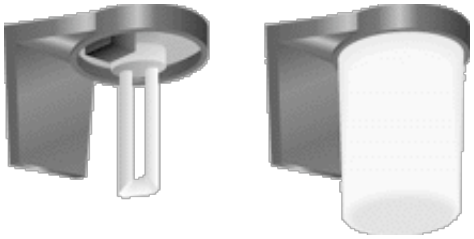
Return Home

- Home
- Basket
- Appliances
- Buildings
- Energy Efficient Products
- Energy Use Statistics
- Heating and Cooling
- Home Building
- Home Renovations
- Industry
- Miscellaneous
- Regulations and Policy
- Reports
- Transportation

Outdoor Lighting

The use of outdoor lighting is increasing in Canadian homes—and so is its operating cost. The following information will help you make an energy-wise choice when choosing outdoor lighting options.

CFLs are more sensitive to extreme temperatures than incandescent lamps, and some types have trouble starting and reaching full brightness in cold outdoor applications. While many electronically ballasted CFLs are rated to start at temperatures as low as -30°C, some magnetically ballasted units are rated to start only above 4°C. Before buying, check the package label for recommended bulb locations.



Compact fluorescent lamps for outdoor use should be in a sealed fixture with ventilation slots.

When using compact fluorescent lamps for outdoor use, sealed fixtures are preferable because they increase the temperature around the lamp, which assists winter starting and operating. In this case, the fixture should have ventilation slots to allow heat to escape during warmer seasons.

High Intensity Discharge Lamps

Two types of energy-efficient high intensity discharge (HID) lighting are widely available for exterior use: high pressure sodium (HPS) lights and metal halide lights.

HPS lamps are an efficient source of exterior lighting. While initially costing more than other sources, HPS fixtures use 70 percent less energy than standard incandescent floodlights and 40 percent less energy than common mercury vapour fixtures. HPS fixtures are estimated to have a lifetime of approximately 10 years.

Metal halide PAR lamps are more energy-efficient than tungsten-halogen or compact fluorescent PAR lamps. They provide a blue-white light source and can be used to highlight plants in gardens.

Solar-powered lights, which use the sun's energy to charge batteries for nighttime use, are designed for walkways, patios and gardens. Some models are equipped with motion sensors to turn the lights on when motion is detected.

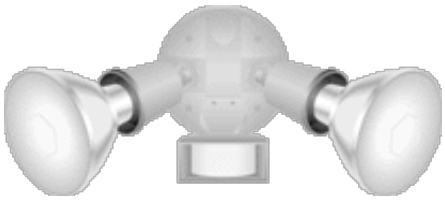
Light output is measured in “lumens.” A 100-W standard incandescent bulb produces about 1680 lumens, whereas a 25-W compact fluorescent lamp produces about 1750 lumens. While the two bulbs produce virtually the same amount of light, the compact fluorescent lamp does so using only a quarter of the energy consumed by the standard incandescent.

The following tables can help you when you are replacing regular bulbs with compact fluorescents.

Controls

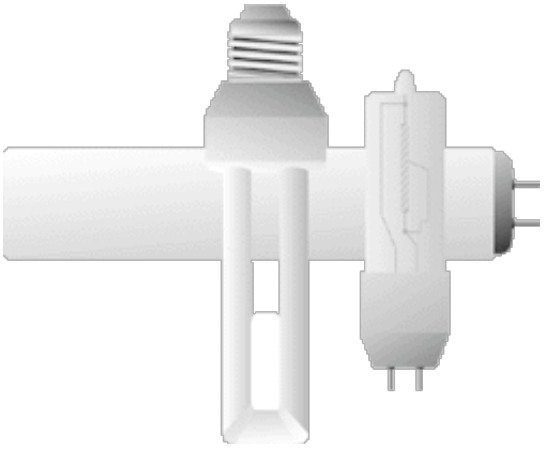
Outdoor lighting can be turned off automatically during daylight hours using photocells. While this is an effective way to ensure that lights are not left on during the day, it also means that outdoor lights are on throughout the night. If you need outdoor lights for just a few hours in the evening, they can be better and more efficiently controlled using automatic timers. The additional use of a photocell prevents daytime use if the timer is not reset for seasonal variations in the length of the day.

In areas that need lighting only when someone is present, motion sensors that turn lights on when movement is detected are convenient, save energy and discourage prowlers.



Outdoor lights with motion sensors turn lights on only when movement is detected, saving energy and extending bulb life.

Lumens and Watts



When buying light bulbs, most people think of “watts” as a measure of brightness. We know, for example, that a 100-W incandescent bulb provides a lot of light, while a small 7-W bulb can serve only as a night light or a decorative light for the festive season.

In reality, the watt is a measure of energy, not of light output. A 40-W bulb uses 40 watts of electricity no matter what type of bulb it is. But the amount of light produced by the bulb can vary significantly depending on its type.

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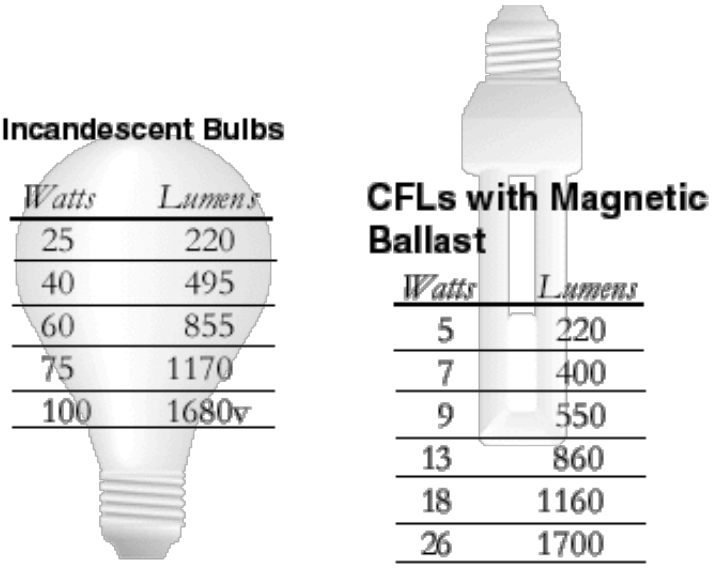

Incandescent Bulbs

Watts	*Lumens*
25	220
40	495
60	855
75	1170
100	1680

CFLs with Magnetic Ballast

Watts	*Lumens*
5	220
7	400
9	550
13	860
18	1160
26	1700

CFLs with Electronic Ballast

Watts	*Lumens*
15	900
18	1100
20	1200
25	1750

Previous | Contents | Next

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