

ALLOWABLE UNIFORM ROOF LOAD (PSF)*

		DOUGLAS FIR LARCH E = 1,800,000 psi Fb' = 2585 psi Fv' = 165 psi				PONDEROSA PINE E = 1,150,000 psi Fb' = 1485 psi Fv' = 150 psi				PONDEROSA PINE FACE E = 1,500,000 psi Fb' = 1720 psi Fv' = 150 psi				
Size, nom Span (actual) (ft)		Simple		RLC**		Simple		RLC		Simple		RLC		
		L/180	L/240	L/180	L/240	L/180	L/240	L/180	L/240	L/180	L/240	L/180	L/240	
2 X (1-7/16")	2	1781 F***	1485	1139 V	1139 V	1023 F	949	852 F	852 F	1185 F	1185 F	987 F	987 F	
	3	587	440	659 F	659 F	375 F	281	379 F	379 F	489	367	439 F	439 F	
	4	248	186	371 F	314	158	119	213 F	201	206	155	247 F	247 F	
	5	127	95	215	161	81	61	137	103	106	79	158 F	134	
	6	73	55	124	93	47	35	79	59	61	46	103	78	
	7	46	35	78	59	30	22	50	37	38	29	65	49	
	8	31	23	52	39	20	15	33	25	26	19	44	33	
	9	22	16	37	28	14	10	24	18	18	14	31	23	
	10	16	12	27	20	10	8	17	13	13	10	22	17	
	3 X (2-3/16")	4	872	654	859 F	859 F	557	418	493 F	493 F	686 F	686 F	572 F	572 F
5		447	335	550 F	550 F	285	214	316 F	316 F	372	279	366 F	366 F	
6		258	194	382 F	328	165	124	219 F	210	215	162	254 F	254 F	
7		163	122	276	207	104	78	161 F	132	136	102	187 F	172	
8		109	82	185	138	70	52	118	88	91	68	143 F	115	
9		77	57	130	97	49	37	83	62	64	48	108	81	
10		56	42	94	71	36	27	60	45	47	35	79	59	
11		42	31	71	53	27	20	45	34	35	26	59	44	
12		32	24	55	41	21	15	35	26	27	20	46	34	
13		25	19	43	32	16	12	27	21	21	16	36	27	
14		20	15	34	26	13	10	22	17	17	13	29	22	
4 X (2-7/8")		6	587	440	659 F	659 F	375	281	379 F	379 F	489	367	439 F	439 F
		7	370	277	485 F	485 F	236	177	278 F	278 F	308	231	322 F	322 F
		8	248	186	371 F	314	158	119	213 F	201	206	155	247 F	247 F
	9	174	130	293 F	221	111	83	168 F	141	145	109	195 F	184	
	10	127	95	215	161	81	61	136 F	103	106	79	158 F	134	
	11	95	71	161	121	61	46	103	77	79	60	131 F	101	
	12	73	55	124	93	47	35	79	59	61	46	103	78	
	13	58	43	98	73	37	28	62	47	48	36	81	61	
	14	46	35	78	59	30	22	50	37	38	29	65	49	
	15	38	28	64	48	24	18	41	30	31	23	53	40	
	16	31	23	52	39	20	15	33	25	26	19	44	33	
	17	26	19	44	33	16	12	28	21	21	16	36	27	
	18	22	16	37	28	14	10	24	18	18	14	31	23	

5 X (3-21/32"	8	509	382	600 F	600 F	325	244	345 F	345 F	424	318	399 F	399 F
	9	358	268	474 F	454	228	171	272 F	272 F	298	223	315 F	315 F
	10	261	196	384 F	331	167	125	221 F	211	217	163	255 F	255 F
	11	196	147	317 F	249	125	94	182 F	159	163	122	211 F	207
	12	151	113	255	192	96	72	153 F	122	126	94	177 F	160
	13	119	89	201	151	76	57	128	96	99	74	151 F	126
	14	95	71	161	121	61	46	103	77	79	59	130 F	101
	15	77	58	131	98	49	37	84	63	64	48	109	82
	16	64	48	108	81	41	30	69	52	53	40	90	67
	17	53	40	90	67	34	25	57	43	44	33	75	56
18	45	34	76	57	29	21	48	36	37	28	63	47	

