

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: P316051

Luminaire Tested: **ShSe-BOX-2-L35-80-UNV-STD**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P316051
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-L35-80-UNV-STD
Description: SHAPER SENSE SQUARE
LIGHT LEVEL 2
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

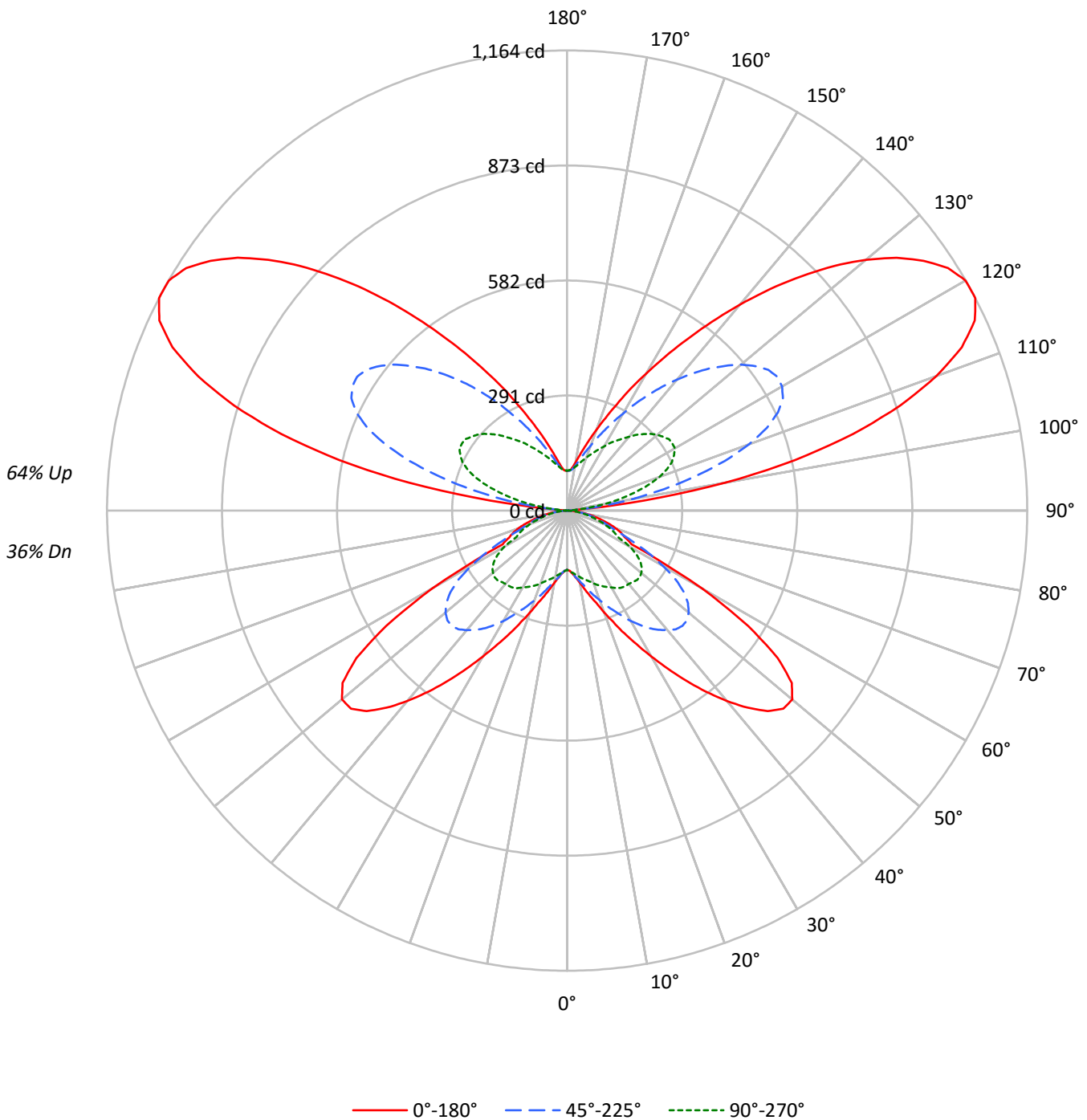
Lumens per Lamp: N/A
Luminaire Lumens: 3944.7 lumens
Efficiency: N/A
Efficacy: 101.7 lumens/watt
Spacing Criteria (0/90/45): 3.21 / 2.21 / 2.38
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Semi-Indirect

