

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: P366747

Luminaire Tested: **MSA-SA1B-727-U-T3-HSS**

Issue Date: 12/2/2019

Test Information

Test Method: LM-79-08
Report Number: P366747
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-11)
Test Lab: INNOVATION CENTER
Issue Date: 12/2/2019
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA1B-727-U-T3-HSS
Description: MESA POST TOP DECORATIVE LUMINAIRE. (1) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE III OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3128 lumens
Efficiency: N/A
Efficacy: 71.1 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

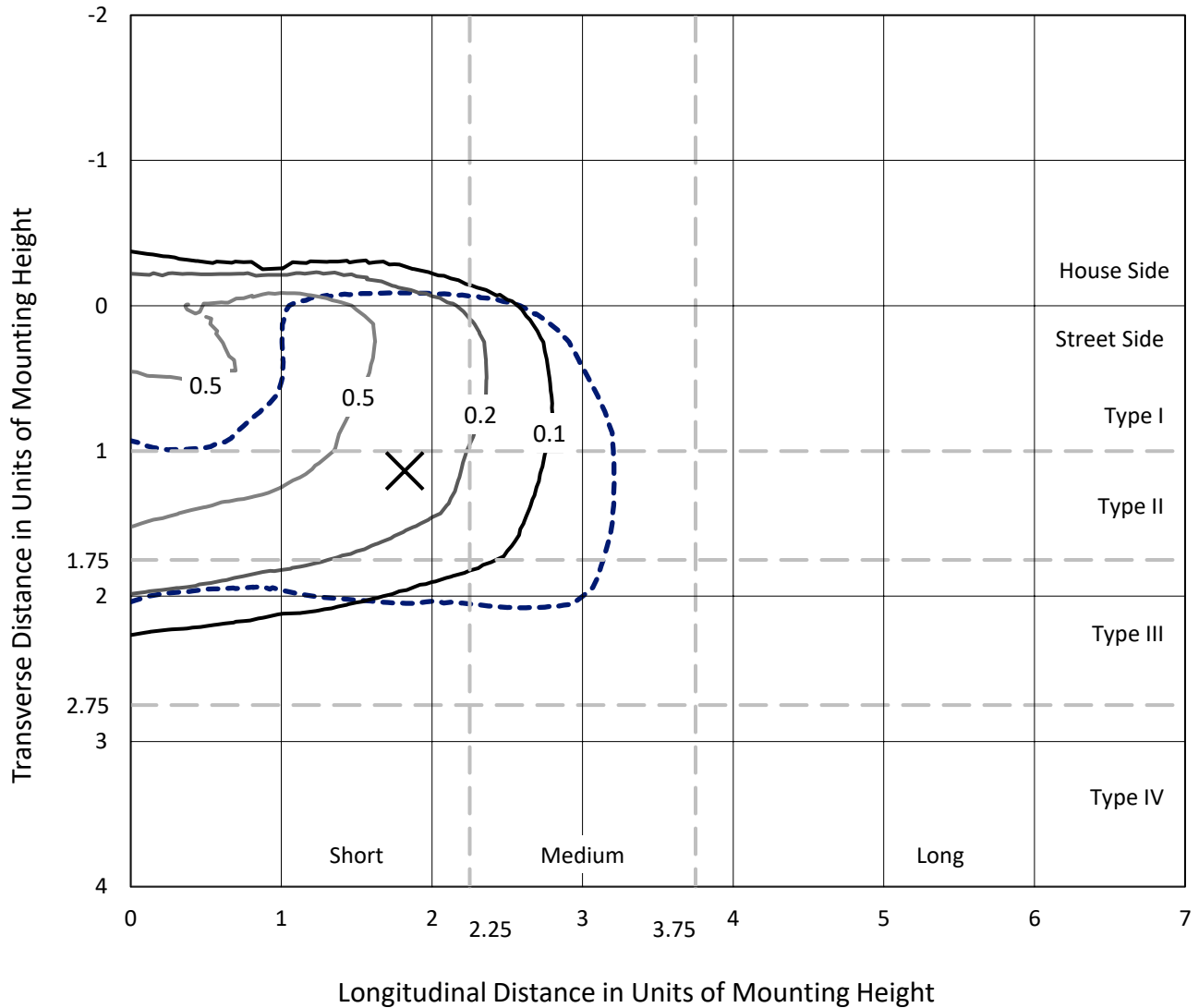
Input Watts (W): 44
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



