states that in 1993, these requirements were removed from the STS. In addition, the Administrative Controls section of the STS includes programs not described in the regulation. Based on this, the petitioner proposed to update the description of Administrative Controls to be consistent with the STS.

• Eliminate the unnecessary exceptions for plants licensed prior to 1969. The petitioner states that these exceptions are no longer applicable as all operating plants have TS included in the license. The petitioner suggests that this provision be removed to simplify the regulations.

IV. Conclusion

The NRC has determined that the petition meets the sufficiency requirements for docketing a PRM under 10 CFR 2.803, ''Petition for rulemaking-NRC action.'' The NRC will examine the issues raised in PRM–50–126 and any comments received in response to this comment request to determine whether these issues should be considered in rulemaking. The public can monitor further action on the rulemaking that will address this petition by searching Docket ID NRC–2024–0173 on the Federal rulemaking website, *https://www.regulations.gov*. The site allows members of the public to receive alerts when changes or additions occur in a docket folder. To subscribe: (1) navigate to the docket folder (NRC–2024–0173); (2) click the ''Subscribe'' link; and (3) enter an email address and click on the ''Subscribe'' link. The NRC also tracks the status of all NRC rules and PRMs on its website at *https://www.nrc.gov/about-nrc/regulatory/rulemaking/rules-petitions.html.*

Dated: November 19, 2024.

For the Nuclear Regulatory Commission.

Carrie Safford,

Secretary of the Commission.

[FR Doc. 2024–27422 Filed 11–22–24; 8:45 am]

BILLING CODE 7590–01–P

DEPARTMENT OF ENERGY

10 CFR Parts 429 and 430

[EERE–2024–BT–TP–0010]

RIN 1904–AF67

Energy Conservation Program: Test Procedure for General Service Lamps

AGENCY: Office of Energy Efficiency and Renewable Energy, Department of Energy.

ACTION: Notice of proposed rulemaking and announcement of public meeting.

SUMMARY: The U.S. Department of Energy (''DOE'') proposes several clarifications to the test procedures for general service lamps (''GSLs'') located in appendix W, appendix BB and appendix DD. Specifically, DOE proposes to clarify that GSLs must not be tested as colored lamps, GSLs that can operate at multiple correlated color temperatures (''CCTs'') be tested at one specific CCT, and that lamps with additional components that do not affect light output must be turned off during testing. The proposed clarifications specify that non-integrated lamps be tested with a fluorescent lamp ballast or external driver selected based on compatibility lists and availability; and provide specifications regarding the starting method, ballast factor, number of lamps and references to the relevant industry standards. This rulemaking is limited in scope and is considering clarifications to the current test procedures that are required for certification of compliance with existing applicable GSL energy conservation standards. Further, this rulemaking does not satisfy the Energy Policy and Conservation Act (EPCA) requirement that, at least once every 7 years, DOE review the test procedures for GSLs. DOE is seeking comment from interested parties on the proposal.

DATES: DOE will accept comments, data, and information regarding this proposal no later than December 26, 2024. *See* section V of this document, ''Public Participation,'' for details.

DOE will hold a public meeting if one is requested by December 2, 2024. If a public meeting is requested, DOE will announce its date and participation information on the DOE website and via email.

ADDRESSES: Interested persons are encouraged to submit comments using the Federal eRulemaking Portal at *www.regulations.gov* under docket number EERE–2024–BT–TP–0010. Follow the instructions for submitting comments. Alternatively, interested persons may submit comments, identified by docket number EERE–2024–BT–TP–0010, by any of the following methods:

(1) *Email: GSL2024TP0010@ee.doe.gov*. Include the docket number EERE–2024–BT–TP–0010 in the subject line of the message.

(2) *Postal Mail:* Appliance and Equipment Standards Program, U.S. Department of Energy, Building Technologies Office, Mailstop EE–5B, 1000 Independence Avenue SW, Washington, DC 20585–0121. Telephone: (202) 287–1445. If possible, please submit all items on a compact disc (''CD''), in which case it is not necessary to include printed copies.

(3) *Hand Delivery/Courier:* Appliance and Equipment Standards Program, U.S. Department of Energy, Building Technologies Office, Mailstop EE–5B, 1000 Independence Avenue SW, Washington, DC 20585–0121. Telephone: (202) 287–1445. If possible, please submit all items on a CD, in which case it is not necessary to include printed copies.

No telefacsimiles (''faxes'') will be accepted. For detailed instructions on submitting comments and additional information on this process, see section V of this document.

Docket: The docket for this activity, which includes **Federal Register** notices, public meeting attendee lists and transcripts (if a public meeting is held), comments, and other supporting documents/materials, is available for review at *www.regulations.gov*. All documents in the docket are listed in the *www.regulations.gov* index. However, not all documents listed in the index may be publicly available, such as information that is exempt from public disclosure.

The docket web page can be found at *www.regulations.gov/docket/EERE–2024-BT-TP-0010*. The docket web page contains instructions on how to access all documents, including public comments, in the docket. *See* section V of this document for information on how to submit comments through *www.regulations.gov*.

FOR FURTHER INFORMATION CONTACT:

Mr. Bryan Berringer, U.S. Department of Energy, Office of Energy Efficiency and Renewable Energy, Building Technologies Office, EE–2J, 1000 Independence Avenue SW, Washington, DC 20585–0121. Telephone: (202) 586–0371. Email *ApplianceStandards Questions@ee.doe.gov*.

Ms. Kiana Daw, U.S. Department of Energy, Office of the General Counsel, GC–33, 1000 Independence Avenue SW, Washington, DC 20585–0121. Telephone: (202) 586–4798. Email: *kiana.daw@hq.doe.gov*.

For further information on how to submit a comment, review other public comments and the docket, or participate in a public meeting (if one is held), contact the Appliance and Equipment Standards Program staff at (202) 287–1445 or by email: *ApplianceStandards Questions@ee.doe.gov*.

SUPPLEMENTARY INFORMATION: DOE proposes to maintain previously approved incorporations by reference and to incorporate by reference the

following industry standards into title 10 of the Code of Federal Regulations (''CFR'') part 430:

ANSI C78.53–2019 (R2023), ''ANSI C78.53–2023'', ''American National Standard for Electric Lamps—Performance Specifications for Direct Replacement LED (Light Emitting Diode) Lamps'' approved August 24, 2023.

ANSI C78.901–2016, ''ANSI C78.901–2016'', ''American National Standard for Electric Lamps—Single-Based Fluorescent Lamps—Dimensional and Electrical Characteristics'' approved August 23, 2016.

Copies of ANSI C78.53–2023 and ANSI C78.901–2016 are available at *https://webstore.ansi.org/* or *https://www.ansi.org or https://www.nema.org*.

See section IV.M of this document for a further discussion of these standards.

Table of Contents

I. Authority and Background

GSLs are included in the list of ''covered products'' for which DOE is authorized to establish and amend energy conservation standards and test procedures. (42 U.S.C. 6291(30)(BB); 42 U.S.C. 6291(30)(DD); 42 U.S.C. 6295(i)(6)) GSLs include but are not limited to general service incandescent lamps (''GSILs''), incandescent reflector lamps (''IRLs''), compact fluorescent lamps (''CFLs''), integrated light-emitting diode (''LED'') lamps. DOE's test procedure for GSILs and IRLs are set forth at 10 CFR part 430, subpart B, appendix R (''appendix R''). DOE's test procedure for CFLs is set forth at 10 CFR part 430, subpart B, appendix W (''appendix W''). DOE's test procedure for integrated LED lamps is set forth at 10 CFR part 430, subpart B, appendix BB (''appendix BB''). DOE's test procedure for GSLs that are not GSILs, IRLs, CFLs, or integrated LED lamps is set forth at 10 CFR part 430, subpart B, appendix DD (''appendix DD'').

The following sections discuss DOE's authority to establish and amend test procedures for GSLs and relevant background information regarding DOE's consideration of test procedures for this product.

A. Authority

The Energy Policy and Conservation Act, Public Law 94–163, as amended (''EPCA''),[1] authorizes DOE to regulate the energy efficiency of a number of consumer products and certain industrial equipment. (42 U.S.C. 6291–6317, as codified) Title III, Part B of EPCA [2] established the Energy Conservation Program for Consumer Products Other Than Automobiles, which sets forth a variety of provisions designed to improve energy efficiency. These products include GSLs, the subject of this document. (42 U.S.C. 6295(6))

The energy conservation program under EPCA consists essentially of four parts: (1) testing, (2) labeling, (3) Federal energy conservation standards, and (4) certification and enforcement procedures. Relevant provisions of EPCA specifically include definitions (42 U.S.C. 6291), test procedures (42 U.S.C. 6293), labeling provisions (42 U.S.C. 6294), energy conservation standards (42 U.S.C. 6295), and the authority to require information and reports from manufacturers (42 U.S.C. 6296).

The Federal testing requirements consist of test procedures that manufacturers of covered products must use as the basis for: (1) certifying to DOE that their products comply with the applicable energy conservation standards adopted pursuant to EPCA (42 U.S.C. 6295(s)), and (2) making other representations about the efficiency of those consumer products (42 U.S.C. 6293(c)). Similarly, DOE must use these test procedures to determine whether the products comply with relevant standards promulgated under EPCA. (42 U.S.C. 6295(s))

Federal energy efficiency requirements for covered products established under EPCA generally supersede State laws and regulations concerning energy conservation testing, labeling, and standards. (42 U.S.C. 6297) DOE may, however, grant waivers of Federal preemption for particular State laws or regulations, in accordance with the procedures and other provisions of EPCA. (42 U.S.C. 6297(d))

Under 42 U.S.C. 6293, EPCA sets forth the criteria and procedures DOE must follow when prescribing or amending test procedures for covered products. EPCA requires that any test procedures prescribed or amended under this section be reasonably designed to produce test results which measure energy efficiency, energy use or estimated annual operating cost of a covered product during a representative average use cycle or period of use and not be unduly burdensome to conduct. (42 U.S.C. 6293(b)(3))

EPCA also requires that, at least once every 7 years, DOE evaluate test procedures for each type of covered product, including GSLs, to determine whether amended test procedures would more accurately or fully comply with the requirements for the test procedures to not be unduly burdensome to conduct and be reasonably designed to produce test results that reflect energy efficiency, energy use, and estimated operating costs during a representative average use cycle or period of use. (42 U.S.C. 6293(b)(1)(A))

If the Secretary determines, on her own behalf or in response to a petition by any interested person, that a test procedure should be prescribed or amended, the Secretary shall promptly publish in the **Federal Register** proposed test procedures and afford interested persons an opportunity to present oral and written data, views, and arguments with respect to such procedures. The comment period on a proposed rule to amend a test procedure

[1] All references to EPCA in this document refer to the statute as amended through the Energy Act of 2020, Public Law 116–260 (Dec. 27, 2020), which reflect the last statutory amendments that impact Parts A and A–1 of EPCA.

