

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: P252192

Luminaire Tested: **LD6B40D010 EU6B30509730 6LBSW1LI**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P252192  
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 EU6B30509730 6LBSW1LI  
Description: PORTFOLIO 6 INCH SINGLE WALLWASH RECESSED DOWNLIGHT, WITH SPECULAR CLEAR TRIM  
Light Source: (1) HIGH LUMEN LED 97CRI / 3000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3970.0 lumens  
Efficiency: N/A  
Efficacy: 92.3 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

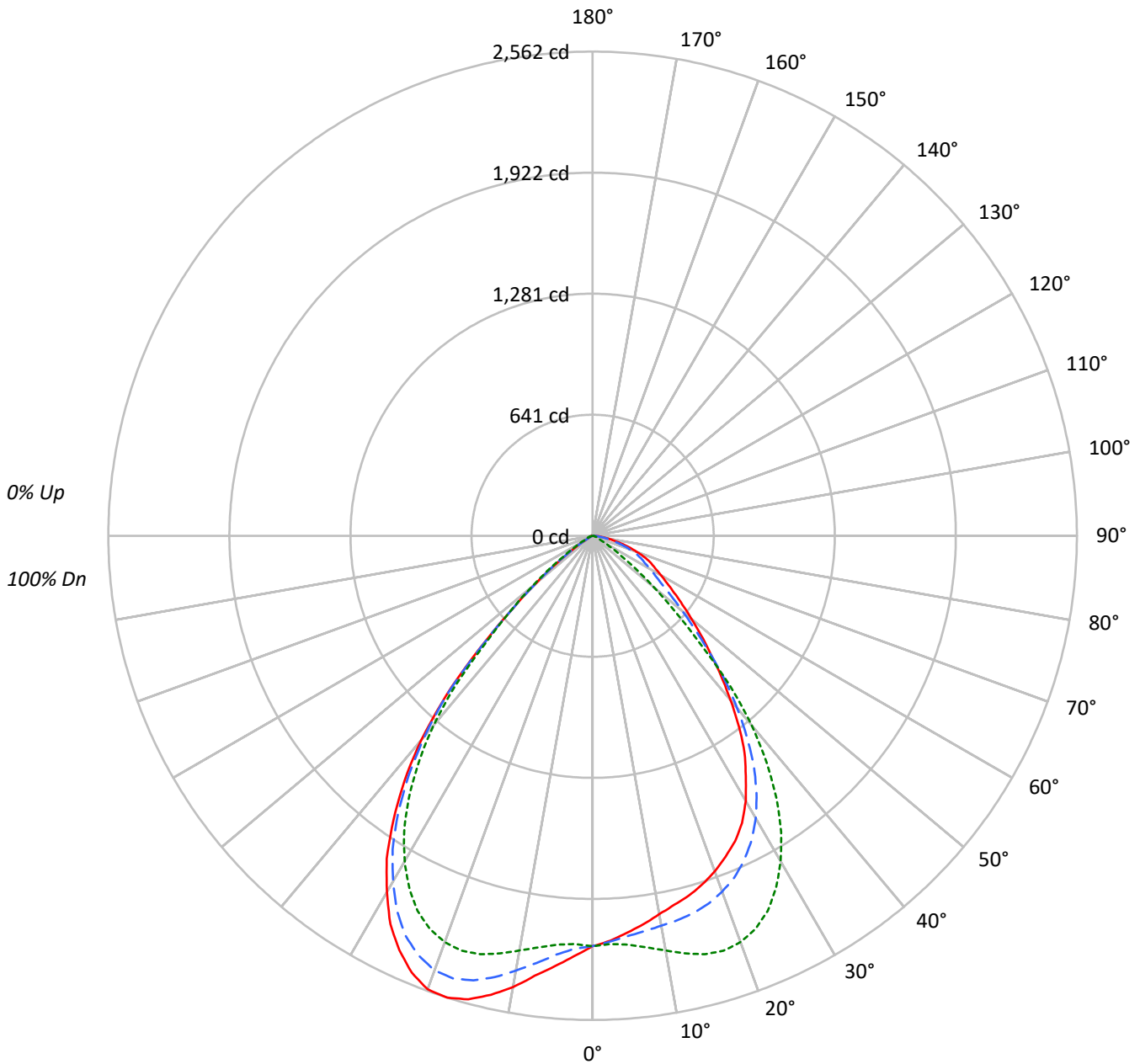
Input Watts (W): 43.02  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### 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			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°	141696	141696	141696
5°	138020	142237	149716
10°	134667	147598	160662
15°	133092	154827	171516
20°	131183	158864	177318
25°	128393	157690	174132
30°	122010	149853	163933
35°	111629	135108	146354
40°	96552	111584	120075
45°	81423	73184	78544
50°	69129	42365	39827
55°	59988	20315	15355
60°	54189	9486	3797
65°	52564	5449	1281
70°	47135	4349	1183
75°	38743	3151	529
80°	28854	1578	0
85°	24852	0	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	209.8	5.3
10°-20°	639.4	16.1
20°-30°	976.9	24.6
30°-40°	1021.7	25.7
40°-50°	662.8	16.7
50°-60°	263.2	6.6
60°-70°	124.8	3.1
70°-80°	59.4	1.5
80°-90°	12.1	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°	1826.0	46.0
0°-40°	2847.7	71.7
0°-60°	3773.7	95.1
0°-90°	3970.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3970.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	2172	2172	2172	2172	2172	
5°	2108	2126	2172	2226	2286	199
15°	1970	2066	2292	2436	2539	555
25°	1784	1896	2191	2338	2419	817
35°	1402	1487	1696	1796	1838	867
45°	882	874	793	841	851	687
55°	527	448	179	139	135	478
65°	340	282	35	8	8	333
75°	154	125	12	4	2	166
85°	33	21	0	0	0	39
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°	2171.9	2171.9	2171.9	2171.9	2171.9	2171.9	2171.9	2171.9	2171.9	2171.9	2171.9
2.5°	2144.9	2149.1	2126.2	2120.0	2136.6	2142.8	2144.9	2138.7	2140.8	2149.1	2149.1
5°	2107.5	2111.7	2090.9	2084.7	2101.3	2105.5	2111.7	2109.6	2115.8	2128.3	2126.2
7.5°	2072.2	2078.5	2055.6	2047.3	2068.1	2078.5	2082.6	2082.6	2090.9	2107.5	2109.6
10°	2032.8	2041.1	2020.3	2016.2	2039.0	2049.4	2051.5	2055.6	2068.1	2090.9	2095.1
