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No. S 398

ENERGY CONSERVATION ACT
(CHAPTER 92C)

ENERGY CONSERVATION
(ENERGY LABELLING AND MINIMUM PERFORMANCE
STANDARDS FOR REGISTRABLE GOODS)
(AMENDMENT) REGULATIONS 2015

In exercise of the powers conferred by section 78 of the Energy Conservation Act, the Minister for the Environment and Water Resources makes the following Regulations:

Citation and commencement

1. These Regulations may be cited as the Energy Conservation (Energy Labelling and Minimum Performance Standards for Registrable Goods) (Amendment) Regulations 2015 and come into operation on 1 July 2015.

Amendment of regulation 2

2. Regulation 2 of the Energy Conservation (Energy Labelling and Minimum Performance Standards for Registrable Goods) Regulations 2013 (G.N. No. S 557/2013) (referred to in these Regulations as the principal Regulations) is amended —

(a) by inserting, immediately after the definition of “clothes dryer”, the following definitions:

“ “compact fluorescent lamp with integrated ballast”
or “CFLi” has the same meaning as in the
Schedule to the Energy Conservation
(Registrable Goods) Order 2013;

“covered CFLi” means a CFLi with an outer lamp
envelope;”;

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- (b) by deleting the word “and” at the end of paragraph (c) of the definition of “energy efficiency”;
- (c) by inserting the word “and” at the end of paragraph (d) of the definition of “energy efficiency”, and by inserting immediately thereafter the following paragraph:
- “(e) in relation to a lamp, means the Lamp Power Consumption as defined in the First Schedule;”;
- (d) by inserting, immediately after the definition of “Energy Label”, the following definitions:
- ““incandescent lamp” has the same meaning as in the Schedule to the Energy Conservation (Registrable Goods) Order 2013;
- “lamp” means a single-phase lamp as specified in paragraph 1 of Part III of the Schedule to the Energy Conservation (Registrable Goods) Order 2013;
- “LED lamp” has the same meaning as in the Schedule to the Energy Conservation (Registrable Goods) Order 2013;”;
- and
- (e) by deleting the full-stop at the end of the definition of “test report” and substituting a semi-colon, and by inserting immediately thereafter the following definitions:
- ““tungsten filament lamp” means an incandescent lamp that has a filament made of tungsten and is operated in an evacuated bulb or surrounded by inert gas;
- “tungsten halogen lamp” means an incandescent lamp that has a filament made of tungsten and is surrounded by gas containing halogens or halogen compounds.”.

Amendment of regulation 7

3. Regulation 7 of the principal Regulations is amended by deleting the full-stop at the end of paragraph (c) and substituting a semi-colon, and by inserting immediately thereafter the following paragraph:

“(d) lamps.”.

Amendment of First Schedule

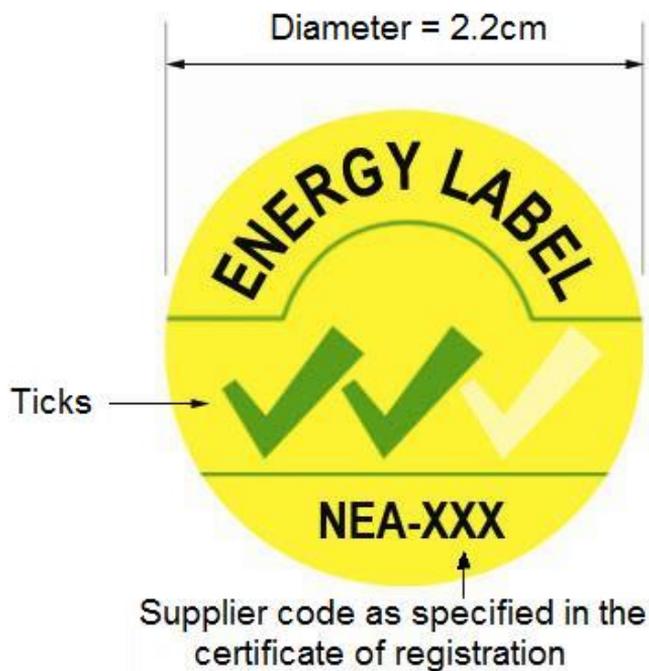
4. The First Schedule to the principal Regulations is amended —

(a) by inserting, immediately after Label 4 in paragraph 2, the following Label:

“

Label 5

ENERGY LABEL FOR LAMPS



”;

(b) by deleting the words “and televisions” in paragraph 3 and substituting the words “, televisions and lamps”;

(c) by inserting, immediately after sub-paragraph (h) of paragraph 3, the following sub-paragraph:

