

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: P368737

Luminaire Tested: **674-W-31-L3/835**

Issue Date: 11/13/2019

**Test Information**

Test Method: LM-79-08  
Report Number: P368737  
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-L3/835  
Description: 31" 674 SERIES LUMINOUS WALL SCONCE  
Light Source: 3500K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

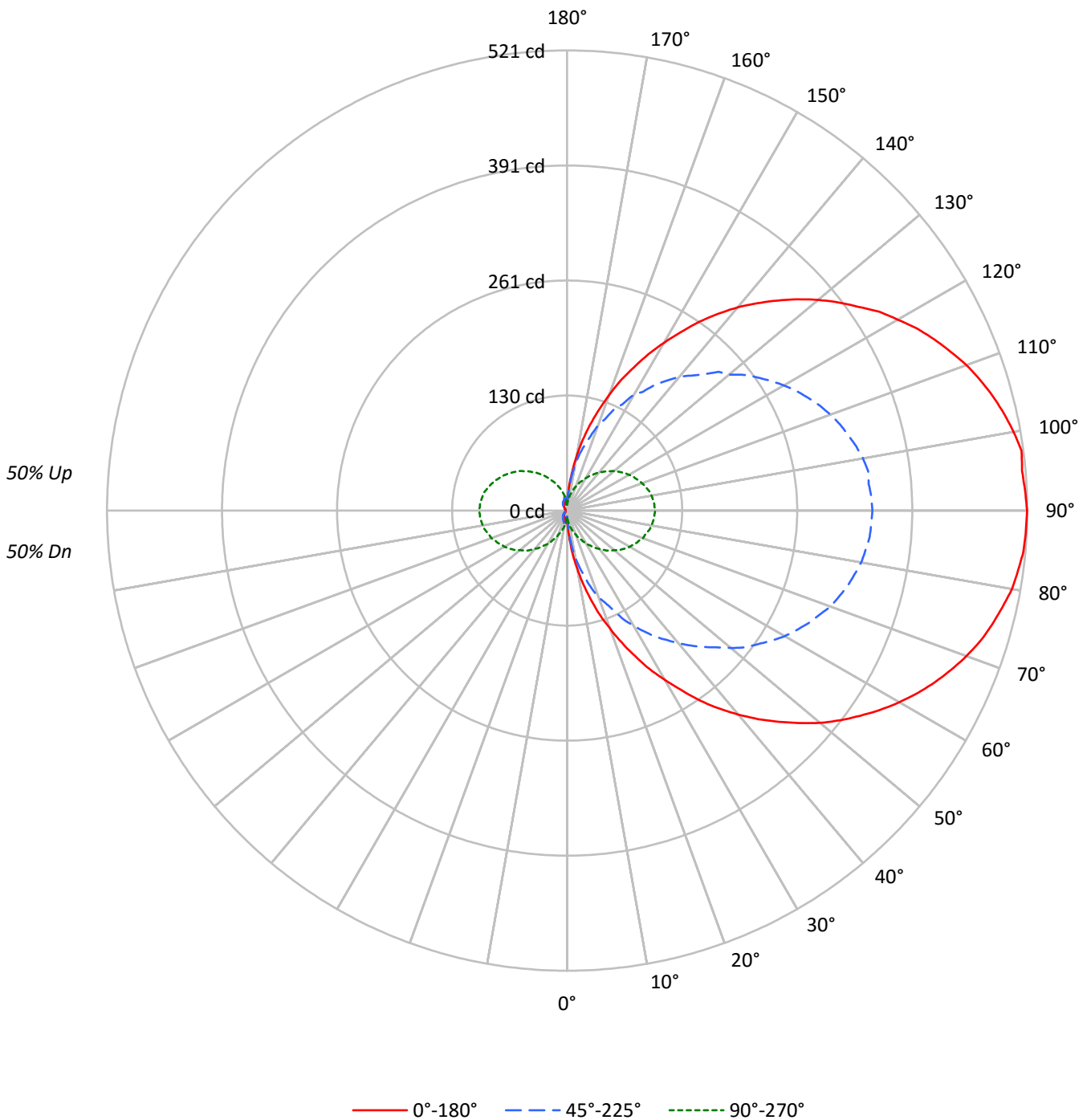
Lumens per Lamp: N/A  
Luminaire Lumens: 1666.6 lumens  
Efficiency: N/A  
Efficacy: 79.0 lumens/watt  
Spacing Criteria (0/90/45): 8.24 / 5.71 / 6.46  
Luminous Opening: Rectangular w/ Sides (W: 0.71' x L: 0.21' x H: 2.58')  
CIE Type: General Diffuse