12.5°	1999.6	2007.9	1993.3	1987.1	2012.0	2022.4	2026.6	2034.9	2049.4	2078.5	2082.6
15°	1970.5	1976.7	1960.1	1956.0	1980.9	1993.3	1995.4	2007.9	2026.6	2059.8	2066.0
17.5°	1933.1	1937.3	1924.8	1920.7	1945.6	1958.0	1960.1	1974.6	1997.5	2030.7	2041.1
20°	1889.5	1893.7	1881.2	1877.1	1902.0	1916.5	1918.6	1931.0	1958.0	1993.3	2003.7
22.5°	1837.6	1845.9	1831.4	1827.2	1852.1	1864.6	1870.8	1881.2	1908.2	1943.5	1958.0
25°	1783.6	1783.6	1773.2	1771.2	1794.0	1808.5	1806.5	1821.0	1848.0	1883.3	1895.7
27.5°	1713.0	1710.9	1700.6	1698.5	1723.4	1735.9	1731.7	1746.2	1771.2	1806.5	1818.9
30°	1619.6	1623.7	1609.2	1605.0	1625.8	1646.6	1644.5	1659.0	1684.0	1717.2	1725.5
32.5°	1507.5	1511.6	1509.5	1503.3	1522.0	1532.4	1538.6	1549.0	1569.8	1605.0	1613.4
35°	1401.6	1395.3	1387.0	1387.0	1405.7	1422.3	1416.1	1428.6	1449.3	1484.6	1486.7
37.5°	1270.8	1268.7	1264.5	1260.4	1281.1	1285.3	1287.4	1295.7	1314.4	1343.4	1339.3
40°	1133.7	1135.8	1133.7	1125.4	1137.9	1154.5	1152.4	1156.5	1173.2	1193.9	1187.7
42.5°	1005.0	1005.0	1005.0	996.7	1011.2	1019.5	1023.7	1021.6	1025.7	1044.4	1036.1
45°	882.5	884.5	882.5	880.4	882.5	886.6	882.5	880.4	880.4	886.6	874.2
47.5°	776.6	776.6	770.3	764.1	770.3	772.4	766.2	760.0	757.9	755.8	735.0
50°	681.1	679.0	676.9	666.5	672.8	674.8	666.5	662.4	654.1	643.7	618.8
52.5°	598.0	595.9	593.8	583.5	587.6	589.7	581.4	573.1	562.7	554.4	523.3
55°	527.4	525.3	525.3	519.1	514.9	519.1	510.8	504.6	490.0	479.6	448.5
57.5°	467.2	467.2	463.0	456.8	458.9	458.9	450.6	442.3	429.8	417.4	392.4
60°	415.3	415.3	415.3	409.0	409.0	409.0	404.9	396.6	386.2	373.8	348.8
62.5°	373.8	373.8	371.7	365.4	367.5	367.5	363.4	355.1	344.7	336.4	311.5
65°	340.5	340.5	340.5	334.3	334.3	336.4	332.2	323.9	315.6	305.2	282.4
67.5°	299.0	296.9	296.9	292.8	294.8	296.9	292.8	286.5	276.2	269.9	249.2
70°	247.1	249.2	251.2	245.0	247.1	247.1	245.0	238.8	232.6	226.3	207.6
72.5°	201.4	201.4	199.3	197.3	197.3	199.3	195.2	189.0	184.8	180.6	166.1
75°	153.7	151.6	153.7	149.5	149.5	149.5	145.3	143.3	141.2	135.0	124.6
77.5°	112.1	110.0	110.0	105.9	108.0	108.0	105.9	101.7	97.6	95.5	87.2
80°	76.8	76.8	76.8	74.8	74.8	72.7	72.7	70.6	66.4	64.4	60.2
82.5°	51.9	51.9	51.9	49.8	49.8	49.8	47.8	45.7	43.6	41.5	37.4
85°	33.2	33.2	33.2	31.1	31.1	31.1	29.1	29.1	27.0	24.9	20.8
87.5°	18.7	18.7	18.7	16.6	16.6	16.6	16.6	16.6	14.5	12.5	10.4
