

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: P212704

Luminaire Tested: **LD4B10D010 EU4B10209730 4LBSWLI1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P212704
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 EU4B10209730 4LBSWLI1
Description: PORTFOLIO 4 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: 727.3 lumens
Efficiency: N/A
Efficacy: 72.4 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

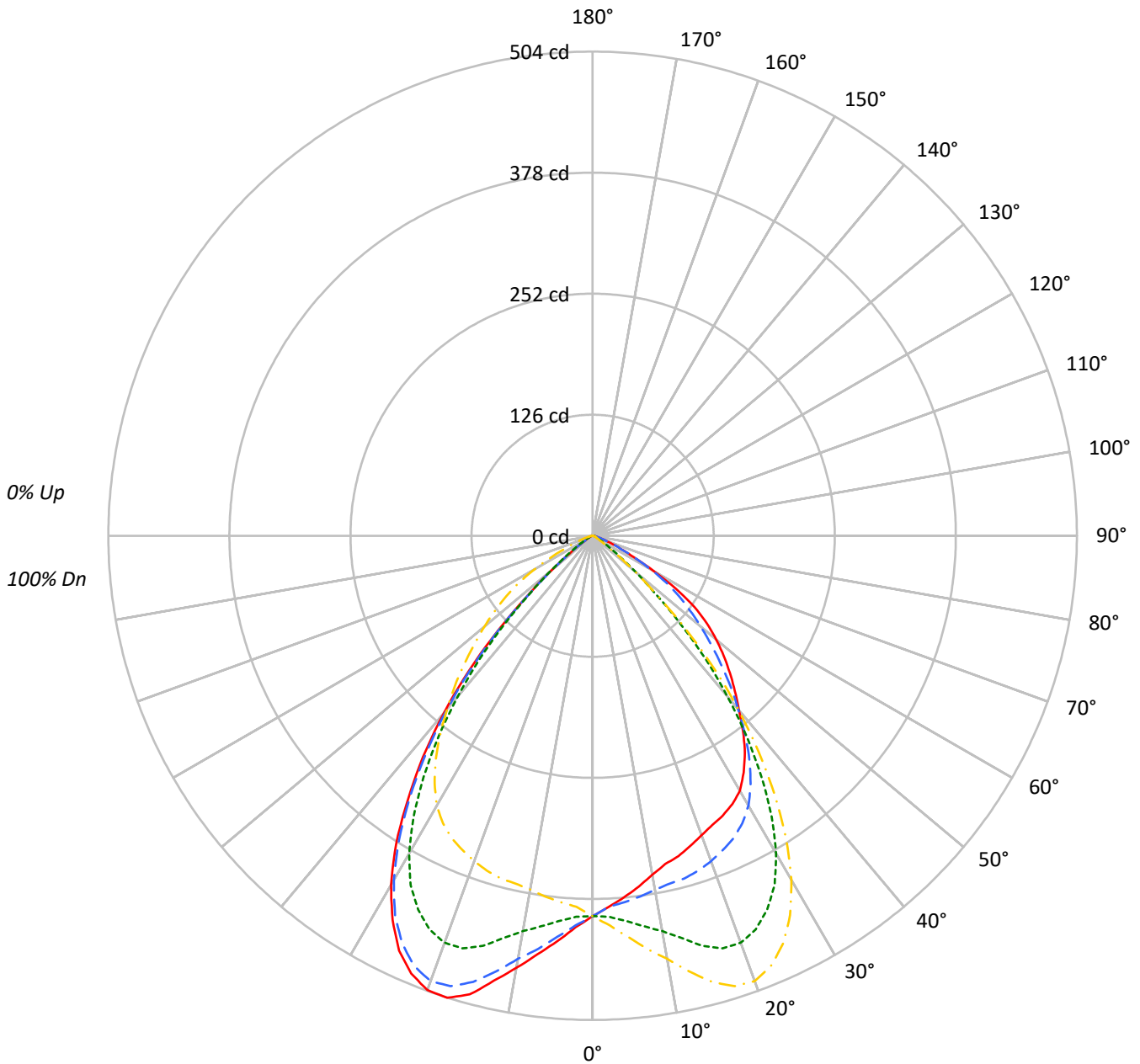
Input Watts (W): 10.05
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P212704

