



Technical Standards Program

ESTA Standards Watch

Late January 2024

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WTO Technical Barriers to Trade notifications

The World Trade Organization has announced Technical Barrier to Trade filings that may be of interest to *Standards Watch* readers. If you have a problem with a TBT, you can protest through your representative to the World Trade Organization.

European Union Notification EU/1043

Notification date: 22 January 2024

Agency responsible: European Commission

Enquiry point: grow-eu-tbt@ec.europa.eu, <http://ec.europa.eu/growth/tools-databases/tbt/en/>

Products covered: Radio equipment for terrestrial systems capable of providing wireless broadband electronic communications services.

Title: Draft Commission Implementing Decision on the harmonisation of the 40,5-43,5 GHz frequency band for terrestrial systems capable of providing wireless broadband electronic communications services in the Union (8 pages and 6 pages in English)

Description of content: This draft Commission Implementing Decision requires EU Member States to designate and make available the 40,5 - 43,5 GHz frequency band for terrestrial systems capable of providing wireless broadband electronic communications services (including 5G), in accordance with the technical conditions set out in the Annex to the Decision.

Objective and rationale: This draft Commission Implementing Decision sets out the harmonised technical conditions to enable the use of the 40,5-43,5 GHz frequency band for terrestrial systems capable of providing wireless broadband electronic communications services in accordance with the technical conditions set out in the Annex.

Proposed date of adoption: July 2024

Proposed date of entry into force: July 2024

Final date for comments: 60 days from notification, 23 March 2024

Text available at: <http://ec.europa.eu/growth/tools-databases/tbt/en/>
https://members.wto.org/crnattachments/2024/TBT/EEC/24_00670_00_e.pdf
https://members.wto.org/crnattachments/2024/TBT/EEC/24_00670_01_e.pdf

Canada Notification CAN/712

Notification date: 30 January 2024

Agency responsible: Department of Innovation, Science and Economic Development

Enquiry point: enquiry@international.gc.ca

Comments can also be submitted by email in electronic format (Microsoft Word or Adobe PDF)

consultationradiostandards-consultationnormesradio@ised-isde.gc.ca

Products covered: Telecommunications

Title: Consultation on RSS-295, Issue 1 (4 pages in English), (4 page in French)

Description of content: Notice is hereby given by the Ministry of Innovation, Science and Economic Development Canada has amended the following standard:

RSS-295, issue 1, Licence-Exempt Radio Apparatus Operating in the Frequency Bands 116-123 GHz, 174.8-182 GHz, 185-190 GHz and 244-246 GHz, sets out the requirements for the certification of licence-exempt devices operating in the frequency bands 116-123 GHz, 174.8-182 GHz, 185-190 GHz and 244-246 GHz.

Objective and rationale: Consultation

Proposed date of adoption: Not applicable

Proposed date of entry into force: Not applicable

Final date for comments: 5 April 2024

Texts available: The electronic version of the regulatory text can be found and comments be submitted at <https://www.rabc-cccr.ca/ised-radio-standards-specification-rss-295-issue-1-licence-exempt-radio-apparatus-operating-in-the-frequency-bands-116-123-ghz-174-8-182-ghz-185-190-ghz-and-244-246-ghz/> (English)
[https://www.rabc-cccr.ca/fr/isde-cahier-des-charges-sur-les-normes-radioelectriques-cnr-295-1e-edition-appareils-radio-exempts-de-licence-fonctionnant-dans-les-bandes-de-frequences-116-a-123-ghz-1748-a-182-ghz-185-a-190-ghz/](https://www.rabc-cccr.ca/fr/isde-cahier-des-charges-sur-les-normes-radioelectriques-cnr-295-1e-edition-appareils-radio-exempts-de-licence-fonctionnant-dans-les-bandes-de-frequences-116-a-123-ghz-1748-a-182-ghz-185-a-190-gh/) (French)

ANSI public review announcements

The following documents have been announced for public review by ANSI and may be of material interest to *Standards Watch* readers. If you have comments on them, please send your comments before the deadline to the person indicated and to ANSI's Board of Standards Review at psa@ansi.org.

