

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: P400719

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

Issue Date: 5/20/2020

Test Information

Test Method: LM-79-08
Report Number: P400719
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2004-754-10)
Test Lab: INNOVATION CENTER
Issue Date: 5/20/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: ENV-SA1-727-U-SLR-HSS-XXB
Description: ENTRI LED LUMINAIRE
(1) 70 CRI, 2700K LIGHTSQUARE IN BATTERY OPERATION WITH 16 LEDS AND SPILL
LIGHT ELIMINATOR RIGHT 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 IV - Short - Semi-Cutoff
BUG Rating: B0 - U0 - G0

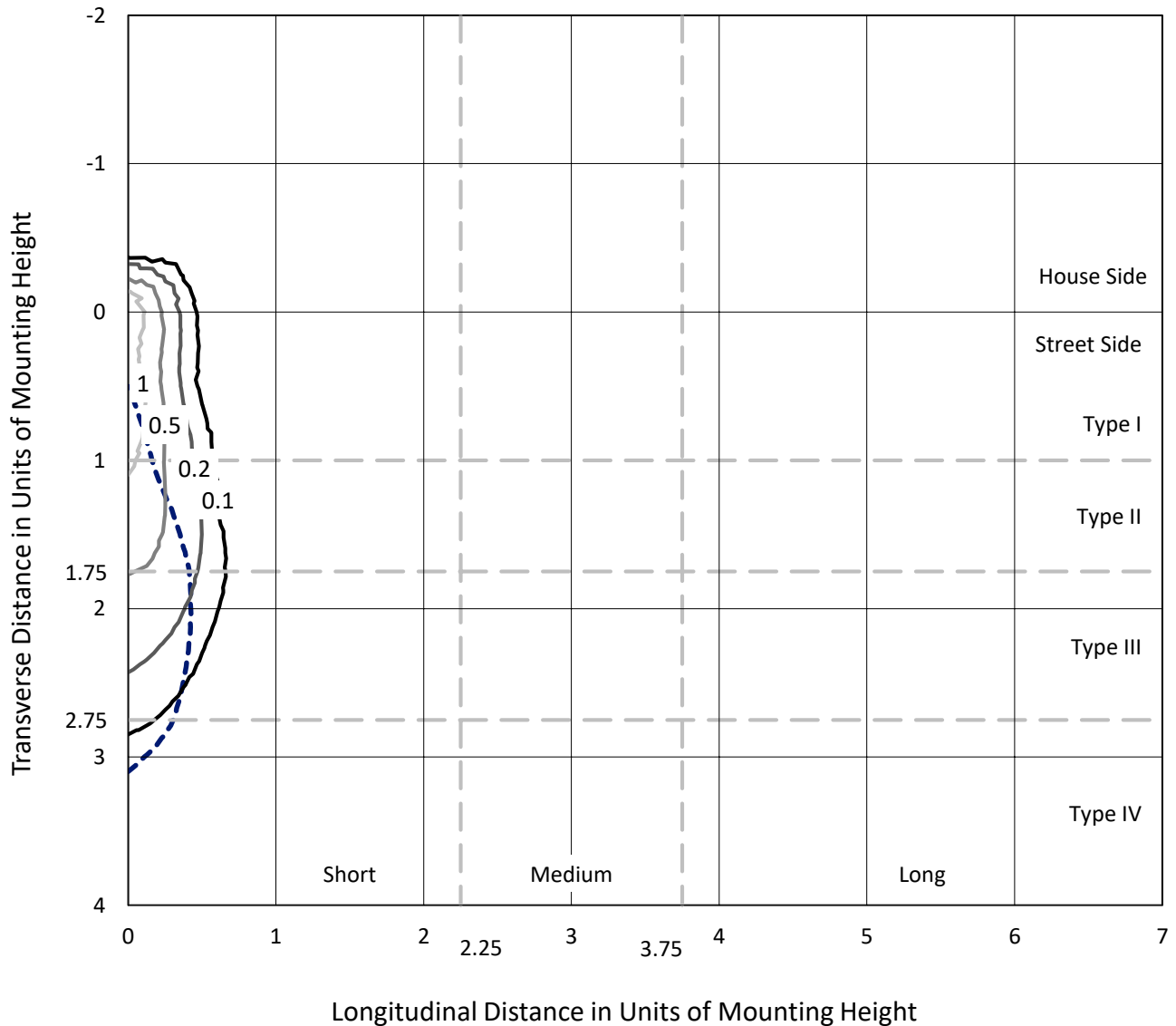
Input Watts (W): 13
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



