

# BOOZERBEAM™

## THE ORIGINAL 1.8E • 2400F<sub>b</sub>

The classic BOOZERBEAM™ is made of the finest materials available. Each is built with the dedicated skill of our craftsmen and quality inspected by the APA-The Engineered Wood Association. We feel the beauty strength and durability of a BOOZERBEAM™ is unequalled by any other engineered wood product.

- Quality inspected by the APA-The Engineered Wood Association
- Pound-for-pound stronger than steel I-beams.
- Available in architectural appearance grade for visually exposed applications. Absolutely beautiful!
- Less expensive than LVL & PSL.
- Exceptional value in cost vs. performance.
- Cambered to offset dead load deflection (optional).
- Individually wrapped with water resistant paper.
- Available in any length up to 52'.

**1.8E BOOZERBEAM**, is available in widths of 3 1/8" 5 1/8" 6 3/4" and 7" and depths that are compatible with I-joists, conventional framing and traditional glulam.



**HANDCRAFTED WITH PRIDE  
IN THE U.S.A.**



NORTH AMERICAN  
WHOLESALE LUMBER  
ASSOCIATION



Please contact your nearest **BOOZERBEAM** dealer for sizes available in your market.

# BOOZERBEAM HOLDS UP!



**2400Fb-1.8E-210Fv Southern Pine Glulam Roof Beams (lb/ft) – Snow Load**

Load Duration Factor = 1.15, Fbx = 2,400 psi, Fvx = 210 psi, Ex = 1,800,000 psi

Depth (in.)	SPAN (ft)																					
	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40	42	44	46	48	
3-1/8-INCH WIDTH																						
5-1/2	447	227	129	80	52	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
6-7/8	702	446	256	159	105	72	51	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
8-1/4	1013	646	445	278	184	127	91	67	---	---	---	---	---	---	---	---	---	---	---	---	---	---
9-1/4	1274	813	562	393	261	181	130	96	72	55	---	---	---	---	---	---	---	---	---	---	---	---
9-1/2	1344	857	593	427	283	197	141	104	79	60	---	---	---	---	---	---	---	---	---	---	---	---
9-5/8	1380	880	609	444	295	205	147	109	82	63	---	---	---	---	---	---	---	---	---	---	---	---
11	1786	1151	797	583	443	308	222	165	125	97	76	60	---	---	---	---	---	---	---	---	---	---
11-1/4	1839	1204	833	610	465	330	238	177	134	104	81	64	52	---	---	---	---	---	---	---	---	---
11-7/8	1975	1342	929	680	519	390	281	209	159	123	97	77	62	---	---	---	---	---	---	---	---	---
12-3/8	2088	1458	1009	739	564	442	319	238	181	140	110	88	71	57	---	---	---	---	---	---	---	---
13-3/4	2413	1784	1247	914	697	548	441	328	250	195	154	123	99	81	67	55	---	---	---	---	---	---
14	2475	1827	1293	947	723	569	459	347	265	206	163	130	105	86	71	59	---	---	---	---	---	---
15-1/8	2766	2023	1511	1107	845	665	536	440	336	262	207	166	135	110	91	76	63	53	---	---	---	---
16	3006	2183	1691	1239	946	745	601	494	399	311	247	198	161	132	109	91	76	64	54	---	---	---
16-1/2	3150	2277	1782	1318	1006	792	639	526	438	342	271	218	178	146	121	101	85	71	60	51	---	---
17-7/8	3568	2548	1980	1548	1182	931	752	619	517	436	347	280	228	188	156	131	110	93	79	68	58	---
18	3608	2573	1998	1570	1199	944	762	627	524	442	355	286	233	192	160	134	113	95	81	69	59	---

Notes:

- (1) For preliminary design use only. Final design should include a complete analysis, including bearing stresses and lateral stability.
- (2) Span = simply supported beam.
- (3) Maximum deflection = L/180 under total load. Other deflection limits may apply.
- (4) Service condition = dry.
- (5) Tabulated values represent total loads and have taken the dead weight of the beam (assumed 36 pcf) into account.
- (6) Sufficient bearing length shall be provided at supports
- (7) Maximum beam shear is located at a distance from the supports equal to the depth of the beam.
- (8) Upper-right areas limited by deflection; medium areas limited by bending strength; lower-left areas limited by shear strength.



**2400Fb-1.8E-210Fv Southern Pine Glulam Roof Beams (lbf/ft) – Snow Load**

Load Duration Factor = 1.15, Fbx = 2,400 psi, Fvx = 210 psi, Ex = 1,800,000 psi

Depth (in.)	SPAN (ft)																				
	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40	42	44	46	48
5-1/2	733	372	212	131	85	58	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
6-7/8	1152	731	420	261	172	118	84	61	---	---	---	---	---	---	---	---	---	---	---	---	---
8-1/4	1661	1059	730	456	302	209	149	110	82	62	---	---	---	---	---	---	---	---	---	---	---
9-1/4	2089	1333	922	645	428	297	213	157	119	91	70	55	---	---	---	---	---	---	---	---	---
9-1/2	2204	1406	973	700	465	323	232	171	129	99	77	60	---	---	---	---	---	---	---	---	---
9-5/8	2263	1444	999	728	484	336	242	178	135	103	80	63	---	---	---	---	---	---	---	---	---
11	2930	1888	1307	956	726	506	365	271	205	158	124	98	78	63	51	---	---	---	---	---	---
11-1/4	3017	1975	1367	1000	763	542	391	290	220	170	133	106	85	68	55	---	---	---	---	---	---
11-7/8	3240	2201	1524	1116	851	639	462	343	261	202	159	126	101	82	67	54	---	---	---	---	---
12-3/8	3424	2391	1656	1212	924	724	524	390	296	230	181	144	116	94	77	63	52	---	---	---	---
13-3/4	3957	2926	2046	1498	1143	899	722	538	411	319	252	202	163	133	109	90	75	62	52	---	---
14	4059	2996	2121	1554	1185	933	748	569	434	338	267	214	173	141	116	96	80	66	55	---	---
15-1/8	4536	3318	2477	1815	1385	1086	871	713	551	429	340	273	221	181	150	124	104	87	73	62	52
16	4930	3580	2774	2032	1550	1213	973	797	654	510	405	325	264	217	179	150	125	105	89	75	64
16-1/2	5165	3735	2923	2162	1646	1289	1034	847	705	561	445	358	291	239	198	165	139	117	99	84	71
17-7/8	5852	4179	3247	2539	1926	1508	1211	992	826	698	570	459	374	308	256	214	180	153	130	111	95
18	5918	4220	3277	2575	1953	1529	1227	1006	837	707	582	469	382	315	262	219	185	156	133	113	97
19-1/4	6605	4653	3589	2919	2228	1744	1401	1148	956	808	690	577	471	389	324	271	229	195	166	142	122
20-5/8	7434	5160	3949	3196	2550	1997	1604	1315	1096	926	792	684	583	482	402	338	286	243	208	179	154
22	8350	5704	4328	3485	2894	2267	1821	1493	1244	1052	900	777	677	589	492	414	351	299	257	221	191
23-3/8	9369	6289	4730	3788	3157	2553	2052	1682	1402	1186	1014	877	764	671	594	500	425	363	312	269	233
24-3/4	10509	6920	5155	4104	3408	2856	2295	1882	1570	1327	1136	982	856	752	666	593	508	434	374	323	281
26-1/8	11792	7603	5605	4436	3669	3126	2552	2093	1746	1477	1264	1093	953	838	741	660	591	515	443	384	334
27-1/2	13247	8343	6084	4784	3940	3347	2822	2315	1931	1634	1398	1209	1055	928	821	731	655	589	521	451	393
28-7/8	14912	9149	6593	5150	4222	3576	3101	2548	2126	1798	1540	1332	1162	1022	905	806	722	650	587	526	459

Notes:

- (1) For preliminary design use only. Final design should include a complete analysis, including bearing stresses and lateral stability.
- (2) Span = simply supported beam.
- (3) Maximum deflection = L/180 under total load. Other deflection limits may apply.
- (4) Service condition = dry.
- (5) Tabulated values represent total loads and have taken the dead weight of the beam (assumed 36 pcf) into account.
- (6) Sufficient bearing length shall be provided at supports
- (7) Maximum beam shear is located at a distance from the supports equal to the depth of the beam.
- (8) Upper-right areas limited by deflection; medium areas limited by bending strength; lower-left areas limited by shear strength.