Input Watts (W): 21.1  
Input Voltage (V): 120  
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



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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°	481	481	481
5°	1159	677	495
10°	1576	807	284
15°	1826	898	164
20°	2002	974	120
25°	2157	1067	89
30°	2284	1174	68
35°	2417	1250	61
40°	2516	1325	48
45°	2603	1421	29
50°	2689	1479	20
55°	2753	1563	19
60°	2818	1633	12
65°	2875	1694	12
70°	2927	1769	12
75°	2970	1817	11
80°	3012	1879	11
85°	3043	1939	11



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	2.3	0.1
10°-20°	12.9	0.8
20°-30°	31.7	1.9
30°-40°	57.8	3.5
40°-50°	88.7	5.3
50°-60°	121.7	7.3
60°-70°	152.6	9.2
70°-80°	176.7	10.6
80°-90°	190.0	11.4
90°-100°	190.2	11.4
100°-110°	177.0	10.6
110°-120°	152.3	9.1
120°-130°	121.2	7.3
130°-140°	88.4	5.3
140°-150°	57.4	3.4
150°-160°	31.3	1.9
160°-170°	12.5	0.8
170°-180°	2.1	0.1
0°-30°	46.8	2.8
0°-40°	104.6	6.3
0°-60°	315.0	18.9
0°-90°	834.3	50.1
90°-120°	519.5	31.2
90°-150°	786.3	47.2
90°-180°	832.0	49.9
0°-180°	1666.6	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	7	7	7	7	7	
5°	33	28	12	15	14	4
15°	104	79	24	14	9	31
25°	182	124	36	10	8	85
35°	263	174	50	8	7	166
45°	338	218	64	6	4	263
55°	405	264	76	4	3	364
65°	460	301	87	3	2	456
75°	498	329	94	2	2	526
85°	519	344	99	2	2	422
90°	521	346	100	2	2	285
95°	517	343	99	2	2	423
105°	499	330	94	2	2	527
115°	459	301	86	3	2	455
125°	402	263	75	4	3	362
135°	336	218	63	6	4	261
145°	261	174	49	8	7	164
155°	179	127	36	10	8	84
165°	101	76	23	13	9	30
175°	29	26	11	14	13	4
180°	7	7	7	7	7	



