

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: P316062

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P316062
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1811-037-6)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: SHAPER
Catalog Number: ShSe-TRAP-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: 3181.2 lumens
Efficiency: N/A
Efficacy: 82.0 lumens/watt
Spacing Criteria (0/90/45): 2.4 / 1.51 / 1.84
Luminous Opening: Rectangular (W 2.92' x L: 2.92' x H: 0')
CIE Type: General Diffuse

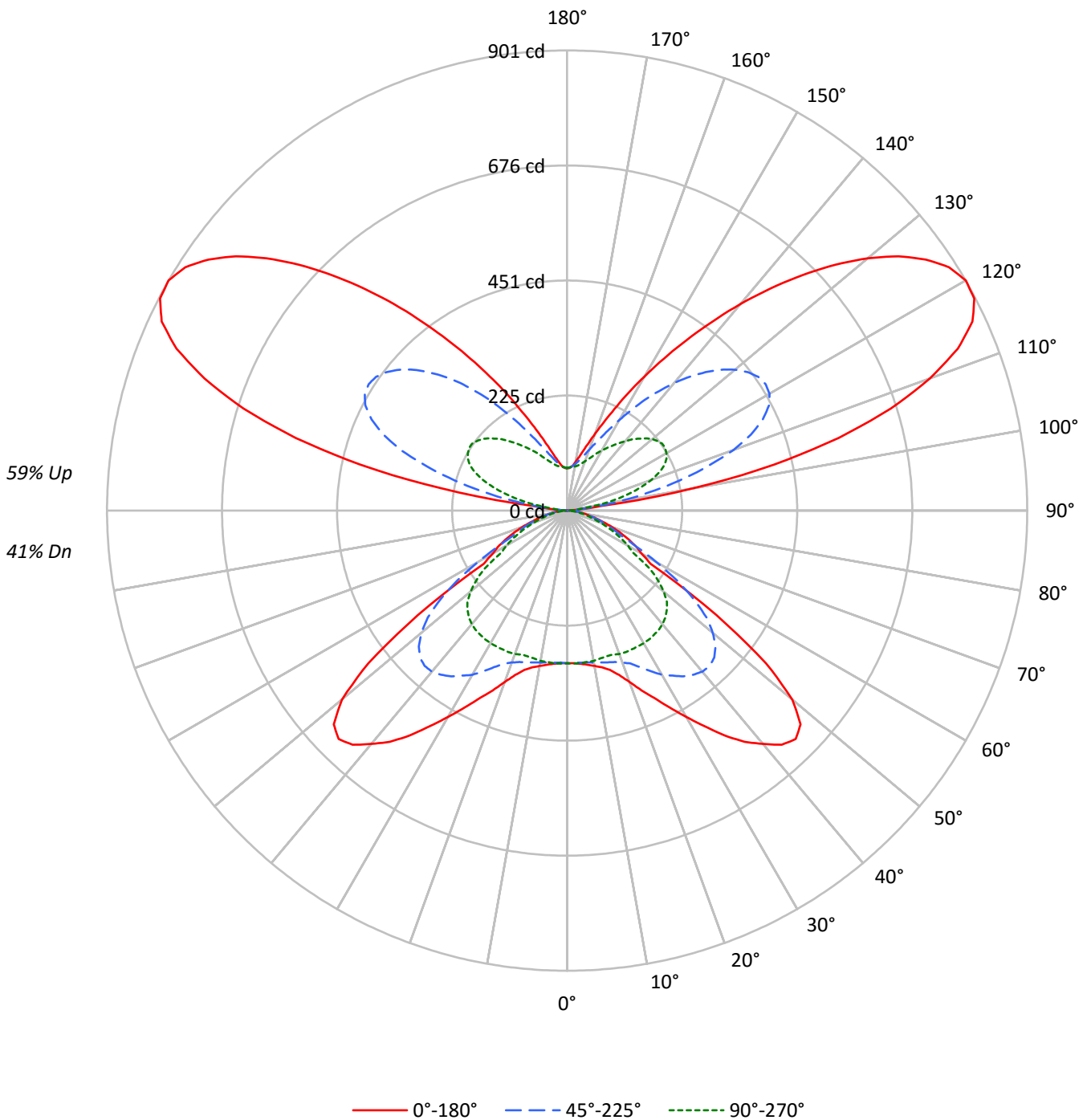
Input Watts (W): 38.8
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	105	105	105	105	96	96	96	96	79	79	79	63	63	63	48	48	48	41
1	96	92	88	85	87	84	81	78	69	67	65	55	54	52	43	42	41	35
2	87	80	74	69	79	73	68	64	60	57	53	49	46	44	38	36	34	29
3	80	70	63	57	72	64	58	53	53	48	45	43	39	37	33	31	29	25
4	72	62	54	48	66	57	50	44	47	42	38	38	34	31	29	27	25	21
5	66	55	47	41	60	50	43	38	42	36	32	34	30	27	26	23	21	18
6	61	49	41	35	55	45	38	32	37	32	28	30	26	23	23	21	18	15
7	56	44	36	30	51	40	33	28	33	28	24	27	23	20	21	18	16	13
8	52	39	32	26	47	36	29	24	30	25	21	24	20	17	19	16	14	11
9	48	36	28	23	44	33	26	22	27	22	18	22	18	15	17	15	12	10
10	45	32	25	20	41	30	23	19	25	20	16	20	16	14	16	13	11	9

