

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: P596833

Luminaire Tested: **MSA-SA1A-835-U-SL3-HSS**

Issue Date: 5/27/2021

Test Information

Test Method: LM-79-08
Report Number: P596833
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-835-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: 2736 lumens
Efficiency: N/A
Efficacy: 80.5 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

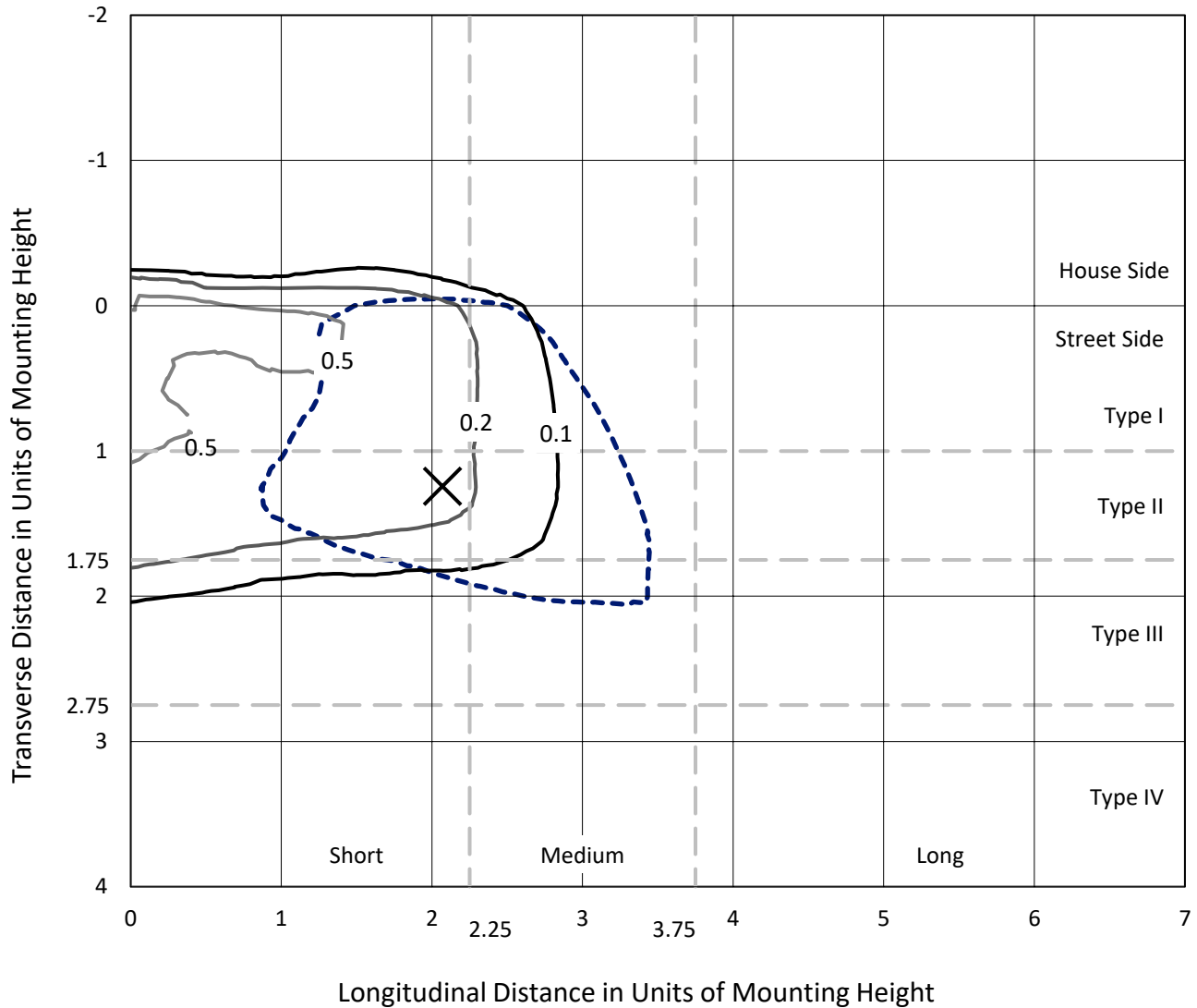
Input Watts (W): 34
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

