

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: P367950

Luminaire Tested: **MSA-SA3C-730-U-SL4**

Issue Date: 12/2/2019

**Test Information**

Test Method: LM-79-08  
Report Number: P367950  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-20)  
Test Lab: INNOVATION CENTER  
Issue Date: 12/2/2019  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: MSA-SA3C-730-U-SL4  
Description: MESA POST TOP DECORATIVE LUMINAIRE. (3) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV SPILL LIGHT ELIMINATOR OPTICS.  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 16150 lumens  
Efficiency: N/A  
Efficacy: 97.3 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B2 - U0 - G3

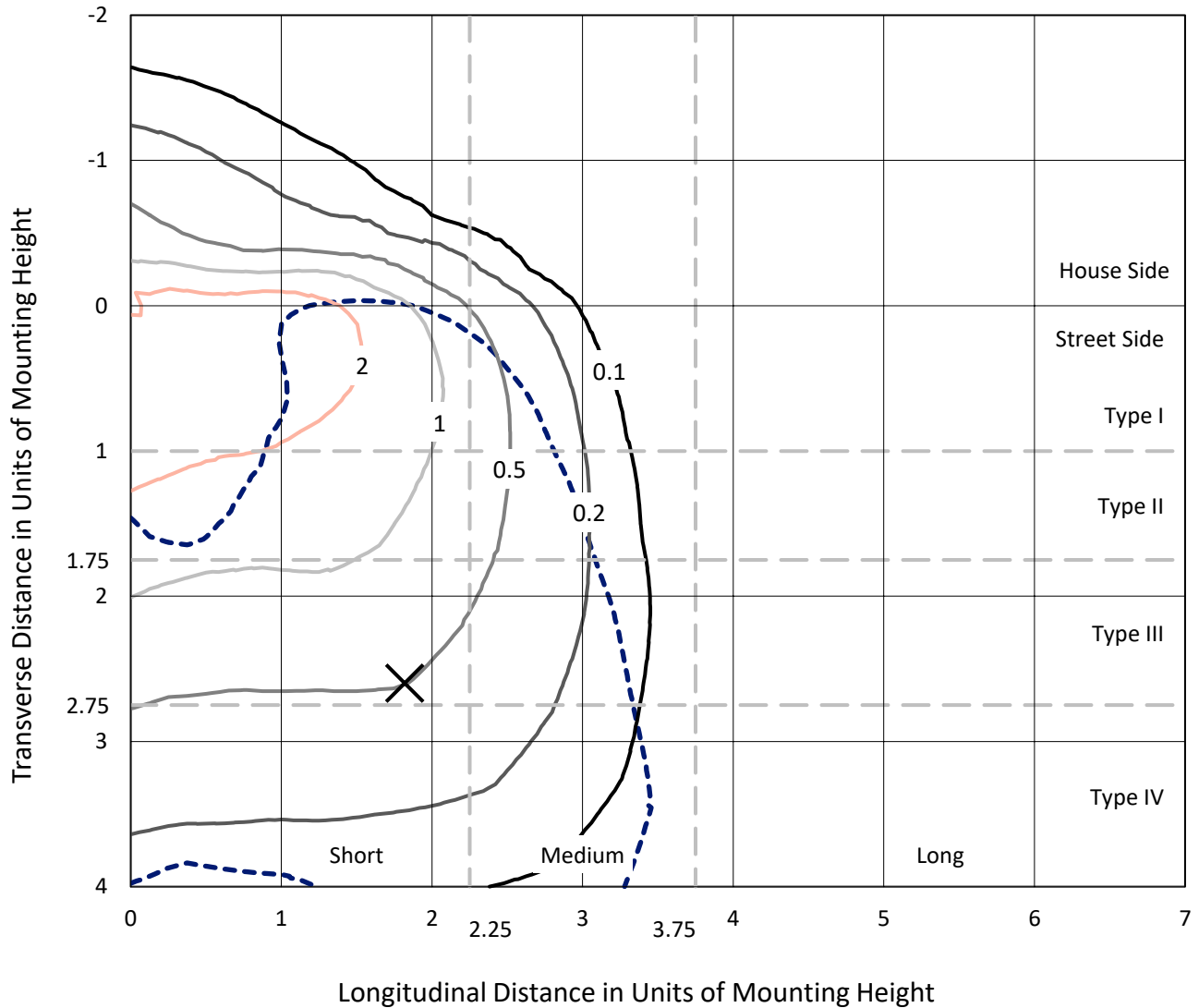
Input Watts (W): 166  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

