

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: P316048

Luminaire Tested: **ShSe-BOX-1-L35-80-UNV-STD**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P316048
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1811-037-5)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: SHAPER
Catalog Number: ShSe-BOX-1-L35-80-UNV-STD
Description: SHAPER SENSE SQUARE
LIGHT LEVEL 1
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

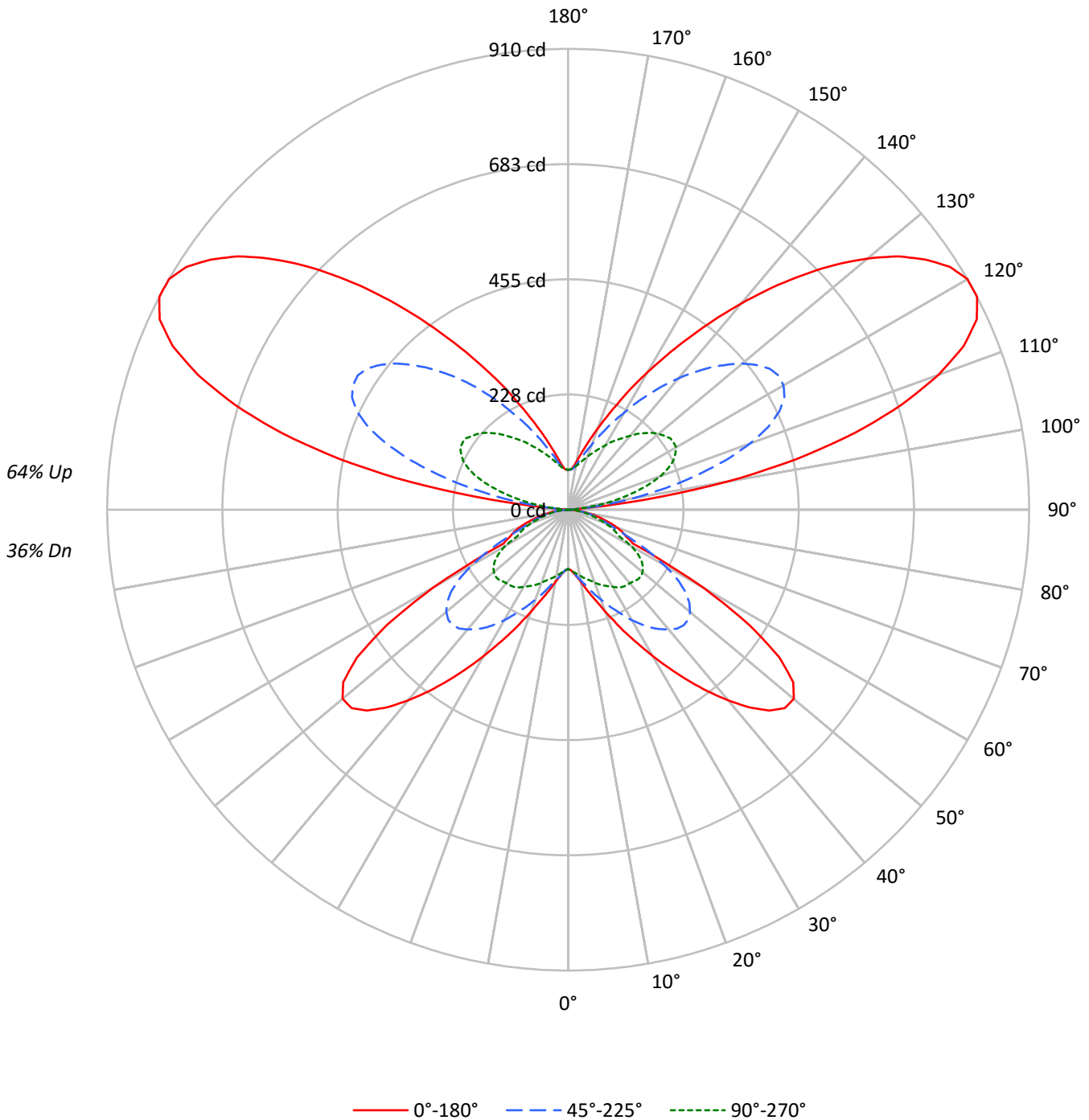
Lumens per Lamp: N/A
Luminaire Lumens: 3084.3 lumens
Efficiency: N/A
Efficacy: 104.2 lumens/watt
Spacing Criteria (0/90/45): 3.21 / 2.21 / 2.38
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Semi-Indirect

Input Watts (W): 29.6
Input Voltage (V): 120
Input Current (A_{in}): 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	104	104	104	104	94	94	94	94	75	75	75	59	59	59	43	43	43	36
1	94	90	86	83	85	82	78	75	66	63	61	51	50	48	38	37	36	30
2	86	78	72	67	77	71	65	61	57	53	50	44	42	40	33	31	29	24
3	78	68	61	55	70	62	55	50	50	45	41	39	35	33	28	26	24	20
4	70	60	52	45	63	54	47	42	43	38	34	34	30	27	25	22	20	16
5	64	52	44	38	58	48	40	35	38	33	29	30	26	23	22	19	17	13
6	59	47	38	32	53	42	35	30	34	29	25	26	22	19	19	17	14	11
7	54	42	33	28	48	38	31	26	30	25	21	24	20	17	17	14	12	9
8	50	37	29	24	45	34	27	22	27	22	18	21	17	14	16	13	11	8
9	46	34	26	21	41	31	24	19	25	20	16	19	15	13	14	11	9	7
10	43	31	23	18	38	28	21	17	23	17	14	18	14	11	13	10	8	6

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	315	315	315
5°	339	336	333
10°	395	387	361
15°	486	454	394
20°	613	540	439
25°	796	648	490
30°	1035	784	546
35°	1350	934	612
40°	1727	1084	665
45°	2135	1227	741
50°	2433	1315	802
55°	2387	1323	829
60°	1661	1180	773
65°	807	888	657
70°	804	670	611
75°	731	620	531
80°	626	544	462
85°	460	395	361



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	12.4	0.4
10°-20°	46.5	1.5
20°-30°	102.7	3.3
30°-40°	184.9	6.0
40°-50°	269.8	8.7
50°-60°	272.9	8.8
60°-70°	134.6	4.4
70°-80°	64.5	2.1
80°-90°	15.8	0.5
90°-100°	52.7	1.7
100°-110°	334.7	10.9
110°-120°	502.2	16.3
120°-130°	462.0	15.0
130°-140°	322.8	10.5
140°-150°	180.9	5.9
150°-160°	84.2	2.7
160°-170°	32.5	1.1
