EP Lighting, Inc.

Cafeteria

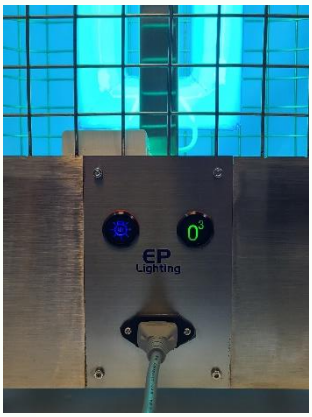
UV-KLEEN™ model EP-PRK-300W-O is utilized at a cafeteria in an industrial facility for disinfectant purposes. The following results show the time taken by the UV-KLEEN™ system to kill the virus and bacteria by 99.99%.

50mJ/cm^2 is the required UV-C to disinfect a room up to 99.99% from viruses and bacteria. The UV-KLEEN™ could achieve 50mJ/cm^2 in 28 min when the dosimeter is placed at 16ft 9in away from the lamp source. The Ozone levels are measured to be 1ppm in 30 min when measured at 15 ft from the UV-KLEEN™ system.

Parameters	Values
Dimensions of the room	33 x 30 x 9.5 ft
UV-KLEEN™ location	Center of the room on tabletop
Temp and Humidity	70F 68%
Time for 50mJ/cm^2	28 min at 16ft 9in
Ozone Levels	1 ppm in 30 min @ 15ft
Time to kill Covid19	4 min @ 7ft Surface 30 min @ 14ft Air

The statistical published results state that Sars-CoV-2 (Covid19) for a 99% kill rate. UV-KLEEN™ achieved 50mJ/cm^2, a much higher UV irradiation to kill Covid19 under 4 mins at 7 ft from the lamp source.

While the UV can disinfect surfaces and the air that is passed through the lamp, Ozone is more beneficial to use when certain hidden spots needed sterilization. Ozone can reach every concealed or hidden area of the room, oxidizing (killing) the pathogens. The Ozone is measured at 15ft from the Unit (when the Ozone reaches this far point in the cafeteria it will have permeated shadowed areas in the cafeteria), and it is found to be 1ppm at 30 min. In other words, it took 30 mins to reach 1ppm at a distance of 15ft from the source. 1ppm is lethal for many viruses including Covid19 and other bacteria in the air.



Based on the above results, we can conclude the UV-KLEEN™ system took about 28 min to disinfect the surface and 30 min to disinfect the air and other shadowed surfaces in the cafeteria area. The remaining Ozone took 20 mins to dissipate to under 0.4ppm, a safe level to occupy the room.