

Scaled data based on original data using  
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State  
Lighting Products

Test Report Prepared for  
Cooper Lighting Solutions  
(formerly Eaton)

Brand: io LED

Report Number: P273465

Luminaire Tested: **0.05-12W-827-60-STD-UNV-AN-3F0**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P273465  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (ITL89169-GONIOPHOTOMETRY)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: io LED  
Catalog Number: 0.05-12W-827-60-STD-UNV-AN-3F0  
Description: iO LIGHTING SERIES 2.0 LINEAR LED LUMINAIRE. 60 DEGREE OPTIC.  
V2 HIGH OUTPUT  
Light Source: 2700K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1636.6 lumens  
Efficiency: N/A  
Efficacy: 46.1 lumens/watt  
Spacing Criteria (0/90/45): 1.17 / 1.26 / 1.26  
Luminous Opening: Rectangular w/ Sides (W: 2.92' x L: 0.16' x H: 0.03')  
CIE Type: Direct

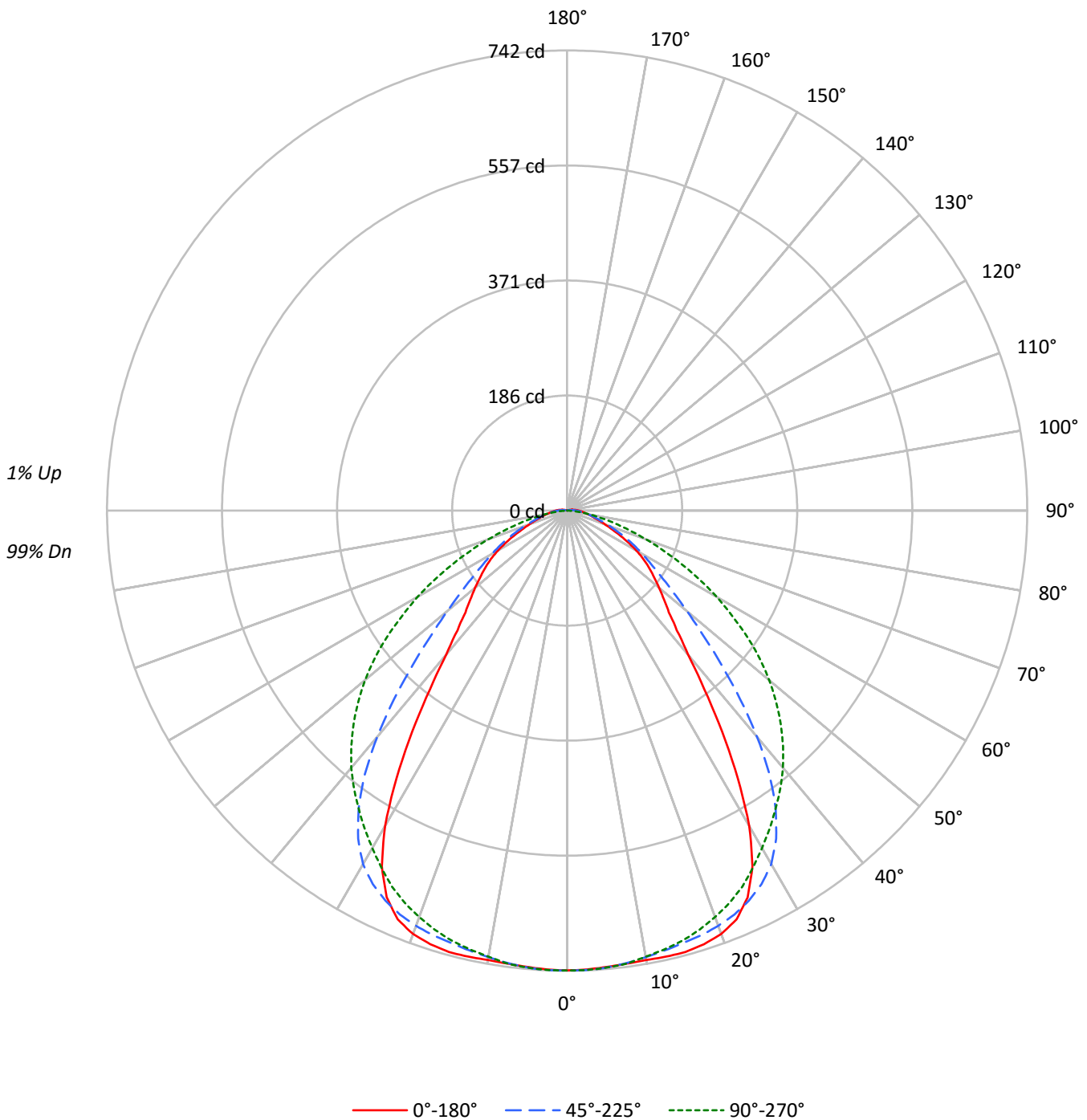
Input Watts (W): 35.5  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	101	101	101	99
1	110	106	102	99	107	104	100	97	99	96	94	95	93	91	92	90	88	86
2	101	94	88	83	99	92	87	82	89	84	80	85	82	78	82	79	76	74
3	93	84	77	71	91	82	76	70	79	74	69	77	72	68	74	70	67	64
4	86	75	68	62	84	74	67	61	72	65	60	69	64	59	67	62	59	56
5	80	68	60	54	78	67	59	54	65	58	53	63	57	52	61	56	52	50
6	74	62	54	48	72	61	53	48	59	52	47	58	51	47	56	51	46	44
7	69	57	49	43	68	56	48	43	54	47	42	53	47	42	52	46	42	40
8	65	52	44	39	63	51	44	39	50	43	38	49	43	38	48	42	38	36
9	61	48	40	35	59	47	40	35	46	40	35	45	39	35	44	39	34	33
10	57	45	37	32	56	44	37	32	43	36	32	42	36	32	41	36	32	30