170°-180°	8.0	0.3
0°-30°	161.6	5.2
0°-40°	346.5	11.2
0°-60°	889.3	28.8
0°-90°	1104.2	35.8
90°-120°	889.6	28.8
90°-150°	1855.4	60.2
90°-180°	1980.0	64.2
0°-180°	3084.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	117	117	117	117	117	
5°	126	126	124	123	123	13
15°	174	174	163	149	142	51
25°	268	259	218	182	165	126
35°	411	376	284	214	186	260
45°	561	478	322	225	195	428
55°	509	427	282	199	177	432
65°	127	118	139	106	103	146
75°	70	67	60	55	51	75
85°	15	14	13	12	12	18
90°	0	0	0	1	1	1
95°	14	16	20	17	14	89
105°	585	493	263	168	138	603
115°	890	759	460	284	229	865
125°	861	738	485	302	246	768
135°	656	569	397	263	214	509
145°	413	369	278	197	168	264
155°	231	213	176	140	128	111
165°	127	120	110	99	98	38
175°	81	80	80	80	81	8
180°	79	79	79	79	79	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	117.1	117.1	117.1	117.1	117.1	117.1	117.1	117.1	117.1	117.1	117.1
2.5°	119.2	120.3	119.2	119.2	119.2	119.2	119.2	119.2	119.2	118.1	119.2
5°	125.6	126.7	125.6	125.6	125.6	125.6	125.6	125.6	126.7	125.6	124.5
7.5°	134.1	135.2	134.1	134.1	135.2	135.2	134.1	134.1	134.1	133.0	133.0
10°	144.7	145.8	144.7	144.7	145.8	145.8	144.7	143.7	143.7	141.6	141.6
12.5°	158.6	159.6	158.6	158.6	158.6	158.6	157.5	156.5	155.4	152.2	151.2
15°	174.5	175.7	174.5	174.5	174.5	173.5	172.4	170.3	168.2	165.0	162.8
17.5°	191.6	193.7	193.7	192.7	191.6	190.5	189.4	186.3	183.1	178.8	175.7
20°	213.9	215.0	215.0	212.9	211.8	210.7	208.6	204.3	200.1	193.7	188.4
22.5°	238.4	239.5	239.5	236.3	234.1	233.1	229.9	223.5	218.2	210.7	203.3
25°	268.2	269.3	268.2	265.0	261.9	258.6	255.4	247.0	237.4	227.8	218.2
27.5°	298.0	301.2	299.1	294.8	290.5	286.3	282.1	270.3	259.7	247.0	234.1
30°	333.2	335.3	333.2	327.8	321.4	315.0	309.7	293.8	281.0	266.0	252.3
32.5°	370.4	373.6	370.4	362.9	352.3	344.9	337.4	319.3	302.3	285.2	268.2
35°	410.8	412.9	409.8	400.2	386.3	375.7	366.1	344.9	324.6	303.4	284.2
37.5°	451.3	453.4	449.1	437.4	418.2	406.6	394.9	368.3	344.9	320.4	296.9
40°	491.7	494.9	489.6	472.6	450.2	434.2	421.5	390.6	362.9	335.3	308.7
42.5°	529.0	532.2	525.8	503.4	476.8	458.7	444.9	409.8	377.8	346.9	318.3
45°	560.9	563.0	555.5	529.0	498.1	477.9	461.9	423.6	387.4	353.4	322.5
