

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: P226254

Luminaire Tested: **LD2B10D010 EU2B10WW9727 2LBSW\***

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P226254  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P14828)  
Test Lab: INNOVATION CENTER (G1)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: io LED  
Catalog Number: LD2B10D010 EU2B10WW9727 2LBSW\*  
Description: 1000 Lumen, 2inch Portfolio LED Downlight  
WALL WASH OPTIC  
WALL WASH LENSED TRIM  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 510.2 lumens  
Efficiency: N/A  
Efficacy: 49.5 lumens/watt  
Spacing Criteria (0/90/45): 1.18 / 0.79 / 1.02  
Luminous Opening: Rectangular (W 0.17' x L: 0.17' x H: 0')  
CIE Type: Direct

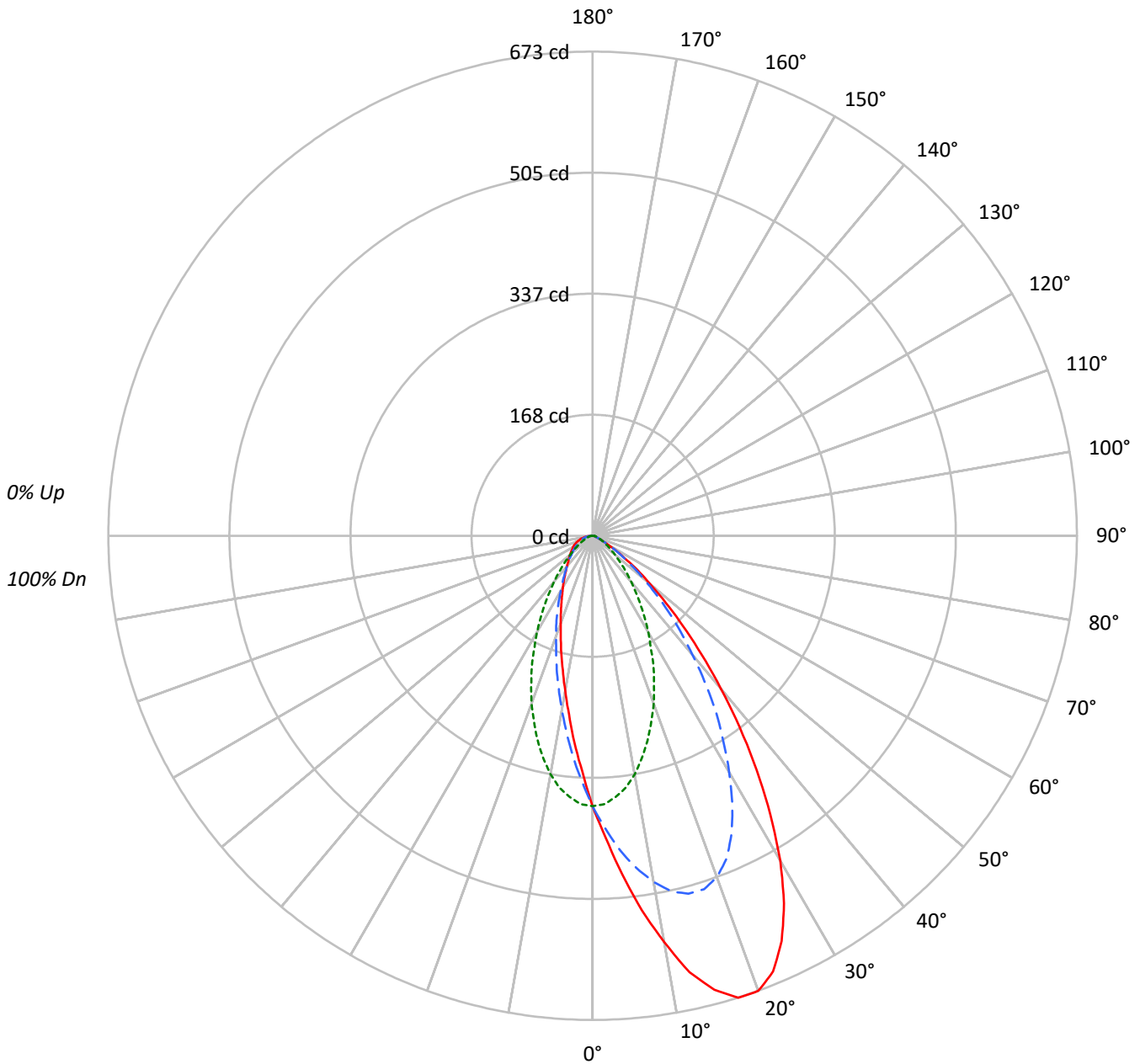
Input Watts (W): 10.3  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P226254

