

HLCG445D MODEL EXTRUDED ALUMINUM COMBINATION LOUVER-DAMPER 4" FRAME, 45° FIXED DRAINABLE BLADES

- Drainable type Louver
- Fixed blades at 45°
- Barometric blade mobile opens of 0° to 60° according to differential pressure
- 4" Deep frame
- Free area 45%
- Reduces water penetration
- Test square louver 48" x 48"



CONSTRUCCION: Extruded aluminum drainable frame and blades in alloy 6063-T5, Corrosion resistant with 1.39mm OD thickness.

FINISH: Natural anodized as standard or acrylic enamel electrostatic paint.

PERFORMANCE: The maximum recommended air velocity through the free area is 1250 ft/min, with a pressure drop of 0.25 inH₂O, over a 48"x48" louver

ACCESORIES:
-Mosquito screen (prevents the entry of insects)
-Bird screen (prevents the entry of fauna)

ASSEMBLED: With Snap join.
SIZE Module / Louver in one piece.
Minimum size: 12" horizontal X 12" vertical.
Anodized maximum size: 60" horizontal X 96" vertical.
Maximum size painted: 60" horizontal X 72" vertical.
***Note:** All louvers over 60" x 72" will include a snap join for easy assembly between them.

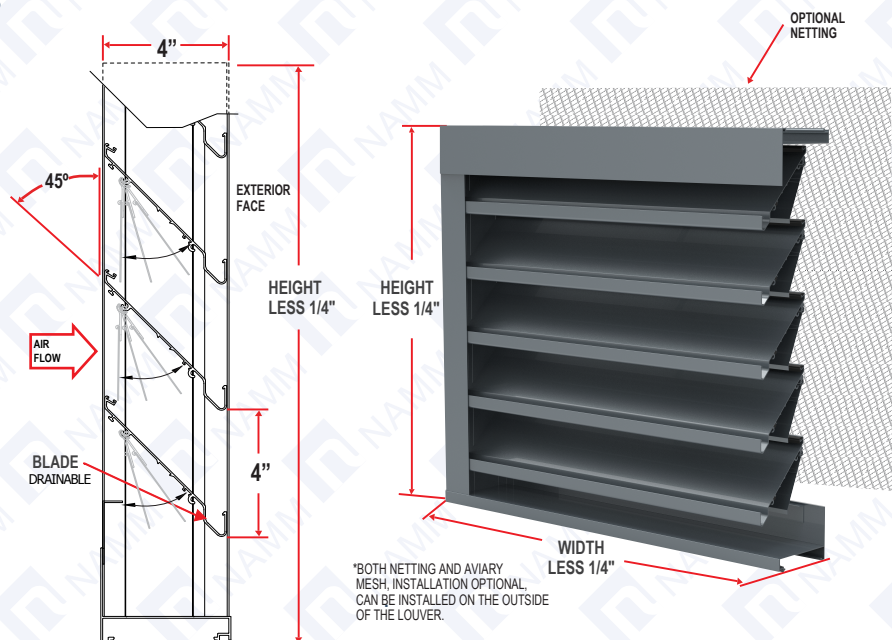
Dimensional Details



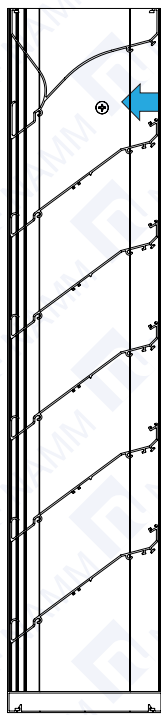
"Grupo Namm S.A. de C.V. certifies that the Model HLCG445D shown herein is licensed to bear the AMCA Seal

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.

