

PLF Charts Douglas-fir

1-PLY 1-3/4" 2.1E RIGIDLAM® LVL - 100% FLOOR (PLF)

Span (ft.)	Depth	4-3/8"	5-1/2"	7-1/4"	9-1/4"	9-1/2"	11-1/4"	11-7/8"	14"	16"	18"	20"	22"	24"
6	LL	166	321	693	-	-	-	-	-	-	-	-	-	-
	TL	248	479	777	1,046	1,082	1,348	1,450	1,827	-	-	-	-	-
	BRG	1.5 / 3	1.5 / 3	1.8 / 4.5	2.4 / 6	2.5 / 6.2	3.1 / 7.7	3.3 / 8.3	4.2 / 10.5	-	-	-	-	-
8	LL	72	140	310	614	660	-	-	-	-	-	-	-	-
	TL	106	208	463	736	760	932	997	1,230	-	-	-	-	-
	BRG	1.5 / 3	1.5 / 3	1.5 / 3.5	2.3 / 5.6	2.3 / 5.8	2.9 / 7.1	3.1 / 7.6	3.8 / 9.4	-	-	-	-	-
10	LL	37	73	164	329	355	569	660	926	-	-	-	-	-
	TL	54	107	242	490	528	712	759	926	-	-	-	-	-
	BRG	1.5 / 3	1.5 / 3	1.5 / 3	1.9 / 4.7	2 / 5.1	2.7 / 6.8	2.9 / 7.3	3.5 / 8.9	-	-	-	-	-
12	LL		43	96	195	211	342	398	629	-	-	-	-	-
	TL		62	141	289	312	508	586	742	-	-	-	-	-
	BRG		1.5 / 3	1.5 / 3	1.5 / 3.4	1.5 / 3.6	2.3 / 5.9	2.7 / 6.8	3.4 / 8.5	-	-	-	-	-
14	LL			61	125	135	220	257	410	-	-	-	-	-
	TL			89	184	199	325	381	585	-	-	-	-	-
	BRG			1.5 / 3	1.5 / 3	1.5 / 3	1.8 / 4.4	2.1 / 5.1	3.2 / 7.9	-	-	-	-	-
16	LL			41	85	92	150	175	281	-	-	-	-	-
	TL			59	123	133	220	258	415	-	-	-	-	-
	BRG			1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3.4	1.6 / 4	2.6 / 6.4	-	-	-	-	-
18	LL			60	120	125	200	235	360	-	-	-	-	-
	TL			86	172	181	290	342	514	-	-	-	-	-
	BRG			1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3.2	2.1 / 5.2	-	-	-	-	-
20	LL			44	88	92	150	175	281	-	-	-	-	-
	TL			62	124	132	216	252	404	-	-	-	-	-
	BRG			1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.7 / 4.2	-	-	-	-	-
22	LL			36	72	75	120	140	224	-	-	-	-	-
	TL			50	100	105	170	200	310	-	-	-	-	-
	BRG			1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3.5	-	-	-	-	-
24	LL			46	92	96	160	190	290	-	-	-	-	-
	TL			64	128	135	224	270	404	-	-	-	-	-
	BRG			1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	-	-	-	-	-
26	LL			42	84	88	144	170	256	-	-	-	-	-
	TL			58	116	122	200	240	360	-	-	-	-	-
	BRG			1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	-	-	-	-	-
28	LL			55	110	115	192	230	344	-	-	-	-	-
	TL			77	154	162	270	324	486	-	-	-	-	-
	BRG			1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	-	-	-	-	-
30	LL			45	90	94	156	188	282	-	-	-	-	-
	TL			61	122	128	216	264	396	-	-	-	-	-
	BRG			1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	-	-	-	-	-

NOT APPLICABLE

2-PLY 1-3/4" 2.1E RIGIDLAM® LVL - 100% FLOOR (PLF)

Span (ft.)	Depth	4-3/8"	5-1/2"	7-1/4"	9-1/4"	9-1/2"	11-1/4"	11-7/8"	14"	16"	18"	20"	22"	24"
6	LL	333	641	1,385	-	-	-	-	-	-	-	-	-	-
	TL	496	957	1,553	2,093	2,165	2,697	2,901	3,655	4,466	5,398	6,478	7,748	9,259
	BRG	1.5 / 3	1.5 / 3	1.8 / 4.5	2.4 / 6	2.5 / 6.2	3.1 / 7.7	3.3 / 8.3	4.2 / 10.5	5.1 / 12.8	6.2 / 15.5	7.4 / 18.6	8.9 / 22.2	10.6 / 26.5
8	LL	144	281	621	1,228	1,321	-	-	-	-	-	-	-	-
	TL	212	416	925	1,472	1,519	1,864	1,993	2,459	2,939	3,464	4,043	4,682	5,392
	BRG	1.5 / 3	1.5 / 3	1.5 / 3.5	2.3 / 5.6	2.3 / 5.8	2.9 / 7.1	3.1 / 7.6	3.8 / 9.4	4.5 / 11.2	5.3 / 13.3	6.2 / 15.5	7.2 / 17.9	8.2 / 20.6
10	LL	74	146	327	658	710	1,138	1,321	-	-	-	-	-	-
	TL	108	215	485	979	1,056	1,423	1,517	1,851	2,188	2,548	2,935	3,351	3,800
	BRG	1.5 / 3	1.5 / 3	1.5 / 3	1.9 / 4.7	2 / 5.1	2.7 / 6.8	2.9 / 7.3	3.5 / 8.9	4.2 / 10.5	4.9 / 12.2	5.6 / 14.1	6.4 / 16.1	7.3 / 18.2
12	LL	43	85	193	391	422	684	796	1,258	-	-	-	-	-
	TL	61	123	283	578	625	1,016	1,172	1,484	1,742	2,014	2,302	2,608	2,932
	BRG	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3.4	1.5 / 3.6	2.3 / 5.9	2.7 / 6.8	3.4 / 8.5	4 / 10	4.6 / 11.6	5.3 / 13.3	6 / 15	6.7 / 16.9
14	LL		54	123	250	270	441	514	820	1,189	1,639	-	-	-
	TL		76	177	367	397	651	761	1,170	1,446	1,664	1,893	2,133	2,385
	BRG		1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.8 / 4.4	2.1 / 5.1	3.2 / 7.9	3.9 / 9.7	4.5 / 11.2	5.1 / 12.7	5.7 / 14.3	6.4 / 16
16	LL		36	83	169	183	300	350	562	820	1,138	1,519	-	-
	TL		50	118	246	266	440	515	831	1,149	1,417	1,607	1,804	2,009
	BRG		1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3.4	1.6 / 4	2.6 / 6.4	3.5 / 8.9	4.4 / 10.9	4.9 / 12.4	5.6 / 13.9	6.2 / 15.5
18	LL		58	120	130	213	249	401	588	820	1,100	1,429	-	-
	TL		81	172	186	309	363	589	868	1,130	1,379	1,562	1,735	1,926
	BRG		1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3.2	2.1 / 5.2	3 / 7.6	3.9 / 9.8	4.8 / 12	5.4 / 13.6	6 / 15	6.7 / 16.9
20	LL		43	88	95	156	183	296	435	609	820	1,070	1,359	1,658
	TL		58	124	134	224	264	431	638	898	1,113	1,333	1,526	1,726
	BRG		1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.7 / 4.2	2.5 / 6.2	3.5 / 8.7	4.3 / 10.8	5.2 / 12.9	5.9 / 14.7
22	LL		66	142	158	264	312	504	720	1,008	1,344	1,728	2,112	2,496
	TL		91	199	216	352	420	672	960	1,344	1,824	2,304	2,784	3,264
	BRG		1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3.5	2.1 / 5.2	2.9 / 7.3	3.9 / 9.8	4.7 / 11.7	5.5 / 13.8	6.3 / 16.1
24	LL		51	110	115	192	230	370	528	744	1,008	1,344	1,728	2,112
	TL		69	144	152	252	300	480	672	936	1,248	1,632	2,016	2,400
	BRG		1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.8 / 4.4	2.5 / 6.2	3.4 / 8.4	4.3 / 10.7	5.1 / 12.6	6.0 / 15.5
26	LL		40	88	92	156	183	296	435	609	820	1,070	1,359	1,658
	TL		52	108	114	192	228	364	520	728	1,008	1,344	1,728	2,112
	BRG		1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3.8	2.1 / 5.3	2.9 / 7.2	3.8 / 9.5	4.7 / 11.7	5.6 / 14.5
28	LL		58	120	130	213	249	401	588	820	1,100	1,429	-	-
	TL		77	162	174	290	342	552	816	1,113	1,379	1,562	1,735	1,926
	BRG		1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3.3	1.8 / 4.6	2.5 / 6.3	3.3 / 8.3	4.2 / 10.6	5.1 / 13.0
30	LL		47	94	98	164	196	312	450	630	840	1,050	1,260	1,470
	TL		61	122	128	216	264	420	600	840	1,120	1,400	1,680	1,960
	BRG		1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.6 / 4	2.2 / 5.5	2.9 / 7.3	3.7 / 9.3	4.5 / 11.3

