

LANDSCAPE ORNAMENTAL SERIES

A Guide for Louisiana Landscape Professionals



Landscape Lighting Design Options

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Just because the sun is setting doesn't mean you have to stop enjoying your landscape. In fact, with the right lighting installation you may experience your landscape in a completely new light. By designing your own lighting plan, you can precisely control where, how and what components of your landscape are illuminated. Let's shed some light on some of these options.

Components of a Light System

Typical home electrical systems operate at 120 volts. For a residential landscape, this is unnecessarily high. Most landscape lighting fixtures that are common in residential settings operate at 12V. Additionally, 12V landscape lighting can be easily moved and customized and is less expensive than 120V. In commercial and public use properties, particularly ones that require extensive illumination (like security lighting), 120V will be more common. For the residential setup, a transformer that steps down the voltage from 120V to 12V would be the first step in this installation. At this point, running the cable out to the desired location for each light can begin. There are also a variety of solar-powered, standalone lighting fixtures that are available and may not require wiring.

In this fact sheet we will discuss the designing of a landscape light system. The two main components of a lighting system that go into the aesthetic design of a landscape are the bulb and the fixture housing.

Bulb

The bulb selected for a lighting feature will dictate the brightness, the light color and the amount of electricity used. There are a variety of bulbs that can be used in a landscape lighting system. Incandescent lights produce a pleasant light; however, they are less energy efficient and have one of the shortest life spans of light sources. Halogen and fluorescent bulbs are more energy efficient than incandescent bulbs and last for a longer period of time. Finally, light-emitting diode or LED bulbs cost more initially, but the expense provides savings down the line



Light fixtures can be used to change the shape, direction and intensity of the light bulb and offer protection in difficult weather conditions. Photo by Jason Stagg.

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with drastically less energy use and longer lifespan than the formerly mentioned options. If the top priority is energy efficiency, there also are a range of solar powered lights that are available. Improving energy efficiency can be further accomplished by considering lighting schedule and activation. Motion detecting lights and/or customizable settings that limit the extent and duration of brightness can be effective methods to further reduce energy use and extend bulb lifespan.

Fixture Housing

The main purpose of a fixture housing is to offer weather protection for the bulb and to manipulate the shape of the light beam. There are a variety of fixture types:

Spotlights/Bullets/Downlights — Spotlights and bullets put the focus on a particular element of the landscape. This type of fixture often projects a narrower cone of light, specifically illuminating one area. These fixtures may be placed at ground level and aimed upward, creating vase-like optics highlighting a tree, a component of the house, a sign or a garden structure such as a statue. If these fixtures are placed at a higher location and aimed downwards (otherwise known as a downlight), such as a corner of a building or in an upper branch of a tree, they can create an artificial moonlike glow focusing on one specific area.

Floodlights — A floodlight is typically installed to allow maximum visibility over a larger area. Floodlights have a wider angle than a spotlight would and are oftentimes used for security purposes. Given that they usually require a higher wattage, they are energy intensive and used with 120V systems or on commercial sites.

Path Lights — Far more subtle than the previously mentioned light fixtures, path lights project light downward of the fixture and cover a much smaller area. Path lights can be used, as the name implies, to guide pedestrians along a walkway; however, they have a range of other practical uses for both functional use and aesthetics. Path lights near the end of a driveway or in a parking space can help guide drivers to the proper location and keep them off the grass. Lights may be placed in a landscape bed directly next to a specimen plant, to highlight it specifically without overwhelming the viewer with other plants.

Well Lights — This type of light fixture is installed below or level with the grade. Not only does this hide the light fixture during daytime, it does not restrict movement. This would allow lawn mowers and pedestrians to move over the top of them without issues. Oftentimes, you may see this type of lighting in turf fields or hardscapes; however, these are also common in situations where an entire feature is desired to be illuminated from the ground up.



Spotlights can be focused upwards to highlight a tree, casting a wide angle of light and illuminating plant materials.



Lights can be used to highlight other landscape features, such as statues and fountains. Photos by Jason Stagg.

Step Lights/Hardscape Lights — These fixtures are incorporated into structures within the landscape/building. Step lights are often placed on the vertical portion of a stair, otherwise known as the riser, in order to illuminate the flat horizontal part (the tread) and decrease the risk of tripping hazards. Other hardscape features, such as walls with capstones or overhangs, are another prime location for hardscape lights. When placed under these overhangs, the lights can illuminate the area below while remaining discreet.

Lights can be used in the landscape for many reasons. Whether it is to illuminate a tree or landscape feature, provide security and direction on a site, or just to set the mood, landscape lighting can be customized to get the most out of your outdoor space.



Lights may be incorporated into fences, hardscapes or stairs to delineate pathways and boundaries. Photo by Jason Stagg.



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Pub. 3873 (online) 2/23

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