

**Minutes**  
**Photometrics Working Group**  
Saturday, January 23, 1999  
Dallas/Ft. Worth Marriott

Chairman: Tom Tyler, Altman Stage Lighting

Recording secretary: Karl G. Ruling

Members in attendance: Anne Valentino; Vari-Lite, Inc.; Observer; Producer  
Bill Ellis; PRG/Vanco Lighting Services; Principal; User  
Daniel K. Haydt; Remote Source Lighting International; Principal; Producer  
Edwin S. Kramer; IATSE, Local 1; Principal; User (Joined at this meeting)  
Jerry Gorrell; Theatre Safety Programs; Principal; User  
Ken Vannice; NSI Corporation; Principal; Producer  
Lee J. Bloch; Bloch Design Group; Principal; User  
Mitch Hefter; Rosco/Entertainment Technology; Observer; User (Formerly  
principal. Changed status to observer at his request at this meeting)  
Rick Loudenburg; Barbizon Rockies; Principal; General Interest  
Thomas A. Hough; Vari-Lite, Inc.; Observer; General Interest  
Tim Cox; PLASA ; Principal; General Interest  
Tim Hansen; Oasis Stage Werks; Principal; User  
Tom Pincu; Moodie, Pincu & Associates, Inc.; Principal; Producer

Vistors: Bill Groener, TSC Chair, Production Arts

## 1 Opening Remarks

Tom Tyler called the meeting to order at 7:08 p.m.

Bill Groener, the Technical Standards Committee Chair announced that there had been a reorganization of the TSP, which included a change of some of the working group chairs. The TSC has asked Tom Tyler and Larry Lieberman to serve as the chairs of the Photometric Working Group. Groener thanked Tom Pincu and Daniel Haydt for their leadership through the first two years of the working group's activities, and said he looked forward to their continued contributions as voting members of the working group, and as acknowledged authorities on photometry as it relates to stage and studio luminaires.

## 2 Attendance and membership

### 2.1 Introductions of those present

Tyler asked those present to introduce themselves and to state their company or organizational affiliations. They did so, proceeding in a clockwise direction around the table.

Karl Ruling noted that Tim Cox is now the principal representative for PLASA, rather than the alternate. Cox has been given the title "Technical Standards Officer," while Tony Douglas-Beveridge has become the "Technical Standards Executive." Tony Douglas-Beveridge will be working with Cox in the UK, while Cox will take over the travelling duties.

### 2.2 Determination of quorum (7 needed)

Tyler looked at the sixteen people sitting around the table (eleven of whom were principals) and said, "I think we have seven." Thus, a quorum was established.

### 2.3 Recognition of alternate voting members

There were no alternate members present to recognize.

### 2.4 Requirements for membership

Tyler asked Ruling to make a brief statement about the requirements for membership, which are that people are materially affected by the work of the committee, and that they attend meetings and respond to letter ballots if they intend to be voting members.

### 2.5 Processing of new membership requests

Eddie Kramer asked to be accepted as a voting member representing IATSE Local 1. There was a unanimous show of hands, without anyone waiting for a formal motion.

Mitch Hefter requested that he be moved to observer status. There were no objections so he was changed to an observer.

## 3 Approval of the minutes from the previous meeting

Anne Valentino noted that she was NOT at the last meeting, so her name should be deleted from the attendance list.

Tom Pincu moved that the minutes be accepted as written but with the deletion of Anne Valentino from the attendance list. Rick Loudenberg seconded the motion. Unanimous by show of hands.

## 4 Call for patents and anti-trust statement

Tom Tyler read the 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."

Tom Tyler read the 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."

No patents or actions in violation of anti-trust laws were called to the attention of the chair.

## 5 Approval of agenda

Tom Pincu moved that the agenda be approved. Tim Hansen 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

#### 6.1.1 Report on TSC action (Ruling)

Ruling reported that the TSC had approved sending the draft BSR E1.9 standard to public review at its meeting the previous day.

There was a discussion of how the public review of the draft standard might be publicized. Ruling said that ANSI announces the public review in Standards Action and that he normally sends out about 90 press releases, and also posts a notice and the draft standard on the ESTA website. Other groups to contact and ideas offered were:

- Hand the draft standard out at the booth at USITT.
- Contact NABET
- Contact IESNA [IESNA is on the normal press release list.]
- Contact USA
- Contact NAB
- Contact SMPTE
- Ask Norm Bouchard to put a link from the USITT and CIRC websites
- Distribute the public review materials to working group members by sending them an e-mail message with a link to the ESTA page.

