

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: P400722

Luminaire Tested: **ENT-SA1-727-U-T2-XXB**

Issue Date: 5/20/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P400722  
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: ENT-SA1-727-U-T2-XXB  
Description: ENTRI LED LUMINAIRE  
(1) 70 CRI, 2700K 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: 642 lumens  
Efficiency: N/A  
Efficacy: 49.4 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

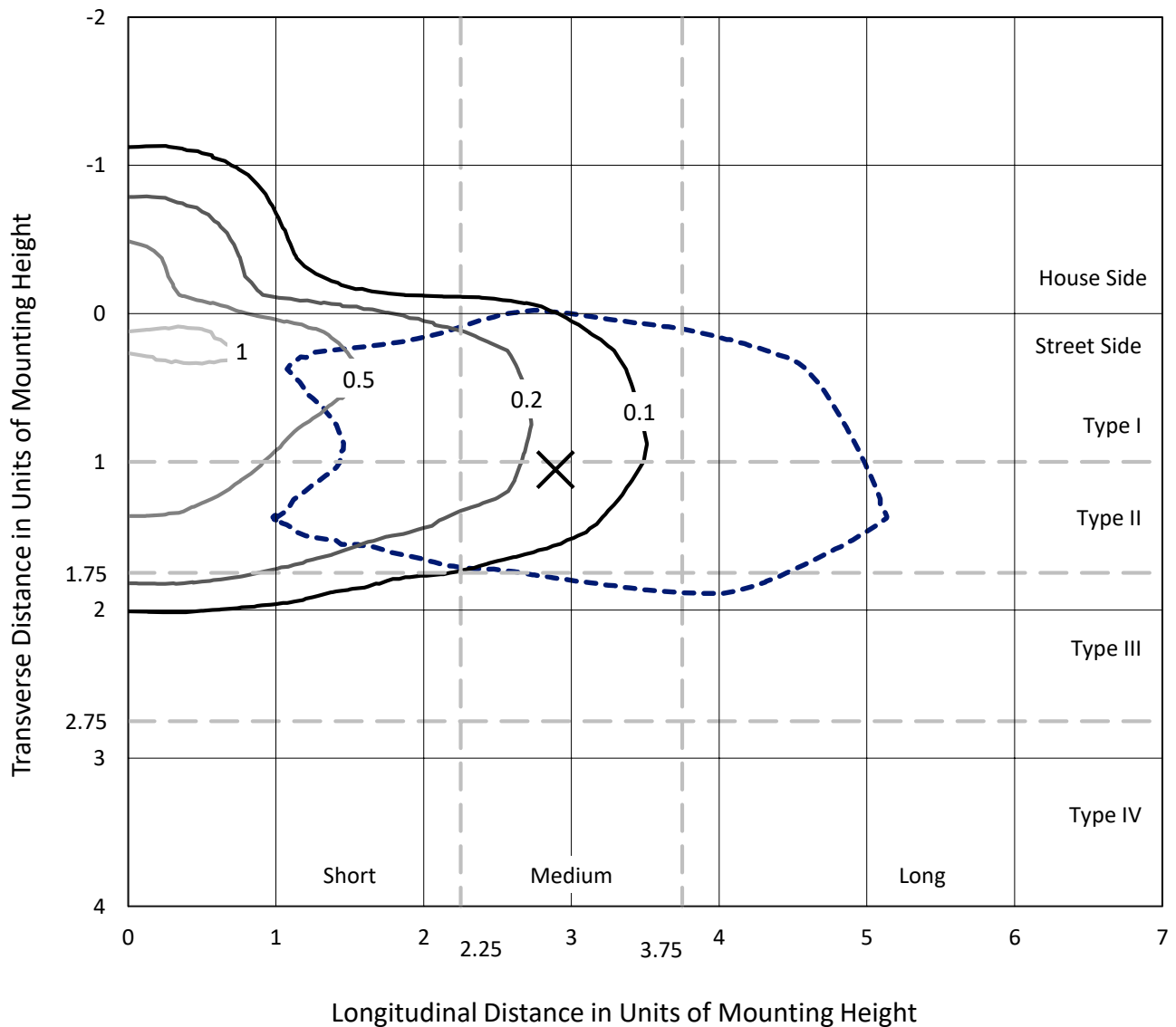


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### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