- The PLF load values in this table are based on the LVL member having lateral bracing at 24" O.C. or less along its entire length.
- 1-3/4" LVL members 16" and deeper and 1-1/2" LVL members 14" and deeper, must be a minimum of 2 plies unless designed by a design professional.
- Allowable PLF loads for single or multiple ply 1-1/2" thick LVL members can be obtained by multiplying the table values by 0.85. (Required bearing lengths are the same)
- This table may be used for either simple or multiple spans.
- Span is centerline of bearing to centerline of bearing.
- Loads shown can be applied to the beam in addition to its own weight.
- See pages 42 and 43 of the residential design guide for details on attaching multiple ply members.

Key to Table:

- LL = Maximum live load – limits deflection to L/360
- TL = Maximum total load – limits deflections to L/240
- BRG = Required end/interior bearing length (inches), based on bearing stress of 750 PSI.

PLF Charts Douglas-fir

3-PLY 1-3/4" 2.1E RIGIDLAM® LVL - 100% FLOOR (PLF)

Span (ft.)	Depth	4-3/8"	5-1/2"	7-1/4"	9-1/4"	9-1/2"	11-1/4"	11-7/8"	14"	16"	18"	20"	22"	24"
10	LL	112	219	491	987	1,062	1,707	1,981	-	-	-	-	-	-
	TL	162	322	727	1,469	1,584	2,135	2,276	2,777	3,282	3,823	4,403	5,027	5,700
	BRG	1.5 / 3	1.5 / 3	1.5 / 3	1.9 / 4.7	2 / 5.1	2.7 / 6.8	2.9 / 7.3	3.5 / 8.9	4.2 / 10.5	4.9 / 12.2	5.6 / 14.1	6.4 / 16.1	7.3 / 18.2
12	LL	65	128	289	586	633	1,025	1,194	1,887	-	-	-	-	-
	TL	92	185	424	867	937	1,523	1,758	2,225	2,613	3,021	3,454	3,912	4,398
	BRG	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3.4	1.5 / 3.6	2.3 / 5.9	2.7 / 6.8	3.4 / 8.5	4 / 10	4.6 / 11.6	5.3 / 13.3	6 / 15	6.7 / 16.9
14	LL	41	81	184	375	405	661	771	1,230	1,783	2,459	-	-	-
	TL	56	115	266	551	596	976	1,142	1,755	2,169	2,496	2,840	3,200	3,577
	BRG	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.8 / 4.4	2.1 / 5.1	3.2 / 7.9	3.9 / 9.7	4.5 / 11.2	5.1 / 12.7	5.7 / 14.3	6.4 / 16
16	LL	-	55	124	254	275	449	526	843	1,230	1,707	2,279	-	-
	TL	-	75	176	369	399	659	773	1,246	1,723	2,126	2,410	2,705	3,014
	BRG	-	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3.4	1.6 / 4	2.6 / 6.4	3.5 / 8.9	4.4 / 10.9	4.9 / 12.4	5.6 / 13.9	6.2 / 15.5
18	LL	-	38	87	180	194	319	373	602	882	1,230	1,650	2,144	-
	TL	-	50	122	257	279	464	545	884	1,301	1,695	2,068	2,342	2,602
	BRG	-	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3.2	2.1 / 5.2	3 / 7.6	3.9 / 9.8	4.8 / 12	5.4 / 13.6	6 / 15
20	LL	-	-	64	132	142	234	275	444	652	913	1,230	1,605	2,039
	TL	-	-	86	185	201	337	396	647	958	1,346	1,670	2,000	2,289
	BRG	-	-	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.7 / 4.2	2.5 / 6.2	3.5 / 8.7	4.3 / 10.8	5.2 / 12.9	5.9 / 14.7
22	LL	-	-	48	99	107	177	208	336	496	696	940	1,230	1,568
	TL	-	-	63	137	149	251	296	486	722	1,020	1,376	1,648	1,942
	BRG	-	-	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3.5	2.1 / 5.2	2.9 / 7.3	3.9 / 9.8	4.7 / 11.7	5.5 / 13.8
24	LL	-	-	-	77	83	137	161	261	385	542	733	962	1,230
	TL	-	-	-	103	112	191	225	373	557	789	1,074	1,380	1,627
	BRG	-	-	-	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.8 / 4.4	2.5 / 6.2	3.4 / 8.4	4.3 / 10.7	5.1 / 12.6
26	LL	-	-	-	60	65	108	127	206	305	430	583	766	981
	TL	-	-	-	79	86	147	175	291	436	621	848	1,120	1,381
	BRG	-	-	-	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3.8	2.1 / 5.3	2.9 / 7.2	3.8 / 9.5	4.7 / 11.7
28	LL	-	-	-	49	53	87	102	166	245	346	470	619	795
	TL	-	-	-	61	66	115	137	230	347	496	679	900	1,161
	BRG	-	-	-	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3.3	1.8 / 4.6	2.5 / 6.3	3.3 / 8.3	4.2 / 10.6
30	LL	-	-	-	-	43	71	83	135	200	283	385	508	652
	TL	-	-	-	-	52	91	109	184	280	401	551	733	947
	BRG	-	-	-	-	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.6 / 4	2.2 / 5.5	2.9 / 7.3	3.7 / 9.3
32	LL	-	-	-	-	-	58	69	112	166	234	319	421	542
	TL	-	-	-	-	-	73	87	149	228	328	452	603	781
	BRG	-	-	-	-	-	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3.6	1.9 / 4.9	2.6 / 6.4	3.3 / 8.3
34	LL	-	-	-	-	-	49	57	93	139	196	267	353	455
	TL	-	-	-	-	-	58	70	122	187	271	375	501	650
	BRG	-	-	-	-	-	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3.2	1.7 / 4.3	2.3 / 5.7	2.9 / 7.4
36	LL	-	-	-	-	-	-	48	79	117	166	226	299	385
	TL	-	-	-	-	-	-	57	100	155	225	313	419	546
	BRG	-	-	-	-	-	-	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3.9	2 / 5.1	2.6 / 6.6

4-PLY 1-3/4" 2.1E RIGIDLAM® LVL - 100% FLOOR (PLF)

