

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: P212696

Luminaire Tested: **LD4B10D010 EU4B10208050 4LBSWLI1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P212696
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: LD4B10D010 EU4B10208050 4LBSWLI1
Description: PORTFOLIO 4 INCH SINGLE WALLWASH RECESSED DOWNLIGHT, WITH SPECULAR CLEAR TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 5000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1009.6 lumens
Efficiency: N/A
Efficacy: 100.5 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

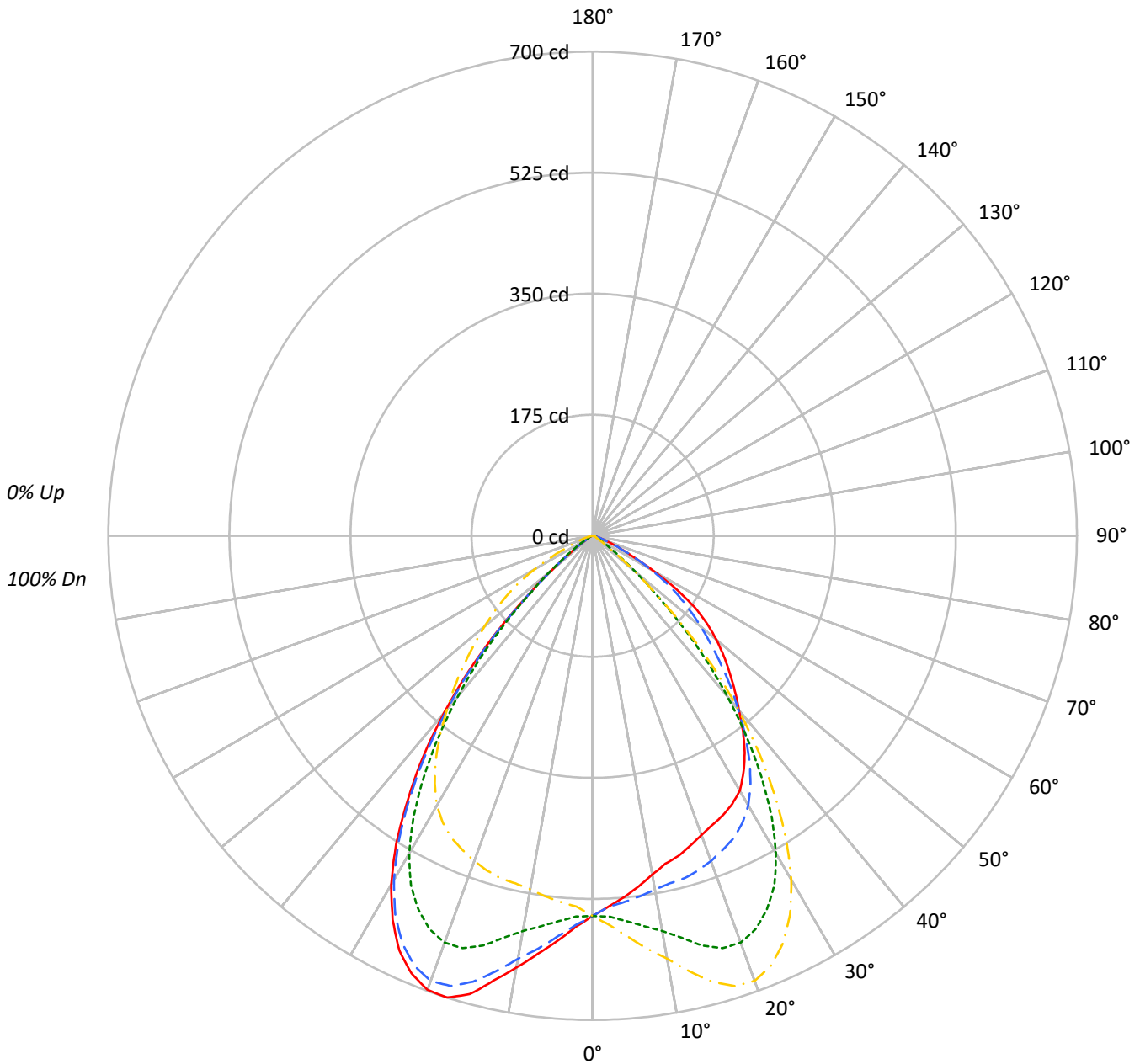
Input Watts (W): 10.05
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P212696