[2] For editorial reasons, upon codification in the U.S. Code, Part B was redesignated Part A.

shall be at least 60 days and may not exceed 270 days. In prescribing or amending a test procedure, the Secretary shall take into account such information as the Secretary determines relevant to such procedure, including technological developments relating to energy use or energy efficiency of the type (or class) of covered products involved. (42 U.S.C. 6293(b)(2)). If DOE determines that test procedure revisions are not appropriate, DOE must publish its determination not to amend the test procedures. (42 U.S.C. 6293(b)(1)(A)(ii))

In addition, EPCA requires that DOE amend its test procedures for all covered products to integrate measures of standby mode and off mode energy consumption into the overall energy efficiency, energy consumption, or other energy descriptor, unless the current test procedure already incorporates the standby mode and off mode energy consumption, or if such integration is technically infeasible. (42 U.S.C. 6295(gg)(2)(A)(i)–(ii)) If an integrated test procedure is technically infeasible, DOE must prescribe separate standby mode and off mode energy use test procedures for the covered product, if a separate test is technically feasible. (42 U.S.C. 6295(gg)(2)(A)(ii)). Any such amendment must consider the most current versions of the International Electrotechnical Commission (IEC) Standard 62301 [3] and IEC Standard 62087 [4] as applicable. (42 U.S.C. 6295(gg)(2)(A))

DOE is publishing this notice of proposed rulemaking (''NOPR'') to address specific issues and to make minor clarifications to the current test procedures that are required for certification of compliance with applicable GSL energy conservation standards. Further, this proposed rulemaking does not satisfy the EPCA requirement that, at least once every 7 years, DOE review the test procedures for GSLs. (42 U.S.C. 6293(b)(1)(A)).

B. Background

DOE's existing test procedures for GSLs appear at 10 CFR part 430, subpart B, appendix R for GSILs and IRLs, appendix W for CFLs, appendix BB for integrated LED lamps and appendix DD for all GSLs that are not GSILs, IRLs, CFLs, or integrated LED lamps. In this NOPR, DOE proposes clarifications to appendix W, appendix BB, and appendix DD.

On July 1, 2016, DOE published a final rule adopting a test procedure for integrated LED lamps in appendix BB. 81 FR 43404. On August 19, 2016, DOE published a final rule amending test procedures for medium base CFLs and adopting test procedures for new metrics for all CFLs including hybrid CFLs and CFLs with bases other than medium screw base in appendix W. 81 FR 59386. On October 20, 2016, DOE published a final rule adopting new test procedures for GSLs that are not integrated LED lamps, CFLs, or GSILs in appendix DD. 81 FR 72493.

On May 9, 2022, DOE published a final rule codifying the 45 lumens per watts (''lm/W'') backstop requirement for GSLs that Congress prescribed in amendments to EPCA. 89 FR 27439. DOE issued a phased-in enforcement policy for the 45 lm/W backstop requirement.[5] On October 14, 2022, DOE issued a guidance document [6] stating that manufacturers and importers are not currently required to certify compliance to the 45 lm/W backstop requirement and that DOE may address the certification requirements for the backstop in a separate, future rulemaking. On October 9, 2024, DOE published a final rule stating that because DOE has reached the full enforcement phase of the enforcement policy, manufacturers and importers must certify compliance to the backstop requirement for GSLs. 89 FR 81994, 82052–82053.

On January 11, 2023, DOE published a notice of proposed rulemaking (''January 2023 NOPR'') proposing amended energy conservation standards for GSLs. 88 FR 1638. On April 19, 2024, DOE published a final rule adopting amended energy conservation standards for GSLs (''April 2024 Final Rule''). 89 FR 28856. Note, in the April 2024 Final Rule, for certain lamps, DOE determined that because the market is rapidly developing it was unable to make a clear and accurate determination regarding the consumer utility, how various technology options would affect the efficiency, and maximum technologically feasible efficiency of these lamps, which prevented DOE from determining whether a specific standard for these lamps would be economically justified. Accordingly, the standards adopted in the April 2024 Final Rule do not apply to these lamps (see 10 CFR 430.32(dd)(1)(iv)(C)). DOE did note that these lamps are still subject to the 45 lm/W sales prohibition at 10 CFR 430.32(dd). 89 FR 28886–28888.

DOE received comments in response to the January 2023 NOPR from the National Electrical Manufacturers Association (''NEMA'') regarding test procedures for certain GSLs. 88 FR 28856, 28882. In the April 2024 Final Rule, DOE summarized these comments and noted that it is not amending any test procedure in that final rule. 88 FR 28856, 28882. To the extent that the comments received are relevant to the topics addressed in this document, those comments are discussed in this NOPR. A parenthetical reference at the end of a comment quotation or paraphrase provides the location of the item in the public record.[7]

C. Deviation From Appendix A

In accordance with section 3(a) of 10 CFR part 430, subpart C, appendix A (''appendix A''), DOE notes that it is deviating from the provision in appendix A regarding the NOPR stages for a test procedure rulemaking. Section 8(a)(1) of appendix A states that in determining whether to consider establishing or amending any test procedure, DOE will publish one or more preliminary documents in the **Federal Register** (*e.g.,* a request for information or notice of data availability) intended to gather information on key issues. Section 8(b)(2) of appendix A also states that the public comment period for NOPR documents is no less than 60 days with at least one public meeting or workshop. As discussed, DOE is proposing limited clarifications to the test procedure in this document rather than a complete review under the 7-year lookback provision in EPCA. As a result, DOE has determined that a preliminary rulemaking document is not necessary and, considering the limited scope of the proposed clarifications, 30 days is an appropriate period for providing comments.

II. Synopsis of the Notice of Proposed Rulemaking

In this NOPR, DOE proposes to make clarifications to appendix W, ''Uniform Test Method for Measuring the Energy Consumption of Compact Fluorescent Lamps;'' appendix BB, ''Uniform Test Method for Measuring the Input Power, Lumen Output, Lamp Efficacy,

[3] IEC 62301, *Household electrical appliances—Measurement of standby power* (Edition 2.0, 2011–01).

[4] IEC 62087, *Audio, video and related equipment—Methods of measurement for power consumption* (Edition 1.0, Parts 1–6: 2015, Part 7: 2018).

[5] See *https://www.energy.gov/sites/default/files/2022-04/GSL_EnforcementPolicy_4_25_22.pdf.*

[6] See *https://www1.eere.energy.gov/buildings/appliance_standards/pdfs/GSL_Cert_Guidance_Final.pdf.*

[7] The parenthetical reference provides a reference for information located in the docket of DOE's rulemaking to develop test procedures for insert product. (Docket NO. EERE–2022–BT–STD–0022, which is maintained at: *www.regulations.gov*). The references are arranged as follows: (commenter name, comment docket ID number at page of that document).

Correlated Color Temperature (CCT), Color Rendering Index (CRI), Power Factor, Time to Failure, and Standby Mode Power of Integrated Light-Emitting Diode (LED) Lamps;'' and appendix DD, ''Uniform Test Method for Measuring the Energy Consumption and Energy Efficiency of General Service Lamps That Are Not General Service Incandescent Lamps, Compact Fluorescent Lamps, or Integrated LED Lamps.'' DOE proposes to amend appendices W, BB and DD to specify: (1) lamps must not be tested as a colored lamp and those that can operate at multiple CCTs must be tested at 2700 Kelvin (''K'') or the closest available CCT greater than 2700 K; and (2) lamps with additional components that do not affect the light output of the lamp (*e.g.,* camera, speaker) must be tested with as many components turned off as possible.

Additionally, in this NOPR, DOE proposes to make clarifications to appendix DD as follows: (1) remove the instruction to operate non-integrated LED lamps at the manufacturer-declared input voltage and current; (2) specify that non-integrated lamps be tested on a fluorescent lamp ballast or external driver, in an order of preference based on being on a manufacturer-provided compatibility list and/or commercially available; (3) specify the starting method and ballast factors for the fluorescent lamp ballasts used in testing; (4) specify that fluorescent lamp ballasts used in testing operate the maximum number of lamps and instructions for calculating individual lamp values where more than one lamp is operated; and (5) incorporate by reference American National Standards Institute (''ANSI'') C78.901–2016 [8] and ANSI C78.53–2023.[9]

DOE's proposed actions are summarized in Table II.1 compared to the current test procedure as well as the reason for the proposed change.

