

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: P316056

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

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P316056  
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-2-L30-90-UNV-STD  
Description: SHAPER SENSE SQUARE  
LIGHT LEVEL 2  
Light Source: 3000K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

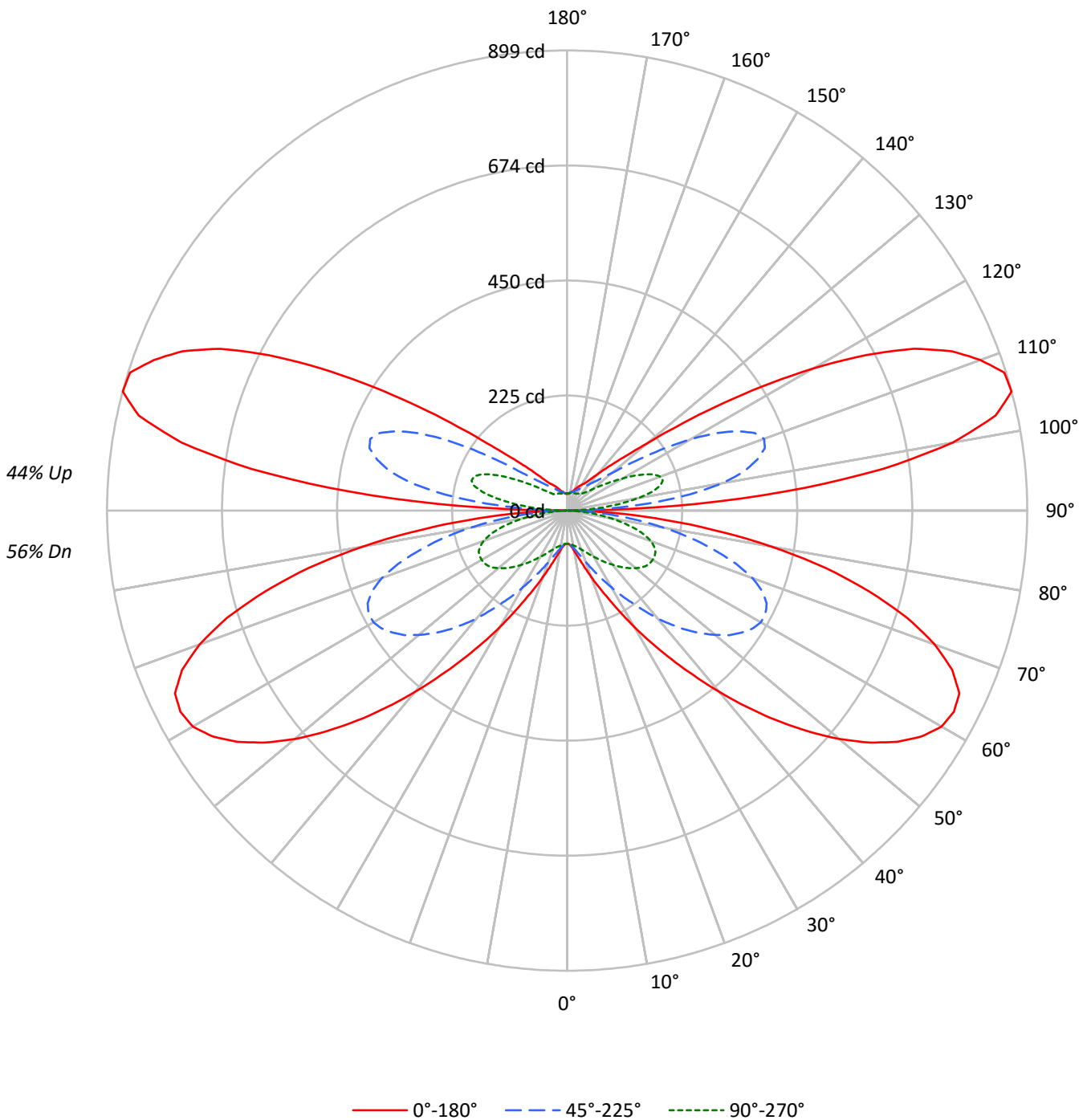
Lumens per Lamp: N/A  
Luminaire Lumens: 3298.6 lumens  
Efficiency: N/A  
Efficacy: 85.0 lumens/watt  
Spacing Criteria (0/90/45): 5.4 / 3.01 / 3.76  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: General Diffuse

