

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: P252686

Luminaire Tested: **LD6B20D010 EU6B10209730 6LBDW1H**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P252686  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-1712-453-9)  
Test Lab: INNOVATION CENTER(G1)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: io LED  
Catalog Number: LD6B20D010 EU6B10209730 6LBDW1H  
Description: PORTFOLIO 6 INCH DOUBLE WALLWASH RECESSED DOWNLIGHT, WITH HAZE TRIM  
Light Source: (1) HIGH LUMEN LED 97CRI / 3000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1420.0 lumens  
Efficiency: N/A  
Efficacy: 68.3 lumens/watt  
Spacing Criteria (0/90/45): 1.22 / 1.25 / 1.21  
Luminous Opening: Circular (Dia: 0.46' x H: 0')  
CIE Type: Direct

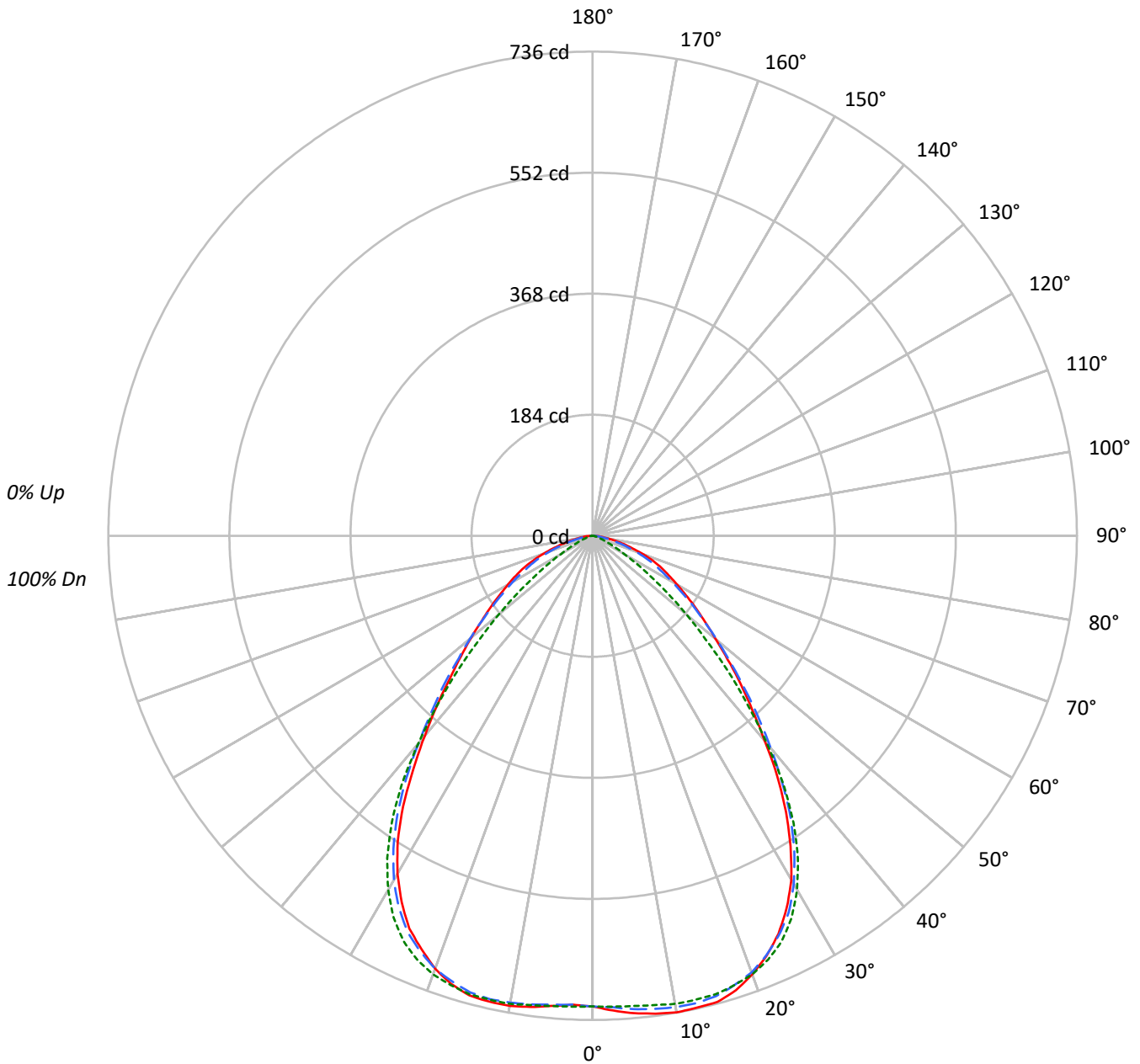
Input Watts (W): 20.8  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P252686

