

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: P597106

Luminaire Tested: **MSA-SA4A-835-U-T2**

Issue Date: 5/27/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P597106  
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-SA4A-835-U-T2  
Description: MESA POST TOP DECORATIVE LUMINAIRE. (4) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II OPTICS.  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 12748 lumens  
Efficiency: N/A  
Efficacy: 98.8 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type II - Medium  
BUG Rating: B2 - U0 - G2

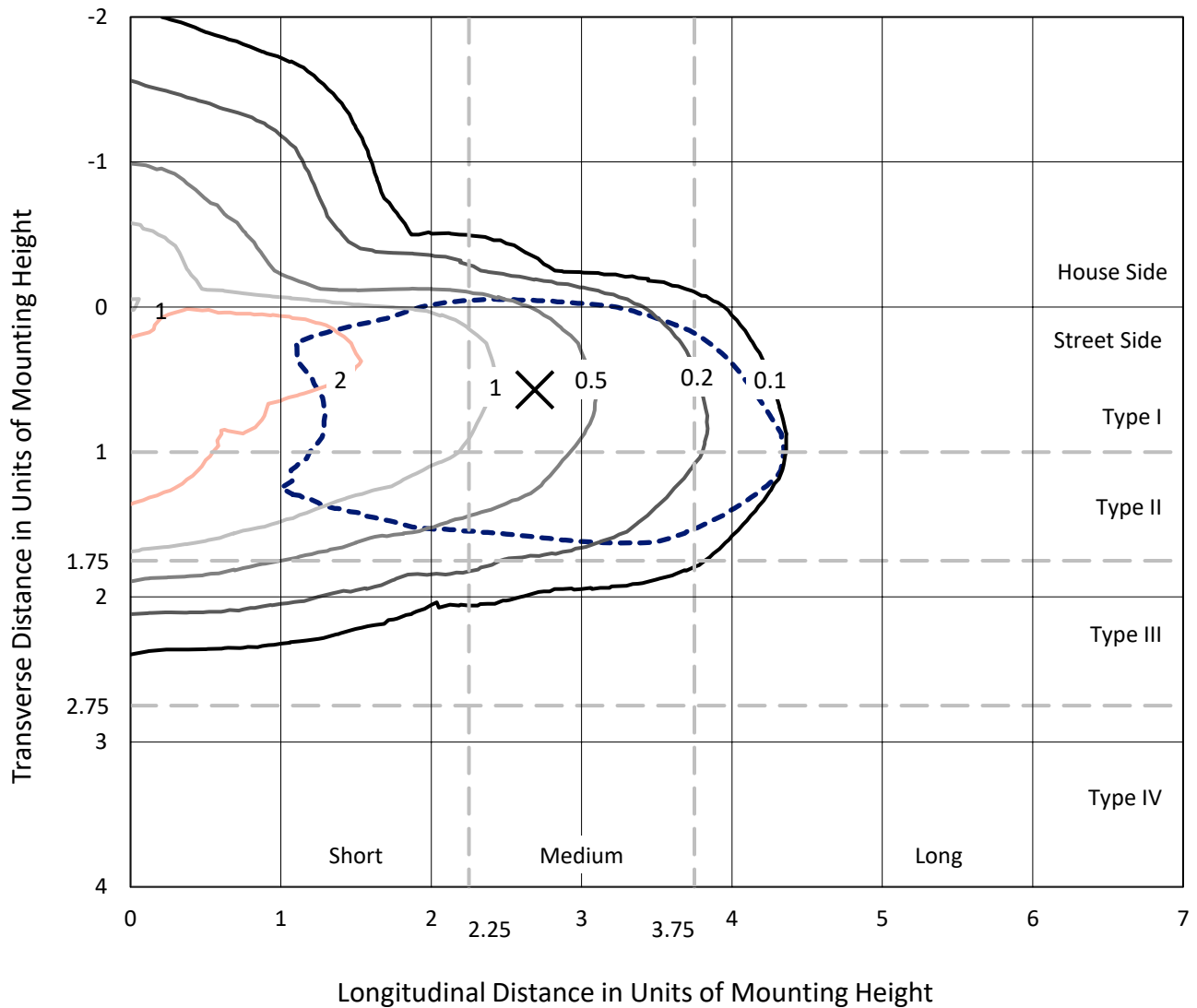
Input Watts (W): 129  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

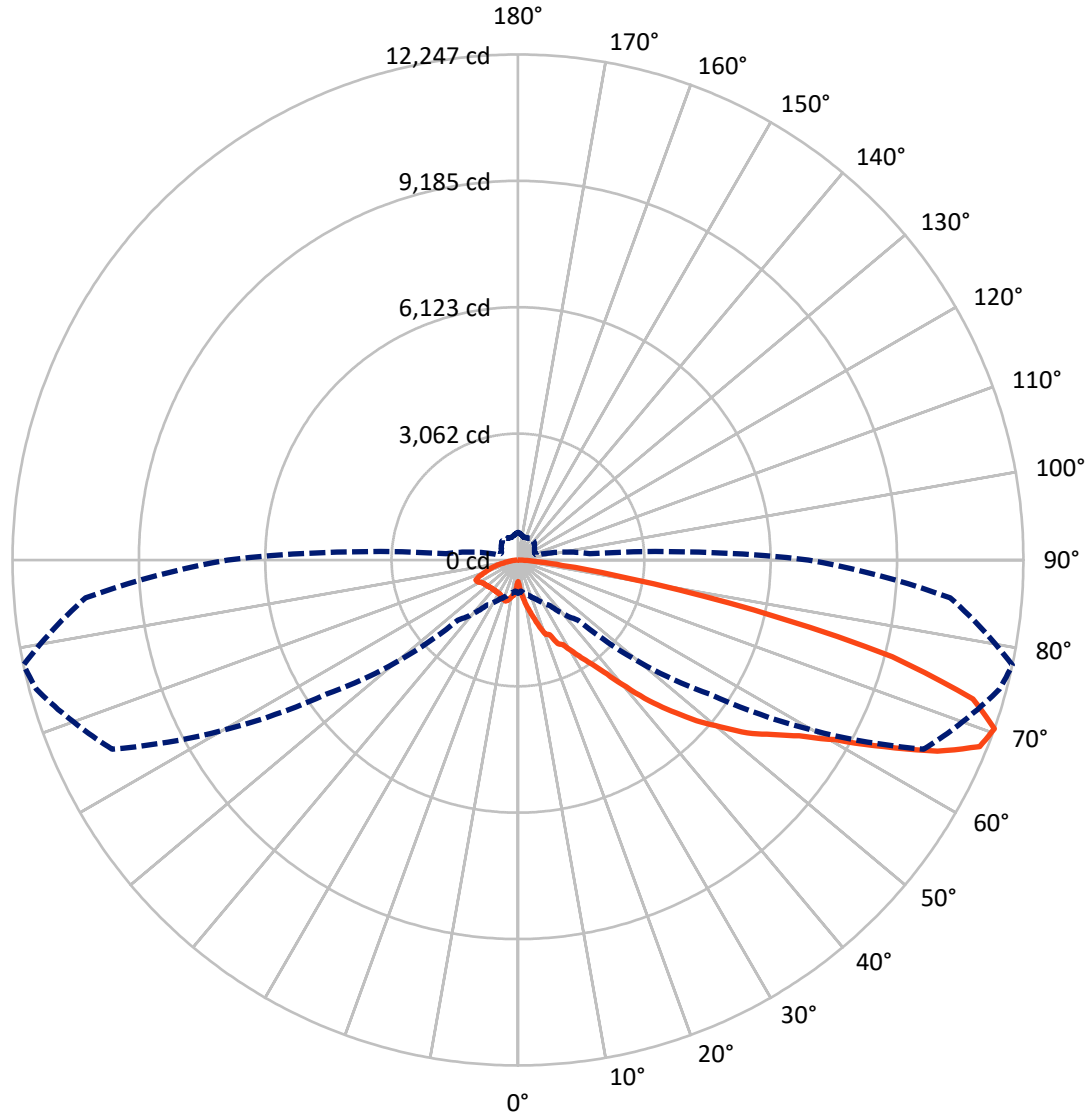
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3 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	2275.3	0.0	2275.3
	% Fixture	17.8	0.0	17.8
<b>Street Side</b>	Lumens	10472.7	0.0	10472.7
	% Fixture	82.2	0.0	82.2
<b>Total</b>	Lumens	12748.0	0.0	12748.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	80.3	0.6
10°-20°	353.9	2.8
20°-30°	681.2	5.3
30°-40°	1147.4	9.0
40°-50°	1985.2	15.6
50°-60°	2997.4	23.5
60°-70°	3320.0	26.0
70°-80°	1914.1	15.0
80°-90°	268.5	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°	12748.0	100.0
0°-180°	12748.0	100.0

**Coefficient of Utilization**

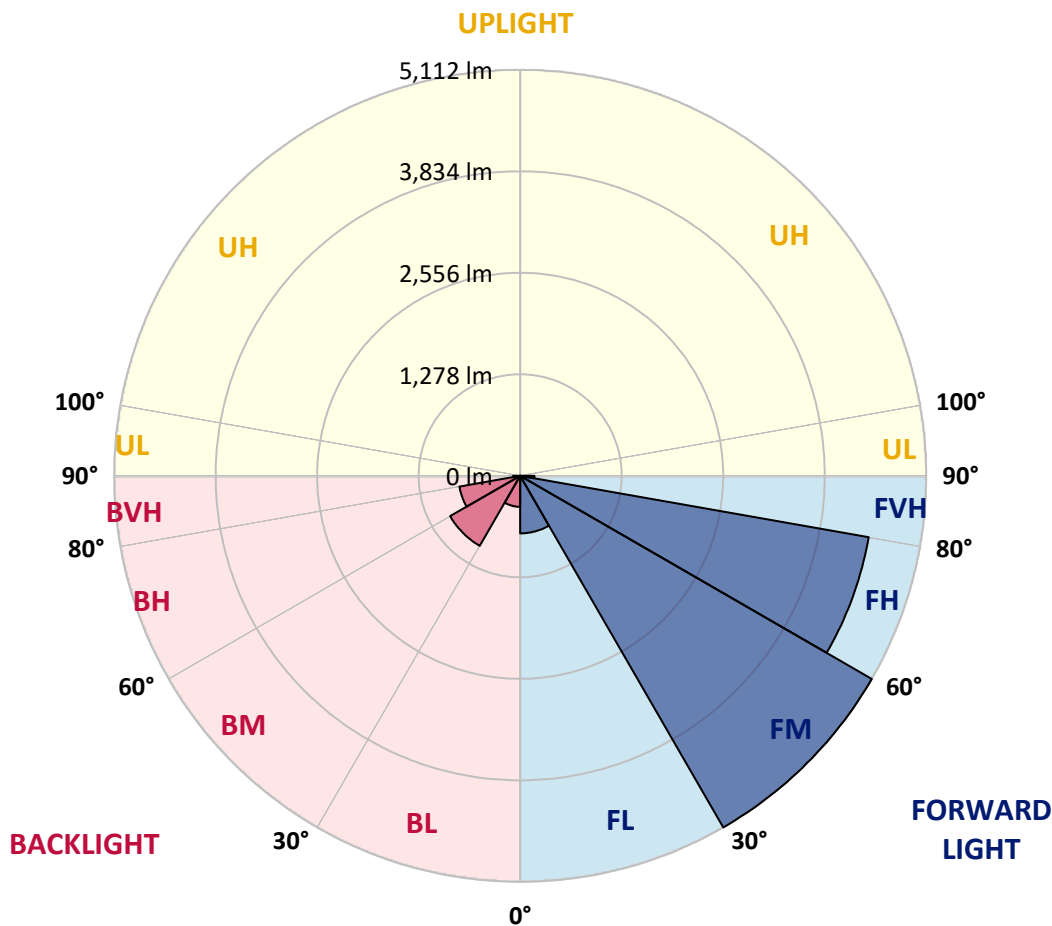


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	724.7	5.7			
FM (30°-60°)	5112.3	40.1			
