

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: P596188

Luminaire Tested: **MSA-SA1C-722-U-T4W**

Issue Date: 5/27/2021

Test Information

Test Method: LM-79-08
Report Number: P596188
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-14)
Test Lab: INNOVATIONS CENTER
Issue Date: 5/27/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA1C-722-U-T4W
Description: MESA POST TOP DECORATIVE LUMINAIRE. (1) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV WIDE OPTICS.
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4675 lumens
Efficiency: N/A
Efficacy: 79.2 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B1 - U0 - G2

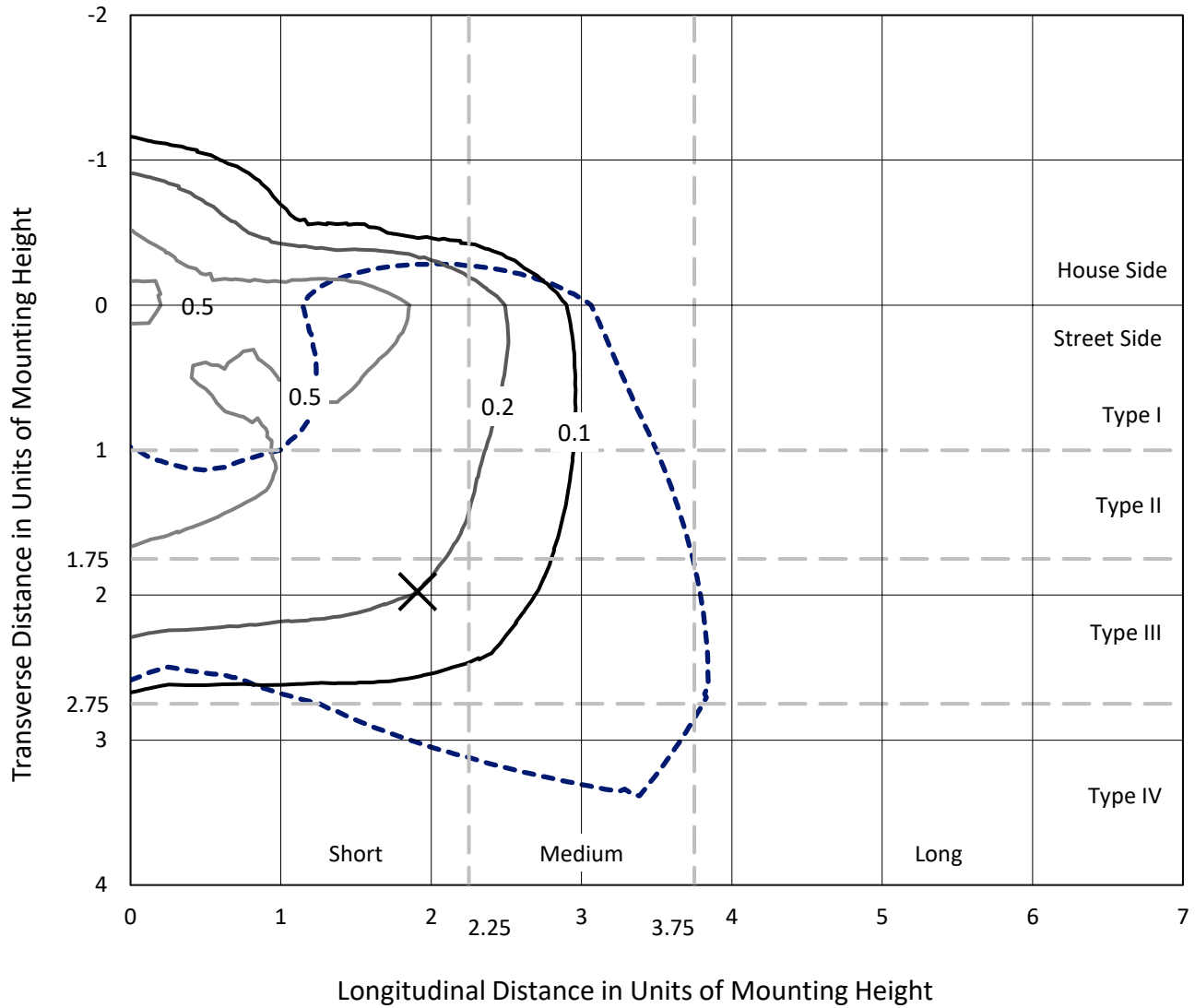
Input Watts (W): 59
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