REPORT NUMBER: P366747
 CATALOG NUMBER: MSA-SA1B-727-U-T3-HSS

Iso-Footcandle Lines of Horizontal Illumination

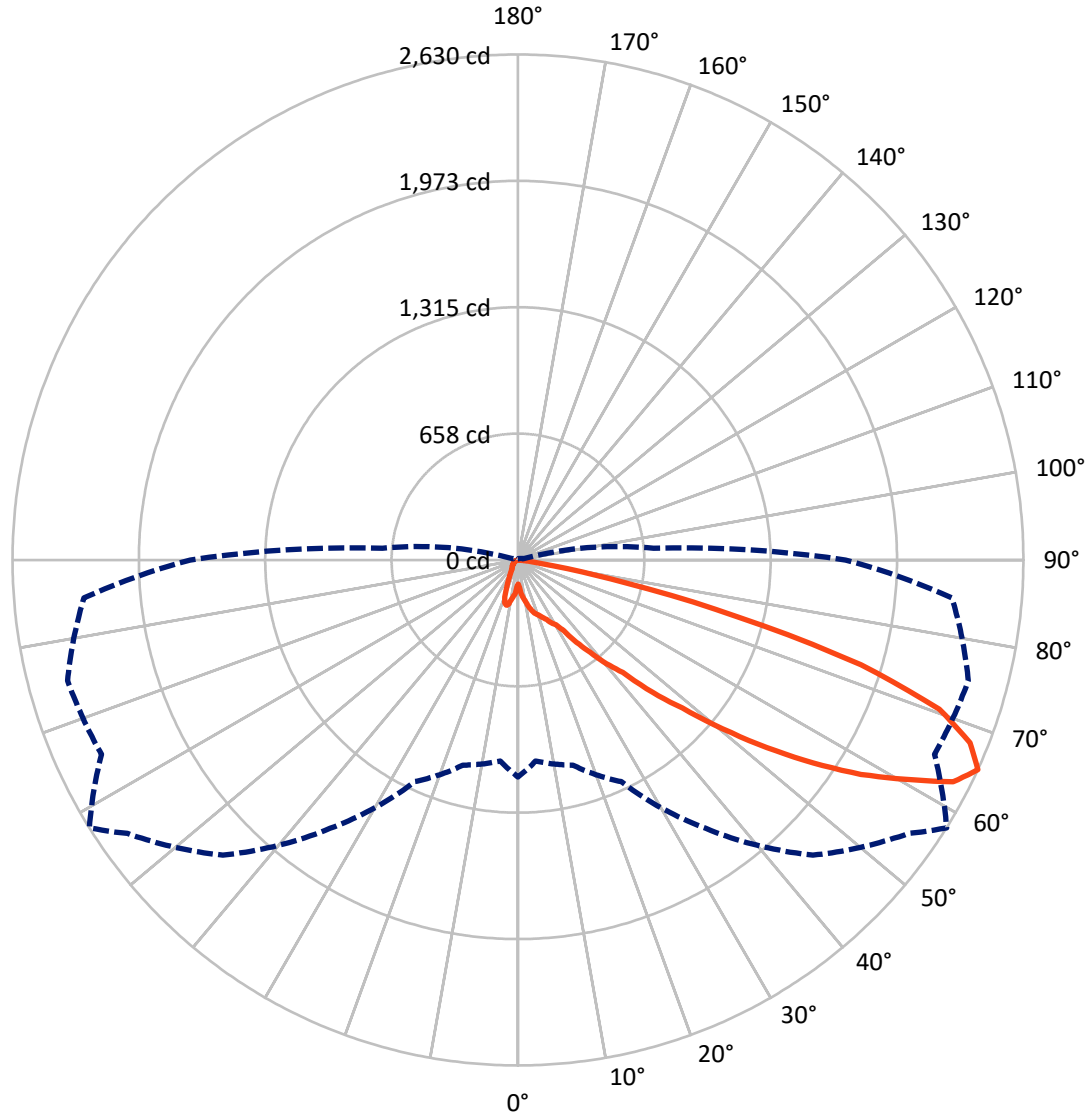
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 0.8 fc
 Type III - Short - N/A

REPORT NUMBER: P366747
CATALOG NUMBER: MSA-SA1B-727-U-T3-HSS

Luminous Intensity Polar Plot



— Vertical Plane Through 58-Deg Lateral - - - Horizontal Cone Through 65-Deg Vertical

