

LIGHTING MAINTENANCE 101: Easy Best Practices

Maintaining a lighting system can be labor intensive, especially when it comes to spot re-lamping of failed fluorescent lamps. To help improve your next maintenance cycle, keep these best practices in mind so you can save energy and extend operational hours.

6-STEP TO-DO LIST

- 1 Survey your facility and record maintenance condition of each lighting system
- 2 Follow a lighting maintenance policy*
- 3 Schedule group re-lamping of areas and spot replace burnouts between intervals
- 4 Clean fixtures during re-lamping
- 5 Consolidate lamps to reduce inventory and standardize types used
- 6 Incorporate new construction or major renovation projects into the broader scheduled maintenance plan



5 EASY TIPS TO IMPROVE LIGHTING

- 1 Maintain and optimize use of existing lighting equipment
- 2 Reduce lighting levels and cut operating hours where appropriate, based on IES recommendations
 - Remember to take advantage of daylight
- 3 Install more efficient tubes, ballasts and fixtures
- 4 Clean fixtures and lamps
- 5 Maintain and fine-tune lighting controls

NOTE*: Lighting maintenance policy resources include:

- www.worldwideenergy.com/lighting-maintenance-blog-series-lighting-maintenance-policy
- www.ecmag.com/section/miscellaneous/how-have-effective-lighting-maintenance-program

LAMP CHOICES

1 LOW-WATTAGE 28 or 25 WATT

T8 Fluorescent Lamps

Pros:

- These lamps are **comparably priced** with 32 Watt T8s but consume less energy and **reduce lifetime costs** by up to **23 percent**
- Perception of **light output** is the same as the 32 Watt lamps
- Some low-wattage lamps have extended life ratings of up to **80,000+ hours**

Things to consider:

- Only requires lamp replacement **without ballast changes or rewiring**
- Lamps can sit side-by-side with 32 Watt lamps without light quality concerns
- If you need a **brighter appearance** of light output, choose lamps with a color temperature of 3500, 4100 or 5000 Kelvin
- Low-wattage lamps can have limitations in outdoor and unheated/refrigerated indoor applications – consider using **enclosed fixtures** to maintain lamp temperature

2 TUBULAR LEDS (TLEDs)

(TLEDs)

Pros:

- Meant to directly replace linear fluorescent lamps in existing fixtures
- **Incentives** may be available to help offset the cost of an LED conversion
- TLEDs have life ratings of around **50,000 hours**, and consume approximately **65 percent less energy** than a 32 Watt T8 lamp

Things to consider:

- Depending on the utility incentive and lamp type, converting to TLEDs may be more expensive than a retrofit with reduced wattage T8 lamps
- Installing TLEDs requires a consideration of retrofit types; the most efficient require a **ballast upgrade**, and some operate off the existing fluorescent ballast while others require fixture rewiring
- LEDs direct their light differently than fluorescent lamps, so take into account **light distribution, uniformity** and **glare** in your planning

