

Maintenance • Service • Safety

Recommendations For Lumalier Upper Air Disinfectant  
2X2 Series



[www.lumalier.com](http://www.lumalier.com)

1931 Thomas Road | Memphis TN 38134 | 901-800-1709  
EPA ESTABLISHMENT NO. 91347-TN-001

# Safety First

## READ AND FOLLOW ALL SAFETY INSTRUCTIONS

### Personal Protective Equipment

Employees must wear personal protective equipment whenever UV radiation measurements are being made close to the lamp source to document lamp output, or when maintenance procedures must be performed in areas where UVGI systems are activated. Overexposure may lead to a temporary, minor eye irritation or skin reddening it does not cause serious or long-term health effects. Personal Protection Equipment includes:

- Safety glasses with side shields
- Head, neck and face covering opaque to UV radiation
- Soft cotton gloves
- Long-sleeved, tightly woven fabrics with SPF 15 or greater

### Safe Installation

**All installation is to be performed by qualified personnel and according to the NEC (National Electrical Code) and local code. DO NOT MOUNT BELOW 7'-0" (213.4cm) FROM FLOOR TO BOTTOM OF FIXTURE.**

This equipment is designed for use with germicidal UV radiation sources and must be installed in compliance with competent technical directions to prevent risk of personal injury from UV radiation. UV radiation can pose a risk of personal injury. Over exposure can result in temporary damage to eyes and bare skin. To reduce the risk of over exposure, this equipment must be installed in accordance with the manufacturer's site planning recommendations.

UV and optical radiation can be reflected by surrounding surfaces such as ceilings and walls. Since the reflective properties of surfaces can vary widely, it should be considered as part of site planning.

IT IS THE RESPONSIBILITY OF THE INSTALLER TO ENSURE THAT PERSONS WILL NOT BE EXPOSED TO EXCESSIVE UV OR OPTICAL RADIATION DURING EQUIPMENT OPERATION. THIS WILL REQUIRE THE INSTALLER TO CONDUCT AN ASSESSMENT OF IRRADIANCE OR ILLUMINANCE LEVELS IN THE SURROUNDING OCCUPIED SPACES PRIOR TO OCCUPANCY.

Equipment should be mounted in locations and at heights where it will not readily be subjected to tampering by unauthorized personnel. THESE DEVICES ARE NOT INTENDED FOR GENERAL ILLUMINATION.



## What is UVGI?

UV-C, also known as “germicidal ultraviolet”, **has a specific wavelength of 253.7nanometers (253.7 billionths of a meter)** and is known to deactivate molds, spores and germs contained in tiny airborne droplet nuclei that transmit diseases such as measles, tuberculosis, and influenza from person to person. With significant penetrating ability, UV-C can penetrate the cell wall of a microorganism and destroy it but it cannot penetrate the outer layer of human skin or the cornea of the eye. Although overexposure may lead to a temporary, minor eye irritation or skin reddening it does not cause serious or long-term health effects.

## Ozone Caution

Ozone has been proven to be hazardous to human health. It can cause moderate to severe and chronic breathing problems. Some UV-C lamps produce ozone and these must be avoided. The only UV-C lamp(s) that is recommended, is the Philips brand lamps. They do not produce ozone. If other than Philips lamps are ordered and to be installed, it must be specified in the lamp data that the lamps are ozone-free.

## Material Safety Data Sheets (MSDS)

For MSDS sheets on our lamps, please contact your local Lumalier representative.

The use of accessory equipment not recommended by the manufacturer may cause an unsafe condition. Do not use this equipment for other than intended use.

## Maintenance

### Scheduled Maintenance Procedures

Quarterly - Visually inspect lamps through a viewing window to insure all lamps are operational.

Semi-Annually - If the lamps show visual dust accumulation, they should be cleaned.

To clean lamps:

- De-energize the 2X2 UV unit using the ON/OFF switch.
- Remove the bottom cover.
- Using soft cotton gloves, remove the lamps from the UV unit.
- Using a soft cotton cloth, with isopropyl alcohol, wipe the lamps and allow to dry.
- Replace the lamps. **Use only 35W, (PL-L35WTUV) or 18W, (PL-L18WTUV) non-ozone lamps.**
- Reinstall the cover.
- Read warnings. Turn on the ON/OFF switch.
- Inspect the lamps from below the fixture to insure all lamps are energized.

