

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: P597044

Luminaire Tested: **MSA-SA3B-835-U-T4FT**

Issue Date: 5/27/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P597044  
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-SA3B-835-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: 12147 lumens  
Efficiency: N/A  
Efficacy: 96.4 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B2 - U0 - G3

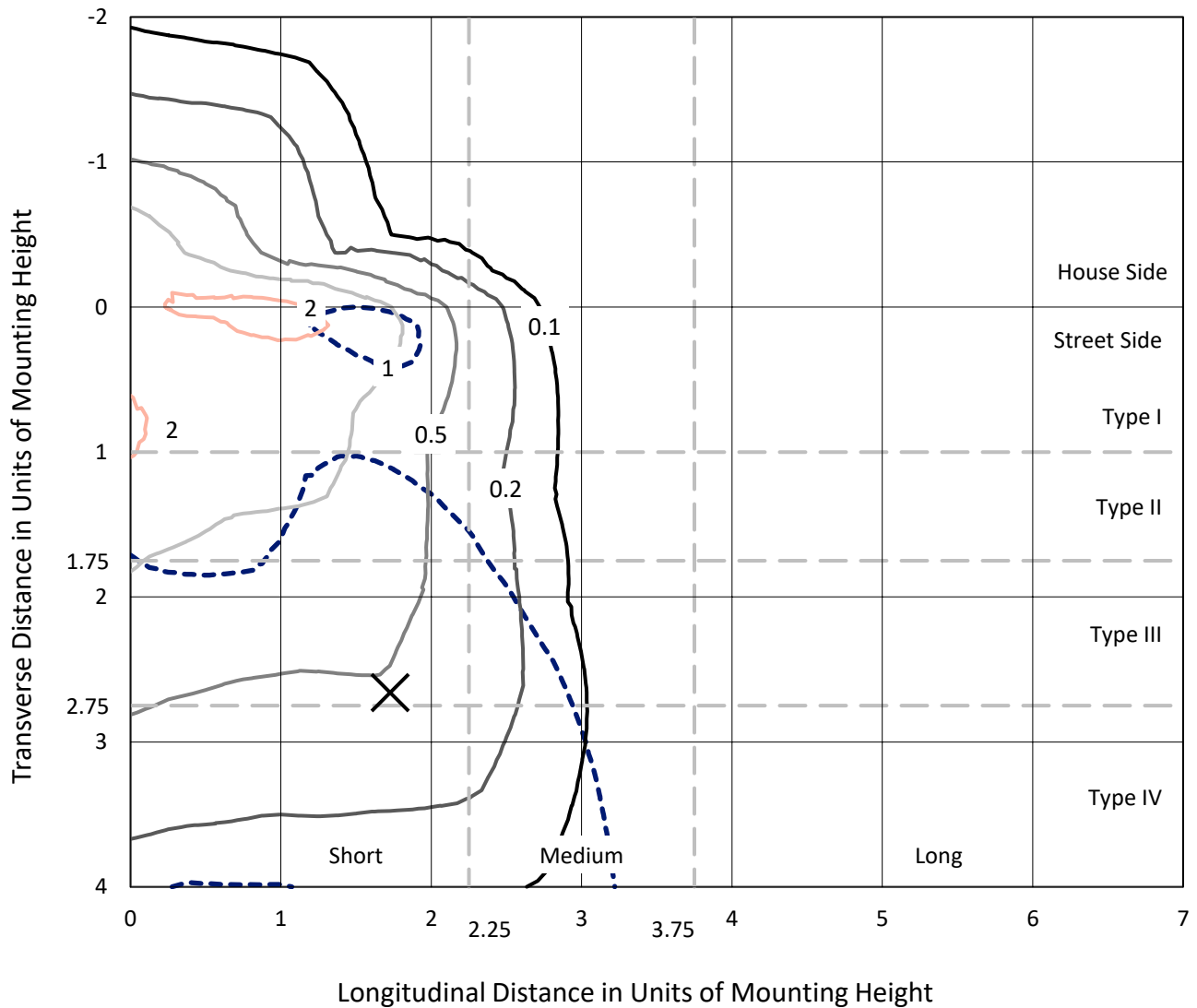
Input Watts (W): 126  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

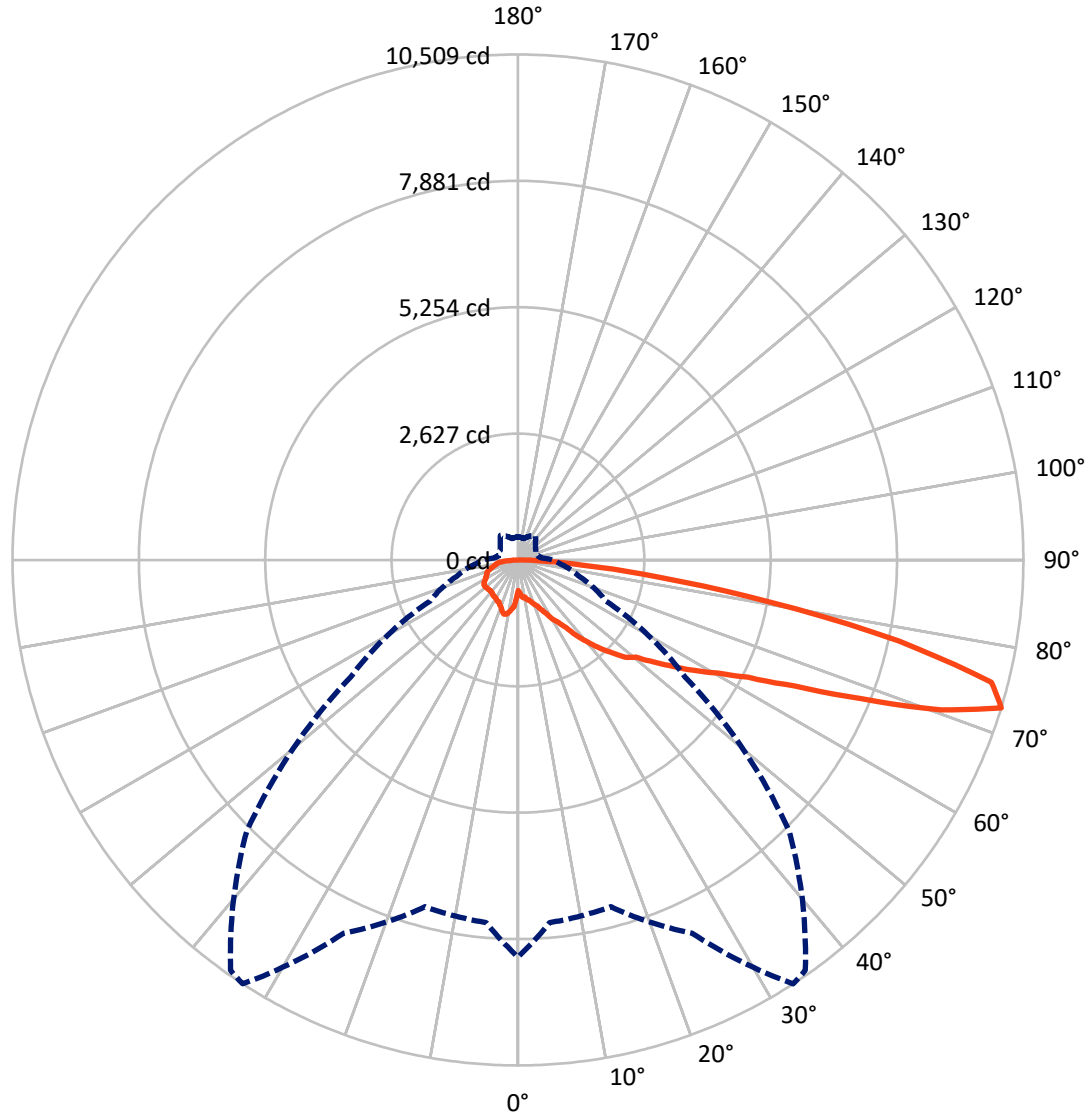
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.5 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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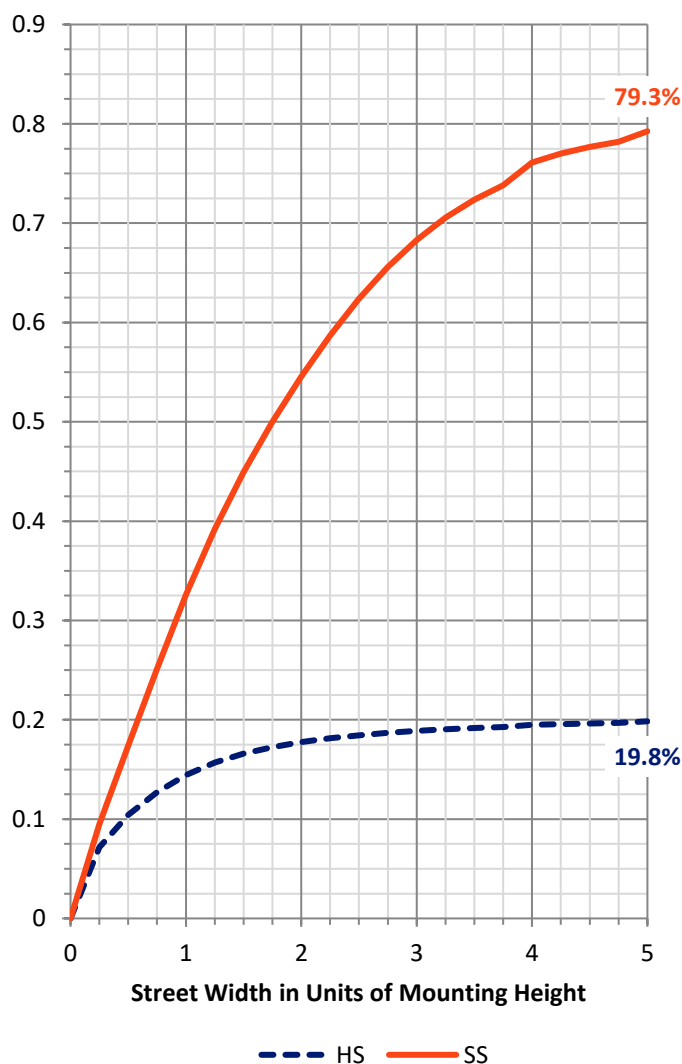
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	2457.3	0.0	2457.3
	% Fixture	20.2	0.0	20.2
<b>Street Side</b>	Lumens	9689.7	0.0	9689.7
	% Fixture	79.8	0.0	79.8
<b>Total</b>	Lumens	12147.0	0.0	12147.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	87.6	0.7
10°-20°	323.6	2.7
20°-30°	590.2	4.9
30°-40°	998.4	8.2
40°-50°	1661.0	13.7
50°-60°	2437.7	20.1
60°-70°	3118.4	25.7
70°-80°	2537.1	20.9
80°-90°	392.9	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°	12147.0	100.0
