

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: P366993

Luminaire Tested: **MSA-SA1C-830-U-T4W-HSS**

Issue Date: 12/2/2019

Test Information

Test Method: LM-79-08
Report Number: P366993
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-15)
Test Lab: INNOVATION CENTER
Issue Date: 12/2/2019
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA1C-830-U-T4W-HSS
Description: MESA POST TOP DECORATIVE LUMINAIRE. (1) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV WIDE OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3757 lumens
Efficiency: N/A
Efficacy: 63.7 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

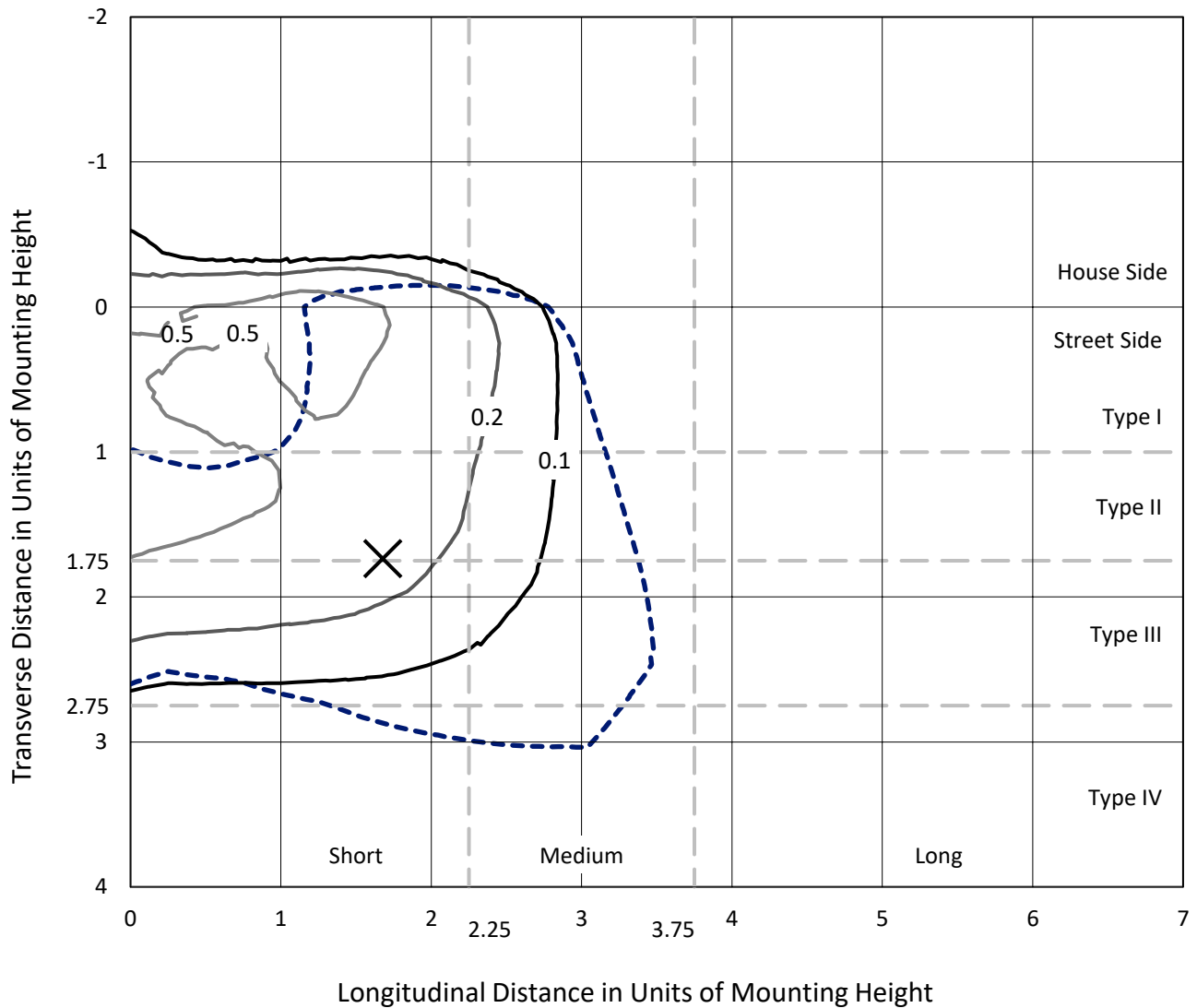
Input Watts (W): 59
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

