

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: P596484

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

Issue Date: 5/27/2021

Test Information

Test Method: LM-79-08
Report Number: P596484
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-20)
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
Description: MESA POST TOP DECORATIVE LUMINAIRE. (1) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV SPILL LIGHT ELIMINATOR OPTICS.
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2894 lumens
Efficiency: N/A
Efficacy: 85.1 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

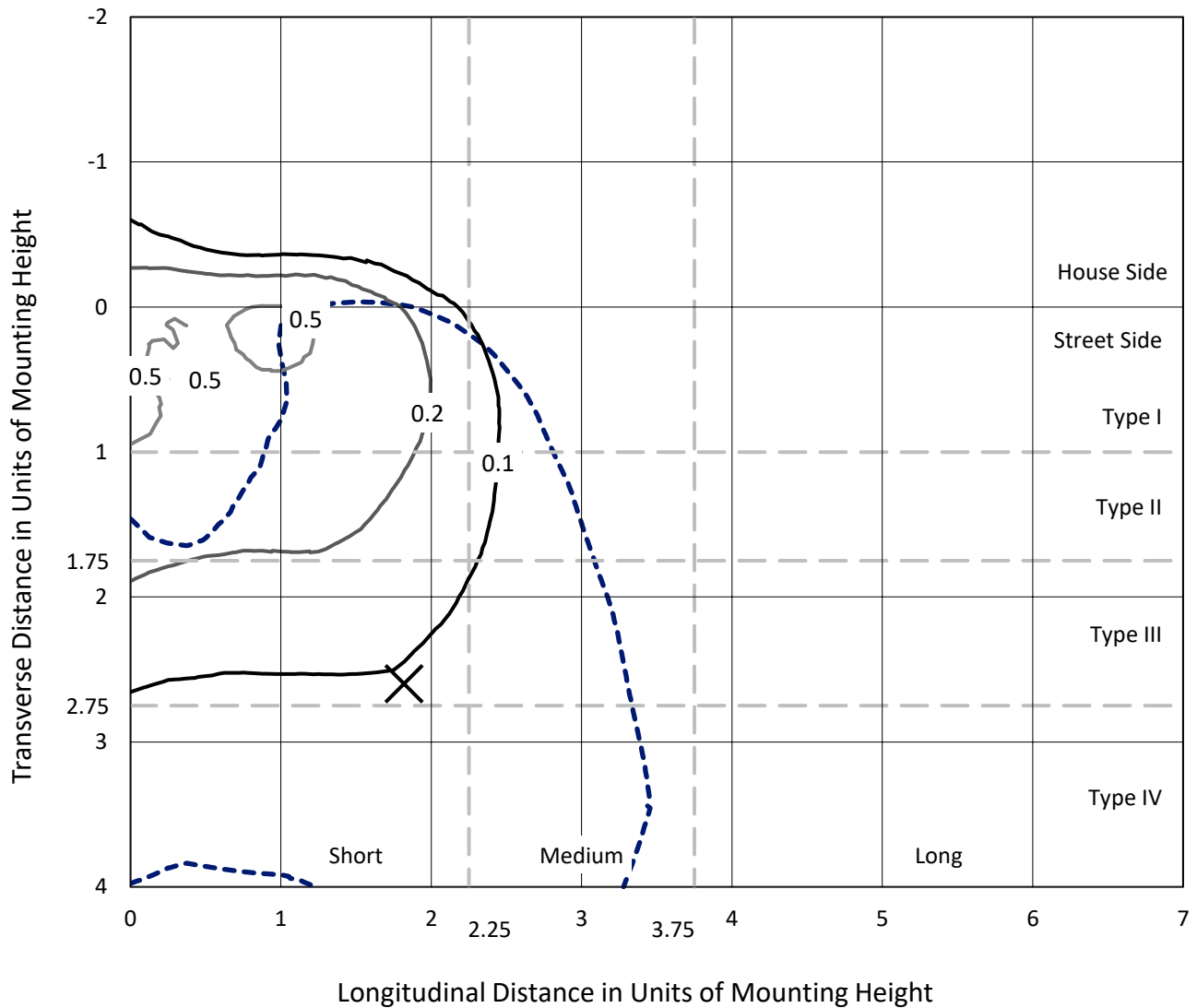
Input Watts (W): 34
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



