

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: P597112

Luminaire Tested: **MSA-SA4A-835-U-T4W**

Issue Date: 5/27/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P597112  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-14)  
Test Lab: INNOVATIONS CENTER  
Issue Date: 5/27/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: MSA-SA4A-835-U-T4W  
Description: MESA POST TOP DECORATIVE LUMINAIRE. (4) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV WIDE OPTICS.  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 12959 lumens  
Efficiency: N/A  
Efficacy: 100.5 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B2 - U0 - G3

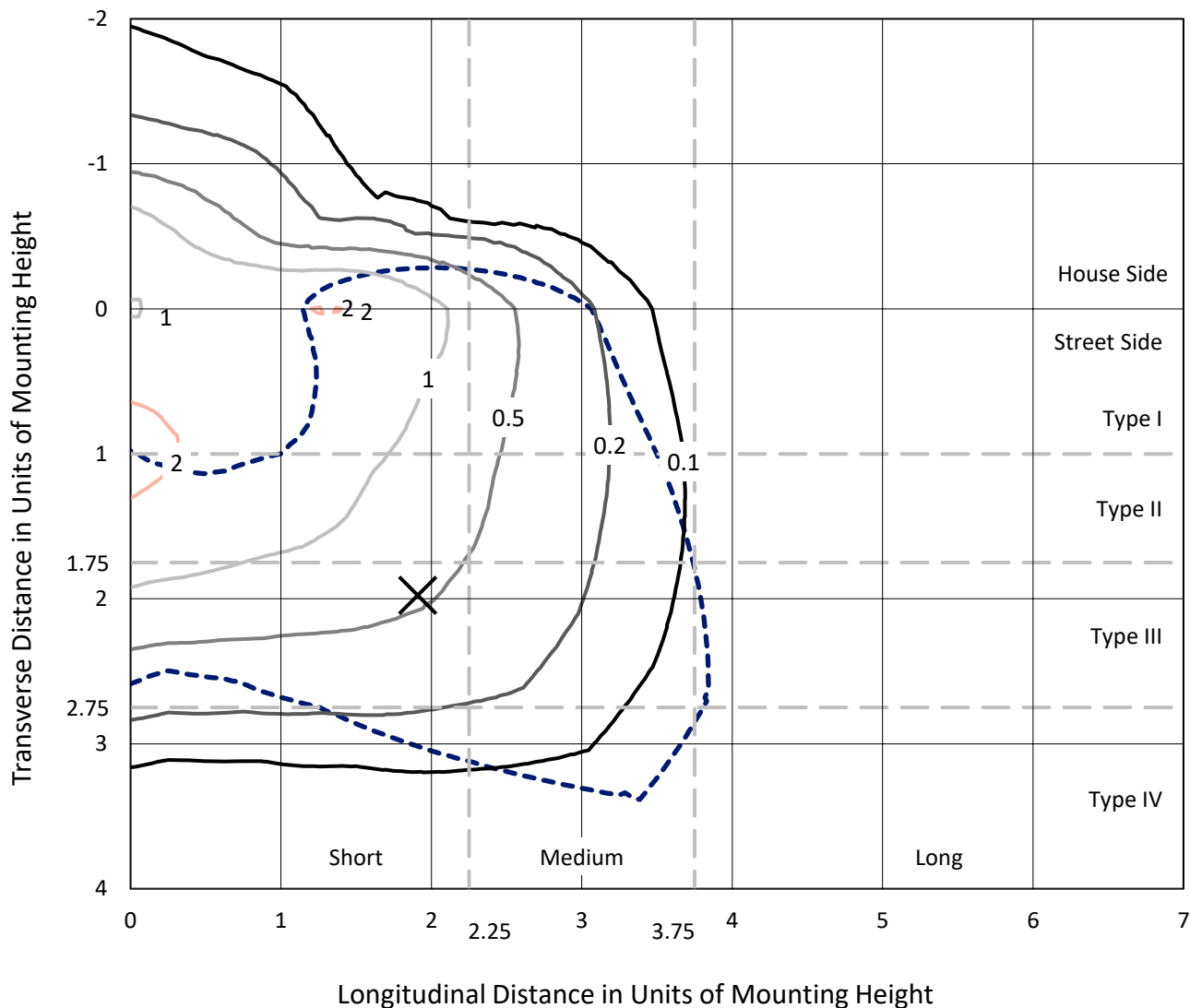
Input Watts (W): 129  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

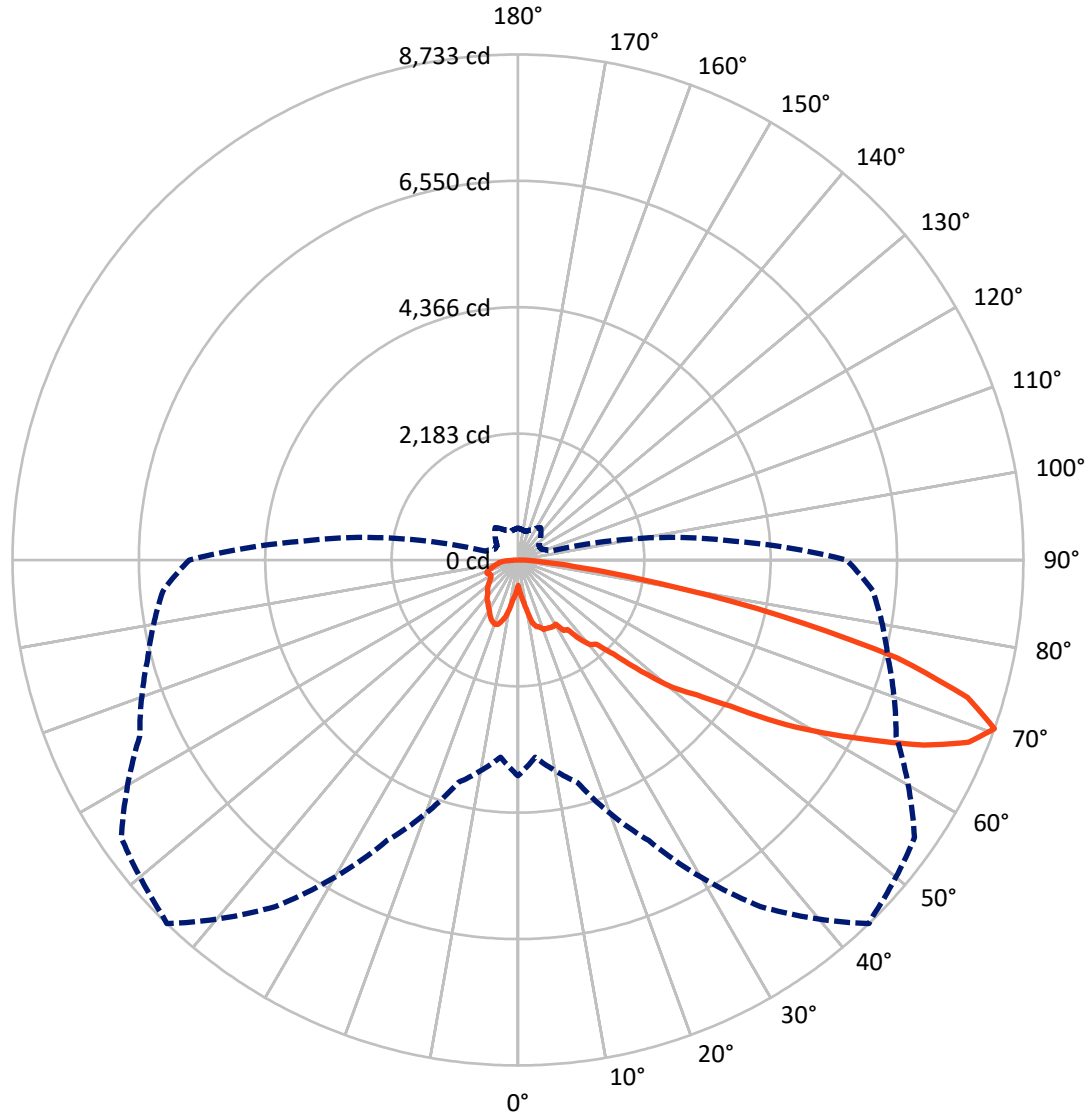
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.5 fc  
 Type IV - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 44-Deg Lateral      - - - Horizontal Cone Through 70-Deg Vertical

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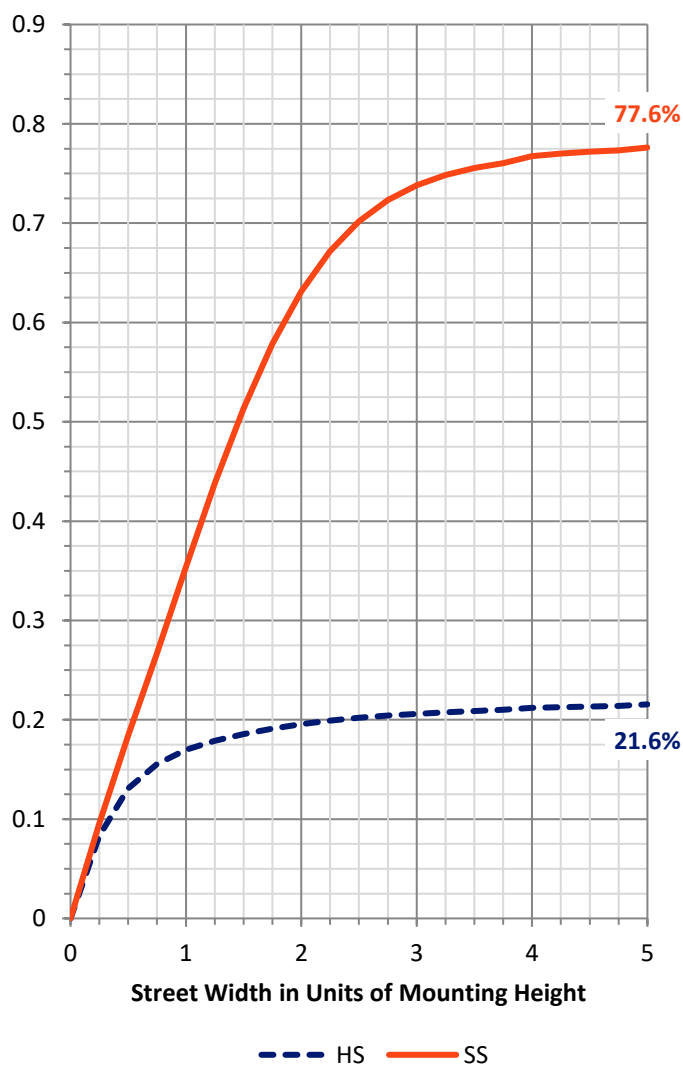
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	2859.3	0.0	2859.3
	% Fixture	22.1	0.0	22.1
<b>Street Side</b>	Lumens	10099.7	0.0	10099.7
	% Fixture	77.9	0.0	77.9
