

LIGHTING  
*for*  
*tomorrow*



**New Solid-State  
Lighting Competition  
in 2006**

**Kelly Gordon**

**Pacific Northwest National Laboratory**

# Outline

- What is Lighting for Tomorrow?
- New SSL Competition
- Rules and Guidelines
- Benefits of Participation
- Timeline



# Organizers

- American Lighting Association
  - Lighting showrooms
  - Lighting fixture manufacturers
- Consortium for Energy Efficiency
  - Utilities
  - State and regional energy efficiency programs
- U.S. Department of Energy
  - Represented by PNNL

american  
lighting  
association



Together We Can Change  
National Markets



LIGHTING  
*for*  
tomorrow



# Objectives

- Encourage and recognize attractive, energy-efficient residential lighting fixtures.
- Build demand for energy-efficient lighting by demonstrating that it can be highly attractive and functional.
- Encourage technical innovation in energy-efficient lighting.



# Lighting for Tomorrow Background

- Started in 2002
- Residential decorative focus
  - Some cross-over to small commercial
- Requirements based on ENERGY STAR Residential Light Fixture criteria
- Emphasis on style, innovation, efficiency



# What Have We Done to Date?

- 2003-2004
  - Fixture design competition
- 2005
  - Design and technology competition
  - Color research
  - Program assistance on fixture promotion



# Manufacturer Participation

- Lithonia
- Lightolier
- Kichler
- Progress
- American Fluorescent
- Justice Design Group
- Fire & Water
- Designers Fountain
- Good Earth Lighting



# 2003-04 Winners

## Grand Prize Winner



American Fluorescent

## Second Place Winners



Lightolier



Soren Momsen



Forecast

LIGHTING  
*for*  
tomorrow



# 2005 Winners



American Fluorescent



Lithonia



Justice Design Group

LIGHTING  
*for*  
tomorrow



# What's Next?

- Launch 2006 Program
- Yearbook of energy-efficient fixtures
  - ENERGY STAR qualified (pin-based CFL)
- First Solid-State Lighting Competition



# SSL Competition

- Objectives
  - Explore use of SSL in niche applications
  - Evaluate fixtures employing SSL
  - Facilitate learning by lighting fixture industry
- Advocate high-quality, energy-efficient use of SSL
- Publicize within lighting community rather than mass market



# Guidelines and Rules

- General illumination only
- Niche applications
  - Under-cabinet and in-cabinet
  - Desk and task lighting
  - Outdoor porch, step, pathway
- Minimum LED + driver efficacy
  - 30 lpw for <5000K
  - 35 lpw for 5000K and above
- Application efficiency



# Why Niche Applications?

- Directional light source appropriate
- Moderate illuminance levels needed
- Light source relatively close to illuminated surface
- Potential for cost-effectiveness



# Entry Requirements

- Entrants submit working prototypes
- LED documentation required
  - LED specifications
  - Driver specifications
  - Electrical and thermal design specifications



# Evaluation of Prototypes

- Fixtures installed in typical setting
- Light measurements
- Wattage metered
- Subjective evaluation by judges
  - Color appearance and quality
  - Overall design, appearance, functionality



# Judging Panel

- LED experts
- Lighting retailers
- Homebuilders
- Lighting designers
- Lighting trade press

