

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: P596891

Luminaire Tested: **MSA-SA1C-835-U-T4W-HSS**

Issue Date: 5/27/2021

Test Information

Test Method: LM-79-08
Report Number: P596891
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-15)
Test Lab: INNOVATIONS CENTER
Issue Date: 5/27/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA1C-835-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: 3898 lumens
Efficiency: N/A
Efficacy: 66.1 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B0 - U0 - G2

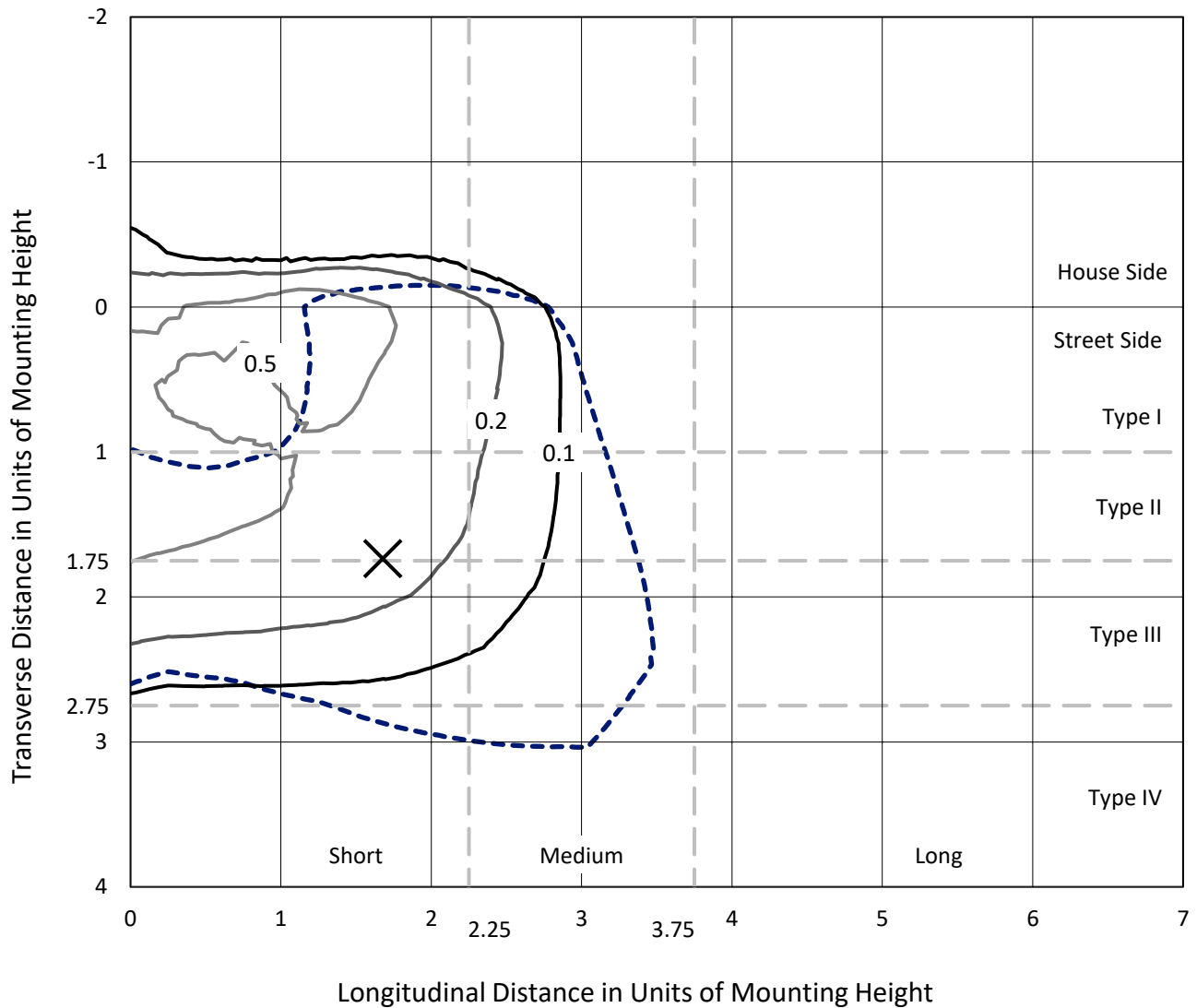
Input Watts (W): 59
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

