

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: P316050

Luminaire Tested: **ShSe-BOX-2-L30-90-UNV-STD**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P316050
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-2-L30-90-UNV-STD
Description: SHAPER SENSE SQUARE
LIGHT LEVEL 2
Light Source: 3000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

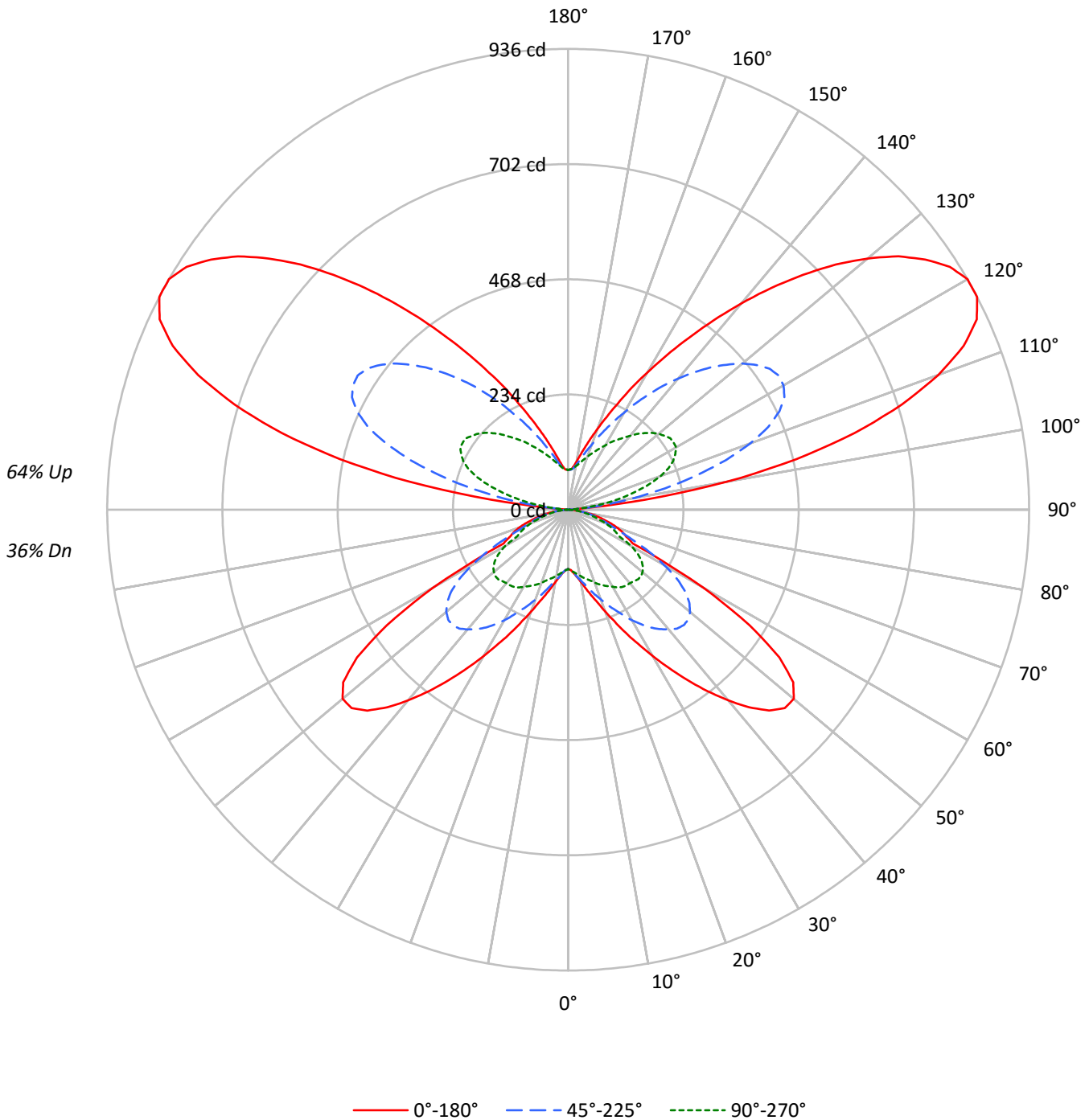
Lumens per Lamp: N/A
Luminaire Lumens: 3172.6 lumens
Efficiency: N/A
Efficacy: 81.8 lumens/watt
Spacing Criteria (0/90/45): 3.21 / 2.21 / 2.38
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Semi-Indirect