CATALOG NUMBER: LD6B20D010 EU6B10209730 6LBDW1H

### Luminous Intensity Polar Plot





TEST NUMBER: P252686

CATALOG NUMBER: LD6B20D010 EU6B10209730 6LBDW1H

**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	111	107	104	101	109	105	102	99	101	98	96	97	95	93	94	92	91	89								
2	103	96	91	86	101	95	89	85	91	87	83	88	84	81	85	82	80	78								
3	95	87	80	75	93	85	79	74	82	77	73	80	75	71	77	74	70	68								
4	89	78	71	65	87	77	70	65	75	69	64	73	67	63	71	66	62	61								
5	82	71	64	58	80	70	63	58	68	62	57	66	61	56	65	60	56	54								
6	77	65	57	52	75	64	57	51	63	56	51	61	55	51	59	54	50	48								
7	72	60	52	47	70	59	52	46	58	51	46	56	50	46	55	50	45	44								
8	67	55	47	42	66	54	47	42	53	47	42	52	46	42	51	45	41	40								
9	63	51	43	38	62	50	43	38	49	43	38	48	42	38	47	42	38	36								
10	59	47	40	35	58	47	40	35	46	39	35	45	39	35	44	39	35	33								

**AVERAGE LUMINANCE (cd/sqm):**

	0°	90°	180°
0°	46673	46673	46673
5°	47716	46989	46989
10°	48738	47864	48062
15°	49549	48732	48867
20°	49252	49252	48613
25°	48079	48950	47424
30°	45509	46805	44673
35°	40778	42395	39973
40°	34645	35080	33785
45°	29312	26794	28288
50°	24755	18899	24440
55°	21759	12205	21520
60°	19272	7268	19416
65°	17815	4369	17815
70°	15451	2518	15050
75°	12251	1538	11469
80°	9130	1127	8754
85°	8309	749	7560



TEST NUMBER: P252686

CATALOG NUMBER: LD6B20D010 EU6B10209730 6LBDW1H

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	68.9	4.9
10°-20°	203.9	14.4
20°-30°	306.6	21.6
30°-40°	322.3	22.7
40°-50°	240.8	17.0
50°-60°	149.9	10.6
60°-70°	85.3	6.0
70°-80°	35.1	2.5
80°-90°	7.3	0.5
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°	579.3	40.8
0°-40°	901.7	63.5
0°-60°	1292.4	91.0
0°-90°	1420.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1420.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	715	715	715	715	715	
5°	729	722	718	715	718	70
15°	734	724	722	718	724	206
25°	668	670	680	665	659	306
35°	512	525	532	517	502	318
45°	318	325	290	319	307	246
55°	191	187	107	184	189	172
65°	115	103	28	103	115	114
75°	49	38	6	37	46	53
85°	11	7	1	6	10	12
90°	0	0	0	0	0	