REPORT NUMBER: P400719
 CATALOG NUMBER: ENV-SA1-727-U-SLR-HSS-XXB

Iso-Footcandle Lines of Horizontal Illumination

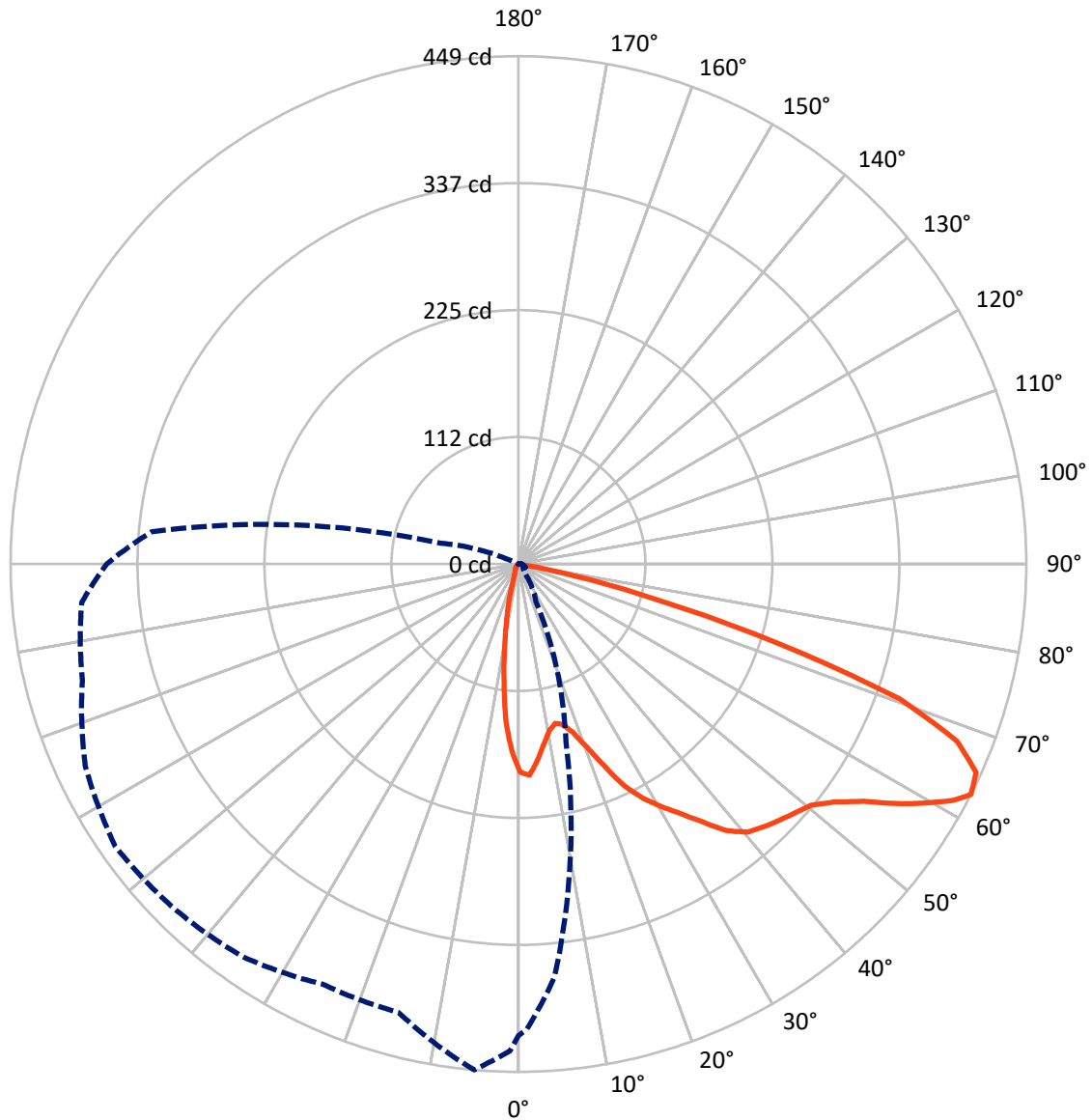
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 1.8 fc
 Type IV - Short - Semi-Cutoff