Input Watts (W): 38.8
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



TEST NUMBER: P316050
CATALOG NUMBER: ShSe-BOX-2-L30-90-UNV-STD

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°	324	324	324
5°	349	346	343
10°	407	398	371
15°	500	467	406
20°	630	555	452
25°	819	666	504
30°	1065	806	561
35°	1388	960	629
40°	1777	1115	685
45°	2195	1262	762
50°	2502	1352	825
55°	2455	1361	852
60°	1709	1214	795
65°	830	913	676
70°	827	689	629
75°	751	637	547
80°	645	559	474
85°	472	404	374



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	12.7	0.4
10°-20°	47.9	1.5
20°-30°	105.6	3.3
30°-40°	190.2	6.0
40°-50°	277.5	8.7
50°-60°	280.7	8.8
60°-70°	138.5	4.4
70°-80°	66.4	2.1
80°-90°	16.2	0.5
90°-100°	54.3	1.7
100°-110°	344.2	10.9
110°-120°	516.6	16.3
120°-130°	475.3	15.0
130°-140°	332.0	10.5
140°-150°	186.1	5.9
150°-160°	86.6	2.7
160°-170°	33.4	1.1
170°-180°	8.2	0.3
0°-30°	166.2	5.2
0°-40°	356.4	11.2
0°-60°	914.7	28.8
0°-90°	1135.8	35.8
90°-120°	915.1	28.8
90°-150°	1908.5	60.2
90°-180°	2037.0	64.2
0°-180°	3172.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	120	120	120	120	120	
5°	129	129	128	127	127	13
15°	180	178	168	153	146	52
25°	276	266	224	187	170	130
35°	423	386	292	220	192	268
45°	577	492	332	231	200	440
55°	523	439	290	205	182	445
65°	130	122	143	110	106	150
75°	72	69	61	57	53	77
85°	15	14	13	12	12	18
90°	0	0	0	1	1	2
95°	14	16	21	18	14	92
105°	602	507	270	173	142	620
115°	915	781	473	292	235	890
125°	886	759	499	311	253	789
135°	674	586	408	270	220	524
145°	425	380	286	202	173	272
155°	238	219	181	144	131	114
165°	130	124	113	102	101	39
175°	83	82	82	82	83	8
180°	81	81	81	81	81	



