

# Sustainable Purchasing Guide

## Lighting Products



### Use this Guide When Purchasing

- Lamps (light bulbs)
- Luminaires (light fixtures - interior and exterior)
- Lighting retrofit kits

In 2022, California passed AB 2208, which bans the sale of most fluorescent lamps—including compact fluorescent lamps (CFLs) and fluorescent tube lamps (e.g., linear, u-shaped, circular). As a result, government agencies, businesses, and consumers must transition to LED lamps, retrofit kits compatible with existing fixtures, or new luminaires. This *Sustainable Purchasing Guide*

is intended to help purchasers select high-performance LED lighting products that also offer environmental benefits such as reducing toxic chemicals like lead and preventing light pollution.



### How to Purchase

Check with your central procurement office, facilities staff, or energy manager to find out if you have any contracts for products or services that employees are required to use to purchase lighting products. When seeking these products in a store or online, check the product details to confirm it meets the Minimum Requirements listed below. If lighting is included in a construction project, confirm that the designer and contractor are informed about the following Minimum Requirements as well.

### Product Requirements - *specify or seek:*

| MINIMUM REQUIREMENTS/SPECIFICATIONS  | LEADERSHIP OPPORTUNITIES  |
|--|---|
| <ul style="list-style-type: none"><li>• All lamps, retrofit kits, and fixtures (except emergency and specialty products) must use LEDs as their only light source</li><li>• The following types of lighting equipment must be certified by the DesignLights Consortium (DLC) or ENERGY STAR:<ul style="list-style-type: none"><li>- All luminaires and retrofit kits</li><li>- Linear and u-shaped tube lamps (e.g., T8s, T5s)</li><li>- Four-pin replacement lamps for CFLs</li></ul></li><li>• Outdoor luminaires must be dark-sky friendly, which means they:<ul style="list-style-type: none"><li>- Are fully shielded (eliminate upward-directed light)</li><li>- Are directional (light only the area that needs it)</li><li>- Minimize blue-light emissions (use “warmer” color lights)</li></ul></li></ul> | <p><i>Minimum Requirements plus one or more of the following:</i></p> <ul style="list-style-type: none"><li>• DLC Premium certification</li><li>• Labeled RoHS-compliant, which means it is free of lead and other persistent toxic chemicals</li><li>• Dimmable</li><li>• Compatible with programmable lighting systems such as timers and sensors</li><li>• Outdoor luminaires are DLC Luna certified or DarkSky Approved</li></ul> |

## Eco-Labels to Look For



### PRODUCT REGISTRIES

Find/verify certified lighting products by using the following online certified product registries:

#### *For All Lighting Equipment*

- [Design Lights Consortium \(DLC\) Qualified Product List \(QPL\)](#)
- [ENERGY STAR Product Registry: Light Fixtures \(Downlights\)](#)

#### *For Outdoor Fixtures Only*

- [Dark Sky Approved Products List](#)
- [DLC Luna QPL](#)

## Related Tips

When shopping for LED lamps/bulbs, consider the following factors:

- **Brightness:** Look for products with an equivalent number of lumens to the lamp or fixture you're replacing.
- **Energy consumption:** Look for products with a lower wattage that still provide the brightness you need. Choosing energy-efficient options reduces both environmental impacts and annual operating costs. Dimmable products can lower electricity consumption even more.
- **Lifespan:** Look for products with a long expected life, typically measured in hours, to reduce replacement frequency and waste.
- **Color temperature:** LED lighting is labeled with its correlated color temperature (CCT) on the Kelvin (K) scale, ranging from warm to cool tones. Lower CCTs (2700K–3000K) produce a warm, yellowish light, while higher CCTs (4200K–5000K) emit a cooler, bluish light. Offices often prefer a neutral range of around 3500K.

## Did You Know?

- LED lamps and retrofit kits are often compatible with existing light fixtures with no need to replace fixtures. Some LED lamps have a built-in driver, so they can work even after the ballast fails.
- It is often cost-effective to replace a fluorescent lamp with an LED lamp even before it fails since the energy savings typically covers the cost of the new lamp in a year or less.
- In California, fluorescent light bulbs, which contain mercury, must be handled as hazardous waste—they cannot be thrown in the trash or crushed. LED bulbs, while safer, still contain electronic components and small amounts of heavy metals, so they also must be collected and recycled properly. Local agencies should store used bulbs separately and check with CalRecycle or their local hazardous waste program for approved disposal or recycling options. For more information about managing mercury-containing lamps, see [DTSC Managing Waste Fluorescent Bulbs and Other Mercury-Containing Lamps Fact Sheet](#).

## Why Is Light Pollution a Problem?

The inappropriate or excessive use of artificial light – known as light pollution – can have serious environmental consequences for humans, wildlife, and our climate. Much outdoor lighting used at night is overly bright, poorly targeted, improperly shielded, and in many cases, completely unnecessary.

To minimize harmful light pollution, outdoor lighting should:

- Eliminate upward-directed light (i.e., lighting fixtures should be on either the DLC Luna or DarkSky Approved products lists).
- Only be on when needed.
- Only light the area that needs it.
- Be no brighter than necessary.
- Minimize blue light emissions.



*“Light pollution disrupts wildlife, impacts human health, wastes money and energy, contributes to climate change, and blocks our view of the universe.”*

~Dark Sky

Learn more about light pollution  
at [Dark Sky](#).

## Additional Resources

- Check the [DesignLights Consortium](#) website for lighting specifications, how-to guides, case studies, etc.
- Read [Farewell to Fluorescent Lighting by the American Council for an Energy Efficient Economy \(ACEEE\)](#), which provides more information on the economic (and environmental) benefits of transitioning to LEDs.
- Go to the [StopWaste Sustainable Purchasing website](#) for additional implementation resources such as other [Sustainable Purchasing Guides](#), [compliant product lists](#), [contracting resources](#), and other support tools.