

## UNIRES, INC.™

# HYPERION™

### BENEFITS

- Patent-pending, feature packed design
- NEMA 4X construction for use anywhere
- Simplified installation, operation, and service
- No need to open equipment to change lamps
- LiteClamp™ provides no tools re-lamping
- Complete safety — 2-step power lockout
- Lockable access prevents unauthorized service
- Typical install provides 360°UV-C distribution
- Light, reinforced, polycarbonate construction
- Minimal solar gain maximizes component life
- Easy wiring to power and additional fixtures
- Lowest ownership cost of any NEMA 4X fixture
- 3 year fixture, 1 year lamp warranties
- UL Listed under all ABQK categories

UV-C's ability to disinfect and degrade organic material is well established in both research and application (ASHRAE, Science, GSA and the CDC). UV-C systems are also one of the industry's most favored maintenance and energy tools. Besides uses for disinfecting air streams, their principal use is in keeping coils, drain pans, and other internal services free of microbes, and organic dirt and grime — materials that produce odor and cooling capacity, and, thus, affect occupant productivity!

Hyperion™ combines high performance and simplicity in an affordably priced, single-ended lamp device that can be installed almost anywhere UV-C is needed. Exceptional safety features include a lockable entry for outdoor pedestrian areas (through-the-wall units — such as schools, etc.) and two power interlocks to preclude exposure and electrical shock.

Hyperion™ can be used in airstreams of 1–77°C, 100% RH, and any velocity. Its NEMA 4X design is perfect for rooftop, through-the-wall, and other outdoor units. Versatile lamp lengths of 17 to 61 inches make it perfect for use on both small and large AHUs.

### APPLICATION

Hyperion™ installs from the exterior of A/C equipment or ductwork. It's perfect for hard to access outdoor and indoor equipment of up to 30 tons and over. It can be installed either vertically or horizontally by making a simple 1-inch hole for the lamp, and it properly attaches to surfaces with self-drilling screws (included). Each fixture has four 1/2-inch electrical knockouts for convenient wiring to both power and additional units, if used. A rubber gasket seals between the fixture and its install site to ensure a leak-free install (included).

## CONSTRUCTION

**FIXTURES** are exterior mount, single-ended lamp, factory-assembled types constructed of reinforced polycarbonate for use outdoors. They consist of a NEMA 4X rated Housing and Driver, LiteClamp™/Holder, Housing Cover, and Lamp and are UL Listed – ABQK.

**HOUSING/COVER** includes a lamp support for lamp lengths to 61", an O-ring to seal the interior against the elements and a rubber gasket to seal between the mounting surface and housing. The housing contains all components in one assembly for maximum safety and serviceability without the use of tools. The cover incorporates a disrupt lever to actuate the interlock switch on and off and eyelets to lock against unwanted entry. It has four (4) 1/2-inch v electrical knockouts and four (4) mounting holes to facilitate installation.

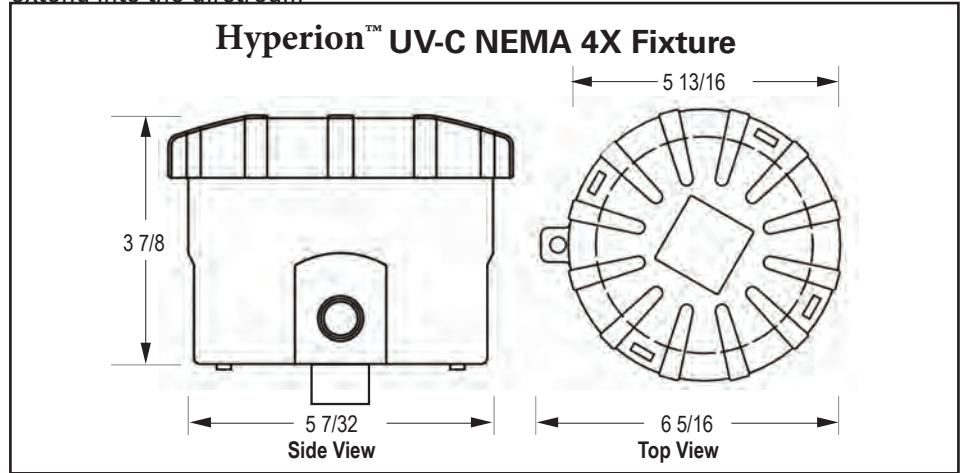
**DRIVER** is a UL Listed 120–240 Vac ±10% 50–60 Hz, high power factor, low THD, Class P, Sound Rated "A", auto-matching, Type 1 Outdoor type with thermal and end of lamp-life protection and no PCB's. It maximizes lamp output, energy efficiency and reliability in lamp lengths from 17 to 61 inches, air of 1° to 70° C and any velocity. It is equipped with an interlock switch and power plug for power lockout during service. It is warranted for three (3) years.