**2400Fb-1.8E-210Fv Southern Pine Glulam Roof Beams (lbf/ft) – Snow Load**

Load Duration Factor = 1.15, Fbx = 2,400 psi, Fvx = 210 psi, Ex = 1,800,000 psi

Depth (in.)	SPAN (ft)																				
	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40	42	44	46	48
5-1/2	966	490	280	173	113	76	53	---	---	---	---	---	---	---	---	---	---	---	---	---	---
6-7/8	1517	963	553	344	226	156	110	80	59	---	---	---	---	---	---	---	---	---	---	---	---
8-1/4	2187	1395	961	600	397	275	197	144	108	82	63	---	---	---	---	---	---	---	---	---	---
9-1/4	2752	1756	1214	850	564	392	281	207	156	119	93	72	57	---	---	---	---	---	---	---	---
9-1/2	2903	1852	1281	921	612	425	305	226	170	130	101	79	62	---	---	---	---	---	---	---	---
9-5/8	2980	1901	1315	959	637	442	318	235	177	136	106	83	65	52	---	---	---	---	---	---	---
11	3858	2486	1721	1259	956	666	481	356	270	209	163	129	103	83	67	54	---	---	---	---	---
11-1/4	3973	2601	1800	1318	1004	713	515	382	290	224	176	139	111	90	73	59	---	---	---	---	---
11-7/8	4267	2899	2007	1469	1120	841	608	452	343	266	209	166	133	108	88	72	58	---	---	---	---
12-3/8	4509	3149	2181	1596	1215	950	690	513	390	303	238	190	153	124	101	83	68	56	---	---	---
13-3/4	5212	3854	2695	1973	1495	1169	938	709	541	421	332	266	215	175	144	119	99	82	68	57	---
14	5346	3945	2794	2044	1549	1211	972	749	572	445	351	281	228	186	153	126	105	87	73	61	51
15-1/8	5974	4370	3263	2378	1803	1410	1132	926	725	565	447	359	291	239	197	164	137	115	96	81	68
16	6494	4715	3652	2655	2013	1575	1264	1035	862	672	533	428	348	286	236	197	165	139	117	99	84
16-1/2	6803	4919	3849	2820	2138	1674	1343	1100	916	739	586	471	383	315	261	218	183	154	130	111	94
17-7/8	7708	5504	4277	3299	2502	1959	1572	1288	1073	906	750	604	493	406	337	282	238	201	171	146	125
18	7794	5559	4317	3345	2536	1986	1594	1306	1088	918	767	618	504	415	345	288	243	206	175	149	128
19-1/4	8699	6128	4727	3815	2893	2266	1819	1491	1242	1049	897	760	621	512	426	358	302	256	219	187	161
20-5/8	9791	6796	5201	4209	3312	2594	2084	1708	1423	1202	1028	888	768	635	529	445	376	320	274	236	203
22	10998	7513	5701	4590	3759	2945	2365	1939	1616	1366	1168	1009	880	772	648	545	462	394	338	291	252
23-3/8	12340	8284	6230	4989	4158	3317	2665	2185	1821	1540	1317	1138	992	872	771	659	559	478	410	354	307
24-3/4	13841	9115	6789	5406	4488	3710	2981	2445	2038	1724	1475	1275	1112	977	864	769	669	572	492	426	370
26-1/8	15531	10013	7383	5843	4832	4117	3315	2719	2267	1918	1641	1419	1238	1088	963	857	767	678	584	505	440
27-1/2	17448	10988	8013	6301	5189	4409	3666	3007	2508	2122	1816	1570	1370	1205	1066	949	850	765	686	595	518
28-7/8	19641	12050	8683	6782	5561	4710	4034	3310	2761	2336	2000	1729	1509	1327	1175	1047	937	843	762	692	604

Notes:

- (1) For preliminary design use only. Final design should include a complete analysis, including bearing stresses and lateral stability.
- (2) Span = simply supported beam.
- (3) Maximum deflection = L/180 under total load. Other deflection limits may apply.
- (4) Service condition = dry.
- (5) Tabulated values represent total loads and have taken the dead weight of the beam (assumed 36 pcf) into account.
- (6) Sufficient bearing length shall be provided at supports
- (7) Maximum beam shear is located at a distance from the supports equal to the depth of the beam.
- (8) Upper-right areas limited by deflection; medium areas limited by bending strength; lower-left areas limited by shear strength.



**2400Fb-1.8E-210Fv Southern Pine Glulam Roof Beams (lb/ft) – Snow Load**

Load Duration Factor = 1.15, Fbx = 2,400 psi, Fvx = 210 psi, Ex = 1,800,000 psi

Depth (in.)	SPAN (ft)																				
	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40	42	44	46	48
8-1/4	2836	1808	1246	778	515	356	255	187	140	106	81	63	---	---	---	---	---	---	---	---	---
9-1/4	3567	2276	1574	1101	731	508	364	269	202	155	120	94	74	58	---	---	---	---	---	---	---
9-1/2	3763	2401	1661	1194	793	551	396	292	220	169	131	103	81	64	51	---	---	---	---	---	---
9-5/8	3863	2465	1705	1243	826	574	412	305	230	176	137	107	85	67	53	---	---	---	---	---	---
11	5002	3223	2231	1629	1233	863	623	462	350	270	212	168	134	108	87	70	57	---	---	---	---
11-1/4	5150	3371	2334	1702	1289	925	668	495	376	290	228	180	144	116	94	76	62	50	---	---	---
11-7/8	5531	3758	2602	1893	1434	1091	788	586	445	345	271	215	173	140	114	93	76	62	50	---	---
12-3/8	5845	4082	2826	2053	1555	1215	894	665	506	392	309	246	198	160	131	107	88	72	59	---	---
13-3/4	6757	4996	3473	2524	1912	1496	1199	919	701	545	430	344	278	227	187	154	128	106	89	74	61
14	6930	5114	3598	2615	1981	1550	1243	972	741	577	455	365	295	241	198	164	136	113	95	79	66
15-1/8	7744	5665	4186	3043	2306	1804	1447	1185	940	732	580	465	378	309	255	212	177	149	125	105	89
16	8418	6112	4673	3397	2575	2015	1617	1324	1102	871	691	555	451	370	306	255	214	180	152	129	109
16-1/2	8819	6376	4963	3609	2736	2141	1718	1407	1171	958	760	611	497	408	338	282	237	200	169	143	122
17-7/8	9992	7134	5544	4221	3201	2506	2012	1648	1372	1159	973	784	639	526	437	366	308	261	222	189	162
18	10104	7206	5596	4279	3245	2541	2039	1670	1391	1175	994	801	653	538	447	374	315	267	227	194	166
19-1/4	11277	7944	6127	4881	3702	2899	2327	1907	1588	1342	1147	985	804	664	552	463	391	332	284	243	209
20-5/8	12692	8810	6742	5457	4238	3319	2666	2185	1820	1538	1315	1135	989	823	686	577	488	415	355	305	263
22	14256	9739	7390	5950	4809	3767	3026	2481	2067	1747	1494	1291	1125	988	839	707	599	511	438	377	326
23-3/8	15996	10738	8075	6467	5390	4243	3409	2795	2330	1970	1685	1456	1269	1115	986	854	725	619	532	459	398
24-3/4	17942	11815	8801	7007	5818	4746	3814	3127	2608	2205	1886	1630	1422	1249	1105	983	867	742	638	552	479
26-1/8	20132	12980	9570	7574	6263	5277	4241	3478	2901	2453	2099	1815	1583	1391	1231	1096	981	879	757	655	570
27-1/2	22617	14244	10387	8168	6727	5715	4690	3847	3209	2714	2323	2009	1752	1540	1364	1214	1087	978	883	771	671
28-7/8	25460	15620	11256	8792	7209	6106	5161	4234	3532	2988	2558	2212	1930	1697	1503	1338	1198	1078	975	884	783

Notes:

- (1) For preliminary design use only. Final design should include a complete analysis, including bearing stresses and lateral stability.
- (2) Span = simply supported beam.
- (3) Maximum deflection = L/180 under total load. Other deflection limits may apply.
- (4) Service condition = dry.
- (5) Tabulated values represent total loads and have taken the dead weight of the beam (assumed 36 pcf) into account.
- (6) Sufficient bearing length shall be provided at supports
- (7) Maximum beam shear is located at a distance from the supports equal to the depth of the beam.
- (8) Upper-right areas limited by deflection; medium areas limited by bending strength; lower-left areas limited by shear strength.