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	378	378	378
5°	382	380	381
10°	397	388	384
15°	423	403	387
20°	481	426	402
25°	566	472	419
30°	681	542	438
35°	830	612	458
40°	985	680	479
45°	1132	729	494
50°	1133	733	485
55°	787	669	435
60°	424	510	349
65°	393	348	308
70°	340	308	259
75°	284	267	214
80°	247	240	184
85°	238	254	142



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	28.7	0.9
10°-20°	88.1	2.8
20°-30°	161.4	5.1
30°-40°	254.9	8.0
40°-50°	331.4	10.4
50°-60°	259.5	8.2
60°-70°	119.2	3.7
70°-80°	57.8	1.8
80°-90°	17.7	0.6
90°-100°	36.1	1.1
100°-110°	299.3	9.4
110°-120°	476.2	15.0
120°-130°	447.0	14.1
130°-140°	313.4	9.9
140°-150°	172.9	5.4
150°-160°	78.2	2.5
160°-170°	31.1	1.0
170°-180°	8.4	0.3
0°-30°	278.3	8.7
0°-40°	533.2	16.8
0°-60°	1124.1	35.3
0°-90°	1318.8	41.5
90°-120°	811.6	25.5
90°-150°	1744.8	54.8
90°-180°	1862.0	58.5
0°-180°	3181.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	299	299	299	299	299	
5°	301	300	299	298	300	29
15°	323	318	308	298	296	93
25°	405	383	338	308	300	190
35°	538	494	396	312	297	338
45°	633	587	407	300	276	476
55°	357	400	303	219	197	313
65°	131	129	116	110	103	130
75°	58	58	55	48	44	63
85°	16	20	18	12	10	18
90°	0	1	1	1	2	1
95°	12	15	15	15	15	56
105°	551	440	228	147	124	562
115°	876	730	423	257	210	850
125°	857	735	456	279	228	763
135°	652	568	383	238	199	507
145°	407	361	264	180	155	260
155°	219	200	159	127	117	106
165°	120	116	106	95	93	36
175°	85	85	85	84	85	9
180°	83	83	83	83	83	



