

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: P316054

Luminaire Tested: **ShSe-SQR-1-L35-80-UNV-STD**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P316054
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1811-037-1)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: SHAPER
Catalog Number: ShSe-SQR-1-L35-80-UNV-STD
Description: SHAPER SENSE SQUARE
LIGHT LEVEL 1
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

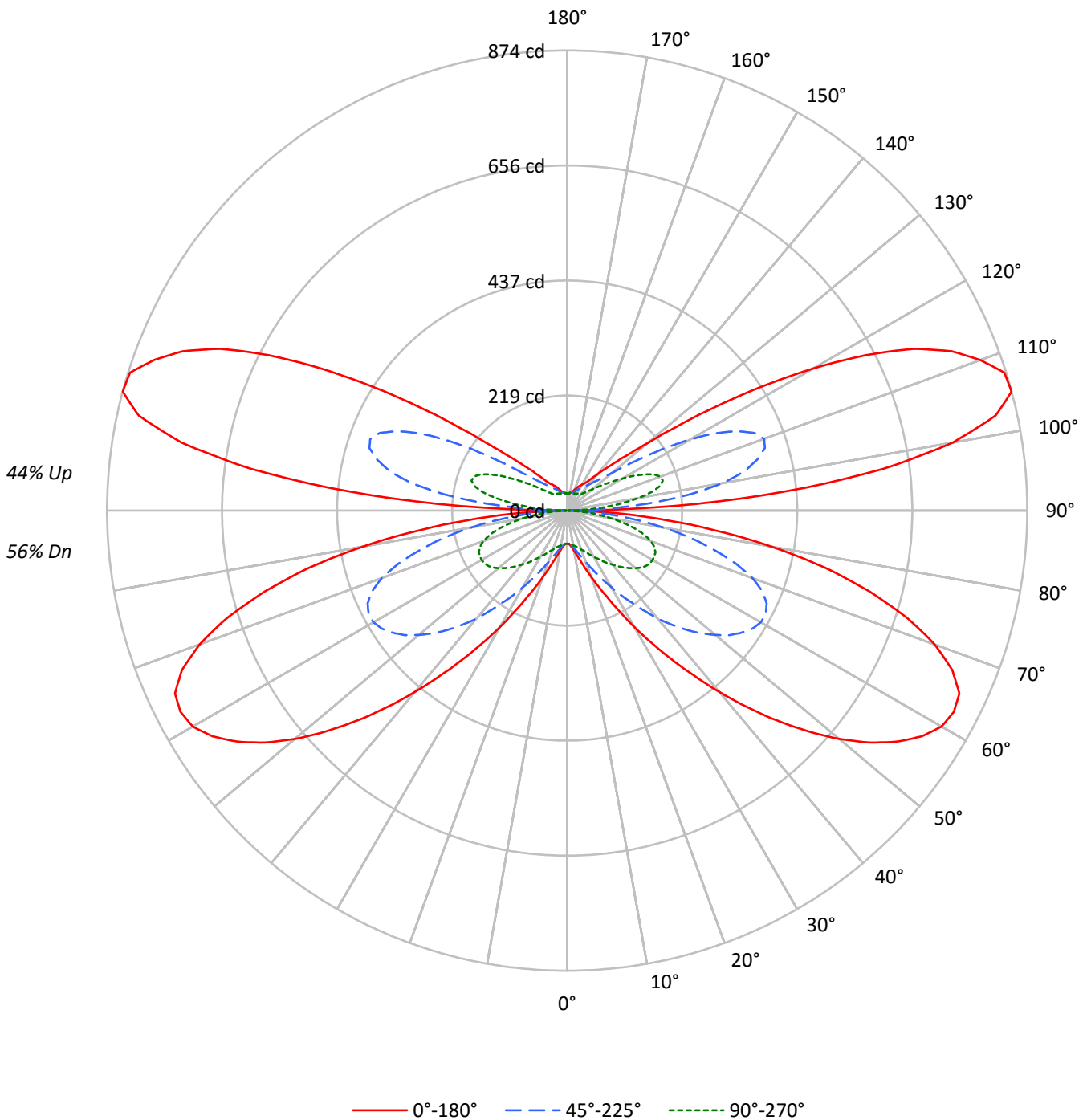
Lumens per Lamp: N/A
Luminaire Lumens: 3206.8 lumens
Efficiency: N/A
Efficacy: 108.3 lumens/watt
Spacing Criteria (0/90/45): 5.4 / 3.01 / 3.76
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: General Diffuse

