

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: P316049

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

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P316049  
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-L40-80-UNV-STD  
Description: SHAPER SENSE SQUARE  
LIGHT LEVEL 1  
Light Source: 4000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

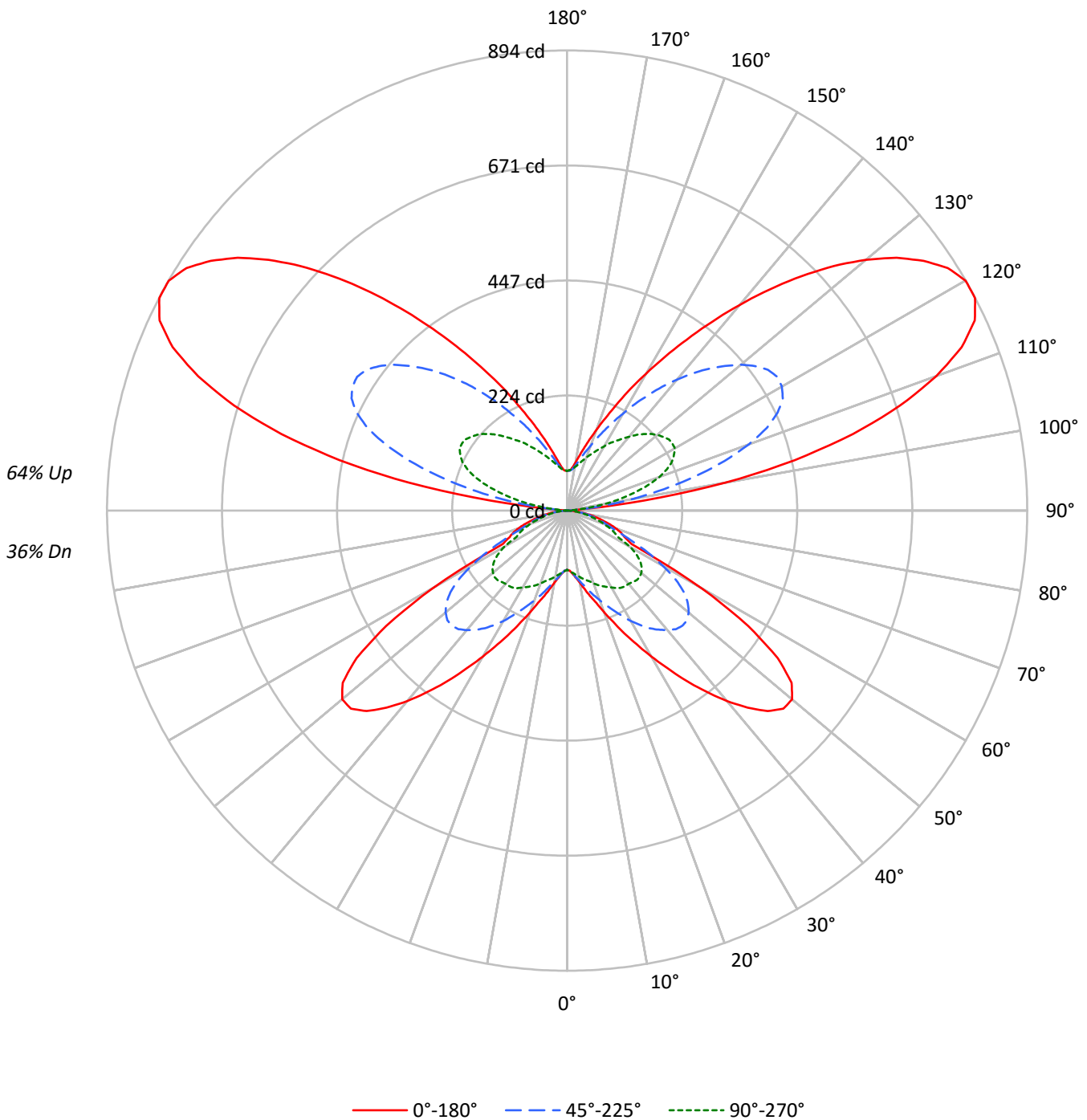
Lumens per Lamp: N/A  
Luminaire Lumens: 3028.6 lumens  
Efficiency: N/A  
Efficacy: 102.3 lumens/watt  
Spacing Criteria (0/90/45): 3.21 / 2.21 / 2.38  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Semi-Indirect