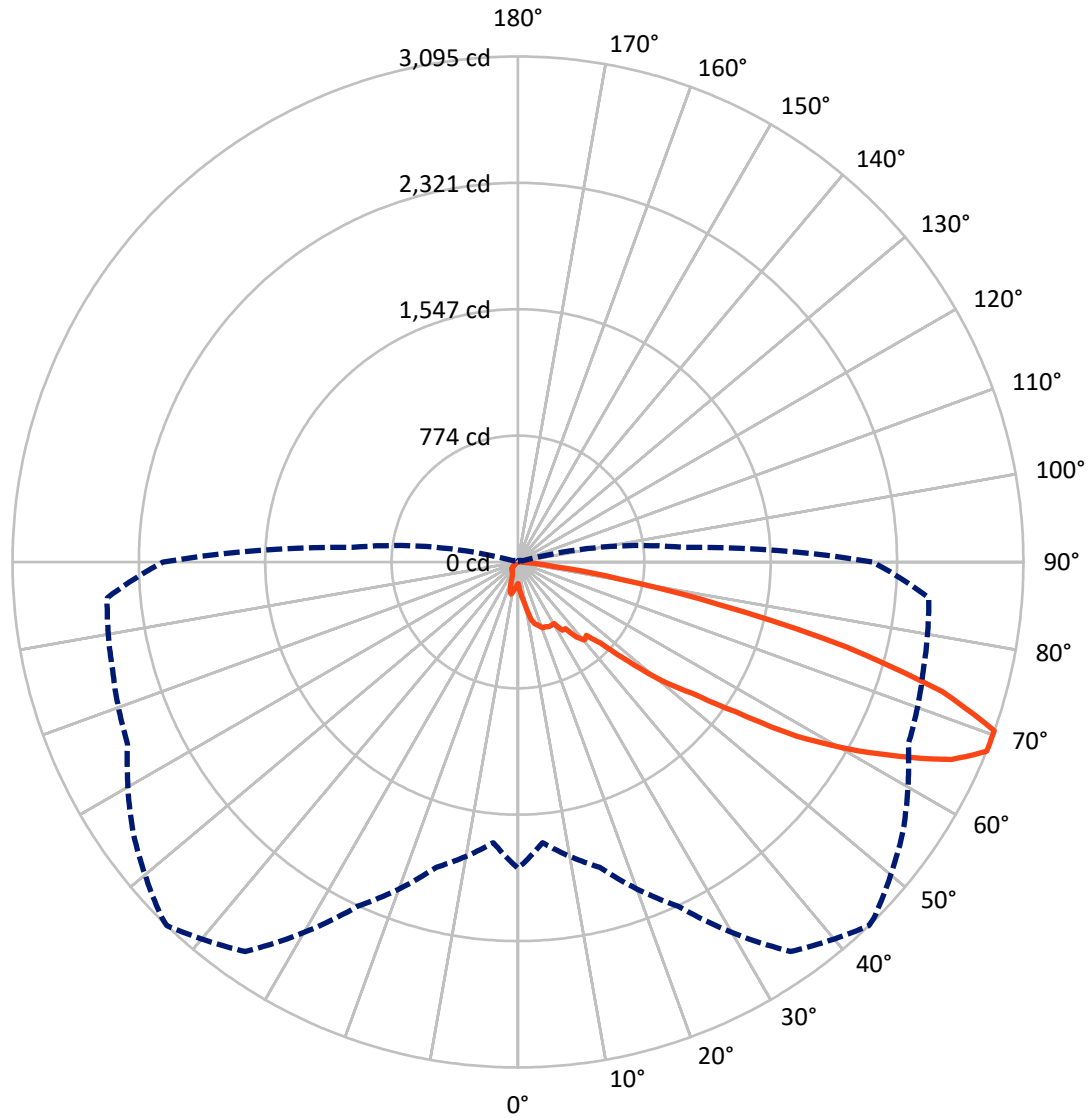
✕ Max cd
 - - - 1/2 Max cd



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	396.0	0.0	396.0
	% Fixture	10.2	0.0	10.2
Street Side	Lumens	3502.0	0.0	3502.0
	% Fixture	89.8	0.0	89.8
Total	Lumens	3898.0	0.0	3898.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	19.5	0.5
10°-20°	81.5	2.1
20°-30°	144.4	3.7
30°-40°	234.7	6.0
40°-50°	469.6	12.0
50°-60°	963.3	24.7
60°-70°	1323.3	33.9
70°-80°	622.0	16.0
80°-90°	39.8	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°	3898.0	100.0
0°-180°	3898.0	100.0