CATALOG NUMBER: LD4B10D010 EU4B10209730 4LBSWLI1

Luminous Intensity Polar Plot





TEST NUMBER: P212704

CATALOG NUMBER: LD4B10D010 EU4B10209730 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°	48833	48833	48833	48833
5°	46753	49861	52449	49861
10°	44877	52341	57188	52341
15°	44081	56429	63121	56429
20°	43526	59173	66038	59173
25°	43701	58440	64850	58440
30°	43654	54379	59748	54379
35°	41589	46152	50489	46152
40°	38145	35118	38741	35118
45°	35219	22345	24090	22345
50°	32219	10842	10535	10842
55°	27892	4731	3376	4731
60°	18058	2319	1554	2319
65°	9456	1518	1226	1518
70°	5085	1118	938	1118
75°	2764	1001	763	1001
80°	1847	710	355	710
85°	1415	708	0	708



TEST NUMBER: P212704

CATALOG NUMBER: LD4B10D010 EU4B10209730 4LBSWLI1

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	38.6	5.3
10°-20°	120.7	16.6
20°-30°	187.7	25.8
30°-40°	189.6	26.1
40°-50°	120.1	16.5
50°-60°	50.4	6.9
60°-70°	16.0	2.2
70°-80°	3.7	0.5
80°-90°	0.5	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°	347.1	47.7
0°-40°	536.7	73.8
0°-60°	707.1	97.2
0°-90°	727.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	727.3	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	396	396	396	396	396	
5°	378	403	424	403	378	35
15°	345	442	494	442	345	97
25°	321	429	476	429	321	148
35°	276	306	335	306	276	172
45°	202	128	138	128	202	156
55°	130	22	16	22	130	112
65°	32	5	4	5	32	36
75°	6	2	2	2	6	7
85°	1	0	0	0	1	1
90°	0	0	0	0	0	



TEST NUMBER: P212704

CATALOG NUMBER: LD4B10D010 EU4B10209730 4LBSWLI1

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	395.9	395.9	395.9	395.9	395.9	395.9	395.9	395.9	395.9	395.9	395.9
2.5°	386.5	382.8	386.0	387.0	387.0	386.5	387.6	386.5	384.9	391.2	386.5
5°	377.6	375.0	377.6	378.7	379.2	379.7	380.8	380.8	380.2	386.0	382.8
7.5°	368.2	366.6	368.7	370.3	372.4	371.9	373.4	374.0	375.0	381.8	378.7
10°	358.3	356.7	359.3	360.4	363.0	363.5	364.5	366.1	368.2	375.0	374.0
12.5°	349.9	349.4	350.9	353.0	355.7	356.2	357.2	359.8	363.0	370.3	370.8
15°	345.2	344.7	346.2	348.3	350.4	351.5	352.5	356.2	359.3	367.2	369.2
17.5°	338.4	338.4	340.0	342.1	344.7	345.7	347.3	350.9	355.1	363.0	365.6
20°	331.6	332.1	333.2	335.3	337.9	338.9	340.5	344.1	348.9	356.7	360.4
22.5°	325.8	327.4	327.9	329.5	332.1	333.7	334.2	338.4	342.6	349.4	354.1
25°	321.1	323.2	323.2	324.3	327.4	327.9	328.5	332.6	336.3	342.6	347.3
27.5°	314.9	316.9	316.9	318.5	320.6	321.7	321.7	325.3	329.0	333.7	337.3
30°	306.5	308.1	308.1	308.6	310.7	311.7	311.2	314.9	317.5	320.6	324.3
32.5°	292.4	295.0	293.9	295.5	296.6	297.6	296.6	299.7	301.8	304.9	306.0
35°	276.2	278.2	276.7	277.7	279.8	279.8	279.3	281.4	282.4	284.0	284.5
37.5°	257.3	258.9	257.8	258.4	259.4	259.9	258.9	261.0	261.0	261.5	260.5
40°	236.9	239.5	238.0	238.0	239.0	239.5	238.0	239.0	240.1	237.4	235.4
42.5°	219.1	221.8	220.2	220.2	220.2	220.7	218.6	219.1	219.1	215.5	212.3
45°	201.9	204.0	202.4	200.8	201.4	201.9	199.8	199.3	197.7	193.5	188.8
47.5°	185.1	187.2	185.1	184.1	184.1	184.1	181.5	179.9	177.8	172.1	166.3
50°	167.9	170.0	168.4	167.4	166.3	166.3	164.2	162.1	159.0	153.2	147.0
52.5°	150.1	151.7	150.1	149.1	148.0	148.0	145.4	143.8	140.2	134.4	127.6
55°	129.7	130.8	129.2	128.1	127.6	127.6	125.5	124.0	120.8	116.1	109.8
57.5°	102.5	104.6	102.0	103.0	103.0	102.5	100.9	100.4	99.4	95.2	90.5
60°	73.2	73.2	72.7	74.8	74.3	75.3	74.3	74.8	75.3	72.2	69.0
62.5°	48.1	49.7	48.6	49.7	50.7	50.7	50.2	51.3	52.3	50.7	49.2
65°	32.4	32.4	32.4	33.0	33.0	33.5	33.0	33.5	34.0	33.5	32.4
67.5°	21.4	22.0	21.4	22.0	21.4	22.0	22.0	22.0	22.5	22.0	21.4
70°	14.1	14.1	14.1	14.1	14.1	14.1	14.1	14.1	14.6	14.1	13.6
72.5°	8.9	8.9	8.9	8.9	8.9	8.9	8.9	8.9	8.9	8.9	8.9
75°	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8
77.5°	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7
80°	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.1	2.6	2.1	2.1
82.5°	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
85°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.5	1.0	0.5	0.5
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: P212704