FH (60°-80°)	4456.6	35.0			G2/5000
FVH (80°-90°)	179.1	1.4			G2/225
BL (0°-30°)	390.7	3.1	B1/500		
BM (30°-60°)	1017.7	8.0	B2/2500		
BH (60°-80°)	777.6	6.1	B2/1000		G2/1000
BVH (80°-90°)	89.4	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°	519.7	519.7	519.7	519.7	519.7	519.7	519.7	519.7	519.7	519.7	519.7
2.5°	669.1	645.2	609.0	623.9	642.0	644.1	638.3	605.3	594.1	619.1	626.6
5°	937.4	897.1	872.6	864.6	837.5	781.2	821.6	800.9	805.1	792.9	816.8
7.5°	1163.3	1136.2	1100.1	1090.0	1027.8	983.7	1011.3	1002.3	958.7	941.7	968.8
10°	1278.1	1248.3	1249.9	1228.1	1211.7	1215.9	1202.1	1162.2	1129.8	1107.0	1041.6
12.5°	1347.2	1354.6	1394.5	1383.3	1445.5	1496.5	1457.7	1398.7	1296.2	1275.4	1210.6
15°	1511.4	1539.0	1501.8	1518.8	1545.4	1643.2	1627.2	1614.5	1506.1	1465.7	1346.1
17.5°	1680.4	1685.7	1629.4	1620.3	1684.1	1733.5	1795.7	1724.0	1737.3	1709.1	1515.6
20°	1716.5	1753.2	1672.4	1616.6	1747.9	1845.7	1922.7	1846.7	1916.9	1924.3	1655.4
22.5°	1848.9	1804.7	1698.5	1643.7	1758.5	1878.6	2004.0	2046.5	2024.2	1961.5	1790.4
25°	1940.8	1917.4	1809.0	1748.4	1792.0	1902.5	2122.5	2233.6	2253.3	2244.8	1919.0
27.5°	2111.4	2123.1	1899.9	1916.9	1856.3	1866.4	2193.8	2481.8	2359.0	2325.0	2078.4
30°	2380.8	2328.7	2078.4	2092.3	1991.8	1974.8	2344.2	2696.0	2586.0	2545.0	2209.7
32.5°	2661.9	2666.7	2362.8	2244.8	2191.1	2174.1	2314.4	2808.1	2872.9	2819.8	2407.9
35°	3058.4	3030.8	2671.0	2515.8	2321.8	2292.1	2526.4	3133.3	3252.4	3103.6	2643.3
