

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: P316047

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P316047
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1811-037-5)
Test Lab: INNOVATION CENTER(G2)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: SHAPER
Catalog Number: ShSe-BOX-1-L30-90-UNV-STD
Description: SHAPER SENSE SQUARE
LIGHT LEVEL 1
Light Source: 3000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

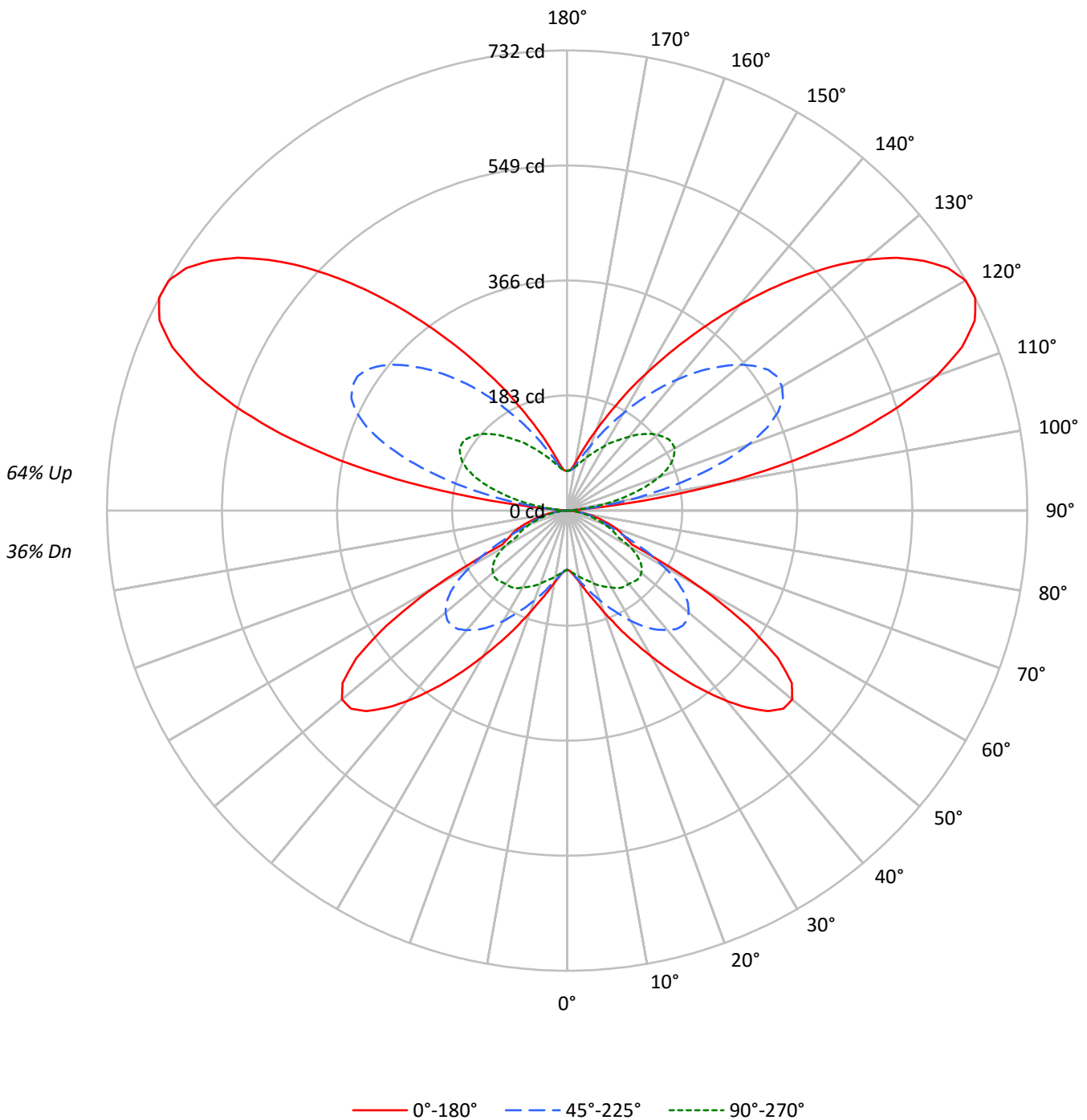
Lumens per Lamp: N/A
Luminaire Lumens: 2480.6 lumens
Efficiency: N/A
Efficacy: 83.8 lumens/watt
Spacing Criteria (0/90/45): 3.21 / 2.21 / 2.38
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 2' x H: 1.17')
CIE Type: Semi-Indirect

