

# ULTRAVIOLET GERMICIDAL AIR STERILIZER

**UV-GAS<sup>®</sup>**  
(Germicidal Air Sterilizer)



**Model GAS-1**  
Wall-mounted



**Model GAS-2**  
Ceiling-mounted

**BLAZE**  
UV Adhesives & Equipment

## ADVANTAGES

### **Efficient**

Minimal power is required to operate.

### **Safe**

Low risk of ultraviolet rays over-exposure.

### **Automatic**

Able to run continuously without special monitoring.

### **Low Maintenance**

Only requires an annual lamp change and scheduled cleaning.

### **Rapid**

Destroys harmful germs and bacteria, disinfecting the air in seconds.

### **Heavy-duty**

Durable and lasting stainless steel and aluminium build.

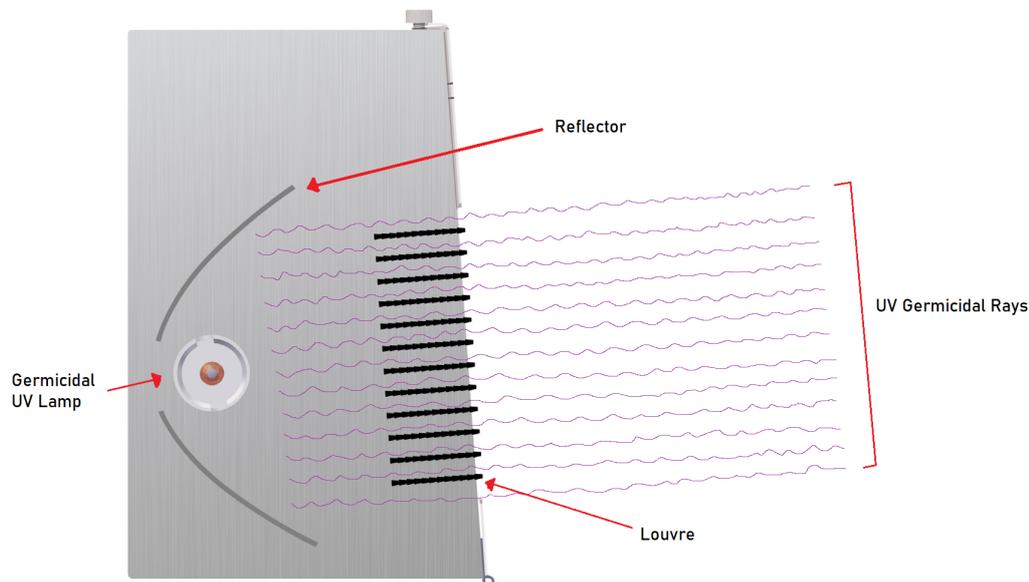
### **Versatile**

Different mounting options to cater various room layouts.

### **Effective**

Minimizes the risk of cross contamination and exposure of occupants to contagious biological airborne contaminants.

## PRINCIPLE OF OPERATION



Wall-mounted Model GAS-1 (Side View)

The UV-GAS models (ultraviolet germicidal air sterilizer) have been designed to direct germicidal UV rays to sterilize the air in the upper part of a room. Used in occupied spaces, the UV-GAS is capable of reducing the risk of cross contamination and exposure of occupants to contagious airborne contaminants.

The operation of the UV-GAS is as follows:

1. UV rays extended into the upper room.
2. Germs and bacteria that are carried into the UV area by transmission currents or air movements are destroyed.
3. Air in the room is continuously being sterilized.

# SPECIAL FEATURES



## Model GAS-1 Wall-mounted

### Blaze UV-GAS Ballasts

Specially designed to operate UV lamps, the lightweight and long-lasting Blaze UV-GAS Ballasts helps to save energy while producing a high UV output as compared to a conventional ballasts.

### Blaze UV-GAS Lamp

Instant-start lamps providing the highest level of quality and durability.

### Intermesh Safety Switch

Consisting an automatic disconnecting function when the fixture is opened, protecting field operators from direct UV rays.

### Heavy-duty Assembly

Built in aluminium and Type 304 stainless steel for durability and extraordinary strength.