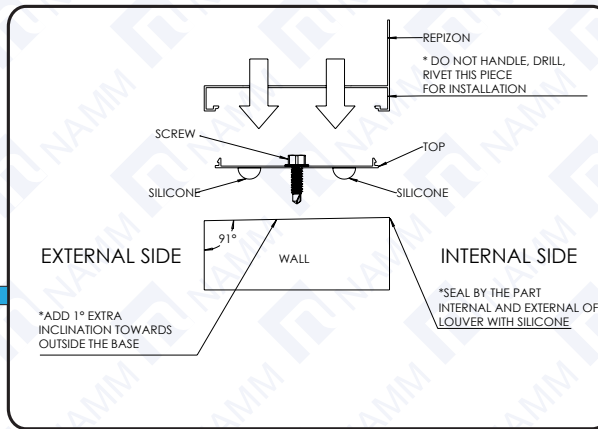
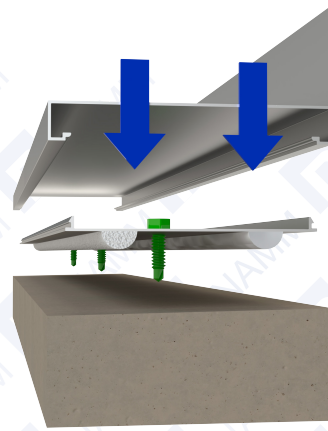
The AMCA Certified Ratings Seal applies to water penetration and air performance ratings only."



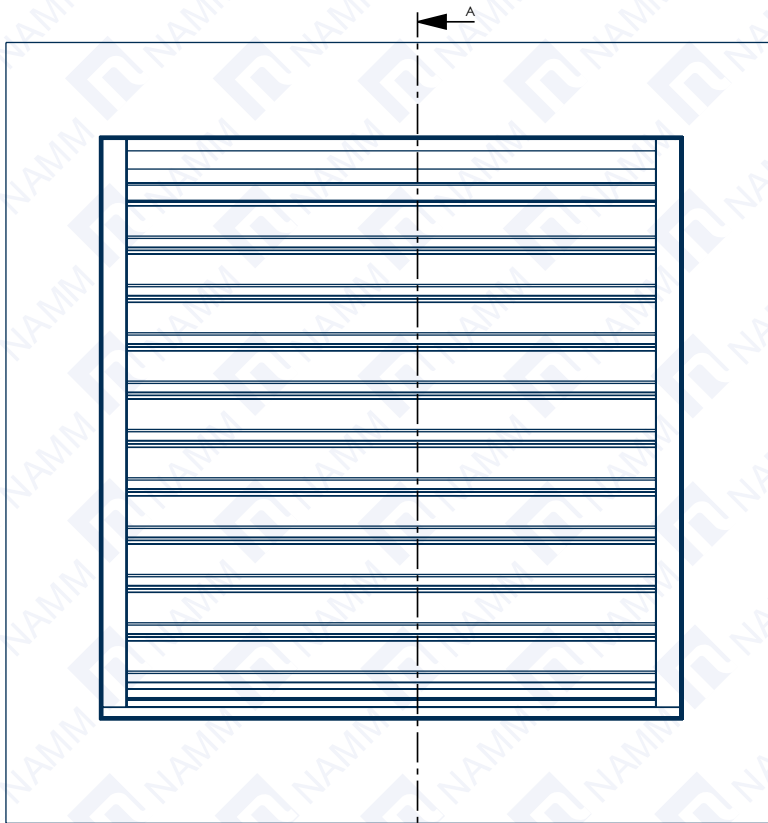
SUGGESTED WALL INSTALLATION



Mount screw to wall
* (Supplied by others)



