

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: P596835

Luminaire Tested: **MSA-SA1A-835-U-SL4-HSS**

Issue Date: 5/27/2021

Test Information

Test Method: LM-79-08
Report Number: P596835
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-21)
Test Lab: INNOVATIONS CENTER
Issue Date: 5/27/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA1A-835-U-SL4-HSS
Description: MESA POST TOP DECORATIVE LUMINAIRE. (1) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV SPILL LIGHT ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2755 lumens
Efficiency: N/A
Efficacy: 81.0 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

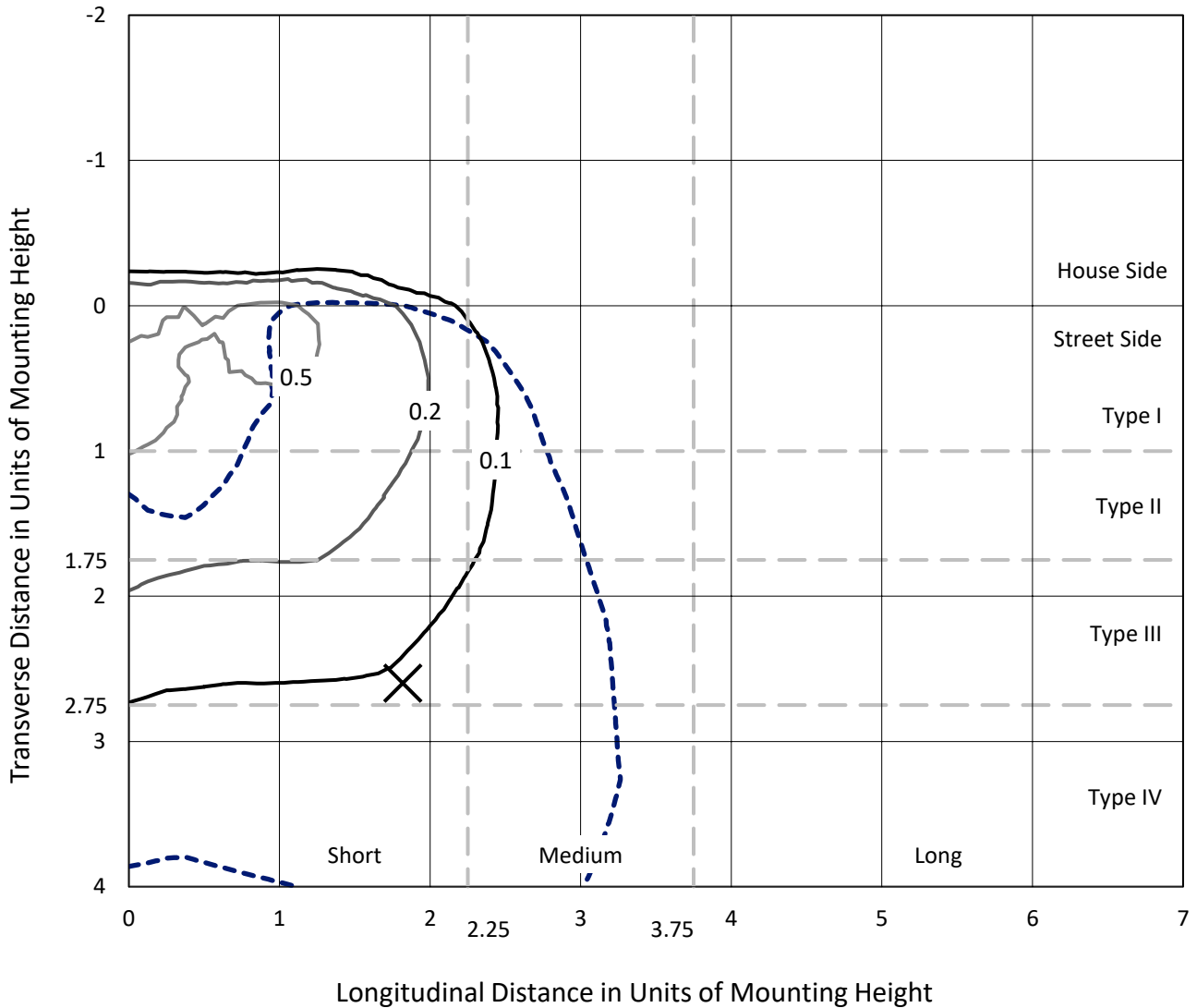
Input Watts (W): 34
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

