

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: SHAPER

Report Number: P368735

Luminaire Tested: **674-W-31-L3/827**

Issue Date: 11/13/2019

**Test Information**

Test Method: LM-79-08  
Report Number: P368735  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1804-721-12)  
Test Lab: INNOVATIONS CENTER  
Issue Date: 11/13/2019  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: SHAPER  
Catalog Number: 674-W-31-L3/827  
Description: 31" 674 SERIES LUMINOUS WALL SCONCE  
Light Source: 2700K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

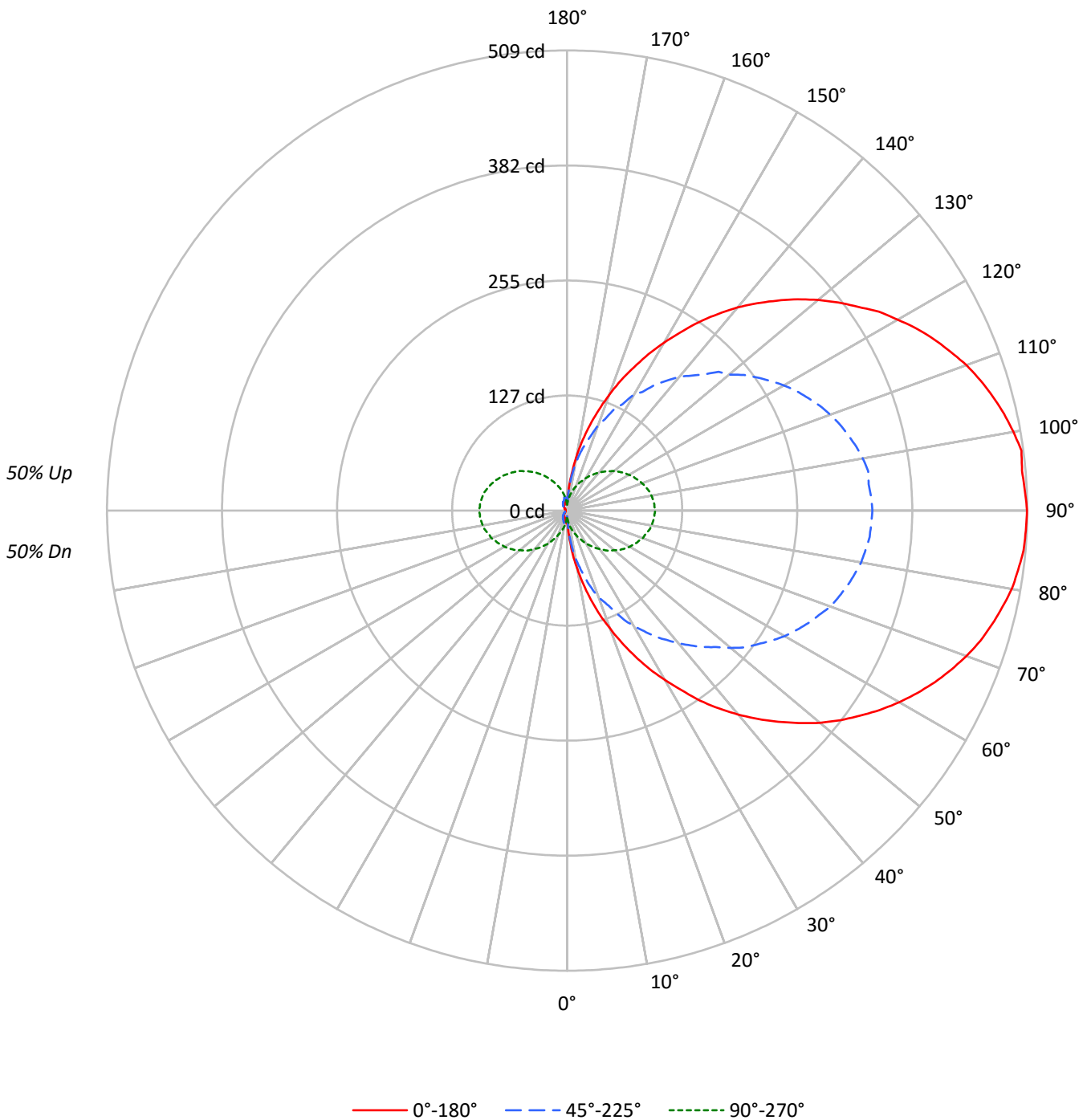
Lumens per Lamp: N/A  
Luminaire Lumens: 1627.7 lumens  
Efficiency: N/A  
Efficacy: 76.4 lumens/watt  
Spacing Criteria (0/90/45): 8.26 / 5.73 / 6.47  
Luminous Opening: Rectangular w/ Sides (W: 0.71' x L: 0.21' x H: 2.58')  
CIE Type: General Diffuse

