

Table 3.26C Rafter Spans for Common Lumber Species
 (Ceiling Attached to Rafters) Live Load = 20 psf, $L/\Delta_{LL} = 360$, Brittle
 Finish (including plaster and stucco)

LL = 20 psf
 $L/\Delta_{LL} = 360$

Dead Load = 10 psf					Dead Load = 20 psf				
2x4	2x6	2x8	2x10	2x12	2x4	2x6	2x8	2x10	2x12

Joist Spacing (in.)	Species	Grade	Maximum Rafter Spans ^{1,2,3,4}										
			(ft.-in.)	(ft.-in.)	(ft.-in.)	(ft.-in.)	(ft.-in.)	(ft.-in.)	(ft.-in.)	(ft.-in.)	(ft.-in.)	(ft.-in.)	
12	Douglas Fir-Larch	SS	9-1	14-4	18-10	24-1	26-0†	9-1	14-4	18-10	24-1	26-0†	
	Douglas Fir-Larch	No.1	8-9	13-9	18-2	23-2	26-0†	8-9	13-9	18-2	23-2	26-0†	
	Douglas Fir-Larch	No.2	8-7	13-6	17-10	22-9	26-0†	8-7	13-6	17-10	22-6	26-0†	
	Douglas Fir-Larch	No.3	8-3	12-10	16-3	19-10	23-0	7-7	11-1	14-1	17-2	19-11	
	Hem-Fir	SS	8-7	13-6	17-10	22-9	26-0†	8-7	13-6	17-10	22-9	26-0†	
	Hem-Fir	No.1	8-5	13-3	17-5	22-3	26-0†	8-5	13-3	17-5	22-3	26-0†	
	Hem-Fir	No.2	8-0	12-7	16-7	21-2	25-9	8-0	12-7	16-7	21-2	25-5	
	Hem-Fir	No.3	7-10	12-3	15-10	19-5	22-6	7-5	10-10	13-9	16-9	19-6	
	Southern Pine	SS	8-11	14-1	18-6	23-8	26-0†	8-11	14-1	18-6	23-8	26-0†	
	Southern Pine	No.1	8-7	13-6	17-10	22-9	26-0†	8-7	13-6	17-10	22-9	26-0†	
	Southern Pine	No.2	8-3	12-11	17-0	21-9	26-0†	8-3	12-11	17-0	20-3	23-10	
	Southern Pine	No.3	8-0	11-9	14-10	18-0	21-4	6-11	10-2	12-10	15-7	18-6	
	Spruce-Pine Fir	SS	8-5	13-3	17-5	22-3	26-0†	8-5	13-3	17-5	22-3	26-0†	
	Spruce-Pine Fir	No.1	8-3	12-11	17-0	21-9	26-0†	8-3	12-11	17-0	21-9	25-9	
	Spruce-Pine Fir	No.2	8-3	12-11	17-0	21-9	26-0†	8-3	12-11	17-0	21-9	25-9	
	Spruce-Pine Fir	No.3	7-10	12-3	15-10	19-5	22-6	7-5	10-10	13-9	16-9	19-6	
	16	Douglas Fir-Larch	SS	8-3	13-0	17-2	21-10	26-0†	8-3	13-0	17-2	21-10	26-0†
		Douglas Fir-Larch	No.1	8-0	12-6	16-6	21-1	25-7	8-0	12-6	16-6	20-7	23-10
Douglas Fir-Larch		No.2	7-10	12-3	16-2	20-8	25-1	7-10	12-3	16-0	19-6	22-7	
Douglas Fir-Larch		No.3	7-6	11-1	14-1	17-2	19-11	6-7	9-8	12-2	14-11	17-3	
Hem-Fir		SS	7-10	12-3	16-2	20-8	25-1	7-10	12-3	16-2	20-8	25-1	
Hem-Fir		No.1	7-8	12-0	15-10	20-2	24-7	7-8	12-0	15-10	20-2	23-7	
Hem-Fir		No.2	7-3	11-5	15-1	19-3	23-5	7-3	11-5	15-1	19-0	22-0	
Hem-Fir		No.3	7-1	10-10	13-9	16-9	19-6	6-5	9-5	11-11	14-6	16-10	
Southern Pine		SS	8-1	12-9	16-10	21-6	26-0†	8-1	12-9	16-10	21-6	26-0†	
Southern Pine		No.1	7-10	12-3	16-2	20-8	25-1	7-10	12-3	16-2	20-8	25-1	
Southern Pine		No.2	7-6	11-9	15-6	19-9	23-10	7-6	11-8	14-9	17-6	20-8	
Southern Pine		No.3	6-11	10-2	12-10	15-7	18-6	6-0	8-10	11-2	13-6	16-0	
Spruce-Pine Fir		SS	7-8	12-0	15-10	20-2	24-7	7-8	12-0	15-10	20-2	24-7	
