

*beauty and
performance
for your
home*



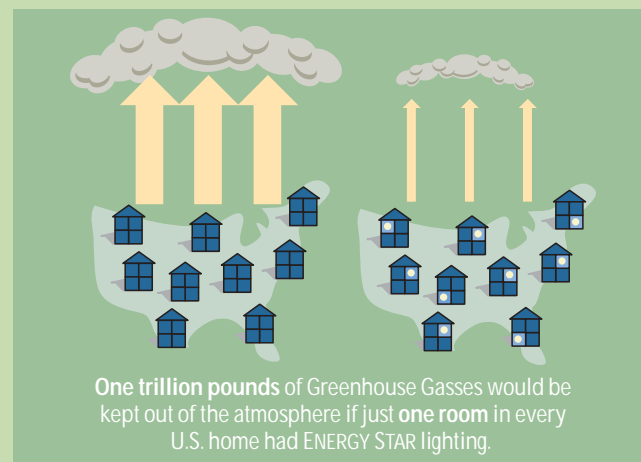
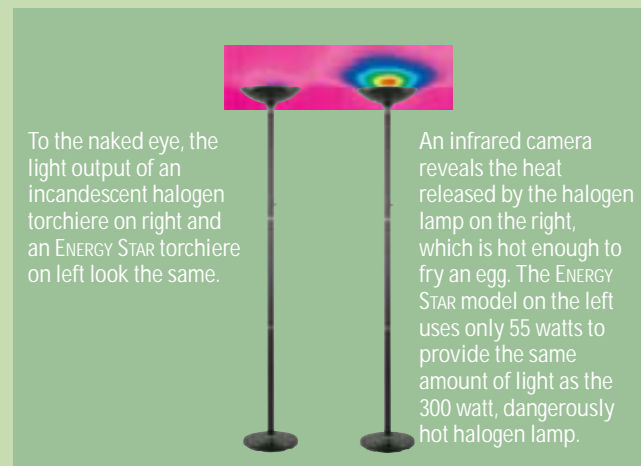
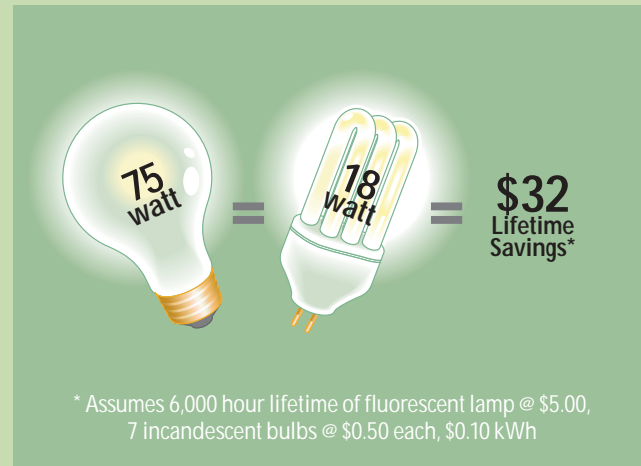
**ENERGY
STAR[®]
LIGHTING
GUIDE**



ENERGY STAR LIGHTING SAVES MONEY AND PROTECTS THE ENVIRONMENT

Save Money

ENERGY STAR labeled lighting lowers the cost of lighting your home by using less electricity. ENERGY STAR labeled bulbs not only use 67–75% less energy than other bulbs, they also last as much as 6 times longer. The ENERGY STAR label identifies energy efficient products, ranging from light bulbs and appliances to new homes. Products with this label meet strict standards of low energy consumption set by the U.S. Environmental Protection Agency and the U.S. Department of Energy. For a full list of residential lighting products that carry the ENERGY STAR label, please visit www.energystar.gov/products.



ENERGY STAR — Cool Idea!

Most of the electric power used by incandescent light bulbs is wasted as heat, which is why they get so hot. ENERGY STAR labeled light bulbs create less heat, so they require less power than a conventional bulb to create the same amount of light. As a result, ENERGY STAR labeled bulbs run cooler and safer, decreasing fire risks and lowering cooling costs in the summer.