<b>Total</b>	Lumens	12959.0	0.0	12959.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	69.1	0.5
10°-20°	318.1	2.5
20°-30°	594.3	4.6
30°-40°	954.0	7.4
40°-50°	1610.2	12.4
50°-60°	2869.4	22.1
60°-70°	3925.0	30.3
70°-80°	2308.1	17.8
80°-90°	310.8	2.4
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°	12959.0	100.0
0°-180°	12959.0	100.0

**Coefficient of Utilization**

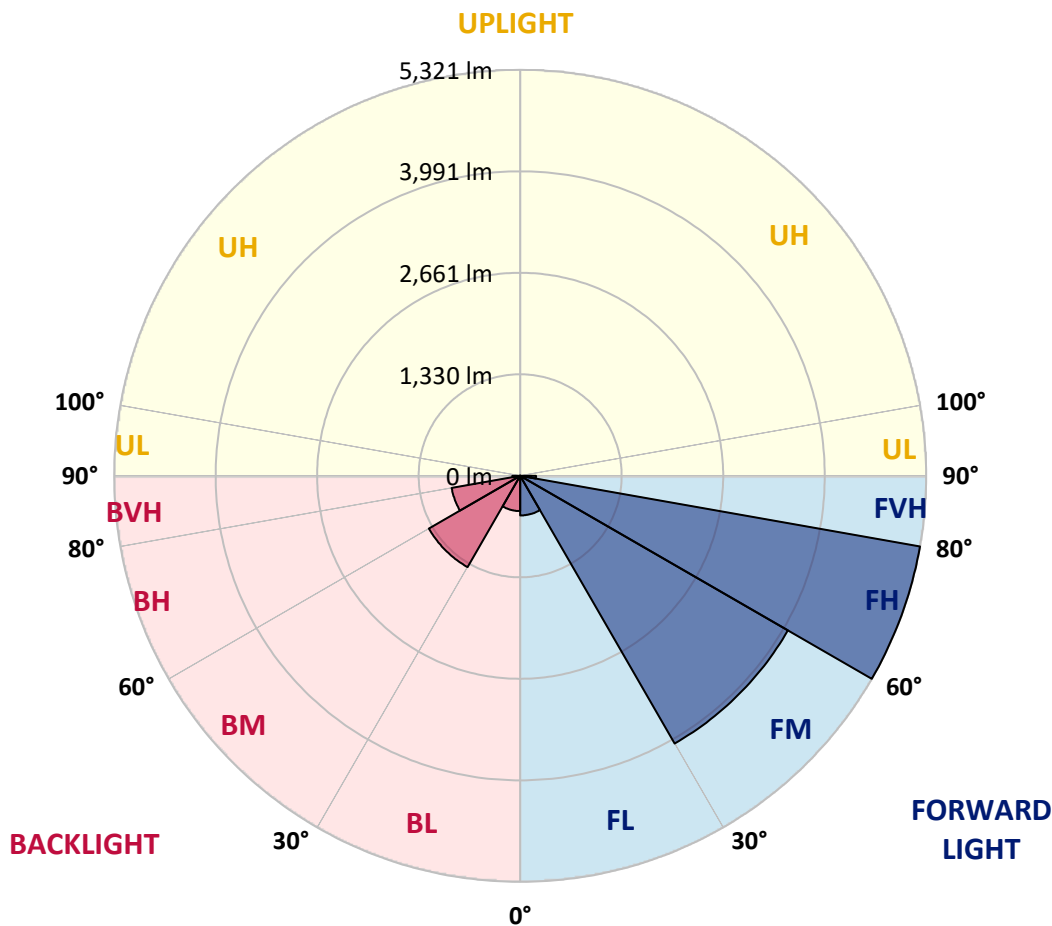


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	519.3	4.0			
FM (30°-60°)	4051.9	31.3			
FH (60°-80°)	5321.4	41.1			G3/7500
FVH (80°-90°)	207.1	1.6			G2/225
BL (0°-30°)	462.1	3.6	B1/500		
BM (30°-60°)	1381.7	10.7	B2/2500		
BH (60°-80°)	911.8	7.0	B2/1000		G2/1000
BVH (80°-90°)	103.7	0.8			G2/225
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°	35°	44°	45°	55°	65°	75°	85°
0°	440.5	440.5	440.5	440.5	440.5	440.5	440.5	440.5	440.5	440.5	440.5
2.5°	534.5	523.9	498.4	506.9	517.5	521.8	520.7	519.7	503.2	497.3	526.6
5°	726.4	703.0	684.4	676.9	652.5	633.4	621.7	652.5	647.7	655.7	675.9
7.5°	907.0	892.1	850.2	835.3	785.3	752.4	748.7	773.1	779.5	766.7	801.3
10°	1023.4	997.9	989.4	953.8	919.2	913.9	910.7	899.6	884.2	883.1	852.3
12.5°	1113.7	1127.0	1133.9	1093.0	1094.1	1113.2	1103.1	1057.9	1031.9	986.2	989.9
15°	1275.8	1294.9	1240.2	1214.1	1164.2	1192.9	1189.2	1151.4	1147.7	1118.0	1083.4
