

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: P400866

Luminaire Tested: **ENV-SA1-830-U-T2-XXB**

Issue Date: 5/20/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P400866  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2004-754-11)  
Test Lab: INNOVATION CENTER  
Issue Date: 5/20/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: ENV-SA1-830-U-T2-XXB  
Description: ENTRI LED LUMINAIRE  
(1) 80 CRI, 3000K LIGHTSQUARE IN BATTERY OPERATION WITH 16 LEDS AND TYPE II OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 610 lumens  
Efficiency: N/A  
Efficacy: 46.9 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
IES Classification: Type III - Medium - 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

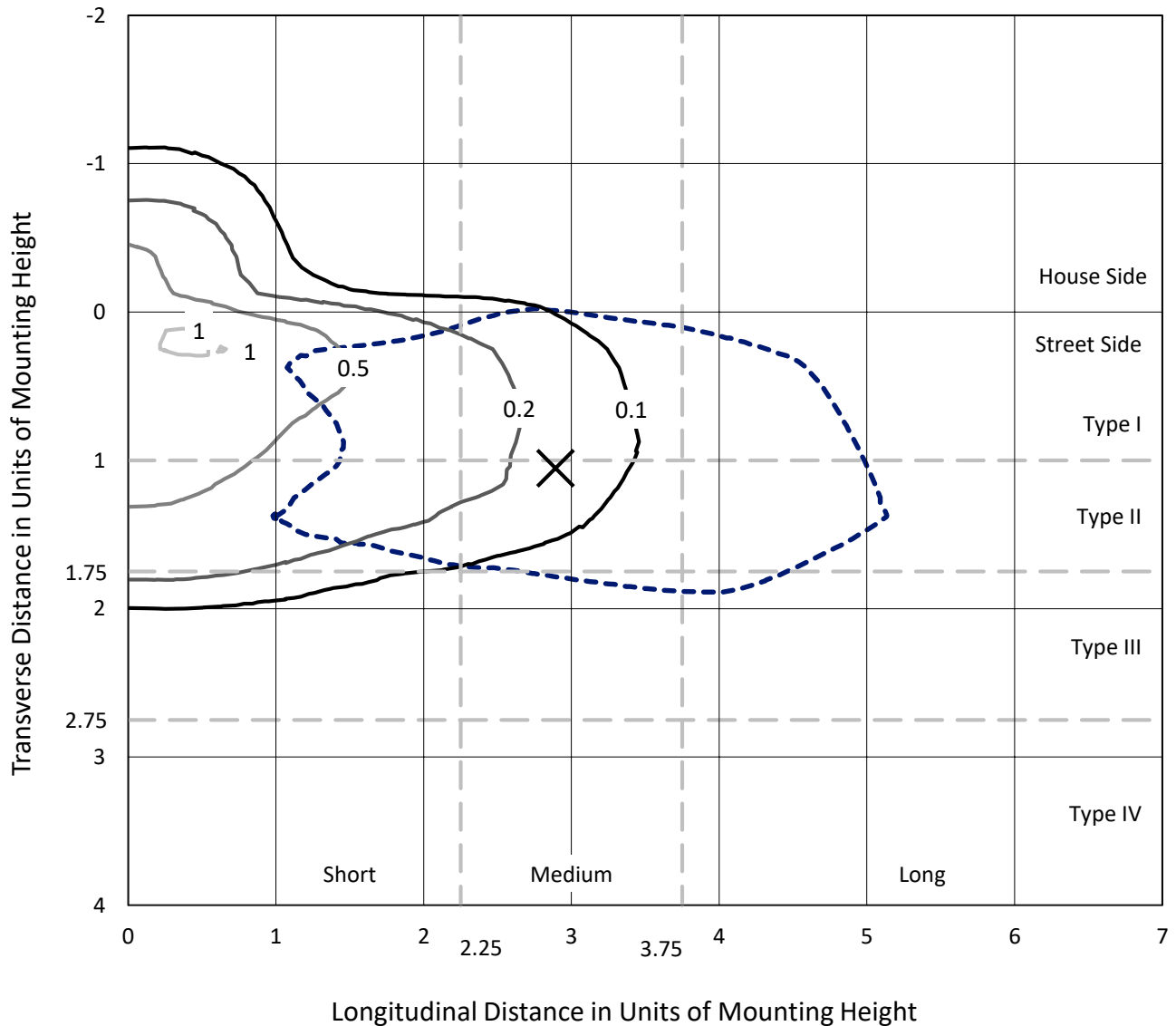


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### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

