

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: P366905

Luminaire Tested: **MSA-SA1C-730-U-T4W-HSS**

Issue Date: 12/2/2019

Test Information

Test Method: LM-79-08
Report Number: P366905
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-15)
Test Lab: INNOVATION CENTER
Issue Date: 12/2/2019
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA1C-730-U-T4W-HSS
Description: MESA POST TOP DECORATIVE LUMINAIRE. (1) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV WIDE OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4306 lumens
Efficiency: N/A
Efficacy: 73.0 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B1 - U0 - G2

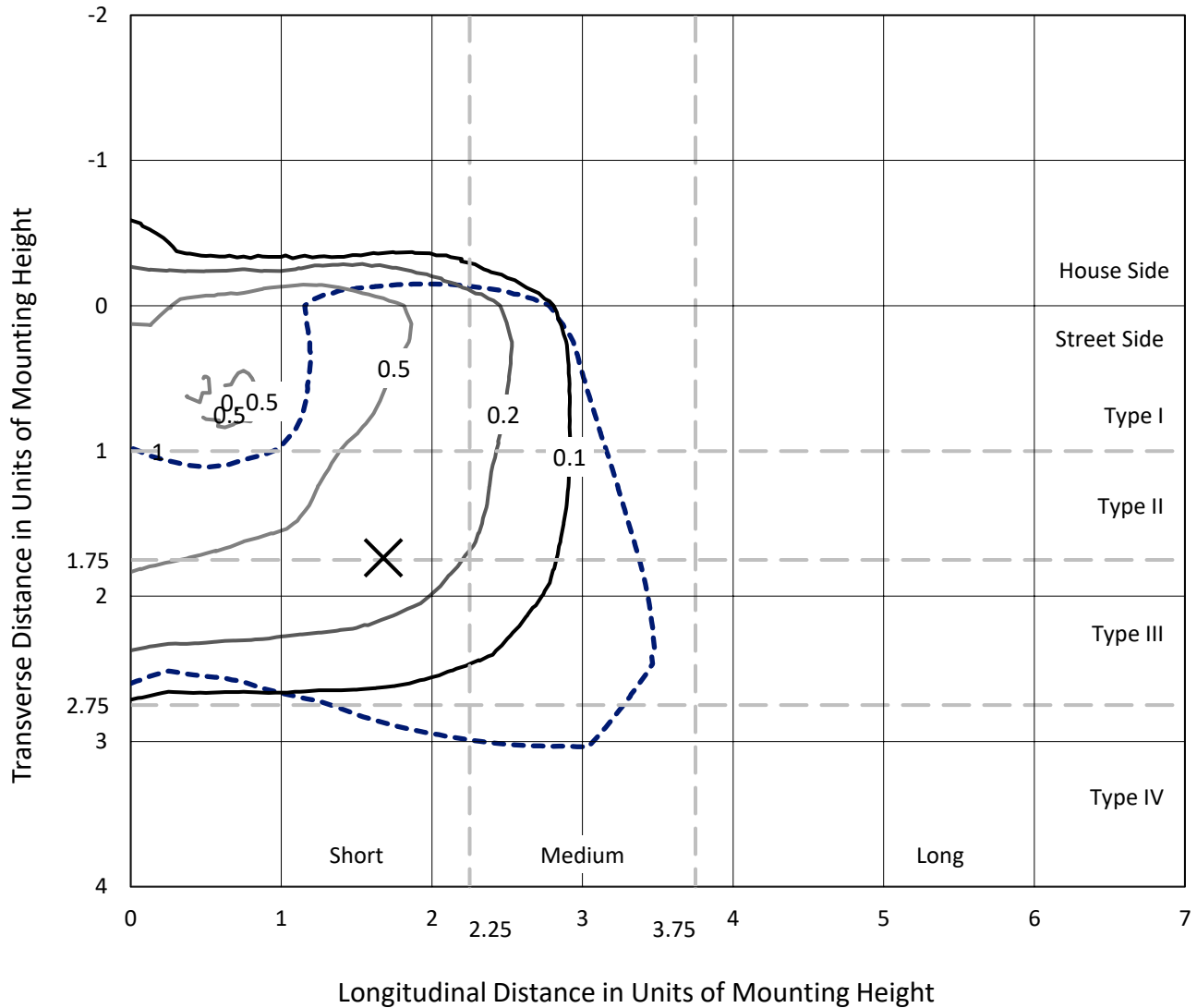
Input Watts (W): 59
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