17.5°	1417.1	1425.6	1334.2	1274.7	1257.7	1216.3	1227.4	1228.5	1179.6	1232.7	1201.9
20°	1428.8	1459.1	1353.9	1235.4	1286.4	1281.1	1282.7	1272.1	1207.8	1295.4	1283.8
22.5°	1486.2	1440.0	1345.4	1258.8	1272.1	1280.0	1287.5	1274.7	1271.0	1319.9	1355.5
25°	1475.6	1460.7	1365.1	1291.7	1293.3	1294.9	1298.6	1336.9	1332.6	1399.1	1417.7
27.5°	1574.9	1552.1	1370.9	1352.8	1311.4	1302.4	1276.8	1356.5	1418.7	1417.1	1519.7
30°	1764.1	1740.7	1506.9	1454.3	1379.4	1286.9	1335.8	1442.1	1491.0	1507.5	1637.6
32.5°	2059.5	2097.8	1774.7	1562.7	1469.7	1449.5	1444.2	1433.6	1554.7	1636.0	1754.5
35°	2483.6	2453.3	2090.4	1794.9	1564.8	1478.2	1489.9	1554.7	1698.7	1751.3	1860.8
37.5°	2969.2	2906.5	2494.7	2057.9	1839.0	1730.6	1691.8	1754.5	1786.4	1827.9	2051.6
40°	3462.8	3309.8	2891.6	2403.9	2003.7	1921.9	1887.9	1810.9	1885.8	1969.7	2254.0
42.5°	3939.5	3821.0	3323.6	2816.7	2281.1	1989.4	1970.8	1895.3	2127.5	2216.3	2546.3
45°	4438.9	4164.2	3766.2	3282.7	2686.5	2320.4	2292.8	2157.3	2454.9	2639.8	2958.6
47.5°	4774.8	4520.2	4171.7	3661.0	3026.1	2874.1	2821.5	2589.8	2859.8	3099.9	3595.7
50°	5092.5	4830.6	4464.4	4075.0	3640.8	3466.0	3353.9	2968.2	3364.0	3755.1	4412.4
52.5°	5547.3	5313.0	4804.5	4492.1	4301.3	3871.5	3788.0	3576.0	3953.8	4481.5	5305.1