CATALOG NUMBER: LD4B10D010 EU4B10208050 4LBSWL11

Luminous Intensity Polar Plot





TEST NUMBER: P212696

CATALOG NUMBER: LD4B10D010 EU4B10208050 4LBSWLI1

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20									20									20									20									
RC	80									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°	67791	67791	67791	67791
5°	64905	69214	72817	69214
10°	62286	72657	79382	72657
15°	61192	78342	87613	78342
20°	60420	82144	91673	82144
25°	60672	81127	90014	81127
30°	60603	75486	82935	75486
35°	57716	64071	70079	64071
40°	52958	48756	53779	48756
45°	48877	31032	33440	31032
50°	44730	15044	14622	15044
55°	38730	6559	4688	6559
60°	25064	3232	2146	3232
65°	13134	2131	1693	2131
70°	7069	1587	1298	1587
75°	3813	1382	1048	1382
80°	2557	1065	497	1065
85°	2123	991	0	991



TEST NUMBER: P212696

CATALOG NUMBER: LD4B10D010 EU4B10208050 4LBSWLI1

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	53.6	5.3
10°-20°	167.6	16.6
20°-30°	260.6	25.8
30°-40°	263.2	26.1
40°-50°	166.7	16.5
50°-60°	69.9	6.9
60°-70°	22.2	2.2
70°-80°	5.1	0.5
80°-90°	0.7	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°	481.8	47.7
0°-40°	745.0	73.8
0°-60°	981.6	97.2
0°-90°	1009.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1009.6	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	550	550	550	550	550	
5°	524	559	588	559	524	49
15°	479	614	686	614	479	135
25°	446	596	661	596	446	205
35°	383	426	465	426	383	238
45°	280	178	192	178	280	216
55°	180	30	22	30	180	155
65°	45	7	6	7	45	50
75°	8	3	2	3	8	10
85°	2	1	0	1	2	1
90°	0	0	0	0	0	



TEST NUMBER: P212696

CATALOG NUMBER: LD4B10D010 EU4B10208050 4LBSWLI1

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	549.6	549.6	549.6	549.6	549.6	549.6	549.6	549.6	549.6	549.6	549.6
2.5°	536.5	531.5	535.8	537.3	537.3	536.5	538.0	536.5	534.4	543.1	536.5
5°	524.2	520.6	524.2	525.6	526.4	527.1	528.6	528.6	527.8	535.8	531.5
7.5°	511.1	508.9	511.9	514.0	516.9	516.2	518.4	519.1	520.6	530.0	525.6
10°	497.3	495.2	498.8	500.2	503.9	504.6	506.0	508.2	511.1	520.6	519.1
12.5°	485.7	485.0	487.2	490.1	493.7	494.4	495.9	499.5	503.9	514.0	514.8
15°	479.2	478.5	480.6	483.5	486.4	487.9	489.3	494.4	498.8	509.7	512.6
17.5°	469.7	469.7	471.9	474.8	478.5	479.9	482.1	487.2	493.0	503.9	507.5
20°	460.3	461.0	462.5	465.4	469.0	470.5	472.6	477.7	484.3	495.2	500.2
22.5°	452.3	454.5	455.2	457.4	461.0	463.2	463.9	469.7	475.6	485.0	491.5
25°	445.8	448.7	448.7	450.1	454.5	455.2	455.9	461.8	466.8	475.6	482.1
27.5°	437.1	440.0	440.0	442.2	445.1	446.5	446.5	451.6	456.7	463.2	468.3
30°	425.5	427.6	427.6	428.4	431.3	432.7	432.0	437.1	440.7	445.1	450.1
32.5°	405.9	409.5	408.0	410.2	411.7	413.1	411.7	416.0	418.9	423.3	424.7
35°	383.3	386.2	384.1	385.5	388.4	388.4	387.7	390.6	392.1	394.2	395.0
37.5°	357.2	359.4	357.9	358.7	360.1	360.8	359.4	362.3	362.3	363.0	361.6
40°	328.9	332.5	330.3	330.3	331.8	332.5	330.3	331.8	333.2	329.6	326.7
42.5°	304.2	307.8	305.7	305.7	305.7	306.4	303.5	304.2	304.2	299.1	294.8
45°	280.2	283.2	281.0	278.8	279.5	280.2	277.3	276.6	274.4	268.6	262.1
47.5°	257.0	259.9	257.0	255.6	255.6	255.6	251.9	249.8	246.9	238.9	230.9
50°	233.1	236.0	233.8	232.3	230.9	230.9	228.0	225.1	220.7	212.7	204.0
52.5°	208.4	210.5	208.4	206.9	205.5	205.5	201.8	199.7	194.6	186.6	177.2
55°	180.1	181.5	179.3	177.9	177.2	177.2	174.2	172.1	167.7	161.2	152.5
57.5°	142.3	145.2	141.6	143.0	143.0	142.3	140.1	139.4	137.9	132.1	125.6
60°	101.6	101.6	100.9	103.8	103.1	104.5	103.1	103.8	104.5	100.2	95.8
62.5°	66.8	69.0	67.5	69.0	70.4	70.4	69.7	71.2	72.6	70.4	68.2
65°	45.0	45.0	45.0	45.7	45.7	46.5	45.7	46.5	47.2	46.5	45.0
67.5°	29.8	30.5	29.8	30.5	29.8	30.5	30.5	30.5	31.2	30.5	29.8
70°	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	20.3	19.6	18.9
72.5°	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3
75°	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0
77.5°	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1
80°	3.6	3.6	3.6	3.6	3.6	3.6	3.6	2.9	3.6	2.9	2.9
82.5°	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
85°	1.5	1.5	1.5	1.5	1.5	1.5	1.5	0.7	1.5	0.7	0.7
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: P212696