CATALOG NUMBER: LD2B10D010 EU2B10WW9727 2LBSW\*

### Luminous Intensity Polar Plot





TEST NUMBER: P226254

CATALOG NUMBER: LD2B10D010 EU2B10WW9727 2LBSW\*

**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	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	105	103	109	106	104	101	102	100	98	98	97	95	95	94	92	90					90			
2	105	99	94	90	102	97	92	89	94	90	87	91	87	85	88	85	83	81					81			
3	98	90	84	79	96	89	83	79	86	81	77	83	79	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	64	84	75	68	63	73	67	63	71	66	62	70	65	62	60					60			
6	81	70	63	58	79	69	63	58	68	62	57	66	61	57	65	60	56	55					55			
7	76	65	58	53	75	64	58	53	63	57	52	62	56	52	60	56	52	50					50			
8	72	60	53	49	70	60	53	49	59	53	48	58	52	48	57	52	48	46					46			
9	68	56	50	45	66	56	49	45	55	49	45	54	48	44	53	48	44	43					43			
10	64	53	46	42	63	52	46	42	51	46	41	51	45	41	50	45	41	40					40			

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

	0°	90°	180°
0°	145603	145603	145603
5°	183565	141727	112215
10°	225491	132431	86137
15°	261900	118258	67490
20°	277538	102268	53216
25°	265580	85478	43807
30°	233206	69058	36810
35°	187915	54474	31729
40°	140165	42221	28164
45°	97068	31881	25637
50°	62550	23622	24405
55°	36737	17963	23906
60°	19600	14719	24480
65°	9257	11640	24380
70°	4304	10079	24349
75°	5687	9429	26490
80°	5577	8476	25429
85°	5778	11111	22666



TEST NUMBER: P226254

CATALOG NUMBER: LD2B10D010 EU2B10WW9727 2LBSW\*

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	35.5	7.0
10°-20°	99.1	19.4
20°-30°	129.3	25.3
30°-40°	112.0	21.9
40°-50°	70.9	13.9
50°-60°	35.5	7.0
60°-70°	16.3	3.2
70°-80°	8.8	1.7
80°-90°	2.8	0.6
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°	264.0	51.7
0°-40°	375.9	73.7
0°-60°	482.3	94.5
0°-90°	510.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	510.2	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	376	376	376	376	376	
5°	472	439	364	309	289	48
15°	653	515	295	192	168	184
25°	621	457	200	115	102	281
35°	397	299	115	70	67	247
45°	177	148	58	46	47	139
55°	54	51	27	30	35	52
65°	10	11	13	22	27	12
75°	4	4	6	13	18	3
85°	1	1	2	4	5	1
90°	0	0	0	0	0	