Bi-Annually - Replace the lamps.

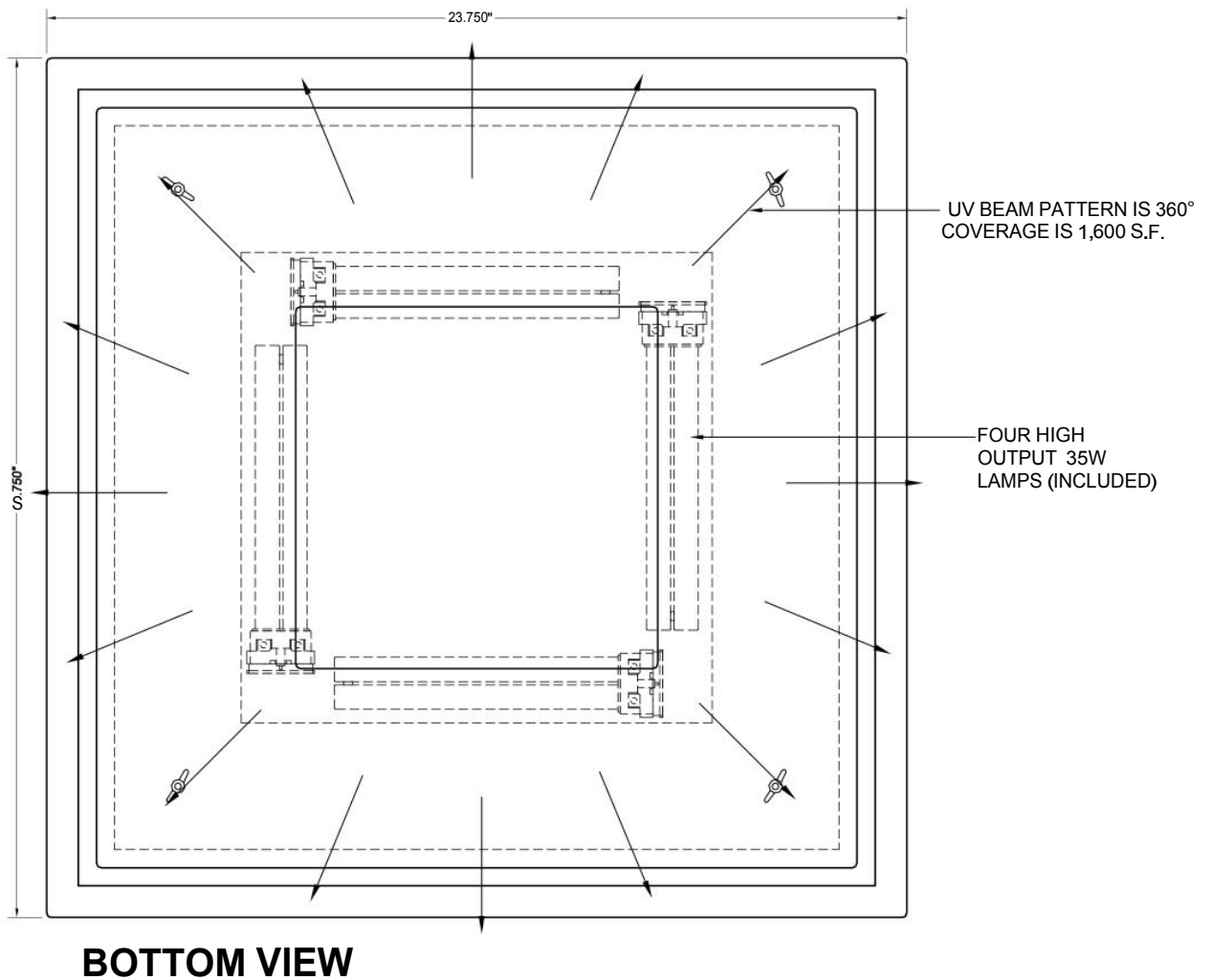
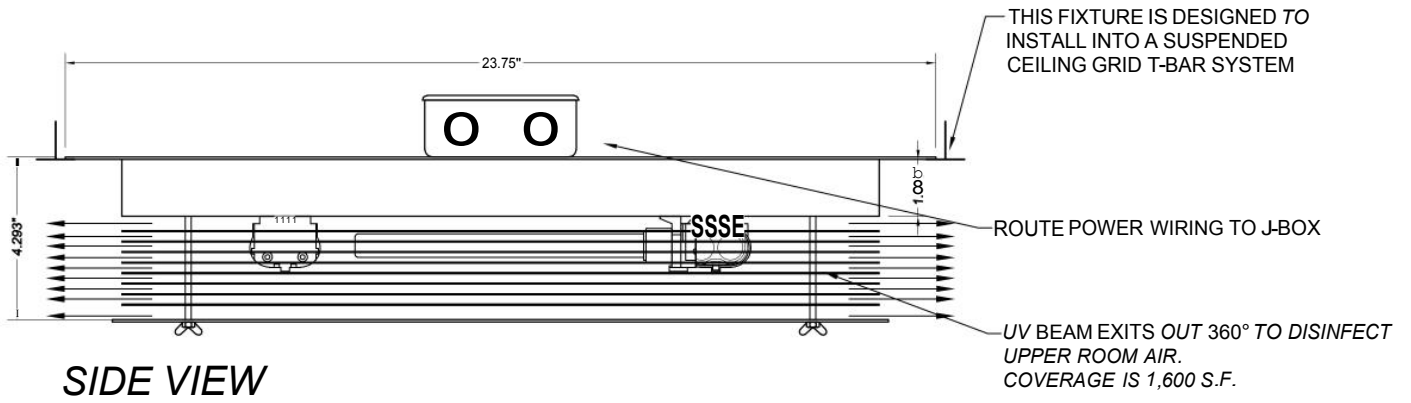
To replace lamps:

- De-energize by switching the toggle switch to the “off” position.
- Remove the cover.
- Remove the used lamps from the UV unit.
- Wearing soft cotton gloves and using a soft cotton cloth, with isopropyl alcohol, wipe the new lamps and allow to dry.
- Install the new lamps. **Use only 35W, (PL-L35WTUV) or 18W, (PL-L18WTUV) non-ozone lamps.**
- Reinstall the bottom cover. Read warnings. Turn on the ON/OFF switch.
- Inspect the lamps from below the fixture to ensure all lamps are energized.

**All maintenance and service to be performed by qualified personnel while following safety instructions.**

## Service

Lumalier replacement parts and lamps can be purchased from authorized distributors or directly. For technical assistance or information call 901-800-1709 or [email@evergreenuv.com](mailto:email@evergreenuv.com).



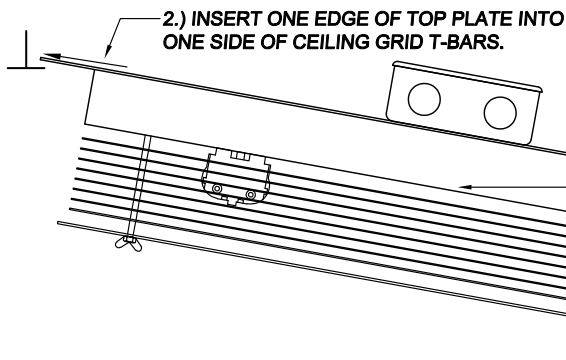
**SUBMITTAL DRAWING**

**2X2-435**

ELECTRICAL REQUIREMENT: 120V/1.16A TO 277V/0.5A; 50-60 Hz

LAMPS: 140 NOMINAL WATTS; 44 UV WATTS

1,600 S.F. COVERAGE

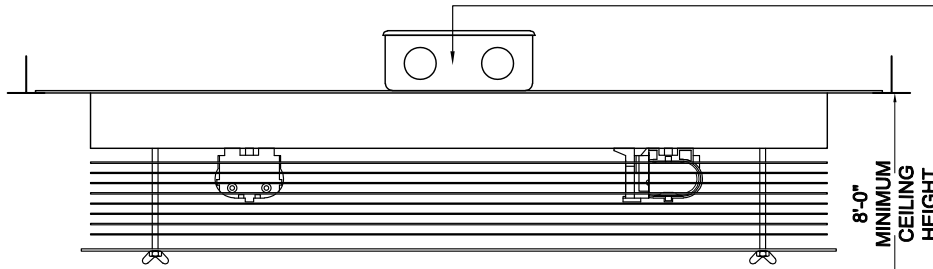


2.) INSERT ONE EDGE OF TOP PLATE INTO ONE SIDE OF CEILING GRID T-BARS.

