

**ENERGY EFFICIENCY LABELLING SCHEME FOR
COMPACT FLUORESCENT LAMPS
OPERATED BY
SRI LANKA STANDARDS INSTITUTION**

GUIDELINES AND PROCEDURES

1. INTRODUCTION

Sri Lanka Standards Institution (SLSI), the national standards body in Sri Lanka operates the Energy Efficiency Labelling Scheme based on the relevant Sri Lanka Standards for energy efficiency rating of appliances.

SLSI offers this scheme to importers and manufacturers of Compact Fluorescent Lamps (CFLs) to join the mandatory energy labelling scheme, implemented by Sri Lanka Sustainable Energy Authority (SLSEA). Permission to use the energy label will be granted by the SLSI only for the brand and the model of CFL which conforms to minimum performance grading of fifty (50) in accordance with **SLS 1225** as per the **Extraordinary Gazette No. 1611/10 of July 22, 2009** (hereafter mentioned as the gazette notification).

2. ENERGY EFFICIENCY STANDARDS

The reference standard for minimum energy performance and energy efficiency labelling scheme is **SLS 1225**: Specification of Energy Efficiency Rating for Self ballasted Lamps (Integral Compact Fluorescent Lamps). The sample drawn for testing shall be tested according to the methodology given in the **SLS 1225**.

3. PERFORMANCE GRADING & ENERGY RATING

Performance grading is the parameter that reflects the energy efficiency of the product, and energy rating is the tool for making this efficiency value comparative.

Depending on the efficacy, power factor and colour temperature of a CFL the performance grading shall be determined as given in **SLS 1225**. Upon performance grading greater than fifty (50), it is divided into five categories called energy rating which is denoted by stars. The product with the highest performance grading shall be assigned with five stars and as the performance grading lowers a lesser number of stars will be assigned. The greater the number of stars the higher the energy efficiency of a CFL.

4. APPLICATION:

- 4.1** A manufacturer or an importer shall make an application in respect of each model (brand / wattage / type / colour) of the lamp. If the same model is manufactured in factories at different locations a separate application shall be made in respect of each location and the model.
- 4.2** Duly completed application forms shall be forwarded to the Director (Engineering), SLSI.

5. TEST REPORT:

5.1 Test report issued for a particular model (brand, type, wattage, colour) from the National Engineering Research and Development (NERD) Centre or any international accredited laboratory shall be used for calculation of performance Grading. The test report should certify that the sampling and testing are in accordance with **SLS 1225** and should provide the test results for the below mentioned parameters in order to calculate the Performance Grading of particular model.

- Luminous flux (in lumens)
- Power consumption (in Watts)
- Power factor
- Colour correlation temperature

5.2 To issue “certificate for energy efficiency rating” for a particular model (brand, type, wattage, colour)

- a) the test report on lumen maintenance for each model (brand, wattage, type, colour) issued from the NERD Centre or any international accredited laboratory shall be used or else
- b) the importer / manufacturer shall submit a declaration certificate on lumen maintenance.

6. CONDUCT TESTS AT NERD CENTRE

6.1 In case where importer / manufacturer shall use test facilities at NERD Centre, random samples will be drawn by the SLSI and submitted for testing at the NERD Centre. Separate samples will be drawn from each model of CFLs. In case where the CFLs are imported, samples will be collected from the warehouse or at the Ports. (samples drawn for the Import Inspection could be used for the Energy Labelling purpose too) and in the case where CFLs are manufactured in Sri Lanka the samples will be drawn from the stores at the manufacturing plant. Sampling will be done as per given in **SLS 1225**.

6.2 Luminous flux (in lumens), power consumption (in Watts), power factor and colour correlation temperature are measured as per **SLS 1225**, and energy rating is determined according to the formula given in **SLS 1225**, based on test results of above parameters.

