

Frequently Asked Questions on Emergency T8 Lamp Better Light for a Better Life

Emergency T8 LED lamps have recently been introduced into the lighting market. They have attracted great interest because of their lower cost and ease of installation as compared to the traditional emergency ballast approach. Below are some of the questions that you might have about the Emergency T8 LED tubes with answers. If your question is not listed below, please email Aleddra at info@aleddra.com or call Aleddra at 425-430-4555.

Emergency T8 seems to be heavier. Is there a limit on its weight?
 Emergency T8 LED lamps come with a built-in battery and thus is heavier than regular T8 LED lamp. "UL 1993 Standard for Safety" defines the safety requirements for Self-ballasted Lamps and Lamp Adapters. It states the following on the weight of the G5 base (for T5 lamps) and G13 base (for T8 lamps):

SA5.4.3 Unless there is provision to support additional mass (weight) so the device is not solely supported by general use lampholders, a device supported only by a pair of pin bases and holders (SA6.13) shall have a mass (weight) not more than:

a) 0.2 kg (7 oz. or 0.44 lbs.) when using a G5 base, or

b) 0.5 kg (17.6 oz. or 1.1 lbs.) when using a G13 base

NOTE: Full UL 1993 document can be downloaded <u>here</u>.

An Emergency T8 LED lamp over 1.1lbs installed on general use G13 lampholders without additional support would be a violation of UL 1993. Both the Aleddra Emergency T8 LED tube (G2 and G3), weighs 0.6 lbs., well within UL's weight limit for a T8 LED lamp. In the market today there are "overweight" Emergency T8 LED lamps. Before purchasing an Emergency T8 LED tube, it is best to confirm with the vendor the actual weight of the tube, and if it is "overweight", does it come with a mechanism to support the tube and what is the procedure to install this mechanism (added labor).

- Should I ask for UL924 compliant Emergency T8?
 - UL924 standard applies to emergency lighting equipment affixed to the building, such as emergency exit lights (affixed to the wall) or an emergency ballast which is affixed to the fixture which is affixed to the ceiling of the structure. According to UL the Emergency T8 LED tube is not affixed to the building and can be easily removed. UL924 is not applicable to the Emergency T8 LED tube. Any claim that an Emergency T8 LED tube is UL924 compliant is simply *false*, until UL modifies the UL924 requirement to include Emergency T8 LED tube.
- What is the standard length of time an emergency light must operate without external power?

UL924 requires general emergency lighting to operate (90) minutes in the event of power outage. While UL924 doesn't apply to Emergency T8 LED tubes, as stated above,



it is still reasonable to use (90) minutes battery life as a reference. Test the discharge time of a fully charged Emergency T8 LED tube to see if it operates for a minimum of (90) minutes.

• Can an Emergency T8 LED tube be qualified on DLC QPL?

Currently DLC doesn't have a product category for the Emergency T8 LED tubes. However, if an Emergency T8 LED tube can operate as a regular T8 LED tube, then it can be submitted to DLC to be qualified as a linear T8 LED tube). Both the Aleddra Gen2 and Gen3 Emergency T8 LED tubes are DLC qualified.

What is the minimum emergency light level requirement?

The general requirement for minimum emergency light level is 1 foot-candle. Local regulations or special applications may require a higher level of emergency lighting. It may be necessary to install more than one Emergency T8 LED lamp in a fixture in order to meet the minimum, local or special light level requirements.

NOTE: Article on emergency lighting requirements can be found <u>here</u>.

Can I turn off the Emergency T8 LED tube when nobody is in the room?

There are different Emergency T8 LED tube designs. Tubes designed with a simple ballast-bypass do not support turning the tube on/off. The simple ballast-bypass design has a problem when the power is turned off. This type Emergency T8 LED tube will draw power from the battery to stay lite, draining the battery if left in the off position for more than (90) minutes. If the installation requires an on/off switch in the circuit, the Emergency T8 LED tube will require power from (2) AC sources. One AC source controlled by the wall switch and the other AC source from an emergency power source.

NOTE: Refer to this whitepaper for wiring comparison of these two designs of Emergency T8 LED lamp.

Can I find an Emergency T5 LED lamp?

Standard size T5 lamp can't house a battery due to its small diameter (5/8"). Some manufacturers use over-size T5 (T7/T8 diameter) with G5 bi-pin for making Emergency T5 lamp. It is necessary to verify whether the over-size T5 would fit into the existing T5 fixture. More importantly, according to UL 1993 standard the weight limit for T5 lamp is 0.44 lbs (7 oz) with general use G5 socket. As of this writing, there is no known Emergency T5 lamp meeting such weight requirement.

Checklist for selecting Emergency T8 LED tube

- 1. Weight: Make sure it is UL1993 compliant.
- 2. **Battery life:** Minimum (90) minutes (test it to confirm)
- 3. Supports on/off by a wall switch (if required)
- 4. Emergency T8 LED tube designed with on/off switch. Why? Prevents battery drain when tube is not in fixture.
- 5. UL/ETL certified
- 6. DLC qualified & listed



7. Warranty: 5 years

For more information, please email us at info@aleddra.com or call us at 425-430-4555.

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