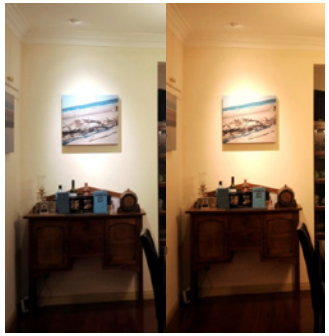
3. Get the mood of your light right

CFL and LED light bulbs are available in a range of colour temperatures, allowing you to customise the mood of your space:

- **Warm White** is a soft, warm light similar to incandescent and halogen bulbs, suitable for living rooms and bedrooms.
- **Cool White** is a neutral light suited to studies and kitchens, and for task-based applications such as kitchen benches, garages and workshops.
- **Daylight** is a colder light similar to midday daylighting conditions. It can appear harsh, unrelaxed and even sterile, but may be good for bathrooms and laundries.



A cool white bulb is used on the left and warm white bulb on the right.

4. Lighting your home

Most rooms need general, ambient lighting complemented by task-specific accent lighting.

Ambient lighting radiates overall at a comfortable brightness level. Have a central ambient light source in all rooms.

Combination of general and accent lighting.

In addition, have task lighting that can be switched on and off according to your preferences and needs. For example, lamps for reading or sewing, and extra lighting over kitchen benches and bathroom mirrors.

Accent lighting may be useful to emphasise paintings, house plants, or collectables. Directed downlights are ideal for this purpose.

5. How light bulbs compare

	LED (light emitting diode)	CFL (compact fluorescent lamp)	Halogen	Circular and linear fluorescent
Typical omnidirectional light bulb and price	 $5–20	 $2–6	 $2–6	 $3–15
Typical directional light bulb and price	 $5–20	 $2–10	 $2–6	n/a
Colour range	Warm White to Daylight	Warm White to Daylight	Warm White	Warm White to Daylight
Dimmable	Selected brands	Selected brands	Yes	No
Life span (hours)	15,000–30,000	6000–15,000	2000–4000	10,000
Total globes used (over 10 years)	1	2	5	1

For more information about energy efficient lighting, visit www.energyrating.gov.au/lighting.

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LIGHT BULB BUYING GUIDE

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A joint initiative of Australian, State and Territory and New Zealand Governments

Choosing the right lighting

Choosing light bulb replacements for your home can be confusing. You may have noticed that the choices of light bulbs available for your home has expanded and some of the older options you once relied on have disappeared. With lighting taking between 8 to 15 per cent of the average household electricity spend, there are lots of options to reduce the amount of energy used for lighting while still providing the right light for your needs.

The information in this guide will help you choose bulbs that are fit for purpose, last longer and are cheaper to run.

The key things to remember when choosing bulbs are:

1. Think lumens (the amount of light output), not watts
2. Consider lifetime costs, not just the purchase price
3. Get the mood of your light right – consider colour temperature
4. Decide what type of light you need – general or task specific

Typical household lighting

1. Think lumens, not watts

We used to purchase old fashioned incandescent bulbs by the amount of power (or watts) they used. With the energy-efficient new technologies now available light bulbs now produce the same amount of light using far less power. It no longer makes sense to shop for watts. Using 'lumens' is now the way to choose the light you need.

Lumens give a measure of the amount of light produced by a light bulb. An old-fashioned incandescent light bulb (no longer available) produced 700 lumens and used 60W of power, whereas a new energy efficient LED uses only 10W. That's an energy saving of around $16 per year for each bulb (when used 3 hours per day).

While you can source the lumens (light!) you need from a range of technologies, halogen lights will be less efficient and cost more to run than CFL (compact fluorescent lamp) and LED (light emitting diode) equivalent options.

LED Light Output (Lumens)	Power (Watts)			
	Old style incandescent	*Mains voltage halogen*	*CFL*	*LED*
250	25	18	4-6	**3-4**
500	40	28	7-9	**5-8**
800	60	42	11-14	**8-12**
1100	75	52	14-17	**11-17**
1500	100	70	19-23	**15-23**

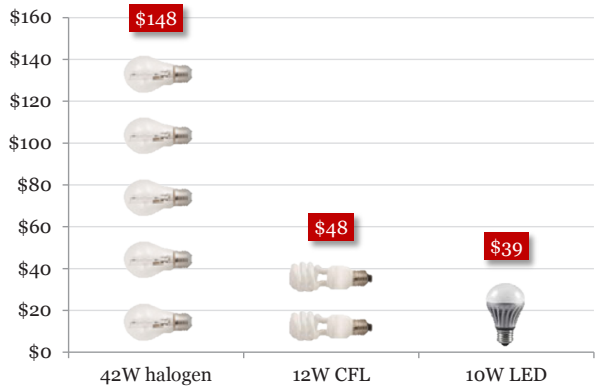
Bulb light output is measured in lumens. The table shows the required lumen output of an LED, when used to replace old style incandescent and halogen light bulbs. Also shown are the typical wattages of bulbs.

2. Consider lifetime cost

Choose the light bulb that will cost you the least in the long run.

Two of the main differences between lighting technologies are lifespan and efficiency. For example, while a halogen bulb is cheaper to buy than an LED, a good quality LED lasts 5-10 times longer and consumes a quarter of the energy.

The table below shows the total lifetime cost over 10 years for a 800 lumen LED bulb, compared with CFL and halogen alternatives.



A 10W LED bulb would cost $39 in total to buy and run over 10 years. Over this time, five 42W halogen bulbs would need to be used at a total cost of $148, or two 12W CFL bulbs would be used, at a total cost of $48. These figures are based on lifetimes of 6000 hours for CFL and 2000 hours for halogen; an LED price of $10, CFL price of $6, and halogen price of $3. The electricity rate is 28.55¢ per kilowatt-hour (kWh).