WIND-DRIVEN RAIN LOUVER
MODEL LE-36

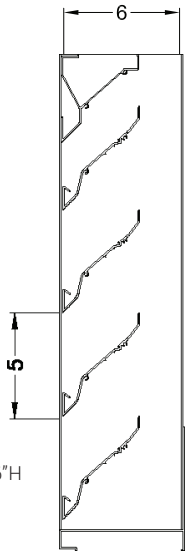
SUBMITTAL SHEET

APPLICATION AND DESIGN

The LE-36 is a High Velocity Wind Driven Rain louver designed to protect building ventilation openings from extreme weather. The LE-36 has a dual blade system. The front blade is a standard 4" deep drainable blade louver, which serves as the first point of protection for both water and airborne debris. The optional rear blade is a 2" deep wind driven rain louver. This additional louver serves as the ultimate barrier against wind driven rain and allows the LE-36 to carry the AMCA 550 certification.

The LE-36 has been tested in accordance with AMCA 500-L Air Performance, Water Penetration and Wind Driven Rain. The LE-36 is tested in accordance with AMCA 550 Test Method for High Velocity Wind Driven Rain Resistant Louvers. LE-36 is tested in accordance with AMCA 540 Test Method for Louvers Impacted by Wind Bourne Debris (Basic Protection Level D).

AMCA 540/550 LISTED
MAXIMUM LOAD APPROVED FOR +/-130 PSF



Standard section

STANDARD SPECIFICATIONS

Louver Type: Wind-Driven Rain
Louver Depth: 6"
Frame: 0.081" head and sill, 0.125" jamb
Blades: 0.081"
Blade Angle: 45°
Blade Spacing: 5"
Minimum Panel Size: 12"W x 12"H
Maximum Panel Size (mill and paint finishes): 96"W x 96"H
Maximum Panel Size (anodized finishes): 96"W x 72"H or 72"W x 96"H
Max Assembly: Unlimited

RATINGS

Free Area: 8.06 ft^2 (50.4%)
Pressure Drop at Beginning Point of Water Penetration: 0.18 in wg
Free Area Velocity at Beginning Point of Water Penetration: 946 fpm
Airflow at Beginning Point of Water Penetration: 7624 cfm

HIGH VELOCITY RAIN RESISTANT WITH BLADES FULLY OPEN AND IMPACT RESISTANT LOUVER
Basic Protection Level D
See www.AMCA.org for all certified or listed products

This label does not signify AMCA airflow performance certification.

AMCA Certifies that louver model LE-36 shown herein is licensed 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 Labels apply to Wind Borne Debris Impact Resistant Louvers and High Velocity Wind Driven Rain Resistant Louvers (with the optional WDR louver insert).

Rating includes Optional Pressure Cycling for High Velocity Hurricane Zones for +/- 130 psf design pressure.

AWV certifies that louver model LE-36 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 ratings, water penetration, and wind-driven rain ratings only.

TYPICAL OPTIONS

Screen:

- ☐ Bird 0.5" (1/2" Expanded aluminum)
- ☐ Bird 0.5" (0.063" Aluminum Wire Mesh
- ☐ Bird 0.5" (0.063" Stainless Wire Mesh)
- ☐ Insect Screen

Mounting Options:

- ☐ 1.5" x 1.5" Clip Angles
- ☐ 2" x 2" Clip Angles
- ☐ 1.5" x 1.5" Perimeter Angles
- ☐ 2" x 2" Perimeter Angles

Heavier Material - 0.125" 6063-T5 Extruded Aluminum:

- ☐ Blades
- ☐ Frame

Options:

- ☐ Hidden Vertical Mullions
- ☐ Sill Pan
- ☐ Sill Extensions
- ☐ Wind Driven Rain Insert

Special Shapes:

Finish Options:

- ☐ Mill
- ☐ Prime Only
- ☐ 2-coat Kynar
- ☐ 3-coat Kynar

Color:

Anodized:

- ☐ Clear (204-R1)
- ☐ Light Bronze
- ☐ Dark Bronze
- ☐ Champagne
- ☐ Clear (215-R1)
- ☐ Med. Bronze
- ☐ Black