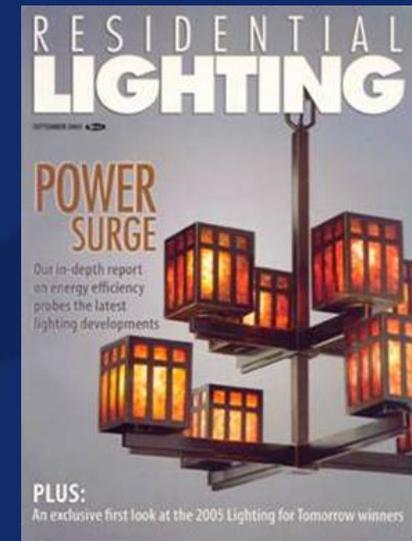
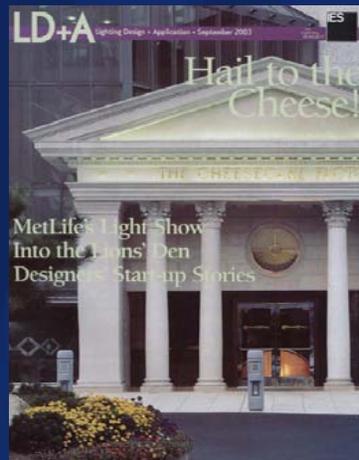
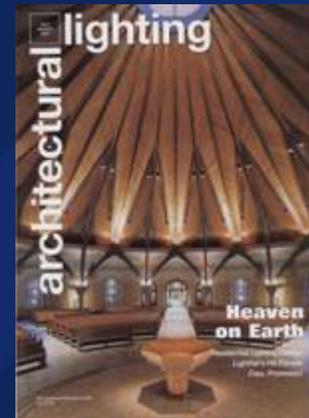
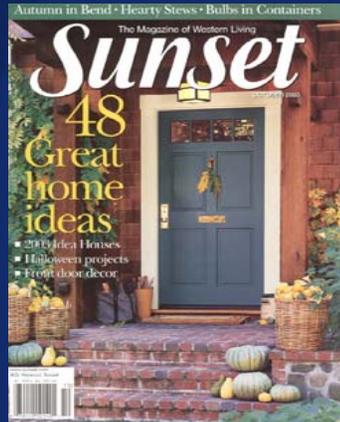


# Why Participate?

- Feedback from expert judging panel
- Input to ENERGY STAR and utility energy efficiency programs nationwide
- Increase knowledge among traditional lighting fixture manufacturers
  - Build future demand for SSL
- Cash prize for each category



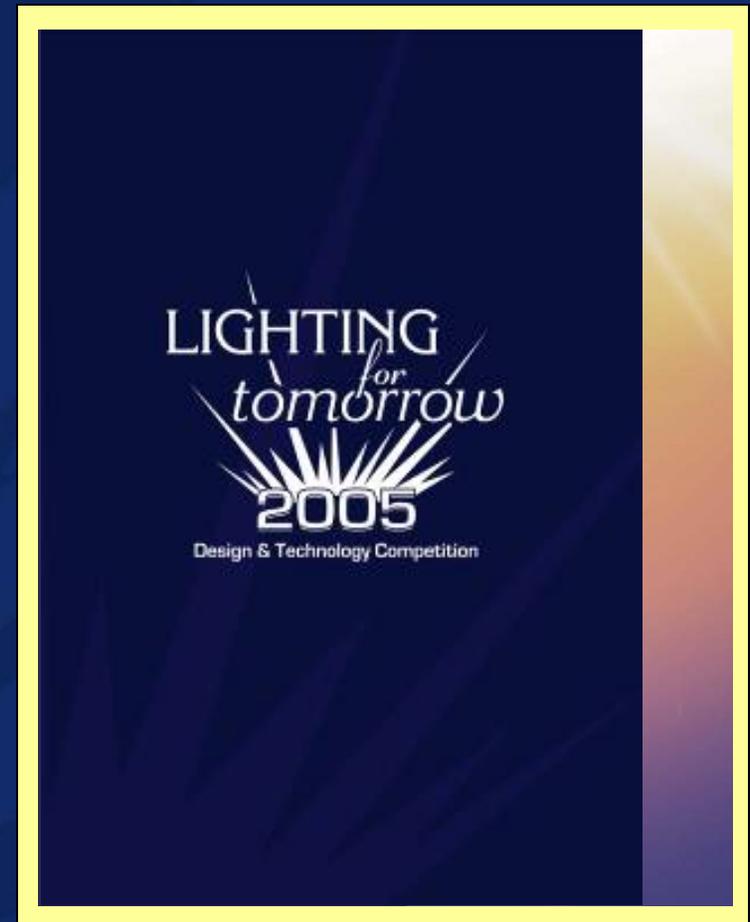
# Publicity



LIGHTING  
for  
tomorrow



# Publications



LIGHTING  
*for*  
tomorrow



# Exhibits



LIGHTING  
for  
tomorrow



# Who Can Enter?

- LED manufacturers
- SSL system integrators
- Lighting fixture manufacturers
- Designers (manufacturing partner required)



# SSL Competition Timeline

- Announce at DOE Workshop – Feb 1-3
- Intent to submit due – April 1
- Prototypes due – Sept 15
- Winners announced – December



Questions and comments are welcome!

Kelly Gordon, PNNL

503-417-7558

kelly.gordon@pnl.gov

[www.lightingfortomorrow.com](http://www.lightingfortomorrow.com)

LIGHTING  
*for*  
tomorrow