3.) RAISE OPPOSITE SIDE UP & INTO CEILING GRID. ALLOW FIXTURE TO REST IN GRID.

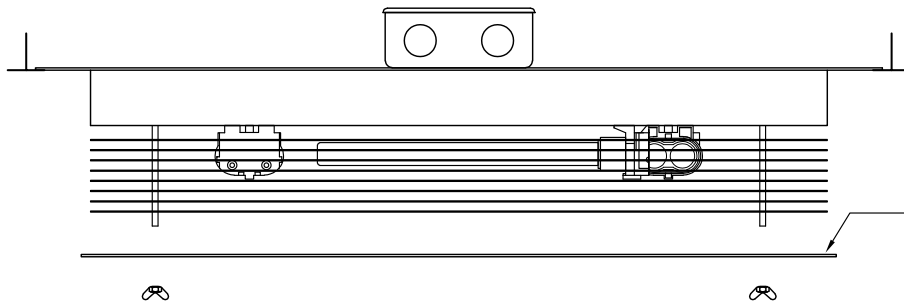
1.) TILT FIXTURE ENOUGH TO INSERT INTO SUSPENDED CEILING GRID.

**THIS INSTALLATION MAY REQUIRE TWO PEOPLE**

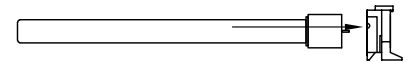
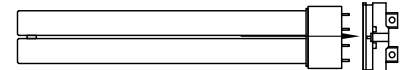
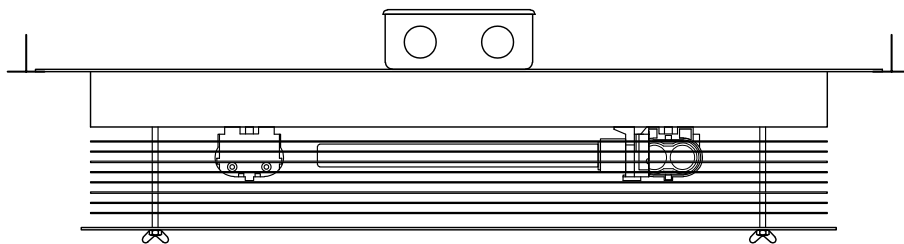


4.) WITH POWER DISCONNECTED, ROUTE CONDUIT TO J-BOX FOR POWER. WIRE COLOR CODE: BLACK=POWER, WHITE=NEUTRAL, & GREEN=GROUND. MAKE-UP WIRING CONNECTIONS AS PER CODE.

8'-0" MINIMUM CEILING HEIGHT



5.) TO INSTALL LAMPS, REMOVE THE WING NUTS ON THE BOTTOM COVER, LOWER COVER GENTLY DOWN ENOUGH TO ACCESS THE LAMP HOLDERS. (SEE BELOW) AFTER LAMPS ARE INSTALLED RE-INSTALL BOTTOM COVER.



CAREFULLY ALIGN LAMP BASE INSIDE LAMP HOLDER BETWEEN THE METAL TABS INSIDE THE HOLDER AND ALIGNING WITH PINS ON LAMP BASE & THE SLOTS IN THE HOLDER. PUSH LAMP IN UNTIL IT SNAPS IN PLACE.

FIXTURE CAN NOW BE POWERED & TESTED AFTER TAKING UV PROTECTIVE MEASURES.  
UV PROTECTIVE MEASURES

**WARNING: TEMPORARY EYE DAMAGE MAY RESULT FROM DIRECTLY VIEWING THE LIGHT PRODUCED BY THESE LAMPS. TO REDUCE THE RISK OF EXPOSURE TO UV-RADIATION, TAKE UV-RADIATION PROTECTIVE MEASURES FOR PERSONNEL DURING SERVICING. WEAR EYE & SKIN PROTECTION.**