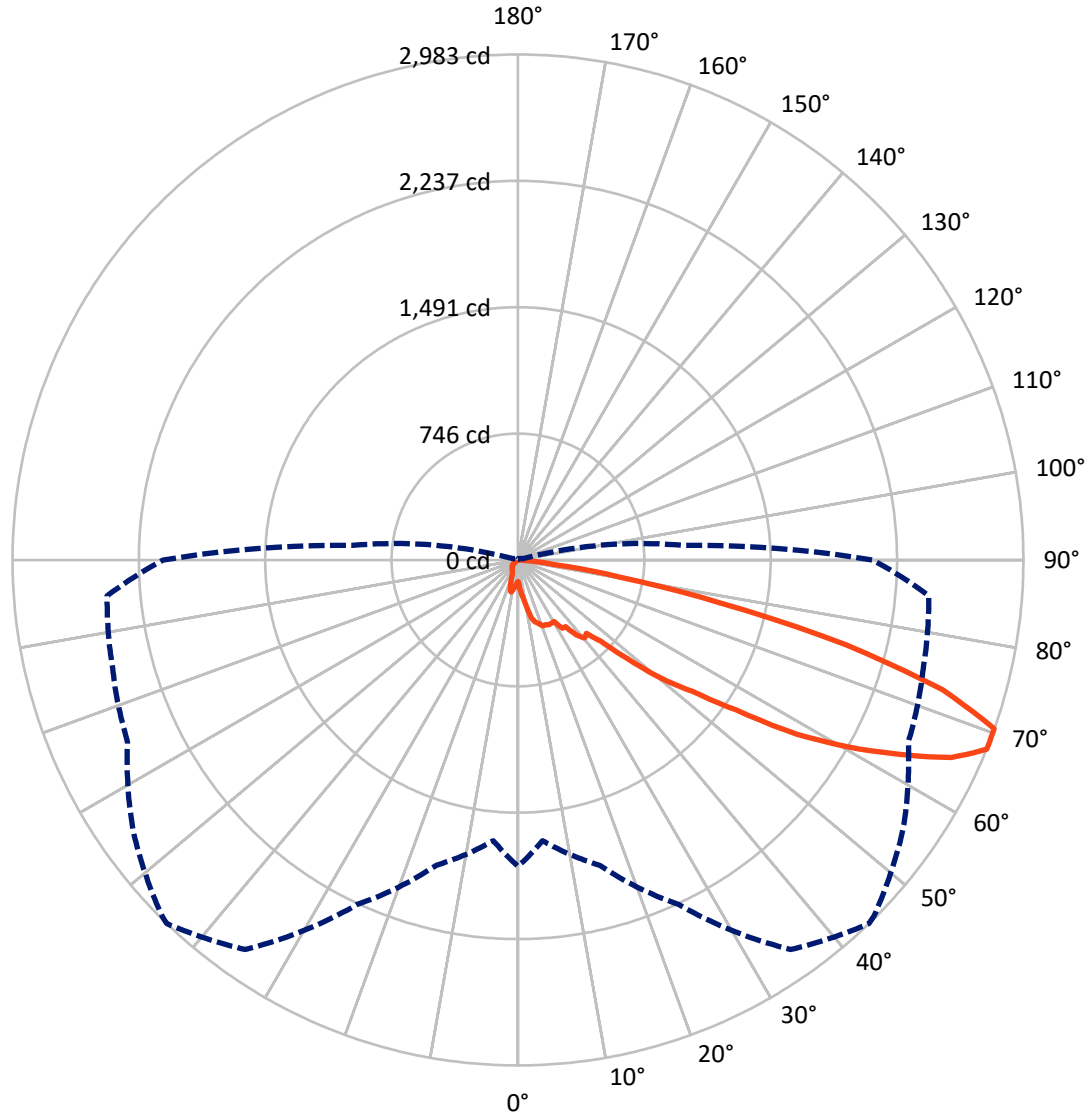
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 0.9 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 44-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	381.6	0.0	381.6
	% Fixture	10.2	0.0	10.2
Street Side	Lumens	3375.4	0.0	3375.4
	% Fixture	89.8	0.0	89.8
Total	Lumens	3757.0	0.0	3757.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	18.8	0.5
10°-20°	78.5	2.1
20°-30°	139.1	3.7
30°-40°	226.2	6.0
40°-50°	452.6	12.0
50°-60°	928.5	24.7
60°-70°	1275.5	33.9
70°-80°	599.5	16.0
80°-90°	38.4	1.0
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°	3757.0	100.0
0°-180°	3757.0	100.0

