

# SANITAIRE<sup>®</sup>

## ULTRAVIOLET ROOM AIR SANITIZER



*Model RS72*



*Model RSM2680*



*Model RSCS280*

## ABOUT US

Since 1963, Atlantic Ultraviolet Corporation has pioneered the discovery and development of beneficial uses of ultraviolet energy. Over the years these efforts have led to the develop-



ment of valuable, cost effective and environmentally sound techniques and products now known and respected throughout the world.

Atlantic Ultraviolet's application specialists assist customers in the selection of germicidal lamps and equipment. Their specialized knowledge is a valuable resource in formulating effective and cost-conscious ultraviolet solutions. Extensive inventories and a dedicated staff enable Atlantic Ultraviolet to fulfill its commitment to provide fast deliveries and responsive customer service.

## GERMICIDAL ULTRAVIOLET

Ultraviolet is a unique and rapid method of disinfection utilizing germicidal ultraviolet lamps that produce short-wave radiation at 254 nanometers (nm) that is lethal to bacteria, virus and other microorganisms.

An ever growing range of industries and consumer applications have found ultraviolet to be the ideal solution for their air and surface treatment needs.

Atlantic Ultraviolet equipment and systems are manufactured in the USA.



**Model RS140**  
*free standing, wall or ceiling mount  
in occupied areas*



**Model RSCS280**  
*recessed ceiling mount  
in occupied areas*



**Model RSM2680**  
*mobile unit  
in occupied areas*

## ADVANTAGES

### **Economical**

System requires very little power to operate.

### **Safe**

No risk of over-exposure.

### **Fast**

Disinfects air in seconds.

### **Easy**

Simple installation and maintenance.

### **Automatic**

Continuous disinfection without special attention.

### **Durable**

Polished Stainless Steel and Aluminum.

### **Versatile**

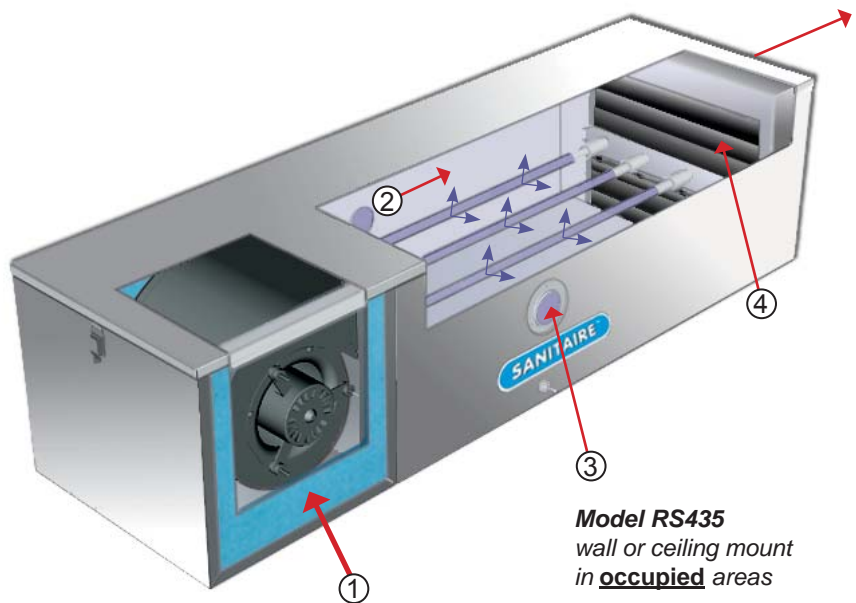
Numerous units available to handle various configurations, some units are relatively portable and can be applied to different **occupied** areas as needed.

### **Low Maintenance**

Annual Lamp replacement and periodic cleaning is all that is required.

## PRINCIPLE OF OPERATION

The **Sanitaire**<sup>®</sup> design has been carefully conceived to provide adequate germicidal ultraviolet exposure for air disinfection in **occupied** areas. The dosage, as it applies to ultraviolet disinfection, is a function of time, and the intensity, of ultraviolet radiation, to which the air is exposed. Our UV application specialists would be happy to perform the necessary calculations to ensure the unit we provide is appropriate for your particular application.



