

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: P400837

Luminaire Tested: **ENT-SA1-827-U-SL2-HSS-XXB**

Issue Date: 5/20/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P400837  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2004-754-2)  
Test Lab: INNOVATION CENTER  
Issue Date: 5/20/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: ENT-SA1-827-U-SL2-HSS-XXB  
Description: ENTRI LED LUMINAIRE  
(1) 80 CRI, 2700K LIGHTSQUARE IN BATTERY OPERATION WITH 16 LEDS AND TYPE II SPILL LIGHT ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 459 lumens  
Efficiency: N/A  
Efficacy: 35.3 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

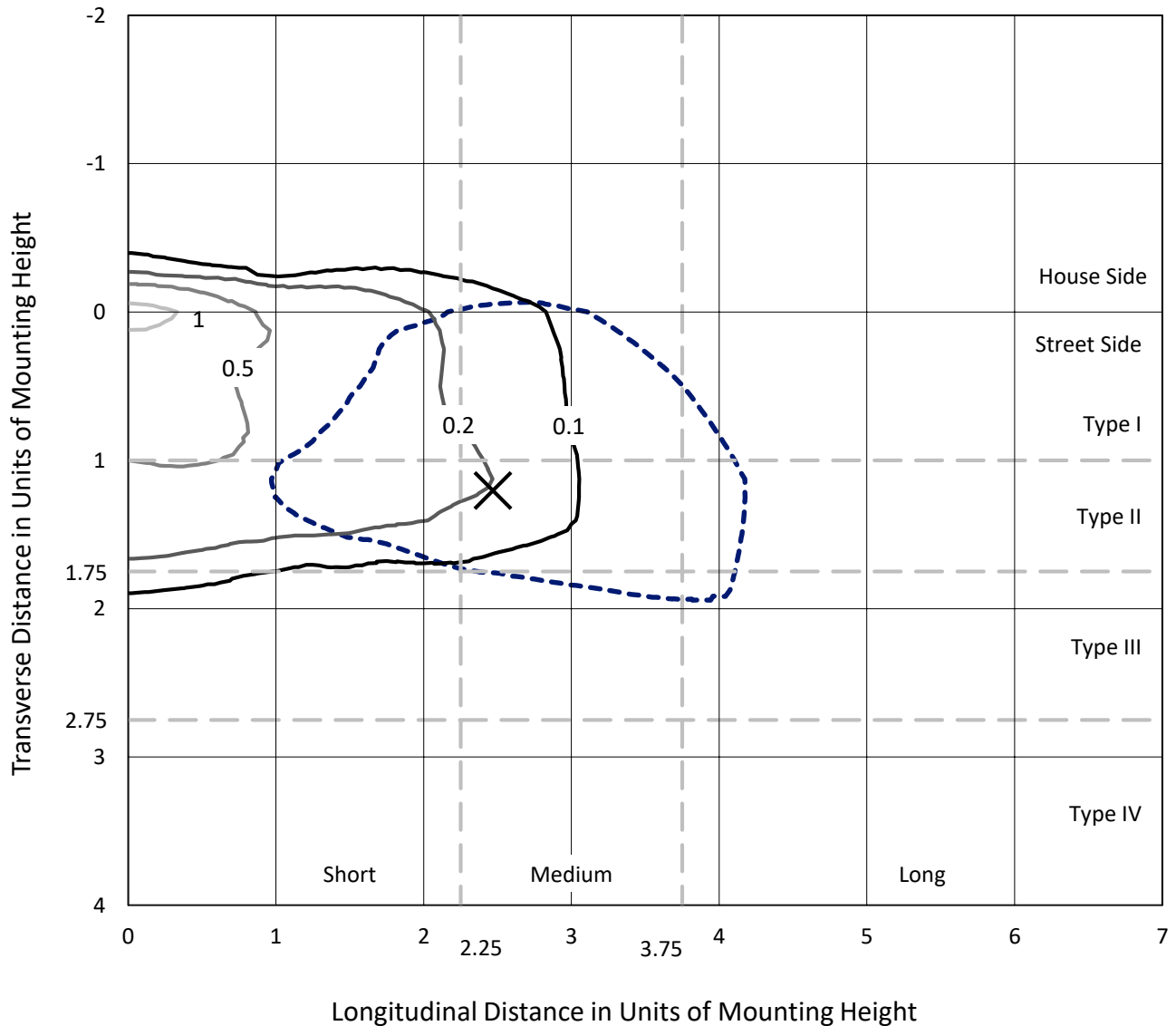
Input Watts (W): 13  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

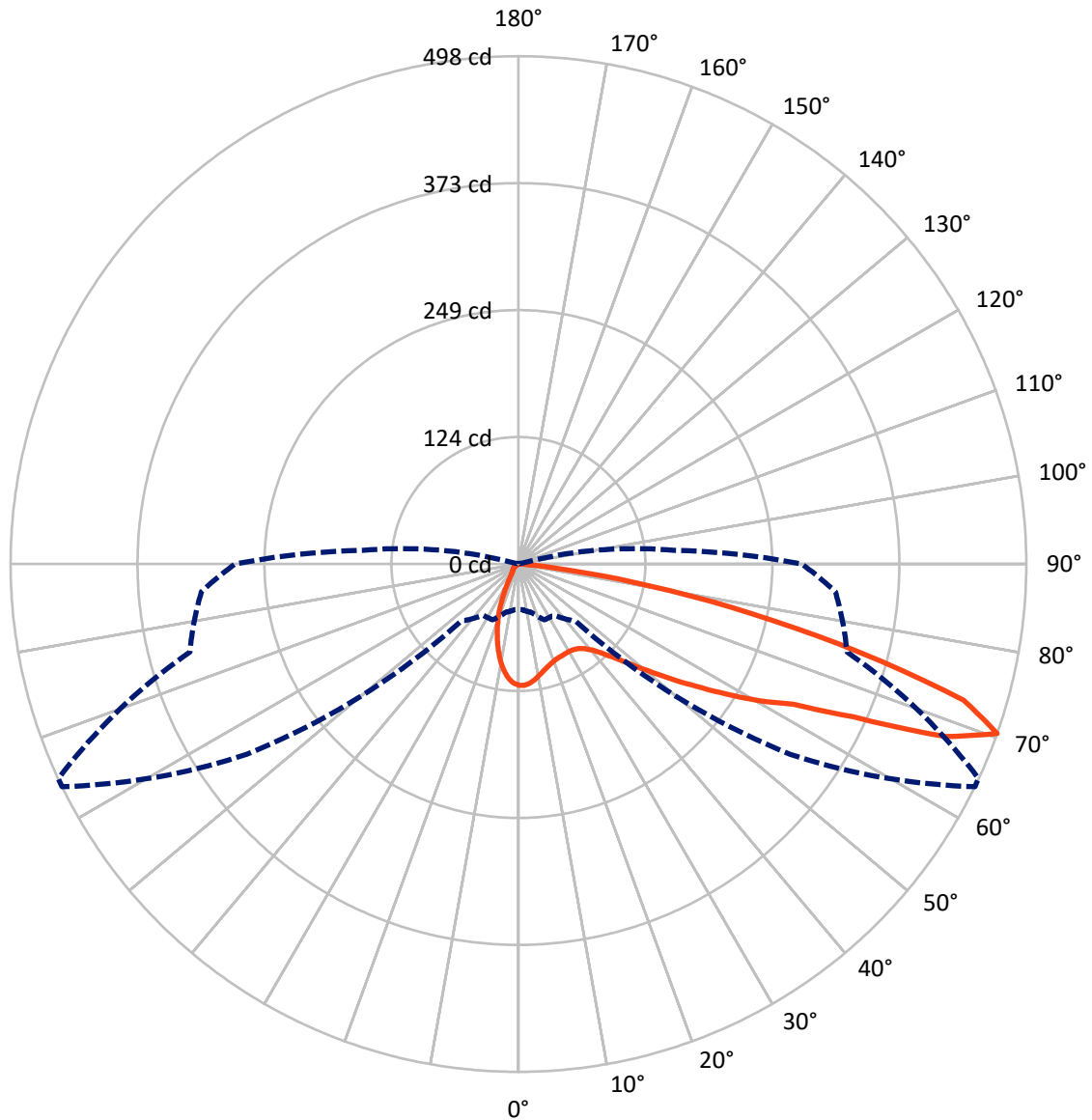
× Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 1.2 fc  
 Type III - Medium - Non-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 64-Deg Lateral    - - - Horizontal Cone Through 70-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	59.0	0.0	59.0
	% Fixture	12.8	0.0	12.8
<b>Street Side</b>	Lumens	400.0	0.0	400.0
	% Fixture	87.2	0.0	87.2
<b>Total</b>	Lumens	459.0	0.0	459.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	10.0	2.2
10°-20°	22.2	4.8
20°-30°	30.6	6.7
