

# Bright Ideas for A Well-Lit Deck



**Make your deck safer and more enjoyable with good lighting**

BY GLENN MATHEWSON

**A**side from a sturdy structure and strong railings, good lighting is an outdoor deck's most important safety feature. Decks might have multiple levels, or they might be wet and slippery from nearby hot tubs and wet bars. In addition, decks can be crowded with guests unfamiliar with the layout.

Proper deck lighting is about more than just safety, however. The right lights in the right spots can make a deck better looking and more enjoyable. Although deck lighting can feel overwhelming with so many fixtures, brightness levels, and installation methods to choose from, the end result is worth it. After all, who wants the fun times on their deck to stop when the sun goes down?

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**Essential**



**Targeted**



**Ambient**



## Three levels of light

The best deck lighting considers all three kinds of light. Essential lighting is that required by code at doors and stairs. Targeted lighting is for specific tasks, such as grilling or eating. Ambient lighting creates an inviting space and brightens dark areas.



## Essential lighting

There are two spots on a deck where building codes require lighting. For security, the International Residential Code (IRC) requires a light near every exterior door with grade-level access. This light allows you to see visitors before you open the door. If you're installing a door adjacent to a deck that has access to grade, you'll need to include a light with a wall-mounted switch.

The code also requires that stairways be well lit; unfortunately, the IRC's language is cumbersome. In simple terms, it calls for a fixture at the top landing of every stairway and for a "means to illuminate" the whole stairway.

For a deck with stairs near the door, a single bright light may be enough to illuminate both the stairs and the entry. When the stairs are farther from the door, you'll have to light these areas separately.

Stairways must be at least 36 in. wide, so nonrecessed, post-mounted lights may create a code violation on narrow stairs. Keep in mind that according to the IRC, even a single step between two parts of a deck is a stairway and so is subject to stair-lighting requirements.

**Lighting stairs for safety.** To prevent falls, the IRC requires a light at the top landing of every stairway. The rest of the stairway must be illuminated, too. Riser lights, post-cap lights, and post-mounted lights are all suitable options.



**Easy on the eyes.** Obscure glass is a better choice for fixtures where the bulb is visible. Clear glass creates a "flashbulb effect" that temporarily blinds guests with harsh light.



# Targeted lighting

Many decks have lighting targeted for specific tasks. When you're making a deck-lighting plan, it's helpful to break the deck into rooms rather than approach it as one big space. Common areas include food prep, dining, and pools and hot tubs.



## FOOD PREP

Just like an indoor kitchen, a deck's food-prep area should have at least one light aimed at each workspace. To better set the mood after the cooking is done, these lights should be switched separately from general lighting. The greatest difficulty in illuminating a grill is finding a spot overhead to mount the light. One common solution is spot lighting in the home's soffit, but shadows from the chef or from the grill lid can be problematic. A better choice is flexible grill lights, which are available from several manufacturers. These lights can be mounted on a wall or installed on a guardrail.

## DINING

Lighting for a deck's dining area is best installed where it can illuminate the area without shining in peoples' eyes. A logical spot is on a roof or trellis over the table, where a light can also be a decorative centerpiece. Roof or trellis mounting makes it easy to tie the lights into the house's 110v power. Using that power source also makes a ceiling fan a possibility, provided it's rated for outdoor use. For ambience, dining lights should be less bright than kitchen lights and on a dimmer. Without a trellis or a roof over the table, select a

lightweight low-voltage system that hangs from an umbrella or shade frame.



**Light the dining table.** When you don't have a roof or trellis for a ceiling-mounted light, low-voltage umbrella lights are a good substitute.

## POOLS AND HOT TUBS

Lighting is incorporated into many pools and hot tubs; when it's not, building codes affect how it's done. The IRC requires any fixtures within 5 ft. of the water's edge, including low-voltage lights, to be at least 12 ft. above the water. The code also requires tempered safety glass within that same distance when the glass is 5 ft. or less above a walking surface. This primarily refers to windows, but it also includes glass light fixtures.



## Ambient lighting

Compared to that of indoor spaces, a deck's ambient lighting is less intense and more dispersed. It's good for filling in where code-required and targeted lighting leave off. Ambient lights can be built into the railing, attached to balusters, or installed in the floor. Many of these lights add an attractive design element on their own.

### LIVING SPACES

Families love sitting around indoor fireplaces, so it's no surprise that outdoor fire pits are increasingly common in deck construction. They're a great way to bring light to the center of a large deck. Just make sure that any surface surrounding the fire pit is noncombustible.

