

## BENEFITS OF LED LIGHTS

Despite initially limited application, the LED market has been expanding and is expected to dominate the global illumination market, claiming as much as 90% share by the year 2020.<sup>1</sup>

### BENEFITS OF LEDS

- The lifespan of an LED is four to seven times longer than other lighting technologies.
- LEDs are an excellent energy-saving light and have the highest efficacy, or amount of lumens-per-watt emitted of any light source.
- LEDs have a much broader spectrum than linear fluorescents, which means they allow the eye to read truer color, similar to incandescent light sources.<sup>2</sup>
- LEDs do not contain mercury and do not require special disposal – linear and compact fluorescent bulbs do.
- LED fixtures can be easily dimmed.
- LEDs help reduce energy consumption which is critical as energy codes are reducing lighting allowances below one watt per square foot.

### CHALLENGES OF LEDS

- LEDs have a higher initial cost than a linear fluorescent light.
- LEDs' light can seem brighter and more blue than what people's eyes are accustomed to.
- LEDs can cause a glare that people's eyes are not accustomed to.
- If there are more than one LED together in a fixture or display, some of the LEDs can appear dimmer or discolored compared to the others. This is due to the LED manufacturing process.

### ESI'S LED LIGHTING COLLECTION



<sup>1</sup> Market Share, [http://www.atkearney.com/paper/-/asset\\_publisher/dVxv4Hz2h8bS/content/how-led-is-revolutionizing-the-lighting-sector/10192](http://www.atkearney.com/paper/-/asset_publisher/dVxv4Hz2h8bS/content/how-led-is-revolutionizing-the-lighting-sector/10192).

<sup>2</sup> DiLaura, David L. (2011). The Lighting Handbook, (10th ed.), New York, NY: Illuminating Engineering Society of North America.