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6
2.5°	17.9	16.0	15.1	15.1	15.1	14.1	12.2	10.4	9.4	9.4	9.4
5°	33.0	33.9	35.8	34.8	33.0	28.3	21.7	17.9	15.1	12.2	12.2
7.5°	50.9	52.7	54.6	52.7	48.0	41.4	33.0	26.4	21.7	17.0	15.1
10°	67.8	68.8	73.5	70.6	63.1	55.6	44.3	33.9	26.4	19.8	17.9
12.5°	85.7	85.7	91.4	86.6	78.2	65.9	54.6	42.4	32.0	23.5	20.7
15°	104.5	104.5	109.3	103.6	92.3	79.1	64.0	49.9	37.7	27.3	23.5
17.5°	124.3	122.4	127.1	122.4	107.4	92.3	74.4	57.5	44.3	31.1	26.4
20°	142.2	142.2	147.9	137.5	121.5	104.5	83.8	65.9	49.9	35.8	29.2
22.5°	162.0	161.1	159.2	157.3	139.4	113.0	94.2	73.5	54.6	39.6	33.0
25°	181.8	180.8	179.9	162.9	147.9	124.3	106.4	78.2	63.1	44.3	35.8
27.5°	202.5	200.6	199.7	183.7	164.8	139.4	113.0	88.5	68.8	48.0	39.6
30°	221.3	218.5	217.6	201.5	176.1	150.7	122.4	94.2	76.3	52.7	43.3
32.5°	241.1	238.3	232.6	213.8	191.2	162.0	131.9	102.7	80.1	57.5	46.1
35°	262.8	259.9	253.3	230.7	205.3	174.2	143.2	110.2	86.6	62.2	49.9
37.5°	282.5	279.7	270.3	253.3	222.3	184.6	150.7	118.7	91.4	65.9	53.7
40°	301.4	299.5	284.4	261.8	228.9	195.9	160.1	126.2	97.9	70.6	56.5
42.5°	320.2	317.4	301.4	278.8	247.7	207.2	169.5	135.6	104.5	74.4	60.3
45°	338.1	335.3	319.3	293.8	259.9	218.5	177.1	139.4	110.2	79.1	64.0
47.5°	356.0	353.2	335.3	308.9	273.1	228.9	185.5	146.0	115.8	82.9	66.9
50°	373.9	370.1	352.2	324.9	286.3	242.0	193.1	153.5	122.4	87.6	69.7
52.5°	389.9	387.1	368.3	339.1	299.5	254.3	201.5	161.1	127.1	91.4	73.5
55°	405.0	401.2	381.4	352.2	311.7	263.7	210.0	166.7	131.9	95.1	76.3
57.5°	420.1	416.3	396.5	364.5	324.0	274.1	218.5	173.3	136.6	97.9	79.1
60°	434.2	430.4	409.7	377.7	334.3	284.4	226.0	178.9	141.3	101.7	81.9
62.5°	447.4	443.6	422.9	389.0	345.6	292.9	233.6	185.5	146.0	105.5	83.8
65°	459.6	454.9	433.2	400.3	355.1	301.4	242.0	190.2	150.7	108.3	86.6
67.5°	470.9	467.1	444.5	410.6	364.5	308.9	248.6	195.9	154.5	111.1	88.5
70°	481.3	477.5	454.9	419.1	373.9	317.4	255.2	200.6	158.2	114.0	91.4
72.5°	490.7	486.0	463.4	427.6	380.5	323.0	260.9	204.4	162.0	115.8	92.3
75°	498.2	493.5	470.0	435.1	387.1	328.7	264.7	208.1	164.8	118.7	94.2
77.5°	504.8	500.1	477.5	440.8	392.7	333.4	268.4	211.0	167.6	119.6	96.1
80°	511.4	505.8	483.2	446.4	397.4	338.1	272.2	213.8	169.5	121.5	97.0
82.5°	515.2	510.5	486.9	450.2	401.2	340.9	275.0	215.7	171.4	122.4	97.9
85°	518.9	513.3	489.7	453.0	404.0	343.8	276.9	217.6	172.4	123.4	98.9
87.5°	519.9	515.2	492.6	454.9	405.0	344.7	277.8	218.5	173.3	124.3	98.9
90°	520.8	516.1	492.6	455.8	405.9	345.6	278.8	218.5	173.3	124.3	99.8
92.5°	518.9	514.2	490.7	454.0	405.0	344.7	277.8	218.5	172.4	124.3	98.9
95°	517.1	512.3	488.8	452.1	403.1	342.8	276.0	216.6	171.4	123.4	98.9
97.5°	518.9	514.2	490.7	453.0	404.0	343.8	276.9	216.6	171.4	123.4	97.9
100°	513.3	508.6	486.0	448.3	399.3	340.0	274.1	214.7	169.5	121.5	97.0
102.5°	506.7	502.0	479.4	442.7	393.7	335.3	270.3	211.9	167.6	119.6	96.1
105°	499.2	494.5	471.9	435.1	387.1	329.6	265.6	208.1	164.8	117.7	94.2
107.5°	490.7	486.9	464.3	428.5	380.5	324.0	260.9	204.4	162.0	115.8	92.3
110°	481.3	477.5	454.9	419.1	373.0	317.4	255.2	199.7	158.2	113.0	90.4



