

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: P596534

Luminaire Tested: **MSA-SA1C-827-U-T2**

Issue Date: 5/27/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P596534  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-8)  
Test Lab: INNOVATIONS CENTER  
Issue Date: 5/27/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: MSA-SA1C-827-U-T2  
Description: MESA POST TOP DECORATIVE LUMINAIRE. (1) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II OPTICS.  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4599 lumens  
Efficiency: N/A  
Efficacy: 77.9 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
IES Classification: Type II - Medium  
BUG Rating: B1 - U0 - G1

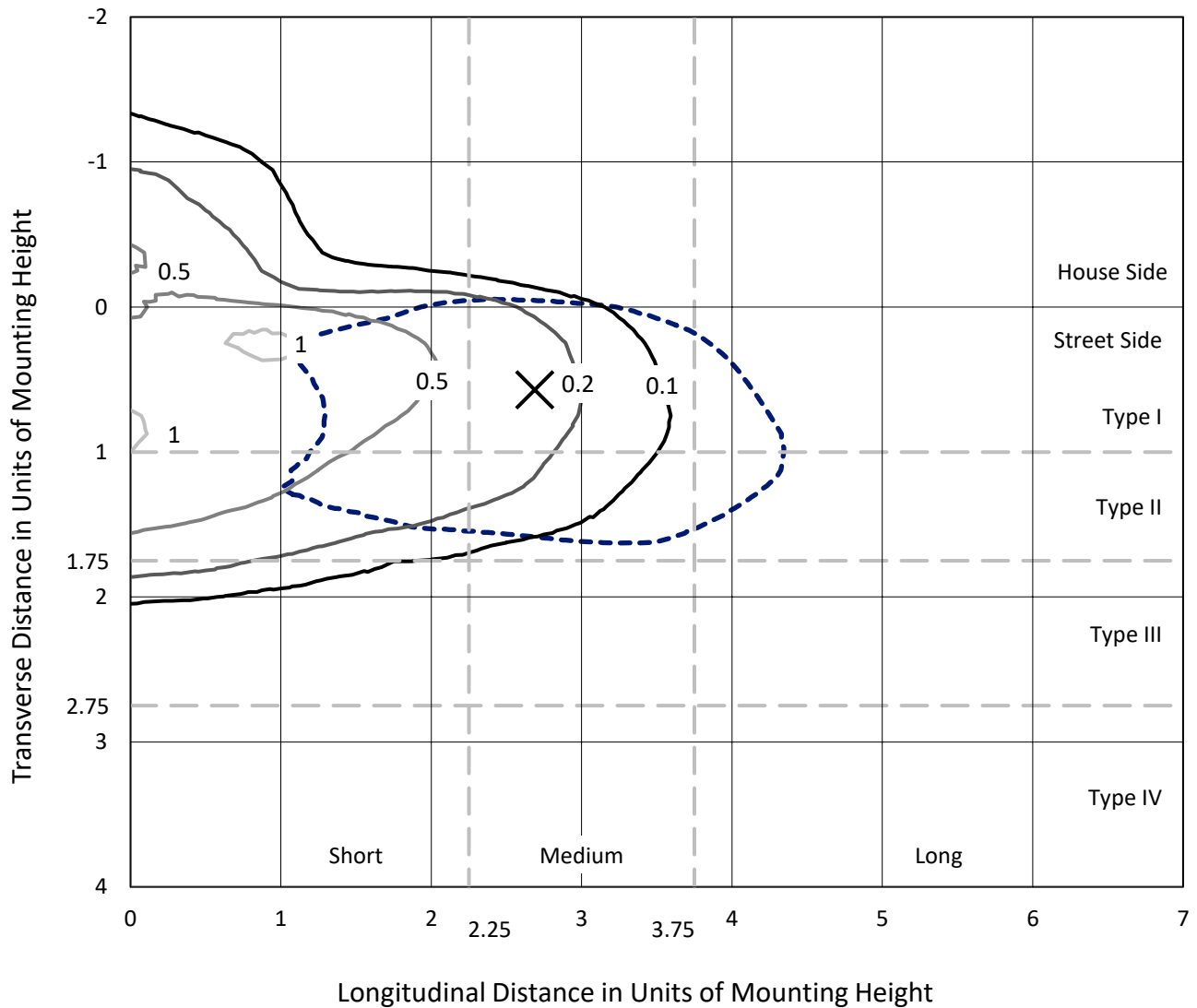
Input Watts (W): 59  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

