

luminii



**BUILD
BACK
BETTER**
GOLD



 purifii
by luminii

The Comfort of Wellness™

**GERMICIDAL ULTRAVIOLET
DISINFECTION SYSTEMS**



This is Luminii

LUMINII. SIMPLY BRILLIANT SPACES.

Our founding vision came to life with the development of superior architectural-grade linear products in 2010, establishing us as an industry-leading commercial lighting manufacturer of highly-modifiable and beautifully-crafted products and accessories.

Luminii's unique approach to design and meticulous product construction is the cornerstone to delivering the very best lighting solutions to the market. We support our valued customers in realizing the full potential of light to make their spaces beautiful, experiential, and simply brilliant.

Our path has made it possible for specifiers and lighting designers to enjoy extraordinary control and flexibility, giving them the ability to execute their creative visions.

With installations in some of the world's most famous hotels, historical buildings, commercial offices, stadiums, luxury retailers, and restaurants, Luminii projects have led to a dramatic shift in the light quality that our customers have not only come to appreciate but have come to expect.



Meet PURIFII™ by Luminii

THE COMFORT OF WELLNESS™

As we continue our mission to bring superior LED product designs to the market, we are exploring ways to support healthy lifestyles. We have ushered in a series of germicidal ultraviolet (GUV) lighting products and systems. These initiatives enable us to harness the scientifically-proven ability of light to inactivate airborne pathogens continuously and safely, with the goal of improving health and renewed productivity in the built environment.

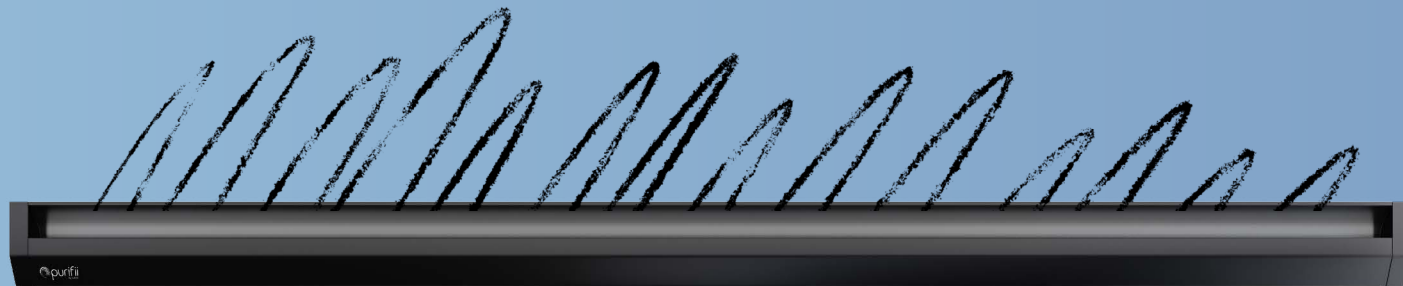
We are proud to introduce PURIFII by Luminii, a meticulously engineered GUV product platform designed to bring together Luminii's signature product design, comfort, and wellness in spaces where health and safety are a priority. All PURIFII products are harmoniously crafted, featuring unique physical aesthetics underscored by advanced third-party testing to ensure our GUV products are safe and effective in occupied and unoccupied spaces.

On and On

PURIFII AER W

Create safer, cleaner spaces with PURIFII AER W. The patented, architectural-grade, upper air germicidal system continuously inactivates airborne pathogens in occupied spaces.

- + Adapts to Any Environment with Ease
- + Field-Friendly Installation Process
- + Convenient and Non-disruptive





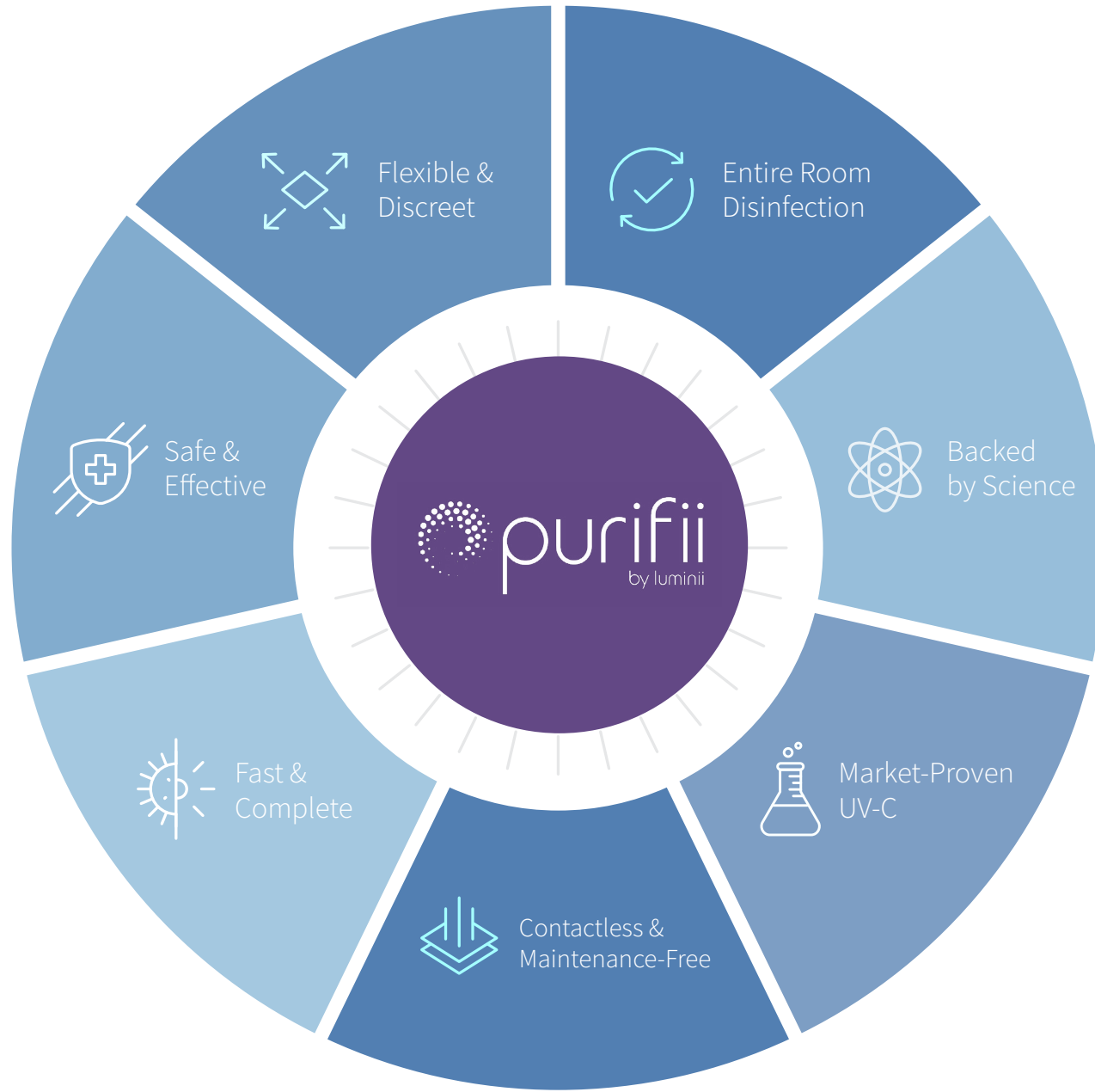
It's not just clean.
It's GUV clean.

PURIFII SURFACE

Inactivate surface pathogens in a matter of seconds with the PURIFII Low-Profile surface system. The architectural-grade SURFACE germicidal system disinfects highly used surfaces like sinks and toilets safely and effectively.