TEST NUMBER: P316050

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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	120.4	120.4	120.4	120.4	120.4	120.4	120.4	120.4	120.4	120.4	120.4
2.5°	122.6	123.7	122.6	122.6	122.6	122.6	122.6	122.6	122.6	121.6	122.6
5°	129.2	130.3	129.2	129.2	129.2	129.2	129.2	129.2	130.3	129.2	128.1
7.5°	137.9	139.0	137.9	137.9	139.0	139.0	137.9	137.9	137.9	136.9	136.9
10°	148.9	150.0	148.9	148.9	150.0	150.0	148.9	147.8	147.8	145.6	145.6
12.5°	163.2	164.2	163.2	163.2	163.2	163.2	162.0	160.9	159.8	156.6	155.4
15°	179.5	180.6	179.5	179.5	179.5	178.5	177.4	175.1	173.0	169.7	167.5
17.5°	197.1	199.3	199.3	198.2	197.1	195.9	194.9	191.6	188.3	184.0	180.6
20°	220.1	221.1	221.1	219.0	217.9	216.7	214.6	210.2	205.8	199.3	193.8
22.5°	245.2	246.4	246.4	243.0	240.9	239.8	236.5	229.9	224.4	216.7	209.1
25°	275.9	277.0	275.9	272.6	269.3	266.0	262.7	254.0	244.1	234.3	224.4
27.5°	306.5	309.8	307.6	303.3	298.9	294.5	290.1	278.1	267.2	254.0	240.9
30°	342.7	344.9	342.7	337.2	330.6	324.1	318.6	302.2	289.0	273.7	259.5
32.5°	381.0	384.3	381.0	373.3	362.3	354.7	347.0	328.4	310.9	293.4	275.9
35°	422.6	424.7	421.5	411.7	397.4	386.5	376.6	354.7	333.9	312.0	292.3
37.5°	464.2	466.3	462.0	450.0	430.2	418.2	406.2	378.8	354.7	329.6	305.4
40°	505.8	509.1	503.6	486.1	463.1	446.7	433.6	401.8	373.3	344.9	317.5
42.5°	544.1	547.4	540.8	517.8	490.5	471.8	457.6	421.5	388.6	356.9	327.3
45°	576.9	579.2	571.5	544.1	512.4	491.6	475.2	435.7	398.5	363.5	331.7
47.5°	596.6	597.7	590.1	558.4	524.4	502.5	483.9	442.3	402.9	365.7	330.6
50°	597.7	598.9	590.1	556.1	521.1	499.2	481.7	439.0	397.4	359.1	323.0
52.5°	575.8	575.8	567.1	534.2	501.4	479.5	462.0	422.6	383.1	345.9	309.8
55°	523.3	524.4	515.7	486.1	459.8	439.0	425.9	390.8	354.7	321.9	290.1
57.5°	436.8	440.1	433.6	416.0	395.2	381.0	371.2	343.8	316.4	290.1	262.7
60°	317.5	320.7	321.9	313.1	309.8	303.3	297.8	283.5	267.2	247.4	225.6
62.5°	147.8	155.4	170.8	187.2	204.8	210.2	211.3	213.5	208.0	199.3	185.0
65°	130.3	129.2	128.1	125.9	123.7	121.6	122.6	141.2	151.1	151.1	143.4
67.5°	119.3	119.3	118.2	116.1	115.0	112.7	111.7	108.4	105.1	110.6	108.4
70°	105.1	105.1	104.0	101.8	100.8	99.6	98.5	96.3	93.0	90.9	87.6
72.5°	88.7	88.7	87.6	86.5	85.4	84.3	83.2	82.1	78.8	77.7	74.5
75°	72.2	72.2	71.1	71.1	70.1	69.0	67.9	66.8	65.7	63.5	61.3
77.5°	56.9	56.9	55.8	54.7	54.7	53.7	53.7	52.6	51.4	50.3	48.2
80°	41.6	41.6	40.5	40.5	39.4	39.4	39.4	38.3	37.2	37.2	36.1
82.5°	28.5	27.4	27.4	26.3	26.3	26.3	26.3	26.3	25.2	25.2	24.1
85°	15.3	15.3	14.2	15.3	14.2	14.2	14.2	14.2	14.2	13.1	13.1
87.5°	4.4	4.4	4.4	4.4	4.4	4.4	3.3	4.4	4.4	4.4	3.3
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°	6.6	7.7	7.7	7.7	7.7	7.7	7.7	7.7	6.6	7.7	7.7
95°	14.2	15.3	15.3	15.3	15.3	16.4	16.4	18.6	18.6	20.8	20.8
97.5°	157.7	163.2	162.0	139.0	128.1	124.8	117.1	101.8	90.9	81.0	70.1
100°	327.3	341.5	336.1	294.5	273.7	263.8	247.4	210.2	184.0	158.7	133.5
102.5°	474.1	486.1	478.4	432.5	405.1	390.8	367.8	321.9	281.4	240.9	201.4
105°	602.1	613.1	601.0	554.0	525.5	506.9	483.9	424.7	372.2	321.9	270.4
107.5°	710.5	721.4	705.0	660.1	629.5	608.7	576.9	514.5	455.4	395.2	336.1
110°	799.2	806.9	791.5	746.6	712.7	689.7	658.0	590.1	523.3	456.5	393.0