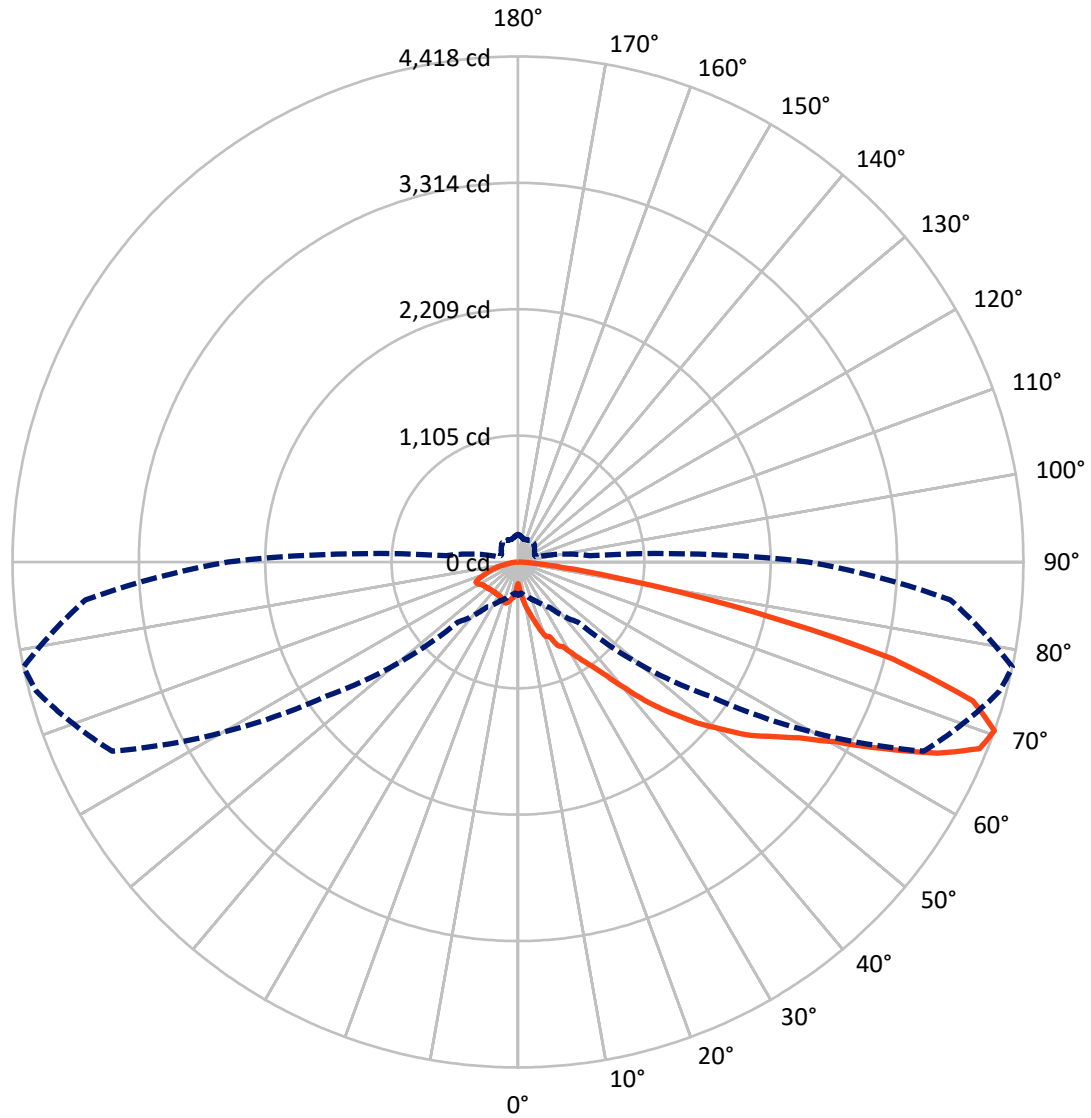
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.1 fc  
 Type II - Medium - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 78-Deg Lateral      - - - Horizontal Cone Through 70-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	820.9	0.0	820.9
	% Fixture	17.8	0.0	17.8
<b>Street Side</b>	Lumens	3778.1	0.0	3778.1
	% Fixture	82.2	0.0	82.2
<b>Total</b>	Lumens	4599.0	0.0	4599.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	29.0	0.6
10°-20°	127.7	2.8
20°-30°	245.7	5.3
30°-40°	413.9	9.0
40°-50°	716.2	15.6
50°-60°	1081.4	23.5
60°-70°	1197.7	26.0
70°-80°	690.5	15.0
80°-90°	96.8	2.1
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°	4599.0	100.0
0°-180°	4599.0	100.0