**LITECLAMP™/HOLDER** provides adjustable compression of flutes that secure the lamp base within the Holder and provides a watertight seal. Lamp receptacle pins are soldered to the driver for pull-proof connectivity and reliability.

**LAMPS** are Watt rated, high-output, hot cathode, T5, single-ended types that operate in air of 1–77°C and any velocity. They provide 360° irradiation and do not produce ozone. Their extended bases and filaments extend into the airstream

on double-wall plenums. Useful life is 9000 hours with a <15% loss at end of life.

*\*Contact factory for wiring to 277 Vac power sources.*



## ORDERING INFORMATION

Model #	P/N	Description	Electrical	Weight (Lbs)
<b>FIXTURE HOUSING</b>				
XP-SO-MV	57800550	Hyperion™ Singled Ended NEMA 4X Standard UVC Output – 120–240 Vac; Lamp Lengths from 17" to 61"	120–240 V, 50–60 Hz, 0.38–0.61A @ 120 V	1.5
<b>LAMPS (Order 1 lamp of desired length per Hyperion™ fixture. Fixture ships without lamp.)</b>				
SEL-17-SO-T5-1	57033551	SEL 17" Single Ended Standard Output Lamp		1
SEL-22-SO-T5-1	55043551	SEL 22" Single Ended Standard Output Lamp		1
SEL-23-SO-T5-EF-1	57013551	SEL 23" Single Ended Standard Output-Extended Base	NEW	1
SEL-33-SO-T5-1	55063551	SEL 33" Single Ended Standard Output Lamp		1
SEL-36-SO-T5-EB-1	57073551	SEL 36" Single Ended Standard Output Lamp-Extended Base	NEW	0.75
SEL-45-SO-T5-EB-1	57083551	SEL 45" Single Ended Standard Output Lamp-Extended Base	NEW	1
SEL-60-SO-T5-EB-1	57093551	SEL 60" Single Ended Standard Output Lamp-Extended Base	NEW	2
<b>ACCESSORIES</b>				
SDT-480-277-240	90004882	Step-Down Transformer	480-277-240 to 120 Vac	3
XP-120-SC	90004300	6' Power Cord		0.5

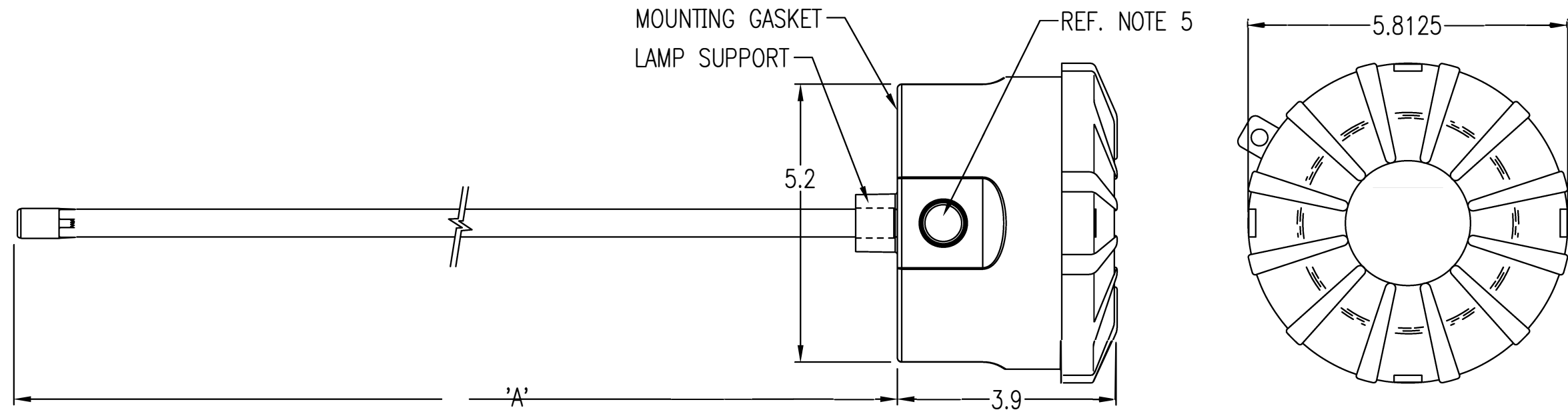
The health aspects associated with the use of this product and its ability to aid in the disinfection of environmental air have not been investigated by UL.

