

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: P212760

Luminaire Tested: **LD4B50D010TE EU4B30508040 4LBSWLI1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P212760
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 EU4B30508040 4LBSWL1
Description: PORTFOLIO 4 INCH SINGLE WALLWASH RECESSED DOWNLIGHT, WITH SPECULAR CLEAR TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 4000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4888.1 lumens
Efficiency: N/A
Efficacy: 83.2 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

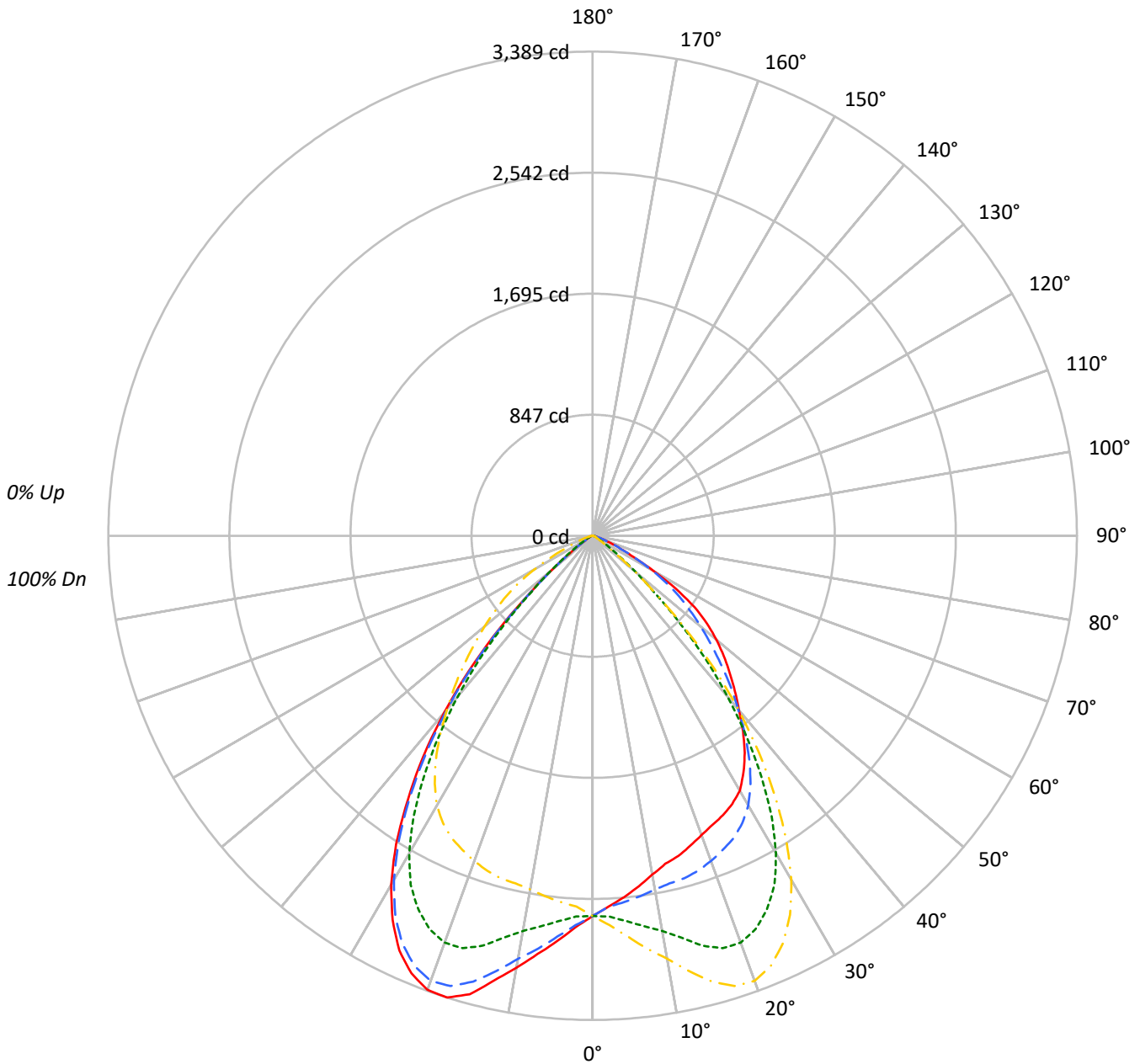
Input Watts (W): 58.77
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	328235	328235	328235	328235
5°	314247	335147	352556	335147
10°	301598	351785	384362	351785
15°	296269	379311	424209	379311
20°	292543	397749	443888	397749
25°	293751	392789	435837	392789
30°	293400	365497	401545	365497
35°	279486	310189	339296	310189
40°	256402	236034	260363	236034
45°	236694	150225	161878	150225
50°	216531	72861	70827	72861
55°	187478	31741	22687	31741
60°	121397	15616	10410	15616
65°	63596	10273	8201	10273
70°	34225	7609	6347	7609
75°	18443	6720	5004	6720
80°	12502	4972	2486	4972
85°	9907	4953	0	4953