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
112.5°	470.0	466.2	444.5	409.7	363.5	309.9	248.6	195.0	154.5	110.2	88.5
115°	458.7	454.9	433.2	399.3	355.1	301.4	240.2	190.2	150.7	107.4	85.7
117.5°	446.4	442.7	421.9	389.0	344.7	292.9	232.6	184.6	146.0	104.5	83.8
120°	432.3	428.5	408.7	376.7	333.4	283.5	225.1	178.9	141.3	100.8	81.0
122.5°	419.1	415.3	395.6	363.5	322.1	273.1	217.6	172.4	136.6	97.9	78.2
125°	402.2	399.3	380.5	350.4	309.9	262.8	209.1	165.8	130.9	94.2	75.3
127.5°	387.1	384.3	365.4	337.2	297.6	252.4	200.6	159.2	126.2	90.4	72.5
130°	371.1	369.2	351.3	323.0	285.4	239.2	192.1	152.6	120.6	86.6	69.7
132.5°	354.1	352.2	334.3	308.0	272.2	232.6	182.7	147.9	114.9	81.9	65.9
135°	336.2	334.3	317.4	292.0	259.0	217.6	175.2	139.4	110.2	78.2	63.1
137.5°	318.3	316.5	302.3	280.7	248.6	207.2	165.8	130.9	103.6	74.4	59.3
140°	300.4	298.6	286.3	260.9	228.9	197.8	154.5	126.2	97.0	69.7	56.5
142.5°	280.7	279.7	270.3	247.7	215.7	185.5	146.9	117.7	92.3	65.0	52.7
145°	260.9	259.9	252.4	232.6	205.3	174.2	136.6	109.3	84.8	60.3	49.0
147.5°	239.2	238.3	234.5	212.9	188.4	159.2	130.0	103.6	79.1	56.5	46.1
150°	219.4	218.5	217.6	200.6	177.1	152.6	119.6	94.2	72.5	52.7	42.4
152.5°	199.7	198.7	197.8	182.7	162.0	135.6	110.2	89.5	66.9	48.0	38.6
155°	178.9	178.0	181.8	165.8	146.0	127.1	99.8	82.9	61.2	43.3	35.8
157.5°	160.1	159.2	160.1	146.0	129.0	112.1	91.4	72.5	55.6	39.6	32.0
160°	139.4	139.4	145.0	134.7	118.7	102.7	81.9	65.0	48.0	34.8	29.2
162.5°	119.6	119.6	126.2	116.8	104.5	88.5	72.5	56.5	42.4	31.1	26.4
165°	100.8	100.8	109.3	100.8	89.5	76.3	62.2	47.1	36.7	27.3	22.6
167.5°	81.9	81.9	89.5	84.8	75.3	65.9	51.8	41.4	31.1	23.5	19.8
170°	64.0	64.0	69.7	67.8	59.3	52.7	43.3	33.0	25.4	18.8	17.0
172.5°	45.2	48.0	52.7	50.9	44.3	39.6	32.0	24.5	20.7	15.1	14.1
175°	29.2	30.1	33.0	33.0	29.2	26.4	20.7	17.0	14.1	11.3	11.3
177.5°	12.2	12.2	12.2	12.2	11.3	10.4	9.4	8.5	8.5	8.5	8.5
180°	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6



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**CANDELA DISTRIBUTION (continued):**

