

BLV-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: 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.

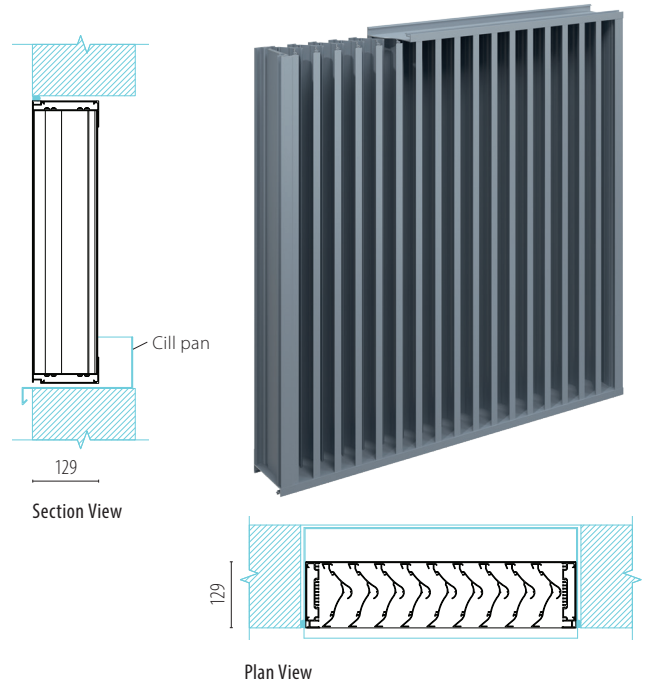
- Free area = 0.68 m² (7.32 ft²)
- Percent free area = 45.9%
- Intake Pressure Drop at 5.08 m/s (1000 FPM) free area velocity = 38.7 Pa (0.16 in. H₂O)

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 5.01 m/s (986 FPM)
 - Max. intake free area velocity 9.94 m/s (1956 FPM)
- To maintain a CLASS A (99%) 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 4.98 m/s (980 FPM)
 - Max. intake free area velocity 10.49 m/s (2064 FPM)

Construction Specialties UK Ltd certifies that the louvre model BLV-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 and Air Performance ratings.



Discharge Coefficient (C_d)

Intake = 0.33 (Class 2), Exhaust = 0.28 (Class 3)
AMCA certifies the coefficient class only

Blast Data:

Model BLV-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

BLV-5709

Wind-Driven Rain Performance

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

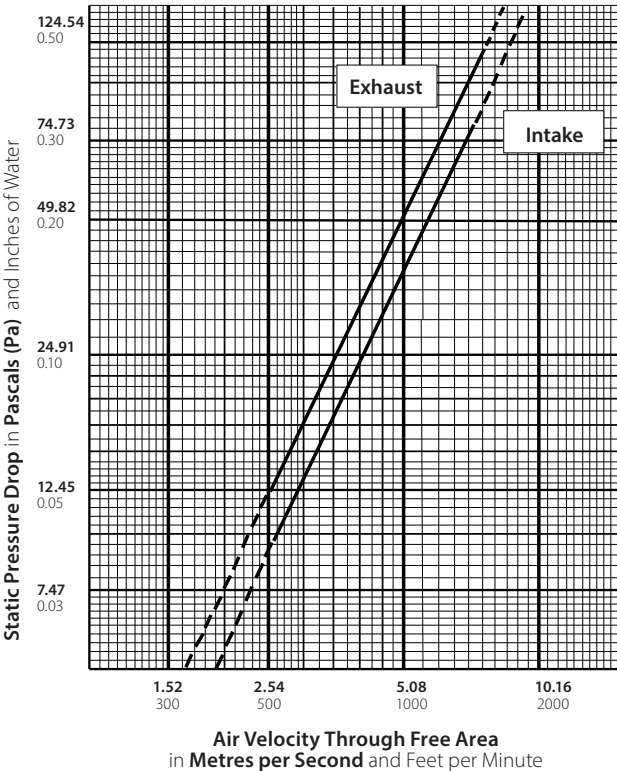
13 m/s (29.1 mph) & 75 mm (3") rain per hour

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	1.41	2.11	3.07	4.06	5.05	6.28	7.27	8.35	8.81	9.94
Rating Effectiveness:	A	A	A	A	A	A	A	A	A	A	A
Effectiveness Ratio (%):										100	99.8

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	1.41	2.11	3.07	4.06	5.05	6.28	7.27	8.44	9.50	10.49
Rating Effectiveness:	A	A	A	A	A	A	A	A	A	A	A
Effectiveness Ratio (%):									99.8	99.7	99.6

