

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: P597108

Luminaire Tested: **MSA-SA4A-835-U-T3**

Issue Date: 5/27/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P597108  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-10)  
Test Lab: INNOVATIONS CENTER  
Issue Date: 5/27/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: MSA-SA4A-835-U-T3  
Description: MESA POST TOP DECORATIVE LUMINAIRE. (4) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE III OPTICS.  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 12763 lumens  
Efficiency: N/A  
Efficacy: 98.9 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type III - Short  
BUG Rating: B2 - U0 - G2

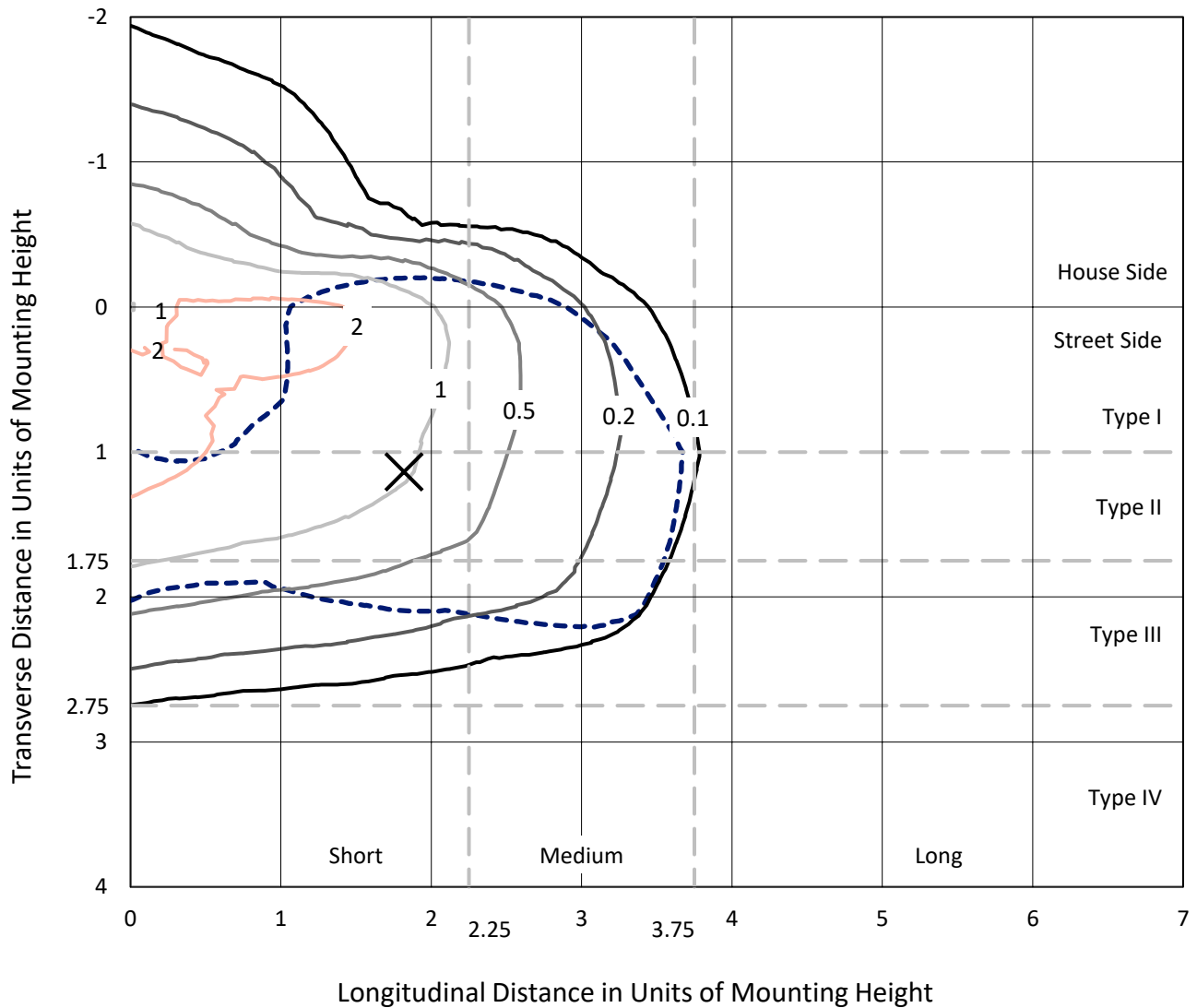
Input Watts (W): 129  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

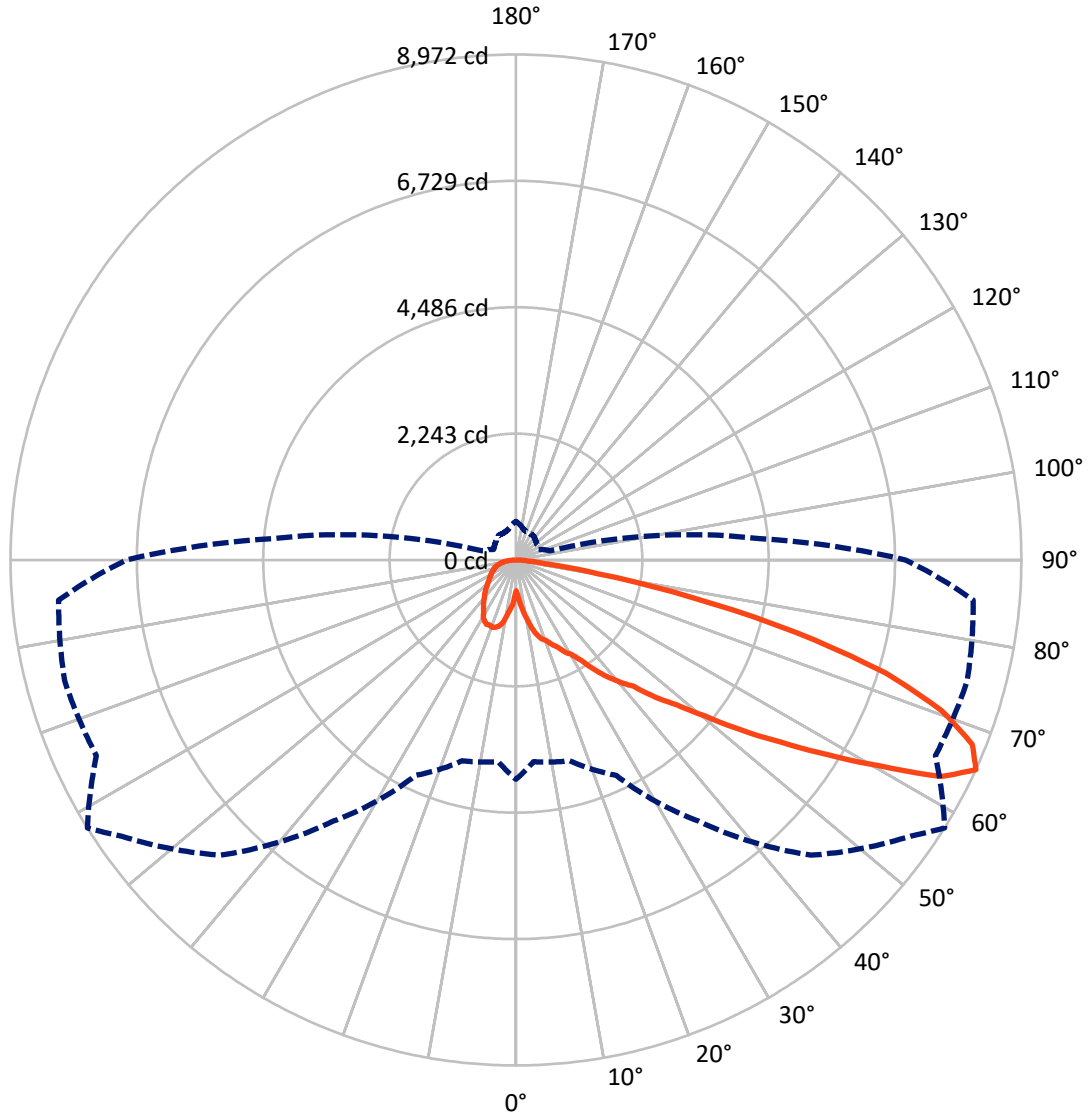
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.6 fc  
 Type III - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 58-Deg Lateral    - - - Horizontal Cone Through 65-Deg Vertical

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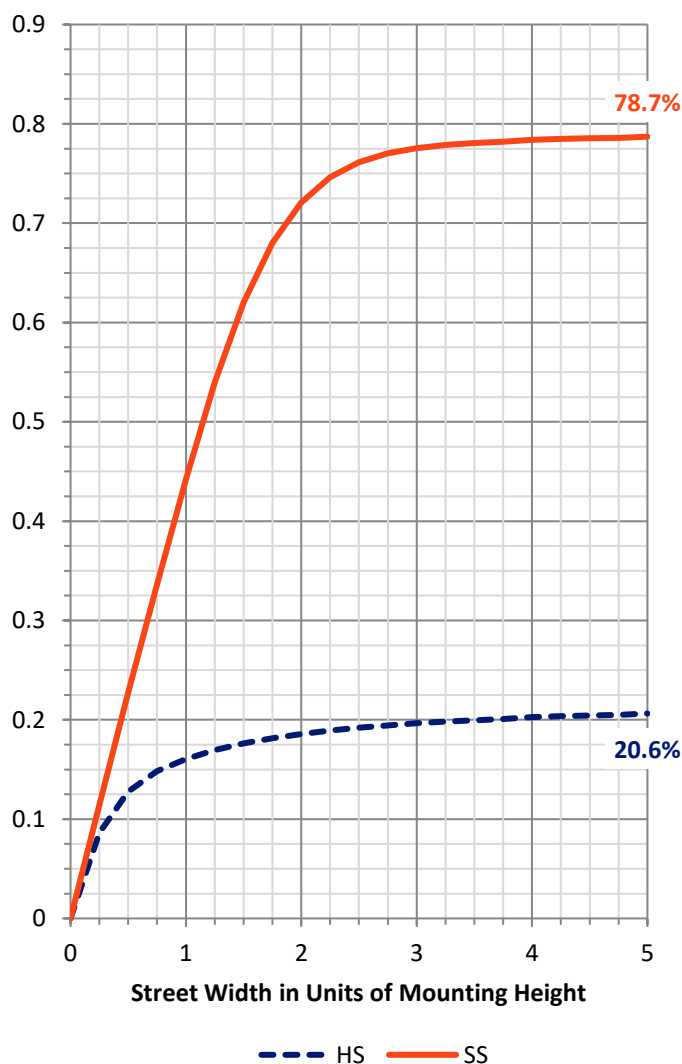
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	2688.3	0.0	2688.3
	% Fixture	21.1	0.0	21.1
<b>Street Side</b>	Lumens	10074.7	0.0	10074.7
	% Fixture	78.9	0.0	78.9