**Coefficient of Utilization**

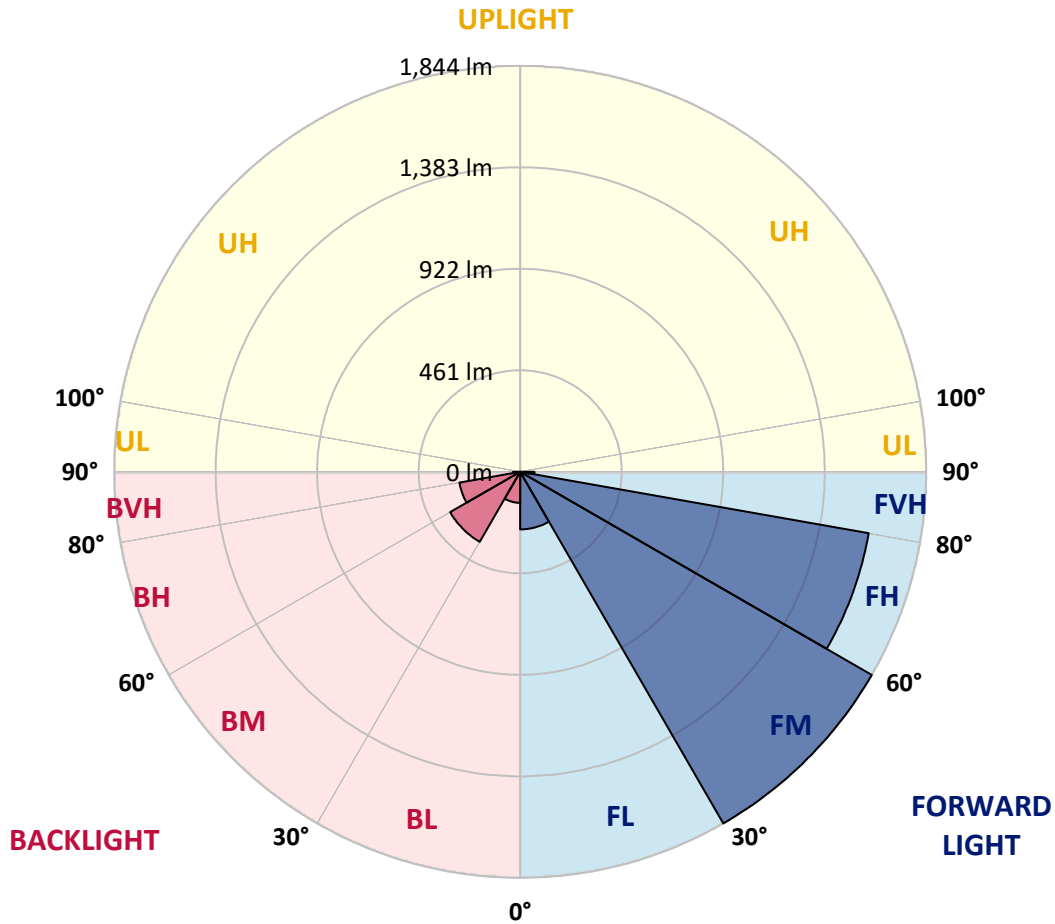


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	261.4	5.7			
FM (30°-60°)	1844.3	40.1			
FH (60°-80°)	1607.8	35.0			G1/1800
FVH (80°-90°)	64.6	1.4			G1/100
BL (0°-30°)	140.9	3.1	B1/500		
BM (30°-60°)	367.1	8.0	B1/1000		
BH (60°-80°)	280.5	6.1	B1/500		G1/500
BVH (80°-90°)	32.2	0.7			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B1-U0-G1**  
 Type II Medium





