

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: P252186

Luminaire Tested: **LD6B40D010 EU6B30509027 6LBSW1LI**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P252186
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 EU6B30509027 6LBSW1LI
Description: PORTFOLIO 6 INCH SINGLE WALLWASH RECESSED DOWNLIGHT, WITH SPECULAR CLEAR TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 2700K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4368.0 lumens
Efficiency: N/A
Efficacy: 101.5 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

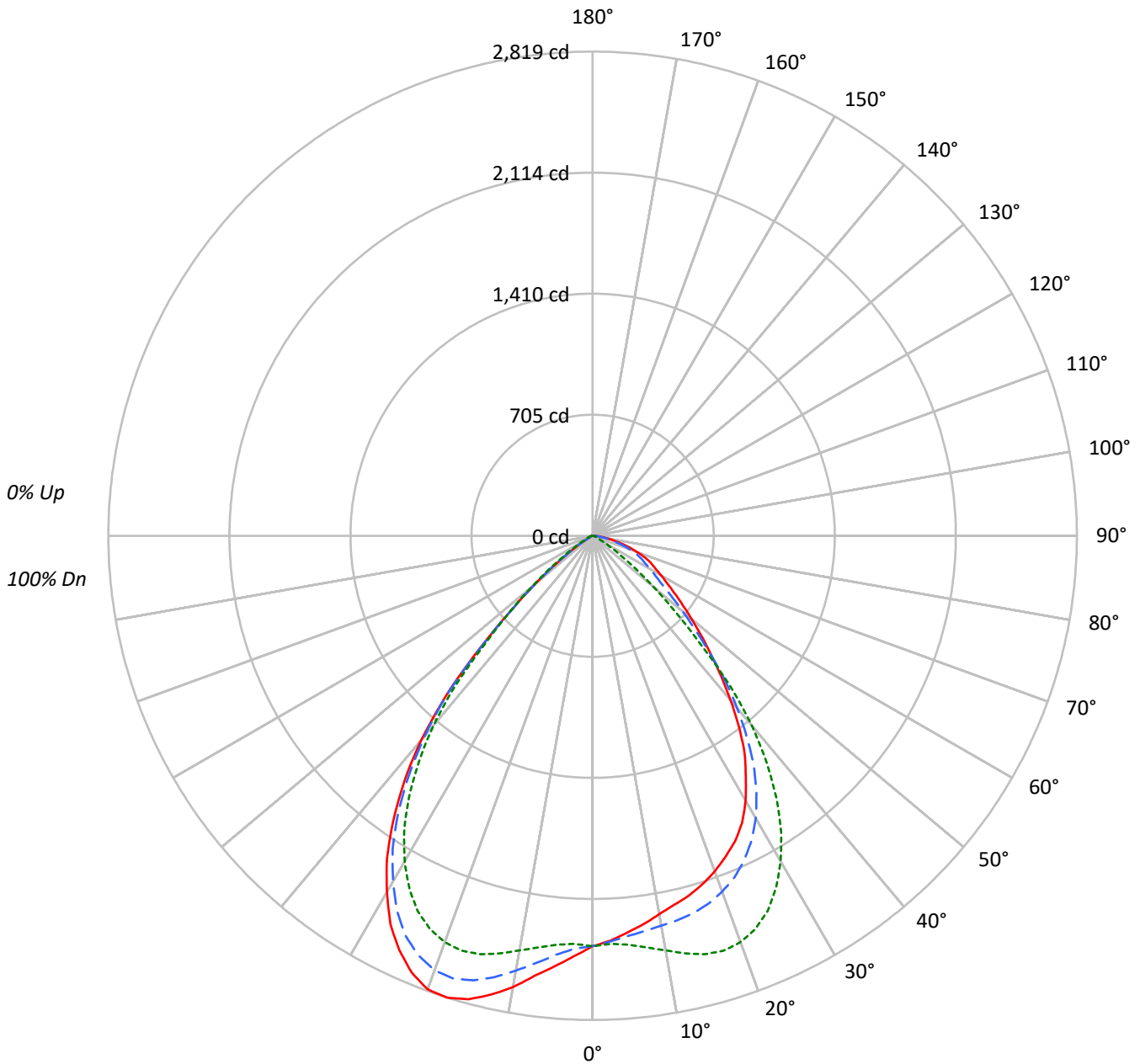
Input Watts (W): 43.02
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	155899	155899	155899
5°	151858	156495	164727
10°	148168	162391	176774
15°	146431	170348	188713
20°	144333	174791	195092
25°	141263	173498	191588
30°	134244	164875	180363
35°	122819	148656	161024
40°	106236	122775	132109
45°	89579	80519	86424
50°	76051	46607	43826
55°	66005	22351	16891
60°	59617	10439	4175
65°	57843	5990	1405
70°	51865	4788	1316
75°	42625	3453	580
80°	31747	1728	0
85°	27397	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	230.8	5.3
10°-20°	703.4	16.1
20°-30°	1074.8	24.6
30°-40°	1124.1	25.7
40°-50°	729.2	16.7
50°-60°	289.5	6.6
60°-70°	137.4	3.1
70°-80°	65.3	1.5
80°-90°	13.3	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°	2009.1	46.0
0°-40°	3133.2	71.7
0°-60°	4152.0	95.1
0°-90°	4368.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4368.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	2390	2390	2390	2390	2390	
5°	2319	2339	2390	2449	2515	219
15°	2168	2273	2522	2680	2794	611
25°	1962	2086	2410	2572	2662	899
35°	1542	1636	1866	1976	2022	954
45°	971	962	873	925	937	755
55°	580	494	196	153	148	526
65°	375	311	39	9	9	366
75°	169	137	14	5	2	182
85°	37	23	0	0	0	43
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°	2389.6	2389.6	2389.6	2389.6	2389.6	2389.6	2389.6	2389.6	2389.6	2389.6	2389.6
2.5°	2359.9	2364.5	2339.4	2332.5	2350.8	2357.7	2359.9	2353.1	2355.4	2364.5	2364.5
5°	2318.8	2323.4	2300.5	2293.7	2312.0	2316.5	2323.4	2321.1	2328.0	2341.7	2339.4
7.5°	2280.0	2286.8	2261.7	2252.6	2275.4	2286.8	2291.4	2291.4	2300.5	2318.8	2321.1
10°	2236.6	2245.7	2222.9	2218.3	2243.4	2254.9	2257.1	2261.7	2275.4	2300.5	2305.1
12.5°	2200.0	2209.2	2193.2	2186.3	2213.7	2225.2	2229.7	2238.9	2254.9	2286.8	2291.4
