

Radionic Comments on ENERGY STAR Program Requirements for Residential Light Fixtures Draft 2 Eligibility Criteria – Version 4.0

We hereby, present our comments to the Draft 2 v. 4.0 of Energy Star qualified Residential Light Fixtures Eligibility Criteria:

Page 7: Lamp Start Time

Lamp start up time should be relaxed to **1.5sec.**

Rationale: to allow **programmed start** ballast in the Program. Performance of programmed start ballasts is superior to any other ballast type. We feel the advantage of using it outweighs the nuisance of a delayed start. Consumers should have the option of selecting excellent performance over 1.5 s time delay. Programmed start ballasts greatly reduce damage to lamps, extending their life span.

Page 8: Maximum Measured Ballast Temperature....

Introduce an additional limit of ambient temperature at **the hottest spot inside the fixture**, not to exceed **50°C**

Rationale: although the proposed limit of 75°C on the ballast case seems to be adequate, some ballast manufacturers specify maximum allowable ballast ambient for their products.

Compact fluorescent lamps in particular run very hot inside an enclosure and often the fixture is too hot even if the ballast is mounted remotely.

Page 8: End of Life Protection

(i) This requirement should be deleted.

Rationale: Energy Star Program should not address safety issues, particularly new ones. It creates confusion as to whose guidelines to follow (UL, ANSI or Energy Star)

(ii) The requirement of selective switching of lamps that reached end of life, while leaving the others operating, seems to be missed. This requirement should be rejected:

For ballasts that operate multiple lamps and are required to have an end of life protection circuit, the ballast must only shut down the lamp that has reached end of life, rather than shutting down all lamps.
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Above quote is from DRAFT 2 ENERGY STAR Program Requirements for Residential Light Fixtures: Version 4.0 Page 8



Rationale:

1. This scheme is possible to realize in ballast topologies with parallel lamps configurations. Majority of ballasts on the market have series lamp configuration.
2. Advantages of this feature are vague. This is new and unproven technology and is currently only marketed by one company. We believe the design is patented which would obviously eliminate competition for this type of ballast.
3. This product is unknown on the market. Only one small ballast supplier touts this feature recently in its China imports. Even the company that offers it, only makes it for certain models so there may be some two lamp designs WHERE THERE WOULD BE NO BALLAST AVAILABLE THAT IS DESIGNED TO SHUT DOWN ONLY ONE LAMP. We think this should be considered at a future date after more time for testing and evaluation.
4. Including this requirement may raise cost and decrease competition significantly. It should be a consumer choice.

Page 9/14 Fixture requirements: “Replaceable Ballast”

The current draft of the Energy Star requirements indicates that the “ballast must be replaceable without cutting of wires.” Many types of ballast are only made with lead wires, which obviously would need to be cut to install a new ballast. The only types of ballasts that would not require cutting wires are the type with quick – connect poke in connectors.

Our view is that this requirement should not be mandatory. FIXTURE MANUFACTURES STRONGLY PREFER BALLASTS WITH LEAD WIRES IN CERTAIN TYPES OF FIXTURE DESIGNS. This is particularly true in fixtures with three or four foot lamps where the fixture manufacturer would prefer to have a ballast supplied with long lead wires rather than having to cut and supply wires themselves. It is also true on F8T5 and F13T5 fixtures, which lend themselves to faster assembly when the ballasts have lead wires and also on various types of CFL fixtures depending on the design.

We think this should be an optional requirement and left up to the lighting fixture manufacturer.

Even if failed ballast has poke in connectors, it is sometimes very difficult for the end user to remove the wire from the ballast without cutting it and re-stripping. If a ballast has lead wires, it is probably no more time consuming for the consumer to cut the wire, re-strip it, and use a quick-connector or wire nut to attach the new ballast. In some cases, this is actually easier because it gives the consumer more wire to work with in a confined space.

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We are a ballast manufacturer so obviously are prejudiced towards requiring that fixtures must have replaceable ballasts. By way of general background, there are only a few fixture designs where the pc board containing the ballast is built into the fixture and not replaceable. In most cases these are cheap 4 foot, two lamps, 34-40 watt shop-lights. It can be argued that the fixture is cheap and should just be tossed out if the ballast fails. **ON THE OTHER HAND, THESE ARE FAIRLY LARGE FIXTURES AND ADD TO OUR NATION'S PROBLEM WITH LANDFILLS, TOXIC WASTE, ETC.** These are often not very high quality ballasts or fixtures and the ballast may fail in a year or two and if they were replaceable, XXX number of fixtures would not end up in landfills.

There are some very small F8T5 and F13T5 fixtures that do not have replaceable ballasts, but at least these are small, generally used for only a few hours a day and last for many years, so the landfill problem doesn't exist on these models.

Respectfully submitted – 11/30/04

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