37.5°	3662.1	3578.7	3159.9	2801.2	2657.7	2623.7	2829.4	3425.1	3692.9	3508.0	3028.1
40°	4146.8	3977.2	3596.7	3159.9	2917.0	2959.0	3044.6	3779.0	4150.0	4045.8	3384.2
42.5°	4533.1	4382.7	3906.0	3598.9	3268.8	3216.8	3310.3	4217.5	4771.7	4669.7	3828.4
45°	4903.5	4597.4	4253.6	3977.2	3660.0	3723.2	3709.4	4664.9	5534.3	5220.3	4221.2
47.5°	5269.2	4981.7	4621.9	4250.4	3931.0	4324.8	4177.6	4997.6	6048.8	5816.0	4634.6
50°	5738.9	5422.7	5013.0	4639.4	4448.1	4736.1	4489.0	5279.3	6624.8	6351.7	5024.7
52.5°	6050.9	5743.2	5384.0	5117.2	5099.6	4988.6	4925.3	5635.9	7129.7	6963.9	5438.2
55°	6014.2	5717.7	5555.1	5584.3	5801.1	5426.5	5374.9	6163.6	7656.4	7464.5	5884.6
57.5°	5554.5	5230.9	5265.4	5438.7	6021.1	6195.4	6107.8	6727.4	8126.1	8039.0	6436.7
60°	4326.9	4160.6	4441.7	4758.5	5726.7	6420.8	7037.2	7415.1	8704.3	8843.6	7304.0
62.5°	2810.8	2588.6	3032.9	3570.7	4848.3	6272.0	7983.7	8719.2	9651.4	9967.6	8622.0
65°	1456.1	1420.5	1731.4	2225.6	3375.1	5347.8	8317.5	10087.1	10802.4	11170.7	9880.9
67.5°	1058.6	992.7	1136.7	1427.4	2060.4	3646.7	7685.1	11133.5	11726.6	12064.1	10612.7
70°	806.2	757.3	867.3	1047.5	1345.6	2059.8	5673.1	10848.1	12083.2	12246.9	10515.5
72.5°	603.7	561.7	657.9	825.8	1036.8	1159.6	3353.3	8919.6	11474.7	11530.5	9437.7
75°	482.0	449.6	491.0	652.1	845.0	789.2	1781.4	6462.2	9322.9	9370.8	7208.9
77.5°	395.4	367.8	384.8	488.9	657.4	593.6	883.8	4110.6	5919.1	5845.8	4055.9
80°	322.6	298.7	306.6	353.4	500.6	443.2	496.4	2144.3	2823.5	2709.8	1686.8