15°	2168.0	2174.9	2156.6	2152.0	2179.5	2193.2	2195.5	2209.2	2229.7	2266.3	2273.1
17.5°	2126.9	2131.5	2117.8	2113.2	2140.6	2154.3	2156.6	2172.6	2197.7	2234.3	2245.7
20°	2078.9	2083.5	2069.8	2065.2	2092.6	2108.6	2110.9	2124.6	2154.3	2193.2	2204.6
22.5°	2021.8	2031.0	2015.0	2010.4	2037.8	2051.5	2058.4	2069.8	2099.5	2138.3	2154.3
25°	1962.4	1962.4	1951.0	1948.7	1973.9	1989.8	1987.6	2003.6	2033.3	2072.1	2085.8
27.5°	1884.8	1882.5	1871.0	1868.8	1896.2	1909.9	1905.3	1921.3	1948.7	1987.6	2001.3
30°	1782.0	1786.5	1770.5	1766.0	1788.8	1811.6	1809.4	1825.4	1852.8	1889.3	1898.5
32.5°	1658.6	1663.2	1660.9	1654.0	1674.6	1686.0	1692.9	1704.3	1727.1	1766.0	1775.1
35°	1542.1	1535.2	1526.1	1526.1	1546.6	1564.9	1558.1	1571.8	1594.6	1633.5	1635.7
37.5°	1398.1	1395.9	1391.3	1386.7	1409.6	1414.1	1416.4	1425.6	1446.1	1478.1	1473.5
40°	1247.4	1249.6	1247.4	1238.2	1251.9	1270.2	1267.9	1272.5	1290.8	1313.6	1306.8
42.5°	1105.7	1105.7	1105.7	1096.6	1112.6	1121.7	1126.3	1124.0	1128.6	1149.1	1140.0
45°	970.9	973.2	970.9	968.6	970.9	975.5	970.9	968.6	968.6	975.5	961.8
47.5°	854.4	854.4	847.6	840.7	847.6	849.9	843.0	836.1	833.9	831.6	808.7
50°	749.3	747.0	744.8	733.3	740.2	742.5	733.3	728.8	719.6	708.2	680.8
52.5°	658.0	655.7	653.4	642.0	646.5	648.8	639.7	630.5	619.1	610.0	575.7
55°	580.3	578.0	578.0	571.1	566.6	571.1	562.0	555.1	539.2	527.7	493.5
57.5°	514.0	514.0	509.5	502.6	504.9	504.9	495.7	486.6	472.9	459.2	431.8
60°	456.9	456.9	456.9	450.1	450.1	450.1	445.5	436.3	424.9	411.2	383.8
62.5°	411.2	411.2	408.9	402.1	404.4	404.4	399.8	390.7	379.2	370.1	342.7
65°	374.7	374.7	374.7	367.8	367.8	370.1	365.5	356.4	347.3	335.8	310.7
67.5°	329.0	326.7	326.7	322.1	324.4	326.7	322.1	315.3	303.8	297.0	274.1
70°	271.9	274.1	276.4	269.6	271.9	271.9	269.6	262.7	255.9	249.0	228.5
72.5°	221.6	221.6	219.3	217.0	217.0	219.3	214.7	207.9	203.3	198.8	182.8
75°	169.1	166.8	169.1	164.5	164.5	164.5	159.9	157.6	155.3	148.5	137.1
77.5°	123.4	121.1	121.1	116.5	118.8	118.8	116.5	111.9	107.4	105.1	96.0
80°	84.5	84.5	84.5	82.2	82.2	80.0	80.0	77.7	73.1	70.8	66.3
82.5°	57.1	57.1	57.1	54.8	54.8	54.8	52.5	50.3	48.0	45.7	41.1
85°	36.6	36.6	36.6	34.3	34.3	34.3	32.0	32.0	29.7	27.4	22.8
87.5°	20.6	20.6	20.6	18.3	18.3	18.3	18.3	18.3	16.0	13.7	11.4
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°	2389.6	2389.6	2389.6	2389.6	2389.6	2389.6	2389.6	2389.6	2389.6	2389.6	2389.6
