

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: P597018

Luminaire Tested: **MSA-SA3A-835-U-T2**

Issue Date: 5/27/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P597018  
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-SA3A-835-U-T2  
Description: MESA POST TOP DECORATIVE LUMINAIRE. (3) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II OPTICS.  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 9645 lumens  
Efficiency: N/A  
Efficacy: 100.5 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type II - Medium  
BUG Rating: B2 - U0 - G2

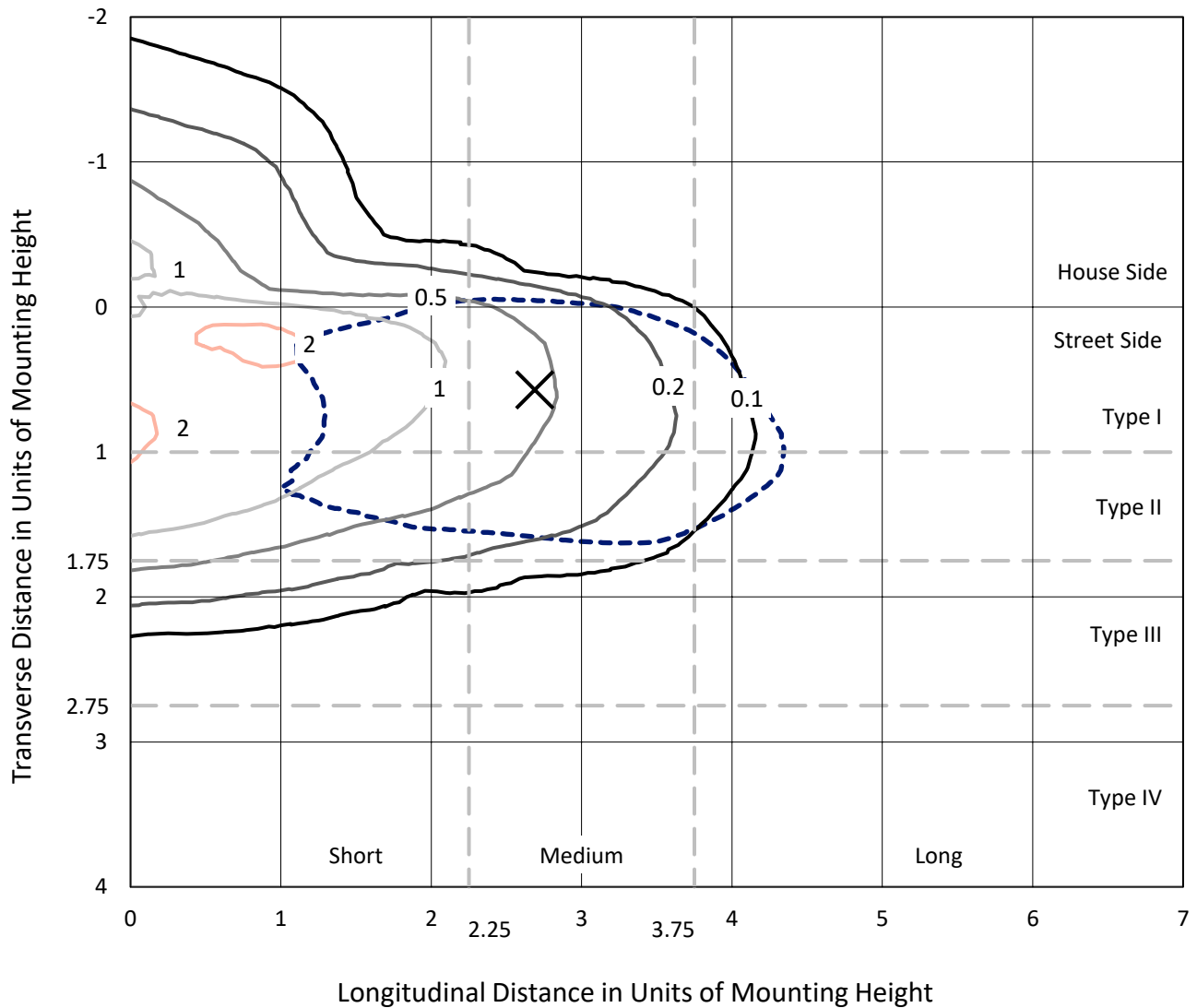
Input Watts (W): 96  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

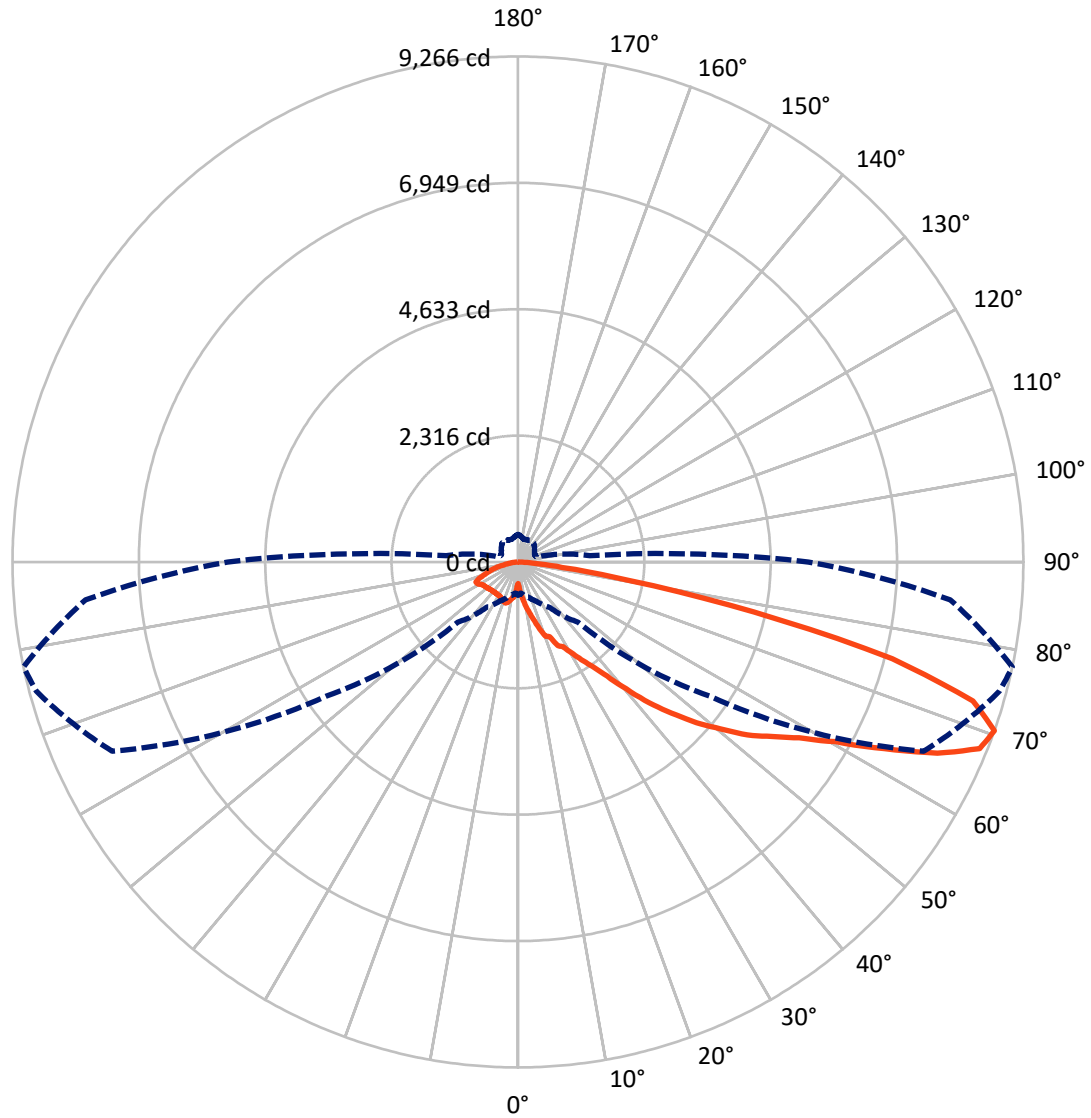
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.3 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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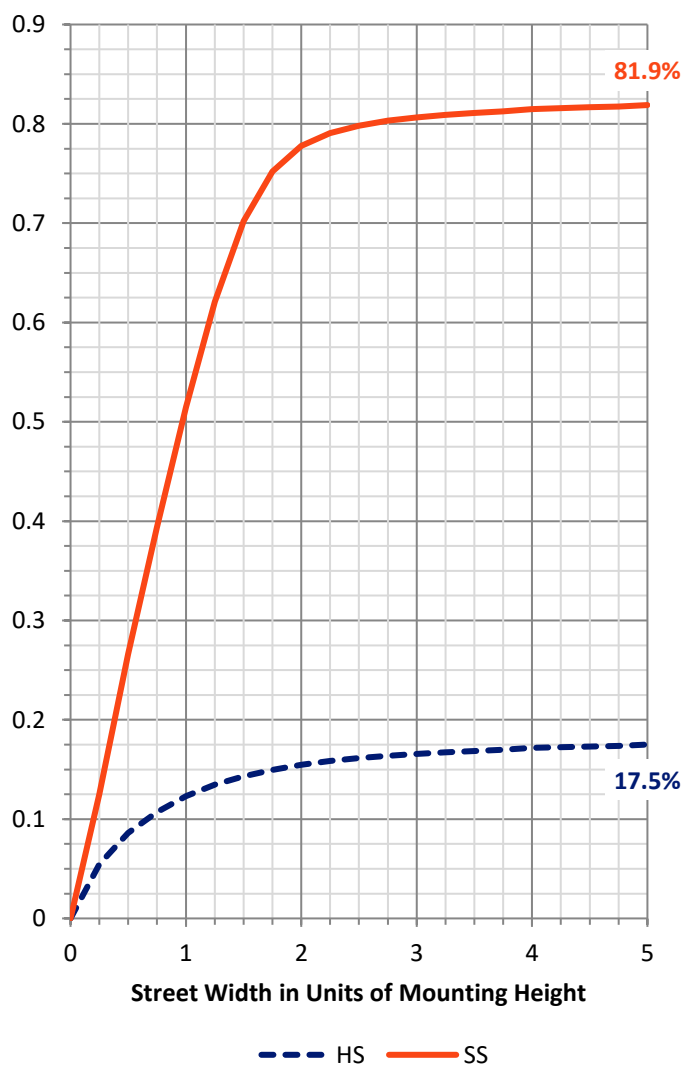
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	1721.5	0.0	1721.5
	% Fixture	17.8	0.0	17.8
<b>Street Side</b>	Lumens	7923.5	0.0	7923.5
	% Fixture	82.2	0.0	82.2
<b>Total</b>	Lumens	9645.0	0.0	9645.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	60.8	0.6
10°-20°	267.7	2.8
20°-30°	515.4	5.3
