Copies of reports submitted will be available in the DOE Freedom of Information Reading Room, U.S. Department of Energy, Forrestal Building, Room E–190, 1000 Independence Avenue, SW, Washington, DC, (202) 586–6020, between the hours of 9:00 a.m. and 4:00 p.m., Monday through Friday, except Federal holidays.

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## SUPPLEMENTARY INFORMATION:

## 1. Authority

Part B of Title III of the Energy Policy and Conservation Act, Public Law 94 163, created the Energy Conservation Program for Consumer Products other than Automobiles. The most recent amendment, the Energy Policy Act of 1992 (EPACT), Public Law 102-486, identified several new categories of products and equipment for inclusion in various required and voluntary testing and information programs to promote energy efficiency. Voluntary programs were specified for commercial office equipment, windows, and luminaires. A luminaire is a complete lighting unit consisting of a fluorescent lamp(s), together with parts designed to distribute the light, to position and protect such lamps, and to connect such lamps to the power supply through the ballast.

Section 126 of EPACT directed the Secretary of Energy, after consulting with industry associations and other interested organizations, to provide technical and financial assistance to support a voluntary national testing and information program for those types of luminaires that are widely used, and for which there is a potential for significant energy savings as a result of such programs. Under section 126, such program would provide information that, when conveyed to consumers, will enable purchasers of the equipment to make more informed decisions about the energy efficiency and costs of competing products.

The voluntary program would determine the luminaires to be covered; include specifications for testing procedures; and include information which may be disseminated through catalogs, trade publications, labels, or other mechanisms, that will allow consumers to assess the energy consumption and potential cost savings of competing products. Such program would be developed by an appropriate organization (composed of interested persons), according to commonly accepted procedures for the development of national testing procedures and labeling programs.

Not later than three years after the date of enactment of EPACT (October 24, 1995), the Secretary shall make a determination as to whether the voluntary program is positioned to achieve the objectives established for the testing and rating of luminaires. If the Secretary determines that the voluntary program is not consistent with the objectives of the legislation, the Secretary shall, after consultation with the National Institute of Standards and Technology, develop test procedures for luminaires. One year later, the Federal Trade Commission would prescribe labeling rules.

## 2. Background

Since the passage of EPACT, the Department of Energy has monitored the efforts of the luminaire industry to develop a testing and information program through the National Lighting Collaborative (NLC or Collaborative), a working group composed of the National Electrical Manufacturers Association (NEMA), the American Lighting Association, lighting manufacturers, environmental organizations, designers, national laboratories, and other lighting professionals. The Department has provided technical and financial assistance to the Collaborative to help launch and publicize the program. On May 24, 1994, DOE held a public meeting, at which interested persons were invited to offer suggestions concerning methods of evaluation, and to obtain updates on the progress of the Collaborative's voluntary program. A transcript of the meeting was made available to the public, and comments were invited.

Comments submitted at the meeting focused on several areas. Regarding the specifications for testing procedures, it was proposed by the National Lighting Collaborative that NEMA Standard LE5, the "Procedure for Determining Luminaire Efficacy Ratings for Fluorescent Luminaires," be accepted as the standard testing and rating method for the program. This Luminaire Efficacy Rating known as "LER" is expressed in lumens per watt (the ratio

of light output from the luminaire in lumens, to the energy input to the luminaire in watts), and is proposed to be reported in the voluntary consumer information program. The Collaborative reported that the selection of the Luminaire Efficacy Rating test procedure has received consensus support within the luminaire industry, having been balloted according to the formal standards-making balloting procedures per the by-laws of NEMA, as accredited by the American National Standards Institute (ANSI). Based on that consensus, the Department of Energy will accept the efficacy rating known as the "LER" as the fundamental comparative measure of the voluntary luminaire program.

NEMA Standard LE5 also contains a suggested format for other information related to the luminaire and its photometric data, including luminaire efficiency (the percentage of light output from the luminaire compared with the light output from the lamp(s) without the luminaire). As noted by the New York State Energy Office, NEMA Standard LE5 will also permit the alternative of separate reporting of the luminaire lumen output by its components (luminaire efficiency, total lamp lumens, and ballast factor). Manufacturers will continue to report luminaire efficiency as part of their photometric reports.

In addition to including an indicator for the luminaire category and the LER in lumens per watt, the International Association of Lighting Designers proposed that the LE5 reporting format be modified to include a measure for the quality of light. The Collaborative agreed, but since the quality of light metric needs to be developed, the LE5 will at first include an acknowledgement in the foreword that a numerical value for lighting quality will accompany the LER after the development of the measure is completed and balloted. The reporting format also provides information on the estimated annual lighting energy cost per 1,000 lumens of light output, assuming 3,000 luminaire operating hours per year, and 8 cents per kilowatthour electricity cost (the 1993 average commercial sector electricity rate).

It was recommended by the Collaborative that luminaires be tested according to prescribed test procedures in laboratories that are accredited through the National Voluntary Laboratory Accreditation Program of the National Institute of Standards and Technology.

The Collaborative identified the following luminaires as widely used, with a potential for significant energy