

Outdoor LED Lighting

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Your Simple 4 Step Planning Guide  
+  
Your Simple 4 Step Choosing Guide

Outdoor LED Co.  
efficient lifestyle lighting

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# Outdoor LED Lighting

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## Your Simple 4 Step Planning Guide:



### Explore Ideas & Imagine your Ideal Outdoor Lighting Spaces

What spurred you to think about outdoor lighting in the first place? If you define the night time atmosphere you want to enjoy, and your likely activities around your patio, deck or landscape at night - you're well on your way to planning your lighting project. Here are some ideas to get you started:

- A. Entertain your friends and family outside into the evening without worrying about it "getting dark" and having to go inside.
- B. Host late evening barbecues for your friends and family with clear lighting over the bbq, grilled steaks, colorful veggies, bread and wine.
- C. Enjoy intimate and enchanting dinners with your partner or a date under a subtle low voltage hanging light.
- D. Sip a favorite beverage and relax on your deck after work, with easy-on-the-eye LED lighting to read a book, the paper or enjoy company.
- E. Walk safely around the landscape, from the entrance through the garden and to the house without stumbling or needing a flashlight every time.
- F. Keep the grounds more secure at night....and worry less.
- G. Create family gathering memories with your children, parents, friends or grandchildren enjoying the out-of-doors around the home.
- H. Give your teenager and their friends a safe and "cool" place to "chill out" at night, so they don't always need to hightail it out of the house.
- I. Sit by an open pit campfire or outdoor heater on chilly nights and stargaze, with a subtle low lighting of pathways to ultimately make your way back to the house to sleep.

# Planning your Own Outdoor LED Lighting

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- J. Use Pinterest to find pictures and images of backyards, decks and patios with lighting that appeals to your sense of style and the size of your yard. Create your own image boards with the photos you like best. Try a variety of search terms (patio lighting, deck lighting, LED outdoor lighting...have fun with it).

The [Outdoor LED Company Pinterest site](https://www.pinterest.com.au/outdoorledco/) (https://www.pinterest.com.au/outdoorledco/) - is a great place to start with inspiring images to help you explore your own outdoor lighting project ideas.



## Walk & Sit in your Outdoor Spaces at Night - with a good flashlight!

Time for a night walk. Simply wander around the house and your yard with a flashlight. Take your time. Where do you need or want lighting - and in what spaces around the house and landscape? Consider the mood or feeling you want to create. Here are some practical ideas and mood generating tips of the possibilities to get you started:

- A. Show off elegant stonework or wall textures.
- B. Highlight subtle curves of a sculpture, shrub or the form of a beautiful tree.
- C. Side light steps or elevation changes between (between your deck and garden).
- D. Create a welcoming atmosphere for your home entryway.
- E. Brighten a barbecue or outdoor cooking area (to make sure the steaks don't burn).
- F. Create a warm and intimate space for sitting, lounging or dining outdoors.
- G. Illuminate an entertaining area for outdoor parties or games.

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- H. Light your steps, paths, and driveways so family members and guests are able to move about easily and safely after dark.
- I. Convert a deck, porch or patio into an evening retreat by concealing low-voltage lights under steps, railings, or benches.
- J. Hang bistro-style string lights to create a dining and entertaining atmosphere.
- K. Add a subtle lighting effect to a trickling stone fountain.
- L. Adjust the level of brightness - bright lighting to walk or find something, then intimate low lighting over dinner.
- M. If you have existing lighting, what is it about it that you don't like and would change?
- N. What others can you think of?



## Discover your Preferred Lighting Style

While you're outside at night, use your flashlight to test common lighting techniques while you explore your outdoor spaces. It sounds simple. But while certainly not exact, it can still be effective. Use different flashlights or adjust the brightness. This works best with a partner so one can stand back away to look while the other holds the light.

So plan a night with a friend, partner or sibling and make an evening of it (remember to watch you're step). Which of these often-used lighting techniques below would you choose for your patio, deck or landscape?

### A. Down Lighting

Elevated spotlights in trees, off balconies or eaves to broadcast light over a wide area for entertaining or security. The higher the light is placed, the wider the beam and larger an area can be lit. Use a narrow spotlight or place the light lower to the ground to highlight architectural details or garden beds on the perimeter of the house or walls.

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### B. Moonlighting

Mimics natural moonlight filtering effects through leaves and branches. Place a spotlight high in a tree or structure and aim downward at an angle. Patterns of shadows can be created on flat surfaces such as patios, decks and walls ... with some really sweet effects.

### C. Deck Lighting

Hide tape lighting under fixed bench seating and under the edge of handrails. Hang pendant fixtures from the inside of large umbrellas, from pagodas and over seating and table areas. On low decks with no railing or edging on a pool, small recessed deck lights create a safe border and delineate the edge.

