

Luminous Energy.....The Miracle of Light  
*A bright idea for property risk managers*

The idea that lighting can provide improved protection for people and facilities is as old as civilization. From the beginning of civilization there have been challenges for good lighting. Babylon dealt with the situation by “burning thick wicks in bowls of fat during crowded festival times.” Other approaches included those used in fourth-century Jerusalem, where crossroads were illuminated with wood fires, and in the tenth century, where the Arabs paved and lighted miles of streets in Cordova. These efforts improved throughout the years when, by the seventeenth century, both London and Paris made attempts to provide effective street lighting. Finally, in France, a program was initiated involving a system of guides with lanterns for which the night traveler would pay a small fee for the privilege of being protected by the light.<sup>1</sup>

Lighting serves the purposes of security and safety. Lighting serves the purpose of security by acting as a psychological barrier against criminal acts. And if a crime should occur, lighting makes identification and potential apprehension by security and law enforcement more likely. Lighting also serves the purpose of safety by illuminating trip, slip, and fall hazards such as puddles of water, potholes, uneven surfaces and difficult to see steps. It also makes areas more aesthetically attractive to future residents. Whatever reason you choose; this is the time of the year for your property maintenance teams to review lighting conditions at your sites.

The SecurPLACE seminars we have recently completed for a large number of locations across the Midwestern United States point out the need for your maintenance teams to rediscover the lighting fixtures located on the interior and exterior of your sites. Lighting fixtures need this attention so they will provide the expected illumination when darkness begins earlier in the evening and lingers later in the morning.

Luminous energy will:

- Deter criminal behavior
- Detect more easily the identities of suspicious persons
- Deliver a sense and a reality of safety and security

Have your maintenance teams provide the action plan to:

- Inspect individual outdoor fixtures – building and pole mounted
  - Inspect to ensure that car port rooflines do not interfere with building and pole mounted illumination for resident and visitor parking
  - Inspect and identify fixtures that are no longer aimed/focused on the intended areas – adjust or refocus as necessary
  - Inspect to ensure walkways and pathways, parking areas and children play areas are properly illuminated – add additional lighting where necessary

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<sup>1</sup> Handbook of Loss Prevention and Crime Prevention, Lawrence J. Fennely, Copyright@1999 Elsevier Science (USA)

- Residents tend to create their own pathways on occasion – make sure that these unintended, but regularly used, pathways are illuminated<sup>2</sup>
- Initiate work orders for repair or replacement as necessary
- Inspect municipally mounted or managed outdoor light fixtures – report and document each fixture in need of repair or adjustment.
- Inspect and test timers and/or photo sensors. Keep in mind that timers need to be adjusted regularly to keep up with changing hours of dusk and dawn. Photo sensors need to be monitored to ensure they are working properly.
- Inspect all indoor fixtures – covering common halls, basements, stairwells, work areas and utility, laundry and storage areas
  - Pay particular attention to exit signage lights
  - Ensure proper illumination and good working order
  - Initiate work orders to replace, enhance or repair as necessary
- Clean all fixtures, both indoor and outdoor, to provide their maximum effectiveness
  - Clean glass or plastic protective panels inside and out
  - Clean the bulbs themselves<sup>3</sup>
  - Replace all protective glass, plastic or impact resistant panels and housings as necessary
- Examine current and anticipated foliage issues
  - Trim back any foliage, branches or shrubbery that might interfere with maximum illumination of intended areas
- Refocus exterior lighting to ensure the original intended coverage is maintained
  - Ensure that your current lighting strategy reflects your current needs – have you added construction recently; have trees matured; have you opened new traffic or walkways; have you re-routed bus paths for children. etc.?
- Schedule replacement of any failed equipment
- Restock the supply level of necessary parts to ensure timely repairs on all fixtures

As days become shorter and the hours of darkness will be longer, children will spend more time walking to their schools, and to and from school buses in the darkness of morning. Residents will be going to and returning from work in darkness when their safety may be in question. Halloween is just around the corner and the significance of the season extends your responsibility ensure adequate lighting. Extended hours of darkness extend the period of risk. “Light the night” is more than a slogan, it is a mantra for smart risk management and property enhancement.

Lighting is inexpensive to maintain and generally, when properly employed, may reduce the need for security officers. It may also provide protection for residents by reducing the advantages of concealment and surprise for a determined perpetrator on any site. It also provides adequate illumination on walking surfaces that may be temporarily uneven or slippery.

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<sup>2</sup> Informal pathways become adopted and regularly used, even if not intended by management. It is important to either eliminate these pathways or ensure they are safe. Adding lighting is one good way to manage unintended liability consequences.

<sup>3</sup> When handling bulbs, be sure to wear protective gloves and work only with cool or room temperature fixtures. When working with high intensity bulbs (halogen for example) be sure to have your people wear gloves to prevent oils from their fingers from attaching to the bulbs – when the bulbs heat up, they will heat the oil to extreme temperatures and burst the bulbs.

How do you know if lighting is “adequate”? The United States Army field manual has long been the standard for measuring “secure” lighting. The table below, taken from the field manual, offers some guidance.

Location	Foot-Candles on Horizontal Plane at Ground Level
Perimeter of outer areas	0.15
Perimeter of restricted areas	0.4
Vehicular entrances	1.0
Pedestrian entrances	2.0
Sensitive inner area	0.15
Sensitive inner structure	1.0
Entrances	0.1
Open yards	0.2

Additional resources for determining lighting levels can be obtained from licensed lighting contractors.

Another factor to be considered is the efficient and green use of lighting energy. Energy credits are available when you replace your existing lighting fixtures with devices that represent significant energy savings over your current fixtures. When you are developing your lighting strategies, consider environmentally friendly choices in design. Here are some thoughts about energy and environmentally smart ideas:

Light only what needs lighting. Light only when you need it to be lit. Light it well but use only as much light as needed. Reduce glare.

How would you answer this question:

How is my property perceived during hours of darkness? Will my tenants feel safe, secure? Is my property attractive to potential residents?

Low cost, attractive, safe and secure – this is the opportunity for the *enlightened* property manager.