30°-40°	42.1	9.2
40°-50°	62.8	13.7
50°-60°	99.2	21.6
60°-70°	112.4	24.5
70°-80°	73.8	16.1
80°-90°	5.8	1.3
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°	459.0	100.0
0°-180°	459.0	100.0



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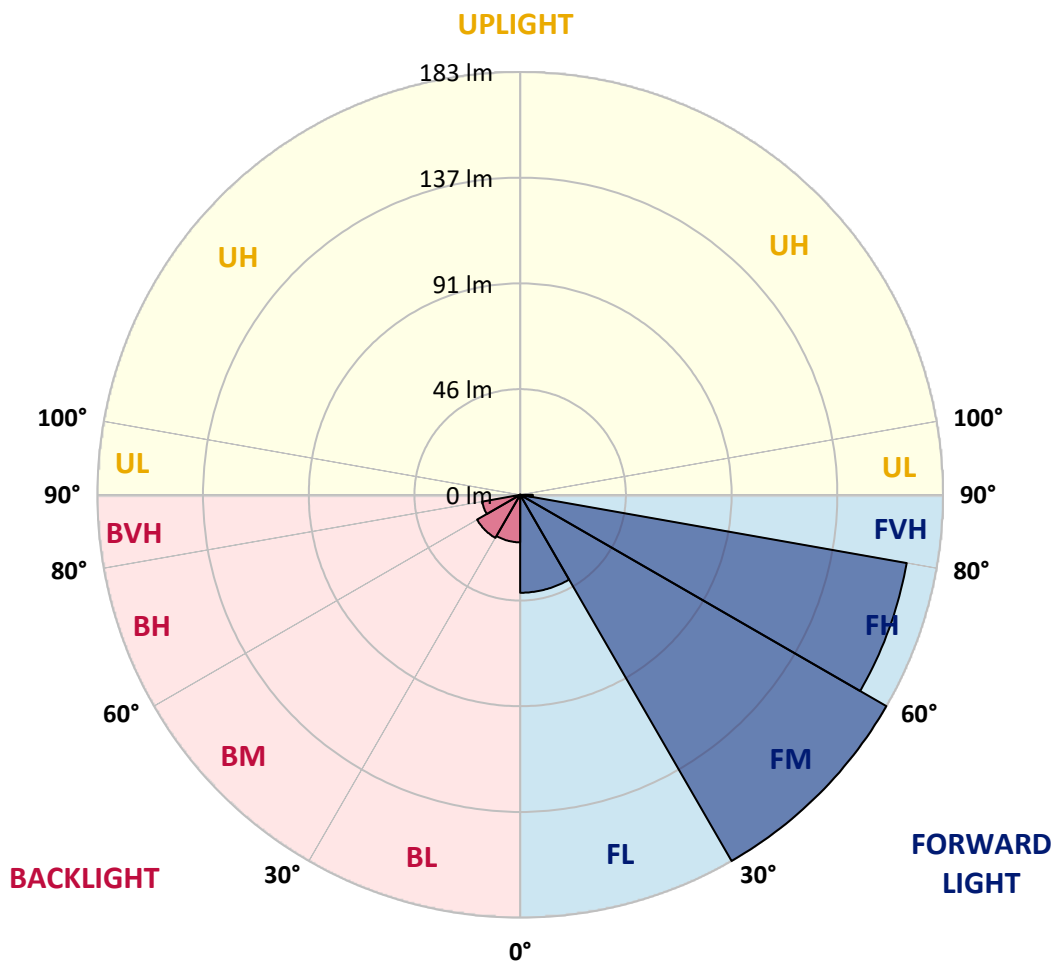
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	42.3	9.2			
FM	(30°-60°)	182.7	39.8			
FH	(60°-80°)	169.6	36.9			G0/660
FVH	(80°-90°)	5.5	1.2			G0/10
BL	(0°-30°)	20.5	4.5	B0/110		
BM	(30°-60°)	21.5	4.7	B0/220		
BH	(60°-80°)	16.6	3.6	B0/110		G0/110
BVH	(80°-90°)	0.3	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 III Medium





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	64°	65°	75°	85°
0°	118.8	118.8	118.8	118.8	118.8	118.8	118.8	118.8	118.8	118.8	118.8
2.5°	115.5	115.5	116.1	116.6	117.0	117.8	118.5	119.0	119.0	119.3	118.7
5°	107.8	107.8	108.3	109.7	111.1	113.0	115.1	117.2	117.6	119.1	119.1
7.5°	100.7	101.4	102.2	103.6	105.1	107.8	110.7	114.4	114.8	118.5	119.3
10°	95.8	96.2	96.7	98.2	100.5	103.6	106.8	111.1	111.8	117.4	119.3
12.5°	91.9	91.9	92.7	94.4	96.5	99.6	103.2	107.8	108.7	115.3	119.0
15°	89.0	89.0	89.8	91.4	93.5	96.6	100.1	105.0	106.0	113.7	118.9
17.5°	87.3	87.4	88.1	89.3	91.3	94.3	97.8	102.7	103.6	112.3	119.3
20°	87.3	87.3	87.7	88.3	89.8	92.5	96.0	101.0	101.9	111.4	119.9
