

# MODEL EA-331-VSL

Severe Weather Louver • 3" Deep • Chevron Blades • Vertical • Rain Resistant • Extruded Aluminum

### Standard Materials and Construction

**FRAME:** .081" thick (nominal) extruded aluminum, 6063-T52/T6 alloy.

**BLADE:** .040" thick (nominal) extruded aluminum, 6063-T52/T6 alloy. Blades approximately 1<sup>3</sup>/<sub>16</sub>" on centers.

**LOUVER FACE:** All surfaces are flush with jambs. Jambs contained within the head and sill.

**DRAIN PAN:** .060" thick (nominal) formed aluminum.

**SCREEN:** (When indicated, in a removable frame.)

1/2" flattened aluminum (.051" thick),

-or- 1/2" sq. mesh, intermediate double-crimped aluminum wire, .063" dia.,

-or- 1<sup>8</sup>/<sub>16</sub>" mesh, .011" dia. aluminum wire, insect screen.

**FINISH:** Mill

### Options

Finish - Baked Enamel, Kynar, Anodize

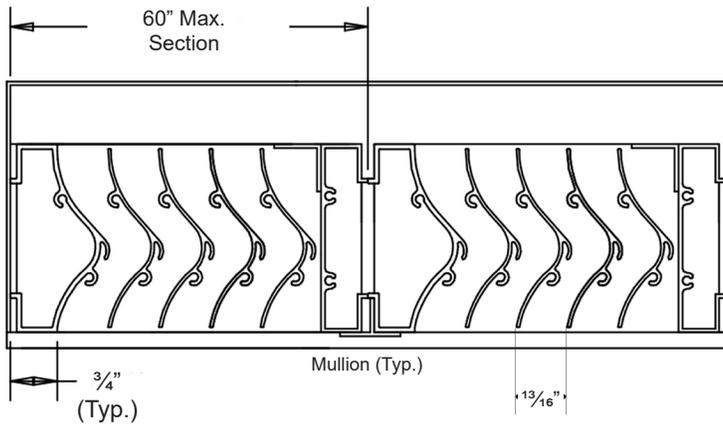
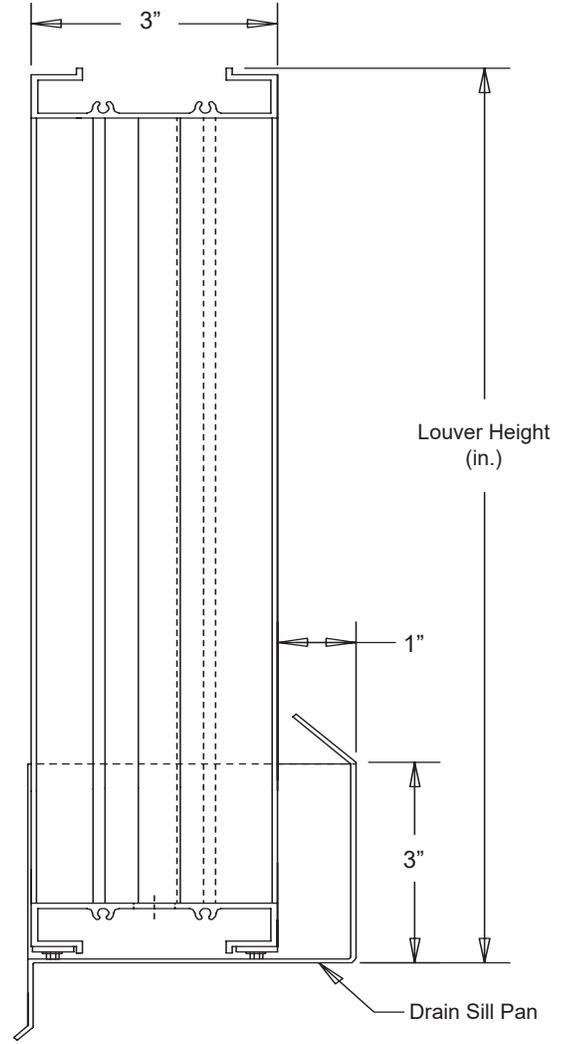
### Notes

- 1/2" nominal deduction will be made to the opening size given.
- Approximate shipping weight is 7.0 lbs./sq.ft.

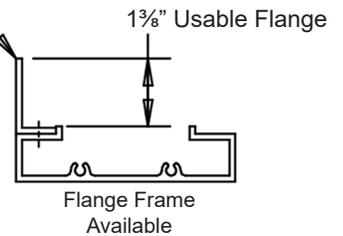
### Louver Sizes

Min Panel	Max Single Panel
12"W x 12"H	60"W x 96"H

This louver has been tested to **AMCA Standard 550 for High Velocity Rain Resistance**. See Page 3 for seal and listing information.



Flange Frame available on (3) sides. Front Face only. Not at Sill.