Span (ft.)	Depth	4-3/8"	5-1/2"	7-1/4"	9-1/4"	9-1/2"	11-1/4"	11-7/8"	14"	16"	18"	20"	22"	24"
10	LL	149	293	655	1,316	1,419	2,277	2,642	-	-	-	-	-	-
	TL	216	429	970	1,958	2,112	2,846	3,034	3,703	4,376	5,097	5,870	6,703	7,600
	BRG	1.5 / 3	1.5 / 3	1.5 / 3	1.9 / 4.7	2 / 5.1	2.7 / 6.8	2.9 / 7.3	3.5 / 8.9	4.2 / 10.5	4.9 / 12.2	5.6 / 14.1	6.4 / 16.1	7.3 / 18.2
12	LL	87	171	385	782	844	1,367	1,592	2,517	-	-	-	-	-
	TL	122	247	565	1,156	1,249	2,031	2,343	2,967	3,483	4,029	4,605	5,216	5,863
	BRG	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3.4	1.5 / 3.6	2.3 / 5.9	2.7 / 6.8	3.4 / 8.5	4 / 10	4.6 / 11.6	5.3 / 13.3	6 / 15	6.7 / 16.9
14	LL	55	108	245	500	540	881	1,029	1,640	2,378	-	-	-	-
	TL	75	153	355	734	794	1,302	1,522	2,341	2,892	3,329	3,786	4,266	4,770
	BRG	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.8 / 4.4	2.1 / 5.1	3.2 / 7.9	3.9 / 9.7	4.5 / 11.2	5.1 / 12.7	5.7 / 14.3	6.4 / 16
16	LL	-	73	165	339	366	599	701	1,124	1,640	2,277	3,038	-	-
	TL	-	100	235	492	533	879	1,030	1,661	2,298	2,834	3,213	3,607	4,018
	BRG	-	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3.4	1.6 / 4	2.6 / 6.4	3.5 / 8.9	4.4 / 10.9	4.9 / 12.4	5.6 / 13.9	6.2 / 15.5
18	LL	-	51	117	240	259	425	498	802	1,176	1,640	2,200	2,858	-
	TL	-	67	162	343	372	618	726	1,179	1,735	2,260	2,758	3,123	3,469
	BRG	-	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3.2	2.1 / 5.2	3 / 7.6	3.9 / 9.8	4.8 / 12	5.4 / 13.6	6 / 15
20	LL	-	-	85	176	190	312	366	592	870	1,218	1,640	2,139	2,718
	TL	-	-	115	247	268	449	528	863	1,277	1,795	2,227	2,666	3,051
	BRG	-	-	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.7 / 4.2	2.5 / 6.2	3.5 / 8.7	4.3 / 10.8	5.2 / 12.9	5.9 / 14.7
22	LL	-	-	64	132	143	236	277	448	661	928	1,253	1,640	2,091
	TL	-	-	84	182	198	324	394	648	963	1,360	1,834	2,197	2,589
	BRG	-	-	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3.5	2.1 / 5.2	2.9 / 7.3	3.9 / 9.8	4.7 / 11.7	5.5 / 13.8
24	LL	-	-	50	102	111	183	214	348	513	722	978	1,283	1,640
	TL	-	-	62	137	149	254	301	497	742	1,052	1,432	1,840	2,169
	BRG	-	-	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.8 / 4.4	2.5 / 6.2	3.4 / 8.4	4.3 / 10.7	5.1 / 12.6
26	LL	-	-	81	165	174	284	337	547	807	1,117	1,487	1,921	2,385
	TL	-	-	105	214	233	388	467	771	1,117	1,517	1,951	2,415	2,909
	BRG	-	-	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3.8	2.1 / 5.3	2.9 / 7.2	3.8 / 9.5	4.7 / 11.7
28	LL	-	-	-	65	70	116	136	221	327	462	627	826	1,060
	TL	-	-	-	81	88	154	183	307	463	661	906	1,200	1,548
	BRG	-	-	-	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3.3	1.8 / 4.6	2.5 / 6.3	3.3 / 8.3	4.2 / 10.6
30	LL	-	-	-	53	57	94	111	180	267	378	513	677	870
	TL	-	-	-	63	69	122	145	246	373	535	735	977	1,263
	BRG	-	-	-	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.6 / 4	2.2 / 5.5	2.9 / 7.3	3.7 / 9.3
32	LL	-	-	-	-	47	78	91	149	221	312	425	561	722
	TL	-	-	-	-	54	97	116	199	303	437	603	804	1,041
	BRG	-	-	-	-	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3.6	1.9 / 4.9	2.6 / 6.4	3.3 / 8.3
34	LL	-	-	-	-	-	65	76	124	185	261	356	471	606
	TL	-	-	-	-	-	78	94	162	249	361	499	667	867
	BRG	-	-	-	-	-	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3.2	1.7 / 4.3	2.3 / 5.7	2.9 / 7.4
36	LL	-	-	-	-	-	55	64	105	156	221	301	398	513
	TL	-	-	-	-	-	63	76	133	206	300	417	559	728
	BRG	-	-	-	-	-	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3.9	2 / 5.1	2.6 / 6.6

Refer to notes on previous page



PLF Charts Douglas-fir

1-PLY 1-3/4" 2.1E RIGIDLAM® LVL - 115% ROOF SNOW (PLF)

Span (ft.)	Depth	4-3/8"	5-1/2"	7-1/4"	9-1/4"	9-1/2"	11-1/4"	11-7/8"	14"	16"	18"	20"	22"	24"
6	LL	250	481	-	-	-	-	-	-	-	-	-	-	-
	TL	331	639	894	1,204	1,245	1,551	1,669	2,102	-	-	-	-	-
	BRG	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	LL	108	211	466	847	874	1,073	1,147	1,415	-	-	-	-	-
	TL	142	278	603	847	874	1,073	1,147	1,415	-	-	-	-	-
	BRG	1.5 / 3	1.5 / 3	1.8 / 4.6	2.6 / 6.5	2.7 / 6.7	3.3 / 8.2	3.5 / 8.8	4.3 / 10.8	-	-	-	-	-
10	LL	56	110	246	494	532	-	-	-	-	-	-	-	-
	TL	73	144	324	609	640	819	873	1,065	-	-	-	-	-
	BRG	1.5 / 3	1.5 / 3	1.5 / 3.1	2.3 / 5.8	2.5 / 6.1	3.1 / 7.8	3.3 / 8.4	4.1 / 10.2	-	-	-	-	-
12	LL		64	144	293	317	513	597	-	-	-	-	-	-
	TL		83	189	387	418	609	675	854	-	-	-	-	-
	BRG		1.5 / 3	1.5 / 3	1.8 / 4.5	1.9 / 4.8	2.8 / 7	3.1 / 7.8	3.9 / 9.8	-	-	-	-	-
14	LL			92	188	203	330	386	615	-	-	-	-	-
	TL			119	246	266	436	494	674	-	-	-	-	-
	BRG			1.5 / 3	1.5 / 3.3	1.5 / 3.6	2.3 / 5.9	2.7 / 6.7	3.6 / 9.1	-	-	-	-	-
16	LL			62	127	137	225	263	421	-	-	-	-	-
	TL			79	165	179	295	345	514	-	-	-	-	-
	BRG			1.5 / 3	1.5 / 3	1.5 / 3	1.8 / 4.6	2.1 / 5.3	3.2 / 7.9	-	-	-	-	-
18	LL			90	97	160	187	301	301	-	-	-	-	-
	TL			116	125	208	244	395	395	-	-	-	-	-
	BRG			1.5 / 3	1.5 / 3	1.5 / 3.6	1.7 / 4.3	2.8 / 6.9	2.8 / 6.9	-	-	-	-	-
20	LL			66	71	117	137	222	222	-	-	-	-	-
	TL			84	91	151	178	290	290	-	-	-	-	-
	BRG			1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3.5	2.3 / 5.6	2.3 / 5.6	-	-	-	-	-
22	LL				54	89	104	168	168	-	-	-	-	-
	TL				67	113	133	218	218	-	-	-	-	-
	BRG				1.5 / 3	1.5 / 3	1.5 / 3	1.9 / 4.7	1.9 / 4.7	-	-	-	-	-
24	LL					68	80	130	130	-	-	-	-	-
	TL					86	102	168	168	-	-	-	-	-
	BRG					1.5 / 3	1.5 / 3	1.6 / 4	1.6 / 4	-	-	-	-	-
26	LL						63	103	103	-	-	-	-	-
	TL						79	131	131	-	-	-	-	-
	BRG						1.5 / 3	1.5 / 3.4	1.5 / 3.4	-	-	-	-	-
28	LL							83	83	-	-	-	-	-
	TL							104	104	-	-	-	-	-
	BRG							1.5 / 3	1.5 / 3	-	-	-	-	-
30	LL							68	68	-	-	-	-	-
	TL							84	84	-	-	-	-	-
	BRG							1.5 / 3	1.5 / 3	-	-	-	-	-