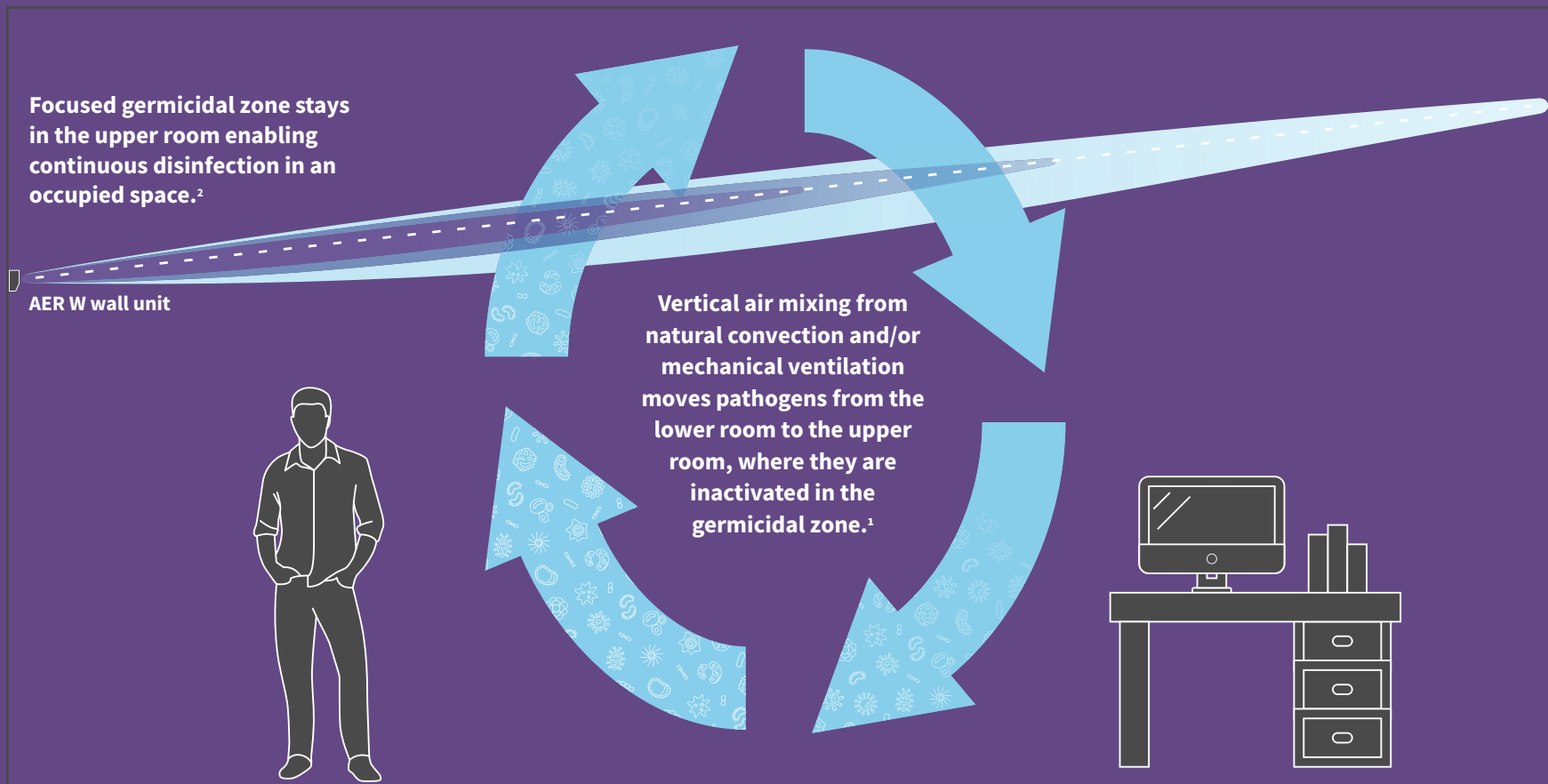
- + *Disinfects Surfaces Safely and Rapidly*
- + *Beautifully Discreet, Blending into Interiors*
- + *Ideal for Spaces with Direct Exposure to Water*

**COMING
SOON!**



PURIFII AER W 24/7

Support in Occupied Spaces



Notes:

1. According to the CDC and NIOSH, most rooms with properly installed supply diffusers and exhaust grills should have adequate air mixing for the use of upper room UVGI.
<https://www.cdc.gov/niosh/docs/2009-105/pdfs/2009-105.pdf>
2. PURIFII AER W is UL Listed for photobiological (skin and eye) safety in an occupied space.

Why PURIFII?



BACKED BY SCIENCE

We conduct **research and third-party studies** to develop insights and expertise that deliver breakthrough products. **Worry-free**, our GUV product line is a safe and effective way of disinfecting indoor environments.



MARKET-PROVEN UV-C

With **decades of research** and real-world examples that support the disinfection of viruses, bacteria, mold spores, and fungi safely in the air and on surfaces, GUV products are an ideal solution to create **healthier indoor experiences**.



SAFE AND EFFECTIVE

PURIFII AER W is **100% safe in occupied environments**. Businesses and the people within them benefit from the continuous, invisible elimination of bacteria, viruses, and other microorganisms.



CONTACTLESS AND MAINTENANCE-FREE

PURIFII AER W is 100% contactless, featuring a profile that blends into environments. Customers can implement a **hassle-free, set it and forget** GUV system they can feel good about, giving them a renewed sense of confidence.



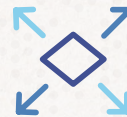
FAST AND COMPLETE

PURIFII SURFACE GUV systems can disinfect in a matter of seconds on all high-touch surfaces while PURIFII AER W systems disinfect the air continuously in a matter of minutes, making these systems **quick, thorough, and a non-disruptive** option for high-traffic environments.



ENTIRE ROOM DISINFECTION

Whether it is a reception area, ballroom, fitness center, or other common area, germicidal lighting is an effective way of supporting existing cleaning protocols while addressing airborne pathogens and contaminated surfaces at a much larger scale.



FLEXIBLE AND DISCREET

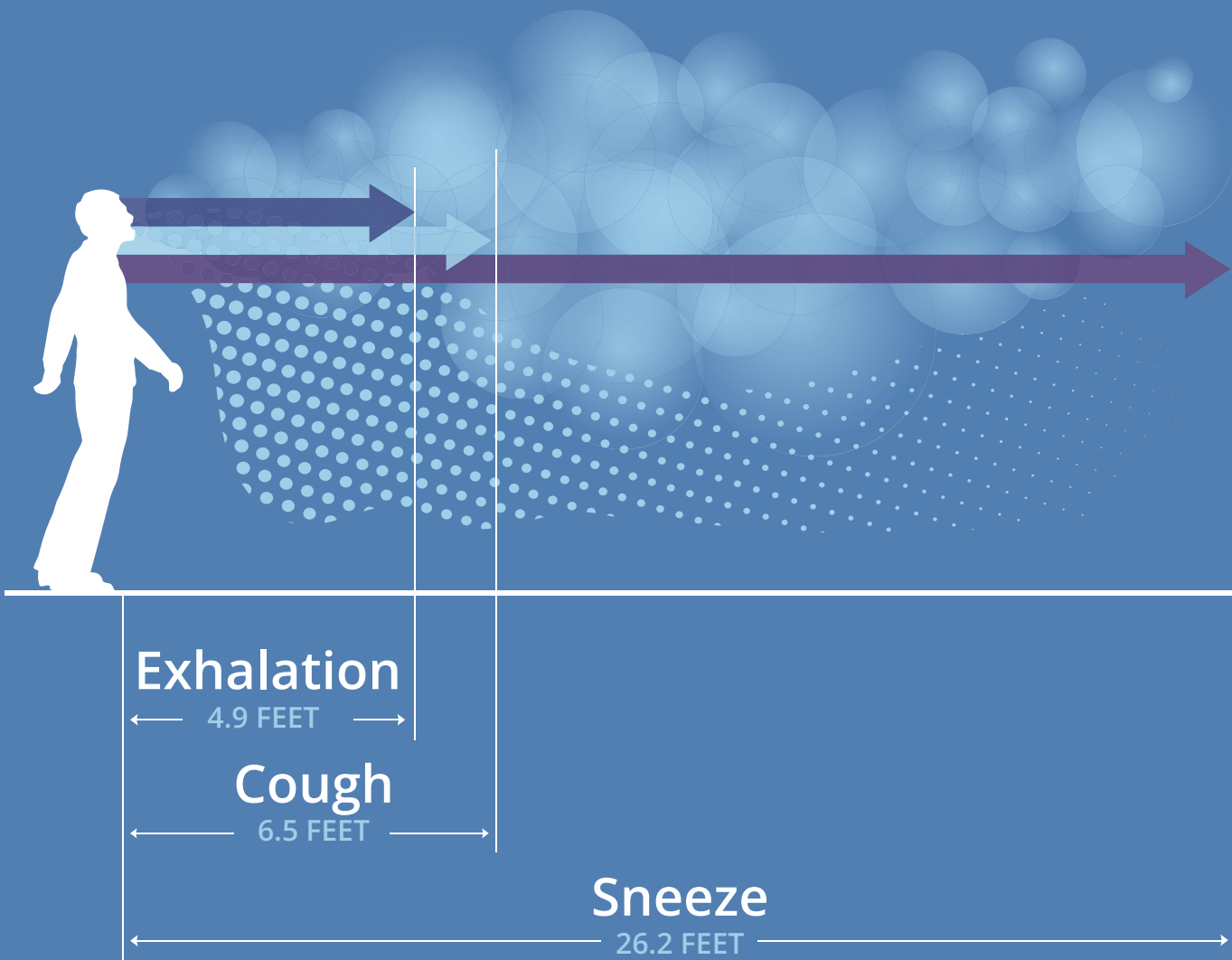
The PURIFII GUV platform is designed to be extremely versatile, supporting even the trickiest of applications with ease. PURIFII systems require **minimal to no maintenance** once installed, keeping you and your business on track.



