

LED Halogen Replacements

Ultra high-brightness MR16 style LED spotlights with GU5.3 (12V AC/DC) or GU10 (240V AC) bases.

These LED replacement lamps generate a level of illumination comparable to that of a 35W halogen downlight/spotlight while consuming less than 5W of power, and have a life expectancy of 50,000 hours of continual use.



Key benefits

- Very high light output
- Save over 85% in electricity usage
- Save cost and hassle of bulb changing
- Lead free and RoHS compliant
- Fully CE Approved
- Fits many existing light fittings
- Very little radiated heat
- No filaments, glass or gases inside

Applications

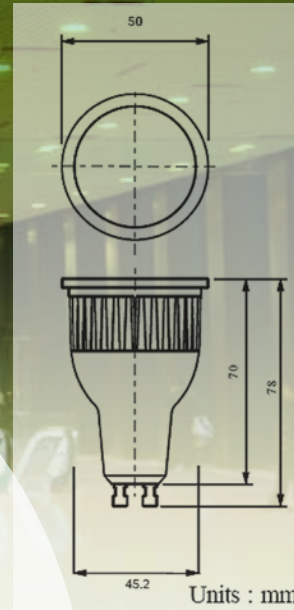
- Cabinet lighting
- Retail & Point of Sale lighting
- Corridor illumination
- Spot/accent lighting
- Shops/hotels/bars/clubs/museums
- Kitchens/living rooms/bedrooms
- General indoor lighting
- Illumination of artwork & exhibits

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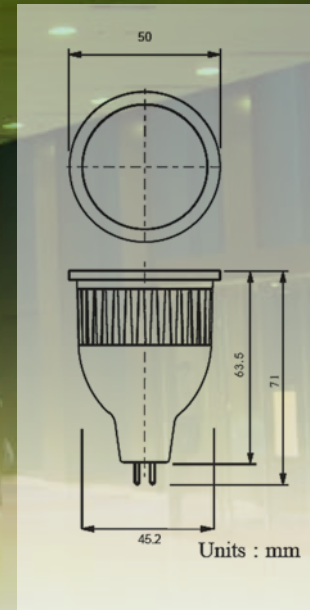
Note: Due to the widely varying range of available light fittings from different manufacturers, it is advisable to check any fitting against the below dimensions to ensure compatibility. Compatible high quality fittings are available from Enigin. Please note that due to the internal LED drive circuitry, the two models are not suitable for use with a dimmer, however please enquire should you require information on our dimmable versions.

The GU10 model has an in-built transformer and is designed to be powered directly from the mains. The GU5.3 model is designed to be used with a 12V transformer. Due to the very high energy efficiency of these LED lamps, they consume very little power in comparison to halogens and as such do not always reach the minimum load requirement for halogen transformers to operate properly. For this reason, as with all low voltage LED products, a suitable LED compatible transformer should be used with the GU5.3 to ensure proper function and long-term reliability. A range of suitable transformers are available from Enigin.

GU10 Dimensions



GU5.3 Dimensions



EXAMPLE CALCULATION

An installation has 200 x 35W halogen downlights which are illuminated for an average of 12 hours per day, 300 days per year. The halogens have a life expectancy of about 2000 hours and cost £2 to replace.

Using Enigin's LED replacements instead would save approximately 30W per lamp replaced. Each halogen is replaced twice yearly, **costing £4 x 200 = £800 per year.**

This represents a total saving of **30W x 200 x 12 hours = 72 kW per day.** At an electricity cost of 12p per kW, this is £8.64 per day or £2,592 per year, giving a total saving on electricity and replacement lamps of **£2,592 + £800 = £3392 per year.**

Typical electro-optical and mechanical specifications

(Conditions: V_{in} = as shown in table, T_a = 250C)

| Type (Colour) | GU.3 Daylight | Gu5.3 Warm | GU10 Daylight | GU10 Warm |
|-------------------|---------------|-------------|---------------|------------|
| Input Voltage | 12V (AC/DC) | 12V (AC/DC) | 100~240VAC | 100~240VAC |
| Luminous Flux | 170lm | 140lm | 170lm | 140lm |
| CRI (Ra) | 75 | 66 | 75 | 66 |
| Colour Temp. | 6000K | 2800K | 6000K | 2800K |
| Power Dissipation | 4.8W | 4.8W | 3.7W 3.7W | |
| Dimensions | 50 x 71mm | 50 x 71mm | 50 x 78mm | 50 x 78mm |
| Lamp Weight | 75g | 75g | 75g | 75g |