82.5°	248.2	228.0	243.9	259.9	362.4	318.3	289.6	975.7	1156.4	1077.2	618.6
85°	166.3	147.7	212.0	195.0	237.0	195.6	158.4	388.5	431.0	401.8	217.4
87.5°	45.7	43.0	71.2	97.3	97.3	73.9	57.9	94.1	120.1	105.2	51.0
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°	519.7	519.7	519.7	519.7	519.7	519.7	519.7	519.7	519.7	519.7	519.7
2.5°	629.7	618.1	587.2	584.6	592.0	593.1	588.3	577.1	571.3	603.2	598.4
5°	811.0	769.5	744.5	721.7	689.8	666.9	672.8	688.7	694.1	718.0	720.6
7.5°	951.8	897.1	842.3	769.0	720.6	689.8	713.2	730.2	743.5	777.5	791.3
10°	1012.9	953.4	875.8	798.7	785.5	790.8	777.5	781.7	802.5	804.1	811.0
12.5°	1126.6	1059.1	919.4	849.8	846.0	857.2	852.4	872.1	886.4	925.2	908.8
15°	1235.6	1149.5	952.3	881.1	865.7	888.0	914.1	947.0	977.8	1014.5	995.9
17.5°	1367.9	1238.2	953.9	866.8	869.4	917.3	944.4	962.4	1054.4	1104.8	1079.3
20°	1451.3	1247.3	918.3	831.2	869.4	912.5	950.2	969.9	1073.0	1149.0	1166.5
22.5°	1526.8	1250.5	890.7	812.0	836.5	893.3	950.2	993.8	1059.7	1132.5	1135.1
25°	1568.3	1247.8	855.1	813.6	835.9	864.1	914.6	954.5	1003.3	1104.8	1107.5
27.5°	1674.5	1213.3	820.0	820.0	831.7	832.8	897.1	920.4	927.4	1019.8	1036.3
30°	1705.4	1220.7	815.8	818.9	824.8	814.2	842.3	857.7	867.8	947.5	950.2
32.5°	1754.8	1161.2	828.5	809.4	801.9	800.3	807.2	821.1	825.3	874.2	883.2
35°	1814.8	1137.3	832.8	806.7	791.8	783.9	804.6	787.6	800.9	858.3	864.6
37.5°	2010.4	1104.3	854.5	806.7	787.6	778.5	768.5	776.4	823.7	879.0	913.0
40°	2135.3	1114.4	849.2	814.7	773.2	764.7	747.7	777.0	850.3	948.1	973.6