TABLE II.1—SUMMARY OF CHANGES IN PROPOSED TEST PROCEDURE RELATIVE TO CURRENT TEST PROCEDURE

Current DOE test procedure	Proposed test procedure	Attribution
Does not include instruction to ensure lamps are not tested as a colored lamp.	Provides instructions that lamps must not be tested as colored lamps and lamps that can operate multiple CCTs must be tested at 2700 K or the closest available CCT greater than 2700 K.	Response to industry comments.
Does not include instructions to test lamps with additional components that do not affect the light output of the lamp (*e.g.,* camera, speaker) with as many features turned off as possible.	Provides instructions to turn off as many components as possible during testing for lamps with additional components that do not affect the light output of the lamp (*e.g.,* camera, speaker).	Response to industry comments.
Includes instructions to test non-integrated LED lamps at the manufacturer-declared input voltage and current.	Removes instructions to test non-integrated LED lamps at the manufacturer-declared input voltage and current and instead specifies to test non-integrated lamps with a fluorescent lamp ballast or external driver selected in order of preference based on compatibility list and availability.	Response to industry comments.
Does not include instructions for starting method and ballast factor for a fluorescent lamp ballast used in testing non-integrated lamps.	Specifies that a fluorescent lamp ballast used in testing non-integrated lamps must have certain starting method and ballast factors.	Response to industry comments.
Does not include instructions for number of lamps for a fluorescent lamp ballast used in testing non-integrated lamps.	Specifies that a fluorescent lamp ballast used in testing non-integrated lamps must operate the maximum number of lamps and provides instructions for calculating individual lamp values where more than one lamp is operated.	Response to industry comments.
Does not reference ANSI C78.901–2016 for testing non-integrated lamps.	References ANSI C78.901–2016 for setup instructions when testing non-integrated lamps that only operate on a low frequency, preheat start fluorescent lamp ballast.	Response to industry comments.
Does not reference ANSI C78.53–2023 for testing non-integrated lamps.	References ANSI C78.53–2023 sections 5.6.3 (Thermal), 5.6.4 (Electrical Characteristics), 5.7.2.1 (Thermal), 5.7.3 (Electrical Characteristics), and 5.7.5 (Compatibility Criteria), as an applicable industry standard for setup instructions when testing non-integrated lamps that are marketed to replace fluorescent lamps and high intensity discharge lamps.	Response to industry comments.

DOE has tentatively determined that the proposed clarifications described in section III of this NOPR would not alter the measured efficiency of GSLs or require retesting or recertification solely as a result of DOE's adoption of the proposed clarifications to the test procedures, if made final. Additionally, DOE has tentatively determined that the proposed clarifications, if made final, would not increase the cost of testing. Discussion of DOE's proposed actions are addressed in detail in section III of this NOPR.

III. Discussion

In the following sections, DOE proposes certain clarifications to its test procedures for GSLs. For each proposed amendment, DOE provides relevant background information, explains why the amendment merits consideration, discusses relevant public comments, and proposes a potential approach.

A. Scope of Applicability

This rulemaking applies to GSLs. DOE defines a GSL as a lamp that has an ANSI base; is able to operate at a voltage of 12 volts or 24 volts, at or between 100 to 130 volts, at or between 220 to 240 volts, or of 277 volts for integrated lamps (as set out in this definition), or

[8] American National Standards Institute, *ANSI C78.901–2016 American National Standard for Electric Lamps—Single-Based Fluorescent Lamps—Dimensional and Electrical Characteristics,* Approved August 23, 2016.

[9] American National Standards Institute, *ANSI C78.53–2019 (R2023) American National Standard for Electric Lamps—Performance Specifications for Direct Replacement LED (Light Emitting Diode) Lamps,* Approved August 24, 2023.

is able to operate at any voltage for non-integrated lamps (as set out in this definition); has an initial lumen output of greater than or equal to 310 lumens (or 232 lumens for modified spectrum general service incandescent lamps) and less than or equal to 3,300 lumens; is not a light fixture; is not an LED downlight retrofit kit; and is used in general lighting applications. General service lamps include, but are not limited to, general service incandescent lamps, compact fluorescent lamps, general service light-emitting diode lamps, and general service organic light emitting diode lamps. 10 CFR 430.2. There are 26 lamp types exempt from GSL definition.[10]

B. Proposed Clarifications to Appendix W, Appendix BB, and Appendix DD

DOE has identified certain aspects of the existing test procedures for GSLs that require clarification to ensure consistent testing to comply with the 45 ''lm/W'' backstop requirement for GSLs that Congress prescribed in amendments to EPCA. (42 U.S.C. 6295(i)(6)(A)(v)) To the extent that other GSLs may not be able to be tested in accordance with DOE's test procedures, manufacturers may petition DOE for test procedure waivers in accordance with 10 CFR 430.27.

1. Lamps With Multiple Modes

Appendices W, BB, and DD specify instructions to test at maximum input power for all lamps, including those that may operate in multiple modes. Section 3.1.4 of appendix BB and section 3.5 of appendix DD specify to operate the lamp at the maximum input power; and if multiple modes occur at the same maximum input power (such as variable CCT or color rendering index (''CRI'')) select any of these modes and ensure all measurements are taken at the same selected mode. Section 3.1.4 of appendix W specifies to operate the lamp, including those that are dimmable or multi-level, at the labeled wattage, defined as the highest wattage marked on the lamp and/or lamp packaging.

In response to the January 2023 NOPR, and as summarized in the April 2024 Final Rule, NEMA noted that section 3.1.4 in appendix BB specifies testing be done at the maximum input power and stated for a color-tunable (multi-primary) lamp this will typically occur when all LED packages within are driven at 100-percent output. NEMA commented that when all primary color sources (red, green, blue, white and others) are at full output, the chromaticity coordinates of the lamp may not be on or even close to the blackbody locus used for standardizing white light chromaticities and may fall outside the range in which the CRI, as defined in International Commission on Illumination (''CIE'') 13.3,[11] is a considered a valid metric. NEMA commented that at the maximum input power condition, the lamp may be operating as a colored lamp rather than a GSL. NEMA further commented that section 5.1 of the ENERGY STAR lamps V2.1 [12] specification states that testing is to be done at the most consumptive white light setting covered by the specification. NEMA stated that this approach guarantees a tested lamp will operate in the GSL region with a chromaticity defined by ANSI C78.377 [13] and accepted as ''white'' light. NEMA requested that DOE amend the test procedures to require color-tunable lamps to be operated at the highest input power nominal white chromaticity as defined in ANSI C78.377. (NEMA, No. 183 at pp. 21–22), 89 FR 28856, 28882.

NEMA further stated that lamps with four or more primary colors exhibit a wider gamut area and will be able to produce a consumer-selected chromaticity with many different settings of those primaries. NEMA commented that, for example, a lamp may have one mode to maximize light output and another to maximize color rendering, and that the input power is likely to differ among modes. NEMA recommended that where the same chromaticity can be achieved with multiple primary settings, DOE should allow the manufacturer to determine the test conditions and provide instruction for how to repeat the condition for the highest input power white light chromaticity as per ANSI C78.377. (NEMA, No. 183 at pp. 21–22), 89 FR 28856, 28882.

In this NOPR, in section 3 of appendices W, BB, and DD, DOE proposes to operate the lamp as not a colored lamp (as defined in 10 CFR 430.2) and if the lamp can operate at multiple CCTs to operate the lamp at 2700 K, or the closest available CCT greater than 2700 K. A colored lamp is exempt from the definition of GSLs. Because a colored lamp has a CCT less than 2500 K or greater than 7000 K, operating at 2700 K would ensure that the lamp is not operating as a colored lamp. (See 10 CFR 430.2 ''General service lamp'', ''Colored lamp''). Further, in the April 2024 Final Rule, DOE determined that 2700 K is a common CCT for GSLs. 89 FR 28856, 28895. DOE is also proposing to require manufacturers to indicate on the test report which CCT (numerical or on the graphical user interface) is selected for testing and include details such that another laboratory could operate the lamp at the same CCT. DOE has tentatively determined that specifying to not test any lamp as a colored lamp (as defined in 10 CFR 430.2) and to test at a specific CCT for lamps with multiple CCT settings addresses NEMA's concerns that some lamps when tested at maximum input power may operate as a colored lamp. Additionally, DOE has tentatively determined these instructions will further ensure consistency and repeatability in testing. DOE requests comment on its proposal to specify that lamps not be operated as a colored lamp and be tested at 2700 K or the closest available CCT greater than 2700 K. *See* section V.D of this document for a list of issues on which DOE seeks comment.

To avoid confusion, DOE also proposes to remove the instruction in section 3.1 of appendix DD to take measurements at full light output. Section 3.5 in appendix DD already specifies to operate the lamp at the maximum input power which is equivalent to operating the lamp at full light output. DOE requests comment on removing the instruction to operate at full light output in appendix DD. *See* section V.D of this document for a list of issues on which DOE seeks comment.

2. Lamps With Non-Illumination Components

In response to the January 2023 NOPR, and as summarized in the April 2024 Final Rule, NEMA stated that for lamps with non-illumination features the only way to measure the lamp's luminous efficacy independent of the non-illumination features is to disassemble the product and identify the appropriate solder traces to cut unless a lamp offers a physical switch or an app-based method for disabling the power from non-illumination features. (NEMA, No. 183 at p. 12), 89 FR 28856, 28888.

In this NOPR, in section 3 of appendices W, BB, and DD, for lamps with a component(s) that offer a distinct functionality (*e.g.,* a speaker, a camera, an air purifier, etc.) where the

[10] See definition of ''general service lamp'' in 10 CFR 430.2 for the specific exemptions from the definition.

[11] International Commission on Illumination, *CIE 13.3—1995 Technical Report: Method of Measuring and Specifying Colour Rendering Properties of Light Sources,* Approved 1995.

[12] ENERGY STAR® Program Requirements Product Specification for Lamps (Light Bulbs) Eligibility Criteria Version 2.1.

[13] American National Standards Institute, *ANSI C.78.377—2017 American National Standard for Electric Lamps—Specifications for the Chromaticity of Solid-State Lighting Products,* Approved 2017.

component is integrated into the lamp but does not affect the light output of the lamp (*e.g.,* does not turn the light on/off, dim the light, change the color of the light, etc.) and is capable of operating in standby mode, DOE proposes to specify to turn off as many of these components as possible during testing. DOE also proposes to require that the test report indicate which components were turned off and which, if any, components remained on. DOE has tentatively determined that for those lamps with components that do not affect light output and are controllable by physical switch or an app-based method, this instruction will ensure that these components are turned off during testing. DOE has tentatively determined these instructions will further ensure consistency and repeatability in testing. DOE requests comment on specifying for lamps with components that do not affect light output to turn off such components during testing. *See* section V.D of this document for a list of issues on which DOE seeks comment.

3. Non-Integrated LED Lamps

Section 3.4 of appendix DD provides instructions to operate a non-integrated lamp at the manufacturer-declared input voltage and current. In response to the January 2023 NOPR, and as summarized in the April 2024 Final Rule, NEMA stated that this instruction only provides a partial description of the testing conditions and does not represent a repeatable test condition for Type A or Type C linear LED lamps (''TLEDs''). NEMA stated it is repeating the point made in the 2016 GSL test procedure rulemaking that frequency and waveform are important parameters that vary among LED lamps. NEMA stated that DOE should amend the test procedure to allow testing with a manufacturer-designated commercial ballast in alignment with ANSI C78.53, and that DOE should accept ANSI C78.53 testing for compliance with this rule. NEMA stated that manufacturers would specify performance ratings, indicate a ballast factor associated with those ratings, and identify the compatible ballast type and model. (NEMA, No. 183 at p. 21), 89 FR 28856, 28883.

