

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: P316061

Luminaire Tested: **ShSe-TRAP-1-L40-80-UNV-STD**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P316061  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1811-037-6)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: SHAPER  
Catalog Number: ShSe-TRAP-1-L40-80-UNV-STD  
Description: SHAPER SENSE SQUARE  
LIGHT LEVEL 1  
Light Source: 4000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3036.9 lumens  
Efficiency: N/A  
Efficacy: 102.6 lumens/watt  
Spacing Criteria (0/90/45): 2.4 / 1.51 / 1.84  
Luminous Opening: Rectangular (W 2.92' x L: 2.92' x H: 0')  
CIE Type: General Diffuse

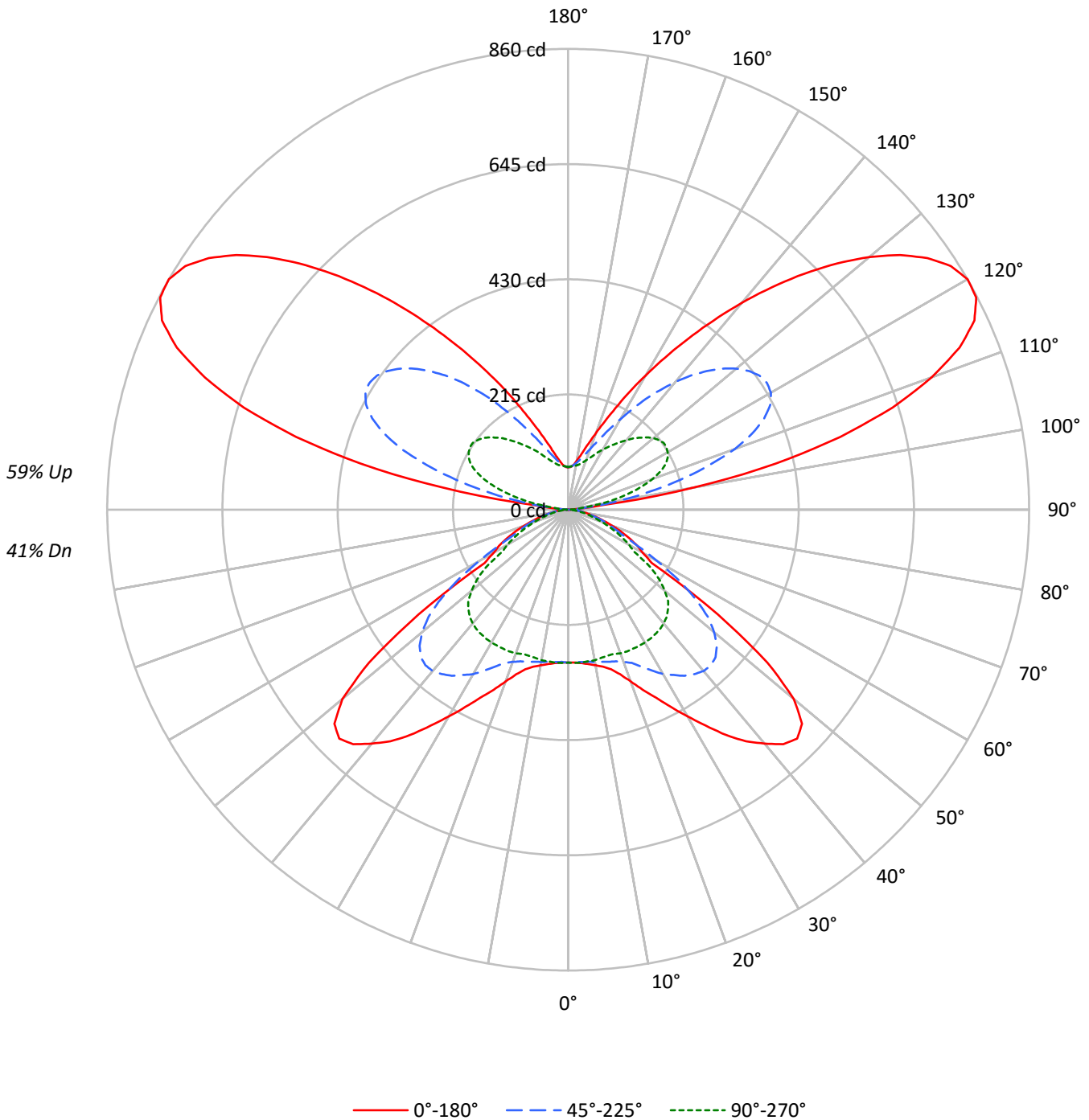
Input Watts (W): 29.6  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	105	105	105	105	96	96	96	96	79	79	79	63	63	63	48	48	48	41
1	96	92	88	85	87	84	81	78	69	67	65	55	54	52	43	42	41	35
2	87	80	74	69	79	73	68	64	60	57	53	49	46	44	38	36	34	29
3	80	70	63	57	72	64	58	53	53	48	45	43	39	37	33	31	29	25
4	72	62	54	48	66	57	50	44	47	42	38	38	34	31	29	27	25	21
5	66	55	47	41	60	50	43	38	42	36	32	34	30	27	26	23	21	18
6	61	49	41	35	55	45	38	32	37	32	28	30	26	23	23	21	18	15
7	56	44	36	30	51	40	33	28	33	28	24	27	23	20	21	18	16	13
8	52	39	32	26	47	36	29	24	30	25	21	24	20	17	19	16	14	11
9	48	36	28	23	44	33	26	22	27	22	18	22	18	15	17	15	12	10
10	45	32	25	20	41	30	23	19	25	20	16	20	16	14	16	13	11	9