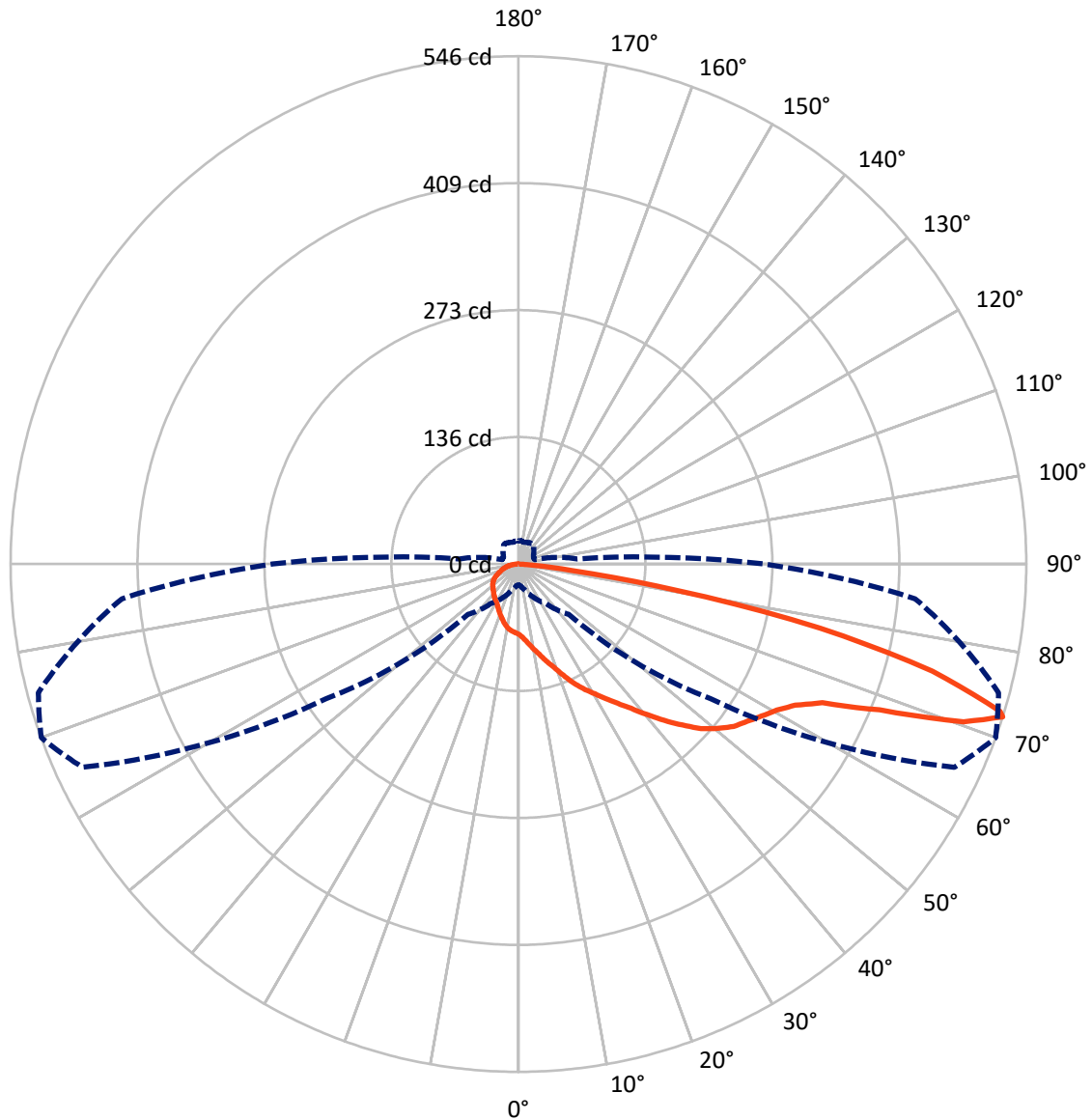


Based on 10 foot mounting height. Maximum calculated value = 1.1 fc  
 Type III - Medium - Non-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 70-Deg Lateral      - - - Horizontal Cone Through 72-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	113.3	0.0	113.3
	% Fixture	18.6	0.0	18.6
<b>Street Side</b>	Lumens	496.7	0.0	496.7
	% Fixture	81.4	0.0	81.4
<b>Total</b>	Lumens	610.0	0.0	610.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	7.6	1.2
10°-20°	24.4	4.0
20°-30°	43.1	7.1
30°-40°	64.1	10.5
40°-50°	93.1	15.3
50°-60°	127.1	20.8
60°-70°	139.2	22.8
70°-80°	99.0	16.2
80°-90°	12.4	2.0
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°	610.0	100.0
0°-180°	610.0	100.0



