

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: P367428

Luminaire Tested: **MSA-SA2C-730-U-T2**

Issue Date: 12/2/2019

Test Information

Test Method: LM-79-08
Report Number: P367428
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-SA2C-730-U-T2
Description: MESA POST TOP DECORATIVE LUMINAIRE. (2) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II OPTICS.
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 11205 lumens
Efficiency: N/A
Efficacy: 99.2 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B2 - U0 - G2

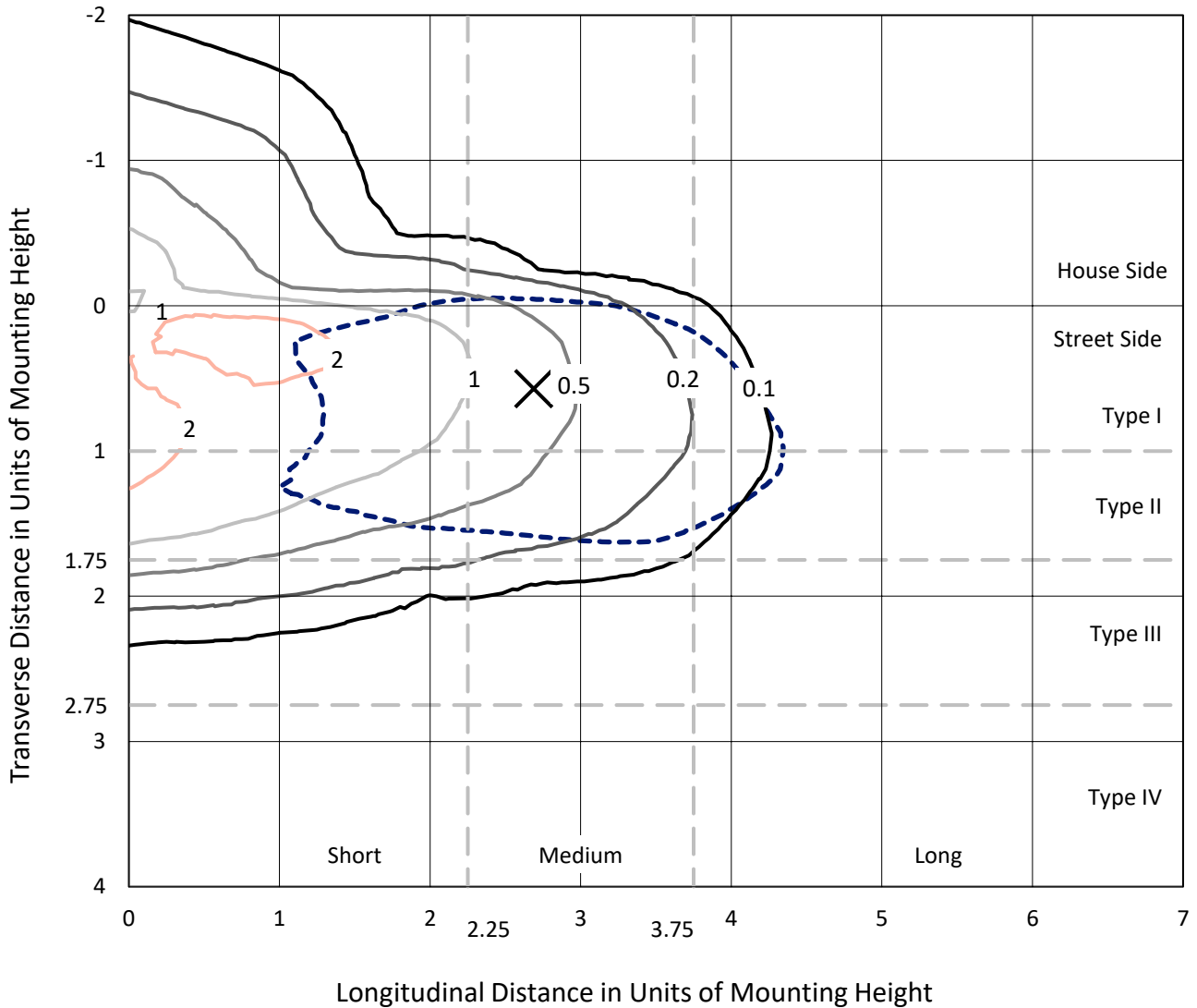
Input Watts (W): 113
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