**2400Fb-1.8E-210Fv Southern Pine Glulam Floor Beams (lb/ft)**

Load Duration Factor = 1.0, Fbx = 2,400 psi, Fvx = 210 psi, Ex = 1,800,000 psi

Depth (in.)	SPAN (ft)																					
	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40	42	44	46	48	
5-1/2	278	140	79	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
6-7/8	546	277	158	97	63	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
8-1/4	880	481	276	171	113	77	54	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
9-1/4	1107	680	390	243	161	111	79	57	---	---	---	---	---	---	---	---	---	---	---	---	---	---
9-1/2	1168	737	423	264	174	120	86	62	---	---	---	---	---	---	---	---	---	---	---	---	---	---
9-5/8	1199	764	440	275	181	125	89	65	---	---	---	---	---	---	---	---	---	---	---	---	---	---
11	1552	1000	660	412	273	190	136	100	75	57	---	---	---	---	---	---	---	---	---	---	---	---
11-1/4	1598	1046	706	442	293	203	146	107	81	62	---	---	---	---	---	---	---	---	---	---	---	---
11-7/8	1717	1166	807	520	346	240	172	127	96	73	57	---	---	---	---	---	---	---	---	---	---	---
12-3/8	1814	1267	877	590	392	272	196	145	109	84	65	51	---	---	---	---	---	---	---	---	---	---
13-3/4	2097	1550	1083	793	540	376	271	201	152	118	92	73	58	---	---	---	---	---	---	---	---	---
14	2151	1587	1123	822	571	397	287	213	161	125	98	77	62	---	---	---	---	---	---	---	---	---
15-1/8	2404	1758	1312	961	721	503	364	270	205	159	125	99	80	65	53	---	---	---	---	---	---	---
16	2613	1897	1469	1076	821	597	432	321	245	190	149	119	96	78	64	52	---	---	---	---	---	---
16-1/2	2737	1978	1548	1145	873	656	475	353	269	209	165	132	106	86	71	58	---	---	---	---	---	---
17-7/8	3101	2214	1720	1345	1026	808	606	452	345	268	212	170	137	112	92	76	64	53	---	---	---	---
18	3136	2236	1736	1363	1041	819	619	461	352	274	217	173	140	115	94	78	65	54	---	---	---	---

Notes:

- (1) For preliminary design use only. Final design should include a complete analysis, including bearing stresses and lateral stability.
- (2) Span = simply supported beam.
- (3) Maximum deflection = L/360 under live load, based on live/total load = 0.8. Where additional stiffness is desired or for other live/total load ratios, design for deflection must be modified per requirements.
- (4) Service condition = dry.
- (5) Tabulated values represent total loads based on live/total load = 0.8 and have taken the dead weight of the beam (assumed 36 pcf) into account.
- (6) Sufficient bearing length shall be provided at supports
- (7) Maximum beam shear is located at a distance from the supports equal to the depth of the beam.
- (8) Upper-right areas limited by deflection; medium areas limited by bending strength; lower-left areas limited by shear strength.



**2400F-1.8E-210Fv Southern Pine Glulam Floor Beams (lb/ft)**

Load Duration Factor = 1.0, Fbx = 2,400 psi, Fvx = 210 psi, Ex = 1,800,000 psi

Depth (in.)	5-1/8-INCH WIDTH										SPAN (ft)										
	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40	42	44	46	48
5-1/2	456	230	130	79	51	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
6-7/8	895	454	259	160	104	71	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
8-1/4	1443	789	452	281	185	126	89	65	---	---	---	---	---	---	---	---	---	---	---	---	---
9-1/4	1815	1115	640	399	263	181	129	94	70	52	---	---	---	---	---	---	---	---	---	---	---
9-1/2	1915	1208	694	433	286	197	140	102	76	57	---	---	---	---	---	---	---	---	---	---	---
9-5/8	1966	1254	722	450	298	205	146	107	79	60	---	---	---	---	---	---	---	---	---	---	---
11	2546	1640	1082	676	449	311	223	164	123	94	72	56	---	---	---	---	---	---	---	---	---
11-1/4	2621	1715	1159	724	480	333	239	176	132	101	78	61	---	---	---	---	---	---	---	---	---
11-7/8	2815	1912	1323	854	567	394	283	209	157	120	93	73	58	---	---	---	---	---	---	---	---
12-3/8	2975	2077	1438	967	643	447	321	238	179	138	107	84	66	53	---	---	---	---	---	---	---
13-3/4	3439	2542	1777	1301	886	617	445	330	250	193	151	119	95	77	62	---	---	---	---	---	---
14	3527	2602	1842	1349	936	652	470	349	265	204	160	127	101	81	66	53	---	---	---	---	---
15-1/8	3942	2883	2152	1576	1183	825	596	443	337	261	205	163	131	106	86	70	58	---	---	---	---
16	4285	3110	2409	1765	1345	979	708	527	401	311	245	195	157	128	104	86	71	58	---	---	---
16-1/2	4489	3245	2539	1877	1429	1075	778	579	441	343	270	216	174	142	116	95	79	65	54	---	---
17-7/8	5086	3631	2821	2205	1672	1308	993	741	565	440	347	278	225	184	151	125	104	87	73	61	51
18	5143	3667	2847	2236	1695	1327	1015	757	578	449	355	284	230	188	155	128	107	89	74	62	52
19-1/4	5740	4043	3117	2535	1934	1514	1215	929	710	553	438	351	285	234	193	160	134	112	95	80	67
20-5/8	6461	4484	3430	2776	2214	1733	1392	1140	877	684	543	436	355	291	241	201	169	142	120	102	87
22	7257	4957	3760	3027	2513	1968	1580	1295	1068	834	662	533	434	357	297	248	209	176	150	128	109
23-3/8	8143	5465	4109	3290	2741	2216	1780	1459	1216	1005	798	643	525	433	360	301	254	215	183	157	134
24-3/4	9134	6014	4478	3565	2959	2480	1992	1633	1361	1150	951	768	627	517	431	362	306	260	222	190	163
26-1/8	10249	6607	4870	3853	3186	2714	2215	1816	1514	1280	1095	907	741	612	511	429	363	309	265	227	196
27-1/2	11515	7250	5286	4155	3421	2906	2450	2009	1675	1416	1211	1047	868	718	599	504	427	364	312	269	232
28-7/8	12962	7951	5728	4473	3667	3105	2691	2211	1844	1559	1334	1153	1006	835	698	588	499	426	365	315	273

Notes:

- (1) For preliminary design use only. Final design should include a complete analysis, including bearing stresses and lateral stability.
- (2) Span = simply supported beam.
- (3) Maximum deflection = L/180 under total load. Other deflection limits may apply.
- (4) Service condition = dry.
- (5) Tabulated values represent total loads and have taken the dead weight of the beam (assumed 36 pcf) into account.
- (6) Sufficient bearing length shall be provided at supports
- (7) Maximum beam shear is located at a distance from the supports equal to the depth of the beam.
- (8) Upper-right areas limited by deflection; medium areas limited by bending strength; lower-left areas limited by shear strength.



**2400F-1.8E-210Fv Southern Pine Glulam Floor Beams (lb/ft)**

Load Duration Factor = 1.0, F<sub>bx</sub> = 2,400 psi, F<sub>vx</sub> = 210 psi, E<sub>x</sub> = 1,800,000 psi

Depth (in.)	SPAN (ft)																					
	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40	42	44	46	48	
5-1/2	600	303	171	104	67	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
6-7/8	1178	598	341	210	137	93	65	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
8-1/4	1900	1039	595	370	243	167	118	85	62	---	---	---	---	---	---	---	---	---	---	---	---	---
9-1/4	2391	1468	843	525	347	239	170	124	92	69	52	---	---	---	---	---	---	---	---	---	---	---
9-1/2	2522	1592	914	570	376	260	185	135	100	75	57	---	---	---	---	---	---	---	---	---	---	---
9-5/8	2589	1651	951	593	392	270	193	141	105	79	60	---	---	---	---	---	---	---	---	---	---	---
11	3353	2159	1426	891	591	409	293	216	162	123	95	74	58	---	---	---	---	---	---	---	---	---
11-1/4	3452	2259	1526	954	633	439	315	232	174	133	103	80	62	---	---	---	---	---	---	---	---	---
11-7/8	3708	2518	1743	1124	747	518	372	275	207	159	123	96	76	60	---	---	---	---	---	---	---	---
12-3/8	3918	2736	1893	1274	847	588	423	313	236	181	141	111	88	70	55	---	---	---	---	---	---	---
13-3/4	4529	3348	2340	1713	1167	813	586	435	329	254	199	157	126	101	81	66	53	---	---	---	---	---
14	4646	3428	2426	1774	1232	859	620	460	349	269	211	167	133	107	87	70	57	---	---	---	---	---
15-1/8	5192	3797	2834	2065	1558	1087	785	584	444	344	270	215	172	140	114	93	76	62	51	---	---	---
16	5643	4097	3172	2306	1747	1290	933	694	529	410	323	257	207	168	138	113	93	77	63	52	---	---
16-1/2	5912	4274	3344	2449	1856	1416	1025	763	581	451	356	284	229	186	153	126	104	86	71	59	---	---
17-7/8	6699	4782	3715	2865	2172	1699	1308	976	744	579	458	366	297	242	199	165	137	114	96	80	67	---
18	6774	4830	3750	2904	2202	1723	1337	997	761	592	468	375	303	248	204	169	140	117	98	82	69	---
19-1/4	7560	5324	4106	3313	2512	1966	1578	1224	935	728	577	463	376	308	254	211	176	148	125	105	88	---
20-5/8	8509	5905	4518	3656	2876	2251	1807	1480	1155	901	715	574	467	384	318	265	222	187	158	134	114	---
22	9558	6528	4952	3987	3264	2556	2052	1681	1401	1099	872	702	572	471	391	327	275	232	197	168	143	---
23-3/8	10725	7198	5412	4333	3610	2879	2312	1895	1579	1323	1051	847	691	570	474	397	335	284	242	207	177	---
24-3/4	12030	7920	5898	4695	3897	3221	2587	2120	1767	1493	1253	1011	826	681	568	476	402	342	292	250	215	---
26-1/8	13499	8702	6414	5075	4196	3574	2877	2358	1966	1662	1421	1194	976	807	672	565	478	407	348	299	258	---
27-1/2	15166	9549	6961	5473	4506	3828	3182	2609	2175	1839	1573	1360	1144	946	789	664	563	480	411	354	306	---
28-7/8	17072	10472	7544	5891	4829	4090	3502	2871	2394	2025	1732	1498	1306	1100	919	774	657	561	481	415	359	---

Notes:

- (1) For preliminary design use only. Final design should include a complete analysis, including bearing stresses and lateral stability.
- (2) Span = simply supported beam.
- (3) Maximum deflection = L/180 under total load. Other deflection limits may apply.
- (4) Service condition = dry.
- (5) Tabulated values represent total loads and have taken the dead weight of the beam (assumed 36 pcf) into account.
- (6) Sufficient bearing length shall be provided at supports
- (7) Maximum beam shear is located at a distance from the supports equal to the depth of the beam.
- (8) Upper-right areas limited by deflection; medium areas limited by bending strength; lower-left areas limited by shear strength.





