

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: P596483

Luminaire Tested: **MSA-SA1A-827-U-SL4-HSS**

Issue Date: 5/27/2021

Test Information

Test Method: LM-79-08
Report Number: P596483
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-21)
Test Lab: INNOVATIONS CENTER
Issue Date: 5/27/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA1A-827-U-SL4-HSS
Description: MESA POST TOP DECORATIVE LUMINAIRE. (1) LIGHTSQUARES WITH 16 LEDS EACH 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: 2457 lumens
Efficiency: N/A
Efficacy: 72.3 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B0 - U0 - G1

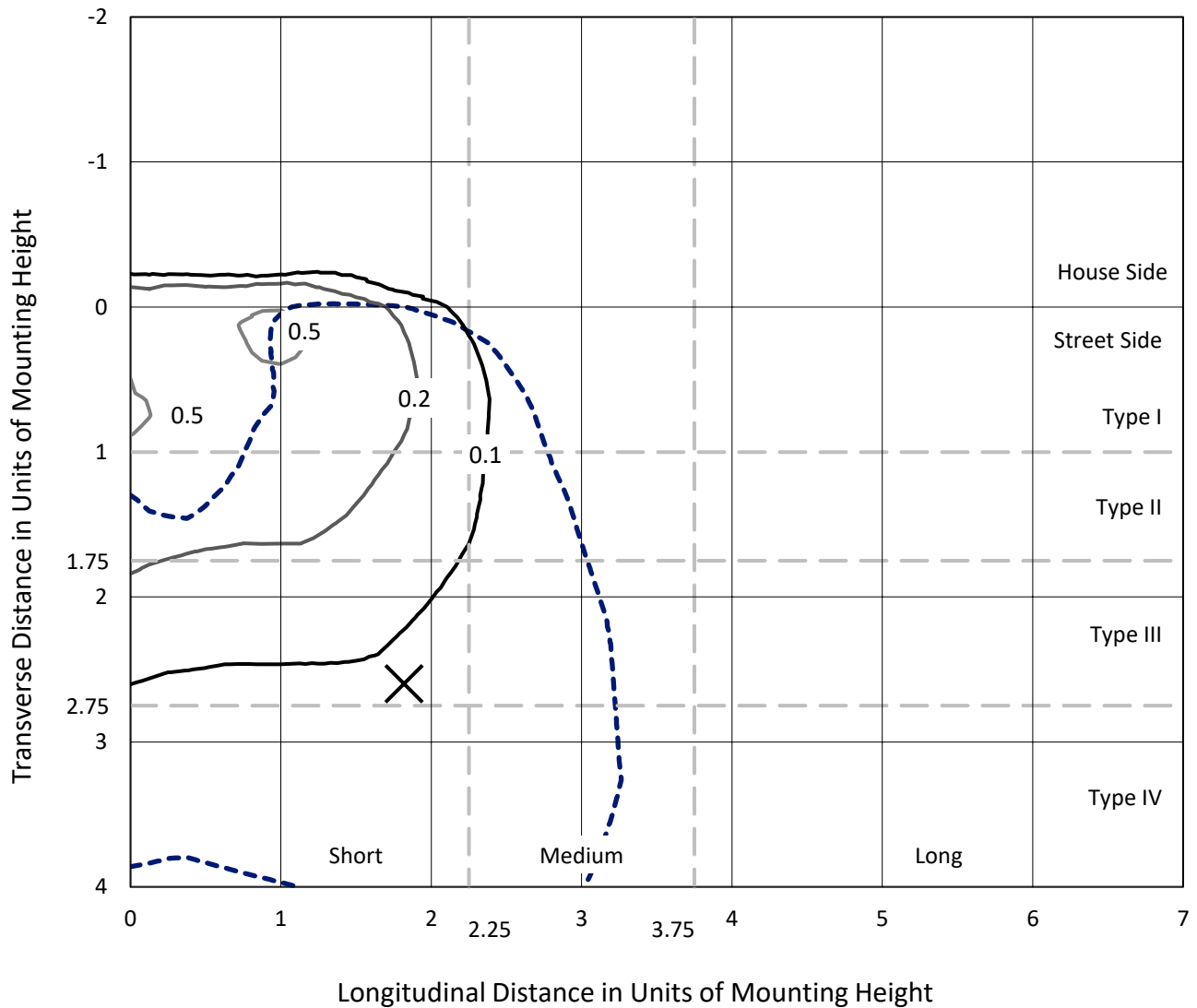
Input Watts (W): 34
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