Input Watts (W): 21.3  
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	107	107	107	107	99	99	99	99	83	83	83	69	69	69	56	56	56	50
1	92	85	79	74	84	78	72	68	64	60	56	52	49	46	40	38	36	30
2	81	71	63	55	74	65	57	51	53	47	42	42	38	34	32	29	26	21
3	73	61	51	44	66	55	47	40	45	38	33	36	30	26	27	23	20	15
4	66	53	43	35	60	48	39	32	39	32	27	31	25	21	23	19	15	11
5	60	46	36	29	54	42	33	27	34	27	22	27	21	17	20	16	12	9
6	55	41	31	24	50	37	29	22	30	23	18	24	18	14	18	14	10	7
7	50	36	27	21	46	33	25	19	27	20	16	21	16	12	16	12	9	6
8	47	33	24	18	42	30	22	16	24	18	13	19	14	10	15	10	7	5
9	43	30	21	16	39	27	19	14	22	16	12	18	13	9	13	9	6	4
10	40	27	19	14	37	25	17	12	20	14	10	16	11	8	12	8	6	3

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

	0°	90°	180°
0°	467	467	467
5°	1131	666	485
10°	1539	789	279
15°	1784	878	161
20°	1956	951	117
25°	2106	1043	88
30°	2232	1147	66
35°	2360	1223	59
40°	2458	1295	46
45°	2542	1390	28
50°	2627	1445	20
55°	2689	1526	19
60°	2752	1595	12
65°	2808	1655	11
70°	2859	1726	11
75°	2901	1775	11
80°	2942	1835	11
85°	2972	1894	11



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	2.2	0.1
10°-20°	12.6	0.8
20°-30°	30.9	1.9
30°-40°	56.4	3.5
40°-50°	86.6	5.3
50°-60°	118.9	7.3
60°-70°	149.0	9.2
70°-80°	172.6	10.6
80°-90°	185.5	11.4
90°-100°	185.7	11.4
100°-110°	172.9	10.6
110°-120°	148.7	9.1
120°-130°	118.3	7.3
130°-140°	86.3	5.3
140°-150°	56.0	3.4
150°-160°	30.6	1.9
160°-170°	12.2	0.8
170°-180°	2.1	0.1
0°-30°	45.7	2.8
0°-40°	102.2	6.3
0°-60°	307.7	18.9
0°-90°	814.8	50.1
90°-120°	507.3	31.2
90°-150°	768.0	47.2
90°-180°	813.0	49.9
0°-180°	1627.7	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	6	6	6	6	6	
5°	32	28	12	15	14	4
15°	102	77	23	14	9	30
25°	178	121	35	10	7	83
35°	257	170	49	8	6	162
45°	330	213	63	6	4	256
55°	396	258	74	4	3	355
65°	449	294	85	3	2	445
75°	487	321	92	2	2	514
85°	507	336	97	2	2	412
90°	509	338	98	2	2	278
95°	505	335	97	2	2	413
105°	488	322	92	2	2	515
115°	448	294	84	3	2	444
125°	393	257	74	4	3	353
135°	328	212	62	6	4	255
145°	255	170	48	8	6	161
155°	175	124	35	10	7	82
165°	98	74	22	13	9	29
175°	28	26	11	14	13	4
180°	6	6	6	6	6	