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

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

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	1.15	1.50	1.84	2.19	2.53	2.88	3.23	3.57	3.92
	0.46	0.07	0.11	0.14	0.17	0.20	0.24	0.27	0.30	0.33	0.36
	24	1.11	1.59	2.06	2.54	3.02	3.49	3.97	4.45	4.92	5.40
	0.61	0.10	0.15	0.19	0.24	0.28	0.32	0.37	0.41	0.46	0.50
	30	1.42	2.02	2.63	3.24	3.84	4.45	5.06	5.66	6.27	6.88
	0.76	0.13	0.19	0.24	0.30	0.36	0.41	0.47	0.53	0.58	0.64
	36	1.72	2.46	3.20	3.93	4.67	5.41	6.15	6.88	7.62	8.36
	0.91	0.16	0.23	0.30	0.37	0.43	0.50	0.57	0.64	0.71	0.78
	42	2.03	2.89	3.76	4.63	5.50	6.37	7.23	8.10	8.97	9.84
	1.07	0.19	0.27	0.35	0.43	0.51	0.59	0.67	0.75	0.83	0.91
	48	2.33	3.33	4.33	5.33	6.33	7.32	8.32	9.32	10.32	11.32
	1.22	0.22	0.31	0.40	0.49	0.59	0.68	0.77	0.87	0.96	1.05
	54	2.64	3.76	4.89	6.02	7.15	8.28	9.41	10.54	11.67	12.80
	1.37	0.24	0.35	0.45	0.56	0.66	0.77	0.87	0.98	1.08	1.19
	60	2.94	4.20	5.46	6.72	7.98	9.24	10.50	11.76	13.02	14.28
	1.52	0.27	0.39	0.51	0.62	0.74	0.86	0.98	1.09	1.21	1.33
	66	3.25	4.64	6.03	7.42	8.81	10.20	11.59	12.98	14.37	15.76
	1.68	0.30	0.43	0.56	0.69	0.82	0.95	1.08	1.21	1.34	1.46
	72	3.55	5.07	6.59	8.11	9.64	11.16	12.68	14.20	15.72	17.24
	1.83	0.33	0.47	0.61	0.75	0.90	1.04	1.18	1.32	1.46	1.60
	78	3.85	5.51	7.16	8.81	10.46	12.11	13.77	15.42	17.07	18.72
	1.98	0.36	0.51	0.67	0.82	0.97	1.13	1.28	1.43	1.59	1.74
Height in Inches and Metres	84	4.16	5.94	7.72	9.51	11.29	13.07	14.86	16.64	18.42	20.20
	2.13	0.39	0.55	0.72	0.88	1.05	1.21	1.38	1.55	1.71	1.88
	90	4.46	6.38	8.29	10.20	12.12	14.03	15.94	17.86	19.77	21.68
	2.29	0.41	0.59	0.77	0.95	1.13	1.30	1.48	1.66	1.84	2.01
	96	4.77	6.81	8.86	10.90	12.94	14.99	17.03	19.08	21.12	23.16
	2.44	0.44	0.63	0.82	1.01	1.20	1.39	1.58	1.77	1.96	2.15
	102	5.07	7.25	9.42	11.60	13.77	15.95	18.12	20.30	22.47	24.65
	2.59	0.47	0.67	0.88	1.08	1.28	1.48	1.68	1.89	2.09	2.29
	108	5.38	7.68	9.99	12.29	14.60	16.90	19.21	21.52	23.82	26.13
	2.74	0.50	0.71	0.93	1.14	1.36	1.57	1.78	2.00	2.21	2.43
	114	5.68	8.12	10.56	12.99	15.43	17.86	20.30	22.73	25.17	27.61
	2.90	0.53	0.75	0.98	1.21	1.43	1.66	1.89	2.11	2.34	2.56
	120	5.99	8.55	11.12	13.69	16.25	18.82	21.39	23.95	26.52	29.09
	3.05	0.56	0.79	1.03	1.27	1.51	1.75	1.99	2.23	2.46	2.70
	126	6.19	8.85	11.50	14.16	16.81	19.47	22.12	24.77	27.43	30.08
	3.20	0.58	0.82	1.07	1.32	1.56	1.81	2.05	2.30	2.55	2.79
	132	6.50	9.28	12.07	14.85	17.64	20.42	23.21	25.99	28.78	31.56
	3.35	0.60	0.86	1.12	1.38	1.64	1.90	2.16	2.41	2.67	2.93
	138	6.80	9.72	12.63	15.55	18.47	21.38	24.30	27.21	30.13	33.04
	3.51	0.63	0.90	1.17	1.44	1.72	1.99	2.26	2.53	2.80	3.07
	144	7.11	10.15	13.20	16.25	19.29	22.34	25.39	28.43	31.48	34.52
	3.66	0.66	0.94	1.23	1.51	1.79	2.08	2.36	2.64	2.92	3.21

Upper Numerals Imperial Units / Lower Numerals Metric Units