In this NOPR, in section 3.4 of appendix DD, DOE proposes to remove the instruction to operate non-integrated LED lamps at the manufacturer-declared input voltage and current and specify that the remaining instructions regarding rated voltages apply to integrated lamps. Additionally, DOE proposes to add a section to appendix DD that specifies that a non-integrated lamp be operated on a fluorescent lamp ballast or external driver that is selected based on the following: (1) manufacturer-specified compatibility list and availability, (2) starting method, and (3) ballast factor. Finally, DOE proposes to add instructions for testing with a fluorescent lamp ballast or external driver in terms of number of lamps used, and references to relevant industry standards. DOE has tentatively determined that specifying that the lamp be operated on a fluorescent lamp ballast or external driver ensures the completeness of instructions for testing non-integrated lamps, thereby addressing NEMA's concerns. Additionally, DOE has tentatively determined that specifying a set of criteria for selecting the fluorescent lamp ballast or external driver will improve the consistency and repeatability of testing. The proposed provisions for testing non-integrated lamps with a fluorescent lamp ballast or external driver are detailed in the following sections.

a. Selection of Fluorescent Lamp Ballast or External Driver

First, DOE proposes that the fluorescent lamp ballast or external driver selected for testing must be, in the following order of preference: (1) from the lamp's publicly available manufacturer-provided compatibility list and commercially available; (2) commercially available and able to operate the lamp throughout the duration of the test; (3) previously procured and able to operate the lamp throughout the duration of the test. Only if the fluorescent lamp ballast and external driver cannot be selected from the previous preference should the next preference be availed. To provide clarity, DOE also proposes to define ''commercially available fluorescent lamp ballast or external driver'' as one that can be purchased by an individual consumer at a readily accessible retailer (*i.e.,* retailer with storefront or online purchasing). Additionally, DOE proposes that the manufacturer record the fluorescent lamp ballast or external driver manufacturer and model name/number used for testing in the test report. Further, DOE understands that because low frequency, preheat start fluorescent lamp ballasts are an older technology, they may not be commercially available. For a lamp that operates only on low frequency, preheat start fluorescent lamp ballasts, and these ballasts are not available, DOE proposes to specify to operate the lamp on the manufacturer-declared voltage and current, and if this information is not provided, to operate the lamp in accordance with the applicable lamp voltage and current conditions specified in ANSI C78.901–2016. The manufacturer must indicate in the test report the voltage and current with which the lamp was operated. DOE requests comment on the order of preference based on availability of the fluorescent lamp ballast or external driver. DOE requests comment on the definition of commercially available fluorescent lamp ballast or external driver. DOE requests comment on the selection of fluorescent lamp ballasts for lamps that operate only low frequency, preheat start fluorescent lamp ballasts. *See* section V.D of this document for a list of issues on which DOE seeks comment.

Secondly, once the set of fluorescent lamp ballasts have been identified based on being (1) on publicly available manufacturer-provided compatibility list and commercially available, (2) commercially available, or (3) previously procured, DOE proposes to specify selection of the ballast starting method. Specifically, DOE proposes that for the set of fluorescent lamp ballasts identified, if all the ballasts have the same starting method, choose a ballast with that starting method. If there is more than one starting method among them, choose a ballast with a starting method based on lamp type as specified in Table III.1. If the starting method in Table III.1 is not included among fluorescent lamp ballasts under consideration, then select any starting method. DOE requests comment on the selection of starting method for the fluorescent lamp ballast used in testing. *See* section V.D of this document for a list of issues on which DOE seeks comment.

TABLE III.1—STARTING METHOD BY LAMP TYPE

Lamp type	Starting method
T8 medium bipin	Instant Start.
T8 recessed double contact.	Instant Start.
T5 miniature bipin	Programmed Start.
T12 single pin, slimline	Instant Start.
T12 medium bipin	Rapid Start.
T12 recessed double contact.	Rapid Start.
All other lamp types	Any.

Thirdly, once the set of fluorescent lamp ballasts have been identified based on starting method, DOE proposes to specify selection of the ballast factor. Specifically, DOE proposes that for the set of fluorescent lamp ballasts identified, if the ballasts have more than one ballast factor available, choose a ballast with a ballast factor based on lamp type as specified in Table III.2. If

the ballast factor in Table III.2 is not included among ballasts under consideration, select a ballast with a ballast factor closest to the one listed in Table III.2. DOE requests comment on the selection of ballast factor for the fluorescent lamp ballast used in testing. *See* section V.D of this document for a list of issues on which DOE seeks comment.

TABLE III.2—BALLAST FACTOR BY LAMP TYPE

Lamp type	Ballast factor
T8 medium bipin	0.88.
T8 recessed double contact.	1.05.
T5 miniature bipin	1.
T12 single pin, slimline	Any.
T12 medium bipin	Any.
T12 recessed double contact.	Any.
All other lamp types	Any.

b. Testing With Fluorescent Lamp Ballast or External Driver

DOE understands that a fluorescent lamp ballast or external driver can operate more than one lamp at a time. Therefore, DOE proposes instructions for determining values for one lamp when the fluorescent lamp ballast or external driver is operated on more than one lamp. Specifically, DOE proposes to specify that the fluorescent lamp ballast or external drivers be loaded with the maximum number of lamps when measuring the initial lumen output, initial input power, input voltage, and input current, and these measured values be divided by the maximum number of lamps. DOE requests comment on instructions to divide measured values by the maximum number of lamps operated by the fluorescent lamp ballast or external driver to determine individual lamp values. *See* section V.D of this document for a list of issues on which DOE seeks comment.

Additionally, DOE reviewed ANSI C78.53–2023 and determined that it is applicable to the testing of non-integrated lamps. Therefore, DOE proposes to incorporate by reference ANSI C78.53–2023 in appendix DD and reference it as follows: (1) for a non-integrated lamp marketed to replace a fluorescent lamp and operate on the existing fluorescent lamp ballast, testing should be conducted in accordance with the setup provisions in sections 5.6.3 (Thermal) and 5.6.4 (Electrical Characteristics) of ANSI C78.53–2023; and (2) for a non-integrated lamp marketed to replace a high intensity discharge lamp and operate on the existing high intensity discharge lamp ballast, testing should be conducted in accordance with the setup provisions in sections 5.7.2.1 (Thermal), 5.7.3 (Electrical Characteristics), and 5.7.5 (Compatibility Criteria) of ANSI C78.53–2023 sections. DOE requests comment on incorporating by reference sections of ANSI C78.53–2023 in appendix DD. *See* section V.D of this document for a list of issues on which DOE seeks comment.

C. Reporting

Manufacturers, including importers, must use product-specific certification templates to certify compliance to DOE. For GSLs, the certification template reflects the general certification requirements specified at 10 CFR 429.12 and the product-specific requirements specified at 10 CFR 429.57. As discussed in the previous paragraphs, DOE is not proposing to amend the product-specific certification requirements for these products.

D. Test Procedure Costs and Harmonization

1. Test Procedure Costs and Impact

EPCA requires that test procedures proposed by DOE not be unduly burdensome to conduct. (42 U.S.C. 6293(b)(3)) The following section discusses DOE's evaluation of estimated costs associated with the proposed clarifications.

In this NOPR, DOE proposes to make two updates to appendices W, BB, and DD that provide clarification for testing lamps with additional functionality by specifying: (1) the CCT at which to test for lamps that can operate at multiple CCTs; and (2) to turn off components that do not affect light output. These proposed clarifications only provide further clarification and more complete information regarding how to appropriately test certain lamps. Therefore, DOE has initially determined that the proposed clarifications would not impact the representations of GSL energy efficiency based on the initial determination manufacturers would be able to rely on data generated under the current test procedure should the proposed clarifications be finalized. As such, retesting of GSLs would not be required solely as a result of DOE's adoption of the proposed clarifications to the test procedure.

Finally, in this NOPR, DOE proposes to update appendix DD to remove the instruction to operate non-integrated LED lamps at the manufacturer-declared input voltage and current and instead specify that non-integrated lamps be operated on a fluorescent lamp ballast or external driver. Based on comments from manufacturers, the proposed instruction reflects how these lamps are currently being tested by manufacturers (*see* section III.C of this document). Additionally, the DesignLights Consortium (''DLC'') administers a voluntary certification program for high performing lighting products and lists almost 6,000 non-integrated lamps as qualified products. DLC testing requirements for non-linear integrated lamps,[14] which manufacturers must use to qualify their products, also require testing on a fluorescent lamp ballast or external driver. DOE has tentatively determined that manufacturers would be able to rely on data already generated should any of these additional proposed clarifications be finalized. As such, DOE has initially determined that the proposed clarifications would not impact the representations of GSL energy efficiency.

2. Harmonization With Industry Standards

DOE's established practice is to adopt relevant industry standards as DOE test procedures unless such methodology would be unduly burdensome to conduct or would not produce test results that reflect the energy efficiency, energy use, water use (as specified in EPCA) or estimated operating costs of that product during a representative average use cycle or period of use. Section 8(c) of appendix A of 10 CFR part 430 subpart C. In cases where the industry standard does not meet EPCA statutory criteria for test procedures DOE will make modifications through the rulemaking process to these standards as the DOE test procedure.

DOE is proposing to incorporate by reference ANSI C78.53–2023 and ANSI C78.901–2016 in appendix DD for measurements of non-integrated lamps. DOE requests comment on the benefits and burdens of the proposed updates and additions to industry standards referenced in the test procedure for GSLs. *See* section V.D of this document for a list of issues on which DOE seeks comment.