Coefficient of Utilization

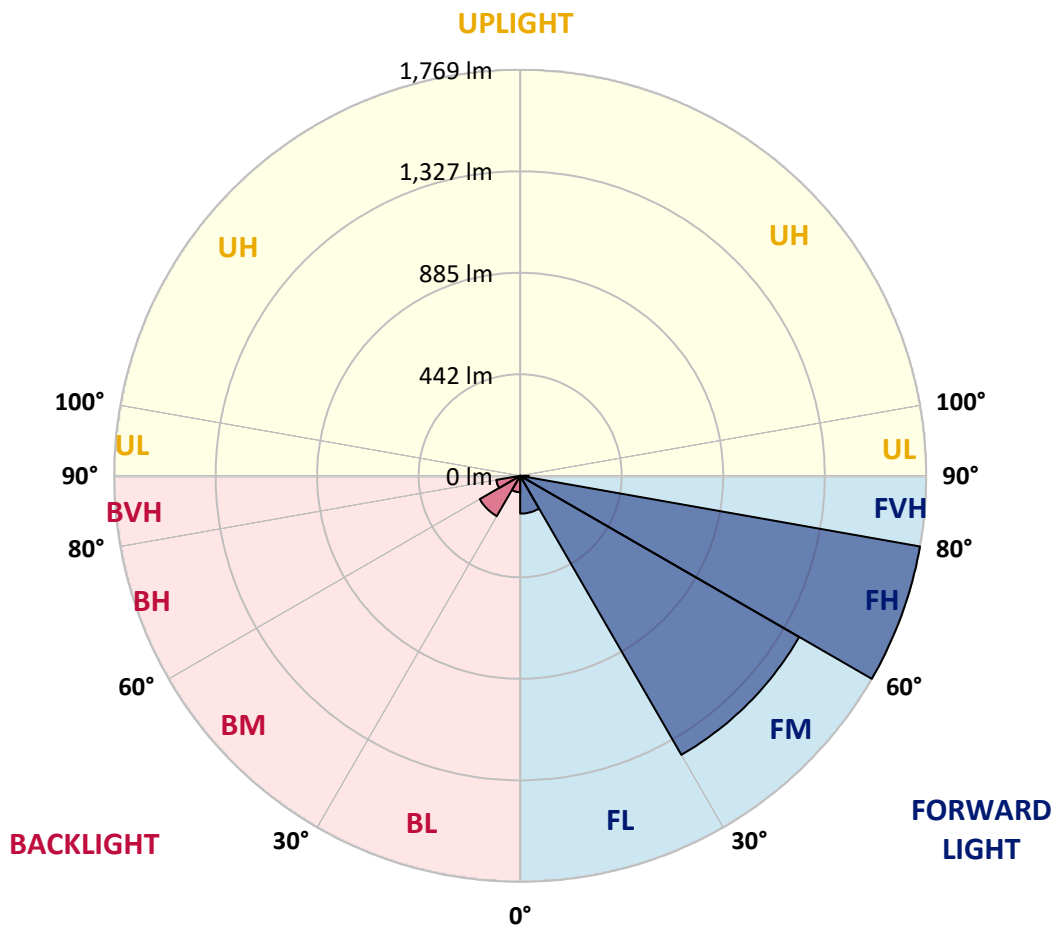


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	164.8	4.4			
FM (30°-60°)	1403.9	37.4			
FH (60°-80°)	1769.0	47.1			G1/1800
FVH (80°-90°)	37.6	1.0			G1/100
BL (0°-30°)	71.7	1.9	B0/110		
BM (30°-60°)	203.3	5.4	B0/220		
BH (60°-80°)	105.9	2.8	B0/110		G0/110
BVH (80°-90°)	0.8	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°	35°	44°	45°	55°	65°	75°	85°
0°	126.6	126.6	126.6	126.6	126.6	126.6	126.6	126.6	126.6	126.6	126.6
2.5°	161.0	155.8	148.3	150.0	150.8	153.1	153.3	150.4	142.1	139.8	150.0
5°	225.6	213.0	210.7	205.9	196.4	191.2	190.0	195.2	188.5	186.5	189.1
7.5°	288.2	277.4	265.6	259.2	239.3	227.1	226.4	228.5	229.8	222.5	226.2
10°	329.8	318.0	315.5	300.4	283.2	280.3	279.1	271.2	264.8	259.4	241.4
12.5°	367.5	367.3	371.9	350.1	347.4	350.3	349.3	321.1	314.7	292.1	286.9
15°	417.7	430.1	410.4	392.2	369.0	378.9	376.2	358.2	353.8	338.5	316.3
17.5°	469.7	473.0	440.0	412.1	406.1	393.0	395.7	389.3	367.3	379.5	357.6
20°	470.9	478.1	442.9	396.7	415.2	414.5	414.8	408.5	379.5	408.1	388.0
22.5°	488.3	470.5	437.7	408.3	411.6	414.8	418.1	410.4	404.2	411.2	415.0
25°	481.3	474.2	442.7	423.2	420.1	422.6	423.5	433.2	429.3	446.2	436.9
27.5°	499.5	489.3	433.0	436.5	425.5	422.6	417.7	450.2	461.8	448.3	473.2
30°	530.8	529.3	449.8	454.9	446.5	421.0	434.2	476.7	491.2	482.9	513.2
32.5°	579.7	584.6	498.9	465.3	469.7	481.0	476.1	476.7	513.4	531.8	555.8
35°	649.1	646.4	546.7	504.7	481.9	483.7	490.8	524.6	572.0	570.8	596.2
37.5°	785.4	756.0	631.5	544.9	551.7	561.0	555.8	601.2	605.8	607.4	668.3
40°	986.3	947.2	765.1	629.6	563.7	604.9	602.4	613.6	644.1	655.5	744.4
42.5°	1251.1	1198.5	1000.2	785.4	621.7	593.3	608.7	629.8	732.1	764.7	862.0
45°	1543.6	1437.1	1234.7	1007.5	767.1	679.1	690.7	730.1	872.0	925.8	1033.4
