

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: P596252

Luminaire Tested: **MSA-SA2B-722-U-T4FT**

Issue Date: 5/27/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P596252  
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-SA2B-722-U-T4FT  
Description: MESA POST TOP DECORATIVE LUMINAIRE. (2) 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: 7339 lumens  
Efficiency: N/A  
Efficacy: 86.3 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B1 - U0 - G2

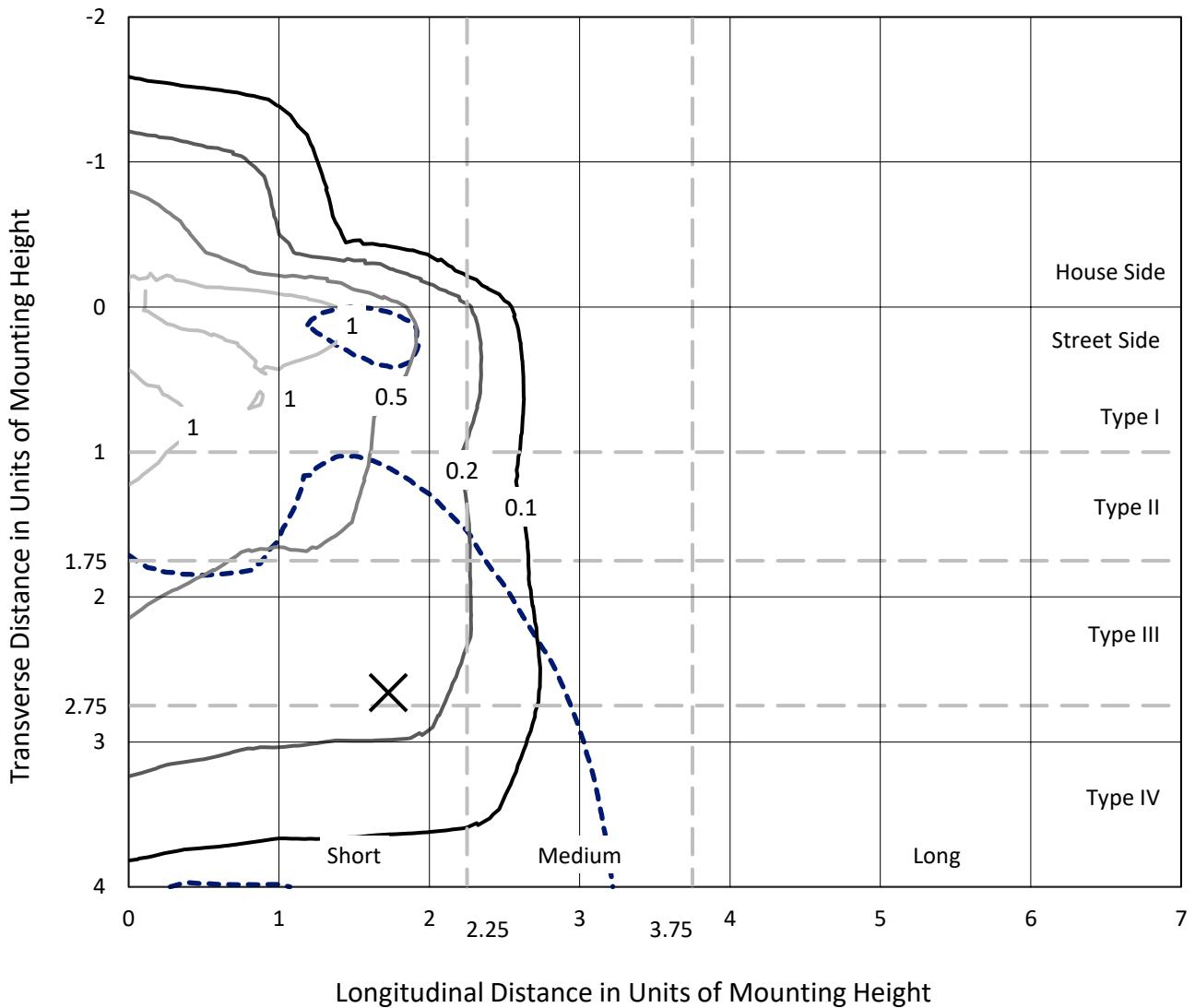
Input Watts (W): 85  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