E. Compliance Date

EPCA prescribes that, if DOE amends a test procedure, all representations of energy efficiency and energy use, including those made on marketing materials and product labels, must be made in accordance with that amended

[14] DLC, ''Testing and Reporting Requirements for Linear Replacement Lamps under Technical Requirements V5.1'', July 1, 2020, available at *https://designlights.org/wp-content/uploads/2023/06/DLC_Testing-Reporting-Requirements_Linear-Replacement-Lamps_V5-1_20230616.pdf.*

test procedure, beginning 180 days after publication of such a test procedure final rule in the **Federal Register**. (42 U.S.C. 6293(c)(2))

If DOE were to publish an amended test procedure EPCA provides an allowance for individual manufacturers to petition DOE for an extension of the 180-day period if the manufacturer may experience undue hardship in meeting the deadline. (42 U.S.C. 6293(c)(3)) To receive such an extension, petitions must be filed with DOE no later than 60 days before the end of the 180-day period and must detail how the manufacturer will experience undue hardship. (*Id.*)

IV. Procedural Issues and Regulatory Review

A. Review Under Executive Orders 12866, 13563, and 14094

Executive Order (''E.O.'') 12866, ''Regulatory Planning and Review,'' as supplemented and reaffirmed by E.O. 13563, ''Improving Regulation and Regulatory Review,'' 76 FR 3821 (Jan. 21, 2011) and E.O. 14094, ''Modernizing Regulatory Review,'' 88 FR 21879 (April 11, 2023), requires agencies, to the extent permitted by law, to: (1) propose or adopt a regulation only upon a reasoned determination that its benefits justify its costs (recognizing that some benefits and costs are difficult to quantify); (2) tailor regulations to impose the least burden on society, consistent with obtaining regulatory objectives, taking into account, among other things, and to the extent practicable, the costs of cumulative regulations; (3) select, in choosing among alternative regulatory approaches, those approaches that maximize net benefits (including potential economic, environmental, public health and safety, and other advantages; distributive impacts; and equity); (4) to the extent feasible, specify performance objectives, rather than specifying the behavior or manner of compliance that regulated entities must adopt; and (5) identify and assess available alternatives to direct regulation, including providing economic incentives to encourage the desired behavior, such as user fees or marketable permits, or providing information upon which choices can be made by the public. DOE emphasizes as well that E.O. 13563 requires agencies to use the best available techniques to quantify anticipated present and future benefits and costs as accurately as possible. In its guidance, the Office of Information and Regulatory Affairs (''OIRA'') in the Office of Management and Budget (''OMB'') has emphasized that such techniques may include identifying changing future compliance costs that might result from technological innovation or anticipated behavioral changes. For the reasons stated in the preamble, this proposed regulatory action is consistent with these principles.

Section 6(a) of E.O. 12866 also requires agencies to submit ''significant regulatory actions'' to OIRA for review. OIRA has determined that this proposed regulatory action does not constitute a ''significant regulatory action'' under section 3(f) of E.O. 12866. Accordingly, this action was not submitted to OIRA for review under E.O. 12866.

B. Review Under the Regulatory Flexibility Act

The Regulatory Flexibility Act (5 U.S.C. 601 *et seq.*) requires preparation of an initial regulatory flexibility analysis (''IRFA'') for any rule that by law must be proposed for public comment, unless the agency certifies that the rule, if promulgated, will not have a significant economic impact on a substantial number of small entities. As required by Executive Order 13272, ''Proper Consideration of Small Entities in Agency Rulemaking,'' 67 FR 53461 (August 16, 2002), DOE published procedures and policies on February 19, 2003, to ensure that the potential impacts of its rules on small entities are properly considered during the DOE rulemaking process. 68 FR 7990. DOE has made its procedures and policies available on the Office of the General Counsel's website: *www.energy.gov/gc/office-general-counsel*. DOE reviewed this proposed rule under the provisions of the Regulatory Flexibility Act and the procedures and policies published on February 19, 2003.

DOE has conducted a focused inquiry into small business manufacturers of the GSLs covered by this rulemaking. For this test procedure, DOE referenced the small business list created for the April 2024 Final Rule. DOE identified potential small manufacturers based on Small Business Administration guidelines categorizing businesses operating under North American Industry Classification System code 335139, ''electric lamp bulb and other lighting equipment manufacturing'', with under 1,250 employees (including parent and affiliate companies) as a small business. The size standards are codified at 13 CFR part 121. DOE accessed the Compliance Certification Database [15] to create a list of companies that import or otherwise manufacture the GSLs covered by this proposal. Using information from D&B Hoovers, DOE screened out companies that have more than 1,250 employees, are completely foreign owned and operated, or do not manufacture GSLs in the United States—ultimately identifying 261 small domestic businesses that assemble GSLs.

None of the identified small businesses are expected to incur costs because of this proposal. The clarifications to GSL test procedures being proposed in this NOPR only provide further clarification regarding how to appropriately test certain lamps with additional functionality. These clarifications would not result in additional test costs, nor would they require retesting for any manufacturers. DOE is also proposing clarifications regarding testing non-integrated GSLs which reflect how these lamps are currently being tested by manufacturers and therefore, would also not result in additional test costs nor require retesting by any manufacturers—including small manufacturers.

Therefore, DOE initially concludes that the impacts of the proposed test procedure clarifications proposed in this NOPR would not have a ''significant economic impact on a substantial number of small entities,'' and that the preparation of an IRFA is not warranted. DOE will transmit the certification and supporting statement of factual basis to the Chief Counsel for Advocacy of the Small Business Administration for review under 5 U.S.C. 605(b).

C. Review Under the Paperwork Reduction Act of 1995

Manufacturers of GSLs must certify to DOE that their products comply with any applicable energy conservation standards. To certify compliance, manufacturers must first obtain test data for their products according to the DOE test procedures, including any amendments adopted for those test procedures. DOE has established regulations for the certification and recordkeeping requirements for all covered consumer products and commercial equipment, including GSLs. (*See generally* 10 CFR part 429.) The collection-of-information requirement for the certification and recordkeeping is subject to review and approval by OMB under the Paperwork Reduction Act (''PRA''). This requirement has been approved by OMB under OMB control number 1910–1400. Public reporting

[15] U.S. Department of Energy Compliance Certification Database, available at: *www.regulations.doe.gov/certification-data/products.html*.

burden for the certification is estimated to average 35 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

DOE is not proposing to amend the certification or reporting requirements for GSLs in this NOPR.

Notwithstanding any other provision of the law, no person is required to respond to, nor shall any person be subject to a penalty for failure to comply with, a collection of information subject to the requirements of the PRA, unless that collection of information displays a currently valid OMB Control Number.

D. Review Under the National Environmental Policy Act of 1969

In this NOPR, DOE proposes test procedure clarifications that it expects will be used to develop and implement future energy conservation standards for GSLs. DOE has determined that this rule falls into a class of actions that are categorically excluded from review under the National Environmental Policy Act of 1969 (42 U.S.C. 4321 *et seq.*) and DOE's implementing regulations at 10 CFR part 1021. Specifically, DOE has determined that adopting test procedures for measuring energy efficiency of consumer products and industrial equipment is consistent with activities identified in 10 CFR part 1021, appendix A to subpart D, A5 and A6. Accordingly, neither an environmental assessment nor an environmental impact statement is required.

E. Review Under Executive Order 13132

Executive Order 13132, ''Federalism,'' 64 FR 43255 (Aug. 4, 1999) imposes certain requirements on agencies formulating and implementing policies or regulations that preempt State law or that have federalism implications. The Executive order requires agencies to examine the constitutional and statutory authority supporting any action that would limit the policymaking discretion of the States and to carefully assess the necessity for such actions. The Executive order also requires agencies to have an accountable process to ensure meaningful and timely input by State and local officials in the development of regulatory policies that have federalism implications. On March 14, 2000, DOE published a statement of policy describing the intergovernmental consultation process it will follow in the development of such regulations. 65 FR 13735. DOE has examined this proposed rule and has determined that it would not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government. EPCA governs and prescribes Federal preemption of State regulations as to energy conservation for the products that are the subject of this proposed rule. States can petition DOE for exemption from such preemption to the extent, and based on criteria, set forth in EPCA. (42 U.S.C. 6297(d)) No further action is required by Executive Order 13132.

F. Review Under Executive Order 12988

Regarding the review of existing regulations and the promulgation of new regulations, section 3(a) of Executive Order 12988, ''Civil Justice Reform,'' 61 FR 4729 (February 7, 1996), imposes on Federal agencies the general duty to adhere to the following requirements: (1) eliminate drafting errors and ambiguity, (2) write regulations to minimize litigation, (3) provide a clear legal standard for affected conduct rather than a general standard; and (4) promote simplification and burden reduction. Section 3(b) of Executive Order 12988 specifically requires that Executive agencies make every reasonable effort to ensure that the regulation: (1) clearly specifies the preemptive effect, if any; (2) clearly specifies any effect on existing Federal law or regulation; (3) provides a clear legal standard for affected conduct while promoting simplification and burden reduction; (4) specifies the retroactive effect, if any; (5) adequately defines key terms; and (6) addresses other important issues affecting clarity and general draftsmanship under any guidelines issued by the Attorney General. Section 3(c) of Executive Order 12988 requires Executive agencies to review regulations in light of applicable standards in sections 3(a) and 3(b) to determine whether they are met or it is unreasonable to meet one or more of them. DOE has completed the required review and determined that, to the extent permitted by law, the proposed rule meets the relevant standards of Executive Order 12988.

G. Review Under the Unfunded Mandates Reform Act of 1995

Title II of the Unfunded Mandates Reform Act of 1995 (''UMRA'') requires each Federal agency to assess the effects of Federal regulatory actions on State, local, and Tribal governments and the private sector. Public Law 104–4, sec. 201 (codified at 2 U.S.C. 1531). For a proposed regulatory action likely to result in a rule that may cause the expenditure by State, local, and Tribal governments, in the aggregate, or by the private sector of $100 million or more in any one year (adjusted annually for inflation), section 202 of UMRA requires a Federal agency to publish a written statement that estimates the resulting costs, benefits, and other effects on the national economy. (2 U.S.C. 1532(a)–(b)) The UMRA also requires a Federal agency to develop an effective process to permit timely input by elected officers of State, local, and Tribal governments on a proposed ''significant intergovernmental mandate,'' and requires an agency plan for giving notice and opportunity for timely input to potentially affected small governments before establishing any requirements that might significantly or uniquely affect small governments. On March 18, 1997, DOE published a statement of policy on its process for intergovernmental consultation under UMRA. 62 FR 12820; also available at *www.energy.gov/gc/office-general-counsel.* DOE examined this proposed rule according to UMRA and its statement of policy and determined that the rule contains neither an intergovernmental mandate, nor a mandate that may result in the expenditure of $100 million or more in any year, so these requirements do not apply.

