



Guide to choosing LED lighting

The comfort and functionality of our homes are drastically affected by the lighting we choose to use. Choosing efficient lighting doesn't have to mean settling for a dim or moody atmosphere. Lighting is the easiest energy conservation measure. Retrofitting your lighting to LED can save you up to 90% of your lighting utility costs.

But how do you get started? What do you need to know before purchasing a lamp or a fixture? This guide will provide you with enough information to be confident choosing the correct lighting for your purposes.

Lighting today

Lighting options

There are numerous lighting options available in the market today. The table below lists the most common type of lighting for interior and exterior use. LED lighting is the most efficient and longest lasting type of lighting in the market.

Table 1: Summary Lighting Types

Light type	Energy use	Typical life (Hrs)
LED	Low	50,000 – 100,000
Compact Fluorescent (CFL)	Medium	10,000
Linear Fluorescent	Medium	20,000
Standard Incandescent	High	1,000
Halogen Incandescent	High	4,000
HID	Very High	10,000 – 25,000
Induction	High	50,000 – 100,000

Cost considerations

LED lighting is up to 90% more efficient than conventional lighting. That means you can reduce the lighting portion of your co-op’s electricity bill by 90%. Since technology advanced over the past decade, the cost of switching to LED is much cheaper now. Most LED bulbs cost about the same as incandescent bulbs.

LED tubes may cost two to three times more than fluorescent, but they last two to three times longer.





Choosing the right lighting

Choosing an LED lamp or fixture can be confusing with the many options available today. Below is a list of steps that should be taken when buying an LED lamp or fixture.


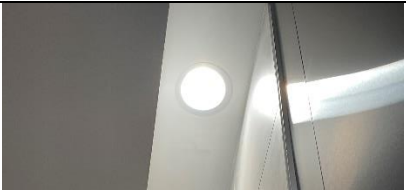

Step 1: Choosing the bulb type

LED lighting comes in many forms and types. The following table lists the different type of lights and their uses.

Table 2: Lighting Types & Applications

Bulb type	Uses	
A19 – Standard lightbulb	Lamps Hanging fixtures Ceiling fixtures Ceiling fans Wall-mounted fixtures	
Globe – Round bulbs	Hanging fixtures Wall-mounted fixtures	
Candle – Candle-shaped bulbs	Lamps Hanging fixtures Ceiling fixtures Ceiling fans Wall-mounted fixtures	
Linear LED T5/T8 – Tube lights	Hallways Stairwells Ceiling fixtures Wall-mounted fixtures	

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MR-16	Hanging Fixtures Recessed downlights (pot lights), Accent lighting	
Spot	Recessed downlights (pot lights) Accent lighting	
Flood	Recessed downlights Exterior lighting	

Step 2: Choosing the desired brightness

When looking for the right LED bulb, look for the **lumen count** on the packaging. The lumen count is the proper measure of light output from a lamp, not wattage. **Efficacy** is another measure to look at: it gives the number of lumens per watt. A higher efficacy suggests a more efficient light.

A 60-watt standard incandescent bulb produces 800 lumens. The table below shows the average lumen count from an incandescent bulb. Before purchasing LED fixtures and bulbs, check the wattage you currently use to determine the lumen count you need.

Table 3: Lumen Count Reference Table

Incandescent watts	Lumens
40W	450
60W	800
75W	1,000
100W	1,600
150W	2,500

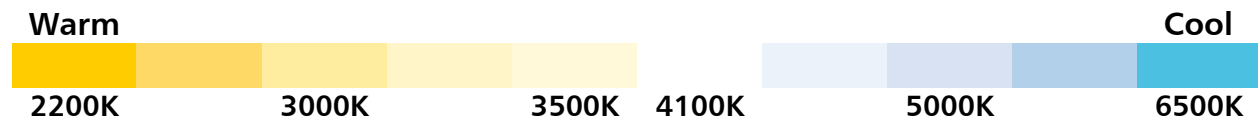
Step 3: Choosing the light appearance (colour/temperature)

The range of colours for lighting is given in temperature Kelvin (K), which is another unit for measuring temperature. The warmer the light, the more yellow appearance and the lower K. The cooler the light, the bluer appearance and higher K.



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This diagram shows the difference. A standard 60-watt incandescent bulb is rated at 2700K – 3000K.



Step 4: Ensuring that lighting is Energy Star- or Design Lights Consortium-listed

Ensure that the LED lamp or fixture is either Energy Star-listed or Design Lights Consortium (DLC)-listed. They both:

- provide the consumer with the safety of knowing that the lighting has been through rigorous testing to meet quality standards;
- require manufacturers to go through third party testing to ensure quality standards, and
- have performance and lifespan warranties.

For a complete list of Energy Star- or DLC-listed lighting, click the links below:

[Energy Star certified lighting: fixtures](#)

[Energy Star certified lighting: bulbs](#)

[Design Lights Consortium certified products list](#)