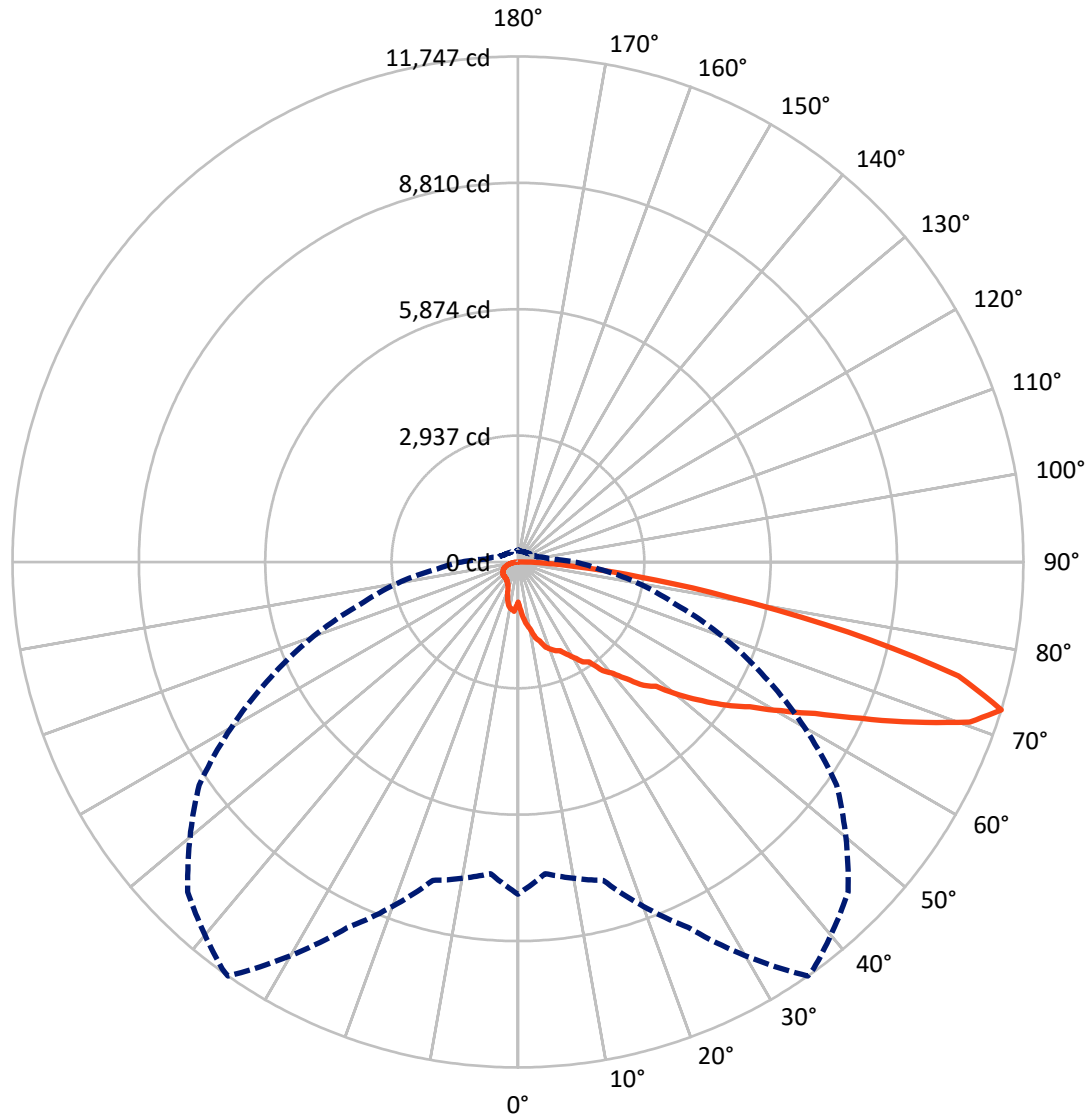
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.2 fc  
 Type IV - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 35-Deg Lateral    - - - Horizontal Cone Through 72.5-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	2167.3	0.0	2167.3
	% Fixture	13.4	0.0	13.4
<b>Street Side</b>	Lumens	13982.7	0.0	13982.7
	% Fixture	86.6	0.0	86.6
<b>Total</b>	Lumens	16150.0	0.0	16150.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	124.0	0.8
10°-20°	436.9	2.7
20°-30°	759.2	4.7
30°-40°	1268.9	7.9
40°-50°	2202.3	13.6
50°-60°	3329.4	20.6
60°-70°	4313.2	26.7
70°-80°	3182.6	19.7
80°-90°	533.4	3.3
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°	16150.0	100.0
0°-180°	16150.0	100.0