47.5°	580.0	581.1	573.7	542.8	509.8	488.5	470.5	430.0	391.7	355.5	321.4
50°	581.1	582.2	573.7	540.6	506.6	485.4	468.3	426.8	386.3	349.1	314.0
52.5°	559.8	559.8	551.3	519.4	487.5	466.2	449.1	410.8	372.5	336.3	301.2
55°	508.7	509.8	501.3	472.6	447.0	426.8	414.0	380.0	344.9	313.0	282.1
57.5°	424.7	427.8	421.5	404.5	384.3	370.4	360.8	334.2	307.6	282.1	255.4
60°	308.7	311.8	313.0	304.4	301.2	294.8	289.5	275.6	259.7	240.5	219.2
62.5°	143.7	151.2	166.1	182.0	199.0	204.3	205.4	207.6	202.2	193.7	179.8
65°	126.7	125.6	124.5	122.4	120.3	118.1	119.2	137.3	146.9	146.9	139.4
67.5°	116.0	116.0	115.0	112.8	111.8	109.7	108.5	105.4	102.2	107.5	105.4
70°	102.2	102.2	101.1	99.0	97.9	96.8	95.8	93.6	90.5	88.3	85.2
72.5°	86.2	86.2	85.2	84.1	83.0	81.9	80.9	79.9	76.6	75.6	72.3
75°	70.3	70.3	69.2	69.2	68.1	67.0	66.0	64.9	63.9	61.7	59.6
77.5°	55.4	55.4	54.3	53.2	53.2	52.1	52.1	51.1	50.0	49.0	46.8
80°	40.4	40.4	39.4	39.4	38.3	38.3	38.3	37.2	36.2	36.2	35.1
82.5°	27.6	26.6	26.6	25.5	25.5	25.5	25.5	25.5	24.5	24.5	23.5
85°	14.9	14.9	13.9	14.9	13.9	13.9	13.9	13.9	13.9	12.8	12.8
87.5°	4.3	4.3	4.3	4.3	4.3	4.3	3.2	4.3	4.3	4.3	3.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
92.5°	6.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	6.4	7.4	7.4
95°	13.9	14.9	14.9	14.9	14.9	16.0	16.0	18.1	18.1	20.2	20.2
97.5°	153.2	158.6	157.5	135.2	124.5	121.3	113.8	99.0	88.3	78.8	68.1
100°	318.3	332.0	326.7	286.3	266.0	256.5	240.5	204.3	178.8	154.3	129.9
102.5°	460.9	472.6	465.2	420.4	393.8	380.0	357.6	313.0	273.5	234.1	195.9
105°	585.4	596.0	584.3	538.5	510.9	492.8	470.5	412.9	361.8	313.0	262.9
107.5°	690.8	701.4	685.4	641.8	612.0	591.8	560.9	500.2	442.7	384.3	326.7
110°	777.0	784.4	769.5	725.9	692.8	670.5	639.7	573.7	508.7	443.8	382.1



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
112.5°	845.0	846.2	830.1	787.6	752.5	725.9	696.1	629.0	558.8	491.7	427.8
115°	889.8	884.4	867.5	827.0	788.6	758.8	728.0	665.2	593.9	525.8	459.8
117.5°	910.0	901.5	882.4	844.0	805.7	774.9	742.9	681.2	614.1	547.1	481.1
120°	910.0	897.3	877.0	840.8	803.6	772.7	741.8	681.2	621.5	556.7	490.7
122.5°	893.0	879.1	858.9	823.8	789.7	760.0	731.2	673.8	617.3	555.5	492.8
