

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: P212764

Luminaire Tested: **LD4B50D010TE EU4B30509030 4LBSWLI1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P212764
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29201)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: io LED
Catalog Number: LD4B50D010TE EU4B30509030 4LBSWL1
Description: PORTFOLIO 4 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: 4030.1 lumens
Efficiency: N/A
Efficacy: 68.6 lumens/watt
Spacing Criteria (0/90/45): 1.29 / 1.3 / 1.21
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

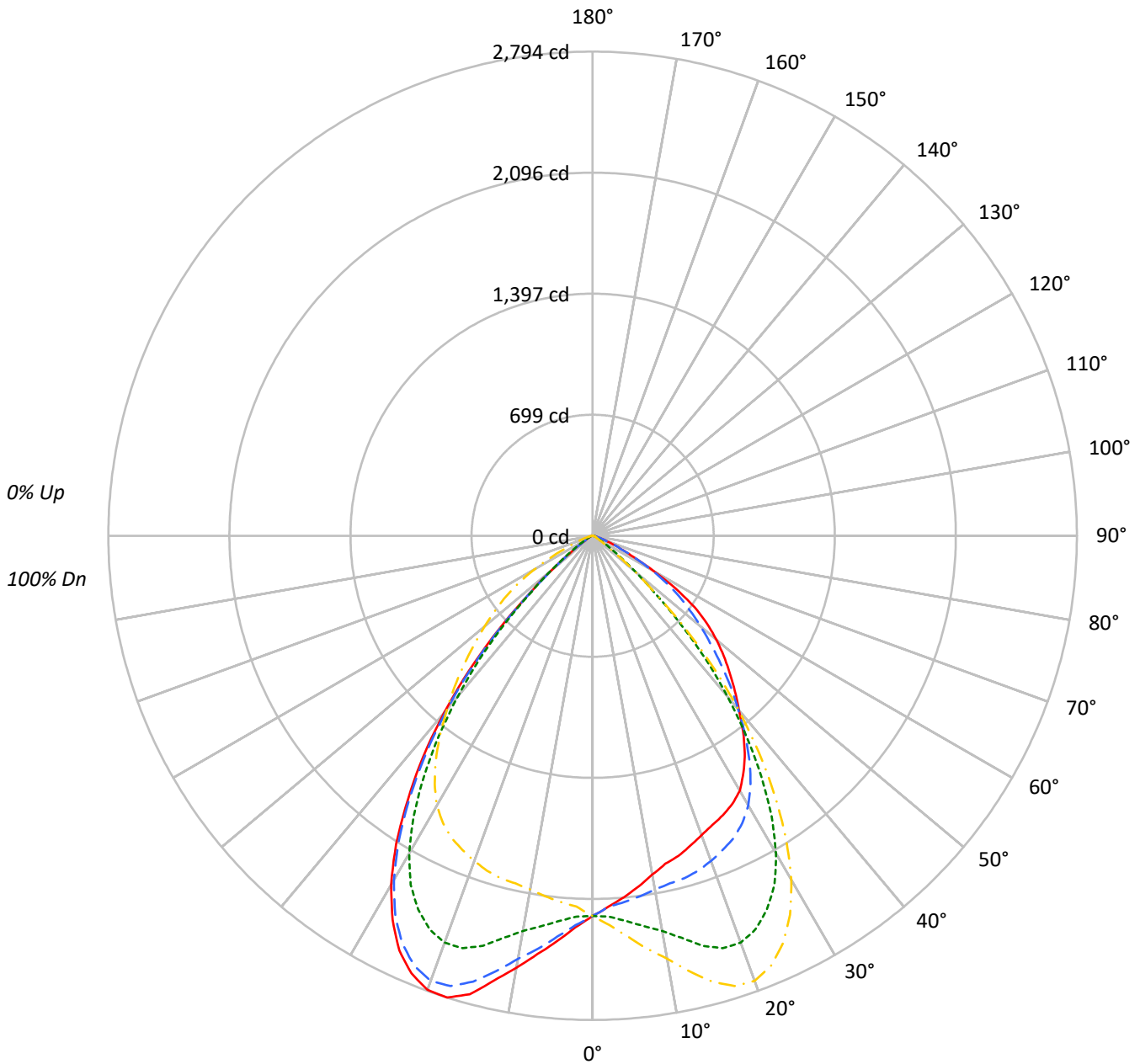
Input Watts (W): 58.77
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20					20					20					20					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								
1	112	109	106	103	110	107	104	102	103	100	99	99	97	96	95	94	93	91								
2	105	99	94	90	103	97	93	89	94	90	87	91	88	85	88	86	83	82								
3	98	90	84	80	96	89	83	79	86	81	78	84	80	76	81	78	75	73								
4	92	83	76	71	90	81	75	70	79	74	69	77	72	69	75	71	68	66								
5	86	76	69	63	84	75	68	63	73	67	62	71	66	62	69	65	61	60								
6	80	70	62	57	79	69	62	57	67	61	56	66	60	56	64	59	56	54								
7	75	64	57	52	74	63	57	52	62	56	51	61	55	51	59	55	51	49								
8	71	59	52	47	69	59	52	47	57	51	47	56	51	47	55	50	46	45								
9	66	55	48	43	65	54	48	43	53	47	43	52	47	43	52	46	43	41								
10	63	51	44	40	62	51	44	40	50	44	40	49	43	39	48	43	39	38								

