

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: INVUE

Report Number: P400717

Luminaire Tested: **ENV-SA1-727-U-SLL-HSS-XXB**

Issue Date: 5/20/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P400717  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2004-754-8)  
Test Lab: INNOVATION CENTER  
Issue Date: 5/20/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: ENV-SA1-727-U-SLL-HSS-XXB  
Description: ENTRI LED LUMINAIRE  
(1) 70 CRI, 2700K LIGHTSQUARE IN BATTERY OPERATION WITH 16 LEDS AND SPILL LIGHT ELIMINATOR LEFT OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 485 lumens  
Efficiency: N/A  
Efficacy: 37.3 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
IES Classification: Type III - Short - Semi-Cutoff  
BUG Rating: B0 - U0 - G0

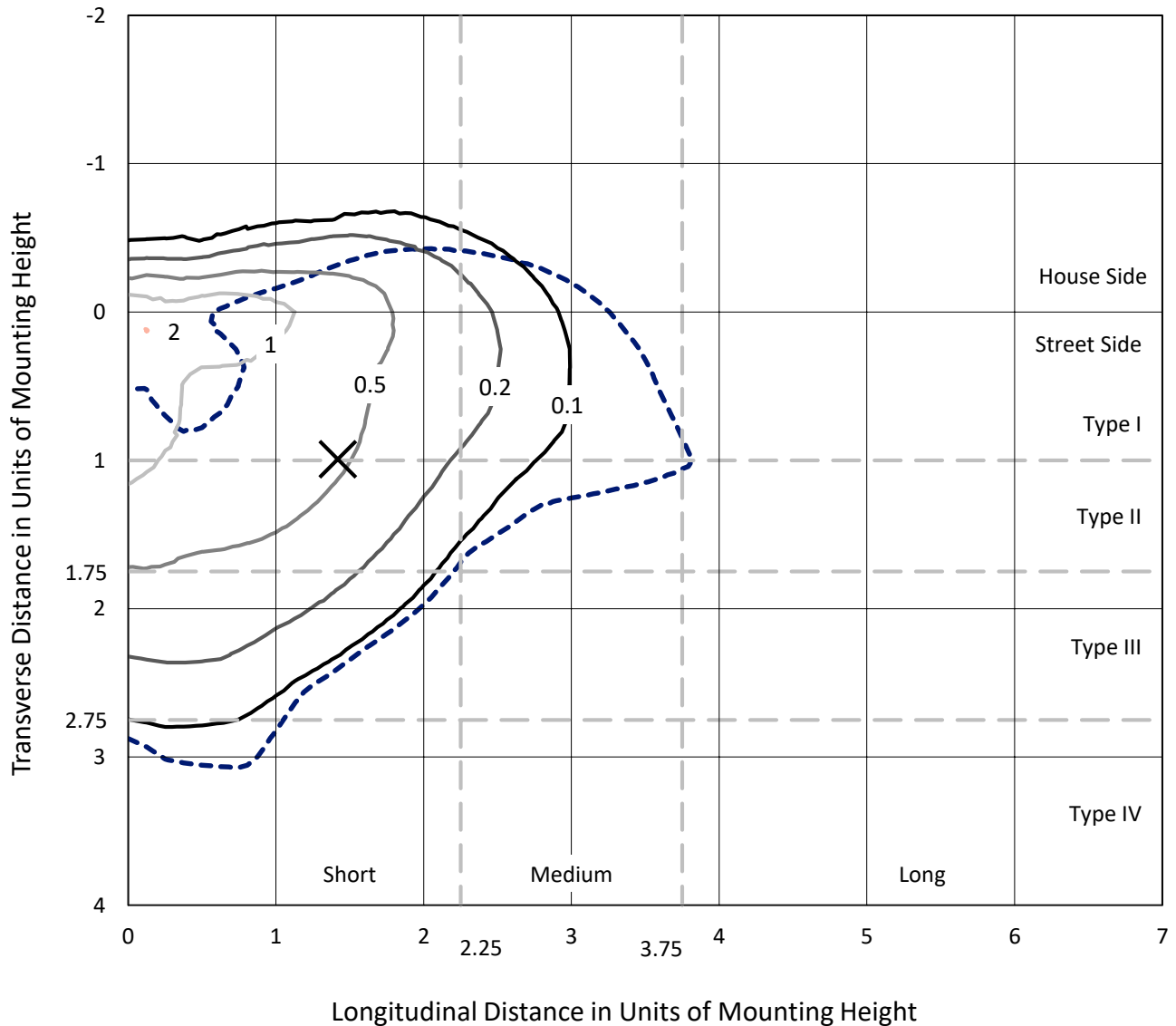
Input Watts (W): 13  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



