

## Non-drainable / Sightproof Louver in 4" thick design Model LED-04

**Design Features** – Non-drainable blade and vision proof design with the capability of being drainable in the interior side.

### STANDARD CONSTRUCTION

ALL MATERIAL – EXTRUDED ALUMINUM 6063-T5 (KB-45)

#### FRAME

4" thick, is .081 extruded aluminum in style #3.

#### BLADES

.081" extruded aluminum, approx. spacing is 2" @ 30°

#### MAXIMUM SIZE

Unlimited, with mullions, structural bracing supplied by others

#### MAXIMUM FACTORY ASSEMBLY SIZE

120" w x 96" H" or 96" w x 120" H

(allows for best handling)

(Type of finish may limit maximum single section)

#### MULLION

Invisible

#### MINIMUM SIZE

12" w x 12" H

#### UNDERSIZED

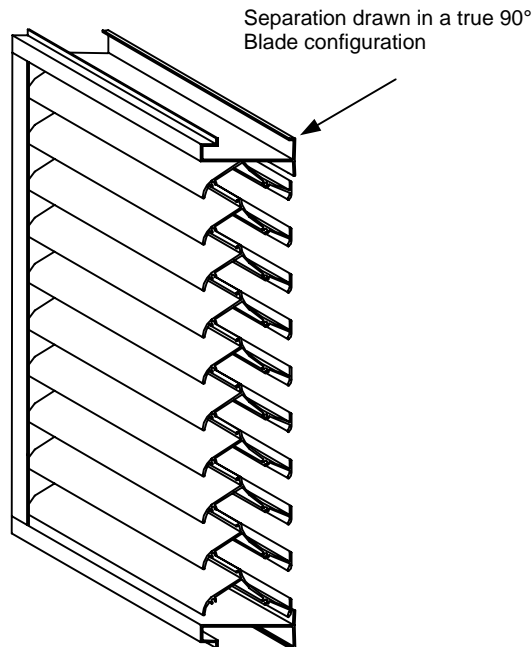
1/4" under ordered size unless specified Exact or Actual

#### SCREEN

1/2" sq. mesh x .063 alum. wire screen in frame

#### FINISH

Mill



### OPTIONAL CONSTRUCTION

**FRAME** – Available in a heavier extrusion of .125"

**BLADES** – Available in a heavier extrusion of .125"

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

**FINISH** – Air-dry primer, polyurethane, epoxy, or enamel. Baked epoxy, Anodize or Kynar

**MULLION** – Visible for architectural preference

### SPECIAL PURPOSE CONSTRUCTION

Fully welded construction

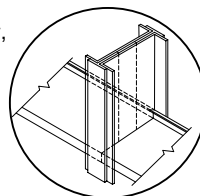
Security bars

Filter racks

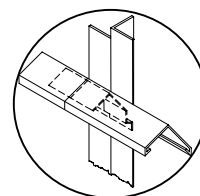
Hinged as walk through door or for swing out access

Sleeved for ductwork connection

### MULLION STYLES



Visible

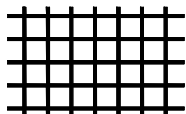


Invisible

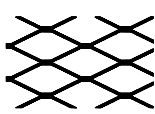
### PERFORMANCE

Point of water penetration  
1000 fpm  
Free area  
48 x 48 section  
57%

### TYPICAL SCREEN STYLES

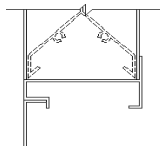


Wire Mesh

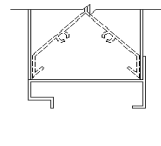


Expanded Aluminum Standard

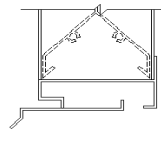
### FRAME STYLES



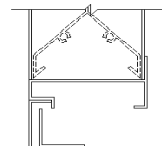
1 - Flange (1.5")