REPORT NUMBER: P596484
 CATALOG NUMBER: MSA-SA1A-827-U-SL4

Iso-Footcandle Lines of Horizontal Illumination

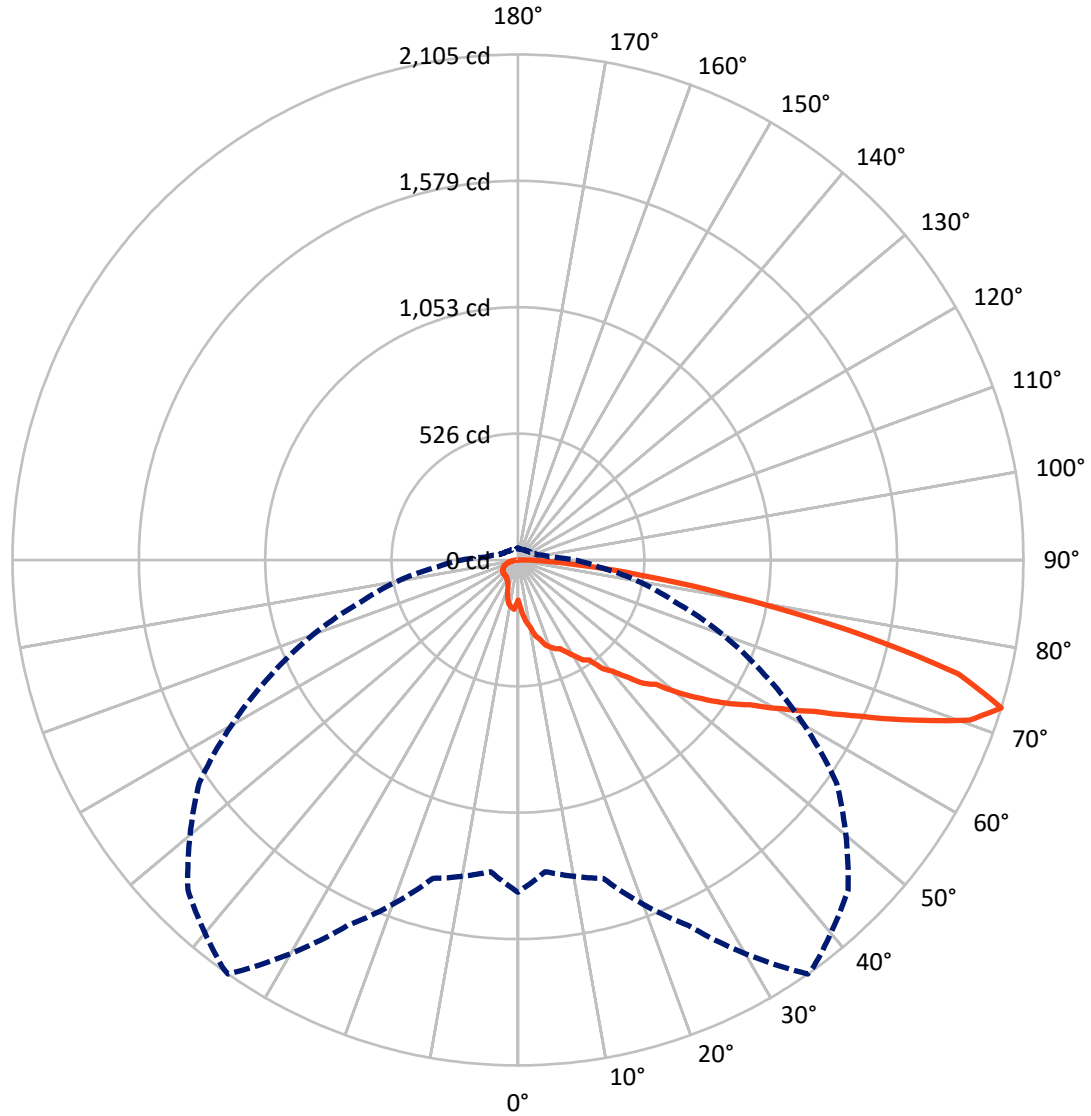
× Max cd
 - - - 1/2 Max cd



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

REPORT NUMBER: P596484
CATALOG NUMBER: MSA-SA1A-827-U-SL4

Luminous Intensity Polar Plot



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

REPORT NUMBER: P596484

CATALOG NUMBER: MSA-SA1A-827-U-SL4

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	388.4	0.0	388.4
	% Fixture	13.4	0.0	13.4
Street Side	Lumens	2505.6	0.0	2505.6
	% Fixture	86.6	0.0	86.6
Total	Lumens	2894.0	0.0	2894.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	22.2	0.8
10°-20°	78.3	2.7
20°-30°	136.0	4.7
30°-40°	227.4	7.9
40°-50°	394.6	13.6
50°-60°	596.6	20.6
60°-70°	772.9	26.7
70°-80°	570.3	19.7
80°-90°	95.6	3.3
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°	2894.0	100.0
0°-180°	2894.0	100.0

