

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: P316064

Luminaire Tested: **ShSe-TRAP-2-L40-80-UNV-STD**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P316064
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-L40-80-UNV-STD
Description: SHAPER SENSE SQUARE
LIGHT LEVEL 2
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3884.1 lumens
Efficiency: N/A
Efficacy: 100.1 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

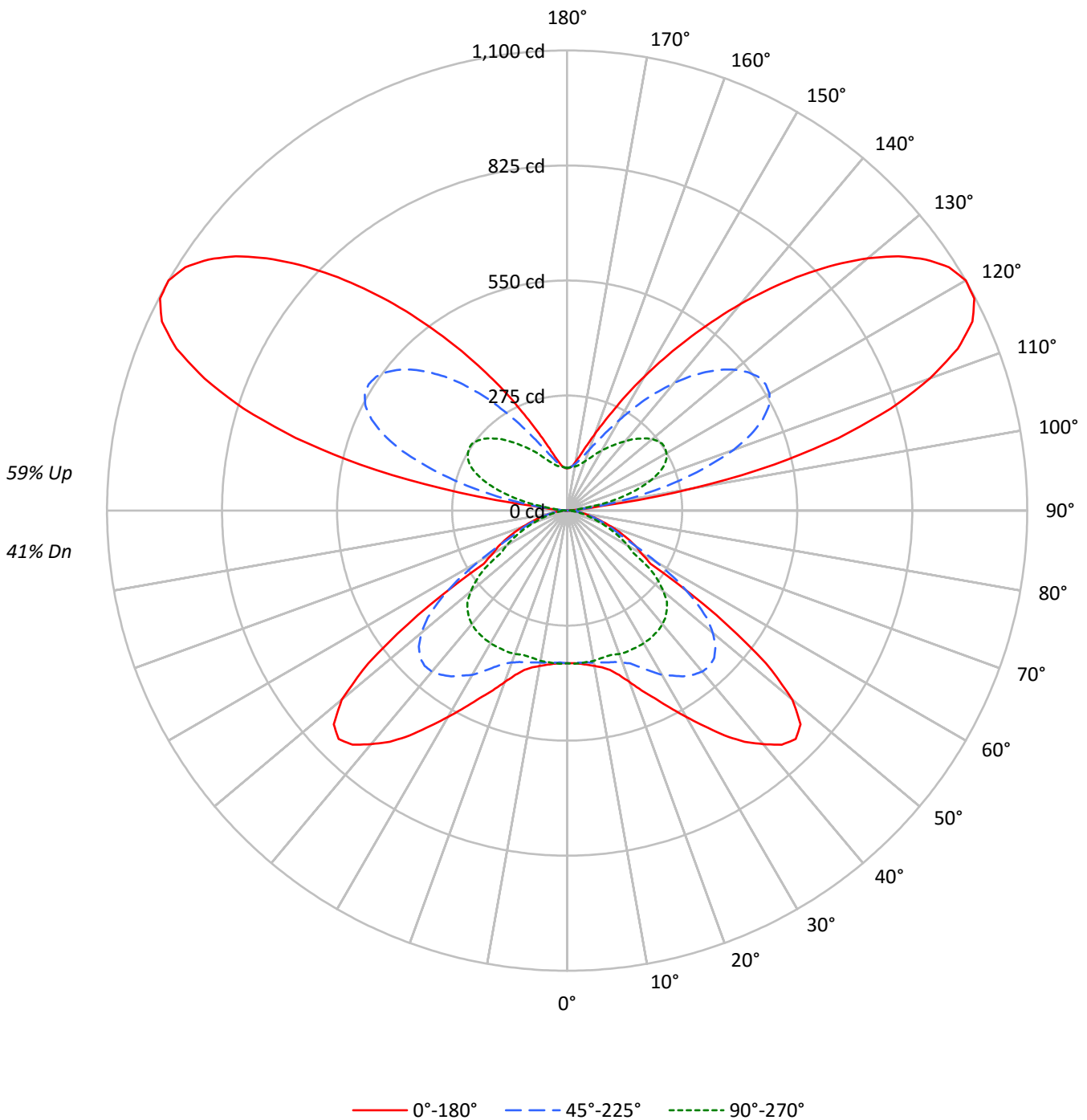
Input Watts (W): 38.8
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	462	462	462
5°	467	463	465
10°	484	474	469
15°	517	492	473
20°	587	520	491
25°	691	577	511
30°	832	662	535
35°	1014	747	560
40°	1203	830	585
45°	1383	890	603
50°	1384	895	592
55°	961	817	531
60°	518	622	426
65°	480	424	376
70°	415	376	316
75°	347	327	262
80°	302	292	224
85°	290	311	176



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	35.0	0.9
10°-20°	107.6	2.8
20°-30°	197.1	5.1
30°-40°	311.2	8.0
40°-50°	404.6	10.4
50°-60°	316.9	8.2
60°-70°	145.5	3.7
70°-80°	70.5	1.8
80°-90°	21.6	0.6
90°-100°	44.1	1.1
100°-110°	365.5	9.4
110°-120°	581.3	15.0
120°-130°	545.7	14.1
130°-140°	382.6	9.8
140°-150°	211.1	5.4
150°-160°	95.4	2.5
160°-170°	38.0	1.0
170°-180°	10.2	0.3
0°-30°	339.7	8.7
0°-40°	651.0	16.8
0°-60°	1372.5	35.3
0°-90°	1610.2	41.5
90°-120°	990.9	25.5
90°-150°	2130.3	54.8
90°-180°	2274.0	58.5
0°-180°	3884.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	365	365	365	365	365	
5°	368	366	365	364	366	35
15°	394	388	376	364	361	114
25°	495	468	413	376	366	232
35°	656	603	484	381	362	412
45°	773	716	497	366	337	581
55°	436	488	370	267	241	382
65°	160	158	142	134	126	158
75°	71	71	67	59	54	77
85°	20	24	21	15	12	22
90°	0	1	1	1	3	2
95°	15	19	19	19	19	68
105°	672	537	278	179	151	686
115°	1069	892	516	314	257	1038
125°	1047	897	557	341	278	932
135°	797	694	468	290	243	619
145°	497	441	322	219	190	318
155°	267	245	194	155	143	129
165°	147	142	130	116	114	44
175°	104	104	104	103	104	10
