

**Minutes**  
**Photometrics Working Group**  
Saturday, 4 April 2020

**Chairperson:** Jerry Gorrell; Theatre Safety Programs

**Recording secretaries:** Karl Ruling and Richard Nix; ESTA

**Attendees:**

Hans Lau; I.A.T.S.E. Local 728; P; U  
Jason Osterman; Altman Lighting; P; MP (9:56 to 10:09 CDT)  
Jerry Gorrell; Theatre Safety Programs; P; U  
John David (Javid) Butler; Moda Light; P; MP  
Karl G. Ruling; Unit 12 Productions; I; DE  
Mark Primrose; Kino Flo, Inc.; P; MP  
Matthew Ardine; I.A.T.S.E. Local 728; A; U  
Michael Lay; Candela Controls, Inc; P; DR  
Mike Wood; Mike Wood Consulting LLC; P; G  
Mitch Hefter; Signify; P; MP  
Robert Goddard; Goddard Design Co.; O; CP  
Tucker Downs; Tucker Downs; O; G (9:54 to 10:09 CDT)

**1 Opening Remarks**

Jerry Gorrell called the meeting to order at 09:05 CDT.

**2 ESTA declarations**

**2.1 Call for patents**

The following statement was read aloud to the working group by Jerry Gorrell:

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

*In keeping with the open disclosures policy, I ask if anyone present wishes to notify this working group of the existence of a patent, patent application, copyright, or other intellectual property that might protect material in a standard being developed by this working group. You need not be the holder of the patent or copyright to notify this working group of its existence.*

Nothing was revealed.

**2.2 Reading of the anti-trust statement**

The following statement was read aloud to the working group by Jerry Gorrell:

*ESTA and its members take seriously their obligation to comply with all applicable antitrust laws. Therefore, during this meeting and during all ESTA events, all discussions will be limited to those subjects that are permitted by the antitrust laws. All members should refrain from any discussion or mention of competitively sensitive subjects such as the current or future prices charged for any member product or services, current or future marketing plans or strategies, and current or future costs, including employee salaries. There also must be no agreement on the suppliers or customers that members will or will not do business with or the markets in which members will conduct business.*

*Violations of the antitrust laws can have serious consequences. If you have any questions or concerns about anything that is discussed at a ESTA meeting, please bring your concern to ESTA management. An easy to read pamphlet describing the antitrust laws is available from the ESTA staff.*

No concerns were raised. Karl Ruling said that he has a copy of the pamphlet available as a PDF.

(WebEx was not providing video support during the meeting due to Saturday morning server maintenance, so the pamphlet was not displayed.)

### 3 Attendance and membership

#### 3.1 Requirements for membership

The following statement was read aloud to the working group by Jerry Gorrell

*Membership is open to all who are affected by the work of the group. Voters who would be in the designer or dealer/rental company interest category in particular are encouraged to become members. There is an annual \$100 participation fee for all members. Voting members are required to attend meetings and to vote on letter ballots. Voting members and their alternates may not miss three consecutive meetings or three consecutive letter ballots without a loss of voting status.*

#### 3.2 Introductions of attendees

The list of attendees was visible to the attendees on WebEx. Formal introductions were not done.

#### 3.3 Determination of quorum

*As of 19 March there are 15 votes possible. A quorum would be at least five voters present. The minimum for a supermajority vote would be eight.*

After reviewing the names of attendees present online, Jerry Gorrell declared that the requirements for both quorum and a supermajority had been met.

#### 3.4 Processing of new membership and status change requests

Matthew Ardine applied as an alternate for Hans Lau, representing IATSE Local 728 in the User interest category.

Mike Wood moved that the application be accepted. The motion was seconded and then approved unanimously.

#### 3.5 Changes to observer status

##### 3.5.1 Changes due to attendance

None.

##### 3.5.2 Changes due to missed ballots

None.

##### 3.5.3 Automatic status changes

None.