REPORT NUMBER: P400719
CATALOG NUMBER: ENV-SA1-727-U-SLR-HSS-XXB

Luminous Intensity Polar Plot



— Vertical Plane Through 355-Deg Lateral - - - Horizontal Cone Through 62.5-Deg Vertical

REPORT NUMBER: P400719

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

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	68.2	0.0	68.2
	% Fixture	14.1	0.0	14.1
Street Side	Lumens	416.8	0.0	416.8
	% Fixture	85.9	0.0	85.9
Total	Lumens	485.0	0.0	485.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	13.8	2.8
10°-20°	26.2	5.4
20°-30°	36.5	7.5
30°-40°	52.8	10.9
40°-50°	75.7	15.6
50°-60°	109.8	22.6
60°-70°	118.8	24.5
70°-80°	48.0	9.9
80°-90°	3.6	0.7
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: P400719

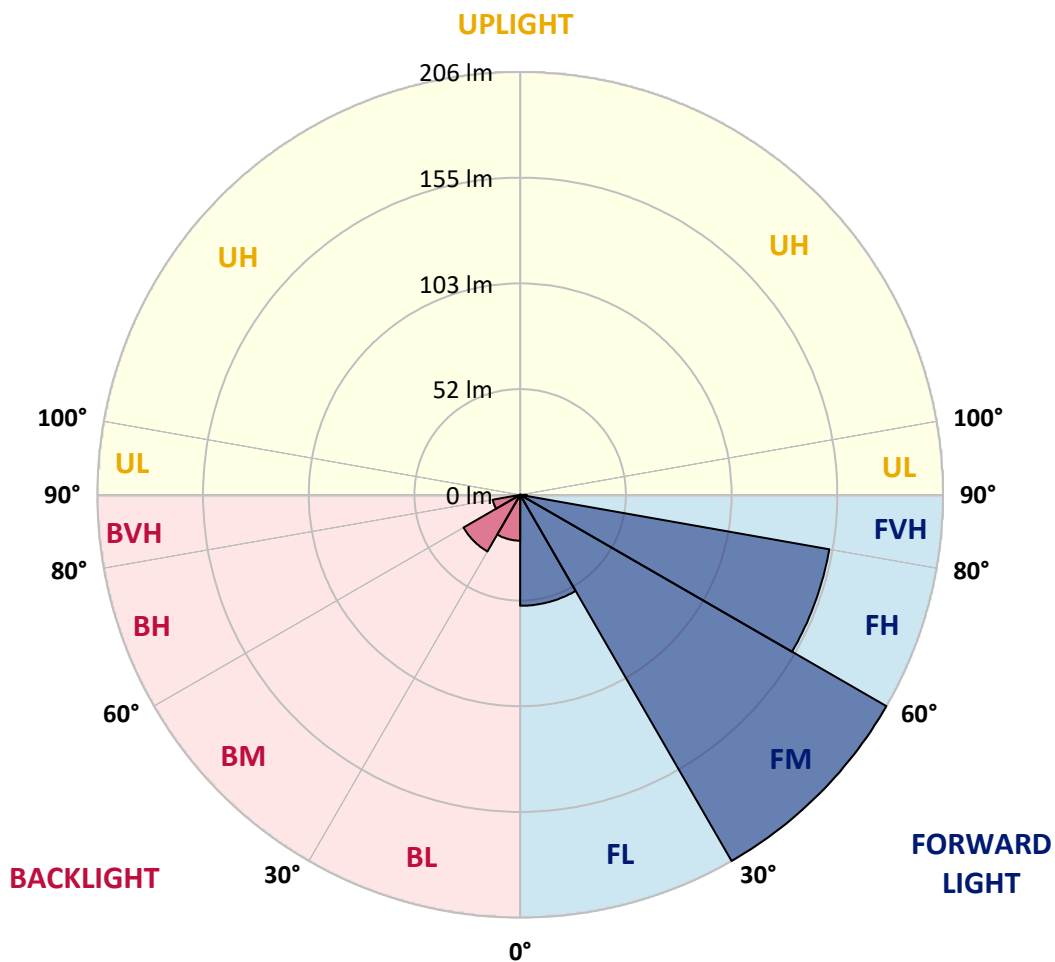
CATALOG NUMBER: ENV-SA1-727-U-SLR-HSS-XXB

