

## Weather Protective Blade Louver in 4" thick frame design – Model LFA- 04

**Features** – Traditional design with center blade baffle for improved weather protection.

### STANDARD CONSTRUCTION

**FRAME**

LFA- 04" (102) thick, is 20 gauge (1.0) galvanized steel in style #2

**BLADES**

LFA- 04", (102) are 20 gauge (1.0) galvanized steel, approx. spacing is 5 3/8" (137) @ 45°

**MAXIMUM SIZE**

Unlimited, with mullions, structural bracing supplied by others

**MAXIMUM SINGLE SECTION**

120"w x 84"H or 84"w x 120"H  
(allows for best handling)

**MULLIONS**

Visible

**MINIMUM SIZE**

12" W x 12" H (305 x 305)

**UNDERSIZED**

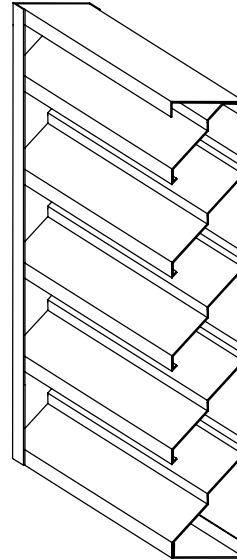
3/8" (10) under ordered size unless specified Exact or Actual

**SCREEN**

1/2" (13) wire mesh 19 gauge (1.1) galvanized bird screen no frame

**FINISH**

Mill



PERFORMANCE
Point of water penetration 672 fpm (205)
Free area 48 x 48 section 50%

### OPTIONAL CONSTRUCTION

**FRAME** – Available in a heavier construction up to 10 gauge (3.5)

**BLADES** - Available in a heavier construction up to 12 gauge (2.7)

**SPECIFIED MATERIAL** – Aluminum, Stainless or as requested

**SCREENS** - Many styles available please consult screen listing

**MULLIONS** – Invisible for enhanced architectural appearance.

**FINISH** – Air-dry primer, polyurethane, epoxy, or enamel. Baked epoxy or enamel. Kynar ( Kynar limitations on steel.)

### SPECIAL PURPOSE CONSTRUCTION

Special shapes; Round, Triangle, Trapezoid, Octagon, etc.

Fully welded assembly

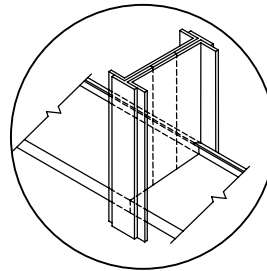
Security bars

Filter racks

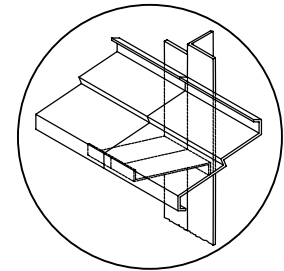
Hinged as walk through door or for swing out access

Sleeved for ductwork connection

### MULLION STYLES

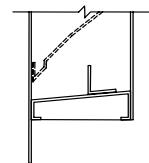


Visible

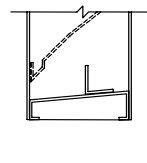


Invisible

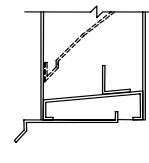
### FRAME STYLES



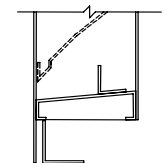
1- Flange (1.5")



2 – Channel

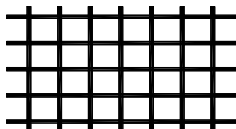


7- Channel with Sill Extension



9 - Flange with Sub Frame

### TYPICAL SCREEN STYLE



Wire Mesh Standard

DATE	ARCHITECT			ENGINEER
PROJECT				
ITEM	QTY	W	H	<p>SAFE-AIR / DOWCO certifies that the LFA -04 louver shown herein are 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 air performance ratings and water penetration ratings.</p>