180°	102	102	102	102	102	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	364.9	364.9	364.9	364.9	364.9	364.9	364.9	364.9	364.9	364.9	364.9
2.5°	364.9	363.5	364.9	366.3	364.9	363.5	363.5	366.3	362.3	366.3	363.5
5°	367.6	366.3	367.6	367.6	367.6	366.3	366.3	367.6	363.5	367.6	364.9
7.5°	371.6	370.2	371.6	371.6	370.2	368.9	368.9	370.2	366.3	368.9	366.3
10°	376.9	375.6	375.6	375.6	375.6	373.0	373.0	374.2	370.2	371.6	368.9
12.5°	383.7	382.3	382.3	383.7	380.9	379.6	378.3	379.6	374.2	375.6	371.6
15°	394.3	393.0	393.0	391.6	390.3	387.6	386.3	386.3	379.6	380.9	375.6
17.5°	411.7	409.0	409.0	406.3	403.7	398.3	397.0	394.3	387.6	386.3	379.6
20°	435.8	433.1	431.8	430.4	425.1	419.7	415.7	410.4	398.3	394.3	386.3
22.5°	465.2	461.1	458.5	455.8	449.1	442.5	438.4	431.8	415.7	409.0	395.6
25°	494.6	491.9	489.2	485.2	475.9	467.8	462.5	453.2	435.8	426.4	413.0
27.5°	530.6	526.6	524.0	518.7	506.6	497.3	491.9	478.5	458.5	449.1	433.1
30°	569.4	566.8	561.4	556.1	541.3	532.0	522.7	508.0	486.6	473.2	453.2
32.5°	610.8	608.2	601.5	594.8	576.1	565.4	556.1	540.1	515.9	497.3	467.8
35°	656.3	651.0	645.6	636.3	614.9	602.8	590.8	574.8	546.7	515.9	483.9
37.5°	696.4	689.7	684.4	675.0	652.3	638.9	628.2	608.2	566.8	532.0	494.6
40°	728.5	723.1	716.5	704.4	683.0	669.6	660.3	634.9	584.1	544.0	502.6
42.5°	759.2	753.9	747.2	733.8	709.8	696.4	684.4	645.6	592.2	549.4	503.9
45°	772.6	767.2	760.6	748.5	729.8	716.5	699.1	647.0	588.2	544.0	497.3
47.5°	756.5	752.5	748.5	741.8	729.8	716.5	691.0	636.3	576.1	528.0	481.2
50°	703.1	696.4	697.7	700.4	697.7	676.3	652.3	604.2	549.4	501.3	454.5
52.5°	598.9	596.1	605.5	616.2	618.9	601.5	584.1	548.0	501.3	461.1	419.7
55°	435.8	445.1	461.1	486.6	494.6	487.9	479.9	461.1	433.1	403.7	370.2
57.5°	236.6	243.3	260.7	295.4	331.5	346.2	351.6	358.2	348.9	334.2	311.4
60°	204.5	203.2	203.2	201.8	197.8	199.2	208.5	240.6	255.3	255.3	245.9
62.5°	185.8	184.5	184.5	184.5	183.1	180.4	177.8	172.4	172.4	187.1	185.8
65°	160.4	160.4	160.4	161.7	160.4	157.8	157.8	153.7	148.3	143.0	141.7
67.5°	136.4	135.0	136.4	137.6	136.4	135.0	133.7	132.3	126.9	124.3	121.6
