

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: P366773

Luminaire Tested: **MSA-SA1B-730-U-T4W-HSS**

Issue Date: 12/2/2019

Test Information

Test Method: LM-79-08
Report Number: P366773
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-SA1B-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: 3477 lumens
Efficiency: N/A
Efficacy: 79.0 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

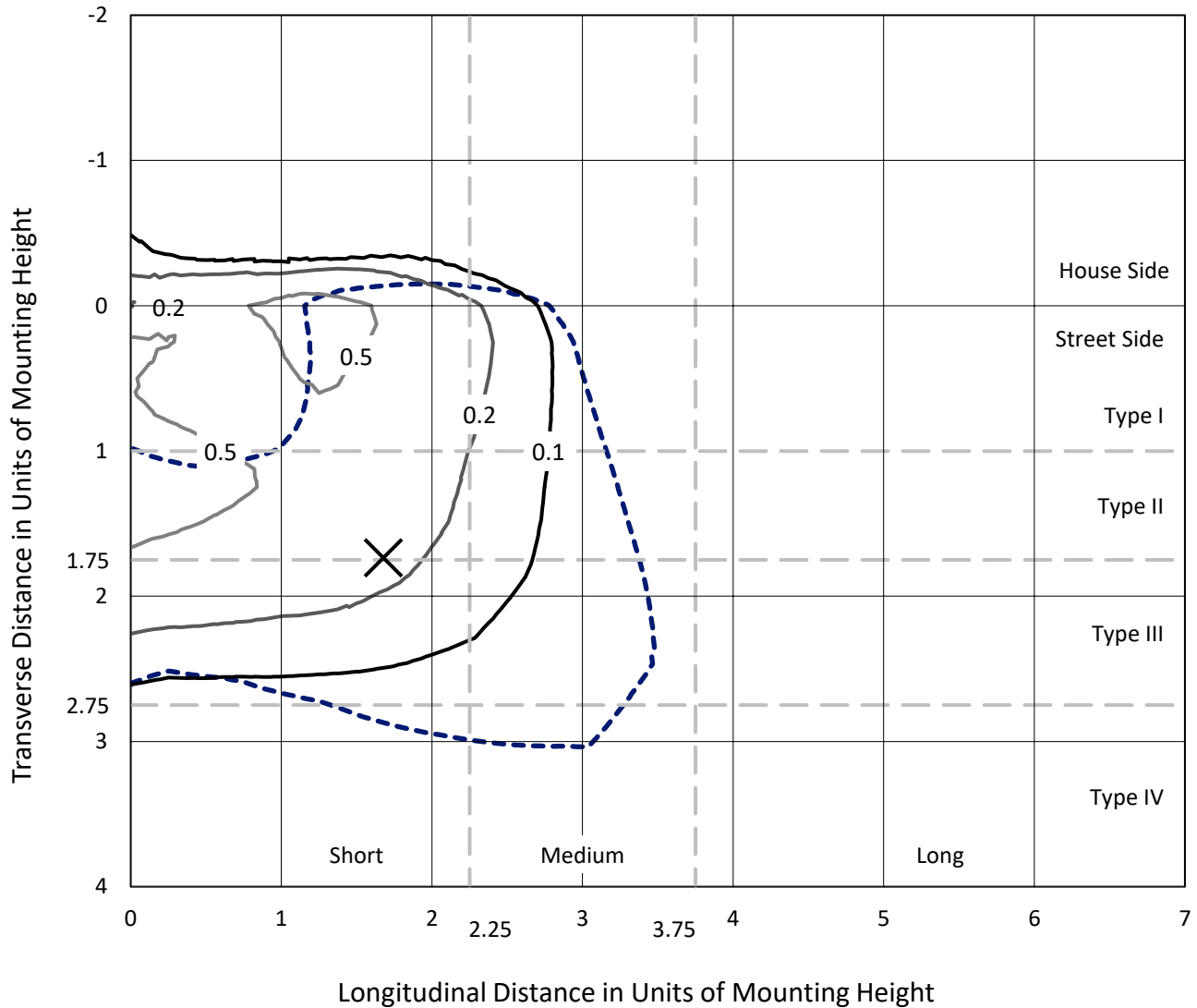
Input Watts (W): 44
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