TEST NUMBER: P316062

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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	298.9	298.9	298.9	298.9	298.9	298.9	298.9	298.9	298.9	298.9	298.9
2.5°	298.9	297.8	298.9	299.9	298.9	297.8	297.8	299.9	296.7	299.9	297.8
5°	301.1	299.9	301.1	301.1	301.1	299.9	299.9	301.1	297.8	301.1	298.9
7.5°	304.3	303.3	304.3	304.3	303.3	302.2	302.2	303.3	299.9	302.2	299.9
10°	308.8	307.6	307.6	307.6	307.6	305.4	305.4	306.5	303.3	304.3	302.2
12.5°	314.2	313.1	313.1	314.2	312.0	310.9	309.8	310.9	306.5	307.6	304.3
15°	323.0	321.9	321.9	320.7	319.7	317.5	316.4	316.4	310.9	312.0	307.6
17.5°	337.2	335.0	335.0	332.8	330.6	326.2	325.1	323.0	317.5	316.4	310.9
20°	356.9	354.7	353.6	352.5	348.1	343.8	340.5	336.1	326.2	323.0	316.4
22.5°	381.0	377.7	375.5	373.3	367.8	362.3	359.1	353.6	340.5	335.0	324.1
25°	405.1	402.9	400.7	397.4	389.7	383.1	378.8	371.2	356.9	349.2	338.3
27.5°	434.6	431.3	429.1	424.7	414.9	407.3	402.9	392.0	375.5	367.8	354.7
30°	466.3	464.2	459.8	455.4	443.4	435.7	428.1	416.0	398.5	387.5	371.2
32.5°	500.3	498.1	492.6	487.1	471.8	463.1	455.4	442.3	422.6	407.3	383.1
35°	537.6	533.2	528.8	521.1	503.6	493.7	483.9	470.7	447.8	422.6	396.3
37.5°	570.4	564.9	560.5	552.9	534.2	523.3	514.5	498.1	464.2	435.7	405.1
40°	596.6	592.3	586.8	576.9	559.4	548.5	540.8	520.0	478.4	445.5	411.7
42.5°	621.8	617.4	612.0	601.0	581.3	570.4	560.5	528.8	485.0	449.9	412.8
45°	632.8	628.4	622.9	613.1	597.7	586.8	572.6	529.9	481.7	445.5	407.3
47.5°	619.7	616.4	613.1	607.6	597.7	586.8	566.0	521.1	471.8	432.5	394.1
50°	575.8	570.4	571.5	573.7	571.5	554.0	534.2	494.9	449.9	410.5	372.2
52.5°	490.5	488.3	496.0	504.7	506.9	492.6	478.4	448.9	410.5	377.7	343.8
55°	356.9	364.6	377.7	398.5	405.1	399.6	393.0	377.7	354.7	330.6	303.3
57.5°	193.8	199.3	213.5	241.9	271.5	283.5	288.0	293.4	285.7	273.7	255.1
60°	167.5	166.4	166.4	165.3	162.0	163.2	170.8	197.1	209.1	209.1	201.4
62.5°	152.2	151.1	151.1	151.1	150.0	147.8	145.6	141.2	141.2	153.3	152.2
65°	131.4	131.4	131.4	132.5	131.4	129.2	129.2	125.9	121.6	117.1	116.1
67.5°	111.7	110.6	111.7	112.7	111.7	110.6	109.5	108.4	104.0	101.8	99.6
70°	91.9	90.9	91.9	91.9	91.9	90.9	90.9	89.8	87.6	85.4	83.2
72.5°	73.4	73.4	74.5	75.5	74.5	73.4	73.4	73.4	71.1	71.1	69.0
75°	58.0	58.0	58.0	59.1	58.0	58.0	58.0	59.1	56.9	56.9	54.7
77.5°	43.8	43.8	44.9	46.0	44.9	44.9	44.9	46.0	44.9	43.8	42.7
80°	33.9	33.9	33.9	35.0	35.0	35.0	35.0	35.0	33.9	32.9	32.9
82.5°	27.4	27.4	27.4	28.5	28.5	27.4	27.4	27.4	26.3	25.2	24.1
85°	16.4	17.5	18.6	18.6	19.7	19.7	19.7	19.7	18.6	18.6	17.5
87.5°	8.7	8.7	9.8	11.0	12.1	12.1	12.1	12.1	12.1	12.1	11.0
90°	0.0	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
92.5°	2.2	2.2	3.3	2.2	3.3	3.3	2.2	2.2	3.3	3.3	3.3
95°	12.1	13.1	14.2	14.2	14.2	15.3	15.3	14.2	14.2	14.2	15.3
97.5°	67.9	74.5	72.2	65.7	66.8	67.9	63.5	56.9	56.9	52.6	46.0
100°	250.7	258.3	251.8	213.5	200.3	192.7	182.8	156.6	140.1	120.4	102.9
102.5°	414.9	424.7	411.7	367.8	335.0	321.9	305.4	263.8	232.1	195.9	164.2
105°	550.7	560.5	551.8	489.4	454.4	440.1	416.0	362.3	319.7	271.5	227.7
107.5°	664.5	674.4	660.1	602.1	557.3	539.7	514.5	453.3	397.4	341.5	289.0
110°	755.4	765.3	752.1	701.7	647.1	624.0	594.5	527.7	465.3	400.7	345.9