Input Watts (W): 38.8
Input Voltage (V): 120
Input Current (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



TEST NUMBER: P316051
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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°	403	403	403
5°	434	430	427
10°	506	495	461
15°	622	580	504
20°	784	690	561
25°	1018	829	626
30°	1324	1002	698
35°	1726	1194	783
40°	2209	1387	851
45°	2730	1569	948
50°	3112	1681	1026
55°	3052	1692	1060
60°	2125	1509	989
65°	1032	1135	841
70°	1028	857	782
75°	935	793	679
80°	801	696	590
85°	590	503	463



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	15.8	0.4
10°-20°	59.5	1.5
20°-30°	131.3	3.3
30°-40°	236.5	6.0
40°-50°	345.1	8.7
50°-60°	349.1	8.8
60°-70°	172.2	4.4
70°-80°	82.5	2.1
80°-90°	20.2	0.5
90°-100°	67.5	1.7
100°-110°	428.0	10.8
110°-120°	642.3	16.3
120°-130°	590.9	15.0
130°-140°	412.9	10.5
140°-150°	231.4	5.9
150°-160°	107.7	2.7
160°-170°	41.6	1.1
170°-180°	10.3	0.3
0°-30°	206.7	5.2
0°-40°	443.2	11.2
0°-60°	1137.3	28.8
0°-90°	1412.2	35.8
90°-120°	1137.8	28.8
90°-150°	2373.0	60.2
90°-180°	2533.0	64.2
0°-180°	3944.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	150	150	150	150	150	
5°	161	161	159	158	158	16
15°	223	222	208	190	181	65
25°	343	331	279	233	211	162
35°	525	480	364	274	238	333
45°	717	611	412	287	249	548
55°	651	546	361	255	226	553
65°	162	151	178	136	132	187
75°	90	86	76	71	65	95
85°	19	18	16	15	15	23
90°	0	0	0	1	1	2
95°	18	20	26	22	18	114
105°	749	630	336	215	177	771
115°	1138	970	588	364	293	1106
125°	1101	943	621	387	314	982
135°	838	728	508	336	274	651
145°	528	472	355	252	215	338
155°	295	272	225	180	163	142
165°	162	154	140	127	125	48
175°	104	102	102	102	104	11
180°	101	101	101	101	101	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	149.7	149.7	149.7	149.7	149.7	149.7	149.7	149.7	149.7	149.7	149.7
2.5°	152.5	153.8	152.5	152.5	152.5	152.5	152.5	152.5	152.5	151.1	152.5
5°	160.6	162.0	160.6	160.6	160.6	160.6	160.6	160.6	162.0	160.6	159.3
7.5°	171.5	172.9	171.5	171.5	172.9	172.9	171.5	171.5	171.5	170.2	170.2
10°	185.2	186.5	185.2	185.2	186.5	186.5	185.2	183.8	183.8	181.0	181.0
12.5°	202.8	204.2	202.8	202.8	202.8	202.8	201.5	200.1	198.8	194.7	193.3
15°	223.2	224.6	223.2	223.2	223.2	221.9	220.5	217.8	215.1	211.0	208.3
17.5°	245.0	247.7	247.7	246.4	245.0	243.7	242.3	238.2	234.1	228.7	224.6
20°	273.6	274.9	274.9	272.2	270.9	269.6	266.8	261.3	255.9	247.7	241.0