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
112.5°	869.3	870.4	853.9	810.1	774.0	746.6	716.0	647.1	574.8	505.8	440.1
115°	915.2	909.8	892.2	850.6	811.2	780.6	748.8	684.2	610.9	540.8	472.9
117.5°	936.0	927.3	907.6	868.2	828.8	797.0	764.2	700.6	631.7	562.7	494.9
120°	936.0	922.9	902.1	864.9	826.6	794.8	763.0	700.6	639.3	572.6	504.7
122.5°	918.5	904.3	883.5	847.4	812.3	781.7	752.1	693.0	635.0	571.5	506.9
125°	885.7	871.4	851.7	818.9	787.2	758.7	732.4	676.6	619.7	559.4	499.2
127.5°	845.2	830.9	812.3	781.7	752.1	725.8	700.6	650.3	597.7	539.7	482.8
130°	793.7	779.5	763.0	735.7	709.5	684.2	662.4	616.4	568.2	513.4	462.0
132.5°	736.8	724.8	709.5	684.2	660.1	637.2	618.5	576.9	534.2	485.0	435.7
135°	674.4	662.4	650.3	628.4	606.5	585.7	570.4	533.2	496.0	451.0	408.4
137.5°	610.9	603.2	589.0	570.4	551.8	533.2	520.0	487.1	455.4	416.0	378.8
140°	546.3	537.6	528.8	512.4	496.0	480.6	469.7	442.3	413.8	381.0	348.1
142.5°	483.9	476.2	469.7	455.4	442.3	428.1	419.3	396.3	374.4	345.9	317.5
145°	424.7	420.4	412.8	402.9	392.0	379.9	372.2	352.5	333.9	309.8	285.7
147.5°	371.2	366.7	361.3	352.5	344.9	335.0	327.3	313.1	296.7	277.0	257.3
150°	321.9	318.6	314.2	307.6	301.1	292.3	288.0	275.9	262.7	245.2	227.7
152.5°	279.1	275.9	272.6	267.2	261.7	255.1	249.6	238.7	228.8	216.7	203.6
155°	237.5	234.3	232.1	227.7	224.4	219.0	215.7	208.0	200.3	191.6	180.6
157.5°	203.6	201.4	200.3	197.1	193.8	189.4	187.2	181.7	176.3	168.6	159.8
160°	175.1	174.1	173.0	169.7	167.5	164.2	162.0	157.7	154.3	148.9	141.2
162.5°	151.1	150.0	148.9	146.7	145.6	142.4	141.2	137.9	134.6	131.4	125.9
165°	130.3	129.2	128.1	127.0	125.9	123.7	122.6	120.4	119.3	116.1	112.7
167.5°	113.8	112.7	111.7	111.7	110.6	108.4	108.4	106.2	106.2	104.0	100.8
170°	99.6	99.6	98.5	98.5	98.5	96.3	96.3	95.3	95.3	94.2	91.9
172.5°	89.8	89.8	88.7	88.7	88.7	87.6	87.6	87.6	87.6	86.5	85.4
175°	83.2	83.2	83.2	83.2	83.2	82.1	83.2	83.2	83.2	83.2	82.1
177.5°	81.0	80.0	80.0	80.0	81.0	80.0	81.0	81.0	81.0	81.0	81.0
180°	81.0	81.0	81.0	81.0	81.0	81.0	81.0	81.0	81.0	81.0	81.0