**Model RS435**  
wall or ceiling mount  
in **occupied** areas

The operation of the **Sanitaire**<sup>®</sup> is as follows:

- ① Air is drawn into **Sanitaire**<sup>®</sup> unit through the washable electrostatic particulate filters (except **Model RSM2680** which utilizes disposable filters).
- ② The air is forced into the ultraviolet exposure chamber where it is irradiated by germicidal ultraviolet light (lamp quantity varies per model).
- ③ Observation Port/Sight Glass provides positive indication of germicidal lamp operation.
- ④ The purified air exits the sanitizer, through the loupered exhaust panel, located at the opposite end of the sanitizer. In the case of the **Sanitaire**<sup>®</sup> **Model RSA760**, once through the loupered exhaust panel, air is forced through a .3 micron HEPA filter and finally through an electrostatic particulate filter before exiting the sanitizer into **occupied** areas.

## SPECIAL FEATURES

### Sanitaire® RS72, RS140, RS435 and RSA760 Free Standing, Wall or Ceiling Mount Sanitizer

Utilize **Sanitaire®** Room Air Sanitizers to protect occupants including but not limited to personnel, clients and patients from infection due to airborne microbes, particularly in crowded or poorly ventilated areas, and in situations where the risk of cross infection is high.

**Sanitaire®** Room Air Sanitizers are germicidal ultraviolet fixtures that effectively destroy airborne microbes including bacteria, mold and virus in enclosed **occupied** spaces and are available in a number of different configurations to adapt to any setting.

**Sanitaire®** Room Air Sanitizers utilize **STER-L-RAY®** germicidal lamps which are completely enclosed within a stainless steel and reflective aluminum exposure chamber and are safe for use in most applications.

#### **STER-L-RAY® Slimline Germicidal Lamp(s)**

Lamp(s) are instant starting and provide the utmost in quality, sustained output and longevity.  
(see page 11 for more information)

#### **Interlock Safety Switch**

The interlock safety switch is a standard feature that disconnects power to the unit when the access panel is unhinged for lamp or filter replacement (located under the cover).

#### **Surelite™ Ballast**

State-of-the-art electronic ballast(s) specifically developed for the operation of ultraviolet lamps. Versatile, instant start ballast(s) provides higher lamp output; is smaller, lighter, more efficient and operates cooler than magnetic ballasts.

#### **Stainless Steel Enclosure**

The unit is manufactured in Type 304 stainless steel for unparalleled strength, durability and an attractive finish.



#### **Particulate Filter(s)**

- Washable Electrostatic Filter (on all models)
- Absolute Filter - HEPA Type (on Model RSA760)



#### **Steadfast™ Lampholders**

Set includes a stationary and a spring-loaded, telescopic holder that holds a single pin lamp securely. The spring-loaded feature on one end facilitates convenient, quick and easy lamp changes.

#### **Louvers Exhaust Panel**

Protects the room's occupants from ultraviolet exposure by restricting ultraviolet radiation from passing into the room.

#### **Polished Reflector**

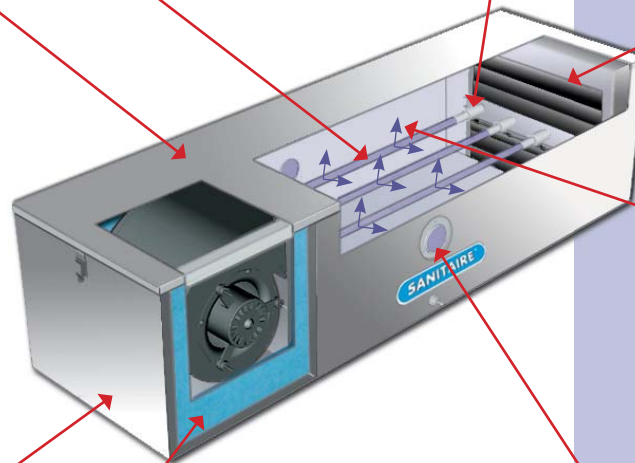
Interior surface is polished providing a highly reflective surface to maximize ultraviolet intensity within the chamber

#### **Observation Port/Sight Glass Assembly**

A Sight Glass Assembly allows for visual inspection of the lamp(s).

