	159.3	154.4	154.4	152.0	156.9
57.5°	77.2	79.6	77.2	77.2	77.2	77.2	74.8	77.2
60°	33.8	33.8	33.8	33.8	33.8	33.8	33.8	33.8
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°	7.2	7.2	7.2	7.2	7.2	9.7	7.2	7.2
70°	7.2	7.2	7.2	7.2	7.2	7.2	7.2	7.2
72.5°	7.2	7.2	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)