3 - Box



8 - Box with Sill Extension



9 - Flange with Sub Frame

DATE	ARCHITECT			CUSTOMER
PROJECT				
ITEM	QTY	W	H	DESCRIPTIONS



DEPENDABLE PRODUCTS SINCE 1955

**SAFE-AIR OF ILLINOIS INC.**

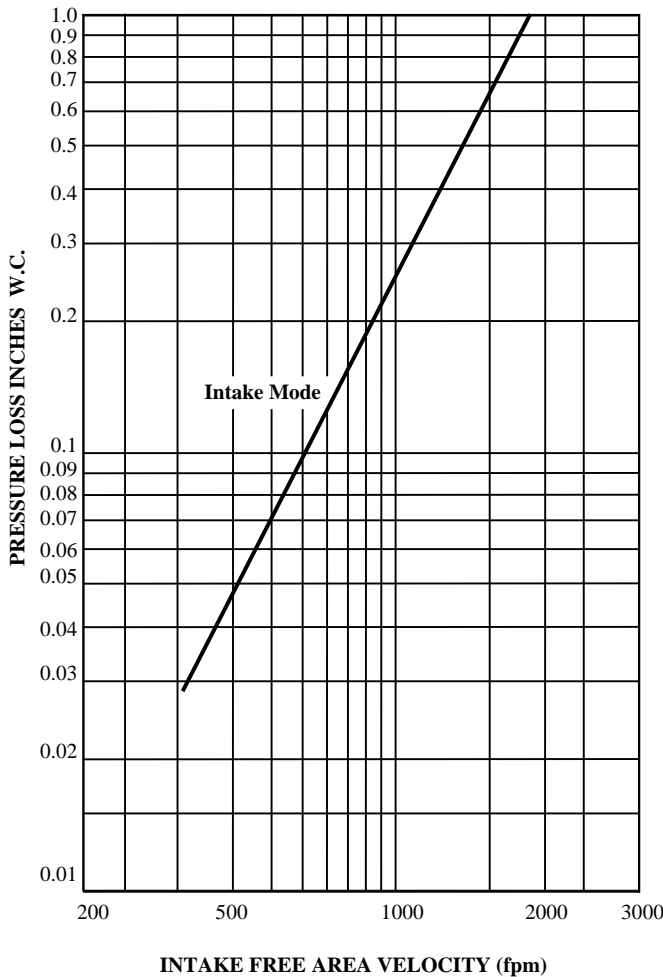
Engineering and General Offices

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.

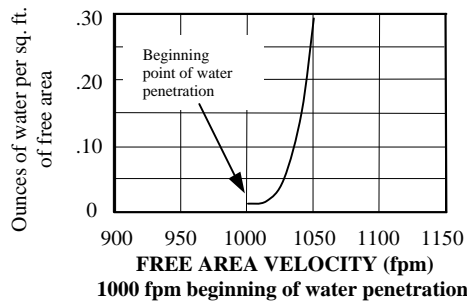
\_\_\_\_\_ in. W.C. Max. Pressure Loss Intake or Exhaust  
 \_\_\_\_\_ FPM (Free Area Velocity From “Air Performance” Graph)  
 \_\_\_\_\_ CFM / \_\_\_\_\_ FPM Free Area Velocity = \_\_\_\_\_ Sq. Ft. Free Area

### CALCULATING MAXIMUM AIRFLOW BEFORE WATER PENETRATION

The “free area flow rate” at which water penetration commences (.01 oz. of water) is established at, 1000 fpm for LED-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” test sample subjected to hypothetical rainfall conditions. To determine the free area (in sq. ft.) based on 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



