

LED Home Lighting - Architects Guide

This guide:

LED is an abbreviation for Light Emitting Diode, which is a relatively new and evolving technology. Because of the significant cost savings over time, it is a long term investment.

1 Benefits of LED:

- Very energy efficient so low running costs
- Very long lasting so you may never need to change a globe
- Instantly on and full brightness, something you can't say of fluorescent lamps
- Small and compact
- Can retrofit older light types, ie. replacement for halogen downlights
- Can change colour giving the opportunity for effects
- Great for outdoor lighting as it can be solar powered

2 Common problems with LED: (improving all the time)

- Narrow beam
- Limited choice of fitting options ie. not available as a replacement for all light types
- Cold colour, and colour fringing
- Often not bright enough when retro fitting existing lights
- Many can't be dimmed or need an additional bulky controller
- Can overheat and burn out (yes the back of the fitting gets quite hot)
- Can cause glare as it is a very direct light source
- More expensive to buy initially

3 Rules of thumb:

- 15 watt LED = 50 watt Halogen downlight

- A 50 watt halogen gives out about 900 lumens, which is a standard measure for brightness, so look for lumen output when choosing lights because warmer colours and diffusers reduce light output

4 Tips on choosing LED lights:

- Aim for a colour (measured in temperature) of around 2700 - 3000 Kelvin. This is a warm colour. Try to keep colours in each room consistent
- Look for quality brands like Philips and you may avoid poorly made fittings that won't last
- Balance the long term cost saving in energy use with cost of fitting ie: you can spend more on fittings that are used a lot because of bigger energy savings

5 Ideal uses for LED lights:

- Strip or pelmet lighting, way easier than fluorescent battens
- Very low wattage lights like path or step lights, floor washers, night lights
- Garden lighting
- Feature light for ambience or effects, colour effects
- Joinery & christmas lights

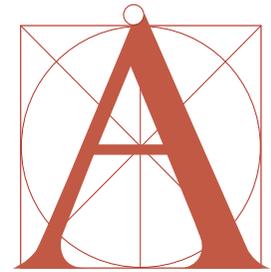
6 A great lighting suggestion:

Tovo Lighting in Brookvale has an awesome new wall mounted upright called 'Wedge' which is very bright (300 watt halogen equivalent) and is dimmable, with excellent colour and beam spread, and only 50 Watts.

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