



ESTA Standards Watch

Late January 2019

Volume 23, Number 2

Table of Contents

ETCP Portable Power Distribution Certification Exams in French.....	1
FCC News: Open Meeting.....	1
WTO Technical Barrier to Trade Notifications—for now.....	2
Mexico Notification MEX/444.....	2
El Salvador Notification SLV/203.....	3
ANSI Public Review Announcements.....	3
Due 17 February 2019.....	3
Due 4 March 2019.....	4
BSI Public Review Announcements.....	4
Due 07 February 2019.....	4
Due 15 February 2019.....	4
Due 20 February 2019.....	4
DIN Public Review Announcement.....	5
New ANS Projects.....	5
Final Actions on American National Standards.....	6
Draft IEC & ISO Documents.....	7
Recently Published IEC & ISO Documents.....	7
TSP Meeting Schedule.....	8
TSP Donors Who Have Made Long-Term, Multi-Year Pledges.....	8
Investors in Innovation, supporters of ESTA's Technical Standards Program.....	9

ETCP Portable Power Distribution Certification Exams in French

The Entertainment Technician Certification Program (ETCP) has announced that the exams for Portable Power Distribution Technician Examination will be available in French as of spring 2019. The French certification exams will be launched in paper and pencil format and made available for computer-based testing thereafter.

Candidates are reminded that there is now a less stringent work requirement for this certification. Last year, the ETCP Certification Council lowered the eligibility requirements for candidates applying to take the PPDT examination to 20 points, from the original 25 points.

More information about the ETCP and links to sign up for examinations are available at <https://etcp.esta.org/>

FCC News: Open Meeting

The Federal Communications Commission is temporarily back in business, and has moved up some things on its agenda to get them done before funding is cut off again—maybe or maybe not—on February 15. The Open Meeting that would normally be held on February 21 has been moved forward to February 14 to avoid a possible shut-down.

The Open Meeting is scheduled to commence at 10:30 a.m. EST in the Commission Meeting Room (Room TW-C305) of the Federal Communications Commission, 445 12th Street, S.W., Washington, D.C. While the Open Meeting is open to the public, the FCC headquarters building is not open access, and all guests must check in with and be screened by FCC security at the main entrance on 12th Street. Open Meetings are streamed live at www.fcc.gov/live and can be followed on social media with #OpenMtgFCC.

The FCC has published the draft text of each item expected to be considered at the next Open Commission Meeting. One-page cover sheets are included in the public drafts to help summarize each item. All the materials for this next meeting were released in January, but not acted on then due to the shut-down, and are available on the FCC's Open Meeting page at www.fcc.gov/openmeeting

The agenda for the February 14 meeting includes these items that may be of interest to *Standards Watch* readers:

- Transitioning to CAF Phase II Auction Support in Price Cap Areas – The Commission will consider a Report and Order establishing a schedule to end Connect America Fund (CAF) Phase I support in price cap areas (WC Docket No. 10-90)
- Licensing Noncommercial Educational Broadcast and Low Power FM Stations – The Commission will consider a Notice of Proposed Rulemaking proposing revisions to the Commission's NCE and LPFM comparative processing and licensing rules. (MB Docket No. 19-3)
- Internet Protocol Captioned Telephone Service (IP CTS) – The Commission will consider a Report and Order, Further Notice of Proposed Rulemaking, and Order adopting some measures, and seeking comment on others, to enhance program management, prevent waste, fraud, and abuse, and improve emergency call handling in the IP CTS program. (CG Docket Nos. 13-24, 03-123)
- Anti-Spoofing Provisions of the RAY BAUM'S Act – The Commission will consider a Notice of Proposed Rulemaking proposing to amend its Truth in Caller ID rules to implement the anti-spoofing provisions of the RAY BAUM'S Act. (WC Docket Nos. 18-355, 11-39)

WTO Technical Barrier to Trade Notifications—for now

Notify US, the U.S. Department of Commerce's service to announce Technical Barrier to Trade filings, is on-line again, at least until the next threatened government shut-down on February 15. Some TBTs of note are listed below. Check them out while the website is still alive!