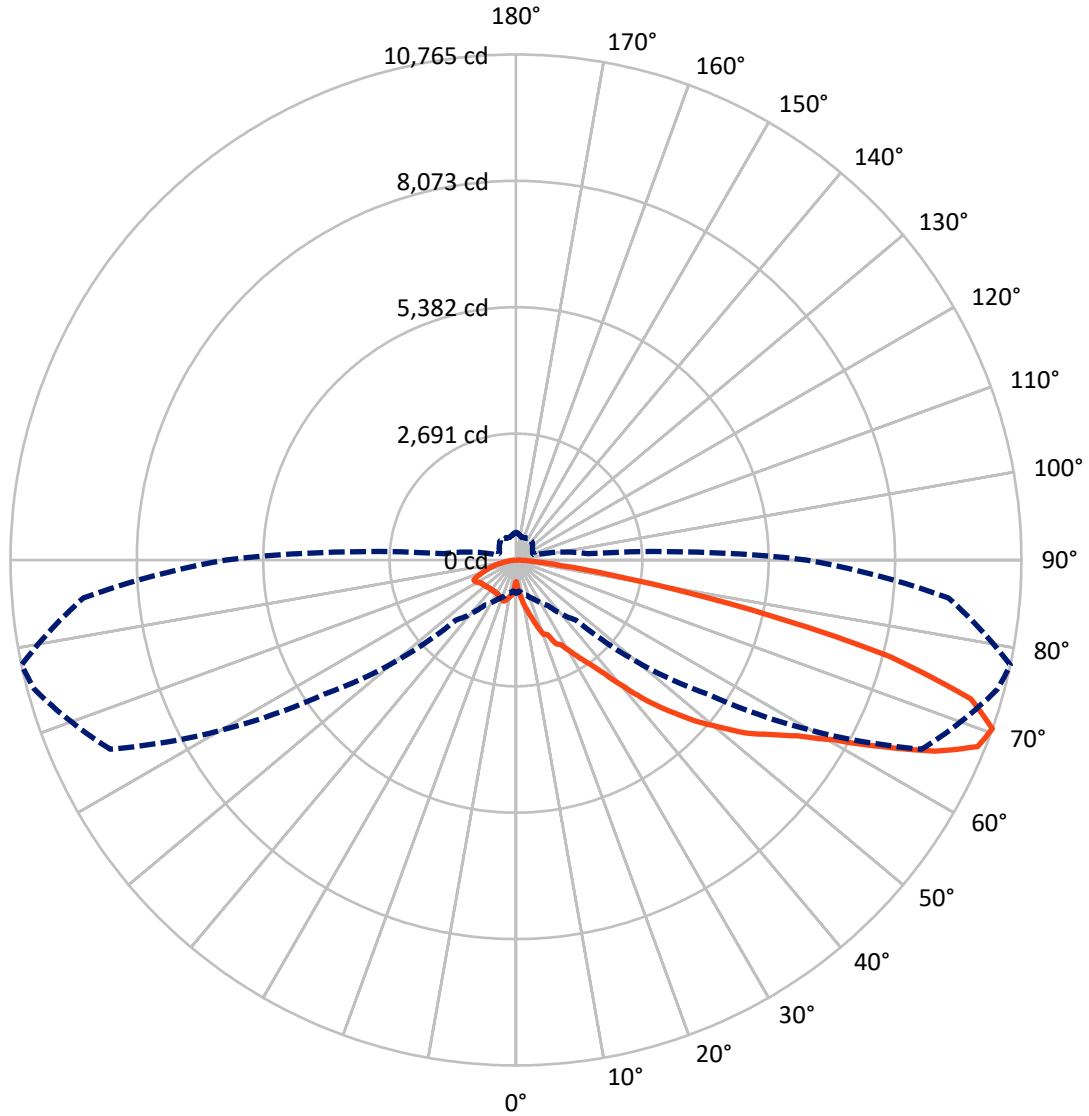
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.7 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	1999.9	0.0	1999.9
	% Fixture	17.8	0.0	17.8
Street Side	Lumens	9205.1	0.0	9205.1
	% Fixture	82.2	0.0	82.2
Total	Lumens	11205.0	0.0	11205.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	70.6	0.6
10°-20°	311.0	2.8
20°-30°	598.7	5.3
30°-40°	1008.5	9.0
40°-50°	1744.9	15.6
50°-60°	2634.6	23.5
60°-70°	2918.2	26.0
70°-80°	1682.4	15.0
80°-90°	236.0	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°	11205.0	100.0
0°-180°	11205.0	100.0