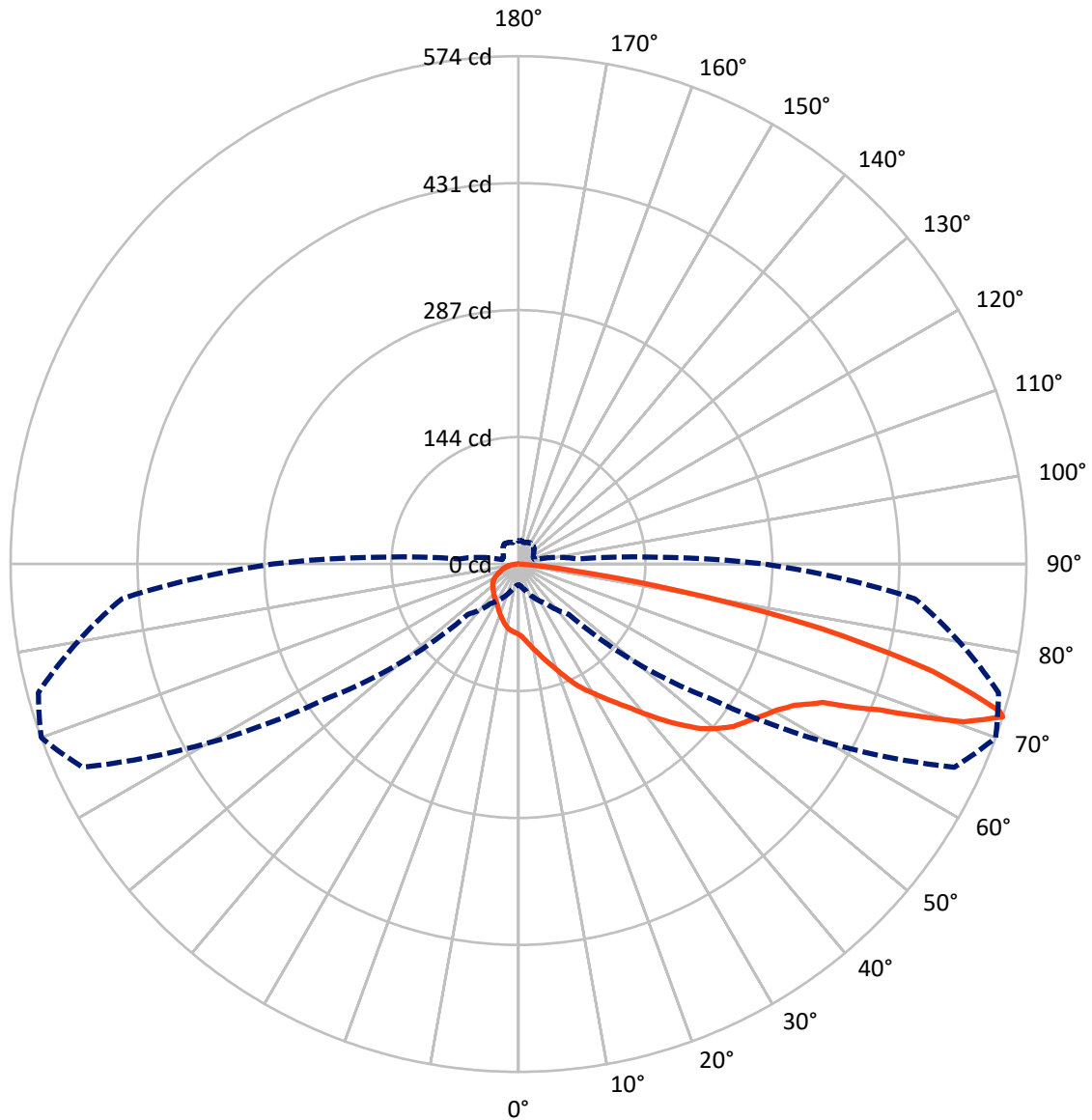


Based on 10 foot mounting height. Maximum calculated value = 1.1 fc  
 Type III - Medium - Non-Cutoff

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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	119.3	0.0	119.3
	% Fixture	18.6	0.0	18.6
<b>Street Side</b>	Lumens	522.7	0.0	522.7
	% Fixture	81.4	0.0	81.4
<b>Total</b>	Lumens	642.0	0.0	642.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	8.0	1.2
10°-20°	25.6	4.0
20°-30°	45.4	7.1
30°-40°	67.5	10.5
40°-50°	97.9	15.3
50°-60°	133.8	20.8
60°-70°	146.5	22.8
70°-80°	104.2	16.2
80°-90°	13.1	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°	642.0	100.0
0°-180°	642.0	100.0



