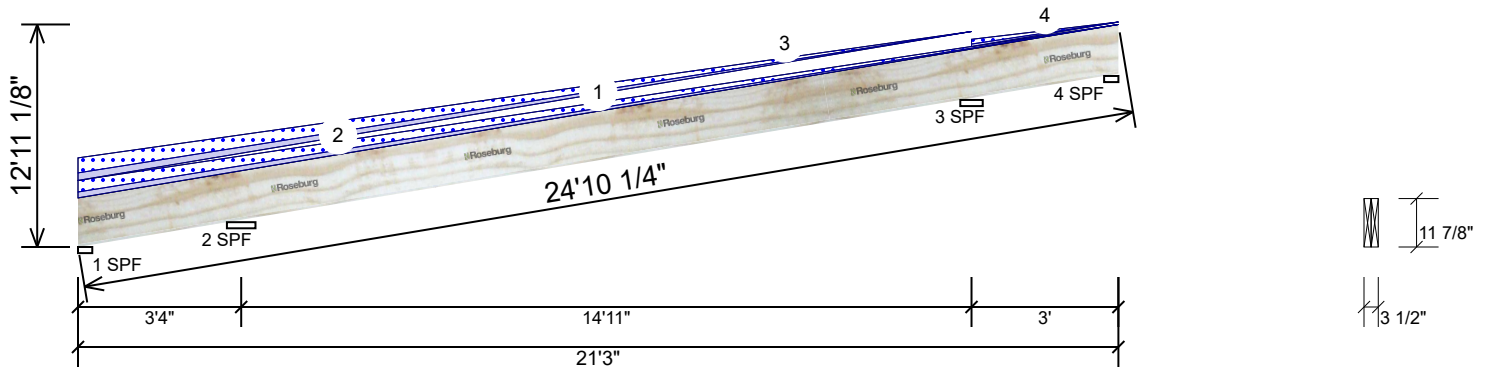


B8 2.0E Rigidlam LVL 1.750" X 11.875" 2-Ply - PASSED

Level: Level



Member Information

Type:	Girder	Application:	Roof
Plies:	2	Slope:	6.66/12
Moisture Condition:	Dry	Design Method:	ASD
Deflection LL:	480	Building Code:	IBC/IRC 2015
Deflection TL:	240	Load Sharing:	No
Importance:	Normal - II	Deck:	Not Checked
Temperature:	Temp <= 100°F		

Reactions UNPATTERNED lb (Uplift)

Brg	Direction	Live	Dead	Snow	Wind	Const
1	Vertical	0	(-226)	0 (-319)	0	0
2	Vertical	0	3831	6373	0	0
3	Vertical	0	2157	3447	0	0
4	Vertical	0	(-794)	0 (-1314)	0	0

Bearings

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	3.500"	Vert	5%	-226 / 503	277 (-1115)	L_L	D+S(D+S)
2 - SPF	7.000"	Vert	98%	3831 / 6375	10206	LL_	D+S
3 - SPF	5.500"	Vert	69%	2157 / 3465	5622	_LL	D+S
4 - SPF	3.500"	Vert	0%	-794 / -1374	-2168 (-2168)	_L_	D+S(D+S)

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Neg Moment	-11007 ft-lb	3'4"	24470 ft-lb	0.450 (45%)	D+S	LL_
Unbraced	-11007 ft-lb	3'4"	11012 ft-lb	0.999 (100%)	D+S	LL_
Pos Moment	6775 ft-lb	10' 13/16"	24470 ft-lb	0.277 (28%)	D+S	_L_
Unbraced	6775 ft-lb	10' 13/16"	6778 ft-lb	1.000 (100%)	D+S	_L_
Shear	4030 lb	4'7 3/8"	9241 lb	0.436 (44%)	D+S	LL_
LL Defl inch	0.157 (L/1300)	10'5 1/16"	0.427 (L/480)	0.369 (37%)	S	_L_
TL Defl inch	0.252 (L/811)	10'5 1/4"	0.853 (L/240)	0.296 (30%)	D+S	_L_

