

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: P596481

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

Issue Date: 5/27/2021

Test Information

Test Method: LM-79-08
Report Number: P596481
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-19)
Test Lab: INNOVATIONS CENTER
Issue Date: 5/27/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA1A-827-U-SL3-HSS
Description: MESA POST TOP DECORATIVE LUMINAIRE. (1) LIGHTSQUARES WITH 16 LEDS EACH 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: 2439 lumens
Efficiency: N/A
Efficacy: 71.7 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type III - Short
BUG Rating: B0 - U0 - G1

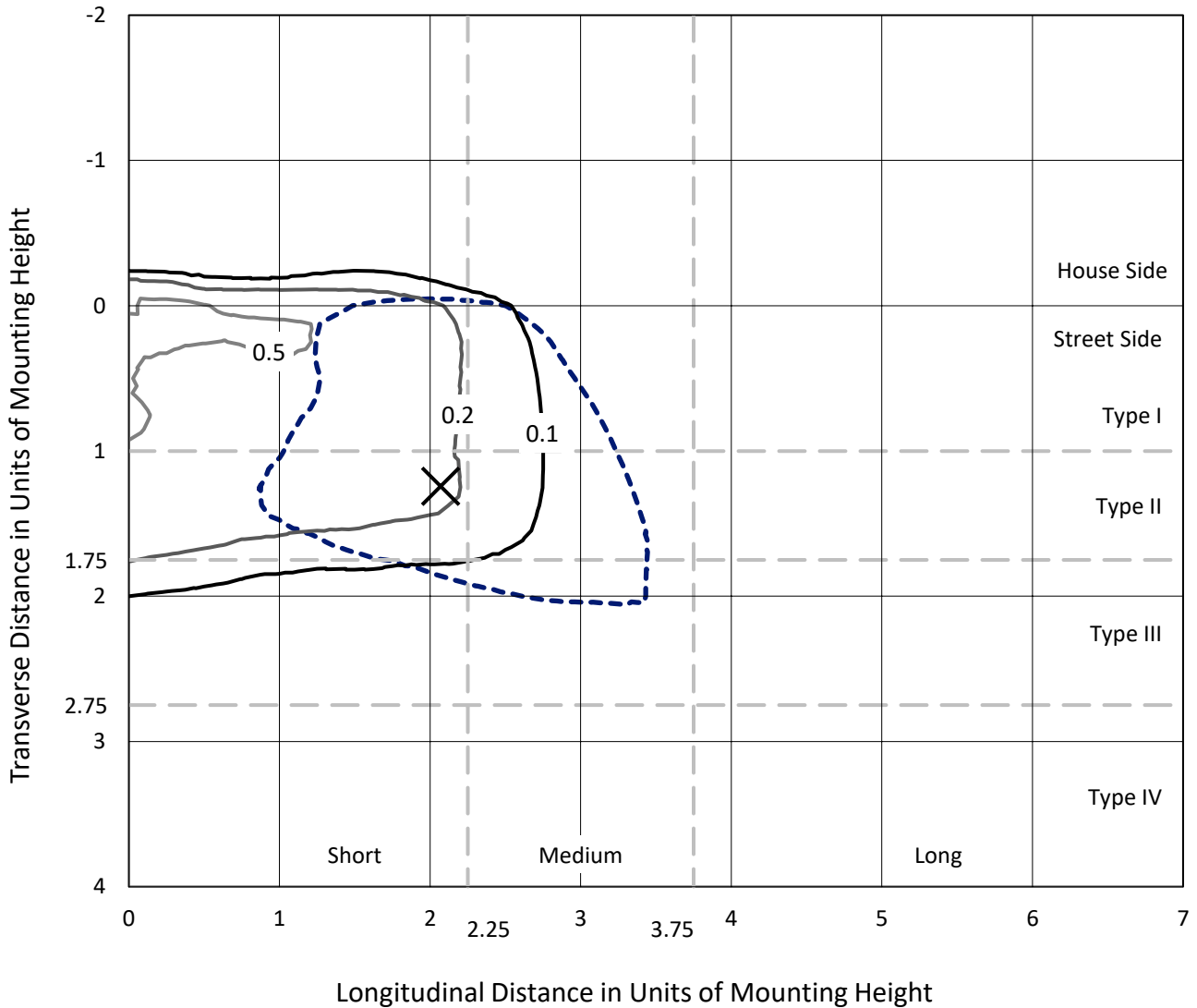
Input Watts (W): 34
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