TEST NUMBER: P226254

CATALOG NUMBER: LD2B10D010 EU2B10WW9727 2LBSW\*

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	375.9	375.9	375.9	375.9	375.9	375.9	375.9	375.9	375.9	375.9	375.9
2.5°	420.2	422.7	422.7	424.0	418.9	420.2	420.2	417.7	413.9	411.3	407.5
5°	472.1	472.1	470.8	472.1	468.3	465.8	467.0	462.0	451.8	446.8	439.2
7.5°	525.2	522.7	522.7	521.4	515.1	511.3	510.1	501.2	487.3	477.1	465.8
10°	573.3	573.3	570.8	568.3	559.4	554.4	550.6	536.6	521.4	505.0	488.5
12.5°	621.4	618.9	615.1	610.0	597.4	592.3	586.0	569.5	546.8	527.8	506.3
15°	653.1	654.3	648.0	641.7	627.8	620.2	612.6	592.3	565.7	541.7	515.1
17.5°	673.3	672.1	665.7	658.1	642.9	634.1	625.2	601.2	573.3	544.2	515.1
20°	673.3	673.3	665.7	658.1	641.7	631.6	622.7	597.4	567.0	536.6	505.0
22.5°	655.6	653.1	648.0	640.4	624.0	615.1	605.0	579.7	548.0	518.9	486.0
25°	621.4	621.4	615.1	606.2	592.3	582.2	573.3	548.0	517.6	488.5	456.9
27.5°	575.9	574.6	568.3	561.9	546.8	539.2	530.3	506.3	479.7	453.1	420.2
30°	521.4	518.9	516.4	506.3	496.1	489.8	482.2	460.7	434.1	408.8	379.7
32.5°	459.4	463.2	456.9	450.6	441.7	435.4	429.1	412.6	388.6	365.8	337.9
35°	397.4	399.9	396.1	391.1	382.2	378.4	372.1	358.2	340.5	318.9	298.7
37.5°	335.4	335.4	335.4	331.6	326.5	322.7	318.9	306.3	291.1	274.6	255.7
40°	277.2	281.0	275.9	274.6	270.8	269.6	265.8	256.9	244.3	232.9	215.2
42.5°	224.0	224.0	225.3	222.8	221.5	219.0	216.4	211.4	202.5	192.4	181.0
45°	177.2	178.5	179.7	175.9	175.9	175.9	174.7	169.6	162.0	155.7	148.1
47.5°	138.0	138.0	139.2	138.0	138.0	138.0	135.4	135.4	130.4	124.0	117.7
50°	103.8	105.0	106.3	106.3	106.3	105.0	105.0	102.5	100.0	97.5	91.1
52.5°	78.5	78.5	77.2	78.5	78.5	78.5	78.5	77.2	75.9	73.4	69.6
55°	54.4	54.4	55.7	55.7	55.7	57.0	57.0	57.0	55.7	54.4	50.6
57.5°	38.0	38.0	38.0	39.2	40.5	40.5	40.5	40.5	39.2	38.0	36.7
60°	25.3	25.3	25.3	26.6	26.6	26.6	26.6	27.8	26.6	26.6	25.3
62.5°	16.5	16.5	16.5	16.5	16.5	17.7	17.7	17.7	17.7	17.7	16.5
65°	10.1	10.1	10.1	10.1	10.1	10.1	11.4	11.4	11.4	11.4	11.4
67.5°	6.3	6.3	6.3	6.3	6.3	7.6	7.6	7.6	7.6	7.6	7.6
70°	3.8	3.8	3.8	3.8	5.1	5.1	5.1	5.1	5.1	5.1	5.1
72.5°	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8
75°	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8
77.5°	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	3.8	3.8	3.8
80°	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
82.5°	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	2.5	2.5	1.3
85°	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
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: P226254