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	270620	270620	270620	270620
5°	259087	276322	290672	276322
10°	248656	290038	316904	290038
15°	244271	312729	349749	312729
20°	241193	327931	365971	327931
25°	242184	323842	359336	323842
30°	241898	301333	331058	301333
35°	230428	255740	279742	255740
40°	211398	194604	214667	194604
45°	195143	123868	133462	123868
50°	178517	60062	58393	60062
55°	154575	26171	18688	26171
60°	100107	12877	8585	12877
65°	52447	8464	6771	8464
70°	28238	6275	5229	6275
75°	15203	5528	4146	5528
80°	10300	4120	2060	4120
85°	8208	4104	0	4104



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	213.9	5.3
10°-20°	669.1	16.6
20°-30°	1040.3	25.8
30°-40°	1050.7	26.1
40°-50°	665.3	16.5
50°-60°	279.2	6.9
60°-70°	88.5	2.2
70°-80°	20.3	0.5
80°-90°	2.9	0.1
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°	1923.2	47.7
0°-40°	2974.0	73.8
0°-60°	3918.5	97.2
0°-90°	4030.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4030.1	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	2194	2194	2194	2194	2194	
5°	2092	2232	2348	2232	2092	197
15°	1913	2449	2739	2449	1913	539
25°	1780	2380	2640	2380	1780	820
35°	1530	1698	1858	1698	1530	950
45°	1119	710	765	710	1119	863
55°	719	122	87	122	719	621
65°	180	29	23	29	180	198
75°	32	12	9	12	32	39
85°	6	3	0	3	6	6
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°	2194.0	2194.0	2194.0	2194.0	2194.0	2194.0	2194.0	2194.0	2194.0	2194.0	2194.0
2.5°	2141.8	2121.5	2138.9	2144.7	2144.7	2141.8	2147.6	2141.8	2133.1	2167.9	2141.8
5°	2092.5	2078.1	2092.5	2098.3	2101.2	2104.1	2109.9	2109.9	2107.0	2138.9	2121.5
7.5°	2040.4	2031.7	2043.3	2052.0	2063.6	2060.7	2069.4	2072.3	2078.1	2115.7	2098.3
10°	1985.3	1976.6	1991.1	1996.9	2011.4	2014.3	2020.1	2028.8	2040.4	2078.1	2072.3
12.5°	1938.9	1936.0	1944.7	1956.3	1970.8	1973.7	1979.5	1994.0	2011.4	2052.0	2054.9
15°	1912.9	1910.0	1918.6	1930.2	1941.8	1947.6	1953.4	1973.7	1991.1	2034.6	2046.2
17.5°	1875.2	1875.2	1883.9	1895.5	1910.0	1915.8	1924.4	1944.7	1967.9	2011.4	2025.9
20°	1837.5	1840.4	1846.2	1857.8	1872.3	1878.1	1886.8	1907.1	1933.1	1976.6	1996.9
22.5°	1805.6	1814.3	1817.2	1825.9	1840.4	1849.1	1852.0	1875.2	1898.4	1936.0	1962.1
25°	1779.5	1791.1	1791.1	1796.9	1814.3	1817.2	1820.1	1843.3	1863.6	1898.4	1924.4
27.5°	1744.8	1756.3	1756.3	1765.0	1776.6	1782.4	1782.4	1802.7	1823.0	1849.1	1869.4
30°	1698.4	1707.1	1707.1	1710.0	1721.6	1727.4	1724.5	1744.8	1759.2	1776.6	1796.9
32.5°	1620.1	1634.6	1628.8	1637.5	1643.3	1649.1	1643.3	1660.7	1672.3	1689.7	1695.5
35°	1530.3	1541.9	1533.2	1539.0	1550.6	1550.6	1547.7	1559.3	1565.1	1573.8	1576.7
37.5°	1425.9	1434.6	1428.8	1431.7	1437.5	1440.4	1434.6	1446.2	1446.2	1449.1	1443.3
40°	1312.9	1327.4	1318.7	1318.7	1324.5	1327.4	1318.7	1324.5	1330.3	1315.8	1304.2
42.5°	1214.4	1228.9	1220.2	1220.2	1220.2	1223.1	1211.5	1214.4	1214.4	1194.1	1176.7
45°	1118.7	1130.3	1121.6	1112.9	1115.8	1118.7	1107.1	1104.2	1095.5	1072.4	1046.3
47.5°	1026.0	1037.6	1026.0	1020.2	1020.2	1020.2	1005.7	997.0	985.4	953.5	921.6
50°	930.3	941.9	933.2	927.4	921.6	921.6	910.1	898.5	881.1	849.2	814.4
52.5°	831.8	840.5	831.8	826.0	820.2	820.2	805.7	797.0	776.7	744.9	707.2
55°	718.8	724.6	715.9	710.1	707.2	707.2	695.6	686.9	669.5	643.4	608.6
57.5°	568.1	579.7	565.2	571.0	571.0	568.1	559.4	556.5	550.7	527.5	501.4
60°	405.8	405.8	402.9	414.5	411.6	417.3	411.6	414.5	417.3	400.0	382.6
62.5°	266.6	275.3	269.5	275.3	281.1	281.1	278.2	284.0	289.8	281.1	272.4
65°	179.7	179.7	179.7	182.6	182.6	185.5	182.6	185.5	188.4	185.5	179.7
67.5°	118.8	121.7	118.8	121.7	118.8	121.7	121.7	121.7	124.6	121.7	118.8
70°	78.3	78.3	78.3	78.3	78.3	78.3	78.3	78.3	81.2	78.3	75.4
72.5°	49.3	49.3	49.3	49.3	49.3	49.3	49.3	49.3	49.3	49.3	49.3
75°	31.9	31.9	31.9	31.9	31.9	31.9	31.9	31.9	31.9	31.9	31.9
77.5°	20.3	20.3	20.3	20.3	20.3	20.3	20.3	20.3	20.3	20.3	20.3
80°	14.5	14.5	14.5	14.5	14.5	14.5	14.5	11.6	14.5	11.6	11.6
82.5°	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7
85°	5.8	5.8	5.8	5.8	5.8	5.8	5.8	2.9	5.8	2.9	2.9
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