TEST NUMBER: P252686

CATALOG NUMBER: LD6B20D010 EU6B10209730 6LBDW1H

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	715.4	715.4	715.4	715.4	715.4	715.4	715.4	715.4	715.4	715.4	715.4
2.5°	722.5	721.5	722.5	720.5	719.5	719.5	720.5	718.5	717.5	718.5	717.5
5°	728.6	726.6	727.6	726.6	724.5	724.5	725.5	722.5	722.5	723.5	722.5
7.5°	732.6	732.6	732.6	730.6	729.6	728.6	730.6	727.6	726.6	726.6	725.5
10°	735.7	734.7	735.7	733.6	731.6	730.6	732.6	730.6	728.6	730.6	727.6
12.5°	734.7	734.7	734.7	733.6	731.6	730.6	732.6	729.6	728.6	729.6	727.6
15°	733.6	730.6	731.6	730.6	727.6	727.6	728.6	725.5	723.5	726.6	724.5
17.5°	724.5	722.5	723.5	721.5	719.5	718.5	719.5	718.5	716.4	718.5	716.4
20°	709.4	709.4	710.4	708.3	706.3	705.3	707.3	705.3	703.3	706.3	706.3
22.5°	691.1	691.1	691.1	690.1	689.1	689.1	689.1	688.1	687.1	689.1	690.1
25°	667.9	666.9	667.9	668.9	667.9	666.9	667.9	667.9	665.8	669.9	669.9
27.5°	638.5	638.5	640.5	639.5	639.5	638.5	640.5	640.5	639.5	642.6	645.6
30°	604.1	602.1	604.1	604.1	605.1	605.1	606.1	606.1	606.1	609.2	611.2
32.5°	559.6	560.6	563.6	562.6	561.6	564.7	564.7	566.7	567.7	569.7	570.7
35°	512.0	513.0	513.0	514.1	516.1	514.1	519.1	518.1	519.1	523.2	525.2
37.5°	461.4	458.4	463.5	461.4	462.4	462.4	464.5	465.5	468.5	473.6	473.6
40°	406.8	407.8	409.8	410.8	411.9	411.9	411.9	414.9	415.9	422.0	421.0
42.5°	359.2	359.2	361.3	362.3	362.3	362.3	362.3	365.3	367.3	369.4	371.4
45°	317.7	314.7	316.7	316.7	318.8	317.7	319.8	321.8	322.8	325.8	324.8
47.5°	278.3	277.3	278.3	279.3	278.3	279.3	280.3	281.3	282.3	282.3	282.3
50°	243.9	243.9	244.9	245.9	245.9	245.9	245.9	246.9	246.9	248.9	246.9
52.5°	215.5	216.6	216.6	215.5	216.6	216.6	217.6	217.6	216.6	216.6	213.5
55°	191.3	190.2	191.3	190.2	191.3	191.3	190.2	190.2	189.2	188.2	187.2
57.5°	168.0	168.0	168.0	168.0	167.0	168.0	167.0	166.0	166.0	163.9	160.9
60°	147.7	147.7	147.7	147.7	147.7	146.7	147.7	146.7	144.7	142.7	138.6
62.5°	130.5	129.5	130.5	129.5	129.5	128.5	128.5	127.5	125.5	123.5	119.4
65°	115.4	116.4	115.4	115.4	114.3	113.3	113.3	112.3	109.3	107.3	103.2
67.5°	99.2	98.2	98.2	98.2	97.1	97.1	97.1	95.1	93.1	90.1	86.0
70°	81.0	81.0	81.0	79.9	79.9	78.9	78.9	77.9	75.9	73.9	68.8
72.5°	63.8	63.8	63.8	61.7	62.7	61.7	61.7	59.7	58.7	55.7	52.6
75°	48.6	48.6	47.6	47.6	46.5	45.5	45.5	44.5	43.5	41.5	38.5
77.5°	35.4	35.4	35.4	34.4	33.4	32.4	32.4	31.4	30.4	29.3	27.3
80°	24.3	24.3	24.3	24.3	23.3	22.3	22.3	21.3	21.3	20.2	18.2
82.5°	16.2	16.2	16.2	16.2	15.2	15.2	15.2	14.2	13.2	13.2	11.1
85°	11.1	11.1	10.1	10.1	10.1	10.1	9.1	9.1	8.1	7.1	7.1
87.5°	6.1	6.1	6.1	6.1	5.1	5.1	5.1	5.1	4.0	4.0	3.0
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: P252686