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6
2.5°	9.4	9.4	10.4	11.3	11.3	12.2	12.2	12.2	12.2	13.2
5°	12.2	12.2	13.2	14.1	15.1	15.1	14.1	14.1	14.1	14.1
7.5°	14.1	14.1	15.1	16.0	16.0	15.1	14.1	13.2	13.2	13.2
10°	16.0	15.1	16.0	17.0	16.0	15.1	13.2	12.2	12.2	12.2
12.5°	17.9	16.0	17.0	16.0	15.1	13.2	12.2	11.3	10.4	11.3
15°	20.7	17.0	16.0	15.1	14.1	12.2	11.3	10.4	9.4	9.4
17.5°	22.6	17.9	16.0	14.1	13.2	11.3	10.4	9.4	8.5	8.5
20°	24.5	18.8	15.1	13.2	12.2	10.4	9.4	9.4	8.5	8.5
22.5°	26.4	18.8	15.1	13.2	11.3	10.4	9.4	8.5	8.5	8.5
25°	29.2	19.8	15.1	12.2	10.4	10.4	9.4	8.5	7.5	7.5
27.5°	32.0	20.7	15.1	12.2	10.4	9.4	8.5	8.5	7.5	7.5
30°	33.9	21.7	15.1	11.3	9.4	8.5	8.5	7.5	7.5	6.6
32.5°	36.7	22.6	15.1	11.3	8.5	8.5	7.5	7.5	6.6	6.6
35°	39.6	23.5	15.1	10.4	8.5	7.5	7.5	6.6	6.6	6.6
37.5°	41.4	24.5	15.1	9.4	7.5	7.5	6.6	6.6	6.6	5.7
40°	44.3	25.4	14.1	9.4	6.6	6.6	5.7	5.7	5.7	5.7
42.5°	47.1	26.4	14.1	8.5	6.6	5.7	5.7	5.7	4.7	4.7
45°	49.0	27.3	14.1	8.5	5.7	5.7	4.7	4.7	4.7	3.8
47.5°	51.8	28.3	14.1	7.5	4.7	4.7	4.7	3.8	3.8	3.8
50°	53.7	29.2	14.1	7.5	4.7	3.8	3.8	3.8	2.8	2.8
52.5°	55.6	30.1	14.1	6.6	3.8	3.8	3.8	2.8	2.8	2.8
55°	58.4	30.1	14.1	6.6	3.8	2.8	2.8	2.8	2.8	2.8
57.5°	60.3	31.1	14.1	6.6	2.8	2.8	2.8	2.8	1.9	1.9
60°	62.2	32.0	14.1	5.7	2.8	2.8	2.8	2.8	1.9	1.9
62.5°	64.0	33.0	15.1	5.7	2.8	2.8	1.9	1.9	1.9	1.9
65°	65.9	33.9	15.1	5.7	2.8	1.9	1.9	1.9	1.9	1.9
67.5°	67.8	34.8	15.1	5.7	1.9	1.9	1.9	1.9	1.9	1.9
70°	69.7	35.8	15.1	5.7	1.9	1.9	1.9	1.9	1.9	1.9
72.5°	70.6	35.8	15.1	5.7	1.9	1.9	1.9	1.9	1.9	1.9
75°	71.6	36.7	16.0	5.7	1.9	1.9	1.9	1.9	1.9	1.9
77.5°	72.5	36.7	16.0	5.7	1.9	1.9	1.9	1.9	1.9	1.9
80°	73.5	37.7	16.0	5.7	1.9	1.9	1.9	1.9	1.9	1.9
82.5°	74.4	37.7	16.0	5.7	1.9	1.9	1.9	1.9	1.9	1.9
85°	75.3	38.6	16.0	5.7	1.9	1.9	1.9	1.9	1.9	1.9
87.5°	75.3	38.6	16.0	5.7	1.9	1.9	1.9	1.9	1.9	1.9
90°	75.3	38.6	16.0	5.7	1.9	1.9	1.9	1.9	1.9	1.9
92.5°	75.3	38.6	16.0	5.7	1.9	1.9	1.9	1.9	0.9	1.9
95°	75.3	38.6	16.0	5.7	1.9	1.9	1.9	1.9	1.9	1.9
97.5°	74.4	37.7	16.0	5.7	1.9	1.9	1.9	1.9	1.9	1.9
100°	73.5	37.7	16.0	5.7	1.9	1.9	1.9	1.9	1.9	1.9
102.5°	72.5	36.7	15.1	5.7	1.9	1.9	1.9	1.9	1.9	1.9
105°	71.6	36.7	15.1	5.7	1.9	1.9	1.9	1.9	1.9	1.9
107.5°	70.6	35.8	15.1	5.7	1.9	1.9	1.9	1.9	1.9	1.9
110°	68.8	34.8	15.1	5.7	1.9	1.9	1.9	1.9	1.9	1.9