CATALOG NUMBER: LD2B10D010 EU2B10WW9727 2LBSW\*

**CANDELA DISTRIBUTION (continued):**

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	375.9	375.9	375.9	375.9	375.9	375.9	375.9	375.9	375.9	375.9	375.9
2.5°	407.5	402.5	399.9	393.6	392.4	387.3	387.3	382.2	375.9	373.4	367.0
5°	434.1	424.0	418.9	407.5	403.7	396.1	392.4	382.2	372.1	364.5	355.6
7.5°	456.9	441.7	431.6	416.4	410.1	398.7	391.1	378.4	364.5	353.1	340.5
10°	474.6	454.4	439.2	418.9	411.3	397.4	386.0	368.3	350.6	336.7	321.5
12.5°	486.0	462.0	440.4	416.4	406.3	391.1	374.6	354.4	334.1	316.4	300.0
15°	491.1	462.0	436.6	407.5	396.1	379.7	360.7	336.7	313.9	294.9	277.2
17.5°	487.3	453.1	426.5	393.6	381.0	362.0	340.5	315.1	291.1	270.8	253.1
20°	474.6	439.2	408.8	374.6	360.7	341.7	317.7	292.4	268.3	248.1	229.1
22.5°	453.1	416.4	384.8	350.6	336.7	317.7	292.4	267.1	243.0	222.8	205.0
25°	426.5	387.3	355.6	322.7	307.6	291.1	265.8	240.5	217.7	200.0	182.3
27.5°	391.1	356.9	325.3	292.4	278.4	263.3	237.9	215.2	192.4	174.7	159.5
30°	353.1	320.2	293.6	262.0	249.3	234.1	212.6	189.8	170.9	154.4	140.5
32.5°	315.1	283.5	258.2	231.6	220.2	205.0	186.0	165.8	148.1	134.2	122.8
35°	275.9	249.3	225.3	200.0	191.1	178.5	160.7	143.0	127.8	115.2	103.8
37.5°	236.7	215.2	193.6	173.4	163.3	153.1	136.7	121.5	107.6	97.5	88.6
40°	201.2	182.3	164.5	145.5	136.7	129.1	115.2	102.5	92.4	83.5	75.9
42.5°	167.1	151.9	136.7	121.5	113.9	107.6	96.2	84.8	75.9	69.6	63.3
45°	136.7	125.3	112.6	98.7	94.9	87.3	78.5	70.9	63.3	58.2	53.2
47.5°	110.1	100.0	89.9	79.7	75.9	70.9	63.3	57.0	51.9	48.1	44.3
50°	86.1	78.5	72.1	63.3	60.8	55.7	50.6	45.6	41.8	39.2	36.7
52.5°	65.8	59.5	54.4	49.4	46.8	44.3	39.2	36.7	34.2	32.9	31.6
55°	48.1	44.3	40.5	36.7	35.4	32.9	30.4	27.8	26.6	26.6	26.6
57.5°	34.2	31.6	29.1	26.6	26.6	25.3	24.0	22.8	21.5	21.5	21.5
60°	24.0	22.8	21.5	20.3	19.0	19.0	17.7	19.0	17.7	19.0	19.0
62.5°	16.5	15.2	15.2	13.9	13.9	13.9	13.9	13.9	15.2	15.2	16.5
65°	10.1	10.1	10.1	10.1	10.1	10.1	11.4	11.4	11.4	12.7	12.7
67.5°	7.6	7.6	7.6	8.9	8.9	8.9	8.9	10.1	10.1	10.1	11.4
70°	5.1	6.3	6.3	6.3	6.3	6.3	7.6	7.6	7.6	8.9	8.9
72.5°	5.1	5.1	5.1	5.1	5.1	5.1	6.3	6.3	6.3	7.6	7.6
75°	3.8	5.1	5.1	5.1	5.1	5.1	5.1	6.3	6.3	6.3	7.6
77.5°	3.8	3.8	3.8	3.8	3.8	3.8	3.8	5.1	5.1	5.1	5.1
80°	2.5	2.5	2.5	3.8	3.8	3.8	3.8	3.8	3.8	3.8	5.1
82.5°	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	3.8
85°	1.3	1.3	1.3	1.3	1.3	1.3	1.3	2.5	1.3	2.5	2.5
87.5°	0.0	0.0	0.0	1.3	0.0	1.3	1.3	1.3	1.3	1.3	1.3
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: P226254

