

SPAN TABLES

MASS TIMBER FOR THE MASSES

TerraLam[®] CLT

SPF-S + Eastern Hemlock Addendum



STERLING[®]
Structural

SPAN TABLES - SPRUCE PINE FIR SOUTH

ASD REFERENCE DESIGN VALUES FOR STERLINGTERRALAM CLT PANELS

Grade	Layup ID	CLT Thickness (in)	Lamination Thickness in CLT Layup (in)							Major Strength Direction				Minor Strength Direction			
			=	⊥	=	⊥	=	⊥	=	$F_{x,CLT}$ (lb-ft/ft)	$E_{x,CLT}$ (10 ⁶ lb-in ² /ft)	$GA_{x,CLT}$ (10 ⁶ lb-in ² /ft)	$V_{x,CLT}$ (lb/ft)	$F_{y,CLT}$ (lb-ft/ft)	$E_{y,CLT}$ (10 ⁶ lb-in ² /ft)	$GA_{y,CLT}$ (10 ⁶ lb-in ² /ft)	$V_{y,CLT}$ (lb/ft)
V3+	TL300S	4.125	1.375	1.375	1.375					2,150	95	0.53	1,820	290	3.6	0.53	605
	TL500S	6.875	1.375	1.375	1.375	1.375	1.375			4,950	363	1.05	3,025	2,525	95	1.05	1,820
	TL700S	9.625	1.375	1.375	1.375	1.375	1.375	1.375	1.375	8,750	900	1.58	4,225	5,825	363	1.58	3,025

Table calculated in accordance with the Shear Analogy Method as defined by PRG 320-2019

LIVE LOAD 40 PSF

Dead Load	MAXIMUM SPAN DISTANCE														
	8'			10'			12'			14'			15' 6"		
Thickness (in)	3-ply 4.125	5-ply 6.875	7-ply 9.625	3-ply 4.125	5-ply 6.875	7-ply 9.625	3-ply 4.125	5-ply 6.875	7-ply 9.625	3-ply 4.125	5-ply 6.875	7-ply 9.625	3-ply 4.125	5-ply 6.875	7-ply 9.625
20 PSF															
30 PSF															
40 PSF															
50 PSF															
60 PSF															

LIVE LOAD 50 PSF

Dead Load	MAXIMUM SPAN DISTANCE														
	8'			10'			12'			14'			15' 6"		
Thickness (in)	3-ply 4.125	5-ply 6.875	7-ply 9.625	3-ply 4.125	5-ply 6.875	7-ply 9.625	3-ply 4.125	5-ply 6.875	7-ply 9.625	3-ply 4.125	5-ply 6.875	7-ply 9.625	3-ply 4.125	5-ply 6.875	7-ply 9.625
20 PSF															
30 PSF															
40 PSF															
50 PSF															
60 PSF															

LIVE LOAD 60 PSF

Dead Load	MAXIMUM SPAN DISTANCE														
	8'			10'			12'			14'			15' 6"		
Thickness (in)	3-ply 4.125	5-ply 6.875	7-ply 9.625	3-ply 4.125	5-ply 6.875	7-ply 9.625	3-ply 4.125	5-ply 6.875	7-ply 9.625	3-ply 4.125	5-ply 6.875	7-ply 9.625	3-ply 4.125	5-ply 6.875	7-ply 9.625
20 PSF															
30 PSF															
40 PSF															
50 PSF															
60 PSF															

LIVE LOAD 80 PSF

Dead Load	MAXIMUM SPAN DISTANCE														
	8'			10'			12'			14'			15' 6"		
Thickness (in)	3-ply 4.125	5-ply 6.875	7-ply 9.625	3-ply 4.125	5-ply 6.875	7-ply 9.625	3-ply 4.125	5-ply 6.875	7-ply 9.625	3-ply 4.125	5-ply 6.875	7-ply 9.625	3-ply 4.125	5-ply 6.875	7-ply 9.625
20 PSF															
30 PSF															
40 PSF															
50 PSF															
60 PSF															

LIVE LOAD 100 PSF

Dead Load	MAXIMUM SPAN DISTANCE														
	8'			10'			12'			14'			15' 6"		
Thickness (in)	3-ply 4.125	5-ply 6.875	7-ply 9.625	3-ply 4.125	5-ply 6.875	7-ply 9.625	3-ply 4.125	5-ply 6.875	7-ply 9.625	3-ply 4.125	5-ply 6.875	7-ply 9.625	3-ply 4.125	5-ply 6.875	7-ply 9.625
20 PSF															
30 PSF															
40 PSF															
50 PSF															
60 PSF															