2.5°	2380.5	2348.5	2369.1	2369.1	2362.2	2380.5	2391.9	2401.1	2398.8	2378.2	2375.9
5°	2362.2	2334.8	2357.7	2359.9	2353.1	2378.2	2394.2	2405.6	2407.9	2389.6	2391.9
7.5°	2348.5	2325.7	2355.4	2364.5	2362.2	2385.1	2403.3	2421.6	2430.8	2417.1	2419.3
10°	2341.7	2323.4	2355.4	2369.1	2371.4	2396.5	2423.9	2449.0	2460.5	2451.3	2458.2
12.5°	2332.5	2321.1	2357.7	2378.2	2387.4	2412.5	2446.8	2476.5	2494.7	2490.2	2503.9
15°	2323.4	2314.3	2357.7	2387.4	2398.8	2421.6	2460.5	2503.9	2524.4	2522.1	2540.4
17.5°	2300.5	2298.3	2343.9	2375.9	2391.9	2419.3	2455.9	2508.4	2529.0	2533.6	2556.4
20°	2264.0	2264.0	2314.3	2348.5	2366.8	2391.9	2437.6	2487.9	2513.0	2517.6	2542.7
22.5°	2213.7	2218.3	2266.3	2300.5	2328.0	2346.2	2394.2	2446.8	2469.6	2476.5	2503.9
25°	2147.5	2152.0	2197.7	2232.0	2261.7	2282.3	2328.0	2375.9	2403.3	2410.2	2430.8
27.5°	2060.7	2069.8	2113.2	2147.5	2172.6	2186.3	2234.3	2284.6	2305.1	2312.0	2332.5
30°	1960.1	1962.4	2005.8	2035.5	2060.7	2072.1	2113.2	2165.8	2181.7	2188.6	2218.3
32.5°	1836.8	1834.5	1875.6	1903.0	1923.6	1937.3	1980.7	2015.0	2031.0	2042.4	2058.4
35°	1688.3	1686.0	1715.7	1747.7	1763.7	1768.2	1811.6	1848.2	1857.3	1866.5	1887.0
37.5°	1521.5	1521.5	1546.6	1562.6	1580.9	1587.8	1608.3	1649.4	1665.4	1663.2	1679.1
40°	1345.6	1336.5	1354.7	1370.7	1375.3	1377.6	1398.1	1430.1	1441.6	1441.6	1453.0
42.5°	1160.6	1146.8	1149.1	1158.3	1162.8	1146.8	1160.6	1181.1	1174.3	1183.4	1185.7
45°	964.1	943.5	934.4	913.8	918.4	902.4	893.3	897.8	895.5	872.7	877.3
47.5°	804.2	767.6	751.6	721.9	715.1	696.8	685.4	664.8	646.5	646.5	635.1
50°	669.4	632.8	600.8	566.6	555.1	539.2	514.0	486.6	472.9	459.2	447.8
52.5°	562.0	523.2	484.3	447.8	431.8	411.2	377.0	349.5	324.4	310.7	297.0
55°	475.2	431.8	390.7	351.8	331.3	310.7	276.4	244.4	214.7	196.5	185.0
57.5°	408.9	367.8	324.4	283.3	265.0	242.2	205.6	171.3	143.9	123.4	111.9
60°	361.0	319.8	281.0	237.6	219.3	196.5	157.6	125.7	98.2	80.0	66.3
62.5°	319.8	283.3	242.2	203.3	185.0	162.2	125.7	93.7	68.5	50.3	38.8
65°	290.1	253.6	219.3	180.5	164.5	141.6	107.4	77.7	54.8	38.8	27.4
67.5°	255.9	223.9	189.6	157.6	141.6	123.4	91.4	66.3	45.7	32.0	22.8
70°	214.7	189.6	159.9	130.2	118.8	102.8	75.4	54.8	36.6	25.1	18.3
72.5°	171.3	150.8	127.9	105.1	96.0	80.0	61.7	43.4	27.4	18.3	13.7
75°	130.2	114.2	96.0	80.0	70.8	61.7	45.7	32.0	20.6	13.7	9.1