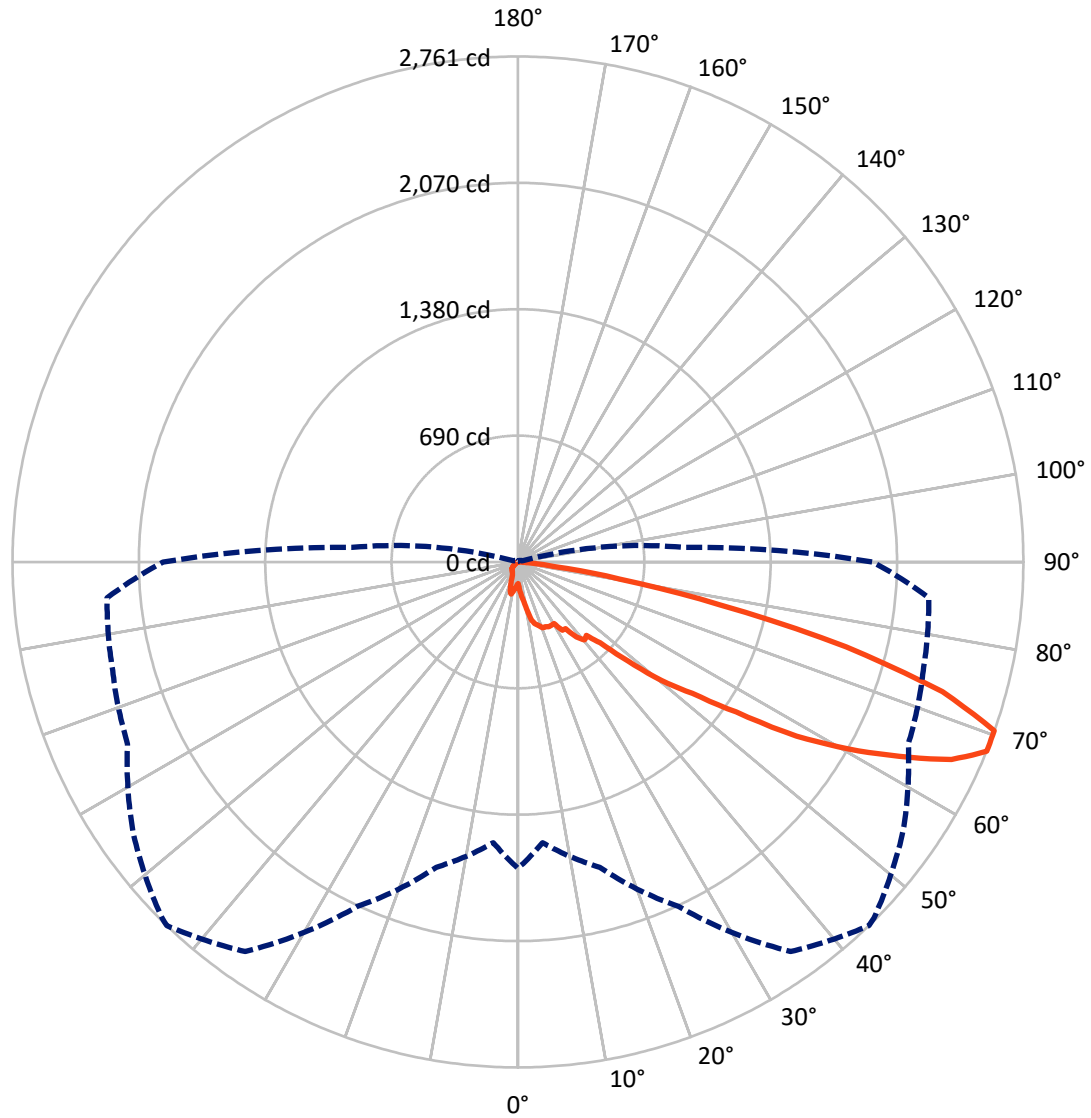
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 0.8 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	353.2	0.0	353.2
	% Fixture	10.2	0.0	10.2
Street Side	Lumens	3123.8	0.0	3123.8
	% Fixture	89.8	0.0	89.8
Total	Lumens	3477.0	0.0	3477.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	17.4	0.5
10°-20°	72.7	2.1
20°-30°	128.8	3.7
30°-40°	209.3	6.0
40°-50°	418.9	12.0
50°-60°	859.3	24.7
60°-70°	1180.4	33.9
70°-80°	554.8	16.0
80°-90°	35.5	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°	3477.0	100.0
0°-180°	3477.0	100.0