REPORT NUMBER: P400717  
 CATALOG NUMBER: ENV-SA1-727-U-SLL-HSS-XXB

### Iso-Footcandle Lines of Horizontal Illumination

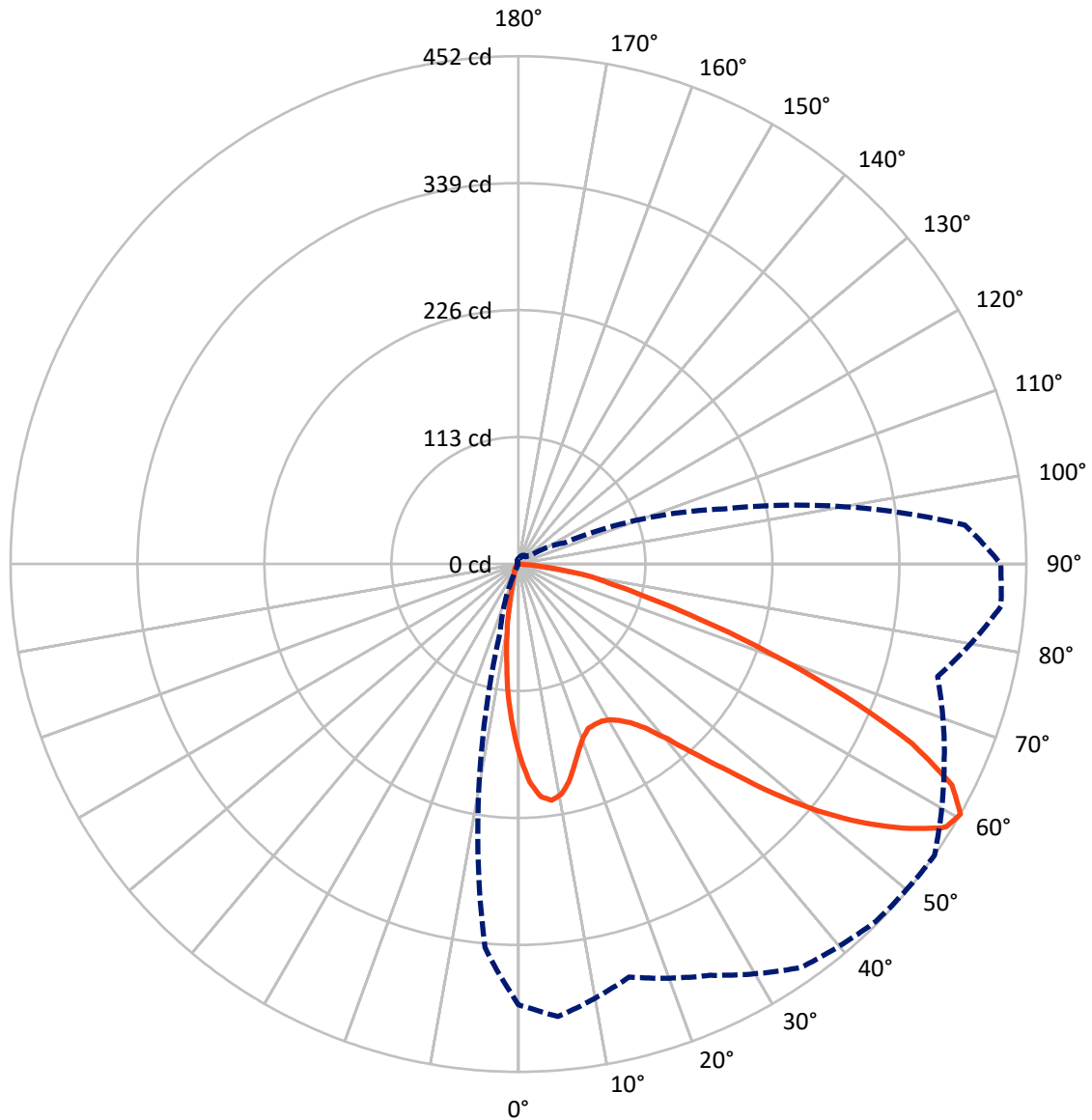
× Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 2 fc  
 Type III - Short - Semi-Cutoff