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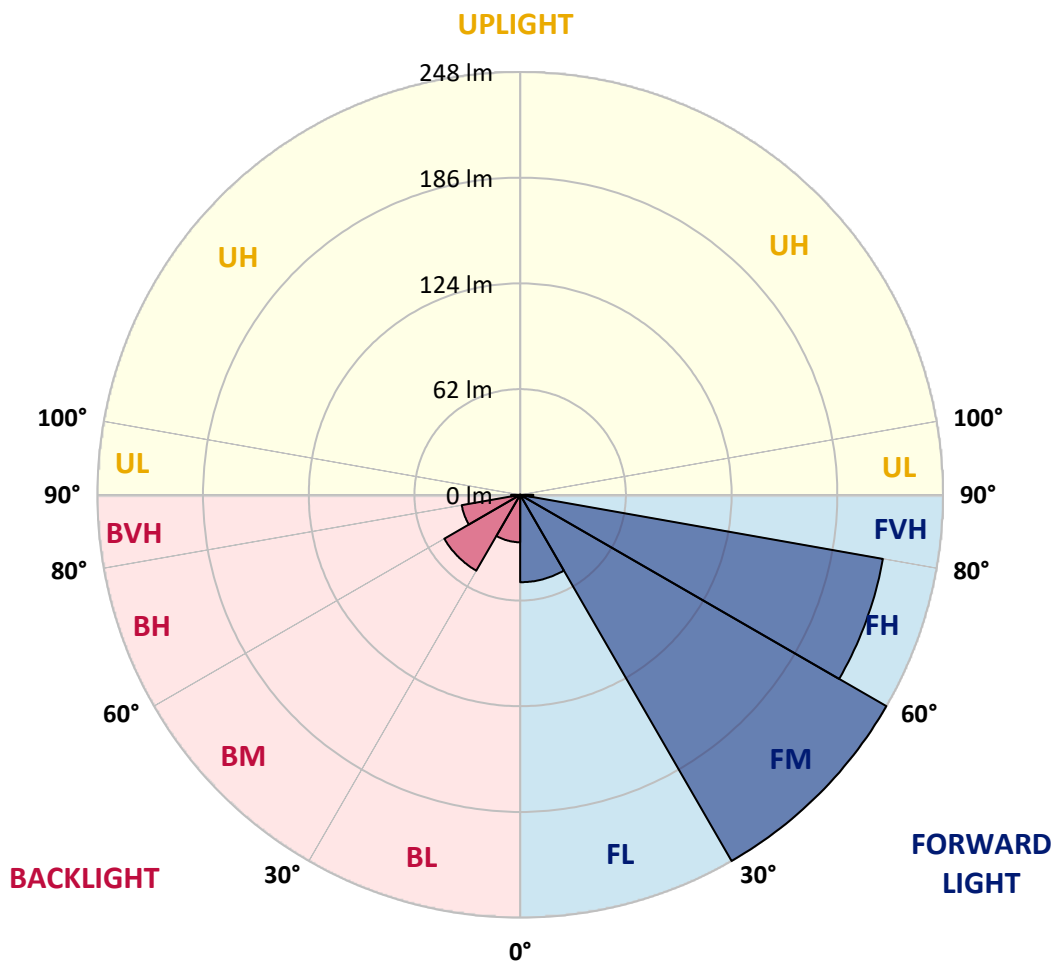
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	51.2	8.0			
FM	(30°-60°)	247.9	38.6			
FH	(60°-80°)	215.9	33.6			G0/660
FVH	(80°-90°)	7.7	1.2			G0/10
BL	(0°-30°)	27.8	4.3	B0/110		
BM	(30°-60°)	51.4	8.0	B0/220		
BH	(60°-80°)	34.8	5.4	B0/110		G0/110
BVH	(80°-90°)	5.4	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°	79.5	79.5	79.5	79.5	79.5	79.5	79.5	79.5	79.5	79.5	79.5
2.5°	88.4	87.9	88.0	87.2	86.8	85.7	84.5	83.2	82.5	82.1	80.5
5°	97.0	97.0	97.4	96.7	95.0	93.2	91.1	88.2	87.0	85.4	82.3
7.5°	104.2	104.4	104.4	104.2	102.6	100.6	97.8	94.4	92.4	90.1	85.2
10°	107.8	108.3	108.7	108.9	108.8	107.6	104.5	100.9	98.2	95.1	88.6
12.5°	109.7	109.9	110.5	111.9	113.0	113.9	111.6	107.4	104.7	101.0	92.3
15°	111.7	111.7	112.3	114.1	116.2	118.7	118.4	115.1	112.2	107.6	96.9
17.5°	113.0	113.3	114.5	116.4	119.3	123.4	125.5	123.7	120.0	115.1	102.0
20°	112.2	112.5	114.9	118.5	122.2	127.6	132.9	132.9	129.4	123.7	107.6
22.5°	113.6	114.1	115.7	119.1	124.3	131.1	139.8	142.9	139.8	133.6	114.1
25°	118.9	118.8	120.1	121.5	125.9	134.4	145.8	153.6	150.9	144.0	120.4
27.5°	126.6	126.6	127.4	127.3	128.8	137.2	151.0	163.0	160.8	152.5	125.6
30°	135.5	135.7	135.5	135.4	135.2	140.9	155.7	171.5	170.3	162.1	130.4
32.5°	146.4	146.8	146.1	144.2	143.1	146.4	159.7	180.9	181.3	171.7	135.1
35°	159.9	160.7	157.9	155.3	152.5	154.0	164.2	189.8	193.5	182.5	140.8
37.5°	173.5	174.7	174.2	167.1	163.2	163.1	171.0	200.9	207.1	196.6	148.8
40°	185.0	186.0	186.5	180.0	174.7	174.5	181.0	212.5	223.8	212.8	158.4
42.5°	192.6	193.5	195.1	191.3	186.3	188.6	192.0	223.9	241.7	232.7	170.1
45°	200.8	201.6	202.6	200.4	197.8	204.4	206.0	236.7	259.7	253.9	183.9