30°-40°	868.1	9.0
40°-50°	1502.0	15.6
50°-60°	2267.8	23.5
60°-70°	2511.9	26.0
70°-80°	1448.2	15.0
80°-90°	203.1	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°	9645.0	100.0
0°-180°	9645.0	100.0

**Coefficient of Utilization**



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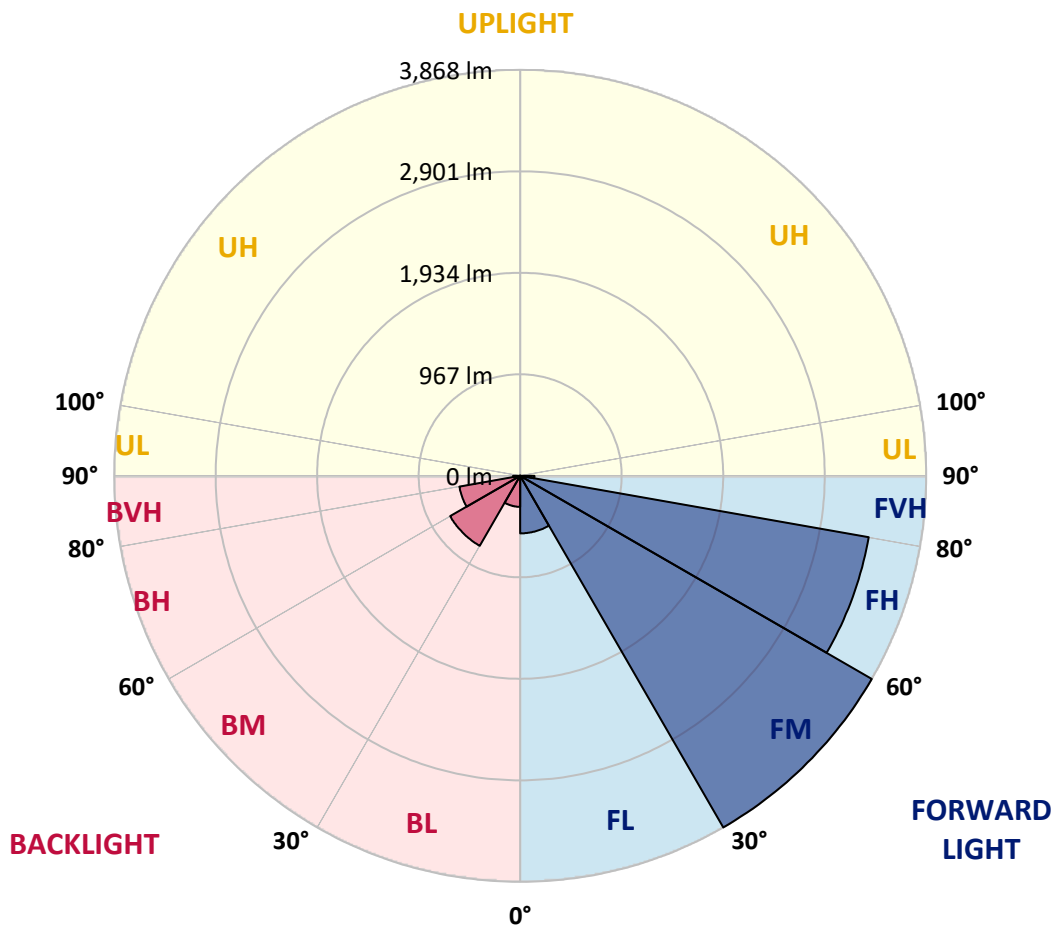
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	548.3	5.7			
FM (30°-60°)	3867.9	40.1			
FH (60°-80°)	3371.8	35.0			G2/5000
FVH (80°-90°)	135.5	1.4			G2/225
BL (0°-30°)	295.6	3.1	B1/500		
BM (30°-60°)	770.0	8.0	B1/1000		
BH (60°-80°)	588.3	6.1	B2/1000		G2/1000
BVH (80°-90°)	67.6	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°	393.2	393.2	393.2	393.2	393.2	393.2	393.2	393.2	393.2	393.2	393.2
2.5°	506.2	488.1	460.8	472.0	485.7	487.3	482.9	458.0	449.5	468.4	474.0
5°	709.3	678.7	660.2	654.2	633.7	591.1	621.6	605.9	609.1	599.9	618.0
7.5°	880.1	859.6	832.3	824.7	777.6	744.2	765.2	758.3	725.3	712.5	733.0
10°	967.0	944.5	945.7	929.2	916.7	920.0	909.5	879.3	854.8	837.5	788.1
12.5°	1019.3	1024.9	1055.0	1046.6	1093.6	1132.2	1102.9	1058.3	980.7	965.0	915.9
15°	1143.5	1164.4	1136.3	1149.1	1169.2	1243.2	1231.2	1221.5	1139.5	1108.9	1018.5
17.5°	1271.4	1275.4	1232.8	1225.9	1274.2	1311.6	1358.6	1304.3	1314.4	1293.1	1146.7