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CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	2194.0	2194.0	2194.0	2194.0	2194.0	2194.0	2194.0	2194.0	2194.0	2194.0	2194.0
2.5°	2156.3	2147.6	2191.1	2153.4	2173.7	2170.8	2173.7	2191.1	2191.1	2199.8	2196.9
5°	2144.7	2136.0	2185.3	2156.3	2179.5	2179.5	2188.2	2214.3	2214.3	2231.7	2234.6
7.5°	2127.3	2130.2	2182.4	2165.0	2191.1	2194.0	2208.5	2240.4	2249.1	2272.2	2283.8
10°	2107.0	2118.6	2173.7	2167.9	2202.7	2205.6	2234.6	2272.2	2283.8	2315.7	2336.0
12.5°	2098.3	2118.6	2182.4	2188.2	2223.0	2237.5	2269.3	2318.6	2338.9	2376.6	2405.6
15°	2095.4	2124.4	2194.0	2214.3	2254.8	2275.1	2318.6	2376.6	2399.8	2449.0	2483.8
17.5°	2081.0	2118.6	2194.0	2225.9	2269.3	2289.6	2344.7	2411.4	2440.3	2495.4	2536.0
20°	2054.9	2095.4	2170.8	2211.4	2257.7	2286.7	2341.8	2411.4	2440.3	2498.3	2544.7
22.5°	2020.1	2060.7	2133.1	2179.5	2220.1	2251.9	2309.9	2376.6	2402.7	2457.7	2504.1
25°	1976.6	2017.2	2078.1	2124.4	2162.1	2191.1	2240.4	2309.9	2327.3	2379.5	2428.7
27.5°	1915.8	1953.4	1999.8	2043.3	2078.1	2101.2	2144.7	2205.6	2220.1	2272.2	2312.8
30°	1834.6	1857.8	1898.4	1927.3	1953.4	1976.6	2008.5	2063.6	2069.4	2115.7	2153.4
32.5°	1724.5	1736.1	1765.0	1779.5	1802.7	1811.4	1837.5	1883.9	1878.1	1921.5	1953.4
35°	1591.1	1596.9	1596.9	1614.3	1620.1	1623.0	1643.3	1669.4	1660.7	1698.4	1721.6
37.5°	1446.2	1443.3	1425.9	1425.9	1428.8	1420.1	1428.8	1440.4	1428.8	1457.8	1478.1
40°	1298.4	1281.0	1249.2	1231.8	1223.1	1220.2	1202.8	1217.3	1188.3	1208.6	1223.1
42.5°	1156.4	1127.4	1078.2	1043.4	1028.9	1014.4	985.4	985.4	947.7	962.2	965.1
45°	1011.5	962.2	895.6	863.7	826.0	802.8	765.1	727.5	701.4	710.1	701.4
47.5°	878.2	820.2	742.0	686.9	643.4	611.5	559.4	515.9	489.8	478.2	466.6
50°	762.2	704.3	614.4	544.9	501.4	463.7	411.6	362.3	330.4	313.0	304.3
52.5°	657.9	597.0	510.1	437.6	391.3	356.5	298.5	249.3	214.5	194.2	182.6
55°	559.4	504.3	423.1	356.5	313.0	278.2	220.3	173.9	142.0	121.7	107.2
57.5°	460.8	411.6	344.9	281.1	243.5	211.6	162.3	121.7	95.6	78.3	66.7
60°	353.6	315.9	260.8	211.6	179.7	153.6	115.9	84.0	66.7	52.2	46.4
62.5°	249.3	226.1	185.5	150.7	130.4	110.1	81.2	60.9	46.4	37.7	34.8
65°	168.1	150.7	127.5	101.4	86.9	75.4	58.0	43.5	34.8	29.0	26.1
67.5°	110.1	101.4	84.0	69.6	60.9	52.2	40.6	31.9	26.1	23.2	20.3
70°	72.5	66.7	55.1	46.4	43.5	37.7	29.0	23.2	20.3	17.4	17.4
72.5°	46.4	40.6	37.7	31.9	29.0	26.1	20.3	17.4	14.5	14.5	14.5
75°	29.0	26.1	23.2	20.3	20.3	17.4	14.5	14.5	11.6	11.6	11.6
77.5°	17.4	17.4	14.5	14.5	11.6	11.6	11.6	8.7	8.7	8.7	8.7
80°	11.6	11.6	8.7	8.7	8.7	8.7	5.8	5.8	5.8	5.8	5.8
82.5°	5.8	5.8	5.8	5.8	5.8	5.8	2.9	2.9	2.9	2.9	2.9
85°	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9
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