125°	861.1	847.2	828.0	796.1	765.3	737.6	712.0	657.8	602.5	543.9	485.4
127.5°	821.7	807.8	789.7	760.0	731.2	705.7	681.2	632.2	581.1	524.7	469.3
130°	771.6	757.8	741.8	715.3	689.7	665.2	643.9	599.2	552.4	499.1	449.1
132.5°	716.3	704.6	689.7	665.2	641.8	619.4	601.3	560.9	519.4	471.5	423.6
135°	655.6	643.9	632.2	610.9	589.6	569.4	554.5	518.3	482.2	438.5	397.0
137.5°	593.9	586.4	572.6	554.5	536.5	518.3	505.6	473.6	442.7	404.5	368.3
140°	531.1	522.6	514.1	498.1	482.2	467.2	456.6	430.0	402.3	370.4	338.5
142.5°	470.5	463.0	456.6	442.7	430.0	416.2	407.6	385.3	364.0	336.3	308.7
145°	412.9	408.7	401.3	391.7	381.0	369.4	361.8	342.7	324.6	301.2	277.8
147.5°	360.8	356.5	351.2	342.7	335.3	325.7	318.3	304.4	288.5	269.3	250.1
150°	313.0	309.7	305.4	299.1	292.7	284.2	279.9	268.2	255.4	238.4	221.4
152.5°	271.4	268.2	265.0	259.7	254.4	248.0	242.7	232.1	222.5	210.7	198.0
155°	230.9	227.8	225.6	221.4	218.2	212.9	209.6	202.2	194.7	186.3	175.7
157.5°	198.0	195.9	194.7	191.6	188.4	184.1	182.0	176.7	171.4	163.9	155.4
160°	170.3	169.2	168.2	165.0	162.8	159.6	157.5	153.2	150.1	144.7	137.3
162.5°	146.9	145.8	144.7	142.6	141.6	138.3	137.3	134.1	130.9	127.7	122.4
165°	126.7	125.6	124.5	123.4	122.4	120.3	119.2	117.1	116.0	112.8	109.7
167.5°	110.7	109.7	108.5	108.5	107.5	105.4	105.4	103.2	103.2	101.1	97.9
170°	96.8	96.8	95.8	95.8	95.8	93.6	93.6	92.6	92.6	91.5	89.4
172.5°	87.3	87.3	86.2	86.2	86.2	85.2	85.2	85.2	85.2	84.1	83.0
175°	80.9	80.9	80.9	80.9	80.9	79.9	80.9	80.9	80.9	80.9	79.9
177.5°	78.8	77.7	77.7	77.7	78.8	77.7	78.8	78.8	78.8	78.8	78.8
180°	78.8	78.8	78.8	78.8	78.8	78.8	78.8	78.8	78.8	78.8	78.8



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CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
0°	117.1	117.1	117.1	117.1	117.1	117.1	117.1	117.1	117.1	117.1
2.5°	119.2	119.2	119.2	119.2	119.2	119.2	119.2	119.2	119.2	120.3
5°	124.5	124.5	123.4	123.4	123.4	122.4	123.4	122.4	122.4	123.4
7.5°	132.0	130.9	129.9	128.7	128.7	127.7	127.7	126.7	126.7	127.7
10°	139.4	138.3	137.3	135.2	134.1	134.1	133.0	130.9	130.9	132.0
12.5°	149.0	146.9	144.7	142.6	141.6	140.5	139.4	136.3	136.3	137.3
15°	159.6	156.5	154.3	150.1	149.0	147.9	145.8	142.6	141.6	141.6
