

Axial Factored Resistances (Lbs) For 2.0E RigidLam LVL Columns

Effective Column Length (ft.)	Column Size					
	3-1/2" x 3-1/2"	3-1/2" x 5-1/4"	3-1/2" x 7"	5-1/4" x 5-1/4"	5-1/4" x 7"	7" x 7"
6	21,475	32,215	42,950	60,275	80,370	111,640
7	17,660	26,495	35,325	56,655	75,540	108,665
8	14,460	21,690	28,925	52,415	69,890	104,915
9	11,840	17,765	23,685	47,525	63,365	100,425
10	9,720	14,580	19,440	41,805	55,740	95,285
11	8,005	12,005	16,010	36,660	48,885	89,630
12	6,615	9,920	13,230	32,120	42,825	83,450
13	5,490	8,235	10,980	28,140	37,525	75,875
14	4,575	6,865	9,155	24,680	32,905	68,855
15				21,665	28,885	62,415
16				19,045	25,395	56,555
17				16,765	22,355	51,250
18				14,785	19,715	46,460
19				13,060	17,415	42,140
20				11,560	15,415	38,245
21				10,260	13,680	34,735
22						31,575
23						28,725
24						26,160
25						23,845

Table is based on the following criteria:

1. Column is a single, one-piece member for dry-use applications only.
2. Column is assumed to have adequate bracing in all directions at both ends.
3. Loads are calculated per Section 5.1 of CWC "Wood Design Manual 2010" and CSA O86-14 for simple columns with axial loads only.
4. For side-loaded columns, see the CSA O86-14 provisions or consult with a design professional.
5. Table assumes the worst case of an eccentricity of 1/6 of either column dimension.
6. Table assumes column bearing to be on a steel plate that has been adequately sized for bearing on the material below.
7. When bearing on a 1-1/2" thick wood plate, axial factored loads (lbs) shall not exceed the following values:

Column size	3-1/2" x 3-1/2"	3-1/2" x 5-1/4"	3-1/2" x 7"	5-1/4" x 5-1/4"	5-1/4" x 7"	7" x 7"
D Fir-L plate	11439	17159	22878	25738	34317	45756
Hem-Fir plate	7517	11276	15034	16913	22551	30068
Spruce-Pine-Fir plate	8661	12991	17322	19487	25983	34644
Northern plate	5720	8579	11439	12869	17159	22878

2.0E RIGIDLAM LVL Specified Strengths⁽¹⁾

Modulus of Elasticity	E = 2,000,000 psi
Bending edgewise	Fb = 5,729 psi ⁽²⁾
Bending flatwise	Fb = 5,729 psi ⁽³⁾
Compression Parallel to Grain	Fc = 4,788 psi

Notes:

1. These specified strengths are for standard term load duration and apply to dry service conditions.
2. For edgewise bending, multiply Fb by $(12/d)^{1/8}$ where d = depth of member (inches)
3. For flatwise bending, multiply Fb by $(1.75/t)^{1/5}$ where t = thickness of member (inches)