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	259.4	5.3
10°-20°	811.5	16.6
20°-30°	1261.7	25.8
30°-40°	1274.4	26.1
40°-50°	806.9	16.5
50°-60°	338.7	6.9
60°-70°	107.3	2.2
70°-80°	24.6	0.5
80°-90°	3.5	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°	2332.7	47.7
0°-40°	3607.1	73.8
0°-60°	4752.7	97.2
0°-90°	4888.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4888.1	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	2661	2661	2661	2661	2661	
5°	2538	2707	2847	2707	2538	238
15°	2320	2970	3322	2970	2320	654
25°	2158	2886	3202	2886	2158	994
35°	1856	2060	2253	2060	1856	1153
45°	1357	861	928	861	1357	1047
55°	872	148	106	148	872	753
65°	218	35	28	35	218	240
75°	39	14	10	14	39	47
85°	7	4	0	4	7	7
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°	2661.1	2661.1	2661.1	2661.1	2661.1	2661.1	2661.1	2661.1	2661.1	2661.1	2661.1
2.5°	2597.8	2573.2	2594.3	2601.3	2601.3	2597.8	2604.8	2597.8	2587.3	2629.4	2597.8
5°	2538.0	2520.5	2538.0	2545.1	2548.6	2552.1	2559.1	2559.1	2555.6	2594.3	2573.2
7.5°	2474.8	2464.2	2478.3	2488.8	2502.9	2499.4	2509.9	2513.4	2520.5	2566.2	2545.1
10°	2408.0	2397.4	2415.0	2422.0	2439.6	2443.1	2450.2	2460.7	2474.8	2520.5	2513.4
12.5°	2351.7	2348.2	2358.8	2372.8	2390.4	2393.9	2400.9	2418.5	2439.6	2488.8	2492.3
15°	2320.1	2316.6	2327.1	2341.2	2355.2	2362.3	2369.3	2393.9	2415.0	2467.7	2481.8
17.5°	2274.4	2274.4	2284.9	2299.0	2316.6	2323.6	2334.2	2358.8	2386.9	2439.6	2457.2
20°	2228.7	2232.2	2239.2	2253.3	2270.9	2277.9	2288.5	2313.1	2344.7	2397.4	2422.0
22.5°	2190.0	2200.6	2204.1	2214.6	2232.2	2242.8	2246.3	2274.4	2302.5	2348.2	2379.9
25°	2158.4	2172.5	2172.5	2179.5	2200.6	2204.1	2207.6	2235.7	2260.3	2302.5	2334.2
27.5°	2116.2	2130.3	2130.3	2140.8	2154.9	2161.9	2161.9	2186.5	2211.1	2242.8	2267.4
30°	2060.0	2070.5	2070.5	2074.0	2088.1	2095.1	2091.6	2116.2	2133.8	2154.9	2179.5
32.5°	1965.0	1982.6	1975.6	1986.1	1993.2	2000.2	1993.2	2014.3	2028.3	2049.4	2056.4
35°	1856.1	1870.1	1859.6	1866.6	1880.7	1880.7	1877.2	1891.2	1898.3	1908.8	1912.3
37.5°	1729.5	1740.1	1733.0	1736.6	1743.6	1747.1	1740.1	1754.1	1754.1	1757.6	1750.6
40°	1592.4	1610.0	1599.5	1599.5	1606.5	1610.0	1599.5	1606.5	1613.5	1595.9	1581.9
42.5°	1472.9	1490.5	1479.9	1479.9	1479.9	1483.5	1469.4	1472.9	1472.9	1448.3	1427.2
45°	1356.9	1371.0	1360.4	1349.9	1353.4	1356.9	1342.8	1339.3	1328.8	1300.7	1269.0
47.5°	1244.4	1258.5	1244.4	1237.4	1237.4	1237.4	1219.8	1209.3	1195.2	1156.5	1117.9
50°	1128.4	1142.5	1131.9	1124.9	1117.9	1117.9	1103.8	1089.7	1068.6	1030.0	987.8
52.5°	1008.9	1019.4	1008.9	1001.9	994.8	994.8	977.3	966.7	942.1	903.4	857.7
55°	871.8	878.8	868.3	861.2	857.7	857.7	843.7	833.1	812.0	780.4	738.2
57.5°	689.0	703.1	685.5	692.5	692.5	689.0	678.5	674.9	667.9	639.8	608.1
60°	492.1	492.1	488.6	502.7	499.2	506.2	499.2	502.7	506.2	485.1	464.0
62.5°	323.4	334.0	326.9	334.0	341.0	341.0	337.5	344.5	351.5	341.0	330.4
