



HUDSON HIGHLANDS LAND TRUST

# Dark-Sky Resource Guide

Reduce Light Pollution . . .  
*Be a Good Neighbor and  
Reclaim the Night Sky!*



*Presented by:*  
Hudson Highlands Land Trust  
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**A RESOURCE BOOK FOR SMART LIGHTING  
SOLUTIONS TO REDUCE COSTS, & SAVE ENERGY**

## **Inside:**

- *Community Lighting Challenges*
- *Product Examples by Type*
- *List of Suppliers and Other Resources*

*For more information about light pollution reduction, please visit the  
Hudson Highlands Land Trust website at [www.hhlt.org](http://www.hhlt.org)*

### III. RESOURCES:

#### Product Suppliers:

American Electric Lighting—[www.americanelectric.com](http://www.americanelectric.com)  
 Architectural Area Lighting — [www.aal.net](http://www.aal.net)  
 Focus Industries Landscape Lighting — [www.focusindustries.com](http://www.focusindustries.com)  
 GlareBusters — [www.theglarebuster.com](http://www.theglarebuster.com)  
 Green Earth Lighting — [www.greenearthlighting.com](http://www.greenearthlighting.com)  
 Holophane — [www.holophane.com](http://www.holophane.com)  
 Kichler Lighting — [www.kichler.com](http://www.kichler.com)  
 LampsPlus — [www.lampsplus.com](http://www.lampsplus.com)  
 Parshield — [www.parshield.com](http://www.parshield.com)  
 Prolighting — [www.prolighting.com](http://www.prolighting.com)  
 RAB Incandescent Lighting — [www.rabweb.com](http://www.rabweb.com)  
 Starry Night Lights — [www.starrynightlights.com](http://www.starrynightlights.com)  
 Visionaire Lighting — [www.visionairelighting.com](http://www.visionairelighting.com)  
 Zone Lighting Performance Sports Lights — [www.zonelightning.com](http://www.zonelightning.com)

*\*Look for **Star View Compliant** and **IDA Approved** products both online and at your local lighting retailer.*

#### Other Resources:

Dark Sky Society — [www.darksksociety.org](http://www.darksksociety.org)  
 Energy Federation — [www.energyfederation.org](http://www.energyfederation.org)  
 Energy Star — [www.energystar.gov](http://www.energystar.gov)  
 Hudson Highlands Land Trust — [www.hhlt.org](http://www.hhlt.org)  
 Illuminating Engineering Society of North America — [www.iesna.org](http://www.iesna.org)  
 International Dark-Sky Association — [www.darksky.org](http://www.darksky.org)  
 Selene — [www.selene-ny.org](http://www.selene-ny.org)  
 Urban Wildlands — [www.urbanwildlands.org](http://www.urbanwildlands.org)



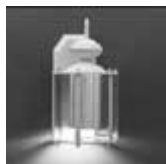
**About Hudson Highlands Land Trust** — The Hudson Highlands Land Trust seeks to protect the special character of the Highlands through land conservation, advocacy, and the promotion of sound long-term planning. HHLT works with landowners and groups of neighbors who are interested in preserving their property for future generations; provides information about our area's natural resources; draws attention to the high costs of shortsighted development; and organizes community events such as the Annual Family Festival Barbeque & Square Dance and the Sustainability Expo. Our Light Pollution Reduction Campaign is a component of HHLT's Community Outreach and Public Awareness Programming.

Shades and Shields cont.:

Hubbell Skycap



RAB Wall Pack Curved Shade



Lamp Sleeve (fits over ordinary socket)

Low-glare Light Bulbs:

**Compact Fluorescent** -- If every American home replaced just one light bulb with an ENERGY STAR, we would save enough energy to light more than 2.5 million homes for a year and prevent greenhouse gases equivalent to the emissions of nearly 800,000 cars. There are many sources available; check out:  
<http://www.energystar.gov>.



ENERGY STAR



**High Pressure Sodium (HPS)** - High pressure sodium lamps are quite efficient — about 100 lm/W, up to 150 lm/W, when measured for Photopic lighting conditions. They have been widely used for outdoor lighting such as street-lights and security lighting. Many lighting supply sources provide HPS bulbs and products.

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## I. THE CHALLENGE: LIGHTING PROBLEMS FACING OUR COMMUNITY

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Today, communities struggle with three closely-related lighting problems:

- **Light Trespass** can turn our neighborhoods into light-polluted zones that send unwelcome glare into our homes and those of our neighbors, intruding on privacy and creating a nuisance.
- **Light Pollution/Sky Glow** caused by ineffective lighting can rob us of the night-time skies. As seen from the Hudson Valley, the brightness of the Milky Way used to produce shadows on earth; nowadays many children in our area have never even seen the Milky Way.
- **Glare**, a component of light pollution and trespass, can make roadways, city centers, and suburbs unsafe by limiting our ability to see people and objects. This is especially hazardous when driving.

Many security experts believe that the deep shadows created by bright lighting give criminals hiding places that would not be available with lower-intensity lighting or lights that come on when motion is detected.

Also, the ecological impact from bad lighting is more widespread than many realize. Excessive artificial lighting interferes with some animal migration, breeding, and hunting patterns; encourages some algae bloom/zooplankton imbalances; and contributes to air pollution through the excessive energy consumption required to supply greater than necessary amounts of electricity.

### Shades and Shields:



**Parashield Glare Visor**

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**Hubbell Skycap Yard Light Package**

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**Lite-Blocker External Shield**

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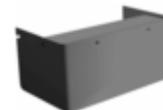
**Dark Sky Sconce**

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**GE Skygard Shield**

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**RAB Wall Pack Shield**

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**Motion-controlled Lighting and Timers:****RAB TUFF Dome Motion Sensor****RAB Motion Detectors****FP Photocontrol—Exterior Timer****RAB Mini-Sensor****Roadway-Utility Lighting:****Luminaire Technologies****Visionaire Monterey Pole Lighting****I. THE CHALLENGE: CONT.**

What we need are lighting solutions that support safe, energy-efficient, appropriately-lighted outdoor environments. In the process, it's estimated that nationwide *we can save up to \$4.5 billion dollars annually in non-wasted energy for unnecessary and excessive lighting!* The equation is simple: *Energy Efficiency = Money Saved.*

Solutions are often easy and sometimes very inexpensive. Using motion-controlled lighting, reducing the wattage of bulbs, replacing bulbs with more energy-efficient types, shielding existing light fixtures, and even simply re-directing existing fixtures can yield immediate benefits in cost savings and reduced light pollution. Many retrofits to existing lights pay for themselves in the first year of use.

This handbook is intended to assist the residents of the Hudson Valley in making energy-efficient and “dark-sky-friendly” choices about outdoor lighting. On the following pages you’ll find many examples of products from many different manufacturers and suppliers. At the end, there’s a list of resources including supplier contact information, organizations concerned with light pollution, and web sites to help you learn even more about how to reduce light pollution in the Hudson Highlands.

## II. PRODUCT EXAMPLES BY TYPE:

### Bollards:



Visionaire Sahara Bollard



Visionaire Lakeside Bollard



RAB Smart Post

### Building Lighting Fixtures:



Green Earth Lighting Glarebuster



Impact Quarter Sphere



RAB Shade Small

### Decorative Landscaping – Low Glare:



American Area Lighting



American Area Lighting



American Area Lighting



RAB Landscape Lighting



Focus Industries Lighting