55°	6033.5	5714.2	5253.5	5080.3	5003.2	4452.8	4384.7	4249.8	4739.2	5224.8	6172.8
57.5°	6248.2	5915.0	5661.1	5557.4	5551.1	5297.6	5219.5	5125.5	5542.0	5862.4	6989.4
60°	6418.8	6061.2	5959.7	6017.6	6228.0	6061.2	5959.7	5876.8	6195.6	6492.6	7655.8
62.5°	6387.4	6028.8	6080.8	6257.2	6794.4	6843.3	6765.2	6564.4	6843.3	7009.1	8037.8
65°	5881.6	5550.0	5853.4	6272.1	7321.0	7711.6	7707.3	7181.8	7278.5	7278.5	7997.4
67.5°	4995.3	4652.0	5148.8	6140.9	7685.0	8399.7	8400.7	7836.4	7318.4	7251.4	7372.6
70°	3730.1	3419.3	3977.7	5348.1	7309.3	8732.8	8684.5	8364.6	7208.9	6623.9	6158.4
72.5°	2228.0	2027.1	2540.9	3893.2	6234.9	8120.2	8248.8	7756.2	6599.4	5508.6	4402.3
75°	1011.7	924.6	1194.0	2236.5	4451.2	6773.2	6912.9	6545.8	5241.8	3961.8	2544.1
77.5°	433.1	409.7	521.3	992.0	2454.3	4631.8	4918.2	4678.1	3551.6	2302.4	1125.4
80°	278.4	263.6	320.4	477.2	1139.8	2502.7	2749.2	2659.4	1809.3	895.3	396.4
82.5°	166.3	161.5	214.1	299.7	621.7	1101.5	1241.2	1274.2	751.3	401.7	226.9
85°	90.9	91.9	117.4	181.7	373.0	428.8	459.1	499.5	353.9	232.7	110.0
87.5°	30.3	35.1	47.3	73.9	132.8	121.1	121.7	141.3	149.3	96.7	35.1
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°	440.5	440.5	440.5	440.5	440.5	440.5	440.5	440.5	440.5	440.5	440.5
2.5°	531.4	521.8	497.3	498.9	508.0	510.1	512.8	497.3	494.2	523.4	526.0