Coefficient of Utilization



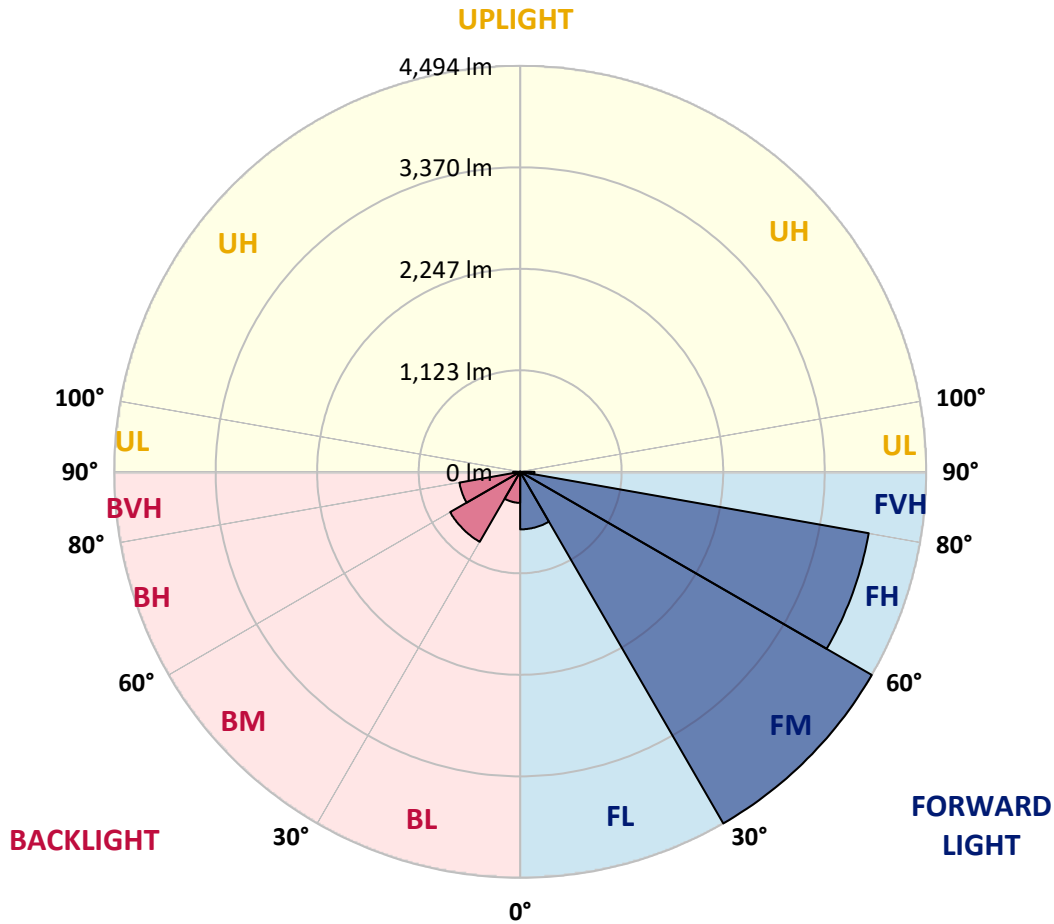
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	637.0	5.7			
FM (30°-60°)	4493.5	40.1			
FH (60°-80°)	3917.1	35.0			G2/5000
FVH (80°-90°)	157.4	1.4			G2/225
BL (0°-30°)	343.4	3.1	B1/500		
BM (30°-60°)	894.5	8.0	B1/1000		
BH (60°-80°)	683.5	6.1	B2/1000		G2/1000
BVH (80°-90°)	78.5	0.7			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G2

