

The cost of failure

Quality comes at a price, says Paul Reid, but it's the only way to make LEDs pay



At last year's euroLED conference in Birmingham, a manager from Philips gave a presentation delivered with a passion clearly borne out of frustration. It certainly resonated with those of us who are trying to provide clients with better quality LED lighting products.

According to him, anyone attempting to sell premium LED products was in for a very tough 18 months to two years because there is currently no standardised way for buyers to assess the LEDs put before them and it takes around 18 months for the 'rubbish' to show its true colours. The majority of purchasing decisions are still based on cost, he said, despite the accepted caveat 'you pay peanuts...'

The inevitable problems that follow range from colour shifting and incompatibility to complete failure. The causes can be poorly binned LEDs, ineffective thermal management, driver design, cheap component selection, quality control in assembly, or any combination of the above.

Those of us who meet prospective buyers face to face hear these horror stories every week so we know how seriously this warning should be

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taken. In an attempt to bring some transparency to the market, the Lighting Industry Association is initiating a market surveillance programme with the goal of naming and shaming those products that simply do not meet the performances claimed in company brochures.

This is good news and definitely a step in the right direction, but given the rapid growth in the number of companies now selling LEDs in the

UK, its impact, at least initially, could be marginal. For a more wide-reaching strategy we have to move to minimum benchmarks such as UKAS-accredited independent test data.

Without universally accepted standards, how can the buyer justify to his or her superiors paying the premium for the better quality LED, especially at a time when budgets are under more pressure than ever before? And yet this is exactly why it is so crucial that investment in LEDs is an informed decision and not one based on marketing collateral and heavy discounting.

Good LEDs are not a commodity product. They are a design-led, highly engineered solution that, in the right applications, will repay their initial cost many times over. In many ways they are the most important tool we have for tackling the issue of energy efficiency in buildings. As a retrofit source they are the most visible, least disruptive solution to install while providing the biggest 'bang for your buck' in terms of energy and carbon abatement – and that's before you start factoring in the savings on maintenance and relamping.

In addition, sustainability and environmental responsibility have

risen up the boardroom agenda in recent years and here again good LED products provide an answer. And yet there are still estimated to be as many as 100m linear fluorescent tubes sold in the UK every year. This technology is now more than 80 years old and still dominates commercial buildings.

Fluorescents are fragile glass tubes filled with hazardous waste and – despite five years of WEEE – many still end up in landfill. The justification for this is based on a common misconception that fluorescents are ‘cheap’, which of course they are if you don’t factor in the cost of ownership. If you ignore the electricity usage, forget the carbon, accept the maintenance and relamping costs and have no interest in sustainability and environmental responsibility, then yes, compared to LEDs, fluorescents are cheap.

None of this is news, so why does the status quo persist? Conversations with buyers would suggest that as an industry we only have ourselves to blame. Many have tried LEDs, typically on a small project, and have been badly let down by inferior products and abysmal service. Networking, forums and social media allow for near instantaneous sharing of these painful experiences. The result is a sceptical audience that considers LEDs a standardised technology in the same way that fluorescents have now become.

Nobody cares that your T8s or T5s are Osram, Philips or GE other than Osram, Philips or GE. Fluorescents have reached their zenith and

differences in performance are indiscernible. If the same were true for LEDs then price is indeed the appropriate measure.

LEDs are only really getting started and the development potential is truly staggering but you don’t need to wait to take advantage. The opportunity to eliminate fluorescents exists today but only if you can sort the wheat from the chaff.

When a sales person proclaims a 100,000-hour lamp life but only a two-year warranty, the alarm bells should be ringing. The best LEDs come with a warranty that covers the entire expected lamp life regardless of burning hours, so that means 24/7/365 if that’s what the site demands are. This means you have effectively guaranteed the return on investment which you simply cannot do with poorly made LEDs.

We are facing a perfect storm of rising energy costs, mandatory carbon reporting, growing energy demands, reduced generating capacity and new European directives, all at a time when we are attempting to migrate to renewables on a creaking, outdated network infrastructure.

Since Nichia developed the white LED in 1996 the potential for halving the electricity drawn by commercial lighting was born. Surely now is the time for UK organisations to future-proof their building assets and invest in high-quality LED technology.

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