5°	679.1	647.7	633.4	628.6	614.8	610.0	635.5	647.2	658.9	681.7	692.9
7.5°	797.6	762.5	736.5	712.5	692.4	680.7	723.7	756.6	776.8	823.6	844.9
10°	851.8	821.5	811.9	792.8	808.2	843.3	851.2	852.3	896.9	895.9	904.9
12.5°	959.6	940.0	908.6	915.5	955.9	992.0	981.9	997.4	1013.3	1051.6	1034.0
15°	1057.9	1052.6	1023.4	1028.2	1036.1	1081.3	1087.2	1102.6	1127.0	1157.3	1136.6
17.5°	1179.1	1177.0	1105.8	1099.4	1118.0	1162.1	1148.3	1121.2	1201.9	1234.3	1225.8
20°	1261.4	1245.5	1154.1	1127.0	1174.3	1180.1	1164.2	1121.2	1191.3	1262.0	1281.1
22.5°	1330.0	1311.4	1217.3	1164.2	1154.6	1157.3	1157.3	1149.3	1183.9	1241.8	1241.2
25°	1385.2	1402.8	1283.2	1232.2	1181.2	1117.4	1109.5	1116.4	1136.0	1247.6	1243.9
27.5°	1523.9	1475.6	1305.5	1267.3	1162.6	1062.2	1084.0	1094.6	1101.0	1223.2	1243.4
30°	1614.3	1629.1	1385.2	1288.0	1135.5	1000.5	1008.0	1038.8	1076.0	1220.5	1226.4
32.5°	1735.9	1704.1	1509.6	1253.5	1063.2	963.3	949.5	991.0	1046.2	1177.5	1193.4
35°	1849.1	1886.8	1562.2	1247.1	1012.8	907.6	922.4	936.8	994.2	1129.7	1148.3
37.5°	2114.8	2028.7	1709.9	1216.3	970.8	879.4	863.5	885.2	934.1	1038.8	1081.8
40°	2316.7	2322.0	1741.8	1177.5	890.6	839.0	805.0	826.8	847.5	930.9	949.5
42.5°	2695.6	2579.7	1819.9	1092.5	840.1	778.4	759.3	768.9	772.1	807.1	837.9
45°	3177.5	2906.0	1850.7	978.2	773.7	753.5	714.7	709.9	692.4	697.1	724.2
