

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: P596479

Luminaire Tested: **MSA-SA1A-827-U-SL2-HSS**

Issue Date: 5/27/2021

Test Information

Test Method: LM-79-08
Report Number: P596479
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-17)
Test Lab: INNOVATIONS CENTER
Issue Date: 5/27/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA1A-827-U-SL2-HSS
Description: MESA POST TOP DECORATIVE LUMINAIRE. (1) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II SPILL LIGHT ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2435 lumens
Efficiency: N/A
Efficacy: 71.6 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type II - Short
BUG Rating: B0 - U0 - G1

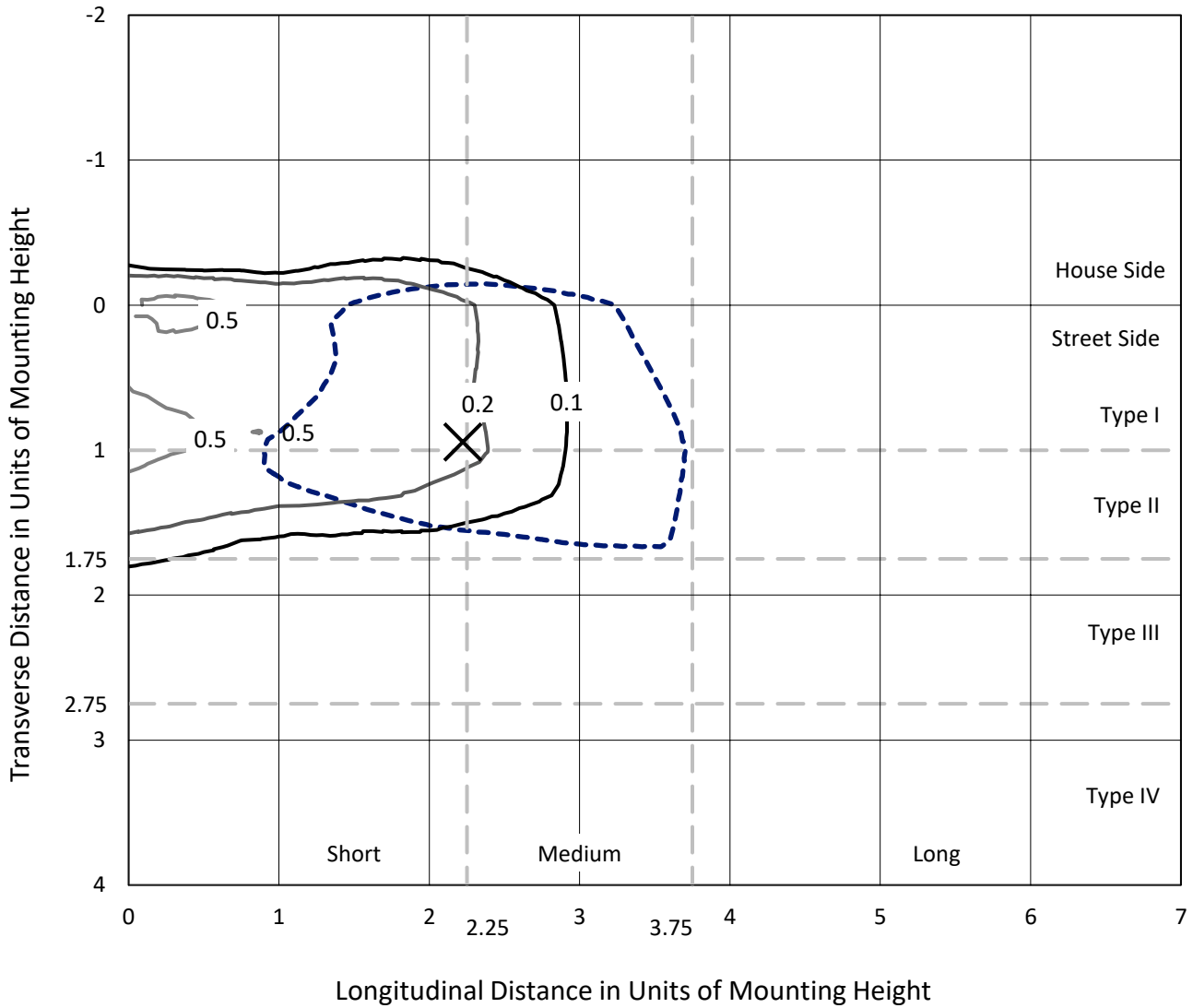
Input Watts (W): 34
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