77.5°	89.1	82.2	68.5	54.8	50.3	43.4	29.7	20.6	13.7	9.1	4.6
80°	61.7	54.8	45.7	36.6	32.0	27.4	18.3	13.7	6.9	4.6	2.3
82.5°	38.8	32.0	27.4	22.8	20.6	16.0	11.4	6.9	4.6	2.3	2.3
85°	20.6	18.3	16.0	11.4	11.4	9.1	6.9	4.6	2.3	0.0	0.0
87.5°	11.4	9.1	6.9	4.6	4.6	2.3	2.3	2.3	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°	2389.6	2389.6	2389.6	2389.6	2389.6	2389.6	2389.6	2389.6	2389.6	2389.6	2389.6
2.5°	2403.3	2403.3	2401.1	2428.5	2396.5	2428.5	2412.5	2428.5	2405.6	2403.3	2405.6
5°	2421.6	2428.5	2430.8	2455.9	2426.2	2465.0	2451.3	2465.0	2449.0	2453.6	2460.5
7.5°	2458.2	2469.6	2467.3	2499.3	2469.6	2513.0	2503.9	2524.4	2508.4	2513.0	2522.1
10°	2499.3	2513.0	2515.3	2547.3	2519.9	2572.4	2561.0	2583.8	2570.1	2577.0	2588.4
12.5°	2547.3	2563.3	2565.6	2602.1	2572.4	2627.2	2620.4	2643.2	2631.8	2638.7	2652.4
15°	2583.8	2606.7	2611.2	2647.8	2615.8	2672.9	2668.4	2698.1	2679.8	2691.2	2702.6
17.5°	2602.1	2622.7	2631.8	2666.1	2638.7	2695.8	2691.2	2716.3	2702.6	2714.0	2727.8
20°	2590.7	2615.8	2622.7	2656.9	2629.5	2686.6	2679.8	2704.9	2691.2	2700.3	2714.0
22.5°	2549.6	2574.7	2583.8	2615.8	2590.7	2643.2	2640.9	2663.8	2645.5	2656.9	2668.4
25°	2476.5	2503.9	2508.4	2538.1	2510.7	2565.6	2561.0	2586.1	2572.4	2579.3	2595.3
27.5°	2371.4	2403.3	2410.2	2435.3	2414.8	2460.5	2460.5	2481.0	2465.0	2465.0	2481.0
30°	2245.7	2277.7	2282.3	2302.8	2284.6	2325.7	2328.0	2348.5	2323.4	2337.1	2339.4
32.5°	2092.6	2113.2	2126.9	2145.2	2117.8	2170.3	2163.5	2179.5	2165.8	2165.8	2177.2
35°	1907.6	1932.7	1939.6	1962.4	1939.6	1980.7	1980.7	1989.8	1976.1	1976.1	1994.4
37.5°	1706.6	1724.8	1727.1	1750.0	1731.7	1766.0	1763.7	1770.5	1756.8	1766.0	1766.0
40°	1471.3	1485.0	1489.5	1501.0	1498.7	1523.8	1521.5	1526.1	1519.2	1521.5	1526.1
42.5°	1197.1	1215.4	1224.5	1233.7	1220.0	1254.2	1247.4	1254.2	1251.9	1254.2	1261.1
45°	881.8	895.5	902.4	904.7	900.1	920.7	936.7	923.0	925.2	920.7	929.8
47.5°	637.4	639.7	635.1	648.8	637.4	646.5	651.1	653.4	639.7	637.4	646.5
50°	436.3	447.8	431.8	438.6	436.3	445.5	440.9	443.2	429.5	436.3	431.8
52.5°	290.1	287.9	283.3	285.6	281.0	281.0	281.0	285.6	276.4	271.9	267.3
55°	175.9	171.3	162.2	159.9	159.9	162.2	157.6	153.1	153.1	150.8	150.8
57.5°	102.8	96.0	91.4	89.1	84.5	82.2	80.0	80.0	75.4	75.4	75.4
60°	57.1	50.3	45.7	41.1	41.1	38.8	36.6	34.3	34.3	34.3	32.0
62.5°	29.7	25.1	20.6	18.3	18.3	16.0	13.7	13.7	13.7	13.7	11.4