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

	0°	45°	90°
0°	16949	16949	16949
5°	16713	16793	16957
10°	16608	16618	16924
15°	16713	16549	16952
20°	16694	16604	16914
25°	16142	16568	16792
30°	14178	16246	16500
35°	10924	15088	16258
40°	7963	12924	16034
45°	6455	10144	15609
50°	5774	7821	14971
55°	5241	6264	13945
60°	4609	5307	12547
65°	3721	4462	10768
70°	2987	3661	8786
75°	2525	3023	6795
80°	2317	2636	4798
85°	2324	2473	2665



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	70.4	4.3
10°-20°	204.7	12.5
20°-30°	313.3	19.1
30°-40°	338.3	20.7
40°-50°	281.4	17.2
50°-60°	207.8	12.7
60°-70°	125.9	7.7
70°-80°	60.2	3.7
80°-90°	24.1	1.5
90°-100°	8.3	0.5
100°-110°	2.0	0.1
110°-120°	0.1	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°	588.3	35.9
0°-40°	926.6	56.6
0°-60°	1415.9	86.5
0°-90°	1626.2	99.4
90°-120°	10.4	0.6
90°-150°	10.4	0.6
90°-180°	10.0	0.6
0°-180°	1636.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	742	742	742	742	742	
5°	739	740	740	740	740	70
15°	737	731	722	716	718	208
25°	688	693	694	673	669	311
35°	436	486	586	596	586	272
45°	232	253	352	483	487	183
55°	162	163	184	318	354	144
65°	93	96	104	156	203	93
75°	46	47	50	63	80	50
85°	25	25	22	18	11	22
90°	19	18	15	8	0	10
95°	13	12	8	2	0	10
105°	5	4	1	0	0	5
115°	0	0	0	0	0	0
125°	0	0	0	0	0	0
135°	0	0	0	0	0	0
145°	0	0	0	0	0	0
155°	0	0	0	0	0	0
165°	0	0	0	0	0	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	0



