

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: P596523

Luminaire Tested: **MSA-SA1C-827-U-SL2-HSS**

Issue Date: 5/27/2021

Test Information

Test Method: LM-79-08
Report Number: P596523
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-17)
Test Lab: INNOVATIONS CENTER
Issue Date: 5/27/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA1C-827-U-SL2-HSS
Description: MESA POST TOP DECORATIVE LUMINAIRE. (1) LIGHTSQUARES WITH 16 LEDS EACH 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: 3779 lumens
Efficiency: N/A
Efficacy: 64.1 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type II - Short
BUG Rating: B1 - U0 - G1

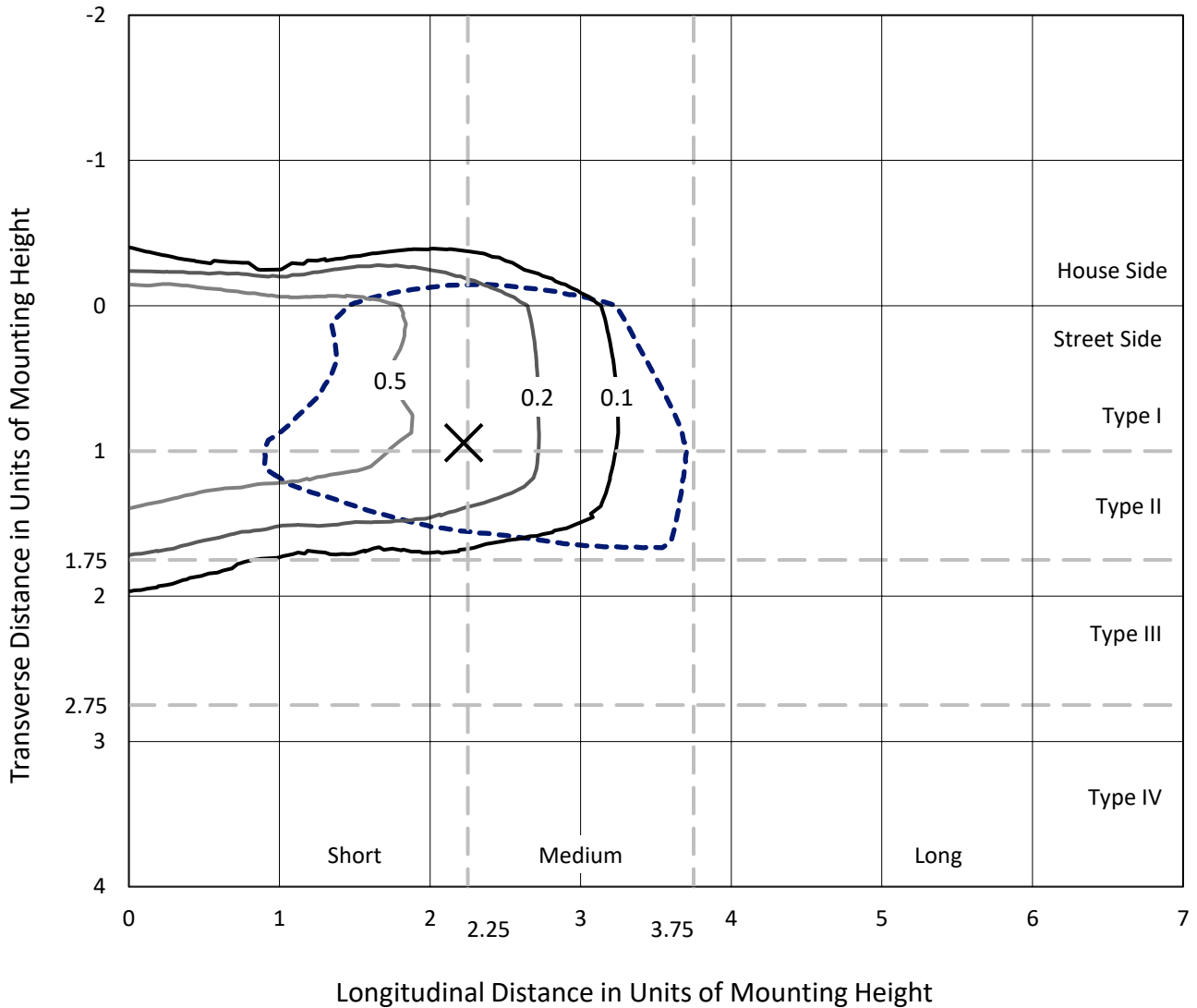
Input Watts (W): 59
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