17.5°	170.3	166.1	162.8	158.6	157.5	155.4	153.2	149.0	146.9	146.9
20°	183.1	177.7	172.4	167.1	165.0	163.9	160.8	155.4	153.2	153.2
22.5°	195.9	189.4	183.1	176.7	173.5	171.4	167.1	162.8	159.6	159.6
25°	209.6	201.2	193.7	185.2	182.0	179.8	174.5	169.2	165.0	165.0
27.5°	222.5	212.9	203.3	194.7	190.5	187.3	182.0	175.7	171.4	170.3
30°	236.3	224.6	213.9	203.3	199.0	195.9	189.4	182.0	177.7	175.7
32.5°	251.2	235.2	223.5	211.8	206.5	203.3	195.9	188.4	183.1	182.0
35°	265.0	249.1	232.1	219.2	213.9	209.6	202.2	193.7	188.4	186.3
37.5°	275.6	257.6	240.5	225.6	220.3	215.0	206.5	196.9	190.5	188.4
40°	285.2	265.0	247.0	228.8	222.5	217.1	207.6	198.0	191.6	189.4
42.5°	290.5	268.2	249.1	229.9	223.5	218.2	209.6	201.2	194.7	191.6
45°	291.6	268.2	249.1	230.9	224.6	220.3	211.8	203.3	196.9	194.7
47.5°	289.5	266.0	248.0	229.9	223.5	219.2	210.7	203.3	196.9	194.7
50°	283.1	260.7	240.5	225.6	219.2	215.0	206.5	200.1	194.7	191.6
52.5°	271.4	251.2	230.9	217.1	210.7	207.6	200.1	193.7	189.4	186.3
55°	254.4	233.1	217.1	204.3	199.0	195.9	189.4	184.1	179.8	176.7
57.5°	229.9	211.8	198.0	187.3	183.1	179.8	174.5	170.3	166.1	162.8
60°	200.1	186.3	173.5	165.0	161.8	159.6	154.3	150.1	146.9	143.7
62.5°	167.1	156.5	146.9	139.4	136.3	133.0	126.7	119.2	117.1	112.8
65°	132.0	124.5	117.1	109.7	106.4	106.4	106.4	105.4	104.3	103.2
67.5°	101.1	96.8	96.8	97.9	96.8	97.9	95.8	94.8	93.6	91.5
70°	84.1	84.1	84.1	83.0	83.0	83.0	80.9	79.9	78.8	77.7
72.5°	71.3	70.3	70.3	69.2	68.1	68.1	67.0	66.0	64.9	63.9
75°	57.4	57.4	56.4	55.4	55.4	54.3	53.2	52.1	52.1	51.1
77.5°	44.7	44.7	43.7	42.5	42.5	42.5	41.5	41.5	40.4	40.4
80°	33.0	33.0	31.9	31.9	30.9	30.9	30.9	29.8	29.8	29.8
82.5°	22.3	22.3	21.3	21.3	21.3	21.3	20.2	20.2	20.2	20.2
85°	12.8	11.7	11.7	11.7	11.7	11.7	11.7	11.7	11.7	11.7
87.5°	3.2	3.2	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3
90°	0.0	0.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
92.5°	7.4	7.4	7.4	8.5	8.5	8.5	7.4	7.4	7.4	7.4
95°	20.2	18.1	18.1	17.0	17.0	16.0	16.0	14.9	14.9	13.9
97.5°	64.9	57.4	53.2	50.0	49.0	46.8	44.7	43.7	42.5	40.4
100°	121.3	108.5	97.9	91.5	90.5	87.3	80.9	78.8	77.7	75.6