Coefficient of Utilization

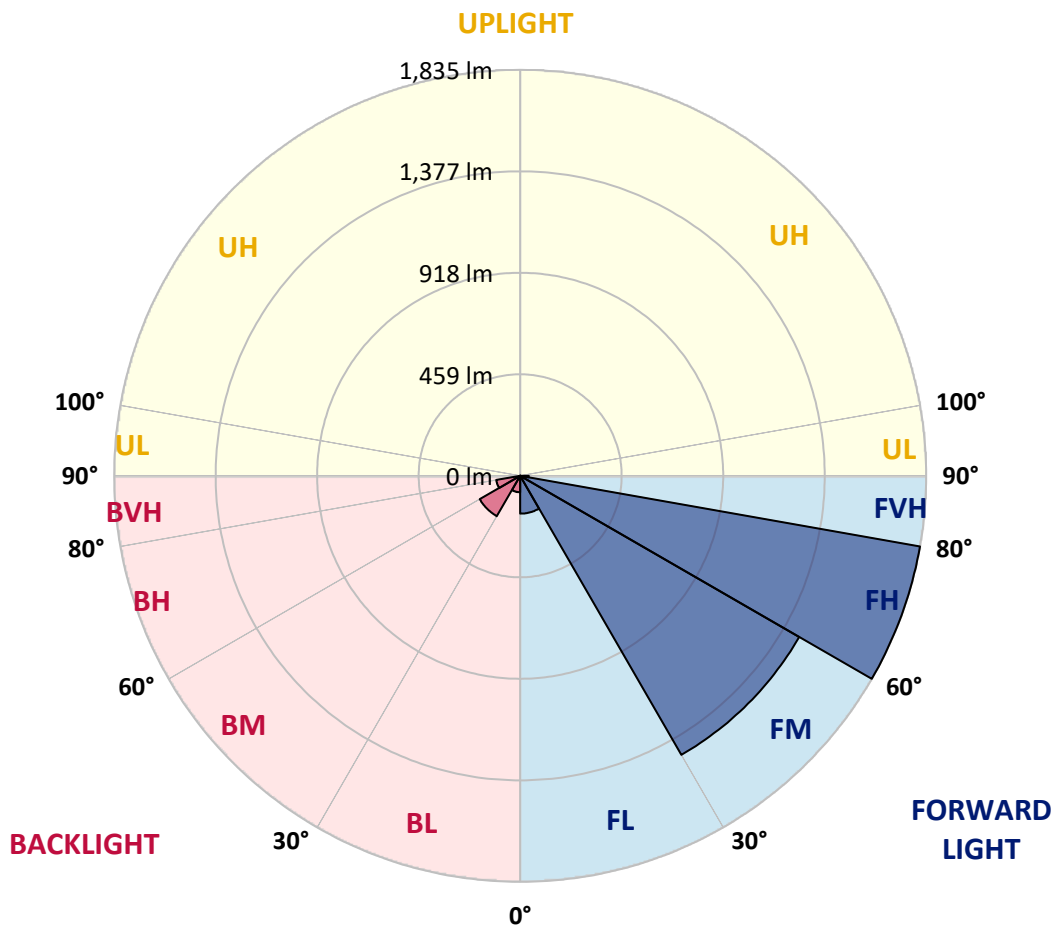


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	171.0	4.4			
FM (30°-60°)	1456.6	37.4			
FH (60°-80°)	1835.4	47.1			G2/5000
FVH (80°-90°)	39.0	1.0			G1/100
BL (0°-30°)	74.3	1.9	B0/110		
BM (30°-60°)	210.9	5.4	B0/220		
BH (60°-80°)	109.9	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-G2
 Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	44°	45°	55°	65°	75°	85°
0°	131.3	131.3	131.3	131.3	131.3	131.3	131.3	131.3	131.3	131.3	131.3
2.5°	167.0	161.6	153.9	155.6	156.5	158.8	159.1	156.0	147.5	145.1	155.6
5°	234.1	221.0	218.6	213.7	203.8	198.4	197.1	202.5	195.6	193.5	196.2
7.5°	299.0	287.8	275.6	268.9	248.3	235.6	234.9	237.1	238.4	230.9	234.7
10°	342.2	329.9	327.4	311.7	293.8	290.8	289.5	281.4	274.7	269.1	250.4
12.5°	381.3	381.1	385.8	363.3	360.5	363.5	362.4	333.2	326.5	303.1	297.7
15°	433.3	446.2	425.8	406.9	382.8	393.1	390.3	371.6	367.1	351.2	328.2
17.5°	487.3	490.7	456.5	427.5	421.3	407.8	410.5	403.9	381.1	393.8	371.0
20°	488.6	496.1	459.6	411.6	430.7	430.1	430.3	423.9	393.8	423.4	402.6
22.5°	506.6	488.1	454.2	423.7	427.1	430.3	433.8	425.8	419.4	426.7	430.5
25°	499.3	492.0	459.3	439.1	435.9	438.5	439.3	449.4	445.4	463.0	453.3
27.5°	518.2	507.7	449.2	452.9	441.5	438.5	433.3	467.1	479.1	465.1	490.9
30°	550.7	549.2	466.6	472.0	463.2	436.8	450.5	494.6	509.6	501.0	532.4
32.5°	601.4	606.6	517.6	482.8	487.3	499.1	493.9	494.6	532.6	551.8	576.7
35°	673.4	670.6	567.2	523.6	500.0	501.9	509.2	544.2	593.5	592.2	618.6
37.5°	814.9	784.3	655.2	565.3	572.4	582.1	576.7	623.8	628.5	630.2	693.4
40°	1023.4	982.7	793.8	653.2	584.9	627.6	625.1	636.7	668.3	680.1	772.3
42.5°	1298.1	1243.5	1037.8	814.9	645.0	615.6	631.5	653.4	759.6	793.4	894.4
45°	1601.6	1491.1	1281.1	1045.3	795.9	704.6	716.6	757.5	904.7	960.6	1072.1