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CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	2194.0	2194.0	2194.0	2194.0	2194.0	2194.0	2194.0	2194.0	2194.0	2194.0	2194.0
2.5°	2211.4	2217.2	2211.4	2228.8	2199.8	2231.7	2220.1	2225.9	2249.1	2240.4	2249.1
5°	2254.8	2266.4	2266.4	2286.7	2260.6	2298.3	2286.7	2298.3	2321.5	2321.5	2333.1
7.5°	2309.9	2324.4	2330.2	2350.5	2324.4	2370.8	2359.2	2373.7	2402.7	2402.7	2411.4
10°	2367.9	2385.3	2396.9	2420.0	2391.1	2443.2	2431.6	2451.9	2478.0	2480.9	2495.4
12.5°	2440.3	2463.5	2478.0	2498.3	2478.0	2530.2	2518.6	2538.9	2573.7	2576.6	2593.9
15°	2521.5	2550.5	2567.9	2591.0	2567.9	2625.8	2614.2	2637.4	2663.5	2675.1	2692.5
17.5°	2573.7	2608.4	2622.9	2649.0	2625.8	2683.8	2669.3	2701.2	2724.4	2730.2	2750.5
20°	2582.4	2614.2	2634.5	2654.8	2634.5	2692.5	2678.0	2704.1	2733.1	2738.9	2753.3
22.5°	2544.7	2570.8	2593.9	2611.3	2593.9	2651.9	2631.6	2660.6	2686.7	2692.5	2704.1
25°	2457.7	2489.6	2512.8	2527.3	2509.9	2565.0	2547.6	2573.7	2596.8	2608.4	2611.3
27.5°	2336.0	2365.0	2388.2	2396.9	2385.3	2437.4	2414.3	2446.1	2466.4	2472.2	2480.9
30°	2170.8	2196.9	2220.1	2225.9	2217.2	2254.8	2243.3	2272.2	2292.5	2298.3	2304.1
32.5°	1967.9	1994.0	2008.5	2014.3	2005.6	2043.3	2031.7	2054.9	2078.1	2078.1	2078.1
35°	1739.0	1762.1	1770.8	1788.2	1767.9	1805.6	1794.0	1814.3	1834.6	1834.6	1837.5
37.5°	1492.6	1510.0	1515.8	1533.2	1512.9	1547.7	1539.0	1556.4	1573.8	1570.9	1576.7
40°	1228.9	1246.3	1252.0	1266.5	1249.2	1278.1	1272.3	1289.7	1304.2	1304.2	1304.2
42.5°	973.8	985.4	985.4	999.9	982.5	1008.6	1008.6	1020.2	1034.7	1031.8	1031.8
45°	707.2	704.3	710.1	707.2	707.2	730.4	730.4	736.2	747.8	742.0	744.9
47.5°	469.5	472.4	460.8	469.5	457.9	478.2	478.2	478.2	486.9	481.1	486.9
50°	298.5	289.8	284.0	284.0	281.1	295.6	289.8	292.7	298.5	292.7	298.5
52.5°	168.1	165.2	159.4	162.3	156.5	159.4	159.4	159.4	162.3	159.4	165.2
55°	98.5	89.8	86.9	86.9	84.0	86.9	84.0	84.0	84.0	81.2	84.0
57.5°	58.0	55.1	52.2	52.2	49.3	49.3	49.3	49.3	49.3	49.3	49.3
60°	40.6	37.7	37.7	34.8	34.8	34.8	34.8	34.8	34.8	34.8	34.8
62.5°	31.9	29.0	29.0	29.0	26.1	26.1	26.1	26.1	26.1	29.0	26.1
65°	23.2	23.2	23.2	23.2	23.2	23.2	20.3	23.2	23.2	23.2	23.2
67.5°	20.3	20.3	17.4	17.4	17.4	17.4	17.4	17.4	17.4	17.4	17.4
70°	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5
72.5°	11.6	11.6	11.6	11.6	11.6	11.6	11.6	11.6	11.6	11.6	11.6
75°	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7
77.5°	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8
80°	5.8	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9
82.5°	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9
85°	0.0	2.9	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: P212764