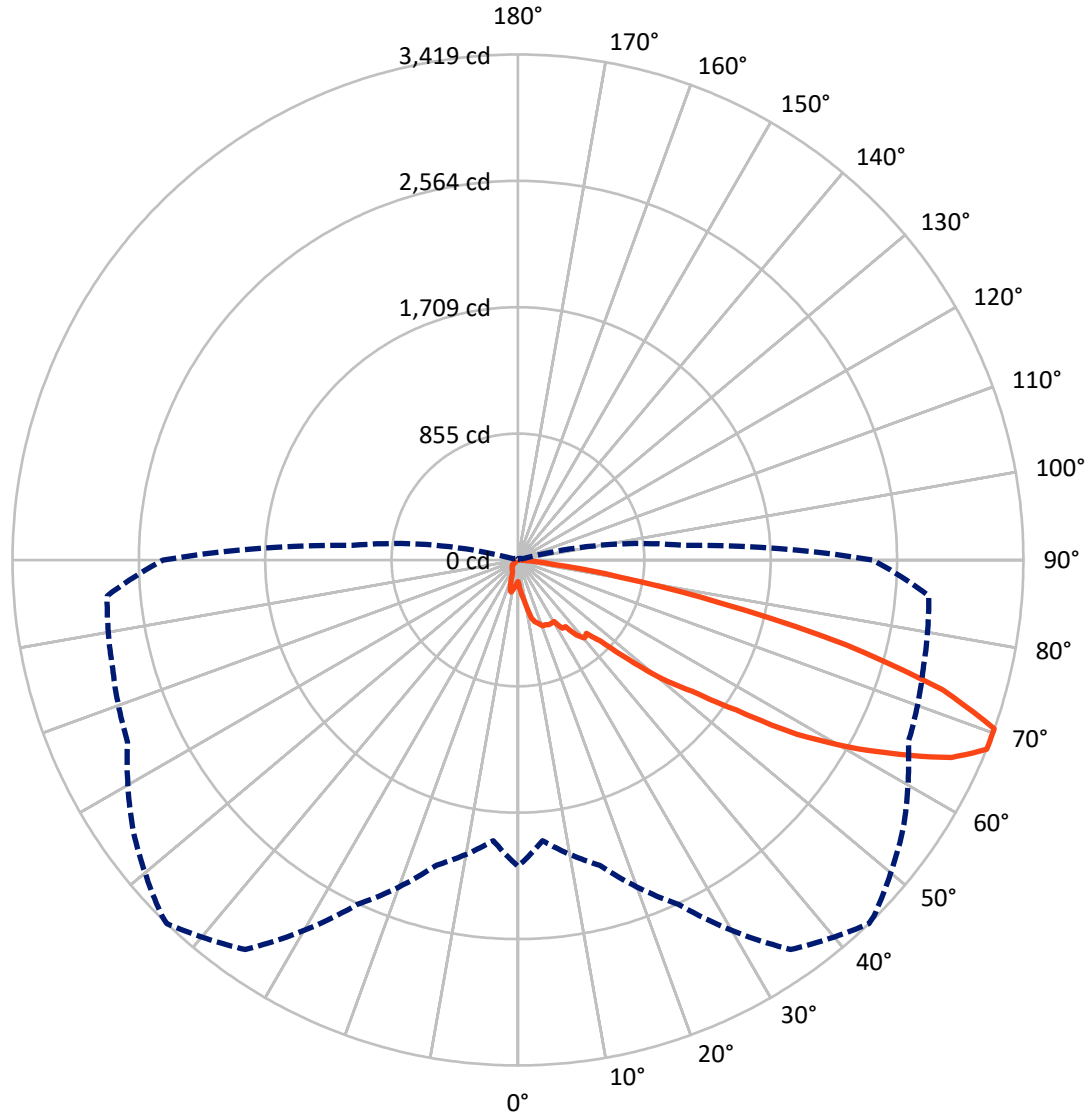
✕ Max cd
 - - - 1/2 Max cd



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

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Luminous Intensity Polar Plot



