



ENERGY STAR[®] Certified New Homes



























Technical Bulletin: LED Lighting

ENERGY STAR certified LED lighting products use 90% less energy and can last 25 times longer than traditional incandescent lighting. LEDs (short for “light-emitting diode”) also outperform CFLs (compact fluorescent or “spiral” light bulbs) in terms of energy efficiency, versatility, and durability, not to mention their appeal to energy-conscious consumers who have concerns about mercury gas in CFLs. Read on for more information and reasons to choose ENERGY STAR certified LEDs for your projects.

Lower Cost, Better value

- It is more cost-effective than ever to purchase LED lighting. According to the U.S. Department of Energy, prices for LED lightbulbs have [dropped 90% since 2008](#).
- Market share is rapidly increasing. Goldman Sachs estimates that [9 in 10 lightbulbs sold worldwide will be LEDs by 2025](#).
- The most popular ENERGY STAR certified 9-watt LED bulbs, which replace 60-watt incandescent bulbs, cost about \$3. [Where rebates are available](#), the cost per bulb can be less than \$1.
- With LED bulbs lasting up to 25 times longer than a typical incandescent bulb, they are a great choice for hard-to-reach exterior fixtures.
- ENERGY STAR certified LED bulbs come with a 3-year minimum warranty.

	BULB TYPES				
TABLE OR FLOOR LAMPS		 STANDARD			
PENDANT FIXTURES		 STANDARD	 GLOBE	 MR16	 CANDLE
CEILING FIXTURES		 STANDARD	 CANDLE		
CEILING FANS		 STANDARD	 CANDLE		
WALL SCONCES		 STANDARD	 GLOBE	 CANDLE	
RECESSED CANS			 MR16	 SPOT	 FLOOD
ACCENT LIGHTING			 MR16	 SPOT	

Versatility of LED Lighting

- ENERGY STAR certified LED bulbs are available in a variety of shapes and sizes for any application – including recessed cans, track lighting, table lamps, and more. You can even find certified bulbs that are dimmable, or that match the shapes and sizes of traditional incandescent bulbs.

- In the era of “smart” homes, today’s consumers expect their lighting products to deliver on quality, ease of use, and durability. LEDs perform better in smart and dimmable light fixtures than CFLs.
- Some [71 percent of U.S. consumers](#) surveyed rated being able to adjust the lighting mood/scene in each room as 'very attractive' or 'somewhat attractive'.
- LED bulbs are available in a range of color temperatures to meet consumer preferences. Warm colors (low kelvin) match the yellowish light of incandescent bulbs, but you can also choose cooler colors (high kelvin) with whiter or bluer light for work or reading areas.

Integrated LEDs



Images courtesy of Eaton Corporation and ENERGY STAR

- Integrated LED downlights, which include a lamp and trim, offer superior lighting performance in a convenient all-in-one package.
- Install in a standard Insulated Ceiling and Air Tight (ICAT) recessed housing to allow insulation to be in direct contact with the housing, and reduce air leakage between floors or to the attic.
- Integrated LEDs are also available in surface-mount designs that do not require a recessed housing.
- Many integrated LED products are approved for use in wet or humid locations.

ENERGY STAR Brand Recognition and Quality

- The ENERGY STAR logo is recognized by nearly 90% of American households as a symbol for energy efficiency and quality.
- ENERGY STAR certified LED lighting products meet a long list of requirements. In addition to EPA’s [lighting Product Specification](#), manufacturers must submit their products to accredited laboratories for rigorous testing.
- Every certified product is evaluated by approved third parties. Periodic quality assurance testing is also performed to ensure products on the market continue to meet a high standard.

Where can I learn more about LED lighting and ENERGY STAR?

ENERGY STAR “Learn About LED Bulbs” consumer page:

https://www.energystar.gov/products/lighting_fans/light_bulbs/learn_about_led_bulbs

ENERGY STAR Rebate Finder tool

<https://www.energystar.gov/rebate-finder>

ENERGY STAR "Top Builder Tips for Choosing LED Lighting" webinar

Email energystarhomes@energystar.gov to request a copy of the slide deck

ENERGY STAR "Ask the Expert" video

<https://www.youtube-nocookie.com/embed/8mk0Yqy8dRk?list=PLMvJzVnMdhhvhbSoELo3OH1TysO3Azp92>

ENERGY STAR "Choose a Light" consumer guide

https://www.energystar.gov/products/choose_a_light

ENERGY STAR Lighting Products homepage

https://www.energystar.gov/products/lighting_fans

U.S. Department of Energy report: "Adoption of Light-Emitting Diodes in Common Lighting Applications"

https://energy.gov/sites/prod/files/2015/07/f24/led-adoption-report_2015.pdf

Goldman Sachs report: "The Low Carbon Economy: GS SUSTAIN equity investor's guide to a low carbon world, 2015-25."

<http://www.goldmansachs.com/our-thinking/pages/new-energy-landscape-folder/report-the-low-carbon-economy/report.pdf>

Statista consumer survey: "Attractiveness of controlling light systems in U.S. households as of May 2017"

<https://www.statista.com/statistics/710457/attractiveness-of-controlling-lighting-us-households/>

ENERGY STAR® is the simple choice for energy efficiency. For 25 years, EPA's ENERGY STAR program has been America's resource for saving energy and protecting the environment. Join the millions making a difference at energystar.gov.

