

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: P316053

Luminaire Tested: **ShSe-SQR-1-L30-90-UNV-STD**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P316053
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1811-037-1)
Test Lab: INNOVATION CENTER(G2)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: SHAPER
Catalog Number: ShSe-SQR-1-L30-90-UNV-STD
Description: SHAPER SENSE SQUARE
LIGHT LEVEL 1
Light Source: 3000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

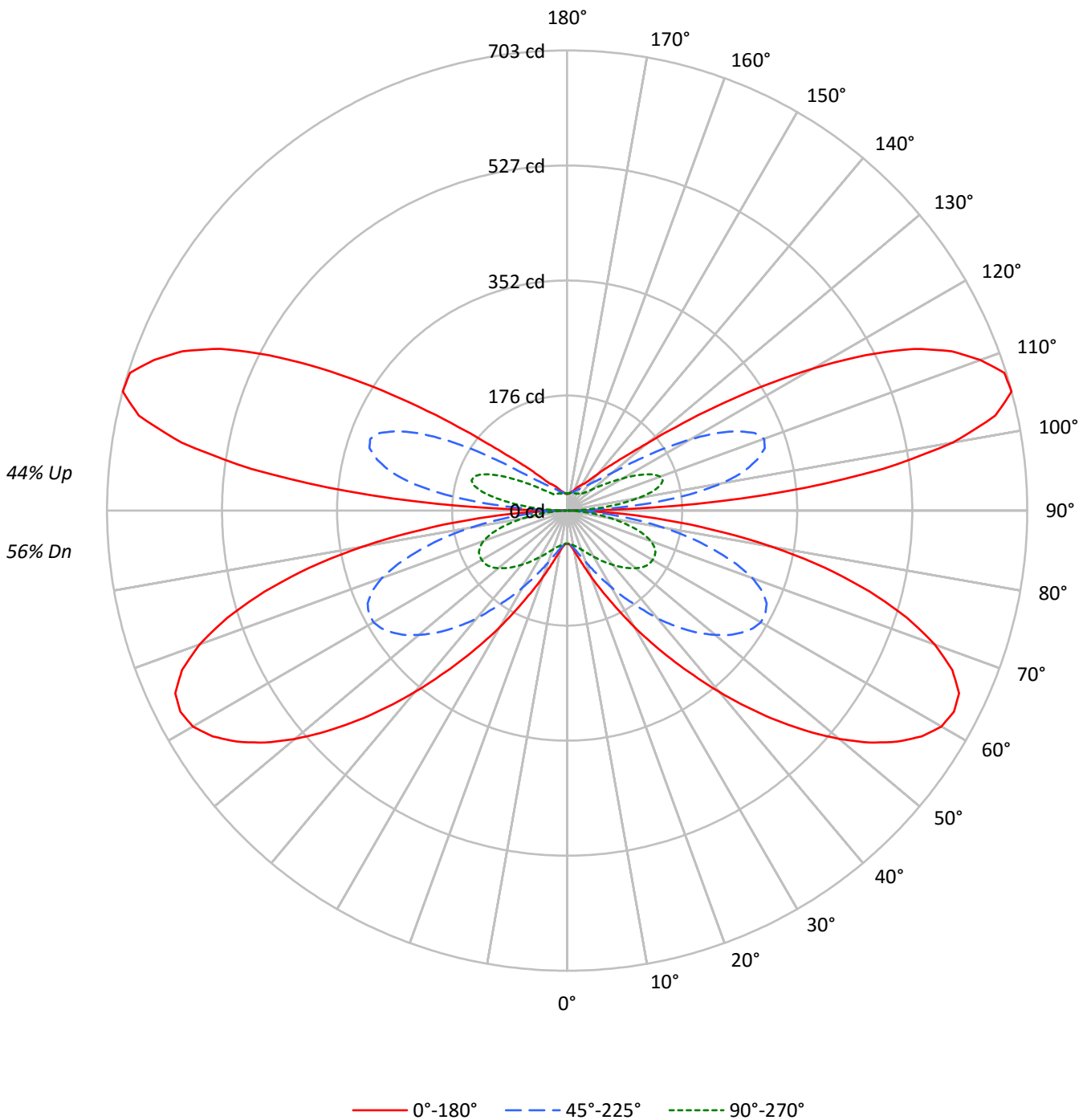
Lumens per Lamp: N/A
Luminaire Lumens: 2579.1 lumens
Efficiency: N/A
Efficacy: 86.8 lumens/watt
Spacing Criteria (0/90/45): 5.4 / 3.01 / 3.76
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 2' x H: 0.04')
CIE Type: General Diffuse

Input Watts (W): 29.7
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	109	109	109	109	101	101	101	101	87	87	87	74	74	74	62	62	62	56
1	96	90	85	80	89	84	79	75	71	68	65	60	57	55	49	48	46	41
2	85	75	67	61	78	70	63	57	59	53	49	49	45	41	40	37	34	29
3	76	64	55	47	69	59	51	44	49	43	38	41	36	32	33	29	26	21
4	68	55	45	38	62	50	42	35	42	35	30	35	29	25	28	23	20	16
5	61	48	38	31	56	44	35	28	37	30	24	30	24	20	24	19	16	12
6	56	42	32	25	51	38	30	24	32	25	20	26	21	16	21	16	13	10
7	51	37	28	21	47	34	26	20	29	22	17	23	18	14	19	14	11	8
8	47	33	24	18	43	31	23	17	26	19	14	21	16	12	17	12	9	6
9	44	30	21	16	40	28	20	15	23	17	12	19	14	10	15	11	8	5
10	41	27	19	14	37	25	18	13	21	15	11	17	12	9	14	10	7	4

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	136	136	136
5°	143	141	139
10°	170	158	147
15°	221	189	159
20°	307	238	180
25°	433	311	209
30°	631	413	250
35°	895	551	305
40°	1247	737	373
45°	1691	953	460
50°	2217	1194	560
55°	2804	1465	671
60°	3428	1749	783
65°	4028	2015	908
70°	4447	2193	1013
75°	4616	2181	1049
80°	4389	1977	949
85°	3394	1404	661



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	5.2	0.2
10°-20°	20.1	0.8
20°-30°	51.4	2.0
30°-40°	114.0	4.4
40°-50°	212.2	8.2
50°-60°	316.0	12.3
60°-70°	364.6	14.1
70°-80°	280.3	10.9
80°-90°	84.3	3.3
90°-100°	173.0	6.7
100°-110°	386.6	15.0