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
112.5°	827.7	834.3	817.8	772.9	713.8	686.4	654.7	584.6	516.8	448.9	389.7
115°	875.9	878.0	859.4	820.0	760.9	730.3	695.2	622.9	551.8	485.0	422.6
117.5°	898.8	897.7	878.0	840.8	786.1	754.3	718.2	644.8	574.8	508.0	445.5
120°	901.0	897.7	875.9	841.9	791.5	762.0	725.8	653.6	585.7	520.0	457.6
122.5°	886.8	882.4	860.5	827.7	781.7	755.4	721.4	652.5	585.7	522.2	460.9
125°	857.2	852.8	830.9	801.4	757.6	734.6	705.0	641.6	576.9	514.5	456.5
127.5°	817.8	814.5	793.7	766.4	725.8	704.0	678.8	620.8	560.5	501.4	445.5
130°	768.5	764.2	744.5	721.4	683.2	663.4	641.6	591.2	534.2	479.5	429.1
132.5°	712.7	709.5	694.1	670.0	636.1	618.5	597.7	555.0	504.7	454.4	408.3
135°	652.5	649.2	637.2	616.4	583.5	568.2	549.6	512.4	468.6	423.7	383.1
137.5°	590.1	587.9	576.9	558.4	529.9	515.7	499.2	466.3	429.1	392.0	355.8
140°	527.7	524.4	515.7	499.2	475.2	462.0	448.9	419.3	387.5	355.8	326.2
142.5°	465.3	463.1	456.5	443.4	421.5	410.5	398.5	374.4	347.0	320.7	294.5
145°	407.3	405.1	400.7	388.6	370.0	361.3	351.4	330.6	306.5	285.7	263.8
147.5°	352.5	351.4	347.0	338.3	321.9	315.3	307.6	289.0	269.3	251.8	232.1
150°	303.3	303.3	299.9	292.3	279.1	273.7	267.2	250.7	233.2	219.0	204.8
152.5°	259.5	258.3	256.2	249.6	237.5	233.2	228.8	216.7	203.6	191.6	179.5
155°	219.0	219.0	216.7	212.4	203.6	200.3	197.1	187.2	176.3	167.5	158.7
157.5°	186.1	187.2	185.0	181.7	174.1	173.0	169.7	163.2	155.4	147.8	141.2
160°	159.8	158.7	157.7	156.6	151.1	148.9	146.7	142.4	136.9	132.5	127.0
162.5°	137.9	136.9	136.9	135.8	131.4	131.4	129.2	125.9	122.6	119.3	115.0
165°	120.4	120.4	120.4	119.3	117.1	116.1	115.0	112.7	110.6	108.4	106.2
167.5°	107.3	107.3	107.3	107.3	105.1	105.1	105.1	102.9	101.8	99.6	98.5
170°	97.4	97.4	97.4	97.4	96.3	96.3	96.3	95.3	94.2	94.2	93.0
172.5°	89.8	90.9	90.9	90.9	89.8	89.8	89.8	89.8	88.7	88.7	88.7
175°	85.4	85.4	85.4	86.5	85.4	85.4	85.4	85.4	85.4	85.4	85.4
177.5°	83.2	83.2	83.2	83.2	83.2	83.2	83.2	83.2	83.2	84.3	84.3
180°	83.2	83.2	83.2	83.2	83.2	83.2	83.2	83.2	83.2	83.2	83.2