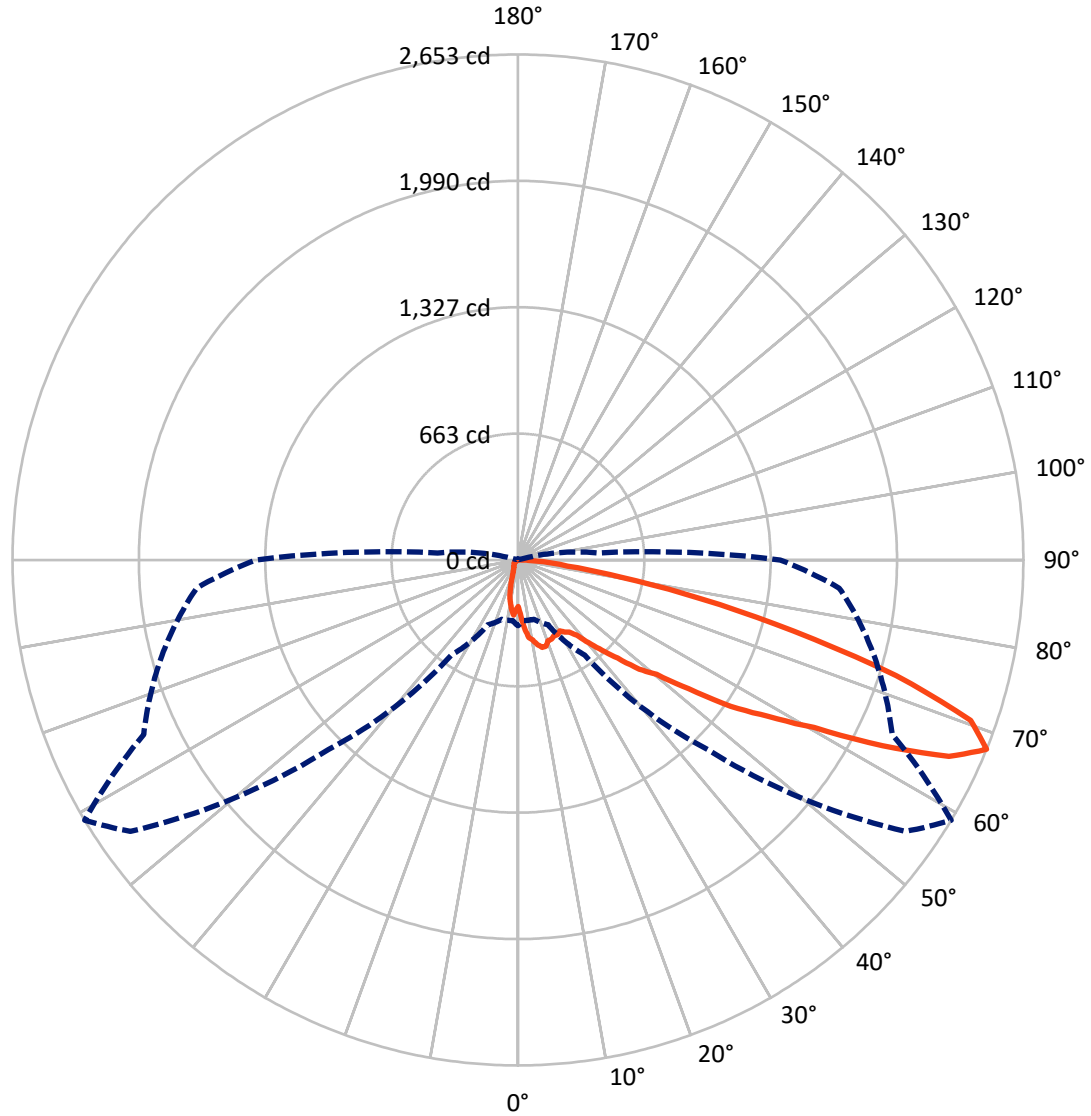
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 0.7 fc
 Type III - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 59-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	207.4	0.0	207.4
	% Fixture	8.5	0.0	8.5
Street Side	Lumens	2231.6	0.0	2231.6
	% Fixture	91.5	0.0	91.5
Total	Lumens	2439.0	0.0	2439.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	29.7	1.2
10°-20°	83.5	3.4
20°-30°	124.3	5.1
30°-40°	191.7	7.9
40°-50°	342.2	14.0
50°-60°	608.9	25.0
60°-70°	709.1	29.1
70°-80°	315.4	12.9
80°-90°	34.2	1.4
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°	2439.0	100.0
0°-180°	2439.0	100.0