CATALOG NUMBER: LD2B10D010 EU2B10WW9727 2LBSW\*

**CANDELA DISTRIBUTION (continued):**

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	375.9	375.9	375.9	375.9	375.9	375.9	375.9	375.9	375.9	375.9	375.9
2.5°	364.5	360.7	362.0	354.4	355.6	350.6	348.1	344.3	341.7	337.9	339.2
5°	349.3	343.0	340.5	331.6	332.9	325.3	320.2	313.9	308.8	302.5	301.2
7.5°	330.3	320.2	316.4	307.6	306.3	296.2	289.8	282.2	275.9	269.6	267.1
10°	308.8	297.4	289.8	281.0	279.7	268.3	260.7	253.1	245.5	239.2	236.7
12.5°	286.0	273.4	264.5	254.4	251.9	241.7	232.9	225.3	217.7	211.4	207.6
15°	262.0	248.1	239.2	229.1	226.6	215.2	207.6	198.7	192.4	186.0	183.5
17.5°	237.9	224.0	213.9	205.0	202.5	191.1	182.3	175.9	168.3	164.5	160.7
20°	213.9	200.0	189.8	182.3	178.5	169.6	160.7	154.4	148.1	144.3	140.5
22.5°	189.8	177.2	168.3	160.7	158.2	149.3	141.8	135.4	131.6	126.6	124.0
25°	168.3	155.7	148.1	140.5	138.0	130.4	125.3	119.0	115.2	111.4	108.8
27.5°	148.1	136.7	129.1	122.8	121.5	115.2	108.8	105.0	101.3	98.7	97.5
30°	127.8	119.0	112.6	107.6	106.3	100.0	94.9	92.4	88.6	87.3	86.1
32.5°	112.6	103.8	98.7	93.7	92.4	87.3	84.8	81.0	78.5	77.2	77.2
35°	96.2	89.9	84.8	82.3	81.0	77.2	73.4	72.1	69.6	68.3	68.3
37.5°	82.3	77.2	73.4	69.6	69.6	67.1	64.5	63.3	62.0	62.0	60.8
40°	70.9	65.8	64.5	62.0	60.8	59.5	58.2	57.0	55.7	55.7	55.7
42.5°	59.5	57.0	54.4	53.2	53.2	51.9	50.6	50.6	49.4	50.6	50.6
45°	50.6	48.1	46.8	45.6	46.8	45.6	45.6	44.3	45.6	45.6	45.6
47.5°	43.0	41.8	40.5	40.5	40.5	40.5	40.5	40.5	40.5	41.8	41.8
50°	36.7	35.4	35.4	35.4	35.4	35.4	36.7	36.7	36.7	38.0	38.0
52.5°	30.4	30.4	30.4	30.4	31.6	31.6	32.9	32.9	34.2	34.2	35.4
55°	26.6	26.6	26.6	26.6	27.8	27.8	29.1	30.4	30.4	31.6	32.9
57.5°	22.8	22.8	24.0	24.0	25.3	25.3	26.6	27.8	27.8	29.1	30.4
60°	19.0	20.3	21.5	21.5	21.5	22.8	24.0	25.3	25.3	26.6	27.8
62.5°	16.5	17.7	19.0	19.0	19.0	20.3	21.5	22.8	22.8	24.0	25.3
65°	13.9	15.2	16.5	16.5	16.5	17.7	19.0	20.3	21.5	21.5	22.8
67.5°	12.7	12.7	13.9	13.9	15.2	16.5	16.5	17.7	19.0	20.3	21.5
70°	10.1	11.4	12.7	12.7	12.7	13.9	15.2	16.5	16.5	17.7	19.0
72.5°	8.9	8.9	10.1	10.1	11.4	12.7	12.7	13.9	15.2	15.2	16.5
75°	7.6	8.9	8.9	8.9	10.1	10.1	11.4	12.7	12.7	13.9	13.9
77.5°	6.3	6.3	7.6	7.6	7.6	8.9	8.9	10.1	10.1	11.4	11.4
80°	5.1	5.1	6.3	6.3	6.3	6.3	7.6	7.6	8.9	8.9	8.9
82.5°	3.8	3.8	3.8	3.8	5.1	5.1	5.1	5.1	6.3	6.3	6.3
85°	2.5	2.5	2.5	2.5	2.5	3.8	3.8	3.8	3.8	3.8	5.1
87.5°	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
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: P226254