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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CATALOG NUMBER: ShSe-BOX-1-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°	253	253	253
5°	260	252	255
10°	288	271	263
15°	338	299	274
20°	407	334	291
25°	503	376	310
30°	623	427	328
35°	771	476	349
40°	933	515	359
45°	1084	541	376
50°	1154	533	381
55°	1047	489	364
60°	664	391	309
65°	288	258	235
70°	248	165	189
75°	185	122	135
80°	117	77	86
85°	48	30	38



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	10.0	0.4
10°-20°	37.4	1.5
20°-30°	82.6	3.3
30°-40°	148.7	6.0
40°-50°	217.0	8.7
50°-60°	219.5	8.8
60°-70°	108.3	4.4
70°-80°	51.9	2.1
80°-90°	12.7	0.5
90°-100°	42.4	1.7
100°-110°	269.1	10.9
110°-120°	403.9	16.3
120°-130°	371.6	15.0
130°-140°	259.6	10.5
140°-150°	145.5	5.9
150°-160°	67.7	2.7
160°-170°	26.2	1.1
170°-180°	6.4	0.3
0°-30°	130.0	5.2
0°-40°	278.7	11.2
0°-60°	715.2	28.8
0°-90°	888.0	35.8
90°-120°	715.5	28.8
90°-150°	1492.2	60.2
90°-180°	1593.0	64.2
0°-180°	2480.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	94	94	94	94	94	
5°	101	101	100	99	99	10
15°	140	140	131	120	114	41
25°	216	208	176	146	133	102
35°	330	302	229	172	150	209
45°	451	384	259	181	157	344
55°	409	343	227	160	142	348
65°	102	95	112	86	83	117
75°	56	54	48	44	41	60
85°	12	11	10	9	9	14
90°	0	0	0	1	1	1
95°	11	13	16	14	11	72
105°	471	396	211	135	111	485
115°	716	610	370	229	184	696
125°	692	593	390	243	198	617
135°	527	458	319	211	172	410
145°	332	297	223	158	135	213
155°	186	171	141	113	103	89
165°	102	97	88	80	79	30
175°	65	64	64	64	65	7
180°	63	63	63	63	63	



