



LATE FALL 2007



nightlight inc
LANDSCAPE ILLUMINATION

(630) 627-1111 • www.nightlightinc.net

THE FACTS OF LIGHT

There are THREE basic ways to control light:

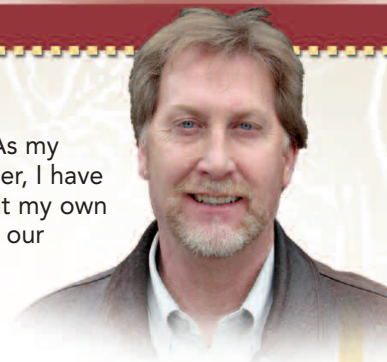
1. Block it with something (this makes a shadow).
2. Reflect it (change its path with a mirror). This is called REFLECTION, strangely enough.
3. Bend it: Change its direction by making it pass into another transparent material of different density, like glass or water. This is called REFRACTION, and it's how lenses work.

Why do we CARE about controlling light, ANYWAY? Well, some important, useful and very cool "things" depend on being able to produce, control and/or deflect light in special ways.

We use lenses to refract light in many applications: eyeglasses, contact lenses, televisions, movies, photocopiers, scanners, telescopes, projectors, CD players, weather and spy satellites, and many forms of lasers. How many of these have you used today?



Mitch's Message



Cooler temperatures, changing colors and shorter days. As we move further into autumn, we must take a moment to pause and ask, "Does my daily routine have a real purpose? What positive effect do I have on the people I interact with daily?"

At Night Light, Inc., our team's mission doesn't just focus on "selling fixtures." Instead, we strive to help our customers enjoy their properties into the evening by creating a nighttime environment where they can relax, wind down and reduce the tension of day-to-day stress. As the days become shorter, we all need to identify ways to add a little more "light" to our lives

and environments. As my kids have grown older, I have a sense of security at my own home, knowing that our house and yard are illuminated when they arrive home late.

Is your home an expression of light, radiance and security? Or is it dark and mysterious? Is your life an expression of light, radiance and security? Or is it dark and mysterious?

Take some time TODAY to set some goals for yourself toward a "brighter" you!

Power from the Sun

When thinking about lighting, have you ever thought about solar power? Do solar landscape lights really work, or are they just a gimmick?

Solar landscape lights use a small, solar (or photovoltaic) cell to charge a battery integrated into the light fixture. After being charged all day by the sun, the battery provides electricity to illuminate the solar landscape lights at night. Because each fixture has its own battery, there's no need to run wires.

While solar landscape lighting is somewhat practical for use in the Midwest, it's important to consider placement of the fixtures and the surrounding geography of your property. The key factor for any solar landscape lighting application is that the photovoltaic panel receives as much sunlight as possible. Shading of the photovoltaic panel by landscape features, buildings, trees etc. can have a large impact on the battery charging and,

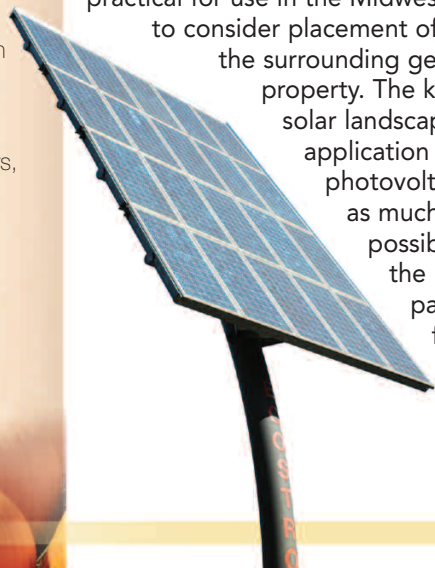
consequently, the light output of the fixtures and their run time.

Most solar landscape lights will run six to eight hours per night (based on the amount of sunlight they receive during the day). Consequently, solar landscape lights should run most of the night in the summer, but reduced daylight in the winter months will substantially reduce the amount of run time at night (usually as much as 50% less).

Many solar landscape lights now use LED (light emitting diode) lamps and have nickel-cadmium or nickel-metal-hydrate batteries. LEDs produce a brighter light and use much less electricity than earlier models. The new batteries take and hold a charge much better than the old lead-acid batteries.

Even with improved light bulbs and batteries, today's solar landscape lighting fixtures don't provide the reliability and power desired for effective landscape illumination. Even though solar fixtures don't require wiring for power, their flexibility is limited to full-sun locations.

Effective landscape illumination requires varying levels of light intensity to illuminate landscape and architectural elements. To achieve these goals, the solar lighting option is not yet viable.