MERCURY FREE

Mercury is outdated and an inefficient option for UV-C technology. LED technology is new to the UV-C space, greatly improving the lifetime and efficacy of UV-C systems. PURIFII is engineered with leading LED technology delivering an **architectural-grade, cost-effective** system that is **safe to operate in occupied spaces**.





LARGE DROPLETS

Fall to the ground in seconds

100 +
microns

SMALL DROPLETS OR LARGE AEROSOLS

Can linger in the air for 30+ min

100
microns
or smaller

SMALL AEROSOLS

Can linger for hours

3
microns
or less

The cloud may travel as far as almost 20 feet after a cough, and about 6 feet after exhalation, according to MIT research.

SOURCES: WSJ, MIT & FT RESEARCH

1. WSJ research; Linsey Marr, Virginia Tech University; Lydia Bourouiba, Massachusetts Institute of Technology Caitlin McCabe, Alberto Cevantes, Josh Ulick/Wall Street Journal

How Far Droplets Travel

There is a growing body of evidence supporting the potential for airborne transmission as the major factor in the spread of SARS-CoV-2.² Microdroplets are released during exhalation, talking, and coughing, and those droplets can stay aloft in the air for two hours or more and pose an infection risk at distances beyond 1-2m from infected individuals.^{2,3}

Upper air Ultraviolet Germicidal Irradiation (UVGI) has been proven through numerous studies to be an effective technique for the control of airborne pathogens.^{4,5,6,7,8} The PURIFII AER W (WALL) brings updated technology and a streamlined aesthetic to this time-tested technique for air disinfection.



Safer. Cleaner. Faster.

MAINTAIN HEALTHY ENVIRONMENTS ACROSS APPLICATIONS

PURIFII GUV Systems support the elimination of viruses, bacteria, mold spores, and fungi on surfaces and in the air quickly and thoroughly. All PURIFII GUV Systems are discreet and flexible, providing design and architecture professionals a versatile option to strengthen decontamination measures across high occupancy, interior spaces.

DISINFECT AIR CONTINUOUSLY

AER W is an always-on, upper air GUV system expertly engineered to support the inactivation of airborne pathogens continuously in high-traffic, occupied environments safely, quickly, and discreetly.

PURIFII's AER W systems emit an uninterrupted, invisible plane of UV-C light continuously, disinfecting the upper air in minutes.

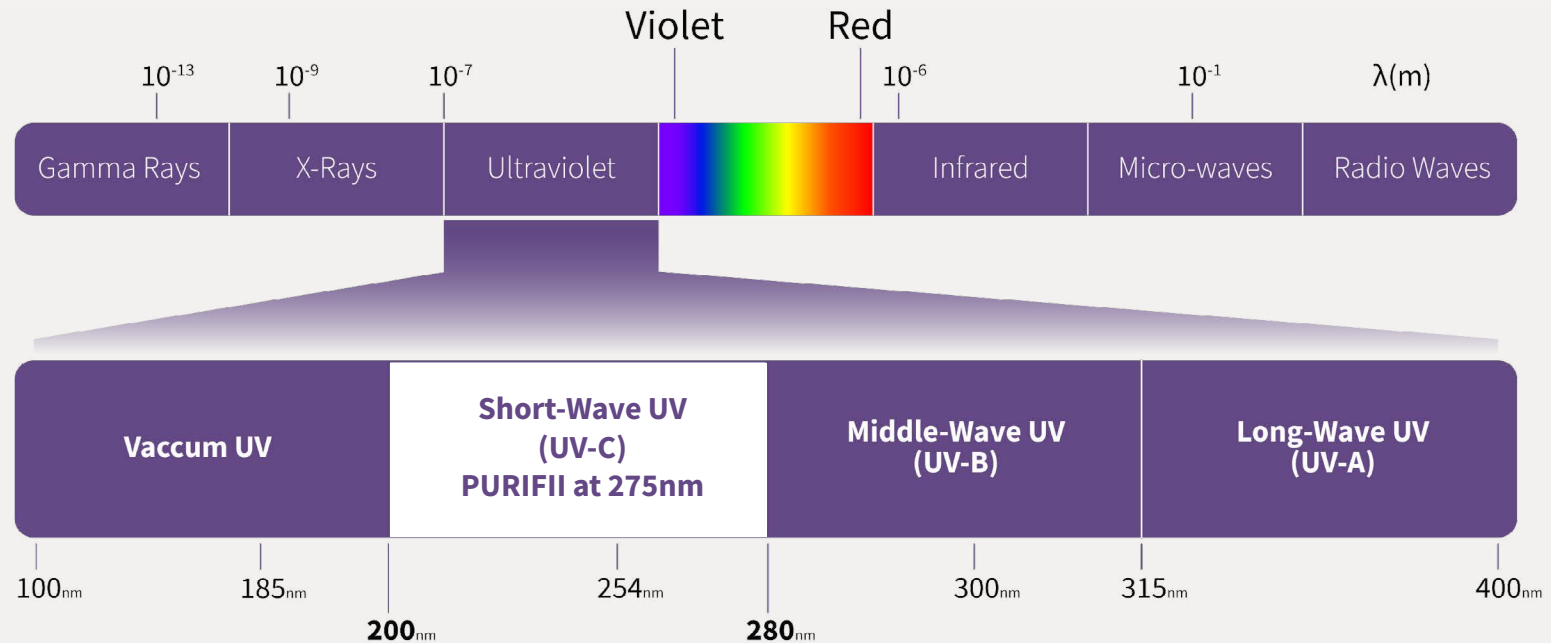
DISINFECT SURFACES

PURIFII SURFACE GUV disinfection treatments take just seconds and can be scaled up or down depending on application-specific needs.

Adding PURIFII SURFACE GUV to existing disinfection routines supports stringent cleaning measures designed to work when spaces are not occupied in conjunction. Luminii's UL Listed PURIFII control system ensures safe operation.



Understanding UV-C Disinfection



GUV, UV-C, FAR UV, UV-A/B

The ultraviolet portion of the electromagnetic spectrum encompasses wavelengths from 100nm (Vacuum UV) to 400nm (UV-A). GUV, or germicidal UV, refers to the use of UV energy to inactivate viruses, bacteria, mold spores or fungi.

The ultraviolet spectrum is generally separated into four categories:

VACUUM UV (100-200NM), UV-C (200NM-280NM), UV-B (280NM-315NM) and UV-A (315NM-400NM).

UV-C (200nm-280nm) has been shown to be the most effective part of the UV spectrum for disinfection, but longer wavelengths can be used in much larger doses. Far UV-C is a subset of the UV-C portion of the spectrum from 200nm-225nm.

UV-B can be effective as a germicidal source, but there is a significant photobiological risk associated with this part of the spectrum, so it cannot be used in such a way that humans could be exposed to it.