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

	0°	45°	90°
0°	361	361	361
5°	365	362	364
10°	379	371	367
15°	404	385	370
20°	459	407	384
25°	540	451	400
30°	650	518	418
35°	793	584	438
40°	941	649	457
45°	1081	696	471
50°	1082	699	463
55°	752	639	415
60°	405	487	333
65°	375	332	294
70°	325	294	247
75°	271	255	204
80°	236	228	176
85°	228	242	136



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	27.4	0.9
10°-20°	84.1	2.8
20°-30°	154.1	5.1
30°-40°	243.4	8.0
40°-50°	316.4	10.4
50°-60°	247.7	8.2
60°-70°	113.8	3.7
70°-80°	55.2	1.8
80°-90°	16.9	0.6
90°-100°	34.5	1.1
100°-110°	285.8	9.4
110°-120°	454.5	15.0
120°-130°	426.7	14.1
130°-140°	299.1	9.9
140°-150°	165.0	5.4
150°-160°	74.6	2.5
160°-170°	29.7	1.0
170°-180°	8.0	0.3
0°-30°	265.6	8.7
0°-40°	509.0	16.8
0°-60°	1073.1	35.3
0°-90°	1258.9	41.5
90°-120°	774.8	25.5
90°-150°	1665.7	54.8
90°-180°	1778.0	58.5
0°-180°	3036.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	285	285	285	285	285	
5°	287	286	285	284	286	28
15°	308	303	294	284	282	89
25°	387	366	323	294	286	182
35°	513	471	378	298	283	322
45°	604	560	389	286	263	455
55°	341	381	290	209	188	299
65°	125	123	111	104	98	124
75°	55	55	52	46	42	60
85°	16	19	17	12	9	17
90°	0	1	1	1	2	1
95°	12	15	15	15	15	53
105°	526	420	217	140	118	537
115°	836	697	403	246	201	812
125°	818	701	436	266	217	728
135°	623	542	366	227	190	484
145°	389	345	252	171	148	249
155°	209	191	152	121	112	101
165°	115	111	101	91	89	34
175°	82	82	82	80	82	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°	285.3	285.3	285.3	285.3	285.3	285.3	285.3	285.3	285.3	285.3	285.3
2.5°	285.3	284.3	285.3	286.3	285.3	284.3	284.3	286.3	283.3	286.3	284.3
5°	287.4	286.3	287.4	287.4	287.4	286.3	286.3	287.4	284.3	287.4	285.3
7.5°	290.5	289.5	290.5	290.5	289.5	288.5	288.5	289.5	286.3	288.5	286.3
10°	294.7	293.7	293.7	293.7	293.7	291.6	291.6	292.7	289.5	290.5	288.5
12.5°	299.9	298.9	298.9	299.9	297.9	296.8	295.7	296.8	292.7	293.7	290.5
15°	308.3	307.3	307.3	306.2	305.2	303.1	302.0	302.0	296.8	297.9	293.7
17.5°	321.9	319.8	319.8	317.7	315.6	311.4	310.4	308.3	303.1	302.0	296.8
20°	340.7	338.6	337.6	336.5	332.4	328.2	325.0	320.8	311.4	308.3	302.0
22.5°	363.7	360.5	358.5	356.4	351.1	345.9	342.8	337.6	325.0	319.8	309.4
25°	386.7	384.6	382.5	379.4	372.1	365.8	361.6	354.3	340.7	333.4	323.0