0°-180°	12147.0	100.0

**Coefficient of Utilization**



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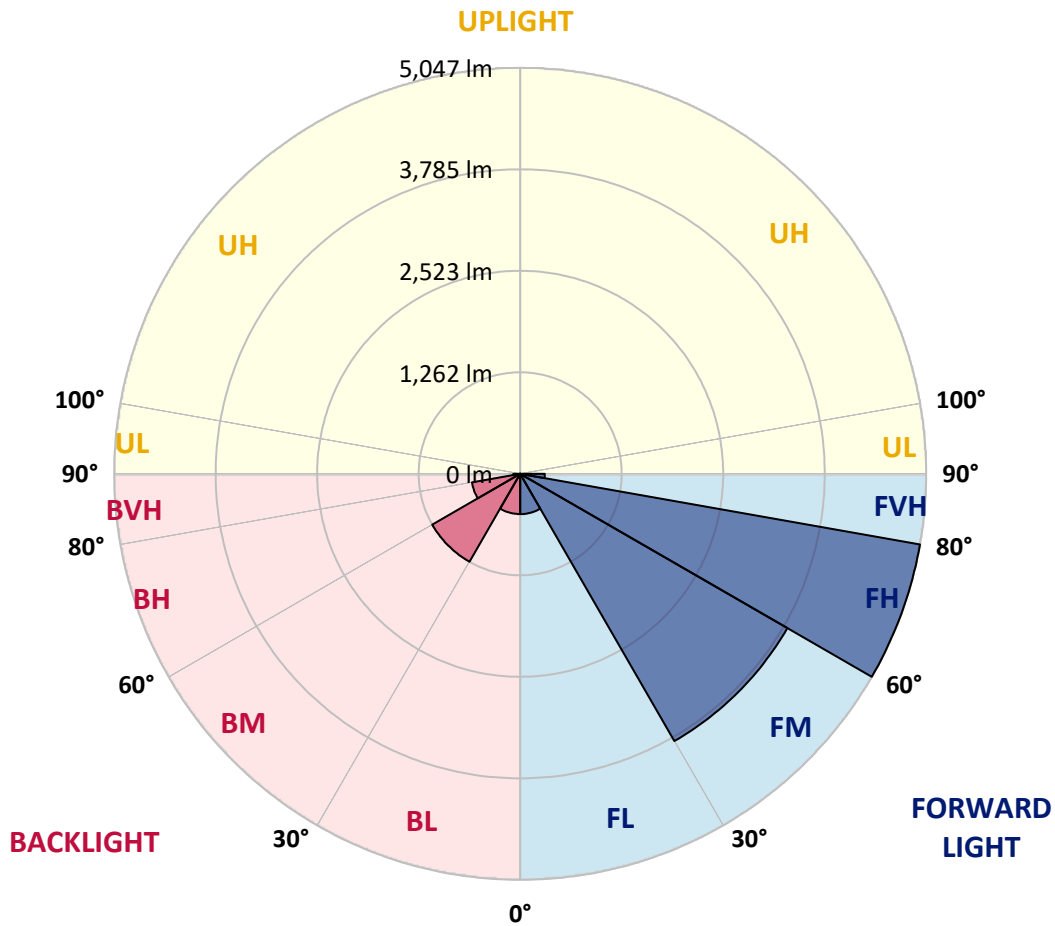
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	501.3	4.1			
FM (30°-60°)	3835.1	31.6			
FH (60°-80°)	5046.6	41.5			G3/7500
FVH (80°-90°)	306.7	2.5			G3/500
BL (0°-30°)	500.1	4.1	B2/1000		
BM (30°-60°)	1262.1	10.4	B2/2500		
BH (60°-80°)	608.9	5.0	B2/1000		G2/1000
BVH (80°-90°)	86.3	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-G3**

Type IV Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	33°	35°	45°	55°	65°	75°	85°
0°	636.9	636.9	636.9	636.9	636.9	636.9	636.9	636.9	636.9	636.9	636.9
2.5°	722.1	699.4	662.1	661.1	681.8	686.3	699.9	700.9	706.0	697.9	755.4
5°	796.7	772.5	757.9	762.9	753.3	764.9	764.9	798.2	842.5	893.9	967.0
7.5°	814.3	796.7	780.1	792.6	794.7	783.6	794.2	872.3	952.4	1003.8	1120.7
10°	779.0	761.4	774.0	778.0	777.5	802.7	857.7	920.1	1009.3	1104.1	1167.1
12.5°	772.5	785.1	791.1	798.2	846.1	853.6	936.8	1001.3	1091.0	1174.1	1337.9
15°	869.7	886.4	849.1	846.6	862.2	869.2	955.4	1020.4	1151.4	1291.0	1438.2
17.5°	1008.3	1014.4	947.3	913.1	924.7	930.2	968.0	1049.6	1130.3	1388.3	1571.7
20°	1142.4	1146.4	1020.4	943.8	984.6	990.7	1026.0	1072.8	1136.3	1442.7	1661.9