Input Watts (W): 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



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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	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°	174	174	174
5°	183	180	177
10°	219	204	189
15°	284	244	204
20°	395	307	232
25°	559	403	270
30°	816	538	323
35°	1162	719	396
40°	1623	965	484
45°	2208	1254	600
50°	2906	1581	733
55°	3693	1952	883
60°	4543	2351	1037
65°	5382	2739	1213
70°	6013	3032	1370
75°	6363	3096	1445
80°	6278	2952	1358
85°	5375	2399	1047



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	6.6	0.2
10°-20°	25.7	0.8
20°-30°	65.7	2.0
30°-40°	145.8	4.4
40°-50°	271.4	8.2
50°-60°	404.2	12.3
60°-70°	466.3	14.1
70°-80°	358.5	10.9
80°-90°	107.8	3.3
90°-100°	221.3	6.7
100°-110°	494.4	15.0
110°-120°	405.7	12.3
120°-130°	184.7	5.6
130°-140°	70.2	2.1
140°-150°	35.8	1.1
150°-160°	20.5	0.6
160°-170°	10.6	0.3
170°-180°	3.3	0.1
0°-30°	98.1	3.0
0°-40°	243.9	7.4
0°-60°	919.5	27.9
0°-90°	1852.1	56.2
90°-120°	1121.4	34.0
90°-150°	1412.1	42.8
90°-180°	1446.0	43.8
0°-180°	3298.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	65	65	65	65	65	
5°	68	68	67	66	66	7
15°	102	98	88	78	73	31
25°	188	173	136	103	91	91
35°	354	313	219	147	120	226
45°	580	501	330	199	158	451
55°	787	670	416	241	188	702
65°	845	716	430	245	190	822
75°	612	523	298	177	139	636
85°	174	138	78	49	34	190
90°	2	3	2	1	1	39
95°	429	332	158	95	70	418
105°	899	755	384	238	188	916
115°	748	621	367	212	168	728
125°	351	288	180	111	90	328
135°	132	115	83	59	50	108
145°	69	68	56	44	40	46
155°	51	48	44	39	37	24
165°	38	38	37	36	35	11
175°	33	34	34	34	34	3
180°	33	33	33	33	33	