SEAL



FRONT VIEW

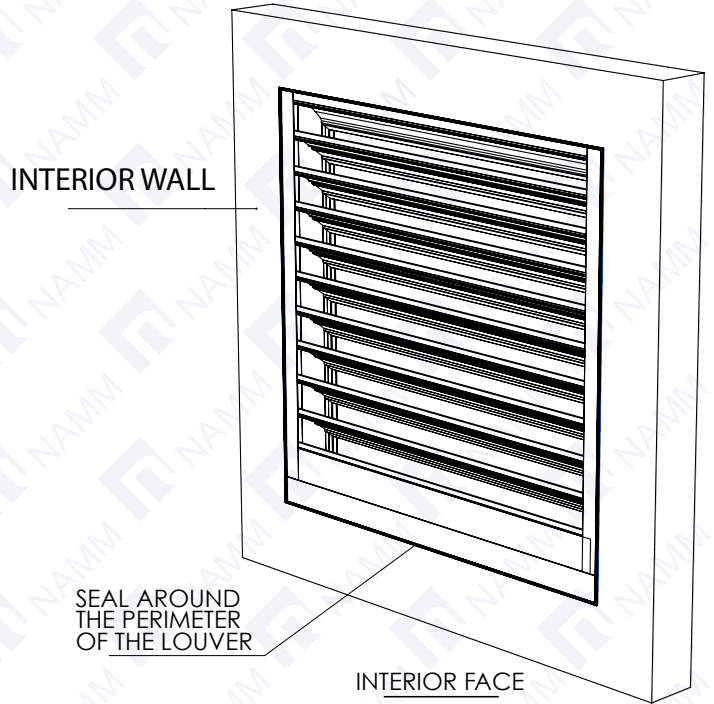
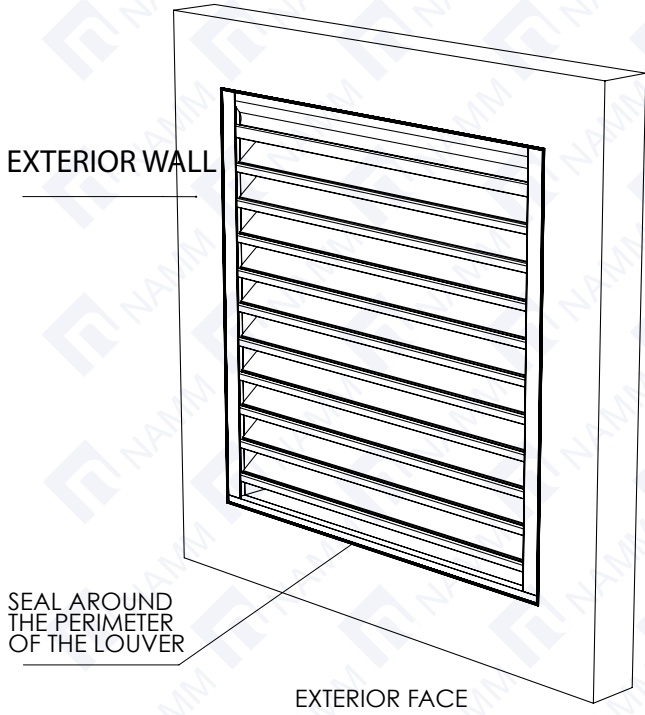


