

These tables are for use with the **Size Adjusted Design Values for Canadian Species used in the United States.**

Repetitive Member Factor (C_r)	
Applies to Tabulated Design Values for Extreme Fibre Stress in Bending	
<i>Type</i>	<i>Factor</i>
Joists and Rafters	1.15
Headers 3 plies and over	1.15
Header factors based on American Forest and Paper Association's header tables.	

Duration of Load Adjustment (C_d) For Tabulated Design Values	
<i>Load Duration</i>	<i>Factor</i>
Permanent	0.9
Ten Years (Normal Load)	1.0
Two Months (Snow Load)	1.15*
Seven Days	1.25*
Ten Minutes (Wind, Earthquake)	1.6
Impact	2.0
Confirm load requirements with local codes. Refer to Model Building Codes or the National Design Specification for high-temperature or fire-retardant treated adjustment factors.	
*Note: Rafter tables for snow loads use a CD of 1.15. Rafter tables for non-snow regions use a CD of 1.25. The header tables use a CD of 1.15	

C_{fu} (table M)

Flat Use Factors (C_{fu}) - For Use Where Lumber is Loaded Flatwise		
Apply to Tabulated Design Values for Extreme Fibre Stress in Bending		
Nominal Width	Nominal Thickness	
	2" & 3"	4"
2" & 3"	1.00	-
4"	1.10	1.00
5"	1.10	1.05
6"	1.15	1.05
8"	1.15	1.05
10" & wider	1.20	1.10

***Note:** These factors apply to all dimension lumber except decking grades. Bending design values for decking grades have already been adjusted for flat usage.

C_M wet use (table N)

Wet Use Factors (C_M) For Tabulated Design Values		
The recommended design values are for applications where the wood does not exceed 19%. For use conditions where the moisture content of dimension lumber will exceed 19%, the Wet Use Adjustment Factors below are recommended:		
	<i>Property</i>	<i>Adjustment Factor</i>
F_b	Fibre Test in Bending	0.85*
F_t	Tension Parallel to Grain	1.0
F_v	Horizontal Shear	0.97
F_c perp	Compression Perpendicular to Grain	0.67
F_c	Compression Parallel to Grain	0.8**
E	Modulus of Elasticity	0.9

* Bending Wet Use Factor = 1.0 where $F_b \times C_F$ (Base Value x Size Factor) does not exceed 1150 psi.
 ** Compression Parallel Wet Use Factor = 1.0 where $F_c \times C_F$ (Base Value x Size Factor) does not exceed 750 psi.

For additional information get the NDS supplement from the American Wood Council (www.awc.org).