65°	217.9	217.9	217.9	221.5	221.5	225.0	221.5	225.0	228.5	225.0	217.9
67.5°	144.1	147.6	144.1	147.6	144.1	147.6	147.6	147.6	151.2	147.6	144.1
70°	94.9	94.9	94.9	94.9	94.9	94.9	94.9	94.9	98.4	94.9	91.4
72.5°	59.8	59.8	59.8	59.8	59.8	59.8	59.8	59.8	59.8	59.8	59.8
75°	38.7	38.7	38.7	38.7	38.7	38.7	38.7	38.7	38.7	38.7	38.7
77.5°	24.6	24.6	24.6	24.6	24.6	24.6	24.6	24.6	24.6	24.6	24.6
80°	17.6	17.6	17.6	17.6	17.6	17.6	17.6	14.1	17.6	14.1	14.1
82.5°	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5
85°	7.0	7.0	7.0	7.0	7.0	7.0	7.0	3.5	7.0	3.5	3.5
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°	2661.1	2661.1	2661.1	2661.1	2661.1	2661.1	2661.1	2661.1	2661.1	2661.1	2661.1
2.5°	2615.4	2604.8	2657.6	2611.9	2636.5	2633.0	2636.5	2657.6	2657.6	2668.1	2664.6
5°	2601.3	2590.8	2650.5	2615.4	2643.5	2643.5	2654.0	2685.7	2685.7	2706.8	2710.3
7.5°	2580.2	2583.7	2647.0	2625.9	2657.6	2661.1	2678.7	2717.3	2727.9	2756.0	2770.0
10°	2555.6	2569.7	2636.5	2629.4	2671.6	2675.1	2710.3	2756.0	2770.0	2808.7	2833.3
12.5°	2545.1	2569.7	2647.0	2654.0	2696.2	2713.8	2752.5	2812.2	2836.8	2882.5	2917.7
15°	2541.6	2576.7	2661.1	2685.7	2734.9	2759.5	2812.2	2882.5	2910.7	2970.4	3012.6
17.5°	2524.0	2569.7	2661.1	2699.7	2752.5	2777.1	2843.9	2924.7	2959.9	3026.7	3075.9
20°	2492.3	2541.6	2633.0	2682.2	2738.4	2773.6	2840.4	2924.7	2959.9	3030.2	3086.4
22.5°	2450.2	2499.4	2587.3	2643.5	2692.7	2731.4	2801.7	2882.5	2914.2	2981.0	3037.2
25°	2397.4	2446.6	2520.5	2576.7	2622.4	2657.6	2717.3	2801.7	2822.8	2886.1	2945.8
27.5°	2323.6	2369.3	2425.6	2478.3	2520.5	2548.6	2601.3	2675.1	2692.7	2756.0	2805.2
30°	2225.2	2253.3	2302.5	2337.7	2369.3	2397.4	2436.1	2502.9	2509.9	2566.2	2611.9
32.5°	2091.6	2105.7	2140.8	2158.4	2186.5	2197.1	2228.7	2284.9	2277.9	2330.6	2369.3
35°	1929.9	1936.9	1936.9	1958.0	1965.0	1968.6	1993.2	2024.8	2014.3	2060.0	2088.1
37.5°	1754.1	1750.6	1729.5	1729.5	1733.0	1722.5	1733.0	1747.1	1733.0	1768.2	1792.8
40°	1574.9	1553.8	1515.1	1494.0	1483.5	1479.9	1458.8	1476.4	1441.3	1465.9	1483.5
42.5°	1402.6	1367.4	1307.7	1265.5	1247.9	1230.4	1195.2	1195.2	1149.5	1167.1	1170.6
45°	1226.8	1167.1	1086.2	1047.6	1001.9	973.7	928.0	882.3	850.7	861.2	850.7
47.5°	1065.1	994.8	899.9	833.1	780.4	741.7	678.5	625.7	594.1	580.0	566.0
50°	924.5	854.2	745.2	660.9	608.1	562.4	499.2	439.4	400.7	379.7	369.1
52.5°	798.0	724.2	618.7	530.8	474.6	432.4	362.1	302.3	260.1	235.5	221.5
55°	678.5	611.7	513.2	432.4	379.7	337.5	267.2	210.9	172.2	147.6	130.1
57.5°	558.9	499.2	418.3	341.0	295.3	256.6	196.9	147.6	116.0	94.9	80.9
60°	428.9	383.2	316.4	256.6	217.9	186.3	140.6	101.9	80.9	63.3	56.2
62.5°	302.3	274.2	225.0	182.8	158.2	133.6	98.4	73.8	56.2	45.7	42.2
65°	203.9	182.8	154.7	123.0	105.5	91.4	70.3	52.7	42.2	35.2	31.6
67.5°	133.6	123.0	101.9	84.4	73.8	63.3	49.2	38.7	31.6	28.1	24.6
70°	87.9	80.9	66.8	56.2	52.7	45.7	35.2	28.1	24.6	21.1	21.1
72.5°	56.2	49.2	45.7	38.7	35.2	31.6	24.6	21.1	17.6	17.6	17.6