### D. Step Lighting

Use recessed or surface mounted deck lights to highlight single or multiple steps, elevation changes, and edges to increase safety and ease of movement through the space.

### E. Pathway Lighting

Used for safe passage along walkways at night. Path lights are typically stem mounted in the ground with a hooded fixture to prevent glare by casting circular patterns of light over the path while highlighting nearby flower beds. Usually positioned in landscape cutouts and path edges.

### F. Grazing

Used near the base of a wall or facade, will reveal unusual stonework and unique textures and details of vertical materials in surprising ways.

### G. Wall-washing

Creates a smooth and even look, quite different from the textural grazing technique. The light fixture is placed several feet away from the wall to maintain even ambient lighting for the nearby area. Use wide-angle flood lights with low lumens.

### H. Uplighting

Use spotlights to feature special trees, large shrubs or architectural features.

### I. Accent Lighting

Unique architectural features and sculptures come alive at night by focusing light on the chosen subject. Up or down lighting can both work, but position the light source in a hidden spot to avoid glare.

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## Your Simple 4 Step Guide:

### J. Shadowing

A light fixture is placed just in front of the subject so the light casts a shadow on a vertical surface. To shrink the shadow, move the luminaire farther away from the subject. To enlarge the shadow, move the light closer.

### K. Silhouetting

This type of lighting highlights a subject's outline and form, such as a dense shrub, sculpture or tree. Placing a spot light directly behind the subject and creating the dark outline silhouette of the subject. The colors and textures of the object are not seen, only the impactful shape.

Remember to check out our [Pinterest site](https://www.pinterest.com.au/outdoorledco/) for some great ideas and images (https://www.pinterest.com.au/outdoorledco/).



## Hand Sketch a Rough Lighting Plan

Just remember, your sketch doesn't need to be a work of art. It just needs to represent your ideas and vision. Just list out the places and techniques you want to use if that works better for you.

- A. Now is a good time to consider maintenance. Do you use a landscape maintenance contractor or do you maintain your own yard? Are you planning an upgrade or renovation to your landscape? This will affect where you put your lights. It's best to keep your lighting fixtures out of the way of intensive maintenance areas if possible.
- B. Sketch out the spaces and areas where you decided to add lighting.
- C. Use directional arrows for light beams.
- D. Add comments about the lighting techniques you want to use.
- E. Do you want to hide the fixtures out of view, or allow them to be seen?

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## Your Simple 4 Step Guide:

- F. Note down relative locations of seating, benches, tables, walkways, steps and activities that will benefit from the lighting.
- G. Note the adjacent properties and houses. You'll want to avoid annoying your neighbors with your lighting choices.
- H. Mark the locations of any nearby outdoor GFCI outlets (ground fault circuit interrupter). This is where you'll plug in a low-voltage transformer (for low-voltage systems). If you don't have a GFCI outlet available, you will need to get an electrician to install one.
- I. Note: 120V fixtures need to be installed by a licensed electrician.

That's it! You've got a rough plan for your outdoor patio, deck or landscape lighting.

Now that you have a rough sketch, we'll show you exactly how to choose the right LED low-voltage light fixtures, transformer and cable to fulfil your lighting vision plan!

Remember: weather and salty air, pruning, mulching, hedging, irrigation and fertilizing make choosing high quality fixtures (like bronze, copper, brass) important. Robust lighting fixtures will stand up better (than cheap plastic) to maintenance work.

# Outdoor LED Lighting

## Your Simple 4 Step Choosing Guide:



### Choose the right system

Choose low-voltage outdoor-rated LED fixtures. Why?

Because LED fixtures have LEDs designed specifically into the lighting fixture, assuring their performance and quality of light distribution. Well-made LED fixtures are a higher quality product than LED “bulbs” that have been developed to replace other bulbs within existing electrical & dimming systems. Here are some of the features that make an outdoor LED lighting system easy to design and install on your own:

- A. These fixtures allow you to “plug and play”, making the installation simple and straightforward.
- B. Low voltage (8-15V) is safer for pets and people.
- C. DIY’ers can connect them easily along a single strand of wire/cable – “voltage drop” is hardly a consideration as they operate at full brightness between 9-15V.
- D. Purchasing “UL-wet” or ETL wet-listed quality fixtures is the most reliable and best option for an outdoor setting. Poor quality fixtures will corrode and die in 6-months (more on quality fixtures below).
- E. LEDs enjoy 20,000 - 50,000 hours of long-lasting life.
- F. The price of your smart investment is offset over time by savings in labor, wiring and electricity costs.
- G. A group of LED fixtures can use smaller transformers because of lower wattage requirements.
- H. LED fixtures provide more flexibility and control with dimmers.
- I. Systems can adapt easily to remote control, sensor and wireless technologies.

