

1-Ply, 1.75" 2.1E true RigidLam LVL - Standard Term - Floor/Roof (PLF) L/360 LL L/240 TL Southern Pine

ALLOWABLE UNIFORM LOAD - POUNDS PER LINEAL FOOT (Limit States Design)

Span (ft)	Depth =	4.375"	5.5"	7.25"	9.25"	9.5"	11.25"	11.875"	14"	16"	18"	20"	22"	24"
6	Unfactored Load (LL)	166	321	693	1326	1421	2175	-	-					
	Unfactored Load (TL)	247	478	1035	-	-	-	-	-					
	Total Factored Load	649	942	1300	1751	1811	2257	2427	3058					
	Min. end / Int. bearing	1.5 / 3	1.5 / 3.7	2 / 5.1	2.8 / 6.9	2.9 / 7.1	3.6 / 8.9	3.8 / 9.6	4.8 / 12					
8	Unfactored Load (LL)	72	140	310	614	660	1042	1202	1833					
	Unfactored Load (TL)	106	208	462	916	986	1557	-	-					
	Total Factored Load	364	550	906	1232	1272	1560	1668	2058					
	Min. end / Int. bearing	1.5 / 3	1.5 / 3	1.9 / 4.8	2.6 / 6.5	2.7 / 6.7	3.3 / 8.2	3.5 / 8.8	4.3 / 10.8					
10	Unfactored Load (LL)	37	73	164	329	355	569	660	1030					
	Unfactored Load (TL)	54	107	242	489	527	848	985	1537					
	Total Factored Load	232	351	578	898	942	1191	1270	1550					
	Min. end / Int. bearing	1.5 / 3	1.5 / 3	1.5 / 3.8	2.4 / 5.9	2.5 / 6.2	3.1 / 7.8	3.3 / 8.4	4.1 / 10.2					
12	Unfactored Load (LL)	22	43	96	195	211	342	398	629					
	Unfactored Load (TL)	30	61	141	288	312	507	591	937					
	Total Factored Load	160	243	400	622	652	885	976	1242					
	Min. end / Int. bearing	1.5 / 3	1.5 / 3	1.5 / 3.2	2 / 4.9	2.1 / 5.2	2.8 / 7	3.1 / 7.7	3.9 / 9.8					
14	Unfactored Load (LL)	14	27	61	125	135	220	257	410					
	Unfactored Load (TL)	18	38	88	183	198	325	380	608					
	Total Factored Load	117	177	293	455	478	649	715	963					
	Min. end / Int. bearing	1.5 / 3	1.5 / 3	1.5 / 3	1.7 / 4.2	1.8 / 4.4	2.4 / 6	2.6 / 6.6	3.6 / 8.9					
16	Unfactored Load (LL)	9	18	41	85	92	150	175	281					
	Unfactored Load (TL)	12	24	58	122	132	219	257	414					
	Total Factored Load	89	135	223	347	364	495	546	735					
	Min. end / Int. bearing	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3.7	1.6 / 3.9	2.1 / 5.3	2.3 / 5.8	3.1 / 7.8					
18	Unfactored Load (LL)		13	29	60	65	106	124	201					
	Unfactored Load (TL)		16	40	85	92	154	181	294					
	Total Factored Load		106	175	273	287	390	430	579					
	Min. end / Int. bearing		1.5 / 3	1.5 / 3	1.5 / 3.3	1.5 / 3.4	1.9 / 4.7	2.1 / 5.1	2.8 / 6.9					
20	Unfactored Load (LL)		9	21	44	47	78	92	148					
	Unfactored Load (TL)		11	28	61	66	111	131	215					
	Total Factored Load		85	141	220	231	314	347	467					
	Min. end / Int. bearing		1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3.1	1.7 / 4.2	1.9 / 4.6	2.5 / 6.2					
22	Unfactored Load (LL)			16	33	36	59	69	112					
	Unfactored Load (TL)			20	45	49	83	98	161					
	Total Factored Load			116	181	190	258	285	385					
	Min. end / Int. bearing			1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3.8	1.7 / 4.2	2.3 / 5.7					
24	Unfactored Load (LL)			12	26	28	46	54	87					
	Unfactored Load (TL)			15	34	37	63	74	123					
	Total Factored Load			97	151	159	216	238	322					
	Min. end / Int. bearing			1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3.5	1.5 / 3.9	2.1 / 5.2					
26	Unfactored Load (LL)			10	20	22	36	42	69					
	Unfactored Load (TL)			11	26	28	48	57	96					
	Total Factored Load			82	128	134	183	202	273					
	Min. end / Int. bearing			1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3.2	1.5 / 3.6	1.9 / 4.8					
28	Unfactored Load (LL)				16	18	29	34	55					
	Unfactored Load (TL)				20	21	38	45	76					
	Total Factored Load				109	115	157	173	234					
	Min. end / Int. bearing				1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3.3	1.8 / 4.5					
30	Unfactored Load (LL)				13	14	24	28	45					
	Unfactored Load (TL)				15	17	30	35	60					
	Total Factored Load				95	99	136	150	203					
	Min. end / Int. bearing				1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3.1	1.7 / 4.2					
32	Unfactored Load (LL)				11	12	19	23	37					
	Unfactored Load (TL)				12	13	23	28	49					
	Total Factored Load				82	87	118	131	177					
	Min. end / Int. bearing				1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.6 / 3.9					
34	Unfactored Load (LL)				9	10	16	19	31					
	Unfactored Load (TL)				9	10	19	23	40					
	Total Factored Load				72	76	104	115	156					
	Min. end / Int. bearing				1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3.7					
36	Unfactored Load (LL)						14	16	26					
	Unfactored Load (TL)						15	18	32					
	Total Factored Load						92	102	138					
	Min. end / Int. bearing						1.5 / 3	1.5 / 3	1.5 / 3.5					
38	Unfactored Load (LL)						12	14	22					
	Unfactored Load (TL)						12	14	26					
	Total Factored Load						82	91	123					
	Min. end / Int. bearing						1.5 / 3	1.5 / 3	1.5 / 3.3					
40	Unfactored Load (LL)						10	12	19					
	Unfactored Load (TL)						9	12	22					
	Total Factored Load						73	81	110					
	Min. end / Int. bearing						1.5 / 3	1.5 / 3	1.5 / 3.1					