If you have a problem with a TBTs, you can protest through your representative to the World Trade Organization. (So far the USA is still a member of the WTO.) See "Guidance for Comment Submissions by U.S. Industry on TBT Notifications" at <http://tsapps.nist.gov/notifyus/data/guidance/guidance.cfm> or <http://ec.europa.eu/growth/tools-databases/tbt/en/tbt-and-you/being-heard/> for advice on filing objections.

Mexico Notification MEX/444

Date issued: 19 December 2018

Agency responsible: Ministry of Energy (SENER)

National inquiry point: Direccion General de Normas (DGN)

Products covered: Lighting equipment that distributes, filters or controls light emitted by one or more light emitting diodes (LEDs) and includes all necessary accessories for mounting, protecting and operating those LEDs (Tariff heading: 854140)

Title: Proyecto de Norma Oficial Mexicana, PROY-NOM-031-ENER-2018, Eficiencia energética para luminarios con led para iluminación de vialidades y áreas exteriores públicas (Draft Mexican Official Standard PROY-NOM-031-ENER-2018: Energy efficiency of LED luminaires for the lighting of roads and highways and outdoor public areas. Specifications and test methods) (36 pages, in Spanish)

Description of content: The notified text sets out specifications and test methods that promote efficient energy use in LED luminaires intended for the lighting of roads and highways and outdoor public areas. It does not apply to products covered by other Mexican Official Standards on energy efficiency, or to those LED luminaires

- whose exclusive light source is screw-base LED bulbs;
- that are for decorative or ornamental lighting of outdoor public areas;
- that are for signaling;

- that are colour changing or monochromatic (green, red, yellow, blue, etc.); that are colour changing or monochromatic (green, red, yellow, blue, etc.); that are to be installed in the ground, underwater, in classified or hazardous areas.

Objective and rationale: The draft Mexican Official Standard sets out specifications and test methods promoting efficient energy use in LED luminaires that are intended for the lighting of roads and highways and outdoor public areas and that are powered by mains electricity or other energy sources such as batteries, accumulators or self-generated energy, with a rated voltage of up to 480 V AC and up to 100 V DC.

Relevant documents: • NOM-008-SCFI-2002, Sistema general de unidades de medida.

- NMX-J-507/2-ANCE-2013, Iluminación Fotometría para luminarios - Parte 2: Métodos de prueba.

- NMX-J-610/4-5-ANCE-2013, Compatibilidad Electromagnética (EMC) Parte 4-5: Técnicas de prueba y medición. Pruebas de inmunidad a impulsos por maniobra o descarga atmosférica.

- NOM-024-SCFI-2013, Información comercial para empaques, instructivos y garantías de los productos electrónicos, eléctricos y electrodomésticos.

Proposed date of adoption: Not given by country

Proposed date of entry into force: Not given by country

Final date for comments: 15 February 2019

Full text: [https://tsapps.nist.gov/notifyus/docs/wto_country/MEX/full_text/pdf/MEX444\(spanish\).pdf](https://tsapps.nist.gov/notifyus/docs/wto_country/MEX/full_text/pdf/MEX444(spanish).pdf)

El Salvador Notification SLV/203

Date issued: 19 December 2018

Agency responsible: Salvadorian Technical Regulation Agency (OSARTEC)

National inquiry point: Ministry of the Economy, Directorate of Trade Treaty Administration

Products covered: Units of measurement

Title: Reglamento Técnico Salvadoreño RTS 01.02.01:18 METROLOGÍA. SISTEMA INTERNACIONAL DE UNIDADES (Salvadoran Technical Regulation RTS 01.02.01:18: Metrology. International System of Units) (22 pages, in Spanish)

Description of content: The notified regulation defines the quantities, units of measurement and symbols corresponding to the International System of Units (SI) and other units outside the SI that have been recognized by the General Conference on Weights and Measures (CGPM). Furthermore, it establishes a common language meeting current requirements with respect to the various measurement activities in the country.

Objective and rationale: Prevention of deceptive practices

Relevant documents: International Organization for Standardization. ISO 80000-1 Quantities and units. Part 1: General. First edition 2009-11-15

Proposed date of adoption: Not given by country

Proposed date of entry into force: Not given by country

Final date for comments: 17 February 2019

Full text: [https://tsapps.nist.gov/notifyus/docs/wto_country/SLV/full_text/pdf/SLV203\(spanish\).pdf](https://tsapps.nist.gov/notifyus/docs/wto_country/SLV/full_text/pdf/SLV203(spanish).pdf)

ANSI Public Review Announcements

The following documents have been announced for public review by ANSI. Please send your comments before the deadline to the person indicated and to ANSI's Board of Standards Review at psa@ansi.org.