How Do I Know?

There's a distinct difference between low-voltage and line-voltage landscape illumination systems. Most people don't even give any thought to the differences or even know they exist. Our job at Night Light is to consider all of the possibilities when designing a landscape illumination system. Low-voltage (12-volt) and line-voltage (120-volt) systems each have specific characteristics that allow us to achieve certain illumination effects.

Low-voltage illumination systems

Low-voltage systems are better suited to lower-budget projects (if your budget limit is \$2,000 - \$5,000). The overall cost is lower due to less labor time for installation and smaller, more cost-effective equipment. There also isn't a need for conduit, circuit breakers and elaborate controls. Permits usually aren't needed for these systems.

At only 12 volts, there's no danger of harm with a low-voltage system. Therefore, the wiring is done as direct burial with electrically sound wiring techniques and "siliconed" fasteners for watertight connections. The cable is heavy-gauge, designed especially for Night Light, and buried 6" to 8" deep to reduce future damage by others. The systems are engineered with the proper power source, wire sizes, transformer locations, distances, loads, voltage drop and fixture placement to achieve the desired effect and longevity of the system. The time clock is located within the transformer, so it's not necessary to supply additional electrical for the controls.

Low-voltage systems are more appropriate for subtle effects, since the lamp wattage limit is 50 watts. This makes low voltage a good match for smaller and newly installed landscapes. Our lamps are specially designed, highly efficient, quartz halogen from 20 to 50 watts, and last an average of 3,000 hours or one to three years as opposed to the typical life of other brands at seven to eight months.

Three different lenses are used to achieve different effects. Clear lenses are used for a warm light on man-made objects and architectural features. Light-blue or dark-blue lenses can be inserted to convert the yellow incandescent color of the lamp to a cool light, creating a moonlight effect and allowing the landscape to show its true colors to be green, lush and alive.

Line-voltage illumination systems

There are times when more intensity is needed to illuminate the landscape. With additional electric power, larger, brighter fixtures allow us to highlight larger plant materials. Trees with a caliper above 6" would most likely be candidates for line voltage. Due to higher wattage availability, fewer fixtures are needed to illuminate large areas.

volt-age n.

The rate at which energy is drawn from a source that produces a flow of electricity.



Most of our line-voltage fixtures use mercury vapor lamps. There are numerous advantages to these types of lamps. The light color is white with a slight tone of blue (again allowing the landscape to show its true colors to be green, lush and alive). The lamp sizes range from 50 watts to 1,000 watts and can be expected to last 24,000 hours or five to seven years with every-night use. Mercury vapor type lamps are much more efficient than other types. A typical landscape illumination job will cost an average of \$15.00 per month to operate electrically.



Controls for line-voltage systems are typically more sophisticated. Normal controls include a combination of photocell, time clock, contactors and a three-position override switch. These allow the system to turn on at dark and switch off at a pre-selected time. We can design the controls to allow a few fixtures to remain on until sunrise for minimal, all-night security. These controls should be installed by a licensed electrician with the proper permitting.

Overall costs for a line-voltage system are higher for a number of reasons. The equipment typically costs two to three times more than low-voltage. All line-voltage wiring is buried in conduit according to municipal codes. This requires much more labor and higher raw material costs. Overall labor rates are higher due to the addition of a licensed electrician and qualified tree climber for placement of moonlights in taller canopy trees.

The low-voltage and line-voltage systems can be combined if properly designed. The well-trained designers at Night Light, Inc. are very aware of the benefits of both types of lighting. When properly combined, the results are seamless, appropriate and cost effective.

Project Spotlight: Simple and Effective

Lake Barrington Shores is a common-interest community located in the Village of Lake Barrington. This condominium community is divided into 13 condominium associations and one master board. It consists of 1,317 units with approximately 2,700 residents of all ages.

Recently, the master board and landscape committee decided to begin looking to improve some of the common-area landscape, most of which was installed 30 years ago. Much of the common areas include beautiful, mature evergreen and deciduous trees. These valuable trees must be preserved and used as key elements in any landscape improvement design. It was decided that the highly visible corner of Miller Road and Route 59 would be the first landscape area to begin plans for improvements. This corner not only has large spruce and mature hawthorn trees, but also a long stone wall with large letters identifying Lake Barrington Shores.

After various landscape designs were presented to the landscape committee, Clarence Davids & Company was chosen to oversee the landscape elements. This included plant removals, underground irrigation, new plant installation and landscape illumination.

Night Light, Inc. is proud to have worked with Clarence Davids for many years as part of their professional team, designing and installing landscape illumination systems. At Lake Barrington Shores, our design focused on highlighting the beautiful, mature trees in a subtle fashion. In addition, the stone wall had been lit previously using a row of fluorescent light fixtures that needed replacement.