UV-A and violet light are used to kill bacteria, but they do not inactivate viruses and must be applied in extremely high doses to be effective. In application this means that solutions employing these wavelengths must be used for hours to be effective. These solutions are often used in occupied spaces because they pose a relatively low photobiological risk.

Backed by Science



DISCOVER THE SCIENTIFIC STUDIES BEHIND PURIFII

Luminii applied findings from published, peer-reviewed studies and preliminary data from new and original studies to inform the design and technology behind the PURIFII GUV product line.

In its extensive effort to perfect the optimum solution for upper-air UVGI, Luminii consulted with outside experts such as *Dr. David H. Sliney, Ph.D.*, chair of the Illuminating Engineering Society's Photobiology Committee and GUV Task Group. Dr. Sliney has served as member, advisor, and chairman of numerous committees active in establishing safety standards for light-based technologies. Outside experts like Dr. Sliney allowed Luminii to perfect the science behind PURIFII.

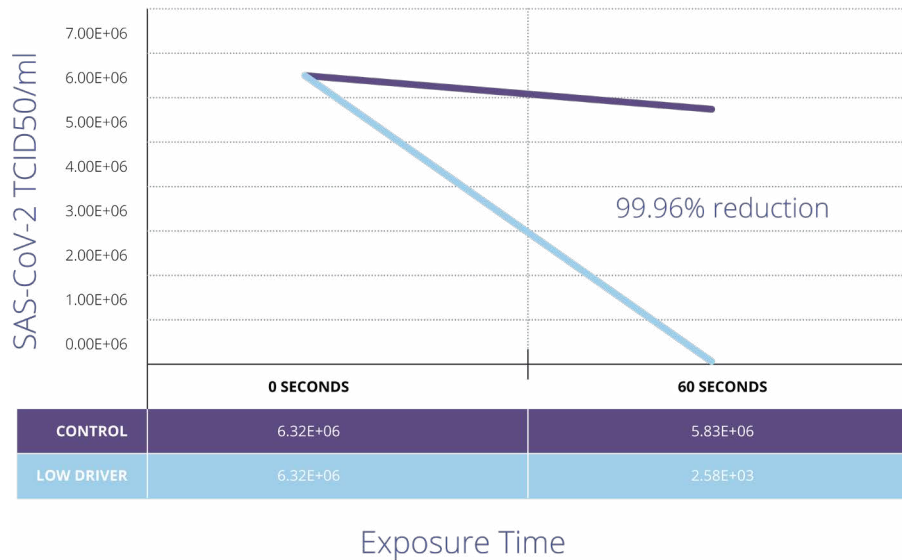
THESE STUDIES INFORMED OUR APPROACH TO OUR OWN TESTING

Independent lab testing shows and verifies the reduction of SARS-CoV-2 virus in the upper air and surfaces by 99.98%.^{10, 11}

SAFE TO RUN CONTINUOUSLY IN OCCUPIED SPACES

[The Centers for Disease Control and Prevention](#) recommends the use of GUV in occupied spaces, making PURIFII AER W a safe option for keeping customers and employees safe in high-traffic areas.¹²

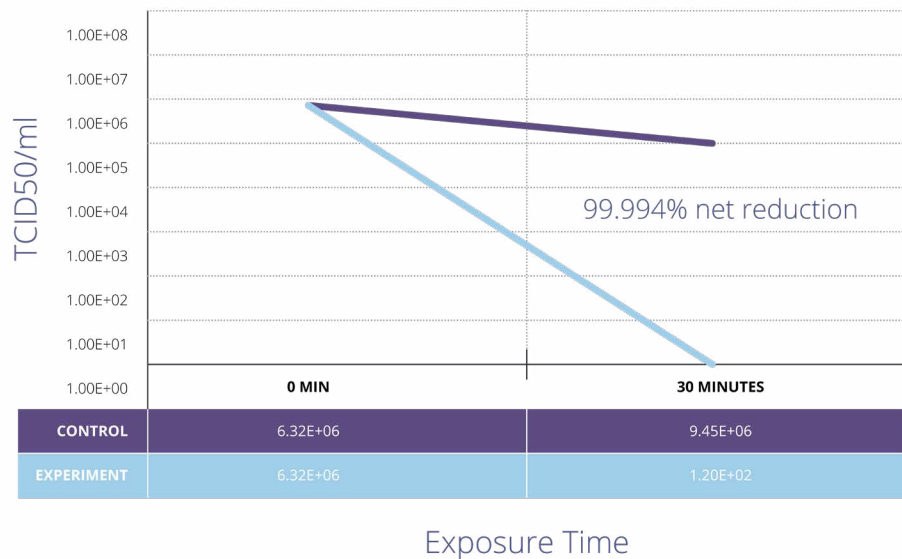
SARS-CoV-2 Surface Disinfection - Low Power



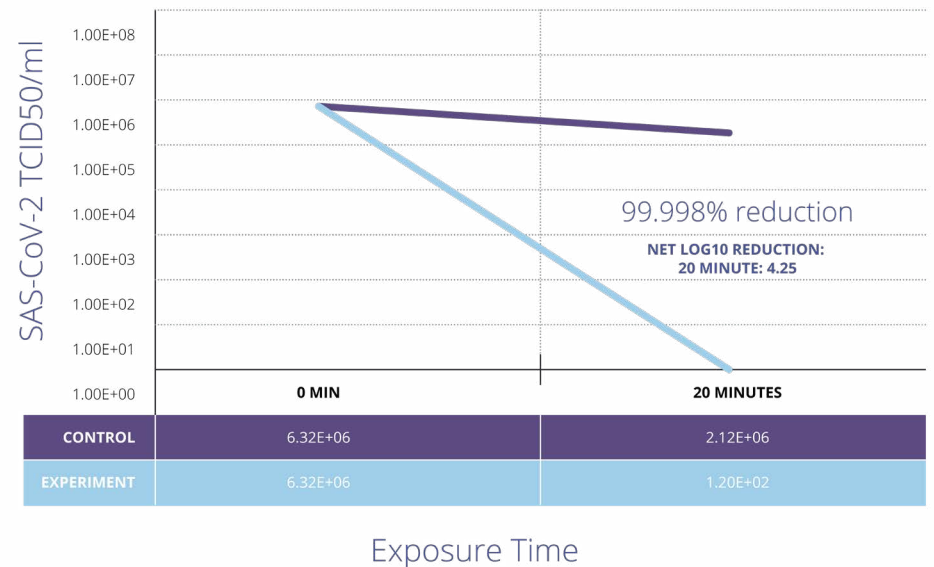
SARS-CoV-2 Surface Disinfection - High Power



SARS-CoV-2 Aerosol Disinfection AER W with Airflow



SARS-CoV-2 Aerosol Disinfection AER W with no Airflow



Technology Growth & Improvement

Mercury is an outdated, inefficient option for UVC technology and systems. LED technology is new to the UVC space, and it greatly improves the lifetime and efficacy of UVC systems. PURIFII by Luminii is engineered with leading LED technology to deliver a quality and cost-effective system that is safe to operate in highly occupied spaces.