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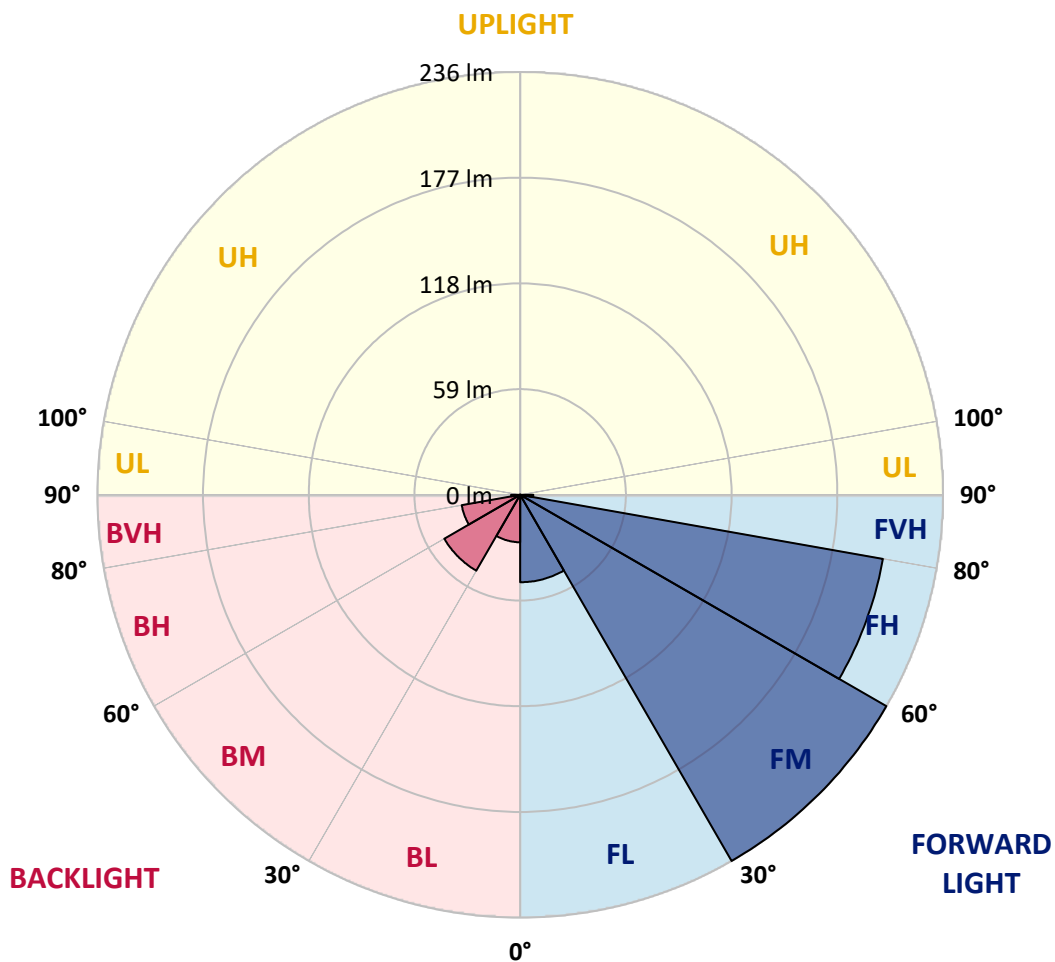
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	48.7	8.0			
FM (30°-60°)	235.5	38.6			
FH (60°-80°)	205.1	33.6			G0/660
FVH (80°-90°)	7.3	1.2			G0/10
BL (0°-30°)	26.4	4.3	B0/110		
BM (30°-60°)	48.8	8.0	B0/220		
BH (60°-80°)	33.0	5.4	B0/110		G0/110
BVH (80°-90°)	5.1	0.8			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 Medium