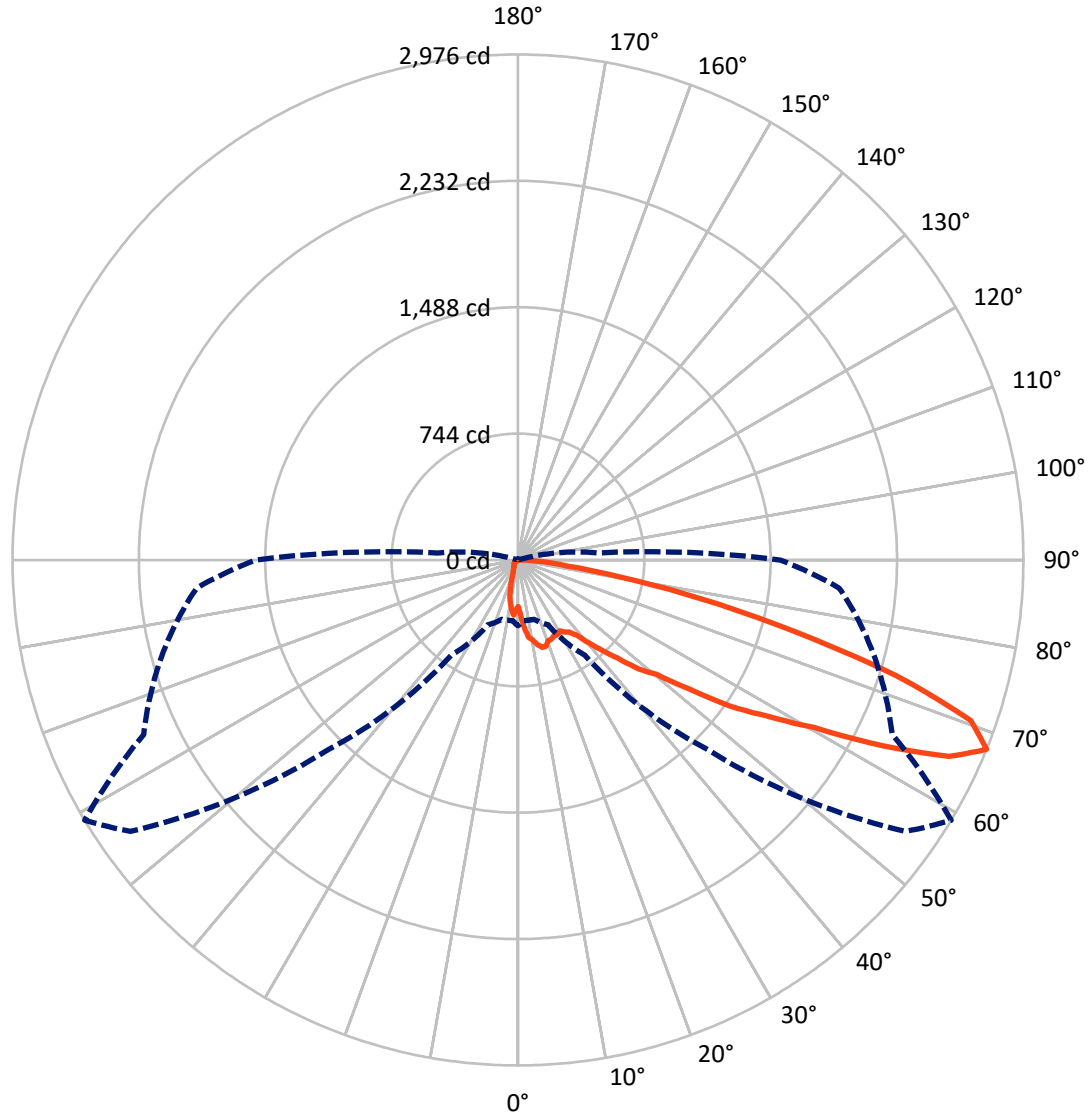
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 0.8 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	232.7	0.0	232.7
	% Fixture	8.5	0.0	8.5
Street Side	Lumens	2503.3	0.0	2503.3
	% Fixture	91.5	0.0	91.5
Total	Lumens	2736.0	0.0	2736.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	33.3	1.2
10°-20°	93.7	3.4
20°-30°	139.4	5.1
30°-40°	215.1	7.9
40°-50°	383.8	14.0
50°-60°	683.0	25.0
60°-70°	795.5	29.1
70°-80°	353.8	12.9
80°-90°	38.4	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°	2736.0	100.0
0°-180°	2736.0	100.0