EXTERNAL SEAL BETWEEN LOUVER AND WALL
INTERNAL SEAL BETWEEN LOUVER AND WALL

SECTION VIEW
A-A

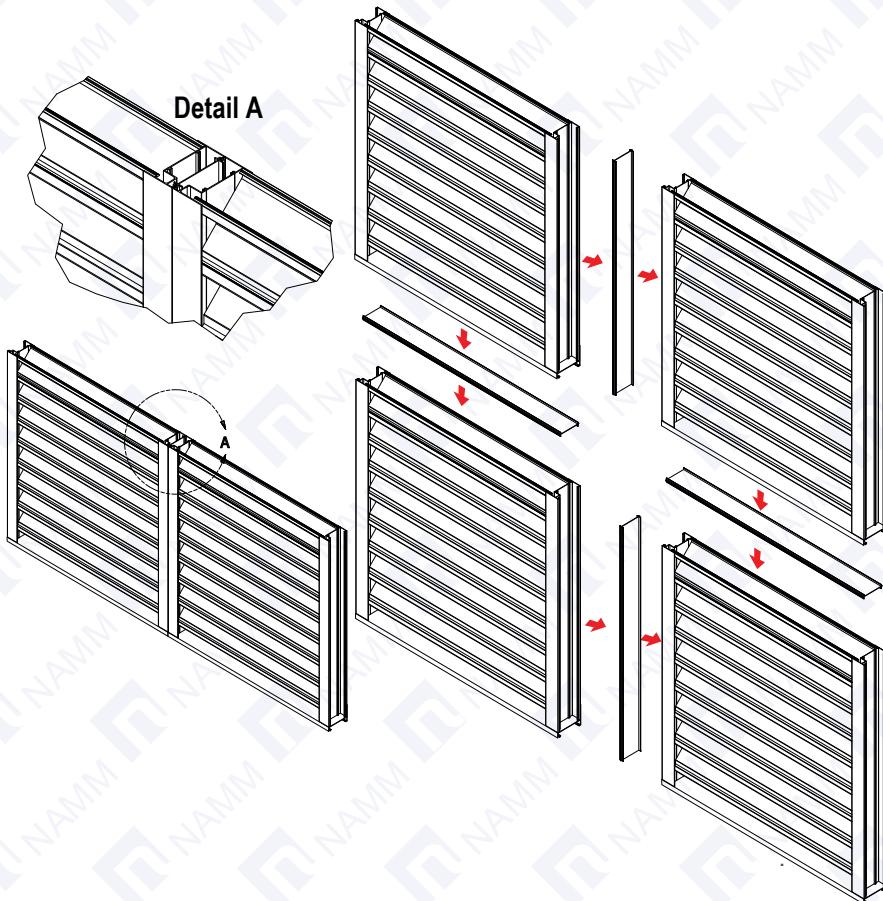


SEAL INSTALLATION



ASSEMBLED WITH SNAP JOIN

All louvers over 60"x72" will include a snap join for easy assembly between them.



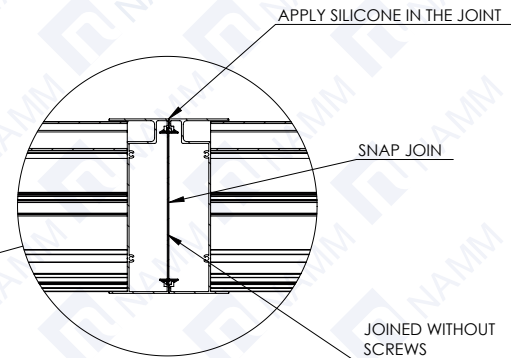
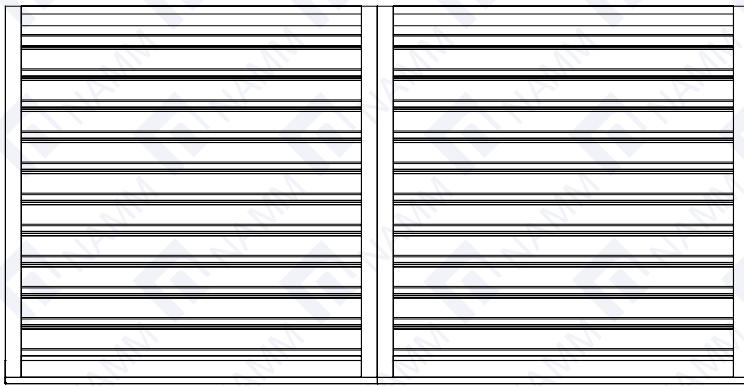
New

NAMM SEAL OF AUTHENTICITY

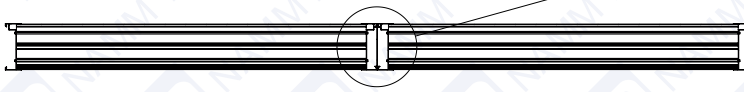
- * Mark (N) in high relief located on blade #1 next to base
- * Certify that the product you buy is original
- * Guarantees the benefits tested by international laboratories