#### **Standard Wall Mount Kit**

Consists of (2) pre-drilled stainless steel brackets. Brackets enable unit to be mounted to wall in either the vertical or horizontal position. (included)



*Model RS435*

(see page 10 for Optional Accessories)

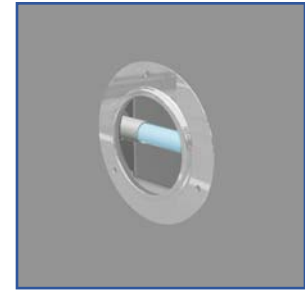
# INSTALLATION



**Figure 1 - Sanitaire® RS140** (shown) For maximum efficiency the Sanitaire® should be located as centrally as possible, preferably not close to the floor or the corners of the occupied area to be treated.

The louvered exhaust panel, of the Sanitaire® Room Air Sanitizer, restricts ultraviolet radiation from passing into the room, protecting the room's occupants from ultraviolet exposure.

RS72, RS140, RS435 and RSA760 are commonly installed utilizing wall mounting brackets included with purchase. See page 10 for optional mounting brackets.



**Observation Port/  
Sight Glass Assembly**  
A Sight Glass Assembly allows for visual inspection of the lamp(s).

## SPECIFICATIONS - Sanitaire® RS72, RS140, RS435 and RSA760 Sanitizer

Model	Nominal <sup>①</sup> Unit Capacity (cubic feet per minute)	Dimensions			Electrical * <sup>②</sup> Requirements (amp)	Max. Room Size Treated @ 3 Room Air Changes/Hour (cubic feet per hour)	Max. Room Size Treated @ 6 Room Air Changes/Hour (cubic feet per hour)	Max. Treatment Capacity (cubic feet per hour)
		Length	Width	Height				
RS72	54	34-1/2"	7-3/4"	7-3/4"	1.25	1,080	540	3,240
RS140	105	34-1/2"	7-3/4"	7-3/4"	2.30	2,100	1,050	6,300
RS435	326	47-5/16"	14"	12"	4.52	6,525	3,263	19,575
RSA760	380	61"	14"	12"	5.65	7,600	3,800	22,800

① Unit capacity incorporates an estimated allowance for airflow friction loss across filter and unit.

② Information listed refers to 120 Volt 60 Hz units. Contact factory for specifics on other voltages.

\* Consult factory with specific power requirements.

## GENUINE **STER-L-RAY®** GERMICIDAL LAMP DATA

Model	Lamp No. (Quantity)	Lamp Length	Lamp Length (including lampholders)	Power Consumption <sup>①</sup>	Ultraviolet Output (per lamp) <sup>②</sup>	Rated Average Effective Life
RS72	05-1348-R (1)	21-7/8" (556 mm)	24"	30.7 Watts	8.5 Watts	10,000
RS140	05-1348-R (2)	21-7/8" (556 mm)	24"	61.4 Watts	8.5 Watts	10,000
RS435	05-1352-R (4)	27-7/8" (708 mm)	30"	153.6 Watts	11.2 Watts	10,000
RSA760	05-1352-R (4)	27-7/8" (708 mm)	30"	153.6 Watts	11.2 Watts	10,000

① Wattage is Lamp Watts and ballast loss (approximate).

② Output at 254 nanometers at 100 hours and 80 degrees F (approximate).

## SPECIAL FEATURES

### Sanitaire® RSCS280 Recessed Ceiling Mount Sanitizer

Utilize **Sanitaire®** Room Air Sanitizers to protect occupants including but not limited to personnel, clients and patients from infection due to airborne microbes, particularly in crowded or poorly ventilated areas, and in situations where the risk of cross infection is high.