47.5°	1733.2	1639.5	1467.0	1204.3	918.8	872.6	873.6	882.1	1036.3	1136.1	1280.3
50°	1897.9	1798.2	1638.1	1410.0	1187.1	1099.7	1079.8	1040.6	1245.5	1382.0	1542.0
52.5°	2130.3	2013.9	1809.2	1651.4	1493.1	1287.1	1280.1	1293.4	1492.2	1635.8	1810.2
55°	2340.0	2198.5	2003.1	1903.7	1841.9	1562.7	1568.7	1590.9	1809.0	1885.0	2048.9
57.5°	2432.6	2279.3	2178.8	2134.1	2101.1	1939.1	1918.8	1905.5	2058.9	2087.9	2299.0
60°	2493.3	2347.4	2301.9	2312.2	2412.1	2240.1	2221.7	2144.6	2265.6	2289.4	2523.1
62.5°	2455.0	2322.0	2331.7	2418.1	2639.8	2526.6	2473.4	2344.5	2434.7	2453.9	2684.1
65°	2213.6	2075.0	2200.1	2409.2	2813.4	2810.7	2786.0	2529.1	2528.3	2553.0	2696.5
67.5°	1808.2	1662.7	1865.1	2242.2	2806.1	2982.8	2971.2	2774.0	2541.8	2475.9	2433.4
70°	1257.1	1130.9	1360.5	1851.7	2556.1	2981.6	2962.9	2938.5	2435.3	2131.2	1886.7
72.5°	653.2	583.8	797.6	1276.0	2037.5	2619.7	2681.2	2641.0	2079.4	1548.4	1111.1
75°	221.9	199.1	329.0	677.2	1354.5	2000.4	2072.5	2031.7	1412.3	830.8	439.4
77.5°	86.0	80.0	117.9	274.9	679.5	1219.0	1297.3	1255.7	757.4	304.3	103.4
80°	48.9	47.2	65.1	123.9	299.6	606.4	661.5	600.0	273.0	102.5	26.9
82.5°	20.7	21.3	36.3	66.9	150.6	214.0	238.7	217.7	114.4	70.2	9.9
85°	4.6	5.6	17.2	37.3	63.2	61.1	64.0	71.1	70.2	51.6	4.4
87.5°	0.0	0.0	5.4	10.2	15.1	9.9	7.9	13.9	21.5	20.7	1.9
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°	126.6	126.6	126.6	126.6	126.6	126.6	126.6	126.6	126.6	126.6	126.6
2.5°	151.9	149.8	136.7	135.9	136.7	134.5	134.2	129.5	129.9	140.7	141.5
5°	189.1	178.8	167.6	164.1	160.8	153.3	157.4	157.4	157.4	164.3	166.4
7.5°	222.9	209.0	193.3	180.0	167.2	157.9	164.3	168.8	171.5	180.4	184.6
10°	238.2	224.6	210.5	191.6	181.7	178.2	170.7	166.8	171.5	169.7	172.0
12.5°	271.0	258.5	234.3	214.8	207.4	195.4	173.4	158.1	147.9	146.3	145.8
15°	302.9	295.2	262.7	236.6	210.7	182.9	145.4	125.1	114.4	112.5	112.7
