

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: P596670

Luminaire Tested: **MSA-SA3A-827-U-T4FT**

Issue Date: 5/27/2021

Test Information

Test Method: LM-79-08
Report Number: P596670
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-12)
Test Lab: INNOVATIONS CENTER
Issue Date: 5/27/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA3A-827-U-T4FT
Description: MESA POST TOP DECORATIVE LUMINAIRE. (3) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV FORWARD THROW OPTICS.
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8643 lumens
Efficiency: N/A
Efficacy: 90.0 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B1 - U0 - G2

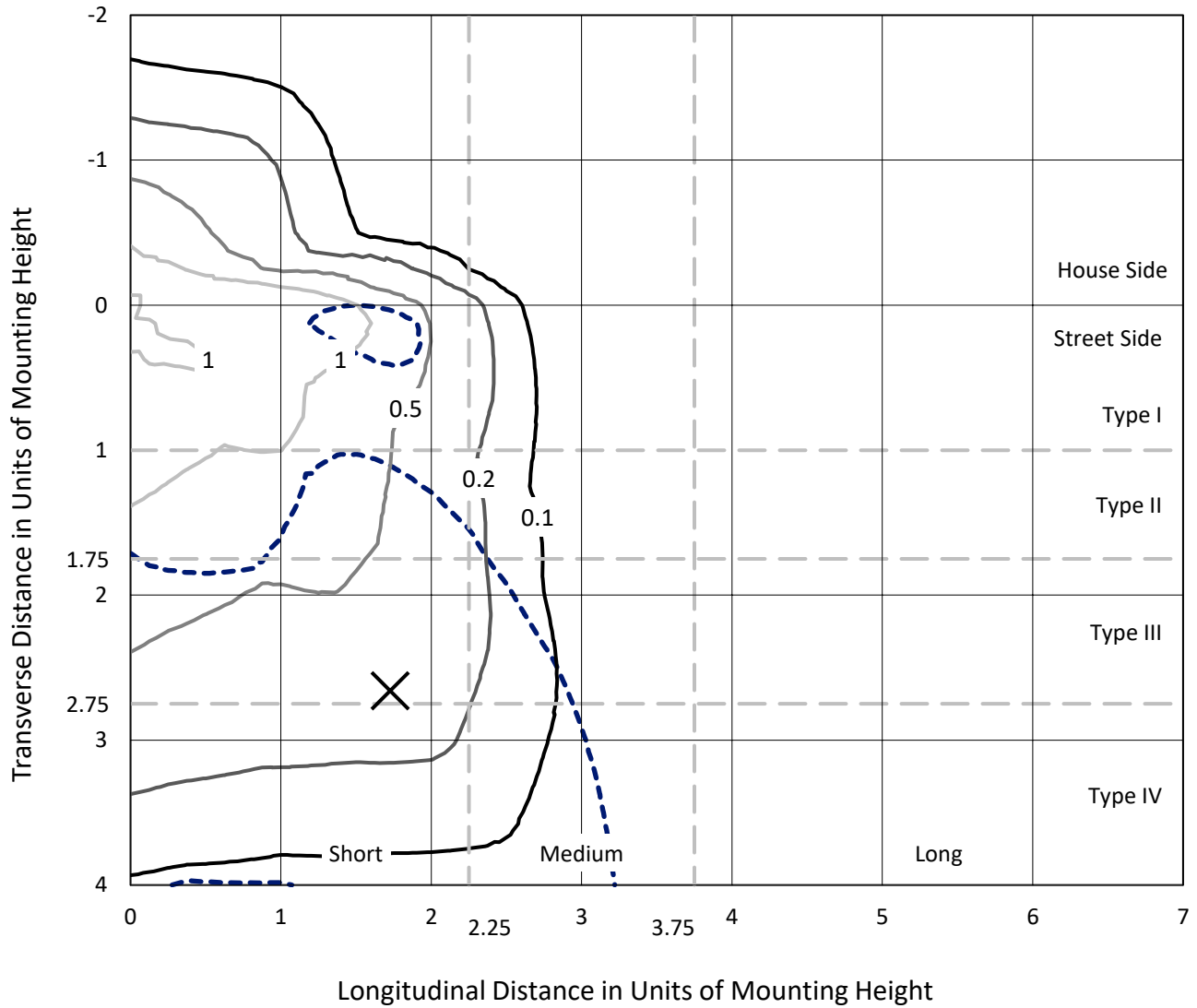
Input Watts (W): 96
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