NOT APPLICABLE

2-PLY 1-3/4" 2.1E RIGIDLAM® LVL - 115% ROOF SNOW (PLF)

Span (ft.)	Depth	4-3/8"	5-1/2"	7-1/4"	9-1/4"	9-1/2"	11-1/4"	11-7/8"	14"	16"	18"	20"	22"	24"
6	LL	499	962	-	-	-	-	-	-	-	-	-	-	-
	TL	662	1,278	1,787	2,408	2,491	3,103	3,337	4,205	5,138	6,210	7,453	8,913	10,651
	BRG	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	5.9 / 14.7	7.1 / 17.8	8.5 / 21.3	10.2 / 25.5	12.2 / 30.5
8	LL	216	421	931	-	-	-	-	-	-	-	-	-	-
	TL	284	557	1,206	1,694	1,748	2,145	2,294	2,830	3,382	3,986	4,652	5,387	6,204
	BRG	1.5 / 3	1.5 / 3	1.8 / 4.6	2.6 / 6.5	2.7 / 6.7	3.3 / 8.2	3.5 / 8.8	4.3 / 10.8	5.2 / 12.9	6.1 / 15.2	7.1 / 17.8	8.2 / 20.6	9.5 / 23.7
10	LL	112	219	491	987	1,065	-	-	-	-	-	-	-	-
	TL	145	288	649	1,217	1,280	1,638	1,746	2,131	2,518	2,933	3,378	3,857	4,373
	BRG	1.5 / 3	1.5 / 3	1.5 / 3.1	2.3 / 5.8	2.5 / 6.1	3.1 / 7.8	3.3 / 8.4	4.1 / 10.2	4.8 / 12.1	5.6 / 14	6.5 / 16.2	7.4 / 18.5	8.4 / 20.9
12	LL	65	128	289	586	633	1,025	1,194	-	-	-	-	-	-
	TL	83	166	379	774	836	1,219	1,349	1,708	2,005	2,319	2,651	3,002	3,375
	BRG	1.5 / 3	1.5 / 3	1.5 / 3	1.8 / 4.5	1.9 / 4.8	2.8 / 7	3.1 / 7.8	3.9 / 9.8	4.6 / 11.5	5.3 / 13.3	6.1 / 15.2	6.9 / 17.3	7.8 / 19.4
14	LL		81	184	375	405	661	771	1,230	-	-	-	-	-
	TL		103	239	492	532	871	988	1,348	1,665	1,916	2,180	2,456	2,746
	BRG		1.5 / 3	1.5 / 3	1.5 / 3.3	1.5 / 3.6	2.3 / 5.9	2.7 / 6.7	3.6 / 9.1	4.5 / 11.2	5.2 / 12.9	5.9 / 14.6	6.6 / 16.5	7.4 / 18.4
16	LL		55	124	254	275	449	526	843	1,230	-	-	-	-
	TL		68	159	331	358	589	690	1,029	1,323	1,632	1,850	2,077	2,314
	BRG		1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.8 / 4.6	2.1 / 5.3	3.2 / 7.9	4.1 / 10.2	5 / 12.6	5.7 / 14.2	6.4 / 16	7.1 / 17.8
18	LL			87	180	194	319	373	602	882	1,230	-	-	-
	TL			110	231	251	416	488	790	1,043	1,302	1,588	1,799	1,998
	BRG			1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3.6	1.7 / 4.3	2.8 / 6.9	3.6 / 9.1	4.5 / 11.3	5.5 / 13.8	6.2 / 15.6	6.9 / 17.3
20	LL			64	132	142	234	275	444	652	913	1,230	-	-
	TL			79	167	182	303	356	579	842	1,052	1,283	1,536	1,758
	BRG			1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3.5	2.3 / 5.6	3.3 / 8.2	4.1 / 10.2	5 / 12.4	5.9 / 14.8	6.8 / 16.9
22	LL			99	107	177	208	336	496	696	940	1,230	-	-
	TL			124	135	226	266	436	647	866	1,057	1,266	1,492	
	BRG			1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.9 / 4.7	2.8 / 6.9	3.7 / 9.2	4.5 / 11.3	5.4 / 13.5	6.3 / 15.9	
24	LL			77	83	137	161	261	385	542	733	962	1,230	
	TL			94	102	173	204	335	499	707	886	1,061	1,250	
	BRG			1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.6 / 4	2.3 / 5.9	3.3 / 8.3	4.1 / 10.3	4.9 / 12.3	5.8 / 14.5	
26	LL			60	65	108	127	206	305	430	583	766	981	
	TL			73	79	134	159	263	393	557	752	901	1,062	
	BRG			1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3.4	2 / 5	2.8 / 7.1	3.8 / 9.5	4.6 / 11.4	5.4 / 13.4	
28	LL						87	102	166	245	346	470	619	795
	TL						106	125	209	313	446	610	774	913
	BRG						1.5 / 3	1.5 / 3	1.5 / 3	1.7 / 4.4	2.5 / 6.2	3.3 / 8.4	4.2 / 10.6	5 / 12.5
30	LL						71	83	135	200	283	385	508	652
	TL						84	100	168	253	362	496	658	793
	BRG						1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3.8	2.2 / 5.4	2.9 / 7.3	3.9 / 9.7	4.6 / 11.6

- The PLF load values in this table are based on the LVL member having lateral bracing at 24" O.C. or less along its entire length.
- 1-3/4" LVL members 16" and deeper and 1-1/2" LVL members 14" and deeper, must be a minimum of 2 plies unless designed by a design professional.
- Allowable PLF loads for single or multiple ply 1-1/2" thick LVL members can be obtained by multiplying the table values by 0.85. (Required bearing lengths are the same)
- This table may be used for either simple or multiple spans.
- Span is centerline of bearing to centerline of bearing.
- Loads shown can be applied to the beam in addition to its own weight.
- See pages 42 and 43 of the residential design guide for details on attaching multiple ply members.

Key to Table:
 LL = Maximum live load - limits deflection to L/240
 TL = Maximum total load - limits deflections to L/180
 BRG = Required end/interior bearing length (inches), based on bearing stress of 750 PSI.