**2400F-1.8E-210Fv Southern Pine Glulam Floor Beams (lbf/ft)**

Load Duration Factor = 1.0, F<sub>bx</sub> = 2,400 psi, F<sub>vx</sub> = 210 psi, E<sub>x</sub> = 1,800,000 psi

Depth (in.)	SPAN (ft)																				
	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40	42	44	46	48
8-1/4	2463	1347	772	479	315	216	153	110	81	60	---	---	---	---	---	---	---	---	---	---	---
9-1/4	3099	1903	1093	681	449	310	220	160	119	89	67	51	---	---	---	---	---	---	---	---	---
9-1/2	3270	2063	1185	739	488	337	240	175	130	98	74	56	---	---	---	---	---	---	---	---	---
9-5/8	3356	2141	1233	769	508	351	250	182	136	102	78	59	---	---	---	---	---	---	---	---	---
11	4346	2799	1848	1155	766	531	380	280	210	160	123	96	75	58	---	---	---	---	---	---	---
11-1/4	4475	2929	1978	1237	820	569	408	300	226	172	133	104	81	63	---	---	---	---	---	---	---
11-7/8	4806	3264	2259	1457	968	672	483	356	268	206	159	125	98	78	61	---	---	---	---	---	---
12-3/8	5079	3546	2454	1652	1097	763	549	406	306	235	183	144	113	90	72	57	---	---	---	---	---
13-3/4	5871	4340	3016	2191	1513	1053	760	563	427	329	258	204	163	131	105	85	69	55	---	---	---
14	6022	4443	3125	2270	1598	1113	803	596	452	349	273	216	173	139	112	91	74	59	---	---	---
15-1/8	6730	4922	3636	2642	2001	1409	1018	757	575	445	350	278	224	181	147	120	98	80	66	53	---
16	7315	5310	4059	2950	2235	1672	1209	900	685	531	419	334	269	218	178	146	121	99	82	67	55
16-1/2	7664	5540	4311	3133	2374	1836	1329	989	754	585	461	368	297	242	198	163	135	111	92	76	63
17-7/8	8683	6199	4816	3666	2778	2174	1696	1265	965	751	593	475	385	314	258	214	178	148	124	104	86
18	8781	6261	4861	3716	2817	2204	1733	1292	986	767	606	486	393	321	264	219	182	152	127	106	89
19-1/4	9800	6902	5322	4239	3213	2515	2018	1586	1212	944	748	600	487	399	330	274	229	192	161	136	115
20-5/8	11030	7655	5856	4739	3679	2880	2312	1894	1497	1168	926	745	606	497	412	344	288	243	205	174	148
22	12390	8462	6420	5168	4176	3270	2625	2151	1791	1424	1131	910	742	610	507	424	356	301	256	218	186
23-3/8	13903	9331	7015	5617	4680	3683	2958	2424	2019	1706	1363	1099	896	739	614	515	434	368	313	268	230
24-3/4	15594	10267	7646	6086	5052	4120	3309	2712	2260	1910	1624	1311	1070	883	736	617	522	443	378	324	279
26-1/8	17499	11280	8314	6578	5439	4581	3680	3017	2515	2126	1818	1548	1265	1046	872	733	620	528	452	388	335
27-1/2	19659	12378	9024	7095	5841	4962	4070	3337	2782	2352	2012	1739	1482	1226	1023	861	730	622	533	459	397
28-7/8	22131	13574	9779	7637	6260	5301	4480	3673	3063	2590	2216	1915	1670	1426	1191	1003	851	727	624	538	466

Notes:

- (1) For preliminary design use only. Final design should include a complete analysis, including bearing stresses and lateral stability.
- (2) Span = simply supported beam.
- (3) Maximum deflection = L/180 under total load. Other deflection limits may apply.
- (4) Service condition = dry.
- (5) Tabulated values represent total loads and have taken the dead weight of the beam (assumed 36 pcf) into account.
- (6) Sufficient bearing length shall be provided at supports
- (7) Maximum beam shear is located at a distance from the supports equal to the depth of the beam.
- (8) Upper-right areas limited by deflection; medium areas limited by bending strength; lower-left areas limited by shear strength.



**2400Fb-1.8E-300Fv Southern Pine Glulam Roof Beams (lb/ft) – Snow Load**

Load Duration Factor = 1.15, Fbx = 2,400 psi, Fvx = 300 psi, Ex = 1,800,000 psi

Depth (in.)	SPAN (ft)																				
	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40	42	44	46	48
3-1/8-INCH WIDTH	447	227	129	80	52	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
5-1/2	702	446	256	159	105	72	51	---	---	---	---	---	---	---	---	---	---	---	---	---	---
6-7/8	1013	646	445	278	184	127	91	67	---	---	---	---	---	---	---	---	---	---	---	---	---
8-1/4	1274	813	562	393	261	181	130	96	72	55	---	---	---	---	---	---	---	---	---	---	---
9-1/4	1344	857	593	427	283	197	141	104	79	60	---	---	---	---	---	---	---	---	---	---	---
9-1/2	1380	880	609	444	295	205	147	109	82	63	---	---	---	---	---	---	---	---	---	---	---
10	1803	1151	797	583	443	308	222	165	125	97	76	60	---	---	---	---	---	---	---	---	---
11-1/4	1886	1204	833	610	465	330	238	177	134	104	81	64	52	---	---	---	---	---	---	---	---
11-7/8	2102	1342	929	680	519	390	281	209	159	123	97	77	62	---	---	---	---	---	---	---	---
12-3/8	2283	1458	1009	739	564	442	319	238	181	140	110	88	71	57	---	---	---	---	---	---	---
13-3/4	2820	1801	1247	914	697	548	441	328	250	195	154	123	99	81	67	55	---	---	---	---	---
14	2924	1867	1293	947	723	569	459	347	265	206	163	130	105	86	71	59	---	---	---	---	---
15-1/8	3414	2181	1511	1107	845	665	536	440	336	262	207	166	135	110	91	76	63	53	---	---	---
16	3821	2441	1691	1239	946	745	601	494	399	311	247	198	161	132	109	91	76	64	54	---	---
16-1/2	4064	2596	1799	1318	1006	792	639	526	438	342	271	218	178	146	121	101	85	71	60	51	---
17-7/8	4770	3048	2112	1548	1182	931	752	619	517	436	347	280	228	188	156	131	110	93	79	68	58
18	4838	3091	2142	1570	1199	944	762	627	524	442	355	286	233	192	160	134	113	95	81	69	59

Notes:

- (1) For preliminary design use only. Final design should include a complete analysis, including bearing stresses and lateral stability.
- (2) Span = simply supported beam.
- (3) Maximum deflection = L/180 under total load. Other deflection limits may apply.
- (4) Service condition = dry.
- (5) Tabulated values represent total loads and have taken the dead weight of the beam (assumed 36 pcf) into account.
- (6) Sufficient bearing length shall be provided at supports
- (7) Maximum beam shear is located at a distance from the supports equal to the depth of the beam.
- (8) Upper-right areas limited by deflection; lower-left areas limited by bending strength.