Due 4 March 2024

BSR/ASHRAE Addendum cs to ANSI/ASHRAE Standard 135-2020, BACnet - A Data Communication Protocol for Building Automation and Control Networks (addenda to ANSI/ASHRAE Standard 135-2020)

With the addition of the BACnet/SC data link, an interoperable, out-of-band method to exchange Certificate Signing Request (CSR) files and the resulting Operational and Issuer certificate files between a device, or its proxy, and a Certificate Authority are required. This addendum provides a simple structured file format to exchange these files using the ZIP file format to compress the folders and files into a request and response file.

Single copy price: \$35.00

Obtain an electronic copy from: <http://www.ashrae.org/standards-research--technology/public-review-drafts>

Send comments to: <http://www.ashrae.org/standards-research--technology/public-reviewdrafts>

Due 19 March 2024

INCITS/ISO/IEC 1539-1:2023 [202x], Programming Languages - Fortran - Part 1: Base Language (identical national adoption of ISO/IEC 1539-1:2023 and revision of INCITS/ISO/IEC 1539-1:2018 [2019])

Specifies the form and establishes the interpretation of programs expressed in the base Fortran language. The purpose of this document is to promote portability, reliability, maintainability, and efficient execution of Fortran programs for use on a variety of computing systems. This document specifies the forms that a program written in the Fortran language can take, the rules for interpreting the meaning of a program and its data, the form of the input data to be processed by such a program, and the form of the output data resulting from the use of such a program.

Single copy price: \$263.00

Obtain an electronic copy from: <http://webstore.ansi.org>

Send comments to: Barbara Bennett <comments@standards.incits.org>

INCITS/ISO/IEC 24392:2023 [202x], Cybersecurity - Security reference model for industrial internet platform (SRM- IIP) (identical national adoption of ISO/IEC 24392:2023)

Presents specific characteristics of industrial internet platforms (IIPs), including related security threats, context-specific security control objectives and security controls. This document covers specific security concerns in the industrial context and thus complements generic security standards and reference models. In particular, this document includes secure data collection and transmission among industrial devices, data security of industrial cloud platforms, and secure collaborations with various industry stakeholders.

Single copy price: \$183.00

Obtain an electronic copy from: <http://webstore.ansi.org>

Send comments to: Barbara Bennett <comments@standards.incits.org>

INCITS/ISO/IEC 27071:2023 [202x], Cybersecurity - Security recommendations for establishing trusted connections between devices and services (identical national adoption of ISO/IEC 27071:2023)

Provides a framework and recommendations for establishing trusted connections between devices and services based on hardware security modules. It includes recommendations for components such as: hardware security module, roots of trust, identity, authentication and key establishment, remote attestation, data integrity and authenticity. This document is applicable to scenarios that establish trusted connections between devices and services based on hardware security modules.

Single copy price: \$157.00

Obtain an electronic copy from: <http://webstore.ansi.org>

Send comments to: Barbara Bennett <comments@standards.incits.org>

Due 26 March 2024

BSR/ASME Y14.3-2012 (R202x), Orthographic and Pictorial Views (reaffirmation of ANSI/ASME Y14.3-2012 (R2018))

This standard establishes the requirements for creating orthographic, and pictorial views for product definition. Topics include the multiview system of drawing, selection, and arrangement of orthographic views, auxiliary views, section views, details, pictorial views, and conventional representation of features for constructed views, and saved views. Space geometry and space analysis and applications are included in the appendices. Methods for constructing orthographic and pictorial views are out of scope.

Single copy price: \$72.00

Order from: <https://cstools.asme.org/csconnect/PublicReviewPage.cfm>

Send comments to: Fredric Constantino <constantinof@asme.org>

BSI public review announcements

The following draft British Standards documents have been announced for public review by BSI and may be of material interest to *Standards Watch* readers. The list includes National British Standards in development and National Adoptions of existing standards. Submit comments online, before the comment deadline, using BSI's Standards Development Portal. Registration is free of charge at <https://standardsdevelopment.bsigroup.com/>.