CATALOG NUMBER: LD4B10D010 EU4B10208050 4LBSWLI1

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	549.6	549.6	549.6	549.6	549.6	549.6	549.6	549.6	549.6	549.6	549.6
2.5°	540.2	538.0	548.9	539.4	544.5	543.8	544.5	548.9	548.9	551.1	550.3
5°	537.3	535.1	547.4	540.2	546.0	546.0	548.2	554.7	554.7	559.0	559.8
7.5°	532.9	533.6	546.7	542.3	548.9	549.6	553.2	561.2	563.4	569.2	572.1
10°	527.8	530.7	544.5	543.1	551.8	552.5	559.8	569.2	572.1	580.1	585.2
12.5°	525.6	530.7	546.7	548.2	556.9	560.5	568.5	580.8	585.9	595.3	602.6
15°	524.9	532.2	549.6	554.7	564.9	569.9	580.8	595.3	601.2	613.5	622.2
17.5°	521.3	530.7	549.6	557.6	568.5	573.6	587.4	604.1	611.3	625.1	635.3
20°	514.8	524.9	543.8	554.0	565.6	572.8	586.6	604.1	611.3	625.8	637.5
22.5°	506.0	516.2	534.4	546.0	556.1	564.1	578.6	595.3	601.9	615.7	627.3
25°	495.2	505.3	520.6	532.2	541.6	548.9	561.2	578.6	583.0	596.1	608.4
27.5°	479.9	489.3	501.0	511.9	520.6	526.4	537.3	552.5	556.1	569.2	579.4
30°	459.6	465.4	475.6	482.8	489.3	495.2	503.1	516.9	518.4	530.0	539.4
32.5°	432.0	434.9	442.2	445.8	451.6	453.8	460.3	471.9	470.5	481.4	489.3
35°	398.6	400.0	400.0	404.4	405.9	406.6	411.7	418.2	416.0	425.5	431.3
37.5°	362.3	361.6	357.2	357.2	357.9	355.8	357.9	360.8	357.9	365.2	370.3
40°	325.3	320.9	312.9	308.6	306.4	305.7	301.3	304.9	297.7	302.8	306.4
42.5°	289.7	282.4	270.1	261.4	257.7	254.1	246.9	246.9	237.4	241.0	241.8
45°	253.4	241.0	224.3	216.4	206.9	201.1	191.7	182.2	175.7	177.9	175.7
47.5°	220.0	205.5	185.9	172.1	161.2	153.2	140.1	129.2	122.7	119.8	116.9
50°	190.9	176.4	153.9	136.5	125.6	116.2	103.1	90.8	82.8	78.4	76.2
52.5°	164.8	149.6	127.8	109.6	98.0	89.3	74.8	62.4	53.7	48.6	45.7
55°	140.1	126.3	106.0	89.3	78.4	69.7	55.2	43.6	35.6	30.5	26.9
57.5°	115.4	103.1	86.4	70.4	61.0	53.0	40.7	30.5	24.0	19.6	16.7
60°	88.6	79.1	65.3	53.0	45.0	38.5	29.0	21.1	16.7	13.1	11.6
62.5°	62.4	56.6	46.5	37.8	32.7	27.6	20.3	15.2	11.6	9.4	8.7
65°	42.1	37.8	31.9	25.4	21.8	18.9	14.5	10.9	8.7	7.3	6.5
67.5°	27.6	25.4	21.1	17.4	15.2	13.1	10.2	8.0	6.5	5.8	5.1
70°	18.2	16.7	13.8	11.6	10.9	9.4	7.3	5.8	5.1	4.4	4.4
72.5°	11.6	10.2	9.4	8.0	7.3	6.5	5.1	4.4	3.6	3.6	3.6
75°	7.3	6.5	5.8	5.1	5.1	4.4	3.6	3.6	2.9	2.9	2.9
77.5°	4.4	4.4	3.6	3.6	2.9	2.9	2.9	2.2	2.2	2.2	2.2
80°	2.9	2.9	2.2	2.2	2.2	2.2	1.5	1.5	1.5	1.5	1.5
82.5°	1.5	1.5	1.5	1.5	1.5	1.5	0.7	0.7	0.7	0.7	0.7
85°	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
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: P212696