47.5°	1798.2	1701.1	1522.0	1249.5	953.3	905.3	906.4	915.2	1075.2	1178.8	1328.4
50°	1969.1	1865.7	1699.6	1462.9	1231.6	1140.9	1120.3	1079.7	1292.2	1433.9	1599.8
52.5°	2210.3	2089.5	1877.1	1713.3	1549.1	1335.5	1328.1	1341.9	1548.2	1697.2	1878.2
55°	2427.8	2281.0	2078.3	1975.1	1911.1	1621.3	1627.6	1650.6	1876.9	1955.8	2125.8
57.5°	2523.9	2364.8	2260.6	2214.1	2180.0	2011.9	1990.8	1977.1	2136.1	2166.2	2385.2
60°	2586.9	2435.5	2388.3	2399.0	2502.6	2324.2	2305.1	2225.1	2350.6	2375.4	2617.8
62.5°	2547.1	2409.1	2419.2	2508.8	2738.8	2621.5	2566.2	2432.5	2526.0	2546.0	2784.8
65°	2296.7	2152.9	2282.7	2499.6	2919.0	2916.2	2890.6	2624.0	2623.2	2648.8	2797.7
67.5°	1876.0	1725.1	1935.1	2326.3	2911.4	3094.8	3082.7	2878.1	2637.2	2568.8	2524.7
70°	1304.3	1173.4	1411.5	1921.2	2652.0	3093.5	3074.1	3048.8	2526.7	2211.1	1957.5
72.5°	677.7	605.7	827.5	1323.8	2114.0	2718.0	2781.8	2740.1	2157.4	1606.5	1152.7
75°	230.2	206.6	341.3	702.7	1405.3	2075.5	2150.3	2108.0	1465.3	861.9	455.9
77.5°	89.2	83.0	122.3	285.2	705.0	1264.7	1346.0	1302.8	785.8	315.8	107.3
80°	50.7	49.0	67.5	128.5	310.8	629.1	686.3	622.5	283.3	106.4	27.9
82.5°	21.5	22.1	37.6	69.4	156.3	222.0	247.6	225.9	118.6	72.9	10.3
85°	4.7	5.8	17.8	38.7	65.6	63.4	66.4	73.7	72.9	53.5	4.5
87.5°	0.0	0.0	5.6	10.5	15.7	10.3	8.2	14.4	22.4	21.5	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°	131.3	131.3	131.3	131.3	131.3	131.3	131.3	131.3	131.3	131.3	131.3
2.5°	157.6	155.4	141.9	141.0	141.9	139.5	139.3	134.3	134.8	145.9	146.8
5°	196.2	185.5	173.9	170.2	166.8	159.1	163.4	163.4	163.4	170.5	172.6
7.5°	231.3	216.9	200.5	186.8	173.5	163.8	170.5	175.2	178.0	187.2	191.5
10°	247.2	233.0	218.4	198.8	188.5	184.9	177.1	173.0	178.0	176.0	178.4
12.5°	281.1	268.3	243.1	222.9	215.2	202.7	179.9	164.0	153.5	151.8	151.3
15°	314.2	306.3	272.6	245.5	218.6	189.8	150.9	129.8	118.6	116.7	116.9
