

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: P400859

Luminaire Tested: **ENV-SA1-830-U-SL4-HSS-XXB**

Issue Date: 5/20/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P400859  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2004-754-6)  
Test Lab: INNOVATION CENTER  
Issue Date: 5/20/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: ENV-SA1-830-U-SL4-HSS-XXB  
Description: ENTRI LED LUMINAIRE  
(1) 80 CRI, 3000K LIGHTSQUARE IN BATTERY OPERATION WITH 16 LEDS AND TYPE IV SPILL LIGHT ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 503 lumens  
Efficiency: N/A  
Efficacy: 38.7 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

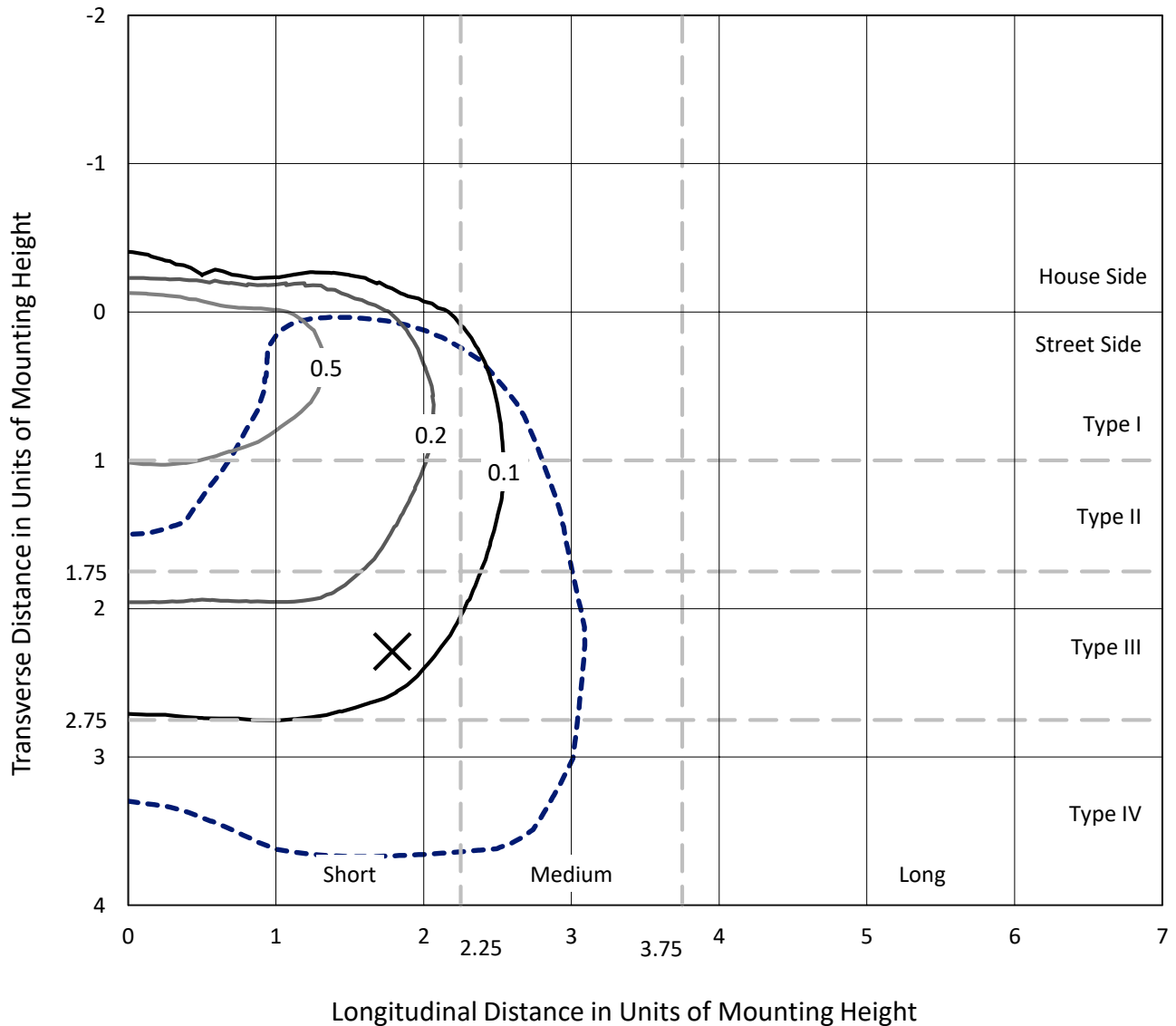
Input Watts (W): 13  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

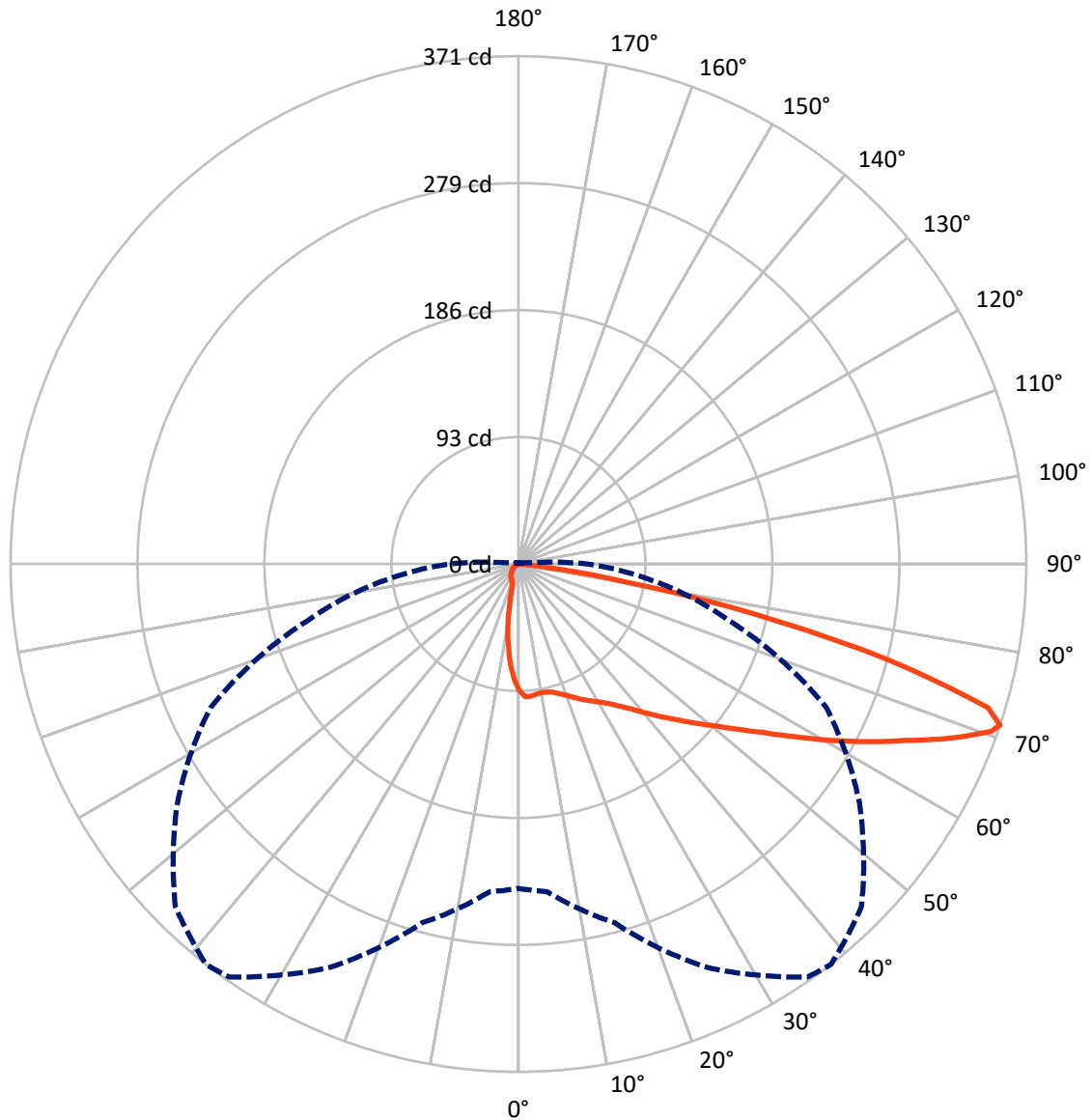
× Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 1 fc  
 Type IV - Short - Semi-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 38-Deg Lateral      - - - Horizontal Cone Through 71-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	43.0	0.0	43.0
	% Fixture	8.5	0.0	8.5
<b>Street Side</b>	Lumens	460.0	0.0	460.0
	% Fixture	91.5	0.0	91.5
<b>Total</b>	Lumens	503.0	0.0	503.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	7.8	1.6
10°-20°	19.0	3.8
20°-30°	30.4	6.0
