

Eco Mark Product Category No. 150

“LED Bulb Lamp (Type A) Version1.1”

Certification Criteria

- Applicable Scope-

Lamps of A type which are described in the section 1 lump types and forms in Annex B (Normative) in JIS C 8157 “Self-ballasted LED-lamps for general lighting services > 50 V -- Performance requirements” and have a bayonet cap of E17 or E26 and emit light according to the light-source colors defined in the JIS Z 9112 “Classification of fluorescent lamps based on light- source colors and color rendering properties.”

Established	April 1, 2012	Japan Environment Association
Revised	April 1, 2014	Eco Mark Office
Expiration date	March 31, 2024	

NOTE: This document is a translation of the criteria written in Japanese. In the event of dispute, the original document should be taken as authoritative.

Eco Mark Product Category No.150

**“LED Bulb Lamp (Type A) Version1.1”
Certification Criteria**Japan Environment Association
Eco Mark Office**1. Purpose of Establishing Criteria**

Omitted.

2. Applicable Scope

Lamps of A type which are described in the section 1 lump types and forms in Annex B (Normative) in JIS C 8157 “Self-ballasted LED-lamps for general lighting services > 50 V -- Performance requirements” and have a bayonet cap of E17 or E26 and emit light according to the light-source colors defined in the JIS Z 9112 “Classification of fluorescent lamps based on light- source colors and color rending properties.”

3. Terminology

Omitted

4. Certification Criteria and Certification Procedure

The corresponding boxes in the Attached Certificates shall be checked/filled in, stamped with the applicant company seal and submitted.

4-1. Environmental Criteria and Certification Procedure**4-1-1 Resource Saving and Resource Recycling**

(1) The lifetime of the product shall be more than 40,000 hours.

[Certification Procedure]

The compliance with this item shall be described in the attached certificate. A copy of the description on product packaging, which specifies the data from the evaluation based on lamp’s lifetime defined by JIS C 8157 and the point in this item, shall be submitted.

(2) This product shall be designed in an eco friendly way. Specifically, the following points are paid attention when designing products:

- a) To make effort to reduce product weight in designing process,
- b) As for main composition of metal materials, the materials which meet Japanese

Industrial Standards (JIS) are used in order not to prevent recycling of the used materials into the same kinds of materials. (e.g. JIS H 2118 “aluminum alloy and bare metals for die-casting”), and

- c) Product components containing rare metals (31 mineral species defined by the special subcommittee on comprehensive measures of rare metals of the mining industry council of the Ministry of Economy, Trade and Industry) and types of rare metals are recognized.

[Certification Procedure]

The compliance with this item shall be described in the attached certificate. A list of material used (electric parts excluded) shall also be submitted.

4-1-2 Prevention of Global Warming

- (3) Lamp efficiency [lm/W] (total luminous flux (rated initial luminous flux/power consumption) shall correspond to Table 1.

[Certification Procedure]

The compliance with this item shall be described in the attached certificate. The results of tests performed by test providers registered in the Japan National Laboratory Accreditation System (JNLA) shall be submitted (photometry is JIS C 7801 “Photometry of light source for general lighting”). The test results shall include average values of ten or more samples.

Table 1 Lamp efficiency

Light-source	Lamp efficiency [lm/W]
Bulb	≥ 98.60
Warm	≥ 110.0
White	
Day	
Daylight	

4-1-3 Restriction and Control of Hazardous Substances

- (4) The content rate of lead/mercury/cadmium in the product and its compounds/hexavalent chromium compounds in the product shall comply with ANNEX II (Table 4) of the amended RoHS Directive (2011/65/EU). However, this does not apply to those substances specified in ANNEX III.

In addition, the product shall have no flame retardant of Polybrominated biphenyl (PBB), Polybrominated diphenylether (PBDE) or short-chain chlorinated paraffin (the number of chained C is 10 to 13 and contained chloride concentration is 50% or over)

added as formulated components.

[Certification Procedure]

The compliance with this item shall be described in the attached certificate. Substances under the RoHS Directive shall be required to be regularly tested for confirmation. The latest test results performed by test providers certified by ISO9001, etc. shall be submitted as proof of meeting the requirement.

Table 2. Content rate

material	Content rate[wt%]
Lead and its compounds	≤ 0.1
Mercury and its compounds	≤ 0.1
Cadmium and its compounds	≤ 0.01
Hexavalent chromium compounds	≤ 0.1

* The content rate refers to the content proportion in a homogeneous substance (minimum unit that can be separated by rule with totally uniform composition).

(5) In manufacturing the applied product, related environmental laws and regulations and pollution control agreement (hereinafter referred to as the “Environmental Laws, etc.”) must be followed with respect to air pollution, water contamination, noise, offensive odor, and emission of hazardous materials in the area where the plant performing the final manufacturing process (assembling process) is located.

