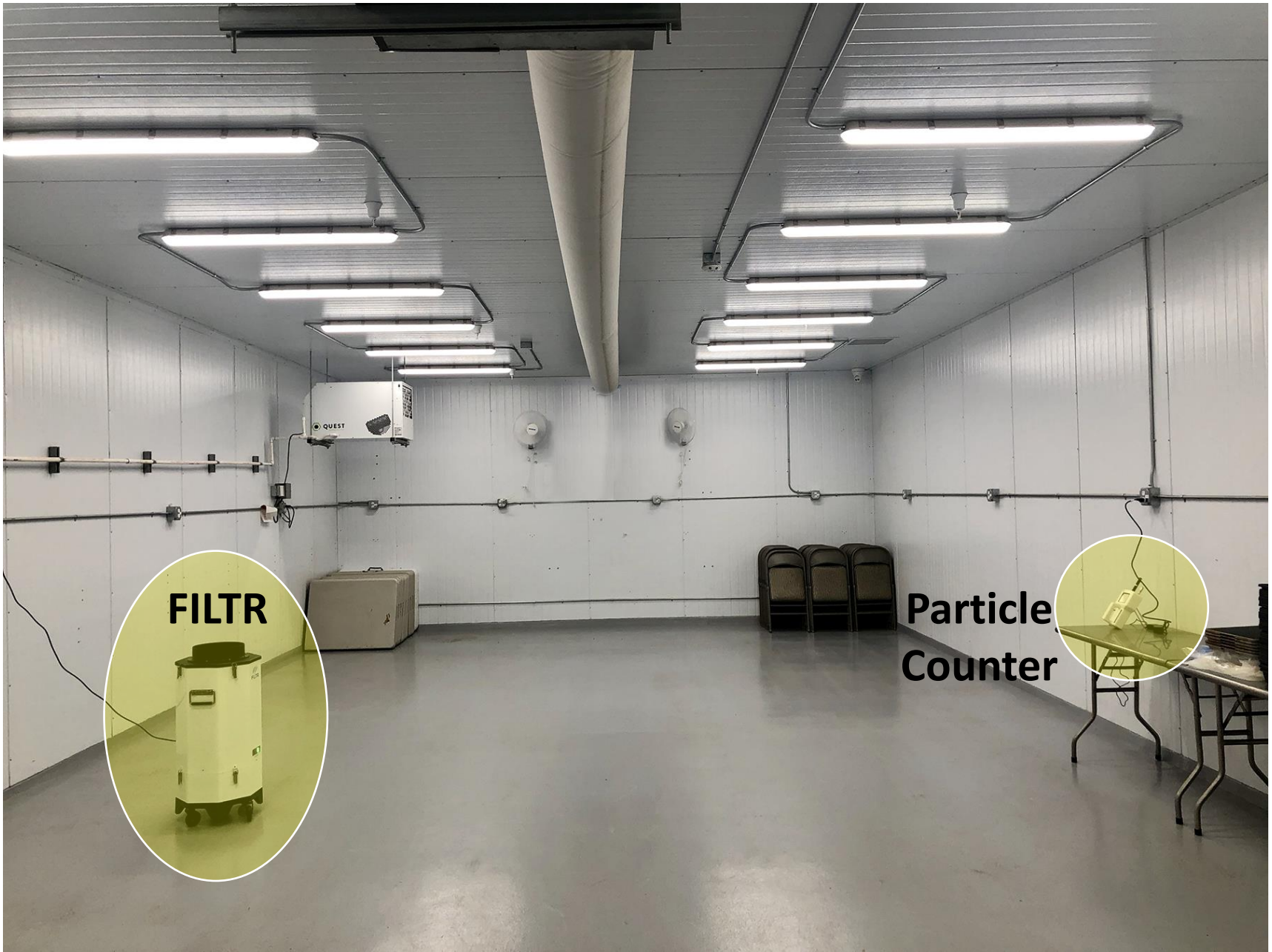
FILTR In-Room Air Filtration Test



Overview

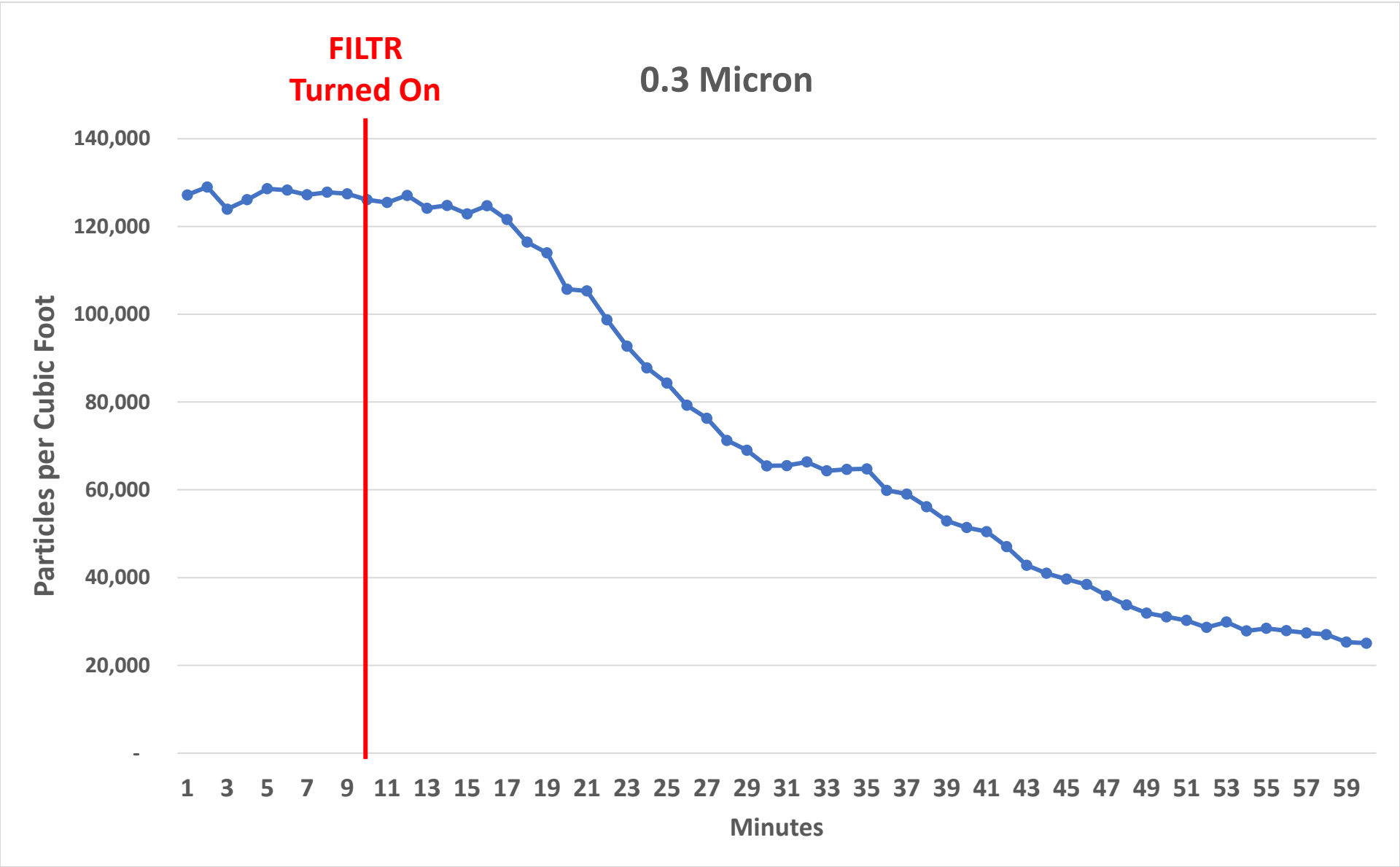
Testing of Lighthouse commercial grade air purification unit, FILTR, conducted on May 3rd, 2019.

Room Dimensions: 20 x 40 x 10
Room Cubic Air Volume: 8,000 Cubic Feet
Room Status: Empty

