

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: P400852

Luminaire Tested: **ENV-SA1-827-U-T4FT-XXB**

Issue Date: 5/20/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P400852  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2004-754-15)  
Test Lab: INNOVATION CENTER  
Issue Date: 5/20/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: ENV-SA1-827-U-T4FT-XXB  
Description: ENTRI LED LUMINAIRE  
(1) 80 CRI, 2700K LIGHTSQUARE IN BATTERY OPERATION WITH 16 LEDS AND TYPE IV FORWARD THROW OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 543 lumens  
Efficiency: N/A  
Efficacy: 41.8 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
IES Classification: Type IV - Short - Non-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

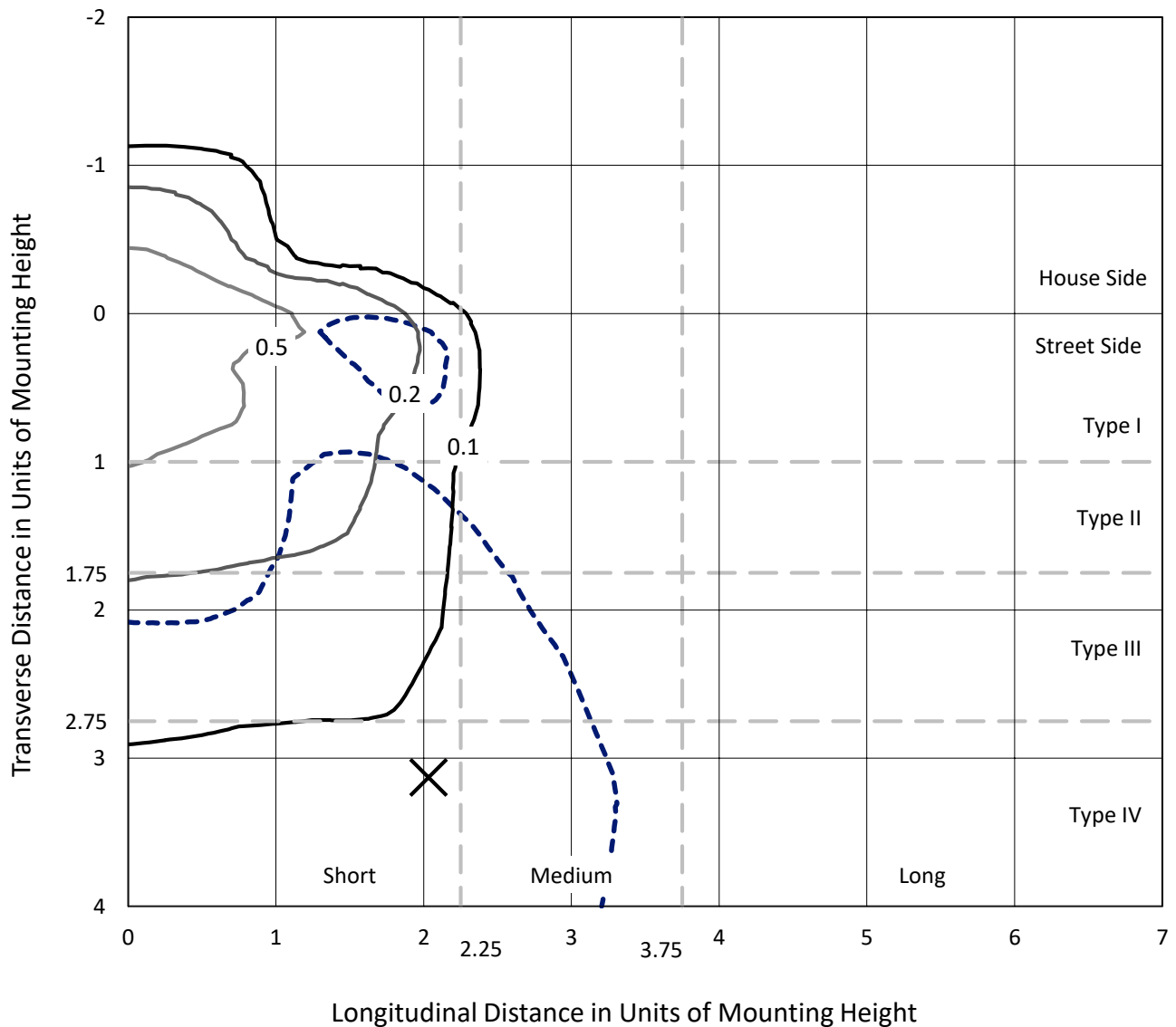


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### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