Type II Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	78°	85°
0°	456.8	456.8	456.8	456.8	456.8	456.8	456.8	456.8	456.8	456.8	456.8
2.5°	588.1	567.1	535.3	548.4	564.3	566.1	561.0	532.0	522.2	544.2	550.7
5°	824.0	788.5	767.0	760.0	736.2	686.7	722.2	703.9	707.7	696.9	717.9
7.5°	1022.5	998.7	966.9	958.0	903.4	864.6	888.9	881.0	842.7	827.7	851.5
10°	1123.4	1097.2	1098.6	1079.5	1065.0	1068.7	1056.6	1021.6	993.1	973.0	915.5
12.5°	1184.1	1190.7	1225.7	1215.9	1270.5	1315.4	1281.3	1229.4	1139.3	1121.1	1064.1
15°	1328.5	1352.7	1320.1	1335.0	1358.4	1444.3	1430.3	1419.1	1323.8	1288.3	1183.2
17.5°	1477.0	1481.7	1432.2	1424.2	1480.3	1523.7	1578.4	1515.3	1527.0	1502.2	1332.2
20°	1508.8	1541.0	1470.0	1420.9	1536.3	1622.3	1690.0	1623.2	1684.9	1691.4	1455.0
22.5°	1625.1	1586.3	1492.9	1444.8	1545.7	1651.2	1761.5	1798.8	1779.2	1724.1	1573.7
25°	1705.9	1685.3	1590.0	1536.8	1575.1	1672.3	1865.6	1963.3	1980.5	1973.1	1686.7
27.5°	1855.8	1866.1	1669.9	1684.9	1631.6	1640.5	1928.2	2181.4	2073.5	2043.6	1826.9
30°	2092.6	2046.9	1826.9	1839.0	1750.7	1735.8	2060.4	2369.6	2273.0	2237.0	1942.2
32.5°	2339.8	2344.0	2076.8	1973.1	1925.9	1910.9	2034.3	2468.2	2525.2	2478.5	2116.5
35°	2688.2	2663.9	2347.7	2211.3	2040.8	2014.6	2220.6	2754.1	2858.7	2727.9	2323.4
37.5°	3218.9	3145.5	2777.4	2462.1	2336.0	2306.1	2486.9	3010.5	3245.9	3083.4	2661.6
40°	3644.9	3495.8	3161.4	2777.4	2564.0	2600.9	2676.1	3321.6	3647.7	3556.1	2974.6
42.5°	3984.4	3852.3	3433.3	3163.3	2873.2	2827.4	2909.6	3707.0	4194.2	4104.5	3365.1
45°	4310.0	4041.0	3738.7	3495.8	3217.0	3272.6	3260.4	4100.3	4864.5	4588.4	3710.2
47.5°	4631.4	4378.7	4062.5	3735.9	3455.2	3801.3	3671.9	4392.7	5316.6	5112.0	4073.7
50°	5044.3	4766.4	4406.2	4077.9	3909.7	4162.9	3945.7	4640.3	5823.0	5582.9	4416.5
52.5°	5318.5	5048.1	4732.3	4497.8	4482.4	4384.8	4329.2	4953.7	6266.7	6121.0	4779.9
55°	5286.3	5025.6	4882.7	4908.4	5099.0	4769.7	4724.3	5417.5	6729.6	6561.0	5172.3
57.5°	4882.2	4597.8	4628.1	4780.4	5292.3	5445.6	5368.5	5913.1	7142.6	7066.0	5657.6
60°	3803.2	3657.0	3904.1	4182.5	5033.6	5643.6	6185.5	6517.6	7650.8	7773.2	6420.0
62.5°	2470.5	2275.3	2665.8	3138.5	4261.4	5512.8	7017.4	7663.9	8483.2	8761.1	7578.4
65°	1279.9	1248.6	1521.8	1956.3	2966.6	4700.5	7310.7	8866.2	9494.9	9818.6	8685.0
67.5°	930.5	872.6	999.1	1254.7	1811.0	3205.3	6754.9	9785.9	10307.2	10603.8	9328.2
70°	708.6	665.6	762.3	920.7	1182.7	1810.5	4986.4	9535.1	10620.7	10764.5	9242.7
72.5°	530.6	493.7	578.3	725.9	911.3	1019.2	2947.5	7840.0	10085.8	10134.9	8295.4
75°	423.7	395.2	431.6	573.1	742.7	693.7	1565.8	5680.0	8194.5	8236.5	6336.3
77.5°	347.5	323.2	338.2	429.7	577.8	521.8	776.8	3613.1	5202.7	5138.2	3565.0
80°	283.5	262.5	269.5	310.6	440.0	389.6	436.3	1884.8	2481.8	2381.8	1482.6
82.5°	218.1	200.4	214.4	228.4	318.6	279.8	254.6	857.6	1016.4	946.8	543.7