TEST NUMBER: P316047

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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	94.2	94.2	94.2	94.2	94.2	94.2	94.2	94.2	94.2	94.2	94.2
2.5°	95.9	96.7	95.9	95.9	95.9	95.9	95.9	95.9	95.9	95.0	95.9
5°	101.0	101.9	101.0	101.0	101.0	101.0	101.0	101.0	101.9	101.0	100.2
7.5°	107.9	108.7	107.9	107.9	108.7	108.7	107.9	107.9	107.9	107.0	107.0
10°	116.4	117.3	116.4	116.4	117.3	117.3	116.4	115.6	115.6	113.8	113.8
12.5°	127.5	128.4	127.5	127.5	127.5	127.5	126.7	125.8	125.0	122.4	121.6
15°	140.4	141.2	140.4	140.4	140.4	139.5	138.7	137.0	135.2	132.7	131.0
17.5°	154.1	155.8	155.8	154.9	154.1	153.2	152.4	149.8	147.2	143.8	141.2
20°	172.1	172.9	172.9	171.2	170.3	169.5	167.8	164.4	160.9	155.8	151.5
22.5°	191.7	192.6	192.6	190.0	188.3	187.5	184.9	179.8	175.5	169.5	163.5
25°	215.7	216.6	215.7	213.1	210.6	208.0	205.4	198.6	190.9	183.2	175.5
27.5°	239.7	242.2	240.5	237.1	233.7	230.3	226.8	217.4	208.9	198.6	188.3
30°	267.9	269.6	267.9	263.6	258.5	253.4	249.1	236.3	226.0	214.0	202.9
32.5°	297.9	300.5	297.9	291.9	283.3	277.3	271.4	256.8	243.1	229.4	215.7
35°	330.4	332.1	329.6	321.9	310.7	302.2	294.5	277.3	261.1	244.0	228.6
37.5°	362.9	364.7	361.2	351.8	336.4	327.0	317.6	296.2	277.3	257.7	238.8
40°	395.5	398.0	393.8	380.1	362.1	349.2	339.0	314.2	291.9	269.6	248.2
42.5°	425.4	428.0	422.9	404.9	383.5	368.9	357.8	329.6	303.9	279.1	255.9
45°	451.1	452.8	446.8	425.4	400.6	384.3	371.5	340.7	311.6	284.2	259.4
47.5°	466.5	467.4	461.4	436.6	410.0	392.9	378.4	345.8	315.0	285.9	258.5
50°	467.4	468.2	461.4	434.8	407.5	390.3	376.6	343.3	310.7	280.8	252.5
52.5°	450.3	450.3	443.4	417.7	392.0	374.9	361.2	330.4	299.6	270.5	242.2
55°	409.2	410.0	403.2	380.1	359.5	343.3	333.0	305.6	277.3	251.7	226.8
57.5°	341.5	344.1	339.0	325.3	309.0	297.9	290.2	268.8	247.4	226.8	205.4
60°	248.2	250.8	251.7	244.8	242.2	237.1	232.8	221.7	208.9	193.5	176.3
62.5°	115.6	121.6	133.5	146.4	160.1	164.4	165.2	166.9	162.6	155.8	144.7
65°	101.9	101.0	100.2	98.4	96.7	95.0	95.9	110.4	118.1	118.1	112.1
67.5°	93.3	93.3	92.4	90.7	89.9	88.2	87.3	84.7	82.2	86.5	84.7
70°	82.2	82.2	81.3	79.6	78.8	77.9	77.0	75.3	72.8	71.0	68.5
72.5°	69.3	69.3	68.5	67.6	66.8	65.9	65.1	64.2	61.6	60.8	58.2
75°	56.5	56.5	55.6	55.6	54.8	53.9	53.1	52.2	51.4	49.6	47.9
77.5°	44.5	44.5	43.7	42.8	42.8	41.9	41.9	41.1	40.2	39.4	37.7
80°	32.5	32.5	31.7	31.7	30.8	30.8	30.8	30.0	29.1	29.1	28.2
82.5°	22.3	21.4	21.4	20.5	20.5	20.5	20.5	20.5	19.7	19.7	18.8
85°	12.0	12.0	11.1	12.0	11.1	11.1	11.1	11.1	11.1	10.3	10.3
87.5°	3.4	3.4	3.4	3.4	3.4	3.4	2.6	3.4	3.4	3.4	2.6
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°	5.1	6.0	6.0	6.0	6.0	6.0	6.0	6.0	5.1	6.0	6.0
95°	11.1	12.0	12.0	12.0	12.0	12.8	12.8	14.6	14.6	16.3	16.3
97.5°	123.3	127.5	126.7	108.7	100.2	97.6	91.6	79.6	71.0	63.3	54.8
100°	255.9	267.1	262.8	230.3	214.0	206.3	193.5	164.4	143.8	124.1	104.4
102.5°	370.6	380.1	374.1	338.1	316.7	305.6	287.6	251.7	220.0	188.3	157.5
105°	470.8	479.4	469.9	433.1	410.9	396.3	378.4	332.1	291.0	251.7	211.4
107.5°	555.5	564.1	551.3	516.2	492.2	475.9	451.1	402.3	356.1	309.0	262.8
110°	624.9	630.9	618.9	583.8	557.3	539.3	514.5	461.4	409.2	357.0	307.3



