

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: P400854

Luminaire Tested: **ENV-SA1-827-U-T4W-XXB**

Issue Date: 5/20/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P400854  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2004-754-17)  
Test Lab: INNOVATION CENTER  
Issue Date: 5/20/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: ENV-SA1-827-U-T4W-XXB  
Description: ENTRI LED LUMINAIRE  
(1) 80 CRI, 2700K LIGHTSQUARE IN BATTERY OPERATION WITH 16 LEDS AND TYPE IV WIDE OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 567 lumens  
Efficiency: N/A  
Efficacy: 43.6 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

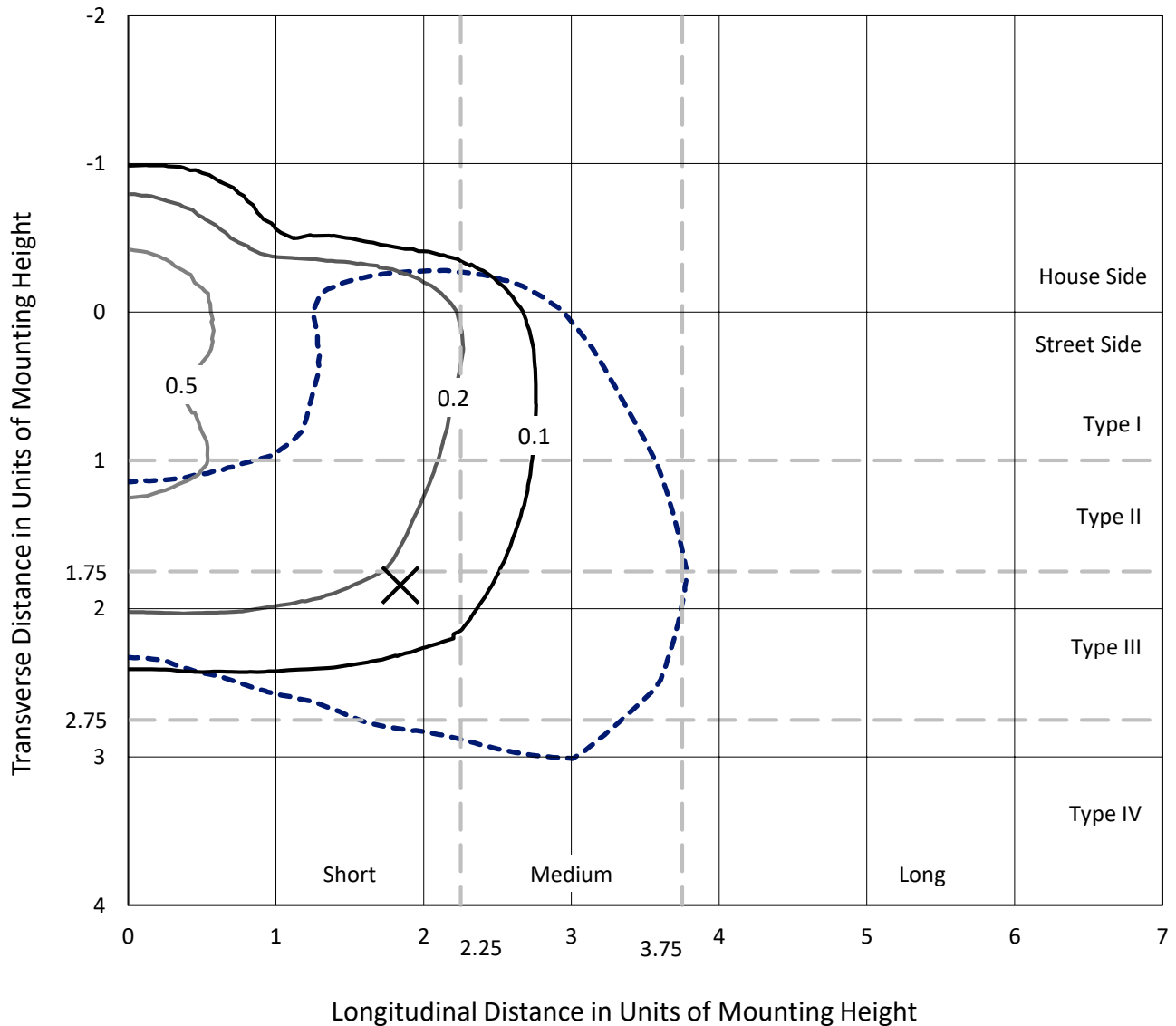


REPORT NUMBER: P400854

CATALOG NUMBER: ENV-SA1-827-U-T4W-XXB

### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

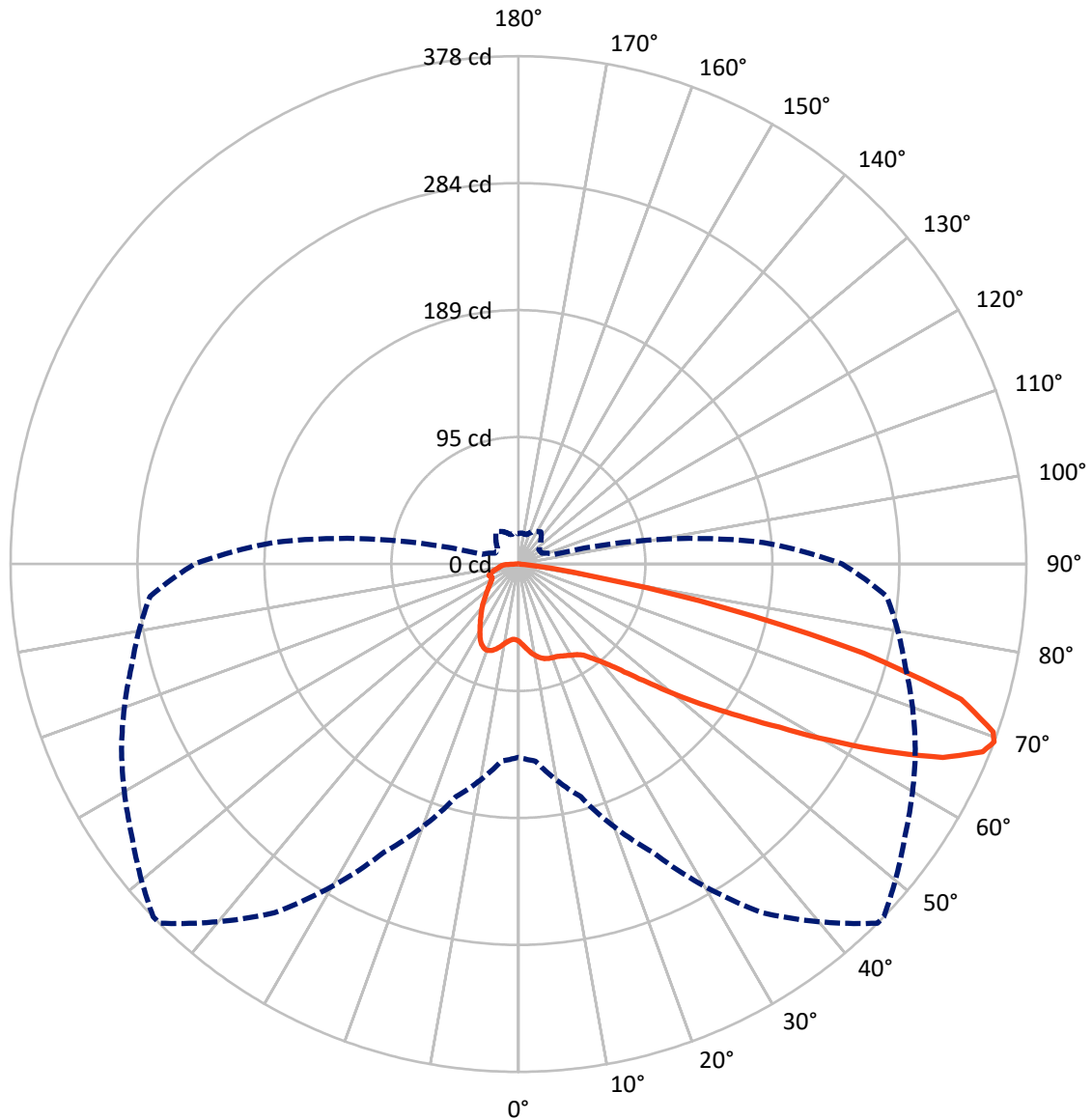


Based on 10 foot mounting height. Maximum calculated value = 0.7 fc  
 Type IV - Short - Semi-Cutoff

REPORT NUMBER: P400854

CATALOG NUMBER: ENV-SA1-827-U-T4W-XXB

### Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral    - - - Horizontal Cone Through 69-Deg Vertical

