

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: P401019

Luminaire Tested: **ENT-SA1A-827-U-SL3-HSS**

Issue Date: 5/20/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P401019  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2004-754-4)  
Test Lab: INNOVATION CENTER  
Issue Date: 5/20/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: ENT-SA1A-827-U-SL3-HSS  
Description: ENTRI LED LUMINAIRE  
(1) 80 CRI, 2700K, 350mA LIGHTSQUARE WITH 16 LEDS AND TYPE III SPILL  
LIGHT ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1684 lumens  
Efficiency: N/A  
Efficacy: 83.8 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
IES Classification: Type III - Short - Semi-Cutoff  
BUG Rating: B0 - U0 - G1

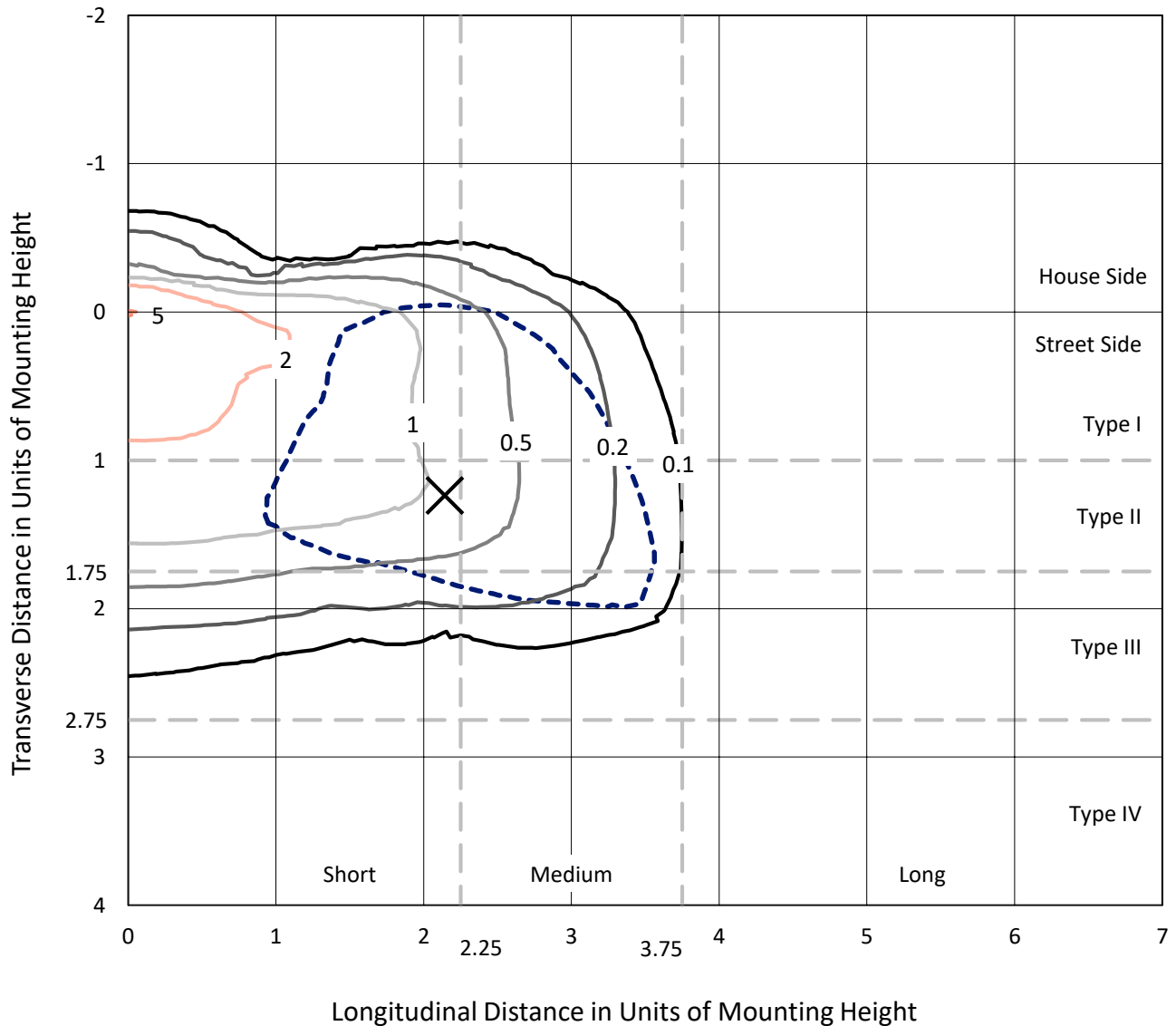
Input Watts (W): 20.1  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

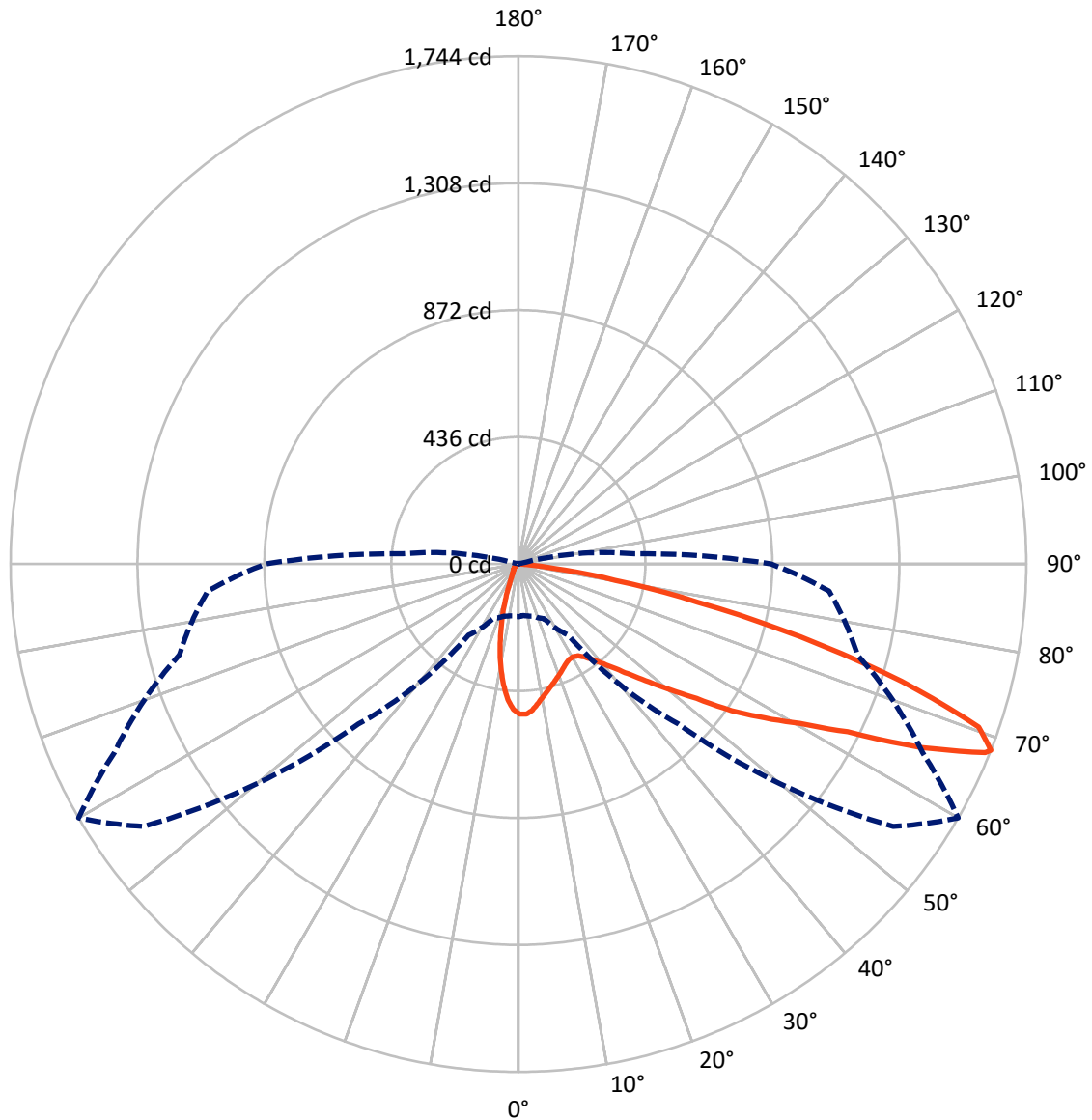


Based on 10 foot mounting height. Maximum calculated value = 5.2 fc  
 Type III - Short - Semi-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 60-Deg Lateral      - - - Horizontal Cone Through 68-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	188.3	0.0	188.3
	% Fixture	11.2	0.0	11.2
<b>Street Side</b>	Lumens	1495.7	0.0	1495.7
	% Fixture	88.8	0.0	88.8
<b>Total</b>	Lumens	1684.0	0.0	1684.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	41.8	2.5
10°-20°	85.3	5.1
20°-30°	112.3	6.7