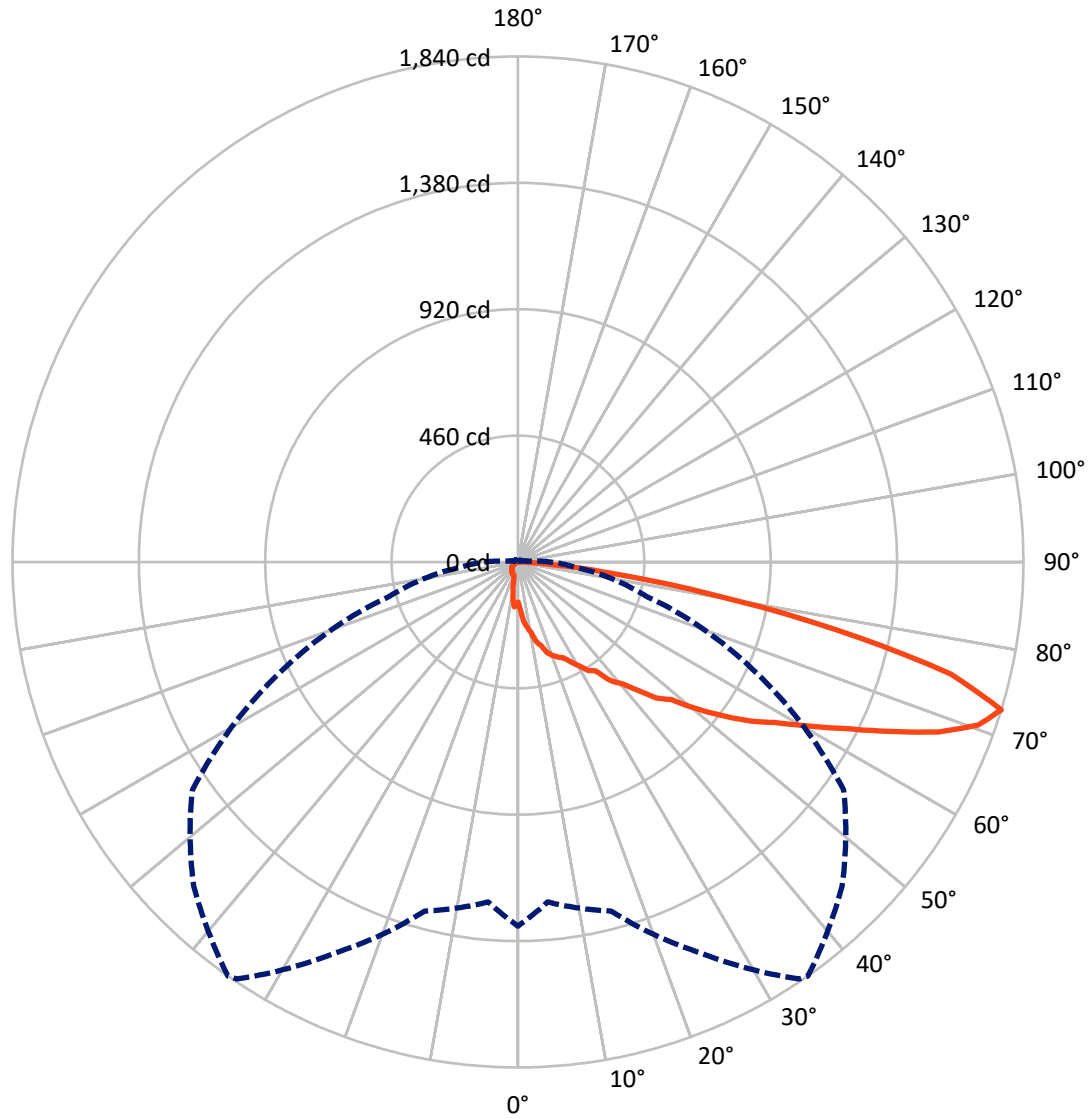
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 0.6 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 35-Deg Lateral - - - Horizontal Cone Through 72.5-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	191.6	0.0	191.6
	% Fixture	7.8	0.0	7.8
Street Side	Lumens	2265.4	0.0	2265.4
	% Fixture	92.2	0.0	92.2
Total	Lumens	2457.0	0.0	2457.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	18.7	0.8
10°-20°	62.9	2.6
20°-30°	114.5	4.7
30°-40°	197.5	8.0
40°-50°	351.1	14.3
50°-60°	523.9	21.3
60°-70°	669.4	27.2
70°-80°	465.7	19.0
80°-90°	53.3	2.2
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°	2457.0	100.0
0°-180°	2457.0	100.0