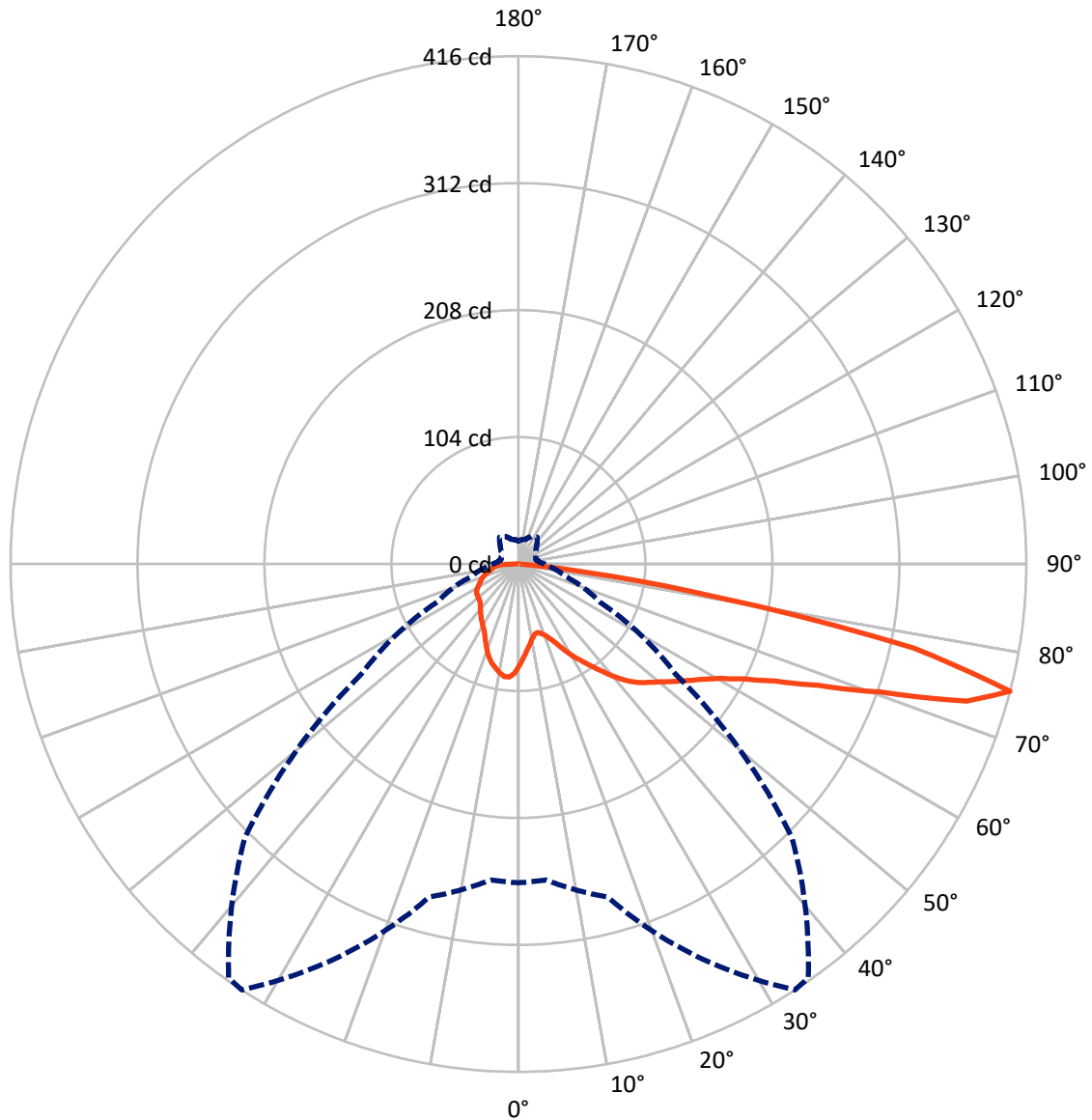


Based on 10 foot mounting height. Maximum calculated value = 0.9 fc  
 Type IV - Short - Non-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 33-Deg Lateral      - - - Horizontal Cone Through 75-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	131.9	0.0	131.9
	% Fixture	24.3	0.0	24.3
<b>Street Side</b>	Lumens	411.1	0.0	411.1
	% Fixture	75.7	0.0	75.7
<b>Total</b>	Lumens	543.0	0.0	543.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	7.8	1.4
10°-20°	21.9	4.0
20°-30°	36.3	6.7
30°-40°	54.2	10.0
40°-50°	75.8	14.0
50°-60°	101.1	18.6
60°-70°	125.4	23.1
70°-80°	108.4	20.0
80°-90°	12.1	2.2
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°	543.0	100.0
0°-180°	543.0	100.0