30°-40°	155.0	9.2
40°-50°	235.0	14.0
50°-60°	379.2	22.5
60°-70°	450.4	26.7
70°-80°	212.3	12.6
80°-90°	12.7	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°	1684.0	100.0
0°-180°	1684.0	100.0



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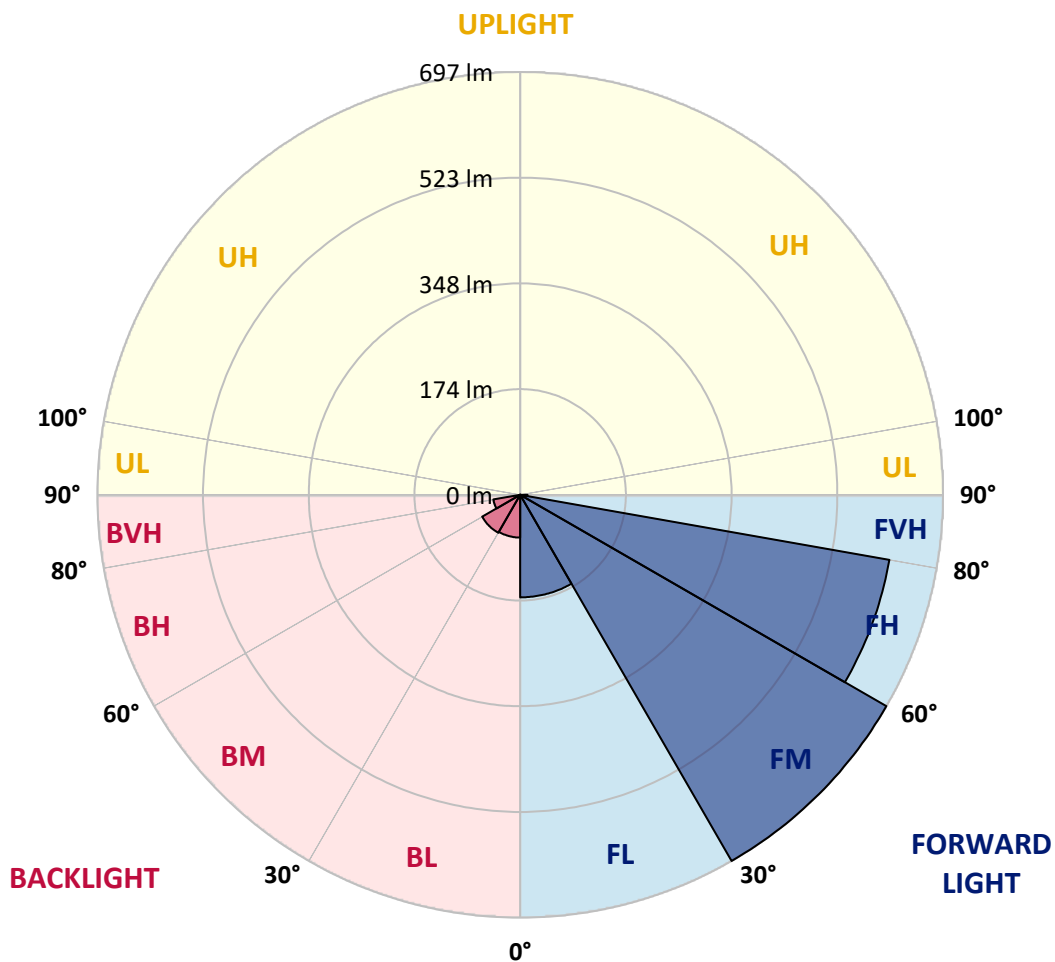
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	169.0	10.0			
FM	(30°-60°)	696.8	41.4			
FH	(60°-80°)	617.8	36.7			G0/660
FVH	(80°-90°)	12.1	0.7			G1/100
BL	(0°-30°)	70.5	4.2	B0/110		
BM	(30°-60°)	72.4	4.3	B0/220		
BH	(60°-80°)	44.9	2.7	B0/110		G0/110
BVH	(80°-90°)	0.5	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-G1**

Type III Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	60°	65°	75°	85°
0°	515.5	515.5	515.5	515.5	515.5	515.5	515.5	515.5	515.5	515.5	515.5
2.5°	510.9	509.7	512.9	513.7	514.6	516.3	516.0	516.3	516.6	516.0	512.6
5°	476.0	478.0	480.9	484.6	488.3	496.9	500.3	503.7	506.0	507.7	504.6
7.5°	441.7	445.7	448.0	454.9	460.6	469.5	476.9	482.9	488.6	494.9	491.7
10°	414.3	415.7	417.7	424.0	432.6	446.0	455.7	463.2	470.0	480.6	478.0
12.5°	387.4	388.3	392.3	399.2	408.0	424.6	437.4	446.0	453.7	466.9	467.2
15°	367.7	368.0	370.6	376.9	387.2	404.9	421.4	430.9	441.7	457.7	458.6
17.5°	354.9	354.6	355.2	359.2	368.9	385.7	405.7	416.9	429.7	450.3	451.2
20°	350.9	350.3	349.2	348.3	354.3	368.9	391.4	403.7	418.9	444.9	445.2
22.5°	354.3	353.2	350.6	345.7	347.4	356.9	375.7	390.6	409.2	442.0	440.0
