



Acuity Brands Filtered Far-UVC Module with Ushio Care222 Technology is the First to be UL Certified

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Certification paves the way for incorporating the module into Acuity products that will treat pathogens in occupied spaces.

Atlanta, GA, Aug. 09, 2021 (GLOBE NEWSWIRE) -- [Acuity Brands, Inc.](#) (NYSE: AYI) announced today that its Care222® filtered far-UVC module with patent-pending dosing electronics is the first germicidal UV (GUV) source in the wavelength range 200-230 nm (i.e., “far-UVC”) to be UL LLC Certified to meet U.S. and Canadian standards for germicidal equipment for use in occupied spaces. When properly installed and administered, the module is in the Exempt risk group for photobiological hazards, as described in the IEC 62471:2006, *Photobiological safety of lamps and lamp systems*.

“This tremendous technical achievement has come at a time when the worldwide awareness of the need to control pathogens has never been greater. Substantive pathogen control in spaces while people are present can support vital activities where we work, live and play,” said Ron Schimmelpfenning, Vice President-Technology Solutions, Acuity Brands Lighting.

The UL Recognized Component certification paves the way for incorporating the module into a variety of Acuity Brands LED lighting products to deliver a measured 222nm far-UVC dosage in occupied spaces. These lighting products provide a 222nm far-UVC dosage that can effectively target pathogens¹ throughout the day in indoor applications such as schools, hospitals, manufacturing, hospitality and retail, while maintaining a natural-looking light emittance.

“The certification of the Care222 module for use in lighting products in occupied spaces is the result of rigorous testing and evaluation performed by UL scientists working together with research and development teams from Acuity Brands and Ushio America, Inc. in what has become a breakthrough category in GUV product development. The certification process followed by UL included an assessment to IEC 62471 for the GUV module when installed and used according to instructions,” said Schimmelpfenning.

An important part of the Care222 far-UVC module development involved the creation of patent-pending dosing electronics by Acuity Brands. These electronics allow for highly precise administration of UVC doses to target pathogens¹ in occupied or unoccupied spaces. The completed module is an outgrowth of the 2020 strategic alliance agreement between Acuity Brands and Ushio America which granted Acuity Brands exclusive rights in North America to incorporate Ushio’s Care222 far-UVC disinfection* technology into Acuity Brands luminaires.

Ushio’s disinfection technology uses filtered excimer lamps to generate 222nm far-UVC light. The mercury-free Care222 excimer lamps feature a specially designed short pass filter, based on groundbreaking research and technology developed by Columbia University, which filters out from the lamp the longer UV wavelengths that are potentially harmful to humans. The result is a narrow band 222nm wavelength of UV light that can inactivate viruses and bacteria, effectively preventing them from replicating. Without this filter, excimer lamps would need to deliver much lower doses of UV to work within established exposure guidelines and would not work as quickly.

[Results from laboratory testing and clinical studies](#) suggest that the filtered UV light emitted from the Care222 lamp can reduce known viruses and other pathogens, including SARS-CoV-2², on surfaces and in air. When used within appropriate parameters, the 222nm wavelength emitted from the Care222 lamp inactivates viruses and bacteria at energy levels that do not penetrate living tissue in skin or beyond the tear layer in eyes, allowing spaces in which the lamps are used to remain occupied during use. In contrast, possible acute and chronic damage to eyes and skin may result from the more generally employed 254nm UV wavelength used in many germicidal lamps unless this UV wavelength is used under conditions that sharply limit human exposure.

“Using luminaires as a delivery system allows facilities to take advantage of locations where power is already distributed,” said Schimmelpfenning. “This enables the Care222 far-UVC disinfection technology to be added as a layer of functionality to necessary illumination using the intelligent control capabilities built into the luminaire.”

Acuity Brands is in the process of seamlessly incorporating the Care222 far-UVC disinfection modules in familiar luminaires and stand-alone products from its multiple lighting brands, creating a broad lineup of UL Certified far-UVC-enabled luminaires. Orders are being accepted now for the HDM™ luminaire from Healthcare Lighting® and HLDM™ luminaire from Holophane®. Coming soon are far-UVC-enabled luminaires from Gotham®, Lithonia Lighting® and Mark Architectural Lighting™. For more information about the properties of 222nm far-UVC light, Care222 excimer lamps, and products using these disinfection technologies please visit our [website](#).

¹ Refer to product specification sheets at [acuitybrands.com/UV-Products](#) for efficacy claims and claim substantiation regarding specific products and pathogens.

² In a 2020 study, Hiroshima University confirmed that under laboratory conditions, a dose of 3 mJ/cm² of 222nmUVC irradiation, with an exposure time of 30 seconds inactivated 99.7% of SARS-CoV-2 on a surface. Ushio’s Care222 UV-C disinfection module was placed 24 cm above the surface of the plates in which the viral samples were placed. Read the study: [Effectiveness of 222-nm ultraviolet light on disinfecting SARS-CoV-2 surface contamination](#)

*All references to “disinfection” are referring generally to bioburden reduction 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. Bioburden reduction is a function of fixture run time, distance to the UV light source, airflow, room size and/or other factors, and the level of reduction will vary within a specific space. Neither the disinfection technology as incorporated in Acuity Brands products nor the products themselves are intended for use as a medical device or for the disinfection of medical devices.

About Acuity Brands

Acuity Brands, Inc. (NYSE: AYI) is a market-leading industrial technology company. We design, manufacture, and bring to market innovative products

and services that make the world more brilliant, productive, and connected, including building management systems, lighting, lighting controls, and location-aware applications. Based in Atlanta, Georgia, with operations across North America, Europe, and Asia, we are powered by approximately 12,000 dedicated and talented associates. Visit us at www.acuitybrands.com.

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Attachment

- [Care222 filtered far-UVC module.Acuity Brands](#)

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Source: Acuity Brands, Inc.

Care222 filtered far-UVC module.Acuity Brands



Acuity Brands Care222 filtered far-UVC module is the first to be UL Certified. August 5, 2021. Acuity Brands PHOTO/Atlanta, GA