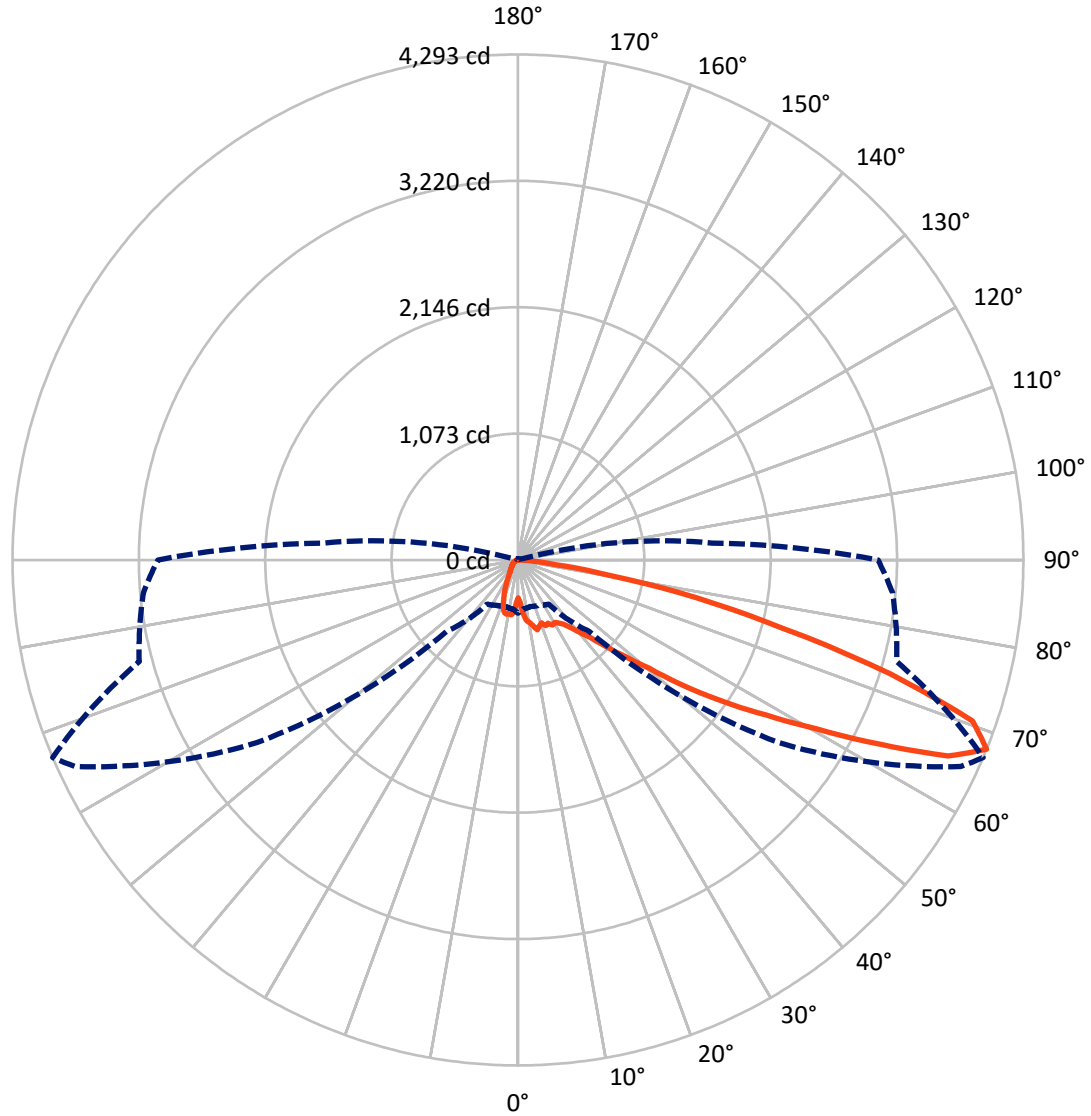
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1 fc
 Type II - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 67-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	467.4	0.0	467.4
	% Fixture	12.4	0.0	12.4
Street Side	Lumens	3311.6	0.0	3311.6
	% Fixture	87.6	0.0	87.6
Total	Lumens	3779.0	0.0	3779.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	40.4	1.1
10°-20°	119.5	3.2
20°-30°	187.3	5.0
30°-40°	302.1	8.0
40°-50°	555.1	14.7
50°-60°	937.5	24.8
60°-70°	1036.4	27.4
70°-80°	542.4	14.4
80°-90°	58.3	1.5
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°	3779.0	100.0
0°-180°	3779.0	100.0

