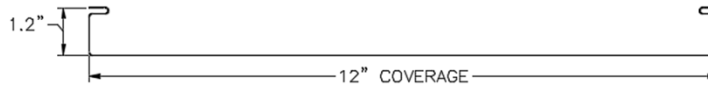




# 138T



| SECTION PROPERTIES |          |              |                        |                            |                            | TOP IN COMPRESSION                     |  |                            | BOTTOM IN COMPRESSION                  |  |                            |
|--------------------|----------|--------------|------------------------|----------------------------|----------------------------|--|--|----------------------------|--|--|----------------------------|
| GAUGE              | FY (KSI) | WEIGHT (PSF) | V <sub>a</sub> kip/ft. | P <sub>a_end</sub> lbs/ft. | P <sub>a_int</sub> lbs/ft. | I <sub>x</sub> (in. <sup>4</sup> /ft.) | S <sub>e</sub> (in. <sup>3</sup> /ft.) | M <sub>a</sub> kip-in./ft. | I <sub>x</sub> (in. <sup>4</sup> /ft.) | S <sub>e</sub> (in. <sup>3</sup> /ft.) | M <sub>a</sub> kip-in./ft. |
| 22                 | 50.0     | 1.62         | 0.9730                 | 283.40                     | 780.30                     | 0.0733                                 | 0.0726                                 | 2.1730                     | 0.0378                                 | 0.0606                                 | 1.8150                     |

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<sub>a</sub> is the allowable shear.
3. P<sub>a</sub> is the allowable load for web crippling on end & interior supports.
4. I<sub>x</sub> is for deflection determination.
5. S<sub>e</sub> is for bending.
6. M<sub>a</sub> is the allowable bending moment.
7. 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  | 362  | 231  | 160  | 118  | 90   | 71   | 57   | 47   | 40   | 34   | 29   | 25   | 22   |
|                                | Live               | 500               | 500  | 500  | 362  | 231  | 160  | 118  | 90   | 71   | 57   | 47   | 40   | 34   | 29   | 25   | 22   |
|                                | Deflection (L/180) | 500               | 500  | 500  | 500  | 410  | 237  | 149  | 100  | 70   | 51   | 38   | 29   | 23   | 18   | 15   | 12   |
|                                | Deflection (L/240) | 500               | 500  | 500  | 500  | 307  | 177  | 112  | 75   | 52   | 38   | 28   | 22   | 17   | 14   | 11   | 9    |
| 2 Span                         | Positive Wind      | 500               | 500  | 477  | 281  | 184  | 130  | 96   | 74   | 58   | 47   | 39   | 33   | 28   | 24   | 21   | 18   |
|                                | Live               | 500               | 500  | 477  | 281  | 184  | 130  | 96   | 74   | 58   | 47   | 39   | 33   | 28   | 24   | 21   | 18   |
|                                | Deflection (L/180) | 500               | 500  | 500  | 500  | 500  | 433  | 272  | 182  | 128  | 93   | 70   | 54   | 42   | 34   | 27   | 22   |
|                                | Deflection (L/240) | 500               | 500  | 500  | 500  | 500  | 324  | 204  | 137  | 96   | 70   | 52   | 40   | 31   | 25   | 20   | 17   |
| 3 Span                         | Positive Wind      | 500               | 500  | 500  | 342  | 226  | 160  | 119  | 92   | 73   | 59   | 49   | 41   | 35   | 30   | 26   | 23   |
|                                | Live               | 500               | 500  | 500  | 342  | 226  | 160  | 119  | 92   | 73   | 59   | 49   | 41   | 35   | 30   | 26   | 23   |
|                                | Deflection (L/180) | 500               | 500  | 500  | 500  | 500  | 339  | 213  | 143  | 100  | 73   | 55   | 42   | 33   | 26   | 21   | 17   |
|                                | Deflection (L/240) | 500               | 500  | 500  | 500  | 439  | 254  | 160  | 107  | 75   | 54   | 41   | 31   | 25   | 20   | 16   | 13   |
| 4 Span                         | Positive Wind      | 500               | 500  | 500  | 322  | 213  | 150  | 111  | 86   | 68   | 55   | 46   | 38   | 33   | 28   | 24   | 21   |
|                                | Live               | 500               | 500  | 500  | 322  | 213  | 150  | 111  | 86   | 68   | 55   | 46   | 38   | 33   | 28   | 24   | 21   |
|                                | Deflection (L/180) | 500               | 500  | 500  | 500  | 500  | 360  | 226  | 151  | 106  | 77   | 58   | 45   | 35   | 28   | 23   | 18   |
|                                | Deflection (L/240) | 500               | 500  | 500  | 500  | 466  | 270  | 170  | 113  | 80   | 58   | 43   | 33   | 26   | 21   | 17   | 14   |
| ASTM E1592 Wind Uplift Testing |                    | NO 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 of 2.0. 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.