

Compact Fluorescent Lighting



Compact fluorescent lighting is an efficient replacement, or substitute, for incandescent lighting. Similar to linear fluorescent lighting, a compact fluorescent lamp is tubular and is powered by a ballast (lighting transformer). The glass tubes are formed into many different shapes and are commonly available in wattages ranging from 3 watts to 40 watts. There are two basic types of compact fluorescent lamps: screw-in lamps with integral ballasts; and hard-wired compact fluorescent fixtures with a separate ballast and a plug-in replaceable lamp.

Compact Fluorescent Lighting Types

Screw-in Compact Fluorescent Lamps

The Efficiency Maine Business Program does not offer incentives for screw-in compact fluorescent lamps, because recent price reductions have made them standard practice, and because they can easily be replaced with incandescent lamps, eliminating the energy savings. However, screw-in compact fluorescent lamps may be an excellent choice for certain types of commercial lighting applications. They will fit many standard wall sconces, table lamps, and decorative fixtures providing dramatic energy savings compared with incandescent lamps. Care should be taken in installing screw-in compact fluorescent lamps in recessed “can” and other fixtures that can trap heat, as lamp life will be shortened.

Hard-wired Compact Fluorescent Fixtures

The Efficiency Maine Business Program does offer incentives for hard-wired compact fluorescent fixtures (see Measure Code L25). These fixtures come in many styles with recessed downlight “cans” and wall sconces being the most popular. Only fixtures with electronic ballasts are eligible for incentives, as lamp flicker is eliminated, longer lamp life is achieved, and higher efficiency levels are obtained.

Compact Fluorescent Light Output and Efficiency Levels

Compact fluorescent lighting, although much more efficient than incandescent lighting, is less efficient than linear fluorescent lighting. The lamps are also more expensive and have shorter operating lives than modern linear fluorescent lamps. For these reasons, linear fluorescent is the preferred choice unless aesthetics dictate a compact fluorescent fixture style.

As a general guideline, compact fluorescent lamps supply approximately 3-5 times the amount of light as incandescent lamps of the same wattage. Although light output varies by manufacturer and lamp type, typical replacements are as follows:

Incandescent Lamp	Compact Fluorescent Lamp
50-60 watts	15 watts
75 watts	19 watts
100 watts	23 watts

Outdoor Applications

Compact fluorescent lamps are temperature sensitive with light levels dropping off when temperatures drop below 50° F. As temperatures drop below freezing, standard compact fluorescent lamps may not start. Compact fluorescent lamps and fixtures installed outdoors should be specified with “cold weather” ballasts rated to 0° F.

Incentives for Compact Fluorescent Lighting

Efficiency Maine offers incentives for the following compact fluorescent lighting measure:

Measure Code L25 – New Hard-Wired Compact Fluorescent Fixtures

Measure L25 is for the installation of new hard-wired compact fluorescent lighting fixtures with electronic ballasts. Screw-in lamps and fixture retrofit kits are not eligible. Any fixture style is eligible, provided the fixture is hard-wired to the electrical circuit and includes an electronic ballast(s).

(Exit signs are not eligible for this incentive, but are eligible as a replacement for existing exit signs – Measure Code X10.)

Measure	Code	Eligible Installations	Unit Incentive	Eligibility Criteria
 Compact Fluorescent	L25	Hard-wired Fixtures	\$12 per Fixture	<ul style="list-style-type: none">• 1 Unit = 1 new fixture with 1 to 4 lamps and electronic ballast• Exit signs, screw-in lamps, and retrofit kits are not eligible