<b>Total</b>	Lumens	12763.0	0.0	12763.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	83.5	0.7
10°-20°	364.2	2.9
20°-30°	698.9	5.5
30°-40°	1153.9	9.0
40°-50°	1917.9	15.0
50°-60°	3167.4	24.8
60°-70°	3553.2	27.8
70°-80°	1615.6	12.7
80°-90°	208.4	1.6
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°	12763.0	100.0
0°-180°	12763.0	100.0

**Coefficient of Utilization**



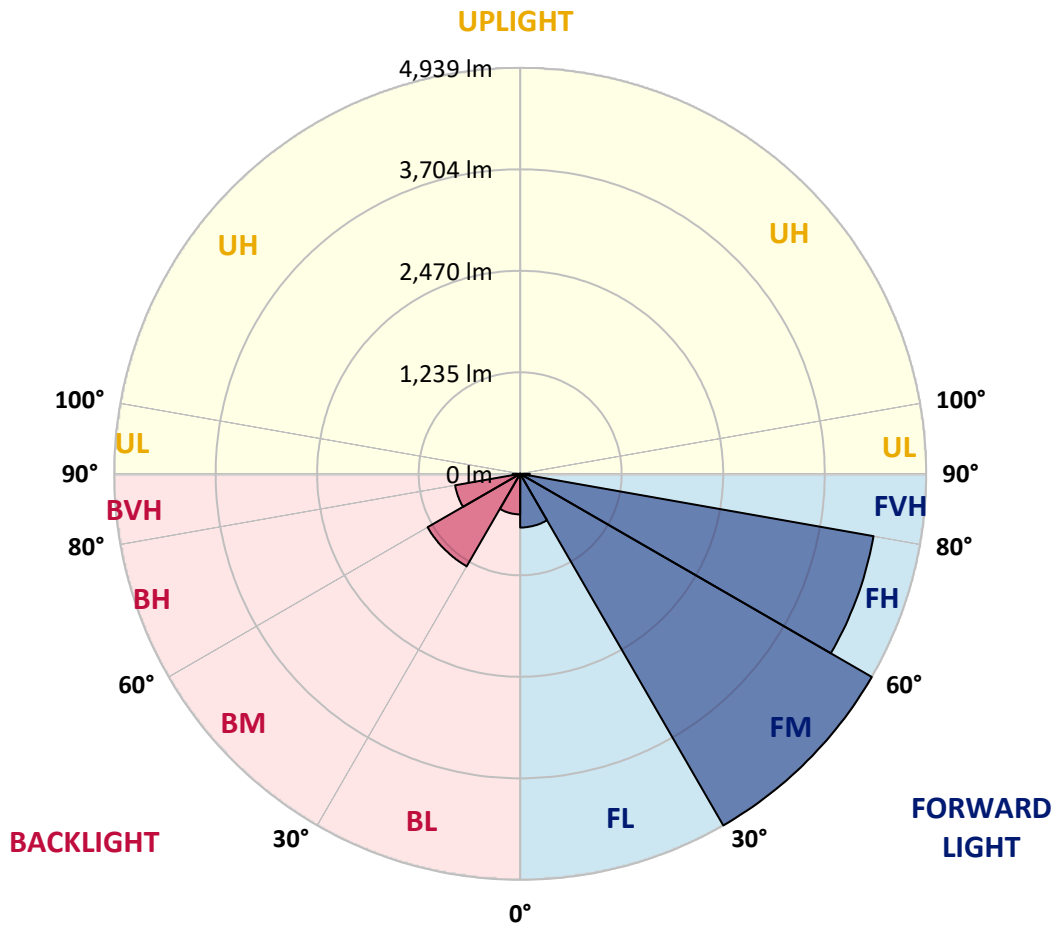
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	653.1	5.1			
FM (30°-60°)	4939.1	38.7			
FH (60°-80°)	4365.2	34.2			G2/5000
FVH (80°-90°)	117.3	0.9			G2/225
BL (0°-30°)	493.5	3.9	B1/500		
BM (30°-60°)	1300.1	10.2	B2/2500		
BH (60°-80°)	803.6	6.3	B2/1000		G2/1000
BVH (80°-90°)	91.0	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 III Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	58°	65°	75°	85°
0°	548.0	548.0	548.0	548.0	548.0	548.0	548.0	548.0	548.0	548.0	548.0
2.5°	654.3	634.6	601.7	609.6	628.8	639.4	633.0	624.5	613.4	611.2	660.1
5°	847.2	809.5	794.1	787.7	764.3	750.5	774.4	771.2	784.0	807.4	855.2
7.5°	988.1	961.5	936.0	933.3	888.2	872.2	904.1	921.1	944.0	944.5	1009.3
10°	1063.5	1040.7	1040.2	1016.2	1012.5	1042.8	1043.4	1056.1	1058.8	1085.9	1073.1
12.5°	1145.4	1143.8	1173.0	1172.5	1206.5	1256.5	1231.5	1231.5	1238.9	1206.0	1246.4