CATALOG NUMBER: LD4B10D010 EU4B10209730 4LBSWLI1

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	395.9	395.9	395.9	395.9	395.9	395.9	395.9	395.9	395.9	395.9	395.9
2.5°	389.1	387.6	395.4	388.6	392.3	391.7	392.3	395.4	395.4	397.0	396.4
5°	387.0	385.5	394.4	389.1	393.3	393.3	394.9	399.6	399.6	402.7	403.2
7.5°	383.9	384.4	393.8	390.7	395.4	395.9	398.5	404.3	405.9	410.0	412.1
10°	380.2	382.3	392.3	391.2	397.5	398.0	403.2	410.0	412.1	417.9	421.6
12.5°	378.7	382.3	393.8	394.9	401.2	403.8	409.5	418.4	422.1	428.9	434.1
15°	378.1	383.4	395.9	399.6	406.9	410.6	418.4	428.9	433.1	441.9	448.2
17.5°	375.5	382.3	395.9	401.7	409.5	413.2	423.1	435.2	440.4	450.3	457.6
20°	370.8	378.1	391.7	399.1	407.4	412.7	422.6	435.2	440.4	450.8	459.2
22.5°	364.5	371.9	384.9	393.3	400.6	406.4	416.8	428.9	433.6	443.5	451.9
25°	356.7	364.0	375.0	383.4	390.2	395.4	404.3	416.8	420.0	429.4	438.3
27.5°	345.7	352.5	360.9	368.7	375.0	379.2	387.0	398.0	400.6	410.0	417.4
30°	331.1	335.3	342.6	347.8	352.5	356.7	362.5	372.4	373.4	381.8	388.6
32.5°	311.2	313.3	318.5	321.1	325.3	326.9	331.6	340.0	338.9	346.8	352.5
35°	287.1	288.2	288.2	291.3	292.4	292.9	296.6	301.3	299.7	306.5	310.7
37.5°	261.0	260.5	257.3	257.3	257.8	256.3	257.8	259.9	257.8	263.1	266.7
40°	234.3	231.2	225.4	222.3	220.7	220.2	217.1	219.7	214.4	218.1	220.7
42.5°	208.7	203.5	194.6	188.3	185.7	183.1	177.8	177.8	171.0	173.6	174.2
45°	182.5	173.6	161.6	155.9	149.1	144.9	138.1	131.3	126.6	128.1	126.6
47.5°	158.5	148.0	133.9	124.0	116.1	110.4	100.9	93.1	88.4	86.3	84.2
50°	137.6	127.1	110.9	98.3	90.5	83.7	74.3	65.4	59.6	56.5	54.9
52.5°	118.7	107.7	92.1	79.0	70.6	64.3	53.9	45.0	38.7	35.0	33.0
55°	100.9	91.0	76.4	64.3	56.5	50.2	39.7	31.4	25.6	22.0	19.4
57.5°	83.2	74.3	62.2	50.7	43.9	38.2	29.3	22.0	17.3	14.1	12.0
60°	63.8	57.0	47.1	38.2	32.4	27.7	20.9	15.2	12.0	9.4	8.4
62.5°	45.0	40.8	33.5	27.2	23.5	19.9	14.6	11.0	8.4	6.8	6.3
65°	30.3	27.2	23.0	18.3	15.7	13.6	10.5	7.8	6.3	5.2	4.7
67.5°	19.9	18.3	15.2	12.6	11.0	9.4	7.3	5.8	4.7	4.2	3.7
70°	13.1	12.0	9.9	8.4	7.8	6.8	5.2	4.2	3.7	3.1	3.1
72.5°	8.4	7.3	6.8	5.8	5.2	4.7	3.7	3.1	2.6	2.6	2.6
75°	5.2	4.7	4.2	3.7	3.7	3.1	2.6	2.6	2.1	2.1	2.1
77.5°	3.1	3.1	2.6	2.6	2.1	2.1	2.1	1.6	1.6	1.6	1.6
80°	2.1	2.1	1.6	1.6	1.6	1.6	1.0	1.0	1.0	1.0	1.0
82.5°	1.0	1.0	1.0	1.0	1.0	1.0	0.5	0.5	0.5	0.5	0.5
85°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
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: P212704