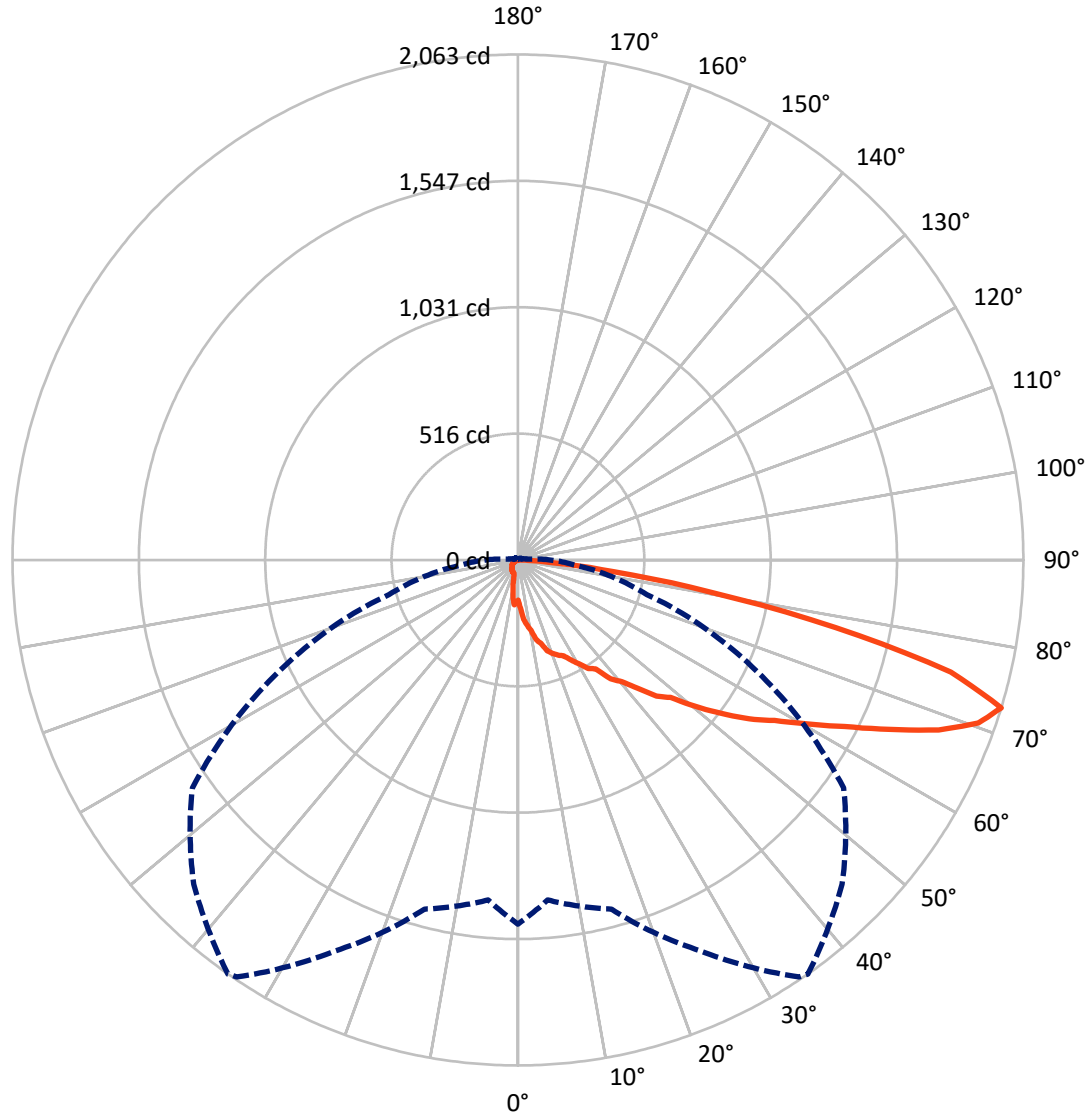
× Max cd
 - - - 1/2 Max cd



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

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Luminous Intensity Polar Plot



