

# MODEL R5455 STORM RESISTANT DRAINABLE LOUVER

## PERFORMANCE

Performance Rating Standard	AMCA Standard 500L
Louver Type	Mullion Construction
Louver Depth	5" (127 mm)
Blade Angle	45°
Free Area – 4'x4' Unit	7.54 sq.ft. (0.70 m <sup>2</sup> )
Percentage Free Area	47.1%
Free Area Velocity at Beginning Point of Water Penetration (0.01 oz / ft <sup>2</sup> )	1100 FPM (5.59 m/s)
Air Volume at Beginning Point of Water Penetration 4' x 4' Unit (test duration of 15 minutes)	8294 CFM (4.0 m <sup>3</sup> /s)
Pressure Drop at Beginning Point of Water Penetration	0.40 in. H <sub>2</sub> O (39.5 Pa)
Notes	Tested without bird screens
<b>WIND DRIVEN RAIN WATER PENETRATION DATA</b> (29 mph (13 m/s) wind velocity with a 3 in/hr (75 mm/hr) rainfall rate):	
Effectiveness Ratio: 99.8% (Class "A" Rating)	Core Ventilation Rate: 0.7 m/s (133 fpm) Free area velocity: 1.4 m/s (276 fpm)
Effectiveness Ratio: 98.9% (Class "B" Rating)	Core Ventilation Rate: 1.0 m/s (192 fpm) Free area velocity: 2 m/s (388 fpm)



VERTICAL SECTION



FLANGE FRAME  
OPTIONAL



GLAZING FRAME  
OPTIONAL

## ABBREVIATED SPECIFICATION

Where indicated on drawings, supply and install 5" (127 mm) deep storm resistant louver Model R5455. Submit all details to consultant for approval prior to fabrication.

Head, sill, jambs and mullions shall have a minimum thickness of 0.080" (2.0 mm) 6063-T5 aluminum alloy. Jambs and Mullions shall have integral, vertical gutters to direct water to the bottom of the exterior face of the louver and away from the building. Blades shall be, 0.070" (1.77 mm) 6063-T5 aluminum alloy and include an integral horizontal gutter to lead water to the vertical gutters in the mullions and jambs provided with a sill pan flashing. Louvers shall be supplied with a 1/2" (12 mm), 19 gauge (1 mm) welded and regalvanized wire mesh in a mill finish, aluminum frame. Fasteners shall be standard zinc plated steel or stainless steel.

Materials Manufacturer: Ten Plus Architectural Products Ltd., 26 - 6535 Millcreek Drive, Mississauga, Ontario, Canada, L5N 2M2; Phone: (866) 884-0717; Email: info@tenplus-online.com; URL: www.tenplus-online.com

Structural supports shall be designed and furnished by the louver manufacturer to support a wind load of 20 psf (958 Pa), unless specified otherwise. Any louver opening greater than 10' (3 m) high, will require a horizontal girt, at mid span by others.

The louver manufacturer shall submit data, on a 4' x 4' (1.2 x 1.2 m) unit, showing that the louver performs to the above criteria, based on tests & procedures performed in accordance with the AMCA Publication 511, and comply with the "Certified Ratings Program" licensed to bear the AMCA seal.

Louvers shall be fabricated with mill finish aluminum and the finish shall be applied after assembly. Select desired finish from the following:

