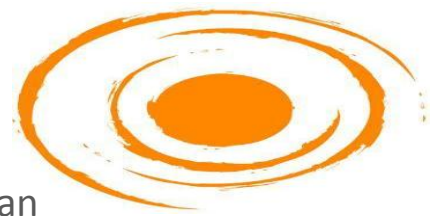


WHAT IS LED LIGHTING?



- **LED = Light Emitting Diode** = very long life span
- Cheaper over time, better for the environment
- Produces more light per watt than other bulbs, but less heat
- Immediate light but can also be dimmed & flicker free

LED	Halogen	Incandescent	CFL	Lumen Range
1watt LED		12-15watt		
<u>4watt LED</u>	25watt	25watt	5-6watt	210lm
5watt LED	30watt	30watt	7-9watt	280lm
<u>3x3watt, 7watt LED</u>	35-40watt	40watt	9-13watt	380-450lm
<u>10watt, 5x3watt LED</u>	45-50watt	60watt	13-15watt	500-800lm
12watt	60watt	75watt	18-23watt	1100lm
<u>15watt LED</u>	70watt	100watt	25-30watt	1500lm
25watt LED		150watt	30-52watt	2600lm

- **Cost Saving:** LED lights run on 90% less energy & 50% saving
- LEDs do not contain mercury, unlike fluorescent lamps, so recyclable
- LED replaces globes for most types of standard lighting
- Will fit existing light fittings



- Most common 2 connections are **GU10** & **MR16**:



GU10



MR16

GU10 is a direct connection to 240v, no transformers needed. Replaces halogen globes for mains voltage (240v) light fittings & shouldn't require an electrician to install.



MR16 is a 12v lighting connection & requires use of a **transformer** (static electrical device that transfers energy - above), usually one per light & LED specific, to step down to 240v.



For LED globes to perform at their maximum, dedicated DC Constant Voltage LED specific **drivers** (convert incoming AC power to proper DC voltage) should be used.

- More traditional globe types are Bayonet & Edison screw:

B22 Bayonet connection type globe, with 2 pins, 1 either side that push & twist in place.

E27 or ES Edison Screw type connection which screw in place.

SES are thinner / smaller style screw-in bulbs.



B22



ES