

# Airborne Virus Mitigation at 51 Walden

Spring 2021

To help cleanse and disinfect the air at 51 Walden, we have installed six *UltraVation BioGardUV™ FS-33 Upper-Room Convection Germicidal UV Units* in the main hall, and two smaller *BioGardUV FS-22* units in the lobby area. We have also installed three AIRDoctor™ HEPA Professional Air Purifiers in the lobby area. All are operating on a near-24x7 basis.

Germicidal ultraviolet air disinfection destroys airborne pathogens by exposing the upper regions of a room to germicidal UV light. Since air circulates in a room due to convection, air that is warmed in the lower part of the room (from respiration and other sources) continually rises, where it will be exposed to UV light that can deactivate airborne bacteria and viruses. Our large ceiling fans further enhance circulation.



Each of these devices utilizes a mercury-vapor lamp that emits invisible ultraviolet light at a wavelength of 254 nanometers (nm). An internal aluminum reflector and louvers on the front surface cause the emitted UVC light to fan-out horizontally while limiting the vertical projection to a relatively thin layer eight to ten feet above the floor. As the UV field is well above-head, the room remains safe for occupancy while the air is continuously disinfected.

## -- Caution --

Direct exposure of skin and eyes to UVC light from UVC lamps may cause painful eye injury and burn-like skin reactions. Never look directly into a UVC lamp source, even briefly.

Upper-Room Germicidal Disinfection is not a substitute for social distancing. It continues to be important to take all usual precautions against infection risk.

While the units are operating, they emit both *invisible* UVC light, and *visible* blue light. The visible blue light scatters horizontally and vertically and can be seen illuminating the hall. The ultraviolet light, however, is directed to a flat horizontal layer above head level.

## Ensuring Safe Operation at 51 Walden

To ensure safe use of our Upper Room UV devices, we have taken the following steps:

- Installed the units according to the manufacturer's instructions
- Made factory-supervised measurements, confirming no harmful UVC below eight feet
- Can be disabled via wall switch when work is performed in the exposed upper area.