Coefficient of Utilization



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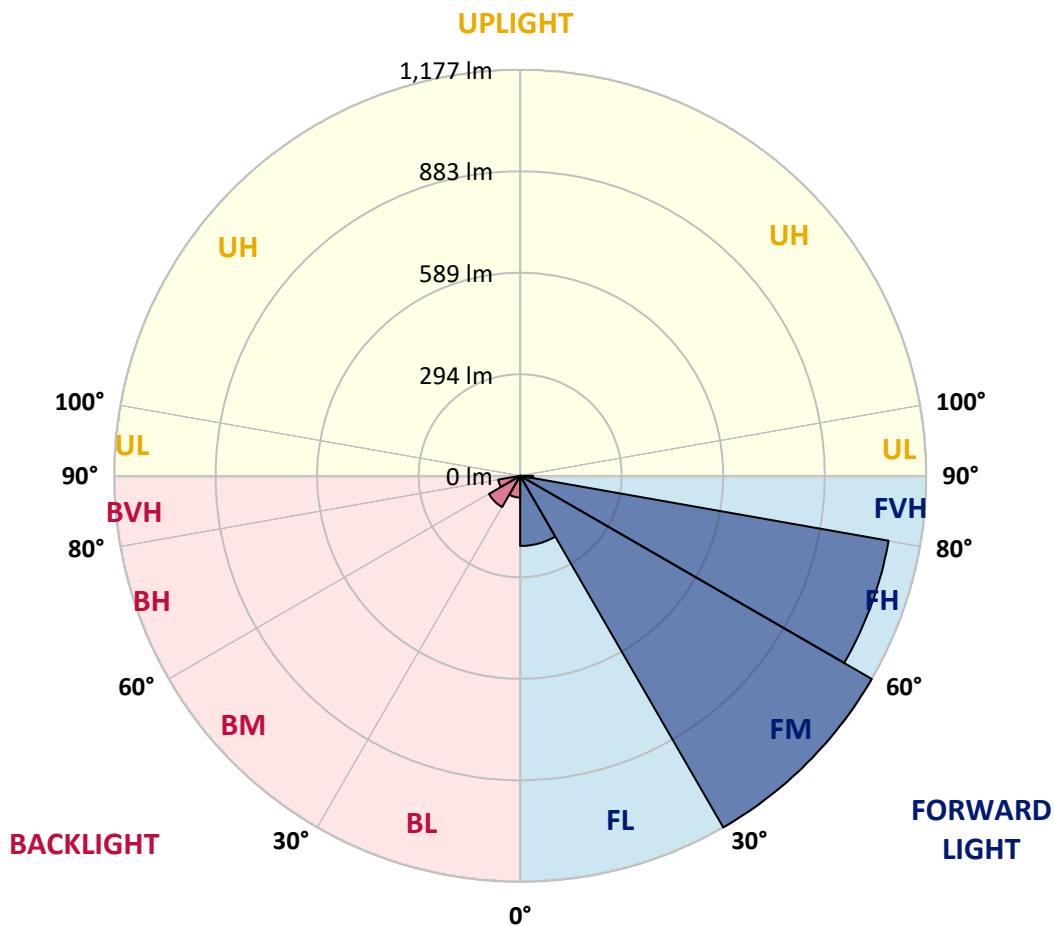
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	203.5	7.4			
FM (30°-60°)	1177.3	43.0			
FH (60°-80°)	1084.8	39.6			G1/1800
FVH (80°-90°)	37.7	1.4			G1/100
BL (0°-30°)	62.9	2.3	B0/110		
BM (30°-60°)	104.6	3.8	B0/220		
BH (60°-80°)	64.5	2.4	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 III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	59°	65°	75°	85°
0°	273.7	273.7	273.7	273.7	273.7	273.7	273.7	273.7	273.7	273.7	273.7
2.5°	356.9	343.4	324.3	330.0	335.1	340.0	331.9	327.4	325.1	305.5	330.1
5°	438.2	421.4	412.7	410.5	404.9	392.6	413.1	404.0	407.0	410.9	418.9
7.5°	463.0	455.4	442.8	447.5	426.4	424.6	453.0	460.9	471.3	464.2	473.9
10°	450.2	437.1	443.0	441.4	440.5	459.1	479.1	479.5	495.0	502.5	469.6
12.5°	425.0	426.5	447.9	446.2	473.9	511.1	515.6	510.8	536.1	523.1	518.1
15°	441.8	454.3	442.5	446.5	456.3	502.7	519.0	533.9	557.9	565.6	532.0
17.5°	462.0	463.3	441.8	436.8	461.6	483.2	521.4	533.8	536.1	604.2	563.1
20°	451.1	461.7	436.1	404.7	443.2	472.5	511.3	507.5	523.2	615.5	570.2
22.5°	480.2	464.9	432.1	408.4	421.4	448.2	481.0	506.3	530.0	588.4	579.4
25°	482.9	477.4	448.2	427.1	424.9	431.7	477.4	493.7	530.9	612.7	571.6
27.5°	514.1	507.7	447.9	450.0	429.2	408.3	459.9	498.3	546.0	597.9	588.1
30°	554.3	554.8	477.7	484.2	454.5	420.9	474.2	484.7	556.2	621.6	600.3
32.5°	595.0	611.8	536.5	502.1	492.8	468.7	456.5	505.1	545.0	662.1	630.8
35°	656.9	668.3	585.0	554.1	517.7	490.3	504.7	522.1	585.3	715.7	670.8
37.5°	761.8	741.3	672.0	618.3	609.6	569.1	576.3	560.7	626.5	778.8	750.0
40°	820.8	802.3	730.2	704.0	648.3	654.6	631.9	641.0	686.2	844.6	822.2
42.5°	882.3	864.6	801.4	782.9	729.8	704.0	693.8	726.6	777.7	954.2	925.7