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
112.5°	679.7	680.5	667.7	633.4	605.2	583.8	559.8	505.9	449.4	395.5	344.1
115°	715.6	711.3	697.6	665.1	634.3	610.3	585.5	535.0	477.6	422.9	369.8
117.5°	731.9	725.0	709.6	678.8	648.0	623.2	597.5	547.8	493.9	440.0	386.9
120°	731.9	721.6	705.3	676.2	646.3	621.5	596.6	547.8	499.9	447.7	394.6
122.5°	718.2	707.1	690.8	662.5	635.2	611.2	588.1	541.8	496.5	446.8	396.3
125°	692.5	681.4	666.0	640.3	615.5	593.2	572.7	529.0	484.5	437.4	390.3
127.5°	660.8	649.7	635.2	611.2	588.1	567.5	547.8	508.5	467.4	422.0	377.5
130°	620.6	609.5	596.6	575.2	554.7	535.0	517.9	481.9	444.3	401.5	361.2
132.5°	576.1	566.7	554.7	535.0	516.2	498.2	483.6	451.1	417.7	379.2	340.7
135°	527.3	517.9	508.5	491.3	474.2	458.0	446.0	416.9	387.8	352.7	319.3
137.5°	477.6	471.7	460.5	446.0	431.4	416.9	406.6	380.9	356.1	325.3	296.2
140°	427.1	420.3	413.4	400.6	387.8	375.8	367.2	345.8	323.6	297.9	272.2
142.5°	378.4	372.4	367.2	356.1	345.8	334.7	327.8	309.9	292.8	270.5	248.2
145°	332.1	328.7	322.7	315.0	306.4	297.0	291.0	275.6	261.1	242.2	223.4
147.5°	290.2	286.8	282.5	275.6	269.6	261.9	255.9	244.8	232.0	216.6	201.2
150°	251.7	249.1	245.7	240.5	235.4	228.6	225.1	215.7	205.4	191.7	178.0
152.5°	218.3	215.7	213.1	208.9	204.6	199.4	195.2	186.6	178.9	169.5	159.2
155°	185.8	183.2	181.5	178.0	175.5	171.2	168.6	162.6	156.6	149.8	141.2
157.5°	159.2	157.5	156.6	154.1	151.5	148.1	146.4	142.1	137.8	131.8	125.0
160°	137.0	136.1	135.2	132.7	131.0	128.4	126.7	123.3	120.7	116.4	110.4
162.5°	118.1	117.3	116.4	114.7	113.8	111.3	110.4	107.9	105.3	102.7	98.4
165°	101.9	101.0	100.2	99.3	98.4	96.7	95.9	94.2	93.3	90.7	88.2
167.5°	89.0	88.2	87.3	87.3	86.5	84.7	84.7	83.0	83.0	81.3	78.8
170°	77.9	77.9	77.0	77.0	77.0	75.3	75.3	74.5	74.5	73.6	71.9
172.5°	70.2	70.2	69.3	69.3	69.3	68.5	68.5	68.5	68.5	67.6	66.8
175°	65.1	65.1	65.1	65.1	65.1	64.2	65.1	65.1	65.1	65.1	64.2
177.5°	63.3	62.5	62.5	62.5	63.3	62.5	63.3	63.3	63.3	63.3	63.3
180°	63.3	63.3	63.3	63.3	63.3	63.3	63.3	63.3	63.3	63.3	63.3



