

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: P367032

Luminaire Tested: **MSA-SA1D-730-U-T2**

Issue Date: 12/2/2019

Test Information

Test Method: LM-79-08
Report Number: P367032
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-8)
Test Lab: INNOVATION CENTER
Issue Date: 12/2/2019
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA1D-730-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: 6229 lumens
Efficiency: N/A
Efficacy: 93.0 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B1 - U0 - G2

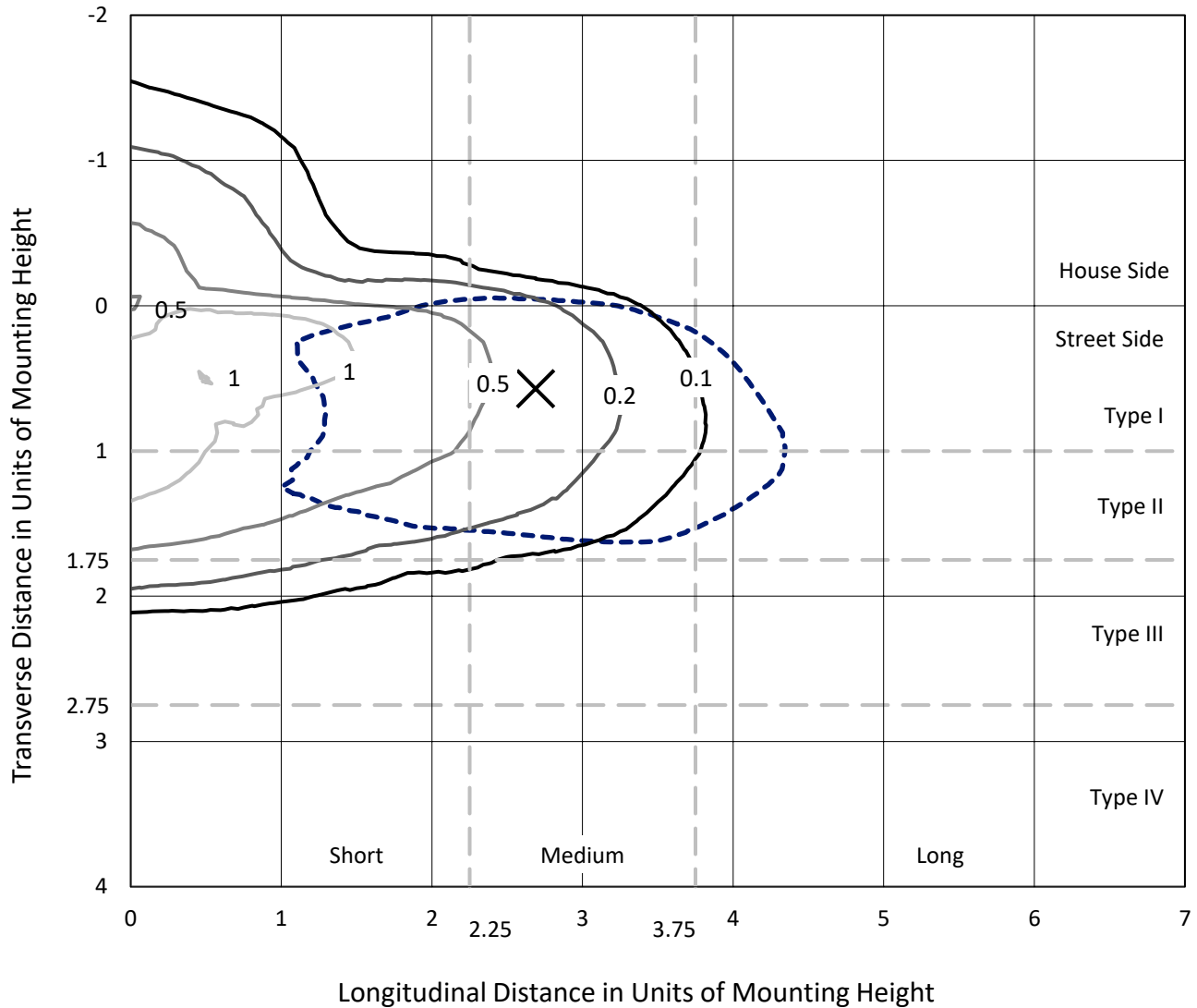
Input Watts (W): 67
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