22.5°	304.9	306.3	306.3	302.2	299.4	298.1	294.0	285.8	279.1	269.6	260.0
25°	343.0	344.4	343.0	339.0	334.9	330.8	326.7	315.8	303.5	291.3	279.1
27.5°	381.2	385.2	382.5	377.1	371.6	366.2	360.7	345.7	332.1	315.8	299.4
30°	426.0	428.8	426.0	419.3	411.1	402.9	396.2	375.7	359.3	340.3	322.6
32.5°	473.7	477.8	473.7	464.2	450.6	441.0	431.5	408.4	386.6	364.8	343.0
35°	525.4	528.2	524.0	511.8	494.2	480.5	468.2	441.0	415.2	387.9	363.5
37.5°	577.2	579.9	574.5	559.5	535.0	520.0	505.0	471.0	441.0	409.8	379.8
40°	628.9	633.0	626.2	604.4	575.8	555.4	539.0	499.6	464.2	428.8	394.8
42.5°	676.5	680.6	672.5	643.9	609.8	586.7	569.0	524.0	483.2	443.8	407.0
45°	717.3	720.1	710.6	676.5	637.0	611.2	590.8	541.8	495.5	452.0	412.4
47.5°	741.9	743.3	733.7	694.2	652.0	624.8	601.7	550.0	500.9	454.6	411.1
50°	743.3	744.6	733.7	691.5	647.9	620.7	598.9	545.9	494.2	446.5	401.5
52.5°	716.0	716.0	705.1	664.3	623.4	596.2	574.5	525.4	476.4	430.1	385.2
55°	650.6	652.0	641.1	604.4	571.7	545.9	529.5	486.0	441.0	400.2	360.7
57.5°	543.1	547.2	539.0	517.3	491.4	473.7	461.5	427.4	393.4	360.7	326.7
60°	394.8	398.8	400.2	389.3	385.2	377.1	370.2	352.6	332.1	307.6	280.4
62.5°	183.8	193.3	212.4	232.7	254.6	261.3	262.7	265.4	258.6	247.7	230.0
65°	162.0	160.6	159.3	156.6	153.8	151.1	152.5	175.6	187.9	187.9	178.3
67.5°	148.3	148.3	147.0	144.3	143.0	140.2	138.8	134.7	130.7	137.5	134.7
70°	130.7	130.7	129.3	126.6	125.2	123.9	122.5	119.8	115.7	113.0	108.9
72.5°	110.3	110.3	108.9	107.5	106.1	104.8	103.5	102.1	98.0	96.6	92.5
75°	89.9	89.9	88.5	88.5	87.1	85.8	84.4	83.0	81.7	78.9	76.3
77.5°	70.8	70.8	69.4	68.1	68.1	66.7	66.7	65.3	63.9	62.7	59.9
80°	51.7	51.7	50.3	50.3	49.0	49.0	49.0	47.7	46.3	46.3	44.9
82.5°	35.4	34.1	34.1	32.7	32.7	32.7	32.7	32.7	31.3	31.3	30.0
85°	19.1	19.1	17.7	19.1	17.7	17.7	17.7	17.7	17.7	16.3	16.3
87.5°	5.5	5.5	5.5	5.5	5.5	5.5	4.1	5.5	5.5	5.5	4.1
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°	8.1	9.5	9.5	9.5	9.5	9.5	9.5	9.5	8.1	9.5	9.5
95°	17.7	19.1	19.1	19.1	19.1	20.5	20.5	23.1	23.1	25.9	25.9
97.5°	196.0	202.8	201.5	172.9	159.3	155.2	145.7	126.6	113.0	100.8	87.1
100°	407.0	424.7	417.9	366.2	340.3	328.0	307.6	261.3	228.7	197.4	166.1
102.5°	589.4	604.4	594.8	537.7	503.7	486.0	457.4	400.2	349.8	299.4	250.5
105°	748.7	762.3	747.3	688.8	653.4	630.3	601.7	528.2	462.8	400.2	336.2
107.5°	883.5	897.1	876.6	820.8	782.7	756.9	717.3	639.8	566.2	491.4	417.9
110°	993.7	1003.2	984.1	928.3	886.1	857.5	818.1	733.7	650.6	567.6	488.7