DEPENDABLE PRODUCTS SINCE 1955

**SAFE-AIR OF ILLINOIS INC.**

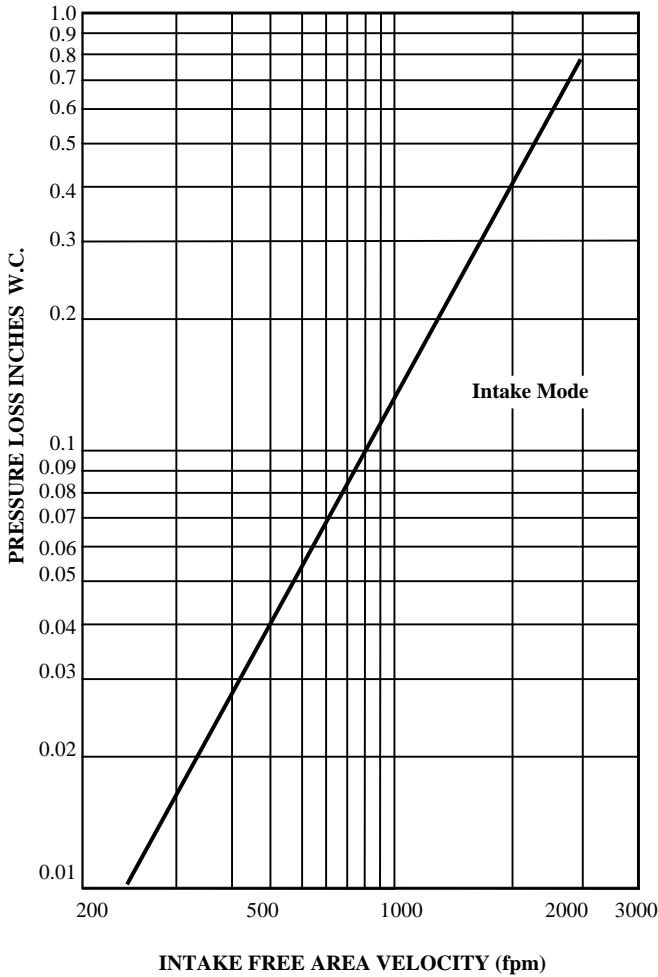
*Engineering and General Offices*

1855 South 54<sup>th</sup> Avenue, Cicero, Illinois 60804

Phone 708-652-9100 FAX 708-652-9158

All tests performed at an independent laboratory and based on AMCA standard 511 – 91 for air performance and water penetration.

### AIR PERFORMANCE



### CALCULATING PRESSURE LOSS

Based upon a given flow rate (in CFM), the flowing pressure loss may be determined from the “air performance” graph, knowing the sq. ft. of free area of the louver. Alternately, the free area may be determined based upon a volumetric flow rate and a maximum pressure loss. Utilizing the “air performance” graph.

\_\_\_\_\_ in. W.C. Max. Pressure Loss Intake or Exhaust

\_\_\_\_\_ FPM (Free Area Velocity From “Air Performance” Graph)

\_\_\_\_\_ CFM / \_\_\_\_\_ FPM Free Area Velocity = \_\_\_\_\_ Sq. Ft. Free Area

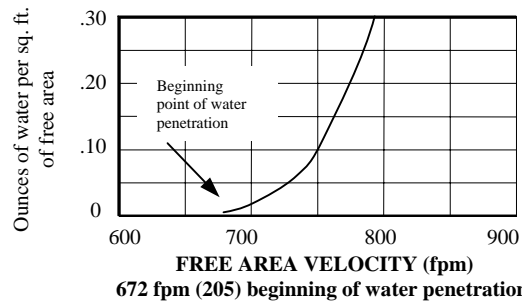
### CALCULATING MAXIMUM AIRFLOW BEFORE WATER PENETRATION

