

BLH-5709

Material

- Material: aluminium alloy 6063-T6
- Nominal thickness: 1.52 mm for blades; 2.03 mm for head, cill and jamb frames, and for mullions
- Optional extras (at additional cost): bird/vermin guards, insect mesh, blanking plates, insulated blanking panels, cill pans and integrated glazing frames

Test Summary

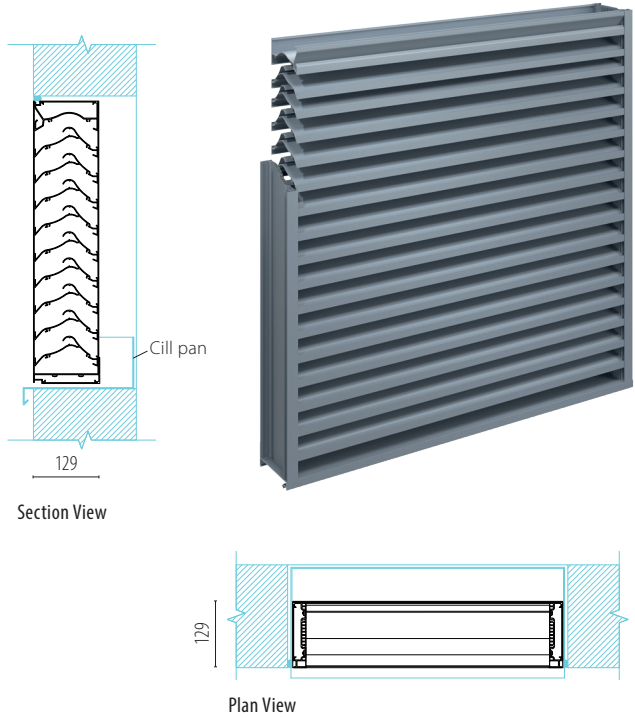
Tested with mill finish and no accessories.

For a 1220 mm x 1220 mm (4' x 4') unit.

- Free area = 0.681 m² (7.32 ft²)
- Percent free area = 45.8%
- Free area velocity at the point of beginning water penetration (at 3.05 g/m² (0.01 oz. / ft²) of free area, based on a 15-minute interval test) = 6.35 m/s (1250 FPM)

For a unit with 1m² core area.

- To maintain a CLASS A (99%) effectiveness rating* with:
 - a 13 m/s (29.1 mph) wind speed and rainfall rate of 75 mm/hr (3 in/hr)
 - Max. intake core velocity 3.88 m/s (763 FPM)
 - Max. intake free area velocity 7.69 m/s (1514 FPM)
- To maintain a CLASS B (95%) effectiveness rating* with:
 - a 22.3 m/s (50 mph) wind speed and rainfall rate of 203 mm/hr (8 in/hr)
 - Max. intake core velocity 4.00 m/s (788 FPM)
 - Max. intake free area velocity 7.94 m/s (1563 FPM)



Discharge Coefficient (C_d)

Intake = 0.32 (Class 2), Exhaust = 0.3 (Class 2)
AMCA certifies the coefficient class only



Construction Specialties UK Ltd certifies that the louvre model BLH-5709 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 Wind-Driven Rain, Water Penetration and Air Performance ratings.

Blast Data:

Model BLH-5709 is designed to withstand up to 86.87 kPa (12.6 psi) blast pressure at an impulse of 536.41 kPa-msec (77.8 psi-msec).

Typical Blast Requirements:

Pressure (kPa)	27.57	41.36	55.15	86.87
Pressure (psi)	4.0	6.0	8.0	12.6
Impulse (kPa-msec)	193.05	289.58	406.79	536.41
Impulse (psi-msec)	28.0	42.0	59.0	77.8

BLH-5709

Wind-Driven Rain Performance

Tested with 1m² core area, mill finish and no accessories*

13 m/s (29.1 mph) & 75 mm (3") rain per hour

Core Velocity Through Calibration Plate (m/s):	0.0	0.5	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0
Free Area Velocity (m/s):	0	1.33	1.99	2.90	3.83	4.76	5.90	6.93	7.69	8.90	9.99
Rating Effectiveness:	A	A	A	A	A	A	A	A	A	B	C
Effectiveness Ratio (%):							99.9	99.5	99.4	98.1	94.9