Input Watts (W): 29.6  
Input Voltage (V): 120  
Input Current (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	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°	309	309	309
5°	333	330	327
10°	388	380	354
15°	478	445	387
20°	602	530	431
25°	782	636	481
30°	1017	770	536
35°	1325	917	601
40°	1696	1065	653
45°	2096	1205	728
50°	2389	1291	787
55°	2344	1299	814
60°	1631	1159	759
65°	792	872	646
70°	789	658	600
75°	717	609	522
80°	615	535	454
85°	451	389	355



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	12.1	0.4
10°-20°	45.7	1.5
20°-30°	100.8	3.3
30°-40°	181.6	6.0
40°-50°	264.9	8.7
50°-60°	268.0	8.8
60°-70°	132.2	4.4
70°-80°	63.4	2.1
80°-90°	15.5	0.5
90°-100°	51.8	1.7
100°-110°	328.6	10.8
110°-120°	493.1	16.3
120°-130°	453.7	15.0
130°-140°	317.0	10.5
140°-150°	177.7	5.9
150°-160°	82.7	2.7
160°-170°	31.9	1.1
170°-180°	7.9	0.3
0°-30°	158.7	5.2
0°-40°	340.3	11.2
0°-60°	873.2	28.8
0°-90°	1084.2	35.8
90°-120°	873.5	28.8
90°-150°	1821.9	60.2
90°-180°	1944.0	64.2
0°-180°	3028.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	115	115	115	115	115	
5°	123	123	122	121	121	12
15°	171	170	160	146	139	50
25°	263	254	214	179	162	124
35°	403	369	279	210	183	256
45°	551	469	317	220	191	420
55°	500	419	277	195	174	425
65°	124	116	137	104	101	143
75°	69	66	59	54	50	73
85°	15	14	13	12	12	17
90°	0	0	0	1	1	1
95°	14	16	20	17	14	88
105°	575	484	258	165	136	592
115°	874	745	452	279	225	849
125°	846	724	476	297	241	754
135°	644	559	390	258	210	500
145°	406	363	273	193	165	260
155°	227	209	172	138	125	109
165°	124	118	108	97	96	37
175°	79	78	78	78	79	8
180°	77	77	77	77	77	



