

# YOUR GUIDE TO MORE EFFICIENT AND MONEY-SAVING LIGHT BULBS

Given their superior performance and energy efficiency, LED bulbs are the best choice for your wallet and the environment.

No longer available in CA (2018) or NV (2021). Phaseout pending in rest of U.S.

## **HOW TO CHOOSE A BULB**

#### IT'S AS EASY AS 1, 2, 3...

1. Choose bulbs based on how bright you need them to be. This is measured in lumens. The higher the lumens, the brighter the light.

**2.** Once you've chosen the lumen output you need, determine which bulb has the lowest estimated energy cost per year.

**3.** Finally, choose the other features you prefer, such as lifetime and light appearance. The ENERGY STAR\* logo tells you which CFLs and LEDs meet minimum efficiency, lifetime, and quality standards. Also, check to see if the bulb is dimmable if that's what you need.

		LEAST EFFICIENT			MOST EFFICIENT
					$\bigcirc$
	LUMENS	OLD INCANDESCENTS		TODAY'S Incandescents	LEDS
LESS	150	10147	Energy use	29W	5W
BRIGHT	450	40W	Cost per year	\$3.87	\$0.67
	800	60W	Energy use	43W	10W
	800	60 W	Cost per year	\$5.74	\$1.34
	1100	75W	Energy use	53W	12W
•	1100		Cost per year	\$7.08	\$1.60
MORE	1000	100147	Energy use	72W	17W
BRIGHT	1600	100W	Cost per year	\$9.62	\$2.27
				Typical Life= 1 Year*	Typical Life= 15-25+ Years

(Note: We recommend LEDs over CFLs as they are even more efficient, last longer, don't contain mercury, and reach full brightness almost instantly.)

 $^{\ast}$  Rated life is based on 3 hours of use per day

# WHERE CAN I FIND THIS INFORMATION?

Nearly all light bulb packages now have labels that tell you what you need to know, much like nutrition labels on food. Want to know if a particular bulb is bright enough to meet your needs? Match the lumens information from its Lighting Facts label to the table above. If a bulb claims to be a "100-watt replacement" but is only 1200 lumens, for example, it's really closer to the brightness of a typical 75-watt bulb. If a bulb uses less energy, it helps avoid the use of polluting fossil fuels to make the electricity to keep it shining.

#### FRONT OF PACKAGE





## **BULB COMPARISON**

#### SOME BULBS LAST FOR I YEAR AND OTHERS LAST FOR 15 OR MORE. WHICH BULBS COST THE LEAST IN THE LONG RUN?

While an incandescent bulb may be the cheapest to buy, the overall cost of both purchasing and powering the bulb will be far higher than an LED over time. Over the longer life of an LED, those savings can range from \$50 to more than \$150 for the brighter, extra long-life (25,000-hour) models. Plus, you avoid the hassle of changing the bulb every year.

Lighting Facts Per Bulb			
Brightness	800 lumens		
Estimated Yearly Energy Cost Based on 3hrs/day, 11c/kWh. Cost depends on rates and use.	Energy star		
<b>Life</b> Based on 3 hrs/day	7 years		
Light Appearance			
Warm	Cool		
▲ 2700 K			
Energy Used	14 watts		
<b>Contains Mercury</b> For more on clean up and safe disposal, visit ep	pa.gov/cfl		

	<b>REPLACING THE OLD 60 WATT BULB</b>		
	TODAY'S INCANDESCENTS	LED BULB	
POWER 43W		IOW	
LIFE	I YEAR	UP TO 25 YEARS	
TOTAL COST Over 15 Years	<b>\$109</b> Electricity costs \$86 Cost of Bulbs \$23	\$23 ELECTRICITY COSTS \$20 COST OF BULBS \$3	

## SEE THE SAVINGS ON NEW BULB LABELS

**Brightness** – The most important information on the label and the only way to know for sure how much light the bulb provides.

- **ENERGY STAR Logo** Indicates which CFLs and LEDs meet ENERGY STAR requirements for efficiency, lifetime, and quality.
- Life Estimates in years how long the bulb will last. Long-life bulbs save you the hassle of frequent bulb changes and help ensure that more efficient bulbs pay for themselves over time.
- Light Appearance Tells you the shade of light. While most people prefer the warm yellowish-white color of traditional incandescents—color temperature between 2700K and 3000K—others might prefer "daylight" bulbs, which produce a blueish-white or "bright white" light and are around 5000K. If you are unsure, try one of each before changing out your whole house to LEDs.
- Energy Used (watts) Measures bulb energy use, not brightness.
- **Contains Mercury** LEDs are mercury-free whereas CFLs contain low levels of mercury.

## Why are light bulbs changing?

In 2007, Congress passed and President Bush signed into law the Energy Independence and Security Act (EISA), improving energy efficiency for many products, including light bulbs. The new ones just use a bit less energy but a whole lot more than LEDs. The law also requires new light bulb labels to help you choose the most efficient bulbs. We expect incandescents to be phased out nationally sometime in 2021, pending the outcome of a lawsuit. (They can no longer be sold in CA and in NV as of 1/2021.)

#### **TABLE LAMP COMPARISON**



In table and floor lamps, you want the light to shine in all directions, so look for ENERGY STAR-labeled bulbs that are omni-directional.

#### **RECESSED CAN COMPARISON**



For downlights and recessed cans, install ENERGY STAR reflector LED bulbs. The light going upward from omni-directional bulbs can be wasted inside the fixture.