REPORT NUMBER: P366747

CATALOG NUMBER: MSA-SA1B-727-U-T3-HSS

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	308.7	0.0	308.7
	% Fixture	9.9	0.0	9.9
Street Side	Lumens	2819.4	0.0	2819.4
	% Fixture	90.1	0.0	90.1
Total	Lumens	3128.0	0.0	3128.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	17.6	0.6
10°-20°	64.2	2.1
20°-30°	124.3	4.0
30°-40°	248.0	7.9
40°-50°	506.9	16.2
50°-60°	899.2	28.7
60°-70°	948.0	30.3
70°-80°	307.3	9.8
80°-90°	12.6	0.4
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°	3128.0	100.0
0°-180°	3128.0	100.0

Coefficient of Utilization



REPORT NUMBER: P366747

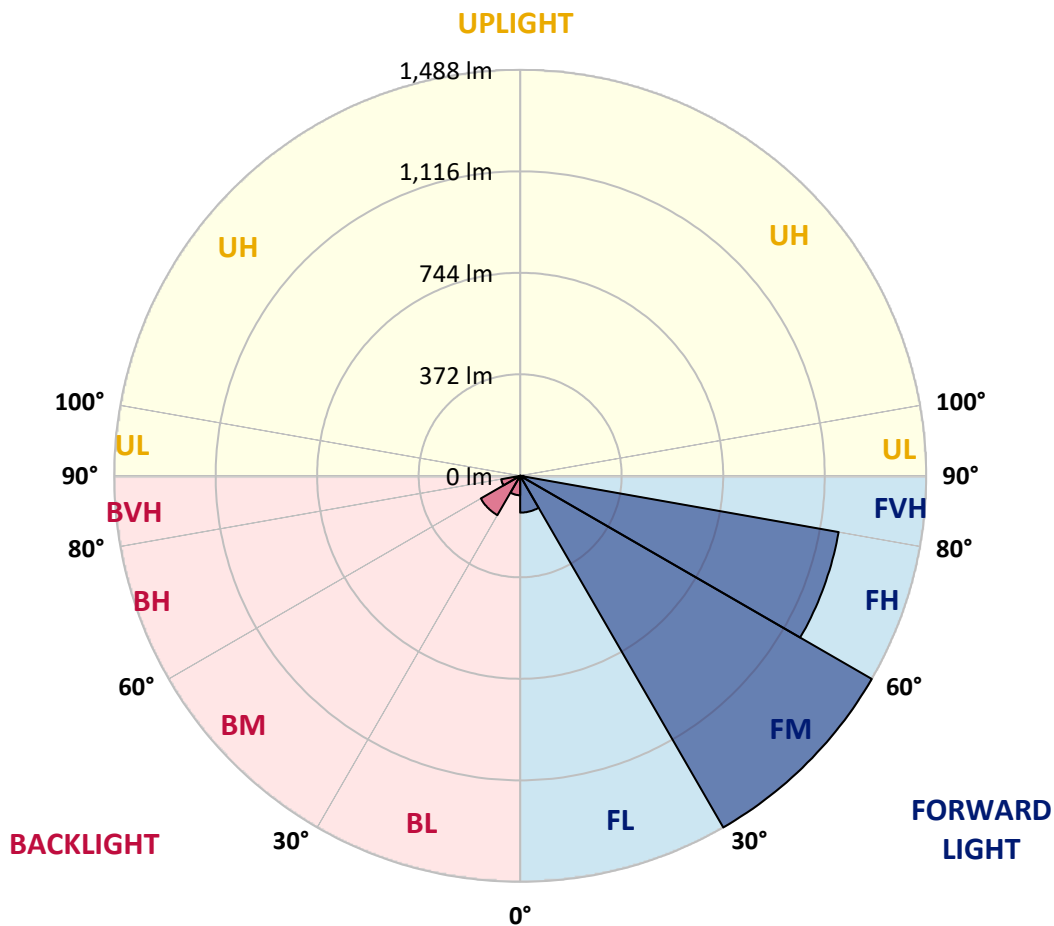
CATALOG NUMBER: MSA-SA1B-727-U-T3-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	134.9	4.3			
FM (30°-60°)	1487.5	47.6			
FH (60°-80°)	1184.8	37.9			G1/1800
FVH (80°-90°)	12.0	0.4			G1/100
BL (0°-30°)	71.1	2.3	B0/110		
BM (30°-60°)	166.5	5.3	B0/220		
BH (60°-80°)	70.4	2.3	B0/110		G0/110
BVH (80°-90°)	0.5	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