110°-120°	317.2	12.3
120°-130°	144.4	5.6
130°-140°	54.9	2.1
140°-150°	28.0	1.1
150°-160°	16.0	0.6
160°-170°	8.3	0.3
170°-180°	2.6	0.1
0°-30°	76.7	3.0
0°-40°	190.7	7.4
0°-60°	719.0	27.9
0°-90°	1448.2	56.2
90°-120°	876.8	34.0
90°-150°	1104.1	42.8
90°-180°	1131.0	43.9
0°-180°	2579.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	50	50	50	50	50	
5°	53	53	52	51	51	5
15°	80	77	68	61	57	24
25°	147	135	106	80	71	71
35°	276	245	171	115	94	177
45°	454	392	258	156	123	353
55°	616	524	325	188	147	548
65°	661	560	336	192	149	643
75°	478	409	233	139	109	497
85°	136	108	61	38	26	148
90°	2	3	2	1	1	30
95°	336	259	123	74	55	327
105°	703	591	300	186	147	716
115°	585	485	287	166	131	569
125°	275	225	140	86	70	256
135°	104	90	65	46	39	85
145°	54	53	44	34	32	36
155°	40	38	34	31	29	19
165°	30	30	29	28	27	9
175°	26	26	26	26	26	3
180°	26	26	26	26	26	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	50.5	50.5	50.5	50.5	50.5	50.5	50.5	50.5	50.5	50.5	50.5
2.5°	50.5	50.5	50.5	50.5	50.5	51.4	50.5	50.5	50.5	50.5	51.4
5°	53.1	53.1	53.1	53.1	52.2	53.1	52.2	52.2	52.2	52.2	52.2
7.5°	56.5	56.5	56.5	56.5	56.5	56.5	55.6	55.6	55.6	54.8	54.8
10°	62.5	62.5	62.5	62.5	61.6	61.6	60.8	59.9	59.1	59.1	58.2
12.5°	70.2	70.2	69.3	69.3	68.5	68.5	66.8	65.9	65.1	64.2	62.5
15°	79.6	79.6	79.6	78.8	77.0	77.0	75.3	73.6	71.9	70.2	68.5
17.5°	92.4	92.4	91.6	90.7	88.2	87.3	85.6	83.0	81.3	77.9	75.3
20°	107.9	107.9	106.1	105.3	101.9	101.0	98.4	95.0	91.6	88.2	83.9
22.5°	125.8	126.7	124.1	121.6	118.1	116.4	113.8	109.6	104.4	99.3	94.2
25°	147.2	148.1	145.5	142.1	137.0	135.2	131.8	125.8	119.0	113.0	106.1
27.5°	173.8	173.8	170.3	166.1	159.2	157.5	152.4	145.5	137.0	128.4	119.8
30°	205.4	205.4	201.2	195.2	184.9	183.2	176.3	166.9	156.6	146.4	135.2
32.5°	238.8	237.1	232.8	226.8	215.7	212.3	205.4	192.6	178.9	165.2	153.2
35°	276.5	276.5	270.5	262.8	249.1	244.8	235.4	221.7	206.3	186.6	171.2
37.5°	316.7	315.9	310.7	300.5	284.2	279.1	267.9	250.8	232.0	212.3	191.7
40°	361.2	360.4	353.5	341.5	322.7	315.0	303.0	281.6	260.2	236.3	214.9
42.5°	407.5	406.6	398.0	383.5	362.1	352.7	339.0	315.0	289.3	261.9	236.3
