

Safety Lifeguard Metal Halide Lamps



Ideal for school gymnasiums

- ▶ Designed to reduce the danger of possible injury from shortwave ultraviolet radiation
- ▶ Lamp will self-extinguish automatically within 15 minutes after the outer envelope is broken
- ▶ Suited for use in luminaires where the outer envelope is vulnerable to breakage, and the risk of exposure to ultraviolet radiation is present
- ▶ Operates on standard M59 metal halide ballasts



PHILIPS

Safety Lifeguard Metal Halide Lamps

Electrical, Technical and Ordering Data (Subject to change without notice)

| Product Number | Ordering Code | ANSI Code | Watts | Bulb | Base | Bulb Finish | MOL (in) | LCL (in) | Rated | Initial Lumens | Mean Lumens | CRI | CCT (Kelvin) ² |
|----------------|---------------|----------------|-------|-------|------|-------------|----------|----------|---------------------------------|----------------|-------------|-----|---------------------------|
| | | | | | | | | | Average Life (hrs) ¹ | | | | |
| ★ 34598-3 | MHT400/U | M59PJ-T400/U/S | 400 | ED-37 | Mog. | Clear | 7 | 11 ½ | 20,000 | 34,200 | 27,400 | 65 | 4000 |
| ★ 34601-5 | MHT400/C/U | M59PK-T400/U/S | 400 | ED-37 | Mog. | Coated | — | 11 ½ | 20,000 | 32,500 | 25,000 | 65 | 3700 |

★ Heat resisting glass bulb.

- 1) Rated average life: vertical $\pm 30^\circ$ 20,000 hours; other positions, 15,000 hours. Rated average life is the life obtained, on the average, from large representative groups of lamps in laboratory tests under controlled conditions at 10 or more operating hours per start. It is based on survival of at least 50% of the lamps and allows for individual lamps or groups of lamps to vary considerably from the average.
- 2) Color characteristics may vary somewhat from one lamp type to another. Time should be allowed for the lamp to stabilize in color when it is turned on for the first time or if for any reason its operating position is changed. This may require several hours' operation, with more than one start. Lamp color and output may change temporarily if the lamp is subjected to excess vibration or shock. Lamp color characteristics may change after long accumulate operating time.

Description:

Safety Lifeguard lamps are designed to reduce the danger of possible injury from shortwave ultraviolet radiation. The lamp will self-extinguish automatically within 15 minutes after the outer envelope is broken by any means, accidental or intentional.

These lamps are particularly suited for use in open luminaires where the outer envelope is vulnerable to breakage and the risk of exposure to ultraviolet radiation is present. However, the lamp's ability to self-extinguish does not protect against the

danger of breakage itself. Accordingly, the users are advised to follow the good lamping practices noted in the Operating Instructions for Metal Halide Lamps.

In case of lamp failure, for safety and to preserve ballast life, turn off electric power and replace lamp promptly.

For identification purposes safety lamp types have the letter "T" included in the stamp style and on the wrapper. Non-safety lamp types use the letter "R".

WARNINGS, CAUTIONS AND OPERATING INSTRUCTIONS for Safety Lifeguard Metal Halide Lamps (Open or Enclosed Fixtures)

“WARNING: This lamp should self extinguish within 15 minutes after outer envelope is broken or punctured. If such damage occurs, turn off and remove lamp to avoid possible injury from hazardous shortwave ultraviolet radiation.” This lamp complies with FDA radiation performance standard 21 CFR subchapter J. (USA:21CFR 1040.30 Canada:SOR/DORS/80-381) This lamp should not be used on dimmers and is not warranted if used on dimming systems.

If the outer bulb is broken or punctured, turn off at once and replace the lamp to avoid possible injury from hazardous short wave ultraviolet radiation. Do not scratch the outer bulb or subject it to pressure as this could cause the outer bulb to crack or shatter. A partial vacuum in the outer bulb may cause glass to fly if the envelope is struck.

WARNING: The arc-tube of metal halide lamps are designed to operate under high pressure and at temperatures up to 1000°C and can unexpectedly rupture due to internal or external factors such as a ballast failure or misapplication. If the arc-tube ruptures for any reason, the outer bulb may break and pieces of extremely hot glass might be discharged into the surrounding environment. If such a rupture were to happen, **THERE IS A RISK OF PERSONAL INJURY, PROPERTY DAMAGE, BURNS AND FIRE.**

Certain lamps that will retain all the glass particles should inner arc-tube rupture occur are commercially available from Philips Lighting Company.

RELAMP FIXTURES AT OR BEFORE THE END OF RATED LIFE.

Allowing lamps to operate until they fail is not advised and may increase the possibility of inner arc tube rupture.

CAUTION: TO REDUCE THE RISK OF PERSONAL INJURY, PROPERTY DAMAGE, BURNS AND FIRE RESULTING FROM AN ARC-TUBE RUPTURE THE FOLLOWING LAMP OPERATING INSTRUCTIONS MUST BE FOLLOWED:

LAMP OPERATING INSTRUCTIONS:

1. Turn off lamps at least once a week for at least 15 minutes in systems which are operating on a continuous basis (24 hours/day-7 days/week). FAILURE TO TURN OFF LAMPS FOR THE MINIMUM RECOMMENDED TIME MAY INCREASE THE POSSIBILITY OF AN INNER ARC-TUBE RUPTURE.

2. RELAMP FIXTURES AT OR BEFORE THE END OF RATED LIFE. Allowing lamps to operate until they fail is not advised and may increase the possibility of inner arc-tube rupture.

3. If operated other than vertical $\pm 15^\circ$, use only in an enclosed fixture capable of withstanding particles of glass having temperatures up to 1000° C.

4. Before lamp installation/replacement, shut power off and allow lamp and fixture to cool to avoid electrical shock and potential burn hazards.

5. Use only auxiliary equipment meeting Philips and/or ANSI standards. Use within voltage limits recommended by ballast manufacturer:

- A. Operate lamp only within specified limits of operation.
- B. For total supply load refer to ballast manufacturers electrical data.

6. Periodically inspect the outer envelope. Replace any lamps that show scratches, cracks or damage.

7. If a lamp bulb support is used, be sure to insulate the support electrically to avoid possible decomposition of the bulb glass.

8. Protect lamp base, socket and wiring against moisture, corrosive atmospheres and excessive heat.

9. Time should be allowed for lamps to stabilize in color when turned on for the first time. This may require several hours of operation, with more than one start. Lamp color is also subject to change under conditions of excess vibration or shock and color appearance may vary between individual lamps.

10. Lamps may require 10 to 20 minutes to re-light if there is a power interruption.

11. Take care in handling and disposing of lamps. If an arc tube is broken, avoid skin contact with any of the contents or fragments.

12. Do not use this lamp:

- A. In a fixture that contains a Pulse Start metal halide ballast.
- B. In a fixture that is specifically designed for use with Pulse Start metal halide lamps. **Operation of these lamps on Pulse Start Metal Halide systems may increase the chance of an outer bulb rupture and pieces of extremely hot glass might be discharged into the surrounding environment. If such a rupture were to happen, THERE IS A RISK OF PERSONAL INJURY, PROPERTY DAMAGE, BURNS AND FIRE.**