CATALOG NUMBER: LD6B20D010 EU6B10209730 6LBDW1H

**CANDELA DISTRIBUTION (continued):**

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	715.4	715.4	715.4	715.4	715.4	715.4	715.4	715.4	715.4	715.4	715.4
2.5°	720.5	720.5	719.5	716.4	717.5	716.4	717.5	716.4	713.4	716.4	713.4
5°	724.5	725.5	723.5	719.5	720.5	719.5	719.5	718.5	715.4	717.5	715.4
7.5°	728.6	727.6	726.6	722.5	723.5	722.5	722.5	720.5	717.5	719.5	716.4
10°	730.6	730.6	728.6	724.5	724.5	723.5	724.5	723.5	719.5	722.5	720.5
12.5°	730.6	729.6	729.6	724.5	725.5	724.5	725.5	723.5	720.5	722.5	721.5
15°	727.6	727.6	726.6	721.5	722.5	722.5	723.5	721.5	718.5	721.5	719.5
17.5°	721.5	721.5	720.5	716.4	718.5	718.5	719.5	717.5	714.4	716.4	716.4
20°	709.4	710.4	710.4	707.3	709.4	709.4	710.4	709.4	708.3	709.4	707.3
22.5°	695.2	697.2	697.2	694.2	696.2	696.2	699.2	698.2	696.2	697.2	696.2
25°	673.9	676.0	678.0	676.0	678.0	678.0	681.0	680.0	678.0	680.0	677.0
27.5°	649.7	650.7	652.7	650.7	653.7	652.7	655.7	654.7	651.7	654.7	653.7
30°	615.2	619.3	622.3	619.3	622.3	622.3	624.4	623.3	622.3	621.3	621.3
32.5°	576.8	580.8	580.8	579.8	581.9	581.9	582.9	580.8	579.8	580.8	581.9
35°	529.2	531.3	533.3	532.3	533.3	534.3	533.3	534.3	531.3	532.3	532.3
37.5°	477.6	479.6	479.6	476.6	478.6	478.6	476.6	476.6	474.6	476.6	472.6
40°	423.0	421.0	422.0	419.9	417.9	417.9	416.9	412.9	410.8	411.9	412.9
42.5°	369.4	369.4	366.3	361.3	356.2	356.2	353.2	351.1	347.1	349.1	348.1
45°	323.8	318.8	314.7	306.6	303.6	301.6	296.5	291.4	289.4	290.4	289.4
47.5°	280.3	276.3	266.1	255.0	252.0	248.9	242.9	236.8	234.8	232.7	232.7
50°	243.9	236.8	225.7	213.5	208.5	203.4	195.3	189.2	185.2	186.2	186.2
52.5°	210.5	202.4	189.2	174.0	168.0	161.9	154.8	147.7	144.7	143.7	143.7
55°	181.1	172.0	158.9	141.7	136.6	129.5	120.4	112.3	108.3	107.3	109.3
57.5°	154.8	146.7	131.5	114.3	108.3	101.2	92.1	85.0	79.9	78.9	79.9
60°	133.6	122.4	109.3	93.1	85.0	78.9	68.8	62.7	57.7	55.7	56.7
62.5°	112.3	102.2	89.0	72.9	66.8	60.7	51.6	44.5	40.5	39.5	40.5
65°	96.1	86.0	73.9	59.7	53.6	47.6	39.5	32.4	29.3	28.3	29.3
67.5°	79.9	70.8	60.7	47.6	42.5	37.4	29.3	24.3	20.2	19.2	20.2
70°	64.8	56.7	46.5	37.4	32.4	28.3	22.3	17.2	14.2	13.2	14.2
72.5°	48.6	42.5	35.4	27.3	24.3	21.3	16.2	12.1	10.1	9.1	10.1
75°	35.4	30.4	25.3	19.2	17.2	15.2	11.1	8.1	7.1	6.1	7.1
77.5°	24.3	21.3	17.2	13.2	11.1	10.1	7.1	6.1	5.1	4.0	4.0
80°	16.2	14.2	11.1	9.1	8.1	7.1	5.1	4.0	3.0	3.0	3.0
82.5°	10.1	8.1	7.1	5.1	4.0	4.0	3.0	2.0	2.0	2.0	2.0
85°	6.1	5.1	4.0	3.0	2.0	2.0	1.0	1.0	1.0	1.0	1.0
87.5°	3.0	2.0	2.0	1.0	1.0	1.0	1.0	1.0	0.0	0.0	1.0
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: P252686

