



E-Conservation

power to control what you spend

Choosing the right compact fluorescent light bulb for your needs

Compact fluorescent lighting offers unprecedented energy savings, which translates into lower power bills and a cleaner environment. Technology has improved options in size, shape, and color of these bulbs. They are now available to fit almost any new or existing fixture, and the range of light “temperatures,” offers a variety of lighting that closely resembles that of incandescent bulbs.

Compact fluorescent light bulbs (CFLs) are compatible with new and existing light fixtures. They are available in a variety of shapes and sizes – A-line (globe), flame (candelabra), spotlight and others. The bulbs are designed to be the shape and size of their incandescent counterparts. Some types of CFLs work well in multiple types of fixtures, such as table lamps, ceiling fixtures, and wall sconces.

Beyond shape, size and compatibility with fixtures, CFLs offer a broad range of light “temperatures” to suit varying needs in different rooms of a home. Light temperature is measured in Kelvin (K), and warmer light temperatures are lower than cooler light temperatures. Choose warmer lighting temperatures for living areas and bedrooms (overhead fixtures, side table or nightstand lamps, etc.); choose cooler temperatures for task lighting (desk lamps, work benches, etc.).

- For warm, white light (similar to an incandescent), look for a color temperature of 2,700–3,000K. This light will enhance warm-toned colors in your home, such as red, yellow and orange.
- For cooler, white-to-bluish light, look for a color temperature of 4,500–6,500K. These bulbs are usually identified as “bright white,” “natural” or “daylight.” These bulbs enhance cooler colors in your home, such as blue, green or violet.

Popular Mechanics magazine recently tested seven CFLs against a 75-watt incandescent bulb. The test looked at quality and color of light, among other measures, and found that the quality of light from the CFLs was preferred over the incandescent bulb. Results of that study are available at www.popularmechanics.com/home_journal/home_improvement/4215199.html?series=15.

Buying Energy Star-qualified CFLs will save more energy (and money) than bulbs that don’t receive the Energy Star rating. The Energy Star label identifies products that meet strict energy efficiency guidelines set by the EPA and US Department of Energy. Energy Star-qualified CFLs use 75 percent less energy than incandescents and last up to 10 times longer. An Energy Star-qualified CFL can save \$30 or more in power costs over its lifetime. Because CFLs produce less heat, they can reduce home cooling costs, as well.

If you only use CFLs in some fixtures in your home, choose those fixtures wisely. Because CFLs are most efficient when they operate for several hours at a time, place

them in the fixtures that you use most frequently. Energy Star recommends placing CFLs in fixtures that are typically on at least 15 minutes at a time. Because CFLs contain a small amount of mercury, place them in fixtures in which the bulbs would not be easily broken by small children. (And, if a CFL does break, use the U.S. Environmental Protection Agency's mercury clean-up procedures, www.epa.gov/mercury/spills/.) Also, because CFLs last longer than their incandescent counterparts, placing them in ceiling fixtures, ceiling fans, or other hard-to-reach fixtures will reduce the number of times you have to buy replacements and change the bulbs.

For more information on choosing CFLs, or for energy conservation tips for your home, contact your county's center of the North Carolina Cooperative Extension Service.

Additional information

http://www.energystar.gov/index.cfm?c=cfls.pr_cfls

http://www.energystar.gov/index.cfm?c=cfls.pr_cfls_shapes

http://www.energystar.gov/index.cfm?c=cfls.pr_cfls_color

http://www.energystar.gov/index.cfm?c=cfls.pr_tips_cfls

http://www.popularmechanics.com/home_journal/home_improvement/4215199.html?series=15

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