Due 14 February 2024

BS EN IEC 60335-2-123 Ed.1.0, Household and similar electrical appliances - Safety. Part 2-123: Particular requirements for robots

This part of IEC 60335 deals with the reasonably foreseeable hazards and safety presented by the application of robotic technology to appliances for household and similar purposes under IEC TC 61 that are encountered by all persons. These resulting robots and mobile robots intended for household and similar purposes, have a rated voltage being not more than 250 V for single-phase appliances and 480 V for other appliances, including direct current (DC) supplied appliances and battery-operated appliances. This standard covers appliances for indoor use.

New ANS projects

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

BSR/AWC SDPWS-202x, Special Design Provisions for Wind and Seismic (revision and redesignation of ANSI/AWC SDPWS-2021)

Provides special design and construction requirements for wind and seismic design of wood structures.

Contact Bradford Douglas <bdouglas@awc.org>

BSR/IEEE 902-202x, Recommended Practice for Maintenance and Operational Safety of Electrical Power Distribution Systems in Industrial and Commercial Facilities (new standard)

This document covers the maintenance, operation, and operational safety of electrical power distribution systems within industrial and commercial facilities. This document provides recommendations for an effective maintenance program and safe facility operations for reliable electrical distribution systems in the facility. It does not include specific maintenance methods and frequencies or recommendations on personal protective equipment (PPE) for protection from electrical hazards.

Contact Suzanne Merten <s.merten@ieee.org>

BSR/IEEE 3426-202x, Standard for Defining and Measuring the Capabilities of AI Foundation Models (new standard)

With the growing complexity of AI foundation models, there is a need for a standardized approach to understand and measure their capabilities. This standard will fill the existing gap, providing a comprehensive and scientifically sound approach that aligns both human and machine intelligence. This standard defines and provides criteria to measure the capabilities of foundation models. The standard focuses on measurable and objective capabilities such as perception-oriented capabilities, cognitive capabilities, and learning capabilities. The standard provides guidelines for evaluating these capabilities, drawing inspiration from human intelligence quotient (IQ) definition and measurement, and includes:

- Definition of key capabilities pertinent to foundation models;
- Standardized methods and metrics for evaluating perception-oriented, cognitive, and learning capabilities;
- Framework for comparing different models based on their cognitive capabilities;
- Ethical considerations and potential biases in the evaluation process.

Contact Suzanne Merten <s.merten@ieee.org>

BSR/IEEE 3428-202x, Standard for Large Language Model Agents for AI-powered Education (new standard)

As Large Language Models find increasing application in educational technology, a standard is needed to: (1) Enable that these agents are designed and deployed in a manner that is effective, ethical, and aligned with educational goals; (2) Facilitate interoperability between different LLM agents and existing educational technology infrastructure; (3) Provide measurable criteria for the evaluation of these agents in educational settings. This standard provides: (1) Agent Components: The building blocks and architectural elements that constitute an educational Large Language Model (LLM) agent; (2) Agent Interoperability Protocols: A communication protocol for interaction between different LLM agents and other components in the educational ecosystem; (3) Agent Life Cycle and States: Definitions of and standardized stages of deployment, operation, and retirement of educational LLM agents; (4) Foundation Models and LLM Embedding Mechanisms: Guidelines for embedding and customizing foundation models within educational environments; (5) Evaluation of Education LLM Agents: Metrics and benchmarks for assessing the effectiveness, efficiency, and ethical considerations of LLM agents in educational settings.

Contact Suzanne Merten <s.merten@ieee.org>

BSR/IEEE C37.231-202x, Standard Common Format for Documenting Intelligent Electronic Device (IED) Firmware or Software Changes and Confirming Their Transmittal (new standard)

The state of the art has changed significantly since the original recommended practice was published in 2006. A standard reflecting modern methods is needed in light of the Solar Winds cyber security attack on a software manufacturer that penetrated thousands of organizations globally. Industry cyber security standards, either mandated by regulators or being voluntarily followed by users, include a change management program that

necessitates a common format and content for information sharing so that users can confidently receive the shared information from manufacturers and then perform an effective evaluation of the shared information and firmware or software. With a common format and content specified in a standard, manufacturers can be confident they are sharing information in a way that meets the requirements of a broad set of users. With a secure and reliable method of transmittal specified, users can be confident in the integrity and authenticity of the updated firmware or software along with the information shared. This standard defines a common format and content for manufacturers of Intelligent Electronic Devices (IEDs) used in protection, automation, and control systems to document the changes in firmware or software to support users in their change management programs. The common format and content includes documenting each change with a classification and impact assessment on the performance, reliability (security and dependability), and functionality of an IED. Exchange requirements include the methods implemented by the manufacturers so that users can confirm the authenticity and integrity of the firmware or software itself along with the shared information.