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WIND-DRIVEN RAIN LOUVER
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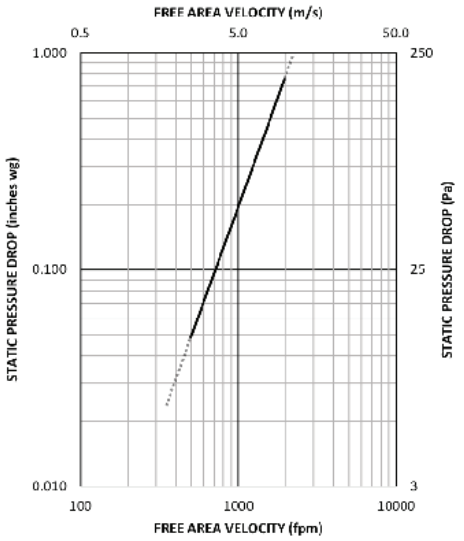
STANDARD PERFORMANCE AND OPTIONS - *NO WDR LOUVER INSERT*

FREE AREA CHART (ft^2)

Height (inches)	Width (inches)							
	12	24	36	48	60	72	84	96
12	0.32	0.73	1.14	1.55	1.96	2.37	2.78	3.19
24	0.72	1.64	2.56	3.47	4.39	5.31	6.23	7.14
36	1.23	2.78	4.34	5.90	7.45	9.01	10.57	12.12
48	1.64	3.71	5.78	8.06	9.92	12.00	14.07	16.14
60	2.13	4.84	7.54	10.24	12.95	15.65	18.35	21.06
72	2.66	6.02	9.38	12.74	16.10	19.46	22.82	26.19
84	3.06	6.93	10.80	14.66	18.53	22.40	26.27	30.14
96	3.56	8.07	12.58	17.09	21.59	26.10	30.61	35.12

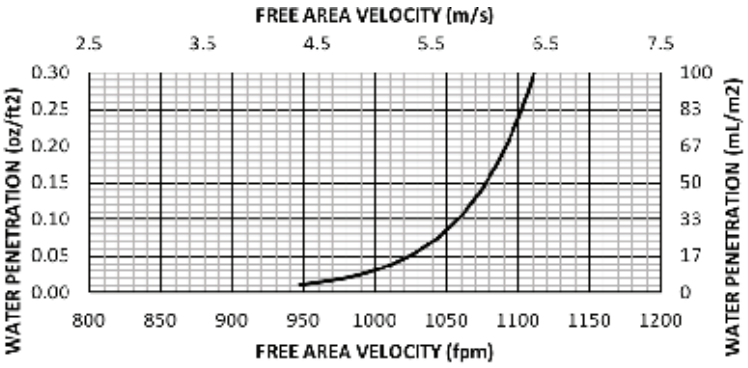
Free Area data provides a method to estimate free area velocity for a given louver size if the system airflow is known. Free area velocity is used to estimate pressure drop and water penetration.

AIR PERFORMANCE

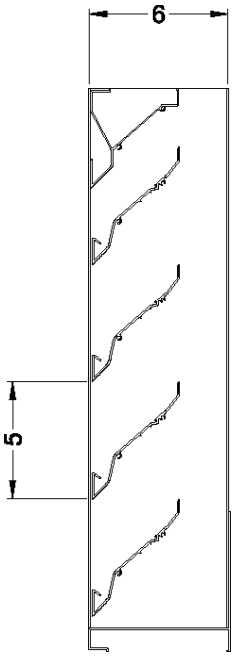


Air Performance data provides pressure drop through the louver at various free area velocities. Air performance may vary between intake and exhaust. Air performance shown is for intake only. Data has been corrected for standard air density. Data does not include the effect of a screen. Performance is based on a 48" x 48" test size per AMCA Publication 511 Figure 5.5.

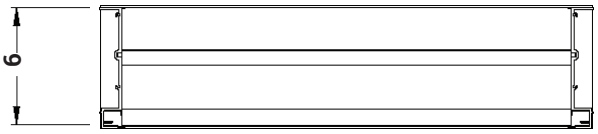
WATER PENETRATION



Water Penetration performance data provides a method for comparing different louver models effectiveness to resist water penetration when subjected to simulated rainfall in laboratory test conditions. The beginning point of water penetration for this louver is 946 fpm free area velocity. Data has been corrected for standard air density. Performance is based on a 48" x 48" test size per AMCA Publication 511.