CATALOG NUMBER: LD4B50D010TE EU4B30509030 4LBSWLI1

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°	185°	190°	195°
0°	2194.0	2194.0	2194.0	2194.0	2194.0	2194.0	2194.0	2194.0	2194.0	2194.0	2194.0
2.5°	2257.7	2246.2	2220.1	2237.5	2240.4	2228.8	2243.3	2260.6	2243.3	2228.8	2240.4
5°	2341.8	2333.1	2309.9	2324.4	2327.3	2324.4	2333.1	2347.6	2333.1	2324.4	2327.3
7.5°	2425.8	2420.0	2394.0	2411.4	2417.2	2411.4	2420.0	2434.5	2420.0	2411.4	2417.2
10°	2507.0	2504.1	2478.0	2501.2	2504.1	2498.3	2507.0	2530.2	2507.0	2498.3	2504.1
12.5°	2599.7	2605.5	2576.6	2602.6	2605.5	2599.7	2611.3	2628.7	2611.3	2599.7	2605.5
15°	2707.0	2704.1	2680.9	2701.2	2707.0	2701.2	2715.7	2738.9	2715.7	2701.2	2707.0
17.5°	2759.1	2759.1	2741.8	2762.0	2764.9	2764.9	2776.5	2793.9	2776.5	2764.9	2764.9
20°	2762.0	2764.9	2744.7	2767.8	2767.8	2767.8	2779.4	2788.1	2779.4	2767.8	2767.8
22.5°	2715.7	2718.6	2698.3	2718.6	2718.6	2721.5	2727.3	2733.1	2727.3	2721.5	2718.6
25°	2625.8	2628.7	2611.3	2628.7	2625.8	2625.8	2631.6	2640.3	2631.6	2625.8	2625.8
27.5°	2492.5	2495.4	2472.2	2492.5	2489.6	2486.7	2495.4	2498.3	2495.4	2486.7	2489.6
30°	2315.7	2318.6	2298.3	2315.7	2312.8	2309.9	2321.5	2324.4	2321.5	2309.9	2312.8
32.5°	2104.1	2098.3	2083.9	2098.3	2095.4	2095.4	2101.2	2109.9	2101.2	2095.4	2095.4
35°	1849.1	1849.1	1840.4	1852.0	1843.3	1854.9	1854.9	1857.8	1854.9	1854.9	1843.3
37.5°	1588.2	1588.2	1582.5	1588.2	1585.3	1596.9	1596.9	1605.6	1596.9	1596.9	1585.3
40°	1315.8	1315.8	1310.0	1315.8	1324.5	1324.5	1321.6	1333.2	1321.6	1324.5	1324.5
42.5°	1040.5	1040.5	1037.6	1052.1	1052.1	1052.1	1043.4	1055.0	1043.4	1052.1	1052.1
45°	756.4	750.6	747.8	747.8	750.6	762.2	750.6	765.1	750.6	762.2	750.6
47.5°	481.1	484.0	486.9	495.6	489.8	486.9	486.9	495.6	486.9	486.9	489.8
50°	295.6	298.5	298.5	304.3	295.6	301.4	298.5	304.3	298.5	301.4	295.6
52.5°	162.3	162.3	162.3	168.1	162.3	165.2	162.3	168.1	162.3	165.2	162.3
55°	84.0	84.0	84.0	86.9	84.0	84.0	84.0	86.9	84.0	84.0	84.0
57.5°	49.3	49.3	49.3	49.3	49.3	49.3	49.3	49.3	49.3	49.3	49.3
60°	34.8	34.8	34.8	34.8	34.8	34.8	34.8	34.8	34.8	34.8	34.8
62.5°	29.0	26.1	26.1	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0
65°	23.2	23.2	23.2	23.2	23.2	23.2	23.2	23.2	23.2	23.2	23.2
67.5°	17.4	17.4	17.4	17.4	17.4	17.4	17.4	17.4	17.4	17.4	17.4
70°	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5
72.5°	11.6	11.6	11.6	11.6	11.6	11.6	11.6	11.6	11.6	11.6	11.6
75°	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7
77.5°	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8
80°	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9
82.5°	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9
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: P212764

CATALOG NUMBER: LD4B50D010TE EU4B30509030 4LBSWLI1

CANDELA DISTRIBUTION (continued):