85°	146.2	129.9	186.4	171.4	208.3	171.9	139.2	341.5	378.8	353.1	191.0
87.5°	40.2	37.8	62.6	85.5	85.5	64.9	50.9	82.7	105.6	92.5	44.8
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°	456.8	456.8	456.8	456.8	456.8	456.8	456.8	456.8	456.8	456.8	456.8
2.5°	553.5	543.2	516.2	513.8	520.4	521.3	517.1	507.3	502.1	530.2	526.0
5°	712.8	676.4	654.4	634.3	606.3	586.2	591.4	605.4	610.0	631.1	633.4
7.5°	836.6	788.5	740.4	675.9	633.4	606.3	626.9	641.8	653.5	683.4	695.5
10°	890.3	838.0	769.8	702.1	690.4	695.1	683.4	687.1	705.3	706.7	712.8
12.5°	990.3	930.9	808.1	746.9	743.6	753.4	749.2	766.5	779.1	813.2	798.8
15°	1086.0	1010.4	837.1	774.5	760.9	780.5	803.4	832.4	859.5	891.7	875.4
17.5°	1202.3	1088.4	838.5	761.9	764.2	806.2	830.1	845.9	926.7	971.1	948.7
20°	1275.7	1096.3	807.2	730.6	764.2	802.0	835.2	852.5	943.1	1009.9	1025.3
22.5°	1342.0	1099.1	782.9	713.7	735.2	785.2	835.2	873.5	931.4	995.4	997.7
25°	1378.4	1096.8	751.6	715.1	734.8	759.5	803.9	838.9	881.9	971.1	973.5
27.5°	1471.9	1066.4	720.7	720.7	731.0	732.0	788.5	809.0	815.1	896.4	910.9
30°	1499.0	1073.0	717.0	719.8	725.0	715.6	740.4	753.9	762.8	832.9	835.2
32.5°	1542.4	1020.6	728.2	711.4	704.9	703.5	709.5	721.7	725.4	768.4	776.3
35°	1595.2	999.6	732.0	709.1	696.0	689.0	707.2	692.3	703.9	754.4	760.0
37.5°	1767.1	970.7	751.1	709.1	692.3	684.3	675.4	682.4	724.0	772.6	802.5
40°	1876.8	979.5	746.4	716.1	679.6	672.2	657.2	682.9	747.4	833.3	855.7
42.5°	2069.3	984.7	752.0	712.8	683.8	654.9	664.7	692.7	760.5	809.5	844.1
45°	2268.3	1000.5	748.3	703.0	674.5	688.1	674.5	699.7	732.0	733.4	759.5
47.5°	2463.5	1064.5	740.4	682.9	672.2	707.7	673.1	677.3	679.6	688.1	718.9
50°	2692.9	1132.7	729.2	654.9	675.4	708.6	678.2	657.7	655.4	682.9	717.5
52.5°	2953.5	1209.8	714.7	627.8	656.3	699.7	696.0	659.1	639.0	665.6	700.2
55°	3260.4	1297.6	697.9	600.7	635.3	700.7	705.8	649.3	639.5	668.4	705.3
57.5°	3668.2	1424.7	665.2	561.5	609.6	686.2	680.6	638.1	628.7	659.6	697.9
60°	4364.2	1669.0	618.5	522.7	582.0	650.7	660.0	618.0	608.6	642.7	682.9
62.5°	5296.1	1962.8	561.9	484.9	548.4	612.4	634.3	589.0	588.1	631.5	673.6
65°	6163.5	2129.6	503.5	450.3	513.8	576.9	605.4	561.9	563.8	618.5	660.5
67.5°	6524.1	1933.4	451.2	419.5	474.1	536.2	581.6	540.9	534.8	600.7	639.5
70°	6185.5	1535.9	405.9	386.8	429.3	492.3	548.4	512.9	498.9	558.7	589.0
72.5°	5473.1	1280.3	363.4	348.5	390.0	446.1	503.5	475.1	456.8	502.6	529.7
75°	4278.3	1050.5	314.8	310.6	345.2	404.0	456.8	437.2	413.9	442.8	469.9
77.5°	2436.0	664.7	264.4	267.2	291.9	354.1	400.8	385.4	361.5	373.7	405.0
80°	974.9	335.4	212.5	214.4	235.4	291.0	332.1	326.5	301.8	311.6	333.0
82.5°	364.3	184.0	156.9	157.9	178.9	230.3	283.5	280.7	257.4	250.4	262.5
85°	144.8	91.1	96.2	100.4	120.5	165.8	227.5	201.8	174.2	152.7	160.2
87.5°	34.6	29.0	33.6	35.5	39.2	51.8	83.1	66.8	68.7	55.1	41.1
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)