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	78°	85°
0°	187.5	187.5	187.5	187.5	187.5	187.5	187.5	187.5	187.5	187.5	187.5
2.5°	241.4	232.7	219.7	225.1	231.6	232.4	230.3	218.4	214.3	223.4	226.0
5°	338.2	323.6	314.8	311.9	302.2	281.8	296.4	288.9	290.5	286.0	294.7
7.5°	419.7	409.9	396.9	393.2	370.8	354.9	364.8	361.6	345.9	339.7	349.5
10°	461.1	450.4	450.9	443.1	437.1	438.7	433.7	419.3	407.6	399.4	375.8
12.5°	486.0	488.7	503.1	499.1	521.5	539.9	525.9	504.6	467.6	460.1	436.7
15°	545.3	555.2	541.8	547.9	557.5	592.8	587.1	582.4	543.3	528.8	485.6
17.5°	606.2	608.1	587.8	584.6	607.6	625.4	647.8	621.9	626.7	616.6	546.8
20°	619.3	632.5	603.3	583.2	630.6	665.8	693.6	666.2	691.5	694.2	597.2
22.5°	667.0	651.1	612.7	593.0	634.4	677.7	723.0	738.3	730.3	707.6	645.9
25°	700.2	691.7	652.6	630.8	646.5	686.4	765.7	805.8	812.9	809.8	692.3
27.5°	761.7	765.9	685.4	691.5	669.7	673.3	791.4	895.3	851.1	838.8	749.8
30°	858.9	840.1	749.8	754.8	718.6	712.4	845.7	972.6	932.9	918.2	797.2
32.5°	960.3	962.1	852.4	809.8	790.5	784.3	834.9	1013.1	1036.4	1017.3	868.7
35°	1103.4	1093.4	963.6	907.6	837.6	826.9	911.4	1130.4	1173.3	1119.7	953.6
37.5°	1321.2	1291.1	1140.0	1010.6	958.8	946.5	1020.7	1235.6	1332.3	1265.6	1092.4
40°	1496.0	1434.8	1297.6	1140.0	1052.4	1067.5	1098.4	1363.3	1497.2	1459.6	1220.9
42.5°	1635.4	1581.1	1409.2	1298.3	1179.3	1160.5	1194.2	1521.5	1721.5	1684.7	1381.2
45°	1769.0	1658.6	1534.5	1434.8	1320.4	1343.2	1338.2	1682.9	1996.6	1883.3	1522.8
47.5°	1900.9	1797.2	1667.4	1533.4	1418.2	1560.2	1507.1	1802.9	2182.2	2098.2	1672.0
50°	2070.4	1956.3	1808.5	1673.7	1604.7	1708.6	1619.5	1904.6	2390.0	2291.5	1812.7
52.5°	2182.9	2071.9	1942.3	1846.1	1839.8	1799.7	1776.9	2033.2	2572.1	2512.3	1961.9
55°	2169.7	2062.7	2004.1	2014.6	2092.8	1957.7	1939.1	2223.6	2762.1	2692.9	2122.9
57.5°	2003.9	1887.1	1899.6	1962.1	2172.2	2235.1	2203.5	2427.0	2931.6	2900.2	2322.1
60°	1561.0	1501.0	1602.4	1716.7	2066.0	2316.4	2538.8	2675.1	3140.2	3190.4	2635.0
62.5°	1014.0	933.9	1094.2	1288.2	1749.1	2262.7	2880.2	3145.6	3481.8	3595.9	3110.5
65°	525.3	512.5	624.6	802.9	1217.6	1929.3	3000.6	3639.1	3897.1	4030.0	3564.7
67.5°	381.9	358.1	410.1	515.0	743.3	1315.6	2772.5	4016.6	4230.5	4352.3	3828.7
70°	290.8	273.2	312.9	377.9	485.4	743.1	2046.6	3913.6	4359.2	4418.2	3793.6
72.5°	217.8	202.6	237.4	297.9	374.0	418.3	1209.8	3217.8	4139.6	4159.8	3404.8
75°	173.9	162.2	177.2	235.2	304.8	284.7	642.6	2331.3	3363.4	3380.6	2600.7
77.5°	142.6	132.7	138.8	176.4	237.2	214.2	318.8	1483.0	2135.4	2108.9	1463.2
80°	116.4	107.7	110.6	127.5	180.6	159.9	179.1	773.6	1018.6	977.6	608.5
82.5°	89.5	82.2	88.0	93.8	130.8	114.8	104.5	352.0	417.2	388.6	223.2
85°	60.0	53.3	76.5	70.4	85.5	70.6	57.1	140.1	155.5	144.9	78.4