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CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
0°	120.4	120.4	120.4	120.4	120.4	120.4	120.4	120.4	120.4	120.4
2.5°	122.6	122.6	122.6	122.6	122.6	122.6	122.6	122.6	122.6	123.7
5°	128.1	128.1	127.0	127.0	127.0	125.9	127.0	125.9	125.9	127.0
7.5°	135.8	134.6	133.5	132.5	132.5	131.4	131.4	130.3	130.3	131.4
10°	143.4	142.4	141.2	139.0	137.9	137.9	136.9	134.6	134.6	135.8
12.5°	153.3	151.1	148.9	146.7	145.6	144.5	143.4	140.1	140.1	141.2
15°	164.2	160.9	158.7	154.3	153.3	152.2	150.0	146.7	145.6	145.6
17.5°	175.1	170.8	167.5	163.2	162.0	159.8	157.7	153.3	151.1	151.1
20°	188.3	182.8	177.4	171.9	169.7	168.6	165.3	159.8	157.7	157.7
22.5°	201.4	194.9	188.3	181.7	178.5	176.3	171.9	167.5	164.2	164.2
25°	215.7	206.9	199.3	190.5	187.2	185.0	179.5	174.1	169.7	169.7
27.5°	228.8	219.0	209.1	200.3	195.9	192.7	187.2	180.6	176.3	175.1
30°	243.0	231.0	220.1	209.1	204.8	201.4	194.9	187.2	182.8	180.6
32.5°	258.3	241.9	229.9	217.9	212.4	209.1	201.4	193.8	188.3	187.2
35°	272.6	256.2	238.7	225.6	220.1	215.7	208.0	199.3	193.8	191.6
37.5°	283.5	264.9	247.4	232.1	226.6	221.1	212.4	202.5	195.9	193.8
40°	293.4	272.6	254.0	235.4	228.8	223.3	213.5	203.6	197.1	194.9
42.5°	298.9	275.9	256.2	236.5	229.9	224.4	215.7	206.9	200.3	197.1
45°	299.9	275.9	256.2	237.5	231.0	226.6	217.9	209.1	202.5	200.3
47.5°	297.8	273.7	255.1	236.5	229.9	225.6	216.7	209.1	202.5	200.3
50°	291.2	268.2	247.4	232.1	225.6	221.1	212.4	205.8	200.3	197.1
52.5°	279.1	258.3	237.5	223.3	216.7	213.5	205.8	199.3	194.9	191.6
55°	261.7	239.8	223.3	210.2	204.8	201.4	194.9	189.4	185.0	181.7
57.5°	236.5	217.9	203.6	192.7	188.3	185.0	179.5	175.1	170.8	167.5
60°	205.8	191.6	178.5	169.7	166.4	164.2	158.7	154.3	151.1	147.8
62.5°	171.9	160.9	151.1	143.4	140.1	136.9	130.3	122.6	120.4	116.1
65°	135.8	128.1	120.4	112.7	109.5	109.5	109.5	108.4	107.3	106.2
67.5°	104.0	99.6	99.6	100.8	99.6	100.8	98.5	97.4	96.3	94.2
70°	86.5	86.5	86.5	85.4	85.4	85.4	83.2	82.1	81.0	80.0
72.5°	73.4	72.2	72.2	71.1	70.1	70.1	69.0	67.9	66.8	65.7
75°	59.1	59.1	58.0	56.9	56.9	55.8	54.7	53.7	53.7	52.6
77.5°	46.0	46.0	44.9	43.8	43.8	43.8	42.7	42.7	41.6	41.6
80°	33.9	33.9	32.9	32.9	31.8	31.8	31.8	30.6	30.6	30.6
82.5°	23.0	23.0	21.9	21.9	21.9	21.9	20.8	20.8	20.8	20.8
85°	13.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1
87.5°	3.3	3.3	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4
90°	0.0	0.0	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
92.5°	7.7	7.7	7.7	8.7	8.7	8.7	7.7	7.7	7.7	7.7
95°	20.8	18.6	18.6	17.5	17.5	16.4	16.4	15.3	15.3	14.2
97.5°	66.8	59.1	54.7	51.4	50.3	48.2	46.0	44.9	43.8	41.6
100°	124.8	111.7	100.8	94.2	93.0	89.8	83.2	81.0	80.0	77.7
102.5°	185.0	163.2	146.7	135.8	133.5	129.2	118.2	115.0	112.7	110.6
105°	246.4	216.7	192.7	179.5	173.0	168.6	153.3	147.8	145.6	142.4
107.5°	304.3	267.2	235.4	216.7	210.2	204.8	186.1	178.5	175.1	173.0
110°	352.5	309.8	275.9	252.9	244.1	235.4	214.6	205.8	201.4	199.3