45°	453.7	453.7	443.4	426.3	404.0	392.0	375.8	348.4	318.4	287.6	257.7
47.5°	499.0	498.2	486.2	467.4	442.6	428.9	410.0	380.1	346.7	310.7	277.3
50°	542.7	541.0	527.3	506.8	478.5	464.8	445.1	410.0	372.4	333.0	295.3
52.5°	582.1	580.4	565.0	542.7	511.0	496.5	475.1	436.6	396.3	352.7	312.4
55°	615.5	613.8	597.5	573.5	540.1	523.9	499.9	458.0	415.2	368.9	325.3
57.5°	642.0	640.3	624.0	597.5	562.4	544.4	518.7	473.4	428.9	380.9	335.6
60°	660.0	659.1	642.9	613.8	577.8	558.1	531.6	482.8	436.6	388.6	341.5
62.5°	666.0	666.8	651.4	621.5	583.8	564.1	536.7	487.1	440.0	389.5	341.5
65°	660.8	663.4	648.8	616.3	579.5	559.8	533.3	483.6	435.7	384.3	336.4
67.5°	636.9	643.7	630.0	596.6	560.7	542.7	518.7	469.9	422.9	371.5	322.7
70°	597.5	606.9	594.1	558.1	527.3	512.7	490.5	444.3	399.8	348.4	301.3
72.5°	544.4	556.4	543.6	504.2	479.4	468.2	448.5	404.9	363.8	315.9	270.5
75°	478.5	489.6	476.8	438.3	418.6	409.2	392.9	354.4	319.3	275.6	232.8
77.5°	404.0	411.7	403.2	366.4	349.2	341.5	327.8	291.9	264.5	228.6	193.5
80°	316.7	321.9	315.9	283.3	271.4	265.4	253.4	222.6	203.7	175.5	148.9
82.5°	224.3	228.6	224.3	198.6	190.0	184.0	176.3	150.7	138.7	122.4	104.4
85°	136.1	132.7	129.3	113.8	113.8	107.9	101.0	84.7	80.5	71.9	60.8
87.5°	53.9	50.5	48.8	43.7	44.5	41.1	38.5	30.0	30.0	28.2	24.0
90°	1.7	1.7	2.6	1.7	2.6	2.6	2.6	1.7	1.7	1.7	1.7
92.5°	163.5	158.4	148.9	143.8	126.7	118.1	108.7	89.9	79.6	66.8	55.6
95°	335.6	331.3	320.1	291.9	272.2	259.4	238.8	200.3	178.0	152.4	123.3
97.5°	486.2	491.3	473.4	424.6	403.2	385.2	363.8	305.6	274.8	233.7	189.2
100°	598.3	609.5	590.6	524.7	499.9	484.5	463.1	392.9	352.7	297.0	240.5
102.5°	670.2	686.5	666.0	587.2	563.2	553.0	530.7	458.0	410.0	342.4	277.3
105°	702.8	725.0	703.6	621.5	600.1	590.6	570.1	496.5	444.3	371.5	300.5
107.5°	700.2	726.7	708.8	638.6	612.9	600.1	580.4	508.5	454.5	383.5	316.7
110°	672.0	698.5	683.9	631.7	600.1	580.4	559.0	492.2	440.8	377.5	320.1



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
112.5°	636.0	650.6	636.9	600.1	564.1	540.1	515.3	456.2	408.3	357.8	309.9
115°	584.6	588.1	575.2	545.3	512.7	485.4	460.5	405.7	365.5	327.8	286.8
