

Lighting Basics

When building or remodeling a home, one of the most overlooked planning items is lighting. There is no better time than at construction to install proper lighting.

Ratings of Light Performance

1. **Wattage** - the amount of electricity consumed by a bulb
2. **Lumens** - the amount of light measured at the bulb
3. **Footcandles** - amount of light reaching subject, measured at a subject

3 Basic Indoor Lighting Applications

1. **General Lighting** - provides an area with overall illumination. It basically replaces areas lit with sunlight. Some examples of fixtures include chandeliers, ceiling or wall fixtures.
2. **Task Lighting** - helps you perform specific tasks such as reading, cooking, sewing and hobbies. It should be shadowless and prevent eyestrain and discomfort. Track lighting, recessed, pendant and portable lighting are the most commonly used.
3. **Accent Lighting** - is a part of your decorating for items such as spotlighting paintings, houseplants and sculptures. Track lighting and recessed fixtures are most commonly used.

What is a CFL?

CFL stands for compact fluorescent lamp, and it is a small fluorescent light bulb that uses 75% less energy than a traditional incandescent bulb and can be screwed into a regular light socket. Don't let the fact that it is fluorescent turn you off! [ENERGY STAR qualified CFLs](#) must pass extensive testing to ensure they produce only the highest quality light.

Qualified bulbs labeled "warm white" or "soft white" produce light like typical incandescent light bulbs. CFLs that have a cooler color (similar to bright white incandescent bulbs) are usually labeled "bright white" or "daylight" on the product packaging. [More on choosing the right CFL color for you.](#)

Does temperature or humidity affect the life of a CFL? For example, would a CFL work in extremely cold temperatures, or extremely wet climates?

Extreme temperatures can affect CFLs. Some CFLs can be used outside in temperatures down to -10 degrees Fahrenheit and up to 120 degrees Fahrenheit, though when it is very cold they may take longer to reach full brightness. There are some [ENERGY STAR qualified CFLs](#) that are weatherproof and can be used outside where exposed to rain, so check for "weatherproof" models before installing it in your outdoor spot light.

Lighting Comparison Chart

<http://www.designrecycleinc.com/led%20comp%20chart.html>

Outdoor Lighting Basics

Benefits of Outdoor Lighting

1. Aesthetic Benefits - Show the beauty of home, flowers, shrubs, statuary
2. Practical Benefits - Safety, security and investment

Planning Your Landscape Lighting

1. Conceal the light source except where the fixture itself is for decorative purposes.
2. Don't overlight
3. Be creative
4. Use a timer or photocontrol
5. Be considerate of your neighbors

Lighting Techniques

1. Downlighting or Area Lighting - mount lighting high in trees or on the house
2. Uplighting - lights aimed upwards
3. Moonlighting - like downlighting, but using soft light sources
4. Accent or Spot Lighting - using an intense controlled beam to highlight specific areas
5. Spread or Diffused Lighting - to create certain patterns of light
6. Shadowing - lighting an object from front and below to create shadows on vertical surfaces
7. Silhouetting - concealing lights behind and below a tree or bush to silhouette on a vertical surface
8. Grazing - positioning a light close to a surface to accentuate a certain texture
9. Cross Lighting - illuminating an object from two or more sides creating a three dimensional effect
10. Pool and Fountain Lighting - underwater or projection of light through a falls

Lighting for Security

1. Front Entry
2. Steps and Paths
3. Garage
4. Close-By-House
5. Driveway
6. Rear Yard

Remember

1. Decide what you want to light
2. Select the appropriate lighting technique
3. Choose a power supply
4. Select the appropriate lighting fixtures
5. Select the appropriate bulbs