Specifications subject to change without notice.

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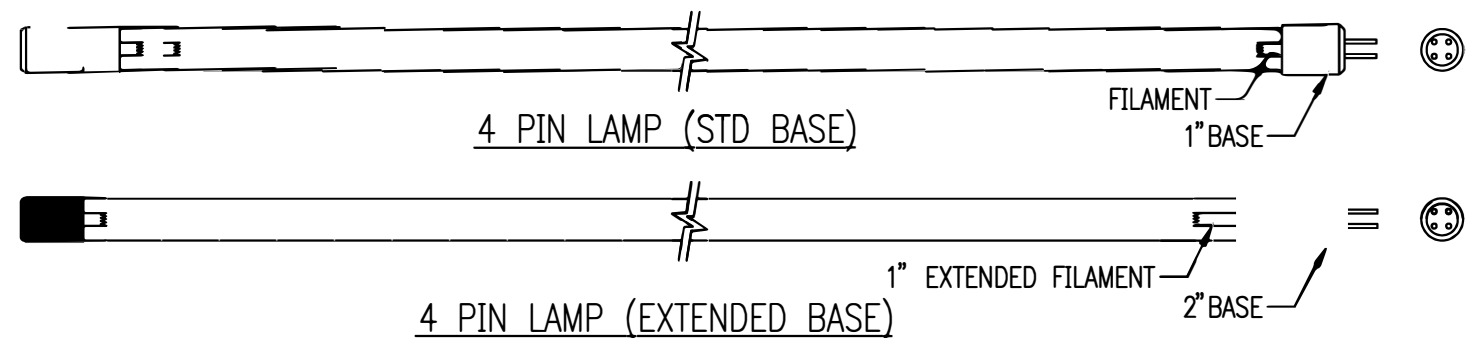


# HYPERION™



PLAN VIEW - Hyperion™ FIXTURE W/  
LAMP

END VIEW



NOTES:

1. UL/CUL LISTED ABQK.
2. NEMA 4X ENCLOSURE FOR OUTDOOR OR INDOOR USE.
3. TWIST-ON LID WITH WATERPROOF GASKET.
4. FOR USE WITH SO LAMP LENGTHS 17" - 60".
5. (4) 1/2" ELECTRICAL KNOCKOUTS.
6. LOCKING PADLOCK EYELETS (TAMPER PROOF).
7. (4) MOUNTING HOLES.
8. POWER SUPPLY SAFETY SWITCH INCLUDED.
9. 3 YEAR WARRANTY

GENERAL:

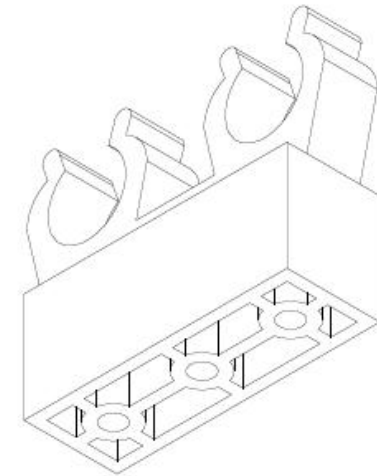
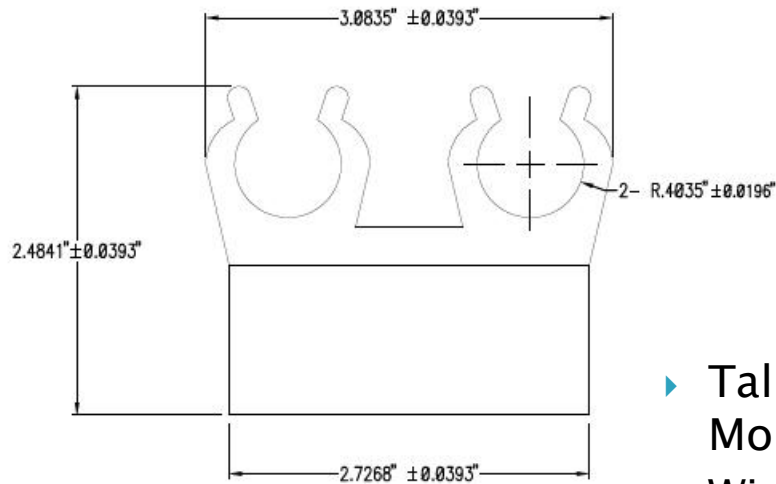
1. REFER TO PRODUCT IOM FOR INSTALLATION DETAILS.
2. USE INTERLOCK SWITCHES ON ALL ACCESSES TO LAMPS.
3. CAUTION: NEVER LOOK AT LAMPS WHEN LIT - EYE AND SKIN DAMAGE MAY RESULT FROM EXPOSURE.

PARTS LIST				
'A' DIM	QTY	MODEL#	PART #	DESCRIPTION
-		XP-SO-MV	57800550	Hyperion™ SINGLE ENDED NEMA 4X FIXTURE, 120-240 VAC * (INCL BALLAST & HOUSING)
15.75"		SEL-17-SO-T5-1	57033551	SEL 17" SINGLE ENDED STANDARD OUTPUT LAMP
21"		SEL-22-SO-T5-1	55043551	SEL 22" SINGLE ENDED STANDARD OUTPUT LAMP
22"		SEL-23-SO-T5-EB-1	57013551	SEL 23" SINGLE ENDED STANDARD OUTPUT LAMP-EXTENDED BASE
32"		SEL-33-SO-T5-1	55063551	SEL 33" SINGLE ENDED STANDARD OUTPUT LAMP
35"		SEL-36-SO-T5-EB-1	57073551	SEL 36" SINGLE ENDED STANDARD OUTPUT LAMP-EXTENDED BASE
44"		SEL-45-SO-T5-EB-1	57083551	SEL 45" SINGLE ENDED STANDARD OUTPUT LAMP-EXTENDED BASE
59"		SEL-60-SO-T5-EB-1	57093551	SEL 60" SINGLE ENDED STANDARD OUTPUT LAMP-EXTENDED BASE

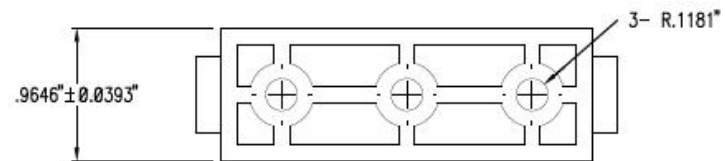
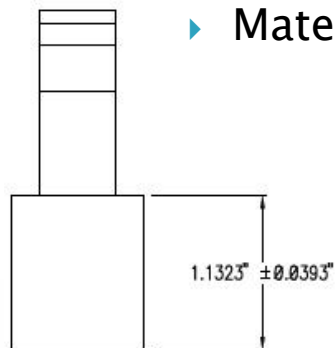
\* CONTACT FACTORY FOR USE WITH 277VAC.

JOB NAME:		LOCATION:	LAMP WATTS PER SQUARE FOOT:
CONTACT:	AHU TAG:	ENGINEER:	APPLICATION PRESSURE DROP:
REP FIRM:	QUOTE NO:	CONTRACTOR:	TOTAL ELECTRICAL WATTS:

# NEW Dual LiteClamp™



- ▶ Taller base – Aligned with LiteClamp™ Mounting Bracket
- ▶ Wider base – More sturdy (Coil Frame)
- ▶ Material – Black Polycarbonate



UNIRES, INC.™

# Ultraviolet Light Specification

## Coil Capacity Maintenance and Mold Control

### NEMA 4X - Single Ended Fixture

**Independent Testing** – All UV-C fixtures shall be tested and labeled as UL Listed.

**Irradiation** – Fixtures shall be installed in sufficient quantity to provide a minimum of 3 UV-C lamp Watts per square foot of coil surface area, consistent with ASHRAE 2011 Handbook, Chapter 60.8. They shall be installed in a manner that provides an “equal” distribution of 360 degree irradiation of the lowest possible shadowed losses within the plenum – to provide the highest UV-C energy absorption by airborne microbial products. The energy striking “all” surfaces shall be sufficient to maintain coil capacity by degrading surface mold, bacteria and organic material found in HVAC systems.

