

**Section Properties**

(Per Foot of Width)

| Base Steel Thickness<br>(in.) | Weight G90<br>(psf) | Yield Stress<br>(ksi) | Section Modulus                |                               | Deflection<br>Moment of Inertia<br>Mid Span (in <sup>4</sup> ) | Specified Web Crippling Data (lb) |            |                 |                 |
|-------------------------------|---------------------|-----------------------|--------------------------------|-------------------------------|--|-----------------------------------|------------|-----------------|-----------------|
|                               |                     |                       | Mid Span<br>(in <sup>3</sup> ) | Support<br>(in <sup>3</sup> ) |  | End<br>Pe1                        | End<br>Pe2 | Interior<br>Pi1 | Interior<br>Pi2 |
| 0.030                         | 1.87                | 33                    | 0.0903                         | 0.132                         | 0.0817   | 195                               | 48.7       | 376             | 63.9            |
| 0.036                         | 2.23                | 33                    | 0.0120                         | 0.158                         | 0.106  | 287                               | 71.8       | 553             | 94.0            |
|                               |                     |                       |                                |                               |  |                                   |            |                 |                 |
|                               |                     |                       |                                |                               |  |                                   |            |                 |                 |

Live Load Factor = 1.4; Importance Factor ( $I_{W-SLS}$ ) = 0.75; Importance Factor ( $I_{W-ULS}$ ) = 1.0

**Load Table**

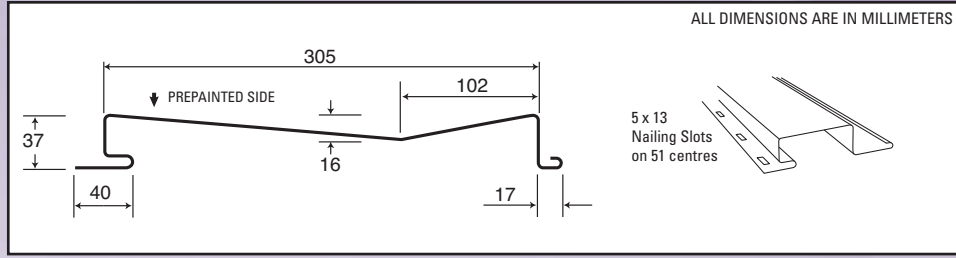
Maximum Specified Uniformly Distributed Loads in psf