REPORT NUMBER: P400717  
CATALOG NUMBER: ENV-SA1-727-U-SLL-HSS-XXB

### Luminous Intensity Polar Plot



— Vertical Plane Through 55-Deg Lateral      - - - Horizontal Cone Through 60-Deg Vertical

REPORT NUMBER: P400717

CATALOG NUMBER: ENV-SA1-727-U-SLL-HSS-XXB

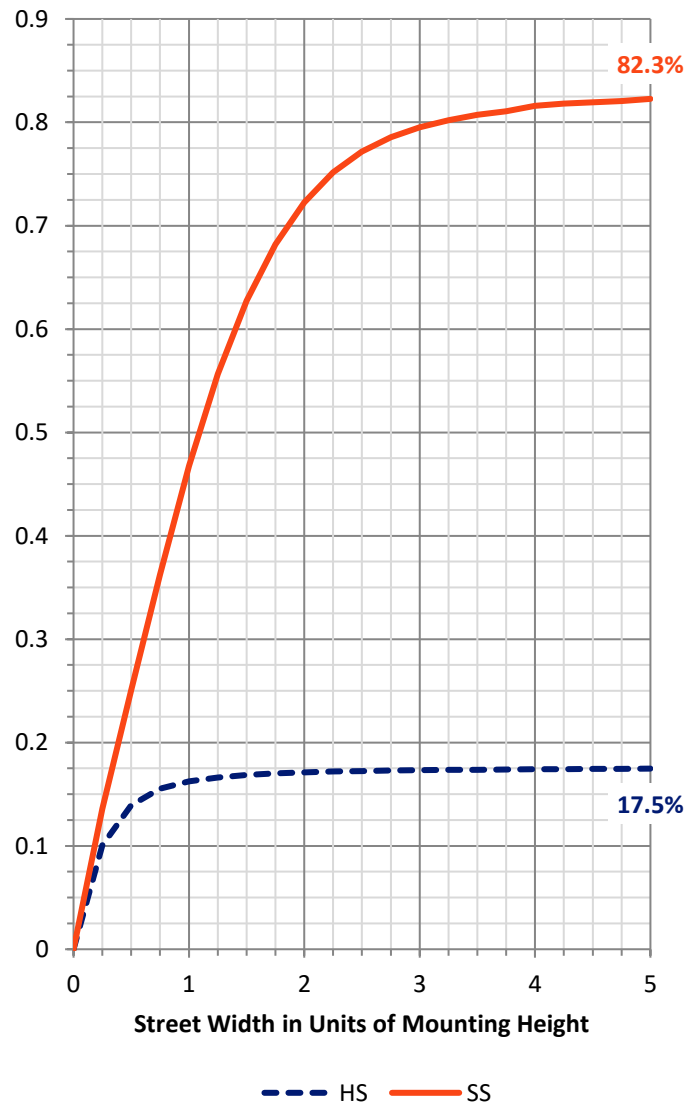
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	85.9	0.0	85.9
	% Fixture	17.7	0.0	17.7
<b>Street Side</b>	Lumens	399.1	0.0	399.1
	% Fixture	82.3	0.0	82.3
<b>Total</b>	Lumens	485.0	0.0	485.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	12.9	2.7
10°-20°	24.5	5.1
20°-30°	35.0	7.2
30°-40°	51.3	10.6
40°-50°	75.6	15.6
50°-60°	112.0	23.1
60°-70°	119.4	24.6
70°-80°	49.5	10.2
80°-90°	4.8	1.0
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-90°	485.0	100.0
0°-180°	485.0	100.0