**Coefficient of Utilization**



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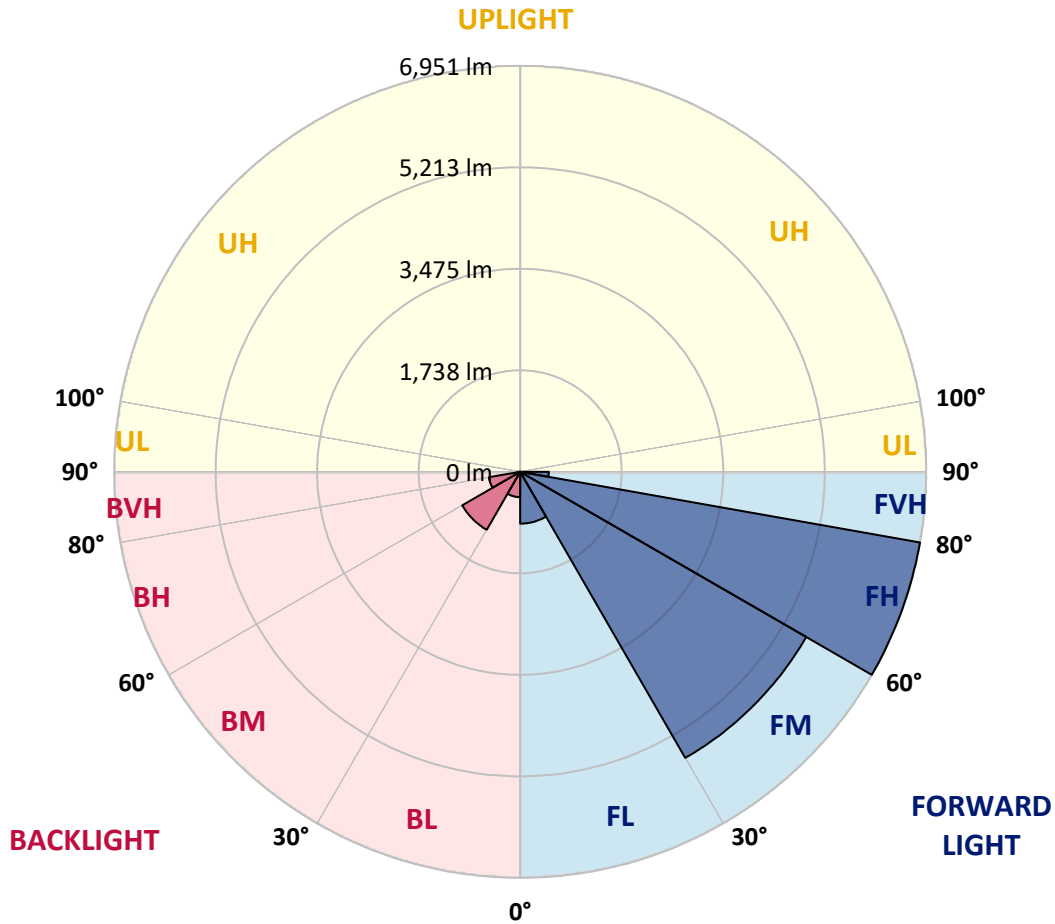
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	887.0	5.5			
FM (30°-60°)	5655.2	35.0			
FH (60°-80°)	6950.8	43.0			G3/7500
FVH (80°-90°)	489.7	3.0			G3/500
BL (0°-30°)	433.2	2.7	B1/500		
BM (30°-60°)	1145.4	7.1	B2/2500		
BH (60°-80°)	545.0	3.4	B2/1000		G2/1000
BVH (80°-90°)	43.7	0.3			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B2-U0-G3**