Coefficient of Utilization



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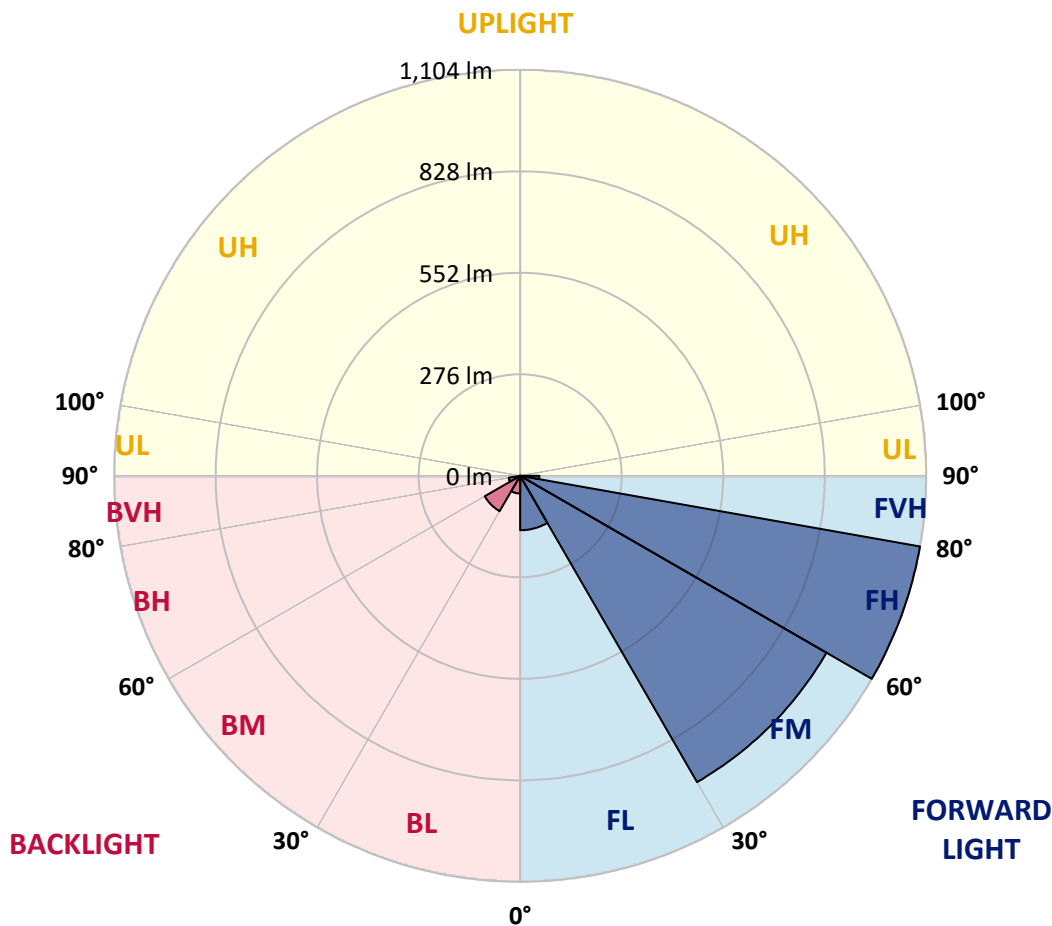
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	147.9	6.0			
FM (30°-60°)	961.4	39.1			
FH (60°-80°)	1103.7	44.9			G1/1800
FVH (80°-90°)	52.4	2.1			G1/100
BL (0°-30°)	48.2	2.0	B0/110		
BM (30°-60°)	111.1	4.5	B0/220		
BH (60°-80°)	31.4	1.3	B0/110		G0/110
BVH (80°-90°)	0.9	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 IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	34°	35°	45°	55°	65°	75°	85°
0°	146.4	146.4	146.4	146.4	146.4	146.4	146.4	146.4	146.4	146.4	146.4
2.5°	186.3	179.0	167.1	168.0	173.3	174.4	176.0	171.8	168.1	161.6	174.3
5°	238.6	228.1	221.5	219.4	216.3	216.5	209.0	211.7	211.0	215.8	221.6
7.5°	268.1	262.3	253.9	251.6	240.2	239.0	229.7	242.2	243.4	241.7	251.2
10°	279.9	272.2	273.2	264.4	258.8	260.2	261.7	262.7	264.3	265.9	254.3
12.5°	286.8	288.2	301.6	292.5	298.2	298.2	308.2	297.5	297.9	286.3	288.3
15°	317.9	325.5	319.4	319.3	313.1	314.7	326.3	317.9	322.2	318.8	305.4
17.5°	357.0	358.4	346.9	341.9	347.4	347.6	342.6	342.3	327.2	352.6	336.4
20°	369.4	377.8	361.5	341.8	364.9	363.7	363.4	357.6	332.5	367.8	354.5
22.5°	403.4	391.4	380.3	367.3	376.3	376.3	375.0	362.3	352.5	366.5	372.1
25°	414.0	415.5	401.0	396.8	397.1	386.0	385.0	379.6	370.2	394.0	382.6
27.5°	450.6	450.0	415.3	427.0	412.0	412.2	384.9	397.1	398.7	395.4	408.1
30°	486.5	496.5	444.2	459.0	443.3	438.6	411.9	422.8	425.6	421.8	437.9
32.5°	532.3	547.0	496.2	481.6	457.6	471.0	452.6	426.9	440.9	475.2	484.2
35°	580.9	588.0	533.8	513.4	486.4	486.3	485.7	487.8	503.3	541.9	549.5
37.5°	668.1	651.2	602.1	555.4	561.5	548.0	538.6	548.5	564.7	628.2	660.9
40°	716.7	704.5	635.5	607.8	577.8	582.7	608.2	607.1	650.2	716.6	765.7
42.5°	764.1	752.4	684.5	662.2	623.6	637.1	648.2	662.3	750.6	857.8	884.7