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	70°	75°	85°
0°	75.5	75.5	75.5	75.5	75.5	75.5	75.5	75.5	75.5	75.5	75.5
2.5°	84.0	83.6	83.6	82.9	82.4	81.4	80.2	79.0	78.4	78.0	76.5
5°	92.2	92.2	92.5	91.9	90.3	88.5	86.5	83.8	82.7	81.1	78.2
7.5°	99.0	99.2	99.2	99.0	97.5	95.6	93.0	89.7	87.8	85.6	80.9
10°	102.5	102.9	103.3	103.5	103.3	102.2	99.2	95.8	93.3	90.4	84.2
12.5°	104.2	104.4	105.0	106.3	107.3	108.2	106.0	102.0	99.5	95.9	87.7
15°	106.1	106.1	106.7	108.4	110.4	112.7	112.5	109.4	106.7	102.2	92.1
17.5°	107.3	107.7	108.8	110.6	113.4	117.3	119.3	117.5	114.1	109.4	96.9
20°	106.7	106.9	109.2	112.6	116.1	121.2	126.3	126.3	122.9	117.5	102.2
22.5°	108.0	108.4	110.0	113.2	118.1	124.6	132.9	135.8	132.9	127.0	108.4
25°	113.0	112.8	114.1	115.5	119.6	127.7	138.5	145.9	143.3	136.8	114.4
27.5°	120.3	120.3	121.0	120.9	122.4	130.4	143.5	154.9	152.7	144.9	119.4
30°	128.8	129.0	128.8	128.7	128.4	133.9	148.0	162.9	161.8	154.1	123.9
32.5°	139.1	139.5	138.8	137.1	136.0	139.1	151.7	171.9	172.3	163.1	128.3
35°	152.0	152.7	150.0	147.5	144.9	146.3	156.1	180.4	183.9	173.4	133.7
37.5°	164.9	166.0	165.6	158.8	155.1	155.0	162.5	190.9	196.7	186.8	141.4
40°	175.7	176.7	177.2	171.0	166.0	165.8	172.0	201.9	212.6	202.2	150.5
42.5°	183.0	183.9	185.4	181.8	177.1	179.2	182.5	212.8	229.7	221.1	161.6
45°	190.8	191.5	192.5	190.4	187.9	194.2	195.7	224.9	246.8	241.3	174.7
47.5°	199.2	199.9	200.4	198.8	198.0	206.8	208.7	237.3	264.0	262.2	187.4
50°	208.4	208.7	209.2	208.4	208.7	218.2	219.4	248.2	277.7	284.0	200.7
52.5°	224.3	224.6	224.8	221.1	219.7	225.4	228.0	259.7	289.7	302.1	212.3
55°	236.8	238.0	243.5	241.1	238.0	230.6	235.2	269.1	298.3	319.0	224.5
57.5°	226.5	229.3	243.0	254.5	263.3	245.6	243.6	278.7	308.1	333.5	238.7
60°	196.7	200.8	220.6	244.6	273.1	280.2	261.0	290.6	318.8	348.7	254.0
62.5°	136.4	140.5	168.0	206.2	256.6	300.0	308.5	311.8	333.7	364.2	273.9
65°	65.3	69.6	92.3	132.6	202.7	287.3	363.8	355.7	358.8	383.9	303.1
67.5°	41.6	43.8	52.7	72.2	117.9	223.8	383.6	443.2	418.2	429.3	361.4
70°	30.4	30.9	38.6	50.0	70.0	130.7	338.8	526.9	507.4	506.2	431.7
72°	22.5	23.4	29.3	39.9	51.8	76.4	252.1	516.7	545.5	533.9	427.6
72.5°	21.2	21.9	27.0	37.7	48.9	67.1	225.8	504.8	540.8	534.7	419.5
75°	15.4	15.9	18.5	26.8	37.8	38.9	120.6	387.5	459.3	510.5	380.3
77.5°	10.6	11.0	12.3	16.5	25.9	26.3	51.1	264.5	331.5	408.2	292.5
80°	6.4	6.6	7.4	9.0	16.5	15.6	21.1	138.3	173.0	221.9	135.7
82.5°	2.7	2.8	3.2	3.6	7.0	7.4	8.5	45.1	57.2	69.4	39.1