Protect the Environment

When you use ENERGY STAR qualified products, you help protect the environment from the air pollution associated with power generation. If just one room in every U.S. home had ENERGY STAR labeled lighting, the change would keep one trillion pounds of greenhouse gases out of our air.

Acknowledgements

Efficiency Vermont developed this Lighting Guide with assistance from the Westinghouse Lighting Corporation and the New Jersey Clean Energy Programs.

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HANGING
FIXTURE:
Good Earth
G4126-AB-1

UNDER
CABINET
LIGHTS:
MaxLite
SKF1308UC

RECESSED
LIGHTS:
Sea Gull Lighting
1140E 11002E



KITCHEN

Today's kitchen is much more than a place to cook. The kitchen can be a gathering place for a crowd or a quiet place to prepare and eat an intimate meal. Kitchen lighting, therefore, needs to be as inviting as it is functional. On pages 3–5, you will find a range of fixtures that help you create the ambience you want, while properly displaying the natural colors of foods, and providing you with the work light you need.

UNDER - CABINET LIGHTING

Under-cabinet lighting provides direct illumination of kitchen work surfaces. Under-cabinet fixtures are out of sight and positioned to minimize shadowing on countertops. ENERGY STAR under-cabinet fixtures usually use thin-diameter fluorescent tubes that use only about one quarter the electricity of halogen or incandescent bulbs, and last much longer.

*Advances in
efficient
lighting
technology
mean that the
quality of light
provided by
ENERGY STAR
labeled fixtures
is equal to or
better than the
light cast by
traditional
lighting.*

RECESSED CEILING LIGHTING

Recessed ceiling fixtures provide both accent and task lighting. These fixtures commonly come with incandescent bulbs that use more energy, generate more heat, and cost more to operate than ENERGY STAR labeled bulbs. Replace the incandescent bulbs in your recessed fixtures with ENERGY STAR labeled bulbs. Not all ENERGY STAR bulbs are appropriate for recessed fixtures. Make sure the ones you use are also labeled “Suitable for use in enclosed fixtures.” When you install new fixtures, upgrade to ENERGY STAR labeled recessed fixtures. While not recommended, if the recessed fixtures are to be installed in an insulated ceiling, make sure that they are air-tight and indicate they are “Washington State-approved” or “IC” rated for insulation contact. This will prevent heat and humidity from escaping into your ceiling.



Good Earth G4131-AB-1



Westinghouse 64209



Brownlee 2146



HANGING
FIXTURE:
Westinghouse
64209

UNDER
CABINET
LIGHTS:
MaxLite
SKF1308UC

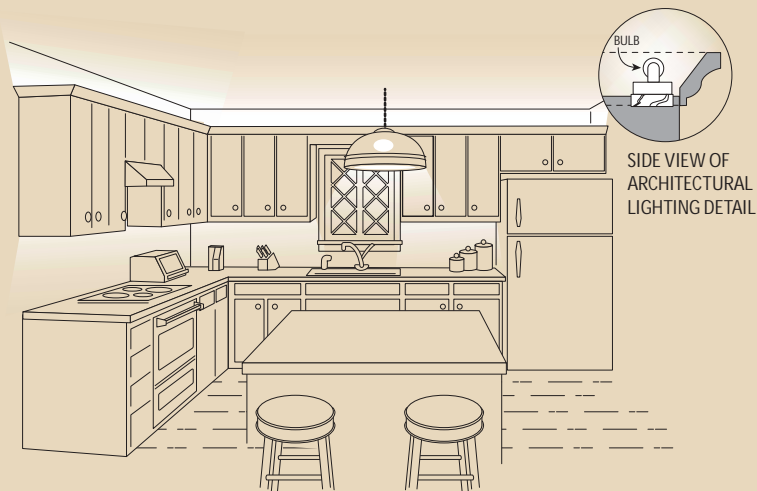
RECESSED
LIGHTS:
Sea Gull Lighting
1140E 11002E

CEILING FIXTURES

Traditional ceiling domes and elegant close-to-ceiling fixtures, shown on the left, provide general, indirect lighting from a central location. Complement these light sources with task lighting that targets high-use areas like countertops or sinks.