22.5°	89.0	88.9	89.2	88.7	89.4	91.3	94.8	99.8	100.9	111.0	120.8
25°	92.1	91.8	92.0	91.0	90.2	91.0	94.1	99.4	100.5	111.1	121.6
27.5°	96.4	96.4	95.9	94.4	92.4	91.5	94.0	99.0	100.2	111.1	122.1
30°	102.4	102.1	101.4	99.9	96.8	93.8	94.8	99.0	100.2	111.1	122.3
32.5°	108.3	108.5	108.9	107.4	103.2	97.7	96.8	99.8	100.7	111.1	122.0
35°	114.4	114.5	116.2	116.4	110.9	103.9	100.1	101.7	102.4	111.9	122.2
37.5°	119.7	120.1	123.6	125.3	120.8	111.9	105.3	105.3	105.7	114.1	123.2
40°	125.7	126.7	130.9	134.7	132.9	122.1	113.0	110.7	110.8	118.0	125.4
42.5°	132.6	133.9	139.4	144.9	144.8	134.7	122.7	119.1	119.3	124.9	129.8
45°	141.4	142.3	149.2	156.1	157.6	148.6	134.9	130.2	130.4	135.3	138.4
47.5°	152.2	153.2	159.9	168.1	171.8	165.3	150.7	145.6	145.1	148.6	150.9
50°	166.2	168.2	172.2	180.1	189.0	184.7	169.3	164.2	163.5	166.3	167.0
52.5°	179.6	181.5	183.1	190.3	207.7	208.7	192.0	186.5	185.8	186.5	187.3
55°	181.6	182.7	183.9	193.7	222.8	239.3	217.9	211.3	209.5	208.3	211.2
57.5°	165.6	164.9	168.9	182.3	225.3	273.2	253.0	240.1	238.4	231.7	228.7
60°	131.1	130.2	134.0	152.3	211.2	289.9	301.6	272.0	267.7	245.2	242.3
62.5°	92.1	91.1	96.0	106.8	163.9	286.6	356.4	302.2	293.6	257.3	253.3
65°	71.0	70.5	73.1	75.6	100.0	248.3	386.6	361.1	343.3	270.3	265.2
67.5°	55.6	56.3	59.6	66.6	64.6	154.7	383.7	451.1	433.2	294.4	291.2
70°	44.7	44.9	49.0	60.2	60.9	78.8	324.9	497.5	497.3	333.2	311.7