CATALOG NUMBER: LD6B20D010 EU6B10209730 6LBDW1H

**CANDELA DISTRIBUTION (continued):**

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	715.4	715.4	715.4	715.4	715.4	715.4	715.4	715.4	715.4	715.4	715.4
2.5°	715.4	713.4	713.4	714.4	715.4	716.4	714.4	713.4	713.4	716.4	714.4
5°	715.4	714.4	714.4	714.4	716.4	717.5	715.4	714.4	715.4	718.5	717.5
7.5°	718.5	716.4	717.5	717.5	718.5	720.5	718.5	717.5	718.5	721.5	719.5
10°	720.5	718.5	719.5	718.5	721.5	722.5	720.5	719.5	720.5	724.5	723.5
12.5°	721.5	720.5	720.5	719.5	722.5	723.5	721.5	720.5	721.5	724.5	723.5
15°	719.5	718.5	718.5	718.5	720.5	722.5	719.5	718.5	718.5	721.5	720.5
17.5°	715.4	713.4	713.4	713.4	714.4	715.4	712.4	711.4	710.4	713.4	712.4
20°	708.3	706.3	704.3	704.3	705.3	705.3	703.3	700.2	700.2	701.3	699.2
22.5°	695.2	694.2	692.2	691.1	693.2	692.2	688.1	685.1	684.1	685.1	683.0
25°	677.0	674.9	673.9	672.9	673.9	672.9	668.9	664.8	664.8	664.8	661.8
27.5°	651.7	649.7	648.6	648.6	649.7	647.6	643.6	639.5	637.5	637.5	634.5
30°	619.3	619.3	618.3	617.3	616.3	616.3	610.2	606.1	604.1	605.1	603.1
32.5°	579.8	578.8	577.8	574.8	575.8	574.8	569.7	566.7	563.6	561.6	560.6
35°	529.2	529.2	528.2	528.2	528.2	527.2	522.1	519.1	517.1	516.1	513.0
37.5°	473.6	472.6	471.6	471.6	471.6	471.6	468.5	465.5	465.5	464.5	462.4
40°	410.8	411.9	412.9	411.9	414.9	417.9	413.9	411.9	410.8	413.9	409.8
42.5°	350.1	349.1	354.2	355.2	355.2	360.2	361.3	362.3	361.3	363.3	363.3
45°	291.4	290.4	295.5	297.5	302.6	308.6	311.7	316.7	318.8	320.8	318.8
47.5°	235.8	239.8	243.9	248.9	253.0	263.1	269.2	274.2	276.3	279.3	279.3
50°	189.2	193.3	200.4	204.4	209.5	221.6	231.7	238.8	242.9	245.9	244.9
52.5°	145.7	152.8	161.9	166.0	173.0	187.2	198.3	206.4	211.5	214.5	215.5
55°	112.3	118.4	127.5	133.6	140.7	155.8	170.0	179.1	184.2	188.2	190.2
57.5°	83.0	90.1	100.2	105.2	113.3	130.5	142.7	153.8	159.9	164.9	166.0
60°	60.7	67.8	76.9	83.0	91.1	108.3	122.4	132.6	139.6	143.7	145.7
62.5°	43.5	50.6	59.7	65.8	72.9	88.0	102.2	112.3	119.4	124.5	127.5
65°	31.4	38.5	47.6	52.6	58.7	72.9	86.0	96.1	103.2	109.3	111.3
67.5°	23.3	28.3	36.4	41.5	47.6	58.7	69.8	78.9	86.0	91.1	93.1
70°	17.2	21.3	28.3	31.4	35.4	45.5	54.6	62.7	68.8	72.9	74.9
72.5°	12.1	15.2	20.2	23.3	26.3	34.4	41.5	47.6	51.6	55.7	57.7
75°	8.1	10.1	14.2	16.2	18.2	24.3	29.3	34.4	37.4	40.5	41.5
77.5°	5.1	7.1	10.1	11.1	13.2	16.2	20.2	23.3	25.3	27.3	29.3
80°	3.0	4.0	6.1	7.1	8.1	11.1	13.2	15.2	17.2	19.2	20.2
82.5°	2.0	3.0	4.0	4.0	5.1	6.1	8.1	10.1	11.1	12.1	13.2
85°	1.0	1.0	2.0	2.0	3.0	3.0	4.0	5.1	6.1	7.1	8.1
87.5°	1.0	1.0	1.0	1.0	2.0	2.0	3.0	3.0	3.0	4.0	4.0
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: P252686

