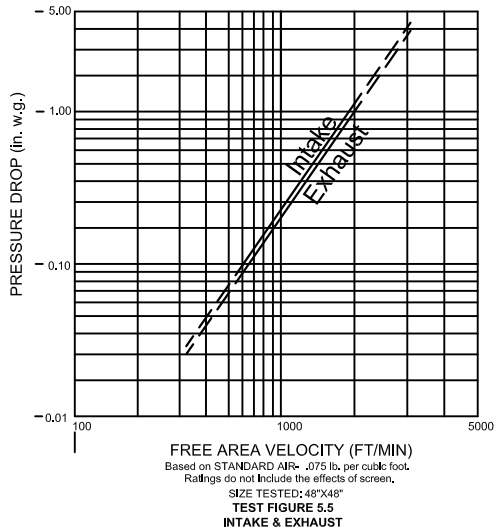


Model D-HV-4 Louver Performance Data

Air Flow Resistance



Beginning point of **WATER PENETRATION** for
MODEL D-HV-4 lies above
1250 fpm
free area velocity at .01 oz. of water penetration
Test Duration: 15 minutes

D-HV-4 Specifications

Furnish and install louver as hereinafter specified where shown on plans or as described in schedules. Louver shall be stationary type with horizontal rain resistant style blades positioned on approximately 1.5" centers and vertical wind driven rain blades placed on approximately 0.75" both within 4.162" deep frame. Louver frame and blade materials to be .063" thick 6063-T5 extruded aluminum. Sections up to maximum of 84" w x 120" h shall withstand wind loading of 30 lbs/sq.ft. (110 mph wind equivalent). Consult factory for welded construction and higher wind speeds. Louver shall meet the performance requirements established by the AMCA 500L test procedure and shall be licensed to bear the AMCA certified rating seal for water penetration, air performance, and wind driven rain. Louver shall have a minimum free area of 7.75 sq. ft. based on the standard 48" w x 48" h test specimen. Louver shall have a maximum static pressure drop of 0.27" (exhaust) & 0.29" (intake) water gage based on 1000 FPM free area intake velocity. Louver shall carry a minimum Class A water penetration classification based on a ventilation core of 984 FPM at a rainfall rate of 3" per hour and a 29 mph simulated wind velocity. Louver shall also carry a minimum class A water penetration classification based on a ventilation core velocity of 974 FPM at a rainfall rate of 8" per hour and a 50 mph simulated wind velocity.

D-HV-4 FREE AREA IN SQ. FT.

Height - Inches	Louver Height Inches	Width - Inches																		Louver Height Inches	
	12	18	24	30	36	42	48	54	60	66	72	78	84	90	96	102	108	114	120		
	12	0.35	0.58	0.82	1.05	1.28	1.52	1.75	1.98	2.22	2.45	2.68	2.92	3.15	3.39	3.62	3.85	4.09	4.32	4.55	12
	18	0.56	0.93	1.30	1.67	2.04	2.41	2.78	3.15	3.52	3.89	4.26	4.63	5.00	5.37	5.74	6.11	6.48	6.85	7.22	18
	24	0.76	1.27	1.77	2.28	2.79	3.29	3.80	4.31	4.81	5.32	5.83	6.34	6.84	7.35	7.86	8.36	8.87	9.38	9.88	24
	30	0.97	1.61	2.25	2.90	3.54	4.18	4.83	5.47	6.11	6.76	7.40	8.04	8.69	9.33	9.97	10.62	11.26	11.90	12.55	30
	36	1.17	1.95	2.73	3.51	4.29	5.07	5.85	6.63	7.41	8.19	8.97	9.75	10.53	11.31	12.09	12.87	13.65	14.43	15.21	36
	42	1.38	2.29	3.21	4.13	5.04	5.96	6.88	7.79	8.71	9.63	10.54	11.46	12.38	13.29	14.21	15.13	16.04	16.96	17.88	42
	48	1.58	2.63	3.69	4.74	5.79	6.85	7.75	8.95	10.01	11.06	12.11	13.17	14.22	15.28	16.33	17.38	18.44	19.49	20.54	48
	54	1.79	2.98	4.17	5.36	6.55	7.74	8.93	10.12	11.31	12.50	13.69	14.88	16.07	17.26	18.45	19.64	20.83	22.02	23.21	54
60	1.99	3.32	4.64	5.97	7.30	8.62	9.95	11.28	12.60	13.93	15.26	16.59	17.91	19.24	20.57	21.89	23.22	24.55	25.87	60	
66	2.20	3.66	5.12	6.59	8.05	9.51	10.98	12.44	13.90	15.37	16.83	18.29	19.76	21.22	22.68	24.15	25.61	27.07	28.54	66	
72	2.40	4.00	5.60	7.20	8.80	10.40	12.00	13.60	15.20	16.80	18.40	20.00	21.60	23.20	24.80	26.40	28.00	29.60	31.20	72	
78	2.61	4.34	6.08	7.82	9.55	11.29	13.03	14.76	16.50	18.24	19.97	21.71	23.45	25.18	26.92	28.66	30.39	32.13	33.87	78	
84	2.81	4.68	6.56	8.43	10.30	12.18	14.05	15.92	17.80	19.67	21.54	23.42	25.29	27.17	29.04	30.91	32.79	34.66	36.53	84	
90	3.02	5.03	7.04	9.05	11.06	13.07	15.08	17.09	19.10	21.11	23.12	25.13	27.14							90	
96	3.22	5.37	7.51	9.66	11.81	13.95	16.10	18.25	20.39	22.54	24.69	26.84	28.98							96	
102	3.43	5.71	7.99	10.28	12.56	14.84	17.13	19.41	21.69	23.98	26.26	28.54	30.83							102	
108	3.63	6.05	8.47	10.89	13.31	15.73	18.15	20.57	22.99	25.41	27.83	30.25	32.67							108	
114	3.84	6.39	8.95	11.51	14.06	16.62	19.18	21.73	24.29	26.85	29.40	31.96	34.52							114	
120	4.04	6.73	9.43	12.12	14.81	17.51	20.20	22.89	25.59	28.28	30.97	33.67	36.36							120	

