

Austin Section IES Newsletter

1/5/09 Issue: 4-0

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Deborah Frankhouser- 512-632-6446

Jennifer Jaques-512-353-3890

Sally Lee, LC-Commercial Engineer with OSRAM SYLVANIA PRODUCTS INC.

Sally Lee has been a member of the Commercial Engineering team at OSRAM SYLVANIA since 1994. She provides training and technical support for all aspects of lighting applications as well as new product and market development. Other experience includes luminaire design, marketing and lighting research. Sally is a graduate of the Master of Science program in Lighting at Rensselaer Polytechnic Institute and is Lighting Certified (LC) through NCQLP.

Jerry Cassel is GE Lamp's Specification Engineer

Jerry is responsible for market development and Emerging GE Lamp Technology training seminars for the 10 state Southwest region. The primary customers are Lighting Designers, Specifiers, Architects, Engineers, and Facilities / Energy Managers in the Educational, Public, Commercial, Industrial and Retail markets. Jerry joined GE in 1997 as a Sr. Program Manager during the acquisition of the Greenwich Company. He became a Certified Six Sigma BlackBelt in 1999 and Lighting Certified in 2005.

This Month: LAMP TECHNOLOGY

Speakers: Sally Lee, Osram/Sylvania with Jerry Cassel, GE and Patrick Murray, Philips'

When: Wednesday, January 14th

Where: Joe's Crabshack, Riverside Dr.,

Time: 11:30- 1:00

Cost: \$23/non-members, \$18/members

Pay online at www.tcsiesna.org

New Lamp Technologies (and where to find them!)

By Darrin Hoyle, IESNA
dhoyle@cooperlighting.com

In the past several years, the lighting industry has enjoyed a nearly continuous flow of new lamp technologies that luminaires manufacturers have been able to use in a wide variety of applications. Some of these new sources address lamp life, some beam control, some energy efficiency and a few try and combine all of these traits. The breadth of lamp technologies available to today's designer gives them more flexibility than ever before. As demands for these new sources increase, luminaire manufacturers will continue offer more and more products designed around these exciting sources.

partial article reprint from:
http://www.cooperlighting.com/content/source/articles/new_lamp_technologies.pdf

Austin Design Guide Update...the continuing saga

E-mail from Charles Thompson, date: 12/16/08

I met with the stakeholders on Friday, 12/05 and with City staff on Monday, 12/15 to review the draft documentation. Both meetings went well and we are making progress.

The stakeholders seem to be open minded about less restrictions as long as we protect the neighborhoods. City staff have completed a preliminary edit of the document I prepared. I believe we are in agreement on many of the items. City staff will prepare a subsequent draft of the documents we reviewed and have it to me in the next few days. I will review it and get a copy to all for consideration.

The schedule is to have this documented and accepted by neighborhoods and city representatives. The change would go to council in the spring.

After this works through the system, we will address the re-write of section 2.5.

Attached you will find the document that Charles' took to the above mentioned meeting. This is a preliminary DRAFT document and not to be considered final.



If you would like to become involved please contact Deborah at:
FOUR POINT lighting design
p. 512.632.6446
f. 512.233.5303
deborah@4pld.com

INTRODUCTION AND BACKGROUND

The current Article is too restrictive and takes a 'one size fits all approach'. Currently, the exterior lighting portion of the Standards presents an obstacle to meeting the intent of the Subchapter stated in Article 1.1: General Intent. For reference, the GENERAL INTENT of the Standards is:

1.1 GENERAL INTENT

- 1.1.1. To provide appropriate standards to ensure a high quality appearance for Austin and promote pedestrian-friendly design while also allowing flexibility, individuality, creativity and artistic expression;
- 1.1.2. To strengthen and protect the image, identify and unique character of Austin and thereby enhance its business economy;
- 1.1.3. To protect and enhance residential neighborhoods, commercial districts, and others areas by encouraging physical development that is of high quality and is compatible with the character, scale and function of its surrounding area;
- 1.1.4. To encourage developments that relate well to the adjoining public streets, opens spaces and neighborhoods; and
- 1.1.5. To provide for and encourage development and redevelopment that contains a compatible mix of residential and nonresidential uses within close proximity to each other, rather than separating uses.

NEWLY STATED INTENT OF EXTERIOR LIGHTING ARTICLE

The intent of article 2.5, Exterior Lighting is to reduce light pollution and minimize light trespass.