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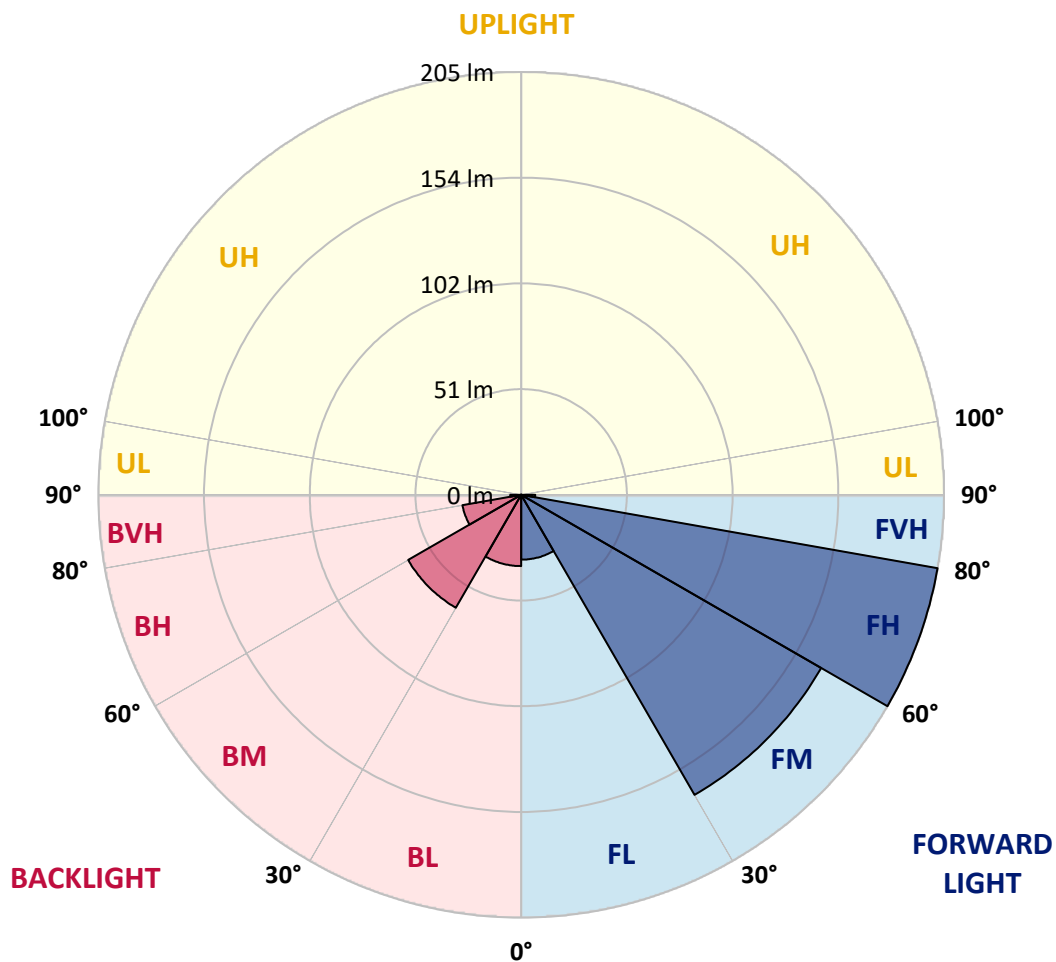
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	31.4	5.8			
FM	(30°-60°)	167.9	30.9			
FH	(60°-80°)	204.9	37.7			G0/660
FVH	(80°-90°)	6.8	1.3			G0/10
BL	(0°-30°)	34.5	6.4	B0/110		
BM	(30°-60°)	63.2	11.6	B0/220		
BH	(60°-80°)	28.9	5.3	B0/110		G0/110
BVH	(80°-90°)	5.3	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