TEST NUMBER: P316049

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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	115.0	115.0	115.0	115.0	115.0	115.0	115.0	115.0	115.0	115.0	115.0
2.5°	117.0	118.1	117.0	117.0	117.0	117.0	117.0	117.0	117.0	116.0	117.0
5°	123.3	124.4	123.3	123.3	123.3	123.3	123.3	123.3	124.4	123.3	122.2
7.5°	131.7	132.8	131.7	131.7	132.8	132.8	131.7	131.7	131.7	130.6	130.6
10°	142.1	143.2	142.1	142.1	143.2	143.2	142.1	141.1	141.1	139.0	139.0
12.5°	155.7	156.7	155.7	155.7	155.7	155.7	154.7	153.7	152.6	149.5	148.4
15°	171.4	172.5	171.4	171.4	171.4	170.3	169.3	167.2	165.1	162.0	159.9
17.5°	188.1	190.2	190.2	189.2	188.1	187.0	186.0	182.9	179.8	175.6	172.5
20°	210.1	211.1	211.1	209.0	208.0	206.9	204.8	200.6	196.5	190.2	185.0
22.5°	234.1	235.1	235.1	232.0	229.9	228.9	225.7	219.5	214.3	206.9	199.6
25°	263.4	264.4	263.4	260.2	257.1	254.0	250.8	242.5	233.1	223.7	214.3
27.5°	292.7	295.7	293.7	289.5	285.3	281.1	276.9	265.4	255.0	242.5	229.9
30°	327.2	329.2	327.2	321.9	315.6	309.4	304.1	288.5	275.9	261.3	247.7
32.5°	363.7	366.8	363.7	356.4	345.9	338.6	331.3	313.6	296.8	280.1	263.4
35°	403.4	405.5	402.4	393.0	379.4	368.9	359.5	338.6	318.8	297.9	279.1
37.5°	443.2	445.2	441.0	429.5	410.7	399.2	387.8	361.6	338.6	314.6	291.6
40°	482.9	486.0	480.7	464.0	442.1	426.4	413.9	383.6	356.4	329.2	303.1
42.5°	519.4	522.6	516.3	494.3	468.2	450.4	436.8	402.4	371.0	340.7	312.5
45°	550.8	552.9	545.5	519.4	489.1	469.3	453.6	415.9	380.4	346.9	316.6
47.5°	569.6	570.6	563.3	533.0	500.6	479.7	462.0	422.3	384.6	349.1	315.6
50°	570.6	571.7	563.3	530.9	497.5	476.5	459.8	419.1	379.4	342.8	308.3
52.5°	549.7	549.7	541.3	510.0	478.7	457.8	441.0	403.4	365.8	330.2	295.7
55°	499.6	500.6	492.3	464.0	439.0	419.1	406.5	373.1	338.6	307.3	276.9
57.5°	417.0	420.1	413.9	397.2	377.3	363.7	354.3	328.2	302.0	276.9	250.8
60°	303.1	306.2	307.3	298.9	295.7	289.5	284.3	270.7	255.0	236.2	215.3
62.5°	141.1	148.4	163.1	178.7	195.4	200.6	201.7	203.8	198.6	190.2	176.6
65°	124.4	123.3	122.2	120.2	118.1	116.0	117.0	134.8	144.2	144.2	136.9
67.5°	113.9	113.9	112.9	110.8	109.7	107.7	106.6	103.5	100.3	105.5	103.5
70°	100.3	100.3	99.3	97.2	96.1	95.1	94.1	91.9	88.9	86.7	83.6
72.5°	84.7	84.7	83.6	82.6	81.5	80.5	79.4	78.4	75.2	74.2	71.0
75°	69.0	69.0	68.0	68.0	66.9	65.8	64.8	63.8	62.7	60.6	58.6
77.5°	54.4	54.4	53.3	52.2	52.2	51.2	51.2	50.2	49.1	48.1	46.0
80°	39.7	39.7	38.7	38.7	37.7	37.7	37.7	36.6	35.5	35.5	34.5
82.5°	27.1	26.1	26.1	25.1	25.1	25.1	25.1	25.1	24.1	24.1	23.0
85°	14.6	14.6	13.6	14.6	13.6	13.6	13.6	13.6	13.6	12.6	12.6
87.5°	4.2	4.2	4.2	4.2	4.2	4.2	3.2	4.2	4.2	4.2	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°	6.2	7.3	7.3	7.3	7.3	7.3	7.3	7.3	6.2	7.3	7.3
95°	13.6	14.6	14.6	14.6	14.6	15.7	15.7	17.8	17.8	19.9	19.9
97.5°	150.5	155.7	154.7	132.8	122.2	119.2	111.8	97.2	86.7	77.3	66.9
100°	312.5	326.1	320.8	281.1	261.3	251.8	236.2	200.6	175.6	151.5	127.5
102.5°	452.6	464.0	456.7	412.8	386.7	373.1	351.1	307.3	268.6	229.9	192.3
105°	574.8	585.2	573.8	528.8	501.6	483.9	462.0	405.5	355.3	307.3	258.2
107.5°	678.3	688.7	673.1	630.2	600.9	581.1	550.8	491.2	434.8	377.3	320.8
110°	763.0	770.2	755.6	712.8	680.3	658.4	628.1	563.3	499.6	435.8	375.2