REPORT NUMBER: P400717

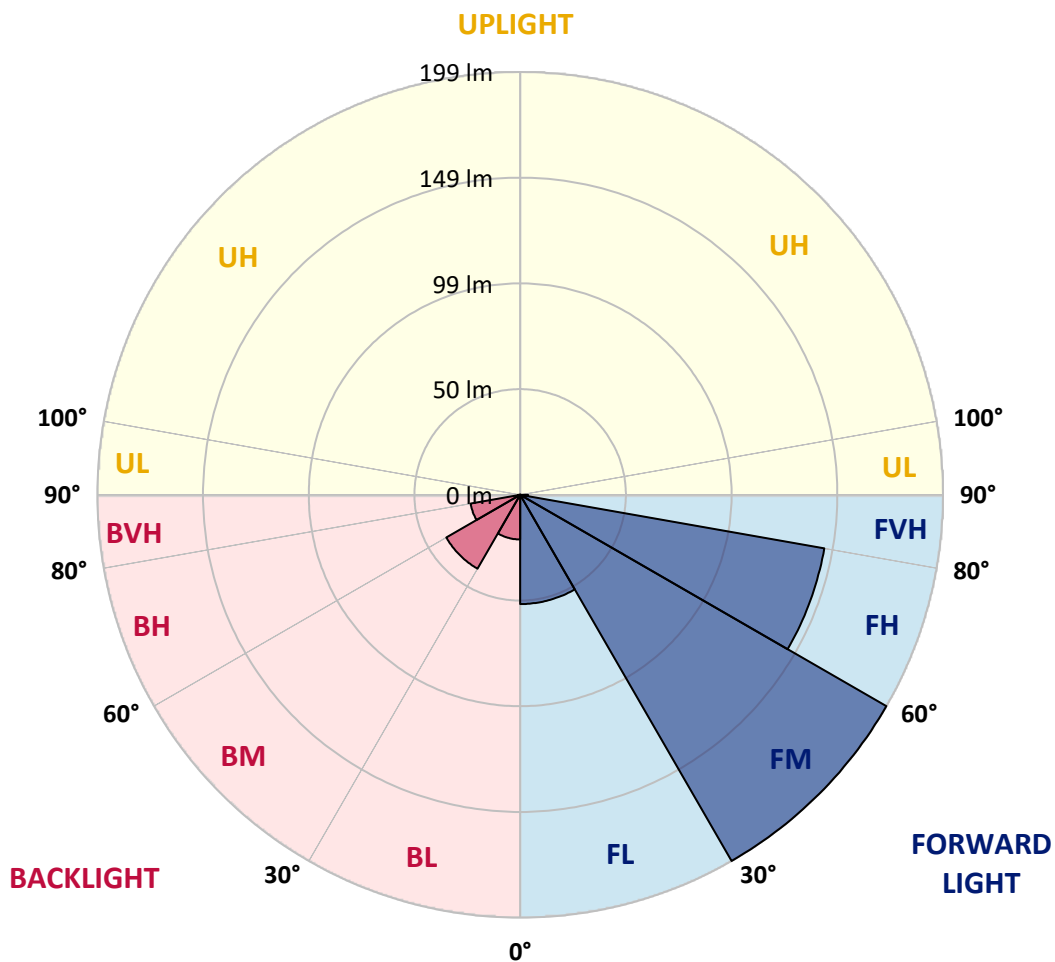
CATALOG NUMBER: ENV-SA1-727-U-SLL-HSS-XXB

**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	51.4	10.6			
FM	(30°-60°)	198.9	41.0			
FH	(60°-80°)	145.2	29.9			G0/660
FVH	(80°-90°)	3.6	0.8			G0/10
BL	(0°-30°)	21.0	4.3	B0/110		
BM	(30°-60°)	40.1	8.3	B0/220		
BH	(60°-80°)	23.7	4.9	B0/110		G0/110
BVH	(80°-90°)	1.1	0.2			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B0-U0-G0**

