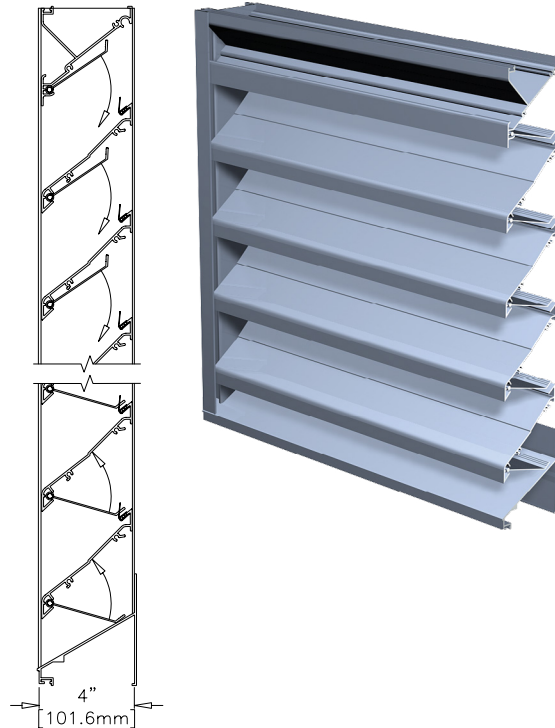


# KN827

## Combination Intake Louver/Backdraft Damper Drainable Louver | Extruded Aluminum

### Standard Construction

|                                    |  |
|------------------------------------|--|
| <b>Frame</b>                       | Heavy gauge extruded 6063-T5 aluminum, 4 in. (102 mm) x 0.081 in. (2 mm) nominal wall thickness  |
| <b>Blades</b>                      | Louver blade: non-drainable style design, heavy gauge extruded 6063-T5 aluminum, 0.081 in. (2 mm) nominal wall thickness, positioned 45° on approximately 4 in. (102 mm) centers<br><br>Backdraft damper blade: heavy gauge extruded 6063-T5 aluminum, 0.062 (2 mm) nominal wall thickness |
| <b>Seals</b>                       | Dual-durometer extruded vinyl blade seals  |
| <b>Temperature Restrictions</b>    | (-20° F) - (+180° F)<br>(-29° C) - (+82° C)  |
| <b>Louver Depth</b>                | 4 in. (102 mm)   |
| <b>Construction</b>                | Mechanically fastened  |
| <b>Finish</b>                      | Mill   |
| <b>Minimum Size</b>                | 12 in. W x 12 in. H (305 mm W x 305 mm H)  |
| <b>Maximum Single Section Size</b> | 60 in. W x 120 in. H<br>(1524 mm W x 3048 mm H)  |
| <b>Wind Load</b>                   | 25 PSF (1.2 kPa)   |



### Performance Ratings

Performance of 48 in. x 48 in. (1219 mm x 1219 mm) Louver

|                  |                            |
|------------------|----------------------------|
| <b>Free Area</b> |                            |
| Area             | 6.64 sq. ft. (0.617 sq. m) |
| Percent          | 41.5%                      |

### Document Links

[Architectural Louvers Catalog](#)

[Finishes & Colors](#)

[Qwik Ship Guide](#)

[Aiolite Warranty Statement](#)

### Options and Accessories

- [Bird Screen](#)
- [Extended Sill](#)
- [Flange Frame](#)
- [Glazing Frame](#)
- [Insect Screen](#)
- [Mounting Angles](#)
- [Variety of Architectural Finishes](#)

### Product Details

[KN827 Standard Details](#)

Structural reinforcing members may be required to adequately support and install multiple louver sections within a large opening. Structural reinforcing members along with any associated installation hardware is not provided by Aiolite unless indicated otherwise by Aiolite. Options and accessories including, but not limited to, screens, filter racks, louver doors, and blank off panels are not subject to structural analysis unless indicated otherwise by Aiolite.

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# KN827

Combination Intake Louver/Backdraft Damper  
Drainable Louver | Extruded Aluminum

## Free Area Chart

Free Area Chart shows free area in square feet and square meters.