25°	362.6	362.6	359.2	351.4	347.4	349.4	364.6	378.9	399.4	440.6	436.3
27.5°	376.3	375.7	371.2	363.2	355.7	350.3	357.7	371.2	392.3	442.3	434.6
30°	392.9	391.2	386.3	380.6	371.4	359.7	359.2	369.2	388.9	447.7	435.7
32.5°	408.6	408.6	406.6	401.2	392.3	376.9	368.0	376.0	393.2	456.6	439.4
35°	428.0	427.7	428.3	426.3	418.6	402.3	388.0	392.0	406.3	471.5	448.3
37.5°	443.5	443.7	448.6	452.0	448.6	431.4	416.6	416.6	428.6	493.7	463.5
40°	458.6	459.2	468.3	478.3	479.2	465.5	451.2	450.9	457.7	521.2	486.9
42.5°	472.3	474.6	487.7	504.9	514.9	505.7	495.2	491.7	495.2	562.6	524.9
45°	486.9	491.5	509.7	534.6	550.9	551.2	547.2	543.2	544.9	609.2	575.7
47.5°	505.7	510.9	533.7	564.3	595.2	603.2	606.9	605.5	600.9	668.0	641.5
50°	536.3	541.2	562.6	596.9	639.2	668.0	678.0	679.7	673.7	733.2	716.0
52.5°	588.3	591.2	611.2	638.3	685.7	739.8	766.0	766.3	752.9	809.5	796.6
55°	644.0	651.5	674.9	706.3	755.2	815.8	881.5	888.6	847.2	876.3	855.5
57.5°	644.9	652.0	690.9	751.2	853.5	933.8	992.3	997.5	951.5	930.0	910.9
60°	576.9	580.6	634.6	722.9	888.6	1092.9	1118.6	1110.9	1024.6	985.5	980.3
62.5°	407.2	408.9	472.9	589.2	810.9	1168.9	1310.9	1269.5	1128.6	1067.2	1084.3
65°	256.3	255.4	282.0	374.9	603.2	1094.1	1548.6	1518.4	1319.8	1169.5	1165.5
67.5°	189.2	184.6	191.7	220.6	344.6	858.9	1592.4	1728.9	1501.8	1212.1	1095.2
68°	181.4	177.4	184.9	207.2	298.0	777.5	1571.2	1744.1	1530.6	1205.2	1071.2