Coefficient of Utilization



REPORT NUMBER: P596484

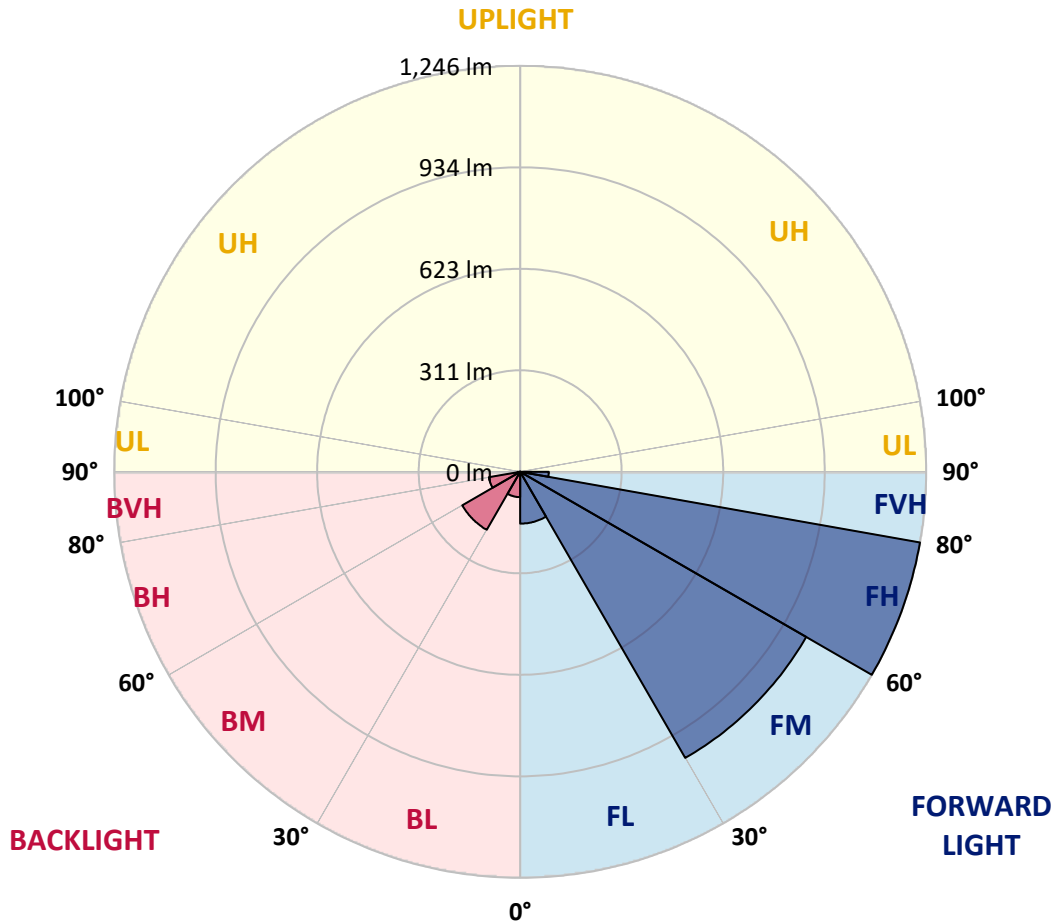
CATALOG NUMBER: MSA-SA1A-827-U-SL4

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	158.9	5.5			
FM (30°-60°)	1013.4	35.0			
FH (60°-80°)	1245.6	43.0			G1/1800
FVH (80°-90°)	87.8	3.0			G1/100
BL (0°-30°)	77.6	2.7	B0/110		
BM (30°-60°)	205.3	7.1	B0/220		
BH (60°-80°)	97.7	3.4	B0/110		G0/110
BVH (80°-90°)	7.8	0.3			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