Contact Suzanne Merten <s.merten@ieee.org>

BSR/NFPA 1-202x, Fire Code (revision of ANSI/NFPA 1-2024)

The scope includes, but is not limited to, the following:

- (1) Inspection of permanent and temporary buildings, processes, equipment, systems, and other fire and related life safety situations
- (2) Investigation of fires, explosions, hazardous materials incidents, and other related emergency incidents
- (3) Review of construction plans, drawings, and specifications for life safety systems, fire protection systems, access, water supplies, processes, hazardous materials, and other fire and life safety issues
- (4) Fire and life safety education of fire brigades, employees, responsible parties, and the general public
- (5) Existing occupancies and conditions, the design and construction of new buildings, remodeling of existing buildings, and additions to existing buildings
- (6) Design, installation, alteration, modification, construction, maintenance, repairs, servicing, and testing of fire protection systems and equipment
- (7) Installation, use, storage, and handling of medical gas systems
- (8) Access requirements for fire department operations
- (9) Hazards from outside fires in vegetation, trash, building debris, and other materials
- (10) Regulation and control of special events including, but not limited to, assemblage of people, exhibits, trade shows, amusement parks, haunted houses, outdoor events, and other similar special temporary and permanent occupancies. . . .

Contact Dawn Michele Bellis <dbellis@nfpa.org>

BSR Z223.1/NFPA 54-2027-202x, National Fuel Gas Code (revision of ANSI Z223.1/NFPA 54-2023)

The code offers criteria for the installation and inspection of fuel gas piping, venting systems, combustion air and fuel gas appliances. Its intent is to promote public safety by providing minimum requirements for the safe and satisfactory utilization of fuel gas downstream of the point of delivery from a gas utility or LP supplier.

Contact Luis Escobar <lescobar@aga.org>

BSR/NFPA 101-202x, Life Safety Code (revision of ANSI/NFPA 101-2024)

Title. NFPA 101, Life Safety Code, shall be known as the Life Safety Code, is cited as such, and shall be referred to herein as “this Code” or “the Code.” [That’s all she wrote.]

Contact Dawn Michele Bellis <dbellis@nfpa.org>

BSR/NFPA 140-202x, Standard on Motion Picture and Television Production Studio Soundstages, Approved Production Facilities, and Production Locations (revision of ANSI/NFPA 140-2024)

This standard shall address fire protection, property protection, and life safety in motion picture and television industry soundstages, approved production facilities, and production locations. Practices, processes, materials, and facilities that are addressed by other NFPA standards shall be governed by those standards unless modified herein.

Contact Dawn Michele Bellis <dbellis@nfpa.org>

BSR/NFPA 1026-202x, Standard for Incident Management Personnel Professional Qualifications (revision of ANSI/NFPA 1026-2024)

This standard identifies the minimum job performance requirements (JPRs) for Incident Management Personnel. Contact Dawn Michele Bellis <dbellis@nfpa.org>

BSR/NFPA 1660-202x, Standard for Emergency, Continuity, and Crisis Management: Preparedness, Response, and Recovery (revision of ANSI/NFPA 1660-2024)

This standard establishes a common set of criteria for emergency management and business continuity programs; mass evacuation, sheltering, and re-entry programs; and the development of pre-incident plans for personnel responding to emergencies.

Contact Dawn Michele Bellis <dbellis@nfpa.org>

BSR/NFPA 5000-202x, Building Construction and Safety Code (revision of ANSI/NFPA 5000-2024)

The Code addresses those construction, protection, and occupancy features necessary to minimize danger to life and property. The provisions of this document shall constitute and be known as NFPA 5000, hereinafter referred to as “this Code” or “the Code.”