**Sanitaire®** Room Air Sanitizers are germicidal ultraviolet fixtures that effectively destroy airborne microbes including bacteria, mold and virus in enclosed spaces and are available in a number of different configurations to adapt to any setting.

**Sanitaire®** Room Air Sanitizers utilize **STER-L-RAY®** germicidal lamps which are completely enclosed within a stainless steel and reflective aluminum exposure chamber and are safe for use in every application.

#### **STER-L-RAY® Slimline Germicidal Lamps**

Lamps are instant starting and provide the utmost in quality, sustained output and longevity.  
(see page 11 for more information)

#### **Steadfast™ Lampholders**

Set includes a stationary and a spring-loaded, telescopic holder that holds a single pin lamp securely. The spring-loaded feature on one end facilitates convenient, quick and easy lamp changes.

#### **Surelite™ Ballast**

State-of-the-art electronic ballasts specifically developed for the operation of ultraviolet lamps. Versatile, instant start ballasts provide higher lamp output; are smaller, lighter, more efficient and operate cooler than magnetic ballasts.

#### **Lamp Operation Indicators**

(LEDs) Provide positive indication of each germicidal lamp operation.

#### **Stainless Steel Enclosure**

The unit is manufactured in Type 304 stainless steel for unparalleled strength, durability and an attractive finish.



**Model RSCS280**

(see page 10 for Optional Accessories)

#### **Louvers Exhaust Panel**

Protects the room's occupants from ultraviolet exposure by restricting ultraviolet radiation from passing into the room.

#### **Polished Reflector**

Interior surface is polished providing a highly reflective surface to maximize ultraviolet intensity within the chamber.

#### **Interlock Safety Switch**

The interlock safety switch is a standard feature that disconnects power to the unit when the access panel is opened allowing for lamp replacement or other maintenance.



#### **Particulate Filter**

Washable Electrostatic Filter

# INSTALLATION



**Figure 2** - The **Sanitaire® Model RSCS280** (shown) is recommended for use in rooms with suspended "T-Bar" ceilings. Professional installation recommended.

## SPECIFICATIONS - Sanitaire® RSCS280 Recessed Ceiling Mount Sanitizer

Model	Nominal <sup>①</sup> Unit Capacity (cubic feet per minute)	Dimensions			Electrical * <sup>②</sup> Requirements (amp)	Max. Room Size Treated @ 3 Room Air Changes/Hour (cubic feet per hour)	Max. Room Size Treated @ 6 Room Air Changes/Hour (cubic feet per hour)	Max. Treatment Capacity (cubic feet per hour)
		Length	Width	Height				
RSCS280	210	46-5/8"	22-1/8"	9-7/16"	4.4	4,200	2,100	12,600

- ① Unit capacity incorporates an estimated allowance for airflow friction loss across filter and unit.  
 ② Information listed refers to 120 Volt 60 Hz units. Contact factory for specifics on other voltages.  
 \* Consult factory with specific power requirements.

## GENUINE **STER-L-RAY®** GERMICIDAL LAMP DATA

Model	Lamp No. (Quantity)	Lamp Length	Lamp Length (including lampholders)	Power Consumption <sup>①</sup>	Ultraviolet Output (per lamp) <sup>②</sup>	Rated Average Effective Life
RSCS280	05-1352-R (4)	27-7/8" (708 mm)	30"	153.6 Watts	11.2 Watts	10,000

- ① Wattage is Lamp Watts and ballast loss (approximate).  
 ② Output at 254 nanometers at 100 hours and 80 degrees F (approximate).

## SPECIAL FEATURES

### Sanitaire® RSM2680 Mobile Air Sanitizer

Utilize **Sanitaire®** Room Air Sanitizers to protect occupants including but not limited to personnel, clients and patients from infection due to airborne microbes, particularly in crowded or poorly ventilated areas, and in situations where the risk of cross infection is high.

**Sanitaire®** Room Air Sanitizers are germicidal ultraviolet fixtures that effectively destroy airborne microbes including bacteria, mold and virus in enclosed **occupied** spaces and are available in a number of different configurations to adapt to any setting.