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4
2.5°	17.5	15.6	14.7	14.7	14.7	13.8	12.0	10.1	9.2	9.2	9.2
5°	32.2	33.1	35.0	34.0	32.2	27.6	21.2	17.5	14.7	12.0	12.0
7.5°	49.7	51.5	53.4	51.5	46.9	40.5	32.2	25.8	21.2	16.6	14.7
10°	66.2	67.2	71.8	69.0	61.6	54.3	43.2	33.1	25.8	19.3	17.5
12.5°	83.7	83.7	89.2	84.6	76.4	64.4	53.4	41.4	31.3	23.0	20.2
15°	102.1	102.1	106.7	101.2	90.1	77.3	62.6	48.8	36.8	26.7	23.0
17.5°	121.4	119.6	124.2	119.6	104.9	90.1	72.7	56.1	43.2	30.4	25.8
20°	138.9	138.9	144.4	134.3	118.7	102.1	81.9	64.4	48.8	35.0	28.5
22.5°	158.2	157.3	155.5	153.6	136.1	110.4	92.0	71.8	53.4	38.6	32.2
25°	177.5	176.6	175.7	159.1	144.4	121.4	103.9	76.4	61.6	43.2	35.0
27.5°	197.8	195.9	195.0	179.4	161.0	136.1	110.4	86.5	67.2	46.9	38.6
30°	216.2	213.4	212.5	196.9	172.0	147.2	119.6	92.0	74.5	51.5	42.3
32.5°	235.5	232.7	227.2	208.8	186.7	158.2	128.8	100.3	78.2	56.1	45.1
35°	256.6	253.9	247.4	225.4	200.5	170.2	139.8	107.6	84.6	60.7	48.8
37.5°	276.0	273.2	264.0	247.4	217.1	180.3	147.2	115.9	89.2	64.4	52.4
40°	294.4	292.5	277.8	255.7	223.5	191.3	156.4	123.3	95.7	69.0	55.2
42.5°	312.8	310.0	294.4	272.3	241.9	202.4	165.6	132.5	102.1	72.7	58.9
45°	330.2	327.5	311.8	287.0	253.9	213.4	172.9	136.1	107.6	77.3	62.6
47.5°	347.7	345.0	327.5	301.7	266.8	223.5	181.2	142.6	113.1	80.9	65.3
50°	365.2	361.5	344.0	317.4	279.6	236.4	188.6	149.9	119.6	85.5	68.1
52.5°	380.8	378.1	359.7	331.2	292.5	248.4	196.9	157.3	124.2	89.2	71.8
55°	395.6	391.9	372.6	344.0	304.5	257.6	205.1	162.8	128.8	92.9	74.5
57.5°	410.3	406.6	387.3	356.0	316.4	267.7	213.4	169.3	133.4	95.7	77.3
60°	424.1	420.4	400.2	368.9	326.6	277.8	220.8	174.8	138.0	99.3	80.0
62.5°	436.9	433.3	413.0	379.9	337.6	286.1	228.1	181.2	142.6	103.0	81.9
65°	448.9	444.3	423.1	391.0	346.8	294.4	236.4	185.8	147.2	105.8	84.6
67.5°	459.9	456.3	434.2	401.1	356.0	301.7	242.8	191.3	150.9	108.5	86.5
70°	470.1	466.4	444.3	409.3	365.2	310.0	249.3	195.9	154.5	111.3	89.2
72.5°	479.3	474.7	452.6	417.6	371.6	315.5	254.8	199.6	158.2	113.1	90.1
75°	486.6	482.0	459.0	425.0	378.1	321.0	258.5	203.3	161.0	115.9	92.0
77.5°	493.1	488.5	466.4	430.5	383.6	325.6	262.2	206.1	163.7	116.8	93.8
80°	499.5	494.0	471.9	436.0	388.2	330.2	265.8	208.8	165.6	118.7	94.7
82.5°	503.2	498.6	475.6	439.7	391.9	333.0	268.6	210.7	167.4	119.6	95.7
85°	506.9	501.3	478.3	442.5	394.6	335.8	270.4	212.5	168.3	120.5	96.6
87.5°	507.8	503.2	481.1	444.3	395.6	336.7	271.4	213.4	169.3	121.4	96.6
90°	508.7	504.1	481.1	445.2	396.5	337.6	272.3	213.4	169.3	121.4	97.5
92.5°	506.9	502.3	479.3	443.4	395.6	336.7	271.4	213.4	168.3	121.4	96.6
95°	505.0	500.4	477.4	441.5	393.7	334.8	269.5	211.6	167.4	120.5	96.6
97.5°	506.9	502.3	479.3	442.5	394.6	335.8	270.4	211.6	167.4	120.5	95.7
100°	501.3	496.7	474.7	437.9	390.0	332.1	267.7	209.7	165.6	118.7	94.7
102.5°	494.9	490.3	468.2	432.3	384.5	327.5	264.0	207.0	163.7	116.8	93.8
105°	487.5	482.9	460.9	425.0	378.1	322.0	259.4	203.3	161.0	115.0	92.0
107.5°	479.3	475.6	453.5	418.5	371.6	316.4	254.8	199.6	158.2	113.1	90.1
110°	470.1	466.4	444.3	409.3	364.3	310.0	249.3	195.0	154.5	110.4	88.3