20°	1298.7	1326.5	1265.3	1223.1	1322.4	1396.4	1454.7	1397.2	1450.3	1455.9	1252.5
22.5°	1398.8	1365.5	1285.0	1243.6	1330.5	1421.3	1516.2	1548.4	1531.5	1484.1	1354.6
25°	1468.4	1450.7	1368.7	1322.8	1355.8	1439.4	1605.9	1689.9	1704.8	1698.4	1451.9
27.5°	1597.5	1606.3	1437.4	1450.3	1404.5	1412.1	1659.8	1877.7	1784.8	1759.1	1572.5
30°	1801.3	1761.9	1572.5	1583.0	1507.0	1494.1	1773.6	2039.7	1956.5	1925.5	1671.8
32.5°	2014.0	2017.6	1787.6	1698.4	1657.8	1644.9	1751.0	2124.6	2173.6	2133.4	1821.8
35°	2314.0	2293.0	2020.8	1903.4	1756.7	1734.2	1911.5	2370.6	2460.7	2348.1	1999.9
37.5°	2770.7	2707.6	2390.7	2119.3	2010.8	1985.1	2140.7	2591.4	2794.0	2654.1	2291.0
40°	3137.4	3009.1	2721.3	2390.7	2207.0	2238.8	2303.5	2859.2	3139.8	3061.0	2560.4
42.5°	3429.7	3315.9	2955.3	2722.9	2473.2	2433.8	2504.5	3190.9	3610.2	3533.0	2896.6
45°	3710.0	3478.4	3218.2	3009.1	2769.1	2816.9	2806.5	3529.4	4187.2	3949.6	3193.7
47.5°	3986.6	3769.1	3496.9	3215.8	2974.2	3272.1	3160.7	3781.1	4576.4	4400.3	3506.5
50°	4342.0	4102.8	3792.8	3510.1	3365.4	3583.3	3396.3	3994.2	5012.3	4805.6	3801.6
52.5°	4578.0	4345.2	4073.4	3871.6	3858.3	3774.3	3726.4	4264.0	5394.3	5268.8	4114.5
55°	4550.3	4325.9	4202.9	4225.0	4389.1	4105.6	4066.6	4663.3	5792.7	5647.6	4452.2