CATALOG NUMBER: LD6B20D010 EU6B10209730 6LBDW1H

**CANDELA DISTRIBUTION (continued):**

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	715.4	715.4	715.4	715.4	715.4	715.4	715.4	715.4
2.5°	712.4	715.4	712.4	714.4	713.4	713.4	712.4	713.4
5°	715.4	719.5	715.4	718.5	716.4	716.4	716.4	717.5
7.5°	718.5	722.5	719.5	722.5	721.5	720.5	720.5	722.5
10°	721.5	724.5	722.5	725.5	724.5	723.5	723.5	725.5
12.5°	721.5	725.5	723.5	726.6	725.5	724.5	724.5	725.5
15°	718.5	723.5	720.5	723.5	722.5	721.5	721.5	723.5
17.5°	709.4	713.4	711.4	713.4	713.4	712.4	713.4	714.4
20°	697.2	700.2	698.2	700.2	700.2	698.2	699.2	700.2
22.5°	680.0	683.0	681.0	683.0	682.0	681.0	681.0	680.0
25°	658.8	662.8	659.8	661.8	659.8	657.7	657.7	658.8
27.5°	632.4	635.5	631.4	633.5	631.4	629.4	629.4	628.4
30°	598.0	599.1	596.0	598.0	596.0	595.0	593.0	593.0
32.5°	556.6	557.6	554.5	554.5	552.5	552.5	548.5	551.5
35°	508.0	509.0	508.0	507.0	503.9	502.9	501.9	501.9
37.5°	457.4	457.4	454.4	453.3	451.3	449.3	450.3	447.3
40°	405.8	404.8	401.7	402.7	401.7	398.7	397.7	396.7
42.5°	357.2	357.2	354.2	355.2	353.2	352.1	349.1	350.1
45°	314.7	314.7	311.7	311.7	310.7	307.6	308.6	306.6
47.5°	276.3	276.3	275.2	275.2	272.2	271.2	271.2	271.2
50°	242.9	242.9	242.9	242.9	241.8	240.8	239.8	240.8
52.5°	214.5	216.6	215.5	215.5	214.5	213.5	212.5	212.5
55°	189.2	190.2	190.2	191.3	190.2	189.2	190.2	189.2
57.5°	167.0	169.0	169.0	169.0	169.0	169.0	168.0	167.0
60°	147.7	148.8	148.8	149.8	149.8	149.8	148.8	148.8
62.5°	128.5	130.5	131.5	131.5	132.6	131.5	131.5	131.5
65°	113.3	115.4	116.4	115.4	116.4	116.4	115.4	115.4
67.5°	95.1	97.1	97.1	97.1	97.1	98.2	97.1	97.1
70°	76.9	78.9	77.9	78.9	78.9	78.9	78.9	78.9
72.5°	58.7	59.7	60.7	60.7	61.7	60.7	60.7	60.7
75°	42.5	44.5	44.5	44.5	44.5	45.5	45.5	45.5
77.5°	30.4	31.4	31.4	32.4	32.4	32.4	32.4	33.4
80°	21.3	21.3	22.3	22.3	23.3	23.3	23.3	23.3
82.5°	14.2	15.2	15.2	15.2	15.2	15.2	15.2	15.2
85°	8.1	9.1	9.1	9.1	9.1	10.1	10.1	10.1
87.5°	5.1	5.1	5.1	5.1	5.1	5.1	4.0	4.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



Report Generated By E9808895 / USPTCWHP6082093





— 0°-180°    - - 45°-225°    - - - - 90°-270°















(END OF REPORT)