REPORT NUMBER: P366747

CATALOG NUMBER: MSA-SA1B-727-U-T3-HSS

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	58°	65°	75°	85°
0°	125.2	125.2	125.2	125.2	125.2	125.2	125.2	125.2	125.2	125.2	125.2
2.5°	152.9	148.3	141.1	142.3	143.7	146.5	144.2	142.1	139.8	136.8	148.3
5°	184.6	177.0	176.3	174.7	173.5	173.3	176.1	175.2	176.5	182.1	187.9
7.5°	196.2	193.0	187.0	189.5	185.6	182.6	195.1	199.2	206.9	209.6	224.7
10°	195.0	190.4	192.8	194.1	196.7	207.6	215.6	220.0	226.7	241.1	238.1
12.5°	200.6	204.6	207.3	207.5	221.0	241.1	246.7	250.4	262.4	268.0	282.8
15°	219.4	226.1	221.9	223.7	228.1	252.6	265.8	273.9	290.8	309.1	312.8
17.5°	246.4	250.6	241.8	235.5	247.6	261.0	285.0	293.4	304.2	346.9	354.9
20°	280.4	287.6	268.6	243.4	259.4	275.3	301.3	305.4	316.8	372.7	385.2
22.5°	359.8	349.1	320.0	280.7	276.0	283.0	307.9	323.7	343.1	387.1	416.2
25°	438.2	434.5	391.7	347.8	316.1	300.3	333.2	342.0	373.7	421.4	437.5
27.5°	525.4	532.8	461.2	434.7	372.5	320.7	349.1	371.1	408.6	434.0	472.5
30°	640.4	628.6	544.7	518.1	447.2	376.9	390.1	391.5	446.6	475.2	511.8
32.5°	730.5	738.1	632.8	591.9	535.2	463.4	420.9	439.2	478.7	542.3	577.0
35°	828.1	827.4	724.7	669.8	595.6	534.0	512.3	525.7	575.2	647.2	656.4
37.5°	973.9	961.4	840.3	759.8	696.7	644.1	627.5	609.7	660.8	729.5	763.8
40°	1111.5	1068.3	956.3	860.9	780.2	758.7	698.8	709.7	724.9	815.6	910.5
42.5°	1250.4	1223.7	1074.0	994.0	894.8	843.8	804.7	799.6	871.6	979.0	1077.1
45°	1433.8	1351.9	1232.1	1161.8	1047.0	995.8	964.2	983.1	1047.9	1204.8	1270.2
47.5°	1587.7	1512.3	1409.5	1302.7	1182.3	1239.9	1180.7	1150.9	1239.9	1402.1	1488.9
50°	1720.0	1635.9	1531.9	1452.8	1433.2	1488.5	1368.8	1379.7	1437.5	1628.0	1677.0
52.5°	1816.1	1727.7	1636.8	1598.6	1678.7	1706.6	1646.5	1622.4	1674.9	1820.7	1844.5
55°	1888.5	1798.0	1727.0	1779.7	1934.6	1925.5	1946.6	1864.2	1914.4	2021.6	2010.4
57.5°	1892.9	1785.6	1744.1	1828.8	2041.5	2183.3	2245.1	2104.9	2133.5	2178.7	2153.4
60°	1754.5	1647.7	1644.4	1764.7	2072.5	2250.1	2385.3	2317.0	2278.8	2312.4	2264.3
62.5°	1478.7	1404.0	1438.9	1571.8	1957.2	2213.3	2460.0	2542.2	2393.4	2401.0	2332.7
65°	1129.1	1050.7	1105.3	1272.8	1705.0	2172.0	2481.1	2630.3	2391.3	2426.2	2267.1
67.5°	747.8	702.4	764.2	948.7	1355.6	1917.4	2470.2	2537.8	2315.4	2327.7	2023.9
70°	386.0	375.0	425.0	570.6	911.4	1473.0	2363.0	2326.0	2161.3	2005.3	1561.1
72.5°	123.6	124.2	172.2	260.7	491.4	896.8	1816.3	1867.0	1729.5	1466.9	953.1
75°	54.8	53.9	72.0	109.4	204.8	402.1	1128.4	1183.1	1076.8	807.0	400.7
77.5°	39.5	38.2	46.1	63.9	101.4	136.3	529.1	571.0	488.2	279.7	91.8
80°	27.8	27.7	33.5	44.9	63.4	60.6	167.1	187.4	150.1	67.8	26.9
82.5°	15.7	16.2	23.2	31.7	38.6	30.3	47.0	51.8	50.5	36.1	11.8
85°	7.6	8.5	15.1	22.9	20.3	11.8	16.7	18.1	21.1	21.0	6.0
87.5°	0.0	0.0	6.2	10.4	5.5	1.8	5.1	5.8	5.6	6.7	1.4
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: P366747
 CATALOG NUMBER: MSA-SA1B-727-U-T3-HSS

