

Australasian Dark Sky Alliance (ADSA)

# Best Practice Lighting Principles



## What is Light Pollution?

Light pollution is defined as the inappropriate or excessive use of artificial light at night. It is the fastest growing pollutant on the planet, with scientific research showing an average increase of more than 2% year-on-year. Light pollution is directly associated with:

- Energy waste and the increase in greenhouse gas output and our carbon footprint,
- Endangering ecosystems and altering biochemical or circadian rhythms in plants and animals, including humans, and
- Loss of connection to the stars, impacting on astronomy and cultural heritage values.

## Who are we?

The Australasian Dark Sky Alliance (ADSA) is an independent charity. As part of its charter it aims to educate the public and policymakers about night sky conservation, and promote environmentally responsible outdoor lighting.

With the serious and long-term effects of current global outdoor lighting trends, it is imperative that anyone working with outdoor lighting be aware of how to mitigate the potential negative impacts of artificial light at night. At the same time, the positive effects of properly considered outdoor lighting on the quality of life for humans are vital, and must be balanced with environmental concerns.

To that end ADSA supports and promotes the Best Practice Lighting Principles. The principles are designed for concurrent application with existing Standards and Guidelines such as AS/NZS 4282, AS/NZS 1158 and the National Light Pollution Guidelines for Wildlife.

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## Best Practice Lighting Principles:

Start with natural darkness.  
Only add light for specific purposes.

# 1.

**Light only the object or area intended.**

Lights, and the surfaces they illuminate, should be arranged to minimise stray light heading to the sky, and shielded to avoid light spill. Reduce or eliminate any direct views of light sources.

# 4.

# 2.

**Use adaptive light controls.**

Manage light timing and intensity. Ensure light levels are aligned to the human occupancy of the space.



Use the lowest intensity lighting appropriate for the task.

Consider the reflectance of all infrastructure surfaces and reduce illumination accordingly for higher reflective surfaces. Consider the likely night time activity of the space, and how this may change across an evening.

# 3.

# 5.

**Use reduced short-wavelength light sources.** Use light sources with reduced or filtered blue, violet and ultra-violet wavelengths.

BAD

GOOD

# 6.

**Use a suitably qualified lighting professional.**

Practitioners of exterior lighting should have attained recognition through a standardised assessment process from a professional organisation.