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
112.5°	1080.8	1082.2	1061.8	1007.3	962.4	928.3	890.2	804.5	714.7	628.9	547.2
115°	1138.0	1131.2	1109.4	1057.7	1008.7	970.5	931.1	850.8	759.5	672.5	588.1
117.5°	1163.8	1152.9	1128.5	1079.4	1030.5	991.0	950.2	871.2	785.5	699.7	615.3
120°	1163.8	1147.6	1121.6	1075.4	1027.7	988.3	948.8	871.2	795.0	711.9	627.5
122.5°	1142.1	1124.4	1098.5	1053.6	1010.0	971.9	935.2	861.6	789.5	710.6	630.3
125°	1101.2	1083.5	1059.0	1018.2	978.8	943.3	910.7	841.3	770.5	695.6	620.7
127.5°	1050.9	1033.2	1010.0	971.9	935.2	902.5	871.2	808.6	743.3	671.1	600.3
130°	986.9	969.2	948.8	914.7	882.1	850.8	823.6	766.4	706.5	638.4	574.5
132.5°	916.1	901.1	882.1	850.8	820.8	792.2	769.1	717.3	664.3	603.1	541.8
135°	838.5	823.6	808.6	781.4	754.1	728.3	709.2	662.9	616.7	560.9	507.8
137.5°	759.5	750.0	732.3	709.2	686.1	662.9	646.6	605.8	566.2	517.3	471.0
140°	679.2	668.4	657.5	637.0	616.7	597.6	584.0	550.0	514.5	473.7	432.9
142.5°	601.7	592.1	584.0	566.2	550.0	532.3	521.4	492.8	465.6	430.1	394.8
145°	528.2	522.7	513.2	500.9	487.3	472.3	462.8	438.4	415.2	385.2	355.2
147.5°	461.5	456.0	449.2	438.4	428.8	416.5	407.0	389.3	368.9	344.4	319.9
150°	400.2	396.2	390.7	382.5	374.3	363.5	358.0	343.0	326.7	304.9	283.2
152.5°	347.1	343.0	339.0	332.1	325.4	317.1	310.4	296.8	284.5	269.6	253.2
155°	295.4	291.3	288.6	283.2	279.1	272.2	268.2	258.6	249.1	238.2	224.6
157.5°	253.2	250.5	249.1	245.0	241.0	235.5	232.7	226.0	219.1	209.6	198.8
160°	217.8	216.4	215.1	211.0	208.3	204.2	201.5	196.0	191.9	185.2	175.6
162.5°	187.9	186.5	185.2	182.4	181.0	176.9	175.6	171.5	167.4	163.3	156.6
165°	162.0	160.6	159.3	157.9	156.6	153.8	152.5	149.7	148.3	144.3	140.2
167.5°	141.6	140.2	138.8	138.8	137.5	134.7	134.7	132.1	132.1	129.3	125.2
170°	123.9	123.9	122.5	122.5	122.5	119.8	119.8	118.4	118.4	117.1	114.4
172.5°	111.6	111.6	110.3	110.3	110.3	108.9	108.9	108.9	108.9	107.5	106.1
175°	103.5	103.5	103.5	103.5	103.5	102.1	103.5	103.5	103.5	103.5	102.1
177.5°	100.8	99.4	99.4	99.4	100.8	99.4	100.8	100.8	100.8	100.8	100.8
180°	100.8	100.8	100.8	100.8	100.8	100.8	100.8	100.8	100.8	100.8	100.8