Coefficient of Utilization

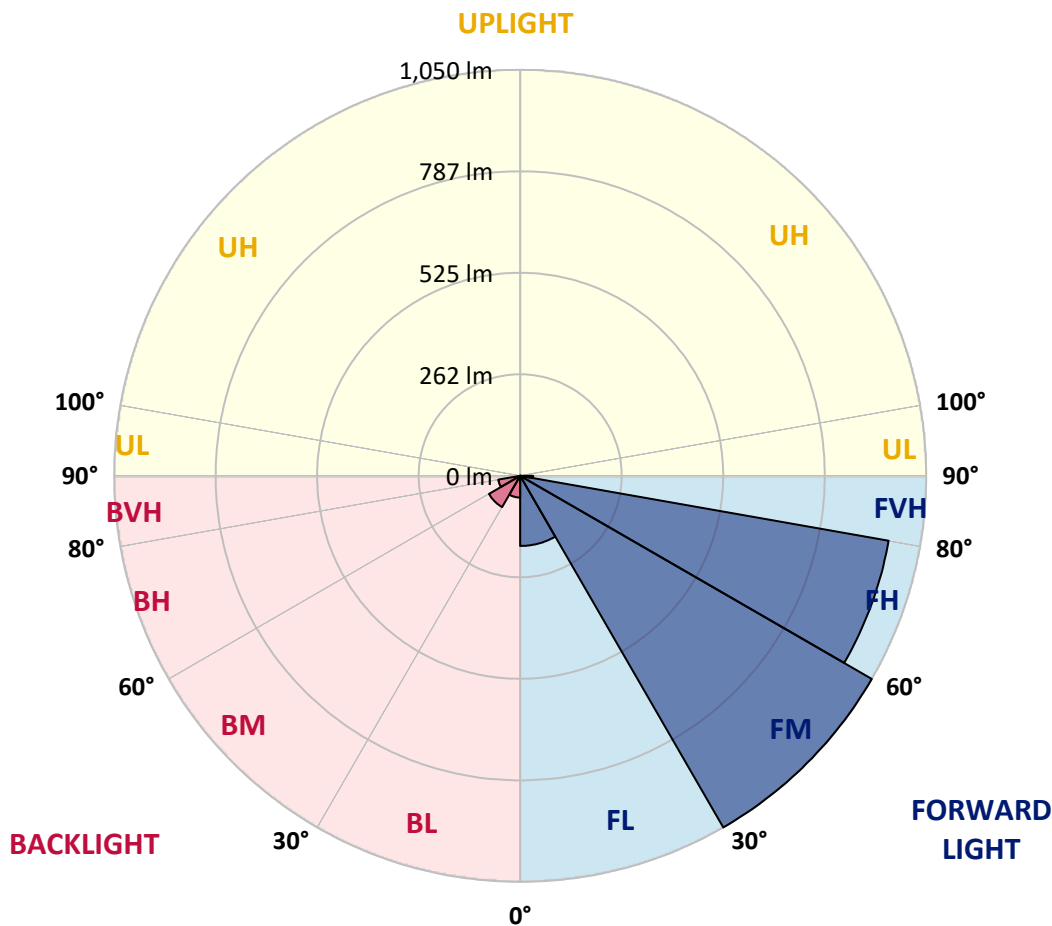


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	181.4	7.4			
FM (30°-60°)	1049.5	43.0			
FH (60°-80°)	967.0	39.6			G1/1800
FVH (80°-90°)	33.6	1.4			G1/100
BL (0°-30°)	56.1	2.3	B0/110		
BM (30°-60°)	93.3	3.8	B0/220		
BH (60°-80°)	57.5	2.4	B0/110		G0/110
BVH (80°-90°)	0.6	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°	59°	65°	75°	85°
0°	244.0	244.0	244.0	244.0	244.0	244.0	244.0	244.0	244.0	244.0	244.0
2.5°	318.1	306.1	289.1	294.2	298.7	303.1	295.9	291.8	289.8	272.3	294.3
5°	390.6	375.7	367.9	365.9	361.0	350.0	368.3	360.1	362.8	366.3	373.5
7.5°	412.7	405.9	394.7	398.9	380.1	378.5	403.8	410.9	420.1	413.8	422.5
10°	401.4	389.6	394.9	393.5	392.7	409.3	427.1	427.4	441.3	447.9	418.7
12.5°	378.9	380.2	399.3	397.8	422.5	455.6	459.7	455.3	477.9	466.3	461.9
15°	393.8	404.9	394.4	398.0	406.8	448.2	462.6	476.0	497.3	504.2	474.2
17.5°	411.9	413.0	393.8	389.4	411.5	430.8	464.8	475.8	477.9	538.6	502.0
20°	402.1	411.6	388.8	360.7	395.1	421.2	455.8	452.4	466.4	548.7	508.3
22.5°	428.0	414.5	385.2	364.1	375.7	399.5	428.8	451.4	472.5	524.5	516.5
25°	430.5	425.6	399.5	380.7	378.8	384.8	425.6	440.1	473.2	546.2	509.5
27.5°	458.3	452.6	399.3	401.1	382.6	363.9	410.0	444.2	486.7	533.0	524.2
30°	494.1	494.6	425.8	431.6	405.2	375.2	422.7	432.1	495.8	554.1	535.1
32.5°	530.4	545.4	478.3	447.6	439.3	417.8	406.9	450.3	485.8	590.2	562.3
35°	585.6	595.7	521.5	494.0	461.5	437.1	449.9	465.5	521.8	638.0	598.0
37.5°	679.1	660.8	599.1	551.2	543.4	507.3	513.7	499.8	558.5	694.3	668.6
40°	731.7	715.2	651.0	627.6	578.0	583.5	563.3	571.4	611.7	753.0	733.0
42.5°	786.6	770.7	714.4	697.9	650.6	627.6	618.5	647.7	693.3	850.6	825.2
45°	841.6	801.5	777.7	785.9	764.7	719.2	708.6	734.7	782.5	970.7	922.5