TEST NUMBER: P316056

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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	64.6	64.6	64.6	64.6	64.6	64.6	64.6	64.6	64.6	64.6	64.6
2.5°	64.6	64.6	64.6	64.6	64.6	65.7	64.6	64.6	64.6	64.6	65.7
5°	67.9	67.9	67.9	67.9	66.8	67.9	66.8	66.8	66.8	66.8	66.8
7.5°	72.2	72.2	72.2	72.2	72.2	72.2	71.1	71.1	71.1	70.1	70.1
10°	80.0	80.0	80.0	80.0	78.8	78.8	77.7	76.6	75.5	75.5	74.5
12.5°	89.8	89.8	88.7	88.7	87.6	87.6	85.4	84.3	83.2	82.1	80.0
15°	101.8	101.8	101.8	100.8	98.5	98.5	96.3	94.2	91.9	89.8	87.6
17.5°	118.2	118.2	117.1	116.1	112.7	111.7	109.5	106.2	104.0	99.6	96.3
20°	137.9	137.9	135.8	134.6	130.3	129.2	125.9	121.6	117.1	112.7	107.3
22.5°	160.9	162.0	158.7	155.4	151.1	148.9	145.6	140.1	133.5	127.0	120.4
25°	188.3	189.4	186.1	181.7	175.1	173.0	168.6	160.9	152.2	144.5	135.8
27.5°	222.2	222.2	217.9	212.4	203.6	201.4	194.9	186.1	175.1	164.2	153.3
30°	262.7	262.7	257.3	249.6	236.5	234.3	225.6	213.5	200.3	187.2	173.0
32.5°	305.4	303.3	297.8	290.1	275.9	271.5	262.7	246.4	228.8	211.3	195.9
35°	353.6	353.6	345.9	336.1	318.6	313.1	301.1	283.5	263.8	238.7	219.0
37.5°	405.1	403.9	397.4	384.3	363.5	356.9	342.7	320.7	296.7	271.5	245.2
40°	462.0	460.9	452.1	436.8	412.8	402.9	387.6	360.2	332.8	302.2	274.8
42.5°	521.1	520.0	509.1	490.5	463.1	451.0	433.6	402.9	370.0	335.0	302.2
45°	580.2	580.2	567.1	545.2	516.8	501.4	480.6	445.5	407.3	367.8	329.6
47.5°	638.2	637.2	621.8	597.7	566.0	548.5	524.4	486.1	443.4	397.4	354.7
50°	694.1	691.9	674.4	648.1	612.0	594.5	569.3	524.4	476.2	425.9	377.7
52.5°	744.5	742.2	722.5	694.1	653.6	635.0	607.6	558.4	506.9	451.0	399.6
55°	787.2	785.0	764.2	733.5	690.8	670.0	639.3	585.7	531.0	471.8	416.0
57.5°	821.1	818.9	798.1	764.2	719.3	696.3	663.4	605.4	548.5	487.1	429.2
60°	844.1	843.0	822.2	785.0	739.0	713.8	679.8	617.4	558.4	497.0	436.8
62.5°	851.7	852.8	833.1	794.8	746.6	721.4	686.4	622.9	562.7	498.1	436.8
65°	845.2	848.5	829.8	788.2	741.2	716.0	682.1	618.5	557.3	491.6	430.2
67.5°	814.5	823.3	805.8	763.0	717.1	694.1	663.4	601.0	540.8	475.2	412.8
70°	764.2	776.2	759.8	713.8	674.4	655.8	627.3	568.2	511.3	445.5	385.4
72.5°	696.3	711.6	695.2	644.8	613.1	598.9	573.7	517.8	465.3	403.9	345.9
75°	612.0	626.2	609.8	560.5	535.3	523.3	502.5	453.3	408.4	352.5	297.8
77.5°	516.8	526.6	515.7	468.6	446.7	436.8	419.3	373.3	338.3	292.3	247.4
80°	405.1	411.7	403.9	362.3	347.0	339.4	324.1	284.6	260.6	224.4	190.5
82.5°	286.8	292.3	286.8	254.0	243.0	235.4	225.6	192.7	177.4	156.6	133.5
85°	174.1	169.7	165.3	145.6	145.6	137.9	129.2	108.4	102.9	91.9	77.7
87.5°	69.0	64.6	62.4	55.8	56.9	52.6	49.3	38.3	38.3	36.1	30.6
90°	2.2	2.2	3.3	2.2	3.3	3.3	3.3	2.2	2.2	2.2	2.2
92.5°	209.1	202.5	190.5	184.0	162.0	151.1	139.0	115.0	101.8	85.4	71.1
95°	429.2	423.7	409.4	373.3	348.1	331.7	305.4	256.2	227.7	194.9	157.7
97.5°	621.8	628.4	605.4	543.0	515.7	492.6	465.3	390.8	351.4	298.9	241.9
100°	765.3	779.5	755.4	671.1	639.3	619.7	592.3	502.5	451.0	379.9	307.6
102.5°	857.2	878.0	851.7	751.1	720.4	707.2	678.8	585.7	524.4	437.9	354.7
105°	898.8	927.3	899.9	794.8	767.4	755.4	729.1	635.0	568.2	475.2	384.3
107.5°	895.5	929.4	906.5	816.7	783.8	767.4	742.2	650.3	581.3	490.5	405.1
110°	859.4	893.3	874.7	808.0	767.4	742.2	714.9	629.5	563.8	482.8	409.4



