

# The 10 Myths about LEDs, and the Luxeon Difference

Myth		The Facts	
		Conventional LEDs	The Luxeon Difference
1	All LEDs have a useful life of 100,000 hours	The amount of <i>useable</i> or meaningful light—about 70% of original light output—from some LEDs has been shown to be 6,000 hours or less, depending on the color and manufacturer of the LED.	<b>Luxeon retains 70% of initial light output after 50,000 hours.</b> Luxeon has been designed to outlast all conventional LEDs—especially in White.
2	LEDs don't create heat	LEDs DO <i>create</i> heat but the heat generated is retained in the LED package and needs to be conducted away by the package or leads. Without proper design, the LED will fail very early in life.	<b>Luxeon has been designed for high power AND high heat.</b> The package is able to handle the heat generated, and dissipate the heat to external heat sinks. Traditional LEDs—by design—can't handle the heat.
3	LEDs do not produce enough light for general lighting applications	High power LEDS do emit enough light for many specialty and general lighting applications.	<b>The Luxeon family of high-power, high-flux LEDs emits enough light for illumination applications.</b> Luxeon already powers theatrical spotlights, high-power flashlights, and even automotive headlamps!
4	White light from LEDs is not good enough to replace incandescent light.	Most white LEDs offer light in the 5500K range. Very few offer a color temperature that replicates incandescent light.	<b>Luxeon Warm White gives high brightness light in a 3200K output.</b> Its spectral output closely matches the blackbody curve. Luxeon can replace incandescent bulbs.
5	LEDs do not have high enough CRI for lighting applications	Typical white LEDs offer CRI in the 60-70 range, in both 3200K and 5500K.	<b>Luxeon Warm White offers incandescent like CRI of 90+,</b> delivering excellent color rendering.
6	High-power LEDs are expensive	High-power LEDs can be the most cost-effective LED available when measured in lumens / \$	<b>Luxeon LEDs offer better lumens / \$</b> than traditional LEDs.
7	LEDs are more energy efficient than any other light source	White LEDs are about twice as efficient as incandescent bulbs. Because of the directional nature of the light from an LED, you have more control of the light enabling higher overall luminaire efficiency.	<b>Luxeon has been designed to offer extremely efficient lighting solutions.</b> Its four different light output radiation patterns allow designers to utilize all the light from the LED.
8	The color inconsistency of white LEDs is too great to be considered for general lighting applications	Because of the nature of white LED manufacturing, a range of colors is produced. Care must be taken during luminaire design and production to manage this color distribution, to produce a quality lighting solution.	<b>White Luxeon can be managed so that the luminaire and application is a uniform white.</b> Certified Luxeon Luminaire Manufacturers have the expertise to ensure uniformity in finished products.
9	It is too hard to develop an LED lighting solution	Similar to other lighting technologies, like fluorescent and HID, LEDs require drive circuitry, optic and thermal design to achieve the benefits of LEDs.	<b>The Luxeon Lighting Network helps Luminaire Manufacturers properly design and deliver Luxeon LED solutions.</b> This gives lighting specifiers confidence in the final look and effect.
10	There aren't enough complimentary components designed to work with LEDs- like optics, thermal components, and electronic drivers.	There are presently hundreds of manufacturers offering components for LED design.	<b>Sub-components and Luxeon light engine providers are based around the world.</b> Certified Future Electronics Luxeon Solutions Partners can provide all the necessary components.