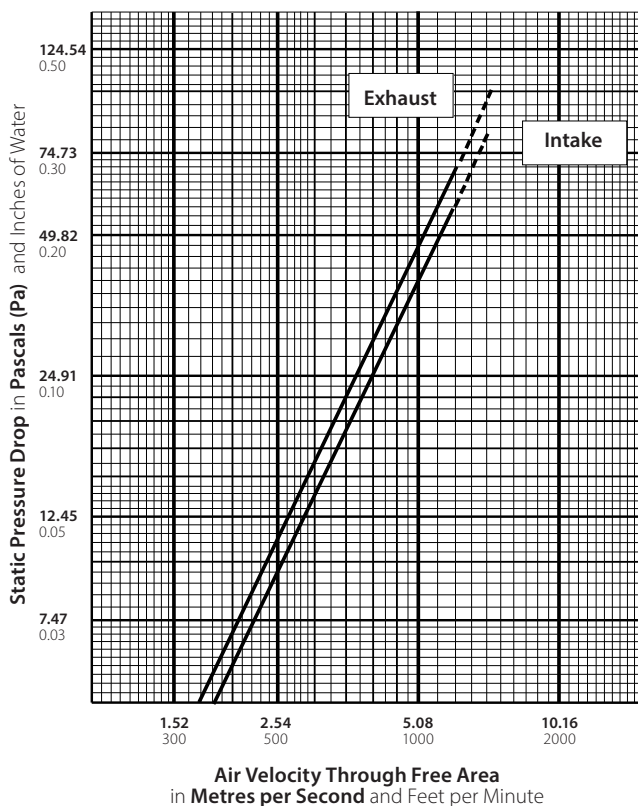
22.3 m/s (50 mph) & 203 mm (8") rain per hour

Core Velocity Through Calibration Plate (m/s):	0.0	0.5	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0
Free Area Velocity (m/s):	0	1.01	1.78	2.87	4.00	4.83	5.69	6.92	7.94	8.83	9.51
Rating Effectiveness:	A	A	A	A	B	B	B	B	B	C	C
Effectiveness Ratio (%):		99.4	99.3	99.2	98.9	98.6	98.2	97.3	96.0	92.9	87.9

Effectiveness Rating:	A = 1 to 0.99	B = 0.989 to 0.95	C = 0.949 to 0.80	D = Below 0.80
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Water Penetration Statement

AMCA defines the point of beginning water penetration as the free area velocity at which the AMCA water test has yielded 3.05 grams or less of water per square metre (0.01 oz./ft²) of louver free area during a 15-minute test period.



Data corrected to standard air density.
1220 mm x 1220 mm (48" x 48") louver tested to figure 5.5.

Free Area Table (Free area in sq. feet and sq. meters)

For additional sizes, please visit:

<https://www.c-sgroup.com/architectural-louvers/louvers-airflow-tool>

		Width in Inches and Metres											
		18	24	30	36	42	48	54	60	66	72		
		0.46	0.61	0.76	0.91	1.07	1.22	1.37	1.52	1.68	1.83		
Height in Inches and Metres	18	0.81	1.11	1.42	1.72	2.03	2.33	2.64	2.94	3.25	3.55		
	0.46	0.07	0.10	0.13	0.16	0.19	0.22	0.24	0.27	0.30	0.33		
	24	1.15	1.59	2.02	2.46	2.89	3.33	3.76	4.20	4.64	5.07		
	0.61	0.11	0.15	0.19	0.23	0.27	0.31	0.35	0.39	0.43	0.47		
	30	1.50	2.06	2.63	3.20	3.76	4.33	4.89	5.46	6.03	6.59		
	0.76	0.14	0.19	0.24	0.30	0.35	0.40	0.45	0.51	0.56	0.61		
	36	1.84	2.54	3.24	3.93	4.63	5.33	6.02	6.72	7.42	8.11		
	0.91	0.17	0.24	0.30	0.37	0.43	0.49	0.56	0.62	0.69	0.75		
	42	2.19	3.02	3.84	4.67	5.50	6.33	7.15	7.98	8.81	9.64		
	1.07	0.20	0.28	0.36	0.43	0.51	0.59	0.66	0.74	0.82	0.90		
	48	2.53	3.49	4.45	5.41	6.37	7.32	8.28	9.24	10.20	11.16		
	1.22	0.24	0.32	0.41	0.50	0.59	0.68	0.77	0.86	0.95	1.04		
	54	2.88	3.97	5.06	6.15	7.23	8.32	9.41	10.50	11.59	12.68		
	1.37	0.27	0.37	0.47	0.57	0.67	0.77	0.87	0.98	1.08	1.18		
	60	3.23	4.45	5.66	6.88	8.10	9.32	10.54	11.76	12.98	14.20		
	1.52	0.30	0.41	0.53	0.64	0.75	0.87	0.98	1.09	1.21	1.32		
	66	3.57	4.92	6.27	7.62	8.97	10.32	11.67	13.02	14.37	15.72		
	1.68	0.33	0.46	0.58	0.71	0.83	0.96	1.08	1.21	1.34	1.46		
	72	3.92	5.40	6.88	8.36	9.84	11.32	12.80	14.28	15.76	17.24		
	1.83	0.36	0.50	0.64	0.78	0.91	1.05	1.19	1.33	1.46	1.60		
	78	4.26	5.87	7.49	9.10	10.71	12.32	13.93	15.54	17.15	18.76		
	1.98	0.40	0.55	0.70	0.85	0.99	1.14	1.29	1.44	1.59	1.74		
	84	4.61	6.35	8.09	9.83	11.58	13.32	15.06	16.80	18.54	20.29		
	2.13	0.43	0.59	0.75	0.91	1.08	1.24	1.40	1.56	1.72	1.88		
	90	4.95	6.83	8.70	10.57	12.44	14.32	16.19	18.06	19.93	21.81		
	2.29	0.46	0.63	0.81	0.98	1.16	1.33	1.50	1.68	1.85	2.03		
	96	5.30	7.30	9.31	11.31	13.31	15.32	17.32	19.32	21.32	23.33		
	2.44	0.49	0.68	0.86	1.05	1.24	1.42	1.61	1.80	1.98	2.17		
	102	5.65	7.78	9.91	12.05	14.18	16.31	18.45	20.58	22.72	24.85		
	2.59	0.52	0.72	0.92	1.12	1.32	1.52	1.71	1.91	2.11	2.31		
	108	5.99	8.26	10.52	12.78	15.05	17.31	19.58	21.84	24.11	26.37		
	2.74	0.56	0.77	0.98	1.19	1.40	1.61	1.82	2.03	2.24	2.45		
	114	6.34	8.73	11.13	13.52	15.92	18.31	20.71	23.10	25.50	27.89		
	2.90	0.59	0.81	1.03	1.26	1.48	1.70	1.92	2.15	2.37	2.59		
	120	6.68	9.21	11.73	14.26	16.79	19.31	21.84	24.36	26.89	29.41		
	3.05	0.62	0.86	1.09	1.32	1.56	1.79	2.03	2.26	2.50	2.73		
	126	7.03	9.68	12.34	15.00	17.65	20.31	22.97	25.62	28.28	30.93		
	3.20	0.65	0.90	1.15	1.39	1.64	1.89	2.13	2.38	2.63	2.87		
	132	7.37	10.16	12.95	15.73	18.52	21.31	24.10	26.88	29.67	32.46		
	3.35	0.69	0.94	1.20	1.46	1.72	1.98	2.24	2.50	2.76	3.02		
	138	7.72	10.64	13.55	16.47	19.39	22.31	25.22	28.14	31.06	33.98		
	3.51	0.72	0.99	1.26	1.53	1.80	2.07	2.34	2.61	2.89	3.16		
	144	8.07	11.11	14.16	17.21	20.26	23.31	26.35	29.40	32.45	35.50		
	3.66	0.75	1.03	1.32	1.60	1.88	2.17	2.45	2.73	3.01	3.30		

Upper Numerals Imperial Units / Lower Numerals Metric Units