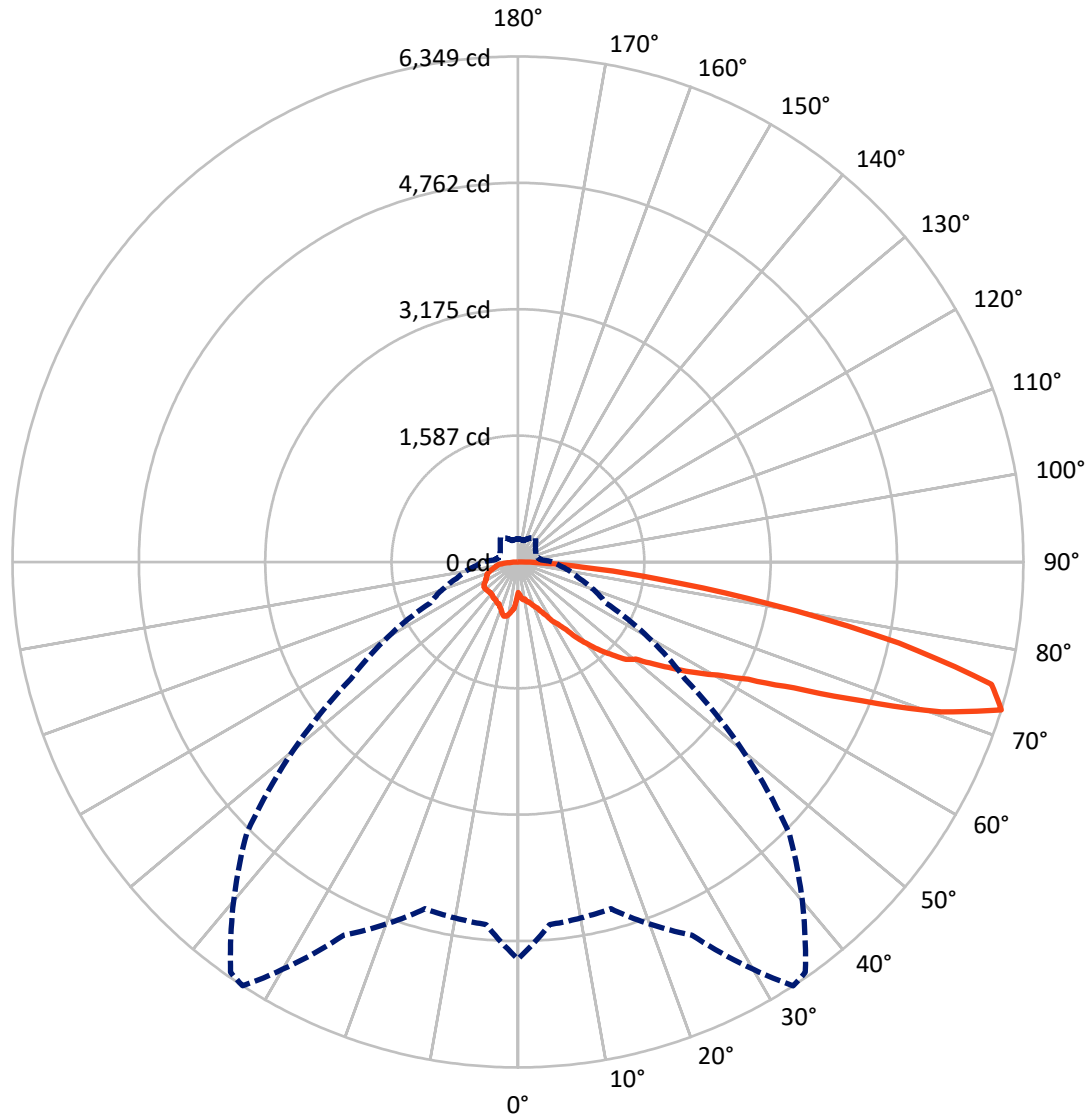
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.5 fc  
 Type IV - Short - N/A

