

Why it's best *not* to use white LEDs behind coloured lenses

The spectrum of light emitted from an LED is very different to that of the light from a halogen or filament bulb. This is particularly relevant when looking at tail/brake lights and indicator bulbs where you need a red or amber output. The same goes for warning lights etc.

The picture below shows the light spectra emitted by various types of light. This shows that white LED has very little red or amber in it. Warm white improves the issue but if you want a red light for example, use a Red LED - a much greater portion of the light gets through the lens.

So even though a naked red LED will not look as bright as a white halogen, stick it behind a red lens and you get a brighter result and a much richer colour too.