| Span<br>(ft.) |   | 1-Span<br>Base Steel Thickness (in.) |       |  |  | 2-Span<br>Base Steel Thickness (in.) |       |  |  | 3-Span<br>Base Steel Thickness (in.) |       |  |  |
|---------------|---|--------------------------------------|-------|--|--|--------------------------------------|-------|--|--|--------------------------------------|-------|--|--|
|               |   | 0.030                                | 0.036 |  |  | 0.030                                | 0.036 |  |  | 0.030                                | 0.036 |  |  |
| 4'-0"         | S | 80                                   | 106   |  |  | 117                                  | 140   |  |  | 125                                  | 166   |  |  |
|               | D | 149                                  | 192   |  |  | 356                                  | 161   |  |  | 281                                  | 363   |  |  |
| 4'-6"         | S | 63                                   | 84    |  |  | 92                                   | 110   |  |  | 99                                   | 131   |  |  |
|               | D | 104                                  | 135   |  |  | 250                                  | 324   |  |  | 197                                  | 255   |  |  |
| 5'-0"         | S | 51                                   | 68    |  |  | 75                                   | 89    |  |  | 80                                   | 106   |  |  |
|               | D | 76                                   | 98    |  |  | 182                                  | 236   |  |  | 144                                  | 186   |  |  |
| 5'-6"         | S | 42                                   | 56    |  |  | 62                                   | 74    |  |  | 66                                   | 88    |  |  |
|               | D | 57                                   | 74    |  |  | 137                                  | 177   |  |  | 108                                  | 140   |  |  |
| 6'-0"         | S | 35                                   | 47    |  |  | 52                                   | 62    |  |  | 55                                   | 74    |  |  |
|               | D | 44                                   | 57    |  |  | 106                                  | 137   |  |  | 83                                   | 108   |  |  |
| 6'-6"         | S | 30                                   | 40    |  |  | 44                                   | 53    |  |  | 47                                   | 63    |  |  |
|               | D | 35                                   | 45    |  |  | 83                                   | 107   |  |  | 65                                   | 85    |  |  |
| 7'-0"         | S | 26                                   | 35    |  |  | 38                                   | 46    |  |  | 41                                   | 54    |  |  |
|               | D | 28                                   | 36    |  |  | 67                                   | 86    |  |  | 52                                   | 68    |  |  |
| 7'-6"         | S | 23                                   | 30    |  |  | 33                                   | 40    |  |  | 35                                   | 47    |  |  |
|               | D | 23                                   | 29    |  |  | 54                                   | 70    |  |  | 43                                   | 55    |  |  |
| 8'-0"         | S | 20                                   | 27    |  |  | 29                                   | 35    |  |  | 31                                   | 42    |  |  |
|               | D | 19                                   | 24    |  |  | 45                                   | 58    |  |  | 35                                   | 45    |  |  |
| 8'-6"         | S | 18                                   | 24    |  |  | 26                                   | 31    |  |  | 28                                   | 37    |  |  |
|               | D | 15                                   | 20    |  |  | 37                                   | 48    |  |  | 29                                   | 38    |  |  |
| 9'-0"         | S | 16                                   | 21    |  |  | 23                                   | 28    |  |  | 25                                   | 39    |  |  |
|               | D | 13                                   | 17    |  |  | 31                                   | 40    |  |  | 25                                   | 32    |  |  |

**Notes:**

- Steel conforms to ASTM A653.
- Section properties are in accordance with CSA-S136-07.
- Values in row "S" are based on strength.
- Values in row "D" are based on a deflection limit of 1/180 of the span.
- Web crippling not included in strength values. See example calculation in notes to designer.
- Oil canning may be present due to various factors. Oil canning is not a valid reason for rejection of this product.
- Contact the sales department for stocked colours and gauges.
- The load table contained on this data sheet was prepared by Dr. R.M. Schuster P.Eng. Professor Emeritus of Structural Engineering, University of Waterloo, Ontario, Canada.





**Section Properties**

(Per Metre of Width)

| Base Steel Thickness<br>(mm) | Mass Z275<br>(kg/m <sup>2</sup> ) | Yield Stress<br>(MPa) | Section Modulus                                  |   | Deflection<br>Moment of Inertia<br>Mid Span (x 10 <sup>6</sup> mm <sup>4</sup> ) | Specified Web Crippling Data (kN) |            |                 |                 |
|------------------------------|-----------------------------------|-----------------------|--|---|--|-----------------------------------|------------|-----------------|-----------------|
|                              |                                   |                       | Mid Span<br>(x 10 <sup>3</sup> mm <sup>3</sup> ) | Support<br>(x 10 <sup>3</sup> mm <sup>3</sup> ) |  | End<br>Pe1                        | End<br>Pe2 | Interior<br>Pi1 | Interior<br>Pi2 |
| 0.762                        | 8.85                              | 230                   | 4.84   | 7.10  | 0.111  | 2.87                              | 0.718      | 5.55            | 0.943           |
| 0.914                        | 10.6                              | 230                   | 6.45   | 8.50  | 0.144  | 4.24                              | 1.06       | 8.16            | 1.39            |
|                              |                                   |                       |  |   |  |                                   |            |                 |                 |
|                              |                                   |                       |  |   |  |                                   |            |                 |                 |
|                              |                                   |                       |  |   |  |                                   |            |                 |                 |

**Load Table**

Live Load Factor = 1.4; Importance Factor (I<sub>w-SLS</sub>) = 0.75; Importance Factor (I<sub>w-ULS</sub>) = 1.0