47.5°	3844.4	3415.0	1828.4	856.5	714.7	721.0	665.3	643.5	619.0	624.9	650.4
50°	4706.7	4065.4	1826.8	753.5	674.3	678.5	632.8	593.5	569.1	581.3	603.6
52.5°	5674.3	4717.9	1834.2	682.8	630.2	628.1	611.6	563.8	544.1	556.9	582.4
55°	6600.0	5279.0	1889.5	638.2	584.5	588.2	594.6	554.2	532.4	544.1	570.7
57.5°	7405.5	5722.2	1868.8	590.9	542.0	559.0	576.0	540.9	524.4	541.5	568.0
60°	7968.7	5927.8	1705.1	545.7	510.6	534.0	567.0	539.3	537.2	573.9	605.7
62.5°	8174.4	5851.8	1386.3	510.1	492.0	530.8	587.7	574.4	576.5	621.7	665.8
65°	7874.2	5452.2	1034.0	487.3	477.7	546.2	635.5	595.1	565.9	603.1	643.5
67.5°	7020.3	4741.8	755.6	467.6	461.2	570.7	679.6	593.0	538.8	576.5	609.5
70°	5679.7	3742.9	585.0	442.6	439.4	554.2	683.9	577.1	509.6	534.0	552.6
72.5°	3891.6	2562.7	484.6	418.7	401.7	491.0	649.3	541.5	474.5	488.8	504.3
75°	2174.8	1438.4	407.5	389.0	351.8	437.3	608.9	520.2	448.5	452.7	474.0
77.5°	976.1	622.2	345.9	349.6	306.6	386.8	556.3	486.2	408.6	399.0	420.3
80°	369.3	303.4	280.6	295.4	257.7	335.3	501.6	455.4	366.6	354.4	366.6
82.5°	214.1	183.8	208.3	227.4	204.6	308.2	478.8	427.2	323.1	292.2	302.9
85°	99.4	95.1	124.9	147.7	142.9	240.2	409.7	321.5	230.1	194.5	215.2
87.5°	26.0	29.2	44.1	52.1	53.1	82.4	157.8	119.6	89.8	68.0	65.4
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)