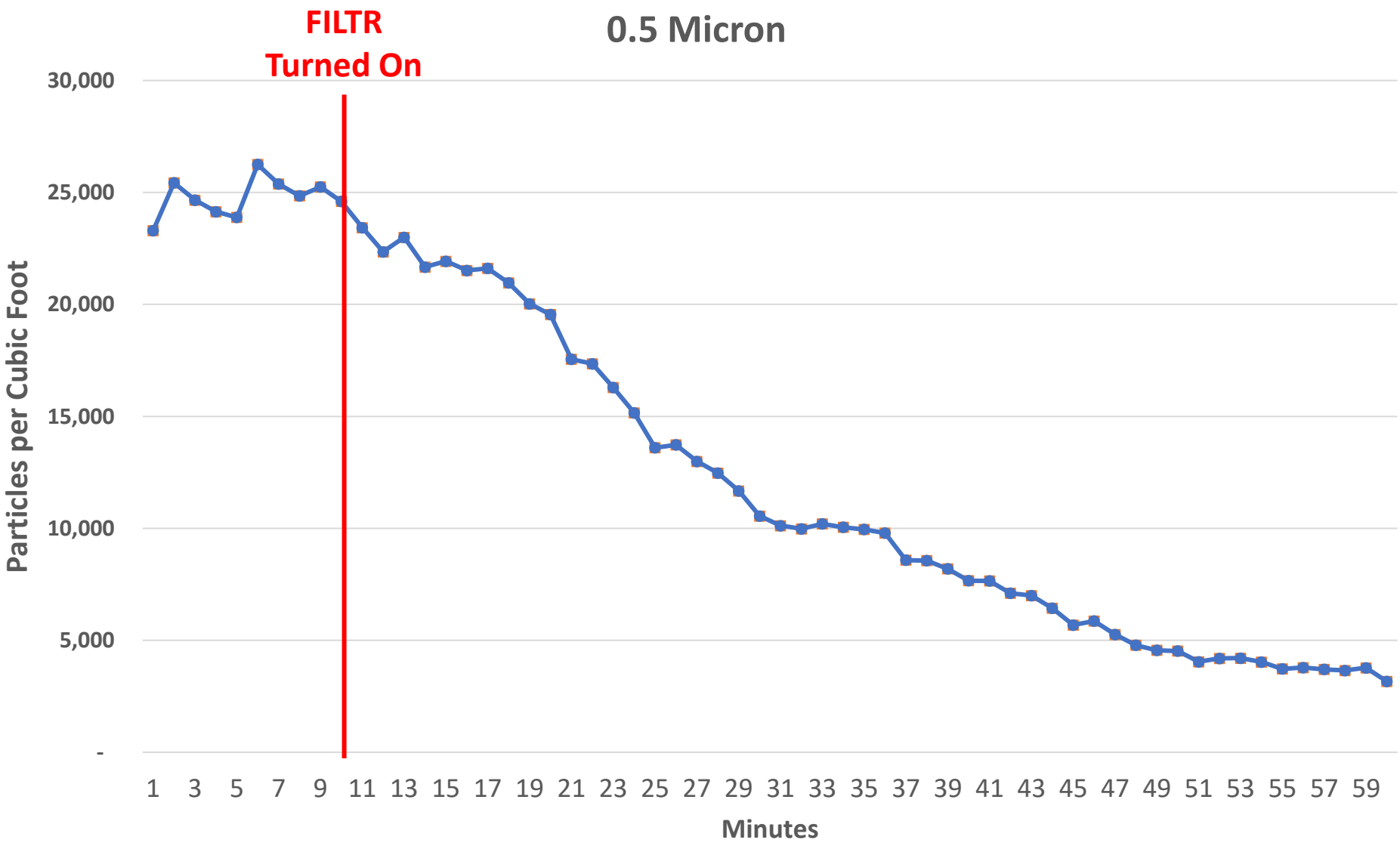
A particle counter was placed on the opposite side of the room and was set to record data once per minute.

The following pages include a graphical representation of the data recorded. A significant drop in particle counts was seen once the FILTR unit was turned on.