— Vertical Plane Through 44-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	437.4	0.0	437.4
	% Fixture	10.2	0.0	10.2
Street Side	Lumens	3868.6	0.0	3868.6
	% Fixture	89.8	0.0	89.8
Total	Lumens	4306.0	0.0	4306.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	21.5	0.5
10°-20°	90.0	2.1
20°-30°	159.5	3.7
30°-40°	259.2	6.0
40°-50°	518.7	12.0
50°-60°	1064.2	24.7
60°-70°	1461.8	33.9
70°-80°	687.1	16.0
80°-90°	44.0	1.0
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°	4306.0	100.0
0°-180°	4306.0	100.0

Coefficient of Utilization



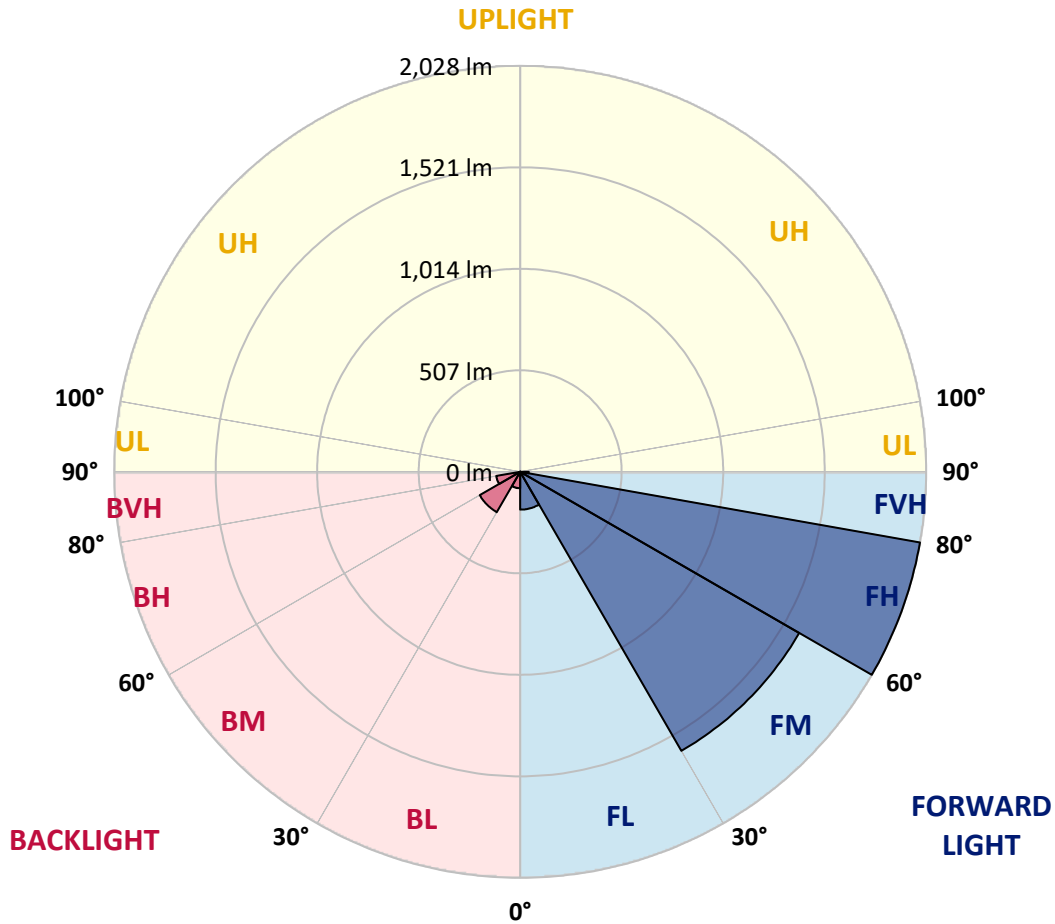
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	188.9	4.4			
FM (30°-60°)	1609.1	37.4			
FH (60°-80°)	2027.5	47.1			G2/5000
FVH (80°-90°)	43.1	1.0			G1/100
BL (0°-30°)	82.1	1.9	B0/110		
BM (30°-60°)	233.0	5.4	B1/1000		
BH (60°-80°)	121.4	2.8	B1/500		G1/500
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: B1-U0-G2