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°	2171.9	2171.9	2171.9	2171.9	2171.9	2171.9	2171.9	2171.9	2171.9	2171.9	2171.9
2.5°	2163.6	2134.5	2153.2	2153.2	2147.0	2163.6	2174.0	2182.3	2180.2	2161.5	2159.4
5°	2147.0	2122.1	2142.8	2144.9	2138.7	2161.5	2176.1	2186.4	2188.5	2171.9	2174.0
7.5°	2134.5	2113.8	2140.8	2149.1	2147.0	2167.8	2184.4	2201.0	2209.3	2196.8	2198.9
10°	2128.3	2111.7	2140.8	2153.2	2155.3	2178.1	2203.0	2225.9	2236.3	2228.0	2234.2
12.5°	2120.0	2109.6	2142.8	2161.5	2169.8	2192.7	2223.8	2250.8	2267.4	2263.3	2275.7
15°	2111.7	2103.4	2142.8	2169.8	2180.2	2201.0	2236.3	2275.7	2294.4	2292.3	2308.9
17.5°	2090.9	2088.8	2130.4	2159.4	2174.0	2198.9	2232.1	2279.9	2298.6	2302.7	2323.5
20°	2057.7	2057.7	2103.4	2134.5	2151.1	2174.0	2215.5	2261.2	2284.0	2288.2	2311.0
22.5°	2012.0	2016.2	2059.8	2090.9	2115.8	2132.5	2176.1	2223.8	2244.6	2250.8	2275.7
25°	1951.8	1956.0	1997.5	2028.6	2055.6	2074.3	2115.8	2159.4	2184.4	2190.6	2209.3
27.5°	1872.9	1881.2	1920.7	1951.8	1974.6	1987.1	2030.7	2076.4	2095.1	2101.3	2120.0
30°	1781.5	1783.6	1823.1	1850.1	1872.9	1883.3	1920.7	1968.4	1983.0	1989.2	2016.2
32.5°	1669.4	1667.3	1704.7	1729.6	1748.3	1760.8	1800.2	1831.4	1845.9	1856.3	1870.8
35°	1534.5	1532.4	1559.4	1588.4	1603.0	1607.1	1646.6	1679.8	1688.1	1696.4	1715.1
37.5°	1382.9	1382.9	1405.7	1420.3	1436.9	1443.1	1461.8	1499.2	1513.7	1511.6	1526.1
40°	1223.0	1214.7	1231.3	1245.8	1250.0	1252.1	1270.8	1299.8	1310.2	1310.2	1320.6
42.5°	1054.8	1042.3	1044.4	1052.7	1056.9	1042.3	1054.8	1073.5	1067.3	1075.6	1077.6
45°	876.2	857.5	849.2	830.6	834.7	820.2	811.9	816.0	813.9	793.2	797.3
47.5°	730.9	697.7	683.1	656.1	649.9	633.3	622.9	604.2	587.6	587.6	577.2
50°	608.4	575.2	546.1	514.9	504.6	490.0	467.2	442.3	429.8	417.4	407.0
52.5°	510.8	475.5	440.2	407.0	392.4	373.8	342.6	317.7	294.8	282.4	269.9
55°	431.9	392.4	355.1	319.8	301.1	282.4	251.2	222.2	195.2	178.6	168.2
57.5°	371.7	334.3	294.8	257.5	240.9	220.1	186.9	155.7	130.8	112.1	101.7
60°	328.1	290.7	255.4	215.9	199.3	178.6	143.3	114.2	89.3	72.7	60.2
62.5°	290.7	257.5	220.1	184.8	168.2	147.4	114.2	85.1	62.3	45.7	35.3
65°	263.7	230.5	199.3	164.0	149.5	128.7	97.6	70.6	49.8	35.3	24.9
67.5°	232.6	203.5	172.3	143.3	128.7	112.1	83.1	60.2	41.5	29.1	20.8
70°	195.2	172.3	145.3	118.4	108.0	93.4	68.5	49.8	33.2	22.8	16.6
72.5°	155.7	137.0	116.3	95.5	87.2	72.7	56.1	39.5	24.9	16.6	12.5
75°	118.4	103.8	87.2	72.7	64.4	56.1	41.5	29.1	18.7	12.5	8.3