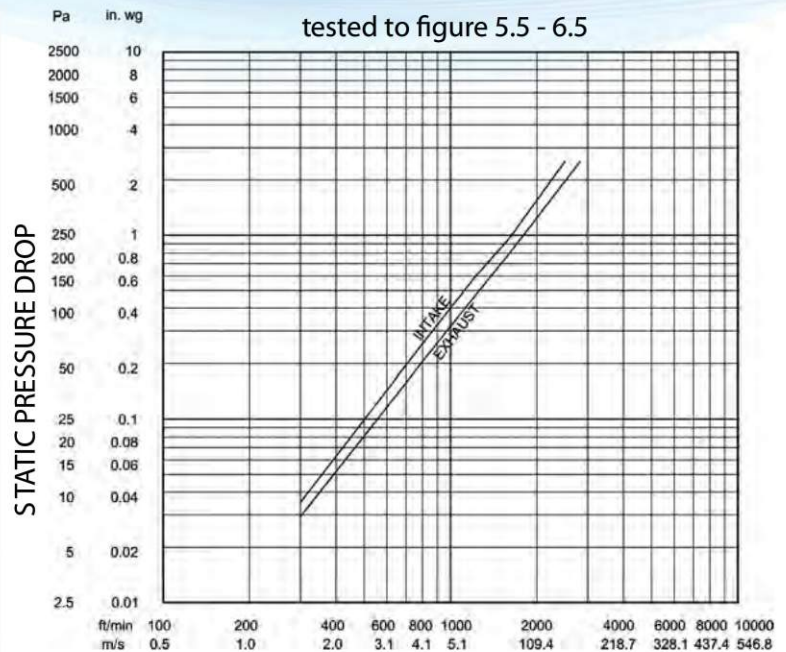
For superior performance, 3 coat PVDF system including a thermal setting application of 70% fluoropolymer resin. OR High performance 2 coat, PVDF system including a thermal setting application of 70% fluoropolymer resin. OR Pigmented Organic Thermal Setting Finish 1 coat system meeting or exceeding AAMA 2603. OR (Color Anodize) Ensure aluminum finish is colour anodized in accordance with Aluminum Association Finish Designation AA-M12C22A44, Class I, minimum 0.018 mm (0.7 mils) thick finish. Color to be selected by consultant. OR (Clear Anodize) Ensure aluminum finish is clear anodized in accordance with Aluminum Association Finish Designation AA-M12C22A41, Class I, minimum 0.018 mm (0.7 mils) thick for exterior applications and AA-12C22A31, Class II, minimum 0.01 mm (0.4 mils) thick for interior applications.

# PERFORMANCE RATINGS – LOUVER MODEL R5455

## FREE AREA CHART

		Louver Width				
		12	24	36	48	60
inches						
mm		305	610	914	1219	1524
Free Area - Square Feet / Square Meters						
12	0.27	0.60	0.92	1.25	1.58	
305	0.02	0.06	0.09	0.12	0.15	
24	0.66	1.46	2.27	3.08	3.89	
610	0.06	0.14	0.21	0.29	0.36	
36	1.13	2.52	3.91	5.31	6.70	
914	0.11	0.23	0.36	0.49	0.62	
48	1.71	3.81	5.91	7.54	10.11	
1219	0.16	0.35	0.55	0.70	0.94	
60	1.99	4.45	6.90	9.36	11.81	
1524	0.19	0.41	0.64	0.87	1.10	
72	2.47	5.51	8.55	11.58	14.62	
1829	0.23	0.51	0.79	1.08	1.36	
84	2.94	6.57	10.19	13.81	17.43	
2134	0.27	0.61	0.95	1.28	1.62	
96	3.52	7.86	12.19	16.52	20.86	
2438	0.33	0.73	1.13	1.54	1.94	
108	3.74	8.34	12.94	17.55	22.15	
2743	0.35	0.78	1.20	1.63	2.06	
120	4.20	9.37	14.54	19.71	24.88	
3048	0.39	0.87	1.35	1.83	2.31	
132	4.67	10.42	16.17	21.92	27.67	
3353	0.43	0.97	1.50	2.04	2.57	
144	5.51	11.48	17.81	24.14	30.48	
3658	0.48	1.07	1.66	2.24	2.83	

## AIR FLOW RESISTANCE (TEST SIZE OF 4' X 4')



## AIR VELOCITY



Ten Plus Architectural Products Ltd. certifies that louver model R5454 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 only to Air Performance, Water Penetration and Wind Driven Rain ratings.

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## WIND DRIVEN RAIN PERFORMANCE

Core velocity - m/s (f/m)	0 (0)	0.7 (133)	1.0 (192)	1.4 (279)	1.9 (382)	2.4 (473)	3.0 (595)	3.5 (697)
Free area velocity - m/s (f/m)	0 (0)	1.4 (268)	2.0 (388)	2.9 (563)	3.9 (770)	4.8 (953)	6.1 (1199)	7.1 (1404)
Effectiveness classification	A	A	B	B	C	C	C	D
Effectiveness ratio	99.80%	99.40%	98.90%	97.20%	94.80%	92.30%	85.70%	74.70%

Discharge Loss Coefficient Class (Intake) = 3

This test is based on a 1 m x 1 m (39.37" x 39.37") louver core size, at a rainfall rate of 76mm/hr (3 in/hr), with wind driven rain applied to the face of the louver at a velocity of 13 m/s (29 mph). The above table shows the effectiveness against water penetration at each corresponding ventilation airflow rate.