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	54.1	11.2			
FM	(30°-60°)	206.3	42.5			
FH	(60°-80°)	153.2	31.6			G0/660
FVH	(80°-90°)	3.2	0.7			G0/10
BL	(0°-30°)	22.4	4.6	B0/110		
BM	(30°-60°)	31.9	6.6	B0/220		
BH	(60°-80°)	13.6	2.8	B0/110		G0/110
BVH	(80°-90°)	0.4	0.1			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 IV Short





REPORT NUMBER: P400719

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

CANDELA DISTRIBUTION (FULL):

	0°	1°	5°	15°	25°	35°	45°	55°	65°	75°	85°
0°	184.0	184.0	184.0	184.0	184.0	184.0	184.0	184.0	184.0	184.0	184.0
2.5°	184.7	184.0	182.2	178.5	173.1	169.7	167.5	164.6	161.6	160.7	158.7
5°	168.6	167.4	165.0	155.6	147.1	138.7	132.6	126.9	125.0	121.1	123.4
7.5°	153.1	152.5	146.9	134.7	121.3	110.5	103.5	95.1	92.6	88.7	85.5
10°	140.9	140.4	133.7	117.8	103.3	94.2	88.8	83.3	77.8	72.3	67.8
12.5°	134.7	133.7	125.9	108.7	95.3	87.8	82.1	74.8	68.9	61.4	56.0
15°	135.7	134.7	125.8	107.3	91.5	81.1	72.6	63.9	55.7	48.3	43.0
17.5°	143.4	143.0	132.1	108.5	86.9	73.1	61.7	50.1	40.3	32.3	27.8
20°	158.3	157.2	141.5	111.2	82.1	63.9	48.3	34.0	25.8	20.3	18.4
22.5°	176.9	174.3	156.1	115.2	77.4	54.0	34.9	22.8	18.4	16.3	15.0
25°	198.7	198.7	174.4	120.4	72.8	44.8	24.5	18.1	15.5	14.0	12.9
27.5°	216.3	215.0	190.8	125.7	67.8	36.8	20.5	15.8	13.6	12.0	11.3
30°	229.4	227.3	201.6	129.4	61.4	31.1	18.4	15.1	12.9	11.0	10.2
32.5°	242.8	240.3	211.4	131.4	57.6	28.4	16.3	13.1	11.5	10.7	9.6
35°	258.5	256.3	222.3	131.2	55.6	26.9	14.8	11.9	9.8	8.5	7.8
37.5°	276.1	271.6	233.5	130.3	54.1	26.1	13.4	11.0	9.1	7.8	6.8
40°	291.2	286.7	243.9	129.2	53.2	25.3	12.7	10.5	8.6	7.2	6.2
42.5°	303.0	298.7	253.5	127.7	52.7	23.7	13.1	10.1	8.3	6.8	5.8
45°	313.1	308.7	265.1	127.5	52.5	22.6	12.9	10.0	8.1	6.3	5.4
47.5°	324.9	322.6	280.2	130.7	51.7	21.7	11.8	10.7	8.0	6.1	5.1
50°	342.4	340.4	300.1	140.1	50.6	20.8	10.7	11.8	8.0	6.0	4.8
52.5°	366.9	364.6	331.4	152.4	49.5	19.9	9.7	11.4	8.1	5.7	4.6
55°	392.2	391.8	360.9	165.4	48.6	17.8	8.5	10.3	7.9	5.3	4.3
57.5°	412.1	411.8	383.1	174.3	46.7	14.3	7.8	8.5	7.3	4.8	3.9
60°	420.2	417.8	385.5	174.3	42.5	11.8	7.1	6.7	7.4	4.3	3.5
61°	420.2	417.2	381.2	171.7	40.4	11.2	6.7	6.2	7.6	4.1	3.3
62.5°	417.0	411.9	366.4	162.4	37.0	11.2	6.1	5.6	6.9	3.9	3.0
65°	402.5	394.1	331.8	141.2	33.6	11.5	5.3	4.7	5.0	3.4	2.6
67.5°	366.7	357.3	286.8	111.7	30.8	12.2	4.4	4.1	3.8	3.0	2.3
70°	302.1	294.1	234.1	83.7	28.6	12.4	3.8	3.5	3.3	2.6	2.0
72.5°	193.1	179.9	146.2	56.7	22.9	10.7	3.2	3.3	3.0	2.1	1.6
75°	93.3	96.9	85.0	28.6	15.5	7.0	2.5	2.7	2.4	1.9	1.4
77.5°	41.7	41.0	40.6	7.3	3.9	2.4	1.5	1.8	1.9	1.7	1.2
80°	4.3	5.9	3.5	2.2	1.4	1.1	0.9	1.0	1.2	1.2	0.7
82.5°	0.2	0.1	0.1	0.3	0.3	0.2	0.0	0.0	0.2	0.2	0.1
85°	0.0	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	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: P400719