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
112.5°	459.0	455.3	434.2	400.2	355.1	302.6	242.8	190.4	150.9	107.6	86.5
115°	448.0	444.3	423.1	390.0	346.8	294.4	234.6	185.8	147.2	104.9	83.7
117.5°	436.0	432.3	412.1	379.9	336.7	286.1	227.2	180.3	142.6	102.1	81.9
120°	422.2	418.5	399.2	368.0	325.6	276.9	219.9	174.8	138.0	98.4	79.1
122.5°	409.3	405.7	386.4	355.1	314.6	266.8	212.5	168.3	133.4	95.7	76.4
125°	392.8	390.0	371.6	342.2	302.6	256.6	204.2	161.9	127.9	92.0	73.6
127.5°	378.1	375.3	356.9	329.3	290.7	246.5	195.9	155.5	123.3	88.3	70.8
130°	362.4	360.6	343.1	315.5	278.7	233.7	187.7	149.0	117.7	84.6	68.1
132.5°	345.9	344.0	326.6	300.8	265.8	227.2	178.5	144.4	112.2	80.0	64.4
135°	328.4	326.6	310.0	285.2	253.0	212.5	171.1	136.1	107.6	76.4	61.6
137.5°	310.9	309.1	295.3	274.1	242.8	202.4	161.9	127.9	101.2	72.7	58.0
140°	293.4	291.6	279.6	254.8	223.5	193.2	150.9	123.3	94.7	68.1	55.2
142.5°	274.1	273.2	264.0	241.9	210.7	181.2	143.5	115.0	90.1	63.5	51.5
145°	254.8	253.9	246.5	227.2	200.5	170.2	133.4	106.7	82.8	58.9	47.8
147.5°	233.7	232.7	229.1	207.9	184.0	155.5	126.9	101.2	77.3	55.2	45.1
150°	214.3	213.4	212.5	195.9	172.9	149.0	116.8	92.0	70.8	51.5	41.4
152.5°	195.0	194.1	193.2	178.5	158.2	132.5	107.6	87.4	65.3	46.9	37.7
155°	174.8	173.9	177.5	161.9	142.6	124.2	97.5	80.9	59.8	42.3	35.0
157.5°	156.4	155.5	156.4	142.6	126.0	109.5	89.2	70.8	54.3	38.6	31.3
160°	136.1	136.1	141.7	131.5	115.9	100.3	80.0	63.5	46.9	34.0	28.5
162.5°	116.8	116.8	123.3	114.1	102.1	86.5	70.8	55.2	41.4	30.4	25.8
165°	98.4	98.4	106.7	98.4	87.4	74.5	60.7	46.0	35.9	26.7	22.1
167.5°	80.0	80.0	87.4	82.8	73.6	64.4	50.6	40.5	30.4	23.0	19.3
170°	62.6	62.6	68.1	66.2	58.0	51.5	42.3	32.2	24.8	18.4	16.6
172.5°	44.2	46.9	51.5	49.7	43.2	38.6	31.3	23.9	20.2	14.7	13.8
175°	28.5	29.4	32.2	32.2	28.5	25.8	20.2	16.6	13.8	11.0	11.0
177.5°	12.0	12.0	12.0	12.0	11.0	10.1	9.2	8.3	8.3	8.3	8.3
180°	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4