PENDANT FIXTURES

Hang pendant fixtures over high-use areas, like a table or breakfast nook. To control glare, hang a lamp above either side of a high-use area. To minimize shadows, avoid locating hanging fixtures too near cabinets or in areas that will cast light on the back of a person working in the kitchen.



ARCHITECTURAL LIGHTING

If constructing a new home or undertaking significant renovations, talk to your builder or contractor about designing and building light fixtures that blend into your home's architecture. Linear fluorescent fixtures can be built into spaces above cabinets, into exposed beams or behind decorative valances to create exactly the appearance and atmosphere you want, with excellent energy-efficiency. Because architectural lighting is built on-site, you won't find an ENERGY STAR label. Ask for energy efficient linear fluorescent fixtures with "T8" lamps and electronic ballasts for high quality lighting at an affordable price.



RECESSED
LIGHTS:
Sea Gull Lighting
11002E

ARCHITECTURAL
LIGHTING:
T-8 linear fluorescent
lamps with dimmable
electronic ballasts
over cabinets

UNDER
CABINET
LIGHTS:
MaxLite
SKF2213UC



Sea Gull Lighting 69069-02E



Good Earth G4126-AB-1



Good Earth G4985-RT-1

*Lighting can
contribute up
to as much as
15% of your
home's annual
electric costs.*



Westinghouse 72087



Westinghouse 72086



Hampton Bay 55296



ARCHITECTURAL LIGHTING

T-8 linear fluorescent lamps with dimmable electronic ballasts on top of exposed beams

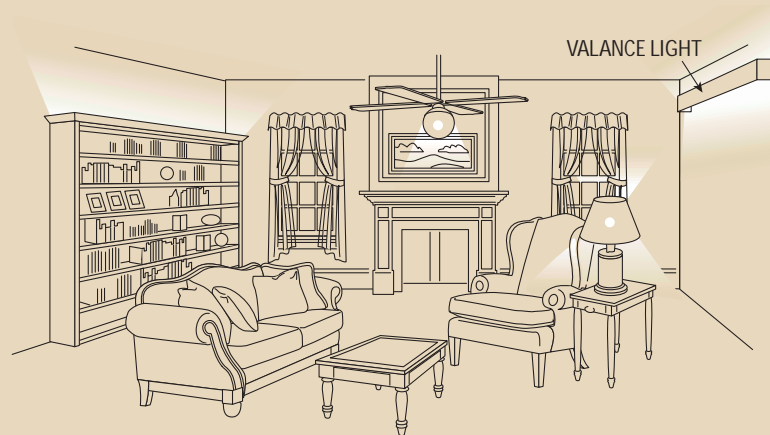
FLOOR LAMPS

Technical Consumer Products 53832BS

LIVING ROOM

In living rooms, where comfort and ambience are key considerations, emphasize accent and task lighting, with a minimum of general lighting. Start with accent lighting over bookshelves, special artwork, a fireplace or entertainment system. Add table, floor or recessed lights for reading areas. Complete the room with a close-to-ceiling fixture for general lighting, or an ENERGY STAR ceiling fan/light for air circulation.

For maximum savings, use ENERGY STAR labeled fixtures in the areas you light most.



DINING ROOM

When designing lighting for the dining room, consider how you use the space. If this is a rarely used formal area, indirect lighting may serve your needs. A single ceiling fixture over the table, recessed lights, ambient light behind a soffit (see soffit on page 9) or valance will provide formal dining rooms with soft, diffused illumination. If, however, the dining room table accommodates everything from nightly homework to annual tax preparation, supplement your general lighting with task lighting, like a hanging pendant fixture and/or downward directed lights. A larger table may be better served by more than one fixture.

BED ROOM

In the bedroom, the importance of general lighting is secondary to warmly illuminated small areas and accurately lit task areas. Reading light can be provided by a table lamp on a nightstand or a fixture mounted on a wall behind the headboard. Desks, closets and vanities require their own task lights. Architectural lighting, wall sconces or a torchiere will provide sufficient lighting for the rest of the room.