70°	154.0	150.3	156.6	173.4	207.4	504.6	1386.4	1676.9	1556.9	1146.9	944.0
72.5°	109.4	111.4	128.0	148.9	175.7	258.9	1020.9	1377.2	1339.2	1020.0	718.3
75°	64.9	68.6	90.3	120.0	161.4	170.9	658.6	1001.2	982.6	706.3	389.2
77.5°	22.9	24.3	44.9	80.0	133.1	135.4	366.9	629.5	585.5	288.6	114.9
80°	8.3	8.3	16.6	44.6	86.0	103.4	194.9	336.0	231.2	74.9	31.7
82.5°	1.4	1.4	3.7	15.1	38.0	55.1	90.6	119.4	68.6	16.6	15.7
85°	0.0	0.0	0.0	0.0	0.6	0.6	26.6	26.9	12.6	2.3	6.9
87.5°	0.0	0.0	0.0	0.0	0.0	0.3	0.6	0.6	0.6	0.6	0.9
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°	515.5	515.5	515.5	515.5	515.5	515.5	515.5	515.5	515.5	515.5	515.5
2.5°	511.2	510.6	507.5	501.7	496.9	488.9	487.5	479.7	476.9	474.6	476.9
5°	502.3	499.2	488.6	475.7	458.3	437.7	425.7	409.2	405.7	396.6	402.0
7.5°	487.7	480.6	460.9	433.2	401.2	369.7	345.7	322.6	302.9	296.0	294.0
10°	472.3	462.3	429.2	386.3	340.0	291.7	256.0	222.6	204.0	186.6	186.0
12.5°	457.7	442.6	394.6	334.9	270.3	212.9	166.6	131.4	109.4	97.4	100.6
15°	446.0	425.7	359.7	283.4	201.7	137.1	94.3	71.7	64.0	60.3	60.9
17.5°	434.6	407.7	326.0	229.7	143.7	84.6	61.1	53.4	51.1	50.3	49.7
20°	424.3	390.3	290.6	181.2	94.9	58.6	50.3	47.7	46.9	46.3	46.3
22.5°	414.0	372.0	255.2	134.3	64.9	48.0	45.1	44.0	43.4	42.6	42.6
25°	404.6	354.3	219.7	94.0	49.7	42.9	40.9	39.7	38.6	37.7	37.7
27.5°	397.4	340.9	186.9	66.6	41.7	38.6	36.6	34.6	33.1	32.0	32.0
30°	392.9	327.7	155.2	50.3	37.1	34.3	31.7	29.1	26.9	25.4	25.1