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

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	214.9	0.0	214.9
	% Fixture	7.8	0.0	7.8
Street Side	Lumens	2540.1	0.0	2540.1
	% Fixture	92.2	0.0	92.2
Total	Lumens	2755.0	0.0	2755.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	20.9	0.8
10°-20°	70.5	2.6
20°-30°	128.4	4.7
30°-40°	221.5	8.0
40°-50°	393.7	14.3
50°-60°	587.5	21.3
60°-70°	750.6	27.2
70°-80°	522.2	19.0
80°-90°	59.7	2.2
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°	2755.0	100.0
0°-180°	2755.0	100.0

Coefficient of Utilization



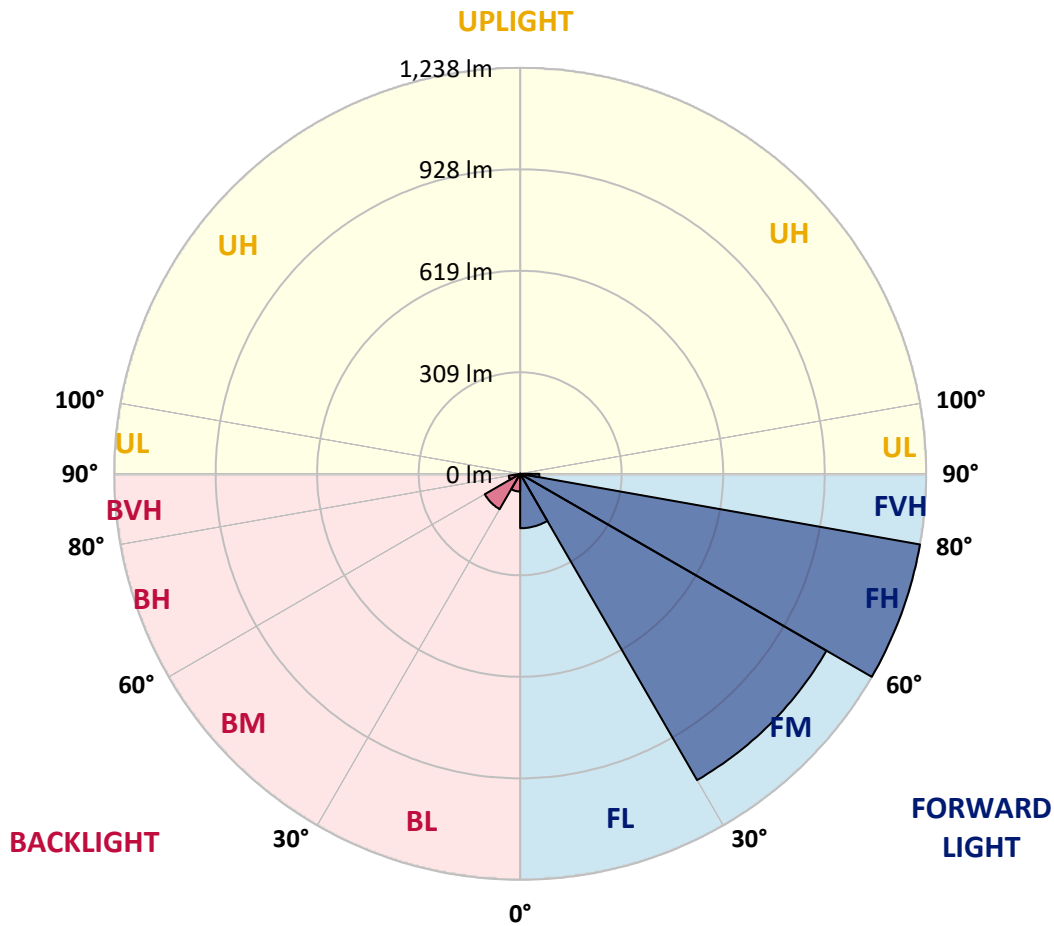
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	165.8	6.0			
FM (30°-60°)	1078.0	39.1			
FH (60°-80°)	1237.6	44.9			G1/1800
FVH (80°-90°)	58.7	2.1			G1/100
BL (0°-30°)	54.0	2.0	B0/110		
BM (30°-60°)	124.6	4.5	B0/220		
BH (60°-80°)	35.2	1.3	B0/110		G0/110
BVH (80°-90°)	1.0	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°	34°	35°	45°	55°	65°	75°	85°
0°	164.1	164.1	164.1	164.1	164.1	164.1	164.1	164.1	164.1	164.1	164.1
2.5°	208.8	200.7	187.4	188.4	194.3	195.6	197.4	192.6	188.5	181.1	195.4
5°	267.6	255.8	248.3	246.0	242.5	242.8	234.3	237.4	236.5	241.9	248.5
7.5°	300.7	294.2	284.7	282.1	269.4	268.0	257.6	271.6	273.0	271.0	281.7
10°	313.8	305.2	306.3	296.5	290.1	291.8	293.5	294.6	296.4	298.2	285.2
12.5°	321.6	323.1	338.2	328.0	334.3	334.3	345.5	333.6	334.0	321.0	323.2
15°	356.5	364.9	358.1	358.0	351.1	352.9	365.9	356.5	361.3	357.5	342.5
17.5°	400.2	401.9	389.0	383.4	389.6	389.7	384.2	383.8	366.9	395.4	377.3
20°	414.2	423.7	405.4	383.2	409.1	407.9	407.4	400.9	372.8	412.4	397.5
22.5°	452.3	438.9	426.4	411.9	422.0	422.0	420.5	406.2	395.3	410.9	417.3
25°	464.2	465.9	449.7	445.0	445.3	432.8	431.7	425.6	415.1	441.8	429.1
27.5°	505.2	504.5	465.6	478.8	462.0	462.2	431.5	445.3	447.1	443.3	457.6
30°	545.5	556.7	498.0	514.6	497.1	491.8	461.9	474.1	477.2	473.0	491.0
32.5°	596.9	613.4	556.3	540.0	513.1	528.1	507.4	478.6	494.4	532.8	542.9
