

## **Educated Lighting Contractors Forcing Out the “Lesser” T8 LED Lamps**

Recently, a lighting contractor who purchases LED T8s directly from China lost a bid, even though the other contractor with its US supplier came in with a 15% higher price, and it couldn't figure out how that could happen. This has become a frequent scenario for many LED resellers and contractors. A “broker-trader” that imports “lesser quality” T8 LED lamps at a competitive cost tends to mark up to 100%, leveraging the potential utility rebate to justify the price. This business model is now being challenged as the LED lighting industry evolves quickly and building owners and utility companies have more choices and have become better educated. Multiple factors contribute to this change. In the first of a series, the Aledra newsletter will look into these factors.

When T8 LED lamps first entered the US market, early adopters were intrigued by the idea of LED's low energy consumption and long lifetime along with low maintenance cost. What they quickly find out was that there are more than one hidden costs involved:

- Some LED T8 color-shifted within a short period of time, and RMA and replacement results in investment loss for the project.
- Not all lamps are the same, as standards and materials used vary from manufacturer to manufacturer, causing inadequate heat dissipation, lower life time, and liability issue.
- RMA process of “lesser” LED T8 can be cumbersome since there is neither local nor national support/stocking of the warranted products. Typically, these warranties are “limited,” not a complete replacement of a defective lamp.
- Low efficacy (lumen per watt) lamps may save on wattage but the light level tends to be very poor.
- Single-ended LED T8 won't work with shunted tombstones, resulting in either project termination or complete fixture upgrade that exceeds the original budget.
- The installation time of some LED T8s are 2-3 times longer than of others, thus more than doubling the installation cost.
- Lighting rebates from utility companies are available to only qualified LED lamps.
- LED T8 with a two or three year warranty will incur additional replacement cost over 5-year project period, resulting in more overall cost than if using slightly more expensive T8 with 5-year warranty.

LED lighting industry has advanced significantly from the early days. Companies such as Aledra, Philips and Sylvania have entered the market with quality LED T8, giving the lighting contractor more choices and reliability. The lighting contractors now consider the source of the LED T8, install/labor for a retrofit project or new construction, and more. Below is a typical check list:

- Whether the lamp is on the utility's qualified LED lamp list (Design Light Consortium and/or Lighting Design Lab), or whether it is supported with 3<sup>rd</sup> party NVTLABS test report.
- Efficacy > 90 LPW (lumen per watt): a key energy efficiency indicator affecting user's energy bill.
- PF (power factor) > .90 and THD (total harmonic distortion) < 20%: two factors

- affecting utility's energy usage efficiency.
- CRI (color rendering index) > 80 and R-9 > 0: a lamp with a lower CRI or no R-9 value washes out colors.
- UL 1598C classified: the new safety standard for LED retrofit luminaire conversion kits.
- 5-year warranty: not a limited warranty that promises to credit you a percentage towards your next purchase.
- For retrofit, LED T8 should support both shunted and non-shunted tombstones to avoid stocking two types of LED T8.
- For retrofit, the installation should not require the rewiring of fixture other than bypassing the fluorescent ballast, thus saving 50-70% installation time.

Had the contractor mentioned in the beginning of the article understood what the utility is looking for and distributor's value-add in providing local support and inventory, and offered a bidding proposal on an ROI basis, rather than on a lamp-by-lamp price basis, it would have won the deal. – **My Aleddra, My Advantage**

By the way, remember to take the advantage of two more saving opportunities before the money is gone:

- Federal EPCRA (Energy Policy Act) incentive offers up to 60¢ per square foot as a tax credit for energy-efficient lighting upgrade/retrofit. This incentive expires on **December 31, 2013**.
- Regional T12 project incentive programs may be available for retrofitting T12 fluorescent lamps. This incentive is going away soon and varies from region to region.

If you need assistance with your LED T8 retrofit project, please contact Aleddra or our agents. Their contact information is available on <http://www.aleddra.com/Agents.php>.