

How-to guides

Lighting the vertical

When lighting our roads, streets and other exterior areas we generally consider how much light we put on the horizontal plane and its uniformity. In areas where there are pedestrians, the vertical surfaces – buildings, monuments and trees are often a major part of the visual scene.

Normal lighting will often need supplementing to ensure these surfaces are well lit to create an interesting night time scene. This can take a number of forms, including floodlights, ground recessed luminaires or lighting at first floor level. Take care to control this light well to avoid glare and spill light into the sky.



Light Point & Monza
Logistics Facility, Hull University



Capra & Petra
Q8 Quorum Business Park, Newcastle

Lighting landscapes

Gardens and landscaped areas are increasingly being illuminated, both for personal safety and as a visual amenity.

However, landscape lighting has a number of associated problems, including electrical safety (electrical installations must comply with BS7671: 2001). While mains voltage equipment should never be used within water features.

The key to successful landscape lighting is subtlety and selectivity. In most cases there will be little competing light, so fairly low light levels will have considerable visual impact.

- Consider light pollution and unnecessary energy usage. Can elements of the lighting scheme be switched off at certain times of night or year? For example, some trees may not benefit from up-lighting in the winter.
- Avoid trying to light landscapes in an all-over, uniform manner. Best results are often achieved by the selective highlighting of key objects within areas of darkness.
- Always consider the main pedestrian routes or viewing positions – light to enhance those views.



Akord Cone & Cube bench
The Orchard Theatre, Dartford

Why light in white?

White light has the proven effect of appearing brighter than sodium lighting, especially at lower light levels, which means less light can be used to achieve the same level of visibility. In an age of rising energy costs, this potential economic benefit has been acknowledged in European codes which permit a lower lighting class for white light installations than for those using other types of light in S class applications.

With night-time economies thriving, our urban centres have been transformed into vibrant living and leisure spaces after dark. With research indicating that night-time visitors spend more per head than daytime visitors; large areas of our city centres have been pedestrianised and indoor activities, such as socialising, shopping, dining and entertainment, have partially moved outdoors.

New uses demand new lighting. Orange-tinted sodium lighting, with poor visual characteristics, is inadequate for the competitive, pedestrian-friendly, night-time leisure culture of today. Enter the new generation of high quality 'white light' sources – most notably LEDs (arguably the 21st century light source of choice), ceramic metal halide and high frequency linear and compact fluorescent. These new white light sources have a number of advantages over older SON, SOX and MBF lamps. They offer a wider colour spectrum, much closer to the appearance of daylight. They also have a high colour rendering index (CRI) – typically Ra80 or above allowing people, objects and the environment to be seen in all their natural colours, previously lost in the muddy visual ambience of low CRI light sources.

In addition to making the night time scene more attractive, there are also clear benefits for public safety. Better quality lighting is proven to encourage more pedestrians on the streets, a greater level of 'informal surveillance' is then required to identify potential wrong-doers and ensure less opportunity for crime. White light is also highly compatible with most types of CCTV camera, which further enhances its public safety role.



Silka Bollards & Monza
Sunderland College



Rio
Central Forest Park, Stoke-on-Trent