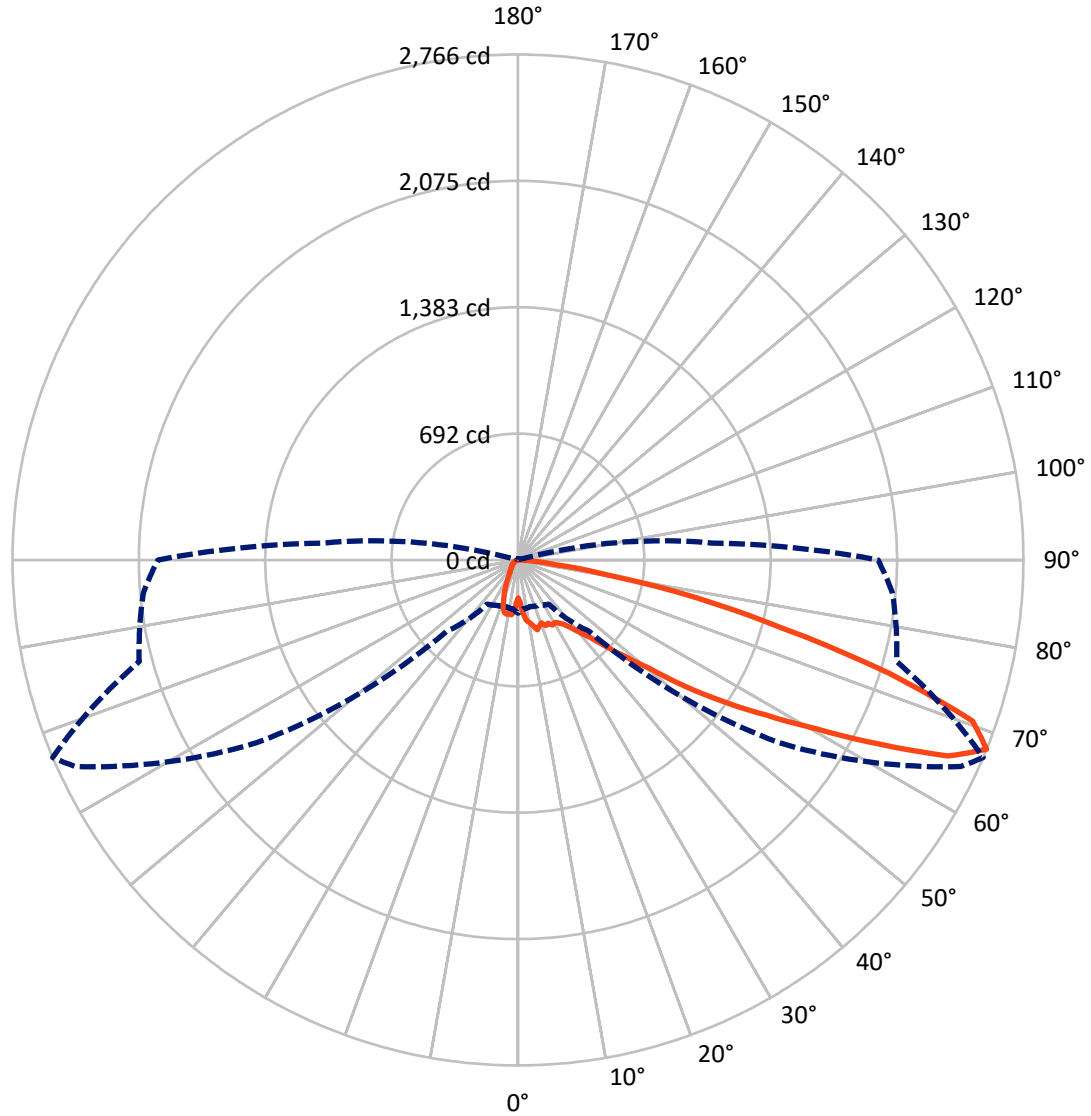
✕ Max cd
 - - - 1/2 Max cd



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

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Luminous Intensity Polar Plot