72.5°	27.0	27.8	34.5	52.1	61.5	60.3	218.4	455.9	462.2	342.2	281.1
75°	13.0	13.7	17.8	35.0	61.1	58.7	118.2	345.2	353.2	306.9	227.9
77.5°	4.8	5.5	8.2	17.1	45.3	53.8	62.2	232.7	239.1	224.6	154.4
80°	1.5	1.8	3.2	7.8	23.0	44.4	40.0	131.2	135.5	98.3	51.9
82.5°	0.2	0.2	0.9	2.7	8.9	22.6	23.5	49.4	51.6	19.2	10.5
85°	0.0	0.0	0.0	0.0	0.2	0.2	5.8	9.4	7.7	1.9	3.1
87.5°	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.2	0.2	0.2	0.3
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°	118.8	118.8	118.8	118.8	118.8	118.8	118.8	118.8	118.8	118.8	118.8
2.5°	118.7	118.7	118.1	117.2	116.1	114.5	114.1	112.8	112.8	111.7	111.6
5°	118.8	118.3	116.5	113.7	109.9	105.8	103.2	100.4	98.0	96.5	96.6
7.5°	118.8	117.8	114.1	108.0	100.9	93.8	88.4	82.1	79.2	77.2	78.1
10°	118.5	116.7	110.3	101.1	89.8	80.0	71.1	63.8	58.8	56.7	55.0
12.5°	117.8	115.2	105.5	92.4	78.1	65.1	52.9	43.3	36.7	33.4	33.0
15°	117.1	113.6	99.9	83.0	64.7	47.9	34.1	25.0	19.4	18.1	18.2
17.5°	117.0	112.0	94.6	73.0	51.7	31.9	19.7	15.9	15.1	14.8	14.7
20°	117.0	110.7	88.8	63.0	36.6	19.9	14.9	14.0	13.7	13.6	13.5
22.5°	117.4	109.1	83.1	52.6	25.0	14.5	13.3	12.8	12.3	12.1	12.0
25°	117.4	107.4	76.7	41.6	16.4	12.8	11.9	11.2	10.7	10.3	10.3
27.5°	117.1	105.5	70.1	31.6	13.0	11.4	10.5	9.5	8.8	8.4	8.4
30°	116.4	103.2	63.7	22.0	11.4	10.2	9.0	7.8	6.9	6.5	6.4