**Sanitaire®** Room Air Sanitizers utilize **STER-L-RAY®** germicidal lamps which are completely enclosed within a stainless steel exposure chamber and are safe for use in every application.

#### **STER-L-RAY® Slimline Germicidal Lamps**

Lamps are instant starting and provide the utmost in quality, sustained output and longevity. (see page 11 for more information)

#### **Surelite™ Ballast**

State-of-the-art electronic ballasts specifically developed for the operation of ultraviolet lamps. Versatile, instant start ballasts provide higher lamp output; are smaller, lighter, more efficient and operate cooler than magnetic ballasts.

#### **Steadfast™ Lampholders**

Set includes a stationary and a spring-loaded, telescopic holder that holds a single pin lamp securely. The spring-loaded feature on one end facilitates convenient, quick and easy lamp changes.

#### **Interlocked Safety Switch**

The interlock safety switch is a standard feature that disconnects power to the unit when the access panel is removed for lamp replacement or other maintenance.

#### **Polished Reflector**

Interior surface is polished providing a highly reflective surface to maximize ultraviolet intensity within the chamber.



**Model RSM2680**

(see page 10 for Optional Accessories)

#### **Louvers Exhaust Panel**

Protects the room's occupants from ultraviolet exposure by restricting ultraviolet radiation from passing into the room.

#### **Lamp Operation Indicators**

(LEDs) Provide positive indication of each germicidal lamp's operation.

#### **Stainless Steel Enclosure**

The unit is manufactured in Type 304 stainless steel for unparalleled strength, durability and an attractive finish.

#### **Disposable Filters**

Cost effective, disposable filters for frequent filter changes.

#### **Differential Air Pressure Gauge**

Used to measure filter resistance by measuring the pressure differential between outside (the fixture) air and the pressure in the blower compartment helping to indicate when filter replacement is required.

#### **3-Position Power Switch**

Power to the fixture is controlled by a three position key switch. In the "BLOWER ONLY" position, power is supplied to just the blower and no power is supplied to the germicidal lamps. In the "LAMPS & BLOWER" position, power is supplied to both the blower and the germicidal lamps.



# INSTALLATION



**Figure 3 - Sanitaire® RSM2680 (shown)** The Model RSM2680 Room Air Sanitizer is mobile, and requires no professional installation. Simply roll the fixture into the **occupied** area to be treated, and plug into an appropriate power source. When in operation, air is drawn into the fixture through the four louvered Filter Panels, located around the base of the fixture. The air passes into the exposure chamber, where it is irradiated by twelve (12) germicidal ultraviolet lamps. The air then passes out of the fixture, through the louvered Exhaust Panel, located on the top of the fixture.

The Louvered Exhaust Panel of the fixture protects the room's occupants from ultraviolet exposure, by restricting ultraviolet radiation from passing into the **occupied** room.

## SPECIFICATIONS - Sanitaire® RSM2680 Mobile Air Sanitizer

Model	Nominal <sup>①</sup> Unit Capacity (cubic feet per minute)	Dimensions			Electrical * <sup>②</sup> Requirements (amp)	Max. Room Size Treated @ 3 Room Air Changes/Hour (cubic feet per hour)	Max. Room Size Treated @ 6 Room Air Changes/Hour (cubic feet per hour)	Max. Treatment Capacity (cubic feet per hour)
		Length	Width	Height				
RSM2680	2000	32"	30"	78-3/4"	11.00	40,000	20,000	120,000

① Unit capacity incorporates an estimated allowance for airflow friction loss across filter and unit.

② Information listed refers to 120 Volt 60 Hz units. Contact factory for specifics on other voltages.

\* Consult factory with specific power requirements.

## GENUINE **STER-L-RAY®** GERMICIDAL LAMP DATA

Model	Lamp No. (Quantity)	Lamp Length	Lamp Length (including lampholders)	Power Consumption <sup>①</sup>	Ultraviolet Output (per lamp) <sup>②</sup>	Rated Average Effective Life
RSM2680	05-1334-R (12)	45-7/8" (1165 mm)	48"	792 Watts	21.0 Watts	10,000

① Wattage is Lamp Watts and ballast loss (approximate).