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**CANDELA DISTRIBUTION (continued):**

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4
2.5°	9.2	9.2	10.1	11.0	11.0	12.0	12.0	12.0	12.0	12.9
5°	12.0	12.0	12.9	13.8	14.7	14.7	13.8	13.8	13.8	13.8
7.5°	13.8	13.8	14.7	15.6	15.6	14.7	13.8	12.9	12.9	12.9
10°	15.6	14.7	15.6	16.6	15.6	14.7	12.9	12.0	12.0	12.0
12.5°	17.5	15.6	16.6	15.6	14.7	12.9	12.0	11.0	10.1	11.0
15°	20.2	16.6	15.6	14.7	13.8	12.0	11.0	10.1	9.2	9.2
17.5°	22.1	17.5	15.6	13.8	12.9	11.0	10.1	9.2	8.3	8.3
20°	23.9	18.4	14.7	12.9	12.0	10.1	9.2	9.2	8.3	8.3
22.5°	25.8	18.4	14.7	12.9	11.0	10.1	9.2	8.3	8.3	8.3
25°	28.5	19.3	14.7	12.0	10.1	10.1	9.2	8.3	7.4	7.4
27.5°	31.3	20.2	14.7	12.0	10.1	9.2	8.3	8.3	7.4	7.4
30°	33.1	21.2	14.7	11.0	9.2	8.3	8.3	7.4	7.4	6.4
32.5°	35.9	22.1	14.7	11.0	8.3	8.3	7.4	7.4	6.4	6.4
35°	38.6	23.0	14.7	10.1	8.3	7.4	7.4	6.4	6.4	6.4
37.5°	40.5	23.9	14.7	9.2	7.4	7.4	6.4	6.4	6.4	5.5
40°	43.2	24.8	13.8	9.2	6.4	6.4	5.5	5.5	5.5	5.5
42.5°	46.0	25.8	13.8	8.3	6.4	5.5	5.5	5.5	4.6	4.6
45°	47.8	26.7	13.8	8.3	5.5	5.5	4.6	4.6	4.6	3.7
47.5°	50.6	27.6	13.8	7.4	4.6	4.6	4.6	3.7	3.7	3.7
50°	52.4	28.5	13.8	7.4	4.6	3.7	3.7	3.7	2.8	2.8
52.5°	54.3	29.4	13.8	6.4	3.7	3.7	3.7	2.8	2.8	2.8
55°	57.0	29.4	13.8	6.4	3.7	2.8	2.8	2.8	2.8	2.8
57.5°	58.9	30.4	13.8	6.4	2.8	2.8	2.8	2.8	1.8	1.8
60°	60.7	31.3	13.8	5.5	2.8	2.8	2.8	2.8	1.8	1.8
62.5°	62.6	32.2	14.7	5.5	2.8	2.8	1.8	1.8	1.8	1.8
65°	64.4	33.1	14.7	5.5	2.8	1.8	1.8	1.8	1.8	1.8
67.5°	66.2	34.0	14.7	5.5	1.8	1.8	1.8	1.8	1.8	1.8
70°	68.1	35.0	14.7	5.5	1.8	1.8	1.8	1.8	1.8	1.8
72.5°	69.0	35.0	14.7	5.5	1.8	1.8	1.8	1.8	1.8	1.8
75°	69.9	35.9	15.6	5.5	1.8	1.8	1.8	1.8	1.8	1.8
77.5°	70.8	35.9	15.6	5.5	1.8	1.8	1.8	1.8	1.8	1.8
80°	71.8	36.8	15.6	5.5	1.8	1.8	1.8	1.8	1.8	1.8
82.5°	72.7	36.8	15.6	5.5	1.8	1.8	1.8	1.8	1.8	1.8
85°	73.6	37.7	15.6	5.5	1.8	1.8	1.8	1.8	1.8	1.8
87.5°	73.6	37.7	15.6	5.5	1.8	1.8	1.8	1.8	1.8	1.8
90°	73.6	37.7	15.6	5.5	1.8	1.8	1.8	1.8	1.8	1.8
92.5°	73.6	37.7	15.6	5.5	1.8	1.8	1.8	1.8	0.9	1.8
95°	73.6	37.7	15.6	5.5	1.8	1.8	1.8	1.8	1.8	1.8
97.5°	72.7	36.8	15.6	5.5	1.8	1.8	1.8	1.8	1.8	1.8
100°	71.8	36.8	15.6	5.5	1.8	1.8	1.8	1.8	1.8	1.8
102.5°	70.8	35.9	14.7	5.5	1.8	1.8	1.8	1.8	1.8	1.8
105°	69.9	35.9	14.7	5.5	1.8	1.8	1.8	1.8	1.8	1.8
107.5°	69.0	35.0	14.7	5.5	1.8	1.8	1.8	1.8	1.8	1.8
110°	67.2	34.0	14.7	5.5	1.8	1.8	1.8	1.8	1.8	1.8