REPORT NUMBER: P596484
 CATALOG NUMBER: MSA-SA1A-827-U-SL4

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	36°	45°	55°	65°	75°	85°
0°	167.2	167.2	167.2	167.2	167.2	167.2	167.2	167.2	167.2	167.2	167.2
2.5°	208.6	198.6	190.0	189.6	197.6	200.7	199.5	196.8	193.6	186.8	201.6
5°	261.4	247.0	244.3	241.1	233.8	235.8	223.9	233.0	235.8	242.3	252.2
7.5°	292.5	284.1	277.5	274.8	262.2	260.7	252.0	264.8	270.3	269.4	284.1
10°	304.7	297.1	297.6	288.7	284.6	286.3	287.3	287.6	290.9	293.6	286.2
12.5°	311.0	314.0	324.9	318.8	324.0	326.1	336.5	325.8	326.2	312.3	319.9
15°	342.8	350.2	343.9	343.6	342.0	345.5	354.4	347.2	352.8	348.3	338.4
17.5°	381.1	383.3	371.2	366.2	372.7	371.5	369.3	370.4	356.6	382.3	370.2
20°	392.8	401.6	385.6	366.2	387.5	390.3	389.8	385.0	361.3	398.4	386.6
22.5°	426.9	415.0	402.4	390.1	400.9	402.6	399.8	388.3	380.4	394.5	403.8
25°	442.3	439.5	423.4	421.9	410.0	404.3	409.0	405.6	397.9	422.9	412.7
27.5°	477.7	474.3	437.4	452.6	435.2	433.7	408.8	420.0	427.7	425.9	441.2
30°	517.7	521.5	467.5	482.7	462.6	459.9	434.9	449.0	454.3	456.0	475.2
32.5°	562.1	572.6	519.0	506.6	495.8	497.7	476.5	450.8	471.5	511.9	520.1
35°	610.3	614.6	558.4	539.7	511.6	509.6	510.0	513.2	534.1	580.2	586.6
37.5°	699.4	679.4	630.1	582.5	573.1	554.7	567.2	577.1	598.0	668.6	695.5
40°	754.2	739.4	664.3	636.7	610.8	612.5	635.9	635.8	685.0	757.9	799.0
42.5°	805.0	788.8	718.0	690.4	665.8	671.8	678.5	690.2	784.7	902.2	921.0
45°	845.9	810.4	759.5	753.3	733.1	725.1	753.3	772.1	903.9	1018.9	1029.8
47.5°	873.7	844.5	794.7	789.3	774.3	794.0	871.2	883.3	996.3	1136.1	1135.3
50°	915.9	876.0	831.0	828.2	870.3	880.8	974.9	973.7	1086.2	1233.5	1213.1
52.5°	964.6	914.3	865.5	896.0	960.2	965.4	1047.1	1080.3	1184.4	1327.3	1274.1
55°	1020.5	964.3	917.1	957.9	1053.5	1038.2	1120.8	1202.0	1307.3	1426.3	1318.2
57.5°	1089.8	1021.6	983.5	1045.5	1138.6	1152.2	1226.4	1328.6	1406.3	1487.8	1350.3
60°	1162.9	1082.9	1047.9	1107.0	1257.8	1273.4	1346.0	1433.8	1517.2	1545.7	1344.3
62.5°	1232.7	1146.1	1114.5	1187.4	1390.0	1428.5	1482.1	1538.1	1609.5	1559.8	1271.0
65°	1310.4	1223.7	1203.8	1313.1	1569.2	1607.5	1677.5	1660.7	1641.1	1509.9	1149.8
67.5°	1392.7	1304.6	1308.3	1459.0	1780.5	1787.1	1894.7	1783.0	1603.9	1377.7	946.4
70°	1436.9	1346.7	1384.9	1614.5	1995.6	1986.2	2008.2	1815.9	1452.3	1089.1	652.3
72.5°	1383.3	1302.9	1372.8	1680.0	2105.0	2094.9	1944.4	1620.8	1135.5	677.3	338.2
75°	1171.2	1093.6	1200.6	1497.6	1895.0	1904.4	1654.8	1205.3	650.1	272.4	140.4
77.5°	795.8	755.8	847.5	1116.2	1407.6	1440.1	1227.8	704.8	273.0	112.8	85.0
80°	420.6	401.6	469.3	643.0	891.3	915.5	722.0	351.0	139.8	73.0	60.6
82.5°	228.5	220.5	256.8	330.7	506.4	527.6	374.4	233.2	94.2	45.7	37.1
85°	153.5	150.4	174.5	177.6	239.5	246.4	196.1	179.6	56.6	22.4	24.5
87.5°	76.8	73.7	91.9	81.2	91.4	91.5	89.9	114.6	14.3	7.4	4.4
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P596484
 CATALOG NUMBER: MSA-SA1A-827-U-SL4