75°	35.2	31.6	28.1	24.6	24.6	21.1	17.6	17.6	14.1	14.1	14.1
77.5°	21.1	21.1	17.6	17.6	14.1	14.1	14.1	10.5	10.5	10.5	10.5
80°	14.1	14.1	10.5	10.5	10.5	10.5	7.0	7.0	7.0	7.0	7.0
82.5°	7.0	7.0	7.0	7.0	7.0	7.0	3.5	3.5	3.5	3.5	3.5
85°	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
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°	2661.1	2661.1	2661.1	2661.1	2661.1	2661.1	2661.1	2661.1	2661.1	2661.1	2661.1
2.5°	2682.2	2689.2	2682.2	2703.3	2668.1	2706.8	2692.7	2699.7	2727.9	2717.3	2727.9
5°	2734.9	2749.0	2749.0	2773.6	2741.9	2787.6	2773.6	2787.6	2815.7	2815.7	2829.8
7.5°	2801.7	2819.3	2826.3	2850.9	2819.3	2875.5	2861.4	2879.0	2914.2	2914.2	2924.7
10°	2872.0	2893.1	2907.1	2935.3	2900.1	2963.4	2949.3	2973.9	3005.6	3009.1	3026.7
12.5°	2959.9	2988.0	3005.6	3030.2	3005.6	3068.8	3054.8	3079.4	3121.6	3125.1	3146.2
15°	3058.3	3093.5	3114.5	3142.7	3114.5	3184.9	3170.8	3198.9	3230.6	3244.6	3265.7
17.5°	3121.6	3163.8	3181.3	3213.0	3184.9	3255.2	3237.6	3276.3	3304.4	3311.4	3336.0
20°	3132.1	3170.8	3195.4	3220.0	3195.4	3265.7	3248.1	3279.8	3314.9	3322.0	3339.5
22.5°	3086.4	3118.1	3146.2	3167.3	3146.2	3216.5	3191.9	3227.0	3258.7	3265.7	3279.8
25°	2981.0	3019.6	3047.8	3065.3	3044.2	3111.0	3089.9	3121.6	3149.7	3163.8	3167.3
27.5°	2833.3	2868.5	2896.6	2907.1	2893.1	2956.4	2928.2	2966.9	2991.5	2998.5	3009.1
30°	2633.0	2664.6	2692.7	2699.7	2689.2	2734.9	2720.8	2756.0	2780.6	2787.6	2794.7
32.5°	2386.9	2418.5	2436.1	2443.1	2432.6	2478.3	2464.2	2492.3	2520.5	2520.5	2520.5
35°	2109.2	2137.3	2147.8	2168.9	2144.3	2190.0	2176.0	2200.6	2225.2	2225.2	2228.7
37.5°	1810.4	1831.5	1838.5	1859.6	1835.0	1877.2	1866.6	1887.7	1908.8	1905.3	1912.3
40°	1490.5	1511.6	1518.6	1536.2	1515.1	1550.2	1543.2	1564.3	1581.9	1581.9	1581.9
42.5°	1181.1	1195.2	1195.2	1212.8	1191.7	1223.3	1223.3	1237.4	1255.0	1251.4	1251.4
45°	857.7	854.2	861.2	857.7	857.7	885.9	885.9	892.9	906.9	899.9	903.4
47.5°	569.5	573.0	558.9	569.5	555.4	580.0	580.0	580.0	590.6	583.5	590.6
50°	362.1	351.5	344.5	344.5	341.0	358.6	351.5	355.0	362.1	355.0	362.1
52.5°	203.9	200.4	193.3	196.9	189.8	193.3	193.3	193.3	196.9	193.3	200.4
55°	119.5	109.0	105.5	105.5	101.9	105.5	101.9	101.9	101.9	98.4	101.9
57.5°	70.3	66.8	63.3	63.3	59.8	59.8	59.8	59.8	59.8	59.8	59.8
60°	49.2	45.7	45.7	42.2	42.2	42.2	42.2	42.2	42.2	42.2	42.2
62.5°	38.7	35.2	35.2	35.2	31.6	31.6	31.6	31.6	31.6	35.2	31.6
65°	28.1	28.1	28.1	28.1	28.1	28.1	24.6	28.1	28.1	28.1	28.1
67.5°	24.6	24.6	21.1	21.1	21.1	21.1	21.1	21.1	21.1	21.1	21.1
70°	17.6	17.6	17.6	17.6	17.6	17.6	17.6	17.6	17.6	17.6	17.6
72.5°	14.1	14.1	14.1	14.1	14.1	14.1	14.1	14.1	14.1	14.1	14.1
75°	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5
77.5°	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
80°	7.0	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
82.5°	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
85°	0.0	3.5	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: P212760