45°	944.1	899.1	872.4	881.6	857.8	806.8	794.9	824.1	877.8	1088.9	1034.9
47.5°	996.2	958.2	938.2	933.9	924.6	995.4	946.9	959.8	983.5	1208.0	1170.9
50°	1090.1	1052.7	1021.3	1012.6	1057.7	1158.2	1083.3	1058.4	1105.8	1352.0	1328.6
52.5°	1225.8	1178.1	1128.1	1128.2	1213.4	1268.6	1304.0	1260.3	1269.1	1510.3	1499.9
55°	1334.8	1274.2	1232.8	1265.5	1392.6	1423.4	1558.8	1520.4	1508.9	1657.2	1644.4
57.5°	1349.7	1277.2	1257.5	1314.8	1488.7	1686.0	1831.6	1735.7	1718.1	1780.0	1805.4
60°	1210.1	1133.1	1147.9	1240.2	1520.0	1846.0	2082.0	2003.8	1892.0	1924.0	1941.4
62.5°	902.6	841.0	882.6	1004.8	1399.3	1953.2	2372.0	2408.3	2093.7	2032.0	2028.3
65°	585.6	547.1	574.4	674.5	1059.0	1941.0	2631.1	2788.4	2252.6	2120.1	2055.6
67.5°	387.3	358.1	362.0	421.3	684.8	1578.6	2785.9	2976.2	2431.3	2170.2	1899.2
70°	288.7	265.7	267.1	299.2	406.5	1041.1	2570.0	2828.1	2496.5	1996.8	1532.9
72.5°	208.2	192.8	205.7	241.5	323.9	550.5	1915.5	2329.1	2176.9	1575.0	1032.8
75°	144.2	134.1	155.2	202.0	295.6	341.8	1265.8	1676.6	1525.8	988.2	466.9
77.5°	79.9	76.9	107.2	164.6	268.3	280.1	775.4	1101.6	846.3	354.2	111.1
80°	34.9	33.8	52.0	123.6	225.5	253.1	436.5	610.8	332.9	63.2	35.9
82.5°	15.0	14.4	22.2	74.4	163.9	211.7	269.2	294.0	114.6	19.5	20.4
85°	2.6	2.9	8.9	39.2	99.7	107.5	194.9	174.0	57.6	9.3	14.5
87.5°	0.0	0.0	1.4	7.6	18.7	30.8	84.5	61.0	10.9	3.0	2.5
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°	273.7	273.7	273.7	273.7	273.7	273.7	273.7	273.7	273.7	273.7	273.7
2.5°	333.6	325.8	296.3	292.6	288.6	282.6	280.4	267.7	266.0	282.3	282.3
5°	415.2	387.5	359.4	337.2	317.4	290.0	282.2	274.2	267.7	266.0	271.1
7.5°	458.3	424.5	380.3	323.9	278.2	238.4	221.8	210.2	197.1	201.0	203.1
10°	455.9	420.0	363.7	291.2	240.5	196.6	154.3	129.7	116.0	109.2	108.3
12.5°	479.1	445.3	352.4	265.2	200.5	139.8	97.1	79.5	69.4	69.5	68.7