Coefficient of Utilization



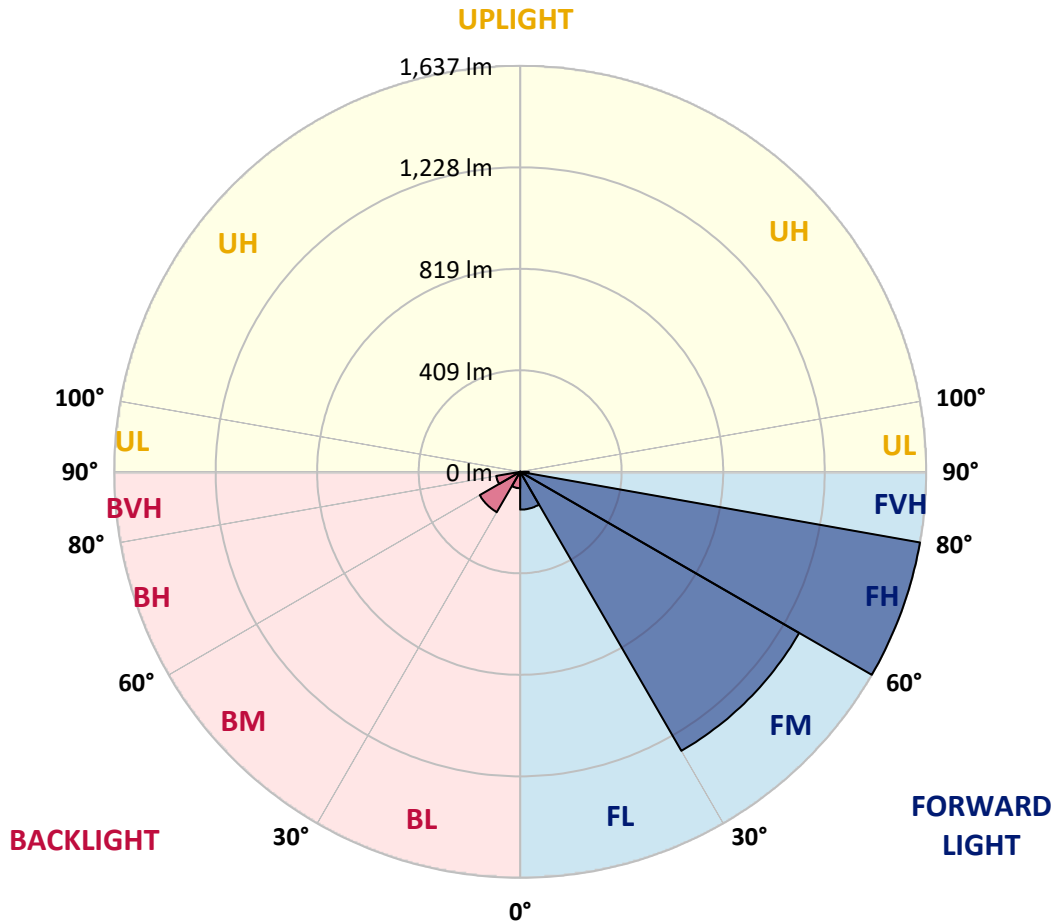
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	152.5	4.4			
FM (30°-60°)	1299.3	37.4			
FH (60°-80°)	1637.2	47.1			G1/1800
FVH (80°-90°)	34.8	1.0			G1/100
BL (0°-30°)	66.3	1.9	B0/110		
BM (30°-60°)	188.1	5.4	B0/220		
BH (60°-80°)	98.0	2.8	B0/110		G0/110
BVH (80°-90°)	0.7	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°	35°	44°	45°	55°	65°	75°	85°
0°	117.1	117.1	117.1	117.1	117.1	117.1	117.1	117.1	117.1	117.1	117.1
2.5°	149.0	144.2	137.3	138.8	139.6	141.7	141.9	139.2	131.5	129.4	138.8
5°	208.8	197.1	195.0	190.6	181.8	177.0	175.8	180.6	174.5	172.6	175.0
7.5°	266.7	256.7	245.8	239.9	221.4	210.1	209.6	211.5	212.6	205.9	209.4
10°	305.2	294.3	292.0	278.0	262.1	259.4	258.3	251.0	245.0	240.0	223.4
12.5°	340.1	339.9	344.2	324.0	321.5	324.2	323.3	297.2	291.2	270.3	265.5
15°	386.5	398.0	379.8	362.9	341.5	350.7	348.2	331.5	327.5	313.3	292.8
17.5°	434.7	437.7	407.2	381.4	375.8	363.7	366.2	360.3	339.9	351.2	330.9
20°	435.8	442.5	409.9	367.2	384.2	383.7	383.8	378.1	351.2	377.7	359.1
22.5°	451.9	435.4	405.1	377.9	381.0	383.8	386.9	379.8	374.1	380.6	384.0
25°	445.4	438.9	409.7	391.7	388.8	391.1	391.9	400.9	397.3	413.0	404.4
27.5°	462.3	452.9	400.7	404.0	393.8	391.1	386.5	416.6	427.4	414.9	437.9
30°	491.2	489.9	416.2	421.0	413.2	389.6	401.9	441.2	454.6	446.9	474.9
32.5°	536.5	541.1	461.7	430.6	434.7	445.2	440.6	441.2	475.1	492.2	514.4
35°	600.7	598.2	506.0	467.1	446.0	447.7	454.2	485.5	529.4	528.2	551.8
37.5°	726.8	699.6	584.4	504.2	510.6	519.2	514.4	556.4	560.6	562.2	618.5
40°	912.8	876.6	708.1	582.7	521.7	559.9	557.6	567.9	596.1	606.6	688.9
42.5°	1157.9	1109.2	925.7	726.8	575.4	549.1	563.3	582.9	677.6	707.7	797.8
45°	1428.6	1330.0	1142.7	932.4	710.0	628.5	639.2	675.7	807.0	856.8	956.3