- Notes:**
- The values shown are the maximum uniform unfactored and factored loads in pounds per linear foot that can be applied to the beam. The weight of the beam has been deducted from the Total Unfactored Load (TL) and Total Factored Load.
 - Bearing lengths are in inches based on the compression perpendicular to grain resistance of the LVL beam. For bearing on other wood materials, the bearing resistance of the supporting material should be checked.
 - The tabulated values are for simple span or for continuous span beams.
 - Design span is the clear span between supports plus one half of the required bearing at each end.
 - The table is for standard term loading and dry service conditions.
 - Lateral support at points of bearing and continuous lateral support for top of beam must be provided to prevent rotation or lateral displacement.
 - Calculations have been carried out in accordance with CSA O86-14.
 - 1-1/2" thick LVL members 14" and deeper and 1-3/4" thick LVL members 16" and deeper must be a minimum of 2 plies unless designed by a design professional.
 - See Roseburg EWP Design Guide for information regarding the connection of multiple-ply members and installation guidelines.
 - Allowable loads shown for multiple ply LVL members are also applicable to factory glued LVL beams with the same thickness as the combined multiple plies.

- Directions for use of Table:**
- Determine the total factored load, unfactored live load and unfactored total load.
 - Choose a span that meets or exceeds the actual design span (centre to centre of bearing).
 - Scan from left to right within the span row to find a cell where: the L/360 (LL) load exceeds the unfactored live load; the L/240 (TL) load exceeds the unfactored total load; the factored total load resistance exceeds the factored total load. All four rows including minimum bearing must be checked. Where no unfactored loads are shown, total factored load will govern.
 - If the selected beam is too deep or the bearing length is too long, resize the beam using a wider member.
 - For an L/480 live load deflection limit, multiply the tabulated L/360 (LL) loads by 0.75. For an L/180 total load limit, multiply the tabulated L/240 (TL) loads by 1.33.



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Table with columns: Span (ft), Depth =, 4.375", 5.5", 7.25", 9.25", 9.5", 11.25", 11.875", 14", 16", 18", 20", 22", 24". Rows represent different span lengths from 10 to 44 feet.

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4. If the selected beam is too deep or the bearing length is too long, resize the beam using a wider member.
5. For an L/480 live load deflection limit, multiply the tabulated L/360 (LL) loads by 0.75. For an L/180 total load limit, multiply the tabulated L/240 (TL) loads by 1.33. Nov. 2020