15°	1340.5	1357.5	1302.7	1311.8	1311.8	1360.7	1359.1	1368.6	1391.5	1383.0	1364.9
17.5°	1543.5	1554.1	1493.5	1437.2	1441.5	1430.8	1469.1	1472.8	1451.0	1549.9	1528.1
20°	1674.3	1715.7	1588.1	1517.5	1531.3	1543.5	1545.1	1522.2	1511.1	1663.1	1633.3
22.5°	1835.8	1800.7	1683.8	1605.7	1626.4	1609.9	1606.7	1624.3	1639.7	1697.1	1745.5
25°	1943.7	1941.1	1800.7	1715.2	1692.3	1687.5	1720.0	1713.1	1749.7	1853.9	1823.6
27.5°	2100.5	2149.4	1900.7	1921.9	1821.5	1715.7	1819.9	1851.2	1917.2	1900.1	1967.6
30°	2404.5	2367.9	2108.0	2102.1	1988.4	1899.6	1971.9	1945.3	2063.8	2060.1	2110.1
32.5°	2652.8	2678.3	2351.4	2290.3	2205.8	2098.9	2051.1	2125.0	2188.8	2293.5	2321.6
35°	2915.3	2909.5	2600.7	2477.4	2337.6	2293.5	2352.5	2383.3	2518.8	2615.0	2548.1
37.5°	3323.5	3277.3	2923.8	2690.5	2585.8	2569.8	2670.8	2626.2	2772.9	2795.7	2833.5
40°	3703.0	3563.8	3219.3	2952.0	2785.6	2845.2	2848.4	2854.2	2932.9	2995.0	3181.6
42.5°	4063.9	3966.1	3519.6	3318.7	3073.7	3015.8	3051.9	3064.1	3262.9	3390.0	3648.3
45°	4557.2	4295.1	3951.2	3745.0	3470.7	3396.9	3371.4	3476.6	3668.5	3957.6	4179.2
47.5°	4974.4	4737.9	4409.9	4138.3	3831.6	4042.7	3898.1	3839.1	4096.9	4455.1	4808.0
50°	5320.4	5060.0	4738.4	4581.6	4532.7	4720.9	4345.6	4352.5	4588.5	5094.0	5498.5
52.5°	5588.3	5310.3	5025.4	4945.7	5218.9	5327.3	5056.2	5015.3	5187.5	5784.9	6270.7