**2400Fb-1.8E-300Fv Southern Pine Glulam Roof Beams (lbf/ft) – Snow Load**

Load Duration Factor = 1.15, Fbx = 2,400 psi, Fvx = 300 psi, Ex = 1,800,000 psi

Depth (in.)	SPAN (ft)																				
	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40	42	44	46	48
5-1/2	733	372	212	131	85	58	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
6-7/8	1152	731	420	261	172	118	84	61	---	---	---	---	---	---	---	---	---	---	---	---	---
8-1/4	1661	1059	730	456	302	209	149	110	82	62	---	---	---	---	---	---	---	---	---	---	---
9-1/4	2089	1333	922	645	428	297	213	157	119	91	70	55	---	---	---	---	---	---	---	---	---
9-1/2	2204	1406	973	700	465	323	232	171	129	99	77	60	---	---	---	---	---	---	---	---	---
9-5/8	2263	1444	999	728	484	336	242	178	135	103	80	63	---	---	---	---	---	---	---	---	---
11	2957	1888	1307	956	726	506	365	271	205	158	124	98	78	63	51	---	---	---	---	---	---
11-1/4	3094	1975	1367	1000	763	542	391	290	220	170	133	106	85	68	55	---	---	---	---	---	---
11-7/8	3448	2201	1524	1116	851	639	462	343	261	202	159	126	101	82	67	54	---	---	---	---	---
12-3/8	3745	2391	1656	1212	924	724	524	390	296	230	181	144	116	94	77	63	52	---	---	---	---
13-3/4	4625	2954	2046	1498	1143	899	722	538	411	319	252	202	163	133	109	90	75	62	52	---	---
14	4795	3063	2121	1554	1185	933	748	569	434	338	267	214	173	141	116	96	80	66	55	---	---
15-1/8	5598	3576	2477	1815	1385	1086	871	713	551	429	340	273	221	181	150	124	104	87	73	62	52
16	6266	4003	2774	2032	1550	1213	973	797	654	510	405	325	264	217	179	150	125	105	89	75	64
16-1/2	6665	4258	2950	2162	1646	1289	1034	847	705	561	445	358	291	239	198	165	139	117	99	84	71
17-7/8	7824	4999	3464	2539	1926	1508	1211	992	826	698	570	459	374	308	256	214	180	153	130	111	95
18	7934	5069	3513	2575	1953	1529	1227	1006	837	707	582	469	382	315	262	219	185	156	133	113	97
19-1/4	9075	5799	4020	2937	2228	1744	1401	1148	956	808	690	577	471	389	324	271	229	195	166	142	122
20-5/8	10420	6659	4616	3362	2550	1997	1604	1315	1096	926	792	684	583	482	402	338	286	243	208	179	154
22	11858	7579	5242	3814	2894	2267	1821	1493	1244	1052	900	777	677	589	492	414	351	299	257	221	191
23-3/8	13388	8557	5902	4295	3259	2553	2052	1682	1402	1186	1014	877	764	671	594	500	425	363	312	269	233
24-3/4	15011	9596	6599	4803	3645	2856	2295	1882	1570	1327	1136	982	856	752	666	593	508	434	374	323	281
26-1/8	16727	10674	7335	5338	4052	3176	2552	2093	1746	1477	1264	1093	953	838	741	660	591	515	443	384	334
27-1/2	18536	11799	8108	5902	4480	3511	2822	2315	1931	1634	1398	1209	1055	928	821	731	655	589	521	451	393
28-7/8	20438	12978	8919	6493	4929	3864	3106	2548	2126	1798	1540	1332	1162	1022	905	806	722	650	587	526	459

Notes:

- (1) For preliminary design use only. Final design should include a complete analysis, including bearing stresses and lateral stability.
- (2) Span = simply supported beam.
- (3) Maximum deflection = L/180 under total load. Other deflection limits may apply.
- (4) Service condition = dry.
- (5) Tabulated values represent total loads and have taken the dead weight of the beam (assumed 36 pcf) into account.
- (6) Sufficient bearing length shall be provided at supports
- (7) Maximum beam shear is located at a distance from the supports equal to the depth of the beam.
- (8) Upper-right areas limited by deflection; lower-left areas limited by bending strength.



**2400Fb-1.8E-300Fv Southern Pine Glulam Roof Beams (lbf/ft) – Snow Load**

Load Duration Factor = 1.15, Fbx = 2,400 psi, Fvx = 300 psi, Ex = 1,800,000 psi

Depth (in.)	SPAN (ft)																				
	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40	42	44	46	48
5-1/2	966	490	280	173	113	76	53	---	---	---	---	---	---	---	---	---	---	---	---	---	---
6-7/8	1517	963	553	344	226	156	110	80	59	---	---	---	---	---	---	---	---	---	---	---	---
8-1/4	2187	1395	961	600	397	275	197	144	108	82	63	---	---	---	---	---	---	---	---	---	---
9-1/4	2752	1756	1214	850	564	392	281	207	156	119	93	72	57	---	---	---	---	---	---	---	---
9-1/2	2903	1852	1281	921	612	425	305	226	170	130	101	79	62	---	---	---	---	---	---	---	---
9-5/8	2980	1901	1315	959	637	442	318	235	177	136	106	83	65	52	---	---	---	---	---	---	---
11	3895	2486	1721	1259	956	666	481	356	270	209	163	129	103	83	67	54	---	---	---	---	---
11-1/4	4075	2601	1800	1318	1004	713	515	382	290	224	176	139	111	90	73	59	---	---	---	---	---
11-7/8	4541	2899	2007	1469	1120	841	608	452	343	266	209	166	133	108	88	72	58	---	---	---	---
12-3/8	4932	3149	2181	1596	1215	950	690	513	390	303	238	190	153	124	101	83	68	56	---	---	---
13-3/4	6092	3890	2695	1973	1495	1169	938	709	541	421	332	266	215	175	144	119	99	82	68	57	---
14	6316	4034	2794	2044	1549	1211	972	749	572	445	351	281	228	186	153	126	105	87	73	61	51
15-1/8	7374	4710	3263	2378	1803	1410	1132	926	725	565	447	359	291	239	197	164	137	115	96	81	68
16	8253	5272	3652	2655	2013	1575	1264	1035	862	672	533	428	348	286	236	197	165	139	117	99	84
16-1/2	8778	5608	3879	2820	2138	1674	1343	1100	916	739	586	471	383	315	261	218	183	154	130	111	94
17-7/8	10304	6584	4537	3299	2502	1959	1572	1288	1073	906	750	604	493	406	337	282	238	201	171	146	125
18	10449	6676	4599	3345	2536	1986	1594	1306	1088	918	767	618	504	415	345	288	243	206	175	149	128
19-1/4	11953	7636	5244	3815	2893	2266	1819	1491	1242	1049	897	760	621	512	426	358	302	256	219	187	161
20-5/8	13724	8738	6002	4366	3312	2594	2084	1708	1423	1202	1028	888	768	635	529	445	376	320	274	236	203
22	15617	9912	6809	4954	3759	2945	2365	1939	1616	1366	1168	1009	880	772	648	545	462	394	338	291	252
23-3/8	17633	11158	7666	5578	4233	3317	2665	2185	1821	1540	1317	1138	992	872	771	659	559	478	410	354	307
24-3/4	19737	12476	8572	6238	4734	3710	2981	2445	2038	1724	1475	1275	1112	977	864	769	669	572	492	426	370
26-1/8	21934	13866	9528	6934	5263	4125	3315	2719	2267	1918	1641	1419	1238	1088	963	857	767	678	584	505	440
27-1/2	24243	15327	10532	7666	5819	4561	3666	3007	2508	2122	1816	1570	1370	1205	1066	949	850	765	686	595	518
28-7/8	26666	16859	11586	8434	6402	5018	4034	3310	2761	2336	2000	1729	1509	1327	1175	1047	937	843	762	692	604

Notes:

- (1) For preliminary design use only. Final design should include a complete analysis, including bearing stresses and lateral stability.
- (2) Span = simply supported beam.
- (3) Maximum deflection = L/180 under total load. Other deflection limits may apply.
- (4) Service condition = dry.
- (5) Tabulated values represent total loads and have taken the dead weight of the beam (assumed 36 pcf) into account.
- (6) Sufficient bearing length shall be provided at supports
- (7) Maximum beam shear is located at a distance from the supports equal to the depth of the beam.
- (8) Upper-right areas limited by deflection; lower-left areas limited by bending strength.