**2X2-435**

**INSTALLATION INSTRUCTIONS WITHOUT FAN**

ELECTRICAL REQUIREMENT: 120V/1.16A TO 277V/0.5A; 50-60 Hz

LAMPS: 140 NOM. WATTS; 44 UV WATTS

1,600 S. F. COVERAGE



# Product Limited Warranty

## SCOPE OF WARRANTY:

Lumalier manufactures all Lumalier UVC Air and Surface Disinfection Products in our Memphis, Tennessee, USA, factory. Lumalier warrants that all Lumalier products (the “Product”) will be free from defects in materials and workmanship during the **Applicable Warranty Periods of five years from the Date of Professional Installation**. If the Product fails in normal use and service within the Stated Warranty Period due to a defective part, Lumalier will, at its option, repair or replace the defective part. The replacement part will be warranted for only the unexpired portion of the original Applicable Warranty Period. If a part of the Product fails and an exact replacement is not available, Lumalier reserves the right to provide a substitute of equal or greater value, or provide a credit in the amount of the original cost of the defective part towards the purchase of a new Lumalier product similar in function and features to your Product. **Replacement parts are NOT pro-rated, meaning that any part or component that fails during the warranty period will be replaced or credited (if replacement is no longer available) at original purchase cost.**

## EFFECTIVE DATE OF LIMITED WARRANTY COVERAGE:

The Effective Warranty Date is the date of the Product’s first installation, if properly documented; otherwise it is the date of purchase plus one (1) month.

## APPLICABLE WARRANTY PERIODS FOR VARIOUS PARTS:

UV Fixture: Product parts and components are warranted for an Applicable Warranty Period of Five (5) years after the Effective Date.

UV Lamps: UV lamps are warranted for an Applicable Warranty Period of two (2) years after the Effective Date.

## STANDARD PROVISIONS AND CONDITIONS:

### EXCLUSIONS - THIS LIMITED WARRANTY WILL NOT APPLY:

- (a) To damages, malfunctions or failures resulting from failure to properly install, operate or maintain the Product in accordance with the manufacturer’s instructions;
- (b) To damages, malfunctions or failures resulting from abuse, accident, fire, flood and the like;
- (c) To parts used in connection with normal maintenance, such as cleaning or replacing air filters;
- (d) To Products that are not installed in accordance with applicable local codes, ordinances and good trade practices;
- (e) To damages, malfunctions or failures caused by the use of any attachment, accessory or component not authorized by the manufacturer;
- (f) To damages, malfunctions, or failures caused by misuse, accident, contaminated or corrosive atmosphere, vandalism, freight damages, fire, flood, freeze, lightening, acts of war, acts of God and the like.

## **SHIPPING COSTS:**

This Limited Warranty does NOT cover shipping costs. You, or your installing contractor, will be responsible for the cost of shipping warranty replacement parts from our factory to the location of your product. You also are responsible for any shipping cost of returning the failed part to Lumalier, and for incidental costs incurred locally, including handling charges.

## **LABOR COSTS:**

This Limited Warranty does NOT cover any labor expenses for service, or for removing or reinstalling Products. All such expenses are your responsibility, unless a labor service agreement exists between you and your installing contractor.

## **HOW TO OBTAIN WARRANTY CLAIMS ASSISTANCE:**

You must promptly report any failure covered by this Limited Warranty to the installing contractor. Normally, the installing contractor from whom the unit was purchased will be able to take the necessary corrective action by obtaining any replacement parts. If the contractor is not available, please contact any other local contractor handling Lumalier products. If necessary, the following office can advise you of the nearest distributor:

1931 Thomas Road, Memphis, TN 38134, 901-800-1709

*REPLACEMENTS ARE MADE SUBJECT TO VALIDATION BY LUMALIER OF WARRANTY COVERAGE. Any part to be replaced must be made available in exchange for the replacement.*

## **EXCLUSIVE WARRANTY - LIMITATION OF LIABILITY:**

This Limited Warranty is the ONLY warranty for the Product given by Lumalier. No one is authorized to make any warranties on behalf of Lumalier. ANY IMPLIED WARRANTIES, INCLUDING MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, SHALL NOT EXTEND BEYOND THE APPLICABLE WARRANTY PERIODS SPECIFIED ABOVE. LUMALIER'S SOLE LIABILITY WITH RESPECT TO DEFECTIVE PARTS OR FAILURES SHALL BE AS SET FORTH IN THIS LIMITED WARRANTY, AND ANY CLAIMS FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES ARE EXPRESSLY EXCLUDED. Some states do not allow limitations on how long an implied warranty lasts, or for the exclusion of incidental or consequential damages, so the above limitation or exclusion may not apply to you. This Limited Warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

**Lumalier**  
**1931 Thomas Road**  
**Memphis, TN 38134**

*In the spirit of continuous improvement, we reserve the right to make changes without notice.*