— Vertical Plane Through 67-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	301.1	0.0	301.1
	% Fixture	12.4	0.0	12.4
Street Side	Lumens	2133.9	0.0	2133.9
	% Fixture	87.6	0.0	87.6
Total	Lumens	2435.0	0.0	2435.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	26.0	1.1
10°-20°	77.0	3.2
20°-30°	120.7	5.0
30°-40°	194.6	8.0
40°-50°	357.7	14.7
50°-60°	604.1	24.8
60°-70°	667.8	27.4
70°-80°	349.5	14.4
80°-90°	37.5	1.5
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°	2435.0	100.0
0°-180°	2435.0	100.0

Coefficient of Utilization

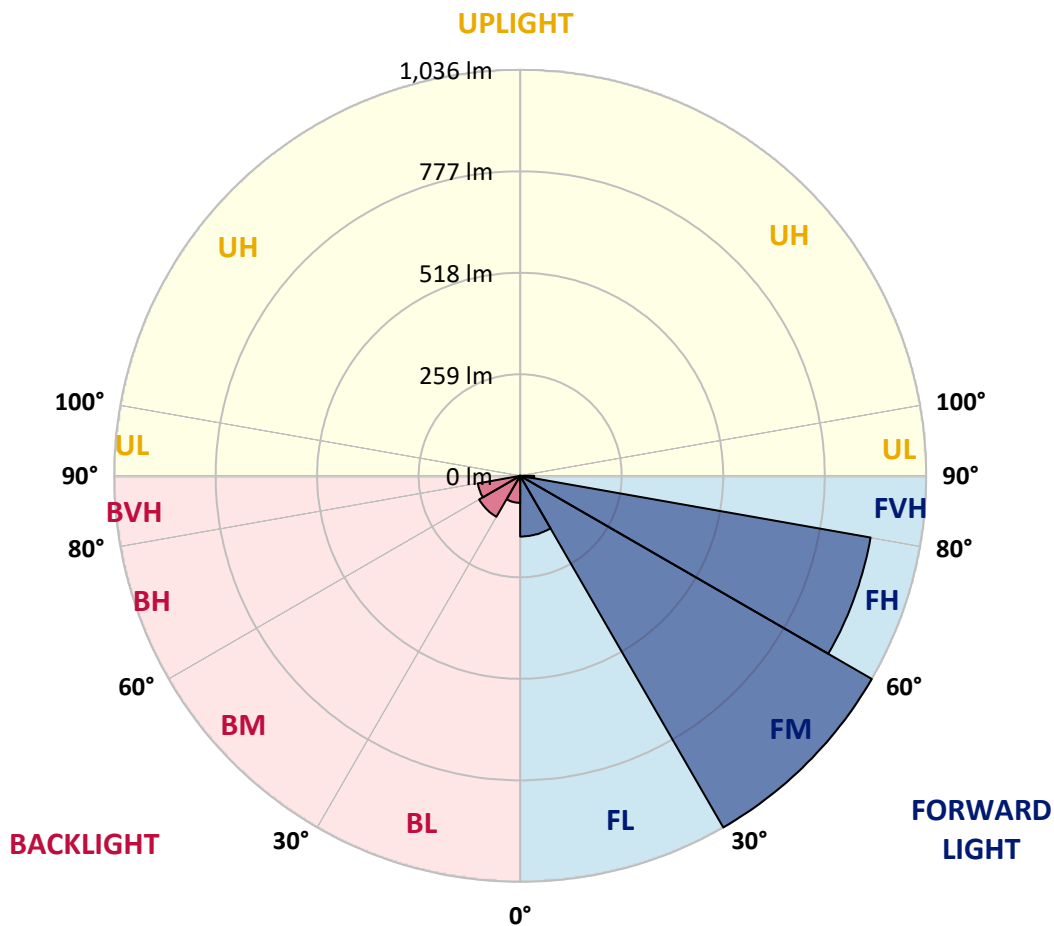


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	154.8	6.4			
FM (30°-60°)	1035.6	42.5			
FH (60°-80°)	907.5	37.3			G1/1800
FVH (80°-90°)	35.9	1.5			G1/100
BL (0°-30°)	68.9	2.8	B0/110		
BM (30°-60°)	120.7	5.0	B0/220		
BH (60°-80°)	109.8	4.5	B0/110		G0/110
BVH (80°-90°)	1.6	0.1			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 II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	67°	75°	85°
0°	207.4	207.4	207.4	207.4	207.4	207.4	207.4	207.4	207.4	207.4	207.4
2.5°	244.8	236.5	222.5	226.5	234.7	241.5	238.3	232.0	232.1	225.7	248.8
5°	284.8	273.7	265.6	268.4	268.0	267.8	283.0	288.8	291.3	301.9	317.6
7.5°	296.3	292.4	283.9	286.4	277.9	278.5	305.2	330.4	334.4	340.9	368.8
10°	291.9	284.2	287.3	287.3	287.4	301.3	319.2	343.3	348.1	373.3	376.2
12.5°	287.1	287.4	299.7	297.4	314.2	339.1	345.1	372.2	369.8	391.7	424.2
15°	305.0	314.4	306.5	309.5	311.2	340.3	350.1	386.0	396.4	424.1	445.2
17.5°	335.7	337.0	320.5	316.1	327.7	336.0	355.6	372.9	379.8	452.5	482.4
20°	341.3	349.2	332.5	306.8	331.4	342.8	356.5	364.8	367.7	461.2	503.4
22.5°	374.8	366.0	339.3	319.8	326.8	339.2	347.7	372.7	390.5	444.7	523.5
25°	391.9	389.6	364.1	347.5	340.3	339.3	358.8	377.7	383.4	461.8	528.4
27.5°	433.1	427.8	378.5	376.4	352.8	332.0	359.2	393.2	403.8	445.7	547.0
30°	489.0	487.0	421.5	420.1	382.5	345.2	379.2	402.7	396.3	453.9	559.3
32.5°	545.4	561.4	494.3	456.0	427.9	393.8	373.5	399.7	411.2	474.1	582.0
