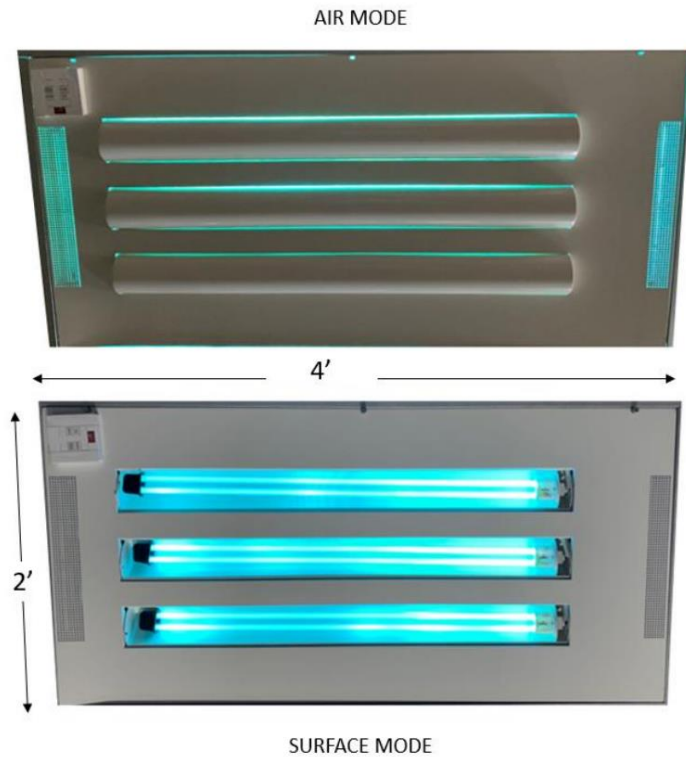


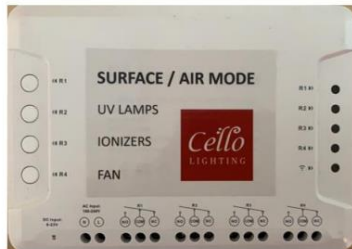


Cello Omni 4-in-1 UVC

2 x 4 Surface Mount Disinfection Fixture*



Remote Control



Wi-Fi Gateway Controller

CH	ON	OFF
1	SURFACE	AIR MODE
2	UV ON	UV OFF
3	NPBI ON	NPBI OFF
4	FAN ON	FAN OFF

* also available as recessed grid mount, contact us for details

Disinfection Guidelines

Surface Mode UVC Disinfection

Area	500 sq. ft.	1000 sq. ft.	1500 sq. ft.
Time*	5 min	10 min	15 min

*Suggested time to operate for 99.9% disinfection rate.

Air UVC Disinfection

CFM	Disinfection	Ambient Noise	9000 cu. ft
900	99.95%	65 dB	10 minutes

* Time to exchange 100% of air.

HEPA Filter Disinfection

CFM	Disinfection	Ambient Noise	9000 cu. ft
900	99.954%	65 dB	10 minutes

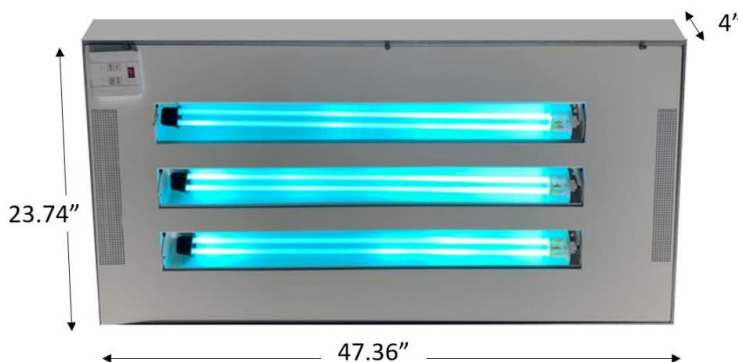
NPBI Disinfection (Optional)

CFM	Disinfection	Ambient Noise	9000 cu. ft
450	96.7%*	50 dB	20 minutes

*Independent testing in April 2020 showed that NPBI deactivated **99.4%** of SARS COVID-2 (the virus that causes COVID-19) in **30 minutes**. Importantly, NPBI technology safely deactivates pathogens in the air and **on surfaces** in real time, while spaces are occupied.

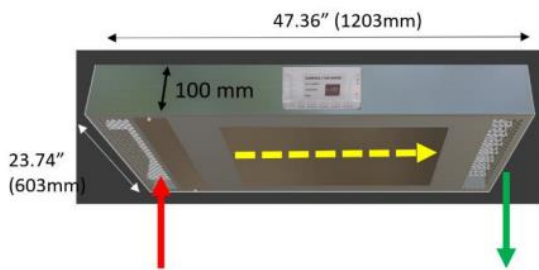
** NPBI is an OPTIONAL feature. If users do not like NPBI, they can use the remote control to turn off CH3: IONIZERS to turn off the NPBI feature.

Technical Specifications



Parameter	Value
Input Voltage	120VAC 50/60Hz
Input Amps	5 amps (motor & lamps)
Power & Lamp Indicator Lights	Available on Wi-Fi Controller
Dimensions	47.36" x 23.74" x 4"
Net Weight	30 lb.
Wavelength	253.7 nm
3 UVC Lamps per unit	450W (3 of 150W) U-type UVC lamps
Ozone level	< 0.05 ppm (compliant with UL 867 no-ozone standard)
Square footage coverage (@ 9ft tall)	Up to 1000 sq. ft.
Control Access	From remote control or Smartphone App
Easily accessible filter door	Located at the bottom of the unit
Cabinet Material	Stainless Steel
Mounting	Individual Wall Hung unit or ceiling mounted unit
Power factor of motored fan	95%
Ambient Noise level	40 dB – 65 dB
UVC Intensity	1 mW/cm ²
System Air Flow	200 CFM – 900 CFM
Air Exchange Rate @ 9000 cu. Ft.	6 Air Exchanges per hour (@900 CFM)
Ion concentration @ 4" from NPBI	60 million ions
Warranty	3 years unit / 1 year Lamp (8000 hours)

Case study of 9000 cu. ft. Classroom (1000 sq. ft. x 9 ft.)



UVC power = 300W

Specified UVC intensity = 1 mW/cm² @ 1 meter

Farthest distance of air inside Fixture from UVC lamp = 0.2 meter;

$0.6\text{mW} \times 1^2 = \text{Fixture UVC Intensity} \times (0.15)^2$ (reverse square law)

Fixture UVC Intensity = $1 (1/0.15)^2 = 44.4 \text{ mW/cm}^2$ @ 0.2 meter

Air Unit Volume = 1.2 M x 0.6 M x 0.1M = 0.072 cu. meter = 2.58 cu. ft.

Cross Section Area = 0.1M x 0.6M = 0.06 sq. meter = 0.65 sq. ft.

Assume air exchange rate is **900 cfm** = 900 cu. ft./minute

Air Flow Speed = (900 cu. ft. /minute)/ 0.65 sq. ft. = 1384 ft./minute

=23.06 ft/second = 6987 mm/second

Air stays in this Unit for: 1200 mm/ 6987(mm/s) = **0.28 seconds**

Dosage = 44.4 mW/cm² x 0.28 seconds = **12.43 mJ/ cm²**

Disinfection Rate = **99.95%** (refer to [Appendix A](#))

Conclusion:

It takes 9000 cu. ft./900 cfm = 10 minutes to exchange 9000 cu. ft. of air with 99.95% disinfection rate; that is:

6 air exchanges per hour to disinfect 99.95% of the air.