REPORT NUMBER: P400854

CATALOG NUMBER: ENV-SA1-827-U-T4W-XXB

**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	133.5	0.0	133.5
	% Fixture	23.5	0.0	23.5
<b>Street Side</b>	Lumens	433.5	0.0	433.5
	% Fixture	76.5	0.0	76.5
<b>Total</b>	Lumens	567.0	0.0	567.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	5.9	1.0
10°-20°	19.4	3.4
20°-30°	32.8	5.8
30°-40°	47.5	8.4
40°-50°	71.7	12.7
50°-60°	121.0	21.3
60°-70°	166.4	29.3
70°-80°	92.2	16.3
80°-90°	10.0	1.8
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°	567.0	100.0
0°-180°	567.0	100.0



REPORT NUMBER: P400854

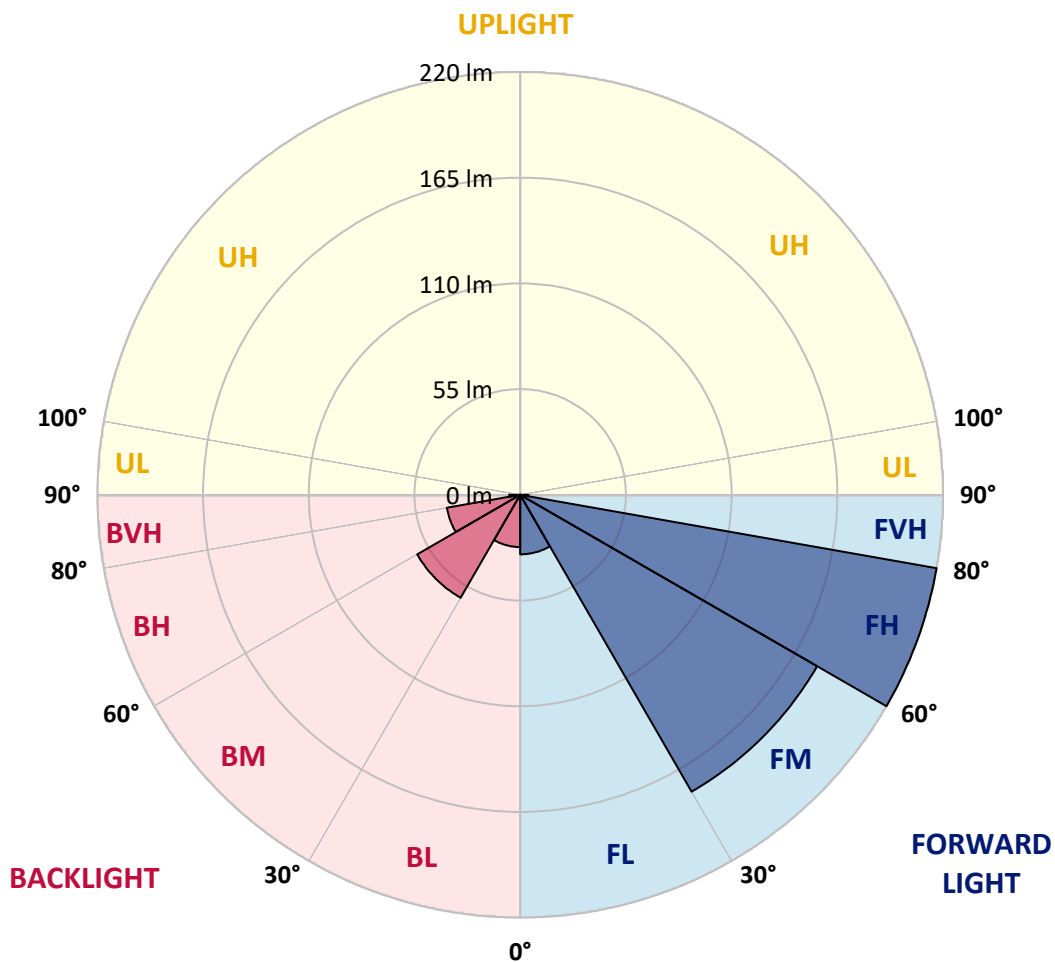
CATALOG NUMBER: ENV-SA1-827-U-T4W-XXB

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

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	30.9	5.5			
FM	(30°-60°)	178.3	31.5			
FH	(60°-80°)	219.9	38.8			G0/660
FVH	(80°-90°)	4.3	0.8			G0/10
BL	(0°-30°)	27.2	4.8	B0/110		
BM	(30°-60°)	61.9	10.9	B0/220		
BH	(60°-80°)	38.7	6.8	B0/110		G0/110
BVH	(80°-90°)	5.7	1.0			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: P400854