Pincu said that there would be a session at USITT called "Integrating Flat-Field Technology." Ruling said he had been asked by Ted Paget to be on the panel. Many of the working group members expressed an interest in it and thought it might be an opportunity to publicize the draft standard. However, nobody, including Ruling, knew what the session was really about. Pincu said he would call the chair of the session, Judy Staicer, Lighting Commission Co-Chair, and ask her. Then he would call Ruling, and he and Ruling would decide who should be on the panel from the Photometric Working Group and how we should respond to this session. This plan met with no objection.

#### 6.1.2 Work on the comments received so far

Jerry Gorrell moved that we deal with 6.1.2 as a task group after the meeting. There was no second, but there was a unanimous show of consent by raised hands.

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

Ruling distributed the most recent version of Bill Klages's document explaining the standard (Photo/99-5003). He had received it a few days before the meeting, so there was not enough time to distribute it before the meeting to allow all to read it. Pincu suggested that we put off dealing with it until the next working group meeting. Lee Bloch moved that Bill Klages continue to work on the document and that the working group submit comments to Bill Klages by Tuesday the 16th of February. Ken Vannice seconded the motion. Unanimous.

#### 6.3 IES testing RP update: Lee Bloch (head), Jody Good, Jim Grosh, Gregg Esakoff, Ron Rykowski

Lee Bloch reported that Don Smith has been inundated with work for the IES, so nothing has been done yet.

#### 7 Other business

Pincu noted that at the last meeting he had handed out copies of a letter Louis Erhardt had written to Pincu responding to Ruling's "Why no Cosine." Pincu asked that the letter be included in the minutes.

7



June 24, 1998

Dear Tom, re: Why No Cosine

Mr. Ruling's paper prompts the following, - Paragraph by paragraph:

- Isolux diagrams present the same information as illuminance curves; different form, same data.
- Mr. Ruling defines my cosine distribution as a *marketing* term. Such was not my intention. I searched for a standard toward which all might work, -if it were generally accepted.
- The definition is precise. If others have misinterpreted, they should qualify their presentations.
- Accompanying my illuminance data were distributions that would produce the cosine illumination.
- If Strand or ETC modify the original data, your committee should evaluate and decide on the numbers for the future.
- Mr. Ruling uses the phrase "perform optimally." There was never a proposal that cosine distribution was optimal. It was suggested as a standard by which comparisons might be made. Peaked distributions and more uniform distributions have their own merits. If you wish to add standards or modify them you are free to do so.
- Strand, for whom this work was done, were not then nor are they now in a position to "mandate" any particular distribution. If you wish to make it a legal issue, you will may lose many of the equipment designers as well as open a Pandora's Box of regulations!
- Preference for an item, possibly with satisfactory experience with the unit, does not imply nor necessitate detailed knowledge of the origin of its design details.
- "Using Your Spotlight," USITT 1980, refers specifically to ellipsoidal spotlights, not to Fresnels, beam projectors, PAR cans, etc.
- Standards do not mandate. They are considered by some authority or by general consent to be a basis for comparison! (REFACTO standards)
- If you do not wish to have standards, there is to my knowledge no law requiring them.

Always my best to both of you,

June 24, 1998

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Pincu gave a presentation of points he would like the working group to consider in regard to the draft E1.9 standard:

1. Re: reporting in metric format. The U.S. lighting industry including architectural, tv, and motion pictures report photometric data in footcandles rather than lux. Some manufacturers report both metric and English on their data sheets, but everyone in the lighting end of the performing arts is used to footcandles and distances and diameters in feet. I suggest that reporting be done in both formats and where that isn't possible, then report using the English method with converters for metric.
2. The blending distribution described in E1.9 is not defined. I believe it should be. That then creates a level playing field for testing ellipsoidal reflector spotlights. If we are going to be specific in writing a reporting standard, then I believe the standard should not have areas open to interpretation. When Erhardt's article was published, the U.S. theatrical fixture manufacturers were all quick to report data based on the cosine curve. No-one wanted to be accused of "snake-oil" marketing.
3. Erhardt's "cosine" curve for ellipsoidals defines quite precisely what the curve should be and while we agree that there are some products that may not be able to adjust to the cosine curve, that doesn't preclude that manufacturer from presenting a "blending" distribution and explaining that their product cannot be adjusted for cosine. I agree that there are too many interpretations of Erhardt's curve and that manufacturers who are bastardizing the curve need to clean up their act. Because Erhardt's curve was published once in 1978 there is probably enough turn-over at equipment manufacturers to insure that the curve be misinterpreted. I don't believe that the "cosine" curve is restraint of trade. Century, Colortran, Altman, & ETC all "embraced" it. It has become over time, right or wrong, a defacto standard. But it's not a standard that excludes manufacturers from presenting their product. In the long run, the users will make the decision as to what product they buy.
4. Whatever curve is chosen, we need to define it so everyone knows the rules.

