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**PURO™**  
 UV Disinfection Lighting

**PURO's UV Disinfection  
 Solution for AHUs**

**THE PURO  
 SOLUTION**

Powered by Violet Defense™



Safest solution on the market with automatic sensor shut off



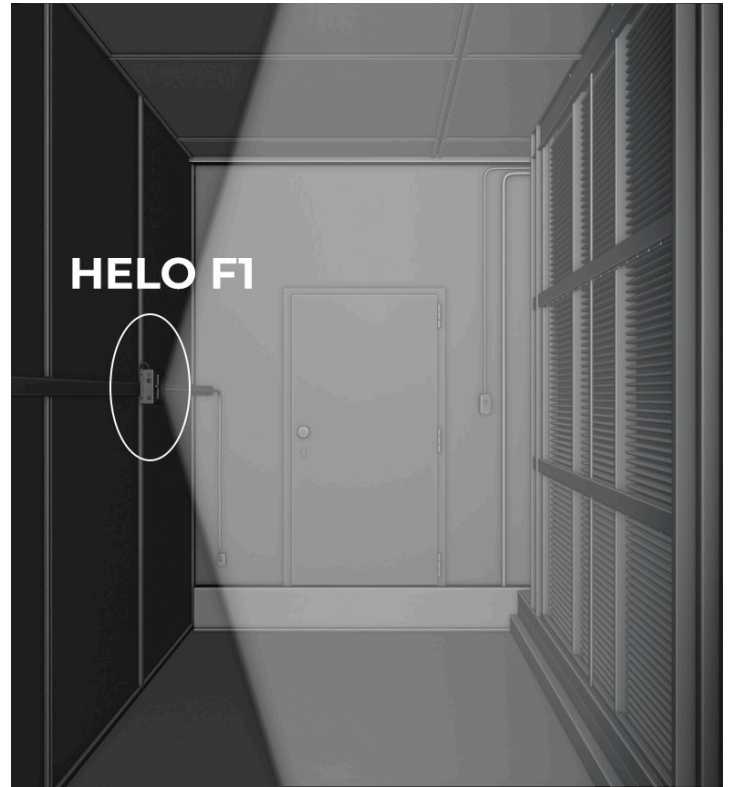
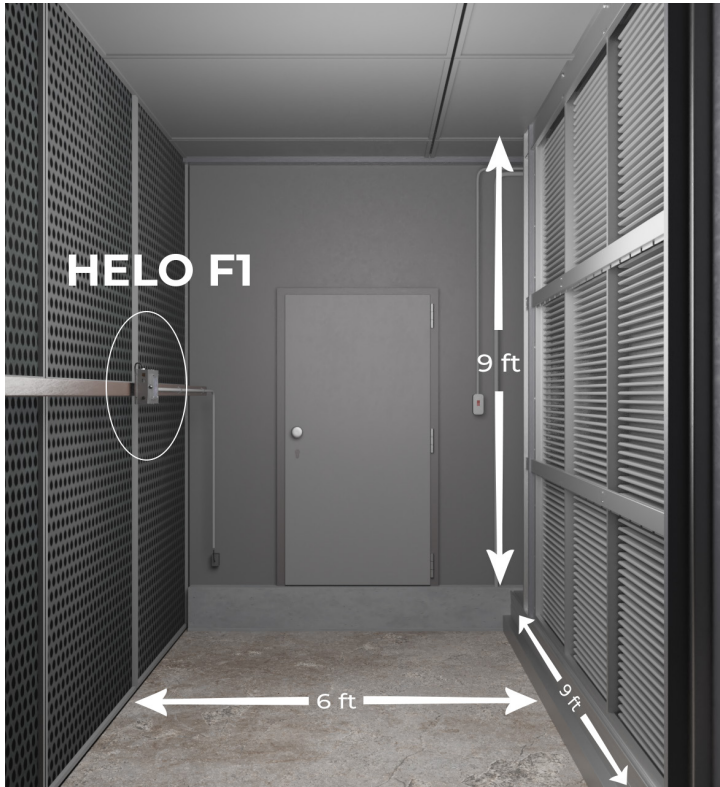
Fastest disinfection system to install



Effective germ killing power in only four 30-minute cycles a day



Long life pulsed xenon lamp requires less energy, saving money



**CURRENT UV SOLUTIONS**

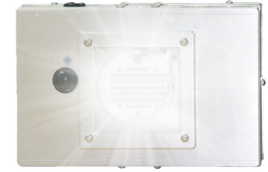
- Lamps are on 24/7 and must be changed every 12 months
- Commercial grade UV lamps are expensive to replace
- High wattage lamps consume a lot of energy
- UV poses a risk of burning corneas to maintenance staff
- Continuous UV light degrades wires, gaskets & other materials in the AHU



Until recently, low-pressure mercury vapor or fluorescent UV-C lamps have been the best option for disinfecting the cooling coils in AHUs. These lamps are low intensity, must run continuously (24/7) and be mounted at a close distance (4"-6") to coils and filters.

There's a faster, safer, and more effective solution. A single Helo F1 fixture, powered by Violet Defense™ technology, uses a proprietary pulsed Xenon bulb. It is lab verified to kill up to 99.9% of bacterial and fungal growth up to 6.5 ft away. The installation is simple and only requires an electrical outlet.

Pulsed xenon lamps are more efficient at generating UV radiation therefore the wattage is significantly lower. A single Helo F1 unit consumes 60W of energy and has a recommended run time of four 30-minute cycles per day, **saving thousands of dollars per year in energy in large buildings.**



Helo F1

With lower maintenance requirements and built-in occupancy sensors, the PURO Lighting solution is safer by eliminating the risk of damaging light exposure. Our lamps do not require a kill switch, and though unnecessary, can even be unplugged if there is a fear of exposure while performing routine maintenance.

The Total Cost of Ownership over 5 years is 1/3 the cost when using PURO Lighting's fixtures (see table). At a run time of four 30-minute cycles per day, these lamps have a projected 5-year life span and **eliminate the maintenance cycle.** In large buildings with 60-70 AHUs, this results in massive time and maintenance labor savings. This breakthrough in UV technology is making UV systems more energy and cost efficient, easier to maintain, and delivering long term value for the owner and operator.

## 5-YEAR COST DATA

The following cost comparison is for a 9' x 9' AHU cooling coil, with a kWh rate of \$0.09. UV lamp specs are taken from a leading commercial UV system provider.

Helo F1	
# of Fixtures	1
Lamp Wattage	60
System Wattage	60
Run Time (hrs/day)	2
kWh/day	0.12
Annual Run Time (hrs/yr)	730
kWh per Year	43.8
Annual Energy Cost	\$ 3.94
Helo F1 Fixture	\$ 3,749.00
5-Year Energy Cost	\$ 19.70
5-Year Lifecycle Cost	<b>\$ 3,768.70</b>

Mercury Vapor/Fluorescent UV	
# of Lamps	12
Lamp Wattage	125
System Wattage	1500
Run Time (hrs/day)	24
kWh/day	36.00
Annual Run Time (hrs/yr)	8760
kWh per Year	13,140
Annual Energy Cost	\$ 1,182.60
System Cost	\$ 2,500.00
Lamp Cost	\$ 100.00
Lamp Changes	4
5-Year Energy Cost	\$ 5,913.00
5-Year System Maintenance	\$ 4,200.00
5-Year Lifecycle Cost	<b>\$ 12,613.00</b>