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

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	184.0	184.0	184.0	184.0	184.0	184.0	184.0	184.0	184.0	184.0	184.0
2.5°	157.0	159.6	158.4	158.2	159.7	158.9	161.2	161.3	163.0	165.4	166.8
5°	123.4	121.4	125.4	128.1	131.5	130.4	134.5	134.0	136.2	139.8	138.4
7.5°	85.7	86.0	88.1	90.5	99.5	101.3	102.7	103.7	103.6	104.5	106.0
10°	65.5	63.9	62.5	65.8	69.4	73.3	73.9	75.3	71.4	73.0	73.8
12.5°	53.6	51.7	48.6	46.8	47.7	50.0	51.0	51.8	49.5	49.6	51.3
15°	40.7	38.1	36.9	34.5	33.7	33.5	34.0	32.7	32.4	31.4	32.1
17.5°	26.5	25.7	25.0	24.6	23.9	23.7	22.0	19.0	17.3	16.9	16.9
20°	17.7	17.1	17.1	18.0	17.8	17.0	14.7	12.2	10.9	10.6	10.7
22.5°	14.5	14.1	13.5	13.5	13.9	13.3	11.2	9.4	8.5	8.5	8.5
25°	12.6	12.4	11.8	11.2	11.4	10.9	9.1	8.0	7.4	7.3	7.4
27.5°	11.0	10.9	10.3	9.7	9.7	9.3	7.9	6.8	6.4	6.2	6.3
30°	10.0	9.8	9.0	8.5	8.4	8.1	6.7	6.0	5.6	5.5	5.5
32.5°	9.2	8.8	8.2	7.7	7.4	6.8	5.9	5.1	4.7	4.6	4.6
35°	7.4	7.4	7.1	6.8	6.4	5.6	4.9	4.2	3.8	3.7	3.7
37.5°	6.4	6.0	5.6	5.7	5.5	4.7	4.0	3.4	3.1	3.0	3.0
40°	5.9	5.4	4.7	4.4	4.5	4.1	3.4	2.6	2.2	2.3	2.2
42.5°	5.3	4.9	4.1	3.5	3.4	3.5	2.6	1.8	1.5	1.5	1.5
45°	4.9	4.5	3.6	2.9	2.4	2.7	2.0	1.2	1.0	1.0	1.0
47.5°	4.6	4.2	3.3	2.4	1.7	1.8	1.4	0.8	0.6	0.4	0.5
50°	4.4	3.9	3.0	1.9	1.2	1.1	1.0	0.4	0.1	0.1	0.0
52.5°	4.1	3.7	2.7	1.6	1.0	0.7	0.5	0.1	0.0	0.0	0.0
55°	3.9	3.5	2.4	1.4	0.8	0.4	0.1	0.0	0.0	0.0	0.0
57.5°	3.6	3.2	2.1	1.2	0.6	0.2	0.0	0.0	0.0	0.0	0.0
60°	3.2	2.9	1.8	0.9	0.4	0.0	0.0	0.0	0.0	0.0	0.0
61°	3.0	2.7	1.7	0.8	0.3	0.0	0.0	0.0	0.0	0.0	0.0
62.5°	2.8	2.5	1.5	0.6	0.2	0.0	0.0	0.0	0.0	0.0	0.0
65°	2.4	2.1	1.3	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
67.5°	2.1	1.9	1.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
70°	1.8	1.6	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
72.5°	1.5	1.4	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
75°	1.3	1.2	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	1.1	1.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	0.6	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	0.0	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	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: P400719