In addition, the state of compliance with the Environmental Laws, etc. for the last five years from the date of application (whether there is any violation) must be reported. If there is any violation, it is necessary that proper remedies and preventive measures have been already taken, and the related Environmental Laws, etc. must thereafter be followed appropriately.

[Certification Procedure]

With respect to the compliance with the Environmental Laws, etc. in the area where the plant performing the final manufacturing process (assembling process) is located, a certificate issued by the representative of the business of manufacturing the applied product or the manager of the relevant plant (entry or attachment of the list of names of the Environmental Laws, etc.) must be submitted.

In addition, it is necessary to report whether there is any violation during the last five years, including a violation subject to administrative punishment or administrative guidance, and if there is, the following documents in a and b must be submitted:

- a. With respect to the fact of violation, guidance documents from administrative agencies (including order of correction and warning) and copies of written answers (including those reporting causes and results of correction) to such

- documents (making a series of progress clear);
- b. Following materials (copies of recording documents, and so on) concerning the management system for compliance with the Environmental Laws, etc. in 1)-5):
- 1) List of the Environmental Laws, etc. related to the area where the plant is located;
 - 2) Implementation system (organizational chart with entry of roles, etc.);
 - 3) Document stipulating retention of recording documents;
 - 4) Recurrence prevention measures (future preventive measures);
 - 5) State of implementation based on recurrence prevention measures (result of checking of the state of compliance, including the result of onsite inspection).

4-1-4 Provision of Information to Users

- (6) A label on the product packaging shall include the following a)-e):
- a) Total luminous flux (rated initial luminous flux),
 - b) Power consumption,
 - c) Light-source color, and
 - d) Average color rendering index.
 - e) The fact that the test providers registered in JNLA has measured the total luminous flux and the power consumption.

Sample indication of a), b) and e)

Total luminous flux: 1,000lm(*)

Power consumption: 10W(*)

Tested by JNLA-registered test provider (000000JP (registered number))

(*) for more details, please refer the instruction or catalog

[Certification Procedure]

A copy of the description of this item on product packaging shall be submitted.

- (7) The following points regarding appropriate use etc. shall be specified on the product packaging:
- a) Place of use (availability or not of devices with dimmer, closed-type devices, devices with insulator, and other devices; recommended temperature),
 - b) Product information (size, light distribution (e.g. a picture of light diffusion), and image of lightness (alternative labels of electric lamps for general lighting complying with JIS C 8158 “Self-ballasted LED-lamps for general lighting services by voltage > 50 V” : X type bulb equivalent)),
 - c) Warnings (not to be dismantled; not to look straight at the bulb lump for a long

time), and

- d) Consultation contact information (telephone number (required); website address (recommended)).

[Certification Procedure]

A copy of the description of this item on product packaging shall be submitted.

4-2. Quality Criteria and Certification Procedure

- (8) The product shall comply with the technical standards of the Electrical Appliance and Material Safety Law.

[Certification Procedure]

A document specifying that the product acquired the S mark certification shall be submitted.

- (9) The product user information of light-source color and average color rendering index shall be provided appropriately. The average color rendering index is required to be 70 or above.

[Certification Procedure]

The results of tests performed by test providers registered in the Japan National Laboratory Accreditation System (JNLA) (measuring method: JIS C 7801 “Measuring methods of lamps for general lighting” and JIS C 8157 “LED bulb lamp for general lighting – requirements of performance”) shall be submitted. The test results shall include average values of ten or more samples.

5. Considerations

In manufacturing products, it is desirable to consider the following, although they are not requirements for certification. The conformance to the individual criteria item shall be indicated in Attached Certificates.

- (1) The product packaging shall be made from recycled materials.

[Certification Procedure]

The compliance with this item and types and combination ratio of recycled materials shall be described in the attached certificate.

- (2) The bulb power factor shall be 0.6 or above.

[Certification Procedure]

The compliance with this item and the power factor (including details such as

computation method) shall be described in the attached certificate.

(3) A plant performing the final manufacturing process shall have an environmental management system.

[Certification Procedure]

A document to certify that the plant has an environmental management system shall be submitted (As for ISO 14001 and other systems, a copy of the certificate is acceptable).

(4) When information on collection or appropriate disposal of the lamps is provided and the lamps are distributed to corporate customers, a lamp collection system shall have been established.

[Certification Procedure]

The compliance with this item shall be described in the attached certificate. A copy of the description of this section on the instruction, leaflet, Internet website, product label and others, and the explanation document of the collection system shall be submitted.

6. Product Classification, Indication and Others

Omitted.

April 1, 2012	Established (Version1.0)
April 1, 2014	Revised (Version1.1)
March 27, 2017	Extension of expiration date
March 31, 2024	Expiration date

The Certification Criteria for the Product Category will be revised when necessary.