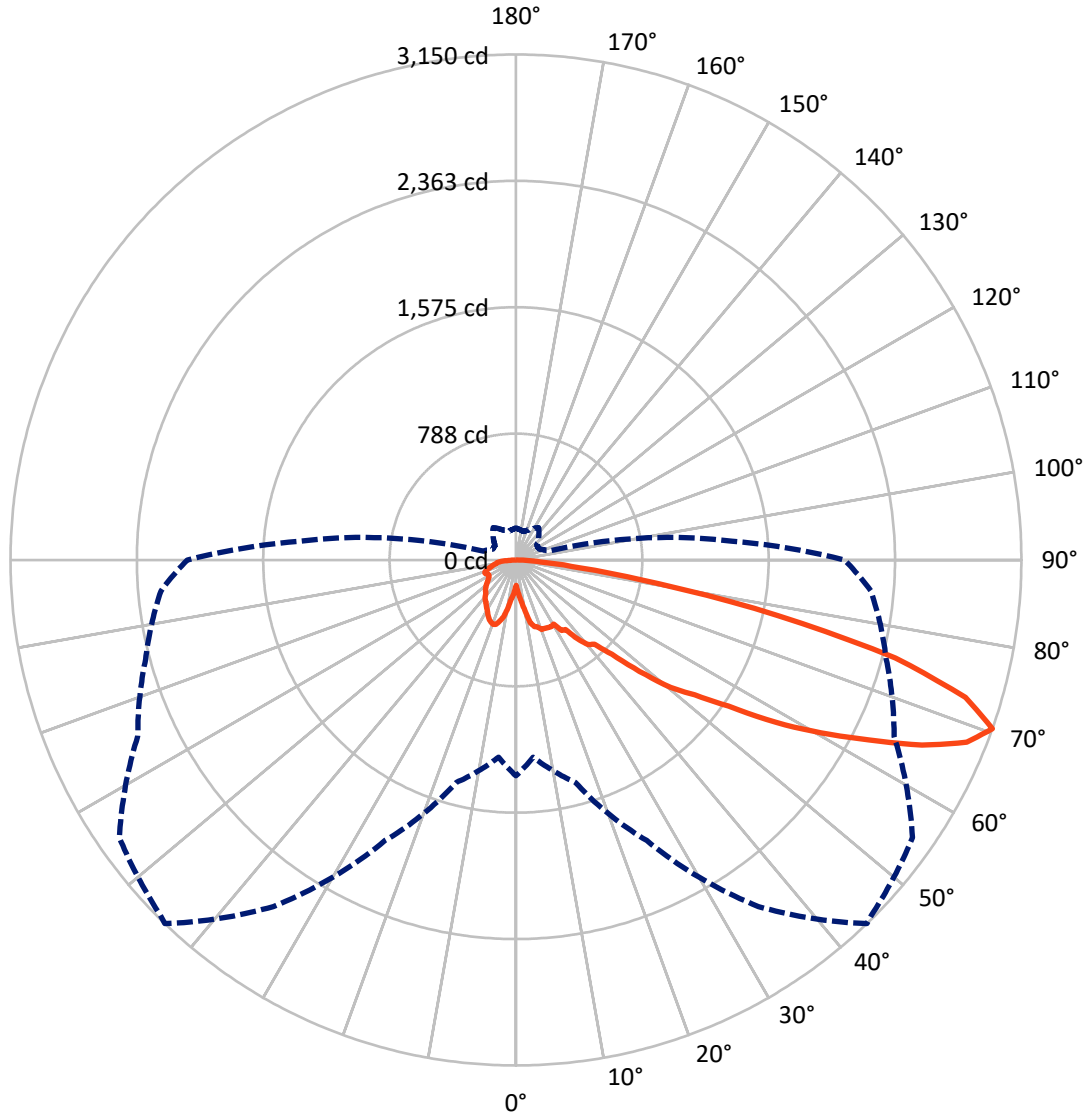
✕ Max cd
 - - - 1/2 Max cd



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 70-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1031.5	0.0	1031.5
	% Fixture	22.1	0.0	22.1
Street Side	Lumens	3643.5	0.0	3643.5
	% Fixture	77.9	0.0	77.9
Total	Lumens	4675.0	0.0	4675.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	24.9	0.5
10°-20°	114.7	2.5
20°-30°	214.4	4.6
30°-40°	344.2	7.4
40°-50°	580.9	12.4
50°-60°	1035.2	22.1
60°-70°	1416.0	30.3
70°-80°	832.7	17.8
80°-90°	112.1	2.4
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°	4675.0	100.0
0°-180°	4675.0	100.0