| Louver Height Inches (Meters) | Louver Width in Inches (Meters) |      |      |       |       |       |       |       |       |
|-------------------------------|---------------------------------|------|------|-------|-------|-------|-------|-------|-------|
|                               | 12                              | 18   | 24   | 30    | 36    | 42    | 48    | 54    | 60    |
| 0.30                          | 0.24                            | 0.39 | 0.54 | 0.70  | 0.85  | 1.00  | 1.16  | 1.27  | 1.42  |
| 0.30                          | 0.02                            | 0.04 | 0.05 | 0.07  | 0.08  | 0.09  | 0.11  | 0.12  | 0.13  |
| 0.46                          | 0.40                            | 0.66 | 0.93 | 1.19  | 1.45  | 1.71  | 1.97  | 2.17  | 2.43  |
| 0.46                          | 0.04                            | 0.06 | 0.09 | 0.11  | 0.13  | 0.16  | 0.18  | 0.20  | 0.23  |
| 0.61                          | 0.59                            | 0.98 | 1.36 | 1.75  | 2.13  | 2.52  | 2.90  | 3.19  | 3.58  |
| 0.61                          | 0.05                            | 0.09 | 0.13 | 0.16  | 0.20  | 0.23  | 0.27  | 0.30  | 0.33  |
| 0.76                          | 0.80                            | 1.31 | 1.83 | 2.35  | 2.86  | 3.38  | 3.90  | 4.29  | 4.80  |
| 0.76                          | 0.07                            | 0.12 | 0.17 | 0.22  | 0.27  | 0.31  | 0.36  | 0.40  | 0.45  |
| 0.91                          | 0.96                            | 1.59 | 2.21 | 2.84  | 3.46  | 4.09  | 4.71  | 5.18  | 5.81  |
| 0.91                          | 0.09                            | 0.15 | 0.21 | 0.26  | 0.32  | 0.38  | 0.44  | 0.48  | 0.54  |
| 1.07                          | 1.15                            | 1.90 | 2.65 | 3.40  | 4.15  | 4.90  | 5.65  | 6.21  | 6.95  |
| 1.07                          | 0.11                            | 0.18 | 0.25 | 0.32  | 0.39  | 0.46  | 0.52  | 0.58  | 0.65  |
| 1.22                          | 1.36                            | 2.24 | 3.12 | 4.00  | 4.88  | 5.76  | 6.64  | 7.30  | 8.18  |
| 1.22                          | 0.13                            | 0.21 | 0.29 | 0.37  | 0.45  | 0.54  | 0.62  | 0.68  | 0.76  |
| 1.37                          | 1.52                            | 2.51 | 3.50 | 4.49  | 5.48  | 6.47  | 7.45  | 8.20  | 9.18  |
| 1.37                          | 0.14                            | 0.23 | 0.33 | 0.42  | 0.51  | 0.60  | 0.69  | 0.76  | 0.85  |
| 1.52                          | 1.71                            | 2.83 | 3.94 | 5.05  | 6.16  | 7.27  | 8.39  | 9.22  | 10.33 |
| 1.52                          | 0.16                            | 0.26 | 0.37 | 0.47  | 0.57  | 0.68  | 0.78  | 0.86  | 0.96  |
| 1.68                          | 1.92                            | 3.16 | 4.41 | 5.65  | 6.89  | 8.14  | 9.38  | 10.31 | 11.56 |
| 1.68                          | 0.18                            | 0.29 | 0.41 | 0.52  | 0.64  | 0.76  | 0.87  | 0.96  | 1.07  |
| 1.83                          | 2.08                            | 3.44 | 4.79 | 6.14  | 7.49  | 8.84  | 10.20 | 11.21 | 12.56 |
| 1.83                          | 0.19                            | 0.32 | 0.45 | 0.57  | 0.70  | 0.82  | 0.95  | 1.04  | 1.17  |
| 1.98                          | 2.27                            | 3.75 | 5.23 | 6.70  | 8.18  | 9.65  | 11.13 | 12.23 | 13.71 |
| 1.98                          | 0.21                            | 0.35 | 0.49 | 0.62  | 0.76  | 0.90  | 1.03  | 1.14  | 1.27  |
| 2.13                          | 2.48                            | 4.09 | 5.69 | 7.30  | 8.91  | 10.51 | 12.12 | 13.33 | 14.93 |
| 2.13                          | 0.23                            | 0.38 | 0.53 | 0.68  | 0.83  | 0.98  | 1.13  | 1.24  | 1.39  |
| 2.29                          | 2.64                            | 4.36 | 6.08 | 7.79  | 9.51  | 11.22 | 12.94 | 14.22 | 15.94 |
| 2.29                          | 0.25                            | 0.41 | 0.56 | 0.72  | 0.88  | 1.04  | 1.20  | 1.32  | 1.48  |
| 2.44                          | 2.84                            | 4.67 | 6.51 | 8.35  | 10.19 | 12.03 | 13.87 | 15.25 | 17.09 |
| 2.44                          | 0.26                            | 0.43 | 0.60 | 0.78  | 0.95  | 1.12  | 1.29  | 1.42  | 1.59  |
| 2.59                          | 3.04                            | 5.01 | 6.98 | 8.95  | 10.92 | 12.89 | 14.86 | 16.34 | 18.31 |
| 2.59                          | 0.28                            | 0.47 | 0.65 | 0.83  | 1.01  | 1.20  | 1.38  | 1.52  | 1.70  |
| 2.74                          | 3.20                            | 5.28 | 7.36 | 9.44  | 11.52 | 13.60 | 15.68 | 17.24 | 19.32 |
| 2.74                          | 0.30                            | 0.49 | 0.68 | 0.88  | 1.07  | 1.26  | 1.46  | 1.60  | 1.79  |
| 2.90                          | 3.40                            | 5.60 | 7.80 | 10.00 | 12.21 | 14.41 | 16.61 | 18.26 | 20.47 |
| 2.90                          | 0.32                            | 0.52 | 0.72 | 0.93  | 1.13  | 1.34  | 1.54  | 1.70  | 1.90  |
| 3.05                          | 3.60                            | 5.93 | 8.27 | 10.60 | 12.94 | 15.27 | 17.60 | 19.36 | 21.69 |
| 3.05                          | 0.33                            | 0.55 | 0.77 | 0.98  | 1.20  | 1.42  | 1.64  | 1.80  | 2.02  |