PURIFII compared to Portable HEPA Filters

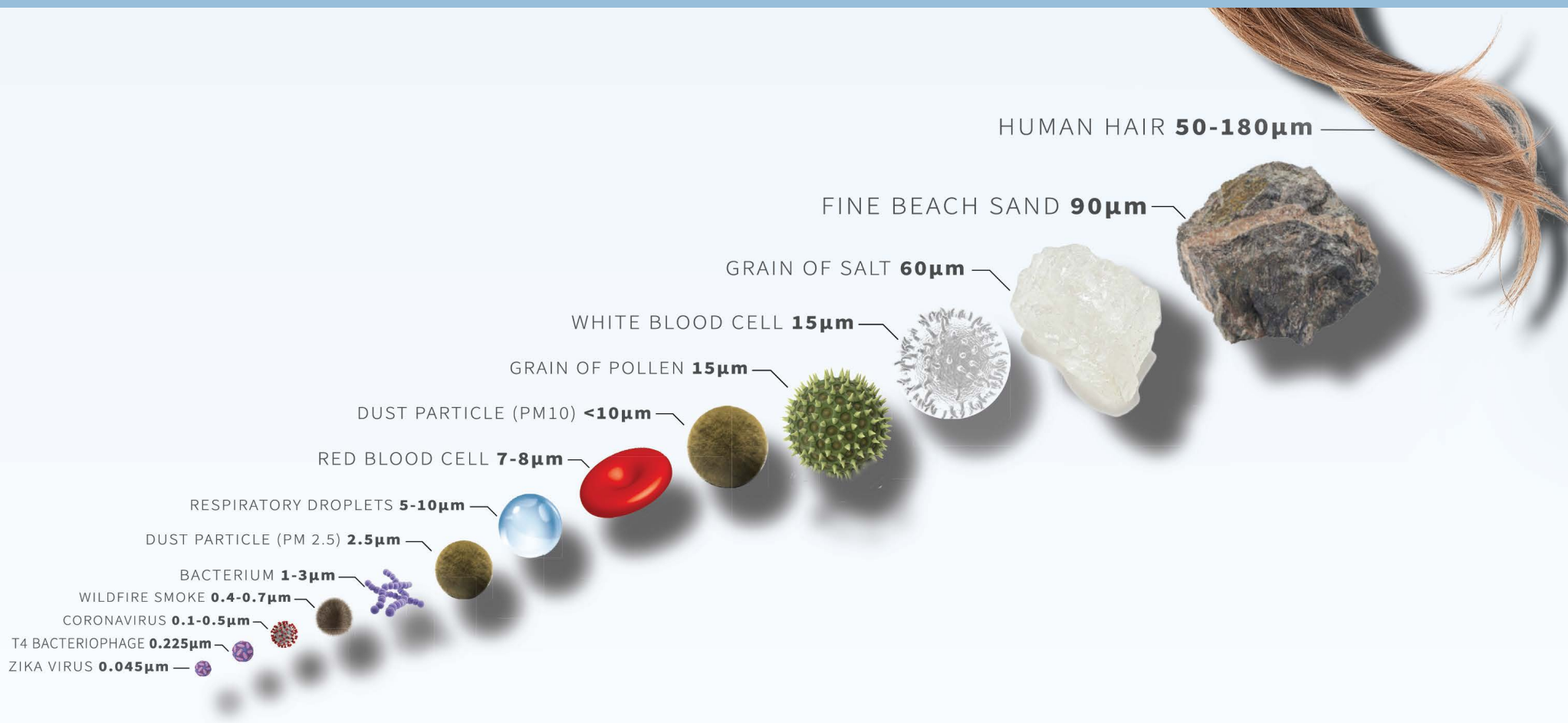
INACTIVATION V. CAPTURE, AND VIRUS SIZE

Aerosols smaller than 3 micron remain in the air the longest and are too small to be addressed by HEPA filtration alone. 275nm UVC energy is highly effective at killing pathogens of all sizes. In fact, smaller pathogens receive a higher relative dose. HEPA filters capture living and non-living particles only larger than 3 μm (3000nm). Typical virus sizes are much smaller than this, on the order of 150nm.

Sources Referenced:

Medical News, "The size of SARS-CoV-2 and its Implications," Benedette Cuffari, M.Sc., February 2021

Visual Capitalist, Visualizing the Relative Size of Particles, Carmen Ang, October 2020



The Relative Size OF PARTICLES

From the COVID-19 pandemic to the U.S. West Coast wildfires, some of the biggest threats now are also the most microscopic.

A particle needs 10 microns (μm) or less before it can be inhaled into your respiratory tract. But just how small are these specks?

Here's a look at the relative sizes of some familiar particles.



SOURCES: CLEARSTREAM, DANIEL LOVERBOY, EPA, FINANCIAL TIMES, NEWS MEDICAL, SCIENCE DIRECT, SCMP, SUSAN SOKOLOWSKI, PETROCLEAR, U.S. DEPT OF ENERGY.

Explore the PURIFII GUV Collection



AER GUV Systems: AER W (Wall)

UPPER AIR LEVEL APPLICATIONS

+ AER W is an architectural-grade, low-profile, upper air germicidal system that capitalizes on the proven ability of UV-C to support the inactivation of airborne pathogens continuously in the air.¹

+ AER W is mercury-free, using advanced LED technology that provides an uninterrupted plane of UV-C light continuously, aiding in the disinfection of the upper air.

+ Featuring a recessed LED UV source and convective design, AER W minimizes dirt and dust accumulation, ensuring maximum performance.

+ Available with an integrated power supply or remote power supply option.

+ Suitable for DRY and DAMP locations.

+ Warranty: 5 years or 20K hours, whichever comes first

+ Operating temperature: 15° – 30°C

+ Finish: Black

AER WALL INTEGRATED POWER SUPPLY: 1.53 IN x 4.41 IN
AER WALL LOW VOLTAGE: 1.53 in x 2.90 in



PURIFII AER W has been UL approved for occupied spaces:
All testing passed and listing received for:
+ Electrical Safety
+ Photobiological Safety for Eyes
+ Photobiological Safety for Skin Exposure



Surface GUV System: SURFACE

SURFACE LEVEL APPLICATIONS

+ PURIFII SURFACE is an architectural-grade, low-profile, surface germicidal system that capitalizes on the proven ability of UV-C to inactivate surface pathogens continuously and on high-touch services.

+ PURIFII SURFACE supports the elimination of viruses and other microorganisms such as bacteria and fungi, working in just minutes to help safeguard surfaces that are used on a regular basis.²

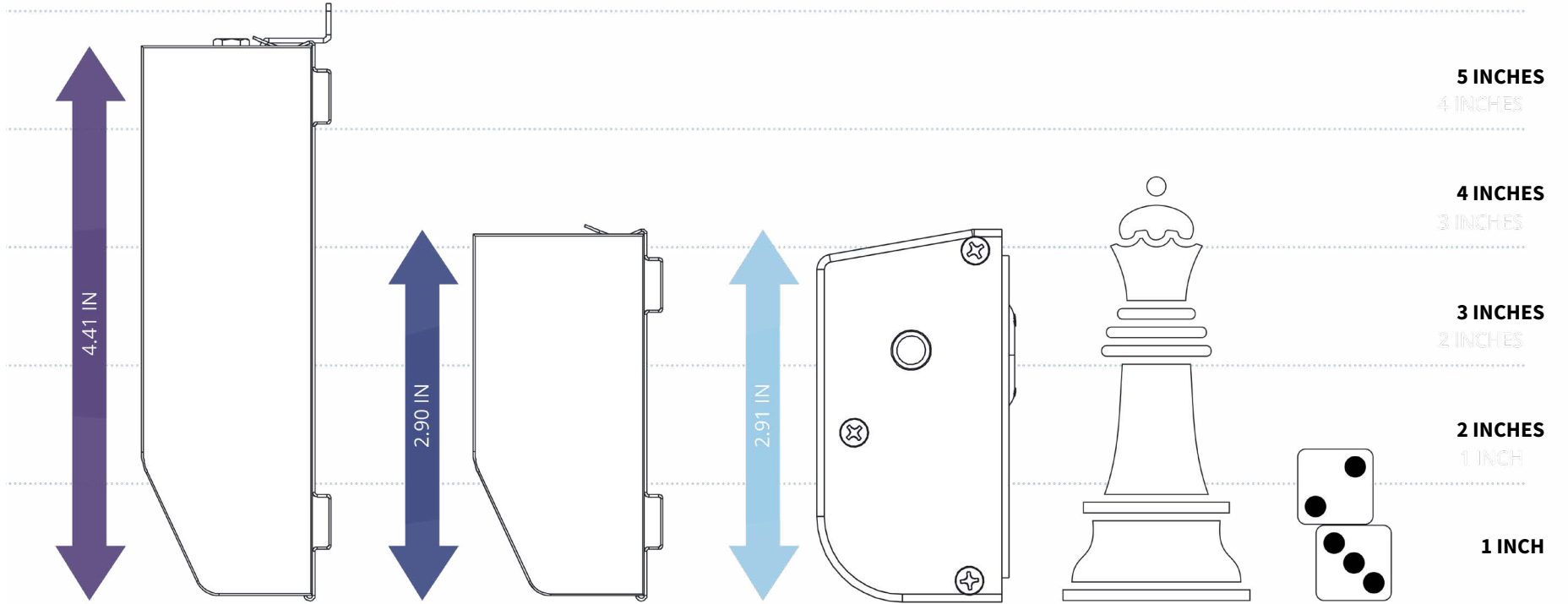
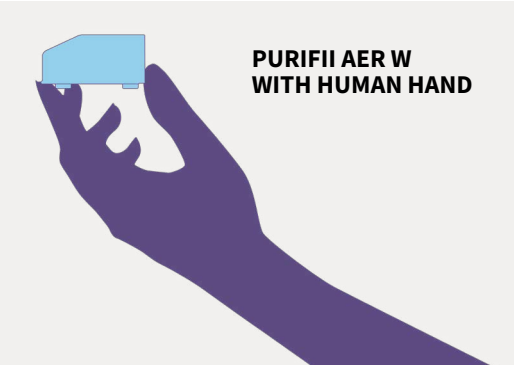
+ Mercury-free and utilizes a patent pending optical LED light engine to direct UV-C energy precisely onto specific areas on a surface.