Contact Dawn Michele Bellis <dbellis@nfpa.org>

BSR/UL 3141-202x, Standard for Safety for Power Control Systems (new standard)

There is a need for a standard to address Distributed Energy Resource (DER) systems which are becoming increasingly complex and now include numerous mandatory grid support functions that control active or reactive power/currents. In addition, new utility interconnection requirements are being established in California and Hawaii that limit the allowable steady-state power/currents that can be imported or exported from the Point of Common Coupling (PCC). The electrification of the transportation sector will place significant new demands on the utility grid increasing the importance of DER and load management in the safe, reliable, and cost-effective operation of the grid. An additional key issue addressed by this standard is the need for an increased level of functional reliability of DER and load management to prevent overloading of busbars and conductors on the premises wiring as well as utility owned assets serving the facility. This first issue of the Standard for Power Control Systems, UL 3141, is intended to be a joint standard for the US and Canada. These requirements cover Power Control Systems (PCS) used in Distributed Energy Resource (DER) systems which include one or more power sources in addition to the primary power source, typically the utility grid. The requirements in this standard are intended to evaluate PCS that electronically control power or current flow within power distribution equipment, or within conductors at an external location, via use of external measurement and control devices. The products covered by these requirements are intended to be installed in accordance with the National Electrical Code, NFPA 70, and with the Canadian Electrical Code, Part I Safety Standard for Electrical Installations, CSA C22.1.

Contact Susan Malohn <Susan.P.Malohn@ul.org>

Final actions on American National Standards

The documents listed below may be of interest to *Standards Watch* readers and have been approved by the ANSI Board of Standards Review or by an ANSI-Audited Designator on the date noted. “Final actions” means “done for now.” No standard is ever finished.

ANSI H35.1/H35.1 (M)-2024, Alloy and Temper Designation Systems for Aluminum (revision of ANSI H35.1/H35.1 (M)-2017), 11 January 2024

ANSI/ICC/NSSA 500-2023, ICC/NSSA Standard for the Design and Construction of Storm Shelters (revision of ANSI/ICC 500-2020), 12 January 2024

ANSI/IES LS-2-2020 (R2024), Lighting Science: Concepts and Language of Lighting (reaffirmation of ANSI/IES LS-2-2020), 11 January 2024

ANSI/NFPA 2400-2024, Standard for Small Unmanned Aircraft Systems (sUAS) Used for Public Safety Operations (revision of ANSI/NFPA 2400-2019), 10 January 2024

Draft IEC & ISO documents

This section lists documents reported in ANSI's *Standards Action* that the IEC or the ISO or both are considering for approval and that may be of interest to *Standards Watch* readers. Anyone interested in reviewing and commenting should order a copy from their national representative and submit their comments through them. Comments from US citizens on ISO documents must be sent to ANSI's ISO Team (isot@ansi.org), and must be submitted electronically in the approved ISO template as a Word document. US comments on IEC documents should be sent to Tony Zertuche, General Secretary, USNC/IEC, at ANSI's New York offices (tzertuche@ansi.org). ISO and IEC Drafts can be made available by contacting ANSI's Customer Service department, sales@ansi.org.

34A/2386/NP, PNW 34A-2386 ED1: LED lamps – Safety requirements, 02/16/2024 34A/2387/NP, PNW 34A-2387 ED1: LED Light sources -Performance requirements, 16 February 2024

JTC1-SC25/3212/CD, ISO/IEC 24383 ED1: Information technology - Physical network security for the accommodation of customer premises cabling infrastructure and information technology equipment, 8 March 2024

JTC1-SC41/403/CD, ISO/IEC 30187 ED1: Internet of Things (IoT) - Evaluation indicator for IoT systems, 8 March 2024

JTC1-SC43/82/CD, ISO/IEC TR 27599 ED1: Information Technology - Brain-computer Interfaces - Use Cases (approved for initiation of a TR), 8 March 2024

ISO/DIS 18060, Sustainable Tourism - Indicators for organizations in the tourism value chain - Requirements and guidance for use, 28 March 2024, \$102.00