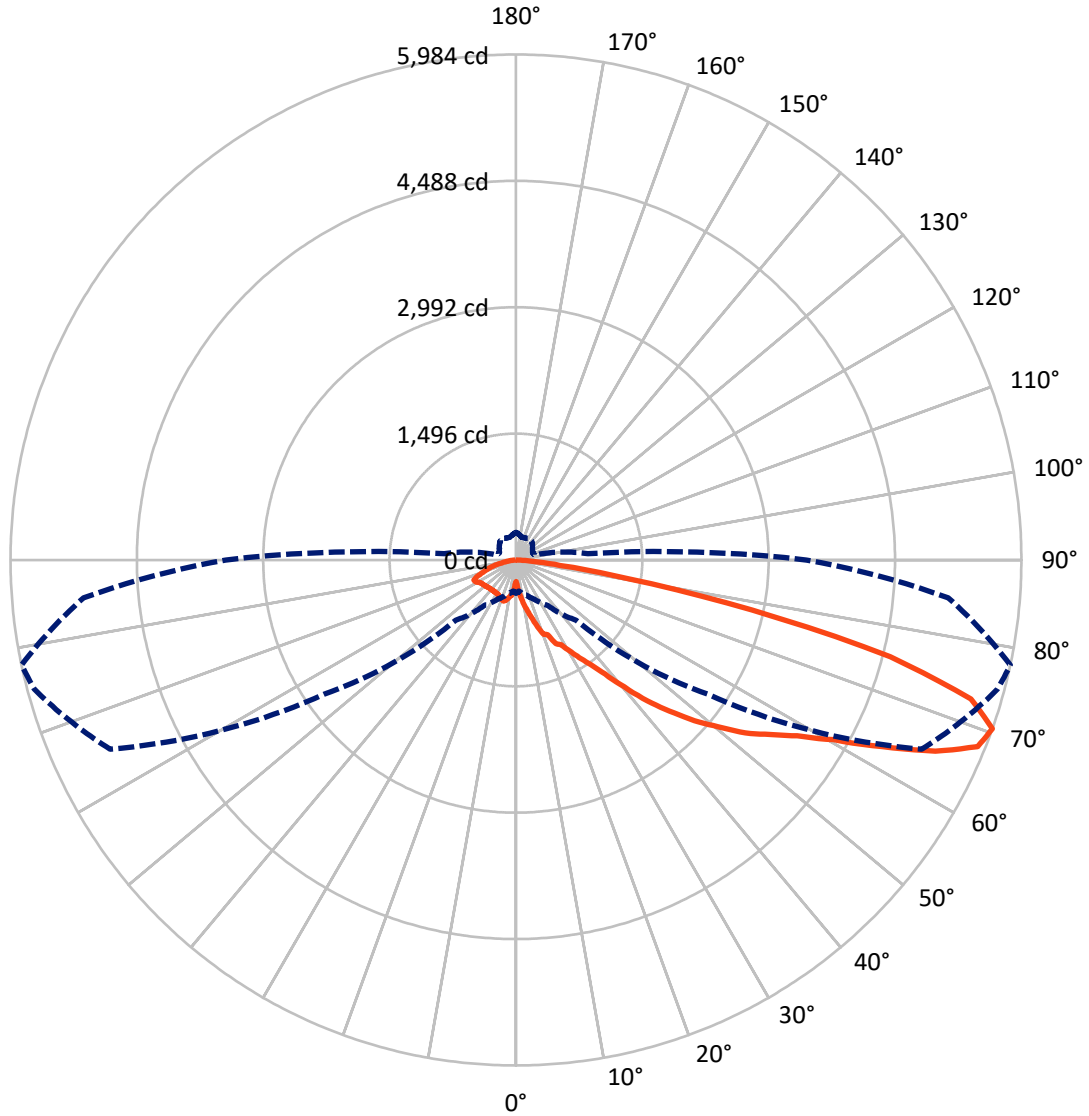
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.5 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
House Side	Lumens	1111.8	0.0	1111.8
	% Fixture	17.8	0.0	17.8
Street Side	Lumens	5117.2	0.0	5117.2
	% Fixture	82.2	0.0	82.2
Total	Lumens	6229.0	0.0	6229.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	39.3	0.6
10°-20°	172.9	2.8
20°-30°	332.8	5.3
30°-40°	560.6	9.0
40°-50°	970.0	15.6
50°-60°	1464.6	23.5
60°-70°	1622.2	26.0
70°-80°	935.3	15.0
80°-90°	131.2	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°	6229.0	100.0
0°-180°	6229.0	100.0