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	125.2	125.2	125.2	125.2	125.2	125.2	125.2	125.2	125.2	125.2	125.2
2.5°	150.6	149.5	136.1	137.2	140.2	139.0	140.0	137.5	134.7	146.2	146.0
5°	190.4	182.5	178.2	174.4	175.1	167.1	171.7	173.8	173.5	180.0	181.8
7.5°	225.3	214.7	206.2	198.1	185.8	174.7	181.6	186.0	189.0	200.2	204.6
10°	241.6	233.0	229.7	213.8	205.0	198.1	189.9	183.9	186.3	183.3	186.3
12.5°	277.6	271.7	258.9	242.9	232.3	218.2	187.4	161.7	145.8	146.0	144.9
15°	310.3	310.0	290.8	264.2	233.5	193.4	145.3	112.9	97.9	93.7	92.3
17.5°	353.1	347.8	312.8	273.5	218.4	149.7	99.0	77.3	75.9	78.4	77.3
20°	380.4	372.7	323.7	259.9	180.0	101.3	74.7	68.5	72.7	76.3	75.4
22.5°	407.7	396.1	332.0	243.4	128.0	74.1	67.5	66.4	69.0	73.4	74.1
25°	422.7	420.4	348.2	212.4	87.7	65.0	65.0	64.6	65.5	68.7	68.2
27.5°	466.2	435.2	336.0	165.7	67.8	59.7	60.6	60.2	57.1	60.2	60.4
30°	493.3	479.0	336.9	118.0	59.7	52.8	55.1	52.3	47.6	50.2	49.7
32.5°	547.9	512.3	334.3	79.6	54.4	50.4	46.8	42.8	39.3	40.3	39.5
35°	611.5	584.4	298.5	63.9	50.7	44.6	38.9	34.9	31.2	32.1	31.9
37.5°	737.9	651.8	268.9	57.6	48.3	40.9	34.3	28.7	26.8	27.3	27.8
40°	855.0	764.3	213.8	54.8	44.0	36.5	28.4	24.3	23.1	23.4	24.0
42.5°	1030.1	853.8	161.5	52.0	39.8	30.8	23.6	21.0	19.7	20.4	20.8
45°	1199.5	929.9	120.6	49.5	36.3	26.6	19.9	18.1	16.7	17.3	18.0
47.5°	1368.8	1014.4	90.0	45.6	32.4	22.9	17.1	15.9	15.0	15.1	16.0
50°	1520.2	1053.9	70.8	40.9	29.2	19.9	15.5	14.3	13.9	14.1	14.8
52.5°	1631.5	1054.2	59.7	36.6	26.2	17.6	14.6	13.2	13.0	13.4	14.1
55°	1732.1	1026.1	51.8	32.9	23.6	16.0	13.9	12.7	12.7	13.0	13.7
57.5°	1798.9	974.3	44.9	29.1	21.3	15.1	13.4	12.2	12.0	11.8	12.3
60°	1831.4	903.7	38.0	25.5	19.2	14.6	13.0	10.7	10.6	10.2	10.6
62.5°	1810.8	815.2	31.9	22.0	17.1	13.9	11.4	9.3	9.0	8.3	8.8
65°	1705.5	707.8	26.9	18.8	14.8	11.8	9.7	7.9	7.0	6.2	6.0
67.5°	1490.1	575.0	22.5	16.2	12.7	9.7	7.9	7.0	5.5	4.8	4.6
70°	1116.8	392.6	18.7	13.9	10.6	8.3	6.7	6.3	5.1	4.6	4.2
72.5°	655.2	211.9	15.7	12.2	9.0	6.9	5.5	5.8	5.1	4.2	3.9
75°	261.7	70.4	12.5	9.7	7.2	4.9	4.6	4.8	4.6	3.9	3.2
77.5°	59.7	22.2	9.7	7.6	5.6	3.2	3.7	4.1	4.1	3.2	2.3
80°	18.7	8.8	5.6	4.8	4.1	1.8	2.6	2.8	1.9	0.9	0.0
82.5°	6.0	2.5	1.9	1.9	1.8	0.4	0.5	0.4	0.0	0.0	0.0
85°	2.3	1.6	1.2	1.2	0.7	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.9	0.7	0.5	0.7	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)