57.5°	4202.5	3957.6	3983.8	4114.9	4555.5	4687.4	4621.1	5089.9	6148.2	6082.2	4870.0
60°	3273.7	3147.9	3360.6	3600.2	4332.8	4857.9	5324.3	5610.2	6585.6	6691.0	5526.1
62.5°	2126.6	1958.5	2294.7	2701.6	3668.1	4745.3	6040.4	6596.9	7302.1	7541.4	6523.3
65°	1101.7	1074.8	1310.0	1683.9	2553.6	4046.1	6292.9	7631.8	8173.0	8451.7	7475.8
67.5°	800.9	751.1	860.0	1080.0	1558.9	2759.1	5814.4	8423.5	8872.2	9127.5	8029.5
70°	610.0	573.0	656.2	792.5	1018.1	1558.4	4292.2	8207.6	9142.0	9265.9	7955.9
72.5°	456.8	425.0	497.8	624.8	784.5	877.3	2537.1	6748.5	8681.6	8723.9	7140.5
75°	364.7	340.2	371.5	493.3	639.3	597.1	1347.8	4889.3	7053.6	7089.8	5454.2
77.5°	299.1	278.2	291.1	369.9	497.4	449.1	668.7	3110.1	4478.3	4422.8	3068.6
80°	244.1	226.0	232.0	267.4	378.8	335.3	375.5	1622.4	2136.2	2050.2	1276.2
82.5°	187.8	172.5	184.6	196.6	274.2	240.8	219.1	738.2	874.9	815.0	468.0
85°	125.9	111.8	160.4	147.6	179.3	148.0	119.8	293.9	326.1	304.0	164.4
87.5°	34.6	32.6	53.9	73.6	73.6	55.9	43.8	71.2	90.9	79.6	38.6
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°	393.2	393.2	393.2	393.2	393.2	393.2	393.2	393.2	393.2	393.2	393.2
2.5°	476.5	467.6	444.3	442.3	447.9	448.7	445.1	436.7	432.2	456.4	452.7
