

## **Impact of Amended Energy Conservation Standards on General Service Fluorescent Lamps: FACT SHEET**

The Energy Policy Act of 1992 amendments to the Energy Policy and Conservation Act established energy conservation standards for certain classes of general service fluorescent lamps/tubes<sup>1</sup> (GSFLs). (See the [Energy Policy Act amendments](#) starting with Sec. 123 of the Act on the FERC website.) The amendments also direct the Department of Energy (DOE) to conduct two cycles of review to determine if the standards needed to be updated. DOE completed the first review, determined that the standards needed to be updated according to the legal requirements, and published the amended standards on July 14, 2009. 74 FR 34080. (See the [2009 Lamp Rule](#) at the Appliance Standards website).

*Note: These amended standards have a compliance date of **July 14, 2012** for manufacturers or importers of covered general service fluorescent lamps.*

The amended energy conservation standards, which are performance-based, do not explicitly prohibit the sale of T12 diameter lamps. Based on DOE's analysis, however, most commercially-available T12 lamps are too inefficient to meet the amended standards and can no longer be manufactured for distribution in commerce after July 14, 2012. In addition, if a consumer replaces an existing T12 system with a more-efficient T8 or T5 diameter system, he or she may need to purchase a new ballast or fixture. Even with this additional cost, however, DOE has determined that increasing the energy conservation standards will save consumers money overall.

NB: This standard is NOT related to the general service incandescent lamp-related provisions in the Energy Independence and Security Act of 2007 (EISA 2007). Those standards go into effect on **January 1, 2012** (See [FACT SHEET](#) at the Appliance Standards website.) Below are details of the July 2012 GSFL standards.

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<sup>1</sup> The legislation uses the term "fluorescent lamp" for what is generally known as a "fluorescent tube."

**INFORMATION ON JULY 2012 AMENDED ENERGY CONSERVATION  
STANDARDS FOR GENERAL SERVICE FLUORESCENT LAMPS**

**1. What types of fluorescent lamps are subject to these amended (July 2012) energy conservation standards?**

4-foot medium bipin, 2-foot U-shaped, 8-foot slimline, 8-foot high output, 4-foot miniature bipin standard output, and 4-foot miniature bipin high output GSFLs are subject to amended (July 14, 2012) energy conservation standards. Some special purpose (such as cold temperature and impact resistant) lamps are excluded from regulation. These exclusions are listed in the definition of “general purpose fluorescent lamp” which is reproduced at the end of this document.

**2. What are the amended (July 2012) standards for GSFLs?**

<b>Lamp/Tube type</b>	<b>Correlated color temperature (CCT)</b>	<b>Minimum average lamp efficacy (lm/W)</b>
4-foot medium bipin	≤4,500K	89
	>4,500K and ≤7,000K	88
2-foot U-shaped	≤4,500K	84
	>4,500K and ≤7,000K	81
8-foot slimline	≤4,500K	97
	>4,500K and ≤7,000K	93
8-foot high output	≤4,500K	92
	>4,500K and ≤7,000K	88
4-foot miniature bipin standard output	≤4,500K	86
	>4,500K and ≤7,000K	81
4-foot miniature bipin high output	≤4,500K	76
	>4,500K and ≤7,000K	72

**3. What types of GSFLs will be available after the amended standards become effective in July 2012?**

GSFLs that will likely be available on the market include high-efficacy T8 lamps and T5 lamps. Certain models of GSFLs (such as some T12s) are likely to become unavailable because, as currently designed, they are too inefficient to meet the prescribed efficacy level.

**4. Must manufacturers continue to comply with color rendering index (CRI) standards after July 2012?**

Yes. The CRI standards in the current energy conservation standards will not be superseded by the amended efficacy standards. The CRI standard levels were prescribed by statute, and they remain as an independent requirement.

**INFORMATION ABOUT CURRENT  
ENERGY CONSERVATION STANDARDS FOR GSFLs**

**1. What are current energy conservation standards for GSFLs?**

<b>Lamp type</b>	<b>Nominal lamp wattage</b>	<b>Minimum CRI</b>	<b>Minimum average lamp efficacy (lm/W)</b>
4-foot medium bipin	>35W	69	75
	≤35W	45	75
2-foot U-shaped	>35W	69	68
	≤35W	45	64
8-foot slimline	>65W	69	80
	≤65W	45	80
8-foot high output	>100W	69	80
	≤100W	45	80

**2. What fluorescent lamps are exempt from the current standards?**

In addition to 4-foot miniature bipin standard output and 4-foot miniature bipin high output lamps not being subject to the current standards, the following lamps are exempt:

- (1) Any 4-foot medium bipin lamp or 2-foot U-shaped lamp with a rated wattage less than 28 watts;
- (2) Any 8-foot high output lamp not defined in ANSI C78.81 (incorporated by reference; see §430.3) or related supplements, or not 0.800 nominal amperes; or
- (3) Any 8-foot slimline lamp not defined in ANSI C78.3 (incorporated by reference; see §430.3).

**3. Are GSFLs with a CRI equal to or greater than 82 but less than 87 subject to the current standards?**

Yes. EISA 2007 changed the definition of GSFL to include these lamps. DOE recently issued [guidance](#) explaining the applicability of the current standards to these lamps.

## LEGAL DEFINITION OF "FLUORESCENT LAMP" AND "GENERAL SERVICE FLUORESCENT LAMP"

10 CFR 430.2 defines a "fluorescent lamp" as follows:

*Fluorescent lamp means a low pressure mercury electric-discharge source in which a fluorescing coating transforms some of the ultraviolet energy generated by the mercury discharge into light, including only the following:*

- (1) Any straight-shaped lamp (commonly referred to as 4-foot medium bipin lamps) with medium bipin bases of nominal overall length of 48 inches and rated wattage of 25 or more;*
- (2) Any U-shaped lamp (commonly referred to as 2-foot U-shaped lamps) with medium bipin bases of nominal overall length between 22 and 25 inches and rated wattage of 25 or more;*
- (3) Any rapid start lamp (commonly referred to as 8-foot high output lamps) with recessed double contact bases of nominal overall length of 96 inches;*
- (4) Any instant start lamp (commonly referred to as 8-foot slimline lamps) with single pin bases of nominal overall length of 96 inches and rated wattage of 52 or more;*
- (5) Any straight-shaped lamp (commonly referred to as 4-foot miniature bipin standard output lamps) with miniature bipin bases of nominal overall length between 45 and 48 inches and rated wattage of 26 or more; and*
- (6) Any straight-shaped lamp (commonly referred to 4-foot miniature bipin high output lamps) with miniature bipin bases of nominal overall length between 45 and 48 inches and rated wattage of 49 or more.*

10 CFR 430.2 defines a "general service fluorescent lamp" as follows:

*General service fluorescent lamp means any fluorescent lamp which can be used to satisfy the majority of fluorescent lighting applications, but **does not include** any lamp designed and marketed for the following nongeneral application:*

- (1) Fluorescent lamps designed to promote plant growth;*
- (2) Fluorescent lamps specifically designed for cold temperature applications;*
- (3) Colored fluorescent lamps;*
- (4) Impact-resistant fluorescent lamps;*
- (5) Reflectorized or aperture lamps;*
- (6) Fluorescent lamps designed for use in reprographic equipment;*
- (7) Lamps primarily designed to produce radiation in the ultra-violet region of the spectrum; and*
- (8) Lamps with a Color Rendering Index of 87 or greater.*

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