Design Notes

- Provide support to prevent lateral movement and rotation at the end bearings. Lateral support may also be required at the interior bearings by the building code.
- Refer to manufacturer's literature for sloped bearing detail.
- Attach with enough nails to prevent sliding between the joist and the sloped bearing wedge at each support.
- Girders are designed to be supported on the bottom edge only.
- Multiple plies must be fastened together as per manufacturer's details.
- Top loads must be supported equally by all plies.
- Tie-down connection required at bearing 1 for uplift 1115 lb (Combination D+S, Load Case L).
- Tie-down connection required at bearing 4 for uplift 2168 lb (Combination D+S, Load Case L).**
- Top must be laterally braced at a maximum of 14'8 3/8" o.c. along the slope.
- Bottom must be laterally braced at a maximum of 8'2 1/8" o.c.
- Lateral slenderness ratio based on single ply width.

Notes

Calculated Structural Designs is responsible only of the structural adequacy of this component based on the design criteria and loadings shown. It is the responsibility of the customer and/or the contractor to ensure the component suitability of the intended application, and to verify the dimensions and loads.

Lumber

- Dry service conditions, unless noted otherwise
- LVL not to be treated with fire retardant or corrosive

chemicals

Handling & Installation

- LVL beams must not be cut or drilled
- Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals
- Damaged Beams must not be used
- Design assumes top edge is laterally restrained
- Provide lateral support at bearing points to avoid lateral displacement and rotation

6. For flat roofs provide proper drainage to prevent ponding

This design is valid until 5/24/2024

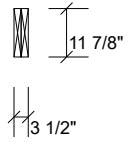
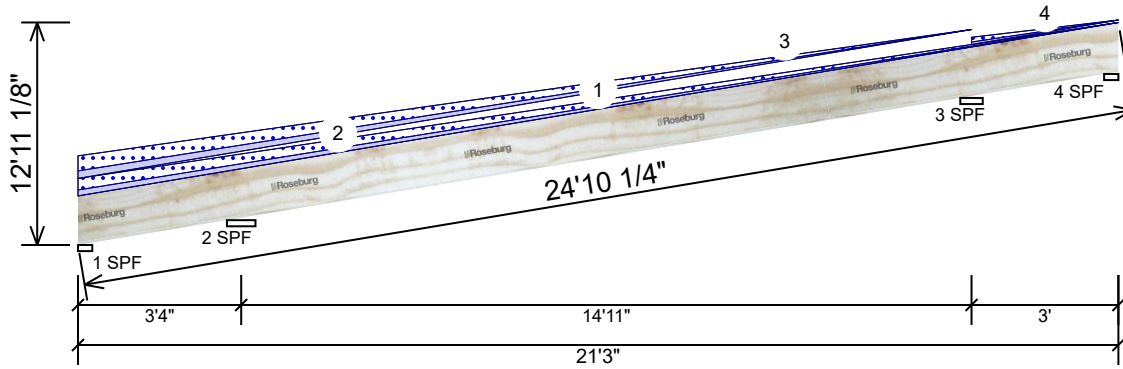
Manufacturer Info

Roseburg Forest Products
4500 Riddle By-pass Rd
Riddle, OR 97469
(541) 784-4005
www.roseburg.com
APA: PR-L289, PR-L270, ICC-ES:
ESR-1210

Kempville Building Material
298 Harvey Faulk Road, N.C.
U.S.A
27332
919.775.1450

B8 2.0E Rigidlam LVL 1.750" X 11.875" 2-Ply - PASSED

Level: Level



ID	Load Type	Location	Trib Width	Side	Dead 0.9	Live 1	Snow 1.15	Wind 1.6	Const. 1.25	Comments
2	Tapered Start	0-0-0		Top	180 PLF	0 PLF	355 PLF	0 PLF	0 PLF	
	End	21-3-0			0 PLF	0 PLF	0 PLF	0 PLF	0 PLF	
3	Tapered Start	0-0-0		Top	230 PLF	0 PLF	460 PLF	0 PLF	0 PLF	
	End	18-3-0			0 PLF	0 PLF	0 PLF	0 PLF	0 PLF	
4	Tapered Start	18-3-0		Top	75 PLF	0 PLF	145 PLF	0 PLF	0 PLF	
	End	21-3-0			0 PLF	0 PLF	0 PLF	0 PLF	0 PLF	
	Self Weight				11 PLF					

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