Due 17 February 2019

ASSP Z590.5-2019, How to Develop and Implement An Active Shooter/Armed Assailant Plan (technical report)

This technical report provides guidelines on how to develop an emergency response plan dealing with the active shooter/armed assailant scenario and how to best initiate such a plan. Guidance includes prudent measures on how to conduct exercises, protect facilities, train employees in administrative controls, and involve outside resources in the planning and response.

Single copy price: \$110.00

Order from and send comments to: Lauren Bauerschmidt, LBauerschmidt@assp.org

Due 4 March 2019

BSR/CTA/NSF 2052.3-201x, Performance Criteria and Testing Protocols for Features in Sleep Tracking Consumer Technology Devices and Applications (new standard)

This standard addresses performance criteria and testing protocols for features in sleep-tracking consumer technology devices and applications.

Single copy price: Free

Obtain an electronic copy from: standards@cta.tech

Send comments to: Veronica Lancaster, vlancaster@cta.tech

BSI Public Review Announcements

BSI Standards has announced draft documents for public review that might be of interest to *Standards Watch* readers. BSI documents may be commented on at <https://standardsdevelopment.bsigroup.com/>.

Due 07 February 2019

BS PD 6702-1, Structural use of aluminium

This part of PD 6702 gives guidance on the use of the following parts of BS EN 1999, Design of aluminium structures: Part 1 1, General structural rules; Part 1 3, Structures susceptible to fatigue. It is applicable to the same scope of application as BS EN 1999 unless otherwise stated. The design information included in this document is applicable only when the recommendations in PD 6705 3 are followed for the execution of the structure. This document covers those items identified in the UK National Annexes to BS EN 1999-1-1 and BS EN 1999-1-3 as requiring additional guidance. Further material, not necessarily identified in the relevant National Annex, is also given for information.

Due 15 February 2019

BS EN IEC 63129 Determination of inrush current characteristics of lighting products

This document describes a method, based on measurements combined with calculations, to determine specific characteristics of the inrush current of single and/or multiple lighting products of the same type. Lighting products include the following:

- Light sources with integrated controlgear
- Controlgear
- Luminaires.

The inrush current characteristics that are determined are

- the peak inrush current;
- the inrush-current pulse duration.

This document applies to lighting products connected to low-voltage 230 V AC 50/60 Hz electrical supply networks.

Due 20 February 2019

CEN/TC 250 N 2133 , The revision of EN 1993-1-4. 'Eurocode 3: Design of steel structures - Part 1-4: General rules - Supplementary rules for stainless steels'

(1) This Part 1.4 of EN 1993 gives supplementary provisions for the design of buildings and civil engineering works that extend and modify the application of EN 1993-1-1, EN 1993-1-3, EN 1993-1-5 and EN 1993-1-8 to austenitic, austenitic-ferritic and ferritic stainless steels.

CEN/TC 250 N 2134 Eurocode 3: Design of steel structures - Part 1-5: Plated structural elements

(1) EN 1993-1-5 gives design requirements of stiffened and unstiffened plates which are subject to in-plane forces.

(2) Effects due to shear lag, in-plane load introduction and plate buckling for I-section girders and box girders are covered. Also covered are plated structural components subject to in-plane loads as in tanks and silos. The effects of out-of-plane loading are outside the scope of this document.

CEN/TC 250 N 2136 Eurocode 3: Design of steel structures - Part 1-10: Material toughness and through-thickness properties

- (1) EN 1993-1-10 contains design guidance for the selection of steel for fracture toughness and for through thickness properties of welded elements where there is a significant risk of lamellar tearing during fabrication.
- (2) Section 2 applies to steel grades S 235 to S 690. However section 3 applies to steel grades S 235 to S 460 only.
- (3) The rules and guidance given in section 2 and 3 assume that the construction will be executed in accordance with EN 1090.