47.5°	209.6	210.4	210.9	209.3	208.4	217.6	219.6	249.7	277.9	275.9	197.3
50°	219.4	219.6	220.2	219.4	219.6	229.6	230.9	261.2	292.3	298.9	211.2
52.5°	236.0	236.4	236.6	232.7	231.3	237.2	240.0	273.4	304.9	317.9	223.5
55°	249.3	250.5	256.3	253.7	250.4	242.6	247.5	283.2	313.9	335.7	236.3
57.5°	238.4	241.4	255.8	267.9	277.1	258.5	256.4	293.3	324.3	351.0	251.3
60°	207.0	211.3	232.2	257.4	287.4	294.9	274.7	305.8	335.5	367.0	267.3
62.5°	143.5	147.9	176.8	217.1	270.1	315.7	324.6	328.1	351.2	383.3	288.2
65°	68.8	73.3	97.1	139.6	213.3	302.3	382.9	374.3	377.6	404.0	319.0
67.5°	43.7	46.1	55.5	76.0	124.1	235.5	403.8	466.4	440.2	451.8	380.4
70°	32.0	32.6	40.6	52.6	73.6	137.6	356.5	554.5	534.0	532.7	454.4
72°	23.7	24.6	30.8	42.0	54.5	80.4	265.3	543.8	574.2	562.0	450.0
72.5°	22.3	23.0	28.4	39.7	51.4	70.6	237.7	531.3	569.2	562.8	441.6
75°	16.2	16.8	19.4	28.2	39.8	40.9	126.9	407.8	483.4	537.3	400.3
77.5°	11.2	11.6	12.9	17.3	27.2	27.7	53.8	278.4	348.8	429.6	307.8
80°	6.8	7.0	7.8	9.4	17.3	16.4	22.2	145.5	182.0	233.6	142.8
82.5°	2.8	2.9	3.4	3.8	7.3	7.8	9.0	47.5	60.2	73.0	41.2
85°	0.0	0.0	0.1	0.1	0.2	0.8	1.3	5.9	8.9	10.6	7.4
87.5°	0.0	0.0	0.1	0.1	0.1	0.2	0.2	0.3	0.4	0.4	0.6
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°	79.5	79.5	79.5	79.5	79.5	79.5	79.5	79.5	79.5	79.5	79.5
2.5°	79.8	79.4	78.3	77.4	76.7	75.5	75.4	74.5	74.5	74.2	74.0
5°	81.1	79.9	77.7	75.7	74.2	72.4	71.6	70.6	70.0	69.6	69.7
7.5°	82.7	80.7	76.9	73.5	70.8	68.6	67.3	66.5	66.0	65.8	65.8
10°	85.0	81.9	75.7	70.6	67.1	65.5	64.8	64.7	64.8	64.9	65.0
12.5°	87.6	82.7	73.5	67.1	64.4	63.7	64.1	64.9	65.7	65.9	65.9
15°	90.2	83.3	70.5	63.9	62.3	62.9	64.2	65.8	66.9	67.7	67.9
17.5°	93.0	83.4	67.3	61.0	60.4	62.1	64.4	66.9	68.8	70.0	70.2
20°	95.9	83.2	63.6	58.3	58.6	61.3	64.6	68.0	70.5	72.1	72.3