45°	806.2	772.1	724.2	725.0	705.0	706.6	726.3	739.2	866.9	976.9	995.8
47.5°	831.6	803.6	757.6	756.8	755.5	748.0	840.5	852.4	959.7	1090.3	1092.0
50°	867.4	832.4	792.1	792.8	821.4	837.3	947.7	946.5	1049.2	1184.9	1145.0
52.5°	912.0	869.2	824.8	857.8	901.9	927.8	1017.5	1054.1	1145.5	1244.3	1165.7
55°	969.1	915.5	872.7	915.0	1011.2	1021.2	1085.8	1163.0	1250.3	1304.9	1172.4
57.5°	1036.0	972.0	937.5	1005.5	1101.5	1101.7	1185.2	1279.1	1314.7	1329.6	1164.9
60°	1108.2	1033.6	998.7	1060.0	1201.0	1211.2	1295.8	1343.2	1380.0	1342.1	1151.4
62.5°	1171.6	1089.3	1062.2	1134.2	1310.2	1334.2	1392.1	1385.3	1427.2	1357.8	1117.2
65°	1247.2	1161.4	1143.6	1250.0	1452.8	1485.7	1500.3	1460.0	1443.0	1345.7	1028.1
67.5°	1322.1	1241.8	1241.3	1378.3	1639.6	1651.0	1635.7	1565.4	1424.6	1239.0	865.0
70°	1374.8	1288.6	1321.1	1518.8	1809.5	1777.6	1713.1	1615.2	1291.7	949.6	565.1
72.5°	1325.3	1242.2	1315.4	1568.9	1830.5	1839.6	1668.3	1446.8	959.7	485.7	204.5
75°	1007.1	956.2	1142.1	1391.9	1625.2	1627.3	1392.5	1020.5	472.6	131.9	56.6
77.5°	507.3	491.1	722.9	988.1	1185.7	1182.3	956.7	546.7	152.0	43.8	28.5
80°	256.8	243.8	307.7	533.1	704.1	709.3	546.3	244.8	76.7	23.8	19.8
82.5°	157.7	149.7	168.3	241.2	341.8	350.0	207.3	155.0	47.6	14.1	18.0
85°	30.5	32.1	96.7	120.8	136.5	133.3	61.4	127.6	14.3	8.4	13.1
87.5°	0.0	0.5	22.4	39.4	39.5	35.1	14.0	28.3	2.0	2.3	1.6
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°	146.4	146.4	146.4	146.4	146.4	146.4	146.4	146.4	146.4	146.4	146.4
2.5°	176.4	174.5	159.1	157.4	157.7	155.1	154.3	148.8	147.5	155.9	157.4
5°	219.1	206.8	192.4	187.2	179.2	165.6	163.7	160.2	156.4	157.8	156.7
7.5°	245.3	228.9	213.6	186.3	163.7	143.9	140.7	134.8	128.8	128.9	132.8
10°	249.5	235.7	214.5	181.3	155.5	130.8	109.3	93.7	86.7	80.4	82.3
12.5°	273.8	261.0	222.1	179.8	143.6	105.1	76.9	61.8	55.1	52.9	52.6