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CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
0°	94.2	94.2	94.2	94.2	94.2	94.2	94.2	94.2	94.2	94.2
2.5°	95.9	95.9	95.9	95.9	95.9	95.9	95.9	95.9	95.9	96.7
5°	100.2	100.2	99.3	99.3	99.3	98.4	99.3	98.4	98.4	99.3
7.5°	106.1	105.3	104.4	103.6	103.6	102.7	102.7	101.9	101.9	102.7
10°	112.1	111.3	110.4	108.7	107.9	107.9	107.0	105.3	105.3	106.1
12.5°	119.8	118.1	116.4	114.7	113.8	113.0	112.1	109.6	109.6	110.4
15°	128.4	125.8	124.1	120.7	119.8	119.0	117.3	114.7	113.8	113.8
17.5°	137.0	133.5	131.0	127.5	126.7	125.0	123.3	119.8	118.1	118.1
20°	147.2	143.0	138.7	134.4	132.7	131.8	129.3	125.0	123.3	123.3
22.5°	157.5	152.4	147.2	142.1	139.5	137.8	134.4	131.0	128.4	128.4
25°	168.6	161.8	155.8	148.9	146.4	144.7	140.4	136.1	132.7	132.7
27.5°	178.9	171.2	163.5	156.6	153.2	150.7	146.4	141.2	137.8	137.0
30°	190.0	180.6	172.1	163.5	160.1	157.5	152.4	146.4	143.0	141.2
32.5°	202.0	189.2	179.8	170.3	166.1	163.5	157.5	151.5	147.2	146.4
35°	213.1	200.3	186.6	176.3	172.1	168.6	162.6	155.8	151.5	149.8
37.5°	221.7	207.2	193.5	181.5	177.2	172.9	166.1	158.4	153.2	151.5
40°	229.4	213.1	198.6	184.0	178.9	174.6	166.9	159.2	154.1	152.4
42.5°	233.7	215.7	200.3	184.9	179.8	175.5	168.6	161.8	156.6	154.1
45°	234.5	215.7	200.3	185.8	180.6	177.2	170.3	163.5	158.4	156.6
47.5°	232.8	214.0	199.4	184.9	179.8	176.3	169.5	163.5	158.4	156.6
50°	227.7	209.7	193.5	181.5	176.3	172.9	166.1	160.9	156.6	154.1
52.5°	218.3	202.0	185.8	174.6	169.5	166.9	160.9	155.8	152.4	149.8
55°	204.6	187.5	174.6	164.4	160.1	157.5	152.4	148.1	144.7	142.1
57.5°	184.9	170.3	159.2	150.7	147.2	144.7	140.4	137.0	133.5	131.0
60°	160.9	149.8	139.5	132.7	130.1	128.4	124.1	120.7	118.1	115.6
62.5°	134.4	125.8	118.1	112.1	109.6	107.0	101.9	95.9	94.2	90.7
65°	106.1	100.2	94.2	88.2	85.6	85.6	85.6	84.7	83.9	83.0
67.5°	81.3	77.9	77.9	78.8	77.9	78.8	77.0	76.2	75.3	73.6
70°	67.6	67.6	67.6	66.8	66.8	66.8	65.1	64.2	63.3	62.5
72.5°	57.4	56.5	56.5	55.6	54.8	54.8	53.9	53.1	52.2	51.4
75°	46.2	46.2	45.4	44.5	44.5	43.7	42.8	41.9	41.9	41.1
77.5°	36.0	36.0	35.1	34.2	34.2	34.2	33.4	33.4	32.5	32.5
80°	26.5	26.5	25.7	25.7	24.8	24.8	24.8	24.0	24.0	24.0
82.5°	18.0	18.0	17.1	17.1	17.1	17.1	16.3	16.3	16.3	16.3
85°	10.3	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4
87.5°	2.6	2.6	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4
90°	0.0	0.0	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
92.5°	6.0	6.0	6.0	6.8	6.8	6.8	6.0	6.0	6.0	6.0
95°	16.3	14.6	14.6	13.7	13.7	12.8	12.8	12.0	12.0	11.1
97.5°	52.2	46.2	42.8	40.2	39.4	37.7	36.0	35.1	34.2	32.5
100°	97.6	87.3	78.8	73.6	72.8	70.2	65.1	63.3	62.5	60.8
102.5°	144.7	127.5	114.7	106.1	104.4	101.0	92.4	89.9	88.2	86.5
105°	192.6	169.5	150.7	140.4	135.2	131.8	119.8	115.6	113.8	111.3
107.5°	238.0	208.9	184.0	169.5	164.4	160.1	145.5	139.5	137.0	135.2
110°	275.6	242.2	215.7	197.7	190.9	184.0	167.8	160.9	157.5	155.8



