Environmental Choice[M] Program
Panel Review Process

VERIFICATION AND LICENSING CRITERIA

CCD-014

PRODUCT TYPE: ENERGY EFFICIENT LAMPS OR COMPACT FLUORESCENT LIGHTS

Notice

Throughout this document, any reference to a standard or guideline means to its latest edition.

The Environmental Choice[M] Program (ECP) reserves the right to accept equivalent test data for the test methods specified in this document.

Interpretation

1. In this set of requirements, please note the following definitions:

"ANSI" means the American National Standards Institute:"

"ballast" means an electronic or electromagnetic device used with fluorescent and high intensity discharge lamps to provide the conditions for starting and stable operation of the lamp;

"Ballasted adapter" means a non-serviceable, factory-sealed adapter, with an integral ballast designed to be used with a modular compact fluorescent lamp in an E26 medium screw base lampholder;

"colour rendering index (CRI)" means the effect of a light source on the colour appearance of objects, compared with the effect produced by a reference light source of comparable colour temperature;

"Colour temperature" means the actual appearance of the light produced in terms of its apparent warmth or coolness;

"Compact fluorescent lamp" means a small sized fluorescent lamp consisting of two types: self-ballasted and modular;

"SCA" means the Canadian Standards Associaiton;

"IES" means the Illuminating Engineering Society of North America;

"lamp"means a complete assembly consisting of a bulb, a radiant energy source and a means of connection to an electric supply.

"lamp efficacy" means the ratio of the lamp light output to the power input to the lamp, in lumens per watt;

"lamp life" means the number of hours for which a lamp has operated before the bulb burns out;

"lumen" means the total quantity of light emitted per second by a light source;

"modular compact fluorescent lamp" means a compact fluorescent lamp used with a separate ballasted adapter;

"rated lamp life" means the number of hours for which 50% of an average batch of lamps has operated before the bulbs burn out;

"reference ballast" means the ballast required when the test sample is a modular compact fluorescent lamp.

"reference lamp" means the lamp required when the test sample is a ballasted adapter without a companion lamp. The lamp shall be suitable for use with the ballasted adapter;

"Self-ballasted compact fluorescent lamp" means a non-serviceable, factory-sealed compact fluorescent lamp that incorporates all of the elements that are necessary for starting and stable operation of the lamp and is intended to be used in an E26 medium screw base lampholder;

"USEPA" means United States Environmental Protection Agency;

General Requirements

2. In order to minimize the solid waste burden, conserve resources, and reduce quantities and impacts of toxic substances and other pollutants associated with packaging, the ECP requires the submission of an attestation of commitment to the objectives of the National Packaging Protocol.

3. To be authorized to carry the EcoLogo^{M}, the product must:

(a) meet or exceed all applicable governmental and industrial safety and performance standards;

(b) be manufactured and transported in such a manner that all steps of the process, including the disposal of wasted products arising therefrom, will meet the requirements of all applicable governmental acts, by laws and regulations including, for facilities located in Canada, the *Fisheries Act* and the *Canadian Environmental Protection Act* (CEPA).

Product Specific Requirements

4. To be authorized to carry the EcoLogo the **energy efficient lamp** must meet the criteria specific to its subcategory.

4.1 To be authorized to carry the EcoLogo the compact fluorescent lamp must:

(a) meet the requirements of **CAN/CSA-C861** ***Performance of Compact Fluorescent Lamps and Ballasted Adapters;***

(b) meet the requirements of **USEPA Energy Star® *Compact Fluorescent Lamp Specification***

(*I*) for modular units supplied without a ballast, achieve at least the average lamp efficacy defined in Table 1 using a reference ballast;

(*ii*) for self-ballasted units and for modular units supplied together with a ballast, achieve at least the average lamp efficacy defined in Table 1; and

(*iii*) be classified as high power factor-type, > than or = to 0.9;

(d) have an average rated lamp life of at least 10,000 hours (at three hours per start) when tested in accordance with IES LM-40-1987 *IES Approved Method for Life Performance Testing of Fluorescent Lamps*.

(e) have mercury at levels less than 3 mg;

(f) not contain with radioisotopes;

(g) have a colour temperature, as measured in accordance with IES LM-16, *Colorimetry of Light Source,* and as reported pursuant to section 7.1.1.5 of that publication.

4.2 To be authorized to carry the EcoLogo, the integral-ballasted adapter must

(a) meet the requirements of CAN/CSA-C22.2 No. 74 *Equipment for Use with Electric Discharge Lamps;*

(b) have an average life of at least 8,000 hours, at three hours per start, when tested (with reference lamp, if necessary) in accordance with IES LM-40-1987 *IE Approved Method for Life Performance Testing of Fluorescent Lamps*;

(c) not contain radioisotopes, or require lamps which contain radioisotopes; and

(d) be manufactured with low level leaded glass.

(e) packaged marking shall include instructions on how to dispose of correctly.

Table 1

Minimum Average Lamp Efficacies for Self-ballasted Compact Fluorescent Lamps and for Modular Compact Fluorescent Lamps and Ballasts Supplied Together

Lamp Wattage (watts)	Lamp Efficacy (lumens/watts)
Scope (a) (b)	=≤
<15	45
≥15	60
Scope © Covered Lamps	
≤14	40
15 to 19	48
20 to 24	50
≥25	55

Scope (d) Reflector Type	
≤19	33
≥20	40

Scope:

(a) Single based compact fluorescent lamps with twin tube, triple tube, quad tube, square or multiple limb configurations and having ballasts;

(b) Circle and square lamps with a maximum diameter of 9 inches or a maximum side length of 8 inches and having electronic ballast adapters that are packaged togther with the lamp.

(c) Single based compact fluorescent lamps with integral electronic ballasts and which have a translucent cover over the bare fluorescent tube. The cover may be a globe, bullet, or other shape.

(d) Single based compact fluorescent lamps with integral electronic ballasts and which have a reflector that may be opened or enclosed. The lamp shall be primarily to replace wide beam and incandescent reflector lamps.

Verification

5. To verify a claim that a product meets the criteria listed in this document, the ECP will require access, as its normal practice, to relevant quality control and production records and the right of access to production facilities on an announced basis.

6. Compliance with requirement 3(b) shall be attested to by a signed statement of the Chief Executive Officer or the equivalent officer of the licensee. The ECP shall be advised in writing immediately by the licensee of any noncompliance which may occur during the term of the license. On the occurrence of any noncompliance, the license may be suspended or terminated as stipulated in the license agreement.

Conditions for EcoLogo

7. The EcoLogo may appear on wholesale or retail packaging, or on the product itself, provided that the product meets the requirements in this document.

8. All licensees and authorized users must comply with the ECP's *Guide to Proper Use of the EcoLogo*^{M} regarding the format and usage of the EcoLogo.

9. Any accompanying advertising must conform with the relevant requriements stipulated in this guideline, the license agreement and the ECP's *Guide to Proper Use of the EcoLogo*^{M}.