CATALOG NUMBER: LD4B10D010 EU4B10208050 4LBSWLI1

CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	549.6	549.6	549.6	549.6	549.6	549.6	549.6	549.6	549.6	549.6	549.6
2.5°	554.0	555.4	554.0	558.3	551.1	559.0	556.1	557.6	563.4	561.2	563.4
5°	564.9	567.8	567.8	572.8	566.3	575.7	572.8	575.7	581.6	581.6	584.5
7.5°	578.6	582.3	583.7	588.8	582.3	593.9	591.0	594.6	601.9	601.9	604.1
10°	593.2	597.5	600.4	606.2	599.0	612.0	609.1	614.2	620.8	621.5	625.1
12.5°	611.3	617.1	620.8	625.8	620.8	633.8	630.9	636.0	644.7	645.4	649.8
15°	631.6	638.9	643.3	649.1	643.3	657.8	654.9	660.7	667.2	670.1	674.5
17.5°	644.7	653.4	657.1	663.6	657.8	672.3	668.7	676.7	682.5	683.9	689.0
20°	646.9	654.9	660.0	665.0	660.0	674.5	670.9	677.4	684.6	686.1	689.7
22.5°	637.5	644.0	649.8	654.2	649.8	664.3	659.2	666.5	673.0	674.5	677.4
25°	615.7	623.7	629.5	633.1	628.7	642.5	638.2	644.7	650.5	653.4	654.2
27.5°	585.2	592.4	598.3	600.4	597.5	610.6	604.8	612.8	617.9	619.3	621.5
30°	543.8	550.3	556.1	557.6	555.4	564.9	561.9	569.2	574.3	575.7	577.2
32.5°	493.0	499.5	503.1	504.6	502.4	511.9	508.9	514.8	520.6	520.6	520.6
35°	435.6	441.4	443.6	448.0	442.9	452.3	449.4	454.5	459.6	459.6	460.3
37.5°	373.9	378.3	379.7	384.1	379.0	387.7	385.5	389.9	394.2	393.5	395.0
40°	307.8	312.2	313.6	317.3	312.9	320.2	318.7	323.1	326.7	326.7	326.7
42.5°	243.9	246.9	246.9	250.5	246.1	252.7	252.7	255.6	259.2	258.5	258.5
45°	177.2	176.4	177.9	177.2	177.2	183.0	183.0	184.4	187.3	185.9	186.6
47.5°	117.6	118.3	115.4	117.6	114.7	119.8	119.8	119.8	122.0	120.5	122.0
50°	74.8	72.6	71.2	71.2	70.4	74.1	72.6	73.3	74.8	73.3	74.8
52.5°	42.1	41.4	39.9	40.7	39.2	39.9	39.9	39.9	40.7	39.9	41.4
55°	24.7	22.5	21.8	21.8	21.1	21.8	21.1	21.1	21.1	20.3	21.1
57.5°	14.5	13.8	13.1	13.1	12.3	12.3	12.3	12.3	12.3	12.3	12.3
60°	10.2	9.4	9.4	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7
62.5°	8.0	7.3	7.3	7.3	6.5	6.5	6.5	6.5	6.5	7.3	6.5
65°	5.8	5.8	5.8	5.8	5.8	5.8	5.1	5.8	5.8	5.8	5.8
67.5°	5.1	5.1	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4
70°	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
72.5°	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9
75°	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
77.5°	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
80°	1.5	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
82.5°	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
85°	0.0	0.7	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: P212696