27.5°	414.9	411.7	409.7	405.5	396.1	388.8	384.6	374.2	358.5	351.1	338.6
30°	445.2	443.2	439.0	434.8	423.3	415.9	408.7	397.2	380.4	370.0	354.3
32.5°	477.6	475.5	470.3	465.1	450.4	442.1	434.8	422.3	403.4	388.8	365.8
35°	513.2	509.0	504.8	497.5	480.7	471.3	462.0	449.4	427.5	403.4	378.4
37.5°	544.5	539.3	535.1	527.8	510.0	499.6	491.2	475.5	443.2	415.9	386.7
40°	569.6	565.4	560.2	550.8	534.1	523.6	516.3	496.4	456.7	425.3	393.0
42.5°	593.6	589.4	584.2	573.8	554.9	544.5	535.1	504.8	463.0	429.5	394.0
45°	604.1	599.9	594.7	585.2	570.6	560.2	546.6	505.8	459.8	425.3	388.8
47.5°	591.5	588.4	585.2	580.0	570.6	560.2	540.3	497.5	450.4	412.8	376.2
50°	549.7	544.5	545.5	547.7	545.5	528.8	510.0	472.4	429.5	391.9	355.3
52.5°	468.2	466.1	473.5	481.8	483.9	470.3	456.7	428.5	391.9	360.5	328.2
55°	340.7	348.0	360.5	380.4	386.7	381.4	375.2	360.5	338.6	315.6	289.5
57.5°	185.0	190.2	203.8	230.9	259.2	270.7	274.9	280.1	272.8	261.3	243.5
60°	159.9	158.9	158.9	157.8	154.7	155.7	163.1	188.1	199.6	199.6	192.3
62.5°	145.3	144.2	144.2	144.2	143.2	141.1	139.0	134.8	134.8	146.3	145.3
65°	125.4	125.4	125.4	126.4	125.4	123.3	123.3	120.2	116.0	111.8	110.8
67.5°	106.6	105.5	106.6	107.7	106.6	105.5	104.5	103.5	99.3	97.2	95.1
70°	87.8	86.7	87.8	87.8	87.8	86.7	86.7	85.7	83.6	81.5	79.4
72.5°	70.0	70.0	71.0	72.1	71.0	70.0	70.0	70.0	68.0	68.0	65.8
75°	55.4	55.4	55.4	56.4	55.4	55.4	55.4	56.4	54.4	54.4	52.2
77.5°	41.8	41.8	42.9	43.9	42.9	42.9	42.9	43.9	42.9	41.8	40.7
80°	32.4	32.4	32.4	33.5	33.5	33.5	33.5	33.5	32.4	31.3	31.3
82.5°	26.1	26.1	26.1	27.1	27.1	26.1	26.1	26.1	25.1	24.1	23.0
85°	15.7	16.7	17.8	17.8	18.8	18.8	18.8	18.8	17.8	17.8	16.7
87.5°	8.4	8.4	9.4	10.4	11.5	11.5	11.5	11.5	11.5	11.5	10.4
90°	0.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
92.5°	2.1	2.1	3.2	2.1	3.2	3.2	2.1	2.1	3.2	3.2	3.2
95°	11.5	12.6	13.6	13.6	13.6	14.6	14.6	13.6	13.6	13.6	14.6
97.5°	64.8	71.0	69.0	62.7	63.8	64.8	60.6	54.4	54.4	50.2	43.9
100°	239.3	246.6	240.4	203.8	191.2	184.0	174.5	149.5	133.8	115.0	98.3
102.5°	396.1	405.5	393.0	351.1	319.8	307.3	291.6	251.8	221.5	187.0	156.7
105°	525.7	535.1	526.7	467.2	433.7	420.1	397.2	345.9	305.2	259.2	217.4
107.5°	634.4	643.8	630.2	574.8	532.0	515.2	491.2	432.7	379.4	326.1	275.9
110°	721.1	730.5	718.0	669.9	617.7	595.7	567.5	503.8	444.2	382.5	330.2