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CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
0°	298.9	298.9	298.9	298.9	298.9	298.9	298.9	298.9	298.9	298.9
2.5°	298.9	298.9	297.8	298.9	297.8	298.9	299.9	299.9	298.9	299.9
5°	298.9	299.9	297.8	298.9	297.8	298.9	299.9	299.9	298.9	299.9
7.5°	299.9	299.9	298.9	298.9	297.8	298.9	298.9	298.9	297.8	298.9
10°	302.2	301.1	298.9	299.9	297.8	298.9	298.9	298.9	297.8	298.9
12.5°	304.3	302.2	299.9	299.9	297.8	297.8	297.8	297.8	295.6	296.7
15°	306.5	304.3	299.9	299.9	297.8	297.8	296.7	296.7	294.5	295.6
17.5°	308.8	305.4	301.1	299.9	296.7	297.8	297.8	296.7	295.6	295.6
20°	312.0	308.8	305.4	304.3	301.1	302.2	301.1	299.9	297.8	298.9
22.5°	318.6	315.3	309.8	308.8	305.4	305.4	303.3	302.2	299.9	299.9
25°	329.6	323.0	315.3	312.0	307.6	306.5	304.3	302.2	299.9	299.9
27.5°	342.7	329.6	318.6	314.2	309.8	308.8	304.3	302.2	298.9	299.9
30°	354.7	338.3	323.0	315.3	310.9	309.8	305.4	303.3	298.9	299.9
32.5°	363.5	345.9	327.3	316.4	310.9	308.8	304.3	302.2	297.8	298.9
35°	373.3	352.5	331.7	318.6	312.0	309.8	304.3	301.1	296.7	296.7
37.5°	379.9	356.9	335.0	319.7	310.9	307.6	302.2	298.9	294.5	294.5
40°	382.1	358.0	335.0	319.7	309.8	305.4	298.9	294.5	290.1	290.1
42.5°	382.1	354.7	331.7	316.4	306.5	301.1	293.4	289.0	284.6	284.6
45°	375.5	347.0	324.1	308.8	299.9	293.4	284.6	280.3	275.9	275.9
47.5°	362.3	335.0	312.0	297.8	289.0	283.5	273.7	269.3	264.9	264.9
50°	342.7	316.4	294.5	280.3	272.6	268.2	257.3	252.9	246.4	246.4
52.5°	314.2	290.1	270.4	257.3	249.6	245.2	235.4	228.8	224.4	224.4
55°	278.1	257.3	237.5	225.6	219.0	215.7	206.9	201.4	198.2	197.1
57.5°	233.2	215.7	200.3	191.6	186.1	182.8	169.7	158.7	152.2	151.1
60°	187.2	171.9	159.8	144.5	140.1	141.2	140.1	139.0	137.9	137.9
62.5°	142.4	129.2	128.1	129.2	127.0	127.0	124.8	122.6	121.6	120.4
65°	113.8	112.7	111.7	110.6	109.5	109.5	107.3	105.1	102.9	102.9
67.5°	97.4	96.3	94.2	94.2	91.9	90.9	89.8	87.6	85.4	85.4
70°	82.1	80.0	77.7	76.6	74.5	74.5	73.4	72.2	70.1	70.1
72.5°	67.9	65.7	63.5	62.4	61.3	60.2	59.1	58.0	56.9	55.8
75°	53.7	52.6	50.3	49.3	48.2	48.2	47.1	46.0	44.9	43.8
77.5°	41.6	40.5	39.4	38.3	37.2	37.2	36.1	35.0	35.0	33.9
80°	31.8	30.6	29.5	28.5	27.4	27.4	26.3	26.3	25.2	25.2
82.5°	23.0	21.9	20.8	20.8	19.7	19.7	18.6	17.5	17.5	16.4
85°	16.4	15.3	14.2	13.1	12.1	12.1	11.0	11.0	9.8	9.8
87.5°	9.8	8.7	8.7	7.7	7.7	7.7	7.7	6.6	6.6	6.6
90°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	2.2	2.2	2.2
92.5°	3.3	4.4	3.3	4.4	4.4	3.3	4.4	4.4	4.4	3.3
95°	14.2	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3
97.5°	41.6	39.4	35.0	32.9	32.9	30.6	29.5	28.5	28.5	26.3
100°	95.3	86.5	76.6	73.4	72.2	69.0	64.6	63.5	63.5	60.2
102.5°	152.2	135.8	120.4	112.7	110.6	106.2	99.6	97.4	98.5	94.2
105°	206.9	184.0	160.9	151.1	146.7	140.1	131.4	129.2	128.1	123.7
107.5°	261.7	228.8	200.3	187.2	180.6	173.0	162.0	157.7	155.4	151.1
110°	308.8	270.4	237.5	219.0	211.3	202.5	189.4	182.8	180.6	175.1