22.5°	1283.0	1257.3	1119.2	1022.4	1046.1	1047.6	1068.3	1094.0	1184.2	1434.1	1771.7
25°	1436.6	1420.5	1246.7	1154.0	1152.9	1132.3	1133.3	1170.1	1235.1	1525.8	1843.8
27.5°	1640.7	1642.7	1390.3	1340.4	1262.3	1248.7	1180.7	1249.2	1323.3	1526.8	1999.5
30°	1905.3	1856.4	1590.3	1509.7	1432.6	1403.9	1311.7	1370.1	1402.4	1614.0	2168.8
32.5°	2120.5	2106.3	1799.0	1677.0	1551.0	1584.3	1482.5	1431.1	1489.1	1764.2	2425.3
35°	2326.5	2280.2	2019.7	1860.9	1728.4	1708.3	1642.2	1650.8	1686.1	1954.2	2760.4
37.5°	2633.9	2608.7	2332.1	2078.1	2016.1	1934.0	1892.2	1918.9	1891.2	2197.5	3262.8
40°	2977.6	2831.5	2593.1	2366.9	2251.0	2193.0	2207.6	2182.4	2161.3	2470.7	3713.3
42.5°	3306.7	3173.6	2766.5	2664.7	2513.5	2537.7	2457.6	2475.2	2535.2	2858.2	4130.0
45°	3664.9	3377.2	2950.4	2860.7	2752.4	2783.1	2847.1	2827.9	2926.2	3315.2	4522.6
47.5°	3843.8	3570.2	3176.1	3030.0	3028.5	2964.5	3354.0	3396.3	3242.7	3653.8	4921.2
50°	4016.2	3747.1	3343.9	3245.2	3173.6	3310.7	3840.3	3743.0	3528.9	4042.4	5359.6
52.5°	4256.0	3949.1	3536.4	3431.1	3519.8	3646.8	4228.3	4209.2	3809.6	4442.0	5740.5
55°	4438.9	4129.0	3826.2	3728.4	3897.7	4022.2	4623.4	4508.0	4049.9	4735.2	5981.9
57.5°	4759.4	4441.5	4254.0	4036.8	4341.2	4339.2	5004.3	4915.1	4306.9	4976.1	6079.2
