Operation of T5 fluorescent lamps in luminaires

T5 fluorescent lamps have a nominal diameter of 16 mm and are used in comparable applications as the T8 fluorescent lamp. Generally T5 lamps are 50 mm shorter than the T8 lamps. The T5 lamp is developed for use in predominantly indoor applications such as offices. They are only available with high quality tri-phosphor coating.

Standardisation

T5 fluorescent lamps need to comply with IEC/EN 60081 standard "Double-capped fluorescent lamps - Performance specifications".

Aura T5 Long Life Fluorescent lamps comply with the electrical, light technical and mechanical data of the above standard.

Temperature Dependency

In indoor applications you will often find closed luminaires with an incorporated material that reflects the light in the desired direction. The ambient temperature around the lamp therefore reaches a higher value than the ambient temperature around the luminaire. T5 fluorescent lamps are designed to reach their maximum light output at a temperature of 35 °C. This results in a higher luminous efficiency. For comparison: a T8 fluorescent lamp has a defined optimum luminous efficiency at 25 °C.

Nominal Light Output

For measurement of luminaires the standard uses 25 °C. The publication of the light output at this temperature is used for determining the efficiency of the luminaire and is the reason for publishing this data.

The nominal light output of the Aura T5 Long Life Fluorescent lamps are stated at both the optimum working temperature of 35 °C and 25 °C.

Burning Position of Lamp

T5 fluorescent lamps have a cool zone at one end of the lamp that ensures the maximum light output at temperature 35 °C. This zone is positioned on the same side as the lamp stamp. For optimum performance the following should be observed:

At horizontal operation there is in no limitations. When lamps are mounted very close to each other our recommendation is to mount the lamps with stamp at same end. In order to ensure optimum performance the minimum spacing between two lamps should be at least 32 mm.

In vertical operation the lamps should be mounted with the stamp side at the bottom. This position ensures that the cool zone will operate at its optimum.
Operation

T5 fluorescent lamps can only be operated with electronic ballasts made for the purpose. The combination will ensure that light technical data and lifetime of the lamps is reached. The instructions of the ballast manufacturer needs to be followed with reference to mounting and distances between the ballast and the lamps. Also the cable length needs to be observed.

Fluorescent lamps can be dimmed in combination with dimmable electronic ballasts.

We recommend use within the economical dimming levels together with Aura T5 Long Life Fluorescent lamps, i.e. down to 10% of the lamps maximum lumen output.

Before dimming the lamps, make sure that the lamps operate at 100% level for 100 hours in order to season the lamp.

A low temperature application can affect lamp starting and operation.

Product Range

The T5 fluorescent lamps are available in four lengths; 549 mm, 849 mm, 1149 mm and 1449 mm (length without pins).

Aura T5 Long Life Fluorescent lamps are available in the following range:
- Supreme High Efficiency (14W, 21W, 28W and 35W)
- Supreme High Output (24W, 39W, 54W, 49W and 80W)
- Eco Saver High Efficiency (13W, 19W, 25W and 32W)
- Eco Saver High Output (20W, 36W, 50W, 45W and 73W)
- Premium High Efficiency (35W)
- Premium High Output (54W, 49W and 80W)

These lamps need to be operated with the proper electronic ballasts. If not the lamps will not perform at their optimum and the lifetime can be substantially shortened.

Environmental Issues

Aura T5 Long Life Fluorescent lamps are the preferred choice in installations where replacements are difficult and or costly to perform. Especially in areas where scaffolding or aerial work platforms are needed when making a lamp change.

Aura T5 Long Life Fluorescent lamps complies with the EU directive 2002/95/EG "Restriction of Hazardous substances (RoHS)" and are substantially below them.