PLF Charts Douglas-fir

3-PLY 1-3/4" 2.1E RIGIDLAM® LVL - 115% ROOF SNOW (PLF)

Span (ft.)	Depth	4-3/8"	5-1/2"	7-1/4"	9-1/4"	9-1/2"	11-1/4"	11-7/8"	14"	16"	18"	20"	22"	24"
10	LL	168	329	737	1,481	1,597	-	-	-	-	-	-	-	-
	TL	218	432	973	1,826	1,920	2,457	2,619	3,196	3,778	4,400	5,067	5,785	6,560
	BRG	1.5/3	1.5/3	1.5/3.1	2.3/5.8	2.5/6.1	3.1/7.8	3.3/8.4	4.1/10.2	4.8/12.1	5.6/14	6.5/16.2	7.4/18.5	8.4/20.9
12	LL	98	192	433	879	950	1,538	1,791	-	-	-	-	-	-
	TL	124	249	568	1,160	1,254	1,828	2,024	2,562	3,008	3,478	3,976	4,503	5,062
	BRG	1.5/3	1.5/3	1.5/3	1.8/4.5	1.9/4.8	2.8/7.7	3.1/7.8	3.9/9.8	4.6/11.5	5.3/13.3	6.1/15.2	6.9/17.3	7.8/19.4
14	LL	62	122	276	563	608	991	1,157	1,845	-	-	-	-	-
	TL	76	155	358	738	798	1,307	1,483	2,022	2,497	2,874	3,270	3,684	4,119
	BRG	1.5/3	1.5/3	1.5/3	1.5/3.3	1.5/3.6	2.3/5.9	2.7/6.7	3.6/9.1	4.5/11.2	5.2/12.9	5.9/14.6	6.6/16.5	7.4/18.4
16	LL		82	186	381	412	674	788	1,264	1,845	-	-	-	-
	TL		102	238	496	537	884	1,036	1,543	1,985	2,448	2,775	3,116	3,470
	BRG		1.5/3	1.5/3	1.5/3	1.5/3	1.8/4.6	2.1/5.3	3.2/7.9	4.1/10.2	5/12.6	5.7/14.2	6.4/16	7.1/17.8
18	LL		58	131	269	291	479	560	902	1,322	1,845	-	-	-
	TL		70	165	347	376	623	731	1,185	1,564	1,953	2,382	2,698	2,997
	BRG		1.5/3	1.5/3	1.5/3	1.5/3	1.5/3.6	1.7/4.3	2.8/6.9	3.6/9.1	4.5/11.3	5.5/13.8	6.2/15.6	6.9/17.3
20	LL			96	197	214	352	412	666	979	1,370	1,845	-	-
	TL			118	251	272	454	534	869	1,263	1,578	1,925	2,304	2,636
	BRG			1.5/3	1.5/3	1.5/3	1.5/3	1.5/3.5	2.3/5.6	3.3/8.2	4.1/10.2	5/12.4	5.9/14.8	6.8/16.9
22	LL			72	149	161	266	311	504	743	1,044	1,410	1,845	-
	TL			87	186	202	339	400	654	970	1,300	1,586	1,899	2,238
	BRG			1.5/3	1.5/3	1.5/3	1.5/3	1.5/3	1.9/4.7	2.8/6.9	3.7/9.2	4.5/11.3	5.4/13.5	6.3/15.9
24	LL				115	125	205	241	391	578	813	1,100	1,443	1,845
	TL				141	154	259	306	503	749	1,060	1,329	1,591	1,875
	BRG				1.5/3	1.5/3	1.5/3	1.5/3	1.6/4	2.3/5.9	3.3/8.3	4.1/10.3	4.9/12.3	5.8/14.5
26	LL				91	98	162	190	309	457	645	874	1,149	1,472
	TL				109	118	201	238	394	589	836	1,128	1,351	1,593
	BRG				1.5/3	1.5/3	1.5/3	1.5/3	1.5/3.4	2/5	2.8/7.1	3.8/9.5	4.6/11.4	5.4/13.4
28	LL				73	79	130	153	249	368	520	706	929	1,192
	TL				85	93	159	188	313	470	669	915	1,161	1,370
	BRG				1.5/3	1.5/3	1.5/3	1.5/3	1.5/3	1.7/4.4	2.5/6.2	3.3/8.4	4.2/10.6	5/12.5
30	LL					64	106	125	203	301	425	578	761	979
	TL					73	127	150	252	380	543	744	986	1,189
	BRG					1.5/3	1.5/3	1.5/3	1.5/3	1.5/3.8	2.2/5.4	2.9/7.3	3.9/9.7	4.6/11.6
32	LL						88	103	168	249	352	479	632	813
	TL						102	122	205	310	445	612	813	1,041
	BRG						1.5/3	1.5/3	1.5/3	1.5/3.4	1.9/4.8	2.6/6.5	3.4/8.6	4.4/10.9
34	LL						73	86	140	208	294	401	529	682
	TL						83	99	168	256	369	508	677	878
	BRG						1.5/3	1.5/3	1.5/3	1.5/3	1.7/4.2	2.3/5.8	3/7.6	3.9/9.8
36	LL							72	118	176	249	339	448	578
	TL							81	139	213	308	426	569	739
	BRG							1.5/3	1.5/3	1.5/3	1.5/3.8	2.1/5.2	2.7/6.8	3.5/8.8

4-PLY 1-3/4" 2.1E RIGIDLAM® LVL - 115% ROOF SNOW (PLF)

Span (ft.)	Depth	4-3/8"	5-1/2"	7-1/4"	9-1/4"	9-1/2"	11-1/4"	11-7/8"	14"	16"	18"	20"	22"	24"
10	LL	223	439	982	1,974	2,129	-	-	-	-	-	-	-	-
	TL	290	575	1,297	2,435	2,560	3,276	3,493	4,262	5,037	5,866	6,756	7,714	8,747
	BRG	1.5/3	1.5/3	1.5/3.1	2.3/5.8	2.5/6.1	3.1/7.8	3.3/8.4	4.1/10.2	4.8/12.1	5.6/14	6.5/16.2	7.4/18.5	8.4/20.9
12	LL	130	256	578	1,173	1,266	2,051	2,389	-	-	-	-	-	-
	TL	166	332	758	1,547	1,671	2,437	2,698	3,416	4,010	4,638	5,301	6,004	6,749
	BRG	1.5/3	1.5/3	1.5/3	1.8/4.5	1.9/4.8	2.8/7.7	3.1/7.8	3.9/9.8	4.6/11.5	5.3/13.3	6.1/15.2	6.9/17.3	7.8/19.4
14	LL	82	162	368	750	811	1,322	1,543	2,460	-	-	-	-	-
	TL	102	207	477	984	1,064	1,742	1,977	2,695	3,329	3,833	4,359	4,912	5,492
	BRG	1.5/3	1.5/3	1.5/3	1.5/3.3	1.5/3.6	2.3/5.9	2.7/6.7	3.6/9.1	4.5/11.2	5.2/12.9	5.9/14.6	6.6/16.5	7.4/18.4
16	LL		109	248	508	549	899	1,051	1,686	2,460	-	-	-	-
	TL		136	318	661	716	1,179	1,381	2,058	2,647	3,264	3,700	4,154	4,627
	BRG		1.5/3	1.5/3	1.5/3	1.5/3	1.8/4.6	2.1/5.3	3.2/7.9	4.1/10.2	5/12.6	5.7/14.2	6.4/16	7.1/17.8
18	LL		77	175	359	389	638	747	1,203	1,763	2,460	-	-	-
	TL		93	220	463	502	831	975	1,580	2,085	2,604	3,176	3,598	3,996
	BRG		1.5/3	1.5/3	1.5/3	1.5/3	1.5/3.6	1.7/4.3	2.8/6.9	3.6/9.1	4.5/11.3	5.5/13.8	6.2/15.6	6.9/17.3
20	LL				128	263	285	469	549	887	1,305	1,827	2,460	-
	TL				158	335	363	605	711	1,159	1,684	2,103	2,566	3,072
	BRG				1.5/3	1.5/3	1.5/3	1.5/3	1.5/3	1.5/3.5	2.3/5.6	3.3/8.2	4.1/10.2	5/12.4
22	LL					96	199	215	354	415	672	991	1,392	1,880
	TL					116	249	270	452	533	872	1,294	1,733	2,115
	BRG					1.5/3	1.5/3	1.5/3	1.5/3	1.5/3	1.9/4.7	2.8/6.9	3.7/9.2	4.5/11.3
24	LL						74	153	166	274	321	521	770	1,083
	TL						86	188	205	346	408	671	999	1,413
	BRG						1.5/3	1.5/3	1.5/3	1.5/3	1.6/4	2.3/5.9	3.3/8.3	4.1/10.3
26	LL							121	131	216	254	412	610	859
	TL							145	158	269	318	525	785	1,114
	BRG							1.5/3	1.5/3	1.5/3	1.5/3	1.5/3.4	2/5	2.8/7.1
28	LL								97	105	174	204	331	491
	TL								113	123	212	251	417	626
	BRG								1.5/3	1.5/3	1.5/3	1.5/3	1.5/3	1.7/4.4
30	LL									79	86	141	166	270
	TL									89	97	169	201	336
	BRG									1.5/3	1.5/3	1.5/3	1.5/3	1.5/3
32	LL										71	117	137	223
	TL										77	136	162	273
	BRG										1.5/3	1.5/3	1.5/3	1.5/3
34	LL											97	114	187
	TL											110	132	224
	BRG											1.5/3	1.5/3	1.5/3
36	LL												82	97
	TL												90	108
	BRG												1.5/3	1.5/3