117.5°	514.5	511.0	498.2	476.8	449.4	424.6	399.8	348.4	318.4	291.0	255.9
120°	434.0	428.0	410.9	399.8	378.4	355.2	332.1	286.8	267.9	247.4	217.4
122.5°	351.8	342.4	325.3	316.7	304.7	287.6	269.6	233.7	218.3	201.2	177.2
125°	274.8	266.2	249.1	243.1	238.0	225.1	214.9	190.0	173.8	160.1	140.4
127.5°	209.7	202.9	184.9	182.3	181.5	175.5	168.6	151.5	139.5	126.7	110.4
130°	159.2	154.1	143.0	142.1	141.2	137.8	133.5	121.6	113.0	101.9	89.0
132.5°	126.7	123.3	117.3	114.7	113.0	110.4	107.0	98.4	91.6	83.9	75.3
135°	103.6	101.9	98.4	95.9	92.4	89.9	86.5	80.5	75.3	70.2	65.1
137.5°	86.5	86.5	84.7	82.2	78.8	75.3	72.8	67.6	64.2	60.8	58.2
140°	72.8	73.6	72.8	71.9	68.5	65.1	62.5	57.4	55.6	54.8	52.2
142.5°	62.5	63.3	63.3	62.5	59.9	58.2	56.5	52.2	51.4	49.6	47.9
145°	53.9	55.6	55.6	55.6	54.8	53.1	51.4	49.6	47.9	46.2	43.7
147.5°	48.8	49.6	50.5	50.5	49.6	48.8	47.9	46.2	44.5	42.8	41.1
150°	46.2	46.2	46.2	46.2	45.4	45.4	44.5	42.8	41.9	40.2	38.5
152.5°	42.8	42.8	42.8	41.9	41.9	41.1	40.2	39.4	38.5	37.7	36.8
155°	40.2	40.2	39.4	38.5	38.5	37.7	36.8	36.0	36.0	35.1	34.2
157.5°	36.8	36.8	36.0	36.0	35.1	35.1	34.2	33.4	33.4	32.5	32.5
160°	34.2	34.2	33.4	33.4	32.5	32.5	32.5	31.7	31.7	30.8	30.8
162.5°	31.7	31.7	31.7	31.7	30.8	30.8	30.8	30.0	30.8	30.0	30.0
165°	30.0	30.0	30.0	30.0	30.0	30.0	30.0	29.1	29.1	29.1	29.1
167.5°	29.1	29.1	28.2	29.1	29.1	28.2	28.2	28.2	28.2	28.2	28.2
170°	27.4	27.4	27.4	27.4	27.4	27.4	27.4	27.4	28.2	27.4	27.4
172.5°	26.5	26.5	26.5	26.5	26.5	26.5	26.5	26.5	27.4	27.4	27.4
175°	25.7	25.7	25.7	25.7	26.5	26.5	26.5	26.5	26.5	26.5	26.5
177.5°	25.7	25.7	25.7	25.7	25.7	25.7	25.7	25.7	26.5	26.5	26.5
180°	25.7	25.7	25.7	25.7	25.7	25.7	25.7	25.7	25.7	25.7	25.7



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CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
0°	50.5	50.5	50.5	50.5	50.5	50.5	50.5	50.5	50.5	50.5
2.5°	51.4	50.5	50.5	50.5	50.5	51.4	50.5	50.5	50.5	50.5
5°	52.2	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4
7.5°	53.9	53.9	53.1	53.1	53.1	53.1	52.2	52.2	52.2	52.2
10°	57.4	56.5	55.6	55.6	54.8	54.8	53.9	53.9	53.9	53.9
12.5°	61.6	59.9	59.1	58.2	57.4	57.4	56.5	55.6	55.6	55.6