Tyler noted that more data was needed for examples in the draft standard, and that Ron Rykowski had offered to generate the data if someone would send him some luminaires. Many noted that Klages noted the lack of this empirical data in his manuscript. Rick Loudenberg offered to coordinate with Bill Ellis the sending of some luminaires to the Radiant Imaging facility in North Carolina. The samples would be shipped for testing before the USITT Conference [March 24-27] but after the Super Bowl [January 31.].

Daniel Haydt moved that we setup a fourth task group to develop materials to explain current IES procedures and current data sheets (in contrast to the new procedures for presenting data we are trying to develop). Tom Pincu seconded the motion. Unanimous by show of hands.

Danny Haydt and Tom Pincu volunteered to work on the fourth task group, "with a little help from Klages and Valentino," said Pincu. Klages was not present, but Valentino consented.

## 8 Schedule for future meetings

There was a discussion of when the public review comments would be available for resolution. Ruling stated that the review would not finish until after the USITT Conference. Pincu moved we meet next in July. Lee Bloch seconded the motion. Unanimous. Thus, there will be no working group meeting in March at USITT. Task groups will need to meet on their own at convenient times and places to accomplish their work before the next meeting.

Ruling said the next meeting date per our usual schedule would be July 17, 1999 from 1:00 to 5:00 p.m. at the Dallas/Ft. Worth Marriott. Bill Ellis moved that that be the next meeting time and place. Jerry Gorrell seconded the motion. Unanimous by show of hands.

## 9 Adjournment

Ken Vannice moved the meeting adjourn. Lee Bloch seconded. Unanimous acclamation. People were out the door before any objections could be heard. Tom Tyler declared the meeting adjourned at 9:29 p.m.

Working Group Membership As Of The End Of The Meeting

Name	Company	Vote Status	Int. Cat.
Andre Broucke	ADB, Theatre and TV Lighting Division	O	P
John Luk	Altman Stage Lighting	A	P
Thomas Tyler	Altman Stage Lighting	P	P
Rick Loudenburg	Barbizon Rockies	P	G
Lee J. Bloch	Bloch Design Group	P	U
Ed Hyatt	Boston Illumination Group	P	P
Martin Moore	c/o Unusual Engineering Ltd.	I	G
Francesco Romagnoli	Clay Paky S.P.A.	A	P
Angelo Cavenati	Clay Paky S.P.A.	P	P
David Bertenshaw	David Bertenshaw	O	P
Ronald G. Mink	Electronic Theatre Controls	A	P
Gregg Esakoff	ETC West	P	P
Mike Wood	High End Systems	O	P
Jim McHugh	Humboldt State University/IES	P	U
Edwin S. Kramer	IATSE, Local 1	P	U
Jim Grosh	Jim Grosh Associates	P	G
Tom Pincu	Moodie, Pincu & Associates, Inc.	P	P
Bill Klages	New Klages Inc.	P	U
Ken Vannice	NSI Corporation	P	P
Tim Hansen	Oasis Stage Werks	P	U
Tim Cox	PLASA	P	G
Tony Douglas-Beveridge	PLASA Standards Office	A	G
Bill Ellis	PRG/Vanco Lighting Services	P	U
Ron Rykowski	Radiant Imaging, Inc.	P	P
Daniel K. Haydt	Remote Source Lighting International	P	P
Robert Mumm	Robert Mumm	O	G
Mitch Heffer	Rosco/Entertainment Technology	O	U
Joseph M. Good, III	Spectrum Professional Services	P	G
Milton Davis	Strand Lighting	P	P
Jerry Gorrell	Theatre Safety Programs	P	U
Anne Valentino	Vari-Lite, Inc.	O	P
Thomas A. Hough	Vari-Lite, Inc.	O	G
Larry Lieberman	Vision Quest Lighting	P	G

Voting Status

- P Principal voting representative for a company or organization
- A Alternate voting representative for a company or organization
- I Individual representing no organization other than himself or herself
- O Observer; non-voting

Interest Categories

- P Producer (manufacturer) of luminaires
- U User of luminaires
- G General interest in luminaires