Maximum Specified Uniformly Distributed Loads in kPa

| Span<br>(mm) |   | 1-Span<br>Base Steel Thickness (mm) |       |  |  | 2-Span<br>Base Steel Thickness (mm) |       |  |  | 3-Span<br>Base Steel Thickness (mm) |       |  |  |
|--------------|---|-------------------------------------|-------|--|--|-------------------------------------|-------|--|--|-------------------------------------|-------|--|--|
|              |   | 0.762                               | 0.914 |  |  | 0.762                               | 0.914 |  |  | 0.762                               | 0.914 |  |  |
| 1200         | S | 3.97                                | 5.30  |  |  | 5.83                                | 6.98  |  |  | 6.21                                | 8.28  |  |  |
|              | D | 7.44                                | 9.62  |  |  | 17.9                                | 23.1  |  |  | 14.1                                | 18.2  |  |  |
| 1400         | S | 2.92                                | 3.89  |  |  | 4.28                                | 5.13  |  |  | 4.56                                | 6.08  |  |  |
|              | D | 4.69                                | 6.06  |  |  | 11.3                                | 14.5  |  |  | 8.86                                | 11.5  |  |  |
| 1500         | S | 2.54                                | 3.39  |  |  | 3.73                                | 4.47  |  |  | 3.97                                | 5.30  |  |  |
|              | D | 3.81                                | 4.93  |  |  | 9.14                                | 11.8  |  |  | 7.20                                | 9.31  |  |  |
| 1600         | S | 2.24                                | 2.98  |  |  | 3.28                                | 3.93  |  |  | 3.49                                | 4.66  |  |  |
|              | D | 3.14                                | 4.06  |  |  | 7.53                                | 9.74  |  |  | 5.93                                | 7.67  |  |  |
| 1800         | S | 1.77                                | 2.36  |  |  | 2.59                                | 3.10  |  |  | 2.76                                | 3.68  |  |  |
|              | D | 2.20                                | 2.85  |  |  | 5.29                                | 6.84  |  |  | 4.17                                | 5.39  |  |  |
| 2000         | S | 1.43                                | 1.91  |  |  | 2.10                                | 2.51  |  |  | 2.24                                | 2.98  |  |  |
|              | D | 1.61                                | 2.08  |  |  | 3.86                                | 4.99  |  |  | 3.04                                | 3.93  |  |  |
| 2200         | S | 1.18                                | 1.58  |  |  | 1.74                                | 2.08  |  |  | 1.85                                | 2.46  |  |  |
|              | D | 1.21                                | 1.56  |  |  | 2.90                                | 3.75  |  |  | 2.28                                | 2.95  |  |  |
| 2400         | S | 0.99                                | 1.33  |  |  | 1.46                                | 1.75  |  |  | 1.55                                | 2.07  |  |  |
|              | D | 0.93                                | 1.20  |  |  | 2.23                                | 2.89  |  |  | 1.76                                | 2.27  |  |  |
| 2500         | S | 0.92                                | 1.22  |  |  | 1.34                                | 1.61  |  |  | 1.43                                | 1.91  |  |  |
|              | D | 0.82                                | 1.06  |  |  | 1.98                                | 2.55  |  |  | 1.56                                | 2.01  |  |  |
| 2600         | S | 0.85                                | 1.13  |  |  | 1.24                                | 1.49  |  |  | 1.32                                | 1.76  |  |  |
|              | D | 0.73                                | 0.95  |  |  | 1.76                                | 2.27  |  |  | 1.38                                | 1.79  |  |  |
| 2800         | S | 0.73                                | 0.97  |  |  | 1.07                                | 1.28  |  |  | 1.14                                | 1.52  |  |  |
|              | D | 0.59                                | 0.76  |  |  | 1.41                                | 1.82  |  |  | 1.11                                | 1.48  |  |  |

**Notes:**

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