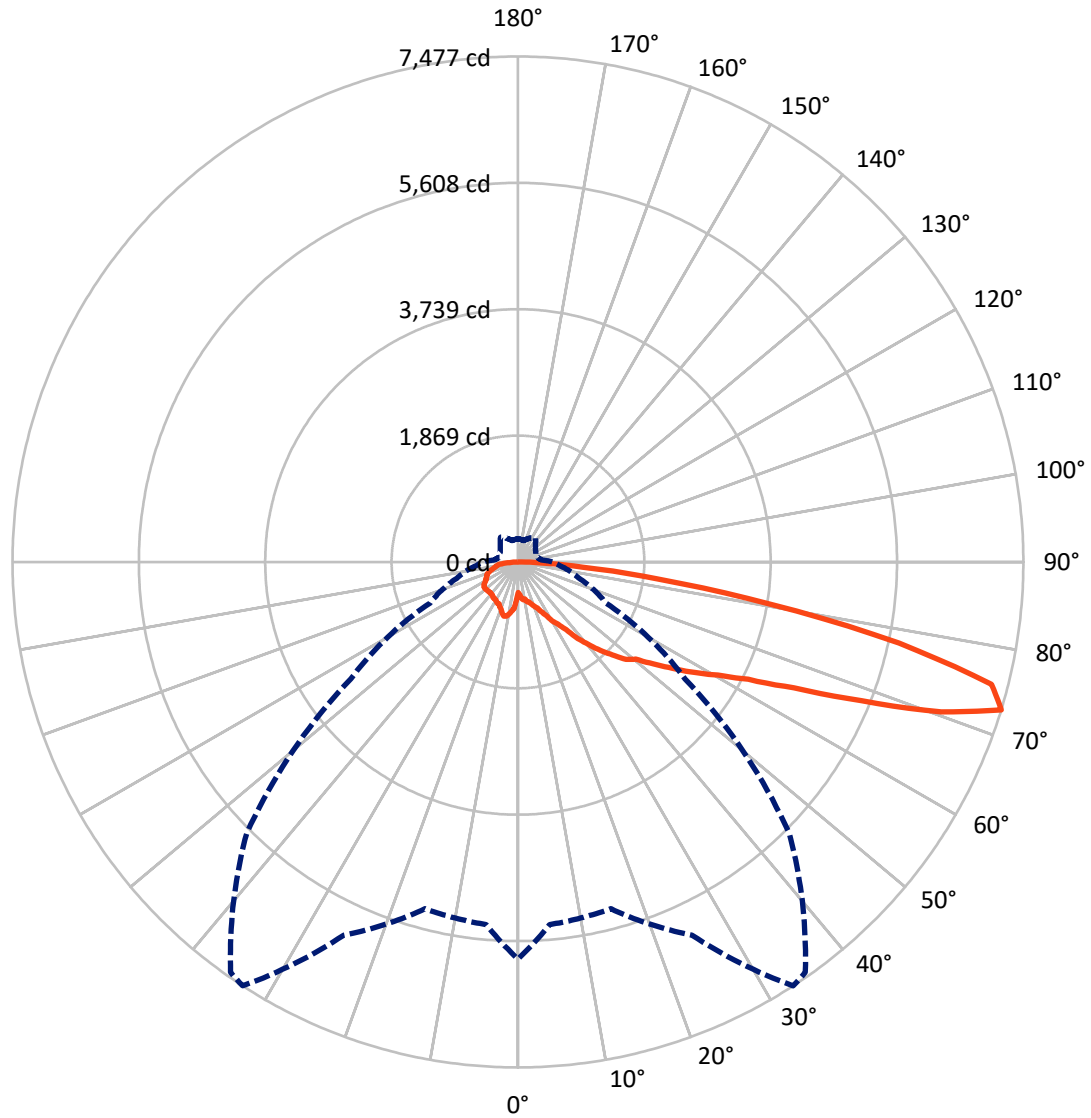
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.8 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 33-Deg Lateral - - - Horizontal Cone Through 72.5-Deg Vertical