CATALOG NUMBER: LD4B50D010TE EU4B30508040 4LBSWLI1

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°	185°	190°	195°
0°	2661.1	2661.1	2661.1	2661.1	2661.1	2661.1	2661.1	2661.1	2661.1	2661.1	2661.1
2.5°	2738.4	2724.4	2692.7	2713.8	2717.3	2703.3	2720.8	2741.9	2720.8	2703.3	2717.3
5°	2840.4	2829.8	2801.7	2819.3	2822.8	2819.3	2829.8	2847.4	2829.8	2819.3	2822.8
7.5°	2942.3	2935.3	2903.6	2924.7	2931.8	2924.7	2935.3	2952.8	2935.3	2924.7	2931.8
10°	3040.7	3037.2	3005.6	3033.7	3037.2	3030.2	3040.7	3068.8	3040.7	3030.2	3037.2
12.5°	3153.2	3160.2	3125.1	3156.7	3160.2	3153.2	3167.3	3188.4	3167.3	3153.2	3160.2
15°	3283.3	3279.8	3251.6	3276.3	3283.3	3276.3	3293.8	3322.0	3293.8	3276.3	3283.3
17.5°	3346.6	3346.6	3325.5	3350.1	3353.6	3353.6	3367.6	3388.7	3367.6	3353.6	3353.6
20°	3350.1	3353.6	3329.0	3357.1	3357.1	3357.1	3371.2	3381.7	3371.2	3357.1	3357.1
22.5°	3293.8	3297.3	3272.7	3297.3	3297.3	3300.9	3307.9	3314.9	3307.9	3300.9	3297.3
25°	3184.9	3188.4	3167.3	3188.4	3184.9	3184.9	3191.9	3202.4	3191.9	3184.9	3184.9
27.5°	3023.2	3026.7	2998.5	3023.2	3019.6	3016.1	3026.7	3030.2	3026.7	3016.1	3019.6
30°	2808.7	2812.2	2787.6	2808.7	2805.2	2801.7	2815.7	2819.3	2815.7	2801.7	2805.2
32.5°	2552.1	2545.1	2527.5	2545.1	2541.6	2541.6	2548.6	2559.1	2548.6	2541.6	2541.6
35°	2242.8	2242.8	2232.2	2246.3	2235.7	2249.8	2249.8	2253.3	2249.8	2249.8	2235.7
37.5°	1926.4	1926.4	1919.3	1926.4	1922.9	1936.9	1936.9	1947.5	1936.9	1936.9	1922.9
40°	1595.9	1595.9	1588.9	1595.9	1606.5	1606.5	1603.0	1617.0	1603.0	1606.5	1606.5
42.5°	1262.0	1262.0	1258.5	1276.1	1276.1	1276.1	1265.5	1279.6	1265.5	1276.1	1276.1
45°	917.5	910.5	906.9	906.9	910.5	924.5	910.5	928.0	910.5	924.5	910.5
47.5°	583.5	587.1	590.6	601.1	594.1	590.6	590.6	601.1	590.6	590.6	594.1
50°	358.6	362.1	362.1	369.1	358.6	365.6	362.1	369.1	362.1	365.6	358.6
52.5°	196.9	196.9	196.9	203.9	196.9	200.4	196.9	203.9	196.9	200.4	196.9
55°	101.9	101.9	101.9	105.5	101.9	101.9	101.9	105.5	101.9	101.9	101.9
57.5°	59.8	59.8	59.8	59.8	59.8	59.8	59.8	59.8	59.8	59.8	59.8
60°	42.2	42.2	42.2	42.2	42.2	42.2	42.2	42.2	42.2	42.2	42.2
62.5°	35.2	31.6	31.6	35.2	35.2	35.2	35.2	35.2	35.2	35.2	35.2
65°	28.1	28.1	28.1	28.1	28.1	28.1	28.1	28.1	28.1	28.1	28.1
67.5°	21.1	21.1	21.1	21.1	21.1	21.1	21.1	21.1	21.1	21.1	21.1
70°	17.6	17.6	17.6	17.6	17.6	17.6	17.6	17.6	17.6	17.6	17.6
72.5°	14.1	14.1	14.1	14.1	14.1	14.1	14.1	14.1	14.1	14.1	14.1
75°	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5
77.5°	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
80°	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
82.5°	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
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: P212760

CATALOG NUMBER: LD4B50D010TE EU4B30508040 4LBSWLI1

CANDELA DISTRIBUTION (continued):