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	44°	45°	55°	65°	75°	85°
0°	145.1	145.1	145.1	145.1	145.1	145.1	145.1	145.1	145.1	145.1	145.1
2.5°	184.5	178.6	170.0	171.9	172.9	175.5	175.7	172.4	162.9	160.3	171.9
5°	258.6	244.1	241.5	236.0	225.1	219.2	217.7	223.7	216.1	213.7	216.8
7.5°	330.3	317.9	304.4	297.0	274.2	260.2	259.5	261.9	263.3	255.0	259.3
10°	378.0	364.5	361.6	344.3	324.6	321.3	319.8	310.8	303.5	297.3	276.6
12.5°	421.2	421.0	426.2	401.3	398.2	401.5	400.3	368.0	360.7	334.8	328.9
15°	478.7	492.9	470.4	449.5	422.9	434.3	431.2	410.5	405.6	388.0	362.6
17.5°	538.3	542.1	504.3	472.3	465.4	450.4	453.5	446.2	421.0	435.0	409.8
20°	539.7	548.0	507.7	454.7	475.8	475.1	475.4	468.2	435.0	467.8	444.7
22.5°	559.7	539.2	501.7	468.0	471.8	475.4	479.2	470.4	463.3	471.3	475.6
25°	551.6	543.5	507.4	485.1	481.5	484.4	485.3	496.5	492.0	511.5	500.8
27.5°	572.5	560.8	496.3	500.3	487.7	484.4	478.7	516.0	529.3	513.8	542.3
30°	608.3	606.7	515.5	521.4	511.7	482.5	497.7	546.4	563.0	553.5	588.1
32.5°	664.4	670.1	571.8	533.3	538.3	551.3	545.6	546.4	588.4	609.5	637.1
35°	743.9	740.8	626.6	578.4	552.3	554.4	562.5	601.2	655.6	654.2	683.4
37.5°	900.1	866.4	723.7	624.5	632.3	643.0	637.1	689.1	694.3	696.2	766.0
40°	1130.5	1085.6	876.9	721.6	646.1	693.3	690.5	703.3	738.2	751.3	853.1
42.5°	1433.9	1373.6	1146.4	900.1	712.6	680.0	697.6	721.8	839.1	876.4	988.0
45°	1769.2	1647.1	1415.2	1154.7	879.3	778.3	791.6	836.7	999.4	1061.1	1184.4
47.5°	1986.4	1879.1	1681.3	1380.3	1053.1	1000.1	1001.3	1011.0	1187.7	1302.1	1467.4
50°	2175.2	2061.0	1877.5	1616.0	1360.5	1260.3	1237.6	1192.7	1427.5	1584.0	1767.3
52.5°	2441.6	2308.2	2073.6	1892.7	1711.3	1475.2	1467.2	1482.4	1710.3	1874.8	2074.8
55°	2681.9	2519.7	2295.8	2181.9	2111.1	1791.0	1797.9	1823.3	2073.4	2160.5	2348.3
57.5°	2788.1	2612.3	2497.2	2445.9	2408.1	2222.5	2199.2	2184.0	2359.7	2392.9	2634.9
60°	2857.6	2690.5	2638.2	2650.1	2764.5	2567.5	2546.3	2458.0	2596.7	2624.0	2891.8
62.5°	2813.7	2661.3	2672.4	2771.4	3025.5	2895.9	2834.8	2687.1	2790.4	2812.5	3076.3
65°	2537.1	2378.2	2521.6	2761.2	3224.5	3221.4	3193.1	2898.7	2897.8	2926.0	3090.6
67.5°	2072.4	1905.7	2137.7	2569.8	3216.2	3418.7	3405.4	3179.4	2913.2	2837.7	2789.0
70°	1440.8	1296.2	1559.3	2122.3	2929.6	3417.3	3395.9	3367.9	2791.1	2442.6	2162.4
72.5°	748.7	669.1	914.2	1462.4	2335.3	3002.5	3073.0	3026.9	2383.2	1774.6	1273.4
75°	254.3	228.2	377.1	776.2	1552.4	2292.7	2375.4	2328.6	1618.6	952.1	503.6
77.5°	98.5	91.7	135.1	315.1	778.8	1397.1	1486.9	1439.1	868.1	348.8	118.5
80°	56.0	54.1	74.6	142.0	343.3	695.0	758.2	687.6	312.9	117.5	30.9