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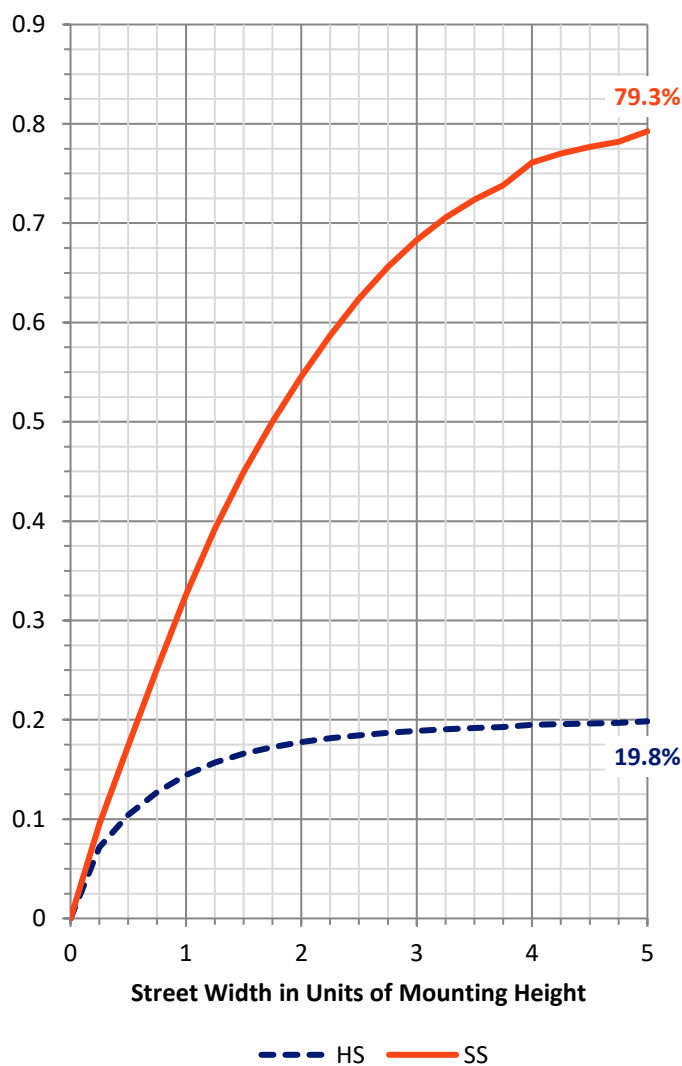
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1748.5	0.0	1748.5
	% Fixture	20.2	0.0	20.2
Street Side	Lumens	6894.5	0.0	6894.5
	% Fixture	79.8	0.0	79.8
Total	Lumens	8643.0	0.0	8643.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	62.3	0.7
10°-20°	230.3	2.7
20°-30°	419.9	4.9
30°-40°	710.4	8.2
40°-50°	1181.9	13.7
50°-60°	1734.5	20.1
60°-70°	2218.8	25.7
70°-80°	1805.2	20.9
80°-90°	279.6	3.2
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°	8643.0	100.0
0°-180°	8643.0	100.0