CEN/TC 250 N 2131 , The revision of EN 1993-1-2 Eurocode 3: Design of steel structures - Part 1-2: General rules - Structural fire design

- (1) EN 1993-1-2 deals with the design of steel structures for the accidental situation of fire exposure and is intended to be used in conjunction with EN 1993-1-1 and EN 1991-1-2. EN 1993-1-2 only identifies differences from, or supplements to, normal temperature design.
- (2) EN 1993-1-2 deals only with passive methods of fire protection.
- (3) EN 1993-1-2 applies to steel structures that are required to fulfil this load bearing function if exposed to fire, in terms of avoiding premature collapse of the structure. NOTE: This part does not include rules for separating elements.
- (4) EN 1993-1-2 gives principles and application rules for designing structures for specified requirements in respect of the load bearing function and the levels of performance.
- (5) EN 1993-1-2 applies to structures, or parts of structures, that are within the scope of EN 1993-1 and are designed accordingly.
- (6) The methods are applicable to structural steel grades S235, S275, S355, S420 and S460 of EN 10025 and all grades of EN 10210 and EN 10219.
- (7) The methods are applicable to cold-formed steel members and sheeting within the scope of EN 1993-1-3.
- (8) The methods are applicable to any steel grade for which material properties at elevated temperatures are available, based on harmonized European standards.
- (9) The methods given are applicable to stainless steel members and sheeting within the scope of EN 1993-1-4.

DIN Public Review Announcement

The Deutsches Institut für Normung has announced a draft document possibly of interest to *Standards Watch* readers. After you register with DIN at <http://www.entwurfe.din.de/>, you may purchase and comment on DIN draft standards. This document will be available for public review from 2019-02-08 to 2019-04-08, and will cost 76.80 €. You can pre-order it now from Beuth Verlag. The document is in German.

DIN SPEC 56951, Veranstaltungstechnik - Antrieb und Steuerung für sicherheitstechnische Einrichtungen (Entertainment Technology - Drives and control systems for safety-related equipment)

This DIN SPEC specifies additional provisions and explanations to DIN 56950-1 for protective and safety equipment. The DIN website page announcing the public review gives examples of these “additional provisions” as applying to non-fan-powered smoke extraction systems and protective fire safety curtains for the stage and side stages. However, a perusal of the table of contents (in German) shows that it also covers devices for safely holding loads above persons and braking devices for lowering loads—which is more than fire safety curtains and smoke vents.

New ANS Projects

ANSI has announced the following new projects that might materially affect *Standards Watch* readers—or at least be interesting to them. Contact the developer if you (a) want to be involved in the project, (b) object to the project and wish it to be abandoned, or (c) if you would like to point out that its scope is covered by an existing standard, thereby possibly making the project redundant or conflicting.

BSR/FM 3260-201x, Energy-Sensing Fire Detectors for Automatic Fire Alarm Signaling (revision and redesignation of ANSI/FMRC FM 3260-2004 (R2014))

This standard sets performance requirements for radiant energy-sensing fire detectors used for automatic fire alarm signaling for the protection of occupants, building space, structure, area, or object. Project Need: Clarify test requirements for radiant-energy-sensing fire detectors used for automatic fire alarm signaling.

Contact: Josephine Mahnken, josephine.mahnken@fmapprovals.com

BSR/IES LM-C303-201x, IES Guide to Application Distance Specific Radiometry (new standard)

To establish the measurement and data application methodologies for characterizing planar distributions of illuminance, irradiance, or photon irradiance (i.e., photon flux density) at application distances, and for creating distance-specific IES files by application. The purpose is to obtain the illuminance, irradiance, or photon irradiance measurement data in laboratory environments for the horticultural, UV disinfection, back illumination of displays, task lighting, and other applications where the irradiance information is needed.

Contact: Patricia McGillicuddy, pmcgillicuddy@ies.org

Final Actions on American National Standards

The documents listed below have been approved by the ANSI Board of Standards Review or by an ANSI-Audited Designator on the date noted.

