



## ANTI-VIRAL ANTI-BACTERIAL

Project: \_\_\_\_\_  
Location: \_\_\_\_\_  
Cat. #: \_\_\_\_\_  
Type: \_\_\_\_\_  
Quantity: \_\_\_\_\_

LED

# GAB LED Germicidal Air Flow Chamber

### Features:

- Lays into grid ceiling, provides anti-viral and anti-bacterial cleansing of the air
- Continuous disinfection
- UV chamber mounted in the back of the fixture pulls in air via surface-mounted fans. Air pulled into chamber is cleansed of airborne pathogens (viruses and bacteria) utilizing 260-265nm UVC with a 99-plus % inactivation rate.
- Completely harmless to animals and humans as UVC comes from a chamber recessed into the ceiling, out of view

### Applications:

Suitable for most commercial and institutional applications

- Office
- Retail
- Classrooms
- Healthcare Facilities
- Labs and clinics

### Predicted Lifetime:

- Disinfection chamber lifespan: 30,000 hrs

### Construction:

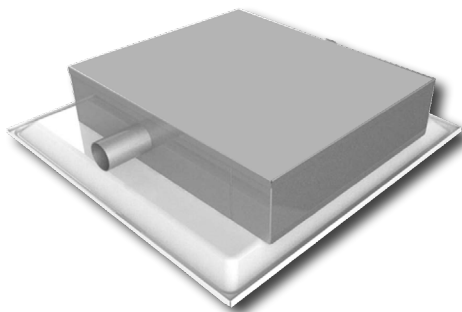
- Aluminum housing

### Certifications:

- CE and UL pending

### Warranty:

- 260-265nm LED boards in back chamber: 30,000 hours
- Fans: 3 years
- Balance of fixture: 10 years



## Ordering Guide:

example: GAB 22 UV W6

| Series | Size     | Voltage | Fan         | - | Options                  |
|--------|----------|---------|-------------|---|--------------------------|
| GAB    |          | UV      |             | - |                          |
| GAB    | 22<br>24 | UV      | Blank<br>HF |   | Blank<br>DK<br>W6<br>W10 |

**Size:** 22 2'x2' 24 2'x4' **Options:** Blank DK None Duct Kit - Vents and Vent Tubing 6' Whip 10' Whip

**Voltage:** UV 120-277V

**Fan:** Blank Normal Volume HF High Flow (2x4 only)

## Performance:

| Catalog #    | Watts (Disinfection Chamber) | Fan CFM |
|--------------|------------------------------|---------|
| GAB 22 UV    | 18                           | 55      |
| GAB 24 UV    | 36                           | 95      |
| GAB 24 UV HF | 36                           | 200     |

## Notes:

Fan in 2x2 unit pulls in air at 55 CFM; dual fans in 2x4 unit pull in air at 95 CFM - or 200 CFM with the "HF" option (exhaust ports need to be 6 feet from fixture).

The GAB 24 with "HF" option produces about five air changes per hour (ACH) for a 300 square-foot room with 8-foot ceiling; and about 3.75 ACH for 400 square-foot room with 8-foot ceiling (see table below for more details).

## Air changes per hour:

The table below shows the number of air changes per hour (ACH) and time in minutes required for removal efficiencies of 90%, 99% and 99.9% of airborne contaminants.

| ACH | Minutes required for a removal efficiency of: |     |       |
|-----|---|-----|-------|
|     | 90%   | 99% | 99.9% |
| 1   | 138   | 276 | 414   |
| 2   | 69  | 138 | 207   |
| 3   | 46  | 92  | 138   |
| 4   | 35  | 69  | 104   |
| 5   | 28  | 55  | 83    |
| 6   | 23  | 46  | 69    |
| 7   | 20  | 39  | 59    |
| 8   | 17  | 35  | 52    |
| 9   | 15  | 31  | 46    |
| 10  | 14  | 28  | 41    |
| 11  | 13  | 25  | 38    |
| 12  | 12  | 23  | 35    |
| 13  | 11  | 21  | 32    |
| 14  | 10  | 20  | 30    |
| 15  | 9   | 18  | 28    |

This table has been adapted from the formula for the rate of purging airborne contaminants (99). Values have been derived from the formula  $t_1 = [\ln(C_2 \div C_1) \div (Q \div V)] \times 60$ , with  $T_1 = 0$  and  $C_2 \div C_1 = (\text{removal efficiency} \div 100)$ , and where:

- $t_1$  = initial timepoint
- $C_1$  = initial concentration of contaminant
- $C_2$  = final concentration of contaminants
- $Q$  = air flow rate (cubic feet per hour)
- $V$  = room volume (cubic feet)
- $Q \div V$  = ACH

The times given assume perfect mixing of the air within the space (i.e., mixing factor = 1). However, perfect mixing usually does not occur, and the mixing factor could be as high as 10 if the air distribution is very poor (98). The required time is derived by multiplying the appropriate time from the table by the mixing factor that has been determined for the booth or room.

**Total exposed surface area of titanium dioxide (UVC disinfection) within GAC box: <19 feet. Total length covered by air in GAC box: <18 feet.**

## KILL > 99% OF COVID-19



**Note:** UVFocus products are designed utilizing proven germicidal and anti-bacterial technology. UVC 254nm and 260-265nm products work to deactivate most common viruses (as well as bacteria, molds and yeasts), and 405nm near-UV products are shown to substantially reduce bacterial presence. While these products can be considered disinfecting products, they should be used in conjunction with standard, proper disinfecting cleaning procedures to have the greatest impact for maintaining a clean environment. Successful UV disinfection requires a systems approach taking into account dose, optics and safety relevant to the specific application. Please consult with factory any questions or concerns.