CATALOG NUMBER: LD4B10D010 EU4B10209730 4LBSWLI1

CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	395.9	395.9	395.9	395.9	395.9	395.9	395.9	395.9	395.9	395.9	395.9
2.5°	399.1	400.1	399.1	402.2	397.0	402.7	400.6	401.7	405.9	404.3	405.9
5°	406.9	409.0	409.0	412.7	408.0	414.8	412.7	414.8	418.9	418.9	421.0
7.5°	416.8	419.5	420.5	424.2	419.5	427.8	425.7	428.4	433.6	433.6	435.2
10°	427.3	430.4	432.5	436.7	431.5	440.9	438.8	442.5	447.2	447.7	450.3
12.5°	440.4	444.6	447.2	450.8	447.2	456.6	454.5	458.2	464.4	465.0	468.1
15°	455.0	460.3	463.4	467.6	463.4	473.9	471.8	475.9	480.7	482.7	485.9
17.5°	464.4	470.7	473.3	478.0	473.9	484.3	481.7	487.5	491.6	492.7	496.3
20°	466.0	471.8	475.4	479.1	475.4	485.9	483.3	488.0	493.2	494.3	496.9
22.5°	459.2	463.9	468.1	471.2	468.1	478.6	474.9	480.1	484.8	485.9	488.0
25°	443.5	449.3	453.5	456.1	452.9	462.9	459.7	464.4	468.6	470.7	471.2
27.5°	421.6	426.8	431.0	432.5	430.4	439.9	435.7	441.4	445.1	446.1	447.7
30°	391.7	396.4	400.6	401.7	400.1	406.9	404.8	410.0	413.7	414.8	415.8
32.5°	355.1	359.8	362.5	363.5	361.9	368.7	366.6	370.8	375.0	375.0	375.0
35°	313.8	318.0	319.6	322.7	319.0	325.8	323.7	327.4	331.1	331.1	331.6
37.5°	269.4	272.5	273.5	276.7	273.0	279.3	277.7	280.9	284.0	283.5	284.5
40°	221.8	224.9	225.9	228.6	225.4	230.7	229.6	232.7	235.4	235.4	235.4
42.5°	175.7	177.8	177.8	180.4	177.3	182.0	182.0	184.1	186.7	186.2	186.2
45°	127.6	127.1	128.1	127.6	127.6	131.8	131.8	132.8	134.9	133.9	134.4
47.5°	84.7	85.3	83.2	84.7	82.6	86.3	86.3	86.3	87.9	86.8	87.9
50°	53.9	52.3	51.3	51.3	50.7	53.3	52.3	52.8	53.9	52.8	53.9
52.5°	30.3	29.8	28.8	29.3	28.2	28.8	28.8	28.8	29.3	28.8	29.8
55°	17.8	16.2	15.7	15.7	15.2	15.7	15.2	15.2	15.2	14.6	15.2
57.5°	10.5	9.9	9.4	9.4	8.9	8.9	8.9	8.9	8.9	8.9	8.9
60°	7.3	6.8	6.8	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3
62.5°	5.8	5.2	5.2	5.2	4.7	4.7	4.7	4.7	4.7	5.2	4.7
65°	4.2	4.2	4.2	4.2	4.2	4.2	3.7	4.2	4.2	4.2	4.2
67.5°	3.7	3.7	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1
70°	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6
72.5°	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
75°	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
77.5°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
80°	1.0	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
82.5°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
85°	0.0	0.5	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: P212704