The “free area flow rate” at which water penetration commences (.01 oz. of water) is established at, 672 fpm (205) for LFA-04, and will vary depending upon actual weather conditions. The “water penetration” graph illustrates the results of actual laboratory test on a 48” x 48” (1219 x 1219) test sample subjected to hypothetical rainfall conditions. To determine the free area (in sq. ft.) based upon a known volumetric flow rate in CFM;

\_\_\_\_\_ CFM / \_\_\_\_\_ FPM = \_\_\_\_\_ SQ. FT. FREE AREA  
(System Requirements)

Water Penetration Graph  
in oz. of water per sq. ft. of free area over a 15 min. test period

	.01	.02	.05	.1	.2	.3 (H2O)
	672	696	726	750	773	786 (fpm)



### FREE AREA CALCULATIONS IN SQ. FT.

WIDTH

INCHES	12	18	24	30	36	42	48	54	60	66	72	78	84	90	96	102	108	114	120
12	.34	.53	.72	.92	1.11	1.30	1.49	1.69	1.88	2.07	2.26	2.46	2.65	2.84	3.04	3.23	3.42	3.61	3.81
18	.55	.86	1.17	1.48	1.80	2.11	2.42	2.73	3.05	3.36	3.67	3.98	4.30	4.61	4.92	5.23	5.55	5.86	6.17
24	.76	1.19	1.62	2.05	2.49	2.92	3.35	3.78	4.21	4.65	5.08	5.51	5.94	6.38	6.81	7.24	7.67	8.11	8.54
30	.98	1.55	2.11	2.67	3.23	3.80	4.36	4.92	5.48	6.05	6.61	7.17	7.73	8.30	8.86	9.42	9.98	10.55	11.11
36	1.25	1.97	2.69	3.40	4.12	4.83	5.55	6.27	6.98	7.70	8.41	9.13	9.85	10.56	11.28	12.00	12.71	13.43	14.14
42	1.52	2.39	3.26	4.13	5.00	5.87	6.74	7.61	8.48	9.35	10.22	11.09	11.96	12.83	13.70	14.57	15.44	16.31	17.18
48	1.79	2.81	3.84	4.86	5.88	6.91	7.93	8.96	9.98	11.00	12.03	13.05	14.07	15.10	16.12	17.14	18.17	19.19	20.21
54	2.01	3.17	4.32	5.47	6.62	7.77	8.92	10.07	11.22	12.37	13.52	14.68	15.83	16.98	18.13	19.28	20.43	21.58	22.73
60	2.22	3.49	4.77	6.04	7.31	8.58	9.85	11.12	12.39	13.66	14.93	16.20	17.47	18.74	20.02	21.29	22.56	23.83	25.10
66	2.43	3.82	5.21	6.61	8.00	9.39	10.78	12.17	13.56	14.95	16.34	17.73	19.12	20.51	21.90	23.29	24.68	26.07	27.46
72	2.70	4.24	5.78	7.32	8.86	10.41	11.95	13.49	15.03	16.57	18.11	19.66	21.20	22.74	24.28	25.82	27.36	28.91	30.45
78	2.97	4.66	6.36	8.05	9.75	11.44	13.14	14.83	16.53	18.22	19.92	21.62	23.31	25.01	26.70	28.40	30.09	31.79	33.48
84	3.24	5.08	6.93	8.78	10.63	12.48	14.33	16.18	18.03	19.88	21.73	23.57	25.42	27.27	29.12	30.97	32.82	34.67	36.52
90	3.48	5.47	7.46	9.45	11.44	13.43	15.42	17.41	19.40	21.39	23.38	25.37	27.36	29.35	31.34	33.33	35.32	37.30	39.29
96	3.69	5.80	7.91	10.02	12.13	14.24	16.35	18.46	20.57	22.68	24.79	26.89	29.00	31.11	33.22	35.33	37.44	39.55	41.66

HEIGHT