TEST NUMBER: P316056

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

**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
112.5°	813.5	832.0	814.5	767.4	721.4	690.8	659.0	583.5	522.2	457.6	396.3
115°	747.7	752.1	735.7	697.4	655.8	620.8	589.0	518.9	467.5	419.3	366.7
117.5°	658.0	653.6	637.2	609.8	574.8	543.0	511.3	445.5	407.3	372.2	327.3
120°	555.0	547.4	525.5	511.3	483.9	454.4	424.7	366.7	342.7	316.4	278.1
122.5°	450.0	437.9	416.0	405.1	389.7	367.8	344.9	298.9	279.1	257.3	226.6
125°	351.4	340.5	318.6	310.9	304.3	288.0	274.8	243.0	222.2	204.8	179.5
127.5°	268.2	259.5	236.5	233.2	232.1	224.4	215.7	193.8	178.5	162.0	141.2
130°	203.6	197.1	182.8	181.7	180.6	176.3	170.8	155.4	144.5	130.3	113.8
132.5°	162.0	157.7	150.0	146.7	144.5	141.2	136.9	125.9	117.1	107.3	96.3
135°	132.5	130.3	125.9	122.6	118.2	115.0	110.6	102.9	96.3	89.8	83.2
137.5°	110.6	110.6	108.4	105.1	100.8	96.3	93.0	86.5	82.1	77.7	74.5
140°	93.0	94.2	93.0	91.9	87.6	83.2	80.0	73.4	71.1	70.1	66.8
142.5°	80.0	81.0	81.0	80.0	76.6	74.5	72.2	66.8	65.7	63.5	61.3
145°	69.0	71.1	71.1	71.1	70.1	67.9	65.7	63.5	61.3	59.1	55.8
147.5°	62.4	63.5	64.6	64.6	63.5	62.4	61.3	59.1	56.9	54.7	52.6
150°	59.1	59.1	59.1	59.1	58.0	58.0	56.9	54.7	53.7	51.4	49.3
152.5°	54.7	54.7	54.7	53.7	53.7	52.6	51.4	50.3	49.3	48.2	47.1
155°	51.4	51.4	50.3	49.3	49.3	48.2	47.1	46.0	46.0	44.9	43.8
157.5°	47.1	47.1	46.0	46.0	44.9	44.9	43.8	42.7	42.7	41.6	41.6
160°	43.8	43.8	42.7	42.7	41.6	41.6	41.6	40.5	40.5	39.4	39.4
162.5°	40.5	40.5	40.5	40.5	39.4	39.4	39.4	38.3	39.4	38.3	38.3
165°	38.3	38.3	38.3	38.3	38.3	38.3	38.3	37.2	37.2	37.2	37.2
167.5°	37.2	37.2	36.1	37.2	37.2	36.1	36.1	36.1	36.1	36.1	36.1
170°	35.0	35.0	35.0	35.0	35.0	35.0	35.0	35.0	36.1	35.0	35.0
172.5°	33.9	33.9	33.9	33.9	33.9	33.9	33.9	33.9	35.0	35.0	35.0
175°	32.9	32.9	32.9	32.9	33.9	33.9	33.9	33.9	33.9	33.9	33.9
177.5°	32.9	32.9	32.9	32.9	32.9	32.9	32.9	32.9	33.9	33.9	33.9
180°	32.9	32.9	32.9	32.9	32.9	32.9	32.9	32.9	32.9	32.9	32.9