Coefficient of Utilization

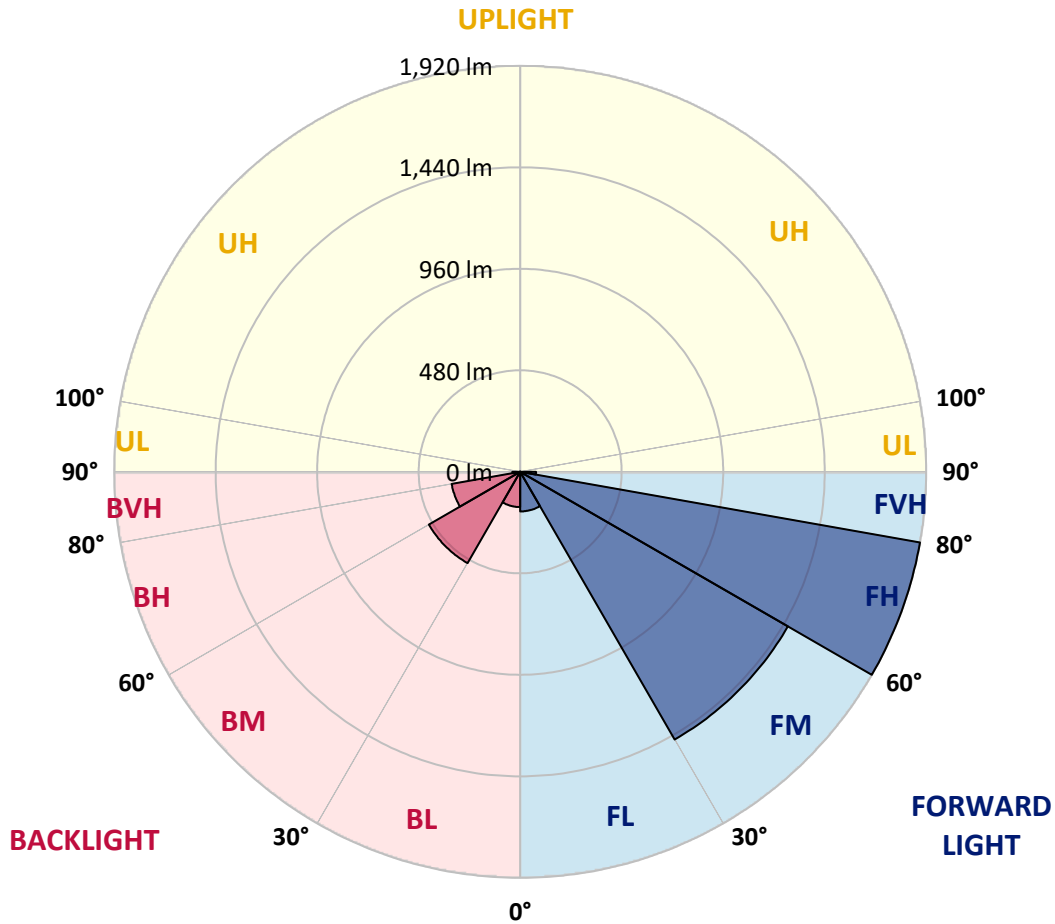


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	187.3	4.0			
FM (30°-60°)	1461.7	31.3			
FH (60°-80°)	1919.7	41.1			G2/5000
FVH (80°-90°)	74.7	1.6			G1/100
BL (0°-30°)	166.7	3.6	B1/500		
BM (30°-60°)	498.5	10.7	B1/1000		
BH (60°-80°)	328.9	7.0	B1/500		G1/500
BVH (80°-90°)	37.4	0.8			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G2
 Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	44°	45°	55°	65°	75°	85°
0°	158.9	158.9	158.9	158.9	158.9	158.9	158.9	158.9	158.9	158.9	158.9
2.5°	192.8	189.0	179.8	182.9	186.7	188.2	187.9	187.5	181.5	179.4	190.0
5°	262.0	253.6	246.9	244.2	235.4	228.5	224.3	235.4	233.7	236.5	243.8
7.5°	327.2	321.8	306.7	301.3	283.3	271.4	270.1	278.9	281.2	276.6	289.1
10°	369.2	360.0	356.9	344.1	331.6	329.7	328.6	324.5	319.0	318.6	307.5
12.5°	401.8	406.6	409.1	394.3	394.7	401.6	397.9	381.7	372.3	355.8	357.1
15°	460.2	467.1	447.4	438.0	420.0	430.3	429.0	415.4	414.0	403.3	390.9
17.5°	511.2	514.3	481.3	459.9	453.7	438.8	442.8	443.2	425.5	444.7	433.6
20°	515.4	526.4	488.4	445.7	464.1	462.2	462.7	458.9	435.7	467.3	463.1
22.5°	536.2	519.5	485.4	454.1	458.9	461.8	464.5	459.9	458.5	476.2	489.0
25°	532.3	527.0	492.4	466.0	466.6	467.1	468.5	482.3	480.8	504.7	511.4
27.5°	568.2	559.9	494.6	488.0	473.1	469.8	460.6	489.4	511.8	511.2	548.2
30°	636.4	628.0	543.6	524.7	497.6	464.3	481.9	520.2	537.9	543.8	590.8
32.5°	743.0	756.8	640.2	563.8	530.2	522.9	521.0	517.2	560.9	590.2	633.0
35°	896.0	885.0	754.1	647.5	564.5	533.3	537.5	560.9	612.8	631.8	671.3
37.5°	1071.2	1048.5	900.0	742.4	663.4	624.3	610.3	633.0	644.5	659.4	740.1
40°	1249.2	1194.0	1043.2	867.2	722.9	693.3	681.1	653.3	680.3	710.6	813.1
42.5°	1421.2	1378.4	1199.0	1016.1	822.9	717.7	711.0	683.8	767.5	799.5	918.6
45°	1601.4	1502.3	1358.7	1184.2	969.2	837.1	827.1	778.3	885.6	952.3	1067.3
47.5°	1722.5	1630.7	1504.9	1320.7	1091.7	1036.8	1017.9	934.3	1031.7	1118.3	1297.2