INCITS/ISO/IEC 9075-3:2016 [2018], Information technology - Database languages - SQL - Part 3: Call-Level Interface (SQL/CLI) (identical national adoption of ISO/IEC 9075-3:2016 and revision of INCITS/ISO/IEC 9075-3:2008 [R2013]): 31 December 2018

INCITS/ISO/IEC 9594-1:2017 [2018], Information technology - Open Systems Interconnection - The Directory - Part 1: Overview of concepts, models and services (identical national adoption of ISO/IEC 9594-1:2017 and revision of INCITS/ISO/IEC 9594-1:2008 [2013]): 31 December 2018

INCITS/ISO/IEC 9594-2:2017 [2019], Information technology - Open Systems Interconnection - The Directory - Part 2: Models (identical national adoption of ISO/IEC 9594-2:2017 and revision of INCITS/ISO/IEC 9594-2:2008 [2013]): 1/9/2019

INCITS/ISO/IEC 9594-3:2017 [2018], Information technology - Open Systems Interconnection - The Directory - Part 3: Abstract service definition (identical national adoption of ISO/IEC 9594-3:2017 and revision of INCITS/ISO/IEC 9594-3:2008 [2013]): 31 December 2018

INCITS/ISO/IEC 9594-4:2017 [2018], Information technology - Open Systems Interconnection - The Directory - Part 4: Procedures for distributed operation (identical national adoption of ISO/IEC 9594 -4:2017 and revision of INCITS/ISO/IEC 9594-4:2008 [2013]): 31 December 2018

INCITS/ISO/IEC 9594-5:2017 [2018], Information technology - Open Systems Interconnection - The Directory - Part 5: Protocol specifications (identical national adoption of ISO/IEC 9594-5:2017 and revision of INCITS/ISO/IEC 9594-5:2008 [2013]): 31 December 2018

INCITS/ISO/IEC 9594-6:2017 [2018], Information technology - Open Systems Interconnection - The Directory - Part 6: Selected attribute types (identical national adoption of ISO/IEC 9594-6:2017 and revision of INCITS/ISO/IEC 9594-6:2000 [2013]): 31 December 2018

INCITS/ISO/IEC 9594-7:2017 [2018], Information technology - Open Systems Interconnection - The Directory - Part 7: Selected object classes (identical national adoption of ISO/IEC 9594-7:2017 and revision of INCITS/ISO/IEC 9594-7:2008 [2013]): 31 December 2018

INCITS/ISO/IEC 9594-8:2017 [2018], Information technology - Open Systems Interconnection - The Directory - Part 8: Public-key and attribute certificate frameworks (identical national adoption of ISO/IEC 9594-8:2017 and revision of INCITS/ISO/IEC 9594-8:2008 [2013]): 31 December 2018

INCITS/ISO/IEC 9594-9:2017 [2018], Information technology - Open Systems Interconnection - The Directory - Part 9: Replication (identical national adoption of ISO/IEC 9594-9:2017 and revision of INCITS/ISO/IEC 9594-9:2008 [2013]): 31 December 2018

Draft IEC & ISO Documents

This section lists proposed documents that the International Electromechanical Commission (IEC) or the International Organization for Standardization (ISO) are considering for approval. *Standards Watch* readers interested in reviewing and commenting on a document should order a copy from their national representative and submit their comments through them. Comments from US citizens on IEC and ISO documents should be sent to Charles T. Zegers at czegers@ansi.org and Karen Hughes at isot@ansi.org respectively. Any prices, if shown, are for purchases through ANSI. The sort order is by due date then alphanumeric.

ISO/DIS 24550, Ergonomics - Accessible design - Indicator lights on consumer products, 4 February 2019, \$46.00

ISO/DIS 24551, Ergonomics - Accessible design - Spoken instructions of consumer products, 4 February 2019, \$46.00

14/995/FDIS, IEC 60076-22-3 ED1: Power transformers - Part 22-3: Power transformer and reactor fittings - Insulating liquid to air heat exchangers, 15 February 2019

14/996/FDIS, IEC 60076-22-4 ED1: Power transformers - Part 22-4: Power transformer and reactor fittings - Insulating liquid to water heat exchangers, 15 February 2019

82/1547/CD, IEC TS 62257-12-1 ED3: Renewable energy and hybrid systems for rural electrification - Part 12-1: Recommendations for selection of lamps and lighting appliances for off-grid electricity systems, 1 March 2019

121/44/DTR, IEC TR 63196 ED1: Switchgear and controlgear and their assemblies for low-voltage - Energy efficiency, 8 March 2019

2/1933/CDV, IEC 60034-2-3 ED1: Rotating electrical machines - Part 2 -3: Specific test methods for determining losses and efficiency of converter-fed AC motor, 29 March 2019

22G/381/CD, IEC 61800-1 ED2: Adjustable speed electrical power drive systems - Part 1: General requirements - Rating specifications for low voltage adjustable speed DC power drive systems, 29 March 2019

ISO/DIS 4948, Classification of steel based on chemical composition, 5 April 2019, \$46.00

Recently Published IEC & ISO Documents

Listed here are documents recently approved by the IEC or ISO. Prices are if bought from ANSI.