77.5°	81.0	74.8	62.3	49.8	45.7	39.5	27.0	18.7	12.5	8.3	4.2
80°	56.1	49.8	41.5	33.2	29.1	24.9	16.6	12.5	6.2	4.2	2.1
82.5°	35.3	29.1	24.9	20.8	18.7	14.5	10.4	6.2	4.2	2.1	2.1
85°	18.7	16.6	14.5	10.4	10.4	8.3	6.2	4.2	2.1	0.0	0.0
87.5°	10.4	8.3	6.2	4.2	4.2	2.1	2.1	2.1	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°	2171.9	2171.9	2171.9	2171.9	2171.9	2171.9	2171.9	2171.9	2171.9	2171.9	2171.9
2.5°	2184.4	2184.4	2182.3	2207.2	2178.1	2207.2	2192.7	2207.2	2186.4	2184.4	2186.4
5°	2201.0	2207.2	2209.3	2232.1	2205.1	2240.4	2228.0	2240.4	2225.9	2230.0	2236.3
7.5°	2234.2	2244.6	2242.5	2271.6	2244.6	2284.0	2275.7	2294.4	2279.9	2284.0	2292.3
10°	2271.6	2284.0	2286.1	2315.2	2290.3	2338.0	2327.6	2348.4	2335.9	2342.2	2352.5
12.5°	2315.2	2329.7	2331.8	2365.0	2338.0	2387.8	2381.6	2402.4	2392.0	2398.2	2410.7
15°	2348.4	2369.2	2373.3	2406.5	2377.5	2429.4	2425.2	2452.2	2435.6	2446.0	2456.4
17.5°	2365.0	2383.7	2392.0	2423.1	2398.2	2450.1	2446.0	2468.8	2456.4	2466.8	2479.2
20°	2354.6	2377.5	2383.7	2414.8	2389.9	2441.8	2435.6	2458.4	2446.0	2454.3	2466.8
22.5°	2317.3	2340.1	2348.4	2377.5	2354.6	2402.4	2400.3	2421.1	2404.5	2414.8	2425.2
25°	2250.8	2275.7	2279.9	2306.9	2282.0	2331.8	2327.6	2350.5	2338.0	2344.2	2358.8
27.5°	2155.3	2184.4	2190.6	2213.4	2194.7	2236.3	2236.3	2255.0	2240.4	2240.4	2255.0
30°	2041.1	2070.2	2074.3	2093.0	2076.4	2113.8	2115.8	2134.5	2111.7	2124.1	2126.2
32.5°	1902.0	1920.7	1933.1	1949.7	1924.8	1972.6	1966.3	1980.9	1968.4	1968.4	1978.8
35°	1733.8	1756.6	1762.9	1783.6	1762.9	1800.2	1800.2	1808.5	1796.1	1796.1	1812.7
37.5°	1551.1	1567.7	1569.8	1590.5	1573.9	1605.0	1603.0	1609.2	1596.7	1605.0	1605.0
40°	1337.2	1349.7	1353.8	1364.2	1362.1	1385.0	1382.9	1387.0	1380.8	1382.9	1387.0
42.5°	1088.0	1104.6	1112.9	1121.3	1108.8	1139.9	1133.7	1139.9	1137.9	1139.9	1146.2
45°	801.5	813.9	820.2	822.3	818.1	836.8	851.3	838.9	840.9	836.8	845.1
47.5°	579.3	581.4	577.2	589.7	579.3	587.6	591.8	593.8	581.4	579.3	587.6
50°	396.6	407.0	392.4	398.7	396.6	404.9	400.7	402.8	390.4	396.6	392.4
52.5°	263.7	261.6	257.5	259.5	255.4	255.4	255.4	259.5	251.2	247.1	242.9
55°	159.9	155.7	147.4	145.3	145.3	147.4	143.3	139.1	139.1	137.0	137.0
57.5°	93.4	87.2	83.1	81.0	76.8	74.8	72.7	72.7	68.5	68.5	68.5
60°	51.9	45.7	41.5	37.4	37.4	35.3	33.2	31.1	31.1	31.1	29.1
62.5°	27.0	22.8	18.7	16.6	16.6	14.5	12.5	12.5	12.5	12.5	10.4