② Output at 254 nanometers at 100 hours and 80 degrees F (approximate).

## OPTIONAL ACCESSORIES



### Sentinel™ Remote Lamp Indicator\*

The **Sentinel™** Remote Lamp Indicator monitors lamp operation of one, two, or four lamp ultraviolet fixtures and is available with a 25, 50 or 100 foot cable. (Available for ALL **Sanitaire®** units except for RSM2680, at the time of purchase, **Sentinel™** output connector needs to be installed for easy plug-in and operation.)



### Zenith™ Ultraviolet Meter

A sensitive, hand-held, ultraviolet meter that can be used to:

- Survey installations to ensure that the germicidal ultraviolet radiant exposure, of personnel within the treated area, is within acceptable limits. The **Zenith™** Ultraviolet Meter provides accurate and easy-to-read levels of intensity that may be interpreted by anyone - not just engineers.
- Check the intensity of aging ultraviolet lamps

(Available for ALL **Sanitaire®** units)



### ArmorLite™ Safety Shield

Protective coating applied to **STER-L-RAY®** Germicidal Lamps insures protection for employees, products and work environments by eliminating the dangers associated with fragments of broken lamps and mercury contamination.

(Available for **STER-L-RAY®** Lamps used in ALL **Sanitaire®** units)



### Disposable Filters

Cost effective, filters for use when frequent filter changes are necessary.

(Available for ALL **Sanitaire®** units)



### Optional Wall Mount Kit

Consists of (2) pre-drilled stainless steel brackets. Brackets are designed to provide a more aesthetic look for the installation while allowing unit to be mounted to the wall in a horizontal position.

(Available for **Sanitaire®** Model RS72, RS140, RS435 and RSA760 units)



### Ceiling Mount Kit

Consists of (4) eye bolts used to suspend unit from ceiling.

(Available for **Sanitaire®** Model RS72, RS140, RS435 and RSA760 units)



### Integral Elapsed Time Indicator\*

The Elapsed Time Indicator is a real-time, non-resettable display of accumulated operating time. Useful for scheduling and recording maintenance and lamp replacement. (Available for ALL **Sanitaire®** units)



### Integral Key Lock Switch\*

The Key Lock Switch will insure tamperproof operation in either on or off position.

(Available for ALL **Sanitaire®** units)

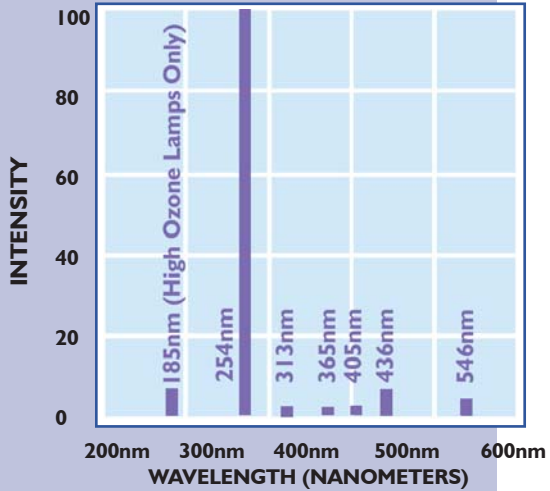
## APPLICATIONS

- office buildings
- waiting rooms
- laboratories
- hospitals
- clinics
- maternity areas
- labor & delivery areas
- pathology labs
- kidney dialysis labs
- operating rooms
- methadone clinics
- burn centers
- TB clinics
- homeless shelters
- prisons and jails
- detention centers
- nursing homes
- universities
- schools
- veterinary clinics
- animal husbandry
- kennels
- food industry
- food processing
- dairy processing
- bakeries
- auditorium
- conference rooms
- ballrooms
- gymnasiums
- clean rooms
- pharmaceutical mfg.
- electronic production
- cosmetic production
- plus countless other facilities