82.5°	23.7	24.5	41.6	76.7	172.6	245.3	273.5	249.6	131.1	80.5	11.4
85°	5.2	6.4	19.7	42.7	72.4	70.0	73.4	81.4	80.5	59.1	5.0
87.5°	0.0	0.0	6.2	11.6	17.3	11.4	9.0	15.9	24.7	23.7	2.1
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°	145.1	145.1	145.1	145.1	145.1	145.1	145.1	145.1	145.1	145.1	145.1
2.5°	174.0	171.7	156.7	155.8	156.7	154.1	153.9	148.4	148.9	161.2	162.2
5°	216.8	204.9	192.1	188.1	184.3	175.7	180.5	180.5	180.5	188.3	190.7
7.5°	255.5	239.6	221.5	206.3	191.6	180.9	188.3	193.5	196.6	206.8	211.6
10°	273.1	257.4	241.2	219.6	208.2	204.2	195.7	191.1	196.6	194.5	197.1
12.5°	310.6	296.3	268.5	246.2	237.7	223.9	198.7	181.2	169.5	167.6	167.2
15°	347.1	338.4	301.1	271.2	241.5	209.7	166.7	143.4	131.1	128.9	129.2
17.5°	393.4	380.9	326.0	283.0	232.7	175.5	128.7	108.7	107.8	113.0	113.5
20°	424.3	403.7	338.6	273.3	203.7	132.7	100.7	95.9	103.5	113.0	112.1
22.5°	453.8	431.4	355.2	264.7	157.9	100.7	92.6	93.1	99.5	109.7	112.3
25°	473.2	465.2	375.6	244.8	120.4	87.1	88.6	92.1	97.6	107.3	107.3
27.5°	531.9	494.1	373.3	206.1	92.6	81.2	84.5	89.0	91.9	103.5	104.7
30°	567.5	555.1	385.6	166.7	81.2	73.6	80.0	84.1	86.0	99.3	99.7
32.5°	611.2	583.9	400.6	123.0	75.5	73.1	71.7	74.8	80.3	91.9	92.6
35°	664.4	656.3	379.2	96.6	73.6	68.4	65.5	67.2	70.8	78.6	80.3
37.5°	772.9	724.9	366.4	82.9	73.6	66.7	63.6	59.4	59.8	65.3	68.4
40°	864.3	849.6	330.5	80.5	70.3	64.3	56.7	51.5	48.0	49.6	50.8
42.5°	1032.2	964.0	284.2	79.3	67.2	58.2	48.2	42.7	37.3	37.8	39.7
45°	1235.9	1088.9	242.9	78.1	65.1	52.0	40.6	34.2	28.5	28.7	30.6
47.5°	1508.0	1271.0	192.8	74.6	61.3	46.3	32.8	26.1	22.8	23.5	25.2
50°	1817.2	1430.8	152.4	69.1	56.7	40.8	26.6	21.1	19.9	20.7	22.6
52.5°	2093.3	1548.6	125.8	64.1	50.3	33.2	22.3	18.8	18.3	18.8	20.2
55°	2338.8	1617.0	105.2	58.4	43.2	26.8	20.2	17.3	17.1	16.9	17.8
57.5°	2569.1	1636.7	82.2	49.4	35.1	23.3	18.8	16.1	15.7	15.0	15.7
60°	2737.0	1603.0	60.3	39.7	28.7	21.1	17.6	14.5	13.8	12.6	13.1
62.5°	2818.0	1510.6	45.6	31.8	24.5	19.2	15.7	12.6	11.6	10.2	10.4
65°	2741.0	1358.4	35.9	26.8	20.9	16.1	13.3	10.7	9.5	8.1	8.1
67.5°	2400.3	1126.9	30.4	23.3	17.6	13.8	10.9	9.7	7.8	6.6	6.4
70°	1761.8	810.6	26.1	20.4	15.2	11.9	9.3	8.8	7.6	6.4	5.9
72.5°	994.4	458.7	22.3	18.0	12.8	10.0	7.8	8.1	7.4	5.9	5.5
75°	379.4	154.6	18.5	15.0	10.4	7.6	6.6	6.6	6.6	5.0	4.3
77.5°	94.0	39.4	14.7	12.1	8.3	5.0	5.5	5.7	5.7	4.3	3.1
80°	25.9	13.3	8.8	8.8	5.9	2.8	3.8	3.8	3.1	1.4	0.0
82.5°	9.5	5.0	3.1	3.8	2.6	0.9	1.4	0.9	0.7	0.0	0.0
85°	4.0	2.6	1.9	2.1	1.2	0.0	0.2	0.5	0.0	0.0	0.0
87.5°	1.7	1.2	0.9	0.9	0.5	0.0	0.0	0.0	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)