50°	1837.1	1742.6	1610.6	1470.1	1313.4	1250.4	1209.9	1070.8	1213.6	1354.7	1591.8
52.5°	2001.2	1916.7	1733.2	1620.5	1551.7	1396.6	1366.5	1290.1	1426.4	1616.7	1913.8
55°	2176.6	2061.4	1895.2	1832.7	1804.9	1606.3	1581.8	1533.1	1709.7	1884.9	2226.8
57.5°	2254.1	2133.9	2042.2	2004.9	2002.6	1911.1	1883.0	1849.0	1999.3	2114.9	2521.5
60°	2315.6	2186.6	2150.0	2170.9	2246.8	2186.6	2150.0	2120.1	2235.1	2342.2	2761.8
62.5°	2304.3	2174.9	2193.7	2257.3	2451.1	2468.8	2440.6	2368.1	2468.8	2528.6	2899.7
65°	2121.8	2002.2	2111.6	2262.7	2641.1	2782.0	2780.4	2590.9	2625.7	2625.7	2885.1
67.5°	1802.1	1678.2	1857.5	2215.3	2772.4	3030.2	3030.6	2827.0	2640.1	2616.0	2659.7
70°	1345.7	1233.5	1435.0	1929.3	2636.9	3150.4	3132.9	3017.6	2600.6	2389.6	2221.7
72.5°	803.7	731.3	916.7	1404.5	2249.3	2929.4	2975.8	2798.1	2380.8	1987.2	1588.1
75°	365.0	333.5	430.7	806.8	1605.8	2443.4	2493.9	2361.4	1891.0	1429.2	917.8
77.5°	156.2	147.8	188.0	357.9	885.4	1670.9	1774.3	1687.6	1281.2	830.6	406.0
80°	100.4	95.1	115.6	172.1	411.2	902.9	991.8	959.4	652.7	323.0	143.0
82.5°	60.0	58.3	77.3	108.1	224.3	397.4	447.8	459.7	271.0	144.9	81.9
85°	32.8	33.2	42.4	65.6	134.6	154.7	165.6	180.2	127.7	84.0	39.7
87.5°	10.9	12.7	17.1	26.6	47.9	43.7	43.9	51.0	53.9	34.9	12.7
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°	158.9	158.9	158.9	158.9	158.9	158.9	158.9	158.9	158.9	158.9	158.9
2.5°	191.7	188.2	179.4	180.0	183.3	184.0	185.0	179.4	178.3	188.8	189.8
5°	245.0	233.7	228.5	226.8	221.8	220.1	229.3	233.5	237.7	245.9	250.0
7.5°	287.7	275.1	265.7	257.1	249.8	245.6	261.1	273.0	280.2	297.1	304.8
10°	307.3	296.3	292.9	286.0	291.6	304.2	307.1	307.5	323.6	323.2	326.4
12.5°	346.2	339.1	327.8	330.3	344.8	357.9	354.2	359.8	365.5	379.4	373.0
15°	381.7	379.7	369.2	370.9	373.8	390.1	392.2	397.8	406.6	417.5	410.0
17.5°	425.4	424.6	398.9	396.6	403.3	419.2	414.2	404.5	433.6	445.3	442.2
20°	455.1	449.3	416.3	406.6	423.6	425.7	420.0	404.5	429.8	455.3	462.2