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**CANDELA DISTRIBUTION (continued):**

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
112.5°	66.9	33.9	15.1	5.7	1.9	1.9	1.9	1.9	1.9	1.9
115°	65.9	33.9	15.1	5.7	2.8	1.9	1.9	1.9	1.9	1.9
117.5°	64.0	33.0	14.1	5.7	2.8	1.9	1.9	1.9	1.9	1.9
120°	61.2	32.0	14.1	5.7	2.8	2.8	2.8	1.9	1.9	1.9
122.5°	60.3	31.1	14.1	6.6	3.8	2.8	2.8	2.8	2.8	2.8
125°	57.5	30.1	14.1	6.6	3.8	3.8	2.8	2.8	2.8	2.8
127.5°	55.6	29.2	14.1	6.6	3.8	3.8	3.8	2.8	2.8	2.8
130°	53.7	28.3	14.1	7.5	4.7	3.8	3.8	3.8	3.8	3.8
132.5°	50.9	28.3	14.1	7.5	4.7	4.7	4.7	3.8	3.8	3.8
135°	49.0	27.3	14.1	8.5	5.7	5.7	4.7	4.7	3.8	3.8
137.5°	46.1	26.4	14.1	8.5	6.6	5.7	5.7	4.7	4.7	4.7
140°	44.3	25.4	14.1	9.4	6.6	6.6	5.7	5.7	5.7	5.7
142.5°	41.4	24.5	14.1	9.4	7.5	6.6	6.6	6.6	5.7	5.7
145°	38.6	23.5	14.1	10.4	8.5	7.5	7.5	6.6	6.6	6.6
147.5°	35.8	22.6	14.1	10.4	8.5	7.5	7.5	7.5	6.6	6.6
150°	33.9	21.7	15.1	11.3	9.4	8.5	8.5	7.5	6.6	6.6
152.5°	31.1	20.7	15.1	12.2	10.4	9.4	8.5	7.5	7.5	6.6
155°	29.2	19.8	15.1	12.2	10.4	9.4	9.4	8.5	7.5	7.5
157.5°	26.4	18.8	15.1	13.2	11.3	10.4	9.4	8.5	8.5	7.5
160°	23.5	17.9	15.1	13.2	11.3	10.4	9.4	8.5	7.5	7.5
162.5°	21.7	17.0	15.1	14.1	12.2	11.3	9.4	8.5	8.5	7.5
165°	19.8	17.0	16.0	15.1	13.2	12.2	10.4	9.4	9.4	9.4
167.5°	17.9	16.0	17.0	16.0	15.1	13.2	11.3	11.3	10.4	10.4
170°	15.1	15.1	16.0	17.0	16.0	14.1	13.2	12.2	11.3	11.3
172.5°	13.2	13.2	14.1	16.0	16.0	15.1	14.1	13.2	12.2	12.2
175°	11.3	11.3	12.2	13.2	14.1	14.1	14.1	14.1	13.2	13.2
177.5°	8.5	8.5	9.4	10.4	10.4	10.4	11.3	11.3	11.3	11.3
180°	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6

(END OF REPORT)