5°	613.6	582.2	563.3	546.0	521.9	504.6	509.0	521.1	525.1	543.2	545.2
7.5°	720.1	678.7	637.3	581.8	545.2	521.9	539.6	552.5	562.5	588.2	598.7
10°	766.4	721.3	662.6	604.3	594.3	598.3	588.2	591.5	607.1	608.3	613.6
12.5°	852.4	801.3	695.6	642.9	640.1	648.5	644.9	659.8	670.7	700.0	687.6
15°	934.8	869.7	720.5	666.6	655.0	671.9	691.6	716.5	739.8	767.6	753.5
17.5°	1034.9	936.8	721.7	655.8	657.8	694.0	714.5	728.2	797.7	835.9	816.6
20°	1098.1	943.7	694.8	628.8	657.8	690.4	718.9	733.8	811.8	869.3	882.6
22.5°	1155.2	946.1	673.9	614.4	632.9	675.9	718.9	751.9	801.7	856.8	858.8
25°	1186.5	944.1	646.9	615.6	632.5	653.8	692.0	722.1	759.1	835.9	837.9
27.5°	1266.9	917.9	620.4	620.4	629.3	630.1	678.7	696.4	701.6	771.6	784.0
30°	1290.3	923.6	617.2	619.6	624.0	616.0	637.3	649.0	656.6	716.9	718.9
32.5°	1327.7	878.5	626.8	612.4	606.7	605.5	610.8	621.2	624.4	661.4	668.3
35°	1373.1	860.4	630.1	610.4	599.1	593.1	608.7	595.9	605.9	649.4	654.2
37.5°	1521.1	835.5	646.5	610.4	595.9	589.0	581.4	587.4	623.2	665.0	690.8
40°	1615.5	843.2	642.5	616.4	585.0	578.6	565.7	587.8	643.3	717.3	736.6
42.5°	1781.2	847.6	647.3	613.6	588.6	563.7	572.2	596.3	654.6	696.8	726.6
45°	1952.5	861.2	644.1	605.1	580.6	592.3	580.6	602.3	630.1	631.3	653.8
47.5°	2120.6	916.3	637.3	587.8	578.6	609.1	579.4	583.0	585.0	592.3	618.8