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
112.5°	829.8	830.8	815.2	773.4	738.9	712.8	683.5	617.7	548.7	482.9	420.1
115°	873.7	868.5	851.8	812.1	774.4	745.1	714.8	653.2	583.2	516.3	451.5
117.5°	893.6	885.2	866.4	828.8	791.1	760.8	729.5	668.9	603.1	537.2	472.4
120°	893.6	881.0	861.1	825.6	789.1	758.8	728.5	668.9	610.3	546.6	481.8
122.5°	876.9	863.3	843.4	808.9	775.5	746.2	718.0	661.6	606.1	545.5	483.9
125°	845.5	831.9	813.1	781.8	751.5	724.3	699.2	645.9	591.5	534.1	476.5
127.5°	806.9	793.3	775.5	746.2	718.0	692.9	668.9	620.8	570.6	515.2	460.9
130°	757.7	744.1	728.5	702.3	677.3	653.2	632.3	588.4	542.4	490.1	441.0
132.5°	703.4	691.9	677.3	653.2	630.2	608.3	590.5	550.8	510.0	463.0	415.9
135°	643.8	632.3	620.8	599.9	579.0	559.1	544.5	509.0	473.5	430.6	389.8
137.5°	583.2	575.8	562.3	544.5	526.8	509.0	496.4	465.1	434.8	397.2	361.6
140°	521.5	513.2	504.8	489.1	473.5	458.8	448.4	422.3	395.0	363.7	332.4
142.5°	462.0	454.6	448.4	434.8	422.3	408.7	400.3	378.4	357.5	330.2	303.1
145°	405.5	401.3	394.0	384.6	374.2	362.7	355.3	336.5	318.8	295.7	272.8
147.5°	354.3	350.1	344.9	336.5	329.2	319.8	312.5	298.9	283.3	264.4	245.6
150°	307.3	304.1	299.9	293.7	287.4	279.1	274.9	263.4	250.8	234.1	217.4
152.5°	266.5	263.4	260.2	255.0	249.8	243.5	238.3	227.9	218.5	206.9	194.4
155°	226.8	223.7	221.5	217.4	214.3	209.0	205.9	198.6	191.2	182.9	172.5
157.5°	194.4	192.3	191.2	188.1	185.0	180.8	178.7	173.5	168.3	160.9	152.6
160°	167.2	166.1	165.1	162.0	159.9	156.7	154.7	150.5	147.4	142.1	134.8
162.5°	144.2	143.2	142.1	140.0	139.0	135.8	134.8	131.7	128.6	125.4	120.2
165°	124.4	123.3	122.2	121.2	120.2	118.1	117.0	115.0	113.9	110.8	107.7
167.5°	108.7	107.7	106.6	106.6	105.5	103.5	103.5	101.4	101.4	99.3	96.1
170°	95.1	95.1	94.1	94.1	94.1	91.9	91.9	90.9	90.9	89.9	87.8
172.5°	85.7	85.7	84.7	84.7	84.7	83.6	83.6	83.6	83.6	82.6	81.5
175°	79.4	79.4	79.4	79.4	79.4	78.4	79.4	79.4	79.4	79.4	78.4
177.5°	77.3	76.3	76.3	76.3	77.3	76.3	77.3	77.3	77.3	77.3	77.3
180°	77.3	77.3	77.3	77.3	77.3	77.3	77.3	77.3	77.3	77.3	77.3



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**CANDELA DISTRIBUTION (continued):**

