

Energy Policy & Conservation Act



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How the New Ballast Luminous Efficiency (BLE) Metric will Impact Today's Efficiency

With DOE legislation taking effect in November 2014, most of the existing T12 ballasts and a number of T8 ballasts will no longer be available. New efficiency requirements will continue to drive the market to higher efficiency T5, T8, dimming, and LED solutions. New building energy regulations continue to grow stricter, demanding not only energy efficiency, but also higher levels of controllability. Universal has been, and continues to be, on the cutting edge of technology as a leader in the lighting industry.

The new DOE 2014 Ballast Rule requires higher efficiency in many of today's linear fluorescent ballasts. Manufacturers will be required to comply to a new measure in efficiency called the Ballast Luminous Efficiency (BLE) metric. When the rule goes into effect (Nov., 2014) the government will prohibit the domestic manufacture and importation of products that don't meet the new standards. Many products already comply, but some do not. These are the ballast types that will likely be most impacted: Most T12 electronic ballasts; Most outdoor-sign magnetic ballasts; T5 and T8 programmed start ballasts.

This document is not meant to replace the current DOE policy in interpretation. It is meant only as a broad interpretation, subject to DOE modifications. As always, for current and complete details regarding the DOE rules and regulations, please see their website.

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Coverage:

Fluorescent ballasts that:

- Operate at a nominal input voltage at or between 120V to 277 V.
- Operate at input current frequency of 60Hz (to the ballast).
- Operate the designated miniature bi-pin, medium bi-pin, single pin, and RDC (recessed double contact) based fluorescent lamp types.

Requirements:

- Non-residential ballasts: Power Factor > 0.90
- Residential ballasts: Power Factor > 0.50
- Residential ballasts: Meet FCC 47 CFR part 18 and designed, labeled and marketed only for use in residential applications
- Sign ballasts: Meet UL Type 2 rating and designed, labeled, and marketed only for use in outdoor signs.
- All ballasts: Must meet Ballast Luminous Efficiency (BLE) metric standard.

Exceptions:

- Dimming ballasts designed to dim to 50% or less of max output (because they are energy saving already).
- Low frequency (60 Hz) T8 magnetic ballasts that are labeled for use in EMI sensitive environments and shipped in packages of 10 or less units.
- Programmed start ballasts operating 4 foot medium bi-pin lamps (T8) that deliver less than 140 mA to each lamp (0.71 Ballast Factor).

Professionals should take note of new rules and plan accordingly:

- With DOE legislation taking effect in November 2014, most of the existing T12 ballasts and a number of T8 ballasts will no longer be manufactured. Distributors should be able to purchase as normal until manufacturers phase out the products.
- The efficiency requirements will drive the market to higher efficiency T5, T8, dimming, and LED solutions.
- Look to NEMA Premium program and the CEE Program for the highest efficiency ballasts available today. Most of Universal's highest efficiency ballasts are on these lists.
- Contractors will ask for input watts and ballast factors. Distributors will want to be armed with this info so they can answer their customer's questions quickly. This data will continue to be published on the Universal website (via spec sheets) at www.unvlt.com.
- New building energy regulations continue to grow stricter, demanding not only energy efficiency, but also higher levels of controllability.
- In Oct. 2013, all states were required to certify they have a commercial building energy code in place at least as stringent as ASHRAE/IES 90.1-2010 or justify why they could not comply.

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