15°	66.8	64.2	63.3	61.6	60.8	59.9	59.1	58.2	57.4	57.4
17.5°	72.8	70.2	67.6	65.9	64.2	64.2	61.6	60.8	59.9	59.9
20°	80.5	77.0	73.6	70.2	69.3	68.5	65.9	64.2	63.3	63.3
22.5°	89.0	84.7	80.5	76.2	74.5	73.6	70.2	68.5	67.6	66.8
25°	99.3	93.3	88.2	83.0	80.5	79.6	75.3	73.6	71.9	71.0
27.5°	111.3	103.6	96.7	90.7	88.2	85.6	81.3	78.8	77.0	76.2
30°	125.0	114.7	106.1	99.3	95.9	93.3	88.2	84.7	82.2	81.3
32.5°	139.5	127.5	117.3	108.7	104.4	101.0	95.0	90.7	88.2	87.3
35°	155.8	141.2	129.3	119.0	114.7	110.4	103.6	97.6	95.9	94.2
37.5°	172.9	155.8	142.1	130.1	124.1	119.8	111.3	105.3	102.7	101.0
40°	191.7	171.2	154.9	141.2	135.2	129.3	120.7	113.0	110.4	107.9
42.5°	211.4	187.5	168.6	152.4	145.5	139.5	129.3	121.6	117.3	115.6
45°	230.3	204.6	181.5	163.5	155.8	148.9	137.8	129.3	125.0	123.3
47.5°	246.5	218.3	194.3	173.8	165.2	158.4	145.5	137.0	132.7	130.1
50°	261.9	231.1	206.3	183.2	173.8	166.1	153.2	143.8	139.5	137.0
52.5°	275.6	242.2	216.6	192.6	181.5	172.9	160.1	149.8	145.5	143.0
55°	285.9	251.7	224.3	199.4	188.3	178.9	165.2	154.1	149.8	147.2
57.5°	294.5	257.7	229.4	204.6	192.6	183.2	168.6	157.5	152.4	149.8
60°	298.7	261.9	231.1	207.2	195.2	185.8	170.3	159.2	154.1	150.7
62.5°	299.6	261.9	231.1	206.3	195.2	185.8	170.3	159.2	154.1	150.7
65°	295.3	257.7	226.0	202.0	191.7	183.2	167.8	156.6	152.4	148.9
67.5°	284.2	247.4	216.6	194.3	184.0	176.3	160.9	150.7	147.2	143.8
70°	267.1	232.0	201.2	180.6	172.9	165.2	150.7	141.2	138.7	136.1
72.5°	241.4	210.6	181.5	164.4	157.5	149.8	136.1	127.5	126.7	124.1
75°	211.4	184.0	158.4	144.7	138.7	131.8	118.1	112.1	111.3	108.7
77.5°	175.5	154.1	131.8	121.6	116.4	110.4	97.6	93.3	91.6	89.0
80°	137.0	120.7	103.6	94.2	91.6	85.6	75.3	72.8	71.0	68.5
82.5°	96.7	84.7	72.8	66.8	65.1	60.8	53.1	51.4	48.8	47.1
85°	57.4	50.5	43.7	39.4	38.5	36.0	30.8	30.8	28.2	26.5
87.5°	21.4	19.7	16.3	15.4	14.6	13.7	12.8	12.8	11.1	10.3
90°	1.7	1.7	1.7	0.9	0.9	0.9	0.9	0.9	0.9	0.9
92.5°	47.9	38.5	36.0	31.7	30.8	30.0	27.4	26.5	25.7	24.0
95°	112.1	95.9	83.9	75.3	74.5	71.0	61.6	59.9	55.6	54.8
97.5°	172.1	149.8	129.3	118.1	114.7	108.7	92.4	90.7	88.2	83.9