60°	5268.9	4895.5	4699.5	4449.0	4775.0	4891.4	5439.7	5182.7	4488.8	5128.3	5903.8
62.5°	5983.9	5540.5	5222.5	4974.6	5372.2	5582.8	5977.4	5377.7	4500.4	5084.9	5442.7
65°	6868.3	6329.1	5912.4	5650.3	6306.4	6607.3	6627.4	5498.2	4393.6	4637.0	4473.2
67.5°	7731.0	7124.8	6689.9	6739.8	7697.7	7840.3	7331.9	5598.9	3819.6	3723.4	3106.1
70°	8298.9	7641.8	7352.0	7881.1	9336.4	9190.3	7902.8	5333.4	3007.8	2413.7	1749.1
72.5°	8256.1	7568.2	7463.9	8559.4	10508.5	10417.3	7972.3	4241.4	2014.6	1319.7	872.3
75°	6726.2	6191.5	6428.4	8102.9	10170.9	10166.4	6921.7	2625.4	1033.5	677.8	551.3
77.5°	3718.9	3511.2	4207.1	6135.1	8098.3	8139.6	4676.8	1190.7	557.3	480.2	415.2
80°	1302.6	1283.5	1823.1	3310.7	5327.3	5337.4	2174.9	544.7	405.1	363.3	304.9
82.5°	476.2	472.2	755.9	1537.9	2933.3	2926.7	824.9	339.1	300.3	257.0	201.1
85°	190.0	185.9	345.7	682.8	1347.5	1325.8	320.5	192.5	196.5	153.2	98.8
87.5°	52.4	54.4	117.4	213.7	412.7	382.5	80.6	65.0	79.6	62.5	31.2
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°	636.9	636.9	636.9	636.9	636.9	636.9	636.9	636.9	636.9	636.9	636.9
2.5°	765.4	770.5	720.6	738.2	760.9	773.0	779.0	753.3	761.9	798.2	796.7
5°	982.1	962.0	942.8	962.5	949.4	930.7	961.0	959.4	979.1	998.7	1003.3