Refer to notes on previous page

PLF Charts Douglas-fir

1-PLY 1-3/4" 2.1E RIGIDLAM® LVL - 125% ROOF NON-SNOW (PLF)														
Span (ft.)	Depth	4-3/8"	5-1/2"	7-1/4"	9-1/4"	9-1/2"	11-1/4"	11-7/8"	14"	16"	18"	20"	22"	24"
6	LL	250	481	-	-	-	-	-	-	-	-	-	-	-
	TL	331	639	971	1,309	1,354	1,687	1,814	2,286	-	-	-	-	-
	BRG	1.5 / 3	1.5 / 3.7	2.2 / 5.6	3 / 7.5	3.1 / 7.8	3.9 / 9.7	4.2 / 10.4	5.2 / 13.1	-	-	-	-	-
8	LL	108	211	466	921	-	-	-	-	-	-	-	-	-
	TL	142	278	618	921	951	1,166	1,247	1,538	-	-	-	-	-
	BRG	1.5 / 3	1.5 / 3	1.9 / 4.7	2.8 / 7	2.9 / 7.3	3.6 / 8.9	3.8 / 9.5	4.7 / 11.8	-	-	-	-	-
10	LL	56	110	246	494	532	854	-	-	-	-	-	-	-
	TL	73	144	324	654	696	891	950	1,159	-	-	-	-	-
	BRG	1.5 / 3	1.5 / 3	1.5 / 3.1	2.5 / 6.3	2.7 / 6.7	3.4 / 8.5	3.6 / 9.1	4.4 / 11.1	-	-	-	-	-
12	LL	-	64	144	293	317	513	597	-	-	-	-	-	-
	TL	-	83	189	387	418	663	734	929	-	-	-	-	-
	BRG	-	1.5 / 3	1.5 / 3	1.8 / 4.5	1.9 / 4.8	3.1 / 7.6	3.4 / 8.4	4.3 / 10.7	-	-	-	-	-
14	LL	-	-	92	188	203	330	386	615	-	-	-	-	-
	TL	-	-	119	246	266	436	509	733	-	-	-	-	-
	BRG	-	-	1.5 / 3	1.5 / 3.3	1.5 / 3.6	2.3 / 5.9	2.7 / 6.9	3.9 / 9.9	-	-	-	-	-
16	LL	-	-	62	127	137	225	263	421	-	-	-	-	-
	TL	-	-	79	165	179	295	345	556	-	-	-	-	-
	BRG	-	-	1.5 / 3	1.5 / 3	1.5 / 3	1.8 / 4.6	2.1 / 5.3	3.4 / 8.6	-	-	-	-	-
18	LL	-	-	90	97	97	160	187	301	-	-	-	-	-
	TL	-	-	116	125	125	208	244	395	-	-	-	-	-
	BRG	-	-	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3.6	1.7 / 4.3	2.8 / 6.9	-	-	-	-	-
20	LL	-	-	66	71	71	117	137	222	-	-	-	-	-
	TL	-	-	84	91	91	151	178	290	-	-	-	-	-
	BRG	-	-	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3.5	2.3 / 5.6	-	-	-	-	-
22	LL	-	-	-	-	54	89	104	168	-	-	-	-	-
	TL	-	-	-	-	67	113	133	218	-	-	-	-	-
	BRG	-	-	-	-	1.5 / 3	1.5 / 3	1.5 / 3	1.9 / 4.7	-	-	-	-	-
24	LL	-	-	-	-	-	68	80	130	-	-	-	-	-
	TL	-	-	-	-	-	86	102	168	-	-	-	-	-
	BRG	-	-	-	-	-	1.5 / 3	1.5 / 3	1.6 / 4	-	-	-	-	-
26	LL	-	-	-	-	-	-	63	103	-	-	-	-	-
	TL	-	-	-	-	-	-	79	131	-	-	-	-	-
	BRG	-	-	-	-	-	-	1.5 / 3	1.5 / 3.4	-	-	-	-	-
28	LL	-	-	-	-	-	-	-	83	-	-	-	-	-
	TL	-	-	-	-	-	-	-	104	-	-	-	-	-
	BRG	-	-	-	-	-	-	-	1.5 / 3	-	-	-	-	-
30	LL	-	-	-	-	-	-	-	68	-	-	-	-	-
	TL	-	-	-	-	-	-	-	84	-	-	-	-	-
	BRG	-	-	-	-	-	-	-	1.5 / 3	-	-	-	-	-
2-PLY 1-3/4" 2.1E RIGIDLAM® LVL - 125% ROOF NON-SNOW (PLF)														
Span (ft.)	Depth	4-3/8"	5-1/2"	7-1/4"	9-1/4"	9-1/2"	11-1/4"	11-7/8"	14"	16"	18"	20"	22"	24"
6	LL	499	962	-	-	-	-	-	-	-	-	-	-	-
	TL	662	1278	1,943	2,618	2,708	3,373	3,628	4,572	5,586	6,751	8,103	9,689	11,579
	BRG	1.5 / 3	1.5 / 3.7	2.2 / 5.6	3 / 7.5	3.1 / 7.8	3.9 / 9.7	4.2 / 10.4	5.2 / 13.1	6.4 / 16	7.7 / 19.3	9.3 / 23.2	11.1 / 27.7	13.3 / 33.1
8	LL	216	421	931	1,841	-	-	-	-	-	-	-	-	-
	TL	284	557	1,236	1,842	1,901	2,332	2,494	3,077	3,677	4,334	5,058	5,857	6,746
	BRG	1.5 / 3	1.5 / 3	1.9 / 4.7	2.8 / 7	2.9 / 7.3	3.6 / 8.9	3.8 / 9.5	4.7 / 11.8	5.6 / 14.1	6.6 / 16.6	7.7 / 19.3	9 / 22.4	10.3 / 25.8
10	LL	112	219	491	987	1,065	1,707	-	-	-	-	-	-	-
	TL	145	288	649	1,308	1,392	1,781	1,899	2,317	2,739	3,190	3,673	4,194	4,755
	BRG	1.5 / 3	1.5 / 3	1.5 / 3.1	2.5 / 6.3	2.7 / 6.7	3.4 / 8.5	3.6 / 9.1	4.4 / 11.1	5.2 / 13.1	6.1 / 15.3	7.7 / 17.6	8 / 20.1	9.1 / 22.7
12	LL	65	128	289	586	633	1,025	1,194	-	-	-	-	-	-
	TL	83	166	379	774	836	1,325	1,467	1,857	2,181	2,522	2,883	3,265	3,670
	BRG	1.5 / 3	1.5 / 3	1.5 / 3	1.8 / 4.5	1.9 / 4.8	3.1 / 7.6	3.4 / 8.4	4.3 / 10.7	5 / 12.5	5.8 / 14.5	6.6 / 16.6	7.5 / 18.8	8.4 / 21.1
14	LL	-	81	184	375	405	661	771	1,230	1,783	-	-	-	-
	TL	-	103	239	492	532	871	1,018	1,466	1,811	2,084	2,371	2,671	2,986
	BRG	-	1.5 / 3	1.5 / 3	1.5 / 3.3	1.5 / 3.6	2.3 / 5.9	2.7 / 6.9	3.9 / 9.9	4.9 / 12.2	5.6 / 14	6.4 / 15.9	7.2 / 17.9	8 / 20
16	LL	-	55	124	254	275	449	526	843	1,230	1,707	-	-	-
	TL	-	68	159	331	358	589	690	1,112	1,440	1,775	2,013	2,259	2,517
	BRG	-	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.8 / 4.6	2.1 / 5.3	3.4 / 8.6	4.4 / 11.1	5.5 / 13.6	6.2 / 15.5	6.9 / 17.4	7.7 / 19.3
18	LL	-	-	87	180	194	319	373	602	882	1,230	1,650	-	-
	TL	-	-	110	231	251	416	488	790	1,135	1,417	1,728	1,957	2,174
	BRG	-	-	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3.6	1.7 / 4.3	2.8 / 6.9	3.9 / 9.8	4.9 / 12.3	6 / 15	6.8 / 16.9	7.5 / 18.8
20	LL	-	-	64	132	142	234	275	444	652	913	1,230	1,605	-
	TL	-	-	79	167	182	303	356	579	856	1,145	1,396	1,671	1,912
	BRG	-	-	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3.5	2.3 / 5.6	3.3 / 8.3	4.4 / 11.1	5.4 / 13.5	6.4 / 16.1	7.4 / 18.4
22	LL	-	-	99	107	177	208	336	496	696	940	1,230	1,568	-
	TL	-	-	124	135	226	266	436	647	912	1,151	1,378	1,624	1,912
	BRG	-	-	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.9 / 4.7	2.8 / 6.9	3.9 / 9.7	4.9 / 12.2	5.9 / 14.6	6.9 / 17.2
24	LL	-	-	77	83	137	161	261	385	542	733	962	1,230	-
	TL	-	-	94	102	173	204	335	499	707	960	1,155	1,361	1,615
	BRG	-	-	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.6 / 4	2.3 / 5.9	3.3 / 8.3	4.5 / 11.2	5.4 / 13.4	6.3 / 15.8
26	LL	-	-	60	65	108	127	206	305	430	583	766	981	-
	TL	-	-	73	79	134	159	263	393	557	760	981	1,156	1,415
	BRG	-	-	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3.4	2 / 5	2.8 / 7.1	3.8 / 9.6	5 / 12.4	5.8 / 14.6	
28	LL	-	-	-	-	-	87	102	166	245	346	470	619	795
	TL	-	-	-	-	-	106	125	209	313	446	610	807	994
	BRG	-	-	-	-	-	1.5 / 3	1.5 / 3	1.5 / 3	1.7 / 4.4	2.5 / 6.2	3.3 / 8.4	4.4 / 11	5.4 / 13.5
30	LL	-	-	-	-	-	71	83	135	200	283	385	508	652
	TL	-	-	-	-	-	84	100	168	253	362	496	658	849
	BRG	-	-	-	-	-	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3.8	2.2 / 5.4	2.9 / 7.3	3.9 / 9.7	5 / 12.4