Type III Short





REPORT NUMBER: P400717

CATALOG NUMBER: ENV-SA1-727-U-SLL-HSS-XXB

**CANDELA DISTRIBUTION (FULL):**

	0°	1°	5°	15°	25°	35°	45°	55°	65°	75°	85°
0°	171.3	171.3	171.3	171.3	171.3	171.3	171.3	171.3	171.3	171.3	171.3
2.5°	178.9	178.6	181.2	186.5	189.8	191.8	192.2	194.3	192.2	191.1	187.1
5°	173.7	173.6	178.5	190.2	199.7	206.9	210.3	208.0	204.3	197.0	188.2
7.5°	159.2	159.2	168.5	184.1	200.1	212.4	216.7	212.3	203.6	189.0	173.2
10°	147.3	148.4	157.4	176.0	193.7	207.3	212.0	208.6	197.2	178.3	159.8
12.5°	140.3	140.9	150.9	169.6	186.1	197.1	200.0	199.0	190.7	170.2	150.6
15°	140.9	141.8	153.3	168.6	179.3	183.8	184.8	186.0	182.6	166.9	147.5
17.5°	151.0	151.7	163.2	173.1	172.7	171.3	171.6	173.8	177.8	169.6	153.7
20°	167.2	168.8	180.4	180.6	169.2	162.8	161.1	164.6	175.5	176.9	166.8
22.5°	187.9	188.5	200.3	193.3	169.5	156.9	155.0	158.9	176.2	188.6	184.9
25°	211.9	214.2	220.6	209.7	174.9	156.1	154.8	158.1	178.9	201.1	203.6
27.5°	228.1	230.0	236.1	220.9	179.6	156.5	154.1	158.2	182.1	212.8	223.6
30°	242.6	243.9	246.2	226.8	185.0	158.8	155.0	160.7	183.8	215.3	236.6
32.5°	256.3	257.8	256.5	233.8	191.0	163.1	156.5	166.1	187.6	220.2	247.8
35°	273.9	274.0	269.3	240.9	197.8	168.3	161.1	173.8	194.9	227.9	259.9
37.5°	294.8	295.0	283.1	248.1	205.5	176.9	171.9	185.8	205.6	236.8	277.3
40°	313.0	313.8	298.1	256.5	214.9	193.7	193.2	204.7	219.2	248.7	295.9
42.5°	328.9	331.0	311.8	263.4	228.3	219.4	220.5	231.0	235.8	258.6	307.4
45°	344.9	344.9	323.1	270.4	250.7	252.6	263.1	262.6	254.6	263.9	316.5
47.5°	354.9	354.5	330.0	281.8	280.9	299.3	310.4	304.3	275.4	269.6	327.9
50°	358.8	358.6	335.4	296.3	311.6	341.6	357.4	345.3	300.9	279.1	341.5
52.5°	369.7	368.8	347.9	312.8	339.4	382.3	395.4	381.9	326.3	296.3	357.2
55°	386.8	387.0	369.3	332.1	361.6	411.0	427.0	415.0	352.3	319.8	378.9
57.5°	398.2	399.0	393.1	353.7	385.5	431.0	446.6	443.2	386.8	348.0	404.3
58°	399.3	400.0	396.8	357.8	389.0	433.3	449.3	446.9	394.5	357.0	410.3
60°	392.3	394.2	404.2	380.5	403.8	438.2	449.7	451.9	418.0	386.1	431.0
62.5°	373.1	373.7	391.9	406.0	413.9	426.2	427.3	432.8	427.7	420.3	449.6
65°	349.6	349.6	369.2	407.2	387.8	385.7	379.3	384.8	399.4	441.8	448.3
67.5°	308.8	309.1	334.1	362.7	321.5	314.5	310.4	312.4	343.5	423.9	423.3
70°	249.6	249.4	275.2	293.7	238.6	232.6	237.6	236.9	279.0	376.7	369.6
72.5°	176.5	178.1	204.6	226.8	162.0	139.6	161.5	169.9	209.9	317.5	286.0
75°	99.4	101.5	123.1	157.6	102.2	94.4	105.6	117.6	151.7	252.8	192.1
77.5°	49.9	50.7	63.1	75.8	62.0	72.0	71.3	82.8	104.1	170.5	109.8
80°	28.8	30.4	34.7	39.2	34.7	45.7	53.0	62.4	64.1	88.2	61.3
82.5°	11.6	12.9	16.2	18.4	14.4	13.6	9.3	29.2	38.6	42.6	23.5
85°	0.0	0.0	0.1	0.2	0.3	0.3	0.5	5.1	9.4	2.1	3.9
87.5°	0.0	0.0	0.1	0.1	0.2	0.3	0.4	0.6	0.8	1.0	3.5
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P400717

