

VIVIDAIR™

ANYTHING ELSE IS STALE

Ray-Air™, Ray-Air LIT™ & Ray-Air UV-C™ Make Necessary Improvements to Every Indoor Space

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EXECUTIVE SUMMARY

Companies all over the world are trying to figure out how to invest in their people with tangible, visible and functional efforts that create healthier workspaces. Many companies have a program that works at some level but wish there was a way to do more. What if there was an enhancement to sanitization efforts that required zero work-hours and worked 24/7/365? What if that enhancement was controllable with the flick of a switch, a signal from a motion or time control device, a click on an app, or a tweak to your building management system? What if it were safe for humans, animals, plants and the environment? There is, in fact, a method that improves the comfort of all workspaces while it creates healthier air. A method that does all that and helps companies attain their energy efficiency goals.

What kind of super system is this that creates all these benefits with zero concessions or negatives to its implementation? Many might assume a system that did all this would be too good to be true. At Go Fan Yourself® (GFY), we pride ourselves in going above and beyond expectations, and the benefits from the Ray-Air™ family of products does just that by making these dreams a reality for companies worldwide. Read on to understand why the world is embracing the need to Go Fan Yourself®!

KEY POINTS

What are the benefits of non-disruptive air movement within a space?

- **Substantially Reduce Energy Costs**
 - Turning air over continuously within a space equalizes temperature, enhancing an HVAC system's ability to control the temperature, in turn causing fewer and shorter run cycles.
 - Savings up to or even exceeding 40% have been reported.
- **Fight Sick Building Syndrome**
 - COVID-19 has made us forget about Sick Building Syndrome—when occupants of a building experience acute health- or comfort- related effects that seem to be linked directly to the time spent in the building—but it remains a significant concern in many workplaces.
 - Studies show that 65% of people working indoors perform in air that is less healthy for them than the air outside.
 - The Ray-Air™ family of products works to counteract Sick Building Syndrome.
- **Dilute Airborne Pathogens**
 - The proven science of dilution—turning air over and bringing in fresh air to mix with inside air—is a critical defense against airborne pathogens.

- Dilution causes airborne pathogens and contaminants to become less concentrated.
 - The less concentrated an infectious pathogen becomes, the less likely infection results.
 - Infections that do occur typically exhibit less severe symptoms due to less concentrated initial exposure.
- **End Office Comfort Complaints**
 - Ray-Air™ family of products works to balance office temperature floor-to-ceiling and office-to-office to help:
 - End cold feet in winter.
 - Eliminate the need for dangerous space heaters.
 - More comfortable employees are happier, healthier employees.
- **Enhance Customer & Visitor Experiences**
 - People notice when they are uncomfortable, and they tell others.
 - People also notice when they are more comfortable than they are used to and they really tell people about it! Visitors and customers will notice what Ray-Air™ is doing in your space and many will ask!
- **Improve Employee Retention & Recruitment**
 - Employees are less likely to leave a job where they are more comfortable for a job where they are less comfortable.
 - Ray-Air™ is a tangible, visible and functional investment in employee well-being that they notice and remember.
 - Improve new hire interview experience when the interviewee asks about the noticeable air quality, which gives the interviewer a perfect opening to talk about company investment in the most important asset—people!
- **Inhibit Mold & Mildew Growth**
 - Additional air movement inhibits mold and mildew growth by reducing condensation.
 - Nothing dries a flood like the wind; keeping inside air moving is a critical defense against a host of problems that can contribute to Sick Building Syndrome.
- **Reduce Humidity, Save Energy**
 - Many workplaces experience sweating floors in summer and window drip in winter. Sometimes walls are found damp to the touch. All these indicate a lack of air movement.
 - All seasonal humidity can be addressed by adding adequate air turnover to space that Ray-Air™, Ray-Air LIT™ & Ray-Air UV-C™ provide.
 - All GFY products are green, efficient ways of adding necessary air turnover to any indoor space that allow companies to save energy while improving space health.

- **Zero Work Hours To Operate and Maintain**
 - The Ray-Air™ family of products requires zero periodic maintenance to operate.
 - A dust cloth or non-alcohol/non-abrasive cleaner is all that needed to clean products.
 - Since aluminum shell is anti-microbial powder coat paint, most cleansers will work well and not damage the finish.
 - The tile face is mold and mildew resistant PVC and is printed so testing cleansers in a small area is always recommended.
 - The Ray-Air™ family of products also requires zero work hours to operate.
- Click [HERE](#) for The Definitive Guide on Ray-Air™, Ray-Air LIT™ & Ray-Air UV-C™.

How do Ray-Air™, Ray-Air LIT™ and Ray-Air UV-C™ deploy in facilities? Do they intrude into spaces? Are they “ugly”?