CATALOG NUMBER: LD4B10D010 EU4B10208050 4LBSWLI1

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°	185°	190°	195°
0°	549.6	549.6	549.6	549.6	549.6	549.6	549.6	549.6	549.6	549.6	549.6
2.5°	565.6	562.7	556.1	560.5	561.2	558.3	561.9	566.3	561.9	558.3	561.2
5°	586.6	584.5	578.6	582.3	583.0	582.3	584.5	588.1	584.5	582.3	583.0
7.5°	607.7	606.2	599.7	604.1	605.5	604.1	606.2	609.9	606.2	604.1	605.5
10°	628.0	627.3	620.8	626.6	627.3	625.8	628.0	633.8	628.0	625.8	627.3
12.5°	651.3	652.7	645.4	652.0	652.7	651.3	654.2	658.5	654.2	651.3	652.7
15°	678.1	677.4	671.6	676.7	678.1	676.7	680.3	686.1	680.3	676.7	678.1
17.5°	691.2	691.2	686.8	691.9	692.6	692.6	695.5	699.9	695.5	692.6	692.6
20°	691.9	692.6	687.6	693.4	693.4	693.4	696.3	698.4	696.3	693.4	693.4
22.5°	680.3	681.0	675.9	681.0	681.0	681.7	683.2	684.6	683.2	681.7	681.0
25°	657.8	658.5	654.2	658.5	657.8	657.8	659.2	661.4	659.2	657.8	657.8
27.5°	624.4	625.1	619.3	624.4	623.7	622.9	625.1	625.8	625.1	622.9	623.7
30°	580.1	580.8	575.7	580.1	579.4	578.6	581.6	582.3	581.6	578.6	579.4
32.5°	527.1	525.6	522.0	525.6	524.9	524.9	526.4	528.6	526.4	524.9	524.9
35°	463.2	463.2	461.0	463.9	461.8	464.7	464.7	465.4	464.7	464.7	461.8
37.5°	397.9	397.9	396.4	397.9	397.1	400.0	400.0	402.2	400.0	400.0	397.1
40°	329.6	329.6	328.2	329.6	331.8	331.8	331.1	334.0	331.1	331.8	331.8
42.5°	260.6	260.6	259.9	263.6	263.6	263.6	261.4	264.3	261.4	263.6	263.6
45°	189.5	188.0	187.3	187.3	188.0	190.9	188.0	191.7	188.0	190.9	188.0
47.5°	120.5	121.2	122.0	124.2	122.7	122.0	122.0	124.2	122.0	122.0	122.7
50°	74.1	74.8	74.8	76.2	74.1	75.5	74.8	76.2	74.8	75.5	74.1
52.5°	40.7	40.7	40.7	42.1	40.7	41.4	40.7	42.1	40.7	41.4	40.7
55°	21.1	21.1	21.1	21.8	21.1	21.1	21.1	21.8	21.1	21.1	21.1
57.5°	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3
60°	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7
62.5°	7.3	6.5	6.5	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3
65°	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8
67.5°	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4
70°	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
72.5°	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9
75°	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
77.5°	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
80°	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
82.5°	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
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: P212696

CATALOG NUMBER: LD4B10D010 EU4B10208050 4LBSWLI1

CANDELA DISTRIBUTION (continued):

