DOE/GO/10046--T1

NATIONAL LIGHTING PRODUCT INFORMATION PROGRAM

Final Technical Report for the Period
October 1996 - September 1997

Robert G. Davis

LIGHTING RESEARCH CENTER
RENSSELAER POLYTECHNIC INSTITUTE
Troy, NY

May 1998

PREPARED FOR THE UNITED STATES
DEPARTMENT OF ENERGY
Under Cooperative Agreement
No. DE-FG36-94GO10046

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INTRODUCTION

The National Lighting Product Information Program (NLPIP) produces reports on specific lighting technologies and topics which enable energy end-users to better define and specify their lighting equipment needs. NLPIP was initiated in the fall of 1990 to provide an independent, objective source for performance information on lighting products. The mission statement adopted at the outset for the program and that continues to guide the program is: *to rapidly provide the best information available on efficient lighting products.* The sponsors of the program have continually required three primary criteria for NLPIP: the program must be *objective*, remaining free from any bias toward certain technologies or producers, it must be *educational*, helping the audience better understand the technologies and their applications, and it must provide *manufacturer-specific performance information*, differentiating NLPIP from other sources of lighting educational information. This mission statement and these criteria have guided the program throughout its existence. Information developed by NLPIP is published through the serials *Specifier Reports*, *Specifier Reports Supplements*, and *Lighting Answers*.

Because NLPIP is the only independent, objective source of performance information on lighting products, it accelerates the use of efficient lighting products in the marketplace by providing the information needed by specifiers and end users in selecting lighting products. Prior to the establishment of NLPIP, these groups depended on

information from the product manufacturers, and were often hesitant to use newer, more efficient technologies due to concerns about product performance. With the information provided by NLPIP, these decision makers can more effectively implement lighting efficiency programs. Reductions in energy consumption and in emissions from power plants result from the accelerated use of efficient lighting products, so that NLPIP offers a substantial national benefit.

Using NLPIP information, facility managers, lighting specifiers and end users are better equipped to determine the viability of a technology for a specific application, and can proceed to more confidently select and use efficient technologies. Electric utility representatives have independent information available in a standardized format to develop specifications for customer service and energy efficiency programs, and to determine the appropriateness of products for use in these programs. Public policy makers no longer have to depend solely on manufacturers' information in decisions regarding regulation of lighting; in fact, the Federal Trade Commission and the Department of Energy have used NLPIP information in this way, as have a number of states. Environmental advocacy groups are able to more effectively encourage the use of efficient lighting products and advocate for further efficiency gains by using an independent, unbiased information source. Finally, the presence of an independent program has stimulated lighting manufacturers to improve the quality of both the information and the products that they provide to the marketplace. Thus, NLPIP has widespread benefits to the public and the lighting industry.

ACCOMPLISHMENTS

Publications

During the time period from October 1996 through September 1997, NLPIP released the publications listed below. The testing methods used and the results obtained are detailed in each respective publication, which are included as Appendix A in this report.

Oct. 1996	<i>Specifier Reports: HID Accent Lighting Systems</i>
Nov. 1996	<i>Guide to Specifying High-Frequency Electronic Ballasts</i>
Apr. 1997	<i>Specifier Reports Supplements: Electronic Ballasts</i>
May 1997	<i>Lighting Answers: Controlling Lighting with Building Automation</i>
May 1997	<i>Specifier Reports: Occupancy Sensors</i>

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Griffin

Meetings and Presentations

Oct. 1996	Presentation to the Northern Light utility group
Oct. 1996	Presentation to the Northwest Energy Efficiency Alliance
Nov. 1996	NLPIP Advisory Board meeting in Ames, Iowa (minutes included as Appendix B)
May 1997	Presentations at GSA, DOE, and EPA in Washington DC
May 1997	NLPIP Advisory Board meeting in Madison, Wisconsin

APPENDIX A:
PUBLICATIONS

APPENDIX B:
MINUTES OF ADVISORY BOARD MEETING

**NATIONAL
LIGHTING
PRODUCT
INFORMATION
PROGRAM**

Date: December 6, 1996

To: NLPIP Advisory Board

From: Bob Davis
NLPIP Program Director
Lighting Research Center

Attached please find the minutes from the NLPIP Advisory Board meeting held on November 14-15, 1996 at the Iowa Energy Center. Thanks again to Norm Olson for his hospitality, and for showing us all what a real live midwestern ice storm looks like!

