



238T



| SECTION PROPERTIES | | | | | | TOP IN COMPRESSION | | | BOTTOM IN COMPRESSION | | |
|--------------------|----------|--------------|------------------------|----------------------------|----------------------------|--|--|----------------------------|--|--|----------------------------|
| GAUGE | FY (KSI) | WEIGHT (PSF) | V _a kip/ft. | P _{a_end} lbs/ft. | P _{a_int} lbs/ft. | I _x (in. ⁴ /ft.) | S _e (in. ³ /ft.) | M _a kip-in./ft. | I _x (in. ⁴ /ft.) | S _e (in. ³ /ft.) | M _a kip-in./ft. |
| 24 | 50.0 | 1.18 | 0.5080 | 79.10 | 239.85 | 0.1230 | 0.0587 | 1.7580 | 0.0570 | 0.0479 | 1.1965 |

- Section properties are calculated in accordance with the 2016 AISI North American Specification for the Design of Cold-Formed Steel Structural Members.
- V_a is the allowable shear.
- P_a is the allowable load for web crippling on end & interior supports.
- I_x is for deflection determination.
- S_e is for bending.
- M_a is the allowable bending moment.
- All values are for one foot of panel width.

Allowable Uniform Loads (PSF)

| Span Type | Load Type | Span in Feet | | | | | | | | | | | | | | | |
|---|--------------------|--------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------|------|------|------|------|------|
| | | 0.50 | 1.00 | 1.50 | 2.00 | 2.50 | 3.00 | 3.50 | 4.00 | 4.50 | 5.00 | 5.50 | 6.00 | 6.50 | 7.00 | 7.50 | 8.00 |
| Single | Positive Wind | 500 | 500 | 500 | 293 | 187 | 130 | 95 | 73 | 57 | 46 | 38 | 32 | 27 | 23 | 20 | 18 |
| | Live | 500 | 500 | 500 | 293 | 187 | 130 | 95 | 73 | 57 | 46 | 38 | 32 | 27 | 23 | 20 | 18 |
| | Deflection (L/180) | 500 | 500 | 500 | 500 | 500 | 398 | 250 | 167 | 117 | 86 | 64 | 49 | 39 | 31 | 25 | 20 |
| | Deflection (L/240) | 500 | 500 | 500 | 500 | 500 | 298 | 188 | 125 | 88 | 64 | 48 | 37 | 29 | 23 | 19 | 15 |
| 2 Span | Positive Wind | 500 | 500 | 296 | 179 | 118 | 84 | 62 | 48 | 38 | 31 | 25 | 21 | 18 | 16 | 14 | 12 |
| | Live | 500 | 500 | 296 | 179 | 118 | 84 | 62 | 48 | 38 | 31 | 25 | 21 | 18 | 16 | 14 | 12 |
| | Deflection (L/180) | 500 | 500 | 500 | 500 | 500 | 441 | 296 | 207 | 151 | 113 | 87 | 69 | 55 | 44 | 37 | |
| | Deflection (L/240) | 500 | 500 | 500 | 500 | 500 | 331 | 222 | 155 | 113 | 85 | 65 | 51 | 41 | 33 | 27 | |
| 3 Span | Positive Wind | 500 | 500 | 348 | 214 | 144 | 103 | 77 | 59 | 47 | 38 | 32 | 27 | 23 | 20 | 17 | 15 |
| | Live | 500 | 500 | 348 | 214 | 144 | 103 | 77 | 59 | 47 | 38 | 32 | 27 | 23 | 20 | 17 | 15 |
| | Deflection (L/180) | 500 | 500 | 500 | 500 | 500 | 346 | 231 | 162 | 118 | 89 | 68 | 54 | 43 | 35 | 28 | |
| | Deflection (L/240) | 500 | 500 | 500 | 500 | 500 | 412 | 259 | 173 | 122 | 89 | 66 | 51 | 40 | 32 | 26 | 21 |
| 4 Span | Positive Wind | 500 | 500 | 332 | 203 | 136 | 96 | 72 | 56 | 44 | 36 | 30 | 25 | 21 | 18 | 16 | 14 |
| | Live | 500 | 500 | 332 | 203 | 136 | 96 | 72 | 56 | 44 | 36 | 30 | 25 | 21 | 18 | 16 | 14 |
| | Deflection (L/180) | 500 | 500 | 500 | 500 | 500 | 367 | 246 | 172 | 126 | 94 | 72 | 57 | 45 | 37 | 30 | |
| | Deflection (L/240) | 500 | 500 | 500 | 500 | 500 | 437 | 275 | 184 | 129 | 94 | 71 | 54 | 43 | 34 | 28 | 23 |
| ASTM E1592 Uplift Testing ¹¹ | | | 143.7 | 134.6 | 125.4 | 110.8 | 96.2 | 81.6 | 67.0 | 52.4 | 37.7 | 31.0 | 24.3 | | | | |
| ASTM E1592 Uplift Testing ¹² | | | 129.7 | 117.8 | 105.9 | 94.0 | 82.2 | 70.3 | 58.4 | 46.5 | 34.7 | | | | | | |
| ASTM E1592 Uplift Testing ¹³ | | | | | | | | | 140.5 | 114.2 | 105.4 | 82.0 | 76.0 | | | | |
| ASTM E1592 Uplift Testing ¹⁴ | | | | | 163.3 | 151.9 | 140.5 | 129.1 | 117.7 | 106.2 | 94.8 | | | | | | |
| ASTM E1592 Uplift Testing ¹⁵ | | | | | | | | | | | 106.6 | 88.8 | 85.2 | | | | |

Notes:

- Allowable uniform loads are based upon equal span lengths.
- Live is the allowable live or snow load.
- Deflection (L/180) is the allowable load that limits the panel's deflection to L/180 while under positive or live load.
- Deflection (L/240) is the allowable load that limits the panel's deflection to L/240 while under positive or live load.
- The weight of the panel has **NOT** been deducted from the allowable loads.
- Positive wind and Live load values are limited to combined shear & bending using Eq. H2-1 of the AISI Specification.
- Values of ASTM E1592 Wind Uplift Testing include a factor of safety of 1.67 U.N.O.
- Positive Wind and Live Load values are limited by web crippling using a bearing length of 2".
- Web crippling values are determined using a ratio of the uniform load **actually** supported by the top flanges of the section.
- Load Tables are limited to a maximum allowable load of 500 psf.
- With Standard 6" long clip
- With Retrofit clip.
- With 24 Ga Multi-Span clip. Design value at 5'-0" span is divided by a factor of safety of 1.67 and 4'-0", 4'-6", 5'-6" & 6'-0" are divided by a factor of safety of 2.0.
- With 24 Ga Tall Multi-Span clip. Design value at spans between 2'-0" and 5'-0" are divided by a factor of safety of 1.67.
- With 22 Ga Multi-Span clip. Design values at 5'-0" & 5'-6" span are divided by a factor of safety of 2.0. Design values at 6'-0" are divided by a factor of safety of 1.67.