




Improving the efficiency of your lighting is an easy way to save on energy costs. This Lighting Choices Guide will help you determine the right LED light bulbs to use for each fixture in your home.

## ENERGY USE

The table below can help you understand how ENERGY STAR® certified LEDs compare with incandescent bulbs. LEDs provide the same brightness (lumens) while using less energy (watts). To find an LED with similar brightness compared to your current incandescent bulb, pay attention to the lumens. To save the most energy, choose an LED with the lowest wattage suitable for its use.

 Incandescent Bulbs (Watts)	 ENERGY STAR® Qualified LEDs (Watts)	 Minimum Light Output (Lumens)
25w	4 - 9w	200 lm
40w	9 - 13w	450 lm
60w	13 - 15w	800 lm
75w	18 - 25w	1,100 lm
100w	23 - 20w	1,600 lm
125w	28 - 40w	2,000 lm
150w	30 - 52w	2,600 lm

## THE KELVIN SCALE

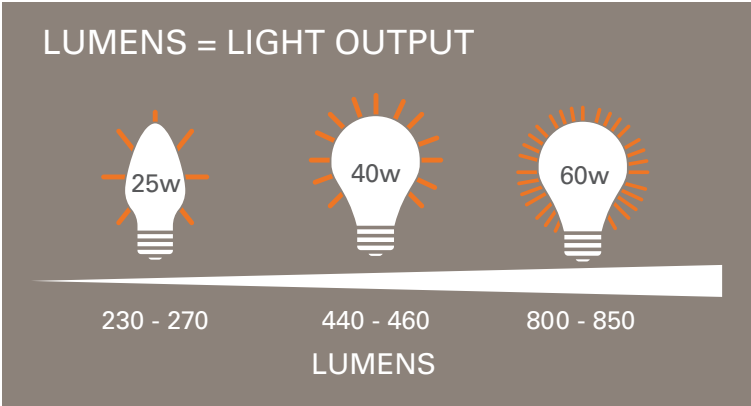
The Kelvin scale (K) measures light color, or appearance, of light bulbs. The lower the value, the warmer or more yellow the light output. The higher the value, the cooler or bluer the light output.



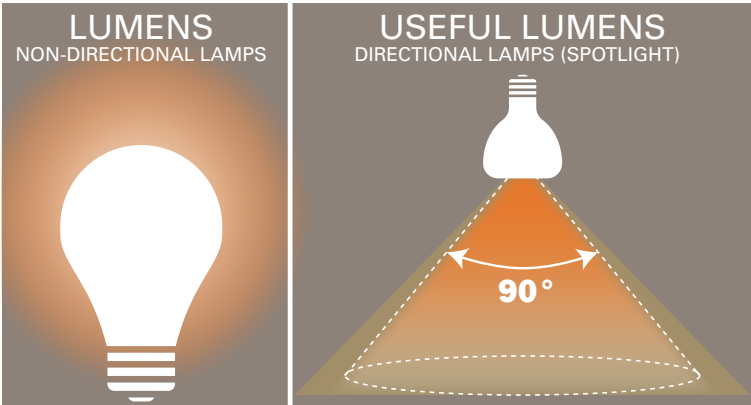
### LUMENS

Lumens measure the total amount of visible light from a light bulb. The higher the lumen rating, the brighter the lamp will appear. LEDs provide more light output with much less power use.

To achieve the same light output of a 60 watt conventional bulb, you will need an LED with around 800 - 850 lumens.














For non-directional bulbs, such as a globe or candelabra, the total lumen output is calculated in all directions. With a directional bulb, such as a spotlight, the light is emitted in many directions, some of the light (spill light) may not be useful but it is counted in the total lumen rating.



Useful lumen rating is a measurement of useful light emitted in a standardized 90 degree cone. The useful lumen rating is usually lower than the total lumen output but has more relevance to a spotlight bulb where useful light is in a forward focused direction.

### LIGHTING CHOICES FOR YOUR HOME

Use the lighting worksheet below to determine which LED bulb type you need for each light fixturein your home. You can mark the quantities need for each room.

		BULB TYPES				
		A Shape	Candle	Flood	Globe	Spot
Table or Floor Lamps		A Shape Qty. <input type="text"/>				
Pendant Fixtures		A Shape Qty. <input type="text"/>	Candle Qty. <input type="text"/>		Globe Qty. <input type="text"/>	
Ceiling Fixtures		A Shape Qty. <input type="text"/>				
Ceiling Fans		A Shape Qty. <input type="text"/>	Candle Qty. <input type="text"/>		Globe Qty. <input type="text"/>	
Wall Sconces		A Shape Qty. <input type="text"/>	Candle Qty. <input type="text"/>	Flood Qty. <input type="text"/>	Globe Qty. <input type="text"/>	Spot Qty. <input type="text"/>
Recessed Cans				Flood Qty. <input type="text"/>		Spot Qty. <input type="text"/>
Track Lighting				Flood Qty. <input type="text"/>		Spot Qty. <input type="text"/>
Display Lighting				Flood Qty. <input type="text"/>		Spot Qty. <input type="text"/>
Decorative Fixtures		A Shape Qty. <input type="text"/>	Candle Qty. <input type="text"/>	Flood Qty. <input type="text"/>	Globe Qty. <input type="text"/>	
Enclosed Outdoor Fixtures		A Shape Qty. <input type="text"/>				
Outdoor Damp Locations		A Shape Qty. <input type="text"/>	Candle Qty. <input type="text"/>	Flood Qty. <input type="text"/>	Globe Qty. <input type="text"/>	SPOT Qty. <input type="text"/>