

ENERGY STAR[®]

Durability Testing

Since the inception of the ENERGY STAR program, the Lighting Research Center (LRC) has served as a technical advisor to the U.S. Environmental Protection Agency (EPA) on its residential light-fixture specification. One of the major advantages of ENERGY STAR-labeled residential light fixtures is the durability of the products. "Durability," in this case, refers to the continued functioning of the lamp/ballast system several years after installation. Durability of fluorescent lamp fixtures can be affected by thermal operating conditions and electrical compatibility between lamp and ballast.

Because customers expect energy-efficient products to be very durable, premature failures can create barriers to the penetration of these energy-efficient products into the market and create a poor impression of the quality of all ENERGY STAR products.

Goals

- Develop a simple testing method to detect the likelihood of premature failures of ENERGY STAR-labeled light fixtures
- Build industry consensus on the proposed testing method
- Perform pilot testing to fine-tune the proposed testing method

Recommendations from industry representatives

- Focus on thermal testing
- Concentrate testing on recessed downlights and enclosed ceiling-mounted light fixtures
- Establish a method of pre-labeling lamps and ballasts to facilitate selection by fixture manufacturers



Product testing



Industry roundtable



Contact Information

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Sponsor

U.S. Environmental Protection Agency

Pilot Testing

- Samples of compact fluorescent ENERGY STAR-labeled light fixtures are being tested to survey thermal conditions of lamps and ballasts
- Results to be presented to industry in Fall 2002