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	33°	35°	45°	55°	65°	75°	85°
0°	83.2	83.2	83.2	83.2	83.2	83.2	83.2	83.2	83.2	83.2	83.2
2.5°	75.5	75.6	76.1	76.7	77.0	77.0	77.9	78.9	80.2	81.3	82.6
5°	69.2	69.4	69.8	70.5	71.4	71.6	73.4	75.2	77.6	80.1	82.5
7.5°	63.0	63.5	64.3	65.2	66.6	66.9	69.4	71.9	75.1	78.9	82.9
10°	58.2	58.5	58.9	60.3	62.0	62.6	65.9	69.0	73.4	78.1	83.4
12.5°	56.9	56.9	56.9	57.6	58.9	59.4	62.9	66.9	71.9	77.6	84.1
15°	58.8	58.7	57.8	57.3	58.1	58.5	61.5	65.5	71.1	77.7	85.5
17.5°	63.0	62.7	60.6	59.0	59.6	59.8	61.8	65.1	70.9	78.4	87.5
20°	68.4	67.9	64.7	62.2	62.2	62.3	63.8	66.1	71.3	79.5	89.7
22.5°	75.7	75.4	70.6	66.9	66.3	66.3	66.9	68.4	72.3	80.8	92.6
25°	85.1	84.2	78.4	73.4	72.0	71.6	71.5	71.5	74.2	82.7	96.3
27.5°	94.7	93.6	87.8	81.0	79.1	78.4	77.1	76.1	76.6	84.8	100.8
30°	103.3	101.8	96.9	89.9	87.0	85.9	83.5	81.5	80.2	87.7	106.7
32.5°	108.0	107.5	104.1	97.7	94.4	93.9	90.1	87.4	85.1	91.5	114.6
35°	114.4	113.7	111.5	106.3	102.3	101.1	98.2	95.1	91.4	96.6	124.6
37.5°	120.3	119.9	119.1	115.5	111.3	110.1	107.4	104.1	99.2	104.1	135.8
40°	126.3	125.8	125.5	124.2	121.2	120.4	119.1	115.2	108.6	112.3	146.8
42.5°	135.0	133.9	130.5	130.4	130.7	131.3	131.4	127.1	118.9	122.5	156.5
45°	146.3	143.4	135.9	135.6	138.4	140.1	144.2	140.6	129.6	133.0	167.3
47.5°	152.1	149.2	141.3	140.8	144.6	147.1	157.2	153.7	140.8	144.8	178.5
50°	155.0	153.0	146.2	147.7	151.5	153.9	169.6	166.7	152.3	157.5	192.6
52.5°	158.9	155.7	150.8	154.1	159.7	162.2	180.6	180.1	162.1	171.4	208.1
55°	157.5	155.8	156.7	161.1	168.2	171.9	191.7	191.7	172.0	186.2	223.4
57.5°	158.7	157.5	164.9	168.7	177.7	183.0	205.1	201.6	180.4	198.7	233.7
60°	168.3	165.0	170.8	178.4	189.9	195.1	220.4	211.9	187.2	209.4	235.6
62.5°	185.2	182.6	183.2	192.0	206.9	212.8	235.6	221.0	191.8	213.9	228.6
65°	213.3	212.0	205.1	210.4	231.0	236.4	254.5	228.9	190.5	210.5	210.3
67.5°	251.0	246.1	236.8	241.5	265.3	270.7	277.3	231.9	182.1	190.3	169.1
70°	282.3	278.2	274.0	286.5	313.7	316.7	301.1	229.1	161.7	148.9	113.4
72.5°	302.2	299.3	303.2	340.0	383.6	378.0	324.6	209.3	126.2	91.2	56.7
75°	260.8	259.4	282.0	356.6	415.5	413.4	316.4	156.7	73.2	40.2	25.8
77.5°	131.2	146.1	169.9	253.0	330.6	331.0	230.6	75.3	30.8	22.5	17.7
80°	36.9	37.4	56.7	104.3	165.0	175.8	87.2	25.6	17.6	16.8	13.2
82.5°	8.8	8.1	14.5	30.9	55.4	57.6	26.2	9.2	9.8	10.5	8.1
85°	0.1	0.1	0.1	0.1	0.1	0.2	1.0	1.0	2.3	3.0	2.3
87.5°	0.0	0.0	0.0	0.1	0.1	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