22.5°	479.8	473.1	439.2	420.0	416.5	417.5	417.5	414.6	427.1	448.0	447.8
25°	499.7	506.1	462.9	444.5	426.1	403.1	400.2	402.7	409.8	450.1	448.7
27.5°	549.8	532.3	471.0	457.2	419.4	383.2	391.0	394.9	397.2	441.3	448.6
30°	582.3	587.7	499.7	464.7	409.6	360.9	363.6	374.8	388.2	440.3	442.4
32.5°	626.2	614.7	544.6	452.2	383.6	347.5	342.5	357.5	377.4	424.8	430.5
35°	667.1	680.7	563.6	449.9	365.4	327.4	332.8	337.9	358.6	407.5	414.2
37.5°	762.9	731.9	616.9	438.8	350.2	317.2	311.5	319.4	337.0	374.8	390.3
40°	835.8	837.7	628.4	424.8	321.3	302.7	290.4	298.3	305.7	335.8	342.5
42.5°	972.4	930.6	656.5	394.1	303.1	280.8	273.9	277.4	278.5	291.2	302.3
45°	1146.3	1048.3	667.6	352.9	279.1	271.8	257.8	256.1	249.8	251.5	261.3
47.5°	1386.9	1232.0	659.6	309.0	257.8	260.1	240.0	232.1	223.3	225.4	234.6
50°	1698.0	1466.6	659.0	271.8	243.3	244.8	228.3	214.1	205.3	209.7	217.8
52.5°	2047.0	1702.0	661.7	246.3	227.3	226.6	220.6	203.4	196.3	200.9	210.1
55°	2381.0	1904.4	681.6	230.2	210.9	212.2	214.5	199.9	192.1	196.3	205.9
57.5°	2671.6	2064.3	674.2	213.2	195.5	201.7	207.8	195.1	189.2	195.3	204.9
60°	2874.7	2138.5	615.1	196.9	184.2	192.6	204.5	194.6	193.8	207.0	218.5
62.5°	2948.9	2111.1	500.1	184.0	177.5	191.5	212.0	207.2	208.0	224.3	240.2
65°	2840.6	1966.9	373.0	175.8	172.3	197.1	229.3	214.7	204.1	217.6	232.1
67.5°	2532.6	1710.6	272.6	168.7	166.4	205.9	245.2	213.9	194.4	208.0	219.9
70°	2049.0	1350.3	211.0	159.7	158.5	199.9	246.7	208.2	183.8	192.6	199.4
72.5°	1403.9	924.5	174.8	151.1	144.9	177.1	234.2	195.3	171.2	176.4	181.9
75°	784.6	518.9	147.0	140.3	126.9	157.8	219.7	187.7	161.8	163.3	171.0
77.5°	352.1	224.5	124.8	126.1	110.6	139.5	200.7	175.4	147.4	144.0	151.6
80°	133.2	109.5	101.2	106.6	93.0	121.0	181.0	164.3	132.3	127.9	132.3
82.5°	77.3	66.3	75.1	82.0	73.8	111.2	172.7	154.1	116.5	105.4	109.3
85°	35.8	34.3	45.0	53.3	51.6	86.6	147.8	116.0	83.0	70.2	77.6
87.5°	9.4	10.5	15.9	18.8	19.2	29.7	56.9	43.1	32.4	24.5	23.6
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)