65°	20.6	16.0	13.7	11.4	11.4	9.1	9.1	9.1	9.1	9.1	9.1
67.5°	16.0	13.7	11.4	9.1	9.1	9.1	6.9	6.9	6.9	6.9	6.9
70°	13.7	9.1	9.1	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9
72.5°	9.1	9.1	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9
75°	6.9	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6
77.5°	2.3	2.3	2.3	2.3	2.3	2.3	0.0	0.0	0.0	0.0	0.0
80°	2.3	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: P252186

CATALOG NUMBER: LD6B40D010 EU6B30509027 6LBSW1LI

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	2389.6	2389.6	2389.6	2389.6	2389.6	2389.6	2389.6	2389.6
2.5°	2426.2	2423.9	2426.2	2430.8	2421.6	2449.0	2435.3	2449.0
5°	2478.7	2481.0	2483.3	2490.2	2478.7	2513.0	2494.7	2515.3
7.5°	2547.3	2549.6	2551.8	2558.7	2551.8	2586.1	2565.6	2583.8
10°	2618.1	2622.7	2622.7	2634.1	2627.2	2659.2	2645.5	2668.4
12.5°	2684.3	2688.9	2693.5	2700.3	2695.8	2730.0	2718.6	2736.9
15°	2736.9	2746.0	2748.3	2757.5	2752.9	2789.4	2775.7	2794.0
17.5°	2762.0	2771.2	2771.2	2782.6	2778.0	2816.9	2798.6	2819.1
20°	2748.3	2755.2	2757.5	2768.9	2764.3	2803.1	2784.9	2810.0
22.5°	2704.9	2707.2	2709.5	2720.9	2718.6	2752.9	2736.9	2752.9
25°	2624.9	2631.8	2629.5	2638.7	2638.7	2666.1	2647.8	2661.5
27.5°	2510.7	2517.6	2517.6	2529.0	2519.9	2547.3	2529.0	2549.6
30°	2371.4	2378.2	2373.6	2382.8	2373.6	2401.1	2387.4	2394.2
32.5°	2204.6	2204.6	2206.9	2209.2	2204.6	2229.7	2216.0	2229.7
35°	2005.8	2010.4	2012.7	2015.0	2010.4	2028.7	2012.7	2021.8
37.5°	1782.0	1793.4	1791.1	1793.4	1786.5	1809.4	1795.7	1800.2
40°	1542.1	1542.1	1539.8	1544.4	1537.5	1555.8	1546.6	1551.2
42.5°	1263.4	1270.2	1261.1	1272.5	1254.2	1279.3	1270.2	1263.4
45°	948.1	939.0	936.7	939.0	932.1	934.4	941.2	936.7
47.5°	646.5	646.5	642.0	635.1	644.2	646.5	637.4	637.4
50°	434.1	434.1	429.5	427.2	431.8	429.5	424.9	431.8
52.5°	276.4	267.3	267.3	271.9	267.3	262.7	269.6	265.0
55°	150.8	146.2	146.2	150.8	146.2	146.2	143.9	148.5
57.5°	73.1	75.4	73.1	73.1	73.1	73.1	70.8	73.1
60°	32.0	32.0	32.0	32.0	32.0	32.0	32.0	32.0
62.5°	13.7	13.7	11.4	11.4	11.4	11.4	11.4	11.4
65°	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1
67.5°	6.9	6.9	6.9	6.9	6.9	9.1	6.9	6.9
70°	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9
72.5°	6.9	6.9	9.1	9.1	9.1	9.1	9.1	9.1
75°	4.6	4.6	4.6	2.3	2.3	2.3	2.3	2.3
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)