There are a number of items from the meeting requiring some follow-up; I will be in touch with those involved to coordinate the next steps.

Rich Hackner offered to host the next meeting at the Energy Center of Wisconsin in Madison, probably sometime in May. Another option could be to meet in conjunction with the LightFair show in New York; the show is April 29 - May 1. I'll poll everyone early next year to nail down a date and location.

With the end of the year upon us, I'll take this opportunity to say "Thanks!" for your support and active involvement in NLPIP in 1996. I always look forward to our meetings and really enjoy your active input into this ever evolving entity called NLPIP. Best wished for a joyful holiday season and a great 1997!

**NATIONAL
LIGHTING
PRODUCT
INFORMATION
PROGRAM**

**NATIONAL LIGHTING PRODUCT INFORMATION PROGRAM
ADVISORY BOARD MEETING**

November 14-15, 1996
Iowa Energy Center's Energy Resource Station
Ankeny, Iowa

MINUTES

Attendees

Carlos Berrones (CINergy - by phone Nov. 14), Craig Ciranny (Bonneville Power Administration), Bob Davis (Lighting Research Center), Rich Hackner (Energy Center of Wisconsin), Carol Jones (Battelle/PNNL - representing US DOE), Russ Leslie (LRC), Norm Olson (Iowa Energy Center), Joe Rizzuto (NYSEDA), Elizabeth Titus (New England Electric - representing Northern Light, by phone), Bill VonNeida (US EPA).

Absent: Ron Hammer (Northern States Power)

Program Operations

Attendees presented informal updates on the latest developments and projects with each of their organizations. An updated listing of Advisory Board members is attached.

Bob Davis distributed a financial report, summarizing the status of current funding and publication sales. Total committed funding for the 1997 fiscal year (10/1/96 - 9/30/97) is \$575,000. This includes new funding from BPA and Northern Light to support the residential program area. CINergy is not expected to renew their sponsorship due to the dismantling of their DSM programs and ongoing reorganization efforts; B. Davis will explore other alternatives with C. Berrones. US DOE has renewed their sponsorship of NLPIP, primarily to collaborate with ASERTTI organizations.

At the time of the meeting, a total of 137,300 publications had been distributed. In addition, 48,700 *Specifier Reports Abstracts* have been distributed, and the program currently has 104 subscribers.

Marketing. B. Davis summarized a recent project conducted by Paula Rodgers of the LRC in which NLPIP and DELTA publications were sent to a few design firms, with follow-up phone calls to solicit feedback. A written summary report was distributed. R. Hackner suggested that a survey be included in the subsequent mailing rather than the follow-up phone calls. The Board requested that they receive a listing of the 50 firms selected for the mailing.

N. Olson said that the IEC would plan a one-day seminar for A&E firms based on NLPIP, and that this could be used to solicit subscriptions. B. VonNeida mentioned that major manufacturers (lamp and ballast) should be good targets for subscriptions for their sales representatives; also fixture manufacturers for their agents. R. Hackner suggested a sales brochure that includes the *Abstracts* and an order form; he will send an example to B. Davis. The Board also asked Davis to ensure that press releases on new NLPIP publications were being sent to key editors, and asked that the Association of Energy Service Professionals newsletter be included if it wasn't currently.

Davis also described a recent request from Public Service Colorado to utilize NLPIP publications in their customer service efforts. Initially, they will distribute sets of the *Specifier Reports Abstracts* to their customer service representatives; Davis offered to provide 50 sets of the 8 *Abstracts* for \$200. Then, PSC wants to have NLPIP customize the *Abstracts* to include the PSC logo and to direct recipients to order full reports from PSC. PSC will distribute one *Abstract* every two months to 1000 customers, and will purchase 50 copies of the full *Specifier Reports* to provide to customers who respond to the initial mailing of the *Abstract*.