# Outdoor LED Lighting

## Your Simple 4 Step Choosing Guide:



### Select Your Light Quality (Color, Brightness) and Housing Materials

Where do you need / want lighting and what mood or feeling do you want to create? Here are some mood generating ideas and tips to get you started:

- A. Look for fixtures with light output between 100 – 200 lumens generally. This provides enough light, creates ambience while avoiding glare.
- B. Choose several low wattage (e.g. 2-7W) LED fixtures instead of one bright fixture that keeps your neighbors awake!
- C. For lighting outdoor game or entertaining areas, look for higher lumens and a wide beam spread.
- D. Use 2700K color temperature for a warm light similar to incandescent bulbs. If “moonlighting”, you can choose a about 4100K as this is the moon’s natural color temperature.
- E. Material / Finish – **Solid brass fixtures** with a bronze finish are solid, resist corrosion, and will last for many years even in coastal environments. See <http://outdoorledco.com/blogs/resources/18139881-outdoor-led-lighting-materials-what-will-last> for more information. A number of color finishes are usually available.
- F. Use fixtures that have shrouds to minimize glare and over-spill of lighting. Lenses, louvers, and shrouds maximize effects and reduce glare.

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## Your Simple 4 Step Choosing Guide:



### Select Your Light Fixtures

When you decide how many light fixtures to purchase, it is best to have more fixtures at less lumens than fewer fixtures at brighter lumens. This is because you'll have more control over ambience. Think of trying to wash everything over with one bright light versus covering a wider area with several lights. The effect is much nicer with the latter. Here are some types of lights to consider:

A. **Path Lights**

Typically shrouded fixtures (you know...the "hats"). They can be set deeply in foliage to backlight leaves and stems. They provide low-set, evenly distributed glow to feature adjacent garden beds, ground covers, driveways, steps and paths.

B. **Spot Lights**

An efficient method of lighting, "bullet" and accent lights can vividly illuminate areas. The most versatile lights, they are good for up and down lighting trees, grazing rock walls and moonlighting downward through trees.

C. **Flood Lights**

Have a wide-angle to cast light over a broad area creating bright ambient light. Good for sign lighting, wall washing, security or large entertaining areas.

D. **Deck and Step Lights**

Recessed fixtures are typically good for new construction or if your handy with tools, while surface mounted fixtures are easier to install (but you'll need to hide the cable). Mount in step risers, underneath railings, intermittently along walls or on vertical posts.

E. **In-Ground/Well Lights**

Bury these fixtures flush with the ground. Great for up lighting trees, shrubs, walls statues and grazing textured walls.

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### F. **Hanging/Pendant Lights**

Use under pergolas, umbrellas, over outdoor dining or lounge tables and as decorative “mood-setting” lights.

### G. **Bistro/String Lights**

These lights are reminiscent of historic outdoor fairs and perfect to create a feeling of festive occasions.

### H. **Wall Lanterns**

Mount at entry doors and on porches to cast light outward either direct or diffused. These fixtures should measure about  $\frac{1}{4}$  the height of the doorway.



## Make a List of Supplies and Equipment

- A. Make a list of your chosen LED fixtures (including the watt, lumen, type and color). Add up the total watts.
- B. Choose a transformer with multiple voltage outputs (e.g. 11-15 volts). Here’s the formula for choosing a transformer watt capacity: The total wattage of all your fixtures should be at least 30% of the chosen transformer wattage and 85% (or less) than the transformer wattage. That way you have more room to add lights later.
- C. Measure how much cable you need. Cable run pathways take power from the transformer to the lights. Use the sketch you created to help you document the measurements. Measure the distance the cable travels from the transformer location to get through each fixture location to the last fixture. Use size 12-2 low voltage outdoor rated cable.
  - Visualize how the cable will travel between a transformer plugged in to the GFCI outlet and each light.

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continued:

- Leave an extra three feet of cable at each fixture so adjustments can be made to suite your taste or to modify with garden growth nearby.
  - Account in the cable length for sensitive areas where fixtures may get in the way of walking, maintenance, digging or yard work. Avoid these areas by placing fixtures and cables well out of the way.
  - If a longer cable path is necessary (e.g. under a deck), it is better to hide the cable and use a slightly greater length than leaving the cable visually exposed or a tripping hazard.
- D. Include at least 2 silicone filled caps for each light fixture connection (if not included in the box with each fixture). Get extra, just in case.
- E. Consider fitting your outdoor fixtures with dimmer controls to give you the flexibility to design a lighting plan with multiple uses and decorative effects.
- F. Other tools you will need:
- Wire cutter/stripper – to connect the cable to the fixtures
  - Screwdriver – for mounting the transformer
  - Voltage meter – to double check end voltage at the end of the cable run.
  - Shovel – to bury / hide the cable in the landscape

Need help with putting together a lighting kit to perfectly meet your needs? Let us help you choose the perfect lighting system to get your outdoor lighting project done right. Go to [outdoorledco.com](https://www.outdoorledco.com)