CATALOG NUMBER: LD4B10D010 EU4B10209730 4LBSWLI1

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°	185°	190°	195°
0°	395.9	395.9	395.9	395.9	395.9	395.9	395.9	395.9	395.9	395.9	395.9
2.5°	407.4	405.3	400.6	403.8	404.3	402.2	404.8	408.0	404.8	402.2	404.3
5°	422.6	421.0	416.8	419.5	420.0	419.5	421.0	423.6	421.0	419.5	420.0
7.5°	437.8	436.7	432.0	435.2	436.2	435.2	436.7	439.3	436.7	435.2	436.2
10°	452.4	451.9	447.2	451.4	451.9	450.8	452.4	456.6	452.4	450.8	451.9
12.5°	469.1	470.2	465.0	469.7	470.2	469.1	471.2	474.4	471.2	469.1	470.2
15°	488.5	488.0	483.8	487.5	488.5	487.5	490.1	494.3	490.1	487.5	488.5
17.5°	497.9	497.9	494.8	498.4	499.0	499.0	501.1	504.2	501.1	499.0	499.0
20°	498.4	499.0	495.3	499.5	499.5	499.5	501.6	503.1	501.6	499.5	499.5
22.5°	490.1	490.6	486.9	490.6	490.6	491.1	492.2	493.2	492.2	491.1	490.6
25°	473.9	474.4	471.2	474.4	473.9	473.9	474.9	476.5	474.9	473.9	473.9
27.5°	449.8	450.3	446.1	449.8	449.3	448.7	450.3	450.8	450.3	448.7	449.3
30°	417.9	418.4	414.8	417.9	417.4	416.8	418.9	419.5	418.9	416.8	417.4
32.5°	379.7	378.7	376.0	378.7	378.1	378.1	379.2	380.8	379.2	378.1	378.1
35°	333.7	333.7	332.1	334.2	332.6	334.7	334.7	335.3	334.7	334.7	332.6
37.5°	286.6	286.6	285.6	286.6	286.1	288.2	288.2	289.8	288.2	288.2	286.1
40°	237.4	237.4	236.4	237.4	239.0	239.0	238.5	240.6	238.5	239.0	239.0
42.5°	187.8	187.8	187.2	189.9	189.9	189.9	188.3	190.4	188.3	189.9	189.9
45°	136.5	135.5	134.9	134.9	135.5	137.6	135.5	138.1	135.5	137.6	135.5
47.5°	86.8	87.3	87.9	89.4	88.4	87.9	87.9	89.4	87.9	87.9	88.4
50°	53.3	53.9	53.9	54.9	53.3	54.4	53.9	54.9	53.9	54.4	53.3
52.5°	29.3	29.3	29.3	30.3	29.3	29.8	29.3	30.3	29.3	29.8	29.3
55°	15.2	15.2	15.2	15.7	15.2	15.2	15.2	15.7	15.2	15.2	15.2
57.5°	8.9	8.9	8.9	8.9	8.9	8.9	8.9	8.9	8.9	8.9	8.9
60°	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3
62.5°	5.2	4.7	4.7	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2
65°	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2
67.5°	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1
70°	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6
72.5°	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
75°	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
77.5°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
80°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
82.5°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
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: P212704

CATALOG NUMBER: LD4B10D010 EU4B10209730 4LBSWLI1

CANDELA DISTRIBUTION (continued):

