HOMEOWNER REPAIR GUIDE

LIGHT BULB OPTIONS

For do-it-yourself or contracted repairs

Not so many years ago, purchasing light bulbs was simple. Now, traditional incandescent bulbs have been joined by newer, high-efficiency alternatives – compact fluorescent (CFL) and LED bulbs. How do these alternatives compare, and which should you buy?

COMPARING COSTS

Initially – bulb for bulb, as they sit on the store shelf – incandescents are less expensive than equivalent CFLs, which are less expensive than LEDs. Over the life of the bulb, however, the picture changes:

BULB TYPE	AVERAGE LIFE SPAN	ELECTRICITY USED PER YEAR	ANNUAL OPERATING COST
Standard incandescent	1,200 hours	3,285 kilo-watts	about $329
CFL	8,000 hours	767 kilo-watts	$77
LED	50,000 hours	329 kilo-watts	less than $33

LEDs, in turn, are far superior to CFL and incandescent bulbs in performance. In other words, the initial cost of an LED lightbulb is more properly compared to the price of 6.25 times as many CFLs and over 40 times as many incandescents. On top of that come the significant, immediate, and ongoing savings in energy (and to the environment).

BUYING BY LUMENS, NOT WATTS

It may seem confusing, at first, to buy these new bulbs. Whereas incandescent bulbs were labeled according to wattage (the amount of power they use), both CFLs and LEDs are differentiated by lumens (the amount of light they produce).

> ### SAME BRIGHTNESS AS A 60-WATT INCANDESCENT
>
> An 800-lumen LED (which uses only 6 - 8 watts of electricity) or an 800-lumen CFL (which uses 13 - 15 watts) will provide the same brightness as a traditional 60-watt incandescent bulb.

You will also have, in most categories, color or "temperature" options, including "warm" light (resembling the yellowish light of an incandescent bulb) and "cool" or "daylight" bulbs (a blueish-white light suited to work areas and applying makeup).

MATCHING THE BULB TO THE FIXTURE

Before purchasing any type of bulb, be sure that it will match your fixture's format and functions. Incandescents and LEDs – but not CFLs – can be dimmed, come to full strength immediately (important in stairways), work well in cold

conditions (such as outdoor fixtures), and can be used in all horizontal and vertical positions. In the case of some older, specialty, or globe fixtures, your options may be more limited (at least at present), and you might need to consider converting or upgrading a fixture to take advantage of high-efficiency bulbs.

DON'T THROW OUT A WORKING BULB

Finally, do NOT throw out a working bulb just to replace it with a more energy-efficient alternative. That wastes the energy it took to manufacture that bulb and transport it to your house. Wait for it to burn out, properly dispose of it (especially important for CFLs, which contain mercury), and then – after a bit of planning to identify your best choice – enjoy the cost savings and environmental benefits now available. It is well worth the effort.

Home Repair Resource center

Home Repair Resource Center empowers homeowners to maintain their homes for sustainable and diverse communities.

WWW.HRRC-CH.ORG **+1.216.381.6100** **2520 Noble Road, Cleveland Heights, OH 44121**

© 2026, Home Repair Resource Center