REPORT NUMBER: P596252  
CATALOG NUMBER: MSA-SA2B-722-U-T4FT

### Luminous Intensity Polar Plot



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

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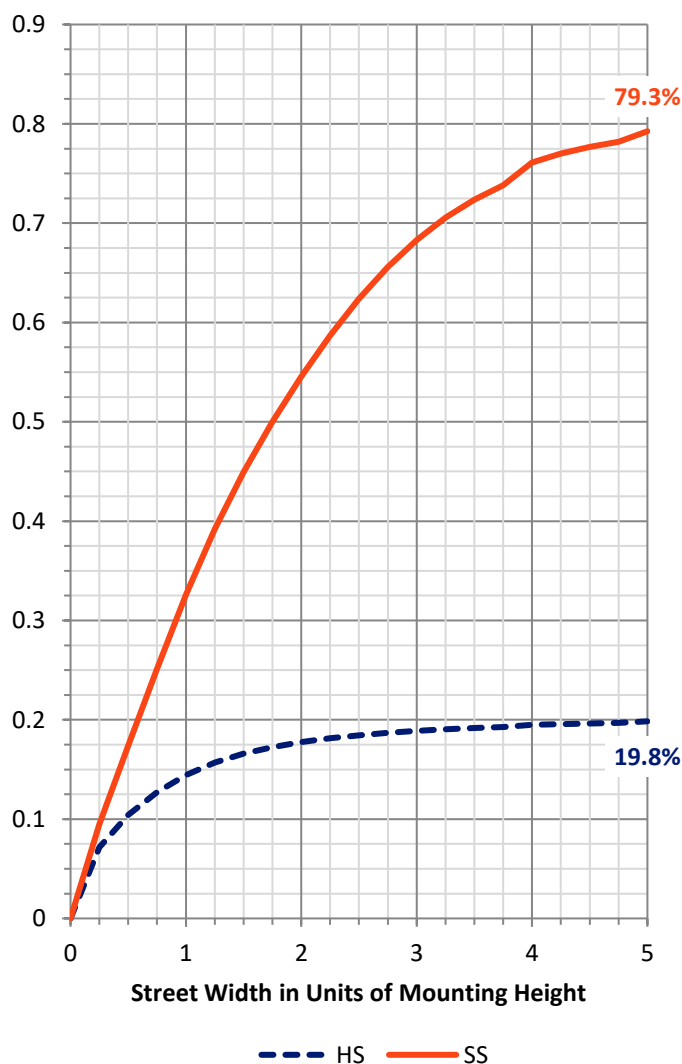
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	1484.7	0.0	1484.7
	% Fixture	20.2	0.0	20.2
<b>Street Side</b>	Lumens	5854.3	0.0	5854.3
	% Fixture	79.8	0.0	79.8
<b>Total</b>	Lumens	7339.0	0.0	7339.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	52.9	0.7
10°-20°	195.5	2.7
20°-30°	356.6	4.9
30°-40°	603.2	8.2
40°-50°	1003.6	13.7
50°-60°	1472.8	20.1
60°-70°	1884.1	25.7
70°-80°	1532.9	20.9
80°-90°	237.4	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°	7339.0	100.0
0°-180°	7339.0	100.0