42.5°	2354.2	1120.3	855.6	811.0	778.0	745.1	756.2	788.1	865.2	921.0	960.3
45°	2580.6	1138.3	851.4	799.8	767.4	782.8	767.4	796.1	832.8	834.4	864.1
47.5°	2802.8	1211.1	842.3	777.0	764.7	805.1	765.8	770.6	773.2	782.8	817.9
50°	3063.7	1288.7	829.6	745.1	768.5	806.2	771.6	748.3	745.6	777.0	816.3
52.5°	3360.3	1376.4	813.1	714.2	746.7	796.1	791.8	749.9	727.0	757.3	796.6
55°	3709.4	1476.3	794.0	683.4	722.7	797.1	803.0	738.7	727.5	760.5	802.5
57.5°	4173.3	1620.9	756.8	638.8	693.5	780.7	774.3	725.9	715.3	750.4	794.0
60°	4965.2	1898.8	703.6	594.7	662.2	740.3	750.9	703.1	692.5	731.3	777.0
62.5°	6025.4	2233.1	639.3	551.6	623.9	696.7	721.7	670.1	669.1	718.5	766.3
65°	7012.3	2422.8	572.9	512.3	584.6	656.3	688.7	639.3	641.4	703.6	751.4
67.5°	7422.5	2199.6	513.4	477.2	539.4	610.1	661.6	615.4	608.5	683.4	727.5
70°	7037.2	1747.4	461.8	440.0	488.4	560.1	623.9	583.5	567.6	635.6	670.1
72.5°	6226.8	1456.7	413.5	396.4	443.7	507.5	572.9	540.5	519.7	571.8	602.6
75°	4867.4	1195.2	358.2	353.4	392.7	459.7	519.7	497.4	470.8	503.8	534.6
77.5°	2771.4	756.2	300.8	304.0	332.1	402.8	456.0	438.4	411.3	425.1	460.8
80°	1109.1	381.6	241.8	243.9	267.8	331.1	377.8	371.5	343.3	354.5	378.9
82.5°	414.5	209.4	178.6	179.6	203.5	262.0	322.6	319.4	292.8	284.8	298.7
85°	164.7	103.6	109.5	114.3	137.1	188.7	258.8	229.6	198.2	173.8	182.3
87.5°	39.3	32.9	38.3	40.4	44.6	59.0	94.6	76.0	78.1	62.7	46.8
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)