17.5°	343.3	332.3	284.4	246.9	203.0	153.1	112.3	94.9	94.1	98.6	99.0
20°	370.2	352.2	295.4	238.5	177.8	115.8	87.8	83.7	90.3	98.6	97.8
22.5°	395.9	376.4	309.9	231.0	137.8	87.8	80.8	81.2	86.8	95.7	98.0
25°	412.9	405.8	327.7	213.6	105.0	76.0	77.3	80.4	85.1	93.6	93.6
27.5°	464.1	431.1	325.7	179.8	80.8	70.9	73.8	77.7	80.2	90.3	91.4
30°	495.1	484.4	336.4	145.4	70.9	64.2	69.8	73.3	75.0	86.6	87.0
32.5°	533.3	509.4	349.5	107.3	65.9	63.8	62.6	65.3	70.0	80.2	80.8
35°	579.7	572.6	330.9	84.3	64.2	59.7	57.2	58.6	61.7	68.6	70.0
37.5°	674.3	632.5	319.7	72.3	64.2	58.2	55.5	51.8	52.2	57.0	59.7
40°	754.1	741.3	288.4	70.2	61.3	56.1	49.5	45.0	41.8	43.3	44.3
42.5°	900.6	841.1	248.0	69.2	58.6	50.8	42.1	37.3	32.5	32.9	34.6
45°	1078.3	950.1	211.9	68.2	56.8	45.4	35.4	29.8	24.9	25.1	26.7
47.5°	1315.7	1109.0	168.2	65.1	53.4	40.4	28.6	22.8	19.9	20.5	22.0
50°	1585.5	1248.4	133.0	60.3	49.5	35.6	23.2	18.4	17.4	18.0	19.7
52.5°	1826.4	1351.2	109.8	55.9	43.9	29.0	19.5	16.4	16.0	16.4	17.6
55°	2040.6	1410.8	91.8	51.0	37.7	23.4	17.6	15.1	14.9	14.7	15.5
57.5°	2241.6	1428.0	71.7	43.1	30.7	20.3	16.4	14.1	13.7	13.1	13.7
60°	2388.0	1398.6	52.6	34.6	25.1	18.4	15.3	12.6	12.0	11.0	11.4
62.5°	2458.7	1318.0	39.8	27.8	21.3	16.8	13.7	11.0	10.2	8.9	9.1
65°	2391.6	1185.2	31.3	23.4	18.2	14.1	11.6	9.3	8.3	7.0	7.0
67.5°	2094.3	983.2	26.5	20.3	15.3	12.0	9.5	8.5	6.8	5.8	5.6
70°	1537.2	707.3	22.8	17.8	13.3	10.4	8.1	7.7	6.6	5.6	5.2
72.5°	867.6	400.3	19.5	15.7	11.2	8.7	6.8	7.0	6.4	5.2	4.8
75°	331.1	134.9	16.2	13.1	9.1	6.6	5.8	5.8	5.8	4.4	3.7
77.5°	82.0	34.4	12.8	10.6	7.3	4.4	4.8	5.0	5.0	3.7	2.7
80°	22.6	11.6	7.7	7.7	5.2	2.5	3.3	3.3	2.7	1.2	0.0
82.5°	8.3	4.4	2.7	3.3	2.3	0.8	1.2	0.8	0.6	0.0	0.0
85°	3.5	2.3	1.7	1.9	1.0	0.0	0.2	0.4	0.0	0.0	0.0
87.5°	1.5	1.0	0.8	0.8	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)