CATALOG NUMBER: LD2B10D010 EU2B10WW9727 2LBSW\*

**CANDELA DISTRIBUTION (continued):**

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	375.9	375.9	375.9	375.9	375.9	375.9	375.9	375.9
2.5°	335.4	335.4	334.1	332.9	331.6	330.3	329.1	327.8
5°	297.4	298.7	293.6	292.4	292.4	289.8	291.1	288.6
7.5°	262.0	262.0	258.2	256.9	255.7	253.1	251.9	250.6
10°	230.3	229.1	226.6	225.3	222.8	221.5	221.5	219.0
12.5°	202.5	201.2	198.7	197.4	194.9	193.6	192.4	191.1
15°	178.5	177.2	174.7	173.4	172.1	169.6	169.6	168.3
17.5°	155.7	154.4	153.1	150.6	150.6	148.1	146.8	146.8
20°	138.0	136.7	134.2	132.9	132.9	131.6	131.6	129.1
22.5°	121.5	120.2	119.0	117.7	117.7	116.4	115.2	115.2
25°	107.6	106.3	105.0	105.0	103.8	102.5	102.5	102.5
27.5°	94.9	94.9	93.7	93.7	93.7	92.4	92.4	91.1
30°	84.8	84.8	83.5	83.5	83.5	82.3	83.5	82.3
32.5°	75.9	75.9	75.9	75.9	75.9	74.7	74.7	74.7
35°	68.3	68.3	68.3	68.3	68.3	67.1	68.3	67.1
37.5°	60.8	62.0	60.8	60.8	62.0	60.8	60.8	60.8
40°	55.7	55.7	55.7	55.7	55.7	55.7	55.7	55.7
42.5°	50.6	50.6	50.6	50.6	50.6	50.6	50.6	50.6
45°	45.6	46.8	46.8	46.8	46.8	46.8	46.8	46.8
47.5°	43.0	43.0	43.0	43.0	44.3	43.0	44.3	44.3
50°	39.2	39.2	39.2	40.5	40.5	40.5	40.5	40.5
52.5°	36.7	36.7	36.7	36.7	38.0	38.0	38.0	38.0
55°	32.9	34.2	34.2	34.2	35.4	35.4	35.4	35.4
57.5°	31.6	31.6	31.6	32.9	32.9	32.9	34.2	32.9
60°	29.1	29.1	30.4	30.4	30.4	31.6	31.6	31.6
62.5°	26.6	27.8	27.8	27.8	27.8	29.1	29.1	29.1
65°	24.0	25.3	25.3	25.3	26.6	26.6	26.6	26.6
67.5°	21.5	22.8	22.8	24.0	24.0	24.0	24.0	24.0
70°	19.0	20.3	20.3	20.3	21.5	21.5	21.5	21.5
72.5°	17.7	17.7	17.7	19.0	19.0	19.0	20.3	19.0
75°	15.2	16.5	16.5	16.5	16.5	16.5	17.7	17.7
77.5°	12.7	12.7	12.7	12.7	13.9	13.9	13.9	13.9
80°	10.1	10.1	10.1	10.1	11.4	11.4	11.4	11.4
82.5°	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6
85°	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1
87.5°	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
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)