Type IV Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	36°	45°	55°	65°	75°	85°
0°	933.3	933.3	933.3	933.3	933.3	933.3	933.3	933.3	933.3	933.3	933.3
2.5°	1164.2	1108.4	1060.1	1058.1	1102.9	1120.1	1113.2	1098.1	1080.1	1042.2	1124.9
5°	1458.6	1378.6	1363.4	1345.5	1304.8	1315.9	1249.7	1300.0	1315.9	1352.4	1407.6
7.5°	1632.3	1585.4	1548.9	1533.7	1463.4	1455.1	1406.2	1477.9	1508.2	1503.4	1585.4
10°	1700.5	1657.8	1660.5	1610.9	1588.2	1597.8	1603.3	1604.7	1623.3	1638.5	1597.1
12.5°	1735.7	1752.2	1812.9	1779.1	1808.0	1819.8	1877.7	1818.4	1820.4	1742.6	1785.3
15°	1912.8	1954.2	1919.0	1917.6	1908.7	1928.0	1977.6	1937.6	1968.6	1943.8	1888.7
17.5°	2126.5	2138.9	2071.4	2043.8	2079.6	2073.4	2061.0	2067.2	1990.0	2133.4	2065.8
20°	2192.0	2240.9	2152.0	2043.8	2162.3	2178.2	2175.4	2148.6	2016.2	2223.0	2157.5
22.5°	2382.2	2316.1	2245.7	2176.8	2237.5	2246.4	2231.3	2167.2	2123.1	2201.6	2253.3
25°	2468.4	2452.5	2362.9	2354.7	2287.8	2256.1	2282.3	2263.7	2220.2	2360.2	2303.0
27.5°	2665.5	2646.9	2440.8	2525.6	2428.4	2420.1	2281.6	2343.6	2387.1	2376.7	2462.2
30°	2888.9	2910.2	2609.0	2693.8	2581.4	2566.3	2427.0	2505.6	2535.3	2544.9	2651.7
32.5°	3137.0	3195.6	2896.4	2826.8	2766.9	2777.2	2659.3	2516.0	2631.1	2856.5	2902.7
35°	3405.8	3430.0	3116.3	3011.6	2855.1	2844.1	2846.1	2864.1	2980.5	3237.7	3273.5
37.5°	3902.8	3791.2	3516.1	3250.8	3198.4	3095.7	3165.3	3220.4	3336.9	3731.2	3881.5
40°	4208.9	4126.2	3707.1	3553.4	3408.6	3418.3	3548.5	3547.8	3822.9	4229.6	4459.1
42.5°	4492.2	4401.9	4006.9	3852.5	3715.3	3749.1	3786.3	3851.8	4379.1	5034.7	5139.4
45°	4720.3	4522.5	4238.5	4204.1	4091.0	4046.2	4204.1	4308.8	5044.3	5686.1	5746.7
47.5°	4875.4	4712.8	4435.0	4404.6	4321.2	4430.8	4861.7	4929.2	5559.9	6340.2	6335.4
50°	5111.2	4888.5	4637.6	4621.8	4856.8	4915.4	5440.7	5433.8	6061.7	6883.4	6769.6
52.5°	5382.8	5102.2	4829.9	5000.2	5358.6	5387.6	5843.2	6028.6	6609.7	7407.2	7110.2
55°	5695.0	5381.4	5118.1	5345.5	5879.1	5793.6	6254.7	6707.6	7295.6	7959.4	7356.2
57.5°	6081.7	5701.2	5488.2	5834.3	6354.0	6429.8	6844.1	7414.1	7847.7	8302.6	7535.5
60°	6489.8	6043.1	5848.0	6177.5	7019.2	7106.0	7511.3	8001.4	8466.7	8625.9	7501.7
62.5°	6879.2	6396.0	6219.6	6626.3	7756.7	7971.8	8270.9	8583.2	8981.6	8704.5	7092.9
65°	7312.8	6828.9	6717.9	7328.0	8756.9	8970.6	9361.4	9267.7	9158.1	8426.0	6416.7
67.5°	7771.9	7280.4	7301.1	8142.0	9936.3	9972.8	10573.2	9950.1	8950.6	7688.5	5281.4
70°	8018.7	7515.5	7728.5	9009.9	11136.4	11084.0	11206.7	10133.4	8104.8	6077.6	3640.2
72.5°	7719.5	7270.8	7660.9	9375.2	11747.1	11690.6	10851.0	9045.0	6336.8	3779.4	1887.3
75°	6536.0	6103.1	6700.0	8357.1	10575.3	10627.7	9234.6	6726.2	3627.8	1519.9	783.7
77.5°	4441.2	4217.8	4729.3	6229.2	7855.3	8036.6	6851.7	3933.2	1523.4	629.3	474.2
80°	2347.1	2240.9	2618.7	3588.5	4974.0	5109.1	4029.0	1959.0	780.3	407.4	338.4
82.5°	1275.2	1230.4	1433.1	1845.3	2826.1	2944.0	2089.3	1301.4	525.9	255.0	206.8