	200°	202.5°	205°	210°	215°	220°	225°	230°	235°	240°	245°
0°	2194.0	2194.0	2194.0	2194.0	2194.0	2194.0	2194.0	2194.0	2194.0	2194.0	2194.0
2.5°	2237.5	2220.1	2246.2	2257.7	2249.1	2240.4	2249.1	2225.9	2220.1	2231.7	2199.8
5°	2324.4	2309.9	2333.1	2341.8	2333.1	2321.5	2321.5	2298.3	2286.7	2298.3	2260.6
7.5°	2411.4	2394.0	2420.0	2425.8	2411.4	2402.7	2402.7	2373.7	2359.2	2370.8	2324.4
10°	2501.2	2478.0	2504.1	2507.0	2495.4	2480.9	2478.0	2451.9	2431.6	2443.2	2391.1
12.5°	2602.6	2576.6	2605.5	2599.7	2593.9	2576.6	2573.7	2538.9	2518.6	2530.2	2478.0
15°	2701.2	2680.9	2704.1	2707.0	2692.5	2675.1	2663.5	2637.4	2614.2	2625.8	2567.9
17.5°	2762.0	2741.8	2759.1	2759.1	2750.5	2730.2	2724.4	2701.2	2669.3	2683.8	2625.8
20°	2767.8	2744.7	2764.9	2762.0	2753.3	2738.9	2733.1	2704.1	2678.0	2692.5	2634.5
22.5°	2718.6	2698.3	2718.6	2715.7	2704.1	2692.5	2686.7	2660.6	2631.6	2651.9	2593.9
25°	2628.7	2611.3	2628.7	2625.8	2611.3	2608.4	2596.8	2573.7	2547.6	2565.0	2509.9
27.5°	2492.5	2472.2	2495.4	2492.5	2480.9	2472.2	2466.4	2446.1	2414.3	2437.4	2385.3
30°	2315.7	2298.3	2318.6	2315.7	2304.1	2298.3	2292.5	2272.2	2243.3	2254.8	2217.2
32.5°	2098.3	2083.9	2098.3	2104.1	2078.1	2078.1	2078.1	2054.9	2031.7	2043.3	2005.6
35°	1852.0	1840.4	1849.1	1849.1	1837.5	1834.6	1834.6	1814.3	1794.0	1805.6	1767.9
37.5°	1588.2	1582.5	1588.2	1588.2	1576.7	1570.9	1573.8	1556.4	1539.0	1547.7	1512.9
40°	1315.8	1310.0	1315.8	1315.8	1304.2	1304.2	1304.2	1289.7	1272.3	1278.1	1249.2
42.5°	1052.1	1037.6	1040.5	1040.5	1031.8	1031.8	1034.7	1020.2	1008.6	1008.6	982.5
45°	747.8	747.8	750.6	756.4	744.9	742.0	747.8	736.2	730.4	730.4	707.2
47.5°	495.6	486.9	484.0	481.1	486.9	481.1	486.9	478.2	478.2	478.2	457.9
50°	304.3	298.5	298.5	295.6	298.5	292.7	298.5	292.7	289.8	295.6	281.1
52.5°	168.1	162.3	162.3	162.3	165.2	159.4	162.3	159.4	159.4	159.4	156.5
55°	86.9	84.0	84.0	84.0	84.0	81.2	84.0	84.0	84.0	86.9	84.0
57.5°	49.3	49.3	49.3	49.3	49.3	49.3	49.3	49.3	49.3	49.3	49.3
60°	34.8	34.8	34.8	34.8	34.8	34.8	34.8	34.8	34.8	34.8	34.8
62.5°	29.0	26.1	26.1	29.0	26.1	29.0	26.1	26.1	26.1	26.1	26.1
65°	23.2	23.2	23.2	23.2	23.2	23.2	23.2	23.2	20.3	23.2	23.2
67.5°	17.4	17.4	17.4	17.4	17.4	17.4	17.4	17.4	17.4	17.4	17.4
70°	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5
72.5°	11.6	11.6	11.6	11.6	11.6	11.6	11.6	11.6	11.6	11.6	11.6
75°	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7
77.5°	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8
80°	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9
82.5°	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9
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: P212764

CATALOG NUMBER: LD4B50D010TE EU4B30509030 4LBSWLI1

CANDELA DISTRIBUTION (continued):