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



TEST NUMBER: P316054
CATALOG NUMBER: ShSe-SQR-1-L35-80-UNV-STD

Luminous Intensity Polar Plot





TEST NUMBER: P316054

CATALOG NUMBER: ShSe-SQR-1-L35-80-UNV-STD

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	109	109	109	109	101	101	101	101	87	87	87	74	74	74	62	62	62	56
1	96	90	85	80	89	84	79	75	71	68	65	60	57	55	49	48	46	41
2	85	75	67	61	78	70	63	57	59	53	49	49	45	41	40	37	34	29
3	76	64	55	47	69	59	51	44	49	43	38	41	36	32	33	29	26	21
4	68	55	45	38	62	50	42	35	42	35	30	35	29	25	28	23	20	16
5	61	48	38	31	56	44	35	28	37	30	24	30	24	20	24	19	16	12
6	56	42	32	25	51	38	30	24	32	25	20	26	21	16	21	16	13	10
7	51	37	28	21	47	34	26	20	29	22	17	23	18	14	19	14	11	8
8	47	33	24	18	43	31	23	17	26	19	14	21	16	12	17	12	9	6
9	44	30	21	16	40	28	20	15	23	17	12	19	14	10	15	11	8	5
10	41	27	19	14	37	25	18	13	21	15	11	17	12	9	14	10	7	4

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	169	169	169
5°	178	175	173
10°	212	198	183
15°	276	237	199
20°	384	299	226
25°	544	392	262
30°	794	523	314
35°	1129	699	385
40°	1578	939	471
45°	2147	1219	583
50°	2825	1537	713
55°	3590	1898	859
60°	4416	2286	1008
65°	5232	2663	1179
70°	5845	2948	1331
75°	6185	3010	1406
80°	6103	2870	1320
85°	5224	2334	1019



TEST NUMBER: P316054

CATALOG NUMBER: ShSe-SQR-1-L35-80-UNV-STD

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	6.4	0.2
10°-20°	25.0	0.8
20°-30°	63.9	2.0
30°-40°	141.8	4.4
40°-50°	263.9	8.2
50°-60°	393.0	12.3
60°-70°	453.4	14.1
70°-80°	348.5	10.9
80°-90°	104.8	3.3
90°-100°	215.1	6.7
100°-110°	480.6	15.0
110°-120°	394.5	12.3
120°-130°	179.6	5.6
130°-140°	68.3	2.1
140°-150°	34.8	1.1
150°-160°	19.9	0.6
160°-170°	10.3	0.3
170°-180°	3.2	0.1
0°-30°	95.3	3.0
0°-40°	237.1	7.4
0°-60°	894.0	27.9
0°-90°	1800.6	56.2
90°-120°	1090.2	34.0
90°-150°	1372.8	42.8
90°-180°	1406.0	43.8
0°-180°	3206.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	63	63	63	63	63	
5°	66	66	65	64	64	7
15°	99	96	85	76	71	30
25°	183	168	132	100	88	88
35°	344	304	213	143	117	220
45°	564	488	320	194	153	439
55°	765	651	404	234	183	682
65°	822	696	418	238	185	799
75°	595	509	290	172	135	618
85°	169	134	76	48	33	184
90°	2	3	2	1	1	38
95°	417	322	153	93	68	407
105°	874	734	374	231	183	890
115°	727	604	356	206	163	708
125°	342	280	174	108	87	319
135°	129	112	81	57	49	105
145°	67	66	54	42	39	44
155°	50	47	42	38	36	23
165°	37	37	36	35	34	11
175°	32	33	33	33	33	3
180°	32	32	32	32	32	