**2400Fb-1.8E-300Fv Southern Pine Glulam Roof Beams (lb/ft) – Snow Load**

Load Duration Factor = 1.15, Fbx = 2,400 psi, Fvx = 300 psi, Ex = 1,800,000 psi

Depth (in.)	8-3/4-INCH WIDTH																	SPAN (ft)							
	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40	42	44	46	48				
8-1/4	2836	1808	1246	778	515	356	255	187	140	106	81	63	---	---	---	---	---	---	---	---	---				
9-1/4	3567	2276	1574	1101	731	508	364	269	202	155	120	94	74	58	---	---	---	---	---	---	---				
9-1/2	3763	2401	1661	1194	793	551	396	292	220	169	131	103	81	64	51	---	---	---	---	---	---				
9-5/8	3863	2465	1705	1243	826	574	412	305	230	176	137	107	85	67	53	---	---	---	---	---	---				
11	5049	3223	2231	1629	1233	863	623	462	350	270	212	168	134	108	87	70	57	---	---	---	---				
11-1/4	5282	3371	2334	1702	1289	925	668	495	376	290	228	180	144	116	94	76	62	50	---	---	---				
11-7/8	5886	3758	2602	1893	1434	1091	788	586	445	345	271	215	173	140	114	93	76	62	50	---	---				
12-3/8	6394	4082	2826	2053	1555	1215	894	665	506	392	309	246	198	160	131	107	88	72	59	---	---				
13-3/4	7897	5043	3473	2524	1912	1496	1199	919	701	545	430	344	278	227	187	154	128	106	89	74	61				
14	8187	5229	3598	2615	1981	1550	1243	972	741	577	455	365	295	241	198	164	136	113	95	79	66				
15-1/8	9558	6098	4186	3043	2306	1804	1447	1185	940	732	580	465	378	309	255	212	177	149	125	105	89				
16	10698	6807	4673	3397	2575	2015	1617	1324	1102	871	691	555	451	370	306	255	214	180	152	129	109				
16-1/2	11379	7229	4963	3609	2736	2141	1718	1407	1171	958	760	611	497	408	338	282	237	200	169	143	122				
17-7/8	13357	8453	5805	4221	3201	2506	2012	1648	1372	1159	973	784	639	526	437	366	308	261	222	189	162				
18	13545	8569	5884	4279	3245	2541	2039	1670	1391	1175	994	801	653	538	447	374	315	267	227	194	166				
19-1/4	15462	9770	6710	4881	3702	2899	2327	1907	1588	1342	1147	985	804	664	552	463	391	332	284	243	209				
20-5/8	17691	11180	7679	5587	4238	3319	2666	2185	1820	1538	1315	1135	989	823	686	577	488	415	355	305	263				
22	20067	12683	8712	6339	4809	3767	3026	2481	2067	1747	1494	1291	1125	988	839	707	599	511	438	377	326				
23-3/8	22588	14277	9809	7137	5416	4243	3409	2795	2330	1970	1685	1456	1269	1115	986	854	725	619	532	459	398				
24-3/4	25254	15964	10968	7982	6057	4746	3814	3127	2608	2205	1886	1630	1422	1249	1105	983	867	742	638	552	479				
26-1/8	28065	17742	12191	8872	6734	5277	4241	3478	2901	2453	2099	1815	1583	1391	1231	1096	981	879	757	655	570				
27-1/2	31021	19611	13476	9809	7445	5835	4690	3847	3209	2714	2323	2009	1752	1540	1364	1214	1087	978	883	771	671				
28-7/8	34120	21571	14824	10791	8192	6421	5161	4234	3532	2988	2558	2212	1930	1697	1503	1338	1198	1078	975	884	783				

Notes:

- (1) For preliminary design use only. Final design should include a complete analysis, including bearing stresses and lateral stability.
- (2) Span = simply supported beam.
- (3) Maximum deflection = L/180 under total load. Other deflection limits may apply.
- (4) Service condition = dry.
- (5) Tabulated values represent total loads and have taken the dead weight of the beam (assumed 36 pcf) into account.
- (6) Sufficient bearing length shall be provided at supports
- (7) Maximum beam shear is located at a distance from the supports equal to the depth of the beam.
- (8) Upper-right areas limited by deflection; lower-left areas limited by bending strength.



**2400Fb-1.8E-300Fv Southern Pine Glulam Floor Beams (lb/ft)**

Load Duration Factor = 1.0, Fbx = 2,400 psi, Fvx = 300 psi, Ex = 1,800,000 psi

Depth (in.)	SPAN (ft)																				
	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40	42	44	46	48
5-1/2	278	140	79	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
6-7/8	546	277	158	97	63	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
8-1/4	880	481	276	171	113	77	54	---	---	---	---	---	---	---	---	---	---	---	---	---	---
9-1/4	1107	680	390	243	161	111	79	57	---	---	---	---	---	---	---	---	---	---	---	---	---
9-1/2	1168	737	423	264	174	120	86	62	---	---	---	---	---	---	---	---	---	---	---	---	---
9-5/8	1199	764	440	275	181	125	89	65	---	---	---	---	---	---	---	---	---	---	---	---	---
11	1567	1000	660	412	273	190	136	100	75	57	---	---	---	---	---	---	---	---	---	---	---
11-1/4	1639	1046	706	442	293	203	146	107	81	62	---	---	---	---	---	---	---	---	---	---	---
11-7/8	1827	1166	807	520	346	240	172	127	96	73	57	---	---	---	---	---	---	---	---	---	---
12-3/8	1984	1267	877	590	392	272	196	145	109	84	65	51	---	---	---	---	---	---	---	---	---
13-3/4	2451	1565	1083	793	540	376	271	201	152	118	92	73	58	---	---	---	---	---	---	---	---
14	2541	1622	1123	822	571	397	287	213	161	125	98	77	62	---	---	---	---	---	---	---	---
15-1/8	2967	1895	1312	961	721	503	364	270	205	159	125	99	80	65	53	---	---	---	---	---	---
16	3321	2121	1469	1076	821	597	432	321	245	190	149	119	96	78	64	52	---	---	---	---	---
16-1/2	3532	2256	1563	1145	873	656	475	353	269	209	165	132	106	86	71	58	---	---	---	---	---
17-7/8	4146	2649	1835	1345	1026	808	606	452	345	268	212	170	137	112	92	76	64	53	---	---	---
18	4205	2686	1861	1363	1041	819	619	461	352	274	217	173	140	115	94	78	65	54	---	---	---

Notes:

- (1) For preliminary design use only. Final design should include a complete analysis, including bearing stresses and lateral stability.
- (2) Span = simply supported beam.
- (3) Maximum deflection = L/360 under live load, based on live/total load = 0.8. Where additional stiffness is desired or for other live/total load ratios, design for deflection must be modified per requirements.
- (4) Service condition = dry.
- (5) Tabulated values represent total loads based on live/total load = 0.8 and have taken the dead weight of the beam (assumed 36 pcf) into account.
- (6) Sufficient bearing length shall be provided at supports
- (7) Maximum beam shear is located at a distance from the supports equal to the depth of the beam.
- (8) Upper-right areas limited by deflection; lower-left areas limited by bending strength.



**2400F-1.8E-300Fv Southern Pine Glulam Floor Beams (lb/ft)**

Load Duration Factor = 1.0, Fbx = 2,400 psi, Fvx = 300 psi, Ex = 1,800,000 psi

Depth (in.)	SPAN (ft)																				
	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40	42	44	46	48
5-1/2	456	230	130	79	51	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
6-7/8	895	454	259	160	104	71	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
8-1/4	1443	789	452	281	185	126	89	65	---	---	---	---	---	---	---	---	---	---	---	---	---
9-1/4	1815	1115	640	399	263	181	129	94	70	52	---	---	---	---	---	---	---	---	---	---	---
9-1/2	1915	1208	694	433	286	197	140	102	76	57	---	---	---	---	---	---	---	---	---	---	---
9-5/8	1966	1254	722	450	298	205	146	107	79	60	---	---	---	---	---	---	---	---	---	---	---
11	2570	1640	1082	676	449	311	223	164	123	94	72	56	---	---	---	---	---	---	---	---	---
11-1/4	2688	1715	1159	724	480	333	239	176	132	101	78	61	---	---	---	---	---	---	---	---	---
11-7/8	2996	1912	1323	854	567	394	283	209	157	120	93	73	58	---	---	---	---	---	---	---	---
12-3/8	3254	2077	1438	967	643	447	321	238	179	138	107	84	66	53	---	---	---	---	---	---	---
13-3/4	4020	2566	1777	1301	886	617	445	330	250	193	151	119	95	77	62	---	---	---	---	---	---
14	4167	2661	1842	1349	936	652	470	349	265	204	160	127	101	81	66	53	---	---	---	---	---
15-1/8	4866	3107	2152	1576	1183	825	596	443	337	261	205	163	131	106	86	70	58	---	---	---	---
16	5446	3478	2409	1765	1345	979	708	527	401	311	245	195	157	128	104	86	71	58	---	---	---
16-1/2	5793	3700	2563	1877	1429	1075	778	579	441	343	270	216	174	142	116	95	79	65	54	---	---
17-7/8	6800	4344	3010	2205	1672	1308	993	741	565	440	347	278	225	184	151	125	104	87	73	61	51
18	6896	4405	3052	2236	1695	1327	1015	757	578	449	355	284	230	188	155	128	107	89	74	62	52
19-1/4	7888	5040	3492	2551	1934	1514	1215	929	710	553	438	351	285	234	193	160	134	112	95	80	67
20-5/8	9057	5787	4011	2920	2214	1733	1392	1140	877	684	543	436	355	291	241	201	169	142	120	102	87
22	10307	6586	4555	3313	2513	1968	1580	1295	1068	834	662	533	434	357	297	248	209	176	150	128	109
23-3/8	11638	7437	5128	3730	2830	2216	1780	1459	1216	1005	798	643	525	433	360	301	254	215	183	157	134
24-3/4	13049	8340	5734	4172	3165	2480	1992	1633	1361	1150	951	768	627	517	431	362	306	260	222	190	163
26-1/8	14541	9277	6374	4638	3519	2757	2215	1816	1514	1280	1095	907	741	612	511	429	363	309	265	227	196
27-1/2	16114	10255	7046	5127	3891	3049	2450	2009	1675	1416	1211	1047	868	718	599	504	427	364	312	269	232
28-7/8	17767	11281	7751	5641	4281	3355	2696	2211	1844	1559	1334	1153	1006	835	698	588	499	426	365	315	273

Notes:

- (1) For preliminary design use only. Final design should include a complete analysis, including bearing stresses and lateral stability.
- (2) Span = simply supported beam.
- (3) Maximum deflection = L/180 under total load. Other deflection limits may apply.
- (4) Service condition = dry.
- (5) Tabulated values represent total loads and have taken the dead weight of the beam (assumed 36 pcf) into account.
- (6) Sufficient bearing length shall be provided at supports
- (7) Maximum beam shear is located at a distance from the supports equal to the depth of the beam.
- (8) Upper-right areas limited by deflection; lower-left areas limited by bending strength.