### Enhanced Reflector

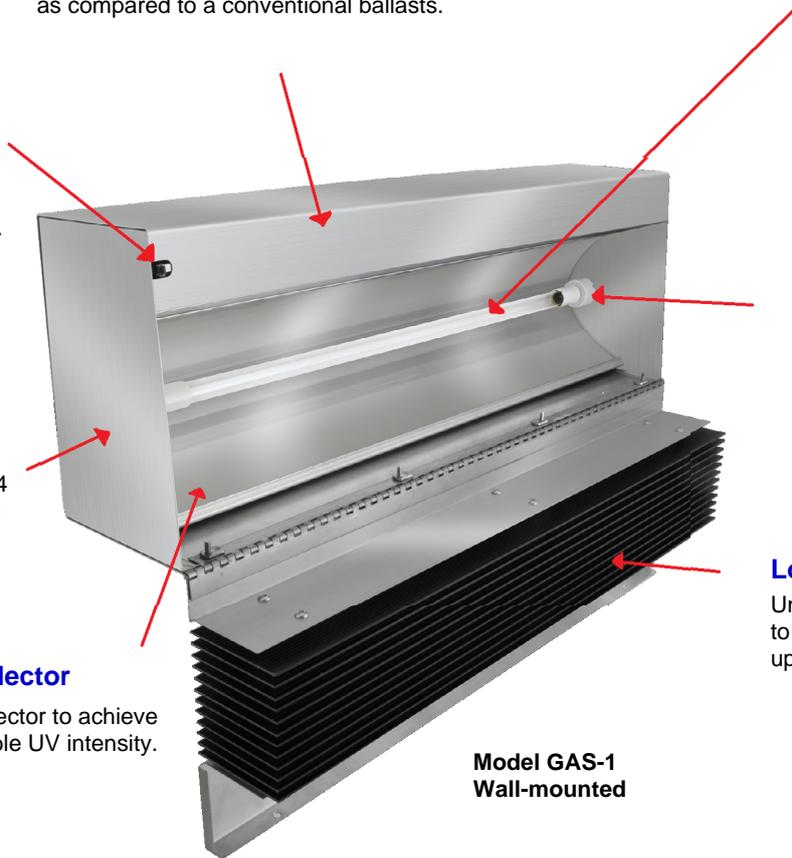
Well-polished reflector to achieve the highest possible UV intensity.

### Robust Lampholder

Structure includes a fixed and spring-loaded holder that secures a single-pin lamp. The spring-loaded holder attributes to the convenience of replacing the lamp in a matter of seconds.

### Louvres

Unique angled slats designed to direct UV rays to the air in the upper part of the room.



Model GAS-1  
Wall-mounted

# INSTALLATION

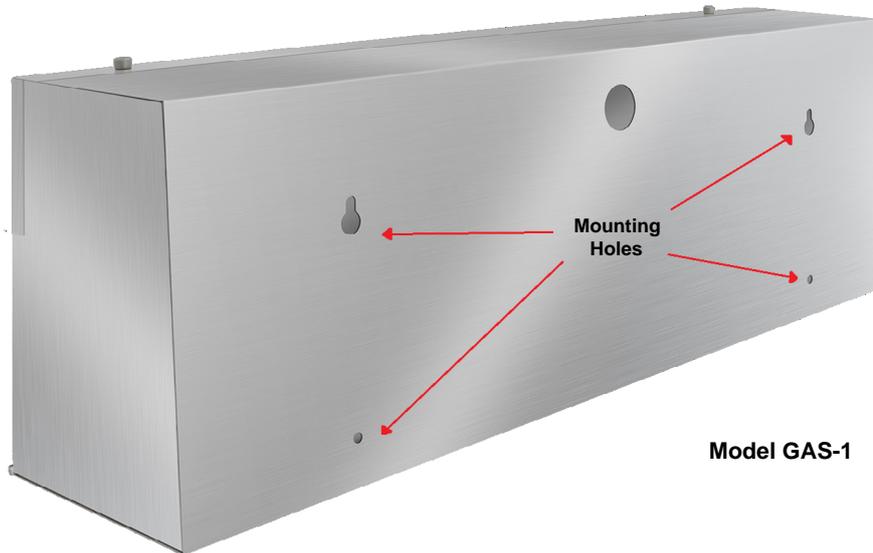


Fig 1 - Mounting holes on the back side of UV-GAS Model GAS-1.