70°	112.3	110.9	112.3	112.3	112.3	110.9	110.9	109.6	106.9	104.3	101.6
72.5°	89.5	89.5	90.9	92.2	90.9	89.5	89.5	89.5	86.9	86.9	84.2
75°	70.9	70.9	70.9	72.2	70.9	70.9	70.9	72.2	69.5	69.5	66.9
77.5°	53.5	53.5	54.8	56.2	54.8	54.8	54.8	56.2	54.8	53.5	52.1
80°	41.4	41.4	41.4	42.8	42.8	42.8	42.8	42.8	41.4	40.1	40.1
82.5°	33.4	33.4	33.4	34.8	34.8	33.4	33.4	33.4	32.1	30.7	29.4
85°	20.0	21.4	22.7	22.7	24.1	24.1	24.1	24.1	22.7	22.7	21.4
87.5°	10.7	10.7	12.1	13.4	14.7	14.7	14.7	14.7	14.7	14.7	13.4
90°	0.0	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
92.5°	2.7	2.7	4.0	2.7	4.0	4.0	2.7	2.7	4.0	4.0	4.0
95°	14.7	16.0	17.4	17.4	17.4	18.7	18.7	17.4	17.4	17.4	18.7
97.5°	82.9	90.9	88.3	80.2	81.6	82.9	77.6	69.5	69.5	64.2	56.2
100°	306.1	315.4	307.4	260.7	244.6	235.2	223.2	191.1	171.1	147.1	125.7
102.5°	506.6	518.7	502.6	449.1	409.0	393.0	373.0	322.1	283.3	239.3	200.5
105°	672.3	684.4	673.7	597.5	554.7	537.3	508.0	442.5	390.3	331.5	278.0
107.5°	811.3	823.4	806.0	735.1	680.3	658.9	628.2	553.4	485.2	417.0	352.8
110°	922.3	934.3	918.3	856.8	790.0	761.9	725.8	644.3	568.0	489.2	422.4



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
112.5°	1010.5	1018.6	998.5	943.7	871.5	838.1	799.3	713.7	630.9	548.0	475.9
115°	1069.3	1072.0	1049.3	1001.2	929.0	891.5	848.8	760.6	673.7	592.2	515.9
117.5°	1097.4	1096.0	1072.0	1026.5	959.7	921.0	876.9	787.3	701.7	620.2	544.0
120°	1100.0	1096.0	1069.3	1027.9	966.4	930.3	886.2	798.0	715.1	634.9	558.7
122.5°	1082.7	1077.4	1050.7	1010.5	954.4	922.3	880.8	796.7	715.1	637.5	562.7
125°	1046.6	1041.2	1014.5	978.4	925.0	896.9	860.8	783.2	704.4	628.2	557.4
127.5°	998.5	994.5	969.1	935.7	886.2	859.5	828.7	757.9	684.4	612.2	544.0
130°	938.3	933.0	908.9	880.8	834.1	810.0	783.2	721.8	652.3	585.4	524.0
132.5°	870.1	866.2	847.4	818.0	776.6	755.2	729.8	677.7	616.2	554.7	498.5
135°	796.7	792.7	777.9	752.5	712.4	693.7	671.0	625.6	572.1	517.3	467.8
137.5°	720.5	717.8	704.4	681.7	647.0	629.6	609.6	569.4	524.0	478.5	434.4
140°	644.3	640.3	629.6	609.6	580.1	564.1	548.0	512.0	473.2	434.4	398.3