7.5°	1143.9	1117.7	1108.6	1064.3	1019.9	975.1	1013.9	1038.1	1043.1	1092.0	1112.6
10°	1202.3	1192.2	1195.8	1137.3	1131.8	1136.3	1100.5	1061.7	1085.4	1065.3	1080.4
12.5°	1337.4	1362.6	1300.1	1260.3	1256.7	1229.0	1157.5	1132.3	1105.6	1133.3	1119.2
15°	1445.7	1492.6	1425.6	1355.5	1276.4	1233.6	1172.6	1134.3	1116.7	1122.7	1105.6
17.5°	1604.4	1648.3	1478.0	1370.6	1289.0	1226.0	1132.8	1051.2	1094.5	1098.0	1078.4
20°	1709.8	1712.8	1495.6	1333.3	1259.8	1150.4	1059.7	988.2	1038.1	1088.9	1111.1
22.5°	1812.6	1789.9	1517.3	1303.6	1153.4	1047.6	1003.3	998.7	1036.0	1078.9	1083.9
25°	1889.7	1893.2	1529.9	1292.5	1091.0	946.8	946.8	979.6	1012.4	1114.1	1109.1
27.5°	2076.6	1939.0	1481.0	1241.6	1004.3	887.9	947.3	991.2	1006.8	1117.2	1128.3
30°	2212.7	2123.0	1491.1	1154.5	916.6	860.2	909.1	964.0	1007.3	1134.8	1130.8
32.5°	2440.9	2199.6	1514.8	1032.0	851.1	849.6	892.9	950.9	1002.8	1115.7	1121.7
35°	2693.4	2425.3	1448.7	938.8	835.5	843.5	899.5	922.7	983.6	1108.1	1113.6
37.5°	3160.5	2543.2	1406.9	866.7	825.4	848.6	869.7	905.5	967.0	1070.3	1106.6
40°	3434.6	2786.1	1251.7	824.9	804.2	844.6	855.1	885.4	918.6	1025.0	1048.1
42.5°	3795.4	2862.7	1119.2	778.5	793.7	827.9	859.7	867.2	889.4	953.4	995.7
45°	4096.3	2920.2	978.6	741.3	757.9	864.7	866.7	863.2	859.2	882.8	917.6