Good Earth G4150



Sea Gull Lighting 7980-02E



Westinghouse 64215

A household that uses 10 ENERGY STAR fixtures can save as much as \$125 on its electricity bills each year.



Good Earth G5555-BK1



Good Earth G5585S-RT



General Electric 41854



Good Earth G3130-PB



Sea Gull Lighting 4957-85E



Sea Gull Lighting 4928-02E

TABLE
LAMP:
Good Earth
GL-555-NK-CP-1

TORCHIERE:
Good Earth
GL-6555-NKCP-1

WALL
SCONCE:
Good Earth
G3130-NKCP-1

HANGING
FIXTURE:
Good Earth
GL-4840-NKCP-1



PORTABLE FIXTURES

The ENERGY STAR label can now be found on a wide variety of beautiful portable fixtures. ENERGY STAR labeled table and floor lamps use much less electricity, and run much cooler and safer, than conventional incandescent and halogen lamps.

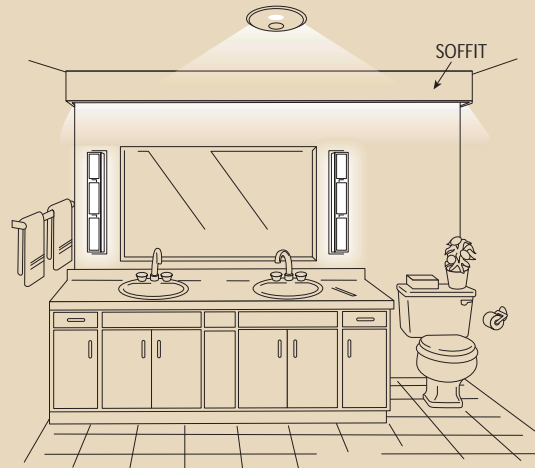
HALLWAY / STAIRWAY

The main concern when lighting halls or stairways is to provide sufficient illumination for safety. Wall sconces are popular for these areas, as are ceiling fixtures and sometimes architectural lighting.



BATHROOM

Bright, uniform, high quality light is necessary in the bathroom for dressing and grooming. ENERGY STAR labeled bathroom fixtures will accurately show the colors of skin, clothes and cosmetics. Place bath bar fixtures on either side of the mirror, or a single, wide fixture directly above it to avoid casting shadows on faces. A ceiling fixture or soffit lighting works nicely for general room illumination. Quiet and efficient ENERGY STAR bath fans can be used for mechanical ventilation.



OUTDOOR LIGHTING

Outdoor fixtures that are on for many hours each night can consume a great deal of electricity. ENERGY STAR labeled outdoor fixtures provide exterior illumination efficiently, some with controls that turn the light off when the sun is out. Place wall-mounted fixtures on either side of your doors or ceiling fixtures in porch or entry overhangs. Illuminate walkways and driveways with lights on posts, on landscaping walls and in planting beds. For areas with cold winters, ask for ENERGY STAR labeled fixtures that are rated for temperatures of 0° F and less.



Sea Gull Lighting 4904-05E



Sea Gull Lighting 4905-05E



Brownlee 5010



Panasonic FV-11VOL2



MaxLite SKF18CL



Sea Gull Lighting 8960-72E



Westerfield 3000

LIGHT QUALITY

To earn the ENERGY STAR label, a light fixture must be energy efficient and produce high quality light. The compact fluorescent technology used in many ENERGY STAR fixtures allows a new range of choices for high quality, energy-efficient lighting. Whether you're designing a bright kitchen or a softly lit nursery, you can find an ENERGY STAR labeled lighting fixture to fit your needs.

Light Output — Making sure it's bright enough

An ENERGY STAR labeled fixture uses far fewer watts than an incandescent fixture to produce the same amount of light. The energy savings are significant, and that means lower electricity bills. Light output is measured in lumens at the light source. To determine if the light is bright enough, be sure that it produces sufficient lumens to meet your needs. Ask your lighting supplier for advice on how much light you need for different parts of your home.