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
112.5°	790.1	796.3	780.7	737.9	681.4	655.3	625.0	558.1	493.3	428.5	372.1
115°	836.1	838.2	820.4	782.8	726.3	697.1	663.7	594.7	526.7	463.0	403.4
117.5°	858.1	857.0	838.2	802.7	750.4	720.1	685.6	615.5	548.7	484.9	425.3
120°	860.1	857.0	836.1	803.7	755.6	727.4	692.9	623.9	559.1	496.4	436.8
122.5°	846.6	842.4	821.5	790.1	746.2	721.1	688.7	622.9	559.1	498.5	440.0
125°	818.3	814.1	793.3	765.0	723.2	701.2	673.1	612.5	550.8	491.2	435.8
127.5°	780.7	777.6	757.7	731.6	692.9	672.0	648.0	592.6	535.1	478.7	425.3
130°	733.7	729.5	710.7	688.7	652.2	633.4	612.5	564.4	510.0	457.8	409.7
132.5°	680.3	677.3	662.6	639.6	607.2	590.5	570.6	529.9	481.8	433.7	389.8
135°	622.9	619.7	608.3	588.4	557.1	542.4	524.6	489.1	447.3	404.5	365.8
137.5°	563.3	561.2	550.8	533.0	505.8	492.3	476.5	445.2	409.7	374.2	339.7
140°	503.8	500.6	492.3	476.5	453.6	441.0	428.5	400.3	370.0	339.7	311.4
142.5°	444.2	442.1	435.8	423.3	402.4	391.9	380.4	357.5	331.3	306.2	281.1
145°	388.8	386.7	382.5	371.0	353.3	344.9	335.5	315.6	292.7	272.8	251.8
147.5°	336.5	335.5	331.3	323.0	307.3	301.0	293.7	275.9	257.1	240.4	221.5
150°	289.5	289.5	286.3	279.1	266.5	261.3	255.0	239.3	222.6	209.0	195.4
152.5°	247.7	246.6	244.6	238.3	226.8	222.6	218.5	206.9	194.4	182.9	171.4
155°	209.0	209.0	206.9	202.8	194.4	191.2	188.1	178.7	168.3	159.9	151.5
157.5°	177.7	178.7	176.6	173.5	166.1	165.1	162.0	155.7	148.4	141.1	134.8
160°	152.6	151.5	150.5	149.5	144.2	142.1	140.0	135.8	130.6	126.4	121.2
162.5°	131.7	130.6	130.6	129.6	125.4	125.4	123.3	120.2	117.0	113.9	109.7
165°	115.0	115.0	115.0	113.9	111.8	110.8	109.7	107.7	105.5	103.5	101.4
167.5°	102.5	102.5	102.5	102.5	100.3	100.3	100.3	98.3	97.2	95.1	94.1
170°	93.0	93.0	93.0	93.0	91.9	91.9	91.9	90.9	89.9	89.9	88.9
172.5°	85.7	86.7	86.7	86.7	85.7	85.7	85.7	85.7	84.7	84.7	84.7
175°	81.5	81.5	81.5	82.6	81.5	81.5	81.5	81.5	81.5	81.5	81.5
177.5°	79.4	79.4	79.4	79.4	79.4	79.4	79.4	79.4	79.4	80.5	80.5
180°	79.4	79.4	79.4	79.4	79.4	79.4	79.4	79.4	79.4	79.4	79.4