47.5°	1604.0	1517.4	1357.6	1114.5	850.3	807.6	808.5	816.4	959.0	1051.4	1184.9
50°	1756.4	1664.2	1516.0	1304.9	1098.6	1017.7	999.3	963.1	1152.7	1279.0	1427.0
52.5°	1971.6	1863.8	1674.4	1528.3	1381.8	1191.2	1184.7	1197.0	1381.0	1513.9	1675.3
55°	2165.6	2034.6	1853.8	1761.8	1704.7	1446.2	1451.8	1472.3	1674.2	1744.6	1896.2
57.5°	2251.3	2109.4	2016.4	1975.0	1944.5	1794.6	1775.8	1763.5	1905.4	1932.3	2127.6
60°	2307.5	2172.5	2130.3	2139.9	2232.3	2073.2	2056.1	1984.8	2096.8	2118.8	2335.1
62.5°	2272.0	2148.9	2157.9	2237.9	2443.0	2338.3	2289.1	2169.8	2253.2	2271.0	2484.1
65°	2048.6	1920.4	2036.2	2229.6	2603.7	2601.2	2578.4	2340.6	2339.9	2362.7	2495.6
67.5°	1673.4	1538.8	1726.1	2075.1	2597.0	2760.5	2749.8	2567.3	2352.3	2291.4	2252.1
70°	1163.4	1046.7	1259.1	1713.7	2365.6	2759.4	2742.1	2719.5	2253.8	1972.3	1746.1
72.5°	604.5	540.3	738.2	1180.9	1885.7	2424.4	2481.4	2444.2	1924.4	1433.0	1028.2
75°	205.3	184.3	304.5	626.8	1253.5	1851.3	1918.1	1880.3	1307.0	768.8	406.7
77.5°	79.6	74.0	109.1	254.4	628.9	1128.1	1200.6	1162.1	701.0	281.7	95.7
80°	45.2	43.7	60.2	114.7	277.2	561.2	612.2	555.2	252.7	94.9	24.9
82.5°	19.2	19.7	33.6	61.9	139.4	198.1	220.9	201.5	105.8	65.0	9.2
85°	4.2	5.2	15.9	34.5	58.5	56.6	59.2	65.8	65.0	47.7	4.0
87.5°	0.0	0.0	5.0	9.4	14.0	9.2	7.3	12.8	19.9	19.2	1.7
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°	117.1	117.1	117.1	117.1	117.1	117.1	117.1	117.1	117.1	117.1	117.1
2.5°	140.5	138.6	126.5	125.8	126.5	124.4	124.2	119.8	120.2	130.2	131.0
5°	175.0	165.5	155.1	151.9	148.8	141.9	145.7	145.7	145.7	152.0	154.0
7.5°	206.3	193.5	178.9	166.6	154.7	146.1	152.0	156.3	158.8	167.0	170.8
10°	220.5	207.8	194.8	177.4	168.1	164.9	158.0	154.3	158.8	157.0	159.1
12.5°	250.8	239.3	216.8	198.8	191.9	180.8	160.5	146.3	136.9	135.4	135.0
15°	280.3	273.2	243.1	219.0	195.0	169.3	134.6	115.8	105.8	104.1	104.3