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

CANDELA DISTRIBUTION (continued):

	185°	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°
0°	184.0	184.0	184.0	184.0	184.0	184.0	184.0	184.0	184.0	184.0	184.0
2.5°	168.1	171.5	174.7	178.7	180.9	186.9	191.3	194.9	197.8	198.4	200.7
5°	142.2	146.9	150.0	158.4	163.1	173.2	181.0	190.2	198.5	203.0	207.1
7.5°	107.1	109.4	114.7	123.1	134.3	143.0	156.1	167.8	182.6	190.8	198.5
10°	75.6	77.7	85.5	94.3	104.5	119.2	135.1	150.4	165.4	175.9	184.9
12.5°	53.2	60.1	67.8	79.0	89.0	99.7	116.7	134.5	153.4	163.3	173.1
15°	34.9	41.1	51.7	65.8	78.3	88.8	104.6	125.5	149.4	160.6	169.9
17.5°	17.3	21.8	31.2	46.4	63.0	79.5	98.6	123.9	154.5	167.1	175.8
20°	10.8	12.2	15.6	26.2	45.3	69.7	94.0	127.2	168.3	182.2	187.9
22.5°	8.7	9.1	10.5	13.9	27.6	57.6	90.1	131.6	183.5	200.5	206.3
25°	7.5	7.8	8.5	10.3	16.0	43.2	85.3	139.3	201.1	221.7	223.1
27.5°	6.4	6.7	7.4	8.7	11.4	29.1	78.4	148.5	222.3	240.3	239.3
30°	5.5	5.9	6.5	7.5	9.0	19.7	65.5	157.7	237.8	252.3	250.8
32.5°	4.7	5.0	5.6	6.4	7.5	13.5	49.2	163.7	250.8	263.6	260.3
35°	3.8	4.1	4.6	5.4	6.0	9.6	37.2	163.9	264.1	277.6	269.2
37.5°	3.1	3.3	3.7	4.4	5.0	7.5	27.4	160.7	280.6	295.9	279.4
40°	2.3	2.6	3.1	3.6	4.2	6.3	20.4	153.1	296.7	314.1	291.6
42.5°	1.5	1.9	2.4	3.0	4.0	5.1	14.4	140.3	309.8	330.3	303.6
45°	1.0	1.2	1.8	2.5	4.1	4.0	9.6	125.0	319.1	342.7	311.8
47.5°	0.5	0.8	1.3	2.4	3.6	3.0	6.0	110.5	327.5	349.9	315.5
50°	0.1	0.3	1.0	3.0	3.1	2.2	3.9	101.3	332.0	348.1	315.2
52.5°	0.0	0.0	0.7	2.9	2.2	1.7	3.1	100.0	338.9	350.5	321.8
55°	0.0	0.0	0.3	1.2	1.2	1.4	2.7	98.2	351.1	364.8	341.7
57.5°	0.0	0.0	0.0	0.6	0.8	1.2	2.5	93.4	364.1	379.9	366.0
60°	0.0	0.0	0.0	0.3	0.5	1.0	2.2	82.4	352.2	380.0	386.2
61°	0.0	0.0	0.0	0.3	0.4	0.9	2.0	78.6	341.6	373.9	388.7
62.5°	0.0	0.0	0.0	0.1	0.3	0.7	1.7	71.0	325.6	364.0	387.5
65°	0.0	0.0	0.0	0.0	0.1	0.4	1.3	57.4	299.0	339.2	374.3
67.5°	0.0	0.0	0.0	0.0	0.0	0.1	0.9	40.4	260.8	311.0	346.0
70°	0.0	0.0	0.0	0.0	0.0	0.0	0.4	23.4	210.2	263.3	296.3
72.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.2	10.7	136.4	203.4	233.8
75°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.5	84.0	146.9	174.7
77.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	56.9	97.8	117.6
80°	0.0	0.2	0.1	0.0	0.0	0.0	0.0	0.8	35.0	61.0	66.3
82.5°	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	18.1	43.1	44.0
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.6	9.1
87.5°	0.0	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	0.0