Spruce-Pine Fir		No.1	7-6	11-9	15-6	19-9	24-0	7-6	11-9	15-6	19-3	22-4	
Spruce-Pine Fir		No.2	7-6	11-9	15-6	19-9	24-0	7-6	11-9	15-6	19-3	22-4	
Spruce-Pine Fir		No.3	7-1	10-10	13-9	16-9	19-6	6-5	9-5	11-11	14-6	16-10	
19.2		Douglas Fir-Larch	SS	7-9	12-3	16-1	20-7	25-0	7-9	12-3	16-1	20-7	25-0
		Douglas Fir-Larch	No.1	7-6	11-9	15-6	19-10	24-1	7-6	11-9	15-4	18-9	21-9
	Douglas Fir-Larch	No.2	7-4	11-7	15-3	19-5	23-7	7-4	11-6	14-7	17-10	20-8	
	Douglas Fir-Larch	No.3	6-11	10-2	12-10	15-8	18-3	6-0	8-9	11-2	13-7	15-9	
	Hem-Fir	SS	7-4	11-7	15-3	19-5	23-7	7-4	11-7	15-3	19-5	23-7	
	Hem-Fir	No.1	7-2	11-4	14-11	19-0	23-1	7-2	11-4	14-11	18-6	21-6	
	Hem-Fir	No.2	6-10	10-9	14-2	18-1	22-1	6-10	10-9	14-2	17-4	20-1	
	Hem-Fir	No.3	6-8	9-11	12-7	15-4	17-9	5-10	8-7	10-10	13-3	15-5	
	Southern Pine	SS	7-8	12-0	15-10	20-2	24-7	7-8	12-0	15-10	20-2	24-7	
	Southern Pine	No.1	7-4	11-7	15-3	19-5	23-7	7-4	11-7	15-3	18-4	21-9	
	Southern Pine	No.2	7-0	11-1	14-7	18-6	21-9	7-0	10-8	13-6	16-0	18-10	
	Southern Pine	No.3	6-4	9-4	11-9	14-3	16-10	5-6	8-1	10-2	12-4	14-7	
	Spruce-Pine Fir	SS	7-2	11-4	14-11	19-0	23-1	7-2	11-4	14-11	19-0	23-1	
	Spruce-Pine Fir	No.1	7-0	11-1	14-7	18-7	22-7	7-0	11-1	14-4	17-7	20-4	
	Spruce-Pine Fir	No.2	7-0	11-1	14-7	18-7	22-7	7-0	11-1	14-4	17-7	20-4	
	Spruce-Pine Fir	No.3	6-8	9-11	12-7	15-4	17-9	5-10	8-7	10-10	13-3	15-5	
	24	Douglas Fir-Larch	SS	7-3	11-4	15-0	19-1	23-3	7-3	11-4	15-0	19-1	23-3
		Douglas Fir-Larch	No.1	7-0	10-11	14-5	18-5	22-5	7-0	10-10	13-9	16-9	19-6
Douglas Fir-Larch		No.2	6-10	10-9	14-2	18-0	21-4	6-10	10-4	13-0	15-11	18-6	
Douglas Fir-Larch		No.3	6-2	9-1	11-6	14-1	16-3	5-4	7-10	10-0	12-2	14-1	
Hem-Fir		SS	6-10	10-9	14-2	18-0	21-11	6-10	10-9	14-2	18-0	21-11	
Hem-Fir		No.1	6-8	10-6	13-10	17-8	21-6	6-8	10-6	13-7	16-7	19-3	
Hem-Fir		No.2	6-4	10-0	13-2	16-10	20-6	6-4	10-0	12-8	15-6	17-11	
Hem-Fir		No.3	6-1	8-10	11-3	13-8	15-11	5-3	7-8	9-9	11-10	13-9	
Southern Pine		SS	7-1	11-2	14-8	18-9	22-10	7-1	11-2	14-8	18-9	22-10	
Southern Pine		No.1	6-10	10-9	14-2	18-0	21-11	6-10	10-9	14-0	16-5	19-6	
Southern Pine		No.2	6-6	10-3	13-6	16-6	19-6	6-4	9-6	12-1	14-4	16-10	
Southern Pine		No.3	5-8	8-4	10-6	12-9	15-1	4-11	7-3	9-1	11-0	13-1	
Spruce-Pine Fir		SS	6-8	10-6	13-10	17-8	21-6	6-8	10-6	13-10	17-8	21-6	
Spruce-Pine Fir		No.1	6-6	10-3	13-6	17-3	21-0	6-6	10-2	12-10	15-8	18-3	
Spruce-Pine Fir		No.2	6-6	10-3	13-6	17-3	21-0	6-6	10-2	12-10	15-8	18-3	
Spruce-Pine Fir		No.3	6-1	8-10	11-3	13-8	15-11	5-3	7-8	9-9	11-10	13-9	

† Spans are limited to 26 feet in length.
 See footnotes 1-4.