35°	613.4	625.0	556.7	528.9	466.3	416.5	411.2	428.0	432.9	498.0	607.9
37.5°	732.5	714.9	656.8	609.5	576.6	497.7	471.5	458.1	469.6	530.5	660.6
40°	820.4	809.3	737.7	709.4	633.8	587.6	519.2	506.7	519.5	563.9	697.3
42.5°	926.5	903.4	836.0	816.9	739.0	650.0	580.6	584.9	576.8	629.7	761.6
45°	1022.5	970.4	932.8	937.2	895.7	775.3	683.0	680.9	674.2	725.1	829.3
47.5°	1087.1	1041.5	1005.0	993.0	988.1	995.8	830.9	793.6	788.7	825.3	935.9
50°	1121.8	1071.9	1026.7	1029.2	1129.5	1205.0	983.6	930.6	932.5	970.6	1081.7
52.5°	1098.5	1042.0	994.4	1040.7	1239.2	1344.4	1236.3	1109.6	1152.6	1142.8	1277.2
55°	990.6	941.6	907.8	990.6	1251.2	1494.5	1547.5	1379.0	1369.4	1347.1	1476.6
57.5°	809.2	766.9	746.1	833.5	1120.1	1615.4	1860.0	1683.5	1601.3	1508.2	1642.1
60°	602.9	571.8	550.0	596.2	882.6	1498.0	2064.7	1970.4	1875.3	1663.5	1790.8
62.5°	446.5	421.2	398.1	402.3	607.7	1288.3	2143.2	2274.4	2219.8	1827.4	1931.1
65°	356.4	333.3	317.1	307.8	376.4	969.3	2033.9	2523.6	2586.6	1981.8	2032.4
67.5°	291.0	271.5	263.5	274.1	295.2	552.5	1741.9	2674.7	2766.2	2145.6	2057.4
70°	236.8	220.7	219.9	248.5	271.9	336.8	1281.3	2570.4	2639.2	2173.5	1907.8
72.5°	165.0	158.0	169.2	209.9	269.4	280.5	735.8	2127.1	2129.5	1919.7	1569.2
75°	93.4	92.3	110.1	167.4	262.4	277.7	410.2	1503.1	1504.3	1451.9	1087.1
77.5°	51.4	48.1	64.1	113.1	225.3	271.3	264.6	1026.3	1000.0	808.0	496.6
80°	23.7	22.4	34.7	72.5	164.8	256.6	212.1	564.1	508.7	263.2	121.2
82.5°	9.8	9.3	15.9	46.6	104.1	206.7	178.7	250.3	200.8	50.0	37.4
85°	1.7	1.9	6.5	28.2	58.3	95.2	144.9	118.8	87.3	13.8	20.5
87.5°	0.0	0.0	1.4	6.8	14.1	26.1	58.8	33.2	22.9	4.1	6.1
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°	207.4	207.4	207.4	207.4	207.4	207.4	207.4	207.4	207.4	207.4	207.4
2.5°	253.3	251.2	230.0	231.0	232.5	231.1	230.9	224.9	219.5	237.4	237.2
5°	320.4	305.5	290.8	285.1	272.9	256.8	256.9	251.9	246.7	254.0	254.0
7.5°	368.2	347.6	328.9	295.7	263.3	234.1	231.5	224.6	216.7	226.2	228.0
