



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. |
| 22 | 50.0 | 1.67 | 1.3560 | 194.40 | 585.00 | 0.2453 | 0.1241 | 3.7155 | 0.1215 | 0.1075 | 2.4975 |

1. Section properties are calculated in accordance with the 2016 AISI North American Specification for the Design of Cold-Formed Steel Structural Members.

2. V_a is the allowable shear.

3. P_a is the allowable load for web crippling on end & interior supports.

4. I_x is for deflection determination.

5. S_e is for bending.

6. M_a is the allowable bending moment.

7. All values are for one foot of panel width.

Allowable Uniform Loads (PSF)

| | | Span in Feet | | | | | | | | | | | | | | | |
|--------------------------------|--------------------|------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Span Type | Load Type | 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 | 500 | 396 | 275 | 202 | 154 | 122 | 99 | 81 | 68 | 58 | 50 | 44 | 38 |
| | Live | 500 | 500 | 500 | 500 | 396 | 275 | 202 | 154 | 122 | 99 | 81 | 68 | 58 | 50 | 44 | 38 |
| | Deflection (L/180) | 500 | 500 | 500 | 500 | 500 | 500 | 499 | 334 | 235 | 171 | 128 | 99 | 78 | 62 | 50 | 41 |
| | Deflection (L/240) | 500 | 500 | 500 | 500 | 500 | 500 | 374 | 251 | 176 | 128 | 96 | 74 | 58 | 46 | 38 | 31 |
| 2 Span | Positive Wind | 500 | 500 | 500 | 388 | 254 | 179 | 132 | 102 | 81 | 65 | 54 | 45 | 39 | 33 | 29 | 25 |
| | Live | 500 | 500 | 500 | 388 | 254 | 179 | 132 | 102 | 81 | 65 | 54 | 45 | 39 | 33 | 29 | 25 |
| | Deflection (L/180) | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 423 | 308 | 232 | 178 | 140 | 112 | 91 | 75 | |
| | Deflection (L/240) | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 452 | 317 | 231 | 174 | 134 | 105 | 84 | 68 | 56 |
| 3 Span | Positive Wind | 500 | 500 | 500 | 472 | 312 | 221 | 164 | 126 | 100 | 81 | 67 | 57 | 48 | 42 | 36 | 32 |
| | Live | 500 | 500 | 500 | 472 | 312 | 221 | 164 | 126 | 100 | 81 | 67 | 57 | 48 | 42 | 36 | 32 |
| | Deflection (L/180) | 500 | 500 | 500 | 500 | 500 | 500 | 472 | 331 | 241 | 181 | 140 | 110 | 88 | 71 | 59 | |
| | Deflection (L/240) | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 354 | 248 | 181 | 136 | 105 | 82 | 66 | 53 | 44 |
| 4 Span | Positive Wind | 500 | 500 | 500 | 445 | 293 | 207 | 153 | 118 | 94 | 76 | 63 | 53 | 45 | 39 | 34 | 30 |
| | Live | 500 | 500 | 500 | 445 | 293 | 207 | 153 | 118 | 94 | 76 | 63 | 53 | 45 | 39 | 34 | 30 |
| | Deflection (L/180) | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 352 | 256 | 192 | 148 | 116 | 93 | 76 | 62 | |
| | Deflection (L/240) | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 376 | 264 | 192 | 144 | 111 | 87 | 70 | 57 | 47 |
| ASTM E1592 Wind Uplift Testing | | NO TEST DATA AVAILABLE | | | | | | | | | | | | | | | |

Notes:

1. Allowable uniform loads are based upon equal span lengths.
2. Live is the allowable live or snow load.
3. Deflection (L/180) is the allowable load that limits the panel's deflection to L/180 while under positive or live load.
4. Deflection (L/240) is the allowable load that limits the panel's deflection to L/240 while under positive or live load.
5. The weight of the panel has **NOT** been deducted from the allowable loads.
6. Positive wind and Live load values are limited to combined shear & bending using Eq.H2-1 of the AISI Specification.
7. Values of ASTM E1592 Wind Uplift Testing include a factor of safety. Shaded areas are outside of test range. Contact McElroy Metal for more information.
8. Positive Wind and Live Load values are limited by web crippling using a bearing length of 2".
9. Web crippling values are determined using a ratio of the uniform load **actually** supported by the top flanges of the section.
10. Load Tables are limited to a maximum allowable load of 500 psf.