- All Ray-Air™ products have the option of being nearly invisible or aesthetically pleasing and can even add ambience where installed.
- The tile face of Ray-Air™ and Ray-Air UV-C™ is mold and mildew resistant, printable PVC, making them completely customizable. Changing the look in a space simply requires a new tile face, custom-printed to upgrade the Ray-Air™ units already in place.
- Ray-Air™, Ray-Air LIT™ & Ray-Air UV-C™ are all sized to fit into most drop ceilings seamlessly so as not to intrude into the space.
 - Ray-Air™ has four mounting options: Ceiling Grid, Suspended, Fixed and Seismic Wall Mount.
 - Ray-Air LIT™ & Ray-Air UV-C™ have three mounting options: Ceiling Grid, Suspended and Fixed.

Does Ray-Air™, Ray-Air LIT™, or Ray-Air UV-C™ require duct work? Do they create positive or negative pressure?

- Ray-Air™, Ray-Air LIT™ & Ray-Air UV-C™ do not require ducting.
- They do require 120-277VAC.
- No Ray-Air™ product creates positive or negative pressure within the area. They turn the existing air over many more times per hour than an HVAC system can.
 - The more Ray-Air™ units in a space, the greater the air turnover within that space. Greater air turnover brings greater benefits.

Just how does embedded LED UV-C technology work?

- Fans pull air up into the body of Ray-Air UV-C™. The air is diverted into chambers where it is safely exposed to LED UV-C Sanitization Technology from Seoul Viosys.

- Ray-Air UV-C™ is UL-certified it does not require a UV warning label, so Ray-Air UV-C™ is safe to use in all occupied space. Safely deploy Ray-Air UV-C™ in nurseries and day-care facilities.
 - Ray-Air UV-C™ exposes the pathogens in the air to UV sterilization technology.
 - Ray-Air UV-C™ does not expose the room to UV sterilization technology.
 - Click [HERE](#) for a video on Ray-Air™, Ray-Air LIT™ & Ray-Air UV-C™.

How does Ray-Air UV-C™ work within a space to help keep people less susceptible to infection by airborne pathogens?

- **Without Ray-Air UV-C™:**
 - Imagine a space filled with friends or workers, and someone enters who is sick but asymptomatic. With every sneeze, cough or even breath, this person exhales air filled with virus or germ.
 - Heavier droplets containing the pathogen drop quickly on all surfaces (*in an office area, this includes desks, phones, printers, pens, briefcases, books, paper, coffee cups, water bottles, calculators, staplers, tissue boxes, awards, pictures, doorknobs, light switches, chairs, cubicle walls—everything*). Every place the exhaled infected droplets land, they immediately infect that surface, waiting for someone to touch it and then touch mouth, nose or eyes. Even surfaces just cleaned and sanitized can be almost immediately re-infected. Once infected, surfaces and objects may stay infectious for minutes or days, or until the next sanitization.
 - Lighter droplets—also called aerosols—may stay in the air 30 minutes or more in a “cloud.” Because they are so light, gravity does not pull them to the ground. This cloud may stay in concentrated form and drift around the space creating the potential for people to inhale the aerosols and become infected.
- **With Ray-Air UV-C™:**
 - In the exact same space, when the asymptomatic person enters and begins exhaling an infectious pathogen, Ray-Air UV-C™ is constantly protecting the space and will immediately begin attacking the virus or other pathogen
 - Air is drawn into the body of the Ray-Air UV-C™ (powder coated with anti-microbial powder coat paint).
 - Individual virus or other pathogens are exposed to LED UV sanitization technology from Seoul Viosys.
 - Ray-Air UV-C™’s non-disruptive air movement also speeds virus dilution within the space, making infection far less likely.

- This cycle is continuous; with every exposure, viruses are damaged until they are either too degraded to infect humans, incapable of reproduction or completely sterilized. Either way the space is safe from airborne infection!
- Some pathogens will still land on objects and surfaces, but in place of all exhaled pathogens, only a portion remain viable, as Ray-Air UV-C™ is sterilizing more and more every second with every pass until the air is nominally 100% clean of the pathogen. This is active, relentless virus-sterilizing technology that makes every indoor space far safer from infection than without this ground-breaking technology.

How has Ray-Air UV-C™ been tested?

- Ray-Air™ is UL-certified for safety as an electronic device.
- Ray-Air LIT™ is UL-certified for safety as an electronic device and luminaire.
- Ray-Air UV-C™ is UL-certified as an electronic device, with a photobiological (*i.e., interaction of light on living beings*) effects of radiation on the skin and eye (ANSI RP-27 and IEC 62471) and for ozone generation with Ozone test per UL 867 Section 40.
 - LED radiation standards ANSI RP-27 and IEC 62471 series contain labeling requirements based on the Risk Group determined.
 - Results of the Ray-Air UV-C™ test:
Ray-Air UV-C™ is exempt from warning label requirements.