30°-40°	46.3	9.2
40°-50°	72.1	14.3
50°-60°	105.4	21.0
60°-70°	135.2	26.9
70°-80°	82.7	16.4
80°-90°	4.2	0.8
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°	503.0	100.0
0°-180°	503.0	100.0



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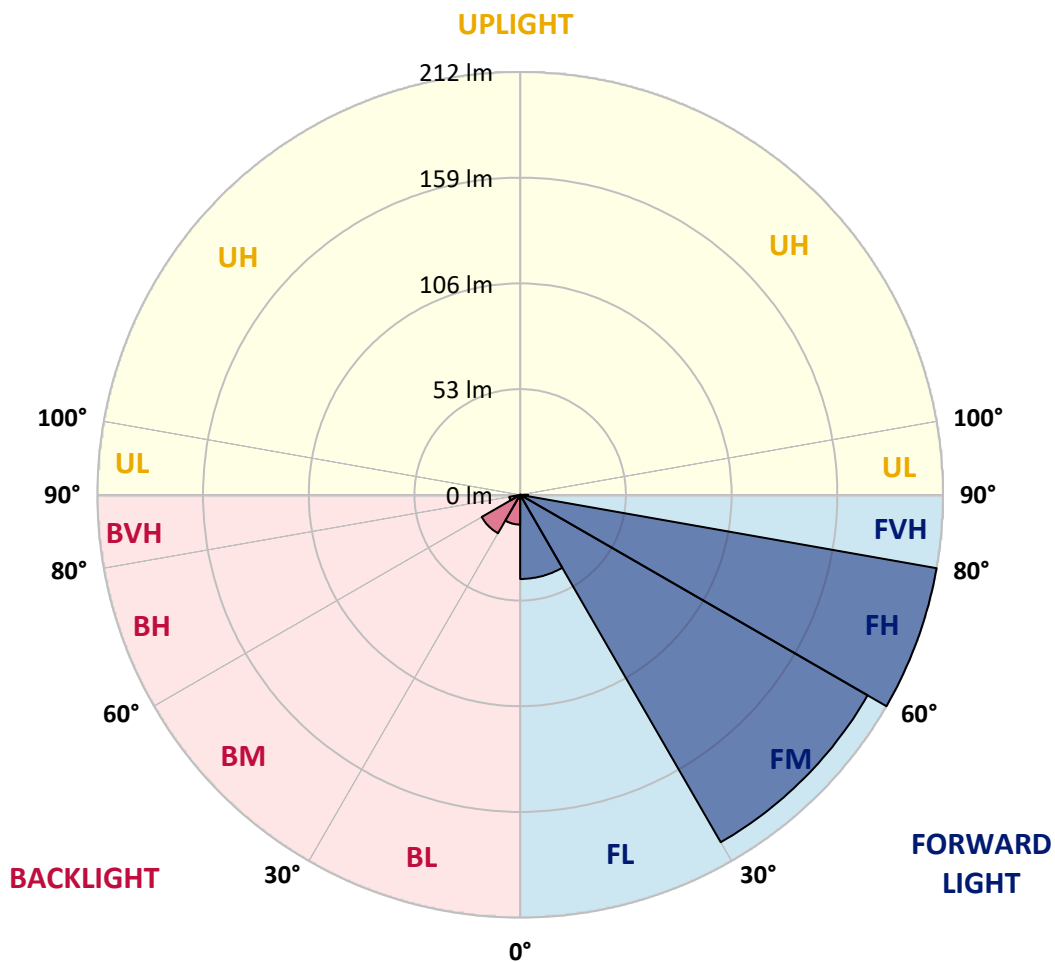
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	42.3	8.4			
FM	(30°-60°)	201.5	40.1			
FH	(60°-80°)	212.3	42.2			G0/660
FVH	(80°-90°)	4.0	0.8			G0/10
BL	(0°-30°)	14.9	3.0	B0/110		
BM	(30°-60°)	22.3	4.4	B0/220		
BH	(60°-80°)	5.5	1.1	B0/110		G0/110
BVH	(80°-90°)	0.2	0.0			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°	35°	38°	45°	55°	65°	75°	85°
0°	92.7	92.7	92.7	92.7	92.7	92.7	92.7	92.7	92.7	92.7	92.7
2.5°	98.2	98.0	98.2	98.0	97.4	97.2	96.8	95.9	95.0	93.9	92.4
5°	98.4	98.2	98.2	97.9	97.3	97.0	96.7	95.7	94.6	93.0	90.6
7.5°	97.4	97.3	97.2	96.8	96.1	96.0	95.7	94.6	93.4	91.8	88.9
10°	95.9	96.0	96.0	96.0	95.7	95.5	95.3	94.0	92.8	90.9	87.8
12.5°	94.4	94.6	95.0	95.7	96.0	96.0	96.0	94.7	93.3	91.2	88.0
15°	93.4	93.8	95.0	96.4	97.2	97.4	97.7	96.3	94.6	92.3	89.0
17.5°	93.2	93.7	96.0	98.2	99.7	99.9	99.9	98.1	96.3	93.7	90.1
20°	94.0	94.7	97.8	100.8	102.7	102.8	102.5	100.2	98.0	95.2	91.1
22.5°	96.7	97.3	100.7	104.3	106.1	106.2	105.5	102.3	100.0	97.6	92.4
25°	101.2	101.5	105.3	108.7	109.6	109.9	108.6	104.8	102.1	100.0	94.2