**Fixture** – shall be an exterior mount, single-ended lamp type, factory-assembled and tested for use outdoors and in all HVAC environments and consisting of a NEMA 4X rated Housing, Driver, Lamp Socket, Lamp Holder, Housing Cover, and Lamp.

**Housing/Cover** – shall be constructed of high performance, white polycarbonate and equipped with a lamp support for lamp lengths to 61” and an “O”-ring to seal the Housing against the elements. The housing shall contain all components in one integral assembly for maximum safety and be serviceable without the use of tools. The cover shall be equipped with a disrupt lever that actuates the interlock switch to disconnect or restore power when removed or installed. It shall be equipped with padlock eyelets to lock the housing cover against unwanted entry, four (4) ½” electrical knockouts and four (4) mounting holes for surface installation.

**Driver** – shall be UL Listed as a 120-240Vac +/-10% - 50-60 Hz, high power factor, low THD, Class P, Sound Rated “A”, auto-matching, Type 1 Outdoor type with thermal and end-of-lamp-life protection and no PCB’s. It shall automatically sense and maximize lamp output, energy efficiency and reliability for lamp lengths from 17” to 61” in air temperatures ranging from 1° to 70° C at any velocity. The driver shall be equipped with an integral interlock switch, de-energizing power plug for driver removal and warranted for three (3) years.

**Lamp Holder/Clamp** – shall provide a user-adjustable compression coupler and compressible flutes to encompass and secure the lamp base (Clamp) within the Lamp Holder firmly holding the lamp into the lamp socket while providing a watertight seal. The 4- pin receptacle within shall be soldered to the driver to ensure power continuity and pull-proof connectivity.

**Lamps** - Lamp Watts shall be printed on all lamps, no exceptions. They shall be T5 diameter, hot cathode, single-ended 4-pin type that produces UV-C energy primarily at the 254nm wavelength. Each lamp shall provide 360 degree energy distribution, contain no more than 8 mg of mercury and be capable of operating in air temperatures of 1-70° C, 100% RH at any velocity. Lamps shall be long-mount base types that allow the lamp filament to extend into the airstream beyond plenum walls and insulation. Useful lamp life shall be 9000 hours (minimum) with no more than a 15% output loss at the end of the lamp life. They shall not produce measurable ozone.

**Safety** – To protect personnel, all access panels and doors to any UV-C assembly must include mechanical interlock switches and UV-C warning labels to insure that all UV-C assemblies are de-energized and personnel properly cautioned before any access is opened.

# GENERAL INSTALLATION INSTRUCTIONS

## MODEL Hyperion™



**CAUTION! Never Expose Eyes or Skin to UV-C - Read all Materials before Starting**

### SAFETY CONSIDERATIONS

Improper installation, adjustment, alteration, service, maintenance, or use can cause fire, electrical shock, or other conditions which may cause personal injury or property damage. Consult a qualified installer, service agency, or your supplier for information or assistance. The qualified installer or agency must use factory kits or accessories when installing this product. Refer to the individual instructions packaged with kits or accessories when installing them. Follow all safety codes, wear safety glasses and work gloves. Read all instructions thoroughly and follow any warnings or cautions attached to any accessed area. Consult local building codes and the National Electrical Code (NEC) for all applicable requirements.

Understand the signal words DANGER, WARNING or CAUTION. These words are universally used for overall safety. DANGER identifies the most serious hazards, which will result in severe personal injury or death. WARNING signifies hazards, which could result in personal injury or death. CAUTION is used to identify unsafe practices, which would result in minor personal injury or product and property damage.



**WARNING:** Before pre-evaluation, installation or servicing the Hyperion™ turn off all power, there may be more than one (1) switch.

