

UPPER ROOM GERMICIDAL ULTRAVIOLET (GUV)

Fact Sheet and
Frequently Asked Questions



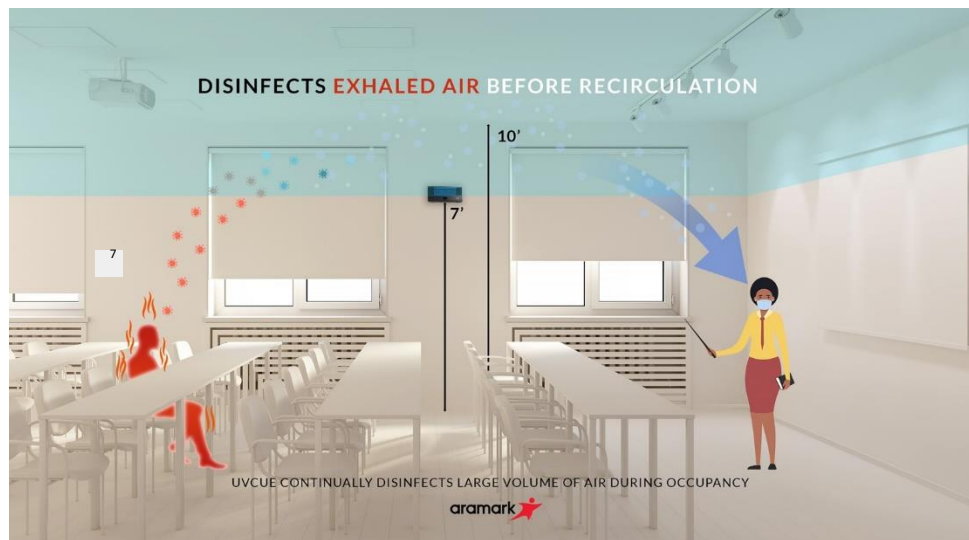
aramark 

What is Upper Room Germicidal Ultraviolet (GUV)?

Upper Room GUV is an air disinfection strategy that uses ultraviolet light to improve indoor air quality by killing viral, bacterial, and fungal organisms.

How Does Upper Room GUV work?

Upper Room GUV emits a band of ultraviolet light in the upper area of a room, creating a disinfection zone. A thermal plume, created from body heat and breathing, cause air and airborne pathogens to naturally rise into the disinfection zone. This natural air movement is enhanced with building HVAC and mechanical air movement in the space. Upper Room GUV effectively inactivates airborne pathogens by turning the upper 20% of the room into an effective disinfection zone, preventing further transmission of the pathogens. The disinfection zone is designed based on the 90 years of research and studies that showed consistent reduction of airborne transmission by 80-90%.



What is the Science Behind Upper Room GUV?

Upper Room GUV is backed by decades of science. It was successfully deployed in schools in the 1940s to fight Measles, where it was proven to reduce transmission by 74%. It has subsequently been proven to reduce Asian Influenza infection by 90% in the 1950s. Additional transmission reductions of 80% have been documented in the 1980s and 1990s against drug resistant Tuberculosis. Most recently, ultraviolet light has been proven to deactivate SARS-CoV2, the virus that causes COVID. It is also effective at mitigating the transmission of cold and flu.

Why is Upper Room GUV so effective?

Upper Room GUV is part of a layered strategy to air cleanliness that also includes ventilation and filtration. Recommended by the Centers for Disease Control and Prevention (CDC) and American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE), this technology creates a large disinfection zone in the upper region of a room. Air moving through the zone is disinfected. Most importantly, Upper Room GUV allows disinfection to take place directly within the occupied space.

Are UVCUE Upper Room GUV units safe? Upper Room GUV units are safe.

UVCUE GUV units are installed on walls at a height of 7' and angled upwards to create a safe disinfection zone. Measurements are taken during installation to verify efficacy and safety. Additionally, UVCUE units have been certified by the California Air Resources Board (CARB) and do not emit ozone.



The measurement for assessing indoor safety is Air Changes Per Hour (ACH). The CDC recommends 6 ACH, and typical HVAC systems target 3 ACH. UVCUE adds 8 to 16 ACH to occupied spaces delivering safer indoor air more cost effectively and with a lower carbon footprint.

What are the benefits of UVCUE Upper Room GUV?

UVCUE Upper Room GUV presents numerous benefits.

- Sanitizes large volumes of air where the source of threat exists
- Addresses COVID-19, TB, cold & flu, and other airborne pathogens
- Only proven air disinfection strategy for occupied spaces during outbreaks
- Instills visual confidence among occupants that air is being cleaned
- Achieves highest possible levels of air change equivalency
- Easy to install and maintain, silent operation
- Proven scientifically. Endorsed by CDC, ASHRAE, and Harvard Medical School
- Requires low installation and operating costs
- Reduces utility costs and carbon emissions
- Meets California ozone emissions limit: CARB certified

Does UVCUE qualify for stimulus funding?

Yes. UVCUE Upper Room GUV complies with funding guidance as stipulated within the the American Rescue Plan Act (ARP Act).

About Aramark and PlanLED

PlanLED is a leading provider of lighting products. After much research, Aramark has partnered with PlanLED for their UVCUE Upper Room GUV solution. UVCUE is a part of Aramark's *layered strategy* to improve the indoor air quality of our client's spaces.



Video: A Layered Strategy to a New IAQ Era
<https://vimeo.com/658502236>

A Layered Strategy for Safe Occupancy



As we reintegrate back into the workplace, protecting the health and safety of our employees is our top priority. Several very familiar strategies include:

- 1 Staying home when you are sick or exposed and getting tested before returning to work
- 2 Getting vaccinated and following guidance on booster shots
- 3 Wearing a mask and limiting exposure to crowded indoor spaces
- 4 Maximizing ACH with ventilation with MERV 13 or higher filtration



Add upper room GUV, a research-based strategy for infection control

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Here is how it works:

When an infected person breathes, the thermal body plume brings exhaled aerosols into upper region of the room before reaching other occupants' breathing spaces.

Upper Room GUV effectively inactivates airborne pathogens by turning the upper 20% of the room into an effective disinfection

zone, preventing further transmission of the pathogens.

Our UVC disinfection zone is designed based on the 90 years of research and studies that showed consistent reduction of airborne transmission by 80-90%.

UVCUE will also protect us from the common cold, seasonal influenza and future variants, thereby reducing absenteeism.

Upper Room GUV is a strategy recommended by CDC, ASHRAE, and the Harvard Medical School Center for Global Health Delivery.

For more information please contact Jeff Watson at: watson-jeff@aramark.com