	200°	202.5°	205°	210°	215°	220°	225°	230°	235°	240°	245°
0°	2661.1	2661.1	2661.1	2661.1	2661.1	2661.1	2661.1	2661.1	2661.1	2661.1	2661.1
2.5°	2713.8	2692.7	2724.4	2738.4	2727.9	2717.3	2727.9	2699.7	2692.7	2706.8	2668.1
5°	2819.3	2801.7	2829.8	2840.4	2829.8	2815.7	2815.7	2787.6	2773.6	2787.6	2741.9
7.5°	2924.7	2903.6	2935.3	2942.3	2924.7	2914.2	2914.2	2879.0	2861.4	2875.5	2819.3
10°	3033.7	3005.6	3037.2	3040.7	3026.7	3009.1	3005.6	2973.9	2949.3	2963.4	2900.1
12.5°	3156.7	3125.1	3160.2	3153.2	3146.2	3125.1	3121.6	3079.4	3054.8	3068.8	3005.6
15°	3276.3	3251.6	3279.8	3283.3	3265.7	3244.6	3230.6	3198.9	3170.8	3184.9	3114.5
17.5°	3350.1	3325.5	3346.6	3346.6	3336.0	3311.4	3304.4	3276.3	3237.6	3255.2	3184.9
20°	3357.1	3329.0	3353.6	3350.1	3339.5	3322.0	3314.9	3279.8	3248.1	3265.7	3195.4
22.5°	3297.3	3272.7	3297.3	3293.8	3279.8	3265.7	3258.7	3227.0	3191.9	3216.5	3146.2
25°	3188.4	3167.3	3188.4	3184.9	3167.3	3163.8	3149.7	3121.6	3089.9	3111.0	3044.2
27.5°	3023.2	2998.5	3026.7	3023.2	3009.1	2998.5	2991.5	2966.9	2928.2	2956.4	2893.1
30°	2808.7	2787.6	2812.2	2808.7	2794.7	2787.6	2780.6	2756.0	2720.8	2734.9	2689.2
32.5°	2545.1	2527.5	2545.1	2552.1	2520.5	2520.5	2520.5	2492.3	2464.2	2478.3	2432.6
35°	2246.3	2232.2	2242.8	2242.8	2228.7	2225.2	2225.2	2200.6	2176.0	2190.0	2144.3
37.5°	1926.4	1919.3	1926.4	1926.4	1912.3	1905.3	1908.8	1887.7	1866.6	1877.2	1835.0
40°	1595.9	1588.9	1595.9	1595.9	1581.9	1581.9	1581.9	1564.3	1543.2	1550.2	1515.1
42.5°	1276.1	1258.5	1262.0	1262.0	1251.4	1251.4	1255.0	1237.4	1223.3	1223.3	1191.7
45°	906.9	906.9	910.5	917.5	903.4	899.9	906.9	892.9	885.9	885.9	857.7
47.5°	601.1	590.6	587.1	583.5	590.6	583.5	590.6	580.0	580.0	580.0	555.4
50°	369.1	362.1	362.1	358.6	362.1	355.0	362.1	355.0	351.5	358.6	341.0
52.5°	203.9	196.9	196.9	196.9	200.4	193.3	196.9	193.3	193.3	193.3	189.8
55°	105.5	101.9	101.9	101.9	101.9	98.4	101.9	101.9	101.9	105.5	101.9
57.5°	59.8	59.8	59.8	59.8	59.8	59.8	59.8	59.8	59.8	59.8	59.8
60°	42.2	42.2	42.2	42.2	42.2	42.2	42.2	42.2	42.2	42.2	42.2
62.5°	35.2	31.6	31.6	35.2	31.6	35.2	31.6	31.6	31.6	31.6	31.6
65°	28.1	28.1	28.1	28.1	28.1	28.1	28.1	28.1	24.6	28.1	28.1
67.5°	21.1	21.1	21.1	21.1	21.1	21.1	21.1	21.1	21.1	21.1	21.1
70°	17.6	17.6	17.6	17.6	17.6	17.6	17.6	17.6	17.6	17.6	17.6
72.5°	14.1	14.1	14.1	14.1	14.1	14.1	14.1	14.1	14.1	14.1	14.1
75°	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5
77.5°	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
80°	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
82.5°	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
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: P212760

CATALOG NUMBER: LD4B50D010TE EU4B30508040 4LBSWLI1

CANDELA DISTRIBUTION (continued):