142.5°	568.0	565.4	557.4	541.3	514.6	501.3	486.6	457.1	423.7	391.6	359.5
145°	497.3	494.6	489.2	474.5	451.8	441.1	429.0	403.7	374.2	348.9	322.1
147.5°	430.4	429.0	423.7	413.0	393.0	384.9	375.6	352.8	328.8	307.4	283.3
150°	370.2	370.2	366.3	356.9	340.9	334.2	326.1	306.1	284.7	267.3	250.0
152.5°	316.8	315.4	312.8	304.7	290.0	284.7	279.4	264.7	248.6	233.9	219.2
155°	267.3	267.3	264.7	259.3	248.6	244.6	240.6	228.6	215.2	204.5	193.8
157.5°	227.3	228.6	225.9	221.9	212.5	211.2	207.2	199.2	189.8	180.4	172.4
160°	195.2	193.8	192.5	191.1	184.5	181.8	179.1	173.8	167.1	161.7	155.0
162.5°	168.5	167.1	167.1	165.7	160.4	160.4	157.8	153.7	149.7	145.7	140.4
165°	147.1	147.1	147.1	145.7	143.0	141.7	140.4	137.6	135.0	132.3	129.7
167.5°	131.0	131.0	131.0	131.0	128.3	128.3	128.3	125.7	124.3	121.6	120.3
170°	119.0	119.0	119.0	119.0	117.6	117.6	117.6	116.3	115.0	115.0	113.6
172.5°	109.6	110.9	110.9	110.9	109.6	109.6	109.6	109.6	108.3	108.3	108.3
175°	104.3	104.3	104.3	105.6	104.3	104.3	104.3	104.3	104.3	104.3	104.3
177.5°	101.6	101.6	101.6	101.6	101.6	101.6	101.6	101.6	101.6	102.9	102.9
180°	101.6	101.6	101.6	101.6	101.6	101.6	101.6	101.6	101.6	101.6	101.6



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CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
0°	364.9	364.9	364.9	364.9	364.9	364.9	364.9	364.9	364.9	364.9
2.5°	364.9	364.9	363.5	364.9	363.5	364.9	366.3	366.3	364.9	366.3
5°	364.9	366.3	363.5	364.9	363.5	364.9	366.3	366.3	364.9	366.3
7.5°	366.3	366.3	364.9	364.9	363.5	364.9	364.9	364.9	363.5	364.9
10°	368.9	367.6	364.9	366.3	363.5	364.9	364.9	364.9	363.5	364.9
12.5°	371.6	368.9	366.3	366.3	363.5	363.5	363.5	363.5	360.9	362.3
15°	374.2	371.6	366.3	366.3	363.5	363.5	362.3	362.3	359.5	360.9
17.5°	376.9	373.0	367.6	366.3	362.3	363.5	363.5	362.3	360.9	360.9
20°	380.9	376.9	373.0	371.6	367.6	368.9	367.6	366.3	363.5	364.9
22.5°	389.0	384.9	378.3	376.9	373.0	373.0	370.2	368.9	366.3	366.3
25°	402.3	394.3	384.9	380.9	375.6	374.2	371.6	368.9	366.3	366.3