Coefficient of Utilization



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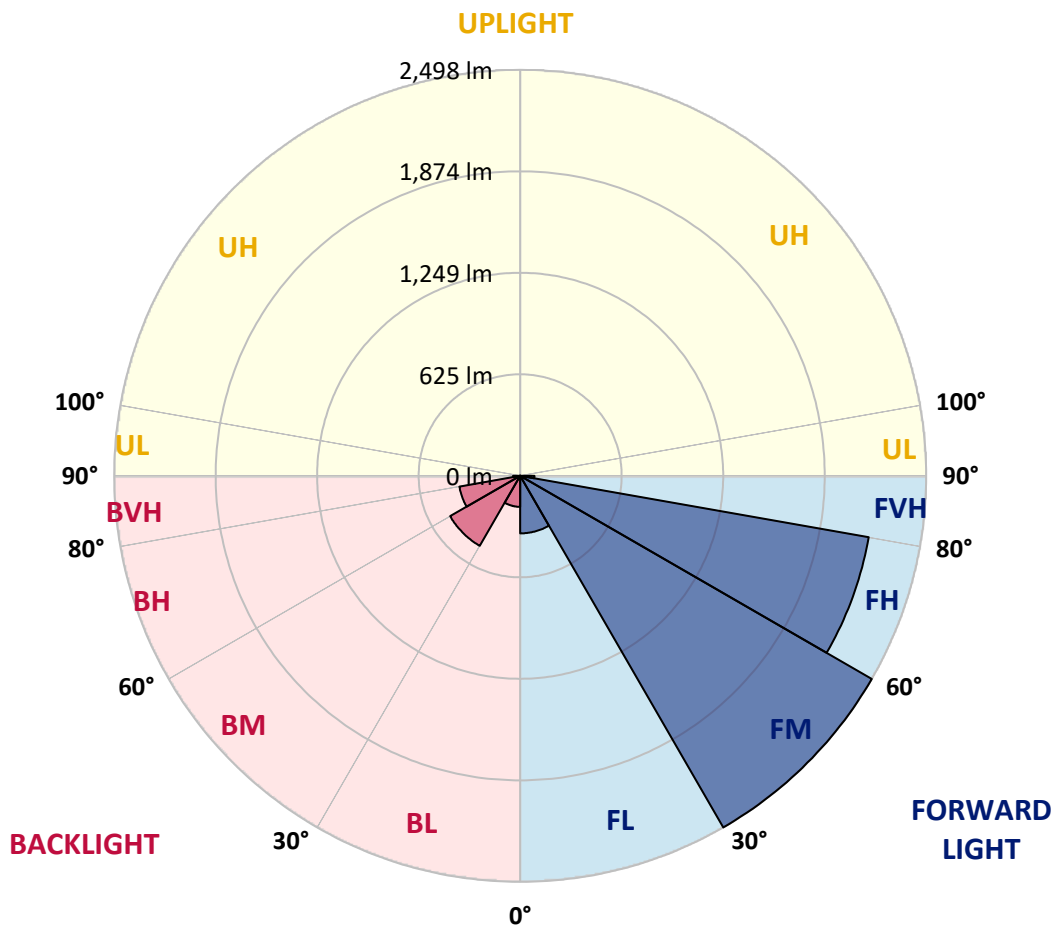
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	354.1	5.7			
FM (30°-60°)	2498.0	40.1			
FH (60°-80°)	2177.6	35.0			G2/5000
FVH (80°-90°)	87.5	1.4			G1/100
BL (0°-30°)	190.9	3.1	B1/500		
BM (30°-60°)	497.3	8.0	B1/1000		
BH (60°-80°)	379.9	6.1	B1/500		G1/500
BVH (80°-90°)	43.7	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-G2

