

**TABLE 2308.7.1(1)—continued**  
**CEILING JOIST SPANS FOR COMMON LUMBER SPECIES**  
(Uninhabitable attics without storage, live load = 10 psf,  $L/\Delta = 240$ )

| CEILING JOIST<br>SPACING (inches) | SPECIES AND GRADE |    | DEAD LOAD = 5 psf           |             |             |             |
|-----------------------------------|-------------------|----|-----------------------------|-------------|-------------|-------------|
|                                   |                   |    | 2 × 4                       | 2 × 6       | 2 × 8       | 2 × 10      |
|                                   |                   |    | Maximum ceiling joist spans |             |             |             |
|                                   |                   |    | (ft. - in.)                 | (ft. - in.) | (ft. - in.) | (ft. - in.) |
| 19.2                              | Douglas Fir-Larch | SS | 11-3                        | 17-8        | 23-3        | Note a      |
|                                   | Douglas Fir-Larch | #1 | 10-10                       | 17-0        | 22-5        | Note a      |
|                                   | Douglas Fir-Larch | #2 | 10-7                        | 16-7        | 21-0        | 25-8        |
|                                   | Douglas Fir-Larch | #3 | 8-7                         | 12-6        | 15-10       | 19-5        |
|                                   | Hem-Fir           | SS | 10-7                        | 16-8        | 21-11       | Note a      |
|                                   | Hem-Fir           | #1 | 10-4                        | 16-4        | 21-6        | Note a      |
|                                   | Hem-Fir           | #2 | 9-11                        | 15-7        | 20-6        | 25-3        |
|                                   | Hem-Fir           | #3 | 8-7                         | 12-6        | 15-10       | 19-5        |
|                                   | Southern Pine     | SS | 11-0                        | 17-4        | 22-10       | Note a      |
|                                   | Southern Pine     | #1 | 10-7                        | 16-8        | 22-0        | Note a      |
|                                   | Southern Pine     | #2 | 10-2                        | 15-7        | 19-8        | 23-5        |
|                                   | Southern Pine     | #3 | 8-0                         | 11-9        | 14-10       | 18-0        |
|                                   | Spruce-Pine-Fir   | SS | 10-4                        | 16-4        | 21-6        | Note a      |
|                                   | Spruce-Pine-Fir   | #1 | 10-2                        | 15-11       | 21-0        | 25-8        |
|                                   | Spruce-Pine-Fir   | #2 | 10-2                        | 15-11       | 21-0        | 25-8        |
|                                   | Spruce-Pine-Fir   | #3 | 8-7                         | 12-6        | 15-10       | 19-5        |
| 24                                | Douglas Fir-Larch | SS | 10-5                        | 16-4        | 21-7        | Note a      |
|                                   | Douglas Fir-Larch | #1 | 10-0                        | 15-9        | 20-1        | 24-6        |
|                                   | Douglas Fir-Larch | #2 | 9-10                        | 14-10       | 18-9        | 22-11       |
|                                   | Douglas Fir-Larch | #3 | 7-8                         | 11-2        | 14-2        | 17-4        |
|                                   | Hem-Fir           | SS | 9-10                        | 15-6        | 20-5        | Note a      |
|                                   | Hem-Fir           | #1 | 9-8                         | 15-2        | 19-7        | 23-11       |
|                                   | Hem-Fir           | #2 | 9-2                         | 14-5        | 18-6        | 22-7        |
|                                   | Hem-Fir           | #3 | 7-8                         | 11-2        | 14-2        | 17-4        |
|                                   | Southern Pine     | SS | 10-3                        | 16-1        | 21-2        | Note a      |
|                                   | Southern Pine     | #1 | 9-10                        | 15-6        | 20-5        | 24-0        |
|                                   | Southern Pine     | #2 | 9-3                         | 13-11       | 17-7        | 20-11       |
|                                   | Southern Pine     | #3 | 7-2                         | 10-6        | 13-3        | 16-1        |
|                                   | Spruce-Pine-Fir   | SS | 9-8                         | 15-2        | 19-11       | 25-5        |
|                                   | Spruce-Pine-Fir   | #1 | 9-5                         | 14-9        | 18-9        | 22-11       |
|                                   | Spruce-Pine-Fir   | #2 | 9-5                         | 14-9        | 18-9        | 22-11       |
|                                   | Spruce-Pine-Fir   | #3 | 7-8                         | 11-2        | 14-2        | 17-4        |

Check sources for availability of lumber in lengths greater than 20 feet.

For SI: 1 inch = 25.4 mm, 1 foot = 304.8 mm, 1 pound per square foot = 0.0479 kPa.

a. Span exceeds 26 feet in length.