47.5°	888.1	854.2	836.3	832.5	824.2	887.3	844.1	855.6	876.7	1076.9	1043.8
50°	971.8	938.5	910.4	902.6	942.9	1032.4	965.7	943.5	985.8	1205.2	1184.3
52.5°	1092.7	1050.2	1005.6	1005.8	1081.7	1130.9	1162.5	1123.5	1131.4	1346.4	1337.1
55°	1189.9	1135.9	1099.0	1128.1	1241.4	1268.9	1389.6	1355.4	1345.1	1477.3	1465.9
57.5°	1203.2	1138.5	1121.0	1172.1	1327.1	1503.0	1632.8	1547.3	1531.6	1586.8	1609.4
60°	1078.7	1010.1	1023.3	1105.5	1355.0	1645.6	1856.0	1786.3	1686.6	1715.1	1730.7
62.5°	804.6	749.7	786.8	895.7	1247.4	1741.2	2114.5	2146.9	1866.4	1811.5	1808.1
65°	522.0	487.7	512.0	601.3	944.0	1730.3	2345.5	2485.7	2008.1	1890.0	1832.4
67.5°	345.3	319.2	322.7	375.6	610.4	1407.2	2483.5	2653.1	2167.4	1934.6	1693.0
70°	257.4	236.9	238.1	266.8	362.3	928.1	2291.0	2521.1	2225.5	1780.1	1366.5
72.5°	185.6	171.9	183.4	215.3	288.7	490.8	1707.6	2076.2	1940.6	1404.0	920.7
75°	128.6	119.5	138.3	180.1	263.5	304.7	1128.4	1494.6	1360.2	880.9	416.2
77.5°	71.3	68.5	95.6	146.7	239.2	249.7	691.2	982.0	754.4	315.8	99.0
80°	31.1	30.1	46.3	110.2	201.1	225.6	389.1	544.5	296.8	56.3	32.0
82.5°	13.3	12.8	19.8	66.3	146.1	188.7	240.0	262.1	102.1	17.4	18.2
85°	2.3	2.6	7.9	34.9	88.9	95.8	173.8	155.1	51.4	8.3	13.0
87.5°	0.0	0.0	1.2	6.8	16.7	27.4	75.3	54.3	9.8	2.7	2.2
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°	244.0	244.0	244.0	244.0	244.0	244.0	244.0	244.0	244.0	244.0	244.0
2.5°	297.4	290.5	264.2	260.8	257.2	251.9	250.0	238.6	237.1	251.7	251.7
5°	370.1	345.4	320.4	300.6	282.9	258.5	251.6	244.4	238.6	237.1	241.7
7.5°	408.5	378.4	339.0	288.7	248.0	212.5	197.7	187.3	175.7	179.2	181.0
10°	406.4	374.4	324.2	259.6	214.4	175.2	137.6	115.6	103.4	97.3	96.6
12.5°	427.1	396.9	314.2	236.4	178.7	124.6	86.6	70.9	61.9	62.0	61.3