TEST NUMBER: P316062

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

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
112.5°	347.0	304.3	268.2	246.4	236.5	226.6	212.4	203.6	199.3	194.9
115°	375.5	330.6	293.4	268.2	257.3	246.4	229.9	220.1	213.5	210.2
117.5°	395.2	348.1	309.8	283.5	271.5	260.6	241.9	229.9	223.3	219.0
120°	406.2	359.1	320.7	292.3	279.1	268.2	248.5	236.5	228.8	224.4
122.5°	409.4	362.3	325.1	295.6	281.4	270.4	251.8	238.7	232.1	227.7
125°	406.2	360.2	323.0	293.4	279.1	267.2	248.5	237.5	231.0	227.7
127.5°	397.4	353.6	317.5	288.0	273.7	262.7	243.0	233.2	226.6	223.3
130°	382.1	341.5	306.5	278.1	263.8	252.9	235.4	225.6	220.1	217.9
132.5°	365.7	326.2	293.4	267.2	252.9	240.9	226.6	216.7	211.3	209.1
135°	343.8	307.6	277.0	250.7	237.5	228.8	215.7	206.9	201.4	199.3
137.5°	319.7	286.8	259.5	234.3	223.3	215.7	203.6	194.9	190.5	189.4
140°	294.5	264.9	237.5	217.9	208.0	201.4	191.6	182.8	178.5	177.4
142.5°	268.2	239.8	219.0	201.4	193.8	187.2	178.5	170.8	167.5	166.4
145°	239.8	217.9	200.3	186.1	179.5	174.1	166.4	159.8	156.6	155.4
147.5°	213.5	195.9	182.8	171.9	165.3	160.9	155.4	150.0	146.7	145.6
150°	190.5	176.3	166.4	156.6	152.2	148.9	143.4	139.0	136.9	135.8
152.5°	168.6	157.7	150.0	142.4	137.9	135.8	132.5	128.1	125.9	127.0
155°	151.1	142.4	135.8	130.3	127.0	124.8	121.6	118.2	117.1	117.1
157.5°	135.8	128.1	123.7	119.3	116.1	115.0	112.7	109.5	109.5	109.5
160°	122.6	117.1	113.8	109.5	108.4	106.2	105.1	102.9	101.8	102.9
162.5°	112.7	108.4	106.2	102.9	100.8	99.6	98.5	96.3	96.3	97.4
165°	104.0	100.8	99.6	96.3	95.3	95.3	94.2	91.9	91.9	93.0
167.5°	97.4	95.3	94.2	91.9	90.9	90.9	89.8	89.8	89.8	89.8
170°	91.9	89.8	89.8	88.7	87.6	87.6	87.6	86.5	87.6	87.6
172.5°	87.6	86.5	86.5	86.5	85.4	85.4	85.4	85.4	85.4	86.5
175°	85.4	84.3	85.4	84.3	84.3	84.3	84.3	84.3	84.3	85.4
177.5°	84.3	83.2	84.3	83.2	83.2	84.3	84.3	83.2	83.2	84.3
180°	83.2	83.2	83.2	83.2	83.2	83.2	83.2	83.2	83.2	83.2

(END OF REPORT)