	247.5°	250°	255°	260°	265°	270°	275°	280°	285°	290°	292.5°
0°	2661.1	2661.1	2661.1	2661.1	2661.1	2661.1	2661.1	2661.1	2661.1	2661.1	2661.1
2.5°	2703.3	2682.2	2689.2	2682.2	2664.6	2668.1	2657.6	2657.6	2636.5	2633.0	2636.5
5°	2773.6	2749.0	2749.0	2734.9	2710.3	2706.8	2685.7	2685.7	2654.0	2643.5	2643.5
7.5°	2850.9	2826.3	2819.3	2801.7	2770.0	2756.0	2727.9	2717.3	2678.7	2661.1	2657.6
10°	2935.3	2907.1	2893.1	2872.0	2833.3	2808.7	2770.0	2756.0	2710.3	2675.1	2671.6
12.5°	3030.2	3005.6	2988.0	2959.9	2917.7	2882.5	2836.8	2812.2	2752.5	2713.8	2696.2
15°	3142.7	3114.5	3093.5	3058.3	3012.6	2970.4	2910.7	2882.5	2812.2	2759.5	2734.9
17.5°	3213.0	3181.3	3163.8	3121.6	3075.9	3026.7	2959.9	2924.7	2843.9	2777.1	2752.5
20°	3220.0	3195.4	3170.8	3132.1	3086.4	3030.2	2959.9	2924.7	2840.4	2773.6	2738.4
22.5°	3167.3	3146.2	3118.1	3086.4	3037.2	2981.0	2914.2	2882.5	2801.7	2731.4	2692.7
25°	3065.3	3047.8	3019.6	2981.0	2945.8	2886.1	2822.8	2801.7	2717.3	2657.6	2622.4
27.5°	2907.1	2896.6	2868.5	2833.3	2805.2	2756.0	2692.7	2675.1	2601.3	2548.6	2520.5
30°	2699.7	2692.7	2664.6	2633.0	2611.9	2566.2	2509.9	2502.9	2436.1	2397.4	2369.3
32.5°	2443.1	2436.1	2418.5	2386.9	2369.3	2330.6	2277.9	2284.9	2228.7	2197.1	2186.5
35°	2168.9	2147.8	2137.3	2109.2	2088.1	2060.0	2014.3	2024.8	1993.2	1968.6	1965.0
37.5°	1859.6	1838.5	1831.5	1810.4	1792.8	1768.2	1733.0	1747.1	1733.0	1722.5	1733.0
40°	1536.2	1518.6	1511.6	1490.5	1483.5	1465.9	1441.3	1476.4	1458.8	1479.9	1483.5
42.5°	1212.8	1195.2	1195.2	1181.1	1170.6	1167.1	1149.5	1195.2	1195.2	1230.4	1247.9
45°	857.7	861.2	854.2	857.7	850.7	861.2	850.7	882.3	928.0	973.7	1001.9
47.5°	569.5	558.9	573.0	569.5	566.0	580.0	594.1	625.7	678.5	741.7	780.4
50°	344.5	344.5	351.5	362.1	369.1	379.7	400.7	439.4	499.2	562.4	608.1
52.5°	196.9	193.3	200.4	203.9	221.5	235.5	260.1	302.3	362.1	432.4	474.6
55°	105.5	105.5	109.0	119.5	130.1	147.6	172.2	210.9	267.2	337.5	379.7
57.5°	63.3	63.3	66.8	70.3	80.9	94.9	116.0	147.6	196.9	256.6	295.3
60°	42.2	45.7	45.7	49.2	56.2	63.3	80.9	101.9	140.6	186.3	217.9
62.5°	35.2	35.2	35.2	38.7	42.2	45.7	56.2	73.8	98.4	133.6	158.2
65°	28.1	28.1	28.1	28.1	31.6	35.2	42.2	52.7	70.3	91.4	105.5
67.5°	21.1	21.1	24.6	24.6	24.6	28.1	31.6	38.7	49.2	63.3	73.8
70°	17.6	17.6	17.6	17.6	21.1	21.1	24.6	28.1	35.2	45.7	52.7
72.5°	14.1	14.1	14.1	14.1	17.6	17.6	17.6	21.1	24.6	31.6	35.2
75°	10.5	10.5	10.5	10.5	14.1	14.1	14.1	17.6	17.6	21.1	24.6
77.5°	7.0	7.0	7.0	7.0	10.5	10.5	10.5	10.5	14.1	14.1	14.1
80°	3.5	3.5	3.5	7.0	7.0	7.0	7.0	7.0	7.0	10.5	10.5
82.5°	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	7.0	7.0
85°	0.0	0.0	3.5	0.0	3.5	3.5	3.5	3.5	3.5	3.5	3.5
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: P212760

CATALOG NUMBER: LD4B50D010TE EU4B30508040 4LBSWLI1

CANDELA DISTRIBUTION (continued):

