



Fresh-Aire UV® Debuts Blue-Calc(TM), a UV Light Sizing/Design/Analysis Service for Engineers & Contractors

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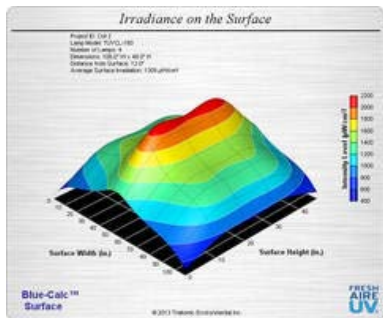
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Fresh-Aire UV®, Jupiter, Fla., the originator of the patented Blue-Tube UV® 24-VAC low-voltage ultraviolet germicidal irradiation (UVGI) light, has developed Blue-Calc™, a UV-C light design and analysis service using state-of-the-art sizing software for HVAC engineers and contractors. Blue-Calc's unique web service provides calculations of both airborne and cooling coil surface microbe disinfection efficiencies from UV-C light exposure and generates detailed color chart and graph image printouts for building owner presentations.

Available at www.freshaireuv.com, Blue-Calc's online form prompts engineers and contractors to input the design parameters of any size HVAC system project. The program provides users with sizing, mounting configuration, lamp type and placement specification data that has been factory engineer-reviewed. The design and analysis results include up to seven color performance graphs and charts that are printable for proposals and building owner presentations. "Blue-Calc ensures an engineer's UV light configuration will be effective for optimum microbe disinfection and operate to the proper specifications," said Chris Willette, president, Fresh-Aire UV.

Developed collaboratively by Fresh-Aire UV's in-house UVGI and software engineering departments, Blue-Calc can detect inadequate coverage or insufficient microbe inactivation time in a specification conforming to the UVGI industry's D99 criteria--a



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dose resulting in a minimum 99-percent inactivation.

Blue-Calc's software program precisely sizes for UV light intensity and auto-placement for optimal disinfection and helps cut project costs by eliminating equipment over-sizing. "Too many engineers and contractors simply rough-estimate the number of UV lamps and their placements in the HVAC unit," said Willette, "now they can apply an exact science for UVGI's full benefit. Future versions we're planning will be able to calculate and chart energy and maintenance cost reductions and other valuable UV benefits for engineers and their clients."

Blue-Calc's custom-written software is based on mathematical modeling of the UV disinfection process pioneered by UVGI industry scientists and Fresh-Aire UV's recent third-party laboratory testing. Blue-Calc automatically configures UV lamp locations and mathematically models UV irradiation and microbe inactivation over hundreds of thousands of data points within the HVAC enclosure. The calculated data is illustrated by different charts/graphs, such as both lengthwise and crosswise "Irradiation Field Intensity," "Microbe Survival Profile," "Irradiance on the Surface," "Survival Times" and other illustrations.

Some of the program's charts are unique to the UVGI industry. The "Microbe Survival Profile" image, for example, uniquely demonstrates the program's ability to calculate reflectivity of a variety of duct material surfaces, such as stainless steel, galvanized steel, aluminum and even interior insulation. All materials have different degrees of reflectivity, which is a mirror-like effect that can intensify UV light. A higher reflectivity equates to a higher microbe disinfection rate and the potential of cutting project costs by reducing the number of needed UV lights or their output performance.

Inputting data on the form takes only minutes. An optional space is also provided to describe unusual project characteristics such as unconventional HVAC configurations or an interest in the disinfection of specific microbes. Required input data includes enclosure dimensions, air velocity, air handler/coil model and other parameters related to Fresh-Aire UV's UVGI system requirements.

Besides charts and graphs, output data includes the selected lamp model and parameters, number of lamps, lamp locations, UV power, electrical power requirements, each lamp's peak irradiance, in-duct irradiance ($\mu\text{W}/\text{cm}^2$), and microbe inactivation calculations.

For more information on Fresh-Aire UV and its full line of UVGI, APCO® and other IAQ products, please visit www.freshaireuv.com, call 1-(800) 741-1195 or email: sales@freshaireuv.com.

About Fresh-Aire UV®: Fresh-Aire UV® is a division of Triatomic Environmental Inc., Jupiter, Fla., a leading manufacturer and developer of germicidal UV light systems designed for commercial/industrial and residential HVAC systems and ice machines. Among their products is the patented Blue-Tube UV®, the first 24 volt low-voltage germicidal UV light for HVAC, which has become the most popular product of its type in the world. Fresh-Aire UV's revolutionary APCO® (advanced photocatalytic oxidation) system, which combines UV-C light with activated carbon cells for comprehensive odor, VOC and microbial control, was an International Innovation Award winner at the 2011 AHR Expo. Fresh-Aire UV® systems are sold through wholesale HVAC/R distributors, specified by consulting engineers and installed/serviced by air conditioning contractors. Fresh-Aire UV® continually strives to engineer, develop and market products to meet the demand for a greener world and healthier environment. The UV products improve air quality, enhance the efficiency of HVAC/R systems and reduce maintenance costs. For more information please visit www.freshaireuv.com, call 1-(800) 741-1195 or email: sales@freshaireuv.com.

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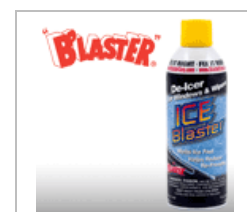
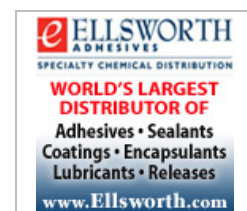
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