15°	492.5	455.6	339.4	232.2	141.2	89.9	67.3	63.4	62.1	63.6	62.8
17.5°	516.2	466.6	309.9	183.0	97.1	67.9	61.9	60.4	62.2	65.4	64.6
20°	514.4	447.6	267.9	129.0	71.8	61.1	58.6	56.2	60.0	63.3	62.8
22.5°	512.7	429.0	228.4	95.2	60.0	55.7	53.6	52.6	54.6	58.5	59.3
25°	498.0	419.9	188.4	71.5	54.3	50.6	49.6	48.8	49.5	52.6	52.5
27.5°	516.0	396.8	145.5	60.0	50.3	45.9	45.0	43.6	42.3	45.0	45.4
30°	512.3	400.0	114.0	52.8	46.3	40.3	40.6	37.7	35.2	37.7	37.7
32.5°	525.9	376.7	91.3	47.9	42.3	38.0	34.5	31.4	29.6	31.2	31.4
35°	545.7	377.6	71.5	44.9	38.8	33.8	29.6	26.6	24.9	25.6	26.0
37.5°	612.0	371.0	59.7	42.5	37.5	31.3	27.0	23.0	21.9	22.7	23.1
40°	655.3	388.7	52.6	41.3	34.4	28.8	23.1	20.2	19.3	19.7	20.4
42.5°	736.7	398.6	49.2	39.9	31.4	24.7	19.8	18.1	16.8	17.3	17.9
45°	823.9	415.3	46.5	38.4	29.2	21.6	17.5	16.1	14.3	14.4	15.0
47.5°	931.0	455.2	43.5	35.7	26.2	19.7	15.5	13.4	11.8	11.6	12.3
50°	1074.8	508.6	40.7	32.4	24.2	18.0	13.6	10.9	9.6	9.1	9.7
52.5°	1228.3	577.6	37.8	30.1	21.9	15.8	11.6	8.9	7.6	7.3	7.8
55°	1380.4	643.8	35.0	28.5	19.4	13.6	9.8	7.3	6.2	6.0	6.2
57.5°	1553.7	715.4	31.4	25.5	17.0	11.8	8.2	6.1	5.1	4.8	5.0
60°	1684.2	740.6	28.4	22.2	14.8	10.4	6.9	4.8	4.2	3.9	4.0
62.5°	1746.1	699.5	25.5	19.3	13.0	9.0	5.8	4.0	3.5	3.2	3.2
65°	1730.0	608.3	22.6	16.5	11.2	7.5	4.6	3.5	3.0	2.6	2.5
67.5°	1544.4	476.0	19.3	13.9	9.4	6.1	3.9	3.3	2.8	2.5	2.1
70°	1224.8	344.7	15.7	11.5	7.9	5.0	3.0	3.0	2.6	2.5	1.9
72.5°	802.8	216.9	12.7	9.3	6.5	3.9	2.4	2.8	2.5	2.5	1.8
75°	347.9	77.6	10.3	7.5	5.4	2.6	2.1	2.5	2.6	2.5	2.1
77.5°	81.5	24.1	8.0	6.0	4.4	1.8	2.1	2.5	2.6	2.4	1.8
80°	30.6	10.3	5.3	3.9	3.5	1.1	1.8	1.5	1.4	1.0	0.3
82.5°	18.6	4.3	2.8	1.9	1.7	0.3	0.8	0.6	0.3	0.3	0.0
85°	13.2	2.1	1.5	1.4	0.8	0.0	0.1	0.0	0.0	0.1	0.0
87.5°	1.8	0.6	0.7	0.7	0.6	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)