85°	856.8	839.6	974.0	991.2	1336.6	1375.2	1094.6	1002.2	315.7	124.8	136.5
87.5°	428.7	411.5	512.8	452.9	510.1	510.8	501.8	639.7	80.0	41.4	24.8
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°	933.3	933.3	933.3	933.3	933.3	933.3	933.3	933.3	933.3	933.3	933.3
2.5°	1126.3	1102.2	1018.8	1018.1	1030.5	1022.2	1028.4	994.7	980.2	1046.4	1042.9
5°	1400.0	1327.6	1258.0	1233.9	1205.6	1144.2	1147.7	1148.4	1138.0	1177.3	1180.1
7.5°	1560.6	1473.7	1409.6	1281.4	1180.8	1102.2	1112.5	1124.3	1112.5	1164.9	1184.2
10°	1584.0	1515.1	1438.6	1295.9	1229.0	1158.0	1086.3	1022.9	1015.3	991.2	998.8
12.5°	1723.3	1666.0	1506.1	1349.7	1271.8	1162.9	1031.9	959.5	898.9	909.2	889.9
15°	1837.7	1797.0	1605.4	1400.7	1214.6	1079.4	940.2	840.9	786.5	780.3	761.0
17.5°	1992.8	1934.9	1614.3	1365.5	1140.8	978.8	821.6	709.3	685.9	676.2	666.6
20°	2067.2	1963.1	1581.9	1255.2	1054.6	858.9	704.5	608.0	601.1	618.3	614.9
22.5°	2132.0	1986.6	1553.0	1188.4	920.2	737.6	624.5	561.1	553.5	575.6	579.7
25°	2169.9	2053.4	1521.3	1120.1	836.8	647.3	564.5	528.7	530.1	559.0	555.6
27.5°	2340.9	2076.9	1441.3	1039.5	741.0	580.4	535.6	517.0	509.4	549.4	552.8
30°	2448.4	2229.9	1423.4	954.0	670.0	531.5	509.4	501.8	500.4	548.7	552.1
32.5°	2648.3	2280.9	1431.7	860.9	605.9	516.3	490.1	489.4	503.2	549.4	554.9
35°	2925.4	2496.0	1391.7	807.9	570.7	492.9	474.9	480.4	503.9	554.2	561.8
37.5°	3465.8	2698.6	1404.1	758.2	559.0	485.3	470.8	474.2	512.2	566.6	587.3
40°	3893.9	3066.0	1384.8	733.4	543.2	483.9	461.8	475.6	511.5	573.5	592.1
42.5°	4514.2	3359.0	1386.9	708.6	542.5	478.4	460.5	477.0	510.1	567.3	592.8
45°	5046.4	3621.6	1416.5	694.1	535.6	487.3	458.4	479.1	501.1	545.2	573.5
47.5°	5482.7	3914.5	1446.8	680.3	532.8	495.6	456.3	464.6	486.0	520.4	545.9
50°	5838.4	4120.6	1485.4	677.6	532.8	491.5	450.8	450.1	468.0	495.6	519.7
52.5°	6115.5	4266.1	1511.6	681.0	532.8	475.6	443.9	438.4	449.4	469.4	493.5
55°	6316.1	4310.9	1490.3	690.0	532.1	461.1	431.5	426.7	432.2	446.0	468.7
57.5°	6396.7	4193.0	1362.8	674.1	532.1	450.8	416.3	410.8	416.3	426.7	449.4
60°	6194.8	3813.9	1178.7	633.5	521.8	437.0	399.1	395.7	403.9	412.9	434.9
62.5°	5688.1	3310.0	982.3	585.2	500.4	425.3	382.6	383.3	396.3	408.8	430.8
65°	4900.9	2700.7	818.9	536.3	473.6	406.7	365.3	370.2	388.8	405.3	427.4
67.5°	3856.6	2001.0	689.3	488.7	435.6	376.4	346.0	347.4	360.5	376.4	397.7
70°	2578.0	1273.1	566.6	432.9	386.0	337.1	316.4	311.6	308.1	321.9	340.5
72.5°	1307.6	752.0	465.3	370.2	332.2	294.3	278.5	266.1	256.4	264.7	279.2
75°	685.2	525.9	375.7	307.4	274.3	250.2	238.5	222.0	215.1	219.9	230.2
77.5°	484.6	411.5	304.0	243.3	223.3	198.5	200.6	183.4	177.8	180.6	191.6
80°	372.2	326.0	233.7	184.0	172.3	148.2	155.1	144.8	137.9	136.5	144.8
82.5°	253.7	245.4	166.1	128.9	120.6	103.4	113.0	108.9	99.9	94.4	98.6
85°	170.9	162.7	101.3	74.4	71.0	53.8	68.9	66.2	58.6	50.3	51.0
87.5°	29.6	54.5	29.0	18.6	17.2	6.2	15.9	15.2	13.8	6.9	5.5
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)