Standard section



Plan view

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WIND-DRIVEN RAIN LOUVER
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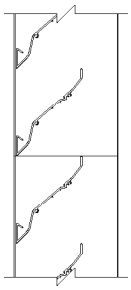
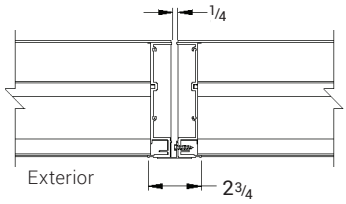
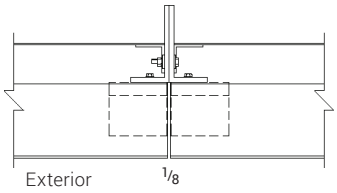
MULTIPLE PANEL MULLION DETAILS



Hidden Horizontal Mullion
(Standard Construction)

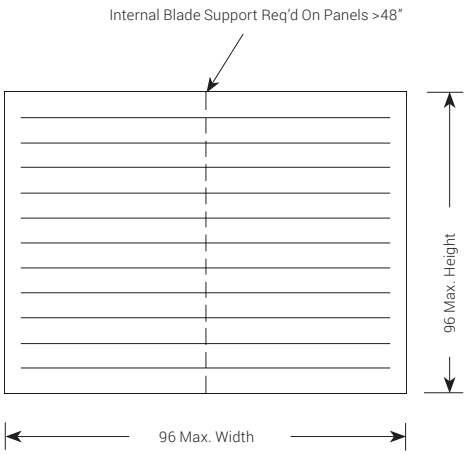


Exposed Vertical Mullion
(Standard Construction)

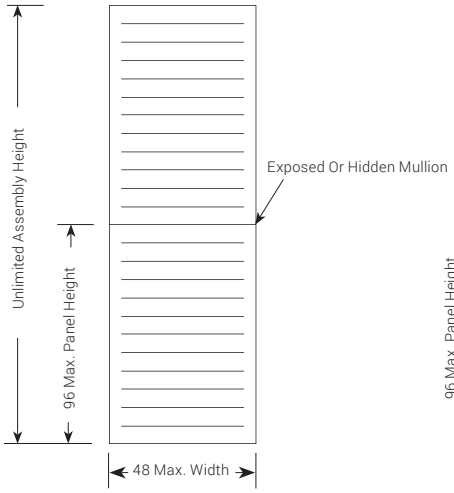


Hidden Vertical Mullion
(Optional Construction)

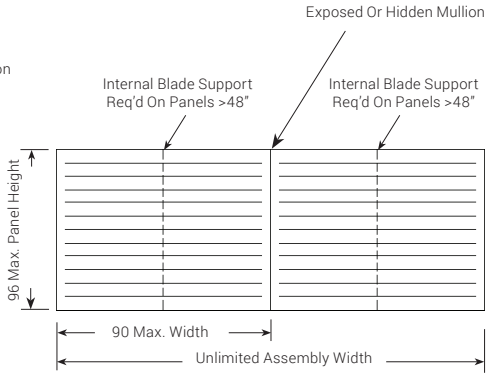
PANEL SIZE LAYOUT



Single Panel



Single Panel Wide x Multiple Panel High



Single Panel High x Multiple Panel Wide

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WIND-DRIVEN RAIN LOUVER
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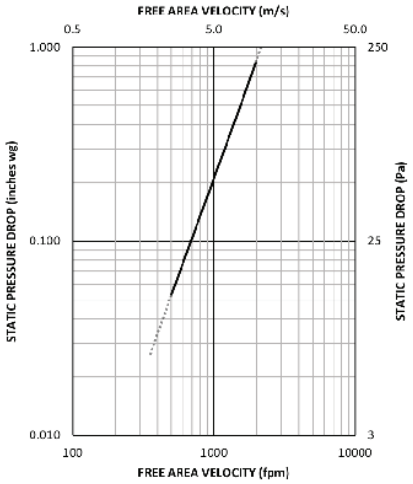
STANDARD PERFORMANCE AND OPTIONS - *WITH WDR LOUVER INSERT*