35°	651.3	659.4	598.6	575.7	545.4	545.2	544.6	546.9	564.4	607.6	616.2
37.5°	749.1	730.1	675.2	622.8	629.6	614.5	604.0	615.1	633.2	704.4	741.1
40°	803.7	790.0	712.5	681.5	647.9	653.4	681.9	680.7	729.0	803.5	858.5
42.5°	856.7	843.7	767.5	742.5	699.3	714.4	726.8	742.6	841.6	961.8	992.0
45°	903.9	865.7	812.0	813.0	790.5	792.3	814.3	828.9	972.1	1095.3	1116.5
47.5°	932.5	901.0	849.5	848.6	847.2	838.7	942.4	955.7	1076.1	1222.5	1224.4
50°	972.6	933.3	888.2	889.0	921.0	938.8	1062.7	1061.3	1176.5	1328.6	1283.8
52.5°	1022.6	974.6	924.9	961.8	1011.3	1040.4	1140.9	1181.9	1284.4	1395.2	1307.1
55°	1086.6	1026.5	978.6	1026.0	1133.8	1145.1	1217.5	1304.1	1402.0	1463.2	1314.6
57.5°	1161.7	1089.9	1051.2	1127.5	1235.1	1235.4	1329.0	1434.2	1474.1	1490.9	1306.1
60°	1242.6	1158.9	1119.9	1188.6	1346.7	1358.1	1452.9	1506.1	1547.4	1504.9	1291.0
62.5°	1313.8	1221.4	1191.0	1271.8	1469.1	1496.0	1561.0	1553.3	1600.3	1522.5	1252.7
65°	1398.5	1302.3	1282.3	1401.6	1629.0	1665.9	1682.3	1637.1	1618.0	1508.9	1152.8
67.5°	1482.4	1392.4	1391.9	1545.5	1838.5	1851.2	1834.1	1755.3	1597.4	1389.2	969.9
70°	1541.6	1444.9	1481.3	1703.1	2028.9	1993.2	1920.9	1811.1	1448.4	1064.7	633.6
72.5°	1486.0	1392.8	1475.0	1759.1	2052.5	2062.7	1870.6	1622.3	1076.1	544.6	229.3
75°	1129.3	1072.2	1280.7	1560.7	1822.3	1824.7	1561.4	1144.2	529.9	147.9	63.4
77.5°	568.8	550.7	810.6	1107.9	1329.5	1325.7	1072.8	613.0	170.5	49.2	32.0
80°	287.9	273.4	345.0	597.7	789.6	795.4	612.6	274.5	86.0	26.7	22.2
82.5°	176.9	167.9	188.8	270.5	383.2	392.5	232.4	173.8	53.3	15.8	20.2
85°	34.2	36.0	108.4	135.4	153.0	149.4	68.8	143.1	16.1	9.4	14.7
87.5°	0.0	0.6	25.1	44.2	44.3	39.3	15.6	31.7	2.2	2.6	1.8
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°	164.1	164.1	164.1	164.1	164.1	164.1	164.1	164.1	164.1	164.1	164.1
2.5°	197.8	195.7	178.4	176.4	176.9	173.9	173.0	166.9	165.4	174.8	176.4
5°	245.7	231.8	215.8	210.0	201.0	185.7	183.5	179.6	175.3	177.0	175.7
7.5°	275.0	256.6	239.5	208.8	183.5	161.3	157.7	151.1	144.4	144.6	148.9
