

## FTTP Tight Buffered Indoor/Outdoor Drop Sag and Tension Guide

Series W7U and Series W7T

### Initial Sag and Tension<sup>1</sup>

| Span<br>ft | 0°F            |           | 20°F           |           | 40°F           |           | 60°F           |           | 80°F           |           | 100°F          |           |
|------------|----------------|-----------|----------------|-----------|----------------|-----------|----------------|-----------|----------------|-----------|----------------|-----------|
|            | Tension<br>lbs | Sag<br>in | Tension<br>lbs | Sag<br>in | Tension<br>lbs | Sag<br>in | Tension<br>lbs | Sag<br>in | Tension<br>lbs | Sag<br>in | Tension<br>lbs | Sag<br>in |
| 25         | 17             | 1.6       | 13             | 2.1       | 11             | 2.5       | 9              | 3.0       | 8              | 3.5       | 7              | 3.9       |
| 50         | 28             | 3.9       | 24             | 4.6       | 20             | 5.3       | 18             | 6.0       | 16             | 6.7       | 15             | 7.4       |
| 75         | 38             | 6.4       | 34             | 7.3       | 30             | 8.1       | 27             | 9.0       | 25             | 9.9       | 23             | 10.7      |
| 100        | 48             | 9.1       | 43             | 10.1      | 39             | 11.0      | 36             | 12.0      | 34             | 13.0      | 31             | 13.9      |
| 125        | 57             | 11.8      | 53             | 12.9      | 49             | 13.9      | 45             | 15.0      | 42             | 16.1      | 40             | 17.1      |
| 150        | 67             | 14.6      | 62             | 15.7      | 58             | 16.9      | 54             | 18.0      | 51             | 19.1      | 48             | 20.3      |
| 175        | 76             | 17.4      | 72             | 18.6      | 67             | 19.8      | 63             | 21.0      | 60             | 22.2      | 57             | 23.4      |
| 200        | 86             | 20.3      | 81             | 21.5      | 76             | 22.8      | 73             | 24.0      | 69             | 25.2      | 66             | 26.5      |
| 225        | 95             | 23.1      | 90             | 24.4      | 86             | 25.7      | 82             | 27.0      | 78             | 28.3      | 74             | 29.6      |
| 250        | 104            | 26.0      | 99             | 27.4      | 95             | 28.7      | 91             | 30.0      | 87             | 31.3      | 83             | 32.6      |
| 275        | 114            | 28.9      | 109            | 30.3      | 104            | 31.6      | 100            | 33.0      | 96             | 34.4      | 92             | 35.7      |
| 300        | 123            | 31.8      | 118            | 33.2      | 113            | 34.6      | 109            | 36.0      | 105            | 37.4      | 101            | 38.8      |
| 325        | 132            | 34.8      | 127            | 36.2      | 122            | 37.6      | 118            | 39.0      | 114            | 40.4      | 110            | 41.8      |
| 350        | 141            | 37.7      | 136            | 39.1      | 131            | 40.6      | 127            | 42.0      | 123            | 43.4      | 119            | 44.9      |

## NESC Ice and Wind Loading Districts<sup>1</sup>

| Span<br>ft | Heavy Plus <sup>2</sup> |                     |                    |                | Heavy              |                     |                    |                | Medium             |                     |                    |                | Light              |                     |                    |                |
|------------|-------------------------|---------------------|--------------------|----------------|--------------------|---------------------|--------------------|----------------|--------------------|---------------------|--------------------|----------------|--------------------|---------------------|--------------------|----------------|
|            | Vert.<br>Sag<br>in      | Horiz.<br>Sag<br>in | Total<br>Sag<br>in | Tension<br>lbs | Vert.<br>Sag<br>in | Horiz.<br>Sag<br>in | Total<br>Sag<br>in | Tension<br>lbs | Vert.<br>Sag<br>in | Horiz.<br>Sag<br>in | Total<br>Sag<br>in | Tension<br>lbs | Vert.<br>Sag<br>in | Horiz.<br>Sag<br>in | Total<br>Sag<br>in | Tension<br>lbs |
| 25         | 9.4                     | 4.4                 | 10.4               | 166            | 5.7                | 4.6                 | 7.3                | 89             | 3.5                | 4.6                 | 5.7                | 56             | 0.6                | 5.2                 | 5.2                | 43             |
| 50         | 23.7                    | 11.0                | 26.1               | 264            | 14.2               | 11.6                | 18.3               | 142            | 8.6                | 11.4                | 14.2               | 90             | 1.5                | 12.6                | 12.7               | 71             |
| 75         | -                       | -                   | -                  | -              | 24.3               | 19.9                | 31.4               | 187            | 14.5               | 19.3                | 24.2               | 119            | 2.6                | 21.3                | 21.4               | 95             |
| 100        | -                       | -                   | -                  | -              | 35.5               | 29.0                | 45.8               | 227            | 21.1               | 28.1                | 35.1               | 146            | 3.7                | 30.7                | 31.0               | 117            |
| 125        | -                       | -                   | -                  | -              | 47.6               | 39.0                | 61.5               | 265            | 28.2               | 37.5                | 47.0               | 171            | 4.9                | 40.9                | 41.2               | 138            |
| 150        | -                       | -                   | -                  | -              | 60.5               | 49.5                | 78.2               | 300            | 35.8               | 47.5                | 59.5               | 194            | 6.2                | 51.6                | 52.0               | 157            |
| 175        | -                       | -                   | -                  | -              | -                  | -                   | -                  | -              | 43.7               | 58.0                | 72.6               | 216            | 7.6                | 62.8                | 63.3               | 175            |
| 200        | -                       | -                   | -                  | -              | -                  | -                   | -                  | -              | 51.9               | 68.9                | 86.3               | 238            | 9.0                | 74.5                | 75.0               | 193            |
| 225        | -                       | -                   | -                  | -              | -                  | -                   | -                  | -              | 60.4               | 80.3                | 100.4              | 259            | 10.5               | 86.5                | 87.2               | 211            |
| 250        | -                       | -                   | -                  | -              | -                  | -                   | -                  | -              | 69.2               | 91.9                | 115.0              | 279            | 12.0               | 98.9                | 99.6               | 227            |
| 275        | -                       | -                   | -                  | -              | -                  | -                   | -                  | -              | 78.2               | 103.9               | 130.0              | 298            | 13.5               | 111.6               | 112.4              | 244            |
| 300        | -                       | -                   | -                  | -              | -                  | -                   | -                  | -              | -                  | -                   | -                  | -              | 15.1               | 124.6               | 125.5              | 260            |
| 325        | -                       | -                   | -                  | -              | -                  | -                   | -                  | -              | -                  | -                   | -                  | -              | 16.7               | 137.9               | 139.9              | 276            |
| 350        | -                       | -                   | -                  | -              | -                  | -                   | -                  | -              | -                  | -                   | -                  | -              | 18.3               | 151.4               | 152.5              | 291            |

## Loading District Specifics

|  | Heavy Plus <sup>2</sup> | Heavy | Medium | Light |
|--|-------------------------|-------|--------|-------|
| Horizontal Wind Pressure (lb/ft <sup>2</sup> ) | 4                       | 4     | 4      | 9     |
| Radial Ice Thickness (in)                      | 1                       | ½     | ¼      | 0     |
| Temperature (F)                                | 0                       | 0     | 15     | 30    |

<sup>1</sup>Reflects 1% Sag at 60°F installation.

<sup>2</sup>Not an NESC District