H. Review Under the Treasury and General Government Appropriations Act, 1999

Section 654 of the Treasury and General Government Appropriations Act, 1999 (Pub. L. 105–277) requires Federal agencies to issue a Family Policymaking Assessment for any proposed rule or policy that may affect family well-being. When developing a Family Policymaking Assessment, agencies must assess whether: (1) the action strengthens or erodes the stability or safety of the family and, particularly, the marital commitment; (2) the action strengthens or erodes the authority and rights of parents in the education, nurture, and supervision of their children; (3) the action helps the family perform its functions, or substitutes governmental activity for the function; (4) the action increases or decreases disposable income or poverty of families and children; (5) the proposed benefits of the action justify the financial impact on the family; (6) the action may be carried out by State or local government or by the family; and whether (7) the action establishes an implicit or explicit policy concerning the relationship between the behavior and personal responsibility of youth, and the norms of society. In evaluating the above factors, DOE has concluded that it is not

necessary to prepare a Family Policymaking Assessment as none of the above factors are implicated. Further, this proposed determination would not have any financial impact on families nor any impact on the autonomy or integrity of the family as an institution.

I. Review Under Executive Order 12630

DOE has determined, under Executive Order 12630, ''Governmental Actions and Interference with Constitutionally Protected Property Rights,'' 53 FR 8859 (March 18, 1988), that this proposed regulation would not result in any takings that might require compensation under the Fifth Amendment to the U.S. Constitution.

J. Review Under Treasury and General Government Appropriations Act, 2001

Section 515 of the Treasury and General Government Appropriations Act, 2001 (44 U.S.C. 3516 note) provides for agencies to review most disseminations of information to the public under guidelines established by each agency pursuant to general guidelines issued by OMB. OMB's guidelines were published at 67 FR 8452 (Feb. 22, 2002), and DOE's guidelines were published at 67 FR 62446 (Oct. 7, 2002). Pursuant to OMB Memorandum M–19–15, Improving Implementation of the Information Quality Act (April 24, 2019), DOE published updated guidelines which are available at *www.energy.gov/sites/prod/files/2019/12/f70/DOE%20Final%20Updated%20IQA%20Guidelines%20Dec%202019.pdf.* DOE has reviewed this proposed rule under the OMB and DOE guidelines and has concluded that it is consistent with applicable policies in those guidelines.

K. Review Under Executive Order 13211

Executive Order 13211, ''Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use,'' 66 FR 28355 (May 22, 2001), requires Federal agencies to prepare and submit to OMB, a Statement of Energy Effects for any proposed significant energy action. A ''significant energy action'' is defined as any action by an agency that promulgates or is expected to lead to promulgation of a final rule, and that: (1) is a significant regulatory action under Executive Order 12866, or any successor order, and is likely to have a significant adverse effect on the supply, distribution, or use of energy; or (2) is designated by the Administrator of OIRA as a significant energy action. For any proposed significant energy action, the agency must give a detailed statement of any adverse effects on energy supply, distribution, or use should the proposal be implemented, and of reasonable alternatives to the action and their expected benefits on energy supply, distribution, and use.

The proposed regulatory action to amend the test procedure for measuring the energy efficiency of GSLs is not a significant regulatory action under Executive Order 12866. Moreover, it would not have a significant adverse effect on the supply, distribution, or use of energy, nor has it been designated as a significant energy action by the Administrator of OIRA. Therefore, it is not a significant energy action, and, accordingly, DOE has not prepared a Statement of Energy Effects.

L. Review Under Section 32 of the Federal Energy Administration Act of 1974

Under section 301 of the Department of Energy Organization Act (Pub. L. 95–91; 42 U.S.C. 7101), DOE must comply with section 32 of the Federal Energy Administration Act of 1974, as amended by the Federal Energy Administration Authorization Act of 1977. (15 U.S.C. 788; ''FEAA'') Section 32 essentially provides in relevant part that, where a proposed rule authorizes or requires use of commercial standards, the notice of proposed rulemaking must inform the public of the use and background of such standards. In addition, section 32(c) requires DOE to consult with the Attorney General and the Chairman of the Federal Trade Commission (''FTC'') concerning the impact of the commercial or industry standards on competition.

The proposed modifications to the test procedure for GSLs would incorporate testing methods contained in certain sections of the following commercial standards: ANSI C78.53–2023 and ANSI C78.901–2016. DOE has evaluated these standards and is unable to conclude whether they fully comply with the requirements of section 32(b) of the FEAA (*i.e.,* whether it was developed in a manner that fully provides for public participation, comment, and review). DOE will consult with both the Attorney General and the Chairman of the FTC concerning the impact of these test procedures on competition, prior to prescribing a final rule.

M. Description of Materials Incorporated by Reference

ANSI C78.53–2023 is an industry accepted test standard that specifies performance specifications for direct replacement LED lamps. This NOPR specifically references sections thermal characteristics, electrical characteristics and compatibility criteria.

ANSI C78.901–2016 is an industry accepted test standard that specifies dimensional and electrical characteristics for single-based fluorescent lamps.

These test standards are all reasonably available from ANSI (*webstore.ansi.org*) or NEMA (*www.nema.org*).

In this NOPR, DOE proposes to include revisions to regulatory text that contain references to IEC 62301–DD, IES LM–79–08–DD,[16] IES LM–45–15, IES LM–9–09–DD,[17] and IES LM–20–13. These standards were previously approved for IBR; no changes are being proposed.

V. Public Participation

A. Submission of Comments

DOE will accept comments, data, and information regarding this proposed rule no later than the date provided in the **DATES** section at the beginning of this proposed rule. Interested parties may submit comments, data, and other information using any of the methods described in the **ADDRESSES** section at the beginning of this document.

Submitting comments via www.regulations.gov. The *www.regulations.gov* web page will require you to provide your name and contact information. Your contact information will be viewable to DOE Building Technologies staff only. Your contact information will not be publicly viewable except for your first and last names, organization name (if any), and submitter representative name (if any). If your comment is not processed properly because of technical difficulties, DOE will use this information to contact you. If DOE cannot read your comment due to technical difficulties and cannot contact you for clarification, DOE may not be able to consider your comment.

However, your contact information will be publicly viewable if you include it in the comment itself or in any documents attached to your comment. Any information that you do not want to be publicly viewable should not be included in your comment, nor in any document attached to your comment. Otherwise, persons viewing comments will see only first and last names, organization names, correspondence containing comments, and any

[16] Illuminating Engineering Society, *IES LM–79–08 Approved Method: Electrical and Photometric Measurements of Solid-State Lighting Products,* Approved December 31, 2007.

[17] Illuminating Engineering Society, *IES TM–28–14 Projecting Long-Term Luminous Flux Maintenance of LED Lamps and Luminaires,* Approved May 20, 2014.

documents submitted with the comments.

Do not submit to *www.regulations.gov* information for which disclosure is restricted by statute, such as trade secrets and commercial or financial information (hereinafter referred to as Confidential Business Information (''CBI'')). Comments submitted through *www.regulations.gov* cannot be claimed as CBI. Comments received through the website will waive any CBI claims for the information submitted. For information on submitting CBI, see the Confidential Business Information section.

DOE processes submissions made through *www.regulations.gov* before posting. Normally, comments will be posted within a few days of being submitted. However, if large volumes of comments are being processed simultaneously, your comment may not be viewable for up to several weeks. Please keep the comment tracking number that *www.regulations.gov* provides after you have successfully uploaded your comment.

Submitting comments via email, hand delivery/courier, or postal mail. Comments and documents submitted via email, hand delivery/courier, or postal mail also will be posted to *www.regulations.gov.* If you do not want your personal contact information to be publicly viewable, do not include it in your comment or any accompanying documents. Instead, provide your contact information in a cover letter. Include your first and last names, email address, telephone number, and optional mailing address. The cover letter will not be publicly viewable as long as it does not include any comments.

Include contact information each time you submit comments, data, documents, and other information to DOE. If you submit via postal mail or hand delivery/courier, please provide all items on a CD, if feasible, in which case it is not necessary to submit printed copies. No telefacsimiles (''faxes'') will be accepted.

Comments, data, and other information submitted to DOE electronically should be provided in PDF (preferred), Microsoft Word or Excel, WordPerfect, or text (ASCII) file format. Provide documents that are not secured, written in English, and that are free of any defects or viruses. Documents should not contain special characters or any form of encryption and, if possible, they should carry the electronic signature of the author.

Campaign form letters. Please submit campaign form letters by the originating organization in batches of between 50 to 500 form letters per PDF or as one form letter with a list of supporters' names compiled into one or more PDFs. This reduces comment processing and posting time.

Confidential Business Information. Pursuant to 10 CFR 1004.11, any person submitting information that he or she believes to be confidential and exempt by law from public disclosure should submit via email two well-marked copies: one copy of the document marked ''confidential'' including all the information believed to be confidential, and one copy of the document marked ''non-confidential'' with the information believed to be confidential deleted. DOE will make its own determination about the confidential status of the information and treat it according to its determination.

It is DOE's policy that all comments may be included in the public docket, without change and as received, including any personal information provided in the comments (except information deemed to be exempt from public disclosure).

B. Issues on Which DOE Seeks Comment

Although DOE welcomes comments on any aspect of this proposal, DOE is particularly interested in receiving comments and views of interested parties concerning the following issues:

(1) DOE requests comment on its proposal to specify that lamps not be operated as a colored lamp and be tested at 2700 K or the closest available CCT greater than 2700 K. See section III.B.1 of this document.

(2) DOE requests comment on removing the instruction to operate at full light output in appendix DD. See section III.B.1 of this document.

(3) DOE requests comment on specifying for lamps with components that do not affect light output to turn off such components during testing. See section III.B.2 of this document.