TEST NUMBER: P316054

CATALOG NUMBER: ShSe-SQR-1-L35-80-UNV-STD

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	62.8	62.8	62.8	62.8	62.8	62.8	62.8	62.8	62.8	62.8	62.8
2.5°	62.8	62.8	62.8	62.8	62.8	63.9	62.8	62.8	62.8	62.8	63.9
5°	66.0	66.0	66.0	66.0	64.9	66.0	64.9	64.9	64.9	64.9	64.9
7.5°	70.3	70.3	70.3	70.3	70.3	70.3	69.2	69.2	69.2	68.1	68.1
10°	77.7	77.7	77.7	77.7	76.6	76.6	75.6	74.5	73.4	73.4	72.3
12.5°	87.3	87.3	86.2	86.2	85.2	85.2	83.0	81.9	80.9	79.9	77.7
15°	99.0	99.0	99.0	97.9	95.8	95.8	93.6	91.5	89.4	87.3	85.2
17.5°	115.0	115.0	113.8	112.8	109.7	108.5	106.4	103.2	101.1	96.8	93.6
20°	134.1	134.1	132.0	130.9	126.7	125.6	122.4	118.1	113.8	109.7	104.3
22.5°	156.5	157.5	154.3	151.2	146.9	144.7	141.6	136.3	129.9	123.4	117.1
25°	183.1	184.1	181.0	176.7	170.3	168.2	163.9	156.5	147.9	140.5	132.0
27.5°	216.1	216.1	211.8	206.5	198.0	195.9	189.4	181.0	170.3	159.6	149.0
30°	255.4	255.4	250.1	242.7	229.9	227.8	219.2	207.6	194.7	182.0	168.2
32.5°	296.9	294.8	289.5	282.1	268.2	264.0	255.4	239.5	222.5	205.4	190.5
35°	343.8	343.8	336.3	326.7	309.7	304.4	292.7	275.6	256.5	232.1	212.9
37.5°	393.8	392.7	386.3	373.6	353.4	346.9	333.2	311.8	288.5	264.0	238.4
40°	449.1	448.1	439.6	424.7	401.3	391.7	376.8	350.2	323.6	293.8	267.2
42.5°	506.6	505.6	494.9	476.8	450.2	438.5	421.5	391.7	359.8	325.7	293.8
45°	564.1	564.1	551.3	530.0	502.4	487.5	467.2	433.2	395.9	357.6	320.4
47.5°	620.5	619.4	604.5	581.1	550.2	533.2	509.8	472.6	431.1	386.3	344.9
50°	674.8	672.6	655.6	630.1	594.9	578.0	553.5	509.8	463.0	414.0	367.2
52.5°	723.7	721.6	702.4	674.8	635.4	617.3	590.7	542.8	492.8	438.5	388.5
55°	765.3	763.1	742.9	713.1	671.6	651.3	621.5	569.4	516.2	458.7	404.5
57.5°	798.2	796.1	775.9	742.9	699.3	676.9	645.0	588.6	533.2	473.6	417.2
60°	820.6	819.5	799.3	763.1	718.4	694.0	660.9	600.3	542.8	483.2	424.7
62.5°	828.0	829.1	809.9	772.7	725.9	701.4	667.3	605.6	547.1	484.2	424.7
65°	821.7	824.8	806.8	766.3	720.6	696.1	663.1	601.3	541.8	477.9	418.2
67.5°	791.9	800.4	783.3	741.8	697.1	674.8	645.0	584.3	525.8	461.9	401.3
70°	742.9	754.6	738.6	694.0	655.6	637.5	609.9	552.4	497.1	433.2	374.7
72.5°	676.9	691.8	675.8	626.9	596.0	582.2	557.7	503.4	452.3	392.7	336.3
75°	594.9	608.8	592.9	544.9	520.4	508.7	488.5	440.7	397.0	342.7	289.5
77.5°	502.4	512.0	501.3	455.6	434.2	424.7	407.6	362.9	328.9	284.2	240.5
80°	393.8	400.2	392.7	352.3	337.4	329.9	315.0	276.7	253.3	218.2	185.2
82.5°	278.9	284.2	278.9	247.0	236.3	228.8	219.2	187.3	172.4	152.2	129.9
85°	169.2	165.0	160.8	141.6	141.6	134.1	125.6	105.4	100.1	89.4	75.6
87.5°	67.0	62.8	60.7	54.3	55.4	51.1	47.9	37.2	37.2	35.1	29.8
90°	2.1	2.1	3.2	2.1	3.2	3.2	3.2	2.1	2.1	2.1	2.1
92.5°	203.3	196.9	185.2	178.8	157.5	146.9	135.2	111.8	99.0	83.0	69.2
95°	417.2	411.9	398.0	362.9	338.5	322.5	296.9	249.1	221.4	189.4	153.2
97.5°	604.5	610.9	588.6	527.9	501.3	478.9	452.3	380.0	341.6	290.5	235.2
100°	743.9	757.8	734.4	652.4	621.5	602.5	575.8	488.5	438.5	369.4	299.1
102.5°	833.4	853.6	828.0	730.2	700.3	687.5	659.9	569.4	509.8	425.8	344.9
105°	873.8	901.5	874.9	772.7	746.1	734.4	708.9	617.3	552.4	461.9	373.6
107.5°	870.6	903.6	881.3	794.0	762.1	746.1	721.6	632.2	565.1	476.8	393.8
110°	835.5	868.5	850.4	785.5	746.1	721.6	695.0	612.0	548.1	469.3	398.0