27.5°	418.4	402.3	389.0	383.7	378.3	376.9	371.6	368.9	364.9	366.3
30°	433.1	413.0	394.3	384.9	379.6	378.3	373.0	370.2	364.9	366.3
32.5°	443.8	422.4	399.7	386.3	379.6	376.9	371.6	368.9	363.5	364.9
35°	455.8	430.4	405.0	389.0	380.9	378.3	371.6	367.6	362.3	362.3
37.5°	463.8	435.8	409.0	390.3	379.6	375.6	368.9	364.9	359.5	359.5
40°	466.5	437.1	409.0	390.3	378.3	373.0	364.9	359.5	354.2	354.2
42.5°	466.5	433.1	405.0	386.3	374.2	367.6	358.2	352.8	347.5	347.5
45°	458.5	423.7	395.6	376.9	366.3	358.2	347.5	342.1	336.8	336.8
47.5°	442.5	409.0	380.9	363.5	352.8	346.2	334.2	328.8	323.5	323.5
50°	418.4	386.3	359.5	342.1	332.8	327.5	314.2	308.8	300.7	300.7
52.5°	383.7	354.2	330.2	314.2	304.7	299.4	287.4	279.4	274.0	274.0
55°	339.5	314.2	290.0	275.4	267.3	263.3	252.6	245.9	241.9	240.6
57.5°	284.7	263.3	244.6	233.9	227.3	223.2	207.2	193.8	185.8	184.5
60°	228.6	209.9	195.2	176.4	171.1	172.4	171.1	169.7	168.5	168.5
62.5°	173.8	157.8	156.4	157.8	155.0	155.0	152.4	149.7	148.3	147.1
65°	139.0	137.6	136.4	135.0	133.7	133.7	131.0	128.3	125.7	125.7
67.5°	119.0	117.6	115.0	115.0	112.3	110.9	109.6	106.9	104.3	104.3
70°	100.2	97.6	94.9	93.6	90.9	90.9	89.5	88.3	85.5	85.5
72.5°	82.9	80.2	77.6	76.2	74.8	73.5	72.2	70.9	69.5	68.1
75°	65.5	64.2	61.5	60.2	58.8	58.8	57.4	56.2	54.8	53.5
77.5°	50.8	49.5	48.1	46.8	45.5	45.5	44.1	42.8	42.8	41.4
80°	38.8	37.4	36.1	34.8	33.4	33.4	32.1	32.1	30.7	30.7
82.5°	28.1	26.7	25.4	25.4	24.1	24.1	22.7	21.4	21.4	20.0
85°	20.0	18.7	17.4	16.0	14.7	14.7	13.4	13.4	12.1	12.1
87.5°	12.1	10.7	10.7	9.3	9.3	9.3	9.3	8.0	8.0	8.0
90°	1.4	1.4	1.4	1.4	1.4	1.4	1.4	2.7	2.7	2.7
92.5°	4.0	5.3	4.0	5.3	5.3	4.0	5.3	5.3	5.3	4.0
95°	17.4	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7
97.5°	50.8	48.1	42.8	40.1	40.1	37.4	36.1	34.8	34.8	32.1
100°	116.3	105.6	93.6	89.5	88.3	84.2	78.8	77.6	77.6	73.5
102.5°	185.8	165.7	147.1	137.6	135.0	129.7	121.6	119.0	120.3	115.0
105°	252.6	224.5	196.5	184.5	179.1	171.1	160.4	157.8	156.4	151.1
107.5°	319.5	279.4	244.6	228.6	220.6	211.2	197.8	192.5	189.8	184.5
110°	376.9	330.2	290.0	267.3	258.0	247.3	231.2	223.2	220.6	213.8



