

# 2013 Top 10 LED Architectural Lighting Myths Illuminated

**MYTH** LED lighting systems are more expensive

**FACT** LED lighting systems can save a fortune

1

## Fluorescent vs. LED cost comparisons\*

Product costs for equivalent 16' linear lighting systems.

<b>TYPICAL LINEAR FLUORESCENT SYSTEM</b> (8) T8 bulbs (2) dimming ballasts	<b>0%</b> savings
<b>LINEAR LED BOXRAIL 107</b> (4) 4-foot rails (4) 0-10v, 1% dimming ballasts	<b>0%</b> savings
<b>LINEAR T5 FLUORESCENT BOXRAIL 105</b> (4) 4-foot rails (4) 0-10v, 1% dimming drivers	<b>16%</b> savings
<b>LINEAR LED BOXRAIL 107</b> (4) 4-foot rails (1) 0-10v, 1% dimming drivers	<b>27%</b> savings

\*Based on list prices to the specification trade for a Vode BoxRail system, July 2013.

**MYTH** Lighting designers are valuable primarily on large projects

**FACT** LED technology makes lighting designers essential

2

**CANDELA  
EFFICACY  
INTENSITY  
TOTAL FLUX  
CCT WATTS  
CRI DALI L70  
CHROMATICITY**

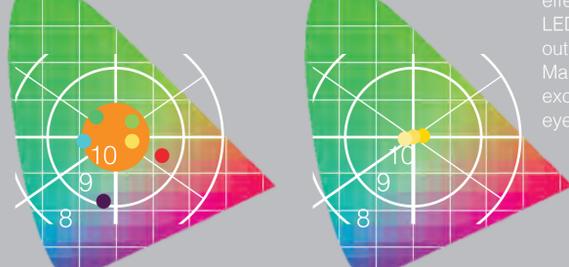
Rapidly changing LED lighting technologies challenges even professionals to be up to date.

The best way to avoid LED lighting project re-dos, hire the services of a qualified lighting designer.

**MYTH** LED color quality is substandard

**FACT** LED color consistency now can beat human eye

3



Manufacturers can effectively produce LEDs with color output within three MacAdam ellipses, exceeding what the eye can detect.

**MYTH** Retrofitting with new LED lighting is pricey

**FACT** Retrofitting can be wasteful compared to relighting

4

Retrofitting = short-term savings.

Relighting = long-term savings.

The ticket price on LEDs might seem steep at first. However, the lifespan of these LED lighting systems saves maintenance, utility costs, and is a much smarter choice for those thinking in the long-term.



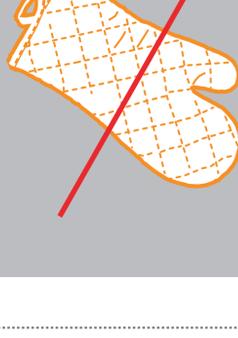
Retrofitting is about the replacement of parts.

Relighting involves redesigning and replacing the lighting systems.

**MYTH** LEDs have heat distribution problems

**FACT** LED heat challenges are being conquered

5

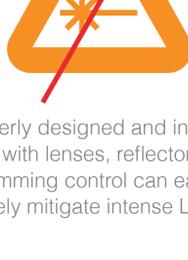
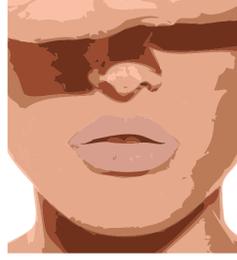


New LED systems and components are capitalizing on the latest and safest technologies to make LEDs systems run cool. Reducing heat, which wastes energy, and lessens long-term damage to components is improving every month now!

**MYTH** LEDs have glare problems...

**FACT** Only when mis-specified or misdirected

6



Properly designed and installed lighting with lenses, reflectors, baffles and dimming control can easily and effectively mitigate intense LED glare.

**MYTH** LEDs use dangerous toxic materials

**FACT** Toxic levels are generally safe but require proper disposal

7

MERCURY RELEASED OVER A 35 YEAR PERIOD



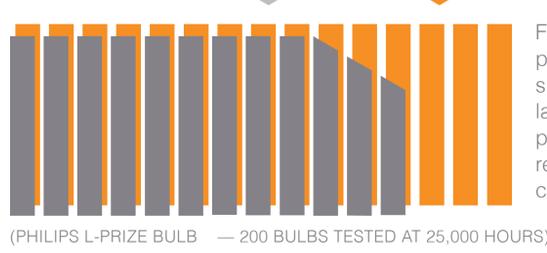
The level of toxicity in LEDs is so miniscule that they are permitted in landfills.

However, special handling sounds like a good idea.

**MYTH** LED lifespans are exaggerated

**FACT** LED lifespans are exceeding optimistic predictions

8



For best performance, specify the latest LED products and related system components.

(PHILIPS L-PRIZE BULB — 200 BULBS TESTED AT 25,000 HOURS)

**MYTH** LEDs have a negative global environmental impact

**FACT** No other artificial light has less environmental impact

9



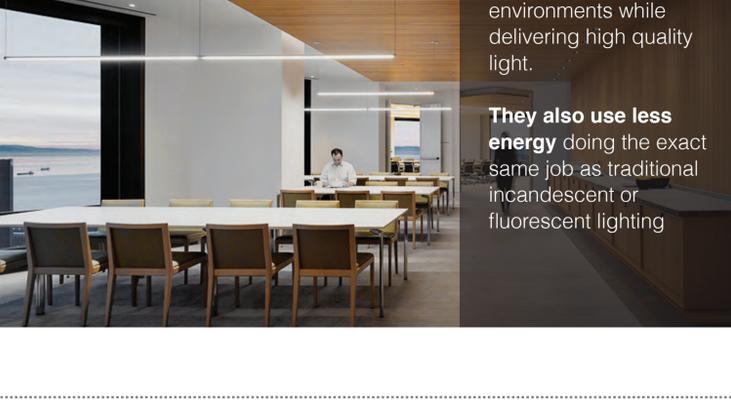
Incandescent lighting creates 1000 times more CO<sub>2</sub> than LED lighting

CO<sub>2</sub> emissions for the average US household over 25 years.

**MYTH** Bigger LED fixtures aren't better

**FACT** Bigger is better for makers, not necessarily for everyone else

10



Small profile fixtures more easily blend into architectural environments while delivering high quality light.

They also use less energy doing the exact same job as traditional incandescent or fluorescent lighting

**MYTH** LEDs just create more waste

**FACT** LEDs reduce waste destined for landfill

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Lamps disposed of in landfill over 25 years.



Lighting usage for the average US household over 25 years.

## SOURCES

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