

# CODE OF FEDERAL REGULATIONS REGARDING FLUORESCENT LAMP BALLASTS

This document lists the relevant material in the code of federal regulations under 10 CFR 430.32(m) that apply to fluorescent lamp ballasts as of January 1, 2008.

## **10 CFR 430.32(m) Energy Conservation Standards**

*(m)(1) Fluorescent lamp ballasts. Except as provided in paragraphs (m)(2), (m)(3), (m)(4), (m)(5), (m)(6) and (m)(7) of this section, each fluorescent lamp ballast—*

- (i) (A) Manufactured on or after January 1, 1990;*  
*(B) Sold by the manufacturer on or after April 1, 1990; or*  
*(C) Incorporated into a luminaire by a luminaire manufacturer on or after April 1, 1991; and*
- (ii) Designed—*
  - (A) To operate at nominal input voltages of 120 or 277 volts;*
  - (B) To operate with an input current frequency of 60 Hertz; and*
  - (C) For use in connection with an F40T12, F96T12, or F96T12HO lamps shall have a power factor of 0.90 or greater and shall have a ballast efficacy factor not less than the following:*

<b>Application for Operation of</b>	<b>Ballast Input Voltage</b>	<b>Total Nominal Lamp Watts</b>	<b>Ballast Efficacy Factor</b>
One F40T12 lamp	120	40	1.805
	277	40	1.805
Two F40T12 lamps	120	80	1.060
	277	80	1.050
Two F96T12 lamps	120	150	0.570
	277	150	0.570
Two F96T12HO lamps	120	220	0.390
	277	220	0.390

- (2) The standards described in paragraph (m)(1) of this section do not apply to—*
  - (i) A ballast that is designed for dimming or for use in ambient temperatures of 0 °F or less, or*
  - (ii) A ballast that has a power factor of less than 0.90 and is designed for use only in residential building applications.*

*(3) Except as provided in paragraph (m)(4) of this section, each fluorescent lamp ballast—*

- (i) (A) Manufactured on or after April 1, 2005;*

- (B) Sold by the manufacturer on or after July 1, 2005; or
- (C) Incorporated into a luminaire by a luminaire manufacturer on or after April 1, 2006; and

(ii) Designed—

- (A) To operate at nominal input voltages of 120 or 277 volts;
- (B) To operate with an input current frequency of 60 Hertz; and
- (C) For use in connection with an F40T12, F96T12, or F96T12HO lamps; shall have a power factor of 0.90 or greater and shall have a ballast efficacy factor not less than the following:

<b>Application for Operation of</b>	<b>Ballast Input Voltage</b>	<b>Total Nominal Lamp Watts</b>	<b>Ballast Efficacy Factor</b>
One F40 T12 lamp	120	40	2.29
	277	40	2.29
Two F40 T12 lamps	120	80	1.17
	277	80	1.17
Two F96T12 lamps	120	150	0.63
	277	150	0.63
Two F96T12HO lamps	120	220	0.39
	277	220	0.39

(4) (i) The standards described in paragraph (m)(3) do not apply to:

- (A) A ballast that is designed for dimming to 50 percent or less of its maximum output;
- (B) A ballast that is designed for use with two F96T12HO lamps at ambient temperatures of  $-20^{\circ}\text{F}$  or less and for use in an outdoor sign;
- (C) A ballast that has a power factor of less than 0.90 and is designed and labeled for use only in residential building applications; or
- (D) A replacement ballast as defined in paragraph (m)(4)(ii) of this section.

(ii) For purposes of this paragraph (m), a replacement ballast is defined as a ballast that:

- (A) Is manufactured on or before June 30, 2010;
- (B) Is designed for use to replace an existing ballast in a previously installed luminaire;
- (C) Is marked “FOR REPLACEMENT USE ONLY”;
- (D) Is shipped by the manufacturer in packages containing not more than 10 ballasts;
- (E) Has output leads that when fully extended are a total length that is less than the length of the lamp with which it is intended to be operated; and
- (F) Meets or exceeds the ballast efficacy factor in the following table:

<b>Application for Operation of</b>	<b>Ballast Input Voltage</b>	<b>Total Nominal Lamp Watts</b>	<b>Ballast Efficacy Factor</b>
One F40T12 lamp	120	40	1.805
	277	40	1.805
Two F40T12 lamps	120	80	1.060
	277	80	1.050
Two F96T12 lamps	120	150	0.570
	277	150	0.570
Two F96T12HO lamps	120	220	0.390
	277	220	0.390

(5) Except as provided in paragraph (m)(7) of this section, each fluorescent lamp ballast (other than replacement ballasts defined in §430.2)—

- (i) (A) Manufactured on or after July 1, 2009;
- (B) Sold by the manufacturer on or after October 1, 2009; or
- (C) Incorporated into a luminaire by a luminaire manufacturer on or after July 1, 2010; and
- (ii) Designed—

- (A) To operate at nominal input voltages of 120 or 277 volts;
- (B) To operate with an input current frequency of 60 Hertz; and
- (C) For use in connection with F34T12 lamps, F96T12/ES lamps, or F96T12HO/ES lamps; shall have a power factor of 0.90 or greater and shall have a ballast efficacy factor of not less than the following:

<b>Application for Operation of</b>	<b>Ballast Input Voltage</b>	<b>Total Nominal Lamp Watts</b>	<b>Ballast Efficacy Factor</b>
One F34 T12 lamp	120	34	2.61
	277	34	2.61
Two F34 T12 lamps	120	68	1.35
	277	68	1.35
Two F96T12/ES lamps	120	120	0.77
	277	120	0.77
Two F96T12HO/ES lamps	120	190	0.42
	277	190	0.42

(6) The standards in paragraph (m)(5) shall apply to all ballasts covered by paragraph (m)(5)(ii), including replacement ballasts and ballasts described in paragraph (m)(7) of this section, that are manufactured on or after July 1, 2010, or sold by the manufacturer on or after October 1, 2010.

(7) The standards in paragraph (m)(5) do not apply to—

- (i) A ballast that is designed for dimming to 50 percent or less of the maximum output of the ballast;
- (ii) A ballast that is designed for use with 2 F96T12HO lamps at ambient temperatures of 20 degrees F or less and for use in an outdoor sign; or

*(iii) A ballast that has a power factor of less than 0.90 and is designed and labeled for use only in residential applications.*