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	741.5	741.5	741.5	741.5	741.5	741.5	741.5	741.5	741.5	741.5	741.5
2.5°	740.6	740.6	740.6	740.6	740.6	740.7	740.9	741.1	741.3	741.5	741.5
5°	738.7	738.9	739.1	739.4	739.5	739.6	739.6	739.6	739.6	739.6	739.6
7.5°	736.8	736.8	736.8	736.8	736.8	736.7	736.6	736.3	736.1	735.9	735.9
10°	735.9	735.5	735.1	734.7	734.2	733.8	733.1	732.4	731.9	731.2	731.0
12.5°	736.8	736.0	735.2	734.3	733.5	732.3	730.9	729.5	728.0	726.6	725.9
15°	736.8	735.6	734.3	733.1	731.9	730.2	728.1	726.0	723.9	721.9	720.4
17.5°	733.1	732.1	731.0	730.0	729.0	727.3	725.0	722.7	720.4	718.1	715.6
20°	726.6	725.5	724.5	723.5	722.4	720.8	718.8	716.6	714.6	712.5	709.0
22.5°	713.5	712.8	712.2	711.6	710.9	710.0	708.8	707.6	706.3	705.0	700.9
25°	688.2	689.2	690.3	691.3	692.3	693.0	693.2	693.5	693.6	693.8	689.1
27.5°	647.1	650.4	653.7	657.1	660.3	663.9	667.6	671.4	675.1	678.9	673.9
30°	587.2	593.7	600.1	606.6	613.0	620.9	630.2	639.6	648.9	658.3	653.7
32.5°	512.4	521.8	531.1	540.5	549.8	562.6	578.8	595.0	611.3	627.4	625.2
35°	435.7	446.3	457.0	467.5	478.1	494.8	517.8	540.6	563.5	586.3	588.5
37.5°	362.8	372.5	382.4	392.1	401.9	421.1	449.8	478.5	507.1	535.8	544.5
40°	303.0	311.5	320.0	328.5	337.0	356.4	386.5	416.7	446.8	476.9	493.3
42.5°	261.8	267.6	273.4	279.3	285.1	301.9	329.8	357.6	385.4	413.3	437.4
45°	231.9	235.5	239.0	242.5	246.0	259.3	282.4	305.5	328.5	351.6	382.5
47.5°	211.3	213.2	215.1	216.9	218.8	228.3	245.3	262.4	279.4	296.4	331.8
50°	193.6	194.4	195.2	196.1	196.9	203.3	215.3	227.4	239.5	251.5	287.9
52.5°	176.7	177.4	177.9	178.6	179.3	183.4	191.0	198.8	206.5	214.1	248.8
55°	161.8	161.8	161.8	161.8	161.8	164.3	169.2	174.2	179.3	184.2	215.2
57.5°	145.9	145.7	145.5	145.2	145.0	146.6	149.9	153.3	156.5	159.9	185.9
60°	129.0	128.9	128.7	128.4	128.2	129.4	132.1	134.8	137.5	140.3	160.6
62.5°	110.3	110.5	110.7	111.0	111.2	112.4	114.7	117.0	119.3	121.6	137.2
65°	92.6	93.2	93.8	94.4	95.1	96.3	98.2	100.1	101.9	103.8	115.4
67.5°	76.7	77.3	77.9	78.5	79.2	80.3	82.0	83.6	85.3	87.0	95.7
70°	64.5	64.9	65.4	65.7	66.2	67.1	68.5	70.0	71.4	72.9	79.2
72.5°	54.2	54.4	54.6	54.9	55.1	55.7	56.8	57.8	58.8	59.8	64.4
75°	45.8	46.0	46.2	46.5	46.7	47.0	47.7	48.3	48.9	49.6	52.5
77.5°	39.3	39.5	39.6	39.9	40.1	40.3	40.5	40.8	41.0	41.1	42.6
80°	33.7	33.7	33.7	33.7	33.7	33.7	33.7	33.7	33.7	33.7	34.0
82.5°	29.0	29.0	29.0	29.0	29.0	28.9	28.7	28.4	28.2	28.1	27.7
85°	25.2	25.2	25.2	25.2	25.2	25.0	24.3	23.7	23.1	22.4	21.6
87.5°	21.5	21.5	21.5	21.5	21.5	21.2	20.6	19.9	19.4	18.7	17.5
90°	18.7	18.5	18.3	18.0	17.9	17.5	16.8	16.2	15.6	15.0	13.5
92.5°	15.9	15.7	15.5	15.2	15.1	14.6	13.7	12.9	12.1	11.2	9.7
95°	13.1	12.9	12.7	12.4	12.2	11.8	10.9	10.1	9.3	8.4	6.9
97.5°	10.3	10.1	9.9	9.6	9.4	9.0	8.1	7.3	6.5	5.6	4.6
100°	8.4	8.2	8.0	7.8	7.6	7.1	6.3	5.4	4.6	3.7	2.9
102.5°	6.5	6.4	6.2	5.9	5.7	5.2	4.4	3.6	2.7	1.9	1.5
105°	4.7	4.5	4.3	4.0	3.8	3.5	2.8	2.2	1.6	0.9	0.7
107.5°	2.8	2.6	2.4	2.2	2.0	1.7	1.2	0.8	0.4	0.0	0.0
110°	1.9	1.7	1.5	1.2	1.0	0.8	0.7	0.4	0.2	0.0	0.0