**A sophisticated campfire.** Both wood- and propane-fueled fire pits provide light and a natural gathering spot in the center of a deck, which is often tough to illuminate.



**Post-mounted lights.** Available in many styles, post-mounted lights are a good option for ambient lighting. Some railing manufacturers offer post lights that match their rails.



## SOURCES

**Aurora Deck Lighting** [auroradecklighting.com](http://auroradecklighting.com) • **CopperMoon** [coppermoon.com](http://coppermoon.com) • **Dekor** [de-kor.com](http://de-kor.com)

**Deckorators** [deckorators.com](http://deckorators.com) • **FX Luminaires** [fxl.com](http://fxl.com) • **Highpoint Deck Lighting** [hpdlighting.com](http://hpdlighting.com)

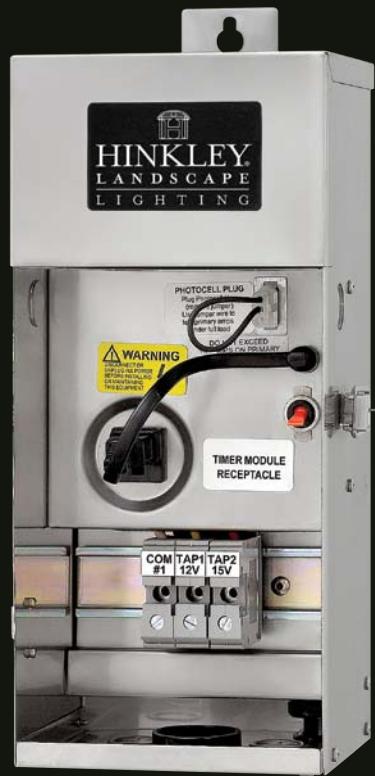
**Hinkley Lighting** [hinkleylighting.com](http://hinkleylighting.com) • **Kichler Lighting** [kichler.com](http://kichler.com) • **LMT Mercer Group** [lmtproducts.com](http://lmtproducts.com)

**Moonlight Decks** [moonlightdecks.com](http://moonlightdecks.com) • **TimberTech** [timbertech.com](http://timbertech.com) • **Trex** [trex.com](http://trex.com)

**Unique Lighting Systems** [uniquelighting.com](http://uniquelighting.com)



**Dining lights should be overhead.** Porch roofs and pergolas provide the ideal location for line-voltage-connected dining fixtures and ceiling fans. The roof makes it easy to hide the wires and provides a sturdy spot for mounting the fixtures. Lighting for dining areas should be dimmer controlled to match the mood.



## Line voltage vs. low voltage

Line-voltage outdoor lights run off the same power that's used inside the house, but the fixtures and wiring methods must be approved for outdoor use. Line voltage is the right choice for switched lights near the patio door and for ceiling fans over outdoor dining tables. For other deck lighting, the conduit and watertight boxes make line voltage more difficult to install and hide.

Low-voltage lighting fixtures are more forgiving to work with, more flexible to install, and generally safer than line-voltage fixtures. Low-voltage lighting circuits start with a transformer that reduces 120v line voltage to safer and easier-to-install low voltage (12v to 30v). Many high-quality transformers have multiple taps of various voltages. Higher-voltage taps are used to prevent dimming caused by voltage drop on long runs. Transformers range from 45w home-center versions (\$35) to 1800w underground models (\$1600). Many transformers are controlled by a timer or photo cell that turns the lights on and off automatically.

**Line voltage into low voltage.** Transformers convert line voltage into low voltage. Products vary greatly in price and the number of fixtures they can power. Some models include timers for operating the lights on a schedule.



## Solar

Individually powered solar lights are another lighting option. The most common are post-cap lights, which provide sufficient area for the on-board solar panel. These lights aren't bright enough for feature lighting, but they can provide low-level ambient light. However, there's little variety, and many folks find their squarish shape less attractive than other types of fixtures.

The most obvious benefit of solar-powered lights is their easy installation.

**Solar lights are often post-mounted.** Because they're always facing the sky, the tops of posts provide the ideal spot for solar-powered deck lighting. The on-board solar panel charges the built-in battery during the day so that the light can shine at night.

**Supereasy installation.** Powered by a small photovoltaic panel and an on-board battery, solar-powered lights are not as bright as line- and low-voltage lights. But because they don't need wires or junction boxes, installation takes minutes.