55°	5838.6	5543.6	5323.6	5486.2	5946.5	5958.7	5939.6	5712.7	5919.9	6525.3	7070.1
57.5°	5902.9	5585.1	5438.9	5672.3	6294.7	6778.9	6969.1	6523.7	6734.7	7198.7	7754.7
60°	5571.8	5299.7	5241.2	5558.0	6482.8	7190.8	7687.7	7421.4	7342.3	7739.3	8234.1
62.5°	4893.6	4577.9	4625.2	5065.3	6284.6	7353.9	8255.4	8463.2	7983.8	8169.3	8443.5
65°	3894.9	3593.5	3689.2	4218.6	5662.2	7408.2	8545.6	8971.9	8215.5	8291.0	8147.0
67.5°	2746.8	2473.1	2593.8	3278.3	4710.2	6714.0	8595.6	8734.8	7968.9	7943.9	7336.9
70°	1556.3	1384.6	1515.3	2086.2	3324.6	5348.6	8203.8	8020.5	7526.7	7172.7	6138.9
72.5°	713.8	654.8	717.5	1062.0	1914.0	3559.0	6697.5	6863.9	6485.5	6042.7	4670.4
75°	379.5	358.8	385.3	530.4	895.6	1936.3	4758.6	5132.8	4931.3	4583.2	3046.6
77.5°	282.2	266.3	279.0	343.9	478.4	757.4	2703.8	3175.8	3252.3	2931.8	1691.8
80°	216.3	203.6	216.3	259.9	331.1	359.8	1156.0	1480.3	1685.9	1362.3	672.4
82.5°	160.5	152.0	171.7	195.1	232.8	224.8	410.3	510.8	658.5	450.2	262.0
85°	127.6	116.9	124.4	132.3	148.8	123.3	187.6	209.9	222.2	186.0	96.7
87.5°	50.0	46.2	90.4	71.2	60.6	37.2	56.3	63.8	65.4	62.7	28.2
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°	548.0	548.0	548.0	548.0	548.0	548.0	548.0	548.0	548.0	548.0	548.0
2.5°	665.4	660.1	628.8	638.9	655.3	658.5	665.4	646.3	636.7	671.8	673.4