10°	379.3	361.4	337.3	288.5	257.9	229.4	198.0	172.2	160.2	154.6	153.7
12.5°	413.6	400.2	346.4	292.4	248.3	200.0	148.6	118.0	97.1	95.5	93.3
15°	436.4	427.0	355.2	282.9	207.5	143.8	93.4	71.6	63.2	62.5	61.4
17.5°	471.9	455.5	346.7	252.6	162.3	94.9	62.7	56.6	57.6	59.8	58.1
20°	486.3	454.4	328.2	208.8	114.0	63.6	54.5	51.1	53.7	55.8	54.8
22.5°	501.1	457.6	311.8	172.1	74.5	52.6	48.5	46.8	47.1	49.2	49.3
25°	501.0	466.5	292.7	134.0	55.5	46.8	43.9	41.6	40.8	42.2	41.9
27.5°	525.3	456.3	258.0	99.4	48.8	41.9	39.0	36.3	33.2	34.7	34.7
30°	525.5	473.0	233.8	71.4	44.7	37.3	34.8	30.6	27.1	28.3	28.4
32.5°	539.4	458.5	211.5	54.6	41.5	34.6	29.2	25.3	23.2	24.0	24.0
35°	555.4	470.9	177.1	48.2	38.3	30.8	25.0	21.9	20.3	20.9	20.9
37.5°	608.0	468.3	153.3	44.8	36.2	27.8	22.7	19.3	18.5	18.9	19.4
40°	627.0	486.7	120.9	42.9	32.7	25.1	20.0	17.4	16.4	16.7	16.8
42.5°	675.4	490.8	96.6	41.3	29.6	21.7	17.8	15.9	14.7	14.7	15.1
45°	728.9	501.0	76.8	39.9	27.1	19.5	16.1	14.6	12.7	12.5	13.0
47.5°	806.4	540.3	62.6	37.2	24.0	18.2	14.8	12.6	11.1	10.6	11.1
50°	935.9	607.0	55.3	33.8	21.7	17.0	13.1	10.7	9.6	9.0	9.4
52.5°	1118.7	722.2	51.5	30.8	19.8	15.3	11.7	9.4	8.3	7.8	8.0
55°	1321.8	854.4	49.7	27.7	18.0	13.5	10.3	8.3	7.3	6.7	6.8
57.5°	1509.6	978.7	47.8	24.7	16.3	12.0	9.0	7.3	6.3	5.7	5.8
60°	1694.6	1077.9	43.4	21.2	14.7	10.7	7.9	6.3	5.7	4.9	4.9
62.5°	1858.3	1137.1	36.9	18.4	13.2	9.5	7.0	5.7	5.2	4.4	4.4
65°	1969.7	1139.9	29.8	15.8	11.6	8.2	6.2	5.3	4.8	4.0	3.8
67.5°	1971.3	1065.7	23.8	14.1	10.3	7.2	5.6	5.1	4.4	3.7	3.5
70°	1764.4	880.5	19.9	12.4	8.9	6.3	4.8	4.8	4.3	3.6	3.2
72.5°	1411.4	672.8	16.7	10.7	7.9	5.4	4.4	4.6	4.2	3.6	3.2
75°	948.7	385.9	13.8	9.1	6.9	4.6	4.3	4.4	4.3	3.6	3.1
77.5°	436.9	122.9	10.7	7.5	5.9	3.8	4.2	4.2	4.0	3.2	2.7
80°	98.4	30.3	7.8	5.6	4.8	2.8	3.8	3.5	3.1	2.2	1.6
82.5°	35.8	9.3	4.7	3.5	3.0	1.1	2.5	2.5	2.2	1.6	1.0
85°	20.5	4.8	2.6	2.2	1.6	0.5	1.4	1.5	1.2	1.1	0.5
87.5°	6.7	1.1	1.2	1.4	1.2	0.2	0.5	0.5	0.4	0.2	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)