Summary of Results

Hazard	Risk Group
Actinic UV 200-400nm	Exempt
Near UV 315-400nm	Exempt
Blue Light 300-700nm	Exempt
Retinal Thermal 380-1400nm	Exempt
Infrared Eye 780-3000nm	Exempt
Thermal Skin 380-3000nm	Pass

*** For the full UL test report click [HERE](#)

*** Photobiological Q&A click [HERE](#)

*** For the full UL Ozone report click [HERE](#)

- Ray-Air UV-C™ was also tested for its virus/pathogen sterilization ability by two world-renowned US companies.
 - MS2 Virus (the family of viruses Covid-19 is a member of):
 - 30 minutes over 91% of the virus was sterilized.
 - 90 minutes over 99.2% of the virus was sterilized.
 - Bacteria
 - 30 minutes over 92% of the bacteria was sterilized.
 - 90 minutes over 99.5% of the bacteria was sterilized.

*** For the full test report click [HERE](#)

- The original Ray-Air UV-C™ design using UV lamps was validated 2 years ago in 11/2018 with similar results.

*** For the full test report click [HERE](#)

What's that blue light coming out of Ray-Air UV-C™ when the room is dark?

- UV LED technology incorporates a “deep blue” visible wavelength so people can see the LEDs are working.
 - UV-C light is invisible to the human eye; the blue light is not UV-C light escaping from the fixture.
 - Go Fan Yourself® took the extra step and incurred additional expense to UL-certify that Ray-Air UV-C™ does not require a UV warning label.
 - Ray-Air UV-C™ exposes airborne pathogens to the UV sterilization technology, not your people or the space.

How does Ray-Air UV-C™ support existing sanitization efforts?

- By eliminating airborne pathogens, Ray-Air UV-C™ makes surface cleaning efforts far more efficient. With Ray-Air UV-C™ making the air nominally 100% clean, the air cannot reinfect surfaces recently sanitized.
- The non-disruptive air movement of Ray-Air UV-C™ moves all the air in the room through an HVAC system filtration many more times per hour than without, a far more efficient process.
- Other existing sanitization efforts are greatly improved due to the air movement and air sterilization ability of Ray-Air UV-C™.
- Future sterilization technology will be enhanced because the non-disruptive air movement from Ray-Air UV-C™ will bring the pathogen to the new technology.

What is LED UV-C Sterilization Technology? How does it work?

- Ray-Air UV-C™ utilizes LED technology from world leader Seoul Viosys. The Deep Blue UV, with a nominal wavelength of 277nm, has proven to be deadly to many viruses and bacteria, including COVID-19.

***Click for the [Seoul Viosys Press Release](#)

What are the Specifications?

***Click for the [Ray-Air™ Spec Sheet](#) | [Ray-Air LIT™ Spec Sheet](#) | [Ray-Air UV-C™ Spec Sheet](#)

How loud are Ray-Air™, Ray-Air LIT™ and Ray-Air UV-C™?

- The fans of all Ray-Air™ products are rated for 23db, meaning they are very quiet. Many customers even became fans of Ray-Air™, Ray-Air LIT™, and Ray-Air UV-C™ due to the comfortable, even soothing “white noise” they generate.

What LED lighting options does Ray-Air LIT™ offer?

- | | |
|------------------------------------|------------|
| ● Ray-Air LIT™ lighting specs are: | Notes: |
| ○ 5000 Kelvin | 120-277VAC |
| ○ 4000 Kelvin | No Mercury |
| ○ 3500 Kelvin | No Lead |

- | | |
|----------------------------|--------------------------|
| ○ 2x2 = 2000 lm - 28 watts | 2x4 = 3000 lm - 37 watts |
| 3000 lm - 32 watts | 4000 lm - 45 watts |
| 4000 lm - 44 watts | 5000 lm - 54 watts |
| | 6000 lm - 63 watts |

***NOTE: wattage is total watts for LED lighting and fans.

Is Ray-Air LIT™ DLC-listed?

- Ray-Air LIT™ is both DLC-listed and UL-certified.

About Go Fan Yourself®

Our passion for innovation and for doing what's right drives us to create the world's best big fans and air movement tools designed to blow minds.

In addition to our technology and experience, we differentiate ourselves through the values that drive our corporate behavior. We take pride in our commitment to honesty, authenticity, professionalism and a passion for building trust-centered relationships with our clients. Instead of the quick sale, we focus on selling systems for change, not just stand-alone products.

Go Fan Yourself® raises the industry standard previously set for both air movement and destratification. We are always looking to create—even what may seem impossible—and improve upon our best efforts. We aspire to deliver the most innovative products. We are different, and Different Is Cool®!

Ray-Air™, Ray-Air LIT™ and Ray-Air UV-C™ are the culmination of these efforts, bringing never-before-possible benefits to every indoor space safely and efficiently.

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