

# Outdoor lighting guideline

## FACT SHEET

This guideline has been prepared to assist in the planning and design of outdoor lighting, particularly at commercial and industrial premises. Well-designed outdoor lighting promotes safety and security but avoids light spillage onto nearby properties. It reduces the incidence of glare nuisance, conserves energy, saves money and preserves the night sky.

### New premises

Outdoor lighting to all new commercial and industrial buildings should be designed in accordance with Australian Standard 4282-1997 'Control of the obtrusive effects of outdoor lighting' and with the 'Safer by design' guidelines prepared by the NSW Police.

Section J of the Building Code of Australia requires artificial lighting outside a building to be controlled by a daylight sensor or a variable pre-programmed time switch. Where the total outdoor lighting exceeds 100W it must also be controlled by motion sensors or the light fixtures must have an average efficiency greater than 60 Lumens/W.

*State Environmental Planning Policy 64 'Advertising and Signage'* requires Councils to consider the amenity of nearby residences and avoidance of glare nuisance when considering development applications that include illuminated signage.

### Existing premises

Existing premises are encouraged to review their existing outdoor lighting in accordance with this guideline. The use of new outdoor light fittings with full shielding, plus energy efficient bulbs such as LEDs and solar powered lighting can result in significant energy savings and a reduction in operating costs. Shielding devices can be retrofitted to existing light fittings, improving their performance by directing light downwards and allowing the use of lower-lumen bulbs.



## General principles

- The location and level of outdoor lighting should provide the minimum adequate illumination for that site. It should not be excessive and should not trespass onto adjacent public or private land.
- Operate lighting only for the minimum period necessary – consider timers and daylight/motion sensors.
- Outdoor lighting should be located above the target area and directed down with full shielding – this avoids upward and horizontal light spillage and glare.

## Well-designed outdoor lighting has significant benefits

- Lower power bills and greenhouse gas emissions through efficient energy use
- Avoidance of glare nuisance to motorists and pedestrians
- No light spillage or trespass to annoy neighbours
- Preservation of the night sky (i.e. a view of the stars) in urban areas
- Improved security of a site through reduced glare
- Reduced disruption to nocturnal animals

## Examples



An inefficient light is aimed almost horizontally spilling light upwards and dazzling motorists



Full cut-off box lights direct light downwards and are cheaper to operate



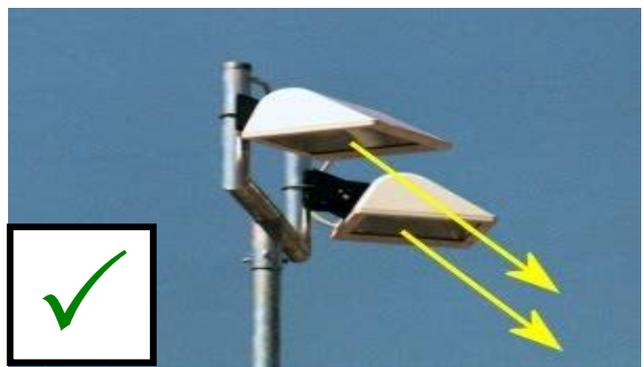
This double fluoro has no shielding emitting light sideways and upwards



A full cut-off light directs light downward to where it is required



This light is incorrectly aimed so most light is wastefully beamed into the sky



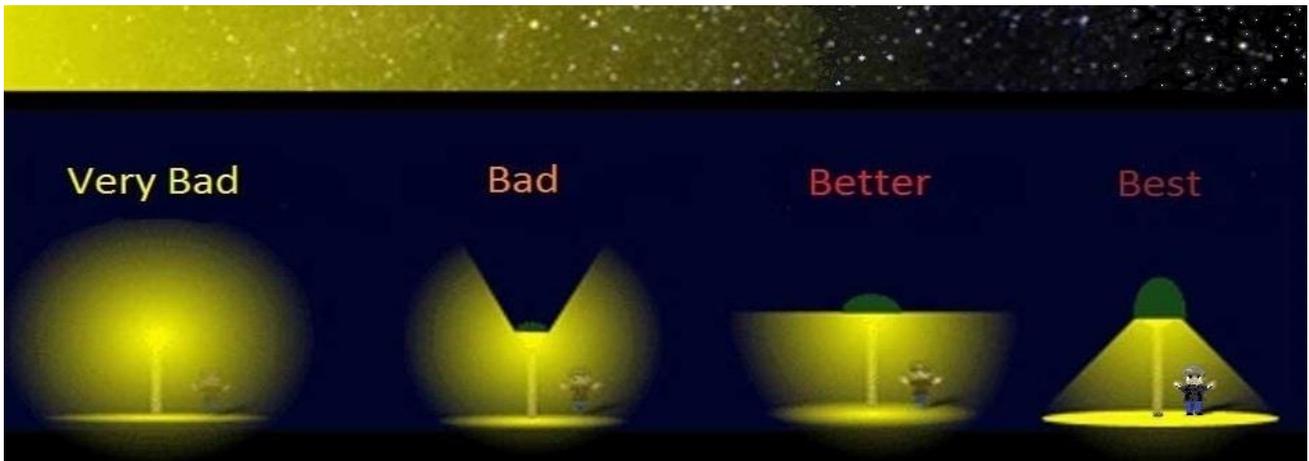
Correct positioning



Signs illuminated from below lose light skyward



Down lights are more efficient reducing energy waste and operating costs



Effective security lighting



Hazards to Motorists



Light Trespass



Increased Cost



Wildlife Disruption



The two photos above show the affects of “light trespass”. Note the occupants of these dwellings have resorted to shielding their windows to keep out unwanted light.



In the photo above, the brightly illuminated night sky is a perfect example of wasted energy. Business owners may be unaware that they contribute to this problem and are wasting money operating poorly designed and/or directed outdoor lighting fixtures.

**Disclaimer:**

This information is provided in good faith as a guide. The relevant legislation and Planning documents take precedent over the information in this fact sheet.