NOT APPLICABLE

- The PLF load values in this table are based on the LVL member having lateral bracing at 24" O.C. or less along its entire length.
- 1-3/4" LVL members 16" and deeper and 1-1/2" LVL members 14" and deeper, must be a minimum of 2 plies unless designed by a design professional.
- Allowable PLF loads for single or multiple ply 1-1/2" thick LVL members can be obtained by multiplying the table values by 0.85. (Required bearing lengths are the same)
- This table may be used for either simple or multiple spans.
- Span is centerline of bearing to centerline of bearing.
- Loads shown can be applied to the beam in addition to its own weight.
- See pages 42 and 43 of the residential design guide for details on attaching multiple ply members.

Key to Table: LL = Maximum live load - limits deflection to L/240 TL = Maximum total load - limits deflections to L/180 BRG = Required end/interior bearing length (inches), based on bearing stress of 750 PSI.



PLF Charts Douglas-fir

3-PLY 1-3/4" 2.1E RIGIDLAM® LVL - 125% ROOF NON-SNOW (PLF)

Span (ft.)	Depth	4-3/8"	5-1/2"	7-1/4"	9-1/4"	9-1/2"	11-1/4"	11-7/8"	14"	16"	18"	20"	22"	24"
10	LL	168	329	737	1,481	1,597	2,561	-	-	-	-	-	-	-
	TL	218	432	973	1,962	2,088	2,672	2,849	3,476	4,108	4,784	5,510	6,291	7,133
	BRG	1.5/3	1.5/3	1.5/3.1	2.5/6.3	2.7/6.7	3.4/8.5	3.6/9.1	4.4/11.1	5.2/13.1	6.1/15.3	7/17.6	8/20.1	9.1/22.7
12	LL	98	192	433	879	950	1,538	1,791	-	-	-	-	-	-
	TL	124	249	568	1,160	1,254	1,988	2,201	2,786	3,271	3,783	4,324	4,897	5,505
	BRG	1.5/3	1.5/3	1.5/3	1.8/4.5	1.9/4.8	3.1/7.6	3.4/8.4	4.3/10.7	5/12.5	5.8/14.5	6.6/16.6	7.5/18.8	8.4/21.1
14	LL	62	122	276	563	608	991	1,157	1,845	2,675	-	-	-	-
	TL	76	155	358	738	798	1,307	1,527	2,199	2,716	3,126	3,556	4,007	4,480
	BRG	1.5/3	1.5/3	1.5/3	1.5/3.3	1.5/3.6	2.3/5.9	2.7/6.9	3.9/9.9	4.9/12.2	5.6/14	6.4/15.9	7.2/17.9	8/20
16	LL		82	186	381	412	674	788	1,264	1,845	2,561	-	-	-
	TL		102	238	496	537	884	1,036	1,668	2,160	2,663	3,019	3,389	3,775
	BRG		1.5/3	1.5/3	1.5/3	1.5/3	1.8/4.6	2.1/5.3	3.4/8.6	4.4/11.1	5.5/13.6	6.2/15.5	6.9/17.4	7.7/19.3
18	LL		58	131	269	291	479	560	902	1,322	1,845	2,475	-	-
	TL		70	165	347	379	623	731	1,185	1,702	2,125	2,592	2,935	3,260
	BRG		1.5/3	1.5/3	1.5/3	1.5/3	1.5/3.6	1.7/4.3	2.8/6.9	3.9/9.8	4.9/12.3	6/15	6.8/16.9	7.5/18.8
20	LL			96	197	214	352	412	666	979	1,370	1,845	2,407	-
	TL			118	251	272	454	534	869	1,284	1,717	2,094	2,507	2,869
	BRG			1.5/3	1.5/3	1.5/3	1.5/3	1.5/3.5	2.3/5.6	3.3/8.3	4.4/11.1	5.4/13.5	6.4/16.1	7.4/18.4
22	LL			72	149	161	266	311	504	743	1,044	1,410	1,845	2,352
	TL			87	186	202	339	400	654	970	1,368	1,726	2,067	2,435
	BRG			1.5/3	1.5/3	1.5/3	1.5/3	1.5/3	1.9/4.7	2.8/6.9	3.9/9.7	4.9/12.2	5.9/14.6	6.9/17.2
24	LL				115	125	205	241	393	578	813	1,100	1,443	1,845
	TL				141	154	259	306	501	749	1,060	1,440	1,732	2,041
	BRG				1.5/3	1.5/3	1.5/3	1.5/3	1.6/4	2.3/5.9	3.3/8.3	4.5/11.2	5.4/13.4	6.3/15.8
26	LL				91	98	162	190	309	457	645	874	1,149	1,472
	TL				109	118	201	238	394	589	836	1,139	1,471	1,735
	BRG				1.5/3	1.5/3	1.5/3	1.5/3	1.5/3.4	2/5	2.8/7.1	3.8/9.6	5/12.4	5.8/14.6
28	LL				73	79	130	153	249	368	520	706	929	1,192
	TL				85	93	159	188	313	470	669	915	1,210	1,491
	BRG				1.5/3	1.5/3	1.5/3	1.5/3	1.5/3	1.7/4.4	2.5/6.2	3.3/8.4	4.4/11.1	5.4/13.5
30	LL					64	106	125	203	301	425	578	761	979
	TL					73	127	150	252	380	543	744	986	1,273
	BRG					1.5/3	1.5/3	1.5/3	1.5/3	1.5/3.8	2.2/5.4	2.9/7.3	3.9/9.7	5/12.4
32	LL						88	103	168	249	352	479	632	813
	TL						102	122	205	310	445	612	813	1,052
	BRG						1.5/3	1.5/3	1.5/3	1.5/3.4	1.9/4.8	2.6/6.4	3.4/8.6	4.4/11
34	LL						73	86	140	208	294	401	529	682
	TL						81	99	168	256	369	508	677	878
	BRG						1.5/3	1.5/3	1.5/3	1.5/3	1.7/4.2	2.3/5.8	3/7.6	3.9/9.8
36	LL							72	118	176	249	339	448	578
	TL							81	139	213	308	426	569	739
	BRG							1.5/3	1.5/3	1.5/3	1.5/3.8	2.1/5.2	2.7/6.8	3.5/8.8