17.5°	317.7	307.5	263.2	228.5	187.9	141.7	103.9	87.8	87.0	91.3	91.6
20°	342.6	325.9	273.4	220.7	164.5	107.2	81.3	77.5	83.6	91.3	90.5
22.5°	366.4	348.4	286.8	213.8	127.5	81.3	74.8	75.2	80.3	88.6	90.7
25°	382.1	375.6	303.3	197.7	97.2	70.4	71.5	74.4	78.8	86.7	86.7
27.5°	429.5	399.0	301.4	166.4	74.8	65.6	68.3	71.9	74.2	83.6	84.6
30°	458.2	448.3	311.4	134.6	65.6	59.4	64.6	67.9	69.4	80.1	80.5
32.5°	493.5	471.5	323.4	99.3	61.0	59.1	57.9	60.4	64.8	74.2	74.8
35°	536.5	529.9	306.2	78.0	59.4	55.2	52.9	54.3	57.1	63.5	64.8
37.5°	624.1	585.4	295.8	66.9	59.4	53.9	51.4	47.9	48.3	52.7	55.2
40°	697.9	686.0	266.9	65.0	56.8	52.0	45.8	41.6	38.7	40.1	41.0
42.5°	833.4	778.4	229.5	64.0	54.3	47.0	38.9	34.5	30.1	30.5	32.0
45°	998.0	879.3	196.1	63.1	52.5	42.0	32.8	27.6	23.0	23.2	24.7
47.5°	1217.7	1026.3	155.7	60.2	49.5	37.4	26.5	21.1	18.4	19.0	20.3
50°	1467.3	1155.4	123.1	55.8	45.8	33.0	21.5	17.1	16.1	16.7	18.2
52.5°	1690.3	1250.5	101.6	51.8	40.6	26.8	18.0	15.1	14.8	15.1	16.3
55°	1888.5	1305.7	84.9	47.2	34.9	21.7	16.3	14.0	13.8	13.6	14.4
57.5°	2074.5	1321.6	66.3	39.9	28.4	18.8	15.1	13.0	12.7	12.1	12.7
60°	2210.1	1294.4	48.7	32.0	23.2	17.1	14.2	11.7	11.1	10.2	10.5
62.5°	2275.5	1219.8	36.8	25.7	19.7	15.5	12.7	10.2	9.4	8.2	8.4
65°	2213.3	1096.9	29.0	21.7	16.9	13.0	10.7	8.6	7.7	6.5	6.5
67.5°	1938.2	910.0	24.5	18.8	14.2	11.1	8.8	7.9	6.3	5.4	5.2
70°	1422.6	654.6	21.1	16.5	12.3	9.6	7.5	7.1	6.1	5.2	4.8
72.5°	803.0	370.4	18.0	14.6	10.4	8.1	6.3	6.5	5.9	4.8	4.4
75°	306.4	124.8	15.0	12.1	8.4	6.1	5.4	5.4	5.4	4.0	3.5
77.5°	75.9	31.8	11.9	9.8	6.7	4.0	4.4	4.6	4.6	3.5	2.5
80°	20.9	10.7	7.1	7.1	4.8	2.3	3.1	3.1	2.5	1.2	0.0
82.5°	7.7	4.0	2.5	3.1	2.1	0.8	1.2	0.8	0.6	0.0	0.0
85°	3.3	2.1	1.5	1.7	1.0	0.0	0.2	0.4	0.0	0.0	0.0
87.5°	1.3	1.0	0.8	0.8	0.4	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)