Wind Driven Rain Performance -AMCA 500-L-

Test size 1m x 1m (39.375"x39.375") core
41 5/8" w x 41 5/8" h Nominal

75 mm/h (3 in/h) Rainfall & 13 m/s (29 mph) Wind Velocity				
Core Velocity fpm (m/s)	Airflow cfm (m³/s)	Free Area Velocity fpm (m/s)	Effectiveness Ratio	AMCA Effectiveness Class
0 (0.0)	0 (0.00)	0 (0.0)	100.0	A
98 (0.5)	1055 (0.50)	184 (0.9)	100.0	A
197 (1.0)	2121 (1.00)	371 (1.9)	100.0	A
295 (1.5)	3175 (1.50)	555 (2.8)	100.0	A
394 (2.0)	4241 (2.00)	741 (3.8)	100.0	A
492 (2.5)	5296 (2.50)	926 (4.7)	100.0	A
591 (3.0)	6362 (3.00)	1112 (5.6)	100.0	A
689 (3.5)	7416 (3.50)	1297 (6.6)	100.0	A
787 (4.0)	8471 (4.00)	1481 (7.5)	100.0	A
886 (4.5)	9537 (4.50)	1667 (8.5)	100.0	A
984 (5.0)	10592 (5.00)	1852 (9.4)	100.0	A

202.4 mm/h (8 in/h) Rainfall & 22 m/s (50 mph) Wind Velocity				
Core Velocity fpm (m/s)	Airflow cfm (m³/s)	Free Area Velocity fpm (m/s)	Effectiveness Ratio	AMCA Effectiveness Class
0 (0.0)	0 (0.00)	0 (0.0)	100.0	A
96 (0.5)	1033 (0.49)	181 (0.9)	100.0	A
194 (1.0)	2088 (0.99)	365 (1.9)	100.0	A
284 (1.4)	3057 (1.44)	534 (2.7)	100.0	A
400 (2.0)	4306 (2.03)	753 (3.8)	100.0	A
496 (2.5)	5339 (2.52)	933 (4.7)	100.0	A
571 (2.9)	6146 (2.90)	1075 (5.5)	100.0	A
679 (3.4)	7309 (3.45)	1278 (6.5)	100.0	A
786 (4.0)	8461 (3.99)	1479 (7.5)	99.8	A
878 (4.5)	9451 (4.46)	1652 (8.4)	99.6	A
974 (4.9)	10484 (4.95)	1833 (9.3)	99.1	A

Class	Discharge Loss Coefficient
1	0.4 and above
2	0.3 to 0.399
3	0.2 to 0.299
4	.0199 and below

(the higher the coefficient, the less resistance to airflow.)

* Discharge Loss Intake	
Wind Velocity (mph)	Class
29	3
50	3

* Discharge loss coefficient is the theoretical air flow of an opening divided by the actual flow rate of a louver the same size.

Wind Driven Rain Penetration Classes

Class	Effectiveness
A	1 to 0.99
B	0.989 to 0.95
C	0.949 to 0.80
D	Below 0.8