17.5°	356.2	344.8	295.1	256.2	210.6	158.8	116.5	98.4	97.6	102.3	102.7
20°	384.1	365.4	306.5	247.4	184.4	120.2	91.1	86.8	93.7	102.3	101.5
22.5°	410.8	390.6	321.6	239.7	142.9	91.1	83.8	84.3	90.1	99.3	101.7
25°	428.4	421.1	340.0	221.6	109.0	78.9	80.2	83.4	88.3	97.2	97.2
27.5°	481.5	447.3	337.9	186.6	83.8	73.5	76.5	80.6	83.2	93.7	94.8
30°	513.7	502.5	349.1	150.9	73.5	66.6	72.4	76.1	77.8	89.8	90.3
32.5°	553.3	528.5	362.6	111.3	68.4	66.2	64.9	67.7	72.7	83.2	83.8
35°	601.4	594.1	343.3	87.5	66.6	61.9	59.3	60.8	64.1	71.1	72.7
37.5°	699.6	656.2	331.7	75.0	66.6	60.4	57.6	53.7	54.2	59.1	61.9
40°	782.4	769.1	299.2	72.9	63.6	58.3	51.4	46.6	43.4	44.9	46.0
42.5°	934.4	872.7	257.3	71.8	60.8	52.7	43.6	38.7	33.7	34.2	35.9
45°	1118.8	985.7	219.9	70.7	58.9	47.1	36.8	31.0	25.8	26.0	27.7
47.5°	1365.1	1150.6	174.5	67.5	55.5	41.9	29.7	23.6	20.6	21.3	22.8
50°	1645.0	1295.3	138.0	62.5	51.4	37.0	24.1	19.1	18.1	18.7	20.4
52.5°	1895.0	1401.9	113.9	58.0	45.6	30.1	20.2	17.0	16.6	17.0	18.3
55°	2117.2	1463.8	95.2	52.9	39.1	24.3	18.3	15.7	15.5	15.3	16.1
57.5°	2325.7	1481.6	74.4	44.7	31.8	21.1	17.0	14.6	14.2	13.5	14.2
60°	2477.7	1451.1	54.6	35.9	26.0	19.1	15.9	13.1	12.5	11.4	11.8
62.5°	2551.0	1367.5	41.3	28.8	22.1	17.4	14.2	11.4	10.5	9.2	9.5
65°	2481.3	1229.7	32.5	24.3	18.9	14.6	12.0	9.7	8.6	7.3	7.3
67.5°	2172.9	1020.1	27.5	21.1	15.9	12.5	9.9	8.8	7.1	6.0	5.8
70°	1594.9	733.8	23.6	18.5	13.8	10.7	8.4	8.0	6.9	5.8	5.4
72.5°	900.2	415.3	20.2	16.3	11.6	9.0	7.1	7.3	6.7	5.4	4.9
75°	343.5	139.9	16.8	13.5	9.5	6.9	6.0	6.0	6.0	4.5	3.9
77.5°	85.1	35.7	13.3	11.0	7.5	4.5	4.9	5.2	5.2	3.9	2.8
80°	23.4	12.0	8.0	8.0	5.4	2.6	3.4	3.4	2.8	1.3	0.0
82.5°	8.6	4.5	2.8	3.4	2.4	0.9	1.3	0.9	0.6	0.0	0.0
85°	3.7	2.4	1.7	1.9	1.1	0.0	0.2	0.4	0.0	0.0	0.0
87.5°	1.5	1.1	0.9	0.9	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)