Type II Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	78°	85°
0°	254.0	254.0	254.0	254.0	254.0	254.0	254.0	254.0	254.0	254.0	254.0
2.5°	326.9	315.2	297.6	304.9	313.7	314.7	311.9	295.8	290.3	302.5	306.2
5°	458.1	438.3	426.4	422.5	409.2	381.7	401.5	391.3	393.4	387.4	399.1
7.5°	568.4	555.2	537.5	532.6	502.2	480.7	494.2	489.7	468.4	460.1	473.4
10°	624.5	610.0	610.7	600.1	592.1	594.1	587.4	567.9	552.1	540.9	509.0
12.5°	658.3	661.9	681.4	675.9	706.3	731.2	712.3	683.5	633.3	623.2	591.5
15°	738.5	752.0	733.8	742.1	755.1	802.9	795.1	788.9	735.9	716.2	657.7
17.5°	821.1	823.7	796.2	791.7	822.9	847.0	877.4	842.4	848.9	835.1	740.6
20°	838.7	856.7	817.2	789.9	854.1	901.8	939.5	902.4	936.6	940.3	808.9
22.5°	903.4	881.8	829.9	803.2	859.3	917.9	979.2	1000.0	989.1	958.4	874.8
25°	948.3	936.9	883.9	854.3	875.6	929.6	1037.1	1091.4	1101.0	1096.9	937.7
27.5°	1031.7	1037.4	928.3	936.6	907.0	912.0	1071.9	1212.7	1152.7	1136.1	1015.6
30°	1163.3	1137.9	1015.6	1022.3	973.3	964.9	1145.4	1317.3	1263.6	1243.6	1079.7
32.5°	1300.7	1303.0	1154.5	1096.9	1070.6	1062.3	1130.9	1372.1	1403.8	1377.8	1176.6
35°	1494.4	1480.9	1305.1	1229.3	1134.5	1120.0	1234.5	1531.0	1589.2	1516.5	1291.6
37.5°	1789.4	1748.6	1544.0	1368.7	1298.6	1282.0	1382.5	1673.6	1804.5	1714.1	1479.6
40°	2026.2	1943.4	1757.5	1544.0	1425.3	1445.9	1487.7	1846.5	2027.8	1976.9	1653.6
42.5°	2215.0	2141.5	1908.6	1758.5	1597.2	1571.8	1617.5	2060.8	2331.6	2281.7	1870.7
45°	2396.0	2246.4	2078.4	1943.4	1788.4	1819.3	1812.5	2279.4	2704.2	2550.8	2062.6
47.5°	2574.6	2434.2	2258.4	2076.9	1920.8	2113.2	2041.3	2442.0	2955.6	2841.8	2264.6
50°	2804.2	2649.7	2449.5	2266.9	2173.5	2314.2	2193.4	2579.6	3237.1	3103.6	2455.2
52.5°	2956.6	2806.3	2630.7	2500.4	2491.8	2437.5	2406.6	2753.8	3483.8	3402.7	2657.2
55°	2938.7	2793.8	2714.4	2728.6	2834.6	2651.5	2626.3	3011.7	3741.1	3647.4	2875.3
57.5°	2714.1	2556.0	2572.8	2657.5	2942.1	3027.3	2984.4	3287.2	3970.6	3928.1	3145.1
60°	2114.2	2033.0	2170.3	2325.1	2798.2	3137.4	3438.6	3623.2	4253.2	4321.2	3568.9
62.5°	1373.4	1264.9	1481.9	1744.7	2369.0	3064.6	3901.1	4260.4	4715.9	4870.4	4212.9
65°	711.5	694.1	846.0	1087.5	1649.2	2613.1	4064.1	4928.8	5278.4	5458.3	4828.1
67.5°	517.3	485.1	555.4	697.5	1006.7	1781.9	3755.1	5440.1	5729.9	5894.8	5185.6
70°	393.9	370.0	423.8	511.8	657.5	1006.5	2772.0	5300.7	5904.2	5984.1	5138.1
72.5°	295.0	274.5	321.5	403.5	506.6	566.6	1638.5	4358.3	5606.8	5634.1	4611.5
75°	235.5	219.7	239.9	318.6	412.9	385.6	870.4	3157.6	4555.4	4578.8	3522.5
77.5°	193.2	179.7	188.0	238.9	321.2	290.1	431.8	2008.6	2892.2	2856.4	1981.8
80°	157.6	145.9	149.8	172.7	244.6	216.6	242.5	1047.8	1379.6	1324.1	824.2
82.5°	121.3	111.4	119.2	127.0	177.1	155.5	141.5	476.8	565.0	526.4	302.3
85°	81.3	72.2	103.6	95.3	115.8	95.6	77.4	189.8	210.6	196.3	106.2