**2400F-1.8E-300Fv Southern Pine Glulam Floor Beams (lb/ft)**

Load Duration Factor = 1.0, Fbx = 2,400 psi, Fvx = 300 psi, Ex = 1,800,000 psi

Depth (in.)	SPAN (ft)																				
	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40	42	44	46	48
5-1/2	600	303	171	104	67	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
6-7/8	1178	598	341	210	137	93	65	---	---	---	---	---	---	---	---	---	---	---	---	---	---
8-1/4	1900	1039	595	370	243	167	118	85	62	---	---	---	---	---	---	---	---	---	---	---	---
9-1/4	2391	1468	843	525	347	239	170	124	92	69	52	---	---	---	---	---	---	---	---	---	---
9-1/2	2522	1592	914	570	376	260	185	135	100	75	57	---	---	---	---	---	---	---	---	---	---
9-5/8	2589	1651	951	593	392	270	193	141	105	79	60	---	---	---	---	---	---	---	---	---	---
11	3385	2159	1426	891	591	409	293	216	162	123	95	74	58	---	---	---	---	---	---	---	---
11-1/4	3541	2259	1526	954	633	439	315	232	174	133	103	80	62	---	---	---	---	---	---	---	---
11-7/8	3946	2518	1743	1124	747	518	372	275	207	159	123	96	76	60	---	---	---	---	---	---	---
12-3/8	4286	2736	1893	1274	847	588	423	313	236	181	141	111	88	70	55	---	---	---	---	---	---
13-3/4	5294	3380	2340	1713	1167	813	586	435	329	254	199	157	126	101	81	66	53	---	---	---	---
14	5489	3504	2426	1774	1232	859	620	460	349	269	211	167	133	107	87	70	57	---	---	---	---
15-1/8	6409	4092	2834	2065	1558	1087	785	584	444	344	270	215	172	140	114	93	76	62	51	---	---
16	7173	4581	3172	2306	1747	1290	933	694	529	410	323	257	207	168	138	113	93	77	63	52	---
16-1/2	7629	4873	3369	2449	1856	1416	1025	763	581	451	356	284	229	186	153	126	104	86	71	59	---
17-7/8	8956	5721	3941	2865	2172	1699	1308	976	744	579	458	366	297	242	199	165	137	114	96	80	67
18	9082	5802	3995	2904	2202	1723	1337	997	761	592	468	375	303	248	204	169	140	117	98	82	69
19-1/4	10390	6636	4556	3313	2512	1966	1578	1224	935	728	577	463	376	308	254	211	176	148	125	105	88
20-5/8	11929	7594	5215	3792	2876	2251	1807	1480	1155	901	715	574	467	384	318	265	222	187	158	134	114
22	13575	8614	5916	4303	3264	2556	2052	1681	1401	1099	872	702	572	471	391	327	275	232	197	168	143
23-3/8	15328	9698	6661	4846	3676	2879	2312	1895	1579	1323	1051	847	691	570	474	397	335	284	242	207	177
24-3/4	17157	10843	7449	5419	4111	3221	2587	2120	1767	1493	1253	1011	826	681	568	476	402	342	292	250	215
26-1/8	19067	12051	8279	6024	4571	3581	2877	2358	1966	1662	1421	1194	976	807	672	565	478	407	348	299	258
27-1/2	21075	13321	9153	6660	5054	3960	3182	2609	2175	1839	1573	1360	1144	946	789	664	563	480	411	354	306
28-7/8	23181	14653	10068	7327	5561	4358	3502	2871	2394	2025	1732	1498	1306	1100	919	774	657	561	481	415	359

Notes:

- (1) For preliminary design use only. Final design should include a complete analysis, including bearing stresses and lateral stability.
- (2) Span = simply supported beam.
- (3) Maximum deflection = L/180 under total load. Other deflection limits may apply.
- (4) Service condition = dry.
- (5) Tabulated values represent total loads and have taken the dead weight of the beam (assumed 36 pcf) into account.
- (6) Sufficient bearing length shall be provided at supports
- (7) Maximum beam shear is located at a distance from the supports equal to the depth of the beam.
- (8) Upper-right areas limited by deflection; lower-left areas limited by bending strength.





**2400F-1.8E-300Fv Southern Pine Glulam Floor Beams (lbf/ft)**

Load Duration Factor = 1.0, F<sub>bx</sub> = 2,400 psi, F<sub>vx</sub> = 300 psi, E<sub>x</sub> = 1,800,000 psi

Depth (in.)	SPAN (ft)																				
	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40	42	44	46	48
8-1/4	2463	1347	772	479	315	216	153	110	81	60	---	---	---	---	---	---	---	---	---	---	---
9-1/4	3099	1903	1093	681	449	310	220	160	119	89	67	51	---	---	---	---	---	---	---	---	---
9-1/2	3270	2063	1185	739	488	337	240	175	130	98	74	56	---	---	---	---	---	---	---	---	---
9-5/8	3356	2141	1233	769	508	351	250	182	136	102	78	59	---	---	---	---	---	---	---	---	---
11	4387	2799	1848	1155	766	531	380	280	210	160	123	96	75	58	---	---	---	---	---	---	---
11-1/4	4590	2929	1978	1237	820	569	408	300	226	172	133	104	81	63	---	---	---	---	---	---	---
11-7/8	5115	3264	2259	1457	968	672	483	356	268	206	159	125	98	78	61	---	---	---	---	---	---
12-3/8	5556	3546	2454	1652	1097	763	549	406	306	235	183	144	113	90	72	57	---	---	---	---	---
13-3/4	6863	4381	3016	2191	1513	1053	760	563	427	329	258	204	163	131	105	85	69	55	---	---	---
14	7115	4543	3125	2270	1598	1113	803	596	452	349	273	216	173	139	112	91	74	59	---	---	---
15-1/8	8307	5298	3636	2642	2001	1409	1018	757	575	445	350	278	224	181	147	120	98	80	66	53	---
16	9298	5914	4059	2950	2235	1672	1209	900	685	531	419	334	269	218	178	146	121	99	82	67	55
16-1/2	9890	6281	4311	3133	2374	1836	1329	989	754	585	461	368	297	242	198	163	135	111	92	76	63
17-7/8	11610	7345	5042	3666	2778	2174	1696	1265	965	751	593	475	385	314	258	214	178	148	124	104	86
18	11773	7446	5112	3716	2817	2204	1733	1292	986	767	606	486	393	321	264	219	182	152	127	106	89
19-1/4	13439	8490	5829	4239	3213	2515	2018	1586	1212	944	748	600	487	399	330	274	229	192	161	136	115
20-5/8	15378	9716	6672	4852	3679	2880	2312	1894	1497	1168	926	745	606	497	412	344	288	243	205	174	148
22	17443	11022	7570	5506	4176	3270	2625	2151	1791	1424	1131	910	742	610	507	424	356	301	256	218	186
23-3/8	19635	12408	8523	6200	4703	3683	2958	2424	2019	1706	1363	1099	896	739	614	515	434	368	313	268	230
24-3/4	21953	13874	9531	6934	5260	4120	3309	2712	2260	1910	1624	1311	1070	883	736	617	522	443	378	324	279
26-1/8	24397	15420	10593	7708	5848	4581	3680	3017	2515	2126	1818	1548	1265	1046	872	733	620	528	452	388	335
27-1/2	26967	17045	11711	8521	6466	5066	4070	3337	2782	2352	2012	1739	1482	1226	1023	861	730	622	533	459	397
28-7/8	29661	18749	12883	9375	7115	5575	4480	3673	3063	2590	2216	1915	1670	1426	1191	1003	851	727	624	538	466

Notes:

- (1) For preliminary design use only. Final design should include a complete analysis, including bearing stresses and lateral stability.
- (2) Span = simply supported beam.
- (3) Maximum deflection = L/180 under total load. Other deflection limits may apply.
- (4) Service condition = dry.
- (5) Tabulated values represent total loads and have taken the dead weight of the beam (assumed 36 pcf) into account.
- (6) Sufficient bearing length shall be provided at supports
- (7) Maximum beam shear is located at a distance from the supports equal to the depth of the beam.
- (8) Upper-right areas limited by deflection; lower-left areas limited by bending strength.

# BOOZERBEAM™

## INSTALLATION AND STORAGE REQUIREMENTS AND USE MEASURES APPLICABLE TO ALL BOOZER PRODUCTS.

(Revised as of January 18, 2019)

Specific use, storage and installation requirements and instructions applicable to all Boozer products, including but not limited to Boozer Glued Laminated Timber Beams, Treated Beams, Columns, Joists, and Headers (the “Product”) may be found at <http://boozer-beam.com/products/>. The following precautions should be taken both when handling any BoozerBeam™ Product and in determining where to use and dispose of the Product. These requirements and instructions are provided as part of and incorporated by reference into Boozer’s Limited Warranty.

