

TOMBSTONE COMPLIANT & SAFETY

As an LED tube is retrofitted into a fluorescent fixture, it is crucial to ensure that the weight and voltage rating of the new LED lamp is compliant with the existing fluorescent fixture, to ensure safety during installation and use of the LED lamp.

WEIGHT OF THE LED LAMP

- The tombstone of a traditional fluorescent fixture is rated to support a maximum load of 1.0 lbs.
- The average weight of a standard 4 foot fluorescent T8 Tube is 0.7 lbs.
- Most 4 foot LED T8 tubes in the market place with an internal driver have a weight of 0.95 lbs. This is close, yet within the maximum load rating of the fluorescent fixture tombstone.
- However, the ThinkLite LED Tube, that is designed using its proprietary Driverless Technology, in which there are significantly less components in the LED lamp, the total weight of the standard 4 foot LED lamp is 0.75 lbs. only, which is very close to the weight of the regular fluorescent lamps.

As a result, the ThinkLite LED Tube will impose approximately the same amount of weight on the tombstone as the fluorescent lamp, to thereby cause a minimal or negligible change to the existing ecosystem when the ThinkLite LED Lamp is retrofitted. This is unique to the ThinkLite proprietary Driverless Technology, which specifically allows only the ThinkLite lamp to be as light as 0.75 lbs., unlike all the other competitors in the market place.

VOLTAGE COMPLIANCE OF THE TOMBSTONES

- In a fluorescent fixture, the ballast is connected directly to the power supply, which then converts the electricity supply to the tombstones at a lower voltage.
- It is a common concern that the tombstones of an existing fluorescent fixture may not be rated for a direct voltage supply of 110V/277V to the LED Lamps, as the ballast is needed to be by-passed in the fixture.
- However, it is important to note that the tombstones in a fluorescent fixture are actually designed to accept voltage as high as 3,000 Volts (3KV).
- When a fluorescent lamp is switched on, the mercury-filled tube needs to be fed with an initial surge of very high voltage in order for the initial heat-up and, thereby, glow of the fluorescent lamp to create light within seconds.
- The function of the fluorescent ballast is to provide this surge to the lamp upon being switched on, and then gradually lower the voltage to below 100V as the fluorescent lamp remains on.
- Thus, on that note, a ThinkLite LED lamp that feeds on 110V/277V by the existing tombstones is not a safety hazard in any way.