	200°	202.5°	205°	210°	215°	220°	225°	230°	235°	240°	245°
0°	395.9	395.9	395.9	395.9	395.9	395.9	395.9	395.9	395.9	395.9	395.9
2.5°	403.8	400.6	405.3	407.4	405.9	404.3	405.9	401.7	400.6	402.7	397.0
5°	419.5	416.8	421.0	422.6	421.0	418.9	418.9	414.8	412.7	414.8	408.0
7.5°	435.2	432.0	436.7	437.8	435.2	433.6	433.6	428.4	425.7	427.8	419.5
10°	451.4	447.2	451.9	452.4	450.3	447.7	447.2	442.5	438.8	440.9	431.5
12.5°	469.7	465.0	470.2	469.1	468.1	465.0	464.4	458.2	454.5	456.6	447.2
15°	487.5	483.8	488.0	488.5	485.9	482.7	480.7	475.9	471.8	473.9	463.4
17.5°	498.4	494.8	497.9	497.9	496.3	492.7	491.6	487.5	481.7	484.3	473.9
20°	499.5	495.3	499.0	498.4	496.9	494.3	493.2	488.0	483.3	485.9	475.4
22.5°	490.6	486.9	490.6	490.1	488.0	485.9	484.8	480.1	474.9	478.6	468.1
25°	474.4	471.2	474.4	473.9	471.2	470.7	468.6	464.4	459.7	462.9	452.9
27.5°	449.8	446.1	450.3	449.8	447.7	446.1	445.1	441.4	435.7	439.9	430.4
30°	417.9	414.8	418.4	417.9	415.8	414.8	413.7	410.0	404.8	406.9	400.1
32.5°	378.7	376.0	378.7	379.7	375.0	375.0	375.0	370.8	366.6	368.7	361.9
35°	334.2	332.1	333.7	333.7	331.6	331.1	331.1	327.4	323.7	325.8	319.0
37.5°	286.6	285.6	286.6	286.6	284.5	283.5	284.0	280.9	277.7	279.3	273.0
40°	237.4	236.4	237.4	237.4	235.4	235.4	235.4	232.7	229.6	230.7	225.4
42.5°	189.9	187.2	187.8	187.8	186.2	186.2	186.7	184.1	182.0	182.0	177.3
45°	134.9	134.9	135.5	136.5	134.4	133.9	134.9	132.8	131.8	131.8	127.6
47.5°	89.4	87.9	87.3	86.8	87.9	86.8	87.9	86.3	86.3	86.3	82.6
50°	54.9	53.9	53.9	53.3	53.9	52.8	53.9	52.8	52.3	53.3	50.7
52.5°	30.3	29.3	29.3	29.3	29.8	28.8	29.3	28.8	28.8	28.8	28.2
55°	15.7	15.2	15.2	15.2	15.2	14.6	15.2	15.2	15.2	15.7	15.2
57.5°	8.9	8.9	8.9	8.9	8.9	8.9	8.9	8.9	8.9	8.9	8.9
60°	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3
62.5°	5.2	4.7	4.7	5.2	4.7	5.2	4.7	4.7	4.7	4.7	4.7
65°	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	3.7	4.2	4.2
67.5°	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1
70°	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6
72.5°	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
75°	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
77.5°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
80°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
82.5°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
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: P212704

CATALOG NUMBER: LD4B10D010 EU4B10209730 4LBSWLI1

CANDELA DISTRIBUTION (continued):