- The Product should not be exposed to the elements (sun, rain, snow, water, moisture, excessive heat, excessive cold, etc.), other than very short periods prior to installation.
- The Product should not be used in direct water or marine applications, below grade, or in applications in which the Product is in direct contact with the soil. Columns may be installed on concrete if a installed onto a metal plate that separates the columns from the concrete.
- The Product should not be used where it will be in frequent or prolonged contact with bare skin, unless an effective sealer has been applied.
- The Product is not suitable for food garden uses.
- All shipping containers, plastic, or other wrapping applied during shipment should be removed from the Product prior to installation.
- Do not use the Product for cutting-boards or countertops.
- For all interior applications, the purchaser is responsible for ensuring that the installation of a treated product complies with all applicable indoor air quality standards (IAQs) as prescribed by the federal or applicable state or local regulatory authority.
- Dispose of the Product by ordinary trash collection or burial. Treated wood should not be burned in open fires or in stoves, fireplaces, or residential boilers because toxic chemicals may be produced as part of the smoke and ashes. Treated wood from commercial or industrial use (e.g., construction sites) may be burned only in commercial or industrial incinerators or boilers in accordance with state and federal regulations.
- Avoid frequent or prolonged inhalation of sawdust from the Product. When sawing and machining treated wood, wear a dust mask. Whenever possible, these operations should be performed outdoors to avoid indoor accumulations of airborne sawdust from treated wood.
- When power sawing and machining, wear goggles to protect eyes from flying particles.
- After working with the Product, and before eating, drinking, and use of tobacco products, wash all exposed skin areas thoroughly and completely.
- If oily preservatives or Product sawdust accumulate on clothes, launder before reuse of the clothes. Work clothes exposed to the Product or its sawdust or preservatives should be washed separately from other clothing.
- While in storage, the Product should be kept dry and under cover and not be exposed to standing water or marine conditions.
- It is the purchaser and intended user of the Product’s sole responsibility to install the Product correctly and to select the proper-sized Product for its/his/her intended use.
- When storing a Product for any extended amount of time, the Product should be stored on its down-side, with gravity acting on the Product as it would in its eventual installation.
- All Products should be installed with the standard, as-designed orientation (e.g., for Beams, with the narrow side down). For Products with a specific or designated orientation instruction (which should appear on the Product), that instruction should be strictly followed.

# BOOZERBEAM™

## LIMITED WARRANTY

(Revised as of January 18, 2019)

1. **LIMITED WARRANTY COVERAGE:** Boozer Laminated Beam Company, Inc. (“Boozer”) warrants (for installation within the U.S.) to the purchaser and all transferees prior to and including the first owner of the structure to which the Product (as hereafter defined) is properly installed (each a “Covered Person”) that each Product sold by Boozer, including but not limited to Boozer Glued Laminated Timber Beams, Treated Beams, Columns, Joists, and Headers (the “Product”), when manufactured is free from defects in material and manufacture and, when used for its intended purpose and in accordance with Boozer’s installation and use requirements, will perform in accordance with the published Product specifications. This Limited Warranty only covers defects and failures of the Product that result in structural failure of the Product. If the Product is defective in material or manufacture (when used for its intended purpose and in accordance with Boozer’s installation and use requirements), Boozer will replace the Product with a non-defective Product (or equivalent product, if the Product is no longer available) at no charge. Boozer’s replacement of the defective Product pursuant to this Section 1 of this Limited Warranty SHALL BE THE SOLE AND EXCLUSIVE REMEDY available to the Covered Person with respect to defects in material or manufacture or any performance of the Product that is not in accordance with relevant specifications. Boozer will not refund or pay any costs in connection with labor or accessory materials or for any other damages regardless of whether caused by the Product or otherwise.
2. **CONDITIONS OF WARRANTY:** Boozer’s liability hereunder to the Covered Person shall be subject to the following terms and conditions:
  - (a) The claimant must provide reasonable proof that he/she is a Covered Person.
  - (b) The Product must be properly stored and installed in accordance with Boozer’s installation, storage and use requirements (available at: <http://boozerbeam.com/products/>) and all applicable building codes, rules, and ordinances (“Applicable Building Rules”) adopted by federal, state or local governments or government agencies and applicable to the installation. Failure to install the Product in accordance with Boozer’s installation requirements and all Applicable Building Rules voids this Limited Warranty.
  - (c) The Covered Person must provide written notice of any claim under this Limited Warranty to Boozer within 45 days after discovery of any claimed Product failure covered by this Limited Warranty and before beginning any permanent repair. The notice must describe the location of the Product, details of the failure, and provide all information necessary for Boozer to investigate the claim. Photos of the Product, showing defect or failure, should accompany the notice. Before any permanent repair, the Covered Person must allow Boozer or Boozer’s agent to enter the property and structure where the Product is installed, and examine, photograph and take samples of the Product.
  - (d) Upon discovery of a possible Product defect or failure, the Covered Person must immediately, and at the Covered Person’s own expense, provide for protection of all property that could be affected until the problem or failure is remedied.
  - (e) Only defects and failures that result in the structural failure of the Product are covered by this Limited Warranty
3. **EXCLUSIONS:** This Limited Warranty does not cover loss, damage or defects resulting from or in any way attributable to: (a) any Product failure due to any reason other than structural failure or defect in material and manufacture; (b) the improper storage, shipping, handling or installation of the Product (including, without limitation, failure of the Product to be installed in strict compliance with Boozer’s installation, storage and use requirements and all Applicable Building Rules) or improper installation of other accessories; (c) repair or alteration of the Product; (d) settlement or structural movement or movement of materials to which the Product is attached; (e) damage from incorrect or improper design of the structure; (f) exceeding any applicable maximum designed weight or wind loads; (g) acts of God including, but not limited to, hurricanes, tornados, floods, earthquakes, extreme weather or other natural phenomena, (including, but not limited to, unusual climate conditions); (h) performance of any paints or coatings; (i) lack of proper maintenance; (j) damage during the construction process; (k) damage caused by the weathering of the Product including, but not limited to including but not limited to, raised grain, splitting, checking, twisting, warping, shrinkage, swelling; or de-lamination; (l) damage caused by the use of inappropriate fasteners; (m) any Product failure or damage due to water or marine applications; (n) discoloration or minor cosmetic defects; (o) failure due to moisture or exposure to elements; (p) wet use applications or any application in which the Product is enclosed and moisture cannot naturally evaporate from the Product; (q) any application in which the Product is in direct contact with the ground (except, in the case of Treated Columns, when the column is mounted on a metal plate on a concrete slab, in accordance with Boozer’s general and specific installation requirements and Applicable Building Rules); (r) failures or defects if the Product is subjected to further processing or alteration after shipment; (s) damage due to fungal decay of or termite attack (any such warranty on a Treated Product will be provided, if at all, by a third-party applicator as provided in Paragraph 4, below); (t) any unapproved pressure or topical treatment; or (u) any other neglect, abuse, or misuse by the Covered Person or a third party. In addition, only defects and failures of the Product that result in the structural failure of the Product are covered by this Limited Warranty.

4. TREATED PRODUCTS ONLY: To the extent a Covered Person has purchased or possesses a Boozer Product that has been treated with a chemical designed to deter or prevent insect damage or fungal growth on the Product (a "Treated Product"), Boozer assigns to such Covered Person any and all warranties applicable to the Treated Product, if any, against fungal damage or insect attack provided to Boozer from the manufacturers and applicators of such product.
  
5. DISCLAIMER: The statements in this Limited Warranty constitute the only warranty extended by Boozer for the Product. BOOZER DISCLAIMS ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, EXCEPT AS PROVIDED BY APPLICABLE STATE LAW IN WHICH CASE THE DURATION OF ANY APPLICABLE IMPLIED WARRANTIES ARE LIMITED TO THE FULLEST EXTENT ALLOWED BY APPLICABLE LAW. NO OTHER WARRANTY IS OR WILL BE MADE BY OR ON BEHALF OF THE MANUFACTURER OR THE SELLER OR BY OPERATION OF LAW OR BY USAGE OF TRADE OR COURSE OF DEALING WITH RESPECT TO THE PRODUCT OR ITS INSTALLATION, STORAGE, HANDLING, MAINTENANCE, USE, REPLACEMENT OR REPAIR.
  
6. EXCLUSION OF INCIDENTAL AND CONSEQUENTIAL DAMAGES: EXCEPT AS EXPRESSLY OVERRIDDEN BY APPLICABLE LAW, IN NO EVENT WILL BOOZER BE LIABLE FOR ANY INCIDENTAL, SPECIAL, INDIRECT, OR CONSEQUENTIAL DAMAGES, WHETHER RESULTING FROM NONDELIVERY OR FROM THE USE, MISUSE, OR INABILITY TO USE THE PRODUCT OR FROM DEFECTS IN THE PRODUCT.
  
7. SETTLEMENT OF CLAIM: Any warranty payment or material replacement by Boozer pursuant to Section 1 hereof shall constitute a full settlement and release of all claims of any Covered Person or their successors and assigns hereunder for damages or other relief, and shall be a complete bar to any litigation arising out of this warranty or the Covered Person's purchase or use of the Product filed subsequent to the Covered Person's acceptance of such compensation.