5°	859.4	830.7	815.9	817.5	806.8	790.4	815.3	831.8	838.2	864.2	873.8
7.5°	1009.9	975.3	950.3	921.6	881.2	855.2	898.8	930.7	947.7	1001.9	1023.2
10°	1076.8	1049.2	1043.9	1007.7	1006.7	1006.1	1004.0	992.9	1029.5	1024.2	1039.1
12.5°	1215.0	1209.2	1158.7	1144.3	1145.9	1144.3	1099.7	1097.6	1098.1	1147.0	1129.5
15°	1343.7	1344.7	1298.5	1246.4	1199.6	1185.3	1167.7	1159.8	1171.4	1199.1	1182.1
17.5°	1502.6	1507.9	1375.5	1293.2	1231.5	1229.9	1187.9	1138.5	1209.7	1226.7	1208.1
20°	1605.2	1582.8	1420.2	1282.0	1264.5	1216.6	1164.5	1096.5	1158.2	1199.6	1211.3
22.5°	1702.4	1663.6	1461.6	1301.7	1217.7	1160.8	1110.3	1066.2	1085.9	1132.1	1124.7
25°	1768.3	1757.7	1519.1	1349.0	1216.1	1089.6	1021.6	993.4	1003.5	1075.2	1068.3
27.5°	1925.7	1810.8	1509.0	1361.2	1165.1	992.3	958.3	928.0	917.9	995.5	1016.8
30°	2030.9	1983.6	1576.5	1342.1	1100.8	912.6	862.6	856.3	859.4	947.7	953.5
32.5°	2209.5	2086.7	1687.0	1268.7	1007.2	853.6	796.2	798.9	813.2	877.5	890.8
35°	2395.5	2322.2	1701.9	1216.1	931.2	790.9	767.5	748.9	756.9	813.2	815.9
37.5°	2741.0	2487.5	1793.3	1134.8	875.4	767.0	722.3	705.8	710.1	742.0	764.8
40°	3045.0	2819.7	1750.8	1056.1	806.3	735.1	679.3	667.0	654.3	685.6	700.0
42.5°	3532.4	3056.7	1736.4	969.5	773.9	692.0	653.8	621.3	609.1	635.7	661.7
45°	4019.8	3308.1	1658.3	881.8	728.2	688.8	616.5	585.7	588.9	612.8	639.4