**Coefficient of Utilization**

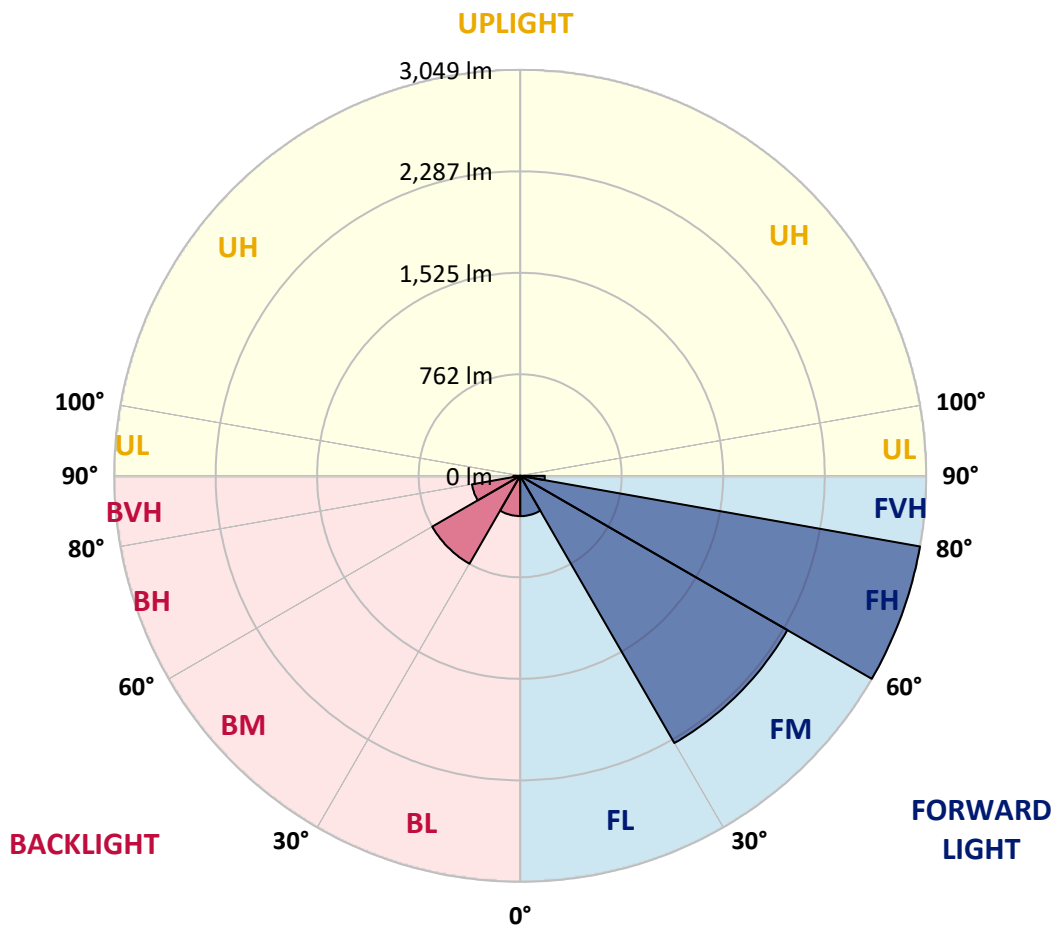


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	302.9	4.1			
FM (30°-60°)	2317.1	31.6			
FH (60°-80°)	3049.1	41.5			G2/5000
FVH (80°-90°)	185.3	2.5			G2/225
BL (0°-30°)	302.2	4.1	B1/500		
BM (30°-60°)	762.5	10.4	B1/1000		
BH (60°-80°)	367.9	5.0	B1/500		G1/500
BVH (80°-90°)	52.1	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°	384.8	384.8	384.8	384.8	384.8	384.8	384.8	384.8	384.8	384.8	384.8
2.5°	436.3	422.6	400.1	399.4	411.9	414.7	422.9	423.5	426.5	421.7	456.4
5°	481.3	466.7	457.9	460.9	455.2	462.2	462.2	482.3	509.0	540.1	584.2
7.5°	492.0	481.3	471.3	478.9	480.1	473.4	479.8	527.0	575.4	606.5	677.1
10°	470.7	460.0	467.6	470.1	469.8	485.0	518.2	555.9	609.8	667.1	705.1
12.5°	466.7	474.3	478.0	482.3	511.2	515.7	566.0	604.9	659.1	709.4	808.3
15°	525.5	535.5	513.0	511.5	520.9	525.2	577.2	616.5	695.7	780.0	868.9
17.5°	609.2	612.9	572.4	551.7	558.7	562.0	584.9	634.2	682.9	838.8	949.6
20°	690.2	692.6	616.5	570.2	594.9	598.6	619.9	648.2	686.5	871.6	1004.1
22.5°	775.1	759.6	676.2	617.7	632.0	633.0	645.4	661.0	715.5	866.5	1070.5
25°	868.0	858.3	753.2	697.2	696.6	684.1	684.7	706.9	746.2	921.9	1114.0
27.5°	991.3	992.5	840.0	809.8	762.7	754.4	713.3	754.7	799.5	922.5	1208.1
30°	1151.1	1121.6	960.9	912.1	865.6	848.2	792.5	827.8	847.3	975.2	1310.4
32.5°	1281.1	1272.6	1086.9	1013.2	937.1	957.2	895.7	864.6	899.7	1065.9	1465.3
35°	1405.7	1377.6	1220.2	1124.3	1044.3	1032.1	992.2	997.4	1018.7	1180.7	1667.8
37.5°	1591.4	1576.2	1409.0	1255.6	1218.1	1168.5	1143.2	1159.4	1142.6	1327.7	1971.3
40°	1799.0	1710.7	1566.7	1430.0	1360.0	1325.0	1333.8	1318.6	1305.8	1492.7	2243.5
