

Elevated Health Systems, LLC, (EHS) has developed the ESP-DLux® Automated UVC Light Infection Control System which provides continuous disinfection of air and periodic disinfection of hard surfaces by combining industrial-strength UVC light, sensors and electronic controls. When the sensors detect a room is occupied, a rotating shutter on the light fixture remains closed and an array of fans/filters circulates sanitized air throughout a room. When the sensors detect the room is unoccupied, the rotating shutter opens, exposing both the air and surfaces to direct UVC disinfection. A continuous log is maintained, documenting that air and surfaces have been irradiated for a prescribed length of time and, thus, that pathogens have been eradicated.

The ESP-DLux® is offered in 2 models: the stand-alone Series 100 is rapidly deployable, while the Series 300 model features advanced Safety-Net® technology, allowing multiple UVC fixtures to be networked and controlled throughout a facility. Both provide powerful, automated UVC disinfection. Typical usage of the ESP-DLux® would be in barracks, medical treatment rooms and facilities, laboratories, cafeterias, locker rooms, offices, conference rooms and any enclosed environment in which personnel are vulnerable to the spread of infectious disease.

EHS does have a limited number of fully-functional ESP-DLux® beta units which can be purchased at this time. The beta units have undergone extensive testing at Iowa State University; those tests and results are posted on the EHS website www.esp-dlux.com, in the “About Us” section. Other tests posted there include two tests of the prototype design from Via-Christi Regional Research Center and one test of the prototype bulb, which eradicated 100% of live MRSA in 15 minutes, with testing done at Affiliated Medical Services Labs, in Wichita, KS.

EHS has recently produced a Go-To-Market iteration which has passed UL-Level Safety Certification and is being finalized for mass production. With pre-orders, Series 100 can be delivered 3rd Qtr. 2024, and Series 300 can be delivered 4th Qtr. 2024. EHS’s ETL-Certified manufacturing partner is Chapco, Inc. (www.chapcoinc.com). As EHS scales sales, Chapco has the capacity to scale production up to 10,000 units per month.

The ESP-DLux® has the capability to be integrated into larger and diverse systems, whether tactical or into commercial “Smart” buildings. EHS’s Intellectual Property umbrella of 5 U.S. patents makes many other embodiments possible. The patents cover all frequencies of UVC Light (200nm-280nm), any UVC light source including LEDs, any kind of sensor capable of detecting occupancy/vacancy (passive infrared, pressure, ultrasonic, CO2, etc.) and any electronic control element with memory capacity. With this flexibility, hardening of the product is very doable. In general, the ESP-DLux® supports any operational mission which involves humans in an enclosed environment.

Elevated Health Systems, LLC (Wichita, KS) was founded by Ann Alexander DuPuis in 2012. Dr. John DuPuis, M.D. joined the company soon thereafter. They are the core team, who have been joined by subject matter experts in critical areas. The purpose of the ESP-DLux® product and licensable Intellectual Property is to optimize the germicidal power of UVC light while keeping humans safe from direct exposure, in as many environments as are needed for optimal infection control.