100°	224.3	195.2	165.2	152.4	148.1	139.5	119.0	116.4	115.6	111.3
102.5°	261.1	226.8	191.7	176.3	172.1	161.8	138.7	136.1	136.1	132.7
105°	282.5	245.7	207.2	192.6	185.8	175.5	151.5	149.8	150.7	147.2
107.5°	291.9	252.5	213.1	197.7	191.7	181.5	160.1	156.6	156.6	153.2
110°	287.6	248.2	208.9	195.2	188.3	179.8	162.6	156.6	154.9	151.5



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CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
112.5°	273.9	236.3	202.9	185.8	179.8	172.1	158.4	150.7	145.5	143.8
115°	253.4	218.3	190.0	172.1	166.1	159.2	147.2	139.5	133.5	131.0
117.5°	224.3	194.3	171.2	154.9	148.9	142.1	132.7	125.8	119.0	115.6
120°	189.2	165.2	148.9	133.5	127.5	121.6	114.7	108.7	101.9	98.4
122.5°	153.2	137.0	125.0	112.1	106.1	100.2	95.0	90.7	86.5	83.0
125°	121.6	110.4	101.9	91.6	86.5	81.3	77.9	75.3	72.8	70.2
127.5°	95.0	89.0	82.2	74.5	70.2	65.9	63.3	62.5	60.8	59.9
130°	78.8	72.8	67.6	61.6	58.2	55.6	53.1	52.2	51.4	50.5
132.5°	67.6	62.5	58.2	53.9	51.4	48.8	47.1	45.4	44.5	44.5
135°	59.9	54.8	51.4	47.9	46.2	44.5	42.8	41.1	39.4	39.4
137.5°	53.9	49.6	46.2	43.7	41.9	41.1	39.4	37.7	36.0	36.0
140°	48.8	45.4	41.9	40.2	39.4	37.7	36.8	35.1	33.4	32.5
142.5°	44.5	41.1	38.5	36.8	36.0	36.0	35.1	33.4	32.5	31.7
145°	41.1	38.5	36.0	35.1	34.2	34.2	33.4	32.5	31.7	31.7
147.5°	38.5	36.0	34.2	33.4	33.4	32.5	32.5	31.7	30.8	30.8
150°	36.8	35.1	33.4	32.5	32.5	31.7	31.7	30.8	30.8	30.0
152.5°	35.1	34.2	32.5	31.7	31.7	30.8	30.8	30.0	30.0	29.1
155°	33.4	32.5	31.7	30.8	30.8	30.0	30.0	29.1	29.1	29.1
157.5°	31.7	31.7	30.8	30.0	30.0	29.1	29.1	28.2	28.2	28.2
160°	30.8	30.0	30.0	29.1	29.1	28.2	28.2	28.2	27.4	27.4
162.5°	30.0	29.1	29.1	29.1	28.2	28.2	28.2	27.4	27.4	27.4
165°	29.1	29.1	28.2	28.2	28.2	28.2	28.2	27.4	27.4	27.4
167.5°	28.2	28.2	28.2	28.2	28.2	27.4	27.4	27.4	27.4	27.4
170°	27.4	27.4	27.4	27.4	27.4	27.4	27.4	27.4	27.4	27.4
172.5°	27.4	27.4	27.4	27.4	27.4	26.5	27.4	27.4	27.4	27.4
175°	26.5	26.5	26.5	26.5	26.5	26.5	26.5	26.5	26.5	26.5
177.5°	26.5	26.5	26.5	26.5	26.5	26.5	26.5	26.5	26.5	26.5
180°	25.7	25.7	25.7	25.7	25.7	25.7	25.7	25.7	25.7	25.7

(END OF REPORT)