

Minutes
Photometrics Working Group
Saturday, 25 March 2000
Adam's Mark Hotel
Denver, CO

Chair: Thomas Tyler; Lighting & Electronics, Inc.; Principal; Producer

Recording secretary: Karl G. Ruling, ESTA

Attending members: Jerry Gorrell; Theatre Safety Programs; Principal; User
Ken Vannice; NSI Corporation (Leviton Manufacturing Co., Inc.); Principal;
Producer
Tom Pincu; Moodie, Pincu & Associates, Inc.; Principal; Producer
Jim McHugh; Humboldt State University/IES; Principal; User
Ed Hyatt; Boston Illumination Group, Inc.; Principal; Producer
Tim Hansen; Oasis Stage Werks; Principal; User
Rick Loudenburg; Barbizon Rockies (Barbizon Companies); Principal; General
Interest
Tim Cox; PLASA; Principal; General Interest
David Steven; Strand Lighting Ltd.; Principal; Producer

Visitor: Robert Bell, CAST Lighting, Ltd.

1 Opening Remarks

Tom Tyler said, "Let's get this thing started," at 13:07.

Tyler reminded the group of the attendance requirement (2.4).

2 Attendance and membership

2.1 Introductions of those present

Tyler asked those present to introduce themselves, which they did, proceeding clockwise around the table.

2.2 Determination of quorum (7 needed for quorum, 11 for supermajority)

Tyler counted heads (all present were voting members) and announced we have a quorum.

2.3 Recognition of alternate voting members

None were present.

2.4 Requirements for membership

Tyler restated the attendance requirement:

If a voting member (and his or her alternate) misses three meetings in a row, they are moved to observer status. This will be done at the end of the third meeting missed.

Tyler directed Ruling to update the membership list after the end of the meeting to reflect any voting status changes due to lack of attendance.

Tyler reiterated that membership in the working group is open to all who have a material interest in the work of the group.

2.5 Processing of new membership requests

An application had been received from Bob Barbagallo of Proximo, who applied as an observer, user.

Tim Hansen moved his application be accepted. The motion was seconded. The motion was accepted unanimously by show of hands.

The voting body for the meeting was:

Name	Company	Parent company or organization represented	Voting status	Int. cat.
John Luk	Altman Stage Lighting	Altman Stage Lighting	P	P
Rick Loudenburg	Barbizon Rockies	Barbizon Companies	P	G
Lee J. Bloch	Bloch Design Group Inc.	Bloch Design Group Inc.	P	U
Ed Hyatt	Boston Illumination Group, Inc.	Boston Illumination Group	P	P
Angelo Cavenati	Clay Paky S.P.A.	Clay Paky S.P.A.	P	P
Francesco Romagnoli	Clay Paky S.P.A.	Clay Paky S.P.A.	A	P
Gregg Esakoff	ETC West	Electronic Theatre Controls, Inc.	P	P
Ronald G. Mink	Electronic Theatre Controls	Electronic Theatre Controls, Inc.	A	P
Jim McHugh	Humboldt State University/IES	Humboldt State University	P	U
Edwin S. Kramer	IATSE, Local 1	I.A.T.S.E. Local 1	P	U
Jim Grosh	Jim Grosh Associates	Jim Grosh Associates	P	G
Ken Vannice	NSI Corporation	Leviton Manufacturing Co., Inc.	P	P
Thomas Tyler	Lighting & Electronics, Inc.	Lighting & Electronics, Inc.	P	P
Tom Pincu	Moodie, Pincu & Associates, Inc.	Moodie, Pincu & Associates, Inc.	P	P
Bill Klages	New Klages Inc.	New Klages Inc.	P	U
Tim Hansen	Oasis Stage Werks	Oasis Stage Werks	P	U
Tim Cox	PLASA	PLASA	P	G
Tony Douglas-Beveridge	PLASA	PLASA	A	G
David Jenkins	Radiant Imaging, Inc.	Radiant Imaging, Inc.	P	G
Ron Rykowski	Radiant Imaging, Inc.	Radiant Imaging, Inc.	A	G
Daniel K. Haydt	Remote Source Lighting International	Remote Source Lighting International	P	P
Joseph M. Good, III	Spectrum Professional Services	Spectrum Professional Services	P	G
David Steven	Strand Lighting Ltd.	Strand Lighting Ltd.	P	P
Milton Davis	Strand Lighting	Strand Lighting Ltd.	A	P
Jerry Gorrell	Theatre Safety Programs	Theatre Safety Programs	P	U
Larry Lieberman	Vision Quest Lighting	Vision Quest Lighting	P	G
			21 voting members	