#### 3.6 Consensus body

The consensus body during the meeting was:

| Delegate        | Representing                          | Voting status | Int. cat. |
|-----------------|---------------------------------------|---------------|-----------|
| Jason Osterman  | Altman Lighting                       | P             | MP        |
| Pete Borchetta  | Altman Lighting                       | A             | MP        |
| Timothy S. Kang | ASC, Motion Imaging Technical Council | P             | CP        |
| Ed Hyatt        | Boston Illumination Group             | P             | CP        |
| Michael Lay     | Candela Controls, Inc                 | P             | DR        |

| Delegate                  | Representing                      | Voting status | Int. cat. |
|---------------------------|-----------------------------------|---------------|-----------|
| Wendy Luedtke             | Electronic Theatre Controls, Inc. | P             | MP        |
| Hans Lau                  | I.A.T.S.E. Local 728              | P             | U         |
| Matthew Ardine            | I.A.T.S.E. Local 728              | A             | U         |
| Mark Primrose             | Kino Flo, Inc.                    | P             | MP        |
| Jim Bogdanowicz           | Kino Flo, Inc.                    | A             | MP        |
| Larry Schoeneman          | Larry Schoeneman                  | I             | G         |
| Mike Wood                 | Mike Wood Consulting LLC          | P             | G         |
| John David (Javid) Butler | Moda Light                        | P             | MP        |
| Nicolas Goerg             | Rosco Laboratories                | P             | CP        |
| Mitch Hefter              | Signify                           | P             | MP        |
| Jerry Gorrell             | Theatre Safety Programs           | P             | U         |
| Karl G. Ruling            | Unit 12 Productions               | I             | DE        |
| Justin Bennett            | University of the Incarnate Word  | P             | U         |
|                           | <b>Total votes possible</b>       | 15            |           |
|                           | <b>Votes by interest category</b> | 3             | CP        |
|                           |                                   | 5             | MP        |
|                           |                                   | 1             | DE        |
|                           |                                   | 1             | DR        |
|                           |                                   | 2             | G         |
|                           |                                   | 3             | U         |
|                           |                                   |               |           |

#### 4 Approval of the minutes from the last meeting

Javid Butler moved that the minutes be accepted as written. The motion was seconded. Mitch Hefter voted to abstain, but the rest voted in favor. The motion carried.

#### 5 Approval of agenda

Javid Butler moved to approve the agenda as written. The motion was seconded and carried without objections or abstentions.

#### 6 Old Business

##### 6.1 ANSI E1.9 – 2007 (R2017), Reporting Photometric Performance Data for Luminaires Used in Entertainment Lighting (Revision, reaffirmation, or withdrawal by 2 November 2022)

No news or action.

##### 6.2 ANSI E1.25 – 2012 (R2017), Recommended Basic Conditions For Measuring The Photometric Output Of Stage And Studio Luminaires By Measuring Illumination Levels Produced On A Planar Surface (Revision, reaffirmation, or withdrawal by 2 November 2022)

No news or action.

##### 6.3 ANSI E1.35 – 2013 (R2018), Lens Quality Measurements for Pattern Projecting Luminaires Intended for Entertainment Use (Revision, reaffirmation, or withdrawal by 27 February 2023)

No news or action.

**6.4 ANSI E1.36 – 2007 (R2017), Model Procedure for Permitting the Use of Tungsten-Halogen Incandescent Lamps and Stage and Studio Luminaires in Vendor Exhibit Booths in Convention and Trade Show Exhibition Halls** (Revision, reaffirmation, or withdrawal by 2 November 2022)  
No news or action.

**6.5 ANSI E1.41 – 2016, Recommendations for Measuring and Reporting Photometric Performance Data for Entertainment Luminaires Utilizing Solid State Light Sources** (Revision, reaffirmation, or withdrawal by 16 September 2021)  
No news or action.

**6.6 ANSI E1.48 – 2014 (R2019), A Recommended Luminous Efficiency Function for Stage and Studio Luminaire Photometry** (Revision, reaffirmation, or withdrawal by 08 January 2024)  
No news or action.