LIVE LOAD 125 PSF

Dead Load	MAXIMUM SPAN DISTANCE														
	8'			10'			12'			14'			15' 6"		
Thickness (in)	3-ply 4.125	5-ply 6.875	7-ply 9.625	3-ply 4.125	5-ply 6.875	7-ply 9.625	3-ply 4.125	5-ply 6.875	7-ply 9.625	3-ply 4.125	5-ply 6.875	7-ply 9.625	3-ply 4.125	5-ply 6.875	7-ply 9.625
20 PSF															
30 PSF															
40 PSF															
50 PSF															
60 PSF															

LIVE LOAD 150 PSF

Dead Load	MAXIMUM SPAN DISTANCE														
	8'			10'			12'			14'			15' 6"		
Thickness (in)	3-ply 4.125	5-ply 6.875	7-ply 9.625	3-ply 4.125	5-ply 6.875	7-ply 9.625	3-ply 4.125	5-ply 6.875	7-ply 9.625	3-ply 4.125	5-ply 6.875	7-ply 9.625	3-ply 4.125	5-ply 6.875	7-ply 9.625
20 PSF															
30 PSF															
40 PSF															
50 PSF															
60 PSF															

SNOW LOADS - SPRUCE PINE FIR SOUTH

ROOF SNOW LOAD 20 PSF

Dead Load	MAXIMUM SPAN DISTANCE														
	8'			10'			12'			14'			15' 6"		
Thickness (in)	3-ply 4.125	5-ply 6.875	7-ply 9.625	3-ply 4.125	5-ply 6.875	7-ply 9.625	3-ply 4.125	5-ply 6.875	7-ply 9.625	3-ply 4.125	5-ply 6.875	7-ply 9.625	3-ply 4.125	5-ply 6.875	7-ply 9.625
10 PSF															
20 PSF															
30 PSF															

ROOF SNOW LOAD 30 PSF

Dead Load	MAXIMUM SPAN DISTANCE														
	8'			10'			12'			14'			15' 6"		
Thickness (in)	3-ply 4.125	5-ply 6.875	7-ply 9.625	3-ply 4.125	5-ply 6.875	7-ply 9.625	3-ply 4.125	5-ply 6.875	7-ply 9.625	3-ply 4.125	5-ply 6.875	7-ply 9.625	3-ply 4.125	5-ply 6.875	7-ply 9.625
10 PSF															
20 PSF															
30 PSF															

ROOF SNOW LOAD 40 PSF

Dead Load	MAXIMUM SPAN DISTANCE														
	8'			10'			12'			14'			15' 6"		
Thickness (in)	3-ply 4.125	5-ply 6.875	7-ply 9.625	3-ply 4.125	5-ply 6.875	7-ply 9.625	3-ply 4.125	5-ply 6.875	7-ply 9.625	3-ply 4.125	5-ply 6.875	7-ply 9.625	3-ply 4.125	5-ply 6.875	7-ply 9.625
10 PSF															
20 PSF															
30 PSF															

ROOF SNOW LOAD 50 PSF

Dead Load	MAXIMUM SPAN DISTANCE														
	8'			10'			12'			14'			15' 6"		
Thickness (in)	3-ply 4.125	5-ply 6.875	7-ply 9.625	3-ply 4.125	5-ply 6.875	7-ply 9.625	3-ply 4.125	5-ply 6.875	7-ply 9.625	3-ply 4.125	5-ply 6.875	7-ply 9.625	3-ply 4.125	5-ply 6.875	7-ply 9.625
10 PSF															
20 PSF															
30 PSF															

ROOF SNOW LOAD 60 PSF

Dead Load	MAXIMUM SPAN DISTANCE														
	8'			10'			12'			14'			15' 6"		
Thickness (in)	3-ply 4.125	5-ply 6.875	7-ply 9.625	3-ply 4.125	5-ply 6.875	7-ply 9.625	3-ply 4.125	5-ply 6.875	7-ply 9.625	3-ply 4.125	5-ply 6.875	7-ply 9.625	3-ply 4.125	5-ply 6.875	7-ply 9.625
10 PSF															
20 PSF															
30 PSF															

ROOF SNOW LOAD 80 PSF

Dead Load	MAXIMUM SPAN DISTANCE														
	8'			10'			12'			14'			15' 6"		
Thickness (in)	3-ply 4.125	5-ply 6.875	7-ply 9.625	3-ply 4.125	5-ply 6.875	7-ply 9.625	3-ply 4.125	5-ply 6.875	7-ply 9.625	3-ply 4.125	5-ply 6.875	7-ply 9.625	3-ply 4.125	5-ply 6.875	7-ply 9.625
10 PSF															
20 PSF															
30 PSF															