102.5°	179.8	158.6	142.6	132.0	129.9	125.6	115.0	111.8	109.7	107.5
105°	239.5	210.7	187.3	174.5	168.2	163.9	149.0	143.7	141.6	138.3
107.5°	295.9	259.7	228.8	210.7	204.3	199.0	181.0	173.5	170.3	168.2
110°	342.7	301.2	268.2	245.8	237.4	228.8	208.6	200.1	195.9	193.7



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CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
112.5°	382.1	336.3	301.2	275.6	265.0	255.4	233.1	222.5	216.1	213.9
115°	410.8	361.8	325.7	295.9	284.2	274.6	253.3	238.4	232.1	228.8
117.5°	430.0	380.0	340.6	309.7	296.9	286.3	265.0	252.3	243.7	238.4
120°	438.5	388.5	349.1	316.1	303.4	291.6	270.3	257.6	249.1	245.8
122.5°	440.7	391.7	352.3	319.3	305.4	293.8	272.5	259.7	251.2	247.0
125°	435.3	387.4	349.1	317.1	302.3	290.5	270.3	257.6	248.0	245.8
127.5°	424.7	380.0	342.7	310.8	296.9	285.2	265.0	252.3	242.7	239.5
130°	407.6	366.1	332.0	302.3	288.5	276.7	257.6	243.7	235.2	233.1
132.5°	386.3	349.1	317.1	289.5	277.8	267.2	248.0	234.1	225.6	224.6
135°	362.9	328.9	299.1	274.6	262.9	253.3	234.1	223.5	216.1	213.9
137.5°	338.5	307.6	281.0	257.6	247.0	237.4	220.3	210.7	204.3	203.3
140°	313.0	285.2	260.7	239.5	228.8	221.4	206.5	198.0	191.6	190.5
142.5°	286.3	262.9	239.5	221.4	212.9	205.4	192.7	185.2	179.8	178.8
145°	259.7	237.4	219.2	204.3	196.9	191.6	179.8	173.5	168.2	168.2
147.5°	233.1	216.1	201.2	188.4	182.0	176.7	167.1	161.8	158.6	158.6
150°	209.6	195.9	183.1	172.4	167.1	162.8	155.4	150.1	147.9	146.9
152.5°	187.3	176.7	166.1	157.5	153.2	149.0	142.6	139.4	137.3	137.3
155°	167.1	158.6	150.1	143.7	140.5	136.3	132.0	129.9	127.7	127.7
157.5°	150.1	142.6	136.3	130.9	127.7	125.6	121.3	120.3	119.2	119.2
160°	134.1	128.7	123.4	119.2	117.1	116.0	112.8	111.8	110.7	111.8
162.5°	119.2	116.0	111.8	108.5	107.5	106.4	105.4	104.3	104.3	104.3
165°	107.5	105.4	102.2	100.1	99.0	99.0	97.9	97.9	97.9	97.9
167.5°	96.8	95.8	93.6	92.6	92.6	92.6	91.5	92.6	91.5	91.5
170°	89.4	88.3	87.3	87.3	87.3	87.3	86.2	87.3	87.3	87.3
172.5°	83.0	83.0	83.0	83.0	83.0	83.0	83.0	84.1	83.0	83.0
175°	79.9	79.9	79.9	79.9	79.9	80.9	80.9	80.9	80.9	80.9
177.5°	78.8	78.8	78.8	78.8	78.8	79.9	79.9	79.9	79.9	79.9
180°	78.8	78.8	78.8	78.8	78.8	78.8	78.8	78.8	78.8	78.8

(END OF REPORT)