85°	0.0	0.0	0.1	0.1	0.2	0.8	1.2	5.6	8.5	10.1	7.1
87.5°	0.0	0.0	0.1	0.1	0.1	0.2	0.2	0.3	0.3	0.3	0.5
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°	75.5	75.5	75.5	75.5	75.5	75.5	75.5	75.5	75.5	75.5	75.5
2.5°	75.8	75.5	74.4	73.5	72.8	71.7	71.6	70.8	70.8	70.5	70.3
5°	77.0	75.9	73.8	71.9	70.5	68.8	68.1	67.1	66.5	66.1	66.2
7.5°	78.6	76.7	73.1	69.9	67.3	65.2	64.0	63.2	62.7	62.6	62.6
10°	80.8	77.8	72.0	67.1	63.8	62.2	61.6	61.5	61.6	61.7	61.8
12.5°	83.2	78.6	69.9	63.8	61.2	60.6	60.9	61.7	62.4	62.6	62.6
15°	85.7	79.1	67.0	60.7	59.2	59.8	61.0	62.5	63.6	64.3	64.5
17.5°	88.4	79.2	64.0	57.9	57.4	59.0	61.2	63.5	65.3	66.5	66.7
20°	91.1	79.0	60.4	55.4	55.7	58.3	61.3	64.6	67.0	68.5	68.7
22.5°	94.2	78.3	56.9	53.0	54.2	57.6	61.2	64.9	67.5	69.3	69.6
25°	97.2	76.9	53.4	50.8	53.2	56.9	60.3	63.5	66.0	67.7	68.1
27.5°	98.7	74.0	50.1	49.1	52.4	55.9	58.3	60.5	61.9	62.9	63.3
30°	99.0	69.8	47.4	48.0	51.5	54.4	55.8	56.1	55.9	56.2	55.8
32.5°	98.5	65.3	45.2	47.1	50.1	52.3	52.6	51.6	50.0	47.8	47.9
35°	98.1	60.3	43.5	45.9	48.3	49.7	49.1	47.4	44.4	41.8	41.6
37.5°	98.7	55.8	42.0	44.4	45.9	46.5	45.7	43.5	40.9	38.6	38.3
40°	100.5	52.5	40.6	42.6	43.4	43.8	42.8	40.9	39.8	38.2	37.9
42.5°	103.9	50.2	39.3	40.7	41.0	41.5	40.4	39.1	40.1	39.7	39.7
45°	108.6	49.1	38.2	38.9	39.2	39.9	39.3	38.2	39.2	37.2	36.9
47.5°	114.7	49.5	37.4	37.0	38.1	39.3	38.6	37.2	36.9	33.3	32.7
50°	121.1	51.3	36.6	35.6	36.9	38.5	37.6	35.5	33.4	31.5	31.2
52.5°	128.7	54.4	35.9	33.9	35.5	37.6	37.0	34.7	32.5	31.2	30.9
55°	137.1	57.3	35.0	32.0	33.6	37.4	37.2	34.2	31.3	30.7	30.5
57.5°	146.5	59.8	34.0	29.8	31.8	36.6	36.4	32.9	30.9	30.4	30.3
60°	158.2	62.6	32.2	27.3	30.0	35.1	34.9	32.3	30.1	29.7	29.5
62.5°	174.3	68.0	29.0	24.9	28.1	32.5	33.5	31.1	29.0	28.9	28.9
65°	200.7	78.2	25.8	22.9	25.9	30.0	31.7	29.7	28.0	28.4	28.4
67.5°	250.6	92.1	22.5	21.0	23.8	27.5	30.1	28.3	26.8	27.7	27.7
70°	289.1	87.0	19.9	19.2	21.7	25.4	28.1	26.8	25.4	26.9	26.7
72°	263.8	63.7	18.1	17.7	20.0	23.5	26.4	25.4	24.0	25.2	24.8
72.5°	253.2	57.9	17.6	17.3	19.4	23.2	26.1	25.1	23.5	24.7	24.2
75°	220.9	48.8	15.3	15.2	17.3	20.8	23.8	23.3	21.7	22.4	21.9
77.5°	182.8	41.1	12.9	13.2	14.7	18.6	21.4	20.9	19.4	19.3	19.3
80°	85.7	22.9	10.6	10.9	12.4	15.9	18.5	18.1	16.7	16.6	16.3
82.5°	24.8	11.0	8.2	8.4	9.9	13.0	15.9	15.7	14.6	14.4	13.8
85°	4.6	3.6	4.4	5.2	7.2	10.8	14.5	14.1	12.5	11.4	10.5
87.5°	0.3	0.7	1.5	2.5	4.6	8.1	11.7	11.4	10.0	8.6	8.7
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)