(4) DOE requests comment on the order of preference based on availability of the fluorescent lamp ballast or external driver. DOE requests comment on the definition of commercially available fluorescent lamp ballast or external driver. DOE requests comment on the selection of fluorescent lamp ballasts for lamps that operate only low frequency, preheat start fluorescent lamp ballasts. See section III.B.3.a of this document.

(5) DOE requests comment on the selection of starting method for the fluorescent lamp ballast used in testing. See section III.B.3.a of this document.

(6) DOE requests comment on the selection of ballast factor for the fluorescent lamp ballast used in testing. See section III.B.3.a of this document.

(7) DOE requests comment on instructions to divide measured values by the maximum number of lamps operated by the fluorescent lamp ballast or external driver to determine individual lamp values. See section III.B.3.b of this document.

(8) DOE requests comment on incorporating by reference sections of ANSI C78.53–2023 in appendix DD. See section III.B.3.b of this document.

(9) DOE requests comment on the benefits and burdens of the proposed updates and additions to industry standards referenced in the test procedure for GSLs. See section III.D.2 of this document.

Additionally, DOE welcomes comments on other issues relevant to the conduct of this rulemaking that may not specifically be identified in this document.

VI. Approval of the Office of the Secretary

The Secretary of Energy has approved publication of this notice of proposed rulemaking and announcement of public meeting.

List of Subjects in 10 CFR Part 430

Administrative practice and procedure, Confidential business information, Energy conservation, Household appliances, Imports, Incorporation by reference, Intergovernmental relations, Reporting and recordkeeping requirements, Small businesses.

Signing Authority

This document of the Department of Energy was signed on November 8, 2024, by Jeffrey Marootian, Principal Deputy Assistant Secretary for Energy Efficiency and Renewable Energy, pursuant to delegated authority from the Secretary of Energy. That document with the original signature and date is maintained by DOE. For administrative purposes only, and in compliance with requirements of the Office of the Federal Register, the undersigned DOE Federal Register Liaison Officer has been authorized to sign and submit the document in electronic format for publication, as an official document of the Department of Energy. This administrative process in no way alters the legal effect of this document upon publication in the **Federal Register**.

Signed in Washington, DC, on November 12, 2024.

Treena V. Garrett,

Federal Register Liaison Officer, U.S. Department of Energy.

For the reasons stated in the preamble, DOE is proposing to amend part 430 of chapter II of title 10, Code of Federal Regulations as set forth below:

PART 430—ENERGY CONSERVATION PROGRAM FOR CONSUMER PRODUCTS

■ 1. The authority citation for part 430 continues to read as follows:

Authority: 42 U.S.C. 6291–6309; 28 U.S.C. 2461 note.

■ 2. Amend § 430.3 by:

■ a. Redesignating paragraphs (e)(5) through (26) as paragraphs (e)(6) through (27);

■ b. Adding new paragraph (e)(5);

■ c. Removing the words ''appendices Q and R'' and adding in their place ''appendices Q, R, and DD'' in newly-redesignated paragraph (e)(13); and

■ d. Revising Note 1 to Paragraph (e).

The revisions and additions read as follows:

§ 430.3 Materials incorporated by reference.

* * * * *

(e) * * *

(5) ANSI C78.53–2019 (R2023) (''ANSI C78.53–2023''), American National Standard for Electric Lamps—Performance Specifications for Direct Replacement LED (Light Emitting Diode) Lamps, ANSI approved August 24, 2023, IBR approved for appendix DD to subpart B.

* * * * *

Note 1 to paragraph (e): The standards referenced in paragraphs (e)(4), (6), (8), (10), (13), (17), (18), (19), (20), and (22) of this section were all published by National Electrical Manufacturers Association (NEMA) and are also available from National Electrical Manufacturers Association, 1300 North 17th Street, Suite 900, Rosslyn, Virginia 22209, *https://www.nema.org/Standards/Pages/default.aspx.*

* * * * *

■ 3. Amend appendix W to subpart B by:

■ a. Redesignating sections 3.1.5 through 3.1.7 as sections 3.1.6 through 3.1.8;

■ b. Adding new sections 3.1.5 and 3.1.9.

The additions read as follows:

Appendix W to Subpart B of Part 430—Uniform Test Method for Measuring the Energy Consumption of Compact Fluorescent Lamps

* * * * *

3. * * *

3.1. * * *

3.1.5. If the lamp can operate in multiple modes at the labeled wattage, operate the lamp as not a colored lamp (as defined in 10 CFR 430.2). If the lamp can operate at multiple CCTs, operate the lamp at 2700 Kelvin (K), or the closest available CCT greater than 2700 K. The test report must indicate which CCT (numerical or on the graphical user interface) was selected for testing and include details such that another laboratory could operate the lamp at the same CCT.

* * * * *

3.1.9 For a CFL that has one or more component(s) that offer a completely different functionality (*e.g.,* a speaker, a camera, an air purifier, etc.) where the component is integrated into the lamp but does not affect the light output of the lamp (*e.g.,* does not turn the light on/off, dim the light, change the color of the light, etc.) and is capable of operating in standby mode, turn off as many of these components as possible during testing. The test report must indicate which components were turned off and any features that remained on.

* * * * *

■ 4. Amend appendix BB to subpart B by:

■ a. Revising section 3.1.4 and

■ b. Adding new section 3.1.5.

The revision and addition read as follows:

Appendix BB to Subpart B of Part 430—Uniform Test Method for Measuring the Input Power, Lumen Output, Lamp Efficacy, Correlated Color Temperature (CCT), Color Rendering Index (CRI), Power Factor, Time to Failure, and Standby Mode Power of Integrated Light-Emitting Diode (LED) Lamps

* * * * *

3. * * *

3.1. * * *

3.1.4. Operate the lamp at the maximum input power and not as a colored lamp (as defined in 10 CFR 430.2). If the lamp can operate at multiple CCTs, operate the lamp at 2700 Kelvin (K), or the closest available CCT greater than 2700 K. The test report must indicate which CCT (numerical or on the graphical user interface) was selected for testing and include detail such that another laboratory could operate the lamp in the same mode.

3.1.5 For a lamp that has one or more component(s) that offer a completely different functionality (*e.g.,* a speaker, a camera, an air purifier, etc.) where the component is integrated into the lamp but does not affect the light output of the lamp (*e.g.,* does not turn the light on/off, dim the light, change the color of the light, etc.) and is capable of operating in standby mode, turn off as many of these components as possible during testing. The test report must indicate which components were turned off and any features that remained on.

* * * * *

■ 5. Revise appendix DD of subpart B to read as follows:

Appendix DD to Subpart B of Part 430—Uniform Test Method for Measuring the Energy Consumption and Energy Efficiency of General Service Lamps That Are Not General Service Incandescent Lamps, Compact Fluorescent Lamps, or Integrated LED Lamps

Note: On or after April 19, 2017, any representations, including certifications of compliance (if required), made with respect to the energy use or efficiency of general service lamps that are not general service incandescent lamps, compact fluorescent lamps, or integrated LED lamps must be made in accordance with the results of testing pursuant to this appendix DD.

1. *Scope:* This appendix DD specifies the test methods required to measure the initial lumen output, input power, lamp efficacy, power factor, and standby mode energy consumption of general service lamps that are not general service incandescent lamps, compact fluorescent lamps, or integrated LED lamps.

2. *Definitions:*

Commercially available fluorescent lamp ballast or external driver means one that can be purchased by an individual consumer at a readily accessible retailer (*i.e.,* retailer with storefront or online purchasing).

Measured initial input power means the input power to the lamp, measured after the lamp is stabilized and seasoned (if applicable), and expressed in watts (W).

Measured initial lumen output means the lumen output of the lamp, measured after the lamp is stabilized and seasoned (if applicable), and expressed in lumens (lm).

Power factor means the measured initial input power (watts) divided by the product of the input voltage (volts) and the input current (amps) measured at the same time as the initial input power.

3. Active Mode Test Procedures

3.1. Test Conditions and Setup

3.1.1. For single base OLED and non-integrated LED lamps, position a lamp in either the base-up and base-down orientation throughout testing. Test an equal number of lamps in the sample in the base-up and base-down orientations, except that, if the manufacturer restricts the orientation, test all of the units in the sample in the manufacturer-specified orientation. For double base OLED and non-integrated LED lamps, test all units in the horizontal orientation except that, if the manufacturer restricts the orientation, test all of the units in the sample in the manufacturer-specified orientation.

3.1.2. For integrated lamps, operate the lamp at the rated voltage throughout testing. For lamps with multiple rated voltages including 120 volts, operate the lamp at 120 volts. If a lamp is not rated for 120 volts, operate the lamp at the highest rated input voltage.

3.1.3. For non-integrated lamps, operate the lamp on a fluorescent lamp ballast or external driver in order of the following preference:

3.1.3.1. Choose a fluorescent lamp ballast or external driver from the lamp's publicly available manufacturer-provided compatibility list that is commercially available. The manufacturer must indicate in the test report the fluorescent lamp ballast or external driver manufacturer and model name/number used in the test.

3.1.3.1.1. If all ballasts on the publicly available manufacturer-provided compatibility list use the same starting method, then choose a ballast with that starting method to test the lamp.

3.1.3.1.1.1. If ballasts on the publicly available manufacturer-provided compatibility list use more than one ballast factor, then choose a ballast with a ballast factor based on lamp type per Table 3.1 (if the ballast factor in the table is not included among ballasts on the compatibility list, then the manufacturer should select a ballast with a ballast factor closest to the one listed in the table):

TABLE 3.1—BALLAST FACTOR BY LAMP TYPE

Lamp type	Ballast factor
T8 medium bipin	0.88.
T8 recessed double contact.	1.05.
T5 miniature bipin	1.
T12 single pin, slimline	Any.
T12 medium bipin	Any.
T12 recessed double contact.	Any.
All other lamp types	Any.