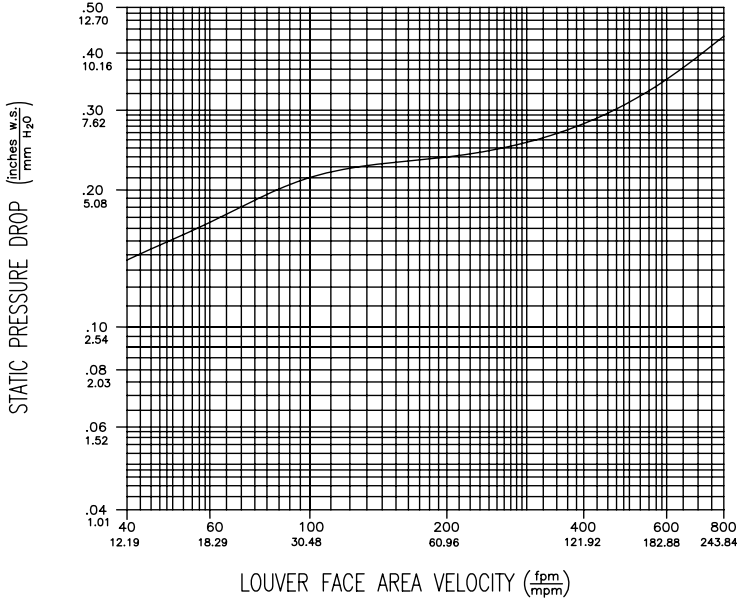
# KN827

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Drainable Louver | Extruded Aluminum

## Airflow Resistance

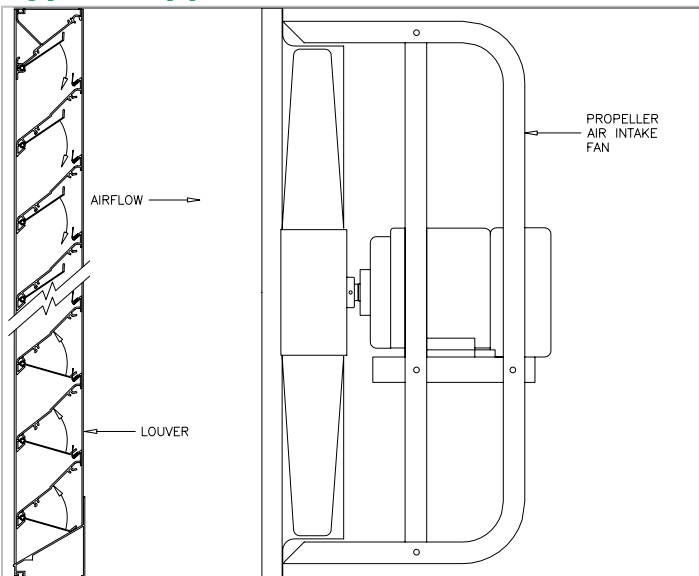
Standard Air - 0.075 lb/ft<sup>3</sup> (1.2 kg/m<sup>3</sup>)

Test size 48 in. x 48 in. (1219 mm x 1219 mm)



Model KN827 resistance to airflow (pressure drop) varies depending on louver application (air intake or air exhaust). Free area velocities (shown) are higher than average velocity through the overall louver size. See louver selection information. (Test Figure 5.5-6.5)

## Typical Application



Recommended application is in close proximity (preferably ducted) to an intake air fan as pressures required to operate the KN827 may exceed pressure differentials available without an adjacent fan. This model is not recommended for barometric intake applications.

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