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CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
0°	149.7	149.7	149.7	149.7	149.7	149.7	149.7	149.7	149.7	149.7
2.5°	152.5	152.5	152.5	152.5	152.5	152.5	152.5	152.5	152.5	153.8
5°	159.3	159.3	157.9	157.9	157.9	156.6	157.9	156.6	156.6	157.9
7.5°	168.8	167.4	166.1	164.7	164.7	163.3	163.3	162.0	162.0	163.3
10°	178.3	176.9	175.6	172.9	171.5	171.5	170.2	167.4	167.4	168.8
12.5°	190.5	187.9	185.2	182.4	181.0	179.7	178.3	174.2	174.2	175.6
15°	204.2	200.1	197.4	191.9	190.5	189.2	186.5	182.4	181.0	181.0
17.5°	217.8	212.4	208.3	202.8	201.5	198.8	196.0	190.5	187.9	187.9
20°	234.1	227.4	220.5	213.7	211.0	209.6	205.5	198.8	196.0	196.0
22.5°	250.5	242.3	234.1	226.0	221.9	219.1	213.7	208.3	204.2	204.2
25°	268.2	257.3	247.7	236.9	232.7	230.0	223.2	216.4	211.0	211.0
27.5°	284.5	272.2	260.0	249.1	243.7	239.6	232.7	224.6	219.1	217.8
30°	302.2	287.2	273.6	260.0	254.6	250.5	242.3	232.7	227.4	224.6
32.5°	321.3	300.8	285.8	270.9	264.1	260.0	250.5	241.0	234.1	232.7
35°	339.0	318.5	296.8	280.4	273.6	268.2	258.6	247.7	241.0	238.2
37.5°	352.6	329.4	307.6	288.6	281.8	274.9	264.1	251.8	243.7	241.0
40°	364.8	339.0	315.8	292.7	284.5	277.7	265.4	253.2	245.0	242.3
42.5°	371.6	343.0	318.5	294.0	285.8	279.1	268.2	257.3	249.1	245.0
45°	373.0	343.0	318.5	295.4	287.2	281.8	270.9	260.0	251.8	249.1
47.5°	370.2	340.3	317.1	294.0	285.8	280.4	269.6	260.0	251.8	249.1
50°	362.1	333.5	307.6	288.6	280.4	274.9	264.1	255.9	249.1	245.0
52.5°	347.1	321.3	295.4	277.7	269.6	265.4	255.9	247.7	242.3	238.2
55°	325.4	298.1	277.7	261.3	254.6	250.5	242.3	235.5	230.0	226.0
57.5°	294.0	270.9	253.2	239.6	234.1	230.0	223.2	217.8	212.4	208.3
60°	255.9	238.2	221.9	211.0	206.9	204.2	197.4	191.9	187.9	183.8
62.5°	213.7	200.1	187.9	178.3	174.2	170.2	162.0	152.5	149.7	144.3
65°	168.8	159.3	149.7	140.2	136.1	136.1	136.1	134.7	133.4	132.1
67.5°	129.3	123.9	123.9	125.2	123.9	125.2	122.5	121.1	119.8	117.1
70°	107.5	107.5	107.5	106.1	106.1	106.1	103.5	102.1	100.8	99.4
72.5°	91.2	89.9	89.9	88.5	87.1	87.1	85.8	84.4	83.0	81.7
75°	73.5	73.5	72.2	70.8	70.8	69.4	68.1	66.7	66.7	65.3
77.5°	57.2	57.2	55.8	54.4	54.4	54.4	53.1	53.1	51.7	51.7
80°	42.2	42.2	40.8	40.8	39.5	39.5	39.5	38.1	38.1	38.1
82.5°	28.6	28.6	27.2	27.2	27.2	27.2	25.9	25.9	25.9	25.9
85°	16.3	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0
87.5°	4.1	4.1	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
90°	0.0	0.0	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
92.5°	9.5	9.5	9.5	10.9	10.9	10.9	9.5	9.5	9.5	9.5
95°	25.9	23.1	23.1	21.7	21.7	20.5	20.5	19.1	19.1	17.7
97.5°	83.0	73.5	68.1	63.9	62.7	59.9	57.2	55.8	54.4	51.7
100°	155.2	138.8	125.2	117.1	115.7	111.6	103.5	100.8	99.4	96.6
102.5°	230.0	202.8	182.4	168.8	166.1	160.6	147.0	143.0	140.2	137.5
105°	306.3	269.6	239.6	223.2	215.1	209.6	190.5	183.8	181.0	176.9
107.5°	378.4	332.1	292.7	269.6	261.3	254.6	231.4	221.9	217.8	215.1
110°	438.4	385.2	343.0	314.4	303.5	292.7	266.8	255.9	250.5	247.7