CATALOG NUMBER: ENV-SA1-727-U-SLL-HSS-XXB

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	171.3	171.3	171.3	171.3	171.3	171.3	171.3	171.3	171.3	171.3	171.3
2.5°	185.7	184.7	181.3	176.1	172.9	168.0	166.0	161.3	158.9	155.0	155.0
5°	183.8	179.7	171.2	160.1	152.2	144.0	141.3	135.8	131.9	127.2	125.3
7.5°	167.2	161.4	148.1	135.2	122.6	114.2	106.0	100.4	95.1	91.2	91.8
10°	151.8	143.6	129.0	112.6	99.6	90.9	83.4	76.9	71.4	66.0	65.2
12.5°	141.8	132.4	115.0	97.4	87.7	81.2	74.4	67.2	60.4	54.5	52.1
15°	137.6	127.4	107.9	91.3	82.4	74.2	66.2	57.4	49.6	42.5	40.5
17.5°	142.2	129.9	107.3	87.3	74.9	64.6	53.5	43.8	34.7	29.5	28.0
20°	154.7	138.7	109.4	83.3	66.6	53.2	39.6	28.7	23.6	20.4	19.4
22.5°	172.7	153.3	113.0	79.3	58.1	39.6	27.3	20.7	17.7	16.0	15.6
25°	192.4	172.1	119.6	76.0	49.7	29.4	20.3	17.0	15.1	13.9	13.5
27.5°	214.5	190.7	127.6	73.5	41.9	23.6	17.4	14.9	13.5	12.7	12.3
30°	228.3	204.1	133.8	69.1	36.6	21.5	16.6	14.1	12.6	11.9	11.6
32.5°	241.1	214.7	139.6	64.1	32.6	19.0	16.1	14.9	13.0	11.7	11.2
35°	255.1	225.5	142.5	61.1	29.9	16.5	13.3	11.6	10.5	10.4	10.1
37.5°	276.0	238.3	144.3	59.4	28.2	15.0	12.4	10.5	9.3	8.2	7.7
40°	295.8	251.6	145.2	57.9	27.4	14.1	11.8	9.9	8.6	7.6	7.2
42.5°	311.3	263.7	145.8	56.8	25.9	13.6	11.4	9.5	8.2	7.2	6.7
45°	323.9	277.7	145.3	56.4	24.8	13.9	11.2	9.3	7.8	6.8	6.3
47.5°	336.3	293.0	147.1	55.9	23.6	13.4	11.3	9.2	7.5	6.5	6.1
50°	352.6	311.4	153.4	54.6	22.7	12.6	12.2	9.3	7.4	6.3	6.0
52.5°	373.6	336.9	164.9	53.3	21.7	11.8	12.7	9.3	7.2	6.1	5.7
55°	399.0	365.5	177.5	51.3	20.0	10.9	12.2	9.3	7.1	6.1	5.5
57.5°	419.9	391.0	187.5	48.9	16.8	9.8	11.2	8.9	6.6	5.7	5.2
58°	421.7	393.9	188.9	48.2	16.4	9.6	10.9	8.8	6.4	5.6	5.1
60°	429.1	398.7	189.4	44.7	13.7	9.2	9.4	8.5	6.1	5.2	4.9
62.5°	426.5	382.9	177.8	38.6	12.2	8.3	7.9	8.7	5.6	4.8	4.4
65°	413.8	351.9	155.8	34.6	12.3	7.4	6.8	7.6	5.1	4.3	3.9
67.5°	383.5	304.9	126.5	32.4	12.8	6.6	5.9	5.7	4.6	3.9	3.6
70°	327.1	249.9	95.9	30.4	13.6	5.9	5.4	5.0	4.2	3.6	3.2
72.5°	240.9	185.0	69.8	28.5	13.2	5.2	5.0	4.6	3.9	3.2	3.0
75°	150.3	107.5	47.8	23.3	11.8	4.6	4.7	4.3	3.5	3.0	2.8
77.5°	87.7	75.5	23.6	17.3	8.2	4.0	4.1	3.9	3.6	2.8	2.7
80°	52.5	46.9	10.1	7.4	4.5	3.6	3.5	3.7	3.4	2.7	2.5
82.5°	22.7	20.4	4.9	4.1	3.7	3.1	3.0	3.1	2.9	2.2	2.1
85°	1.3	3.4	2.3	3.0	2.8	2.3	2.3	2.4	2.1	1.7	1.7
87.5°	1.2	2.6	1.5	1.8	2.0	1.7	1.8	1.8	1.7	1.6	1.5
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0