CATALOG NUMBER: ENV-SA1-827-U-T4W-XXB

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	46°	55°	65°	75°	85°
0°	57.6	57.6	57.6	57.6	57.6	57.6	57.6	57.6	57.6	57.6	57.6
2.5°	61.2	61.1	61.2	60.9	60.5	60.1	59.9	59.3	58.9	58.4	57.9
5°	65.7	65.9	65.9	65.5	64.2	63.2	63.2	62.0	60.7	59.5	58.4
7.5°	70.6	70.6	70.1	69.3	68.0	66.6	66.4	64.8	63.0	61.3	59.5
10°	74.2	74.3	73.6	72.5	70.9	69.3	69.2	67.3	65.5	63.4	61.2
12.5°	76.7	76.7	76.0	75.0	73.0	71.6	71.4	69.7	67.9	65.6	63.1
15°	77.9	77.8	77.2	76.1	74.4	73.2	72.9	71.5	70.0	67.7	65.0
17.5°	77.7	77.7	77.2	76.1	74.9	73.9	73.8	72.7	71.6	69.4	66.7
20°	76.7	76.6	76.4	75.5	74.7	74.3	74.2	73.7	72.9	71.1	68.6
22.5°	75.7	75.6	75.4	74.8	74.5	74.7	74.7	74.6	74.6	73.1	70.7
25°	76.3	76.2	75.7	74.9	74.8	75.9	76.0	76.3	76.4	75.2	72.7
27.5°	80.2	80.0	78.6	76.5	75.8	77.2	77.4	78.1	77.9	76.7	74.5
30°	87.9	88.0	85.0	80.4	78.0	78.7	78.8	79.6	79.3	78.3	76.5
32.5°	99.6	99.6	94.6	87.8	81.7	80.4	80.1	80.8	81.8	80.4	78.7
35°	114.5	114.1	108.0	97.5	87.9	83.3	83.1	82.8	84.5	83.2	80.6
37.5°	129.4	127.9	122.0	110.4	96.6	88.9	88.3	87.3	88.3	85.5	83.3
40°	141.4	141.1	136.3	124.5	106.9	95.8	95.3	91.0	91.6	89.5	88.6
42.5°	154.6	154.8	151.5	139.7	119.2	105.0	103.7	97.1	99.0	98.2	97.8
45°	169.1	168.9	166.5	154.1	134.3	117.9	116.3	108.2	112.0	111.5	113.7
47.5°	180.2	181.1	179.7	171.0	152.2	133.6	132.4	122.4	128.2	132.0	136.3
50°	195.4	195.3	191.6	188.0	173.0	153.6	152.3	141.3	149.5	155.2	163.0
52.5°	214.2	213.5	205.9	204.6	198.3	175.4	174.3	162.8	174.6	179.5	195.4
55°	225.9	225.9	221.9	224.2	224.3	199.7	198.4	188.2	201.5	207.2	231.2
57.5°	235.8	235.8	239.2	247.1	252.4	229.3	228.8	216.3	229.8	237.7	266.1
60°	243.3	245.0	254.2	272.3	281.1	267.0	264.9	251.7	260.8	263.9	292.8
62.5°	240.3	242.4	260.6	287.2	310.0	307.0	306.3	287.2	287.1	285.5	312.7
65°	216.1	220.6	249.3	286.6	329.0	347.6	346.6	320.6	311.6	303.6	318.6
67.5°	176.8	177.8	212.4	264.7	328.9	373.2	372.1	345.0	326.9	307.1	301.1
69°	144.0	147.5	179.5	237.0	317.3	378.4	378.4	351.8	326.3	298.6	275.5
70°	124.5	124.7	155.6	214.9	301.5	375.3	376.0	351.8	321.7	287.6	252.8
72.5°	58.4	62.0	81.5	140.3	243.5	345.0	346.8	328.5	295.0	247.8	189.7
75°	17.5	18.1	27.2	66.5	139.5	265.8	269.7	273.3	240.3	182.4	116.8
77.5°	10.4	10.3	13.1	22.6	64.6	157.6	159.4	174.8	155.9	101.4	53.0
80°	5.1	5.2	7.0	11.0	24.2	57.2	63.0	81.7	69.1	39.7	19.4
82.5°	1.7	1.9	2.9	4.4	10.2	18.5	20.4	25.6	22.1	14.4	8.3
85°	0.0	0.0	0.1	0.2	0.6	1.4	1.4	3.1	4.6	5.1	2.7
87.5°	0.0	0.0	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2
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: P400854