+ PURIFII SURFACE systems work in conjunction with the PURIFII SURFACE CONTROL SYSTEM.



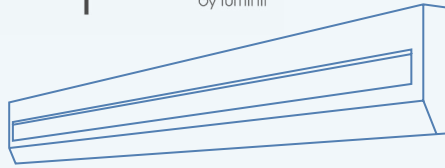
CONTACT YOUR LOCAL RSM TODAY FOR PRICING AND AVAILABILITY

PURIFII Size Comparison



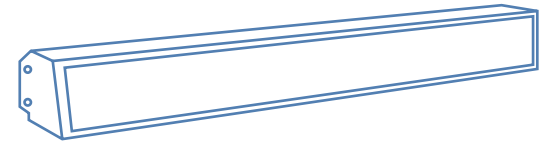
<p>Aer Wall INTEGRATED POWER SUPPLY 1.53 IN X 4.41 IN</p>	<p>Aer Wall LOW VOLTAGE 1.53 IN X 2.90 IN</p>	<p>Purifii Surface 1.53 IN X 2.90 IN</p>	<p>Chess Piece</p>	<p>Dice</p>
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Competitive Analysis



AER UPPER-ROOM UV SYSTEM

Competitor

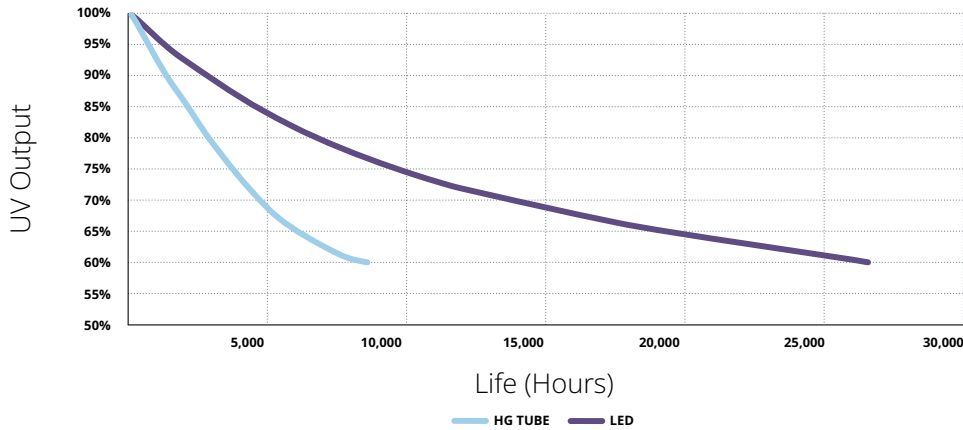


TYPICAL MERCURY BASED COMPETITOR

SIZE	✓ 48.0”L x 1.5”D x 2.9”H	39.0”L x 6.0”D x 4.3”H
TECHNOLOGY	✓ LED	Mercury
WAVELENGTH	✓ 275nm	254nm
LIFE	✓ 27,000 hours (L60)	9,000 hours (L60)
UV TOTAL	652mW	✓ 1500mW
UV DIRECTIONAL*	✓ 530uW/cm ²	200uW/cm ²
SYSTEM POWER	✓ 49W	75W
TREATED SPACE	✓ -500 sq feet	-200 sq feet
WARRANTY	✓ 5 years	1 year

* UV intensity measured 1m directly in front of fixture

UV Output Depreciation Over Life

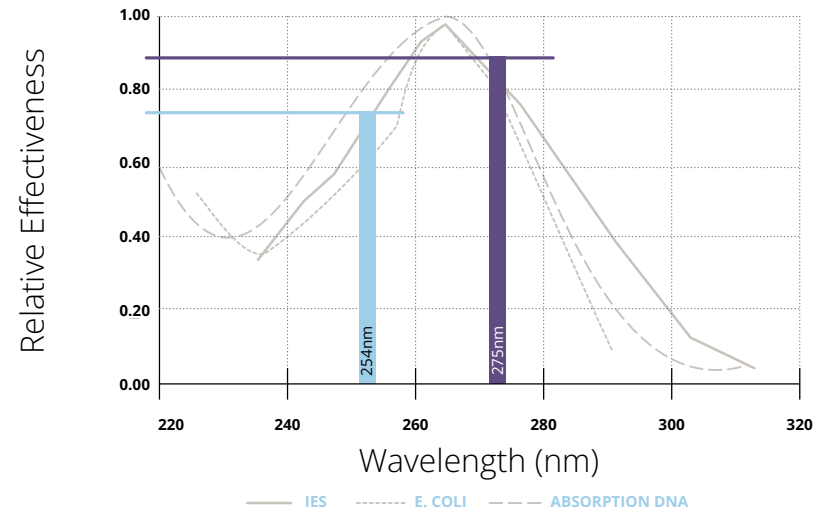


OUTPUT DEPRECIATION

Mercury Tube:
9,000 hours to L60
(highly dependent on on/off cycles)

LED:
27,000 hours to L60
(unaffected by cycles)

Germicidal Efficacy



GERMICIDAL EFFICACY

A Function of Wavelength

Mercury radiation at 254nm is **only 80% as effective** at germicidal inactivation as LED at 275nm.

PURIFI AER W



COMPETITOR



OUTPUT DISTRIBUTION & COVERAGE

PURIFI AER's precision PVD reflector is 20 times more optically efficient than typical mercury tube sheet metal reflectors and louvers. The reflector concentrates and broadcasts disinfection energy to inactivate airborne viruses and pathogens more effectively. This proprietary technology directs the UVC radiation exactly where you want it, enabling you to deliver safe and healthy experiences across a wide range of spaces.

Competitive Analysis



AER UPPER-ROOM UV SYSTEM

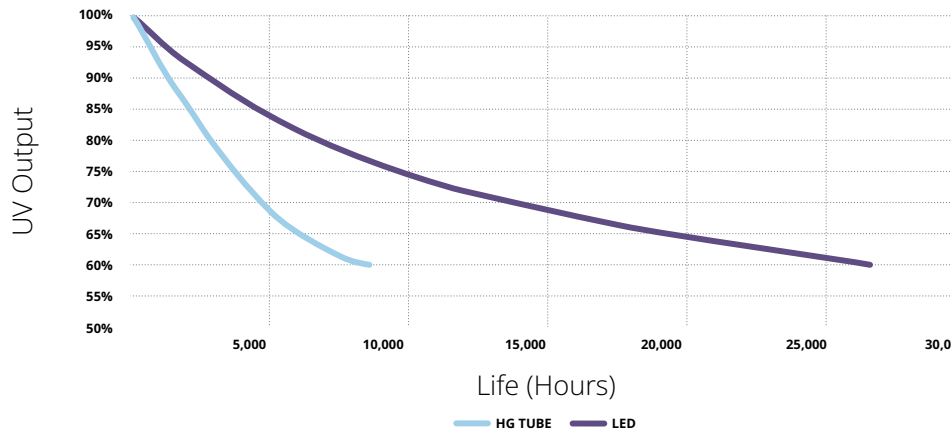
HEPA + UVC Competitor



PORTABLE HEPA AIR FILTER + UVC

SIZE	✓ 48.0”L x 1.5”D x 2.9”H	16.5”L x 22”D x 38”H
TECHNOLOGY	✓ LED 275nm	HEPA Filtration + Mercury 254nm
DESIGN	✓ Architectural	Industrial
NOISE LEVEL	✓ Silent	60 dBA
TREATED VOLUME	500 sq feet	✓ 700 sq feet
SYSTEM POWER	✓ 38 W	600 W
LAMP LIFE	✓ 27,000 hours (L60)	9,000 hours (L60)
FILTER REPLACEMENT	✓ None	Every 90 Days
WARRANTY	✓ 5 years	1 year