42.5°	1997.8	1917.4	1671.4	1609.9	1518.6	1533.2	1484.8	1495.5	1531.7	1726.9	2495.3
45°	2214.3	2040.4	1782.6	1728.4	1662.9	1681.5	1720.2	1708.6	1768.0	2003.0	2732.5
47.5°	2322.4	2157.0	1919.0	1830.7	1829.8	1791.1	2026.4	2052.0	1959.2	2207.6	2973.3
50°	2426.5	2263.9	2020.4	1960.7	1917.4	2000.3	2320.2	2261.5	2132.1	2442.3	3238.2
52.5°	2571.4	2386.0	2136.7	2073.0	2126.6	2203.3	2554.7	2543.1	2301.7	2683.8	3468.3
55°	2681.9	2494.7	2311.7	2252.6	2354.9	2430.1	2793.4	2723.6	2446.9	2860.9	3614.2
57.5°	2875.6	2683.4	2570.2	2439.0	2622.9	2621.6	3023.5	2969.6	2602.2	3006.5	3672.9
60°	3183.4	2957.8	2839.3	2688.0	2885.0	2955.3	3286.6	3131.3	2712.1	3098.4	3567.0
62.5°	3615.4	3347.5	3155.4	3005.6	3245.8	3373.0	3611.4	3249.1	2719.1	3072.2	3288.4
65°	4149.7	3823.9	3572.1	3413.8	3810.2	3992.0	4004.2	3321.9	2654.5	2801.6	2702.6
67.5°	4670.9	4304.7	4041.9	4072.1	4650.8	4737.0	4429.8	3382.8	2307.8	2249.6	1876.6
70°	5014.0	4617.0	4442.0	4761.6	5640.9	5552.6	4774.7	3222.3	1817.3	1458.3	1056.8
72.5°	4988.2	4572.6	4509.6	5171.4	6349.1	6294.0	4816.8	2562.6	1217.2	797.4	527.0
75°	4063.8	3740.8	3883.9	4895.6	6145.1	6142.3	4182.0	1586.2	624.4	409.5	333.1
77.5°	2246.9	2121.4	2541.9	3706.7	4892.9	4917.8	2825.6	719.4	336.7	290.1	250.9
80°	787.0	775.4	1101.5	2000.3	3218.7	3224.8	1314.0	329.1	244.8	219.5	184.2
82.5°	287.7	285.3	456.7	929.2	1772.2	1768.3	498.4	204.9	181.5	155.3	121.5
85°	114.8	112.3	208.9	412.5	814.1	801.0	193.6	116.3	118.7	92.6	59.7
87.5°	31.7	32.9	70.9	129.1	249.3	231.1	48.7	39.3	48.1	37.8	18.9
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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 CATALOG NUMBER: MSA-SA2B-722-U-T4FT