TEST NUMBER: P316056

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

**CANDELA DISTRIBUTION (continued):**

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
0°	64.6	64.6	64.6	64.6	64.6	64.6	64.6	64.6	64.6	64.6
2.5°	65.7	64.6	64.6	64.6	64.6	65.7	64.6	64.6	64.6	64.6
5°	66.8	65.7	65.7	65.7	65.7	65.7	65.7	65.7	65.7	65.7
7.5°	69.0	69.0	67.9	67.9	67.9	67.9	66.8	66.8	66.8	66.8
10°	73.4	72.2	71.1	71.1	70.1	70.1	69.0	69.0	69.0	69.0
12.5°	78.8	76.6	75.5	74.5	73.4	73.4	72.2	71.1	71.1	71.1
15°	85.4	82.1	81.0	78.8	77.7	76.6	75.5	74.5	73.4	73.4
17.5°	93.0	89.8	86.5	84.3	82.1	82.1	78.8	77.7	76.6	76.6
20°	102.9	98.5	94.2	89.8	88.7	87.6	84.3	82.1	81.0	81.0
22.5°	113.8	108.4	102.9	97.4	95.3	94.2	89.8	87.6	86.5	85.4
25°	127.0	119.3	112.7	106.2	102.9	101.8	96.3	94.2	91.9	90.9
27.5°	142.4	132.5	123.7	116.1	112.7	109.5	104.0	100.8	98.5	97.4
30°	159.8	146.7	135.8	127.0	122.6	119.3	112.7	108.4	105.1	104.0
32.5°	178.5	163.2	150.0	139.0	133.5	129.2	121.6	116.1	112.7	111.7
35°	199.3	180.6	165.3	152.2	146.7	141.2	132.5	124.8	122.6	120.4
37.5°	221.1	199.3	181.7	166.4	158.7	153.3	142.4	134.6	131.4	129.2
40°	245.2	219.0	198.2	180.6	173.0	165.3	154.3	144.5	141.2	137.9
42.5°	270.4	239.8	215.7	194.9	186.1	178.5	165.3	155.4	150.0	147.8
45°	294.5	261.7	232.1	209.1	199.3	190.5	176.3	165.3	159.8	157.7
47.5°	315.3	279.1	248.5	222.2	211.3	202.5	186.1	175.1	169.7	166.4
50°	335.0	295.6	263.8	234.3	222.2	212.4	195.9	184.0	178.5	175.1
52.5°	352.5	309.8	277.0	246.4	232.1	221.1	204.8	191.6	186.1	182.8
55°	365.7	321.9	286.8	255.1	240.9	228.8	211.3	197.1	191.6	188.3
57.5°	376.6	329.6	293.4	261.7	246.4	234.3	215.7	201.4	194.9	191.6
60°	382.1	335.0	295.6	264.9	249.6	237.5	217.9	203.6	197.1	192.7
62.5°	383.1	335.0	295.6	263.8	249.6	237.5	217.9	203.6	197.1	192.7
65°	377.7	329.6	289.0	258.3	245.2	234.3	214.6	200.3	194.9	190.5
67.5°	363.5	316.4	277.0	248.5	235.4	225.6	205.8	192.7	188.3	184.0
70°	341.5	296.7	257.3	231.0	221.1	211.3	192.7	180.6	177.4	174.1
72.5°	308.8	269.3	232.1	210.2	201.4	191.6	174.1	163.2	162.0	158.7
75°	270.4	235.4	202.5	185.0	177.4	168.6	151.1	143.4	142.4	139.0
77.5°	224.4	197.1	168.6	155.4	148.9	141.2	124.8	119.3	117.1	113.8
80°	175.1	154.3	132.5	120.4	117.1	109.5	96.3	93.0	90.9	87.6
82.5°	123.7	108.4	93.0	85.4	83.2	77.7	67.9	65.7	62.4	60.2
85°	73.4	64.6	55.8	50.3	49.3	46.0	39.4	39.4	36.1	33.9
87.5°	27.4	25.2	20.8	19.7	18.6	17.5	16.4	16.4	14.2	13.1
90°	2.2	2.2	2.2	1.1	1.1	1.1	1.1	1.1	1.1	1.1
92.5°	61.3	49.3	46.0	40.5	39.4	38.3	35.0	33.9	32.9	30.6
95°	143.4	122.6	107.3	96.3	95.3	90.9	78.8	76.6	71.1	70.1
97.5°	220.1	191.6	165.3	151.1	146.7	139.0	118.2	116.1	112.7	107.3
100°	286.8	249.6	211.3	194.9	189.4	178.5	152.2	148.9	147.8	142.4
102.5°	333.9	290.1	245.2	225.6	220.1	206.9	177.4	174.1	174.1	169.7
105°	361.3	314.2	264.9	246.4	237.5	224.4	193.8	191.6	192.7	188.3
107.5°	373.3	323.0	272.6	252.9	245.2	232.1	204.8	200.3	200.3	195.9
110°	367.8	317.5	267.2	249.6	240.9	229.9	208.0	200.3	198.2	193.8