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
0°	115.0	115.0	115.0	115.0	115.0	115.0	115.0	115.0	115.0	115.0
2.5°	117.0	117.0	117.0	117.0	117.0	117.0	117.0	117.0	117.0	118.1
5°	122.2	122.2	121.2	121.2	121.2	120.2	121.2	120.2	120.2	121.2
7.5°	129.6	128.6	127.5	126.4	126.4	125.4	125.4	124.4	124.4	125.4
10°	136.9	135.8	134.8	132.8	131.7	131.7	130.6	128.6	128.6	129.6
12.5°	146.3	144.2	142.1	140.0	139.0	138.0	136.9	133.8	133.8	134.8
15°	156.7	153.7	151.5	147.4	146.3	145.3	143.2	140.0	139.0	139.0
17.5°	167.2	163.1	159.9	155.7	154.7	152.6	150.5	146.3	144.2	144.2
20°	179.8	174.5	169.3	164.1	162.0	160.9	157.8	152.6	150.5	150.5
22.5°	192.3	186.0	179.8	173.5	170.3	168.3	164.1	159.9	156.7	156.7
25°	205.9	197.6	190.2	181.8	178.7	176.6	171.4	166.1	162.0	162.0
27.5°	218.5	209.0	199.6	191.2	187.0	184.0	178.7	172.5	168.3	167.2
30°	232.0	220.5	210.1	199.6	195.4	192.3	186.0	178.7	174.5	172.5
32.5°	246.6	230.9	219.5	208.0	202.8	199.6	192.3	185.0	179.8	178.7
35°	260.2	244.6	227.9	215.3	210.1	205.9	198.6	190.2	185.0	182.9
37.5°	270.7	252.9	236.2	221.5	216.3	211.1	202.8	193.4	187.0	185.0
40°	280.1	260.2	242.5	224.7	218.5	213.2	203.8	194.4	188.1	186.0
42.5°	285.3	263.4	244.6	225.7	219.5	214.3	205.9	197.6	191.2	188.1
45°	286.3	263.4	244.6	226.8	220.5	216.3	208.0	199.6	193.4	191.2
47.5°	284.3	261.3	243.5	225.7	219.5	215.3	206.9	199.6	193.4	191.2
50°	278.0	256.0	236.2	221.5	215.3	211.1	202.8	196.5	191.2	188.1
52.5°	266.5	246.6	226.8	213.2	206.9	203.8	196.5	190.2	186.0	182.9
55°	249.8	228.9	213.2	200.6	195.4	192.3	186.0	180.8	176.6	173.5
57.5°	225.7	208.0	194.4	184.0	179.8	176.6	171.4	167.2	163.1	159.9
60°	196.5	182.9	170.3	162.0	158.9	156.7	151.5	147.4	144.2	141.1
62.5°	164.1	153.7	144.2	136.9	133.8	130.6	124.4	117.0	115.0	110.8
65°	129.6	122.2	115.0	107.7	104.5	104.5	104.5	103.5	102.5	101.4
67.5°	99.3	95.1	95.1	96.1	95.1	96.1	94.1	93.0	91.9	89.9
70°	82.6	82.6	82.6	81.5	81.5	81.5	79.4	78.4	77.3	76.3
72.5°	70.0	69.0	69.0	68.0	66.9	66.9	65.8	64.8	63.8	62.7
75°	56.4	56.4	55.4	54.4	54.4	53.3	52.2	51.2	51.2	50.2
77.5°	43.9	43.9	42.9	41.8	41.8	41.8	40.7	40.7	39.7	39.7
80°	32.4	32.4	31.3	31.3	30.3	30.3	30.3	29.3	29.3	29.3
82.5°	21.9	21.9	20.9	20.9	20.9	20.9	19.9	19.9	19.9	19.9
85°	12.6	11.5	11.5	11.5	11.5	11.5	11.5	11.5	11.5	11.5
87.5°	3.2	3.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2
90°	0.0	0.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
92.5°	7.3	7.3	7.3	8.4	8.4	8.4	7.3	7.3	7.3	7.3
95°	19.9	17.8	17.8	16.7	16.7	15.7	15.7	14.6	14.6	13.6
97.5°	63.8	56.4	52.2	49.1	48.1	46.0	43.9	42.9	41.8	39.7
100°	119.2	106.6	96.1	89.9	88.9	85.7	79.4	77.3	76.3	74.2
102.5°	176.6	155.7	140.0	129.6	127.5	123.3	112.9	109.7	107.7	105.5
105°	235.1	206.9	184.0	171.4	165.1	160.9	146.3	141.1	139.0	135.8
107.5°	290.5	255.0	224.7	206.9	200.6	195.4	177.7	170.3	167.2	165.1
110°	336.5	295.7	263.4	241.4	233.1	224.7	204.8	196.5	192.3	190.2