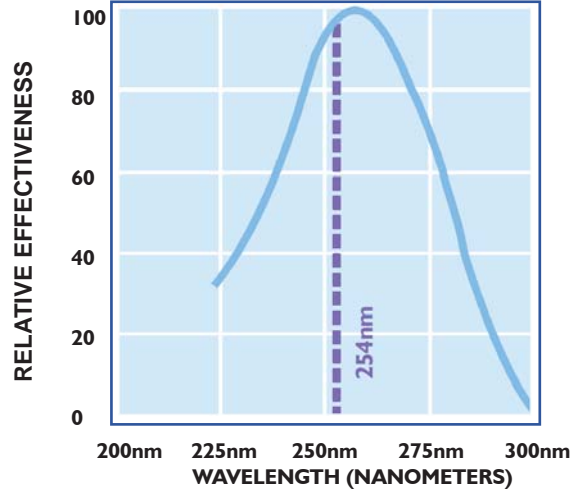
\* Item must be ordered at same time as Room Air Sanitizer Unit (installed at factory).

# GENUINE *STER-L-RAY*<sup>®</sup> GERMICIDAL LAMPS

Relative Spectral Energy Distribution (Typical)



Germicidal Effectiveness As Related to Wavelength



*STER-L-RAY*<sup>®</sup> Germicidal Lamps are shortwave, low pressure mercury vapor discharge tubes that produce ultraviolet wavelengths lethal to microorganisms. Approximately 95% of the ultraviolet energy emitted from *STER-L-RAY*<sup>®</sup> germicidal lamps is at the mercury resonance line of 254 nanometers, the region of germicidal effectiveness most destructive to bacteria, mold and virus.

*STER-L-RAY*<sup>®</sup> and the *STER-L-RAY*<sup>®</sup> logo are trademarks of Atlantic Ultraviolet Corporation.

CAUTION: Exposure to direct or reflected germicidal ultraviolet rays will cause painful eye irritation and reddening of the skin. Personnel subject to such exposure must wear suitable faceshield, gloves and protective clothing.

## ULTRAVIOLET DOSAGE

Germicidal lamps provide effective protection against microorganisms. A small cross-section is shown below.

ORGANISM	ALTERNATE NAME	TYPE	DISEASE	DOSE*
<i>Corynebacterium diphtheriae</i>	<i>C. diphtheriae</i>	Bacteria	Diphtheria	6,500
<i>Legionella pneumophila</i>	<i>L. pneumophila</i>	Bacteria	Legionnaire's Disease	2,700
<i>Mycobacterium tuberculosis</i>	<i>M. tuberculosis</i>	Bacteria	Tuberculosis (TB)	10,000
<i>Pseudomonas aeruginosa</i>	<i>P. aeruginosa</i>	Bacteria		3,900
<i>Serratia Marcescens</i>	<i>S. marcescens</i>	Bacteria		6,160
<i>Staphylococcus aureus</i>	<i>S. aureus</i>	Bacteria		6,600
<i>Staphylococcus epidermidis</i>	<i>S. epidermidis</i>	Bacteria		5,800
Adeno Virus Type III		Virus		4,500
Coxsackie A2		Virus		6,300
Influenza		Virus	Flu	3,400

\* Nominal Ultraviolet dosage ( $\mu\text{WSec}/\text{cm}^2$ ) necessary to inactivate better than 99% of specific microorganism. Consult factory for more complete listing.

THE STANDARD OF EXCELLENCE IN ULTRAVIOLET



Manufacturers / Engineers / Sales / Service



375 Marcus Boulevard • Hauppauge, NY 11788 • 631.273.0500 • Fax: 631.273.0771 • E-mail: [info@ultraviolet.com](mailto:info@ultraviolet.com) • [ultraviolet.com](http://ultraviolet.com)

The information and recommendations contained in this publication are based upon data collected by the Atlantic Ultraviolet Corporation® and are believed to be correct. However, no guarantee or warranty of any kind, expressed or implied, is made with respect to the information contained herein. Specifications and information are subject to change without notice.

Document No. 98-1096 • Revised April 2013 • ©2000-2013 by Atlantic Ultraviolet Corporation® • Made in the USA