REPORT NUMBER: P400717

CATALOG NUMBER: ENV-SA1-727-U-SLL-HSS-XXB

**CANDELA DISTRIBUTION (continued):**

	185°	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°
0°	171.3	171.3	171.3	171.3	171.3	171.3	171.3	171.3	171.3	171.3	171.3
2.5°	152.9	151.8	148.8	147.7	142.9	144.1	144.5	144.0	144.2	144.6	146.0
5°	126.6	125.0	121.0	118.5	117.1	116.2	111.9	112.0	112.6	110.1	113.3
7.5°	89.9	91.8	92.2	89.8	88.3	85.2	81.2	79.0	75.3	77.4	77.8
10°	64.4	63.5	65.2	64.4	62.1	60.9	56.7	56.3	55.9	55.7	58.3
12.5°	49.1	46.3	44.3	44.7	43.0	40.1	39.3	39.4	39.8	39.8	40.5
15°	38.9	34.7	31.5	29.5	29.8	26.9	26.0	23.3	22.9	22.1	22.3
17.5°	27.2	25.5	23.6	21.4	20.4	17.8	14.6	13.1	12.0	12.2	12.7
20°	18.8	18.1	17.5	16.4	15.5	12.4	10.4	9.7	9.6	9.8	10.0
22.5°	15.1	14.4	13.8	13.5	12.3	10.0	8.9	8.4	8.4	8.4	8.5
25°	13.0	12.3	11.6	11.6	10.5	8.7	7.9	7.5	7.4	7.3	7.5
27.5°	12.1	11.1	10.4	9.9	9.1	7.7	7.0	6.6	6.5	6.5	6.6
30°	11.2	10.2	9.4	8.8	7.9	6.9	6.1	5.9	5.7	5.7	5.8
32.5°	10.6	9.6	8.7	7.9	6.9	6.1	5.4	5.0	4.9	5.0	5.0
35°	9.4	8.6	7.8	7.0	6.1	5.3	4.7	4.3	4.2	4.2	4.3
37.5°	7.4	6.8	6.6	6.1	5.3	4.6	3.9	3.6	3.5	3.5	3.6
40°	6.7	5.9	5.5	5.3	4.9	3.9	3.2	2.8	2.8	2.8	2.9
42.5°	6.1	5.3	4.7	4.5	4.2	3.4	2.6	2.3	2.2	2.2	2.3
45°	5.8	4.9	4.0	3.6	3.6	2.8	2.1	1.7	1.7	1.7	1.7
47.5°	5.6	4.6	3.6	2.9	2.8	2.3	1.7	1.3	1.2	1.2	1.2
50°	5.4	4.2	3.2	2.5	2.2	1.9	1.3	1.0	0.9	0.9	0.9
52.5°	5.1	4.0	2.9	2.2	1.7	1.5	1.0	0.7	0.6	0.6	0.6
55°	5.0	3.8	2.8	2.0	1.5	1.1	0.7	0.6	0.5	0.5	0.5
57.5°	4.7	3.5	2.6	1.9	1.4	0.8	0.6	0.4	0.3	0.3	0.4
58°	4.6	3.5	2.5	1.8	1.3	0.8	0.6	0.4	0.3	0.3	0.4
60°	4.3	3.2	2.4	1.7	1.2	0.7	0.5	0.3	0.2	0.2	0.3
62.5°	4.0	2.9	2.1	1.5	1.0	0.6	0.4	0.2	0.1	0.1	0.1
65°	3.6	2.7	1.8	1.4	0.8	0.5	0.3	0.1	0.0	0.0	0.0
67.5°	3.2	2.5	1.7	1.2	0.7	0.4	0.2	0.0	0.0	0.0	0.0
70°	2.9	2.3	1.5	1.0	0.6	0.3	0.1	0.0	0.0	0.0	0.0
72.5°	2.8	2.1	1.4	0.9	0.5	0.3	0.1	0.0	0.0	0.0	0.0
75°	2.7	2.0	1.4	0.8	0.5	0.3	0.2	0.1	0.0	0.0	0.1
77.5°	2.6	2.0	1.4	0.8	0.6	0.3	0.3	0.2	0.2	0.1	0.3
80°	2.4	1.8	1.2	0.7	0.5	0.4	0.3	0.2	0.0	0.0	0.0
82.5°	2.0	1.5	1.0	0.7	0.5	0.3	0.1	0.0	0.0	0.0	0.0
85°	1.7	1.2	0.8	0.5	0.3	0.1	0.0	0.0	0.0	0.0	0.0
87.5°	1.5	0.9	0.6	0.4	0.2	0.1	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P400717