15°	439.0	406.2	302.6	207.0	125.8	80.1	60.0	56.6	55.3	56.7	55.9
17.5°	460.1	415.9	276.3	163.1	86.6	60.5	55.2	53.8	55.5	58.3	57.5
20°	458.5	399.0	238.8	115.0	64.0	54.5	52.2	50.1	53.5	56.4	55.9
22.5°	457.1	382.5	203.6	84.8	53.5	49.6	47.8	46.9	48.7	52.1	52.9
25°	444.0	374.3	168.0	63.7	48.4	45.1	44.2	43.5	44.1	46.9	46.8
27.5°	460.0	353.7	129.7	53.5	44.8	40.9	40.1	38.9	37.7	40.1	40.5
30°	456.7	356.5	101.6	47.1	41.2	35.9	36.2	33.6	31.4	33.6	33.6
32.5°	468.8	335.8	81.4	42.7	37.7	33.8	30.8	28.0	26.4	27.8	28.0
35°	486.5	336.7	63.7	40.0	34.6	30.1	26.4	23.7	22.2	22.8	23.2
37.5°	545.6	330.7	53.2	37.9	33.5	27.9	24.1	20.5	19.5	20.3	20.6
40°	584.1	346.5	46.9	36.8	30.6	25.7	20.6	18.0	17.2	17.5	18.2
42.5°	656.8	355.3	43.8	35.6	28.0	22.0	17.7	16.2	14.9	15.4	15.9
45°	734.4	370.2	41.5	34.2	26.1	19.3	15.6	14.3	12.7	12.8	13.3
47.5°	829.9	405.8	38.8	31.9	23.3	17.5	13.8	12.0	10.5	10.4	11.0
50°	958.1	453.4	36.3	28.9	21.6	16.1	12.1	9.8	8.5	8.2	8.6
52.5°	1094.9	514.9	33.7	26.8	19.5	14.1	10.4	7.9	6.8	6.5	6.9
55°	1230.5	573.9	31.2	25.4	17.3	12.1	8.8	6.5	5.6	5.3	5.6
57.5°	1385.0	637.7	28.0	22.7	15.2	10.5	7.3	5.4	4.6	4.3	4.4
60°	1501.4	660.2	25.3	19.8	13.2	9.3	6.2	4.3	3.7	3.5	3.6
62.5°	1556.6	623.5	22.7	17.2	11.6	8.0	5.2	3.6	3.1	2.8	2.8
65°	1542.2	542.3	20.1	14.7	10.0	6.7	4.1	3.1	2.7	2.3	2.2
67.5°	1376.7	424.3	17.2	12.3	8.4	5.4	3.5	3.0	2.5	2.2	1.9
70°	1091.8	307.3	14.0	10.3	7.0	4.4	2.7	2.7	2.3	2.2	1.7
72.5°	715.7	193.4	11.4	8.3	5.8	3.5	2.1	2.5	2.2	2.2	1.6
75°	310.1	69.2	9.1	6.7	4.8	2.3	1.9	2.2	2.3	2.2	1.9
77.5°	72.6	21.5	7.2	5.3	4.0	1.6	1.9	2.2	2.3	2.1	1.6
80°	27.3	9.1	4.7	3.5	3.1	1.0	1.6	1.4	1.2	0.9	0.2
82.5°	16.5	3.8	2.5	1.7	1.5	0.2	0.7	0.5	0.2	0.2	0.0
85°	11.7	1.9	1.4	1.2	0.7	0.0	0.1	0.0	0.0	0.1	0.0
87.5°	1.6	0.5	0.6	0.6	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)