6.3 Test charges shall be borne by the importer / manufacturer.

7. CERTIFICATION:

7.1 a) The Director (Engineering), SLSI or his delegate shall determine the performance grading and assign the star rating of the particular model, brand, wattage, type and colour of CFLs, based on the test reports mentioned in **5.1** and **5.2 (a)**, and the formula given in **SLS 1225**.

b) The Director (Engineering), SLSI or his delegate shall determine the performance grading and assign the star rating of the particular model, brand, wattage, type and colour of CFLs, based on the test report mentioned in **5.1** and declaration certificate mentioned in **5.2 (a)**, and the formula given in **SLS 1225** subject to the following conditions

- i. Samples will be drawn from the consignment on each and every brand, model, type, wattage and colour, for lumen maintenance test.
 - ii. Testing charges will have to be borne by the Importer/manufacturer. SLSI will inform the manufacturer/Importer, if the sample fails to conform to the requirement requesting to initiate action.
 - iii. SLSI reviews the results of three samples drawn on each brand, model, wattage and colour including lumen maintenance and if the results of three samples with respect to one brand, model, wattage and colour do not comply with the requirements, the energy efficiency labelling certificate of that brand, model,, wattage and colour shall be withdrawn by the SLSI.
- 7.2 Upon the performance grading greater than fifty (50), the Director (Engineering), SLSI will certify that the ‘certificate for energy efficiency rating’ (hereafter mentioned as the certificate) shall be awarded for the particular model, brand, wattage, type, colour of CFLs. The number of stars for which the particular model is entitled to is displayed in the certificate.
- 7.3 For each model, brand, type, wattage, colour of CFLs separate certificates should be obtained. When the applicant has lodged a number of applications in respect of number of locations, he / she shall be issued separate certificates in respect of each model of the appliance manufactured at different locations.
- 7.4 The certificate shall be issued under the signature of the Director General, SLSI, authorizing the applicant to affix / display the label as prescribed in the certificate, on his / her product.
- 7.5 Before awarding the certificate the applicant shall sign an agreement with the SLSI.
- 7.6 The certificate shall be valid for a period of three years from the date of issue of the certificate unless otherwise specified. Before elapse of the validity period the importer / manufacturer should apply for renewal of the certificate to SLSI. The warranty period shall be 1 year minimum.
- 7.7 The details of certificate holders shall be forwarded to SLSEA by SLSI to draw market samples in the process of surveillance inspection.
- 8. ENERGY LABEL:**
 - 8.1 Number of stars denoted in the energy label of a particular CFL shall be the number of stars or the energy rating entitled to that particular model by the SLSI which in turn displayed in the certificate.
 - 8.2 The energy label shall always be used with the model of the product with a distinctive registered trademark / brand name as prescribed in the certificate issued to the manufacturer or the importer.
 - 8.3 Detailed information, with respect to the number of labels, serial numbers of the CFLs on which the labels are used shall be made available to SLSEA, to prevent misuse of labels by any party.

9. PRINT & DISPLAY ENERGY LABEL

- 9.1 The label shall be fixed / displayed on the container of the product by the importer / manufacturer as directed by the **gazette notification**.
- 9.2 The Energy label shall have the dimensions, format and all the information prescribed in the **gazette notification**. Maximum allowable tolerance limit for label sizing is 5%.
- 9.3 Printing colours shall be in accordance to the below mentioned scheme.
- CYMK
 - Dark Blue: C:87%, M:60%, Y:12%, K:1%
 - Light Blue: C:57%, M:37%, Y:6%, K:0%
 - Yellow: C:7%, M:0%, Y:89%, K:0%
 - Black: C:75%, M:68%, Y:67%, K:90%

10. SURVEILLANCE INSPECTION:

- 10.1 SLSEA shall carry out surveillances two times per year. Random samples from the market will be drawn time to time for testing at the laboratory at NERD Centre, and the test results of these samples shall be forwarded to SLSI.
- 10.2 In addition to the random inspection surveillances will be done on the complaints received from the general public of any malfunctions regarding the energy label. Such inspections will be carried out under close supervision of an operational committee formed by the senior management of SLSEA and SLSI.
- 10.3 The certificate holder shall arrange for the product in batches and for the containers used, if any to be marked in the manner acceptable to SLSI, in order that any particular sample of the product may be traced to its batch. The definition of the batch, details of batch identification, decoding system of the batch identification, etc. should be made available to the SLSEA by the certificate holder.

11. CERTIFICATION FEE:

- 11.1 The certificate holder shall pay a fee of LKR 600/- for the application form, and a certification fee of LKR 15 000/- at the time of issue of the certificate.
- 11.2 The importer / manufacturer shall bear the cost of testing fee and the cost for sample collection at the initial testing.

Please note that the contents in this guidebook are subjected to be modified time to time.

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