**6.7 BSR E1.54, ESTA Color Standard**

*Task group: Wendy Luedtke, Mark Primrose, and Mike Wood*

*See BSR\_E1-54-201x 1-15-2020.pdf and Notes to BSR\_E1-54-201x 1-15-2020.pdf. Next steps?*

Mike Wood reported that the task group had submitted two documents to the working group. One document was the normative requirements, the second document was only the explanatory notes. The reason for this is because the explanatory notes contained formulas, et cetera that deterred acceptance in prior efforts. He asked if there was a special procedure to manage this in public review. Karl Ruling said that there was no special procedure: the documents would simply be sent together as a single document.

Javid Butler said that the document metadata showed the incorrect alphanumeric designation. ESTA staff will correct this.

Mike Wood moved to send both documents to public review. The motion was seconded and carried without objection or abstention. The motion will be forwarded to a TSC letter ballot.

**6.8 ANSI E1.55 – 2016, Standard for Theatrical Makeup Mirror Lighting** (Revision, reaffirmation, or withdrawal by 16 September 2021)  
No news or action.

**6.9 BSR E1.69, Reporting the Low-End Dimming Performance of Entertainment Luminaires Using LED Sources**

*See BSR\_E1-69\_201x\_21 January2020.pdf. Next steps?*

Karl Ruling reported that he had compiled a draft document that includes the language Javid Butler had submitted to require dynamic fade performance. He had said that he did not agree that the dynamic fade reporting requirement should be included because it complicates the standard. A luminaire's dimming performance will be different with different-length fades, so we would have to require the performance to be reported at specific fade times. Deciding what fades should be reported would lengthen the time it would take to develop this standard, and if we settled on several fade times to account for the many different favorite fades of designers, we would be asking a manufacturer to report a mass of data. That would make this standard too costly to implement, so it wouldn't be used. We had to simplify the reporting on ANSI E1.9 because the first edition asked for too much data. Even now, with less data required, few manufacturers report all the required data.

Mike Wood objected to including a dynamic fade reporting because we say that we are trying to arrive at a measure of smooth dimming, but there is no objective measurement to be done that unambiguously corresponds to the perception of a smooth dimming curve. Smoothness is subjective.

Mike Wood moved to strike the dynamic fade reporting section. The motion was seconded by discussion.

It's a huge can of words, said Mike Wood. Javid Butler agreed to remove it. The motion was approved unanimously.

Mitch Hefter asked if the scope could include a statement that the concept of dynamic measurement was too complex to address at this time. Hefter said he also had issues with the references to "mains dimming." There was discussion about the various 1-10 V and 0-10 V control voltage schemes.

There was discussion about what text, if any, would replace the text removed. The consensus was to let Karl Ruling be the scribe and fix the draft rather than try to wordsmith the document at this meeting.

Javid Butler moved that Karl Ruling reword the draft E1.69 (wind it back to the previous version, but consider adding portions or all of Jason Osterman's introductory text) and that we vote to offer it for public review by letter ballot. The motion was seconded by discussion. The vote was unanimous.

The consensus was that the revised text shall be sent to everyone, observers too.

## **7 New business**

None.

## **8 Other business and announcements**

### **8.1 Above & Beyond Awards**

Jerry Gorrell reminded attendees that the Above & Beyond nomination site is open year-round at [http://tsp.esta.org/tsp/news/award\\_nomination.html](http://tsp.esta.org/tsp/news/award_nomination.html). The award is designed for members to highlight the work of their peers.

### **8.2 Education -- INNOVA**

Attendees were reminded that the INNOVA site can be accessed at <http://innova.usitt.org>. Content and content providers are still being sought. If you are interested, email [standards@esta.org](mailto:standards@esta.org) to be put in touch with someone.

### **8.3 Confidentiality of task group documents**

Hans Lau asked about the policy for distribution of task group documents.

Karl Ruling explained that the documents are not secret, but that discretion is necessary. The documents are draft, they are not public review documents, they can change at any time until an approved draft is sent for public review, and any document is a draft and not a standard until approved by ANSI.