HORIZONTAL MODULE ASSEMBLY



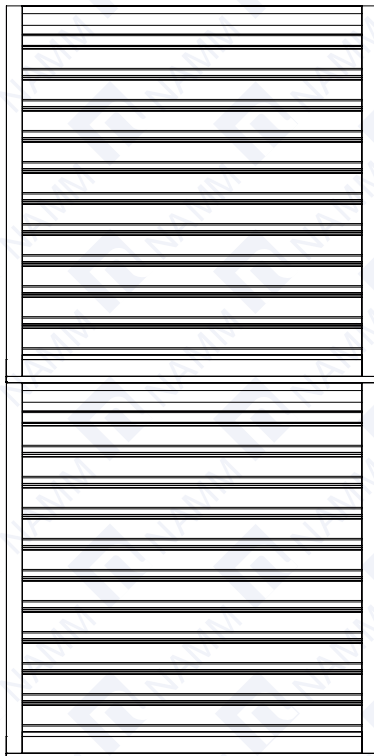
SNAP JOIN INSTALLATION DETAIL



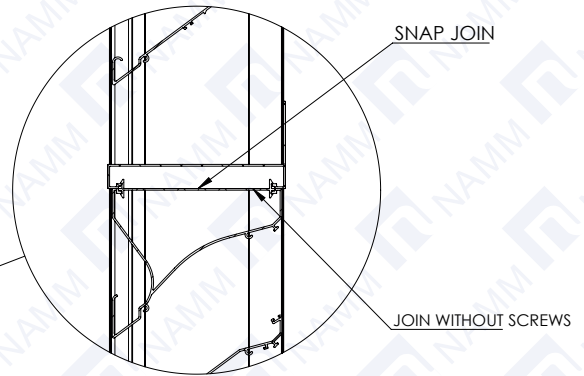
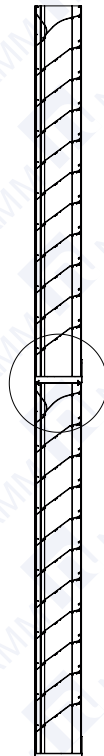
DETAIL OF INSTALLATION OF MULTIPLE MODULES

NOTE:
 THE SNAP JOINS ARE ONLY INCLUDED TO FACILITATE THE ASSEMBLY OF
 THE MODULATED LOUVERS, BUT DO NOT GENERATE RIGIDITY OR
 SUPPORT BETWEEN THE MODULES.

VERTICAL MODULE ASSEMBLY



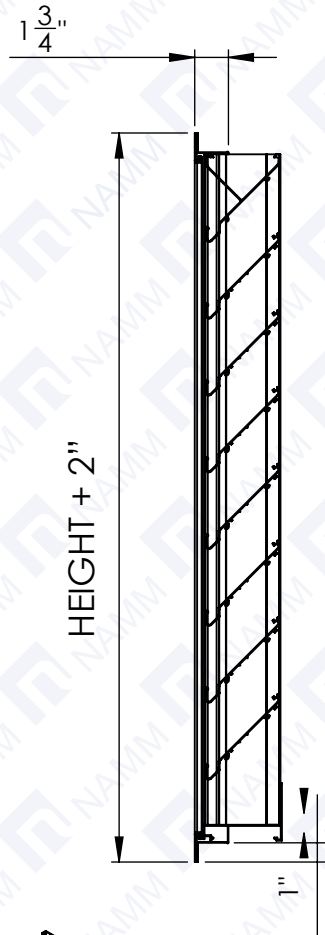
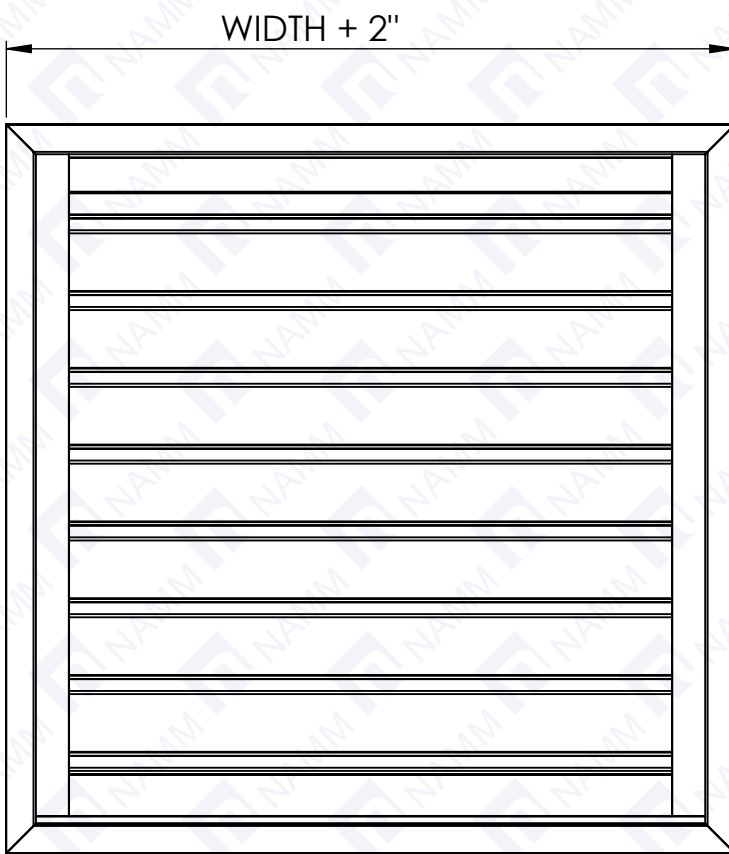
DETAIL OF INSTALLATION OF MULTIPLE MODULES