87.5°	22.3	21.0	34.8	47.5	47.5	36.1	28.3	46.0	58.7	51.4	24.9
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°	254.0	254.0	254.0	254.0	254.0	254.0	254.0	254.0	254.0	254.0	254.0
2.5°	307.7	302.0	286.9	285.6	289.3	289.8	287.5	282.0	279.1	294.7	292.4
5°	396.3	376.0	363.8	352.6	337.1	325.9	328.7	336.5	339.1	350.8	352.1
7.5°	465.1	438.3	411.6	375.7	352.1	337.1	348.5	356.8	363.3	379.9	386.7
10°	494.9	465.9	427.9	390.3	383.8	386.4	379.9	382.0	392.1	392.9	396.3
12.5°	550.5	517.5	449.2	415.2	413.4	418.9	416.5	426.1	433.1	452.1	444.0
15°	603.7	561.7	465.3	430.5	423.0	433.9	446.6	462.7	477.8	495.7	486.6
17.5°	668.4	605.0	466.1	423.5	424.8	448.2	461.4	470.3	515.2	539.9	527.4
20°	709.2	609.5	448.7	406.1	424.8	445.9	464.3	473.9	524.3	561.4	570.0
22.5°	746.0	611.0	435.2	396.8	408.7	436.5	464.3	485.6	517.8	553.4	554.7
25°	766.3	609.7	417.8	397.6	408.5	422.2	446.9	466.4	490.3	539.9	541.2
27.5°	818.2	592.8	400.7	400.7	406.4	406.9	438.3	449.8	453.1	498.3	506.4
30°	833.3	596.5	398.6	400.2	403.0	397.8	411.6	419.1	424.0	463.0	464.3
32.5°	857.4	567.4	404.8	395.5	391.8	391.1	394.4	401.2	403.3	427.2	431.6
35°	886.8	555.7	406.9	394.2	386.9	383.0	393.1	384.8	391.3	419.4	422.5
37.5°	982.3	539.6	417.6	394.2	384.8	380.4	375.5	379.4	402.5	429.5	446.1
40°	1043.4	544.5	415.0	398.1	377.8	373.7	365.4	379.6	415.5	463.3	475.7
42.5°	1150.3	547.4	418.1	396.3	380.2	364.1	369.5	385.1	422.7	450.0	469.2
45°	1261.0	556.2	416.0	390.8	375.0	382.5	375.0	389.0	406.9	407.7	422.2
47.5°	1369.5	591.8	411.6	379.6	373.7	393.4	374.2	376.5	377.8	382.5	399.6
50°	1497.0	629.7	405.3	364.1	375.5	393.9	377.0	365.6	364.3	379.6	398.9
52.5°	1641.9	672.6	397.3	349.0	364.8	389.0	386.9	366.4	355.2	370.0	389.2
55°	1812.5	721.4	387.9	333.9	353.2	389.5	392.4	360.9	355.5	371.6	392.1
57.5°	2039.2	792.0	369.8	312.1	338.9	381.5	378.3	354.7	349.5	366.7	387.9
60°	2426.1	927.8	343.8	290.6	323.6	361.7	366.9	343.5	338.4	357.3	379.6
62.5°	2944.2	1091.1	312.4	269.5	304.9	340.4	352.6	327.4	326.9	351.1	374.4
65°	3426.4	1183.8	279.9	250.3	285.6	320.7	336.5	312.4	313.4	343.8	367.2
67.5°	3626.8	1074.8	250.8	233.2	263.6	298.1	323.3	300.7	297.3	333.9	355.5
70°	3438.6	853.8	225.7	215.0	238.6	273.7	304.9	285.1	277.3	310.6	327.4
72.5°	3042.6	711.8	202.0	193.7	216.8	248.0	279.9	264.1	254.0	279.4	294.5
75°	2378.3	584.0	175.0	172.7	191.9	224.6	254.0	243.1	230.1	246.2	261.2
77.5°	1354.2	369.5	147.0	148.5	162.3	196.8	222.8	214.2	201.0	207.7	225.1
80°	541.9	186.4	118.2	119.2	130.9	161.8	184.6	181.5	167.7	173.2	185.1
82.5°	202.5	102.3	87.2	87.8	99.5	128.0	157.6	156.1	143.1	139.2	145.9
85°	80.5	50.6	53.5	55.8	67.0	92.2	126.5	112.2	96.9	84.9	89.1
87.5°	19.2	16.1	18.7	19.7	21.8	28.8	46.2	37.1	38.2	30.6	22.9
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)