## **9 Schedule for future meetings**

*The full meeting schedule may be found at <http://www.esta.org/ESTA/meetings.php>.*

### **9.1 Summer 2020 meetings (NYC)**

It was announced that the summer 2020 meetings are scheduled to be held in conjunction with the North American Theatre Engineering and Architecture Conference in New York City, scheduled for 19-20 July 2020 at the Roosevelt Hotel. However, the NATEAC organizers are monitoring the COVID-19 situation and will decide in mid-April if the conference can go on as scheduled. [After this meeting, NATEAC 2020 was postponed until 2021; the summer meetings will be held WebEx.]

### **9.2 Autumn meetings**

It was announced that the autumn TSP meetings are scheduled to be held the first weekend of October at the Marriott Solana in Westlake, TX.

**10 Adjournment**

The agenda being complete, and there being no further business to conduct, Jerry Gorrell declared the meeting adjourned at 10:08 CDT. He thanked everyone for their participation.

Photometrics Working Group members as of 6 April 2020

| Delegate                  | Representing                          | Voting status | Int. Cat. |
|---------------------------|---------------------------------------|---------------|-----------|
| Matthew Ardine            | I.A.T.S.E. Local 728                  | A             | U         |
| Robert Barbagallo         | Solotech Inc.                         | O             | DR        |
| Justin Bennett            | University of the Incarnate Word      | P             | U         |
| Jim Bogdanowicz           | Kino Flo, Inc.                        | A             | MP        |
| Pete Borchetta            | Altman Lighting                       | A             | MP        |
| John David (Javid) Butler | Moda Light                            | P             | MP        |
| Tucker Downs              | Tucker Downs                          | O             | G         |
| Bill Ellis                | Candela Controls, Inc.                | O             | U         |
| Mike Garl                 | Mike Garl Consulting LLC              | exf           |           |
| Robert Goddard            | Goddard Design Co.                    | O             | CP        |
| Nicolas Goerg             | Rosco Laboratories                    | P             | CP        |
| Jerry Gorrell             | Theatre Safety Programs               | P             | U         |
| Erin Grabe                | ESTA                                  | exf           |           |
| Tim Hansen                | Oasis Stage Werks                     | O             | U         |
| Robert Haycock            | UC Berkeley                           | O             | U         |
| Mitch Hefter              | Signify                               | P             | MP        |
| Ed Hyatt                  | Boston Illumination Group             | P             | CP        |
| Frank Kjær Jensen         | Harman International Industries       | O             | MP        |
| Timothy S. Kang           | ASC, Motion Imaging Technical Council | P             | CP        |
| Hans Lau                  | I.A.T.S.E. Local 728                  | P             | U         |
| Michael Lay               | Candela Controls, Inc                 | P             | DR        |
| Rick Loudenburg           | Barbizon Companies                    | O             | DR        |
| Wendy Luedtke             | Electronic Theatre Controls, Inc.     | P             | MP        |
| Richard J. Nix            | ESTA                                  | exf           |           |

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| Delegate         | Representing                   | Voting status | Int. Cat. |
|------------------|--------------------------------|---------------|-----------|
| Jason Osterman   | Altman Lighting                | P             | MP        |
| Mark Primrose    | Kino Flo, Inc.                 | P             | MP        |
| Mark Ravenhill   | GLP German Light Products Inc. | O             | MP        |
| Karl G. Ruling   | Unit 12 Productions            | I             | DE        |
| Karl G. Ruling   | ESTA                           | exf           |           |
| Larry Schoeneman | Larry Schoeneman               | O             | G         |
| Ford Sellers     | Chauvet Lighting               | O             | MP        |
| Keith Sklar      | Actors' Equity Association     | O             | G         |
| Robert Timmerman | Signify                        | O             | MP        |
| Mike Wood        | Mike Wood Consulting LLC       | P             | G         |

CP = Custom-market Producer

DE = DEsigner

DR = Dealer or Rental company

G = General interest

MP = Mass-market Producer

U = User

P = Principal voter

A = Alternate voter

I = Individual voter

O = Observer