	247.5°	250°	255°	260°	265°	270°	275°	280°	285°	290°	292.5°
0°	2194.0	2194.0	2194.0	2194.0	2194.0	2194.0	2194.0	2194.0	2194.0	2194.0	2194.0
2.5°	2228.8	2211.4	2217.2	2211.4	2196.9	2199.8	2191.1	2191.1	2173.7	2170.8	2173.7
5°	2286.7	2266.4	2266.4	2254.8	2234.6	2231.7	2214.3	2214.3	2188.2	2179.5	2179.5
7.5°	2350.5	2330.2	2324.4	2309.9	2283.8	2272.2	2249.1	2240.4	2208.5	2194.0	2191.1
10°	2420.0	2396.9	2385.3	2367.9	2336.0	2315.7	2283.8	2272.2	2234.6	2205.6	2202.7
12.5°	2498.3	2478.0	2463.5	2440.3	2405.6	2376.6	2338.9	2318.6	2269.3	2237.5	2223.0
15°	2591.0	2567.9	2550.5	2521.5	2483.8	2449.0	2399.8	2376.6	2318.6	2275.1	2254.8
17.5°	2649.0	2622.9	2608.4	2573.7	2536.0	2495.4	2440.3	2411.4	2344.7	2289.6	2269.3
20°	2654.8	2634.5	2614.2	2582.4	2544.7	2498.3	2440.3	2411.4	2341.8	2286.7	2257.7
22.5°	2611.3	2593.9	2570.8	2544.7	2504.1	2457.7	2402.7	2376.6	2309.9	2251.9	2220.1
25°	2527.3	2512.8	2489.6	2457.7	2428.7	2379.5	2327.3	2309.9	2240.4	2191.1	2162.1
27.5°	2396.9	2388.2	2365.0	2336.0	2312.8	2272.2	2220.1	2205.6	2144.7	2101.2	2078.1
30°	2225.9	2220.1	2196.9	2170.8	2153.4	2115.7	2069.4	2063.6	2008.5	1976.6	1953.4
32.5°	2014.3	2008.5	1994.0	1967.9	1953.4	1921.5	1878.1	1883.9	1837.5	1811.4	1802.7
35°	1788.2	1770.8	1762.1	1739.0	1721.6	1698.4	1660.7	1669.4	1643.3	1623.0	1620.1
37.5°	1533.2	1515.8	1510.0	1492.6	1478.1	1457.8	1428.8	1440.4	1428.8	1420.1	1428.8
40°	1266.5	1252.0	1246.3	1228.9	1223.1	1208.6	1188.3	1217.3	1202.8	1220.2	1223.1
42.5°	999.9	985.4	985.4	973.8	965.1	962.2	947.7	985.4	985.4	1014.4	1028.9
45°	707.2	710.1	704.3	707.2	701.4	710.1	701.4	727.5	765.1	802.8	826.0
47.5°	469.5	460.8	472.4	469.5	466.6	478.2	489.8	515.9	559.4	611.5	643.4
50°	284.0	284.0	289.8	298.5	304.3	313.0	330.4	362.3	411.6	463.7	501.4
52.5°	162.3	159.4	165.2	168.1	182.6	194.2	214.5	249.3	298.5	356.5	391.3
55°	86.9	86.9	89.8	98.5	107.2	121.7	142.0	173.9	220.3	278.2	313.0
57.5°	52.2	52.2	55.1	58.0	66.7	78.3	95.6	121.7	162.3	211.6	243.5
60°	34.8	37.7	37.7	40.6	46.4	52.2	66.7	84.0	115.9	153.6	179.7
62.5°	29.0	29.0	29.0	31.9	34.8	37.7	46.4	60.9	81.2	110.1	130.4
65°	23.2	23.2	23.2	23.2	26.1	29.0	34.8	43.5	58.0	75.4	86.9
67.5°	17.4	17.4	20.3	20.3	20.3	23.2	26.1	31.9	40.6	52.2	60.9
70°	14.5	14.5	14.5	14.5	17.4	17.4	20.3	23.2	29.0	37.7	43.5
72.5°	11.6	11.6	11.6	11.6	14.5	14.5	14.5	17.4	20.3	26.1	29.0
75°	8.7	8.7	8.7	8.7	11.6	11.6	11.6	14.5	14.5	17.4	20.3
77.5°	5.8	5.8	5.8	5.8	8.7	8.7	8.7	8.7	11.6	11.6	11.6
80°	2.9	2.9	2.9	5.8	5.8	5.8	5.8	5.8	5.8	8.7	8.7
82.5°	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	5.8	5.8
85°	0.0	0.0	2.9	0.0	2.9	2.9	2.9	2.9	2.9	2.9	2.9
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: P212764

CATALOG NUMBER: LD4B50D010TE EU4B30509030 4LBSWLI1

CANDELA DISTRIBUTION (continued):