UV Output Depreciation Over Life



OUTPUT DEPRECIATION

Mercury Tube:

9,000 hours to L60

(highly dependent on on/off cycles)

LED:

27,000 hours to L60

(unaffected by cycles)

5 Year Maintenance

OPERATING COSTS	HEPA + HG UV	PURIFII
MERCURY LAMP REPLACEMENT EACH YEAR	\$730	N/A
4 HEPA FILTER REPLACEMENT EACH YEAR	\$7,900	N/A
POWER (12 HR/DAY AT \$0.10 PER KW-HR)	\$1,314	\$88
TOTAL COST (5 YEARS, NO LABOR)	\$14,944	\$1,838

In addition to dramatically shorter lamp life, mercury tube lamps contain a toxic element and must be disposed of accordingly. HEPA filters require 90 day changing and disposal and carry the associated labor and material cost.

PURIFII is maintenance free over its operating life.

PURIFII AER W



COMPETITOR



OUTPUT DISTRIBUTION & COVERAGE

PURIFII AER's precision PVD reflector concentrates and broadcasts disinfection energy continuously in an occupied space. HVAC systems work by cleaning extracted air from a space with little impact on local transmission in a space.

This proprietary technology directs the UVC radiation exactly where you want it, enabling you to deliver safe and healthy experiences across a wide range of spaces.

50 MILLION

The Number of COVID-19 Cases in the US as of December 2021



806,398 DEATHS

The Number of Deaths in the US as of December 2021



UP TO \$40,218

Hospital's Average Cost to Treat COVID-19 Patient, per patient.

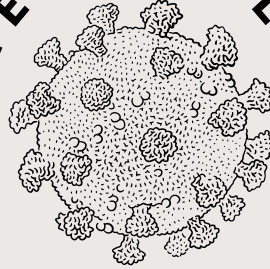


\$3 BILLION

During the COVID-19 pandemic, hospitals across the U.S. have spent more than \$3 billion to procure personal protective equipment.



THE PROBLEM



THE SOLUTION



AER UPPER-ROOM UV SYSTEM

VS

AIR DUCT DISINFECTION SYSTEM

THE COMPETITOR

99.98% EFFECTIVE

PURIFII eliminates 99.98% of airborne viruses, pathogens, and bacteria, including COVID-19

99.9%

80% EFFECTIVE

Mercury radiation at 254nm is only 80% as effective at germicidal inactivation as LED at 275nm

80%

100% SAFE

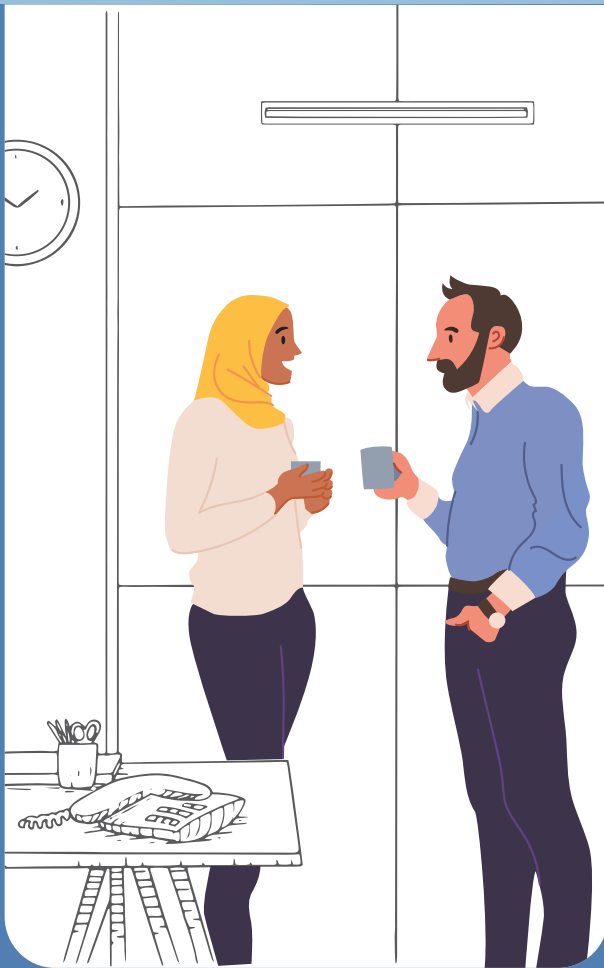
PURIFII AER W is 100% safe to run in occupied environments, including high-traffic spaces



HEALTH ISSUES

Mercury Exposure causes health issues.





Peace of Mind

SUITABLE FOR ALL APPLICATIONS

PURIFII GUW solutions safely support the elimination of viruses and other microorganisms across a wide variety of applications, encouraging customers, guests, and employees to spend more time in the spaces they love.



RETAIL

Restore shopper confidence, support employee wellness, and invite loyal customers back to stores with architectural, discreet GUV solutions.



HOTELS

Reinvigorate the guest experience, enhance existing cleaning protocols with GUV solutions, and give guests and employees greater peace of mind.



RESTAURANTS

Rekindle the dining experience by adding GUV systems to ensure high-touch food prep zones and dining environments are clean and safe for patrons and staff.



FITNESS CENTERS

Breathe easier by adding GUV systems to regular cleaning protocols to help maintain healthy and safe spaces for members and trainers.



SCHOOLS

Inspire students, teachers, and staff by creating healthy learning environments with GUV systems, supporting the disinfection of classrooms, cafeterias, libraries, gyms, and hallways.



MASS TRANSIT

Get back on track with continuous GUV system protection that supports existing public health and safety protocols in buses, trains, and terminals.



ASSISTED LIVING

Renew a sense of independence by helping safeguard environments with GUV systems that support a wide range of applications, including dining, fitness, and recreational facilities.



COMMERCIAL OFFICES

Build confidence with teams and clients by supporting business measures that protect the health and safety of employees with GUV systems.



Fitness Center

AER W WALL APPLICATION FOR THE HEALTH & WELLNESS INDUSTRY

In a fitness locker room roughly 500 sq. ft, three PURIFII AER W SYSTEMS are installed to create a contactless, uniform, germicidal zone in the upper portion of the room. HVAC systems, fans and/or natural convection move air between the lower and upper portions of the room, allowing for continuous disinfection of the air. The PURIFII AER W SYSTEM features a streamlined aesthetic allowing for unobtrusive use in nearly any interior space.



- * There is no visible light in the PURIFII upper air GUV system. The blue illumination is illustrative only.
- * The light mesh depicted is not visible. It's illustrated to show UV-C coverage in a given space/at a given height.
- * Arrow illustrations are intended to show air mixing in a room caused by HVAC systems, fans and/or natural convection.

Classroom

AER W WALL APPLICATION FOR THE EDUCATION INDUSTRY

In a 20'x30' (600 sq. ft) classroom configuration, four PURIFII AER W SYSTEMS are installed to create a contactless, uniform, germicidal zone in the upper portion of the room. HVAC systems, fans and/or natural convection move air between the lower and upper portions of the room, allowing for continuous disinfection of the air in the occupied space. The PURIFII AER W SYSTEM features a streamlined aesthetic allowing for unobtrusive use in nearly any interior space.





* There is no visible light in the PURIFIL upper air GUV system. The blue illumination is illustrative only.

* The light mesh depicted is not visible. It's illustrated to show UV-C coverage in a given space/at a given height.

PURIFII GUV Systems & General UV-C FAQs

WHAT DOES GUV STAND FOR?

GUV or germicidal ultraviolet is a term used to support germicidal light fixtures which are electric lights that produce ultraviolet C (UV-C) light. This short-wave ultraviolet light has been shown to support the inactivation of most viruses, including SARS-CoV-2, bacteria, and other microorganisms.