TEST NUMBER: P316054

CATALOG NUMBER: ShSe-SQR-1-L35-80-UNV-STD

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
112.5°	790.8	808.9	791.9	746.1	701.4	671.6	640.7	567.3	507.7	444.9	385.3
115°	726.9	731.2	715.3	678.0	637.5	603.5	572.6	504.5	454.5	407.6	356.5
117.5°	639.7	635.4	619.4	592.9	558.8	527.9	497.1	433.2	395.9	361.8	318.3
120°	539.6	532.2	510.9	497.1	470.5	441.7	412.9	356.5	333.2	307.6	270.3
122.5°	437.4	425.8	404.5	393.8	378.9	357.6	335.3	290.5	271.4	250.1	220.3
125°	341.6	331.0	309.7	302.3	295.9	279.9	267.2	236.3	216.1	199.0	174.5
127.5°	260.7	252.3	229.9	226.7	225.6	218.2	209.6	188.4	173.5	157.5	137.3
130°	198.0	191.6	177.7	176.7	175.7	171.4	166.1	151.2	140.5	126.7	110.7
132.5°	157.5	153.2	145.8	142.6	140.5	137.3	133.0	122.4	113.8	104.3	93.6
135°	128.7	126.7	122.4	119.2	115.0	111.8	107.5	100.1	93.6	87.3	80.9
137.5°	107.5	107.5	105.4	102.2	97.9	93.6	90.5	84.1	79.9	75.6	72.3
140°	90.5	91.5	90.5	89.4	85.2	80.9	77.7	71.3	69.2	68.1	64.9
142.5°	77.7	78.8	78.8	77.7	74.5	72.3	70.3	64.9	63.9	61.7	59.6
145°	67.0	69.2	69.2	69.2	68.1	66.0	63.9	61.7	59.6	57.4	54.3
147.5°	60.7	61.7	62.8	62.8	61.7	60.7	59.6	57.4	55.4	53.2	51.1
150°	57.4	57.4	57.4	57.4	56.4	56.4	55.4	53.2	52.1	50.0	47.9
152.5°	53.2	53.2	53.2	52.1	52.1	51.1	50.0	49.0	47.9	46.8	45.8
155°	50.0	50.0	49.0	47.9	47.9	46.8	45.8	44.7	44.7	43.7	42.5
157.5°	45.8	45.8	44.7	44.7	43.7	43.7	42.5	41.5	41.5	40.4	40.4
160°	42.5	42.5	41.5	41.5	40.4	40.4	40.4	39.4	39.4	38.3	38.3
162.5°	39.4	39.4	39.4	39.4	38.3	38.3	38.3	37.2	38.3	37.2	37.2
165°	37.2	37.2	37.2	37.2	37.2	37.2	37.2	36.2	36.2	36.2	36.2
167.5°	36.2	36.2	35.1	36.2	36.2	35.1	35.1	35.1	35.1	35.1	35.1
170°	34.1	34.1	34.1	34.1	34.1	34.1	34.1	34.1	35.1	34.1	34.1
172.5°	33.0	33.0	33.0	33.0	33.0	33.0	33.0	33.0	34.1	34.1	34.1
175°	31.9	31.9	31.9	31.9	33.0	33.0	33.0	33.0	33.0	33.0	33.0
177.5°	31.9	31.9	31.9	31.9	31.9	31.9	31.9	31.9	33.0	33.0	33.0
180°	31.9	31.9	31.9	31.9	31.9	31.9	31.9	31.9	31.9	31.9	31.9