3.1.3.1.2. If ballasts on the publicly available manufacturer-provided compatibility list use more than one starting method, then choose a ballast with a starting method based on lamp type per Table 3.2 (if the starting method in the table is not included among ballasts on the compatibility list, then the manufacturer may select the starting method):

TABLE 3.2—STARTING METHOD BY LAMP TYPE

Lamp type	Starting method
T8 medium bipin	Instant Start.
T8 recessed double contact.	Instant Start.
T5 miniature bipin	Programmed Start.
T12 single pin, slimline	Instant Start.
T12 medium bipin	Rapid Start.
T12 recessed double contact.	Rapid Start.
All other lamp types	Any.

3.1.3.1.2.1. If ballasts on the publicly available manufacturer-provided compatibility list use more than one ballast factor, then choose a ballast with a ballast factor based on lamp type per Table 3.3 (if the ballast factor in the table is not included among ballasts on the compatibility list, then the manufacturer should select a ballast with a ballast factor closest to the one listed in the table):

TABLE 3.3—BALLAST FACTOR BY LAMP TYPE

Lamp type	Ballast factor
T8 medium bipin	0.88.
T8 recessed double contact.	1.05.
T5 miniature bipin	1.
T12 single pin, slimline	Any.
T12 medium bipin	Any.
T12 recessed double contact.	Any.
All other lamp types	Any.

3.1.3.2. If section 3.1.3.1 is not possible, choose any fluorescent lamp ballast or external driver that is commercially available and can operate the lamp throughout the duration of the test. The manufacturer must indicate in the test report the fluorescent lamp ballast or external driver manufacturer and model name/number used in the test.

3.1.3.2.1. If all ballasts that are commercially available use the same starting method, then choose a ballast with that starting method to test the lamp.

3.1.3.2.1.1. If ballasts on the publicly available manufacturer-provided compatibility list use more than one ballast factor, then choose a ballast with a ballast factor based on lamp type per Table 3.4 (if the ballast factor in the table is not included among commercially available ballasts, then the manufacturer should select a ballast with a ballast factor closest to the one listed in the table):

TABLE 3.4—BALLAST FACTOR BY LAMP TYPE

Lamp type	Ballast factor
T8 medium bipin	0.88.
T8 recessed double contact.	1.05.
T5 miniature bipin	1.
T12 single pin, slimline	Any.
T12 medium bipin	Any.
T12 recessed double contact.	Any.
All other lamp types	Any.

3.1.3.2.2. If ballasts that are commercially available use more than one starting method, then choose a ballast with a starting method based on lamp type per Table 3.5 (if the starting method in the table is not included among commercially available ballasts, then the manufacturer may select the starting method):

TABLE 3.5—STARTING METHOD BY LAMP TYPE

Lamp type	Starting method
T8 medium bipin	Instant Start.
T8 recessed double contact.	Instant Start.
T5 miniature bipin	Programmed Start.
T12 single pin, slimline	Instant Start.
T12 medium bipin	Rapid Start.
T12 recessed double contact.	Rapid Start.
All other lamp types	Any.

3.1.3.2.2.1. If ballasts that are commercially available use more than one ballast factor, then choose a ballast with a ballast factor based on lamp type per Table 3.6 (if the ballast factor in the table is not included among commercially available ballasts, then the manufacturer should select a ballast with a ballast factor closest to the one listed in the table):

TABLE 3.6—BALLAST FACTOR BY LAMP TYPE

Lamp type	Ballast factor
T8 medium bipin	0.88.
T8 recessed double contact.	1.05.
T5 miniature bipin	1.
T12 single pin, slimline	Any.
T12 medium bipin	Any.
T12 recessed double contact.	Any.
All other lamp types	Any.

3.1.3.3. If sections 3.1.3.1 and 3.1.3.2 are not possible, use any fluorescent lamp ballast or external driver previously procured that can operate the lamp throughout the duration of the test. The manufacturer must indicate in the test report the fluorescent lamp ballast or external driver manufacturer and model name/number used in the test.

3.1.3.3.1. If all ballasts that are previously procured use the same starting method, then choose a ballast with that starting method to test the lamp.

3.1.3.3.1.1. If all ballasts that are previously procured use more than one ballast factor, then choose a ballast with a ballast factor based on lamp type per Table 3.7 (if the ballast factor in the table is not included among then previously procured ballasts, then the manufacturer should select a ballast with a ballast factor closest to the one listed in the table):

TABLE 3.7—BALLAST FACTOR BY LAMP TYPE

Lamp type	Ballast factor
T8 medium bipin	0.88.
T8 recessed double contact.	1.05.
T5 miniature bipin	1.
T12 single pin, slimline	Any.
T12 medium bipin	Any.
T12 recessed double contact.	Any.
All other lamp types	Any.

3.1.3.3.2. If all ballasts that are previously procured use more than one starting method,

then choose a ballast with a starting method based on lamp type per Table 3.8 (if the starting method in the table is not included among the previously procured ballasts, then the manufacturer may select the starting method):

TABLE 3.8—STARTING METHOD BY LAMP TYPE

Lamp type	Starting method
T8 medium bipin	Instant Start.
T8 recessed double contact.	Instant Start.
T5 miniature bipin	Programmed Start.
T12 single pin, slimline	Instant Start.
T12 medium bipin	Rapid Start.
T12 recessed double contact.	Rapid Start.
All other lamp types	Any.

3.1.3.3.2.1. If ballasts that are previously procured use more than one ballast factor, then choose a ballast with a ballast factor based on lamp type per Table 3.9 (if the ballast factor in the table is not included among the previously procured ballasts, then the manufacturer should select a ballast with a ballast factor closest to the one listed in the table):

TABLE 3.9—BALLAST FACTOR BY LAMP TYPE

Lamp type	Ballast factor
T8 medium bipin	0.88.
T8 recessed double contact.	1.05.
T5 miniature bipin	1.
T12 single pin, slimline	Any.
T12 medium bipin	Any.
T12 recessed double contact.	Any.
All other lamp types	Any.

3.1.3.4. If sections 3.1.3.1, 3.1.3.2 and 3.1.3.3 are not possible and the lamp only operates on a low frequency, preheat start fluorescent lamp ballast, operate the lamp on the manufacturer-declared voltage and current. If the manufacturer-declared voltage and current are not provided, then operate the lamp in accordance with the applicable lamp voltage and current conditions specified in ANSI C78.901–2016 (incorporated by reference; see § 430.3). The manufacturer must indicate in the test report the voltage and current with which the lamp was operated.

3.1.4. Operate the fluorescent lamp ballast or external driver loaded with the maximum number of lamps to measure the initial lumen output, initial input power, input voltage, and input current, and divide the values by the maximum number of lamps.

3.1.5. For a non-integrated lamp marketed to replace a fluorescent lamp and operate on the existing fluorescent lamp ballast, testing should be conducted in accordance with the setup provisions in sections 5.6.3 and 5.6.4 of ANSI C78.53–2023 (incorporated by reference; see § 430.3).

3.1.6. For a non-integrated lamp marketed to replace a high intensity discharge lamp and operates on the existing high intensity discharge lamp ballast, testing should be conducted in accordance with the setup provisions in sections 5.7.2.1, 5.7.3, and 5.7.5 of ANSI C78.53–2023 (incorporated by reference; see § 430.3).

3.1.7. Operate the lamp at the maximum input power and not as a colored lamp (as defined in 10 CFR 430.2). If the lamp can operate at multiple CCTs, operate the lamp at 2700 Kelvin (K), or the closest available CCT greater than 2700 K. The test report must indicate which CCT (numerical or on the graphical user interface) was selected for testing and include details such that another laboratory could operate the lamp at the same CCT.

3.1.8. For a lamp that has one or more component(s) that offer a completely different functionality (*e.g.,* a speaker, a camera, an air purifier, etc.) where the component is integrated into the lamp but does not affect the light output of the lamp (*e.g.,* does not turn the light on/off, dim the light, change the color of the light, etc.) and is capable of operating in standby mode, turn off as many of these components as possible during testing. The test report must indicate which components were turned off and any features that remained on.

3.2. Test Method, Measurements, and Calculations

3.2.1. To measure initial lumen output, input power, input voltage, and input current use the test procedures in the table in this section. Do not use a goniophotometer.

TABLE 3.10—REFERENCES TO INDUSTRY STANDARD TEST PROCEDURES

Lamp type	Referenced test procedure
Compact fluorescent lamps	Appendix W to subpart B of 10 CFR part 430.
General service incandescent lamps	Appendix R to subpart B of 10 CFR part 430.
Integrated LED lamps	Appendix BB to subpart B of 10 CFR part 430.
Non-integrated LED lamps	IES LM–79–08–DD, sections 1.3 (except 1.3f), 2.0, 3.0, 5.0, 7.0, 8.0, 9.1 and 9.2.*
OLED lamps	IES LM–79–08–DD, sections 1.3 (except 1.3f), 2.0, 3.0, 5.0, 7.0, 8.0, 9.1 and 9.2.*
Other fluorescent lamps	IES LM–9–09–DD, sections 4–6, and section 7.5.*
Other incandescent lamps that are not reflector lamps	IES LM–45–15, sections 4–6, and section 7.1.*
Other incandescent lamps that are reflector lamps	IES LM–20–13, sections 4–6, and section 8.*

* Incorporated by reference, see § 430.3.

3.2.2. Determine initial lamp efficacy by dividing the measured initial lumen output (lumens) by the measured initial input power (watts).

3.2.3. Determine power factor by dividing the measured initial input power (watts) by the product of the measured input voltage (volts) and measured input current (amps).

3.3. Standby Mode Test Procedure

3.3.1. Measure standby mode power only for lamps that are capable of standby mode operation.

3.3.2. The test conditions and setup described in section 3.1 of this appendix apply to this section.

3.3.3. Connect the lamp to the manufacturer-specified wireless control network (if applicable) and configure the lamp in standby mode by sending a signal to the lamp instructing it to have zero light output. Lamp must remain connected to the network throughout testing.

3.3.4. Operate the lamp at the rated voltage throughout testing. For lamps with multiple rated voltages including 120 volts, operate the lamp at 120 volts. If a lamp is not rated for 120 volts, operate the lamp at the highest rated input voltage.

3.3.5. Stabilize the lamp prior to measurement as specified in section 5 of IEC 62301–DD (incorporated by reference; see § 430.3).

3.3.6. Measure the standby mode power in watts as specified in section 5 of IEC 62301–DD (incorporated by reference; see § 430.3).

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