REPORT NUMBER: P400719

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

CANDELA DISTRIBUTION (continued):

	285°	295°	305°	315°	325°	335°	345°	355°	359°	360°
0°	184.0	184.0	184.0	184.0	184.0	184.0	184.0	184.0	184.0	184.0
2.5°	202.8	203.4	203.7	203.1	198.9	196.6	192.0	186.9	185.2	184.7
5°	214.6	217.8	217.3	212.9	205.7	196.8	185.9	174.6	170.2	168.6
7.5°	212.3	220.8	222.5	217.8	205.7	190.2	174.4	160.9	154.7	153.1
10°	200.6	211.3	216.5	215.1	203.6	185.8	166.3	149.8	143.0	140.9
12.5°	189.2	199.6	202.9	204.0	197.8	182.3	162.3	144.5	137.4	134.7
15°	181.7	188.1	187.9	190.0	189.5	181.0	164.9	147.2	139.2	135.7
17.5°	179.2	177.3	174.8	176.5	179.8	181.4	173.3	156.8	147.5	143.4
20°	180.7	171.3	165.8	165.7	172.8	184.5	185.7	172.6	163.9	158.3
22.5°	188.6	168.3	159.9	160.1	168.8	189.2	200.0	193.4	183.8	176.9
25°	200.2	168.9	157.6	158.7	168.4	193.4	215.4	217.0	204.7	198.7
27.5°	212.0	173.9	157.7	158.9	170.1	195.6	224.3	234.4	223.8	216.3
30°	220.2	180.0	159.4	160.7	172.6	197.3	227.6	248.7	237.7	229.4
32.5°	228.0	186.4	162.2	163.5	177.8	200.9	234.0	263.0	251.1	242.8
35°	235.6	192.6	167.4	169.8	186.2	207.3	240.4	279.9	270.0	258.5
37.5°	242.1	199.5	176.3	181.4	197.5	217.2	249.1	299.1	288.9	276.1
40°	247.6	207.7	194.7	200.4	214.8	227.6	258.8	311.7	304.9	291.2
42.5°	252.0	222.1	221.1	229.1	239.2	239.6	261.6	317.7	315.2	303.0
45°	259.4	247.9	255.8	268.8	268.1	254.0	260.8	323.3	323.5	313.1
47.5°	271.5	280.2	303.0	311.8	307.3	273.7	261.6	328.8	333.1	324.9
50°	288.8	316.9	346.6	358.3	345.2	293.5	268.4	335.3	348.4	342.4
52.5°	303.5	344.6	386.9	397.4	379.5	314.6	284.4	349.4	368.8	366.9
55°	324.7	368.5	415.6	423.7	409.3	338.5	305.8	370.1	391.3	392.2
57.5°	346.3	390.1	434.4	442.5	431.6	368.2	336.2	399.9	412.4	412.1
60°	370.2	410.3	442.8	447.3	441.1	398.0	368.9	427.2	426.9	420.2
61°	384.0	416.7	442.2	443.6	437.5	406.7	385.8	437.6	429.0	420.2
62.5°	399.1	422.5	435.1	430.6	424.1	409.8	410.3	449.0	430.4	417.0
65°	414.5	407.9	402.4	380.8	374.7	381.6	430.9	444.7	421.7	402.5
67.5°	388.2	349.5	337.7	316.0	291.7	320.0	411.3	418.3	392.2	366.7
70°	317.3	256.8	242.8	242.0	224.6	255.6	362.8	357.7	325.5	302.1
72.5°	248.7	175.2	156.1	160.6	157.1	190.5	296.7	240.0	208.7	193.1
75°	194.9	124.6	107.5	106.7	103.0	129.7	217.3	126.5	104.4	93.3
77.5°	128.6	89.7	89.4	82.6	79.7	70.3	97.5	50.7	41.4	41.7
80°	74.1	55.0	64.5	51.2	51.2	41.3	39.4	7.4	6.0	4.3
82.5°	42.5	26.4	20.0	7.9	16.5	16.5	3.2	0.1	0.1	0.2
85°	4.1	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.1	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)