TEST NUMBER: P316054

CATALOG NUMBER: ShSe-SQR-1-L35-80-UNV-STD

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
0°	62.8	62.8	62.8	62.8	62.8	62.8	62.8	62.8	62.8	62.8
2.5°	63.9	62.8	62.8	62.8	62.8	63.9	62.8	62.8	62.8	62.8
5°	64.9	63.9	63.9	63.9	63.9	63.9	63.9	63.9	63.9	63.9
7.5°	67.0	67.0	66.0	66.0	66.0	66.0	64.9	64.9	64.9	64.9
10°	71.3	70.3	69.2	69.2	68.1	68.1	67.0	67.0	67.0	67.0
12.5°	76.6	74.5	73.4	72.3	71.3	71.3	70.3	69.2	69.2	69.2
15°	83.0	79.9	78.8	76.6	75.6	74.5	73.4	72.3	71.3	71.3
17.5°	90.5	87.3	84.1	81.9	79.9	79.9	76.6	75.6	74.5	74.5
20°	100.1	95.8	91.5	87.3	86.2	85.2	81.9	79.9	78.8	78.8
22.5°	110.7	105.4	100.1	94.8	92.6	91.5	87.3	85.2	84.1	83.0
25°	123.4	116.0	109.7	103.2	100.1	99.0	93.6	91.5	89.4	88.3
27.5°	138.3	128.7	120.3	112.8	109.7	106.4	101.1	97.9	95.8	94.8
30°	155.4	142.6	132.0	123.4	119.2	116.0	109.7	105.4	102.2	101.1
32.5°	173.5	158.6	145.8	135.2	129.9	125.6	118.1	112.8	109.7	108.5
35°	193.7	175.7	160.8	147.9	142.6	137.3	128.7	121.3	119.2	117.1
37.5°	215.0	193.7	176.7	161.8	154.3	149.0	138.3	130.9	127.7	125.6
40°	238.4	212.9	192.7	175.7	168.2	160.8	150.1	140.5	137.3	134.1
42.5°	262.9	233.1	209.6	189.4	181.0	173.5	160.8	151.2	145.8	143.7
45°	286.3	254.4	225.6	203.3	193.7	185.2	171.4	160.8	155.4	153.2
47.5°	306.5	271.4	241.6	216.1	205.4	196.9	181.0	170.3	165.0	161.8
50°	325.7	287.4	256.5	227.8	216.1	206.5	190.5	178.8	173.5	170.3
52.5°	342.7	301.2	269.3	239.5	225.6	215.0	199.0	186.3	181.0	177.7
55°	355.5	313.0	278.9	248.0	234.1	222.5	205.4	191.6	186.3	183.1
57.5°	366.1	320.4	285.2	254.4	239.5	227.8	209.6	195.9	189.4	186.3
60°	371.4	325.7	287.4	257.6	242.7	230.9	211.8	198.0	191.6	187.3
62.5°	372.5	325.7	287.4	256.5	242.7	230.9	211.8	198.0	191.6	187.3
65°	367.2	320.4	281.0	251.2	238.4	227.8	208.6	194.7	189.4	185.2
67.5°	353.4	307.6	269.3	241.6	228.8	219.2	200.1	187.3	183.1	178.8
70°	332.0	288.5	250.1	224.6	215.0	205.4	187.3	175.7	172.4	169.2
72.5°	300.1	261.9	225.6	204.3	195.9	186.3	169.2	158.6	157.5	154.3
75°	262.9	228.8	196.9	179.8	172.4	163.9	146.9	139.4	138.3	135.2
77.5°	218.2	191.6	163.9	151.2	144.7	137.3	121.3	116.0	113.8	110.7
80°	170.3	150.1	128.7	117.1	113.8	106.4	93.6	90.5	88.3	85.2
82.5°	120.3	105.4	90.5	83.0	80.9	75.6	66.0	63.9	60.7	58.6
85°	71.3	62.8	54.3	49.0	47.9	44.7	38.3	38.3	35.1	33.0
87.5°	26.6	24.5	20.2	19.2	18.1	17.0	16.0	16.0	13.9	12.8
90°	2.1	2.1	2.1	1.0	1.0	1.0	1.0	1.0	1.0	1.0
92.5°	59.6	47.9	44.7	39.4	38.3	37.2	34.1	33.0	31.9	29.8
95°	139.4	119.2	104.3	93.6	92.6	88.3	76.6	74.5	69.2	68.1
97.5°	213.9	186.3	160.8	146.9	142.6	135.2	115.0	112.8	109.7	104.3
100°	278.9	242.7	205.4	189.4	184.1	173.5	147.9	144.7	143.7	138.3
102.5°	324.6	282.1	238.4	219.2	213.9	201.2	172.4	169.2	169.2	165.0
105°	351.2	305.4	257.6	239.5	230.9	218.2	188.4	186.3	187.3	183.1
107.5°	362.9	314.0	265.0	245.8	238.4	225.6	199.0	194.7	194.7	190.5
110°	357.6	308.7	259.7	242.7	234.1	223.5	202.2	194.7	192.7	188.4