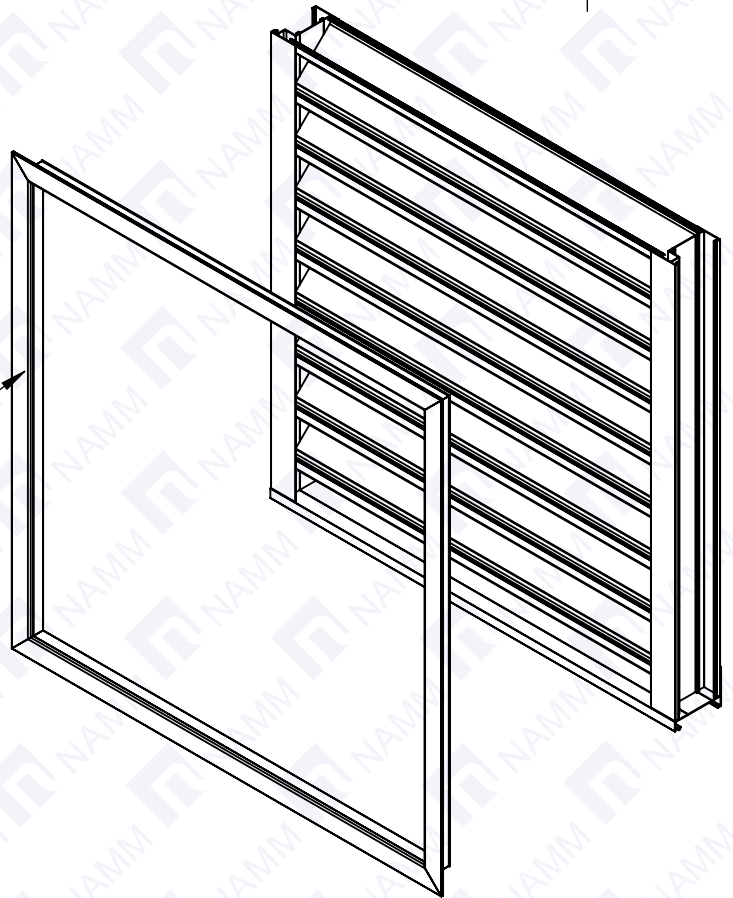
SNAP JOIN INSTALLATION DETAIL

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PERIMETER FRAME * optional accessory



PERIMETER FRAME (OPTIONAL)
TO PREVENT ENTRY
OF RAINWATER.