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**CANDELA DISTRIBUTION (continued):**

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
0°	285.3	285.3	285.3	285.3	285.3	285.3	285.3	285.3	285.3	285.3
2.5°	285.3	285.3	284.3	285.3	284.3	285.3	286.3	286.3	285.3	286.3
5°	285.3	286.3	284.3	285.3	284.3	285.3	286.3	286.3	285.3	286.3
7.5°	286.3	286.3	285.3	285.3	284.3	285.3	285.3	285.3	284.3	285.3
10°	288.5	287.4	285.3	286.3	284.3	285.3	285.3	285.3	284.3	285.3
12.5°	290.5	288.5	286.3	286.3	284.3	284.3	284.3	284.3	282.2	283.3
15°	292.7	290.5	286.3	286.3	284.3	284.3	283.3	283.3	281.1	282.2
17.5°	294.7	291.6	287.4	286.3	283.3	284.3	284.3	283.3	282.2	282.2
20°	297.9	294.7	291.6	290.5	287.4	288.5	287.4	286.3	284.3	285.3
22.5°	304.1	301.0	295.7	294.7	291.6	291.6	289.5	288.5	286.3	286.3
25°	314.6	308.3	301.0	297.9	293.7	292.7	290.5	288.5	286.3	286.3
27.5°	327.2	314.6	304.1	299.9	295.7	294.7	290.5	288.5	285.3	286.3
30°	338.6	323.0	308.3	301.0	296.8	295.7	291.6	289.5	285.3	286.3
32.5°	346.9	330.2	312.5	302.0	296.8	294.7	290.5	288.5	284.3	285.3
35°	356.4	336.5	316.6	304.1	297.9	295.7	290.5	287.4	283.3	283.3
37.5°	362.7	340.7	319.8	305.2	296.8	293.7	288.5	285.3	281.1	281.1
40°	364.7	341.7	319.8	305.2	295.7	291.6	285.3	281.1	276.9	276.9
42.5°	364.7	338.6	316.6	302.0	292.7	287.4	280.1	275.9	271.7	271.7
45°	358.5	331.3	309.4	294.7	286.3	280.1	271.7	267.6	263.4	263.4
47.5°	345.9	319.8	297.9	284.3	275.9	270.7	261.3	257.1	252.9	252.9
50°	327.2	302.0	281.1	267.6	260.2	256.0	245.6	241.4	235.1	235.1
52.5°	299.9	276.9	258.2	245.6	238.3	234.1	224.7	218.5	214.3	214.3
55°	265.4	245.6	226.8	215.3	209.0	205.9	197.6	192.3	189.2	188.1
57.5°	222.6	205.9	191.2	182.9	177.7	174.5	162.0	151.5	145.3	144.2
60°	178.7	164.1	152.6	138.0	133.8	134.8	133.8	132.8	131.7	131.7
62.5°	135.8	123.3	122.2	123.3	121.2	121.2	119.2	117.0	116.0	115.0
65°	108.7	107.7	106.6	105.5	104.5	104.5	102.5	100.3	98.3	98.3
67.5°	93.0	91.9	89.9	89.9	87.8	86.7	85.7	83.6	81.5	81.5
70°	78.4	76.3	74.2	73.2	71.0	71.0	70.0	69.0	66.9	66.9
72.5°	64.8	62.7	60.6	59.6	58.6	57.5	56.4	55.4	54.4	53.3
75°	51.2	50.2	48.1	47.0	46.0	46.0	44.9	43.9	42.9	41.8
77.5°	39.7	38.7	37.7	36.6	35.5	35.5	34.5	33.5	33.5	32.4
80°	30.3	29.3	28.2	27.1	26.1	26.1	25.1	25.1	24.1	24.1
82.5°	21.9	20.9	19.9	19.9	18.8	18.8	17.8	16.7	16.7	15.7
85°	15.7	14.6	13.6	12.6	11.5	11.5	10.4	10.4	9.4	9.4
87.5°	9.4	8.4	8.4	7.3	7.3	7.3	7.3	6.2	6.2	6.2
90°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	2.1	2.1	2.1
92.5°	3.2	4.2	3.2	4.2	4.2	3.2	4.2	4.2	4.2	3.2
95°	13.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6
97.5°	39.7	37.7	33.5	31.3	31.3	29.3	28.2	27.1	27.1	25.1
100°	90.9	82.6	73.2	70.0	69.0	65.8	61.6	60.6	60.6	57.5
102.5°	145.3	129.6	115.0	107.7	105.5	101.4	95.1	93.0	94.1	89.9
105°	197.6	175.6	153.7	144.2	140.0	133.8	125.4	123.3	122.2	118.1
107.5°	249.8	218.5	191.2	178.7	172.5	165.1	154.7	150.5	148.4	144.2
110°	294.7	258.2	226.8	209.0	201.7	193.4	180.8	174.5	172.5	167.2





