

Light direction

Upcoming European regulations for lighting are forcing CV manufacturers to look for better illumination solutions. John Challen researches the latest products

Few people probably appreciate the safety benefits that correct illumination provides, but suppliers are trying to change that perception. Philips Automotive agrees that lighting provides an effective brand signature on the front end of trucks, but sees the real advantages in the quality of individual bulbs and the extra visibility they can provide.

Admittedly, its hands are being forced slightly in the UK, partly due to upcoming (1 November 2012) EU regulations regarding the mandatory fitment of daytime running lights (DRLs) to vehicles.

The Philips Automotive solution is DRL 24V, part of the company's DayLight range. Maintaining Philips' mantra that 'light is life', safety both during day and night is seen as of paramount importance to the company, but benefits, such as two-hour installation and the ability to fit its eight-light units on light, medium and heavy duty trucks, are also key factors. Operating between voltages of 9 and 35V, the LEDs are claimed to need no maintenance, thanks to advanced Luxeon Rebel technology, which helps provide ultra-high light density.

Another key company in the market is Labcraft, which recently tested its new 72 LED Apollo light against a standard imported LED strip light. After three weeks of continuous operation, light output from the Apollo only dropped by 3.5% – compared with more than 75% for the imported light. This alone is reason enough to ask what type of LEDs are being used on a truck that you might be buying – and, if this information is not available, then maybe you need to worry that it might be an inferior quality LED, which might compromise safety and potentially add to the maintenance bill.

Standard bulb technology, and fittings and holders are also being subjected to upgrades and development. Although instances are steadily falling, headlamp beam aim is still regarded as one of the major causes of MOT failures, according to VOSA.

Recent tests have laid some of the blame of the failures at the door of high street brand bulbs, many of which, surprisingly, failed EEC regulations (R37) covering the filament position within the



bulb, as well as bulb dimensions. One company that does comply with the regulations, however, is Osram, which has been working with a number of fleets that had been experiencing problems – and, in some cases, failures – with headlamp aim. Its goal was to ensure more consistency for commercial vehicle lighting.

Vibration resistance is considered a major factor in both HGV and PSV applications, as research suggests that many bulbs do not reach their full life, since the filament fails prematurely, due to vibration and mechanical shock loads. Osram's solution? Filaments in its 24V Truckstar bulb range use approximately twice the length of wire, compared to 12V equivalents. This alteration ensures that the filaments are more stable, providing improved service life, as well as the greater resistance to shock and vibration.

One of the further developments for truck, van, and bus and coach lighting is Philips' Blue Vision bulbs, which offer even better light quality, the downside being the extra purchase and fitment costs. But fleet trials of this range have taken place with companies accustomed to working mainly in night hours, including an unnamed, but well known dairy fleet and a bread company, both of which demonstrate good lifecycle costs.

Clearly, a bright future lies ahead... TE

Lighting innovation and legislation will help operators cut costs and improve levels of safety