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**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	83.2	83.2	83.2	83.2	83.2	83.2	83.2	83.2	83.2	83.2	83.2
2.5°	83.1	83.9	85.2	86.3	87.3	88.0	89.2	89.3	89.7	89.8	90.0
5°	83.8	85.4	87.8	89.9	91.3	91.7	92.7	92.6	92.7	92.7	92.6
7.5°	84.8	86.9	90.3	92.6	93.4	93.2	93.0	92.1	91.3	91.0	90.6
10°	86.0	88.4	92.4	94.1	93.7	92.4	90.9	89.3	88.0	87.3	87.2
12.5°	87.2	90.4	94.1	94.6	93.0	90.6	88.0	86.3	84.6	83.7	83.7
15°	89.3	92.7	95.5	94.5	91.6	88.6	85.1	82.6	80.7	79.5	79.4
17.5°	91.7	95.4	96.9	94.1	89.9	85.7	81.4	78.3	75.8	74.6	73.9
20°	94.7	98.1	97.6	92.8	87.4	82.2	76.9	73.1	70.5	69.3	69.0
22.5°	98.0	100.9	97.9	90.7	84.0	77.4	71.6	67.8	66.1	65.1	65.2
25°	102.2	104.4	98.0	88.2	79.2	71.0	66.0	64.2	63.9	63.5	63.7
27.5°	107.3	108.0	97.6	84.8	73.0	64.3	61.4	62.1	62.7	62.5	62.6
30°	113.4	112.4	96.9	79.9	65.3	58.2	58.4	60.0	60.9	60.6	60.7
32.5°	120.6	116.7	95.5	73.9	58.0	54.5	55.8	57.4	58.3	58.3	58.4
35°	128.7	122.0	92.9	66.2	53.0	52.2	53.4	54.7	55.2	54.9	55.1
37.5°	137.1	126.5	88.6	57.6	49.2	50.5	51.1	51.4	51.4	50.9	50.6
40°	145.0	130.0	80.9	49.0	46.0	48.6	48.9	48.1	47.0	46.1	45.6
42.5°	151.1	131.9	70.3	42.8	43.1	46.5	46.8	45.0	43.0	41.6	41.3
45°	157.3	132.5	59.7	37.8	39.8	44.4	45.1	42.7	39.9	38.3	38.1
47.5°	164.4	134.2	49.3	34.3	37.1	43.0	44.0	41.0	38.0	35.6	35.2
50°	173.9	137.2	41.5	31.7	35.2	42.2	43.7	39.7	35.9	33.2	32.9
52.5°	186.0	141.7	34.3	29.6	33.6	41.1	43.2	38.5	34.3	31.1	30.6
55°	196.4	143.4	29.6	27.8	32.0	39.7	42.8	38.0	32.7	29.0	28.5
57.5°	201.2	138.6	26.3	26.0	30.3	38.1	42.0	36.4	30.8	28.0	27.5
60°	199.0	126.6	23.8	24.4	28.4	35.9	39.9	34.7	29.5	27.2	26.7
62.5°	189.3	112.7	21.9	22.9	26.2	33.1	37.5	33.3	28.4	26.3	25.6
65°	172.3	97.5	20.6	21.5	24.3	30.5	35.6	31.6	27.1	25.0	24.4
67.5°	140.6	77.6	19.1	20.2	22.7	28.3	33.8	30.2	25.6	24.3	23.8
70°	93.0	52.2	17.7	18.8	21.0	26.2	31.9	28.8	24.3	23.4	22.7
72.5°	42.7	28.1	16.3	17.3	19.2	23.9	29.6	26.6	22.4	21.8	20.9
75°	21.1	17.3	14.5	15.5	16.9	21.0	26.8	24.8	20.7	19.8	18.6
77.5°	15.4	12.9	12.5	13.5	14.7	18.6	23.9	22.8	19.0	17.7	17.0
80°	11.4	10.0	10.5	11.4	12.6	16.9	22.4	21.4	17.6	16.2	15.7
82.5°	7.0	6.7	8.1	9.2	10.6	15.5	21.4	19.5	15.8	14.5	13.9
85°	2.0	2.4	4.1	6.0	7.5	12.5	19.9	17.1	13.3	11.1	10.7
87.5°	0.0	0.2	1.3	2.7	4.4	8.3	15.3	13.4	10.2	8.2	7.9
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)