Coefficient of Utilization

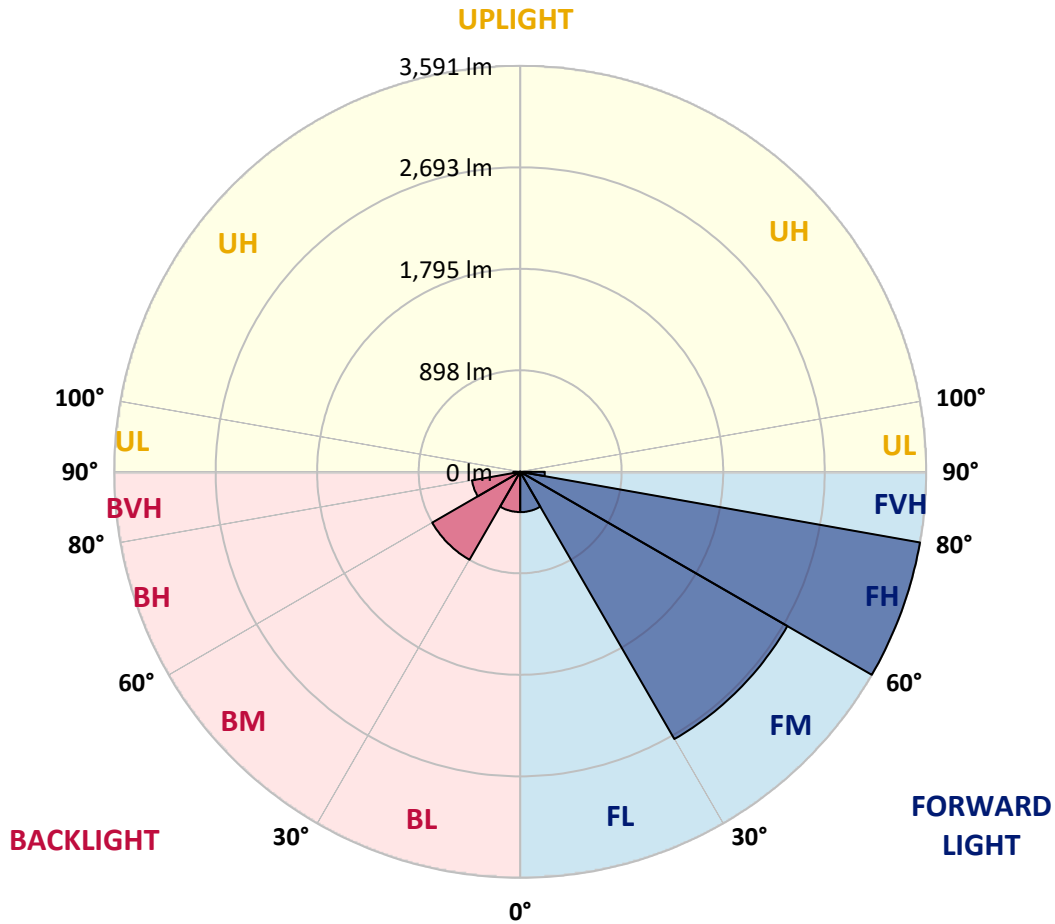


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	356.7	4.1			
FM (30°-60°)	2728.8	31.6			
FH (60°-80°)	3590.8	41.5			G2/5000
FVH (80°-90°)	218.2	2.5			G2/225
BL (0°-30°)	355.8	4.1	B1/500		
BM (30°-60°)	898.0	10.4	B1/1000		
BH (60°-80°)	433.2	5.0	B1/500		G1/500
BVH (80°-90°)	61.4	0.7			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G2
 Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	33°	35°	45°	55°	65°	75°	85°
0°	453.2	453.2	453.2	453.2	453.2	453.2	453.2	453.2	453.2	453.2	453.2
2.5°	513.8	497.7	471.1	470.4	485.1	488.3	498.0	498.7	502.3	496.6	537.5
5°	566.9	549.7	539.3	542.8	536.0	544.3	544.3	567.9	599.5	636.1	688.1
7.5°	579.4	566.9	555.0	564.0	565.4	557.5	565.1	620.6	677.7	714.2	797.4
10°	554.3	541.8	550.7	553.6	553.2	571.2	610.2	654.7	718.2	785.6	830.4
12.5°	549.7	558.6	562.9	567.9	602.0	607.4	666.5	712.4	776.3	835.4	951.9
15°	618.9	630.7	604.2	602.4	613.5	618.5	679.8	726.1	819.3	918.6	1023.3
17.5°	717.5	721.8	674.1	649.7	657.9	661.9	688.8	746.9	804.2	987.8	1118.3
20°	812.8	815.7	726.1	671.6	700.6	704.9	730.0	763.3	808.5	1026.5	1182.5
22.5°	912.9	894.6	796.3	727.5	744.3	745.4	760.1	778.4	842.6	1020.4	1260.7
25°	1022.2	1010.7	887.0	821.1	820.4	805.7	806.4	832.5	878.8	1085.7	1311.9
27.5°	1167.4	1168.9	989.2	953.7	898.2	888.5	840.1	888.8	941.5	1086.4	1422.7
30°	1355.7	1320.9	1131.6	1074.2	1019.4	998.9	933.3	974.9	997.8	1148.4	1543.2
32.5°	1508.8	1498.7	1280.0	1193.2	1103.6	1127.3	1054.8	1018.3	1059.5	1255.3	1725.7
35°	1655.4	1622.4	1437.1	1324.1	1229.8	1215.5	1168.5	1174.6	1199.7	1390.5	1964.1
37.5°	1874.1	1856.2	1659.4	1478.7	1434.6	1376.1	1346.3	1365.4	1345.6	1563.6	2321.6
40°	2118.7	2014.7	1845.1	1684.1	1601.6	1560.4	1570.8	1552.9	1537.8	1758.0	2642.1
42.5°	2352.8	2258.1	1968.4	1896.0	1788.4	1805.7	1748.6	1761.2	1803.9	2033.7	2938.7
45°	2607.7	2403.0	2099.3	2035.5	1958.4	1980.3	2025.8	2012.2	2082.1	2358.9	3218.0
47.5°	2735.0	2540.3	2259.9	2156.0	2154.9	2109.3	2386.5	2416.6	2307.3	2599.8	3501.6