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	0.9	0.7	0.6	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0
115°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
117.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
120°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
122.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
125°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
127.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
130°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
132.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
135°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
137.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
140°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
142.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
145°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
147.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
150°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
152.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
155°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
157.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
162.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180°	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):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	741.5	741.5	741.5	741.5	741.5	741.5	741.5	741.5
2.5°	741.5	741.5	741.5	741.5	741.5	741.5	741.5	741.5
5°	739.6	739.6	739.6	739.6	739.6	739.6	739.6	739.6
7.5°	735.9	735.9	735.9	736.0	736.2	736.5	736.7	736.8
10°	730.9	730.6	730.4	730.3	730.3	730.3	730.3	730.3
12.5°	725.3	724.7	724.0	723.8	724.0	724.3	724.5	724.7
15°	719.0	717.5	716.1	715.6	716.3	716.9	717.5	718.1
17.5°	713.2	710.7	708.1	707.1	707.6	707.9	708.4	708.8
20°	705.4	702.0	698.4	696.7	696.9	697.2	697.4	697.6
22.5°	696.7	692.6	688.4	686.2	685.7	685.3	684.8	684.5
25°	684.3	679.5	674.7	671.9	671.1	670.3	669.4	668.6
27.5°	668.9	663.9	658.9	655.6	653.9	652.3	650.6	648.9
30°	649.1	644.5	640.0	636.7	634.6	632.5	630.4	628.4
32.5°	622.9	620.6	618.3	616.1	614.1	611.9	609.9	607.8
35°	590.9	593.1	595.5	595.5	593.1	590.9	588.5	586.3
37.5°	553.3	562.0	570.7	573.9	571.6	569.4	567.0	564.8
40°	509.7	526.2	542.5	549.7	547.7	545.5	543.5	541.4
42.5°	461.6	485.6	509.7	521.0	519.6	518.1	516.7	515.2
45°	413.5	444.4	475.4	490.5	489.7	488.9	488.0	487.2
47.5°	367.1	402.4	437.7	455.6	456.0	456.4	456.9	457.3
50°	324.3	360.7	397.0	416.3	418.6	420.9	423.2	425.5
52.5°	283.5	318.2	352.9	372.5	377.1	381.7	386.3	390.9
55°	246.1	277.1	308.0	327.0	333.8	340.6	347.6	354.4
57.5°	211.9	237.8	263.8	281.1	289.6	298.1	306.6	315.1
60°	181.0	201.3	221.7	237.1	247.5	257.9	268.3	278.7
62.5°	152.7	168.3	183.9	197.1	207.9	218.7	229.5	240.3
65°	127.1	138.7	150.4	161.4	171.8	182.2	192.5	202.9
67.5°	104.4	113.1	121.8	130.8	140.0	149.1	158.2	167.4
70°	85.4	91.6	97.9	104.7	112.2	119.7	127.2	134.7
72.5°	69.0	73.6	78.2	83.1	88.6	93.9	99.3	104.7
75°	55.4	58.3	61.2	64.5	68.3	72.0	75.7	79.5
77.5°	44.0	45.5	46.9	48.7	50.8	52.9	55.0	57.0
80°	34.5	34.9	35.3	35.8	36.5	37.1	37.7	38.3
82.5°	27.2	26.8	26.4	25.9	25.2	24.6	24.0	23.4
85°	20.8	19.9	19.1	17.9	16.2	14.6	12.9	11.2
87.5°	16.2	15.0	13.7	12.1	10.0	7.9	5.8	3.7
90°	12.1	10.6	9.2	7.5	5.6	3.7	1.9	0.0
92.5°	8.3	6.8	5.4	4.1	3.1	2.1	1.0	0.0
95°	5.5	4.0	2.6	1.7	1.2	0.8	0.4	0.0
97.5°	3.6	2.5	1.5	0.8	0.7	0.4	0.2	0.0
100°	2.1	1.2	0.4	0.0	0.0	0.0	0.0	0.0
102.5°	1.0	0.7	0.2	0.0	0.0	0.0	0.0	0.0
105°	0.6	0.3	0.1	0.0	0.0	0.0	0.0	0.0
107.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
110°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0





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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
115°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
117.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
120°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
122.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
125°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
127.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
130°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
132.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
135°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
137.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
140°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
142.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
145°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
147.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
150°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
152.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
155°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
157.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
162.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)