27.5°	107.2	107.4	110.8	113.3	113.5	113.4	112.0	108.1	105.4	103.5	97.0
30°	113.5	113.7	116.5	118.2	117.5	117.1	115.9	111.7	109.3	107.9	101.0
32.5°	119.3	119.6	122.6	123.5	121.9	121.7	120.8	116.3	114.3	115.0	106.8
35°	125.1	125.1	128.5	129.0	127.6	127.6	127.6	122.3	121.9	124.3	114.8
37.5°	130.2	131.1	134.7	134.6	134.3	134.5	135.0	131.0	132.2	136.2	125.3
40°	134.6	135.7	140.6	141.0	142.1	143.1	143.9	141.8	144.7	151.2	138.8
42.5°	138.5	139.8	146.1	148.1	151.2	152.5	154.0	153.5	159.8	171.8	156.1
45°	143.5	144.9	151.4	156.2	160.5	162.3	165.6	167.9	178.4	192.0	174.7
47.5°	150.2	151.2	157.1	164.7	170.6	173.8	178.9	184.8	197.6	213.4	191.4
50°	159.4	159.5	163.9	173.8	182.6	186.0	194.9	202.5	218.5	232.3	203.4
52.5°	169.5	169.0	172.5	184.9	196.1	200.7	211.2	221.7	237.8	246.0	208.8
55°	179.1	179.4	181.5	196.8	213.1	217.5	230.8	241.5	255.5	254.4	211.8
57.5°	190.2	190.1	192.9	209.8	233.0	238.1	252.0	260.8	266.2	260.4	212.3
60°	200.6	200.4	204.6	225.3	254.1	261.7	274.2	273.8	277.0	264.2	211.9
62.5°	209.9	210.6	218.1	243.3	277.8	286.0	292.3	287.9	288.8	268.7	206.5
65°	221.3	222.4	234.5	265.2	307.1	311.0	313.5	306.4	297.7	265.1	190.1
67.5°	235.6	239.0	256.1	297.4	337.6	340.3	340.4	317.6	297.4	247.1	159.8
70°	241.2	244.8	272.0	323.0	363.3	366.7	356.1	315.8	273.9	193.5	107.9