50°	2318.0	975.0	627.6	563.7	581.4	610.0	583.8	566.1	564.1	587.8	617.6
52.5°	2542.3	1041.4	615.2	540.4	564.9	602.3	599.1	567.3	550.0	573.0	602.7
55°	2806.5	1117.0	600.7	517.1	546.8	603.1	607.5	558.9	550.4	575.4	607.1
57.5°	3157.5	1226.3	572.6	483.3	524.7	590.7	585.8	549.2	541.2	567.7	600.7
60°	3756.6	1436.6	532.3	449.9	501.0	560.1	568.1	531.9	523.9	553.3	587.8
62.5°	4558.7	1689.5	483.7	417.4	472.0	527.1	546.0	507.0	506.2	543.6	579.8
65°	5305.4	1833.1	433.4	387.6	442.3	496.6	521.1	483.7	485.3	532.3	568.5
67.5°	5615.8	1664.2	388.4	361.1	408.1	461.6	500.6	465.6	460.4	517.1	550.4
70°	5324.3	1322.0	349.4	332.9	369.5	423.8	472.0	441.5	429.4	480.9	507.0
72.5°	4711.1	1102.1	312.8	299.9	335.7	384.0	433.4	408.9	393.2	432.6	456.0
75°	3682.6	904.3	271.0	267.4	297.1	347.8	393.2	376.3	356.2	381.2	404.5
77.5°	2096.8	572.2	227.6	230.0	251.3	304.8	345.0	331.7	311.2	321.7	348.6
80°	839.1	288.7	182.9	184.6	202.6	250.5	285.9	281.1	259.7	268.2	286.7
82.5°	313.6	158.4	135.1	135.9	154.0	198.2	244.1	241.6	221.5	215.5	226.0
85°	124.6	78.4	82.8	86.4	103.7	142.7	195.8	173.7	150.0	131.5	137.9
87.5°	29.8	24.9	28.9	30.6	33.8	44.6	71.6	57.5	59.1	47.4	35.4
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)