32.5°	390.3	316.9	125.7	41.1	33.1	30.0	26.9	24.0	21.4	19.7	19.7
35°	391.4	308.3	96.3	34.9	30.0	26.3	22.9	19.4	17.1	15.7	15.4
37.5°	398.9	303.4	71.7	30.9	26.9	22.9	19.4	16.0	13.7	12.6	12.3
40°	412.9	304.6	54.6	28.0	24.6	20.0	16.0	13.1	11.1	10.0	10.0
42.5°	441.2	312.9	43.1	25.7	22.0	17.1	13.4	10.9	9.1	8.3	8.0
45°	478.6	328.6	35.4	23.7	19.4	14.6	11.4	9.1	7.4	6.6	6.6
47.5°	535.2	353.7	30.6	21.7	16.9	12.3	9.4	7.4	5.7	5.1	4.9
50°	600.6	388.9	26.9	19.4	14.9	10.3	8.0	5.7	4.6	3.7	3.7
52.5°	667.5	428.0	24.3	17.4	12.9	8.9	6.3	4.3	3.1	2.6	2.6
55°	728.9	460.9	21.7	15.7	10.9	7.4	5.1	3.4	2.3	1.7	1.7
57.5°	788.3	490.9	18.9	13.7	8.9	6.0	4.0	2.6	1.7	1.1	1.1
60°	862.9	529.7	16.3	11.7	7.1	4.9	3.1	2.0	1.1	0.9	0.6
62.5°	952.9	558.0	13.7	9.4	5.7	3.7	2.3	1.4	0.9	0.3	0.3
65°	986.0	520.6	11.4	7.7	4.6	2.9	1.7	1.1	0.6	0.3	0.3
67.5°	893.5	419.4	9.1	6.0	3.4	2.0	1.4	0.9	0.6	0.3	0.3
68°	867.8	398.9	8.9	5.7	3.1	2.0	1.1	0.9	0.3	0.3	0.0
70°	732.6	320.3	7.1	4.3	2.6	1.7	1.1	0.6	0.3	0.3	0.0
72.5°	543.2	220.9	5.1	2.9	1.7	1.1	0.9	0.6	0.3	0.3	0.0
75°	286.6	86.0	4.0	2.3	1.4	1.1	0.9	0.9	0.6	0.3	0.3
77.5°	82.3	27.1	3.1	1.7	1.4	1.4	1.4	1.1	1.1	0.9	0.6
80°	24.0	8.9	2.0	1.1	1.4	1.4	1.7	1.4	1.4	1.1	1.1
82.5°	12.9	3.4	1.1	0.9	0.9	1.1	1.4	1.1	0.9	0.6	0.3
85°	5.4	1.1	0.9	0.6	0.6	0.6	0.6	0.6	0.6	0.3	0.3
87.5°	0.3	0.6	0.6	0.3	0.3	0.3	0.3	0.3	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)