71°	237.3	240.5	271.6	325.4	368.7	371.4	354.7	304.4	248.4	159.4	83.6
72.5°	209.0	217.4	254.8	310.1	359.2	359.2	332.1	277.5	197.6	99.5	42.0
75°	112.9	123.0	186.8	236.0	277.1	279.2	255.5	192.7	95.6	25.8	10.2
77.5°	37.2	41.9	83.8	122.5	173.8	177.2	156.3	85.6	30.2	8.7	5.3
80°	23.4	23.9	28.3	51.5	77.3	80.2	64.3	34.7	13.6	4.8	3.7
82.5°	3.9	4.7	13.3	15.2	27.3	21.6	14.6	17.7	6.4	2.2	3.1
85°	0.0	0.0	0.1	0.1	0.4	0.1	0.1	3.6	0.3	0.3	1.7
87.5°	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	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°	92.7	92.7	92.7	92.7	92.7	92.7	92.7	92.7	92.7	92.7	92.7
2.5°	91.7	91.0	89.6	88.1	86.3	84.7	84.2	83.1	82.5	82.1	82.1
5°	89.2	87.9	85.0	81.9	79.0	75.8	72.9	70.2	68.9	67.1	68.0
7.5°	87.1	85.0	80.8	76.0	69.9	63.7	58.9	54.7	51.2	50.1	49.3
10°	85.6	83.0	76.9	69.5	60.7	51.9	44.4	37.6	33.6	31.1	31.1
12.5°	85.4	82.1	74.2	62.9	50.1	38.2	29.0	22.5	19.3	17.8	17.7
15°	86.0	82.0	71.7	56.9	40.4	26.5	18.1	15.3	14.5	14.3	14.3
17.5°	86.5	81.9	68.8	50.1	29.8	17.4	14.4	13.9	13.7	13.6	13.6
20°	87.1	81.5	65.5	42.4	21.1	14.2	13.4	13.2	13.1	13.0	13.0
22.5°	87.8	81.1	62.1	33.7	15.6	13.2	12.8	12.5	12.5	12.5	12.5
25°	88.7	80.8	58.0	25.5	13.4	12.5	12.1	11.9	11.9	11.9	11.9
27.5°	90.6	81.1	53.4	18.3	12.5	11.9	11.6	11.4	11.4	11.3	11.3
30°	93.1	81.8	47.8	14.3	11.9	11.2	10.9	10.8	10.7	10.7	10.7