	247.5°	250°	255°	260°	265°	270°	275°	280°	285°	290°	292.5°
0°	395.9	395.9	395.9	395.9	395.9	395.9	395.9	395.9	395.9	395.9	395.9
2.5°	402.2	399.1	400.1	399.1	396.4	397.0	395.4	395.4	392.3	391.7	392.3
5°	412.7	409.0	409.0	406.9	403.2	402.7	399.6	399.6	394.9	393.3	393.3
7.5°	424.2	420.5	419.5	416.8	412.1	410.0	405.9	404.3	398.5	395.9	395.4
10°	436.7	432.5	430.4	427.3	421.6	417.9	412.1	410.0	403.2	398.0	397.5
12.5°	450.8	447.2	444.6	440.4	434.1	428.9	422.1	418.4	409.5	403.8	401.2
15°	467.6	463.4	460.3	455.0	448.2	441.9	433.1	428.9	418.4	410.6	406.9
17.5°	478.0	473.3	470.7	464.4	457.6	450.3	440.4	435.2	423.1	413.2	409.5
20°	479.1	475.4	471.8	466.0	459.2	450.8	440.4	435.2	422.6	412.7	407.4
22.5°	471.2	468.1	463.9	459.2	451.9	443.5	433.6	428.9	416.8	406.4	400.6
25°	456.1	453.5	449.3	443.5	438.3	429.4	420.0	416.8	404.3	395.4	390.2
27.5°	432.5	431.0	426.8	421.6	417.4	410.0	400.6	398.0	387.0	379.2	375.0
30°	401.7	400.6	396.4	391.7	388.6	381.8	373.4	372.4	362.5	356.7	352.5
32.5°	363.5	362.5	359.8	355.1	352.5	346.8	338.9	340.0	331.6	326.9	325.3
35°	322.7	319.6	318.0	313.8	310.7	306.5	299.7	301.3	296.6	292.9	292.4
37.5°	276.7	273.5	272.5	269.4	266.7	263.1	257.8	259.9	257.8	256.3	257.8
40°	228.6	225.9	224.9	221.8	220.7	218.1	214.4	219.7	217.1	220.2	220.7
42.5°	180.4	177.8	177.8	175.7	174.2	173.6	171.0	177.8	177.8	183.1	185.7
45°	127.6	128.1	127.1	127.6	126.6	128.1	126.6	131.3	138.1	144.9	149.1
47.5°	84.7	83.2	85.3	84.7	84.2	86.3	88.4	93.1	100.9	110.4	116.1
50°	51.3	51.3	52.3	53.9	54.9	56.5	59.6	65.4	74.3	83.7	90.5
52.5°	29.3	28.8	29.8	30.3	33.0	35.0	38.7	45.0	53.9	64.3	70.6
55°	15.7	15.7	16.2	17.8	19.4	22.0	25.6	31.4	39.7	50.2	56.5
57.5°	9.4	9.4	9.9	10.5	12.0	14.1	17.3	22.0	29.3	38.2	43.9
60°	6.3	6.8	6.8	7.3	8.4	9.4	12.0	15.2	20.9	27.7	32.4
62.5°	5.2	5.2	5.2	5.8	6.3	6.8	8.4	11.0	14.6	19.9	23.5
65°	4.2	4.2	4.2	4.2	4.7	5.2	6.3	7.8	10.5	13.6	15.7
67.5°	3.1	3.1	3.7	3.7	3.7	4.2	4.7	5.8	7.3	9.4	11.0
70°	2.6	2.6	2.6	2.6	3.1	3.1	3.7	4.2	5.2	6.8	7.8
72.5°	2.1	2.1	2.1	2.1	2.6	2.6	2.6	3.1	3.7	4.7	5.2
75°	1.6	1.6	1.6	1.6	2.1	2.1	2.1	2.6	2.6	3.1	3.7
77.5°	1.0	1.0	1.0	1.0	1.6	1.6	1.6	1.6	2.1	2.1	2.1
80°	0.5	0.5	0.5	1.0	1.0	1.0	1.0	1.0	1.0	1.6	1.6
82.5°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	1.0	1.0
85°	0.0	0.0	0.5	0.0	0.5	0.5	0.5	0.5	0.5	0.5	0.5
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: P212704

CATALOG NUMBER: LD4B10D010 EU4B10209730 4LBSWLI1

CANDELA DISTRIBUTION (continued):