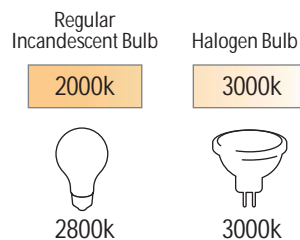
Incandescent Bulb Wattage	Light Output in Lumens	Equivalent Compact Fluorescent Bulb Wattage	Light Output in Lumens
60 watt	870–890	13 watt	800–900
75 watt	1,190–1,200	18 watt	1,150–1,250
100 watt	1,680–1,750	26 watt	1,710–1,800

Color Temperature — Specify the light color you want

The color temperature of a light source indicates the color of the light emitted measured in degrees Kelvin. The chart below shows a range of color temperatures, from warm to cool.

ENERGY STAR bulbs offer a range of color temperature choices. Check packaging.

"WARM"



"COOL"



Warm (2700° to 3000° Kelvin)

Available in virtually all fluorescent lamp types. A warm color temperature is preferred by people who like the color of light from conventional incandescent bulbs. Lighting with warm color temperatures creates a welcoming atmosphere in bedrooms, dining rooms and living rooms.

Cool (4100° Kelvin and up)


Available in most fluorescent lamp types. Cooler color temperatures are sometimes preferred for clean, clear light in kitchens and in bathrooms.

Measured in degrees Kelvin

Ask your local lighting retailer about rebates for ENERGY STAR labeled lighting fixtures.

Color Rendering — Accurate color replication

Color rendering index (CRI) is a measure of how accurately an artificial light source displays colors. CRI is determined by comparing the appearance of a colored object under an artificial light source to its appearance under sunlight. The higher the CRI, the better the artificial light source is at rendering colors accurately. High (above 80) CRI is preferred in the home. ENERGY STAR requires that labeled fixtures have lamps with CRI above 80.

Fair 50–60 CRI Standard Warm White Fluorescent Standard Cool White Fluorescent	
Better 60–70 CRI Premium High Pressure Sodium Conventional Metal Halide	
Best 70–80 CRI Thin Coat Tri-Phosphor Fluorescent	
Best 80–90 White High Pressure Sodium Warm Metal Halide Thick Coat Tri-Phosphor Fluorescent	
Best 90–100 High CRI Fluorescents Incandescent and Tungsten-Halogen	

BALLASTS — AVOID BLINKING, FLICKERING OR NOISE

Every fluorescent fixture has an electronic component called a ballast. A ballast is used to boost the electric current to start the bulb and to regulate the flow of current to the bulb. An electronic ballast, ensures quiet, rapid flicker-free startup and operation. A magnetic ballast, unless ENERGY STAR labeled, may blink on startup, flicker slightly and/or hum during operation.

PROPER LAMP DISPOSAL

All fluorescent lamps and high intensity discharge (HID) lamps contain minute amounts of mercury and should not be discarded with regular household trash. State law may require collection and proper disposal. When you use energy-saving compact fluorescent lamps, you actually reduce mercury pollution, by lowering the demand for electricity from power plants that emit mercury.

There are an increasing number of ENERGY STAR labeled fixtures produced by dozens of manufacturers in a wide range of styles to meet your lighting needs. Lighting showrooms, hardware stores and other retailers throughout your area stock energy-efficient ENERGY STAR labeled light fixtures. If you don't see the products you want, let your local retailer know. They'll appreciate it!



Now more than ever it's easier to save money, conserve natural resources, and protect the environment in our everyday lives.

LIGHTING

Even the way we light our homes can make a real difference in our utility bills and to the planet.

ENERGY STAR labeled fixtures and bulbs meet high standards for energy-efficiency and quality, so they use less energy without sacrificing performance or design. Plus, they're safe, reliable, and provide just the right light and color.

Today's ENERGY STAR labeled lights equal or surpass the quality of light found in conventional incandescent bulbs. And since energy-efficient bulbs use 67-75% less energy and last as much as 6 times longer than other bulbs, you'll save on energy bills plus the cost and trouble of replacing bulbs.

Shopping for lighting? Renovating or building a new home? Efficiency Vermont can help. Efficiency Vermont, the state's energy efficiency utility helps Vermont homes, businesses and farms save money through energy efficiency.

For a list of ENERGY STAR retailers, call 1-888-921-5990

Or visit www.encyvermont.com