3 Approval of the minutes from the previous meeting (Photo/2000-5001r1)

Rick Loudenburg moved that the draft minutes (Photo/2000-5001r1) be accepted as written. The motion was seconded. The motion was accepted unanimously by a show of hands.

4 Call for patents

Tyler read the following aloud to the group:

"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."

No issues were identified by the group.

Tyler also 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."

Again, no issues were identified.

5 Approval of agenda

Tom Pincu moved that the draft agenda be approved. The motion was seconded and accepted unanimously by a show of hands.

6 Task group reports

6.1 Report on how photometrics are currently done

Pincu gave a revised version of his November 1999 presentation. The presentation was well received, and the group asked him to develop it into an article for Protocol. Pincu said he would add the flat wall method into it.

6.2 IES testing RP update

Lee Bloch and Jody Good were not present. However, Good had submitted a letter plus a draft of LM-73 via Tim Hansen. The draft, with luck, should be approved by August, wrote Good.

6.3 Nutrition Label task group

Ruling reported that the draft standard had been approved by the TSC at the March 22 TSC meeting to go to another public review.

7 Other business

Robert Bell of CAST Lighting raised the issue that his company, the developer of WYSIWYG, has found that the inverse square law does not accurately predict the real performance of what are considered far-field instruments even when working in the far field. His programmers have had to devise the notion of a virtual point source somewhere in space behind an instrument, and use this as the location of the source of the light from a spotlight in calculating the output from candlepower data. For example, according to Bell, the light from a 10-degree, 10" spotlight needs to be considered as coming from a virtual point source 4' 9" behind the lens. The center illumination level at 20' from the lens must then be calculated from the instrument's center beam candlepower by dividing that quantity by the distance 24' 9" squared. The calculated level by this method, which, according to Bell, closely matches the actual performance, is thus 65.7% of what would be calculated if 20' were considered the throw. Bell was concerned that we were not taking this into account with BSR E1.9.

The working group was very interested in Bell's finding, however the group felt that this would not have an impact on the draft standard. The definition of the difference between far-field and near-field luminaires that is written into the standard is that far-field luminaires are designed to be used at throw distances in which the inverse square law is valid. It is up to the manufacturer to decide if an instrument's intended application throw distance makes it a near-field or far-field instrument. It could be argued that the 10-degree instrument in the example is being used in the near-field if the throw is nominally 20'.

7.1 LDI 2000 Dog and Pony show – What will we do?

Rick Loudenburg moved that Bill Klages be asked if he wants to participate in the LDI show. The motion was seconded. The motion was accepted unanimous by show of hands. Tim Hansen moved that Tom Pincu coordinate with Bill Klages and jointly prepare a session for LDI 2000. The motion was seconded. The motion was approved unanimously by a show of hands.

The group suggested that Tom Pincu and Bill Klages include Larry Lieberman to present the Tom Lemmons method. Ed Hyatt suggested that two models of data collection and one model of data presentation be shown. Tom Pincu asked Tom Tyler to contact Ron Rykowski to see if he will present his system.

7.2 USITT 2001 Dog and Pony Show — What will we do again?

Tim Hansen moved that Larry Lieberman, Tom Tyler, and Karl Ruling present the nutrition label standard document (BSR E1.9) at USITT 2001. The motion was seconded. The motion was accepted unanimously by show of hands.

8 Schedule for future meetings

Tyler announced that the next meeting is scheduled for July 15, 2000, Saturday, 13:00 to 17:00.

9 Adjournment

Tim Hansen moved we adjourn. The motion was seconded. The motion was accepted unanimously with a show of hands. Tyler declared the meeting adjourned at 15:06.