	295°	300°	305°	310°	315°	320°	325°	330°	335°	337.5°	340°
0°	2661.1	2661.1	2661.1	2661.1	2661.1	2661.1	2661.1	2661.1	2661.1	2661.1	2661.1
2.5°	2611.9	2657.6	2604.8	2615.4	2597.8	2629.4	2587.3	2597.8	2604.8	2597.8	2601.3
5°	2615.4	2650.5	2590.8	2601.3	2573.2	2594.3	2555.6	2559.1	2559.1	2552.1	2548.6
7.5°	2625.9	2647.0	2583.7	2580.2	2545.1	2566.2	2520.5	2513.4	2509.9	2499.4	2502.9
10°	2629.4	2636.5	2569.7	2555.6	2513.4	2520.5	2474.8	2460.7	2450.2	2443.1	2439.6
12.5°	2654.0	2647.0	2569.7	2545.1	2492.3	2488.8	2439.6	2418.5	2400.9	2393.9	2390.4
15°	2685.7	2661.1	2576.7	2541.6	2481.8	2467.7	2415.0	2393.9	2369.3	2362.3	2355.2
17.5°	2699.7	2661.1	2569.7	2524.0	2457.2	2439.6	2386.9	2358.8	2334.2	2323.6	2316.6
20°	2682.2	2633.0	2541.6	2492.3	2422.0	2397.4	2344.7	2313.1	2288.5	2277.9	2270.9
22.5°	2643.5	2587.3	2499.4	2450.2	2379.9	2348.2	2302.5	2274.4	2246.3	2242.8	2232.2
25°	2576.7	2520.5	2446.6	2397.4	2334.2	2302.5	2260.3	2235.7	2207.6	2204.1	2200.6
27.5°	2478.3	2425.6	2369.3	2323.6	2267.4	2242.8	2211.1	2186.5	2161.9	2161.9	2154.9
30°	2337.7	2302.5	2253.3	2225.2	2179.5	2154.9	2133.8	2116.2	2091.6	2095.1	2088.1
32.5°	2158.4	2140.8	2105.7	2091.6	2056.4	2049.4	2028.3	2014.3	1993.2	2000.2	1993.2
35°	1958.0	1936.9	1936.9	1929.9	1912.3	1908.8	1898.3	1891.2	1877.2	1880.7	1880.7
37.5°	1729.5	1729.5	1750.6	1754.1	1750.6	1757.6	1754.1	1754.1	1740.1	1747.1	1743.6
40°	1494.0	1515.1	1553.8	1574.9	1581.9	1595.9	1613.5	1606.5	1599.5	1610.0	1606.5
42.5°	1265.5	1307.7	1367.4	1402.6	1427.2	1448.3	1472.9	1472.9	1469.4	1483.5	1479.9
45°	1047.6	1086.2	1167.1	1226.8	1269.0	1300.7	1328.8	1339.3	1342.8	1356.9	1353.4
47.5°	833.1	899.9	994.8	1065.1	1117.9	1156.5	1195.2	1209.3	1219.8	1237.4	1237.4
50°	660.9	745.2	854.2	924.5	987.8	1030.0	1068.6	1089.7	1103.8	1117.9	1117.9
52.5°	530.8	618.7	724.2	798.0	857.7	903.4	942.1	966.7	977.3	994.8	994.8
55°	432.4	513.2	611.7	678.5	738.2	780.4	812.0	833.1	843.7	857.7	857.7
57.5°	341.0	418.3	499.2	558.9	608.1	639.8	667.9	674.9	678.5	689.0	692.5
60°	256.6	316.4	383.2	428.9	464.0	485.1	506.2	502.7	499.2	506.2	499.2
62.5°	182.8	225.0	274.2	302.3	330.4	341.0	351.5	344.5	337.5	341.0	341.0
65°	123.0	154.7	182.8	203.9	217.9	225.0	228.5	225.0	221.5	225.0	221.5
67.5°	84.4	101.9	123.0	133.6	144.1	147.6	151.2	147.6	147.6	147.6	144.1
70°	56.2	66.8	80.9	87.9	91.4	94.9	98.4	94.9	94.9	94.9	94.9
72.5°	38.7	45.7	49.2	56.2	59.8	59.8	59.8	59.8	59.8	59.8	59.8
75°	24.6	28.1	31.6	35.2	38.7	38.7	38.7	38.7	38.7	38.7	38.7
77.5°	17.6	17.6	21.1	21.1	24.6	24.6	24.6	24.6	24.6	24.6	24.6
80°	10.5	10.5	14.1	14.1	14.1	14.1	17.6	14.1	17.6	17.6	17.6
82.5°	7.0	7.0	7.0	7.0	10.5	10.5	10.5	10.5	10.5	10.5	10.5
85°	3.5	3.5	3.5	3.5	3.5	3.5	7.0	3.5	7.0	7.0	7.0
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: P212760

CATALOG NUMBER: LD4B50D010TE EU4B30508040 4LBSWL11

CANDELA DISTRIBUTION (continued):

	345°	350°	355°	360°
0°	2661.1	2661.1	2661.1	2661.1
2.5°	2601.3	2594.3	2573.2	2597.8
5°	2545.1	2538.0	2520.5	2538.0
7.5°	2488.8	2478.3	2464.2	2474.8
10°	2422.0	2415.0	2397.4	2408.0
12.5°	2372.8	2358.8	2348.2	2351.7
15°	2341.2	2327.1	2316.6	2320.1
17.5°	2299.0	2284.9	2274.4	2274.4
20°	2253.3	2239.2	2232.2	2228.7
22.5°	2214.6	2204.1	2200.6	2190.0
25°	2179.5	2172.5	2172.5	2158.4
27.5°	2140.8	2130.3	2130.3	2116.2
30°	2074.0	2070.5	2070.5	2060.0
32.5°	1986.1	1975.6	1982.6	1965.0
35°	1866.6	1859.6	1870.1	1856.1
37.5°	1736.6	1733.0	1740.1	1729.5
40°	1599.5	1599.5	1610.0	1592.4
42.5°	1479.9	1479.9	1490.5	1472.9
45°	1349.9	1360.4	1371.0	1356.9
47.5°	1237.4	1244.4	1258.5	1244.4
50°	1124.9	1131.9	1142.5	1128.4
52.5°	1001.9	1008.9	1019.4	1008.9
55°	861.2	868.3	878.8	871.8
57.5°	692.5	685.5	703.1	689.0
60°	502.7	488.6	492.1	492.1
62.5°	334.0	326.9	334.0	323.4
65°	221.5	217.9	217.9	217.9
67.5°	147.6	144.1	147.6	144.1
70°	94.9	94.9	94.9	94.9
72.5°	59.8	59.8	59.8	59.8
75°	38.7	38.7	38.7	38.7
77.5°	24.6	24.6	24.6	24.6
80°	17.6	17.6	17.6	17.6
82.5°	10.5	10.5	10.5	10.5
85°	7.0	7.0	7.0	7.0
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)