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**CANDELA DISTRIBUTION (continued):**

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
112.5°	65.3	33.1	14.7	5.5	1.8	1.8	1.8	1.8	1.8	1.8
115°	64.4	33.1	14.7	5.5	2.8	1.8	1.8	1.8	1.8	1.8
117.5°	62.6	32.2	13.8	5.5	2.8	1.8	1.8	1.8	1.8	1.8
120°	59.8	31.3	13.8	5.5	2.8	2.8	2.8	1.8	1.8	1.8
122.5°	58.9	30.4	13.8	6.4	3.7	2.8	2.8	2.8	2.8	2.8
125°	56.1	29.4	13.8	6.4	3.7	3.7	2.8	2.8	2.8	2.8
127.5°	54.3	28.5	13.8	6.4	3.7	3.7	3.7	2.8	2.8	2.8
130°	52.4	27.6	13.8	7.4	4.6	3.7	3.7	3.7	3.7	3.7
132.5°	49.7	27.6	13.8	7.4	4.6	4.6	4.6	3.7	3.7	3.7
135°	47.8	26.7	13.8	8.3	5.5	5.5	4.6	4.6	3.7	3.7
137.5°	45.1	25.8	13.8	8.3	6.4	5.5	5.5	4.6	4.6	4.6
140°	43.2	24.8	13.8	9.2	6.4	6.4	5.5	5.5	5.5	5.5
142.5°	40.5	23.9	13.8	9.2	7.4	6.4	6.4	6.4	5.5	5.5
145°	37.7	23.0	13.8	10.1	8.3	7.4	7.4	6.4	6.4	6.4
147.5°	35.0	22.1	13.8	10.1	8.3	7.4	7.4	7.4	6.4	6.4
150°	33.1	21.2	14.7	11.0	9.2	8.3	8.3	7.4	6.4	6.4
152.5°	30.4	20.2	14.7	12.0	10.1	9.2	8.3	7.4	7.4	6.4
155°	28.5	19.3	14.7	12.0	10.1	9.2	9.2	8.3	7.4	7.4
157.5°	25.8	18.4	14.7	12.9	11.0	10.1	9.2	8.3	8.3	7.4
160°	23.0	17.5	14.7	12.9	11.0	10.1	9.2	8.3	7.4	7.4
162.5°	21.2	16.6	14.7	13.8	12.0	11.0	9.2	8.3	8.3	7.4
165°	19.3	16.6	15.6	14.7	12.9	12.0	10.1	9.2	9.2	9.2
167.5°	17.5	15.6	16.6	15.6	14.7	12.9	11.0	11.0	10.1	10.1
170°	14.7	14.7	15.6	16.6	15.6	13.8	12.9	12.0	11.0	11.0
172.5°	12.9	12.9	13.8	15.6	15.6	14.7	13.8	12.9	12.0	12.0
175°	11.0	11.0	12.0	12.9	13.8	13.8	13.8	13.8	12.9	12.9
177.5°	8.3	8.3	9.2	10.1	10.1	10.1	11.0	11.0	11.0	11.0
180°	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4

(END OF REPORT)