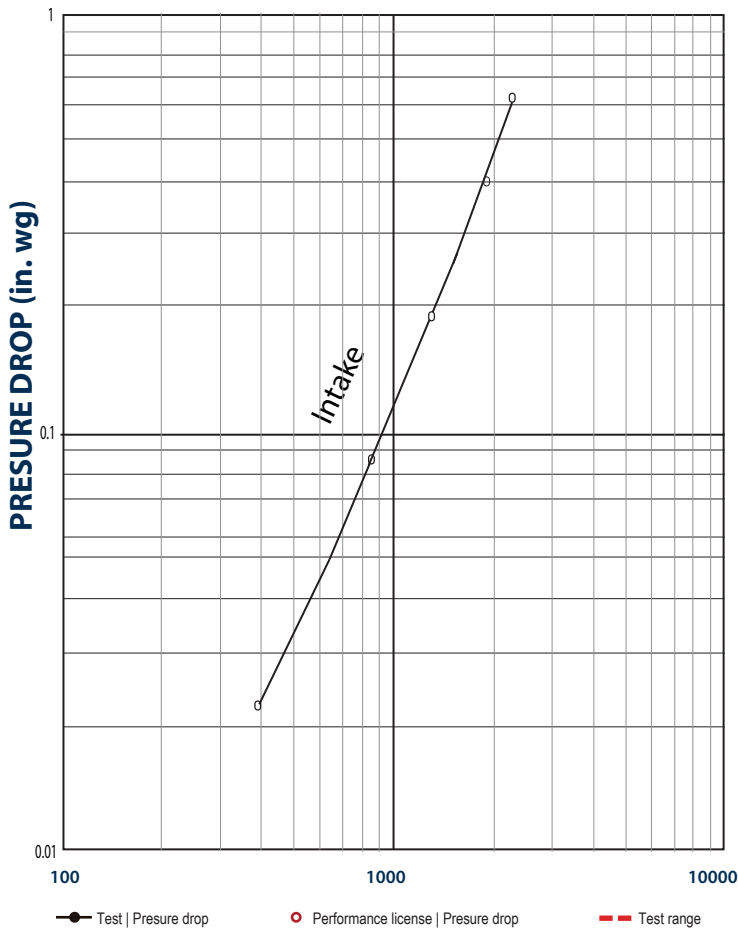


FREE AREA (IN SQUARE FEET) MODEL HLCG445D

		LOUVER WIDTH INCHES														
		12	18	24	30	36	42	48	54	60	66	72	78	84	90	96
LOUVER HEIGHT INCHES	12	0.20	0.37	0.53	0.69	0.85	1.02	1.18	1.34	1.51	1.67	1.83	1.99	2.16	2.32	2.48
	24	0.56	1.00	1.44	1.89	2.33	2.78	3.22	3.66	4.11	4.55	5.00	5.44	5.88	6.33	6.77
	36	0.91	1.63	2.36	3.08	3.81	4.53	5.26	5.98	6.71	7.43	8.16	8.88	9.61	10.33	11.06
	48	1.26	2.26	3.27	4.28	5.28	6.29	7.30	8.30	9.31	10.32	11.32	12.33	13.34	14.34	15.35
	60	1.61	2.90	4.19	5.47	6.76	8.05	9.34	10.62	11.91	13.20	14.49	15.78	17.06	18.35	19.64
	72	1.96	3.53	5.10	6.67	8.24	9.81	11.38	12.94	14.51	16.08	17.65	19.22	20.79	22.36	23.93
	84	2.28	4.11	5.93	7.76	9.58	11.41	13.23	15.06	16.88	18.71	20.53	22.36	24.18	26.01	27.84
	96	2.63	4.73	6.84	8.94	11.05	13.15	15.25	17.36	19.46	21.56	23.67	25.77	27.88	29.98	32.08
	108	2.98	5.36	7.74	10.13	12.51	14.89	17.27	19.65	22.04	24.42	26.80	29.18	31.57	33.95	36.33
	120	3.33	5.99	8.65	11.31	13.97	16.63	19.29	21.95	24.61	27.27	29.94	32.60	35.26	37.92	40.58
	132	3.67	6.61	9.55	12.49	15.43	18.37	21.31	24.25	27.19	30.13	33.07	36.01	38.95	41.89	44.83
144	4.02	7.24	10.46	13.68	16.90	20.11	23.33	26.55	29.77	32.99	36.20	39.42	42.64	45.86	49.08	