### FREE AREA CALCULATIONS IN SQ. FT.

Inches	WIDTH																		
	12	18	24	30	36	42	48	54	60	66	72	78	84	90	96	102	108	114	120
<b>12</b>	0.42	0.67	0.92	1.17	1.42	1.68	1.93	2.18	2.43	2.68	2.93	3.18	3.43	3.69	3.94	4.19	4.44	4.69	4.94
<b>18</b>	0.68	1.09	1.49	1.90	2.31	2.72	3.12	3.53	3.94	4.34	4.75	5.16	5.57	5.97	6.38	6.79	7.20	7.60	8.01
<b>24</b>	0.94	1.50	2.07	2.63	3.19	3.76	4.32	4.88	5.45	6.01	6.57	7.14	7.70	8.26	8.83	9.39	9.95	10.52	11.08
<b>30</b>	1.20	1.92	2.64	3.36	4.08	4.80	5.51	6.23	6.95	7.67	8.39	9.11	9.83	10.55	11.27	11.99	12.71	13.43	14.15
<b>36</b>	1.46	2.33	3.21	4.08	4.96	5.84	6.71	7.59	8.46	9.34	10.21	11.09	11.96	12.84	13.71	14.59	15.46	16.34	17.21
<b>42</b>	1.72	2.75	3.78	4.81	5.84	6.88	7.91	8.94	9.97	11.00	12.03	13.06	14.09	15.13	16.16	17.19	18.22	19.25	20.28
<b>48</b>	1.98	3.17	4.35	5.54	6.73	7.92	9.10	10.29	11.48	12.66	13.85	15.04	16.23	17.41	18.60	19.79	20.98	22.16	23.35
<b>54</b>	2.24	3.58	4.93	6.27	7.61	8.96	10.30	11.64	12.99	14.33	15.67	17.02	18.36	19.70	21.05	22.39	23.73	25.08	26.42
<b>60</b>	2.50	4.00	5.50	7.00	8.50	10.00	11.49	12.99	14.49	15.99	17.49	18.99	20.49	21.99	23.49	24.99	26.49	27.99	29.49
<b>66</b>	2.76	4.41	6.07	7.72	9.38	11.04	12.69	14.35	16.00	17.66	19.31	20.97	22.62	24.28	25.93	27.59	29.24	30.90	32.55
<b>72</b>	3.02	4.83	6.64	8.45	10.26	12.08	13.89	15.70	17.51	19.32	21.13	22.94	24.75	26.57	28.38	30.19	32.00	33.81	35.62
<b>78</b>	3.28	5.25	7.21	9.18	11.15	13.12	15.08	17.05	19.02	20.98	22.95	24.92	26.89	28.85	30.82	32.79	34.76	36.72	38.69
<b>84</b>	3.54	5.66	7.79	9.91	12.03	14.16	16.28	18.40	20.53	22.65	24.77	26.90	29.02	31.14	33.27	35.39	37.51	39.64	41.76
<b>90</b>	3.80	6.08	8.36	10.64	12.92	15.20	17.47	19.75	22.03	24.31	26.59	28.87	31.15	33.43	35.71	37.99	40.27	42.55	44.83
<b>96</b>	4.06	6.49	8.93	11.36	13.80	16.24	18.67	21.11	23.54	25.98	28.41	30.85	33.28	35.72	38.15	40.59	43.02	45.46	47.89
<b>102</b>	4.32	6.91	9.50	12.09	14.68	17.28	19.87	22.46	25.05	27.64	30.23	32.82	35.41	38.01	40.60	43.19	45.78	48.37	50.96
<b>108</b>	4.58	7.33	10.07	12.82	15.57	18.32	21.06	23.81	26.56	29.30	32.05	34.80	37.55	40.29	43.04	45.79	48.54	51.28	54.03
<b>114</b>	4.84	7.74	10.65	13.55	16.45	19.36	22.26	25.16	28.07	30.97	33.87	36.78	39.68	42.58	45.49	48.39	51.29	54.20	57.10
<b>120</b>	5.10	8.16	11.22	14.28	17.34	20.40	23.45	26.51	29.57	32.63	35.69	38.75	41.81	44.87	47.93	50.99	54.05	57.11	60.17