CATALOG NUMBER: ENV-SA1-727-U-SLL-HSS-XXB

**CANDELA DISTRIBUTION (continued):**

	285°	295°	305°	315°	325°	335°	345°	355°	359°	360°
0°	171.3	171.3	171.3	171.3	171.3	171.3	171.3	171.3	171.3	171.3
2.5°	147.2	151.4	153.1	159.0	161.6	166.9	171.5	175.4	177.3	178.9
5°	114.2	118.2	122.5	131.2	138.7	146.8	156.9	167.3	170.4	173.7
7.5°	79.7	85.6	92.9	100.7	111.4	123.6	138.1	151.0	157.5	159.2
10°	61.9	69.0	76.7	84.4	93.3	106.3	120.8	137.5	144.5	147.3
12.5°	46.5	55.9	65.1	74.2	81.9	93.2	109.0	128.9	136.6	140.3
15°	28.0	38.6	49.9	62.1	72.8	86.0	103.9	127.1	136.8	140.9
17.5°	13.9	19.1	29.4	47.8	63.6	80.0	103.8	133.7	145.7	151.0
20°	10.4	11.7	15.7	29.8	52.9	75.1	104.9	145.0	162.7	167.2
22.5°	8.9	9.9	11.3	17.4	39.6	70.5	108.7	159.9	181.9	187.9
25°	7.8	8.6	9.7	12.0	27.1	65.1	116.0	181.0	203.7	211.9
27.5°	6.9	7.6	8.5	10.1	18.2	54.9	120.1	198.7	221.3	228.1
30°	6.1	6.6	7.5	8.6	13.4	42.5	124.0	214.3	237.3	242.6
32.5°	5.3	5.8	6.5	7.3	10.2	32.2	124.2	227.7	251.2	256.3
35°	4.5	5.0	5.6	6.3	8.1	25.1	120.4	241.0	267.7	273.9
37.5°	3.8	4.2	4.9	5.5	7.3	19.4	112.6	256.6	287.8	294.8
40°	3.2	3.7	4.2	5.0	6.5	14.1	100.1	270.7	306.6	313.0
42.5°	2.6	3.0	3.7	4.9	5.4	10.2	87.6	284.2	322.9	328.9
45°	2.0	2.6	3.4	4.7	4.5	7.2	76.7	296.3	337.0	344.9
47.5°	1.5	2.1	3.4	4.2	3.7	5.1	71.2	307.8	349.5	354.9
50°	1.1	1.7	3.7	3.6	3.1	4.4	72.1	320.6	355.3	358.8
52.5°	0.8	1.5	2.8	2.6	2.7	3.9	75.3	337.6	367.2	369.7
55°	0.7	1.1	1.7	1.9	2.4	3.7	74.5	353.7	382.4	386.8
57.5°	0.6	0.9	1.4	1.6	2.1	3.5	69.8	360.7	392.3	398.2
58°	0.6	0.9	1.3	1.6	2.1	3.4	68.6	358.8	391.8	399.3
60°	0.5	0.8	1.2	1.4	1.8	3.0	62.8	342.5	381.7	392.3
62.5°	0.4	0.6	0.9	1.0	1.5	2.5	51.7	316.1	360.1	373.1
65°	0.2	0.4	0.6	0.7	1.0	1.8	36.8	284.8	336.9	349.6
67.5°	0.0	0.2	0.4	0.5	0.6	1.4	21.2	241.7	298.7	308.8
70°	0.0	0.1	0.2	0.3	0.4	0.9	11.2	177.4	231.4	249.6
72.5°	0.1	0.1	0.1	0.0	0.2	0.7	5.0	105.3	157.8	176.5
75°	0.1	0.1	0.0	0.0	0.0	0.4	2.1	55.5	90.5	99.4
77.5°	0.4	0.2	0.0	0.0	0.0	0.1	1.0	29.9	46.9	49.9
80°	0.1	0.0	0.0	0.0	0.0	0.0	0.4	10.0	28.1	28.8
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	12.1	11.6
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)