Post meeting changes in voting status

Due to lack of attendance and having missed this meeting, the following members are now non-voting, observer members:

Francesco Romagnoli and Angelo Cavenati, Clay Paky S.P.A.
Edwin S. Kramer, IATSE Local 1
Jim Grosh, Grosh Associates

As a result of these changes, the total voting body is 18: 5 general interest; 8 producer; 5 user. The quorum requirement is now 6, and a supermajority would be 10.

Working Group Membership at the End of the 25 March 2000 Meeting

Name	Company	Parent Co./Or Represented	Vot. Stat.	Int. Cat.
Andre Broucke	ADB - TTV Technologies	Siemens	O	P
John Luk	Altman Stage Lighting	Altman Stage Lighting	P	P
Rick Loudenburg	Barbizon Rockies	Barbizon Companies	P	G
Lee J. Bloch	Bloch Design Group Inc.	Bloch Design Group Inc.	P	U
Ed Hyatt	Boston Illumination Group, Inc.	Boston Illumination Group	P	P
Bill Ellis	Candela Controls, Inc.	Candela Controls, Inc.	O	U
Francesco Romagnoli	Clay Paky S.P.A.	Clay Paky S.P.A.	O	P
Angelo Cavenati	Clay Paky S.P.A.	Clay Paky S.P.A.	O	P
David Bertenshaw	David Bertenshaw	David Bertenshaw	O	P
A C Hickox	Domingo Gonzalez Associates	Domingo Gonzalez Associates	O	U
Ronald G. Mink	Electronic Theatre Controls	Electronic Theatre Controls, Inc.	A	P
Gregg Esakoff	ETC West	Electronic Theatre Controls, Inc.	P	P
Mike Wood	High End Systems	High End Systems	O	P
Jim McHugh	Humboldt State University/IES	Humboldt State University	P	U
Edwin S. Kramer	IATSE, Local 1	IATSE Local 1	O	U

Name	Company	Parent Co./Or Represented	Vot. Stat.	Int. Cat.
Jim Grosh	Jim Grosh Associates	Jim Grosh Associates	O	G
Thomas Tyler	Lighting & Electronics, Inc.	Lighting & Electronics, Inc.	P	P
Hiroshi Kita	Marumo Electric Co., Ltd.	Marumo Electric Co., Ltd.	O	P
Tom Pincu	Moodie, Pincu & Associates, Inc.	Moodie, Pincu & Associates, Inc.	P	P
Bill Klages	New Klages Inc.	New Klages Inc.	P	U
Ken Vannice	NSI Corporation	Leviton Manufacturing Co., Inc.	P	P
Tim Hansen	Oasis Stage Werks	Oasis Stage Werks	P	U
Tim Cox	PLASA	PLASA	P	G
Tony Douglas-Beveridge	PLASA Standards Office	PLASA	A	G
Robert Barbagallo	Proximo Inc.	Proximo Inc.	O	U
Ron Rykowski	Radiant Imaging, Inc.	Radiant Imaging, Inc.	A	G
David Jenkins	Radiant Imaging, Inc.	Radiant Imaging, Inc.	P	G
Daniel K. Haydt	Remote Source Lighting International	Remote Source Lighting International	P	P
Robert Mumm	Robert Mumm	Robert Mumm	O	G
Mitch Hefter	Rosco/Entertainment Technology	Rosco Laboratories	O	U

Name	Company	Parent Co./Or Represented	Vot. Stat.	Int. Cat.
Joseph M. Good, III	Spectrum Professional Services	Spectrum Professional Services	P	G
Milton Davis	Strand Lighting	Strand Lighting Ltd.	A	P
David Steven	Strand Lighting Ltd.	Strand Lighting Ltd.	P	P
Jerry Gorrell	Theatre Safety Programs	Theatre Safety Programs	P	U
Thomas A. Hough	Vari-Lite, Inc.	Vari-Lite, Inc.	O	G
Larry Lieberman	Vision Quest Lighting	Vision Quest Lighting	P	G
Eckart Steffens	SOUNDLIGHT	VPLT	O	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