Wall mount fixture needs to be installed to a hard and vertical surface, capable of safely supporting 7.2kg and at a minimum height of 2.1meters from the bottom of the fixture to the ground floor.

## SPECIFICATIONS - MODEL GAS-1 WALL-MOUNTED

Model	Lamp	Power Wattage*	UV Output**	Housing Dimensions			Rated Lamp Lifespan
				Length	Width	Depth	
GAS-1	R-8431-50 (1)	31.5W	8.6W	61cm	13.6cm	20cm	10,000 hours

\* Power Wattage is inclusive of ballast loss (estimated)

\*\* UV Output at wavelength 254nm at 100 hours and 26 degrees C (estimated)

# SPECIAL FEATURES



## Model GAS-2 Ceiling Mount

### Blaze UV-GAS Ballasts

Specially designed to operate UV lamps, the lightweight and long-lasting Blaze UV-GAS Ballasts helps to save energy while producing a high UV output as compared to a conventional ballasts.

### Ceiling Mount Fixture

Secures UV-GAS Model GAS-2 to ceiling (refer to Figure 3 on page 6 for full fixture)

### Intermesh Safety Switch

Consisting an automatic disconnecting function when the fixture is opened, protecting field operators from direct UV rays.

### Blaze UV-GAS Lamp

Instant-start lamps providing the highest level of quality and durability.

### Heavy-duty Assembly

Built in aluminium and Type 304 stainless steel for durability and extraordinary strength.

### Robust Lampholder

Structure includes a fixed and spring-loaded holder that secures a single-pin lamp. The spring-loaded holder attributes to the convenience of replacing the lamp in a matter of seconds.

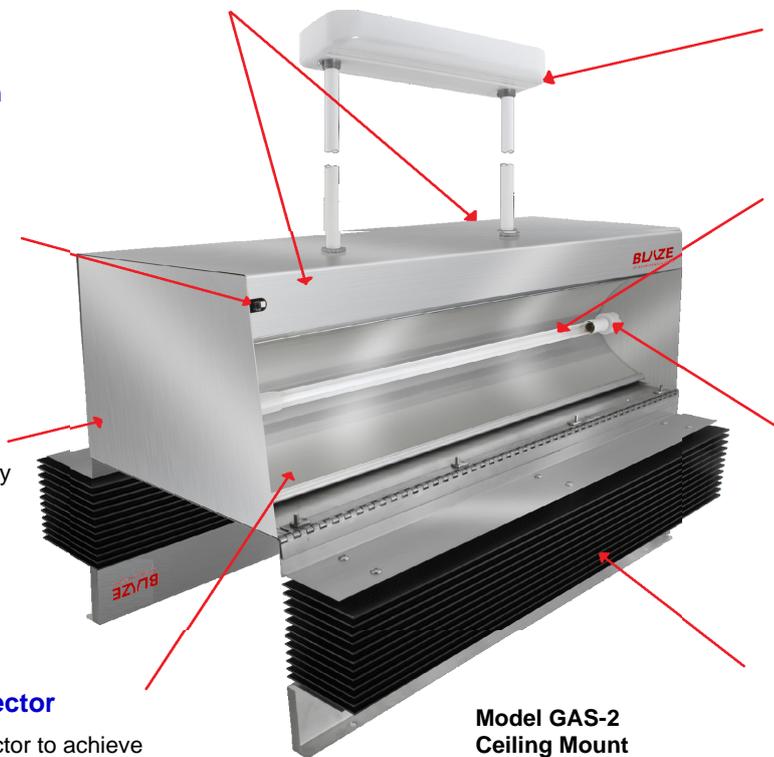
### Enhanced Reflector

Well-polished reflector to achieve the highest possible UV intensity.

Model GAS-2 Ceiling Mount

### Louvres

Unique angled slats designed to direct UV rays to the air in the upper part of the room.