**General:** Hyperion™ fixture is NEMA 4X rated for outdoor use and can be used on the exterior and/or interior of air handlers and/or ducts to bathe surfaces, moving air or both with UV-C energy. For surfaces locate the Hyperion™ at known growth areas such as the coil and drain pan first, then other moist areas around humidifiers, etc. They can also be placed in return, supply and mixed air plenums or any combination thereof. Perfect for all rooftop A/C equipment applications.

2. Check for power availability and probable service access.

### Power Ratings:

The Hyperion™ is rated for 120-277Vac 50-60Hz. NOTE: Grounding should be neutral-to-ground. A 480V to 117Vac (75 VA) Step-Down transformer is available from the factory. Contact UniRes, Inc. at [info@unires.com](mailto:info@unires.com) or [www.unires.com](http://www.unires.com).  
\*\*\*Note: Use only "400mA" (std. output) T5 diameter, 4- pin single ended lamps – sizes 17" – 61" with this product\*\*\*

### What's Included:

- Hyperion™ NEMA 4X Fixture
- Hyperion™ installation Kit:
  - Installation Operation Manual (IOM)
  - Door Warning Label
  - Self-Drilling Mounting Screws (x4)
  - Dielectric Grease

### Installation (designed for metal plenums only):

1. Consult all applicable codes before installing. Check fixture label(s) for the correct power requirements and supply the correct voltage from a suitable, protected (fused or breaker), and grounded power source.

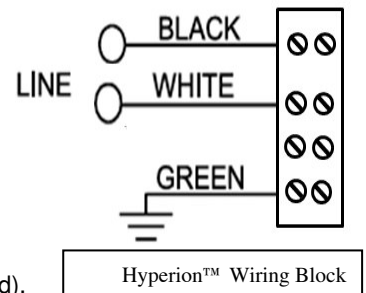


**CAUTION: Using other than labeled voltage voids product warranty and may do damage to the entire system. Fixtures should be operated continuously to avoid the growth of mold and bacteria during optimum conditions (AHU off).**

2. Power must also be switched at all install access points with a properly rated, SPST interlock switch to completely de-energize the assembly when its install location is accessed. Accesses are to have signs in appropriate languages alerting maintenance personnel to the possible hazard of looking at, or exposing skin to UVC energy (English label provided).
3. Once the mounting location is identified, use the Hyperion™ Fixture housing as a template to mark lamp insertion hole on the metal surface (mounting screw holes can be marked if necessary also).
4. Drill a 1-1/8" lamp hole using proper bit (step drill). **CAUTION:** Do not drill into refrigerant lines, electrical wires or fan, etc.
5. Align and insert the fixture "lamp support" into hole and attach to surface using 4 self-tapping/self-drilling screws (provided).
6. Note: UV-C energy may damage other plastic materials. Cover to protect wires, etc. using UV-C resistant materials (e.g. aluminum tape and foil) when these items are in "line of sight" of UV-C energy.

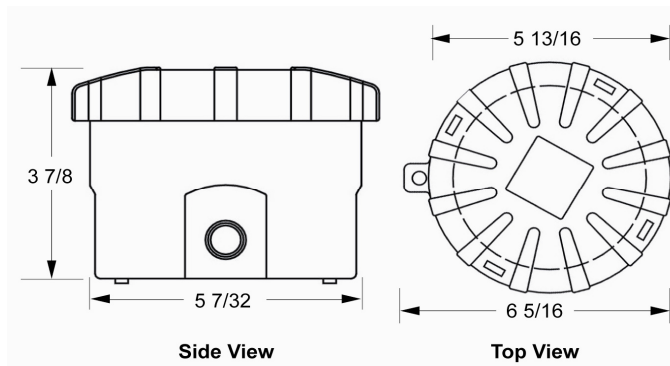
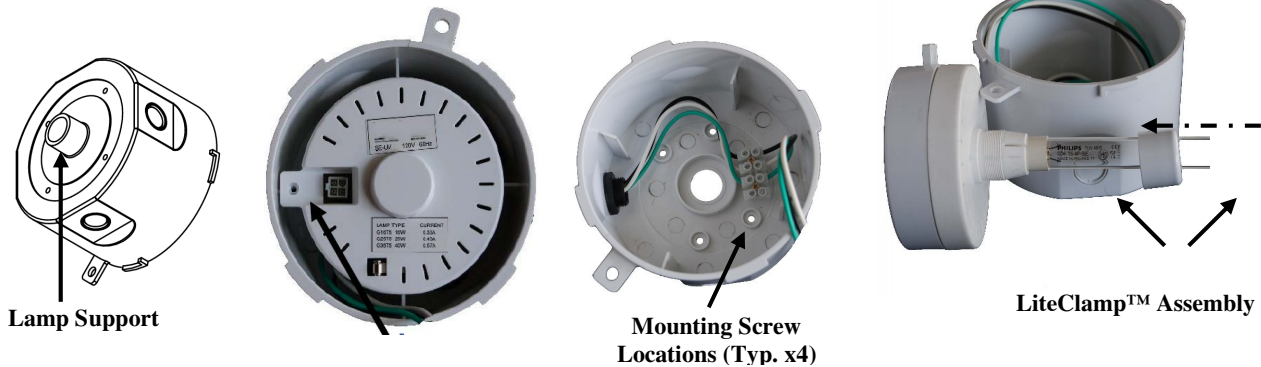
### Connecting Power:

1. Read fixture label – be sure to sum the power requirements when installing more than one fixture. Wire with the proper 'wire gauge' in accordance with the NEC and local codes. Note: one (1) step-down transformer is required per fixture, if used. Wire should be run thru acceptable conduit.
2. Power-in must be interruptible at all UV access points using a properly rated, SPST interlock switch to completely de-energize the UV lights when there location is accessed. Note: The Hyperion™ has its own interlock switch, which is actuated to de-energize the fixture when the fixture is opened.
3. Apply Entry Warning Labels on all access doors/ports/panels as indicated above (one included).



## Installing lamps

1. Recommended: Before installing lamps they can be cleaned using isopropyl alcohol and a lint free cloth. If using a UV Resources' EncapsuLamp™- this step is not necessary.
2. If the Hyperion™ is assembled, depress the plug catch and unplug the power cord, remove the screw and then the power supply;
3. Hold the Power Supply; unscrew the LampClamp™ from the Power Supply housing, twisting counter-clockwise and remove.
4. Coat the male 4- pin end of the lamp liberally with dielectric grease (supplied) and insert it into the power supply (note pin and plug orientation - rectangle). Push all the way in until a positive stop is felt.
5. Slide the LampClamp™ over the end of the lamp – down to the threads. A Firm, finger tight twist holds the lamp secure.
6. Insert the Power Supply, with lamp installed, through the fixture hole and on into the cavity (plenum) to be irradiated.
7. Install the Power Supply screw to secure the Power Supply to the fixture and plug the power cord back into the power supply.
8. Replace AirLite's fixture lid and twist firmly until it stops - lock with a padlock if desired.
9. Energize the system and check to make sure that everything is working proper!



## EQUIPMENT WARRANTY

UniRes, Inc.™ (UR) warrants to the original buyer that its Products shall be free from defects in material or workmanship under normal use and service for the periods of time set forth below. This warranty is contingent upon proper use of Products and will not apply if adjustment, repair or parts replacement is required because of an accident, unusual physical, electrical or electro-mechanical stress, neglect, misuse, failure of electric power, humidity control, transportation, unauthorized repair actions, or not installed or maintained in accordance with URs' specifications hereunder, or where Product serial numbers have been altered, defaced, or removed. URs' obligation under this warranty shall not arise until the Purchaser of the Product returns the defective part to UR. This warranty is limited to the repair and/or replacement of parts. This warranty does not cover any labor or subsequent damage incurred as the result of Product failure or indirectly arising from the design, construction, installation, servicing, or operation of Products. UR and its resellers' liability under this warranty shall in no event exceed the cost of goods sold under the original sale contract.

Under the conditions specified above, UniRes, Inc. warrants all Hyperion™ fixtures for a period of one (1) year from date of purchase and all lamps for a period of 12 months from date of installation provided lamps are installed within 3 months from date of purchase. Buyer must provide proof of purchase. This is URs' sole warranty. No warranties are extended beyond those described herein and it is expressly agreed that this warranty will be in lieu of all warranties of fitness and merchantability. UR neither assumes, nor authorizes any person to assume for it, any obligation in connection with the Products. Buyer shall not return to UR any allegedly defective goods without URs' prior written authorization. This warranty may not be assigned or transferred.

**UniRes, Inc.™**

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

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