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	384.8	384.8	384.8	384.8	384.8	384.8	384.8	384.8	384.8	384.8	384.8
2.5°	462.5	465.5	435.4	446.0	459.7	467.0	470.7	455.2	460.3	482.3	481.3
5°	593.4	581.2	569.6	581.5	573.6	562.3	580.6	579.7	591.6	603.4	606.2
7.5°	691.1	675.3	669.8	643.0	616.2	589.1	612.6	627.2	630.2	659.7	672.2
10°	726.4	720.3	722.5	687.2	683.8	686.5	664.9	641.5	655.8	643.6	652.7
12.5°	808.0	823.2	785.5	761.4	759.3	742.6	699.3	684.1	668.0	684.7	676.2
15°	873.5	901.8	861.3	819.0	771.2	745.3	708.5	685.3	674.7	678.3	668.0
17.5°	969.4	995.9	893.0	828.1	778.8	740.7	684.4	635.1	661.3	663.4	651.5
20°	1033.0	1034.8	903.6	805.6	761.1	695.1	640.3	597.0	627.2	657.9	671.3
22.5°	1095.1	1081.4	916.7	787.6	696.9	633.0	606.2	603.4	626.0	651.8	654.9
25°	1141.7	1143.8	924.3	780.9	659.1	572.1	572.1	591.9	611.6	673.1	670.1
27.5°	1254.7	1171.5	894.8	750.2	606.8	536.4	572.4	598.9	608.3	675.0	681.7
30°	1336.9	1282.7	900.9	697.5	553.8	519.7	549.2	582.4	608.6	685.6	683.2
32.5°	1474.8	1328.9	915.2	623.5	514.2	513.3	539.5	574.5	605.9	674.1	677.7
35°	1627.3	1465.3	875.3	567.2	504.8	509.7	543.4	557.5	594.3	669.5	672.8
37.5°	1909.5	1536.6	850.0	523.7	498.7	512.7	525.5	547.1	584.2	646.7	668.6
40°	2075.2	1683.3	756.3	498.4	485.9	510.3	516.7	534.9	555.0	619.3	633.3
42.5°	2293.1	1729.6	676.2	470.4	479.5	500.2	519.4	524.0	537.4	576.0	601.6
45°	2474.9	1764.3	591.2	447.9	457.9	522.4	523.7	521.5	519.1	533.4	554.4
47.5°	2663.1	1857.5	513.0	422.9	449.7	540.7	525.8	506.3	496.3	498.1	517.6
50°	2870.7	1925.1	457.6	402.5	451.5	540.7	536.1	490.8	470.7	465.5	485.9
52.5°	3053.4	1933.0	415.6	386.0	443.9	522.1	543.1	481.0	447.2	434.8	453.9
55°	3152.9	1832.8	385.1	371.1	424.4	505.4	539.5	475.6	418.9	409.5	426.5
57.5°	3150.8	1666.6	359.3	350.4	402.2	481.9	519.1	445.7	401.6	396.1	412.8
60°	3037.2	1471.7	339.5	333.4	379.3	447.9	482.6	426.2	384.8	382.1	400.4
62.5°	2779.7	1270.5	320.3	315.4	358.0	423.8	465.2	404.6	367.5	367.2	384.5
65°	2276.4	1019.9	302.3	301.1	338.2	400.1	448.8	386.4	349.5	355.6	373.3
67.5°	1568.5	716.7	283.1	286.8	320.0	377.2	436.3	374.2	330.6	343.1	359.0
70°	860.7	443.3	261.8	269.1	296.8	350.7	416.8	354.4	306.0	325.2	336.1
72.5°	437.8	295.6	235.3	246.9	268.5	311.8	380.3	325.8	279.5	286.8	292.6
75°	294.1	222.6	205.8	218.6	234.1	274.6	337.3	299.0	254.2	253.3	259.7
77.5°	222.3	173.8	174.8	189.4	199.4	241.4	303.2	276.4	232.9	230.8	240.2
80°	162.6	131.8	140.7	155.9	165.0	216.8	281.0	251.5	204.0	195.5	203.4
82.5°	107.8	93.5	104.1	119.3	126.7	181.1	255.1	213.4	166.2	144.6	145.8
85°	50.8	49.0	62.1	69.4	78.9	112.3	190.9	147.7	105.9	87.7	91.6
87.5°	11.6	15.5	20.4	20.1	23.4	30.1	59.4	41.4	30.7	21.0	14.0
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)