10°	279.8	264.2	240.6	203.3	174.4	146.7	122.6	105.1	97.2	90.2	92.2
12.5°	307.0	292.6	249.0	201.6	161.1	117.9	86.3	69.2	61.8	59.3	59.0
15°	328.9	317.6	263.4	196.5	131.6	83.0	61.8	56.8	55.4	57.8	57.1
17.5°	361.5	341.0	261.9	175.3	100.3	63.0	56.9	56.2	57.9	59.3	59.7
20°	375.7	346.2	251.5	142.1	75.1	57.8	55.5	54.2	57.2	61.4	60.5
22.5°	390.1	355.2	239.3	116.3	60.4	55.3	54.0	52.9	55.3	59.3	60.2
25°	396.6	369.6	225.7	90.9	56.1	52.4	51.5	51.9	53.9	57.5	57.1
27.5°	429.5	371.3	199.8	71.7	54.3	50.3	50.3	51.2	51.2	56.1	55.7
30°	450.0	399.4	178.8	60.4	52.2	47.4	49.0	49.4	48.7	54.0	54.4
32.5°	486.0	407.2	158.3	55.4	48.9	46.9	46.7	46.9	47.5	52.6	52.8
35°	541.4	445.4	130.3	53.5	47.2	44.9	42.9	44.5	45.8	49.6	50.3
37.5°	649.7	484.6	106.2	51.9	46.4	42.9	42.2	42.0	44.5	48.7	50.1
40°	737.3	554.0	86.4	50.7	44.7	41.8	40.0	40.2	42.4	45.6	47.6
42.5°	861.4	604.1	73.3	48.7	42.4	39.5	37.4	38.6	39.6	42.9	44.3
45°	965.0	643.0	64.5	47.5	40.0	37.3	35.6	37.0	36.0	37.7	39.6
47.5°	1047.4	677.0	58.0	44.5	38.5	36.0	33.9	33.5	31.9	32.3	34.1
50°	1092.7	671.3	52.6	41.4	36.6	34.8	31.9	28.9	26.7	26.6	27.7
52.5°	1108.8	640.9	48.2	38.8	34.2	32.0	28.7	24.7	22.4	21.7	22.7
55°	1113.2	597.3	44.2	35.9	32.0	28.5	25.1	20.8	18.4	17.3	18.3
57.5°	1098.8	530.2	40.3	33.1	29.4	25.2	21.5	17.0	14.8	13.4	14.3
60°	1063.2	444.8	36.8	29.6	26.6	22.3	18.1	13.7	11.4	10.1	10.5
62.5°	984.4	348.7	33.1	26.5	23.7	19.5	15.2	10.8	8.6	7.5	7.6
65°	864.5	260.0	28.8	23.4	21.1	16.9	12.2	8.3	6.5	5.5	5.4
67.5°	688.7	176.2	24.5	20.2	18.7	14.3	9.7	6.5	5.1	4.4	4.2
70°	404.8	88.8	20.4	17.5	16.1	11.9	7.6	5.3	4.7	4.2	3.9
72.5°	133.5	38.4	15.9	14.4	13.3	9.6	6.0	4.8	4.6	4.0	3.7
75°	46.5	22.2	11.8	11.1	10.5	7.2	5.0	4.4	4.4	3.9	3.5
77.5°	30.5	17.2	8.7	8.0	7.9	5.3	4.3	4.2	3.9	3.2	2.6
80°	25.3	9.7	6.1	5.7	5.5	3.3	3.5	3.0	2.4	1.4	0.6
82.5°	23.4	5.8	3.2	3.5	3.2	1.2	1.9	1.7	1.2	0.6	0.0
85°	13.7	2.6	1.8	1.8	1.4	0.3	1.0	1.0	0.6	0.1	0.0
87.5°	1.5	1.2	1.0	1.0	0.7	0.0	0.4	0.3	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)