Coefficient of Utilization



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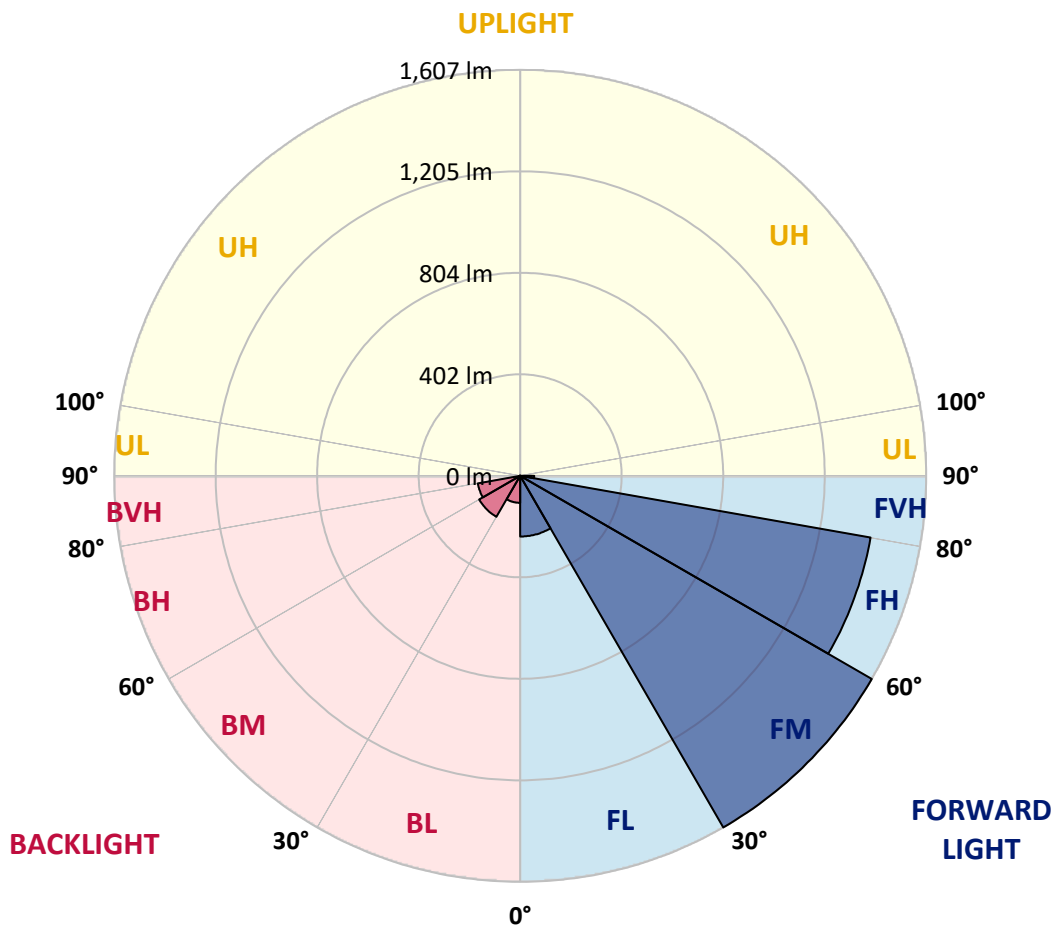
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	240.3	6.4			
FM (30°-60°)	1607.2	42.5			
FH (60°-80°)	1408.4	37.3			G1/1800
FVH (80°-90°)	55.8	1.5			G1/100
BL (0°-30°)	107.0	2.8	B0/110		
BM (30°-60°)	187.4	5.0	B0/220		
BH (60°-80°)	170.5	4.5	B1/500		G1/500
BVH (80°-90°)	2.5	0.1			G0/10
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G1