ISO/IEC 23000-19/Amd2:2019, Information technology - Multimedia application format (MPEG-A) - Part 19: Common media application format (CMAF) for segmented media - Amendment 2: XHE-AAC and other media profiles, \$19.00

ISO/IEC 23001-14:2019, Information technology - MPEG systems technologies - Part 14: Partial file format, \$138.00

ISO/TR 23413:2019, Resistance welding - Overview of standards for resistance welding, \$68.00

TSP Meeting Schedule

The most up to date schedule sorted by day is available at <http://www.esta.org/>. The following meetings will be at the Hyatt Regency Louisville, in conjunction with the USITT Conference:

Floors Working Group	14:00 – 17:00	Wednesday 20 March 2019
Stage Machinery Working Group	14:00 – 17:00	Thursday 21 March 2019
Stage Machinery E1.64 TG	09:00 – 13:00	Wednesday 20 March 2019
Rigging Working Group	19:00 – 22:00	Thursday 21 March 2019
Electrical Power Working Group	11:00 – 14:00	Friday 22 March 2019
Technical Standards Council	15:00 – 18:00	Friday 22 March 2019
Followspot Position Working Group	19:00 – 22:00	Friday 22 March 2019
Fog & Smoke Working Group	09:00 – 11:00	Saturday 23 March 2019
Event Safety Working Group	14:00 – 18:00	Saturday 23 March 2019

TSP Donors Who Have Made Long-Term, Multi-Year Pledges

About the Stage
 Altman Lighting
 Barbizon Lighting Company
 B-Hive Industries
 Scott Blair
 BMI Supply
 Boston Illumination Group
 Candela Controls
 Chauvet
 City Theatrical
 Clark-Reder Engineering
 Columbus McKinnon Corporation
 Tracey Cosgrove and Mark McKinney
 Bruce Darden
 Doug Fleenor Design
 Earl Girls Inc. EGI Pro
 Electronic Theatre Controls
 Entertainment Project Services
 Geiger Engineers, PC
 Tony Giovannetti
 GLP German Light Products
 Golden Sea Professional Equipment Limited
 H & H Specialties
 Harlequin Floors
 High Output
 Neil Huff
 Hughston Engineering
 IATSE Local 891
 InCord
 Beverly and Tom Inglesby
 Interactive Technologies
 InterAmerica Stage
 iWeiss Inc.
 J.R. Clancy
 Jules Lauve
 Brian Lawlor
 Lex Products

Lycian Stage Lighting
 John T. McGraw
 McLaren Engineering Group
 Mike Garl Consulting
 Mike Wood Consulting
 Morpheus Lights
 NAMM
 Niscon
 Oasis Stage Werks
 Reed Rigging
 Reliable Design Services
 Robe
 Rosco Laboratories
 Rose Brand
 Alan M. Rowe
 David Saltiel
 Sapsis Rigging
 Stage Equipment & Lighting
 Stage Rigging
 Stagemaker
 Stageworks
 Syracuse Scenery and Stage Lighting, Co.
 Dana Taylor
 Steve Terry
 Texas Scenic Company
 Theatre Projects Consultants
 Theatre Safety Programs
 TMB
 Tyler Truss Systems
 Vertigo
 Vincent Lighting Systems
 Steve Walker & Associates
 Walt Disney Parks and Resorts
 Westview Productions
 WNP Services, Inc.
 XSF Xtreme Structures and Fabrication

Investors in Innovation, supporters of ESTA's Technical Standards Program

VISIONARY LEADERS (\$50,000 & up)

ETC

ProSight Specialty Insurance

VISIONARY (\$10,000 & up; >100 employees/members)

Chauvet Professional

Cisco

Columbus McKinnon Entertainment Technology

Martin by Harman

Robe

Walt Disney Parks and Resorts

VISIONARY (\$5,000 & up; 20–100 employees/members)

Altman Lighting, Inc.