“(i) for lamps —

<i>Ticks</i>	<i>Lamp Power Consumption (P_{lamp}) in Watts</i>
1	$0.8 \times (0.88\sqrt{\phi} + 0.049\phi) \geq P_{lamp} > 0.24\sqrt{\phi} + 0.0103\phi$
2	$0.24\sqrt{\phi} + 0.0103\phi \geq P_{lamp} > 0.17 \times (0.88\sqrt{\phi} + 0.049\phi)$
3	$P_{lamp} \leq 0.17 \times (0.88\sqrt{\phi} + 0.049\phi)$ ”;

(d) by inserting, immediately after the definition of “ “Energy Consumption” or “EC” ” in paragraph 4, the following definitions:

“ “Lamp Power Consumption” or “ P_{lamp} ” means —

(a) for a covered CFLi, $P_{covered\ CFLi} \times 0.95$;

(b) for any other lamp, the rated power consumed by the lamp, excluding power dissipated by non-integrated auxiliary equipment, such as ballasts, transformers or power supplies, expressed in Watts, as specified in the test report;

“ ϕ ” means the rated luminous flux of a lamp expressed in lumens, as specified in the test report;”;

(e) by inserting, immediately after the definition of “ “On-Mode Power Consumption” or “P” ” in paragraph 4, the following definition:

“ “ $P_{covered\ CFLi}$ ” means rated power consumed by a covered CFLi, excluding power dissipated by non-integrated auxiliary equipment, such as ballasts, transformers or power supplies, expressed in Watts, as specified in the test report;”.

Amendment of Second Schedule

5. The Second Schedule to the principal Regulations is amended —

(a) by inserting, immediately after the item relating to “Clothes Dryer” in paragraph 1, the following item:

“

Lamp	Incandescent lamp	The luminous flux measurement test shall be conducted in accordance with CIE 84 (1989) The test conditions for the luminous flux measurement test are as specified in — (a) for tungsten filament lamps, IEC 60064 (2005); and (b) for tungsten halogen lamps, IEC 60064 (2005) or IEC 60357 (2003).
	CFLi	IEC 60969 (2001-03)
	LED lamp	IEC 62612 (2013)

”; and

(b) by inserting, immediately before the definition of “IEC” in paragraph 2, the following definition:

““CIE” means the International Commission on Illumination;”.

Amendment of Third Schedule

6. The Third Schedule to the principal Regulations is amended —

(a) by inserting, immediately after paragraph (d) of item 2, the following paragraph:

“(e) lamp §34”; and

(b) by deleting the full-stop at the end of paragraph (d) of item 3, and by inserting immediately thereafter the following paragraph:

“(e) lamp §18”.

Amendment of Fourth Schedule

7. The Fourth Schedule to the principal Regulations is amended by deleting the full-stop at the end of item 13, and by inserting immediately thereafter the following items:

- “
- | | |
|------------------------------------|--|
| 14. Incandescent lamp | $P_{\text{lamp}} \leq 0.8 \times (0.88\sqrt{\phi} + 0.049\phi)$ |
| 15. CFLi (other than covered CFLi) | <p>(a) $P_{\text{lamp}} \leq 0.24\sqrt{\phi} + 0.0103\phi$;</p> <p>(b) the ratio of luminous flux emitted by the lamp at 2,000 hours to its initial luminous flux is ≥ 0.85; and</p> <p>(c) the fraction of the total number of lamps that continue to operate (light output must be at least 50% of its initial luminous flux) at 6,000 hours is ≥ 0.5</p> |
| 16. Covered CFLi | <p>(a) $P_{\text{lamp}} \leq 0.24\sqrt{\phi} + 0.0103\phi$;</p> <p>(b) the ratio of luminous flux emitted by the lamp at 2,000 hours to its initial luminous flux is ≥ 0.80; and</p> <p>(c) the fraction of the total number of lamps that continue to operate (light output must be at least 50% of its initial luminous flux) at 6,000 hours is ≥ 0.5</p> |
| 17. LED lamp | <p>(a) $P_{\text{lamp}} \leq 0.24\sqrt{\phi} + 0.0103\phi$;</p> <p>(b) the ratio of luminous flux emitted by the</p> |
- ”

lamp at 6,000 hours to its initial luminous flux is ≥ 0.80 ; and

- (c) the fraction of the total number of lamps that continue to operate (light output must be at least 70% of its initial luminous flux) at 6,000 hours is ≥ 0.9 ”.

[G.N. Nos. S 234/2014; S 559/2014]

Made on 25 June 2015.

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[MEWR C030/01/129 V.6; NEA/LD/167/Vol. 1; AG/LEGIS/SL/92C/2015/2 Vol. 2]