

# Lumber Spans Quick Reference Card



## Floor Joists

- 10 PSF dead load
- L/360 deflection limit

Size and O.C. Spacing	Grade ▶	Framer Series™		#1 SYP		#2 SYP		#2 & Better SPF		
		Live Load (PSF) ▶	30 LL	40 LL	30 LL	40 LL	30 LL	40 LL	30 LL	40 LL
2x6	12"		11'-10"	10'-9"	11'-10"	10'-9"	11'-3"	10'-3"	11'-3"	10'-3"
	16"		10'-9"	9'-9"	10'-9"	9'-9"	10'-3"	9'-4"	10'-3"	9'-4"
	24"		9'-4"	8'-6"	9'-4"	8'-6"	8'-6"	7'-7"	8'-11"	8'-1"
2x8	12"		15'-7"	14'-2"	15'-7"	14'-2"	14'-11"	13'-6"	14'-11"	13'-6"
	16"		14'-2"	12'-10"	14'-2"	12'-10"	13'-3"	11'-10"	13'-6"	12'-3"
	24"		12'-4"	11'-3"	12'-4"	11'-3"	10'-10"	9'-8"	11'-6"	10'-3"
2x10	12"		19'-10"	18'-0"	19'-10"	18'-0"	18'-1"	16'-2"	19'-0"	17'-3"
	16"		18'-0"	16'-5"	18'-0"	16'-1"	15'-8"	14'-0"	17'-2"	15'-5"
	24"		15'-9"	14'-4"	14'-8"	13'-1"	12'-10"	11'-5"	14'-1"	12'-7"
2x12	12"		24'-2"	21'-11"	24'-2"	21'-11"	21'-4"	19'-1"	23'-0"	20'-7"
	16"		21'-11"	19'-11"	21'-4"	19'-1"	18'-6"	16'-6"	19'-11"	17'-10"
	24"		19'-2"	17'-5"	17'-5"	15'-7"	15'-1"	13'-6"	16'-3"	14'-7"

## Ceiling Joists

- L/240 deflection limit

Size and O.C. Spacing	Lumber Grade ▶	Framer Series™ Lumber	
		Live/Dead Load (PSF) ▶	
		10 LL/5 DL	20 LL/10 DL
2x6	12"	19'-6"	15'-6"
	16"	17'-8"	14'-1"
	24"	15'-6"	12'-3"
2x8	12"	25'-8"	20'-5"
	16"	23'-4"	18'-6"
	24"	20'-5"	16'-2"
2x10	12"	32'-9"	26'-0"
	16"	29'-9"	23'-8"
	24"	26'-0"	20'-8"

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## Rafters

Medium roofing, drywall ceiling,  
snow load

- 15 PSF dead load
- L/240 deflection limit
- 115% load duration for snow loads

		Lumber Grade ▶	Framer Series™ Lumber		
		Live Load (PSF) ▶	20 LL	30 LL	40 LL
Size and O.C. Spacing	2x6	12"	15'-6"	13'-6"	12'-3"
		16"	14'-1"	12'-3"	11'-2"
		24"	12'-3"	10'-9"	9'-9"
	2x8	12"	20'-5"	17'-10"	16'-2"
		16"	18'-6"	16'-2"	14'-8"
		24"	16'-2"	14'-2"	12'-10"
	2x10	12"	26'-0"	22'-9"	20'-8"
		16"	23'-8"	20'-8"	18'-9"
		24"	20'-8"	18'-0"	16'-5"
2x12	12"	31'-8"	27'-8"	25'-1"	
	16"	28'-9"	25'-1"	22'-10"	
	24"	25'-1"	21'-11"	19'-11"	

## Rafters

Drywall or no finished ceiling,  
construction load

- 20 PSF live load
- 10 PSF dead load
- 125% load duration for construction loads

		Lumber Grade ▶	Framer Series™ Lumber	
		Deflection Limit ▶	L/240	L/180
Size and O.C. Spacing	2x6	12"	15'-6"	17'-0"
		16"	14'-1"	15'-6"
		24"	12'-3"	13'-6"
	2x8	12"	20'-5"	22'-5"
		16"	18'-6"	20'-5"
		24"	16'-2"	17'-10"
	2x10	12"	26'-0"	28'-7"
		16"	23'-8"	26'-0"
		24"	20'-8"	22'-9"