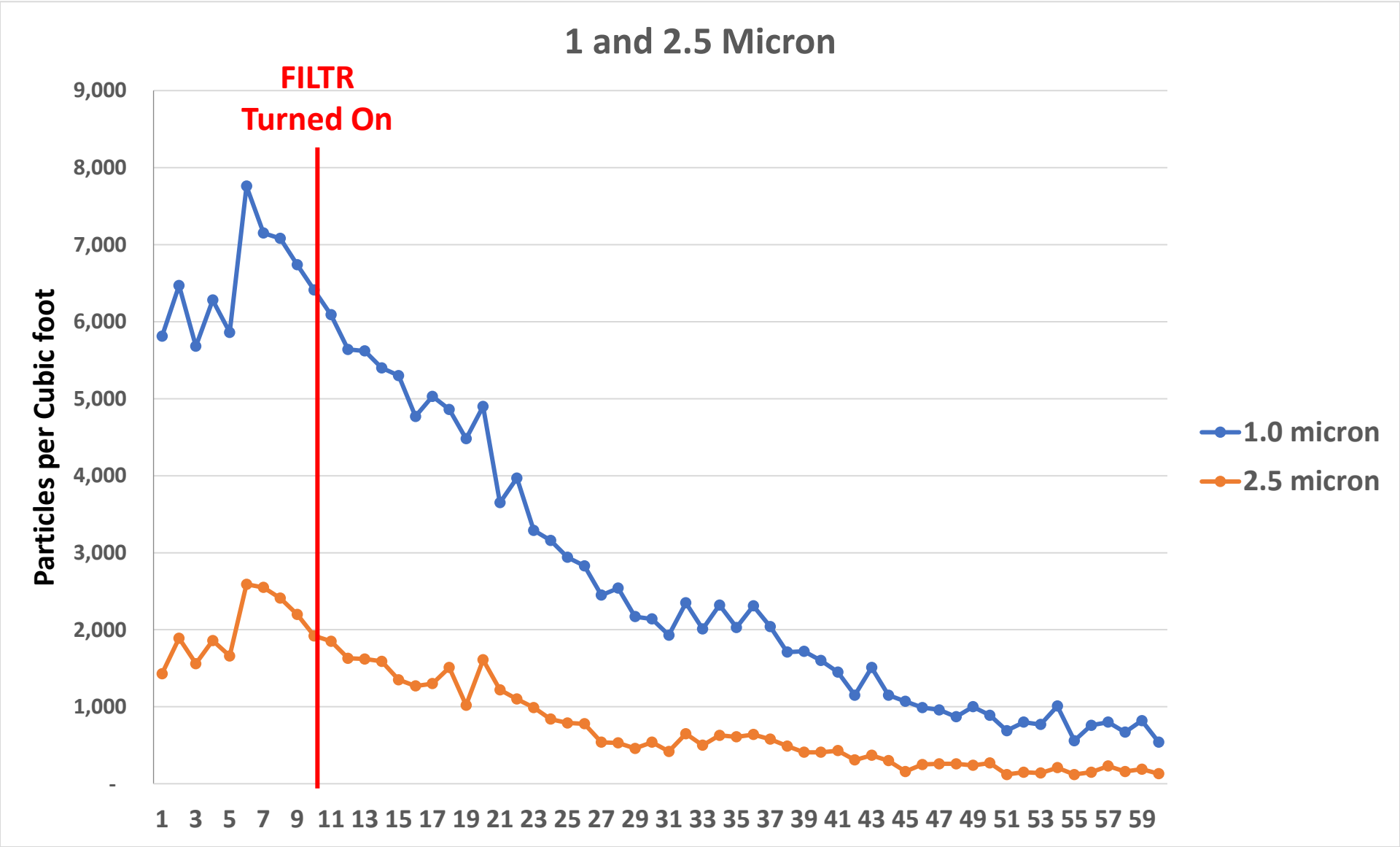
80.0 % Reduction in ≥0.3 micron particles in 50 minutes