ROOF SNOW LOAD 100 PSF

Dead Load	MAXIMUM SPAN DISTANCE														
	8'			10'			12'			14'			15' 6"		
Thickness (in)	3-ply 4.125	5-ply 6.875	7-ply 9.625	3-ply 4.125	5-ply 6.875	7-ply 9.625	3-ply 4.125	5-ply 6.875	7-ply 9.625	3-ply 4.125	5-ply 6.875	7-ply 9.625	3-ply 4.125	5-ply 6.875	7-ply 9.625
10 PSF															
20 PSF															
30 PSF															

SPAN TABLES - EASTERN HEMLOCK

ASD REFERENCE DESIGN VALUES FOR STERLING TERRALAM CLT PANELS

Grade	Layup ID	CLT Thickness (in)	Lamination Thickness in CLT Layup (in)							Major Strength Direction				Minor Strength Direction			
			=	⊥	=	⊥	=	⊥	=	$F_{x,0.0}$ (lb-ft/ft)	$E_{x,0}$ (10 ⁶ lb-in ² /ft)	$GA_{x,0}$ (10 ⁶ lb-in ² /ft)	$V_{x,0}$ (lb/ft)	$F_{y,0.0}$ (lb-ft/ft)	$E_{y,0}$ (10 ⁶ lb-in ² /ft)	$GA_{y,0}$ (10 ⁶ lb-in ² /ft)	$V_{y,0}$ (lb/ft)
V3+	TL300S	4.125	1.375	1.375	1.375					2,150	95	0.53	1,820	290	3.6	0.53	605
	TL500S	6.875	1.375	1.375	1.375	1.375	1.375			4,950	363	1.05	3,025	2,525	95	1.05	1,820
	TL700S	9.625	1.375	1.375	1.375	1.375	1.375	1.375	1.375	8,750	900	1.58	4,225	5,825	363	1.58	3,025

Table calculated in accordance with the Shear Analogy Method as defined by PRG 320-2019

LIVE LOAD 40 PSF

Dead Load	MAXIMUM SPAN DISTANCE														
	8'			10'			12'			14'			15' 6"		
Thickness (in)	3-ply 4.125	5-ply 6.875	7-ply 9.625	3-ply 4.125	5-ply 6.875	7-ply 9.625	3-ply 4.125	5-ply 6.875	7-ply 9.625	3-ply 4.125	5-ply 6.875	7-ply 9.625	3-ply 4.125	5-ply 6.875	7-ply 9.625
20 PSF															
30 PSF															
40 PSF															
50 PSF															
60 PSF															

LIVE LOAD 50 PSF

Dead Load	MAXIMUM SPAN DISTANCE														
	8'			10'			12'			14'			15' 6"		
Thickness (in)	3-ply 4.125	5-ply 6.875	7-ply 9.625	3-ply 4.125	5-ply 6.875	7-ply 9.625	3-ply 4.125	5-ply 6.875	7-ply 9.625	3-ply 4.125	5-ply 6.875	7-ply 9.625	3-ply 4.125	5-ply 6.875	7-ply 9.625
20 PSF															
30 PSF															
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50 PSF															
60 PSF															

LIVE LOAD 60 PSF

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	8'			10'			12'			14'			15' 6"		
Thickness (in)	3-ply 4.125	5-ply 6.875	7-ply 9.625	3-ply 4.125	5-ply 6.875	7-ply 9.625	3-ply 4.125	5-ply 6.875	7-ply 9.625	3-ply 4.125	5-ply 6.875	7-ply 9.625	3-ply 4.125	5-ply 6.875	7-ply 9.625
20 PSF															
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50 PSF															
60 PSF															

LIVE LOAD 80 PSF

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	8'			10'			12'			14'			15' 6"		
Thickness (in)	3-ply 4.125	5-ply 6.875	7-ply 9.625	3-ply 4.125	5-ply 6.875	7-ply 9.625	3-ply 4.125	5-ply 6.875	7-ply 9.625	3-ply 4.125	5-ply 6.875	7-ply 9.625	3-ply 4.125	5-ply 6.875	7-ply 9.625
20 PSF															
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50 PSF															
60 PSF															

LIVE LOAD 100 PSF

Dead Load															
	8'			10'			12'			14'			15' 6"		
Thickness (in)	3-ply 4.125	5-ply 6.875	7-ply 9.625	3-ply 4.125	5-ply 6.875	7-ply 9.625	3-ply 4.125	5-ply 6.875	7-ply 9.625	3-ply 4.125	5-ply 6.875	7-ply 9.625	3-ply 4.125	5-ply 6.875	7-ply 9.625
20 PSF															
30 PSF															
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50 PSF															
60 PSF															