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

**CANDELA DISTRIBUTION (continued):**

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
112.5°	375.2	330.2	295.7	270.7	260.2	250.8	228.9	218.5	212.1	210.1
115°	403.4	355.3	319.8	290.5	279.1	269.6	248.8	234.1	227.9	224.7
117.5°	422.3	373.1	334.4	304.1	291.6	281.1	260.2	247.7	239.3	234.1
120°	430.6	381.4	342.8	310.4	297.9	286.3	265.4	252.9	244.6	241.4
122.5°	432.7	384.6	345.9	313.6	299.9	288.5	267.6	255.0	246.6	242.5
125°	427.5	380.4	342.8	311.4	296.8	285.3	265.4	252.9	243.5	241.4
127.5°	417.0	373.1	336.5	305.2	291.6	280.1	260.2	247.7	238.3	235.1
130°	400.3	359.5	326.1	296.8	283.3	271.7	252.9	239.3	230.9	228.9
132.5°	379.4	342.8	311.4	284.3	272.8	262.4	243.5	229.9	221.5	220.5
135°	356.4	323.0	293.7	269.6	258.2	248.8	229.9	219.5	212.1	210.1
137.5°	332.4	302.0	275.9	252.9	242.5	233.1	216.3	206.9	200.6	199.6
140°	307.3	280.1	256.0	235.1	224.7	217.4	202.8	194.4	188.1	187.0
142.5°	281.1	258.2	235.1	217.4	209.0	201.7	189.2	181.8	176.6	175.6
145°	255.0	233.1	215.3	200.6	193.4	188.1	176.6	170.3	165.1	165.1
147.5°	228.9	212.1	197.6	185.0	178.7	173.5	164.1	158.9	155.7	155.7
150°	205.9	192.3	179.8	169.3	164.1	159.9	152.6	147.4	145.3	144.2
152.5°	184.0	173.5	163.1	154.7	150.5	146.3	140.0	136.9	134.8	134.8
155°	164.1	155.7	147.4	141.1	138.0	133.8	129.6	127.5	125.4	125.4
157.5°	147.4	140.0	133.8	128.6	125.4	123.3	119.2	118.1	117.0	117.0
160°	131.7	126.4	121.2	117.0	115.0	113.9	110.8	109.7	108.7	109.7
162.5°	117.0	113.9	109.7	106.6	105.5	104.5	103.5	102.5	102.5	102.5
165°	105.5	103.5	100.3	98.3	97.2	97.2	96.1	96.1	96.1	96.1
167.5°	95.1	94.1	91.9	90.9	90.9	90.9	89.9	90.9	89.9	89.9
170°	87.8	86.7	85.7	85.7	85.7	85.7	84.7	85.7	85.7	85.7
172.5°	81.5	81.5	81.5	81.5	81.5	81.5	81.5	82.6	81.5	81.5
175°	78.4	78.4	78.4	78.4	78.4	79.4	79.4	79.4	79.4	79.4
177.5°	77.3	77.3	77.3	77.3	77.3	78.4	78.4	78.4	78.4	78.4
180°	77.3	77.3	77.3	77.3	77.3	77.3	77.3	77.3	77.3	77.3

(END OF REPORT)