TEST NUMBER: P316064

CATALOG NUMBER: ShSe-TRAP-2-L40-80-UNV-STD

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
112.5°	423.7	371.6	327.5	300.7	288.7	276.7	259.3	248.6	243.3	237.9
115°	458.5	403.7	358.2	327.5	314.2	300.7	280.7	268.7	260.7	256.6
117.5°	482.5	425.1	378.3	346.2	331.5	318.1	295.4	280.7	272.6	267.3
120°	495.9	438.4	391.6	356.9	340.9	327.5	303.5	288.7	279.4	274.0
122.5°	499.9	442.5	397.0	360.9	343.5	330.2	307.4	291.4	283.3	278.0
125°	495.9	439.7	394.3	358.2	340.9	326.1	303.5	290.0	282.1	278.0
127.5°	485.2	431.8	387.6	351.6	334.2	320.8	296.8	284.7	276.7	272.6
130°	466.5	417.0	374.2	339.5	322.1	308.8	287.4	275.4	268.7	266.0
132.5°	446.4	398.3	358.2	326.1	308.8	294.0	276.7	264.7	258.0	255.3
135°	419.7	375.6	338.2	306.1	290.0	279.4	263.3	252.6	245.9	243.3
137.5°	390.3	350.2	316.8	286.1	272.6	263.3	248.6	237.9	232.6	231.2
140°	359.5	323.5	290.0	266.0	254.0	245.9	233.9	223.2	217.9	216.6
142.5°	327.5	292.8	267.3	245.9	236.6	228.6	217.9	208.5	204.5	203.2
145°	292.8	266.0	244.6	227.3	219.2	212.5	203.2	195.2	191.1	189.8
147.5°	260.7	239.3	223.2	209.9	201.8	196.5	189.8	183.1	179.1	177.8
150°	232.6	215.2	203.2	191.1	185.8	181.8	175.1	169.7	167.1	165.7
152.5°	205.9	192.5	183.1	173.8	168.5	165.7	161.7	156.4	153.7	155.0
155°	184.5	173.8	165.7	159.0	155.0	152.4	148.3	144.3	143.0	143.0
157.5°	165.7	156.4	151.1	145.7	141.7	140.4	137.6	133.7	133.7	133.7
160°	149.7	143.0	139.0	133.7	132.3	129.7	128.3	125.7	124.3	125.7
162.5°	137.6	132.3	129.7	125.7	123.0	121.6	120.3	117.6	117.6	119.0
165°	126.9	123.0	121.6	117.6	116.3	116.3	115.0	112.3	112.3	113.6
167.5°	119.0	116.3	115.0	112.3	110.9	110.9	109.6	109.6	109.6	109.6
170°	112.3	109.6	109.6	108.3	106.9	106.9	106.9	105.6	106.9	106.9
172.5°	106.9	105.6	105.6	105.6	104.3	104.3	104.3	104.3	104.3	105.6
175°	104.3	102.9	104.3	102.9	102.9	102.9	102.9	102.9	102.9	104.3
177.5°	102.9	101.6	102.9	101.6	101.6	102.9	102.9	101.6	101.6	102.9
180°	101.6	101.6	101.6	101.6	101.6	101.6	101.6	101.6	101.6	101.6

(END OF REPORT)