A low-voltage lighting system was chosen to achieve the illumination results desired and to keep costs in line with the

budget. A total of 16 low-voltage fixtures were used to bring the corner to life at night. The warm lighting illuminates the stone wall, as well as the white identity lettering and community logo. These same fixtures cast a subtle washing of light on the large spruce trees located above the wall. Three large hawthorn trees are also highlighted, giving the corner landscape just enough emphasis and balance. This rather simple but effective solution gives the Lake Barrington Shores property a new nighttime identity that can be repeated throughout the common grounds.



"I thought that working with your company was great. You came out and did the work almost effortlessly, and the end result looks terrific!" - Lake Barrington Shores

An Ounce of Prevention...

When winter weather arrives, lighting installations come to a screeching halt at Night Light. This is the time of year when we change our focus from installing new systems to maintaining existing systems. All lighting systems require a level of maintenance, especially due to our changing seasons and the ever-changing landscape. Every one of our customers has the opportunity to participate in a very beneficial program. Our Preventative Maintenance Program (PMP) is the best way to ensure longevity and optimal performance of every lighting system we install.

Our PMP is simply an annual, pre-season maintenance visit to review the entire lighting system. Beginning with the electrical system that powers our fixtures, every piece of equipment is checked for proper operation. We check transformers, time clocks, switches and fixtures to make sure the system is functioning as it was originally intended. All equipment repairs required (that weren't caused by vandalism or abuse) are completed as part of our program. Other repairs are done at a minimal charge.

Also included in our visit is minor, selective pruning of plants, intended only to allow for maximum illumination from our fixtures. We also clean every lens and change every lamp in our low-voltage systems. Line-voltage lamps are checked for proper operation and changed only as needed. Final adjustments are made, all above ground wiring is inspected, and the system is left as good as it was the day it was installed. Our customers agree that our PMP is a cost-effective way to complete the required yearly maintenance.

Even more beneficial than a properly operating system is a guarantee that the system will be its best. Every customer who participates as a yearly, current PMP customer automatically extends their warranty of the entire system, including lamps, for each subsequent year. If you're an existing customer and haven't had your system reviewed in the past two years, it's probably time to have it checked to make sure it's operating at its best.





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Giving Back

Involvement within the landscape industry is nothing new to Night Light. After all, a part of our mission statement is to *contribute to the community by investing our products and services*. Over the years, we've worked very hard to give something back to this wonderful industry of horticulture.

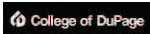
Dean MacMorris, co-owner and vice president of Night Light, has facilitated many programs at universities, association educational seminars, businesses and garden clubs. At Purdue University and the University of Illinois, Dean has facilitated "A Professional Approach to Landscape Illumination," a program designed to help weave landscape illumination into the horticulture, landscape design and landscape architecture curriculums.



At the Illinois Landscape Contractors Association's Mid-Am Horticultural Trade Show, and The Illinois Turfgrass Foundation and The Illinois Nurserymen's Association's educational seminars, Dean agreed to facilitate programs on promoting, marketing, managing and providing a professional approach to landscape illumination. In addition, the well-known Bartlett Tree Experts asked Dean to present a program on "How to Incorporate Landscape Illumination into the Landscape" at their symposium in early 2006.



This past July, Ed Reier, one of our designers, spent a Saturday morning with a landscape class from the College of DuPage Horticulture Department. A group of 25 students watched as one of our installation crews installed a low-voltage lighting system in Wheaton. By witnessing an actual installation, the students received a good understanding of proper illumination design, fixture selection and system engineering. They learned



how a system is powered, the differences in fixtures and equipment, and just what it takes to properly bury cable. Ed spent time outlining our design philosophy and presentation techniques.

All four of our designers can be found sharing their expertise through presentations. Countless garden clubs have been recipients of presentations on "How to Use Landscape Illumination Effectively," "How to Illuminate Residential Spaces" and "The Pitfalls of Landscape Illumination." Night Light, Inc. is asked on many occasions throughout the year to make presentations to landscape architects, landscape designers and landscape contractors who are interested in landscape illumination. Many have the desire to provide illumination services to their existing clients and don't do it themselves. Either they don't have the time and expertise or have tried and realized it's easier and more effective to outsource. Since Night Light, Inc. only does landscape illumination, they turn to us to learn how we can offer this important service to their clients without having to take away from their core business activities.

We're happy to offer our services to elevate the profession of landscape illumination and to give back to those who appreciate the difference that Night Light, Inc. makes.



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