	200°	202.5°	205°	210°	215°	220°	225°	230°	235°	240°	245°
0°	549.6	549.6	549.6	549.6	549.6	549.6	549.6	549.6	549.6	549.6	549.6
2.5°	560.5	556.1	562.7	565.6	563.4	561.2	563.4	557.6	556.1	559.0	551.1
5°	582.3	578.6	584.5	586.6	584.5	581.6	581.6	575.7	572.8	575.7	566.3
7.5°	604.1	599.7	606.2	607.7	604.1	601.9	601.9	594.6	591.0	593.9	582.3
10°	626.6	620.8	627.3	628.0	625.1	621.5	620.8	614.2	609.1	612.0	599.0
12.5°	652.0	645.4	652.7	651.3	649.8	645.4	644.7	636.0	630.9	633.8	620.8
15°	676.7	671.6	677.4	678.1	674.5	670.1	667.2	660.7	654.9	657.8	643.3
17.5°	691.9	686.8	691.2	691.2	689.0	683.9	682.5	676.7	668.7	672.3	657.8
20°	693.4	687.6	692.6	691.9	689.7	686.1	684.6	677.4	670.9	674.5	660.0
22.5°	681.0	675.9	681.0	680.3	677.4	674.5	673.0	666.5	659.2	664.3	649.8
25°	658.5	654.2	658.5	657.8	654.2	653.4	650.5	644.7	638.2	642.5	628.7
27.5°	624.4	619.3	625.1	624.4	621.5	619.3	617.9	612.8	604.8	610.6	597.5
30°	580.1	575.7	580.8	580.1	577.2	575.7	574.3	569.2	561.9	564.9	555.4
32.5°	525.6	522.0	525.6	527.1	520.6	520.6	520.6	514.8	508.9	511.9	502.4
35°	463.9	461.0	463.2	463.2	460.3	459.6	459.6	454.5	449.4	452.3	442.9
37.5°	397.9	396.4	397.9	397.9	395.0	393.5	394.2	389.9	385.5	387.7	379.0
40°	329.6	328.2	329.6	329.6	326.7	326.7	326.7	323.1	318.7	320.2	312.9
42.5°	263.6	259.9	260.6	260.6	258.5	258.5	259.2	255.6	252.7	252.7	246.1
45°	187.3	187.3	188.0	189.5	186.6	185.9	187.3	184.4	183.0	183.0	177.2
47.5°	124.2	122.0	121.2	120.5	122.0	120.5	122.0	119.8	119.8	119.8	114.7
50°	76.2	74.8	74.8	74.1	74.8	73.3	74.8	73.3	72.6	74.1	70.4
52.5°	42.1	40.7	40.7	40.7	41.4	39.9	40.7	39.9	39.9	39.9	39.2
55°	21.8	21.1	21.1	21.1	21.1	20.3	21.1	21.1	21.1	21.8	21.1
57.5°	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3
60°	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7
62.5°	7.3	6.5	6.5	7.3	6.5	7.3	6.5	6.5	6.5	6.5	6.5
65°	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.1	5.8	5.8
67.5°	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4
70°	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
72.5°	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9
75°	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
77.5°	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
80°	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
82.5°	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
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: P212696

CATALOG NUMBER: LD4B10D010 EU4B10208050 4LBSWLI1

CANDELA DISTRIBUTION (continued):