Item #	Qty	Width	Height	Width	Height	Mullion	Type	Location	Union Made
		Opening Size		Louver Size			Screens		
Arch. / Eng.:						EDR:		ECN:	Job:
Contractor:									
Project:						Date:		DWN:	DWG:



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## Performance Data

Pressure Drop: .083 in. w.g. at 1000 fpm (intake)

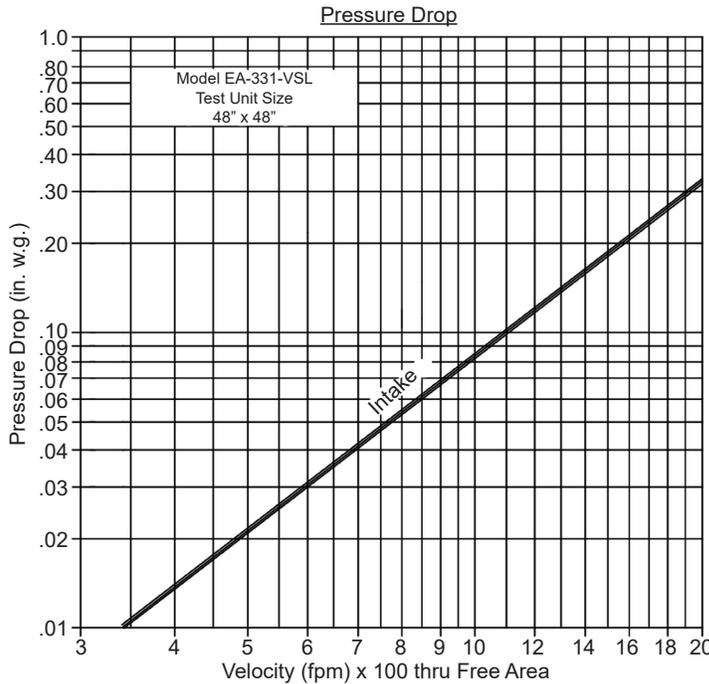
Free Area: 7.06 sq.ft. = 44% for 48"W x 48"H sample tested in accordance with AMCA Standard 500-L.

Class "A" Rating with 100% efficiency at 3 in. rain fall at intake velocity of 1451 fpm (10,244 cfm) at wind speed of 29 mph.

Class "A" Rating with 99.5% efficiency at 8 in. rain fall at intake velocity of 1439 fpm (10,159 cfm) at wind speed of 50 mph.

Testing based on 48" x 48" size based on AMCA Standard 500-L.

Ratings do not include effects of a screen.



Intake air converted to standard air density.  
Tested to AMCA Standard 500-L, Figure 5.5.

		Free Area (sq.ft.)								
		Width (in.)								
Height (in.)		12"	18"	24"	30"	36"	42"	48"	54"	60"
		12"	.34	.55	.77	.98	1.18	1.39	1.60	1.82
24"	.73	1.18	1.65	2.10	2.54	2.99	3.42	3.90	4.35	
36"	1.13	1.80	2.53	3.22	3.89	4.58	5.25	5.98	6.67	
48"	1.52	2.44	3.41	4.34	5.24	6.17	7.06	8.06	9.00	
60"	1.91	3.07	4.29	5.46	6.59	7.77	8.90	10.14	11.32	
72"	2.30	3.69	5.16	6.58	7.95	9.36	10.73	12.22	13.64	
84"	2.69	4.32	6.04	7.70	9.30	10.95	12.56	14.30	15.96	
96"	3.08	4.95	6.92	8.82	10.65	12.55	14.38	16.39	18.28	

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Wind Driven Rainwater Penetration Test  
 Conducted to AMCA Standard 500-L.

Test size 1m x 1m (39.7" x 39.7") core area, nominal.  
 Louver Free Area 5.11 square feet.

Wind Velocity (MPH)	Rainfall Rate (in./hr.)	Core Area Velocity (FPM)	Airflow (CFM)	Free Area Velocity (FPM)	Effectiveness Ratio	Class	Dischard Loss Coefficient Class Intake
29	3"	689	7415	1451	100%	A	2
50	8"	683	7352	1439	99.5%	A	2

Wind Driven Rain Penetration Classifications

Class	Effectiveness %
A	100 to 99%
B	98.9% to 95%
C	94.9% to 80%
D	Below 80%

Discharge Loss Coefficient Classifications

Class	Discharge Loss Coefficient
1	0.4 and above
2	0.3 to 0.399
3	0.2 to 0.299
4	0.199 and below

Class 1 Loss Coefficient has the least resistance to airflow.

1. Core area is the front opening of a louver assembly with the blades removed.
2. Core area velocity is the airflow rate through the louver divided by the core area (39.37" x 39.37").
3. Free area is the minimum area through which air can pass. It is determined by multiplying the sum of the minimum distance between intermediate blades, top blade and head, bottom blade and sill, by the minimum distance between jambs.
4. Discharge loss coefficient is calculated by dividing a louver actual airflow rate vs. a theoretical airflow for the opening, providing an indication of the louver air flow characteristics.



Arrow United Industries certifies that the Model EA-331-VSL shown herein is licensed to bear the AMCA seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 511 and comply with the requirements of the AMCA Certified Ratings Program. The AMCA Certified Ratings Seal applies to Air Performance and Wind Driven Rain Ratings only.



HIGH VELOCITY  
 RAIN RESISTANT  
 WITH BLADES FULLY OPEN

See www.AMCA.org for all certified or listed products

This label does not signify AMCA airflow performance certification.

Arrow United Industries certifies that the Model EA-331-VSL shown herein is approved to bear the AMCA Listing Label. The ratings shown are based on tests and procedures performed in accordance with AMCA Publications and comply with the requirements of the AMCA Listing Label Program.

The AMCA Listing Label applies to High Velocity Rain Resistant Louvers.