LIVE LOAD 125 PSF

Dead Load	MAXIMUM SPAN DISTANCE														
	8'			10'			12'			14'			15' 6"		
Thickness (in)	3-ply 4.125	5-ply 6.875	7-ply 9.625	3-ply 4.125	5-ply 6.875	7-ply 9.625	3-ply 4.125	5-ply 6.875	7-ply 9.625	3-ply 4.125	5-ply 6.875	7-ply 9.625	3-ply 4.125	5-ply 6.875	7-ply 9.625
20 PSF															
30 PSF															
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50 PSF															
60 PSF															

LIVE LOAD 150 PSF

Dead Load	MAXIMUM SPAN DISTANCE														
	8'			10'			12'			14'			15' 6"		
Thickness (in)	3-ply 4.125	5-ply 6.875	7-ply 9.625	3-ply 4.125	5-ply 6.875	7-ply 9.625	3-ply 4.125	5-ply 6.875	7-ply 9.625	3-ply 4.125	5-ply 6.875	7-ply 9.625	3-ply 4.125	5-ply 6.875	7-ply 9.625
20 PSF															
30 PSF															
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SNOW LOADS - EASTERN HEMLOCK

ROOF SNOW LOAD 20 PSF

Dead Load	MAXIMUM SPAN DISTANCE														
	8'			10'			12'			14'			15' 6"		
Thickness (in)	3-ply 4.125	5-ply 6.875	7-ply 9.625	3-ply 4.125	5-ply 6.875	7-ply 9.625	3-ply 4.125	5-ply 6.875	7-ply 9.625	3-ply 4.125	5-ply 6.875	7-ply 9.625	3-ply 4.125	5-ply 6.875	7-ply 9.625
10 PSF															
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	8'			10'			12'			14'			15' 6"		
Thickness (in)	3-ply 4.125	5-ply 6.875	7-ply 9.625	3-ply 4.125	5-ply 6.875	7-ply 9.625	3-ply 4.125	5-ply 6.875	7-ply 9.625	3-ply 4.125	5-ply 6.875	7-ply 9.625	3-ply 4.125	5-ply 6.875	7-ply 9.625
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Thickness (in)	3-ply 4.125	5-ply 6.875	7-ply 9.625	3-ply 4.125	5-ply 6.875	7-ply 9.625	3-ply 4.125	5-ply 6.875	7-ply 9.625	3-ply 4.125	5-ply 6.875	7-ply 9.625	3-ply 4.125	5-ply 6.875	7-ply 9.625
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	8'			10'			12'			14'			15' 6"		
Thickness (in)	3-ply 4.125	5-ply 6.875	7-ply 9.625	3-ply 4.125	5-ply 6.875	7-ply 9.625	3-ply 4.125	5-ply 6.875	7-ply 9.625	3-ply 4.125	5-ply 6.875	7-ply 9.625	3-ply 4.125	5-ply 6.875	7-ply 9.625
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20 PSF															
30 PSF															

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Thickness (in)	3-ply 4.125	5-ply 6.875	7-ply 9.625	3-ply 4.125	5-ply 6.875	7-ply 9.625	3-ply 4.125	5-ply 6.875	7-ply 9.625	3-ply 4.125	5-ply 6.875	7-ply 9.625	3-ply 4.125	5-ply 6.875	7-ply 9.625
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20 PSF															
30 PSF															

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Dead Load	MAXIMUM SPAN DISTANCE														
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Thickness (in)	3-ply 4.125	5-ply 6.875	7-ply 9.625	3-ply 4.125	5-ply 6.875	7-ply 9.625	3-ply 4.125	5-ply 6.875	7-ply 9.625	3-ply 4.125	5-ply 6.875	7-ply 9.625	3-ply 4.125	5-ply 6.875	7-ply 9.625
10 PSF															
20 PSF															
30 PSF															

ROOF SNOW LOAD 100 PSF

Dead Load	MAXIMUM SPAN DISTANCE														
	8'			10'			12'			14'			15' 6"		
Thickness (in)	3-ply 4.125	5-ply 6.875	7-ply 9.625	3-ply 4.125	5-ply 6.875	7-ply 9.625	3-ply 4.125	5-ply 6.875	7-ply 9.625	3-ply 4.125	5-ply 6.875	7-ply 9.625	3-ply 4.125	5-ply 6.875	7-ply 9.625
10 PSF															
20 PSF															
30 PSF															





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