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CATALOG NUMBER: ShSe-BOX-2-L30-90-UNV-STD

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
112.5°	393.0	345.9	309.8	283.5	272.6	262.7	239.8	228.8	222.2	220.1
115°	422.6	372.2	335.0	304.3	292.3	282.5	260.6	245.2	238.7	235.4
117.5°	442.3	390.8	350.4	318.6	305.4	294.5	272.6	259.5	250.7	245.2
120°	451.0	399.6	359.1	325.1	312.0	299.9	278.1	264.9	256.2	252.9
122.5°	453.3	402.9	362.3	328.4	314.2	302.2	280.3	267.2	258.3	254.0
125°	447.8	398.5	359.1	326.2	310.9	298.9	278.1	264.9	255.1	252.9
127.5°	436.8	390.8	352.5	319.7	305.4	293.4	272.6	259.5	249.6	246.4
130°	419.3	376.6	341.5	310.9	296.7	284.6	264.9	250.7	241.9	239.8
132.5°	397.4	359.1	326.2	297.8	285.7	274.8	255.1	240.9	232.1	231.0
135°	373.3	338.3	307.6	282.5	270.4	260.6	240.9	229.9	222.2	220.1
137.5°	348.1	316.4	289.0	264.9	254.0	244.1	226.6	216.7	210.2	209.1
140°	321.9	293.4	268.2	246.4	235.4	227.7	212.4	203.6	197.1	195.9
142.5°	294.5	270.4	246.4	227.7	219.0	211.3	198.2	190.5	185.0	184.0
145°	267.2	244.1	225.6	210.2	202.5	197.1	185.0	178.5	173.0	173.0
147.5°	239.8	222.2	206.9	193.8	187.2	181.7	171.9	166.4	163.2	163.2
150°	215.7	201.4	188.3	177.4	171.9	167.5	159.8	154.3	152.2	151.1
152.5°	192.7	181.7	170.8	162.0	157.7	153.3	146.7	143.4	141.2	141.2
155°	171.9	163.2	154.3	147.8	144.5	140.1	135.8	133.5	131.4	131.4
157.5°	154.3	146.7	140.1	134.6	131.4	129.2	124.8	123.7	122.6	122.6
160°	137.9	132.5	127.0	122.6	120.4	119.3	116.1	115.0	113.8	115.0
162.5°	122.6	119.3	115.0	111.7	110.6	109.5	108.4	107.3	107.3	107.3
165°	110.6	108.4	105.1	102.9	101.8	101.8	100.8	100.8	100.8	100.8
167.5°	99.6	98.5	96.3	95.3	95.3	95.3	94.2	95.3	94.2	94.2
170°	91.9	90.9	89.8	89.8	89.8	89.8	88.7	89.8	89.8	89.8
172.5°	85.4	85.4	85.4	85.4	85.4	85.4	85.4	86.5	85.4	85.4
175°	82.1	82.1	82.1	82.1	82.1	83.2	83.2	83.2	83.2	83.2
177.5°	81.0	81.0	81.0	81.0	81.0	82.1	82.1	82.1	82.1	82.1
180°	81.0	81.0	81.0	81.0	81.0	81.0	81.0	81.0	81.0	81.0

(END OF REPORT)