32.5°	115.3	100.7	56.3	15.5	10.3	8.9	7.6	6.3	5.5	5.0	5.0
35°	114.2	98.2	48.4	11.9	9.3	7.8	6.4	5.1	4.4	4.0	4.0
37.5°	113.7	95.5	40.7	10.3	8.3	6.7	5.2	4.1	3.6	3.3	3.2
40°	114.1	93.5	33.1	9.2	7.4	5.7	4.3	3.5	3.0	2.7	2.7
42.5°	116.5	92.3	25.9	8.4	6.6	4.8	3.6	2.8	2.3	2.1	2.1
45°	121.4	93.1	19.7	7.7	5.7	4.0	3.0	2.3	1.8	1.5	1.5
47.5°	129.6	96.4	14.9	7.0	4.8	3.2	2.4	1.8	1.4	1.2	1.1
50°	141.7	102.8	11.7	6.4	4.0	2.7	2.0	1.4	1.0	0.9	0.9
52.5°	159.0	113.8	10.0	5.7	3.3	2.3	1.6	1.0	0.8	0.6	0.6
55°	180.3	127.9	9.0	5.0	2.7	1.9	1.3	0.8	0.6	0.5	0.4
57.5°	197.6	139.0	8.5	4.4	2.3	1.6	1.0	0.6	0.5	0.3	0.3
60°	212.9	146.2	7.5	3.6	1.9	1.3	0.8	0.5	0.3	0.2	0.2
62.5°	225.2	150.9	6.2	2.9	1.6	1.0	0.6	0.4	0.3	0.2	0.2
65°	239.2	154.7	5.1	2.3	1.4	0.9	0.6	0.3	0.2	0.2	0.2
67.5°	266.8	163.1	3.8	1.8	1.0	0.7	0.5	0.3	0.2	0.2	0.2
70°	277.5	153.2	3.0	1.5	0.8	0.6	0.5	0.3	0.2	0.2	0.2
72.5°	236.2	114.7	2.3	1.2	0.7	0.6	0.5	0.3	0.2	0.2	0.2
75°	187.3	77.5	1.9	1.0	0.7	0.6	0.5	0.5	0.4	0.3	0.3
77.5°	119.6	34.3	1.5	0.8	0.7	0.8	0.7	0.5	0.5	0.4	0.4
80°	35.7	8.2	1.0	0.6	0.6	0.6	0.7	0.5	0.3	0.2	0.2
82.5°	7.7	1.9	0.6	0.3	0.4	0.3	0.5	0.5	0.3	0.2	0.2
85°	2.6	0.7	0.4	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2
87.5°	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	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

(END OF REPORT)