FREE AREA CHART (ft^2)

Height (inches)	Width (inches)							
	12	24	36	48	60	72	84	96
12	0.06	0.17	0.28	0.39	0.46	0.56	0.66	0.78
24	0.32	0.86	1.40	1.95	2.31	2.81	3.32	3.90
36	0.57	1.55	2.53	3.51	4.16	5.07	5.99	7.03
48	0.83	2.25	3.66	4.98	6.01	7.33	8.65	10.16
60	1.09	2.94	4.79	6.64	7.85	9.58	11.31	13.29
72	1.34	3.63	5.92	8.20	9.70	11.84	13.97	16.41
84	1.60	4.32	7.04	9.77	11.55	14.09	16.64	19.54
96	1.86	5.01	8.17	11.33	13.40	16.35	19.30	22.67

Free Area data provides a method to estimate free area velocity for a given louver size if the system airflow is known. Free area velocity is used to estimate pressure drop and water penetration.

AIR PERFORMANCE



Air Performance data provides pressure drop through the louver at various free area velocities. Air performance may vary between intake and exhaust. Air performance shown is for intake only. Data has been corrected for standard air density. Data does not include the effect of a screen. Performance is based on a 48" x 48" test size per AMCA Publication 511 Figure 5.5.

WATER DRIVEN RAIN PERFORMANCE

3 in/hr Rainfaill & 29 mph Wind Velocity

Det	Core Velocity fpm	Free Area Velocity fpm	Louver Airflow cfm	WP Effective %	WP Class
1	0.0	0.0	0	>= 99.9%	A
2	100.0	220.3	2611	>= 99.9%	A
3	200.0	440.7	5222	>= 99.9%	A
4	300.0	661.0	7833	>= 99.9%	A
5	400.0	881.3	10444	>= 99.9%	A
6	500.0	1101.7	13055	>= 99.9%	A
7	585.0	1289.0	15274	99.9%	A
8	687.0	1513.7	17937	99.6%	A
9	785.0	1729.6	20496	99.0%	A
10	887.0	1954.4	23159	97.6%	B
11	978.0	2154.9	25535	95.5%	B

8 in/hr Rainfaill & 50 mph Wind Velocity

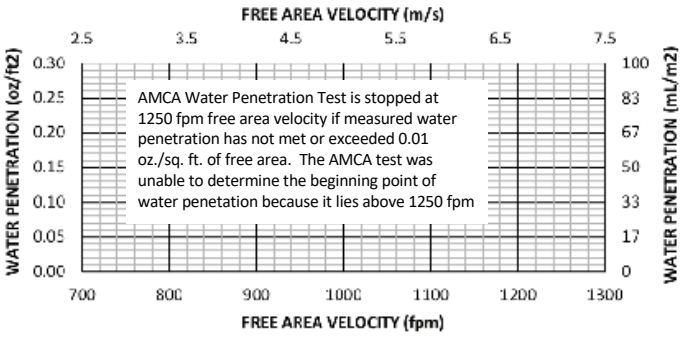
Det	Core Velocity fpm	Free Area Velocity fpm	Louver Airflow cfm	WP Effective %	WP
1	0.0	0.0	0	>= 99.9%	A
2	100.0	220.3	2611	>= 99.9%	A
3	200.0	440.7	5222	>= 99.9%	A
4	300.0	661.0	7833	>= 99.9%	A
5	400.0	881.3	10444	>= 99.9%	A
6	500.0	1101.7	13055	>= 99.9%	A
7	592.0	1304.4	15457	99.9%	A
8	689.0	1518.1	17990	99.6%	A
9	787.0	1734.0	20548	99.0%	A
10	891.0	1963.2	23264	97.2%	B
11	978.0	2154.9	25535	94.8%	C

Discharge loss coefficient Class = 3

Wind Driven Rain performance data provides a method for estimating a louver's effectiveness to resist water penetration at various intake velocities when exposed to wind driven rain. Performance is based on AMCA Publication 511. Data has been corrected for standard air density.