TEST NUMBER: P316056

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

**CANDELA DISTRIBUTION (continued):**

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
112.5°	350.4	302.2	259.5	237.5	229.9	220.1	202.5	192.7	186.1	184.0
115°	324.1	279.1	243.0	220.1	212.4	203.6	188.3	178.5	170.8	167.5
117.5°	286.8	248.5	219.0	198.2	190.5	181.7	169.7	160.9	152.2	147.8
120°	241.9	211.3	190.5	170.8	163.2	155.4	146.7	139.0	130.3	125.9
122.5°	195.9	175.1	159.8	143.4	135.8	128.1	121.6	116.1	110.6	106.2
125°	155.4	141.2	130.3	117.1	110.6	104.0	99.6	96.3	93.0	89.8
127.5°	121.6	113.8	105.1	95.3	89.8	84.3	81.0	80.0	77.7	76.6
130°	100.8	93.0	86.5	78.8	74.5	71.1	67.9	66.8	65.7	64.6
132.5°	86.5	80.0	74.5	69.0	65.7	62.4	60.2	58.0	56.9	56.9
135°	76.6	70.1	65.7	61.3	59.1	56.9	54.7	52.6	50.3	50.3
137.5°	69.0	63.5	59.1	55.8	53.7	52.6	50.3	48.2	46.0	46.0
140°	62.4	58.0	53.7	51.4	50.3	48.2	47.1	44.9	42.7	41.6
142.5°	56.9	52.6	49.3	47.1	46.0	46.0	44.9	42.7	41.6	40.5
145°	52.6	49.3	46.0	44.9	43.8	43.8	42.7	41.6	40.5	40.5
147.5°	49.3	46.0	43.8	42.7	42.7	41.6	41.6	40.5	39.4	39.4
150°	47.1	44.9	42.7	41.6	41.6	40.5	40.5	39.4	39.4	38.3
152.5°	44.9	43.8	41.6	40.5	40.5	39.4	39.4	38.3	38.3	37.2
155°	42.7	41.6	40.5	39.4	39.4	38.3	38.3	37.2	37.2	37.2
157.5°	40.5	40.5	39.4	38.3	38.3	37.2	37.2	36.1	36.1	36.1
160°	39.4	38.3	38.3	37.2	37.2	36.1	36.1	36.1	35.0	35.0
162.5°	38.3	37.2	37.2	37.2	36.1	36.1	36.1	35.0	35.0	35.0
165°	37.2	37.2	36.1	36.1	36.1	36.1	36.1	35.0	35.0	35.0
167.5°	36.1	36.1	36.1	36.1	36.1	35.0	35.0	35.0	35.0	35.0
170°	35.0	35.0	35.0	35.0	35.0	35.0	35.0	35.0	35.0	35.0
172.5°	35.0	35.0	35.0	35.0	35.0	33.9	35.0	35.0	35.0	35.0
175°	33.9	33.9	33.9	33.9	33.9	33.9	33.9	33.9	33.9	33.9
177.5°	33.9	33.9	33.9	33.9	33.9	33.9	33.9	33.9	33.9	33.9
180°	32.9	32.9	32.9	32.9	32.9	32.9	32.9	32.9	32.9	32.9

(END OF REPORT)