German Light Products

JR Clancy

McLaren Engineering Group

Rose Brand

Stage Rigging

TMB

Tyler Truss Systems, Inc.

VISIONARY (\$500 & up; <20 employees/members)

About the Stage

B-Hive Industries, Inc.

Scott Blair

Boston Illumination Group

Louis Bradfield

Candela Controls Inc.

Clark Reder Engineering

Tracey Cosgrove & Mark McKinney

Doug Fleenor Design

EGI Event Production Services

Entertainment Project Services

Neil Huff

Hughston Engineering Inc.

Interactive Technologies

Lankey & Limey Ltd.

Jules Lauve

Brian Lawlor

Michael Lay

Limelight Productions, Inc.

Link

John T. McGraw

Mike Garl Consulting

Mike Wood Consulting

Power Gems

Reed Rigging

Reliable Design Services

Alan Rowe

David Saltiel

Sapsis Rigging Inc.

Stageworks

Dana Taylor

Steve Terry

Theatre Projects

Theatre Safety Programs

Vertigo

Steve A. Walker & Associates

Westview Productions

WNP Services

INVESTOR (\$3,000–\$9,999; >100 employees/members)

Actors' Equity Association

Barbizon Lighting Company

Golden Sea Professional Lighting Provider

IATSE Local 728

IATSE Local 891

Lex

NAMM

Rosco Laboratories

Texas Scenic Company

INVESTOR (\$1,500–\$4,999; 20–100 employees/members)

American Society of Theatre Consultants

Area Four Industries

BMI Supply

City Theatrical Inc.

H&H Specialties, Inc.

InterAmerica Stage, Inc.

Lycian Stage Lighting

Morpheus Lights

Niscon Inc.

Syracuse Scenery and Stage Lighting

Tomcat

XSF Xtreme Structures and Fabrication

INVESTOR (\$200–\$499; <20 employees/members)

Benjamin Cohen

Bright Ideas Custom Electronics Inc.

Bruce Darden

Guangzhou Ming Jing Lighting Equipment Co.

K5600, Inc.

Indianapolis Stage Sales & Rentals, Inc.

Qdot Lighting Ltd.

Robert Scales

Stephen Vanciel

Suga Koubou Co., Ltd.

VU-Industry Vision Technology

Xpro Light

SUPPORTER (<\$3,000; >100 employees/members)

Ian Foulds, IATSE Local 873
Harlequin Floors

Thern Stage Equipment
USAI Lighting

SUPPORTER (<\$1,500; 20–100 employees/members)

Blizzard Lighting, LLC
Geiger Engineers
Guangzhou YaFeng Optoelectronic Equipment Co.
High Output
InCord
iWeiss
[Nanshi Lighting](#)

Oasis Stage Werks
Stage Equipment & Lighting
Stagemaker
Thermotex Industries, Inc.
Vincent Lighting Systems
Zhuhai Shengchang Electronics Co.

SUPPORTER (<\$200; <20 employees/members)

Roy Bickel
DMX Pro Sales
Tony Giovannetti
Pat Grenfell
Mitch Hefter
John Huntington
Beverly and Tom Inglesby
Eddie Kramer
Jason Kyle

Tyrone Mellon, Jr.
Lizz Pittsley
Showman Systems
Michael Skinner
Skjonberg Controls Inc.
Stage Labor of the Ozarks
Tracy Underhill
Charlie Weiner

Planned Giving donor: Ken Vannice

ESTA Standards Watch

is distributed as a benefit to ESTA members and as a communication medium for participants in ESTA's Technical Standards Program. Original material is copyright the Entertainment Services and Technology Association.

Editors:

Karl G. Ruling, Technical Standards Manager
Entertainment Services and Technology Association
630 Ninth Avenue, Suite 609
New York, NY 10036
USA
karl.ruling@esta.org
1 212 244 1505 ext. 703
Fax 1 212 244 1502

Richard Nix, Asst. Technical Standards Manager
Entertainment Services and Technology Association
630 Ninth Avenue, Suite 609
New York, NY 10036
USA
richard.nix@esta.org
1 212 244 1505 ext. 649
Fax 1 212 244 1502