# INSTALLATION

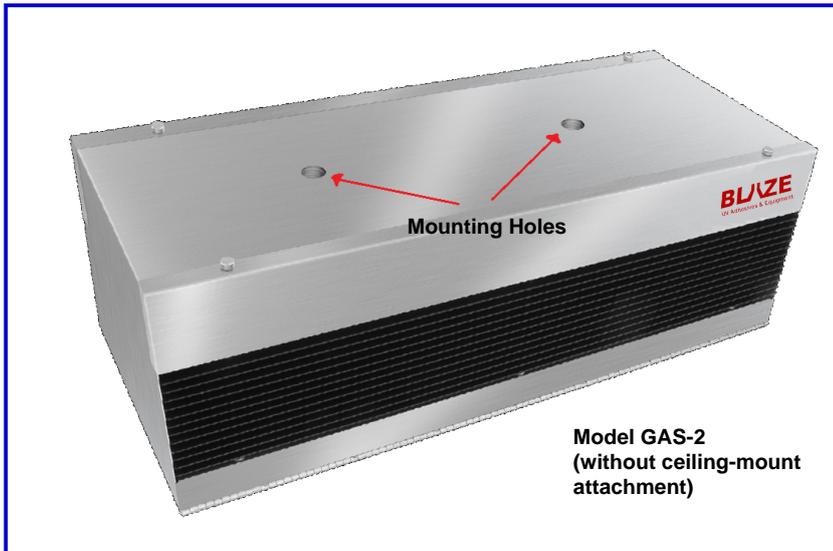


Fig 2 - The mounting holes on top of UV-GAS Model GAS-2 are for the ceiling mount attachment (refer to Figure 3).



Fig 3 - Shows UV-GAS Model GAS-2 with ceiling mount attachment.



**Ceiling mount fixture needs to be capable of safely supporting 14.5kg and at a minimum height of 2.1 meters from the bottom of the fixture to the ground floor.**

## SPECIFICATIONS - MODEL GAS-2 CEILING-MOUNT

Model	Lamp	Power Wattage*	UV Output**	Housing Dimensions			Rated Lamp Lifespan
				Length	Width	Depth	
GAS-2	R-8431-50 (2)	61.5W	17.1W	61cm	26.8cm	20cm	10,000 hours

\* Power Wattage is inclusive of ballast loss (estimated)

\*\* UV Output at wavelength 254nm at 100 hours and 26 degrees C (estimated)

# OPTIONAL ACCESSORIES



## Blaze UV-C Radiometer

Lightweight, hand-held, UV radiometer;  
Used for measuring the intensity of UV lamps to ensure UV-C produced is within safe levels.



## UV-GAS® Lamp Safety Shield

Extra protection layer (refer to lamp on the right) applied to Blaze UV-GAS lamps ensures safety for field operators, occupants, products and the environment by eliminating all possible hazards from debris of broken lamps.



## UV-GAS® Anti-UV Safety Glasses

Tinted, UV-blocking safety glasses;  
Used for general safety protection against harmful UV rays to the eyes.