47.5°	4563.0	3645.6	1526.0	796.7	678.2	673.4	579.3	566.1	575.6	602.2	628.8
50°	5205.1	4003.9	1416.5	720.2	642.6	627.2	574.6	558.6	567.7	599.0	625.1
52.5°	5907.2	4396.6	1336.7	649.5	602.2	590.5	580.9	565.5	576.2	603.3	630.4
55°	6605.1	4755.4	1282.5	601.1	567.7	575.1	594.2	583.1	588.4	608.6	635.7
57.5°	7122.7	4944.6	1173.6	549.6	539.5	566.1	595.8	577.2	580.4	608.6	637.8
60°	7423.6	4980.8	994.5	507.6	517.2	548.0	579.3	555.4	553.3	599.5	636.2
62.5°	7390.6	4770.8	788.8	469.3	491.6	520.9	554.4	531.5	537.4	600.6	639.4
65°	6918.6	4341.9	627.2	436.9	460.8	491.1	533.6	524.6	552.8	643.1	685.1
67.5°	6089.5	3715.2	503.9	406.6	432.1	470.9	548.0	571.9	584.1	686.7	729.8
70°	4935.1	2886.6	419.9	380.0	409.3	480.5	589.4	584.7	574.6	666.0	700.0
72.5°	3565.4	1978.8	369.4	354.0	381.1	451.8	590.5	565.0	552.2	608.0	632.5
75°	2230.7	1180.5	322.6	321.0	338.0	405.0	563.9	541.1	506.5	534.2	566.1
77.5°	1274.0	604.3	271.6	286.0	296.1	351.3	504.9	484.2	453.4	465.1	496.4
80°	486.3	292.3	229.1	254.1	251.4	297.6	427.9	423.1	388.0	391.7	410.9
82.5°	229.1	163.7	190.3	218.4	204.1	237.1	347.6	346.0	315.2	285.4	300.8
85°	85.0	87.2	139.3	166.4	141.9	153.1	251.4	244.5	214.7	181.2	200.4
87.5°	19.1	31.4	68.6	86.6	49.4	47.3	101.5	88.2	85.0	50.5	53.2
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)