Minutes Photometrics Working Group Westin Long Beach Hotel Long Beach, CA March 21, 1998

Committee chairs: Daniel K. Haydt, Remote Source Lighting International Tom Pincu; Moodie, Pincu & Associates, Inc.

Recording secretary: Karl Ruling

People attending: Thomas Tyler; Altman Stage Lighting; Principal Rick Loudenburg; Barbizon Rockies; Principal Jim McHugh; Humboldt State University/IES; Principal Bill Klages; New Klages Inc.; Principal Ken Vannice; NSI Corporation; Principal Ron Rykowski; Radiant Imaging, Inc.; Principal Robert Mumm; Robert Mumm; Observer Mitch Hefter; Rosco/Entertainment Technology; Principal Joseph M. Good, III; Spectrum Professional Services; Principal David E. Anderson; Strand Lighting Ltd.; Principal Jerry Gorrell; Theatre Safety Programs; Principal Larry Lieberman; Vision Quest Lighting; Principal

1 Opening Remarks

Tom Pincu called the meeting to order at 1:32 PM

- 2 Attendance and membership
- 2.1 Introductions of those present

The people attending introduced themselves, starting with Larry Lieberman and proceeding clockwise around the table.

2.2 Determination of quorum (8 needed)

There were thirteen voting members present, including the chairmen, so the group had a quorum.

2.3 Recognition of alternate voting members

There were no alternate voting members present to recognize.

2.4 Processing of new membership requests

Andre Broucke of ADB and Bob Mumm applied for working group membership as observers. Rick Loudenburg moved they both be accepted. Bill Klages seconded. Unanimous by show of hands.

3 Approval of the minutes from the previous meeting

Jerry Gorrell moved that the minutes be approved as written. Jim McHugh seconded. Unanimous by show of hands.

4 Call for patents

"ESTA intends to publish no standard that contains protected intellectual property, unless that property can be licensed by anyone for a reasonable fee. ESTA uses a process of open patent disclosure to implement this intent. ESTA does not conduct patent searches and does not warrant that its standards contain no protected intellectual property. "

"In keeping with the open disclosure policy, I ask if anyone present wishes to notify the working group of the existence of a patent or copyright that might protect material in a standard being developed by the working group. You need not be the holder of the patent or copyright in order to notify the working group of its existence."

and Anti-Trust Statement

"The ESTA Board of Directors, the Technical Standards Committee, and the leadership of this Working Group will reject or nullify any actions that restrain trade. Anyone who feels that an action restraining trade is being or has been taken is requested to bring the matter to the attention of the chair immediately. Anyone who feels that actions in restraint of trade have been taken and not properly annulled is requested to notify the TSC chair or ESTA president immediately."

"ESTA legal counsel has informed us that any member of this working group may be found individually liable for any action that restrains trade taken by this working group. An individual convicted of a violation of the Sherman Act may be fined as much as \$100,000 and be imprisoned for up to three years. An easy to read pamphlet describing restraint of trade is available from the Technical Standards Committee."

Danny Haydt directed the attention of the group members to the above statements, which were printed as part of the agenda.

5 Approval of agenda

Jim McHugh moved that the draft agenda be accepted. Larry Lieberman seconded the motion. Unanimous by show of hands.

6 Task group reports

6.1 Nutrition Label task group: Larry Lieberman (head), Gregg Esakoff, Tom Tyler, Danny Haydt, Rick Loudenburg

The Nutrition Label Task Group presented the latest version of BSR E1.9 (document Photo/97-5010r2). The working group offered comments on the draft document. What follows is a summation of the major suggestions:

There was a heated discussion of blending distribution vs. cosine distribution. Some people argued that a specific distribution, the cosine distribution, must be mandated so people can "compare apples to apples." Others argued that the "cosine distribution" was an arbitrary curve, and not necessarily the best distribution based on any technical merit. Requiring manufacturers to report a "cosine distribution" would be needlessly restrictive. A "blending distribution" was felt to be specific enough. There was no resolution, and the issue returned later in the discussion.

Some people said that the standard should have candlepower distribution graphs for the benefit of people in the architectural lighting community, who are used to working with such graphs. There was no specific recommendation as to where these graphs should be added in the standard. There was no consensus on the desirability of adding candlepower graphs.

For alternate lamps, it was suggested that manufacturers could report the total lumen output from actual test data (i.e., no extrapolation of lumens from published lamp data) with the notice that the performance (i.e., illumination distribution) will vary from the performance shown with the reference

lamp. Care should be taken so that the user of the data sheet does not assume that the isolux diagrams for one lamp also describe the performance with other lamps.

On the page 1 Isolux Diagram, use "Throw Multiplier" instead of "Units from Center."

In 2.5, change the definition of cutoff angle to "where illumination is 3% of the maximum illuminance."

In 2.11, change "maximum aperture width" to "maximum aperture dimension."

In 2.9, change definition to "The two-dimensional space illuminated by a luminaire where the level of illumination is 3% of the maximum or above."

Add a definition for "exit aperture" as "the luminous opening of a lighting instrument." (Essentially use the definition found in IES LM-46.)

On page 4 of the draft document, change "can" to "may" in 3.1.3, and move the section into section 4 for optional stuff. Add that if additional lamps are reported, the total lumen output from test data (not calculated lumen output based on scaled lamp lumen output) must be reported.

In 3.1.4, add at end "... or higher than normal ambient temperature, shall be noted in bold face. In such cases the lumen output of the lamp as tested shall be reported."

In 3.2.1 on pg. 5, the highest illumination level taken as 100% rather than the origin.

In 3.2.2.5, each distribution shall be labeled, and clearly identified by the use of the word "Distribution." The required hard focus shall be noted with the words "Focus: Hard."

3.1.6 The date and laboratory where the tests were performed shall be noted.

3.1.2 The IES electronic file number (if available) shall be reported..

There was a discussion of whether polar or rectangular coordinates made more sense for the isolux diagrams. Larry Lieberman will prepare examples of both for the next meeting.

A definition of asymmetrical needs to be added.

6.2 Explanation of photometric procedures: Bill Klages (head), Anne Valentino

Bill Klages reported no activity.

6.3 IES testing RP or standard: Lee Bloch (head), Joseph Good, Jim Grosh, Gregg Esakoff, Ron Rykowski

Joseph Good submitted the attached report (Photo/98-5003) on the IESNA's review of testing procedures for stage and studio luminaires. Don Smith will head the group, which is the Stage and Studio Luminaire Testing Procedure Task Force of the Testing Procedure Committee (TPC). Membership applications should be faxed to 212-248-5017. Membership on the committee is not restricted to IESNA members.

7 Other business

None

8 Schedule for future meetings

July 11, 1998 1:00 to 5:00 p.m. Clarion International at O'Hare Airport 6810 N. Mannheim Rd. Rosemont, IL 60018 847-297-8464 Fax 847-297-8744

9 Adjournment

Jim McHugh moved we adjourn. Mitch Hefter seconded. Adjourned at 4:52 p.m.