	295°	300°	305°	310°	315°	320°	325°	330°	335°	337.5°	340°
0°	2194.0	2194.0	2194.0	2194.0	2194.0	2194.0	2194.0	2194.0	2194.0	2194.0	2194.0
2.5°	2153.4	2191.1	2147.6	2156.3	2141.8	2167.9	2133.1	2141.8	2147.6	2141.8	2144.7
5°	2156.3	2185.3	2136.0	2144.7	2121.5	2138.9	2107.0	2109.9	2109.9	2104.1	2101.2
7.5°	2165.0	2182.4	2130.2	2127.3	2098.3	2115.7	2078.1	2072.3	2069.4	2060.7	2063.6
10°	2167.9	2173.7	2118.6	2107.0	2072.3	2078.1	2040.4	2028.8	2020.1	2014.3	2011.4
12.5°	2188.2	2182.4	2118.6	2098.3	2054.9	2052.0	2011.4	1994.0	1979.5	1973.7	1970.8
15°	2214.3	2194.0	2124.4	2095.4	2046.2	2034.6	1991.1	1973.7	1953.4	1947.6	1941.8
17.5°	2225.9	2194.0	2118.6	2081.0	2025.9	2011.4	1967.9	1944.7	1924.4	1915.8	1910.0
20°	2211.4	2170.8	2095.4	2054.9	1996.9	1976.6	1933.1	1907.1	1886.8	1878.1	1872.3
22.5°	2179.5	2133.1	2060.7	2020.1	1962.1	1936.0	1898.4	1875.2	1852.0	1849.1	1840.4
25°	2124.4	2078.1	2017.2	1976.6	1924.4	1898.4	1863.6	1843.3	1820.1	1817.2	1814.3
27.5°	2043.3	1999.8	1953.4	1915.8	1869.4	1849.1	1823.0	1802.7	1782.4	1782.4	1776.6
30°	1927.3	1898.4	1857.8	1834.6	1796.9	1776.6	1759.2	1744.8	1724.5	1727.4	1721.6
32.5°	1779.5	1765.0	1736.1	1724.5	1695.5	1689.7	1672.3	1660.7	1643.3	1649.1	1643.3
35°	1614.3	1596.9	1596.9	1591.1	1576.7	1573.8	1565.1	1559.3	1547.7	1550.6	1550.6
37.5°	1425.9	1425.9	1443.3	1446.2	1443.3	1449.1	1446.2	1446.2	1434.6	1440.4	1437.5
40°	1231.8	1249.2	1281.0	1298.4	1304.2	1315.8	1330.3	1324.5	1318.7	1327.4	1324.5
42.5°	1043.4	1078.2	1127.4	1156.4	1176.7	1194.1	1214.4	1214.4	1211.5	1223.1	1220.2
45°	863.7	895.6	962.2	1011.5	1046.3	1072.4	1095.5	1104.2	1107.1	1118.7	1115.8
47.5°	686.9	742.0	820.2	878.2	921.6	953.5	985.4	997.0	1005.7	1020.2	1020.2
50°	544.9	614.4	704.3	762.2	814.4	849.2	881.1	898.5	910.1	921.6	921.6
52.5°	437.6	510.1	597.0	657.9	707.2	744.9	776.7	797.0	805.7	820.2	820.2
55°	356.5	423.1	504.3	559.4	608.6	643.4	669.5	686.9	695.6	707.2	707.2
57.5°	281.1	344.9	411.6	460.8	501.4	527.5	550.7	556.5	559.4	568.1	571.0
60°	211.6	260.8	315.9	353.6	382.6	400.0	417.3	414.5	411.6	417.3	411.6
62.5°	150.7	185.5	226.1	249.3	272.4	281.1	289.8	284.0	278.2	281.1	281.1
65°	101.4	127.5	150.7	168.1	179.7	185.5	188.4	185.5	182.6	185.5	182.6
67.5°	69.6	84.0	101.4	110.1	118.8	121.7	124.6	121.7	121.7	121.7	118.8
70°	46.4	55.1	66.7	72.5	75.4	78.3	81.2	78.3	78.3	78.3	78.3
72.5°	31.9	37.7	40.6	46.4	49.3	49.3	49.3	49.3	49.3	49.3	49.3
75°	20.3	23.2	26.1	29.0	31.9	31.9	31.9	31.9	31.9	31.9	31.9
77.5°	14.5	14.5	17.4	17.4	20.3	20.3	20.3	20.3	20.3	20.3	20.3
80°	8.7	8.7	11.6	11.6	11.6	11.6	14.5	11.6	14.5	14.5	14.5
82.5°	5.8	5.8	5.8	5.8	8.7	8.7	8.7	8.7	8.7	8.7	8.7
85°	2.9	2.9	2.9	2.9	2.9	2.9	5.8	2.9	5.8	5.8	5.8
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: P212764

CATALOG NUMBER: LD4B50D010TE EU4B30509030 4LBSWL11

CANDELA DISTRIBUTION (continued):

	345°	350°	355°	360°
0°	2194.0	2194.0	2194.0	2194.0
2.5°	2144.7	2138.9	2121.5	2141.8
5°	2098.3	2092.5	2078.1	2092.5
7.5°	2052.0	2043.3	2031.7	2040.4
10°	1996.9	1991.1	1976.6	1985.3
12.5°	1956.3	1944.7	1936.0	1938.9
15°	1930.2	1918.6	1910.0	1912.9
17.5°	1895.5	1883.9	1875.2	1875.2
20°	1857.8	1846.2	1840.4	1837.5
22.5°	1825.9	1817.2	1814.3	1805.6
25°	1796.9	1791.1	1791.1	1779.5
27.5°	1765.0	1756.3	1756.3	1744.8
30°	1710.0	1707.1	1707.1	1698.4
32.5°	1637.5	1628.8	1634.6	1620.1
35°	1539.0	1533.2	1541.9	1530.3
37.5°	1431.7	1428.8	1434.6	1425.9
40°	1318.7	1318.7	1327.4	1312.9
42.5°	1220.2	1220.2	1228.9	1214.4
45°	1112.9	1121.6	1130.3	1118.7
47.5°	1020.2	1026.0	1037.6	1026.0
50°	927.4	933.2	941.9	930.3
52.5°	826.0	831.8	840.5	831.8
55°	710.1	715.9	724.6	718.8
57.5°	571.0	565.2	579.7	568.1
60°	414.5	402.9	405.8	405.8
62.5°	275.3	269.5	275.3	266.6
65°	182.6	179.7	179.7	179.7
67.5°	121.7	118.8	121.7	118.8
70°	78.3	78.3	78.3	78.3
72.5°	49.3	49.3	49.3	49.3
75°	31.9	31.9	31.9	31.9
77.5°	20.3	20.3	20.3	20.3
80°	14.5	14.5	14.5	14.5
82.5°	8.7	8.7	8.7	8.7
85°	5.8	5.8	5.8	5.8
87.5°	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0



Report Generated By E9808895 / USPTCWHP6082093





— 0°-180° - - 45°-225° - - - - 90°-270° - · - · 135°-315°





















(END OF REPORT)