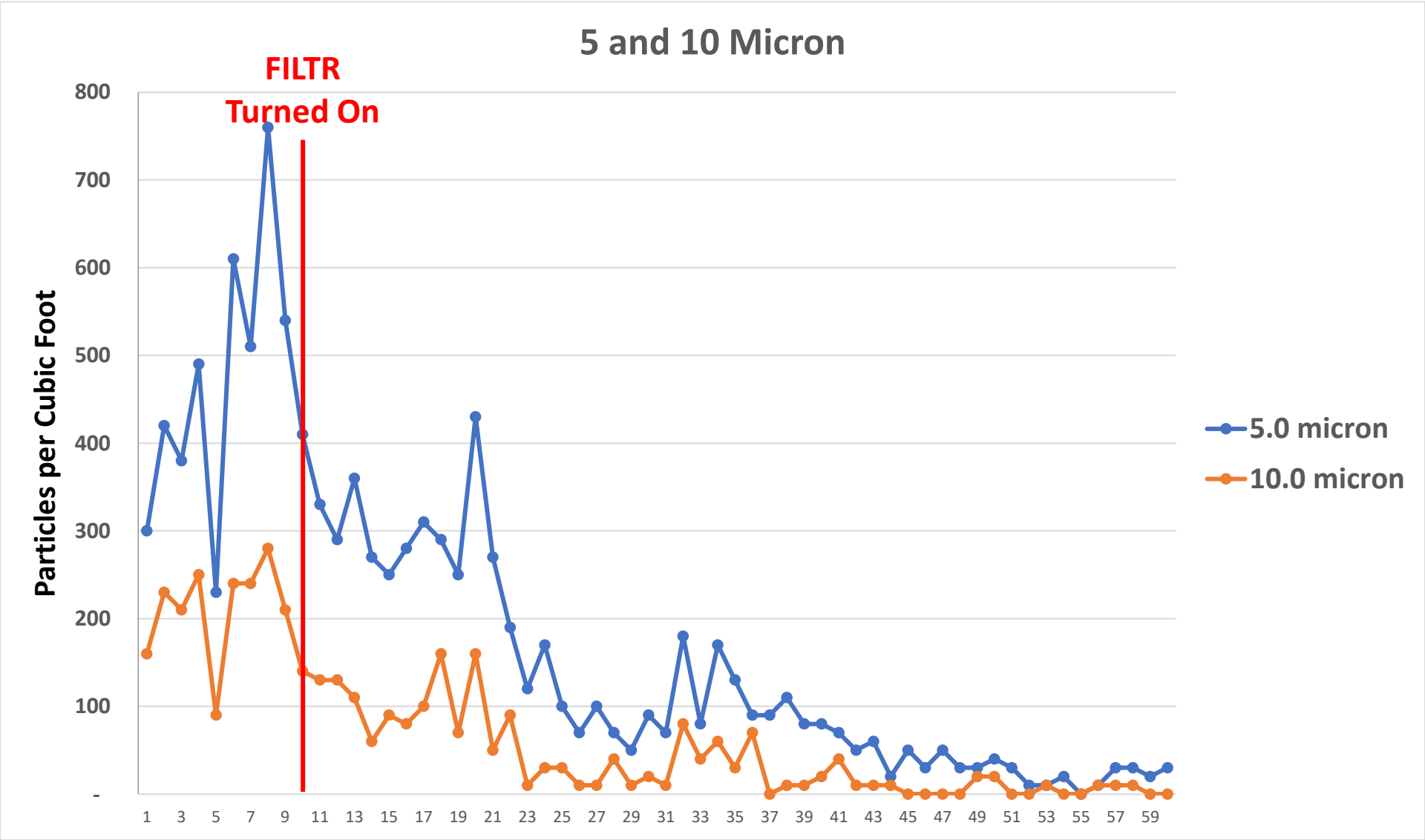
86.4 % Reduction in ≥0.5 micron particles in 50 minutes



90.7 % reduction in ≥1μ and 90.9% reduction in ≥2.5μ particles in 60 minutes



90.0 % reduction in ≥5μ and 100% reduction in ≥10μ particles in 60 minutes



Summary

Particle Size	Reduction in 50 Minutes
0.3 micron	80%
0.5 micron	86.4%
1 micron	90.7%
2.5 micron	90.9%
5.0 micron	90.0%
10 micron	100%

Summary

Particles (both dust and aerosolized droplets) harboring Pathogens range from 0.5 micron in size and larger.

In 50 minutes, a single FILTR unit
reduced particles by an average of
(86.4% + 90.7% + 90.9% + 90% + 100%)/5 =