50°	2857.6	2666.2	2379.3	2309.1	2258.1	2355.7	2732.5	2663.3	2510.9	2876.3	3813.5
52.5°	3028.3	2809.9	2516.3	2441.4	2504.5	2594.8	3008.6	2995.0	2710.6	3160.6	4084.6
55°	3158.5	2937.9	2722.5	2652.9	2773.4	2861.9	3289.7	3207.6	2881.7	3369.3	4256.3
57.5°	3386.5	3160.2	3026.9	2872.3	3088.9	3087.5	3560.7	3497.3	3064.5	3540.7	4325.5
60°	3749.0	3483.3	3343.8	3165.6	3397.6	3480.4	3870.5	3687.7	3193.9	3648.9	4200.8
62.5°	4257.8	3942.2	3716.0	3539.6	3822.5	3972.4	4253.1	3826.4	3202.2	3618.1	3872.7
65°	4887.0	4503.4	4206.8	4020.4	4487.2	4701.3	4715.6	3912.1	3126.2	3299.4	3182.8
67.5°	5500.9	5069.5	4760.1	4795.6	5477.2	5578.7	5216.9	3983.8	2717.8	2649.3	2210.1
70°	5904.9	5437.4	5231.2	5607.7	6643.2	6539.2	5623.1	3794.9	2140.2	1717.4	1244.5
72.5°	5874.5	5385.0	5310.8	6090.3	7477.2	7412.3	5672.6	3017.9	1433.5	939.0	620.6
75°	4785.9	4405.5	4574.0	5765.5	7236.9	7233.7	4925.0	1868.0	735.4	482.2	392.3
77.5°	2646.1	2498.4	2993.5	4365.3	5762.2	5791.6	3327.7	847.3	396.6	341.7	295.4
80°	926.8	913.2	1297.2	2355.7	3790.6	3797.7	1547.5	387.6	288.3	258.5	216.9
82.5°	338.8	336.0	537.8	1094.3	2087.1	2082.4	586.9	241.3	213.7	182.9	143.1
85°	135.2	132.3	246.0	485.8	958.8	943.3	228.0	137.0	139.8	109.0	70.3
87.5°	37.3	38.7	83.5	152.0	293.7	272.1	57.4	46.3	56.7	44.5	22.2
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°	453.2	453.2	453.2	453.2	453.2	453.2	453.2	453.2	453.2	453.2	453.2
2.5°	544.6	548.2	512.7	525.3	541.4	550.0	554.3	536.0	542.1	567.9	566.9
5°	698.8	684.5	670.8	684.8	675.5	662.2	683.8	682.7	696.7	710.6	713.9
7.5°	813.9	795.3	788.8	757.3	725.7	693.8	721.4	738.6	742.2	777.0	791.7
10°	855.5	848.3	850.8	809.2	805.3	808.5	783.1	755.5	772.3	758.0	768.7
12.5°	951.6	969.5	925.1	896.7	894.2	874.5	823.6	805.7	786.7	806.4	796.3
15°	1028.7	1062.0	1014.3	964.5	908.2	877.7	834.3	807.1	794.5	798.8	786.7
17.5°	1141.6	1172.8	1051.6	975.3	917.2	872.3	806.0	747.9	778.8	781.3	767.3
20°	1216.6	1218.7	1064.2	948.7	896.4	818.6	754.0	703.1	738.6	774.8	790.6