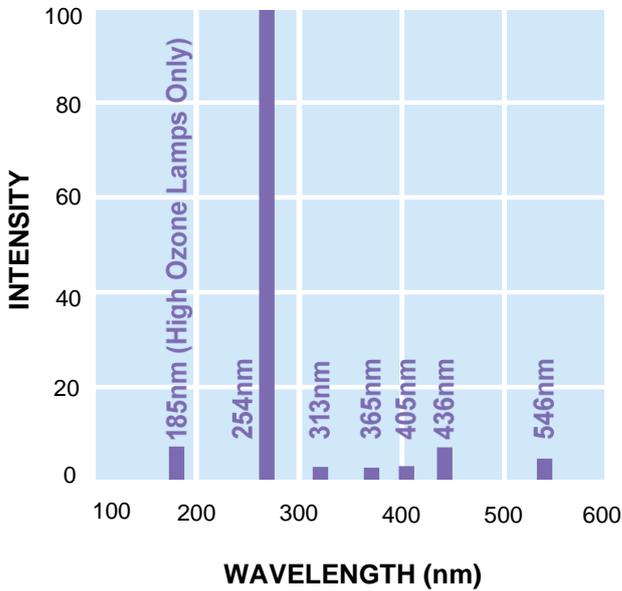


## UV-GAS® Face Shield

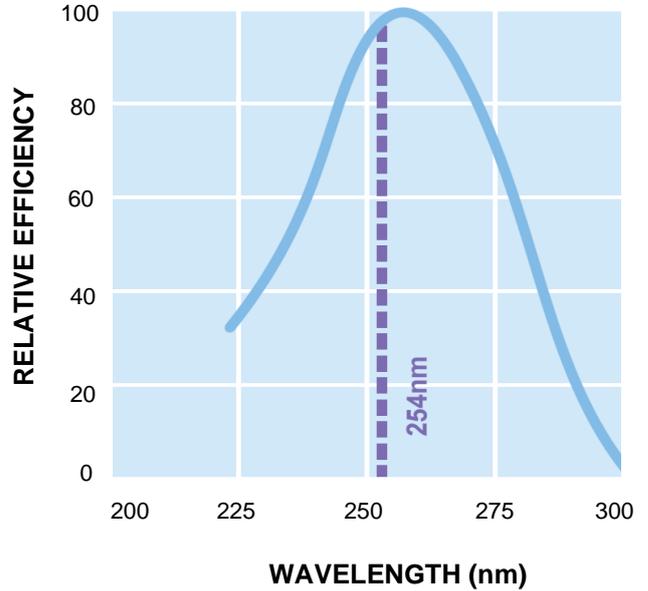
Adjustable fit visor provides protection to the face and eyes.

# OPERATING CHARACTERISTICS

Typical Intensity VS Wavelength



Germicidal Efficiency VS Wavelength



# UV DOSAGE

UV sterilization lamps are effective against bacteria, viruses, mold, etc. Shown below is a short list and the required dosage\* to destroy more than 99% of the particular organism.

ORGANISM	TYPE	DISEASE	DOSE
Mycobacterium Tuberculosis	Bacteria	Tuberculosis (TB)	10,000
Influenza	Virus	Flu	6,600
Leptospira Interrogans	Bacteria	Jaundice	6,000
Hepatitis	Virus	Hepatitis	8,000
Escherichia coli	Virus	Bacteriophage	6,600
Eberthella Typhosa	Bacteria	Typhoid Fever	4,100
Coxsackie A	Virus	Hand, Food and Mouth Disease (HFMD)	6,900
Rotavirus	Virus	Gastroenteritis	26,000

\*Ultraviolet light dose required for 99.9% destruction of various micro-organisms in mW seconds per square centimeter at wavelength 254nm.

# APPLICATIONS

Blaze UV-GAS germicidal air sterilizers are used to sterilize the air in the upper part of a room. These fixtures help to reduce risk of cross contamination which risk occupants to harmful airborne bacteria and viruses. The unique design of the UV-GAS models help direct UV rays across the occupied space, destroying germs and bacteria and hence, helps prevent occupants to the exposure of contagious airborne contaminants.

When using the UV-GAS germicidal air sterilizer, it is important to note the minimum mounting height requirement. Both UV-GAS 1 and UV-GAS 2 models should be installed at least 2.1 meters from the bottom of the fixture to the ground floor. Mounting the fixtures according to the minimum requirement will ensure safe use.

**CAUTION:** Direct exposure (close distance) to UV rays can result in eye irritation and redness of skin. Personnel subjected to direct exposures must wear suitable protective gear e.g. face shield, gloves, anti-uv glasses.