65°	18.7	14.5	12.5	10.4	10.4	8.3	8.3	8.3	8.3	8.3	8.3
67.5°	14.5	12.5	10.4	8.3	8.3	8.3	6.2	6.2	6.2	6.2	6.2
70°	12.5	8.3	8.3	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2
72.5°	8.3	8.3	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2
75°	6.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2
77.5°	2.1	2.1	2.1	2.1	2.1	2.1	0.0	0.0	0.0	0.0	0.0
80°	2.1	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: P252192

CATALOG NUMBER: LD6B40D010 EU6B30509730 6LBSW1LI

**CANDELA DISTRIBUTION (continued):**

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	2171.9	2171.9	2171.9	2171.9	2171.9	2171.9	2171.9	2171.9
2.5°	2205.1	2203.0	2205.1	2209.3	2201.0	2225.9	2213.4	2225.9
5°	2252.9	2255.0	2257.0	2263.3	2252.9	2284.0	2267.4	2286.1
7.5°	2315.2	2317.3	2319.3	2325.6	2319.3	2350.5	2331.8	2348.4
10°	2379.5	2383.7	2383.7	2394.1	2387.8	2416.9	2404.5	2425.2
12.5°	2439.8	2443.9	2448.1	2454.3	2450.1	2481.3	2470.9	2487.5
15°	2487.5	2495.8	2497.9	2506.2	2502.0	2535.3	2522.8	2539.4
17.5°	2510.4	2518.7	2518.7	2529.0	2524.9	2560.2	2543.6	2562.3
20°	2497.9	2504.1	2506.2	2516.6	2512.4	2547.7	2531.1	2554.0
22.5°	2458.4	2460.5	2462.6	2473.0	2470.9	2502.0	2487.5	2502.0
25°	2385.8	2392.0	2389.9	2398.2	2398.2	2423.1	2406.5	2419.0
27.5°	2282.0	2288.2	2288.2	2298.6	2290.3	2315.2	2298.6	2317.3
30°	2155.3	2161.5	2157.4	2165.7	2157.4	2182.3	2169.8	2176.1
32.5°	2003.7	2003.7	2005.8	2007.9	2003.7	2026.6	2014.1	2026.6
35°	1823.1	1827.2	1829.3	1831.4	1827.2	1843.8	1829.3	1837.6
37.5°	1619.6	1630.0	1627.9	1630.0	1623.7	1644.5	1632.0	1636.2
40°	1401.6	1401.6	1399.5	1403.6	1397.4	1414.0	1405.7	1409.9
42.5°	1148.2	1154.5	1146.2	1156.5	1139.9	1162.8	1154.5	1148.2
45°	861.7	853.4	851.3	853.4	847.2	849.2	855.5	851.3
47.5°	587.6	587.6	583.5	577.2	585.5	587.6	579.3	579.3
50°	394.5	394.5	390.4	388.3	392.4	390.4	386.2	392.4
52.5°	251.2	242.9	242.9	247.1	242.9	238.8	245.0	240.9
55°	137.0	132.9	132.9	137.0	132.9	132.9	130.8	135.0
57.5°	66.4	68.5	66.4	66.4	66.4	66.4	64.4	66.4
60°	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1
62.5°	12.5	12.5	10.4	10.4	10.4	10.4	10.4	10.4
65°	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3
67.5°	6.2	6.2	6.2	6.2	6.2	8.3	6.2	6.2
70°	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2
72.5°	6.2	6.2	8.3	8.3	8.3	8.3	8.3	8.3
75°	4.2	4.2	4.2	2.1	2.1	2.1	2.1	2.1
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)