CATALOG NUMBER: ENV-SA1-827-U-T4W-XXB

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	57.6	57.6	57.6	57.6	57.6	57.6	57.6	57.6	57.6	57.6	57.6
2.5°	57.6	57.5	57.1	56.8	56.7	56.3	56.3	56.2	56.1	56.1	56.2
5°	57.8	57.6	57.1	56.7	56.4	56.3	56.7	56.8	57.0	57.0	57.1
7.5°	58.8	58.3	57.7	57.3	57.4	57.6	58.3	58.8	59.0	59.2	59.3
10°	60.4	59.8	59.0	58.9	59.1	59.7	60.6	61.3	62.0	62.4	62.4
12.5°	62.1	61.3	60.7	60.9	61.6	62.5	63.4	64.2	64.8	65.2	65.3
15°	63.9	63.2	62.5	63.0	64.2	65.3	66.1	66.4	66.7	67.1	67.1
17.5°	65.6	65.0	64.4	65.5	66.5	67.4	67.6	67.5	67.1	67.4	67.5
20°	67.4	66.8	66.5	67.6	68.4	68.4	67.8	67.1	66.3	66.3	66.3
22.5°	69.6	68.8	68.7	69.2	69.0	68.0	66.4	65.3	64.2	64.0	64.2
25°	71.7	70.9	70.9	70.4	68.4	65.9	63.7	62.4	61.5	61.6	62.1
27.5°	73.8	73.3	73.4	71.2	66.5	62.7	59.8	58.8	59.0	59.2	59.6
30°	75.8	75.8	76.2	71.2	63.9	58.3	55.5	55.5	56.1	56.6	57.1
32.5°	78.3	79.0	78.4	70.3	60.5	53.8	51.6	51.7	52.5	53.3	53.8
35°	80.6	82.3	80.7	68.3	55.7	49.7	47.9	47.6	48.2	48.9	49.2
37.5°	84.3	87.1	82.6	65.1	50.8	46.0	44.3	43.6	43.0	43.6	43.5
40°	90.8	94.1	84.1	59.9	46.0	42.6	40.8	39.6	38.2	37.0	37.0
42.5°	101.1	103.3	84.9	53.5	41.3	39.3	37.4	35.6	33.5	31.4	31.4
45°	117.9	118.4	85.2	46.8	36.9	35.9	33.9	32.2	29.5	27.3	26.8
47.5°	140.4	138.3	86.0	40.2	33.1	32.9	31.3	29.3	26.4	24.3	24.1
50°	170.6	161.6	89.6	35.0	30.1	30.3	29.1	26.8	24.0	22.6	22.2
52.5°	204.7	191.0	92.3	30.8	27.4	28.1	27.2	25.1	22.6	21.4	21.2
55°	241.8	219.3	91.6	28.0	25.4	26.2	25.9	24.0	21.8	20.8	20.6
57.5°	272.1	239.2	86.0	25.5	23.4	24.5	24.8	23.4	21.4	20.4	20.2
60°	294.9	250.1	74.4	23.4	21.8	23.1	24.0	23.0	21.3	20.7	20.5
62.5°	305.2	249.1	59.3	21.8	20.6	22.2	24.1	23.6	22.5	22.9	23.0
65°	299.4	237.0	44.5	20.6	19.8	22.3	25.5	25.5	23.8	24.5	24.6
67.5°	269.6	205.1	32.4	19.7	19.1	23.1	28.1	26.4	23.2	23.8	23.5
69°	241.3	183.5	27.8	19.2	18.5	23.5	29.2	26.6	22.6	23.2	22.6
70°	220.5	164.0	25.0	18.8	18.3	23.5	29.5	26.4	22.2	22.7	22.0
72.5°	156.9	113.9	20.6	18.0	17.4	21.8	28.9	25.6	21.4	20.8	19.4
75°	91.2	63.0	17.5	17.1	15.4	19.1	27.5	24.6	20.5	19.4	18.5
77.5°	38.3	28.1	14.9	15.6	13.6	17.0	25.7	23.6	19.4	18.0	17.5
80°	15.6	14.0	12.4	13.5	11.8	15.0	23.7	22.0	17.9	16.4	15.7
82.5°	8.1	7.7	9.5	10.9	9.8	13.8	22.3	20.9	16.6	15.2	14.3
85°	2.4	3.2	5.4	7.4	7.5	12.4	21.7	19.3	14.4	12.5	12.3
87.5°	0.2	0.6	1.9	3.9	4.9	9.5	17.6	15.9	11.7	9.8	9.9
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)