91.6%

Mounting Options

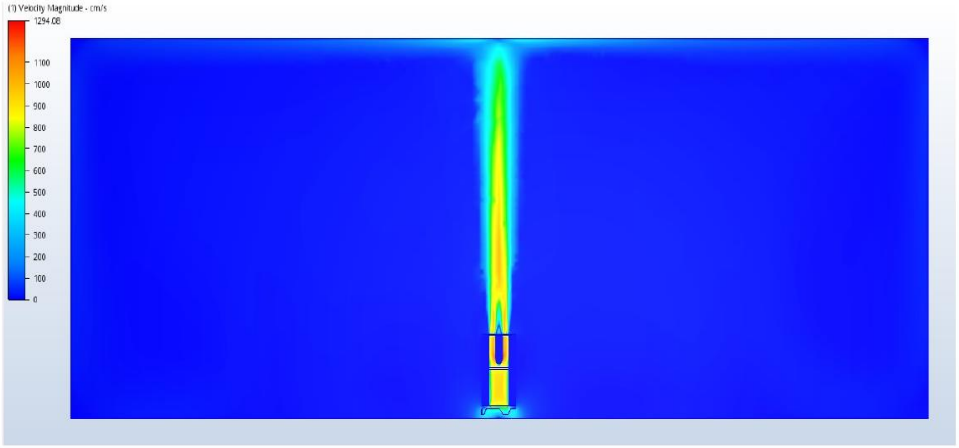
Mounting Options

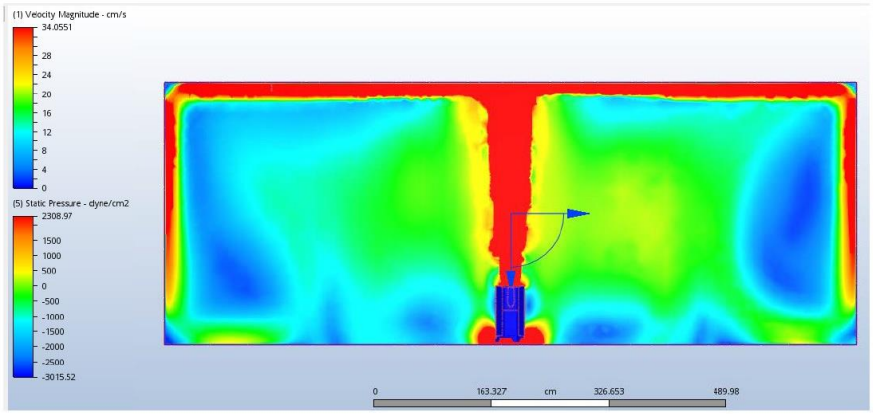
Floor

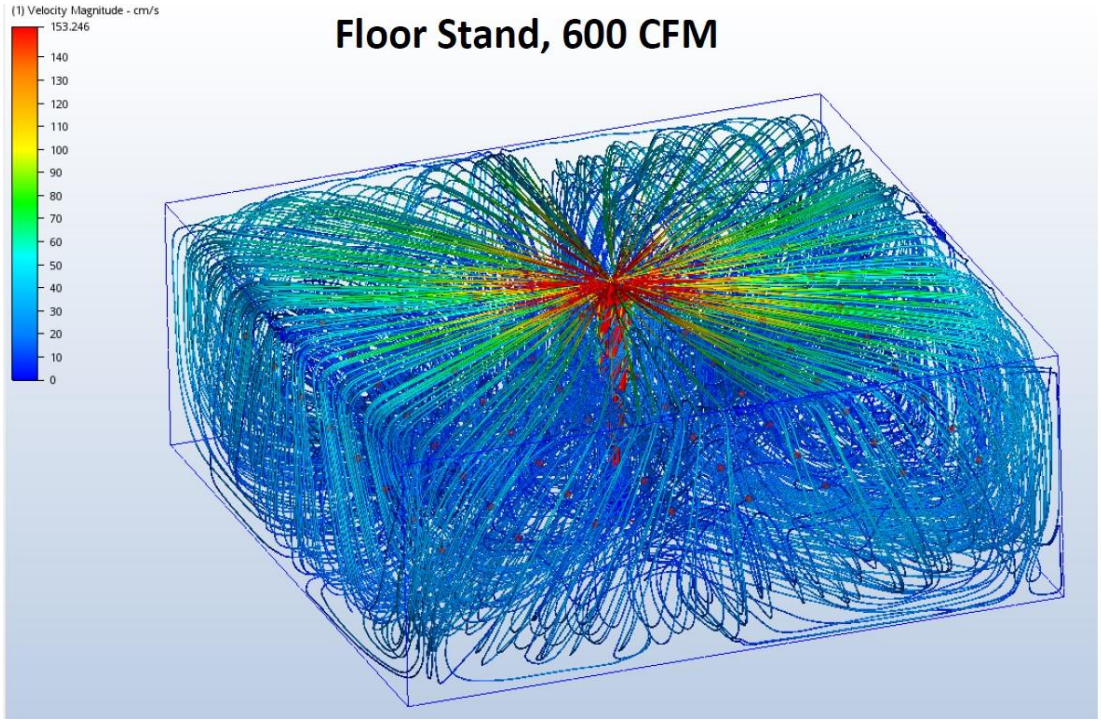
Ceiling

Wall

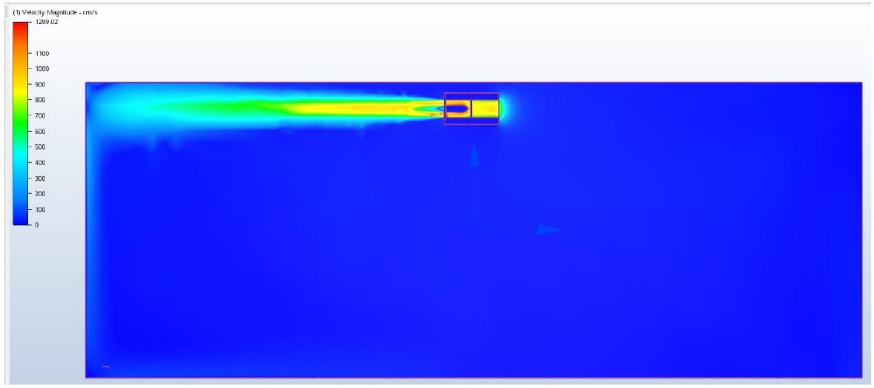
Airflow Dynamics Simulation Modeling
Floor Placement, 600CFM