- Hospitals

- Schools

- Supermarkets

- Laboratories

- Prisons

- Offices

- Prisons

- Clinics

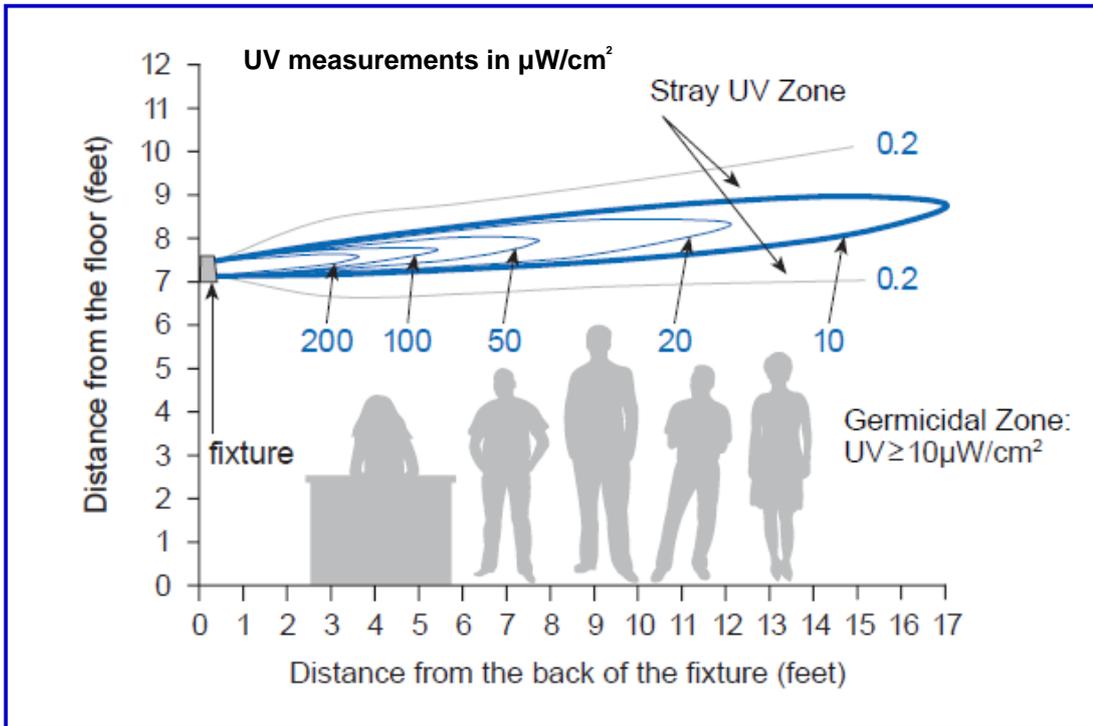
- Community Centers

- Nursing Home

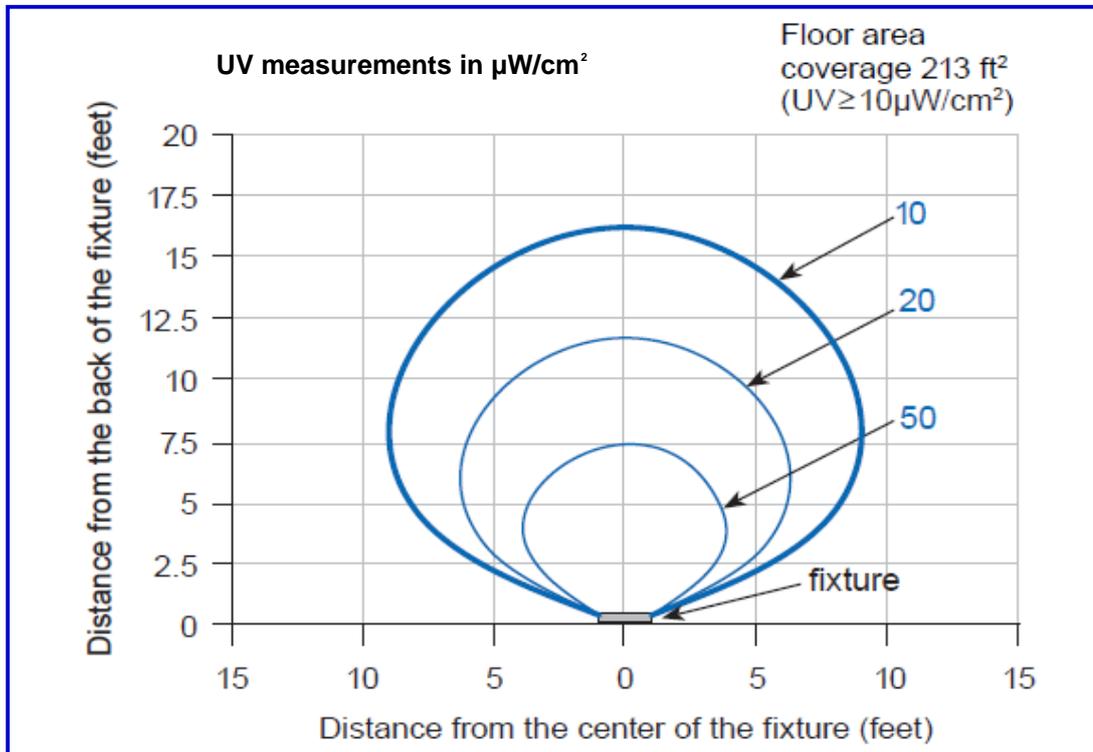
- Warehouse

- Production Factories





**Fig 4 -** Distribution of UV rays from UV-GAS Model GAS-1, wall mounted fixture



**Fig 5 -** Coverage area of UV-GAS Model GAS-1, wall mounted fixture