Type II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	67°	75°	85°
0°	321.9	321.9	321.9	321.9	321.9	321.9	321.9	321.9	321.9	321.9	321.9
2.5°	379.9	367.1	345.3	351.6	364.2	374.8	369.8	360.0	360.2	350.2	386.1
5°	442.1	424.8	412.2	416.6	416.0	415.6	439.2	448.2	452.0	468.5	492.9
7.5°	459.9	453.8	440.5	444.6	431.3	432.3	473.7	512.8	518.9	529.1	572.4
10°	453.0	441.1	445.9	445.9	446.1	467.6	495.4	532.7	540.2	579.3	583.9
12.5°	445.5	446.1	465.1	461.6	487.7	526.2	535.6	577.6	574.0	607.9	658.3
15°	473.3	487.9	475.6	480.4	482.9	528.1	543.3	599.1	615.2	658.1	690.9
17.5°	521.0	523.0	497.5	490.6	508.6	521.4	551.9	578.7	589.5	702.2	748.6
20°	529.7	541.9	516.1	476.2	514.3	532.0	553.2	566.1	570.7	715.8	781.2
22.5°	581.6	568.0	526.6	496.3	507.2	526.4	539.6	578.4	606.0	690.1	812.4
25°	608.3	604.6	565.1	539.3	528.1	526.6	556.9	586.2	595.0	716.8	820.1
27.5°	672.1	663.9	587.4	584.1	547.5	515.3	557.5	610.2	626.7	691.7	848.8
30°	758.9	755.9	654.1	652.0	593.7	535.8	588.5	624.9	615.0	704.5	868.0
32.5°	846.4	871.3	767.2	707.8	664.0	611.1	579.7	620.3	638.2	735.7	903.3
35°	952.0	970.0	864.0	820.9	723.7	646.4	638.2	664.2	671.9	772.9	943.4
37.5°	1136.8	1109.6	1019.3	945.8	894.9	772.4	731.7	711.0	728.8	823.4	1025.2
40°	1273.3	1256.0	1144.8	1100.9	983.6	911.9	805.7	786.4	806.3	875.1	1082.1
42.5°	1437.9	1402.1	1297.4	1267.7	1146.9	1008.7	901.0	907.7	895.2	977.3	1182.0
45°	1586.9	1506.0	1447.7	1454.4	1390.0	1203.3	1059.9	1056.7	1046.3	1125.3	1287.1
47.5°	1687.2	1616.4	1559.7	1541.1	1533.4	1545.5	1289.6	1231.7	1224.0	1280.7	1452.5
50°	1741.0	1663.6	1593.4	1597.2	1752.9	1870.0	1526.5	1444.3	1447.1	1506.4	1678.7
52.5°	1704.8	1617.2	1543.2	1615.1	1923.1	2086.5	1918.7	1722.0	1788.8	1773.6	1982.2
55°	1537.4	1461.3	1408.8	1537.4	1941.7	2319.4	2401.6	2140.1	2125.2	2090.7	2291.6
57.5°	1255.8	1190.3	1157.9	1293.6	1738.3	2507.1	2886.6	2612.7	2485.2	2340.7	2548.5
60°	935.7	887.4	853.6	925.3	1369.7	2324.7	3204.3	3058.0	2910.4	2581.6	2779.3
62.5°	693.0	653.7	617.9	624.4	943.2	1999.4	3326.2	3529.8	3445.0	2836.0	2997.0
65°	553.1	517.2	492.1	477.7	584.1	1504.3	3156.5	3916.4	4014.2	3075.6	3154.2
67.5°	451.6	421.4	408.9	425.4	458.2	857.5	2703.4	4151.1	4292.9	3329.8	3193.0
70°	367.5	342.6	341.2	385.7	421.9	522.8	1988.5	3989.1	4095.9	3373.2	2960.8
72.5°	256.1	245.2	262.6	325.7	418.1	435.4	1142.0	3301.1	3304.9	2979.2	2435.4
75°	144.9	143.2	170.8	259.8	407.2	430.9	636.6	2332.8	2334.5	2253.2	1687.2
77.5°	79.7	74.6	99.5	175.6	349.7	421.0	410.6	1592.8	1552.0	1253.9	770.6
80°	36.8	34.7	53.9	112.5	255.7	398.2	329.1	875.5	789.4	408.5	188.1