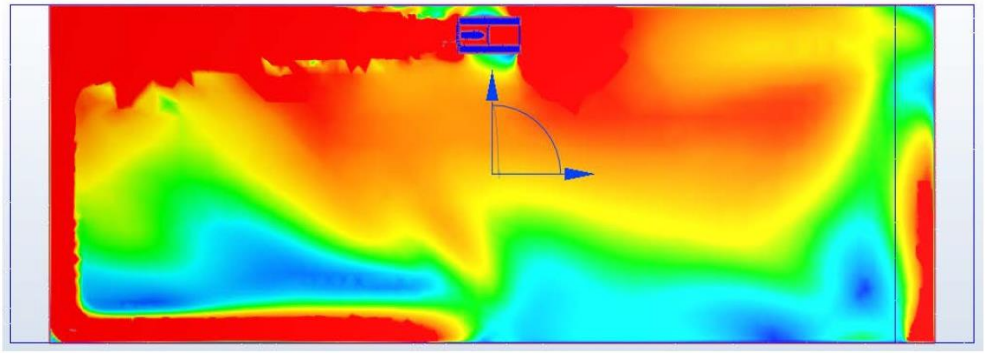




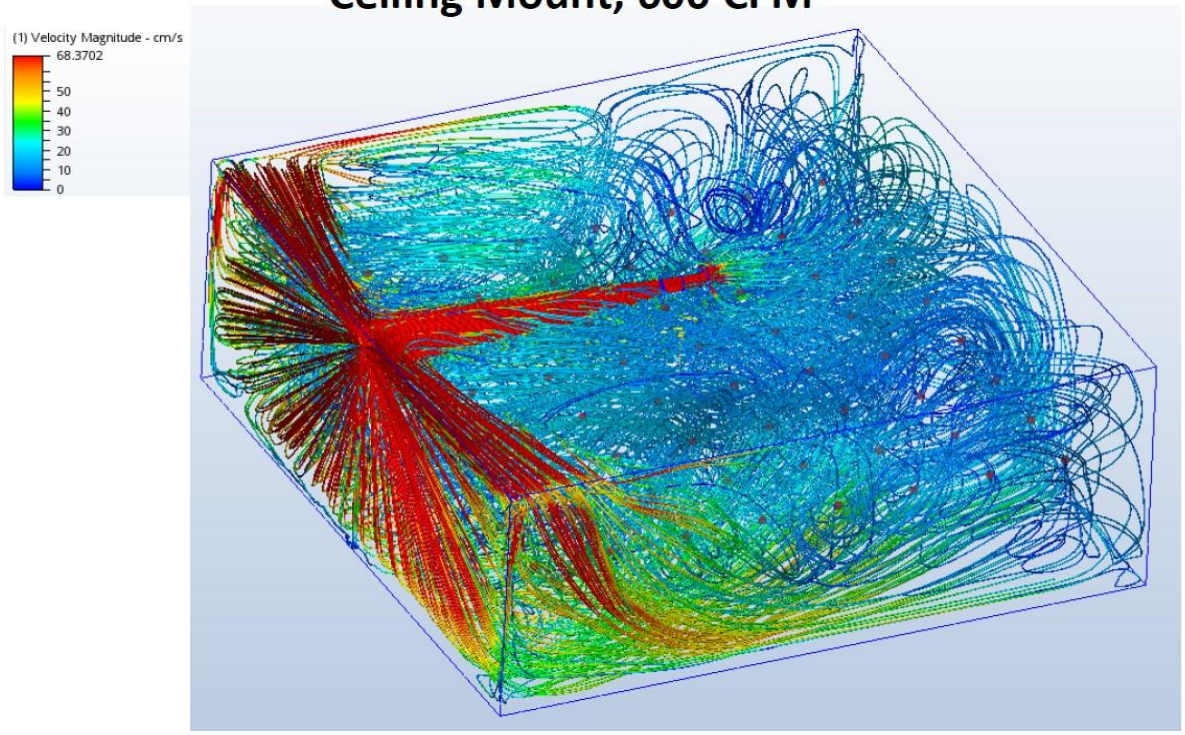


Airflow Dynamics Simulation Modeling
Ceiling Mounted, 600CFM

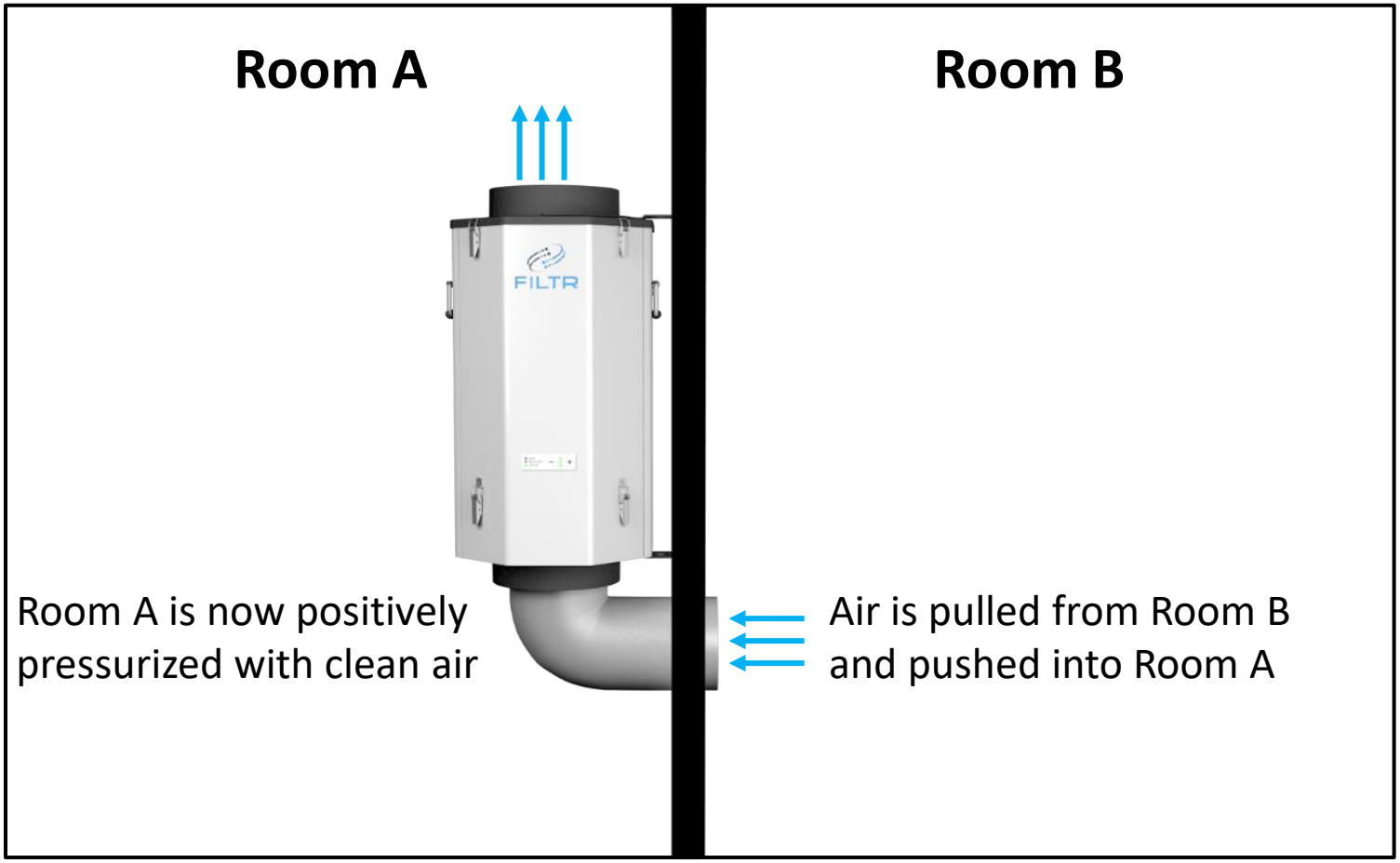




Ceiling Mount, 600 CFM



Positive Pressure



0.02 to 0.05” H2O is the goal

Gain Control

Gain Control

Customizable Alarm Limits

- Limits can be set per device
- Temp/Hum has a high and low alarm
- PM 2.5
- VOC
- E-mail notifications

FILTR

- 500 CFM with Carbon Filtration
- 700 CFM with UltraHEPA Only
- Bi-Polar Ionization (currently not available in CA)
- Positively pressurize a room to keep contamination out
- On board sensors that record data every 10 minutes
  - Temperature
  - Humidity
  - PM2.5
  - VOC