22.5°	99.1	82.4	59.9	55.8	57.0	60.6	64.4	68.3	71.1	72.9	73.3
25°	102.2	81.0	56.2	53.5	55.9	59.9	63.5	66.9	69.5	71.3	71.7
27.5°	103.9	77.9	52.7	51.7	55.1	58.8	61.3	63.6	65.1	66.2	66.7
30°	104.2	73.5	49.9	50.5	54.2	57.2	58.7	59.1	58.8	59.1	58.7
32.5°	103.6	68.7	47.6	49.6	52.7	55.0	55.4	54.3	52.6	50.3	50.4
35°	103.3	63.5	45.8	48.3	50.8	52.3	51.6	49.9	46.8	44.0	43.8
37.5°	103.9	58.7	44.2	46.7	48.3	49.0	48.1	45.8	43.0	40.6	40.3
40°	105.7	55.2	42.7	44.8	45.7	46.1	45.0	43.0	41.9	40.2	39.9
42.5°	109.3	52.8	41.4	42.8	43.2	43.7	42.6	41.2	42.2	41.8	41.8
45°	114.3	51.7	40.2	40.9	41.3	42.0	41.4	40.2	41.3	39.2	38.8
47.5°	120.7	52.1	39.3	39.0	40.1	41.4	40.6	39.2	38.8	35.0	34.4
50°	127.5	54.0	38.5	37.4	38.8	40.5	39.6	37.3	35.1	33.2	32.8
52.5°	135.4	57.2	37.8	35.7	37.3	39.6	39.0	36.5	34.2	32.8	32.6
55°	144.2	60.3	36.9	33.7	35.4	39.3	39.2	35.9	32.9	32.3	32.1
57.5°	154.2	62.9	35.8	31.4	33.5	38.5	38.3	34.7	32.6	32.0	31.9
60°	166.5	65.9	33.8	28.7	31.5	37.0	36.8	34.0	31.7	31.3	31.1
62.5°	183.4	71.5	30.5	26.2	29.5	34.2	35.3	32.7	30.5	30.4	30.4
65°	211.2	82.3	27.1	24.1	27.2	31.5	33.4	31.3	29.4	29.9	29.9
67.5°	263.7	96.9	23.7	22.1	25.0	29.0	31.7	29.8	28.2	29.2	29.2
70°	304.3	91.5	20.9	20.2	22.8	26.7	29.6	28.2	26.8	28.3	28.2
72°	277.6	67.0	19.1	18.6	21.0	24.8	27.8	26.8	25.2	26.5	26.1
72.5°	266.5	60.9	18.5	18.2	20.4	24.4	27.4	26.4	24.8	26.0	25.5
75°	232.5	51.4	16.1	16.0	18.2	21.9	25.0	24.5	22.8	23.6	23.0
77.5°	192.4	43.3	13.6	13.9	15.5	19.5	22.6	22.0	20.4	20.4	20.3
80°	90.2	24.1	11.2	11.5	13.0	16.7	19.4	19.1	17.6	17.4	17.1
82.5°	26.1	11.6	8.6	8.8	10.5	13.7	16.7	16.5	15.4	15.1	14.5
85°	4.9	3.8	4.7	5.5	7.6	11.4	15.2	14.9	13.2	12.0	11.1
87.5°	0.3	0.7	1.6	2.7	4.9	8.5	12.3	12.0	10.5	9.1	9.2
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)