87.5°	16.5	15.5	25.7	35.1	35.1	26.6	20.9	33.9	43.3	38.0	18.4
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°	187.5	187.5	187.5	187.5	187.5	187.5	187.5	187.5	187.5	187.5	187.5
2.5°	227.2	223.0	211.9	210.9	213.6	214.0	212.2	208.2	206.1	217.6	215.9
5°	292.6	277.6	268.6	260.4	248.9	240.6	242.7	248.5	250.4	259.0	260.0
7.5°	343.4	323.6	303.9	277.4	260.0	248.9	257.3	263.4	268.2	280.5	285.5
10°	365.4	343.9	316.0	288.2	283.4	285.3	280.5	282.0	289.5	290.1	292.6
12.5°	406.4	382.1	331.7	306.6	305.2	309.2	307.5	314.6	319.8	333.8	327.8
15°	445.8	414.7	343.6	317.9	312.3	320.4	329.8	341.6	352.8	366.0	359.3
17.5°	493.5	446.7	344.1	312.7	313.7	330.9	340.7	347.2	380.4	398.6	389.4
20°	523.6	450.0	331.3	299.9	313.7	329.2	342.8	349.9	387.1	414.5	420.8
22.5°	550.8	451.1	321.3	292.9	301.8	322.3	342.8	358.5	382.3	408.6	409.5
25°	565.8	450.2	308.5	293.5	301.6	311.7	330.0	344.3	362.0	398.6	399.5
27.5°	604.1	437.7	295.8	295.8	300.0	300.4	323.6	332.1	334.6	367.9	373.9
30°	615.2	440.4	294.3	295.4	297.6	293.7	303.9	309.4	313.1	341.8	342.8
32.5°	633.1	418.9	298.9	292.0	289.3	288.7	291.2	296.2	297.7	315.4	318.6
35°	654.7	410.3	300.4	291.0	285.7	282.8	290.3	284.1	288.9	309.6	311.9
37.5°	725.3	398.4	308.3	291.0	284.1	280.9	277.2	280.1	297.2	317.1	329.4
40°	770.3	402.0	306.4	293.9	279.0	275.9	269.8	280.3	306.8	342.0	351.2
42.5°	849.3	404.1	308.7	292.6	280.7	268.8	272.8	284.3	312.1	332.3	346.4
45°	931.0	410.7	307.1	288.5	276.8	282.4	276.8	287.2	300.4	301.0	311.7
47.5°	1011.1	436.9	303.9	280.3	275.9	290.5	276.3	278.0	279.0	282.4	295.1
50°	1105.3	464.9	299.3	268.8	277.2	290.8	278.4	269.9	269.0	280.3	294.5
52.5°	1212.3	496.6	293.3	257.7	269.4	287.2	285.7	270.5	262.3	273.2	287.4
55°	1338.2	532.6	286.4	246.6	260.7	287.6	289.7	266.5	262.5	274.4	289.5
57.5°	1505.6	584.7	273.0	230.4	250.2	281.6	279.3	261.9	258.1	270.7	286.4
60°	1791.3	685.0	253.8	214.5	238.9	267.1	270.9	253.6	249.8	263.8	280.3
62.5°	2173.7	805.6	230.6	199.0	225.1	251.3	260.4	241.8	241.4	259.2	276.5
65°	2529.8	874.1	206.7	184.8	210.9	236.8	248.5	230.6	231.4	253.8	271.1
67.5°	2677.8	793.5	185.2	172.2	194.6	220.1	238.7	222.0	219.5	246.6	262.5
70°	2538.8	630.4	166.6	158.7	176.2	202.1	225.1	210.5	204.8	229.3	241.8
72.5°	2246.4	525.5	149.2	143.0	160.1	183.1	206.7	195.0	187.5	206.3	217.4
75°	1756.0	431.2	129.2	127.5	141.7	165.8	187.5	179.5	169.9	181.8	192.9
77.5°	999.8	272.8	108.5	109.7	119.8	145.3	164.5	158.2	148.4	153.4	166.2
80°	400.1	137.7	87.2	88.0	96.6	119.4	136.3	134.0	123.9	127.9	136.7
82.5°	149.5	75.5	64.4	64.8	73.4	94.5	116.4	115.2	105.6	102.8	107.7
85°	59.4	37.4	39.5	41.2	49.5	68.1	93.4	82.8	71.5	62.7	65.8
87.5°	14.2	11.9	13.8	14.6	16.1	21.3	34.1	27.4	28.2	22.6	16.9
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)