	247.5°	250°	255°	260°	265°	270°	275°	280°	285°	290°	292.5°
0°	549.6	549.6	549.6	549.6	549.6	549.6	549.6	549.6	549.6	549.6	549.6
2.5°	558.3	554.0	555.4	554.0	550.3	551.1	548.9	548.9	544.5	543.8	544.5
5°	572.8	567.8	567.8	564.9	559.8	559.0	554.7	554.7	548.2	546.0	546.0
7.5°	588.8	583.7	582.3	578.6	572.1	569.2	563.4	561.2	553.2	549.6	548.9
10°	606.2	600.4	597.5	593.2	585.2	580.1	572.1	569.2	559.8	552.5	551.8
12.5°	625.8	620.8	617.1	611.3	602.6	595.3	585.9	580.8	568.5	560.5	556.9
15°	649.1	643.3	638.9	631.6	622.2	613.5	601.2	595.3	580.8	569.9	564.9
17.5°	663.6	657.1	653.4	644.7	635.3	625.1	611.3	604.1	587.4	573.6	568.5
20°	665.0	660.0	654.9	646.9	637.5	625.8	611.3	604.1	586.6	572.8	565.6
22.5°	654.2	649.8	644.0	637.5	627.3	615.7	601.9	595.3	578.6	564.1	556.1
25°	633.1	629.5	623.7	615.7	608.4	596.1	583.0	578.6	561.2	548.9	541.6
27.5°	600.4	598.3	592.4	585.2	579.4	569.2	556.1	552.5	537.3	526.4	520.6
30°	557.6	556.1	550.3	543.8	539.4	530.0	518.4	516.9	503.1	495.2	489.3
32.5°	504.6	503.1	499.5	493.0	489.3	481.4	470.5	471.9	460.3	453.8	451.6
35°	448.0	443.6	441.4	435.6	431.3	425.5	416.0	418.2	411.7	406.6	405.9
37.5°	384.1	379.7	378.3	373.9	370.3	365.2	357.9	360.8	357.9	355.8	357.9
40°	317.3	313.6	312.2	307.8	306.4	302.8	297.7	304.9	301.3	305.7	306.4
42.5°	250.5	246.9	246.9	243.9	241.8	241.0	237.4	246.9	246.9	254.1	257.7
45°	177.2	177.9	176.4	177.2	175.7	177.9	175.7	182.2	191.7	201.1	206.9
47.5°	117.6	115.4	118.3	117.6	116.9	119.8	122.7	129.2	140.1	153.2	161.2
50°	71.2	71.2	72.6	74.8	76.2	78.4	82.8	90.8	103.1	116.2	125.6
52.5°	40.7	39.9	41.4	42.1	45.7	48.6	53.7	62.4	74.8	89.3	98.0
55°	21.8	21.8	22.5	24.7	26.9	30.5	35.6	43.6	55.2	69.7	78.4
57.5°	13.1	13.1	13.8	14.5	16.7	19.6	24.0	30.5	40.7	53.0	61.0
60°	8.7	9.4	9.4	10.2	11.6	13.1	16.7	21.1	29.0	38.5	45.0
62.5°	7.3	7.3	7.3	8.0	8.7	9.4	11.6	15.2	20.3	27.6	32.7
65°	5.8	5.8	5.8	5.8	6.5	7.3	8.7	10.9	14.5	18.9	21.8
67.5°	4.4	4.4	5.1	5.1	5.1	5.8	6.5	8.0	10.2	13.1	15.2
70°	3.6	3.6	3.6	3.6	4.4	4.4	5.1	5.8	7.3	9.4	10.9
72.5°	2.9	2.9	2.9	2.9	3.6	3.6	3.6	4.4	5.1	6.5	7.3
75°	2.2	2.2	2.2	2.2	2.9	2.9	2.9	3.6	3.6	4.4	5.1
77.5°	1.5	1.5	1.5	1.5	2.2	2.2	2.2	2.2	2.9	2.9	2.9
80°	0.7	0.7	0.7	1.5	1.5	1.5	1.5	1.5	1.5	2.2	2.2
82.5°	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	1.5	1.5
85°	0.0	0.0	0.7	0.0	0.7	0.7	0.7	0.7	0.7	0.7	0.7
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: P212696

CATALOG NUMBER: LD4B10D010 EU4B10208050 4LBSWLI1

CANDELA DISTRIBUTION (continued):

