GENERAL TRUSS CANTILEVER CALCULATOR

General Notes:
1) Spreadsheet is for general planning/information only. Cantilever truss stability is outside of the scope of this spreadsheet, and should be reviewed by an engineer or other competent person.
2) Calculations shown assume cantilever back span is unloaded between rigging points. Any additional back span loads shall be coordinated with Christie Lites span tables in order to verify back span truss adequacy.
3) Cantilever truss deflections are outside the scope of this spreadsheet.
4) Maximum cantilever length is 10 feet long
5) Applied cantilever load (P1) may be applied anywhere along the cantilever span.
6) Back span length (L) shall be at least 3 times the length of truss cantilever (A). For example, with an 8’ cantilever, the minimum length of the truss back span would be 24’.
7) Additional weight may be added at rigging point opposite cantilever (point F2 in above example) to resist uplift. Applied weight should result in a minimum 250 lb down load, as well as a factor of safety of at least 1.5 for uplift (i.e. applied weight should be at least 1.5 times greater than noted uplift load, and at least 250 lbs down).
8) No faceplates are allowed in a cantilever—they may not take the required loading.
9) Cantilever point load must be hung evenly across both bottom chords.

Cantilever Calculator - plug your numbers in the blue cells:

- What is your cantilever length (A)?
- What is your back span length (L)?
- Total Truss Length =
- Applied load at end of cantilever (P1)?
- Weight of rigging cable at support points (F1 & F2)?
- Applied weight at end of back span (W1)?
- Truss Type (A, B, C, D, E, F)?
- Truss self-weight per linear foot =

<table>
<thead>
<tr>
<th>What is your cantilever length (A)?</th>
<th>12 feet</th>
</tr>
</thead>
<tbody>
<tr>
<td>What is your back span length (L)?</td>
<td>12 feet</td>
</tr>
<tr>
<td>Total Truss Length =</td>
<td>24 feet</td>
</tr>
<tr>
<td>Applied load at end of cantilever (P1)?</td>
<td>12 pounds</td>
</tr>
<tr>
<td>Weight of rigging cable at support points (F1 &amp; F2)?</td>
<td>12 pounds</td>
</tr>
<tr>
<td>Applied weight at end of back span (W1)?</td>
<td>12 pounds</td>
</tr>
<tr>
<td>Truss Type (A, B, C, D, E, F)?</td>
<td>C</td>
</tr>
<tr>
<td>Truss self-weight per linear foot =</td>
<td>6.50 (lbs/pounds per linear foot of truss)</td>
</tr>
</tbody>
</table>

Load at F1 will be: 240 pounds
Load at F2 will be: 12 pounds
LOAD F2 LESS THAN 250 LBS!
ADD WEIGHT TO POINT F2 FOR MINIMUM 250 LB DOWN LOAD AT F2

Equivalent Simply Supported Span (Le = 4xA) 48 feet
Equivalent Point Load (P2) for Simply Supported Truss Span (Le): 48 feet

General Notes:
- Verify this load against Christie Lites simply supported span tables for noted span (Le) with point load P2 applied at mid-span.