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CATALOG NUMBER: ShSe-TRAP-1-L40-80-UNV-STD

**CANDELA DISTRIBUTION (continued):**

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
112.5°	331.3	290.5	256.0	235.1	225.7	216.3	202.8	194.4	190.2	186.0
115°	358.5	315.6	280.1	256.0	245.6	235.1	219.5	210.1	203.8	200.6
117.5°	377.3	332.4	295.7	270.7	259.2	248.8	230.9	219.5	213.2	209.0
120°	387.8	342.8	306.2	279.1	266.5	256.0	237.3	225.7	218.5	214.3
122.5°	390.8	345.9	310.4	282.2	268.6	258.2	240.4	227.9	221.5	217.4
125°	387.8	343.9	308.3	280.1	266.5	255.0	237.3	226.8	220.5	217.4
127.5°	379.4	337.6	303.1	274.9	261.3	250.8	232.0	222.6	216.3	213.2
130°	364.7	326.1	292.7	265.4	251.8	241.4	224.7	215.3	210.1	208.0
132.5°	349.1	311.4	280.1	255.0	241.4	229.9	216.3	206.9	201.7	199.6
135°	328.2	293.7	264.4	239.3	226.8	218.5	205.9	197.6	192.3	190.2
137.5°	305.2	273.8	247.7	223.7	213.2	205.9	194.4	186.0	181.8	180.8
140°	281.1	252.9	226.8	208.0	198.6	192.3	182.9	174.5	170.3	169.3
142.5°	256.0	228.9	209.0	192.3	185.0	178.7	170.3	163.1	159.9	158.9
145°	228.9	208.0	191.2	177.7	171.4	166.1	158.9	152.6	149.5	148.4
147.5°	203.8	187.0	174.5	164.1	157.8	153.7	148.4	143.2	140.0	139.0
150°	181.8	168.3	158.9	149.5	145.3	142.1	136.9	132.8	130.6	129.6
152.5°	160.9	150.5	143.2	135.8	131.7	129.6	126.4	122.2	120.2	121.2
155°	144.2	135.8	129.6	124.4	121.2	119.2	116.0	112.9	111.8	111.8
157.5°	129.6	122.2	118.1	113.9	110.8	109.7	107.7	104.5	104.5	104.5
160°	117.0	111.8	108.7	104.5	103.5	101.4	100.3	98.3	97.2	98.3
162.5°	107.7	103.5	101.4	98.3	96.1	95.1	94.1	91.9	91.9	93.0
165°	99.3	96.1	95.1	91.9	90.9	90.9	89.9	87.8	87.8	88.9
167.5°	93.0	90.9	89.9	87.8	86.7	86.7	85.7	85.7	85.7	85.7
170°	87.8	85.7	85.7	84.7	83.6	83.6	83.6	82.6	83.6	83.6
172.5°	83.6	82.6	82.6	82.6	81.5	81.5	81.5	81.5	81.5	82.6
175°	81.5	80.5	81.5	80.5	80.5	80.5	80.5	80.5	80.5	81.5
177.5°	80.5	79.4	80.5	79.4	79.4	80.5	80.5	79.4	79.4	80.5
180°	79.4	79.4	79.4	79.4	79.4	79.4	79.4	79.4	79.4	79.4

(END OF REPORT)