

Christie CounterAct with Care222

An added layer of defense for your guests



^ Christie® CounterAct™ products with patented Care222® technology

The entertainment industry faces extraordinary challenges as a result of the global pandemic, including closed venues and steep revenue declines. Audiences want to return, but the presence of pathogens is a major concern. Manual cleaning requires professional cleaners and the repeated use of harsh chemicals, can only be performed when spaces are empty, its effects are temporary, and it can't continuously reduce pathogens.

Now there's a way to reduce pathogens when people are present

We know ultraviolet (UV) light is highly effective in reducing pathogens. Businesses have long used germicidal UVC light to disinfect spaces. However, because the typical UVC wavelength of 254nm can penetrate human skin and eyes, it can't be used where unprotected people are present.

Not all UVC light is created equal

CounterAct products contain patented Care222 lamps that emit far-UVC 222nm light, a sweet spot on the UV spectrum that is effective against reducing surface pathogens but doesn't penetrate healthy human skin when used per specifications.

There's nothing like it

Care222 is the only UVC technology with a proprietary short pass filter that prevents longer UVC wavelengths that are a human health hazard from being emitted.

Reduces pathogens where people are present

A study conducted by Kobe University researchers called [Exploratory clinical trial on the safety and bactericidal effect of 222-nm ultraviolet C irradiation in healthy humans](#) published in August 2020 in PLOS ONE suggests that **the filtered far-UVC light emitted by Care222 modules reduces pathogens while people are present.**

Can far-UVC 222nm light inactivate SARS-CoV-2 (COVID-19)?

A world-first: A study published in September 2020 in the American Journal of Infection Control by researchers at

Hiroshima University entitled [Effectiveness of 222-nm ultraviolet light on disinfecting SARS-CoV-2 surface contamination](#) found that **far-UVC 222nm light effectively reduced more than 99.7% of surface contamination of Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2), the virus that causes COVID-19.**



^ [Click here](#) for a printable PDF version of the study

But can it effectively inactivate coronaviruses?

Yes! Here's how: CounterAct products with patented Care222 technology emit far-UVC 222nm light that damages the RNA of pathogens like coronaviruses, leaving them unable to reproduce and infect us.

In a peer-reviewed study entitled [Far-UVC light \(222nm\) efficiently and safely inactivates airborne human coronaviruses](#) published in June 2020 in the journal Nature, researchers at Columbia University Irving Medical Center reported that **99.9% of aerosolized seasonal coronaviruses (that cause the common cold) were inactivated when exposed to far-UVC 222nm light for just 25 minutes.**



^ SARS-CoV-2 coronavirus. This graphic illustrates how far-UVC 222nm light penetrates and inactivates coronaviruses like SARS-CoV-2 (COVID-19) by damaging its RNA

Introducing Christie CounterAct products with patented Care222 technology



^ Preliminary prototype of a Christie CounterAct fixture, subject to change during product development.

Each CounterAct fixture contains two Care222 far-UVC excimer lamps with patented filters that significantly reduce surface pathogens like the SARS-CoV-2 coronavirus that causes COVID-19.

CounterAct products can be used throughout your venue – from your lobby and auditorium to your restrooms.

The patented Care222 modules used in our CounterAct products effectively inactivate pathogens, may be used when people are present, are mercury-free, and contain a proprietary filter¹.

Top 3 reasons to choose CounterAct

- 1. May be used when people are present** – CounterAct products with patented Care222 technology and proprietary filters emit far-UVC 222nm light that cannot penetrate healthy human skin when used in accordance with operational specifications
- 2. It's effective** – The patented far-UVC light that Care222 technology emits can reduce 99.9% of pathogens—including coronaviruses like SARS-CoV-2, influenza, bacteria, and even antibiotic-resistant superbugs
- 3. It's an added layer of defense** – CounterAct products with patented Care222 technology emit far-UVC 222nm light that damages the RNA of pathogens like coronaviruses for an extra layer of defense when used in combination with other measures like washing hands

We thought of everything

- › Easy-to-use – As easy to install as traditional commercial lighting fixtures, with maintenance via an app
- › Instant on/off at full output power²
- › Frequent on/off cycles don't affect lamp life
- › Easy-to-service for straightforward lamp changes
- › Remote monitorable for easy programming and troubleshooting
- › Fixtures are available in black and white
- › Available in both AC and DC power configurations
- › Able to operate over a wide range of ambient temperatures
- › Flexible leasing options are available



Are you ready to put CounterAct to work in your venue?

[Visit our CounterAct landing page](#)

Let's talk: [Contact us today!](#)

¹ A patented optical filter prevents longer UVC wavelengths of more than 230nm that are a human health hazard
² Unlike conventional germicidal lamps that start at only 50% output and take several minutes to achieve 100% output

Christie CounterAct products with patented Care222 technology are not for use as or for medical devices or for use on humans or animals or to disinfect medical devices

This product is not intended to diagnose, treat, cure, or prevent any disease

The pathogen-reducing efficacy of Christie CounterAct products with patented Care222 technology and their use in occupied spaces is dependent on proper installation and operational specifications, in accordance with American Conference of Governmental Industrial Hygienists (ACGIH) guidelines

Any references to "disinfection" and "disinfecting" are referring generally to the reduction of pathogenic bioburden and are not intended to refer to any specific definition of the term as may be used for other purposes by the U.S. Food and Drug Administration or the U.S. Environmental Protection Agency

The Care222® standard character mark and stylized logo mark are registered trademarks of Ushio America, Inc.'s patented technology, in the United States, European Union, and United Kingdom.

For the most current specification information, please visit christiedigital.com

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