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	167.2	167.2	167.2	167.2	167.2	167.2	167.2	167.2	167.2	167.2	167.2
2.5°	201.8	197.5	182.6	182.4	184.7	183.2	184.3	178.2	175.6	187.5	186.9
5°	250.9	237.9	225.4	221.1	216.0	205.0	205.7	205.8	203.9	211.0	211.5
7.5°	279.6	264.1	252.6	229.6	211.6	197.5	199.4	201.5	199.4	208.7	212.2
10°	283.8	271.5	257.8	232.2	220.2	207.5	194.7	183.3	181.9	177.6	179.0
12.5°	308.8	298.5	269.9	241.9	227.9	208.4	184.9	171.9	161.1	162.9	159.5
15°	329.3	322.0	287.7	251.0	217.6	193.4	168.5	150.7	140.9	139.8	136.4
17.5°	357.1	346.7	289.3	244.7	204.4	175.4	147.2	127.1	122.9	121.2	119.4
20°	370.4	351.8	283.5	224.9	189.0	153.9	126.2	108.9	107.7	110.8	110.2
22.5°	382.0	356.0	278.3	212.9	164.9	132.2	111.9	100.5	99.2	103.1	103.9
25°	388.8	368.0	272.6	200.7	150.0	116.0	101.2	94.7	95.0	100.2	99.6
27.5°	419.5	372.2	258.3	186.3	132.8	104.0	96.0	92.6	91.3	98.4	99.1
30°	438.7	399.6	255.1	171.0	120.1	95.2	91.3	89.9	89.7	98.3	98.9
32.5°	474.6	408.7	256.6	154.3	108.6	92.5	87.8	87.7	90.2	98.4	99.4
35°	524.2	447.3	249.4	144.8	102.3	88.3	85.1	86.1	90.3	99.3	100.7
37.5°	621.1	483.6	251.6	135.9	100.2	87.0	84.4	85.0	91.8	101.5	105.2
40°	697.8	549.4	248.2	131.4	97.3	86.7	82.8	85.2	91.7	102.8	106.1
42.5°	808.9	601.9	248.5	127.0	97.2	85.7	82.5	85.5	91.4	101.7	106.2
45°	904.3	649.0	253.8	124.4	96.0	87.3	82.1	85.8	89.8	97.7	102.8
47.5°	982.5	701.5	259.3	121.9	95.5	88.8	81.8	83.3	87.1	93.3	97.8
50°	1046.2	738.4	266.2	121.4	95.5	88.1	80.8	80.7	83.9	88.8	93.1
52.5°	1095.9	764.5	270.9	122.0	95.5	85.2	79.5	78.6	80.5	84.1	88.4
55°	1131.8	772.5	267.0	123.6	95.4	82.6	77.3	76.5	77.4	79.9	84.0
57.5°	1146.3	751.4	244.2	120.8	95.4	80.8	74.6	73.6	74.6	76.5	80.5
60°	1110.1	683.4	211.2	113.5	93.5	78.3	71.5	70.9	72.4	74.0	77.9
62.5°	1019.3	593.1	176.0	104.9	89.7	76.2	68.6	68.7	71.0	73.2	77.2
65°	878.2	483.9	146.7	96.1	84.9	72.9	65.5	66.3	69.7	72.6	76.6
67.5°	691.1	358.6	123.5	87.6	78.1	67.4	62.0	62.3	64.6	67.4	71.3
70°	462.0	228.1	101.5	77.6	69.2	60.4	56.7	55.8	55.2	57.7	61.0
72.5°	234.3	134.8	83.4	66.3	59.5	52.7	49.9	47.7	45.9	47.4	50.0
75°	122.8	94.2	67.3	55.1	49.2	44.8	42.7	39.8	38.5	39.4	41.3
77.5°	86.8	73.7	54.5	43.6	40.0	35.6	35.9	32.9	31.9	32.4	34.3
80°	66.7	58.4	41.9	33.0	30.9	26.6	27.8	25.9	24.7	24.5	25.9
82.5°	45.5	44.0	29.8	23.1	21.6	18.5	20.3	19.5	17.9	16.9	17.7
85°	30.6	29.2	18.2	13.3	12.7	9.6	12.4	11.9	10.5	9.0	9.1
87.5°	5.3	9.8	5.2	3.3	3.1	1.1	2.8	2.7	2.5	1.2	1.0
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)