15°	293.3	283.2	234.9	175.3	117.3	74.0	55.1	50.6	49.4	51.5	50.9
17.5°	322.4	304.1	233.6	156.4	89.4	56.2	50.8	50.1	51.6	52.9	53.2
20°	335.1	308.8	224.3	126.7	66.9	51.5	49.5	48.3	51.0	54.7	54.0
22.5°	347.9	316.8	213.4	103.8	53.9	49.3	48.2	47.2	49.3	52.9	53.7
25°	353.7	329.7	201.3	81.0	50.0	46.7	45.9	46.3	48.0	51.3	50.9
27.5°	383.0	331.1	178.2	64.0	48.4	44.8	44.8	45.7	45.7	50.0	49.7
30°	401.3	356.2	159.5	53.9	46.6	42.2	43.7	44.1	43.5	48.2	48.5
32.5°	433.4	363.1	141.2	49.4	43.6	41.9	41.6	41.9	42.4	46.9	47.1
35°	482.8	397.2	116.2	47.7	42.1	40.0	38.3	39.6	40.9	44.2	44.8
37.5°	579.4	432.2	94.7	46.3	41.4	38.3	37.7	37.4	39.6	43.5	44.7
40°	657.6	494.1	77.1	45.2	39.9	37.3	35.7	35.8	37.8	40.6	42.5
42.5°	768.3	538.8	65.3	43.5	37.8	35.2	33.3	34.5	35.3	38.3	39.5
45°	860.6	573.5	57.6	42.4	35.7	33.2	31.7	33.0	32.1	33.6	35.3
47.5°	934.1	603.7	51.8	39.6	34.3	32.1	30.3	29.9	28.4	28.8	30.4
50°	974.5	598.7	46.9	36.9	32.6	31.0	28.4	25.8	23.8	23.7	24.7
52.5°	988.8	571.6	43.0	34.6	30.5	28.5	25.6	22.0	20.0	19.4	20.3
55°	992.8	532.7	39.4	32.0	28.5	25.4	22.4	18.5	16.4	15.4	16.3
57.5°	980.0	472.8	35.9	29.5	26.2	22.5	19.1	15.2	13.2	12.0	12.7
60°	948.2	396.7	32.9	26.4	23.7	19.9	16.2	12.2	10.1	9.0	9.4
62.5°	877.9	311.0	29.5	23.6	21.1	17.4	13.6	9.6	7.7	6.7	6.8
65°	771.0	231.8	25.7	20.9	18.8	15.1	10.9	7.4	5.8	4.9	4.8
67.5°	614.2	157.1	21.9	18.0	16.7	12.7	8.6	5.8	4.6	4.0	3.7
70°	361.0	79.2	18.2	15.6	14.3	10.6	6.8	4.7	4.2	3.7	3.5
72.5°	119.1	34.2	14.2	12.8	11.9	8.5	5.3	4.3	4.1	3.6	3.3
75°	41.5	19.8	10.5	9.9	9.4	6.4	4.4	4.0	4.0	3.5	3.1
77.5°	27.2	15.3	7.8	7.2	7.0	4.7	3.8	3.7	3.5	2.8	2.3
80°	22.6	8.6	5.4	5.1	4.9	3.0	3.1	2.7	2.1	1.2	0.5
82.5°	20.9	5.2	2.8	3.1	2.8	1.1	1.7	1.5	1.1	0.5	0.0
85°	12.2	2.3	1.6	1.6	1.2	0.2	0.9	0.9	0.5	0.1	0.0
87.5°	1.4	1.1	0.9	0.9	0.6	0.0	0.4	0.2	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

(END OF REPORT)