	295°	300°	305°	310°	315°	320°	325°	330°	335°	337.5°	340°
0°	549.6	549.6	549.6	549.6	549.6	549.6	549.6	549.6	549.6	549.6	549.6
2.5°	539.4	548.9	538.0	540.2	536.5	543.1	534.4	536.5	538.0	536.5	537.3
5°	540.2	547.4	535.1	537.3	531.5	535.8	527.8	528.6	528.6	527.1	526.4
7.5°	542.3	546.7	533.6	532.9	525.6	530.0	520.6	519.1	518.4	516.2	516.9
10°	543.1	544.5	530.7	527.8	519.1	520.6	511.1	508.2	506.0	504.6	503.9
12.5°	548.2	546.7	530.7	525.6	514.8	514.0	503.9	499.5	495.9	494.4	493.7
15°	554.7	549.6	532.2	524.9	512.6	509.7	498.8	494.4	489.3	487.9	486.4
17.5°	557.6	549.6	530.7	521.3	507.5	503.9	493.0	487.2	482.1	479.9	478.5
20°	554.0	543.8	524.9	514.8	500.2	495.2	484.3	477.7	472.6	470.5	469.0
22.5°	546.0	534.4	516.2	506.0	491.5	485.0	475.6	469.7	463.9	463.2	461.0
25°	532.2	520.6	505.3	495.2	482.1	475.6	466.8	461.8	455.9	455.2	454.5
27.5°	511.9	501.0	489.3	479.9	468.3	463.2	456.7	451.6	446.5	446.5	445.1
30°	482.8	475.6	465.4	459.6	450.1	445.1	440.7	437.1	432.0	432.7	431.3
32.5°	445.8	442.2	434.9	432.0	424.7	423.3	418.9	416.0	411.7	413.1	411.7
35°	404.4	400.0	400.0	398.6	395.0	394.2	392.1	390.6	387.7	388.4	388.4
37.5°	357.2	357.2	361.6	362.3	361.6	363.0	362.3	362.3	359.4	360.8	360.1
40°	308.6	312.9	320.9	325.3	326.7	329.6	333.2	331.8	330.3	332.5	331.8
42.5°	261.4	270.1	282.4	289.7	294.8	299.1	304.2	304.2	303.5	306.4	305.7
45°	216.4	224.3	241.0	253.4	262.1	268.6	274.4	276.6	277.3	280.2	279.5
47.5°	172.1	185.9	205.5	220.0	230.9	238.9	246.9	249.8	251.9	255.6	255.6
50°	136.5	153.9	176.4	190.9	204.0	212.7	220.7	225.1	228.0	230.9	230.9
52.5°	109.6	127.8	149.6	164.8	177.2	186.6	194.6	199.7	201.8	205.5	205.5
55°	89.3	106.0	126.3	140.1	152.5	161.2	167.7	172.1	174.2	177.2	177.2
57.5°	70.4	86.4	103.1	115.4	125.6	132.1	137.9	139.4	140.1	142.3	143.0
60°	53.0	65.3	79.1	88.6	95.8	100.2	104.5	103.8	103.1	104.5	103.1
62.5°	37.8	46.5	56.6	62.4	68.2	70.4	72.6	71.2	69.7	70.4	70.4
65°	25.4	31.9	37.8	42.1	45.0	46.5	47.2	46.5	45.7	46.5	45.7
67.5°	17.4	21.1	25.4	27.6	29.8	30.5	31.2	30.5	30.5	30.5	29.8
70°	11.6	13.8	16.7	18.2	18.9	19.6	20.3	19.6	19.6	19.6	19.6
72.5°	8.0	9.4	10.2	11.6	12.3	12.3	12.3	12.3	12.3	12.3	12.3
75°	5.1	5.8	6.5	7.3	8.0	8.0	8.0	8.0	8.0	8.0	8.0
77.5°	3.6	3.6	4.4	4.4	5.1	5.1	5.1	5.1	5.1	5.1	5.1
80°	2.2	2.2	2.9	2.9	2.9	2.9	3.6	2.9	3.6	3.6	3.6
82.5°	1.5	1.5	1.5	1.5	2.2	2.2	2.2	2.2	2.2	2.2	2.2
85°	0.7	0.7	0.7	0.7	0.7	0.7	1.5	0.7	1.5	1.5	1.5
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: P212696

CATALOG NUMBER: LD4B10D010 EU4B10208050 4LBSWLI1

CANDELA DISTRIBUTION (continued):

	345°	350°	355°	360°
0°	549.6	549.6	549.6	549.6
2.5°	537.3	535.8	531.5	536.5
5°	525.6	524.2	520.6	524.2
7.5°	514.0	511.9	508.9	511.1
10°	500.2	498.8	495.2	497.3
12.5°	490.1	487.2	485.0	485.7
15°	483.5	480.6	478.5	479.2
17.5°	474.8	471.9	469.7	469.7
20°	465.4	462.5	461.0	460.3
22.5°	457.4	455.2	454.5	452.3
25°	450.1	448.7	448.7	445.8
27.5°	442.2	440.0	440.0	437.1
30°	428.4	427.6	427.6	425.5
32.5°	410.2	408.0	409.5	405.9
35°	385.5	384.1	386.2	383.3
37.5°	358.7	357.9	359.4	357.2
40°	330.3	330.3	332.5	328.9
42.5°	305.7	305.7	307.8	304.2
45°	278.8	281.0	283.2	280.2
47.5°	255.6	257.0	259.9	257.0
50°	232.3	233.8	236.0	233.1
52.5°	206.9	208.4	210.5	208.4
55°	177.9	179.3	181.5	180.1
57.5°	143.0	141.6	145.2	142.3
60°	103.8	100.9	101.6	101.6
62.5°	69.0	67.5	69.0	66.8
65°	45.7	45.0	45.0	45.0
67.5°	30.5	29.8	30.5	29.8
70°	19.6	19.6	19.6	19.6
72.5°	12.3	12.3	12.3	12.3
75°	8.0	8.0	8.0	8.0
77.5°	5.1	5.1	5.1	5.1
80°	3.6	3.6	3.6	3.6
82.5°	2.2	2.2	2.2	2.2
85°	1.5	1.5	1.5	1.5
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)