4-PLY 1-3/4" 2.1E RIGIDLAM® LVL - 125% ROOF NON-SNOW (PLF)

Span (ft.)	Depth	4-3/8"	5-1/2"	7-1/4"	9-1/4"	9-1/2"	11-1/4"	11-7/8"	14"	16"	18"	20"	22"	24"
10	LL	223	439	982	1,974	2,129	3,415	-	-	-	-	-	-	-
	TL	290	575	1,297	2,616	2,784	3,563	3,798	4,635	5,477	6,379	7,347	8,388	9,511
	BRG	1.5/3	1.5/3	1.5/3.1	2.5/6.3	2.7/6.7	3.4/8.5	3.6/9.1	4.4/11.1	5.2/13.1	6.1/15.3	7/17.6	8/20.1	9.1/22.7
12	LL	130	256	578	1,173	1,266	2,051	2,389	-	-	-	-	-	-
	TL	166	332	758	1,547	1,671	2,651	2,935	3,715	4,361	5,044	5,765	6,529	7,340
	BRG	1.5/3	1.5/3	1.5/3	1.8/4.5	1.9/4.8	3.1/7.6	3.4/8.4	4.3/10.7	5/12.5	5.8/14.5	6.6/16.6	7.5/18.8	8.4/21.1
14	LL	82	162	368	750	811	1,322	1,543	2,460	3,567	-	-	-	-
	TL	102	207	477	984	1,064	1,742	2,036	2,932	3,621	4,169	4,741	5,342	5,973
	BRG	1.5/3	1.5/3	1.5/3	1.5/3.3	1.5/3.6	2.3/5.9	2.7/6.9	3.9/9.9	4.9/12.2	5.6/14	6.4/15.9	7.2/17.9	8/20
16	LL		109	248	508	549	899	1,051	1,686	2,460	3,415	-	-	-
	TL		136	318	661	716	1,179	1,381	2,223	2,879	3,551	4,025	4,519	5,033
	BRG		1.5/3	1.5/3	1.5/3	1.5/3	1.8/4.6	2.1/5.3	3.4/8.6	4.4/11.1	5.5/13.6	6.2/15.5	6.9/17.4	7.7/19.3
18	LL		77	175	359	389	638	747	1,203	1,763	2,460	3,300	-	-
	TL		93	220	463	502	831	975	1,580	2,269	2,833	3,456	3,914	4,347
	BRG		1.5/3	1.5/3	1.5/3	1.5/3	1.5/3.6	1.7/4.3	2.8/6.9	3.9/9.8	4.9/12.3	6/15	6.8/16.9	7.5/18.8
20	LL			128	263	285	469	549	887	1,305	1,827	2,460	3,209	-
	TL			158	335	363	605	711	1,159	1,712	2,289	2,792	3,342	3,825
	BRG			1.5/3	1.5/3	1.5/3	1.5/3	1.5/3.5	2.3/5.6	3.3/8.3	4.4/11.1	5.4/13.5	6.4/16.1	7.4/18.4
22	LL			96	199	215	354	415	672	991	1,392	1,880	2,460	3,136
	TL			116	249	270	452	533	872	1,294	1,824	2,302	2,755	3,247
	BRG			1.5/3	1.5/3	1.5/3	1.5/3	1.5/3	1.9/4.7	2.8/6.9	3.9/9.7	4.9/12.2	5.9/14.6	6.9/17.2
24	LL				74	153	166	274	321	521	770	1,083	1,467	1,924
	TL				86	188	205	346	408	671	999	1,413	1,921	2,309
	BRG				1.5/3	1.5/3	1.5/3	1.5/3	1.5/3	1.6/4	2.3/5.9	3.3/8.3	4.5/11.2	5.4/13.4
26	LL				121	131	216	254	412	610	859	1,166	1,532	1,963
	TL				145	158	269	318	525	785	1,114	1,519	1,962	2,313
	BRG				1.5/3	1.5/3	1.5/3	1.5/3	1.5/3.4	2/5	2.8/7.1	3.8/9.6	5/12.4	5.8/14.6
28	LL				97	105	174	204	331	491	693	941	1,239	1,590
	TL				113	123	212	251	417	626	892	1,219	1,613	1,989
	BRG				1.5/3	1.5/3	1.5/3	1.5/3	1.5/3	1.7/4.4	2.5/6.2	3.3/8.4	4.4/11.1	5.4/13.5
30	LL					79	86	141	166	270	401	566	770	1,015
	TL					89	97	169	201	336	506	724	992	1,315
	BRG					1.5/3	1.5/3	1.5/3	1.5/3	1.5/3	1.5/3.8	2.2/5.4	2.9/7.3	3.9/9.7
32	LL						71	117	137	223	331	469	638	842
	TL						77	136	162	273	414	593	816	1,084
	BRG						1.5/3	1.5/3	1.5/3	1.5/3	1.5/3.4	1.9/4.8	2.6/6.5	3.4/8.6
34	LL						97	114	187	277	392	534	706	909
	TL						110	132	224	342	491	677	903	1,170
	BRG						1.5/3	1.5/3	1.5/3	1.5/3	1.7/4.2	2.3/5.8	3/7.6	3.9/9.8
36	LL							82	97	158	234	331	452	597
	TL							90	108	186	284	410	568	758
	BRG							1.5/3	1.5/3	1.5/3	1.5/3	1.5/3.8	2.1/5.2	2.7/6.8

Refer to notes on previous page