TEST NUMBER: P316054

CATALOG NUMBER: ShSe-SQR-1-L35-80-UNV-STD

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
112.5°	340.6	293.8	252.3	230.9	223.5	213.9	196.9	187.3	181.0	178.8
115°	315.0	271.4	236.3	213.9	206.5	198.0	183.1	173.5	166.1	162.8
117.5°	278.9	241.6	212.9	192.7	185.2	176.7	165.0	156.5	147.9	143.7
120°	235.2	205.4	185.2	166.1	158.6	151.2	142.6	135.2	126.7	122.4
122.5°	190.5	170.3	155.4	139.4	132.0	124.5	118.1	112.8	107.5	103.2
125°	151.2	137.3	126.7	113.8	107.5	101.1	96.8	93.6	90.5	87.3
127.5°	118.1	110.7	102.2	92.6	87.3	81.9	78.8	77.7	75.6	74.5
130°	97.9	90.5	84.1	76.6	72.3	69.2	66.0	64.9	63.9	62.8
132.5°	84.1	77.7	72.3	67.0	63.9	60.7	58.6	56.4	55.4	55.4
135°	74.5	68.1	63.9	59.6	57.4	55.4	53.2	51.1	49.0	49.0
137.5°	67.0	61.7	57.4	54.3	52.1	51.1	49.0	46.8	44.7	44.7
140°	60.7	56.4	52.1	50.0	49.0	46.8	45.8	43.7	41.5	40.4
142.5°	55.4	51.1	47.9	45.8	44.7	44.7	43.7	41.5	40.4	39.4
145°	51.1	47.9	44.7	43.7	42.5	42.5	41.5	40.4	39.4	39.4
147.5°	47.9	44.7	42.5	41.5	41.5	40.4	40.4	39.4	38.3	38.3
150°	45.8	43.7	41.5	40.4	40.4	39.4	39.4	38.3	38.3	37.2
152.5°	43.7	42.5	40.4	39.4	39.4	38.3	38.3	37.2	37.2	36.2
155°	41.5	40.4	39.4	38.3	38.3	37.2	37.2	36.2	36.2	36.2
157.5°	39.4	39.4	38.3	37.2	37.2	36.2	36.2	35.1	35.1	35.1
160°	38.3	37.2	37.2	36.2	36.2	35.1	35.1	35.1	34.1	34.1
162.5°	37.2	36.2	36.2	36.2	35.1	35.1	35.1	34.1	34.1	34.1
165°	36.2	36.2	35.1	35.1	35.1	35.1	35.1	34.1	34.1	34.1
167.5°	35.1	35.1	35.1	35.1	35.1	34.1	34.1	34.1	34.1	34.1
170°	34.1	34.1	34.1	34.1	34.1	34.1	34.1	34.1	34.1	34.1
172.5°	34.1	34.1	34.1	34.1	34.1	33.0	34.1	34.1	34.1	34.1
175°	33.0	33.0	33.0	33.0	33.0	33.0	33.0	33.0	33.0	33.0
177.5°	33.0	33.0	33.0	33.0	33.0	33.0	33.0	33.0	33.0	33.0
180°	31.9	31.9	31.9	31.9	31.9	31.9	31.9	31.9	31.9	31.9

(END OF REPORT)