NOTES:

* Allowable uniform load is based on a load duration factor of 1.15 (snow) and dry service condition. Effects of roof slope are not considered. Values do not take into consideration slight section loss due to tongue and groove profile, beveled edges, and other manufacturing details, which may reduce the section and resultant allowable values up to 2%. Long term deflection effects (creep) have not been taken into consideration in this table.

** RLC is Controlled Random Layup.

*** Values denoted with V are controlled by shear parallel to grain; values with F are controlled by flexure; all other table values are controlled by deflection.

		INLAND RED CEDAR FACE				ALASKA YELLOW CEDAR				
		E = 1,250,000 psi Fb' = 1485 psi Fv' = 130 psi				E = 1,450,000 psi Fb' = 1700 psi Fv' = 195 psi				
Size, nom. (actual)	Span (ft)	Simple		RLC		Simple		RLC		
		L/180	L/240	L/180	L/240	L/180	L/240	L/180	L/240	
2 X (1-7/16")	2	1023 F	1023 F	852 F	852 F	1171 F	1171 F	976 F	976 F	
	3	407	306	379 F	379 F	473	355	434 F	434 F	
	4	172	129	213 F	213 F	199	150	244 F	253	
	5	88	66	136 F	112	102	77	156 F	130	
	6	51	38	86	65	59	44	100	75	
	7	32	24	54	41	37	28	63	47	
	8	21	16	36	27	25	19	42	32	
	9	15	11	26	19	18	13	30	22	
	10	11	8	19	14	13	10	22	16	
	3 X (2-3/16")	4	592 F	454	493 F	493 F	678 F	527	565 F	565 F
5		310	233	316 F	316 F	360	270	362 F	362 F	
6		179	135	219 F	219 F	208	156	251 F	251 F	
7		113	85	161 F	143	131	98	184 F	166	
8		76	57	123 F	96	88	66	141 F	112	
9		53	40	90	68	62	46	104	78	
10		39	29	66	49	45	34	76	57	
11		29	22	49	37	34	25	57	43	
12		22	17	38	28	26	20	44	33	
13		18	13	30	22	20	15	35	26	
14		14	11	24	18	16	12	28	21	
4 X (2-7/8")		6	407	306	379 F	379 F	473	354	434 F	434 F
		7	257	192	278 F	278 F	298	223	319 F	319 F
		8	172	129	213 F	213 F	199	150	244 F	244 F
	9	121	91	168 F	153	140	105	193 F	178	
	10	88	66	136 F	112	102	77	156 F	130	
	11	66	50	112	84	77	58	129 F	97	
	12	51	38	86	65	59	44	100	75	
	13	40	30	68	51	46	35	79	59	
	14	32	24	54	41	37	28	63	47	
	15	26	20	44	33	30	23	51	38	
	16	21	16	36	27	25	19	42	32	
	17	18	13	30	23	21	16	35	26	
	18	15	11	26	19	18	13	30	22	

5 X (3-21/32")	8	354	265	345 F	345 F	410	308	395 F	395 F
	9	248	186	272 F	272 F	288	216	312 F	312 F
	10	181	136	221 F	221 F	210	158	253 F	253 F
	11	136	102	182 F	173	158	118	209 F	200
	12	105	79	153 F	133	122	91	175 F	154
	13	82	62	131 F	105	96	72	149 F	121
	14	66	49	112	84	77	57	129 F	97
	15	54	40	91	68	62	47	105	79
	16	44	33	75	56	51	38	87	65
	17	37	28	62	47	43	32	72	54
18	31	23	53	39	36	27	61	46	

NOTES:

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