	295°	300°	305°	310°	315°	320°	325°	330°	335°	337.5°	340°
0°	395.9	395.9	395.9	395.9	395.9	395.9	395.9	395.9	395.9	395.9	395.9
2.5°	388.6	395.4	387.6	389.1	386.5	391.2	384.9	386.5	387.6	386.5	387.0
5°	389.1	394.4	385.5	387.0	382.8	386.0	380.2	380.8	380.8	379.7	379.2
7.5°	390.7	393.8	384.4	383.9	378.7	381.8	375.0	374.0	373.4	371.9	372.4
10°	391.2	392.3	382.3	380.2	374.0	375.0	368.2	366.1	364.5	363.5	363.0
12.5°	394.9	393.8	382.3	378.7	370.8	370.3	363.0	359.8	357.2	356.2	355.7
15°	399.6	395.9	383.4	378.1	369.2	367.2	359.3	356.2	352.5	351.5	350.4
17.5°	401.7	395.9	382.3	375.5	365.6	363.0	355.1	350.9	347.3	345.7	344.7
20°	399.1	391.7	378.1	370.8	360.4	356.7	348.9	344.1	340.5	338.9	337.9
22.5°	393.3	384.9	371.9	364.5	354.1	349.4	342.6	338.4	334.2	333.7	332.1
25°	383.4	375.0	364.0	356.7	347.3	342.6	336.3	332.6	328.5	327.9	327.4
27.5°	368.7	360.9	352.5	345.7	337.3	333.7	329.0	325.3	321.7	321.7	320.6
30°	347.8	342.6	335.3	331.1	324.3	320.6	317.5	314.9	311.2	311.7	310.7
32.5°	321.1	318.5	313.3	311.2	306.0	304.9	301.8	299.7	296.6	297.6	296.6
35°	291.3	288.2	288.2	287.1	284.5	284.0	282.4	281.4	279.3	279.8	279.8
37.5°	257.3	257.3	260.5	261.0	260.5	261.5	261.0	261.0	258.9	259.9	259.4
40°	222.3	225.4	231.2	234.3	235.4	237.4	240.1	239.0	238.0	239.5	239.0
42.5°	188.3	194.6	203.5	208.7	212.3	215.5	219.1	219.1	218.6	220.7	220.2
45°	155.9	161.6	173.6	182.5	188.8	193.5	197.7	199.3	199.8	201.9	201.4
47.5°	124.0	133.9	148.0	158.5	166.3	172.1	177.8	179.9	181.5	184.1	184.1
50°	98.3	110.9	127.1	137.6	147.0	153.2	159.0	162.1	164.2	166.3	166.3
52.5°	79.0	92.1	107.7	118.7	127.6	134.4	140.2	143.8	145.4	148.0	148.0
55°	64.3	76.4	91.0	100.9	109.8	116.1	120.8	124.0	125.5	127.6	127.6
57.5°	50.7	62.2	74.3	83.2	90.5	95.2	99.4	100.4	100.9	102.5	103.0
60°	38.2	47.1	57.0	63.8	69.0	72.2	75.3	74.8	74.3	75.3	74.3
62.5°	27.2	33.5	40.8	45.0	49.2	50.7	52.3	51.3	50.2	50.7	50.7
65°	18.3	23.0	27.2	30.3	32.4	33.5	34.0	33.5	33.0	33.5	33.0
67.5°	12.6	15.2	18.3	19.9	21.4	22.0	22.5	22.0	22.0	22.0	21.4
70°	8.4	9.9	12.0	13.1	13.6	14.1	14.6	14.1	14.1	14.1	14.1
72.5°	5.8	6.8	7.3	8.4	8.9	8.9	8.9	8.9	8.9	8.9	8.9
75°	3.7	4.2	4.7	5.2	5.8	5.8	5.8	5.8	5.8	5.8	5.8
77.5°	2.6	2.6	3.1	3.1	3.7	3.7	3.7	3.7	3.7	3.7	3.7
80°	1.6	1.6	2.1	2.1	2.1	2.1	2.6	2.1	2.6	2.6	2.6
82.5°	1.0	1.0	1.0	1.0	1.6	1.6	1.6	1.6	1.6	1.6	1.6
85°	0.5	0.5	0.5	0.5	0.5	0.5	1.0	0.5	1.0	1.0	1.0
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: P212704

CATALOG NUMBER: LD4B10D010 EU4B10209730 4LBSWLI1

CANDELA DISTRIBUTION (continued):

	345°	350°	355°	360°
0°	395.9	395.9	395.9	395.9
2.5°	387.0	386.0	382.8	386.5
5°	378.7	377.6	375.0	377.6
7.5°	370.3	368.7	366.6	368.2
10°	360.4	359.3	356.7	358.3
12.5°	353.0	350.9	349.4	349.9
15°	348.3	346.2	344.7	345.2
17.5°	342.1	340.0	338.4	338.4
20°	335.3	333.2	332.1	331.6
22.5°	329.5	327.9	327.4	325.8
25°	324.3	323.2	323.2	321.1
27.5°	318.5	316.9	316.9	314.9
30°	308.6	308.1	308.1	306.5
32.5°	295.5	293.9	295.0	292.4
35°	277.7	276.7	278.2	276.2
37.5°	258.4	257.8	258.9	257.3
40°	238.0	238.0	239.5	236.9
42.5°	220.2	220.2	221.8	219.1
45°	200.8	202.4	204.0	201.9
47.5°	184.1	185.1	187.2	185.1
50°	167.4	168.4	170.0	167.9
52.5°	149.1	150.1	151.7	150.1
55°	128.1	129.2	130.8	129.7
57.5°	103.0	102.0	104.6	102.5
60°	74.8	72.7	73.2	73.2
62.5°	49.7	48.6	49.7	48.1
65°	33.0	32.4	32.4	32.4
67.5°	22.0	21.4	22.0	21.4
70°	14.1	14.1	14.1	14.1
72.5°	8.9	8.9	8.9	8.9
75°	5.8	5.8	5.8	5.8
77.5°	3.7	3.7	3.7	3.7
80°	2.6	2.6	2.6	2.6
82.5°	1.6	1.6	1.6	1.6
85°	1.0	1.0	1.0	1.0
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)