In discussing this request, the Board's primary concerns were that the PSC logo not imply sponsorship of the program, and that this model not be seen as an alternative to sponsorship. However, the Board agreed that this is a good opportunity for NLPIP to work with a progressive utility in its customer service efforts. So, Davis was instructed by the Board to proceed with PSC with the following guidelines:

- one or more mock-ups of the customized *Abstracts* will be distributed to the Board for approval.
- PSC will pay for the full costs of developing and printing the customized *Abstracts*, plus a \$5000 one-year licensing fee.
- The *Specifier Reports* will be sold to PSC at the volume discounted rate. Davis will inquire as to how PSC plans to distribute these reports (i.e. free or sell?).

Davis mentioned an offer from Litecontrol to provide some free marketing ideas for NLPIP publications. He will follow up on this offer and report back to the Board at the next meeting.

Sponsor recruiting. Other utility leads for sponsoring NLPIP have proven fruitless so far. Promising efforts with the Department of Defense were stalled this summer due to an extended absence of the contact person there; Davis will renew those contacts soon. C. Jones and B. VonNeida offered to contact Millard Carr at DoD to push for NLPIP sponsorship.

Risk management. Davis informed the Board that Novitas, a manufacturer of occupancy sensors that had earlier declined to participate in the current NLPIP project, had now offered to supply product information but did not want NLPIP to test their products. The Board advised to include Novitas products in the manufacturer-provided data tables if possible but to clearly note that they declined to submit products for testing.

Residential Luminaires Project

With the Northern Light and BPA sponsorships, this project has now been initiated. LRC representatives recently met with utility groups from the Northeast (Northern Light) and the Northwest to receive their input; a proposed attached project statement was developed as a result of those meetings and was distributed to the Board.

E. Titus stated that promoting energy-efficient residential luminaires is the top priority for each of the Northern Light utilities. Their efforts depend on first establishing a baseline for the technologies, through a combination of engineering testing and "consumer reports" assessments of the available products. This is the role they see the NLPIP project serving. Then, they hope to work collaboratively to establish uniform standards and specifications for residential luminaires.

R. Hackner mentioned that this is also a high interest area for the Wisconsin utilities, as they are currently designing their residential programs.

The discussion of the preliminary project statement focused on the types of luminaires to include. Both E. Titus and C. Ciranny felt that recessed types were important, and that some outdoor information was desirable. The Board felt that the scope should be kept open initially, until manufacturers' information was received by NLPIP; then NLPIP will determine the scope for the initial report and topic areas for possible following reports.

To initiate the project, the Board agreed to a process of informing manufacturers of the project, and submitting to them certain "typical" applications. For each application, the manufacturers will be invited to recommend luminaires that meet a certain minimum efficacy standard. (The Board agreed to not include a cost limit initially.) The base case applications were

selected from the LRC's Lighting Pattern Book for Homes, from pages 20,22,26,32,40,77,89,92, and 93.

Project Updates

Davis presented updates on all current projects. Board members requested the following for different projects:

- On occupancy sensors, identify the manual on/auto off units on NLPIP data tables
- On CFL Dimming, investigate start-up flicker
- Use name "Panel-level power reducers" rather than "Panel-level dimmers" since dimmers implies some control over light levels
- For Screwbase CFL, send list of products to Board for review and suggested additions
- For the *Lighting Answers: Power Quality* project, the Board voted unanimously to stop the project and return the unused funds to the general pool

An updated project status sheet is attached to these minutes.

Funding allocations for new projects

A list of projects considered and funding amounts requested was distributed. Davis reviewed the potential need for new reports on Screwbase CFLs and Exit Signs, beyond further supplements, due to changes in the marketplace since the original reports were published. The Board made the following allocation:

- \$100,000 for a new *Specifier Reports* on Screwbase CFLs (incremental to the \$30,000 already allocated for a supplement)
- \$100,000 for a new *Specifier Reports* on Exit Signs, contingent upon additional funding being provided from other sponsors. Potential funding sources are BPA and the Wisconsin Energy Board.

The Board also indicated that the next priority project should deal with Outdoor Residential Lighting, the nature of the project depending on the outcomes of the current NLPIP project and on the LRC's Outdoor Lighting Pattern Book project.

Date and location of next meeting

The next meeting will be held in Madison, Wisconsin at the Energy Center of Wisconsin in May 1997. Details on schedule, travel and nearby hotels will be forwarded when available.

(Minutes prepared by Bob Davis)