JTC1-SC41/400/CD, ISO/IEC 30186 ED1: Digital twin – Maturity model and guidance for a maturity assessment, 5 April 2024

56/2030/CDV, IEC 62508 ED2: Guidance on human aspects of dependability, 12 April 2024

65C/1286/CDV, IEC 62657-4 ED2: Industrial networks -Coexistence of wireless systems - Part 4: Coexistence management with central coordination of wireless applications, 12 April 2024

Recently published ISO & IEC documents

Listed here are documents recently approved by the ISO or IEC and listed in ANSI's *Standards Action* that may be of use or interest to *Standards Watch* readers. Prices shown are for purchases from the [ANSI Webstore](#).

ISO 15611:2024, Specification and qualification of welding procedures for metallic materials - Qualification based on previous welding experience, \$51.00

ISO 16484-1:2024, Building automation and control systems (BACS) - Part 1: Project specification and implementation, \$157.00

ISO 17651-1:2024, Simultaneous interpreting – Interpreters' working environment - Part 1: Requirements and recommendations for permanent booths, \$116.00

ISO 17651-2:2024, Simultaneous interpreting – Interpreters' working environment - Part 2: Requirements and recommendations for mobile booths, \$77.00

ISO 18646-2:2024, Robotics - Performance criteria and related test methods for service robots - Part 2: Navigation, \$157.00

ISO 24183:2024, Technical communication – Vocabulary, \$157.00

ISO 8025:2024, Ergonomics of the thermal environment -Management of working conditions in hot environments, \$183.00

ISO/IEC 5140:2024, Information technology - Cloud computing -Concepts for multi-cloud and the use of multiple cloud services, \$157.00

ISO/TR 16497-1:2024, Sustainable mobility and transportation -Sustainable mobility services - Part 1: Use cases, \$157.00

ESTA Standards Watch

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If you would like to receive an email notice each time a new edition of *Standards Watch* is published, send a request to standards@esta.org. Find back issues at <http://estalink.us/nn7a1>.

TSP meetings

The next set of TSP working group meetings will be scheduled to coincide with The USITT Conference and Stage Expo in Seattle, Washington. The schedule is not decided yet, but it will be posted at <https://esta.org/ESTA/meetings.php>.

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

This lists the donors who have made contributions in the last 12 months.

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Neil Huff
Interactive Technologies
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Jules Lauve
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Michael Lay
Link
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Mike Garl Consulting
Mike Wood Consulting
Lizz Pitsley
Reed Rigging
Reliable Design Services
Alan Rowe
Sapsis Rigging Inc.
SBS Lighting
Steve A. Walker Associates
Dana Taylor
Steve Terry
Vertigo
WNP Services

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

Actors' Equity Association
Golden Sea Professional Lighting Provider
IATSE Local 728
IATSE Local 891

Lex
NAMM
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
Niscon Inc.
Tomcat Staging, Lighting and Support Systems

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

Baxter Controls, Inc.
ChamSix
Concept Smoke Systems Ltd.
Bruce William Darden
Ian Foulds
Paat Grenfell
Liberal Logic, Inc.
Live Production Indonesia
Luminator Technology Group

Reid Neslage
Ondelight
Jessica Sanders
Shenzhen Pony Systems Tech Co., Ltd.
Sehr Gute GmbH
David Thomas
Techni-Lux
Tracy Underhill
Ralph Weber

SUPPORTER (\$50 - \$2,999; >100 employees/members)

Harlequin Floors

SUPPORTER (\$50 - \$1,499; 20–100 employees/members)

High Output
InCord
iWeiss
Oasis Stage Werks
Stagemaker

Syracuse Scenery and Stage Lighting Co., Inc.
Vincent Lighting Systems
Wuhan Zhongtian Jiaye Mechanical & Electrical Eng.
Co.
Zeraus

SUPPORTER (\$50 - \$199; <20 employees/members)

Chip Scott Lighting Design
DMX Pro Sales
Matthew Douglas III
Beverly and Tom Inglesby
Inventions Guité
KASUGA
Laser AV
Lighting Elements Inc.
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