From the ILLUMINATING ENGINEERING OF NORTH AMERICA:

"Light pollution is defined as light scattered by the atmosphere that interferes with the appreciation or observation of night skies.

The methods that best control light pollution are: cutting upward emissions, minimizing non-target light, and turning off outdoor lighting during "low" use.

Light trespass is unwanted light that falls on neighboring properties or produces glare or distraction for observers away from the area for which the light is intended (also called "nuisance glare").

Light trespass usually falls into one of two categories:

- Adjacent property receives unwanted light (high illuminance levels),
- Excessive brightness occurs in the field of vision (nuisance glare).

The following general suggestions will help control light trespass problems:

- Inspect areas adjacent to the lighting design location to indentify and consider any potential problems involving residences, roadways and airports.
- Select luminaires with tightly controlled candela distributions, using sharp-cutoff reflectors and refractors.
- Contain light within the design areas by carefully selecting, locating and mounting of the luminaires.
- Use well-shielded luminaires (or select equipment that can be shielded), if a potential problem is found after installation.
- Keep floodlighting aiming angles low so that the entire beam always falls within the intended lightened area during (and after) the design and installation process."

PROPOSED CHANGE TO THE STANDARDS

Changes are being proposed to allow the owner and design team more lighting choices only when the proposed lighting meets the intent of article 2.5. Strict compliance with Article 2.5 would still be available to suitable projects.

PROPOSED CHANGE: Add Article 2.5, Exterior Lighting to paragraph 1.5.2 to provide ALTERNATIVE EQUIVALENT COMPLIANCE review option for projects.

Accompanying the proposed change would be collateral to allow design professionals, owners, and City staff to fully evaluate and document compliance with the intent of the Article. Although not fully developed, this collateral might include:

- lighting impact analysis forms and sample graphics,
- standard calculation procedures and formulas,
- examples of graphics required to illustrate use of non-cutoff luminaires and how light is contained on site, and
- computer illuminance modeling (also called photometric point by points).

The documentation should produce measurable means of evaluation and objective judgment parameters for enforcement.

If all the requirements in the ALTERNATIVE EQUIVALENT COMPLIANCE are met, the project will be granted approval based on complying with the intent of Article 2.5.

NO ALTERNATIVE EQUIVALENT COMPLIANCE SHALL BE AVAILABLE PORTIONS OF A DEVELOPMENT IMMEDIATELY ADJACENT TO OR ABUTTING RESIDENTIAL PROPERTY. STRICT COMPLIANCE WITH ARTICLE 2.5 IS REQUIRED FOR THE PORTION OF THE DEVELOPED SITE WITHIN xxx LINEAR FEET OF A RESIDENTIAL PROPERTY LINE. ALTERNATIVE EQUIVALENT COMPLIANCE WILL BE CONSIDERED FOR THE REMAINING PORTIONS OF THE SITE AND SITES NOT ADJACENT TO RESIDENTIAL PROPERTY.

Clear definitions will be developed to classify the current or future use of adjacent property relative to residential use.

Considerations to be covered in the collateral mentioned above include:

- A. Non-cutoff light fixtures (including uplighting, area and building façade lighting, decorative luminaires, and landscape lighting) shall be allowed, provided at least one of the following:
 1. Shielding (to prevent light trespass and reduce light pollution) is provided by one or more of the following means:
 - a. Buildings or building features (such as overhangs, screens, louvers or canopies),
 - b. Accessories added to the interior or exterior of the luminaire,
 - c. Naturally occurring or man-built site features, such as site topography, hills, berms, fences or walls.
 2. Luminaires aim away from residential property or are not located within xxx linear feet (distance TBD) of a residential property line.
 3. Output of the light source is 1,800 lumens or below.
 4. Luminaires located in portions of a developed site adjacent to rights-of-way or other public conveyance or non-residential property.
- B. The total light output (in lumens) for non-cutoff luminaires shall be limited to a maximum percentage of the total lumens on the site. This limit is to be established and should be similar to the USGBC LEED Rating system and IESNA document.
- C. All non-cutoff lighting must be switched off during post curfew hours (defined as after business hours) provided the light is not required for security purposes.
- D. Cutoff light fixtures (allowing only slightly more uplight than full cutoff luminaires) shall be allowed where the light output is less than 8,000 lumens and the fixture is not within 500 linear feet of residential property lines.

This is a draft document! This is a draft document! This is a draft document!