22.5°	1289.7	1273.6	1079.6	927.6	820.7	745.4	713.9	710.6	737.2	767.7	771.2
25°	1344.6	1347.1	1088.6	919.7	776.3	673.7	673.7	697.0	720.3	792.8	789.2
27.5°	1477.6	1379.7	1053.8	883.5	714.6	631.8	674.1	705.3	716.4	794.9	802.8
30°	1574.4	1510.6	1060.9	821.4	652.2	612.0	646.8	685.9	716.7	807.5	804.6
32.5°	1736.8	1565.1	1077.8	734.3	605.6	604.5	635.3	676.6	713.5	793.8	798.1
35°	1916.4	1725.7	1030.8	668.0	594.5	600.2	640.0	656.5	699.9	788.4	792.4
37.5°	2248.8	1809.6	1001.1	616.7	587.3	603.8	618.9	644.3	688.1	761.6	787.4
40°	2443.9	1982.4	890.6	586.9	572.2	600.9	608.5	630.0	653.6	729.3	745.8
42.5°	2700.6	2036.9	796.3	554.0	564.7	589.1	611.7	617.1	632.8	678.4	708.5
45°	2914.6	2077.8	696.3	527.4	539.3	615.3	616.7	614.2	611.3	628.2	652.9
47.5°	3136.2	2187.5	604.2	498.0	529.6	636.8	619.2	596.3	584.4	586.6	609.5
50°	3380.8	2267.1	538.9	474.0	531.7	636.8	631.4	578.0	554.3	548.2	572.2
52.5°	3595.9	2276.4	489.4	454.6	522.8	614.9	639.7	566.5	526.7	512.0	534.6
55°	3713.1	2158.5	453.6	437.1	499.8	595.2	635.3	560.1	493.4	482.2	502.3
57.5°	3710.6	1962.7	423.1	412.7	473.6	567.6	611.3	524.9	472.9	466.5	486.2
60°	3576.9	1733.2	399.8	392.6	446.8	527.4	568.3	502.0	453.2	450.0	471.5
62.5°	3273.5	1496.2	377.2	371.5	421.7	499.1	547.9	476.5	432.8	432.4	452.8
65°	2680.9	1201.1	356.0	354.6	398.3	471.1	528.5	455.0	411.6	418.8	439.6
67.5°	1847.2	844.0	333.5	337.8	376.8	444.2	513.8	440.7	389.4	404.1	422.7
70°	1013.6	522.0	308.4	317.0	349.6	413.0	490.9	417.4	360.3	382.9	395.8
72.5°	515.6	348.2	277.2	290.8	316.2	367.2	447.8	383.6	329.1	337.8	344.6
75°	346.4	262.1	242.4	257.4	275.7	323.4	397.3	352.1	299.4	298.3	305.8
77.5°	261.7	204.7	205.8	223.0	234.8	284.3	357.1	325.6	274.3	271.8	282.9
80°	191.5	155.3	165.6	183.6	194.3	255.3	330.9	296.2	240.2	230.2	239.5
82.5°	126.9	110.1	122.6	140.6	149.2	213.3	300.5	251.3	195.8	170.3	171.7
85°	59.9	57.7	73.1	81.7	92.9	132.3	224.8	173.9	124.8	103.3	107.9
87.5°	13.6	18.3	24.0	23.7	27.6	35.5	69.9	48.8	36.2	24.7	16.5
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)