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CATALOG NUMBER: ShSe-BOX-2-L35-80-UNV-STD

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
112.5°	488.7	430.1	385.2	352.6	339.0	326.7	298.1	284.5	276.3	273.6
115°	525.4	462.8	416.5	378.4	363.5	351.2	324.0	304.9	296.8	292.7
117.5°	550.0	486.0	435.6	396.2	379.8	366.2	339.0	322.6	311.8	304.9
120°	560.9	496.8	446.5	404.3	387.9	373.0	345.7	329.4	318.5	314.4
122.5°	563.6	500.9	450.6	408.4	390.7	375.7	348.5	332.1	321.3	315.8
125°	556.7	495.5	446.5	405.7	386.6	371.6	345.7	329.4	317.1	314.4
127.5°	543.1	486.0	438.4	397.4	379.8	364.8	339.0	322.6	310.4	306.3
130°	521.4	468.2	424.7	386.6	368.9	354.0	329.4	311.8	300.8	298.1
132.5°	494.2	446.5	405.7	370.2	355.2	341.6	317.1	299.4	288.6	287.2
135°	464.2	420.6	382.5	351.2	336.2	324.0	299.4	285.8	276.3	273.6
137.5°	432.9	393.4	359.3	329.4	315.8	303.5	281.8	269.6	261.3	260.0
140°	400.2	364.8	333.5	306.3	292.7	283.2	264.1	253.2	245.0	243.7
142.5°	366.2	336.2	306.3	283.2	272.2	262.7	246.4	236.9	230.0	228.7
145°	332.1	303.5	280.4	261.3	251.8	245.0	230.0	221.9	215.1	215.1
147.5°	298.1	276.3	257.3	241.0	232.7	226.0	213.7	206.9	202.8	202.8
150°	268.2	250.5	234.1	220.5	213.7	208.3	198.8	191.9	189.2	187.9
152.5°	239.6	226.0	212.4	201.5	196.0	190.5	182.4	178.3	175.6	175.6
155°	213.7	202.8	191.9	183.8	179.7	174.2	168.8	166.1	163.3	163.3
157.5°	191.9	182.4	174.2	167.4	163.3	160.6	155.2	153.8	152.5	152.5
160°	171.5	164.7	157.9	152.5	149.7	148.3	144.3	143.0	141.6	143.0
162.5°	152.5	148.3	143.0	138.8	137.5	136.1	134.7	133.4	133.4	133.4
165°	137.5	134.7	130.7	128.0	126.6	126.6	125.2	125.2	125.2	125.2
167.5°	123.9	122.5	119.8	118.4	118.4	118.4	117.1	118.4	117.1	117.1
170°	114.4	113.0	111.6	111.6	111.6	111.6	110.3	111.6	111.6	111.6
172.5°	106.1	106.1	106.1	106.1	106.1	106.1	106.1	107.5	106.1	106.1
175°	102.1	102.1	102.1	102.1	102.1	103.5	103.5	103.5	103.5	103.5
177.5°	100.8	100.8	100.8	100.8	100.8	102.1	102.1	102.1	102.1	102.1
180°	100.8	100.8	100.8	100.8	100.8	100.8	100.8	100.8	100.8	100.8

(END OF REPORT)