TEST NUMBER: P316047

CATALOG NUMBER: ShSe-BOX-1-L30-90-UNV-STD

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
112.5°	307.3	270.5	242.2	221.7	213.1	205.4	187.5	178.9	173.8	172.1
115°	330.4	291.0	261.9	238.0	228.6	220.8	203.7	191.7	186.6	184.0
117.5°	345.8	305.6	273.9	249.1	238.8	230.3	213.1	202.9	196.0	191.7
120°	352.7	312.4	280.8	254.2	244.0	234.5	217.4	207.2	200.3	197.7
122.5°	354.4	315.0	283.3	256.8	245.7	236.3	219.1	208.9	202.0	198.6
125°	350.1	311.6	280.8	255.1	243.1	233.7	217.4	207.2	199.4	197.7
127.5°	341.5	305.6	275.6	250.0	238.8	229.4	213.1	202.9	195.2	192.6
130°	327.8	294.5	267.1	243.1	232.0	222.6	207.2	196.0	189.2	187.5
132.5°	310.7	280.8	255.1	232.8	223.4	214.9	199.4	188.3	181.5	180.6
135°	291.9	264.5	240.5	220.8	211.4	203.7	188.3	179.8	173.8	172.1
137.5°	272.2	247.4	226.0	207.2	198.6	190.9	177.2	169.5	164.4	163.5
140°	251.7	229.4	209.7	192.6	184.0	178.0	166.1	159.2	154.1	153.2
142.5°	230.3	211.4	192.6	178.0	171.2	165.2	154.9	148.9	144.7	143.8
145°	208.9	190.9	176.3	164.4	158.4	154.1	144.7	139.5	135.2	135.2
147.5°	187.5	173.8	161.8	151.5	146.4	142.1	134.4	130.1	127.5	127.5
150°	168.6	157.5	147.2	138.7	134.4	131.0	125.0	120.7	119.0	118.1
152.5°	150.7	142.1	133.5	126.7	123.3	119.8	114.7	112.1	110.4	110.4
155°	134.4	127.5	120.7	115.6	113.0	109.6	106.1	104.4	102.7	102.7
157.5°	120.7	114.7	109.6	105.3	102.7	101.0	97.6	96.7	95.9	95.9
160°	107.9	103.6	99.3	95.9	94.2	93.3	90.7	89.9	89.0	89.9
162.5°	95.9	93.3	89.9	87.3	86.5	85.6	84.7	83.9	83.9	83.9
165°	86.5	84.7	82.2	80.5	79.6	79.6	78.8	78.8	78.8	78.8
167.5°	77.9	77.0	75.3	74.5	74.5	74.5	73.6	74.5	73.6	73.6
170°	71.9	71.0	70.2	70.2	70.2	70.2	69.3	70.2	70.2	70.2
172.5°	66.8	66.8	66.8	66.8	66.8	66.8	66.8	67.6	66.8	66.8
175°	64.2	64.2	64.2	64.2	64.2	65.1	65.1	65.1	65.1	65.1
177.5°	63.3	63.3	63.3	63.3	63.3	64.2	64.2	64.2	64.2	64.2
180°	63.3	63.3	63.3	63.3	63.3	63.3	63.3	63.3	63.3	63.3

(END OF REPORT)