32.5°	96.7	83.1	41.6	12.2	11.0	10.5	10.2	10.1	10.1	10.1	10.0
35°	102.1	85.6	34.0	11.2	10.2	9.7	9.4	9.4	9.4	9.3	9.4
37.5°	110.5	89.7	26.3	10.3	9.3	8.9	8.7	8.6	8.6	8.6	8.6
40°	121.1	96.3	19.2	9.5	8.5	8.1	7.9	7.8	7.8	7.8	7.8
42.5°	134.6	103.6	13.9	8.6	7.8	7.4	7.2	7.1	6.9	6.8	6.8
45°	148.8	112.3	10.9	7.9	7.1	6.8	6.6	6.4	6.1	5.8	5.8
47.5°	162.5	119.0	9.3	7.1	6.5	6.2	6.0	5.7	5.2	5.0	5.0
50°	171.1	121.1	8.4	6.4	5.9	5.7	5.4	5.0	4.4	4.1	4.1
52.5°	173.8	117.3	7.5	5.8	5.4	5.1	4.8	4.2	3.6	3.2	3.2
55°	174.8	109.9	6.6	5.4	4.9	4.5	4.1	3.5	2.9	2.5	2.5
57.5°	173.5	99.4	5.9	4.9	4.4	4.0	3.5	2.8	2.2	1.9	1.9
60°	169.1	84.3	5.3	4.4	3.8	3.4	2.9	2.2	1.7	1.3	1.4
62.5°	157.0	65.2	4.6	3.7	3.3	2.9	2.3	1.7	1.0	0.9	0.9
65°	137.9	45.1	3.9	3.1	2.8	2.4	1.7	1.1	0.6	0.5	0.5
67.5°	112.0	29.2	3.1	2.5	2.4	1.9	1.3	0.7	0.3	0.3	0.3
70°	70.3	14.5	2.4	1.9	1.9	1.5	1.0	0.4	0.3	0.3	0.3
71°	49.8	9.8	2.2	1.7	1.7	1.4	0.9	0.3	0.3	0.3	0.3
72.5°	22.5	6.2	1.8	1.6	1.5	1.1	0.8	0.3	0.3	0.3	0.3
75°	7.1	3.4	1.3	1.2	1.2	1.0	0.7	0.4	0.4	0.4	0.4
77.5°	4.7	2.6	0.9	0.8	1.0	1.0	0.7	0.5	0.5	0.5	0.5
80°	3.8	1.4	0.5	0.5	0.7	0.9	0.7	0.5	0.6	0.5	0.5
82.5°	3.7	0.7	0.2	0.3	0.4	0.5	0.5	0.4	0.5	0.5	0.5
85°	1.6	0.2	0.1	0.2	0.2	0.3	0.3	0.3	0.4	0.4	0.4
87.5°	0.0	0.0	0.0	0.0	0.1	0.1	0.2	0.2	0.3	0.3	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

(END OF REPORT)