




Lighting accounts for about 10% of the average home’s energy expenses. 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 at your home.

### ENERGY USE

The table below can help you understand how ENERGY STAR® qualified LEDs compare to 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

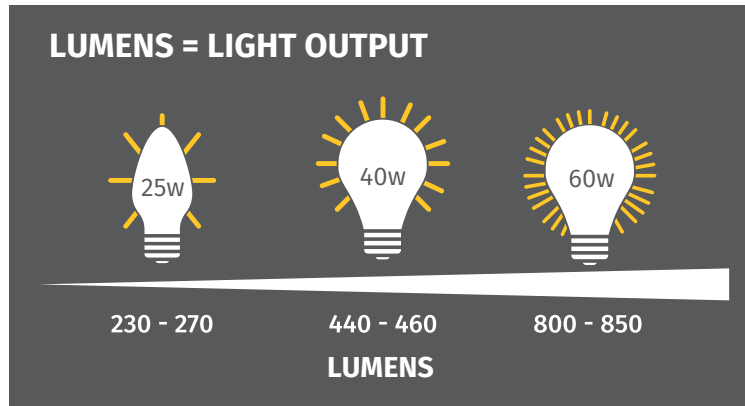
The Kelvin scale (k) measures light color, or appearance, of light bulbs. The lower the value, the warmer or more yellow the light output. The higher the value, the cooler or bluer the light output.



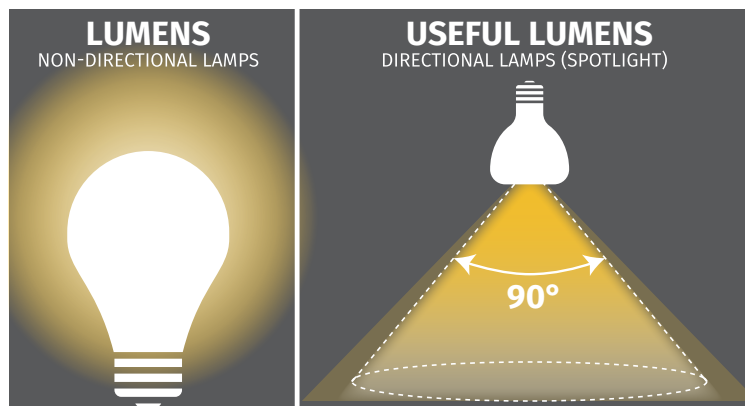
## LUMENS

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 BUSINESS

Use the lighting worksheet below to determine which LED bulb type you need for each light fixture at your business. 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"/>