

Lumber Span Tables for Spruce-Pine-Fir South (SPFs)**

Table 1 Floor Joists - 40 psf Live Load, 10 psf Dead Load, L/360 Deflection

| | | Span (feet-inches) | | | | | | | | | | | |
|---------|-------|--------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| | | 2x6 | | | 2x8 | | | 2x10 | | | 2x12 | | |
| Species | Grade | 12" oc | 16" oc | 24" oc | 12" oc | 16" oc | 24" oc | 12" oc | 16" oc | 24" oc | 12" oc | 16" oc | 24" oc |
| SPF(s) | No.1 | 9-9 | 8-10 | 7-9 | 12-10 | 11-8 | 10-2 | 16-5 | 14-11 | 12-7 | 19-11 | 17-10 | 14-7 |
| | No.2 | 9-6 | 8-7 | 7-6 | 12-6 | 11-4 | 9-8 | 15-11 | 14-6 | 11-10 | 19-4 | 16-10 | 13-9 |
| | No.3 | 8-3 | 7-2 | 5-10 | 10-5 | 9-0 | 7-5 | 12-9 | 11-0 | 9-0 | 14-9 | 12-10 | 10-5 |

Note: Deflection is limited to the span in inches divided by 360 for live load only. Maximum spans are inside to inside of bearings.

Table 2 Floor Joists - 30 psf Live Load, 10 psf Dead Load, L/360 Deflection

| | | Span (feet-inches) | | | | | | | | | | | |
|---------|-------|--------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| | | 2x6 | | | 2x8 | | | 2x10 | | | 2x12 | | |
| Species | Grade | 12" oc | 16" oc | 24" oc | 12" oc | 16" oc | 24" oc | 12" oc | 16" oc | 24" oc | 12" oc | 16" oc | 24" oc |
| SPF(s) | No.1 | 10-9 | 9-9 | 8-6 | 14-2 | 12-10 | 11-3 | 18-0 | 16-5 | 14-1 | 21-11 | 19-11 | 16-3 |
| | No.2 | 10-5 | 9-6 | 8-3 | 13-9 | 12-6 | 10-10 | 17-6 | 15-11 | 13-3 | 21-4 | 18-9 | 15-4 |
| | No.3 | 9-3 | 8-0 | 6-6 | 11-8 | 10-1 | 8-3 | 14-3 | 12-4 | 10-1 | 16-6 | 14-4 | 11-8 |

Note: Deflection is limited to the span in inches divided by 360 for live load only. Maximum spans are inside to inside of bearings.

Table 3 Ceiling Joists - 20 psf Live Load, 10 psf Dead Load, L/240 Deflection (*Limited Attic Storage*)

| | | Span (feet-inches) | | | | | | | | | | | |
|---------|-------|--------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| | | 2x6 | | | 2x8 | | | 2x10 | | | 2x12 | | |
| Species | Grade | 12" oc | 16" oc | 24" oc | 12" oc | 16" oc | 24" oc | 12" oc | 16" oc | 24" oc | 12" oc | 16" oc | 24" oc |
| SPF(s) | No.1 | 14-1 | 12-9 | 10-6 | 18-6 | 16-3 | 13-3 | 22-11 | 19-10 | 16-3 | 26-7 | 23-0 | 18-10 |
| | No.2 | 13-8 | 12-1 | 9-10 | 17-8 | 15-4 | 12-6 | 21-7 | 18-8 | 15-3 | 25-0 | 21-8 | 17-8 |
| | No.3 | 10-8 | 9-3 | 7-6 | 13-6 | 11-8 | 9-6 | 16-5 | 14-3 | 11-8 | 19-1 | 16-6 | 13-6 |

Note: Deflection is limited to the span in inches divided by 240 for live load only. Maximum spans are inside to inside of bearings.

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SPFs is a grouping of wood species (Eastern Spruces, Balsam Fir, Red Pine, Jack Pine, Englemann Spruce, Lodgepole Pine, and Sitka Spruce).

Span calculations derived from the American Wood Council's "Span Calculator" Program, available at www.awc.org.