Wind-Driven Rain Penetration Classes: C		Discharge Loss Coefficient Classes	
Class	Effectiveness	Class	Coefficient
A	100% to 99%	1	0.4 & above
B	98.9% to 98%	2	0.3 to 0.399
C	94.9% to 95%	3	0.2 to 0.299
D	Below 90%	4	0.199 & below

WATER PENETRATION



Water Penetration performance data provides a method for comparing different louver models effectiveness to resist water penetration when subjected to simulated rainfall in laboratory test conditions. The beginning point of water penetration for this louver is 1250 fpm free area velocity. Data has been corrected for standard air density. Performance is based on a 48" x 48" test size per AMCA Publication 511.

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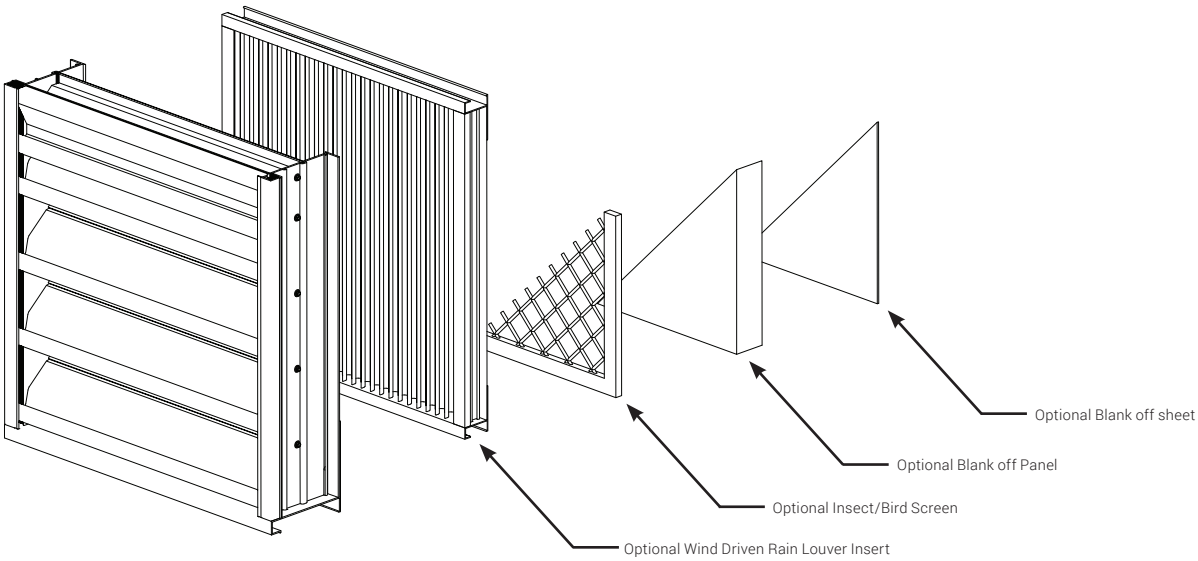
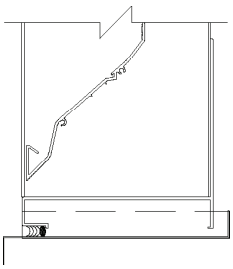
MODEL LE-36

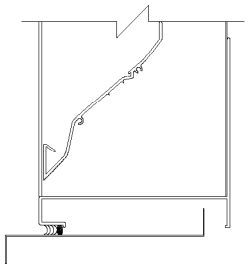
ACCESSORY OPTIONS

***For AMCA 500 compliance, the Win Driven Rain blade accessory is required.*





Sill Pan
(With End Dams)



Sill Extension

AWV is headquartered in Holland, Ohio and is a division of Mestek, Inc. Our emphasis is to provide architectural products and solutions to enhance the beauty and performance of today's building designs.

AWV has more than 100 years of unsurpassed experience in the design and supply of architectural products. Our portfolio, with tens of thousands of successful projects, includes some of the largest, most complex projects in both new and renovation applications.

CONTACT US TODAY TO DISCUSS YOUR NEXT PROJECT.

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