82.5°	15.1	14.4	24.7	72.3	161.6	320.7	277.4	388.4	311.7	77.6	58.1
85°	2.7	2.9	10.2	43.7	90.5	147.8	224.9	184.4	135.5	21.5	31.8
87.5°	0.0	0.0	2.1	10.5	21.9	40.4	91.2	51.6	35.5	6.3	9.4
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°	321.9	321.9	321.9	321.9	321.9	321.9	321.9	321.9	321.9	321.9	321.9
2.5°	393.2	389.9	356.9	358.5	360.8	358.7	358.3	349.1	340.7	368.4	368.1
5°	497.3	474.1	451.3	442.4	423.5	398.5	398.7	390.9	382.8	394.1	394.1
7.5°	571.5	539.4	510.5	458.9	408.7	363.3	359.2	348.5	336.2	351.0	353.9
10°	588.7	560.9	523.5	447.8	400.3	356.0	307.3	267.2	248.6	240.0	238.5
12.5°	641.8	621.1	537.5	453.8	385.3	310.4	230.6	183.1	150.7	148.2	144.7
15°	677.3	662.7	551.3	439.0	322.1	223.1	144.9	111.2	98.2	97.0	95.3
17.5°	732.3	707.0	538.1	392.0	251.9	147.2	97.4	87.8	89.3	92.8	90.1
20°	754.7	705.3	509.3	324.0	176.9	98.7	84.5	79.4	83.4	86.6	85.1
22.5°	777.7	710.2	483.9	267.0	115.6	81.7	75.3	72.7	73.0	76.3	76.5
25°	777.5	724.1	454.3	208.0	86.1	72.7	68.1	64.6	63.3	65.6	65.0
27.5°	815.3	708.1	400.5	154.3	75.7	65.0	60.6	56.4	51.6	53.9	53.9
30°	815.5	734.0	362.9	110.8	69.4	57.9	54.1	47.5	42.0	43.9	44.1
32.5°	837.2	711.6	328.2	84.7	64.4	53.7	45.2	39.3	36.0	37.2	37.2
35°	861.9	730.8	274.9	74.8	59.4	47.7	38.7	33.9	31.4	32.4	32.4
37.5°	943.5	726.7	237.9	69.6	56.2	43.1	35.3	29.9	28.8	29.3	30.1
40°	973.1	755.3	187.7	66.5	50.8	38.9	31.1	27.0	25.5	25.9	26.1
42.5°	1048.2	761.6	149.9	64.0	46.0	33.7	27.6	24.7	22.8	22.8	23.4
45°	1131.2	777.5	119.2	61.9	42.0	30.3	24.9	22.6	19.7	19.4	20.1
47.5°	1251.4	838.5	97.2	57.7	37.2	28.2	23.0	19.6	17.3	16.5	17.3
50°	1452.5	942.0	85.9	52.5	33.7	26.5	20.3	16.7	15.0	14.0	14.6
52.5°	1736.2	1120.9	79.9	47.7	30.7	23.8	18.2	14.6	12.8	12.1	12.5
55°	2051.4	1326.0	77.1	42.9	28.0	20.9	15.9	12.8	11.3	10.4	10.5
57.5°	2342.8	1518.8	74.2	38.3	25.3	18.6	14.0	11.3	9.8	8.8	9.0
60°	2629.9	1672.8	67.3	33.0	22.8	16.7	12.3	9.8	8.8	7.7	7.7
62.5°	2883.9	1764.8	57.3	28.6	20.5	14.8	10.9	8.8	8.1	6.9	6.9
65°	3056.9	1769.0	46.2	24.5	18.0	12.7	9.6	8.2	7.5	6.1	5.9
67.5°	3059.3	1654.0	37.0	21.9	15.9	11.1	8.6	7.9	6.9	5.8	5.4
70°	2738.2	1366.4	30.9	19.2	13.8	9.8	7.5	7.5	6.7	5.6	5.0
72.5°	2190.4	1044.2	25.9	16.7	12.3	8.4	6.9	7.1	6.5	5.6	5.0
75°	1472.3	598.9	21.5	14.2	10.7	7.1	6.7	6.9	6.7	5.6	4.8
77.5°	678.0	190.7	16.7	11.7	9.2	5.9	6.5	6.5	6.1	5.0	4.2
80°	152.8	47.0	12.1	8.6	7.5	4.4	5.9	5.4	4.8	3.5	2.5
82.5°	55.6	14.4	7.3	5.4	4.6	1.7	3.8	3.8	3.5	2.5	1.5
85°	31.8	7.5	4.0	3.5	2.5	0.8	2.1	2.3	1.9	1.7	0.8
87.5°	10.4	1.7	1.9	2.1	1.9	0.4	0.8	0.8	0.6	0.4	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)