47.5°	4407.7	3074.4	849.1	699.9	744.3	894.9	870.3	838.0	821.4	824.4	856.6
50°	4751.4	3186.2	757.4	666.2	747.3	894.9	887.4	812.3	779.0	770.5	804.2
52.5°	5053.7	3199.3	687.8	639.0	734.7	864.2	899.0	796.2	740.2	719.6	751.3
55°	5218.5	3033.5	637.4	614.3	702.4	836.5	892.9	787.1	693.4	677.8	706.0
57.5°	5215.0	2758.4	594.6	580.0	665.7	797.7	859.2	737.7	664.7	655.6	683.3
60°	5027.0	2435.9	561.9	551.8	627.9	741.3	798.7	705.5	636.9	632.4	662.6
62.5°	4600.7	2102.8	530.1	522.1	592.6	701.4	770.0	669.7	608.2	607.7	636.4
65°	3767.7	1688.1	500.4	498.4	559.8	662.1	742.8	639.5	578.5	588.6	617.8
67.5°	2596.1	1186.2	468.6	474.7	529.6	624.3	722.1	619.3	547.2	567.9	594.1
70°	1424.6	733.7	433.4	445.5	491.3	580.5	689.9	586.6	506.4	538.2	556.3
72.5°	724.6	489.3	389.5	408.7	444.4	516.0	629.4	539.2	462.6	474.7	484.3
75°	486.8	368.4	340.6	361.8	387.5	454.5	558.3	494.8	420.8	419.3	429.8
77.5°	367.9	287.7	289.2	313.4	330.1	399.6	501.9	457.5	385.5	382.0	397.6
80°	269.1	218.2	232.8	258.0	273.1	358.8	465.1	416.2	337.6	323.5	336.6
82.5°	178.4	154.7	172.3	197.5	209.6	299.8	422.3	353.2	275.1	239.4	241.4
85°	84.2	81.1	102.8	114.9	130.5	185.9	316.0	244.4	175.4	145.1	151.7
87.5°	19.1	25.7	33.8	33.3	38.8	49.9	98.3	68.5	50.9	34.8	23.2
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)