ARE PURIFII GUV SYSTEMS SAFE FOR HUMANS?

Yes, systems designed for use in unoccupied spaces incorporate multi-layered strategies to prevent accidental human exposure per the UL8802 standard. Systems designed for use in occupied spaces (Upper Room) are designed to stay under safe exposure limits as defined by the ACGIH TLV values, IEC 62471 and UL1598.

Occupied – Luminii contactless, upper air GUV systems were designed to be an always-on, nearly invisible system that disinfect the upper air in occupied environments.

Unoccupied – Luminii high-touch surface GUV systems were designed to be managed in unoccupied spaces, safely and quickly disinfecting surface level pathogens when no one is in the room.

ARE PURIFII GUV SYSTEMS UL LISTED?

PURIFII Systems for sale today are all listed to applicable UL safety standards, including those for photobiological safety. Forthcoming PURIFII GUV Systems will be UL listed prior to product availability.

HOW DO I KNOW PURIFII GUV SYSTEMS ACTUALLY WORK TO INACTIVATE VIRUSES AND OTHER MICROORGANISMS?

The PURIFII AER W and SURFACE light engine have been tested

against SARS-CoV-2 in the air and on surfaces in an independent BSL3 lab. Both tests showed a 99.98% inactivation of the virus.¹² In addition to our own test data, numerous peer-reviewed studies show that UV-C is effective at killing or inactivating a wide array of pathogens.

WHAT IS PURIFII'S WAVELENGTH RANGE? DOES IT VARY FROM PRODUCT TO PRODUCT?

The wavelength for all PURIFII products (upper air and surface) is 275nm.

DO PURIFII GUV SYSTEMS CREATE OZONE?

No. 275nm LEDs do not create ozone.

ARE THERE ANY RESIDUAL EFFECTS ON HUMANS ONCE THE PURIFII SYSTEMS ARE SWITCHED OFF?

No. Unlike chemical disinfection, UV-C does not leave behind any residues, fumes, etc. As soon as the fixtures are off, it is perfectly safe for humans to enter the space.

IS THE OUTPUT OF PURIFII SYSTEMS VISIBLE?

Not at all. UV-C LEDs, unlike their mercury lamp counterparts, emit no visible light. In the PURIFII SURFACE system, Luminii incorporates visible indicator lights that flash during operation so the operational state of the fixture can be easily identified.

WHY LED TECHNOLOGY FOR UV-C?

There are several ways to produce UV, including low pressure mercury, pulsed xenon, and excimer lamps, as well as LED. The small form factor of LEDs enables design freedom that would not

be possible with traditional lamp sources. This allows for low-profile solutions that seamlessly integrate with the architecture of a space. LEDs also address environmental concerns about the mercury contained in low pressure mercury lamps, which are used in most solutions today.

CAN PURIFII GUV SYSTEMS GET AROUND OBJECTS, DISINFECT UNDER CHAIRS, ETC.?

UV-C disinfection is a line-of-sight technology. Shadowed areas will not be treated. PURIFII GUV systems should always be positioned to minimize shadowed areas.

WHAT ARE THE KEY DIFFERENCES BETWEEN AIR AND SURFACE GUV PRODUCTS?

UPPER AIR GERMICIDAL PRODUCTS are designed for continuous disinfection of the air, supporting markets including hospitality, education, dining, and fitness. The physical design of these products makes them inherently safe to operate in occupied spaces featuring an always-on, contact-free design.

SURFACE GERMICIDAL PRODUCTS are designed to disinfect high-traffic surfaces in unoccupied spaces and rely on redundant, UL Listed control systems to ensure that spaces are unoccupied before system activation. These systems are well suited for high-touch surfaces where rooms can be disinfected during unoccupied, scheduled, downtime.

WHY NOT JUST GET A HEPA FILTER?

Adding a HEPA filter to your HVAC system is effective at removing pathogens from air recirculated through the system.

Portable HEPA air purifiers can be effective in small spaces but can provide insufficient air change rates in larger spaces. Air purifiers can also be noisy and require the replacement of filters at regular intervals. AER W is silent, has no filters to replace, and can be

utilized to create an even and consistent germicidal zone that can be scaled for small or large spaces.

HOW DO I SAFELY MEASURE THE EFFECTIVENESS OF LUMINII'S PURIFII GUV PRODUCTS IN THE FIELD? WHAT CAN I EXPECT OVER TIME?

System output can be measured in the field using a UV-C light meter and appropriate personal protective equipment to ensure that the person making the measurement is not exposed to UV-C.

WILL THE MATERIALS AND FINISHES IN A GIVEN SPACE DEGRADE UNDER UV-C?

Luminii can perform accelerated life testing on any specific materials of concern to provide rough guidelines for the life of the material when receiving a specific UV-C dose.

WHICH COMMON PATHOGENS HAS UV-C BEEN SHOWN TO INACTIVATE?

*UV-C has been proven to kill or inactivate a wide range of pathogens, including:

- E. Coli, Mycobacterium tuberculosis (TB), Staphylococcus aureus (staph), Salmonella typhimurium
- Adenovirus (can cause fever, coughs, sore throats, diarrhea, and pink eye), Hepatitis, HIV-1
- Measles, Mumps, Cold Viruses, Influenza, Varicella Zoster Virus (causes chickenpox)

References: Kowalski, 2009; Malayeri et al., 2016

WHAT IS THE LIFESPAN/WARRANTY OF PURIFII PRODUCTS?

PURIFII AER W products come with a warranty period of 5 years or 20,000 hours, whichever comes first. If you have additional questions, do not hesitate to reach out by sending an email to purifii-uvc@luminii.com.

Why Luminii?

We know details matter, and we apply that belief to the entire customer experience. From specification to installation, we are just as invested in the result as the visionaries we support.

ROBUST PRODUCTS AND SYSTEMS

We offer end-to-end LED lighting systems to outfit, enhance, and protect the built environment in a wide variety of configurations.

MAXIMUM PERFORMANCE

Luminii delivers unrivaled flexibility supporting the most complex of projects.

QUICK & RESPONSIVE

Rest assured: Our lighting systems arrive at job sites quickly. Ready to install out of the box, our products are designed to be non-disruptive.

SIMPLE INSTALLATION

Field-friendly, we simplify installations with detailed factory shop drawings and easy-to-follow labeling prior to shipping.

PEACE OF MIND

Our expert team is dedicated to delivering Luminii's signature customer experience — from specification to installation.

[WATCH THE PURIFII VIDEO](#)

[READ THE PURIFII WHITEPAPER](#)



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- [9] IES Committee Report CR-2-20-V1a
- [10] Independent lab test: Aerosol Upper Air System tests conducted by Innovative Bioanalysis. 99.98% total reduction achieved at 10 minutes (net reduction of 2.42-log).
- [11] Independent lab test: Surface GUV System tests conducted by Innovative Bioanalysis. Dual driver configuration achieved 99.99% reduction at 60 seconds
- [12] Source: US CDC. (2021, February 9). Ventilation in Buildings. Retrieved February 9, 2021, from US Centers for Disease Control and Prevention.

Disclaimers

Independent lab test: Aerosol Upper Air GUV System tests conducted by Innovative Bioanalysis.

Independent lab test: Surface GUV System tests conducted by Innovative Bioanalysis.

[Please reference Luminii's most recent summary report:](https://purifii.com/wp-content/themes/divi-purifii/assets//documents/summary-test-report-from-BSL3-2-15-21.pdf)

<https://purifii.com/wp-content/themes/divi-purifii/assets//documents/summary-test-report-from-BSL3-2-15-21.pdf>

PURIFII SURFACE Testing conducted by independent labs shows a 99.99% reduction in SARS-CoV-2 in one minute using Luminii's UV-C LED light engine on surface applications.

PURIFII GUV systems are not intended for use as a medical device and are not registered as such. The systems are not intended to diagnose, treat, cure, or prevent any disease. PURIFII AER WALL is registered as a pesticide device.

“Disinfection”, “treatment”, and “germicidal” as used herein are general in nature and not intended to implicate defined regulatory terms.

PURIFII upper air products can be used safely in occupied spaces.

PURIFII Surface products require that a space be 100% unoccupied to be activated to prevent UV harm.



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