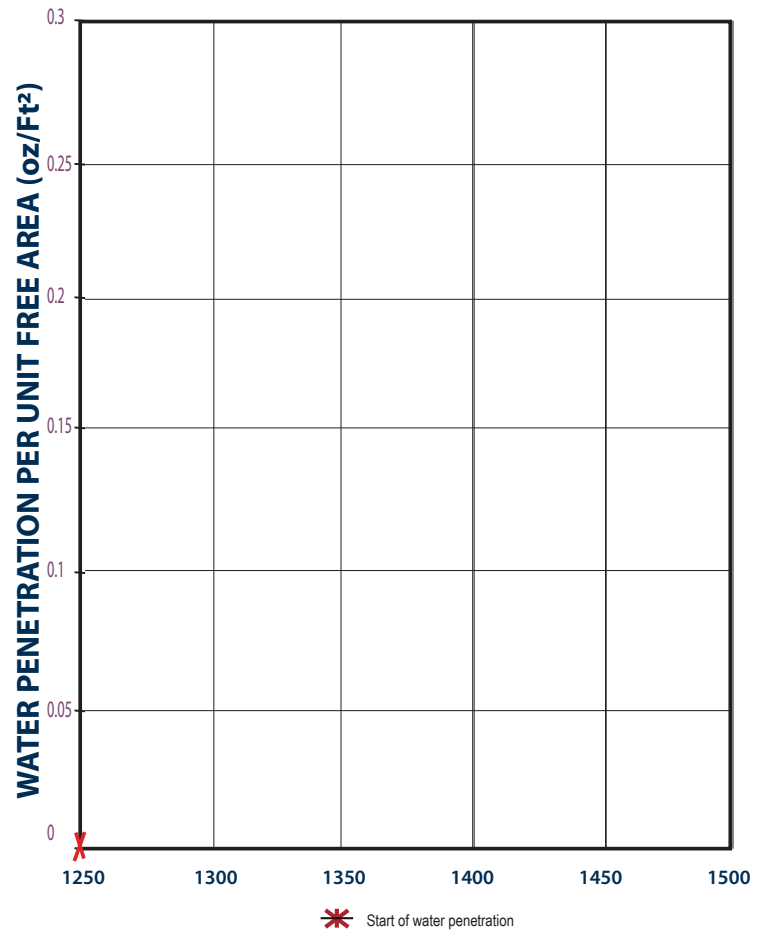
AIRFLOW RESISTANCE

- Standard Air 0.075 lb/ft²
- Louver test size 48 in x 48 in



WATER PENETRATION

- Standard Air 0.075 lb/ft²
- Louver test size 48 in x 48 in
- Test duration of 15 min.



AIR VELOCITY THROUGH FREE AREA (FPM)

Free area velocities (shown) are higher than average velocity through the overall louver size. See louver selection information. The installation of optional accessories does not warranty the louver performance will be the same as that obtained in the AMCA tests.

FREE AREA VELOCITY (FPM)

Water penetration resistance is a calculation of the amount of water that passes through a louver while subjected to specific airflow conditions. It is expressed as the weight of water passing through the louver divided by the free area at a specified free area velocity. The maximum rating for water penetration velocity is 1250 fpm. The beginning point of water penetration is defined as that air velocity where the water penetration is 0.01 oz. H₂O/sq. ft. (louver free área). The test provides a method for comparing various louver designs as to their efficiency in resisting the penetration of rainfall under specific laboratory test conditions.

The beginning point of water penetration for Model NAMM HLCG445D is 1250 fpm at free area velocity. These results of performance do not guarantee a louver to be weatherproof or stormproof, should be used in combination with factors like good engineering criteria to selecting louvers, environmental conditions, geographic location, and other factors.