

input at equilibrium for the reference condition. The test report shall conform to section 10.0 of IES LM-20 (incorporated by reference; see § 430.3).

#### 4.4 Determination of Color Rendering Index and Correlated Color Temperature

4.4.1 The CRI shall be determined in accordance with the method specified in CIE 13.3 (incorporated by reference; see § 430.3) for general service fluorescent lamps. The CCT shall be determined in accordance with the method specified in IES LM-9 (incorporated by reference; see § 430.3) and rounded to the nearest 10 kelvin for general service fluorescent lamps. The CCT shall be determined in accordance with the CIE 15 (incorporated by reference; see § 430.3) for incandescent lamps. The required spectroradiometric measurement and characterization shall be conducted in accordance with the methods set forth in IESNA LM-58 (incorporated by reference; see § 430.3).

4.4.2 The test report shall include a description of the test conditions, equipment, measured lamps, spectroradiometric measurement results, and CRI and CCT determinations.

[62 FR 29240, May 29, 1997, as amended at 74 FR 34177, July 14, 2009; 77 FR 4217, Jan. 27, 2012]

#### APPENDIX S TO SUBPART B OF PART 430—UNIFORM TEST METHOD FOR MEASURING THE WATER CONSUMPTION OF FAUCETS AND SHOWERHEADS

NOTE: After April 21, 2014, any representations made with respect to the water consumption of showerheads or faucets must be made in accordance with the results of testing pursuant to this appendix.

Manufacturers conducting tests of showerheads or faucets November 22, 2013 and prior to April 21, 2014, must conduct such test in accordance with either this appendix or appendix S as it appeared at 10 CFR part 430, subpart B, appendix S, in the 10 CFR parts 200 to 499 edition revised as of January 1, 2013. Any representations made with respect to the water consumption of such showerheads or faucets must be in accordance with whichever version is selected. Given that after April 21, 2014 representations with respect to the water consumption of showerheads and faucets must be made in accordance with tests conducted pursuant to this appendix, manufacturers may wish to begin using this test procedure as soon as possible.

1. *Scope*: This appendix covers the test requirements used to measure the hydraulic performance of faucets and showerheads.

#### 2. Flow Capacity Requirements

a. *Faucets*—The test procedures to measure the water flow rate for faucets, expressed in gallons per minute (gpm) and liters per minute (L/min), or gallons per cycle (gal/cycle) and liters per cycle (L/cycle), shall be conducted in accordance with the test requirements specified in section 5.4, Flow Rate, of ASME A112.18.1-2012 (incorporated by reference, see § 430.3). Measurements shall be recorded at the resolution of the test instrumentation. Calculations shall be rounded off to the same number of significant digits as the previous step. The final water consumption value shall be rounded to one decimal place for non-metered faucets, or two decimal places for metered faucets.

b. *Showerheads*—The test procedures to measure the water flow rate for showerheads, expressed in gallons per minute (gpm) and liters per minute (L/min), shall be conducted in accordance with the test requirements specified in section 5.4, Flow Rate, of the ASME A112.18.1-2012 (incorporated by reference, see § 430.3). Measurements shall be recorded at the resolution of the test instrumentation. Calculations shall be rounded off to the same number of significant digits as the previous step. The final water consumption value shall be rounded to one decimal place. If the time/volume method of section 5.4.2.2(d) is used, the container must be positioned as to collect all water flowing from the showerhead, including any leakage from the ball joint.

[63 FR 13316, Mar. 18, 1998, as amended at 78 FR 62986, Oct. 23, 2013]

#### APPENDIX T TO SUBPART B OF PART 430—UNIFORM TEST METHOD FOR MEASURING THE WATER CONSUMPTION OF WATER CLOSETS AND URINALS

NOTE: After April 21, 2014, any representations made with respect to the water consumption of water closets or urinals must be made in accordance with the results of testing pursuant to this appendix.

Manufacturers conducting tests of water closets or urinals after November 22, 2013 and prior to April 21, 2014, must conduct such test in accordance with either this appendix or appendix T as it appeared at 10 CFR part 430, subpart B, appendix S, in the 10 CFR parts 200 to 499 edition revised as of January 1, 2013. Any representations made with respect to the water consumption of such water closets or urinals must be in accordance with whichever version is selected. Given that after April 21, 2014 representations with respect to the water consumption of water closets and urinals must be made in accordance with tests conducted pursuant to this appendix, manufacturers may wish to

begin using this test procedure as soon as possible.

1. *Scope:* This appendix covers the test requirements used to measure the hydraulic performances of water closets and urinals.

### 2. Test Apparatus and General Instructions

a. The test apparatus and instructions for testing water closets shall conform to the requirements specified in section 7.1, General, subsections 7.1.1, 7.1.2, 7.1.3, 7.1.4, and 7.1.5 of ASME A112.19.2–2008 (incorporated by reference, *see* §430.3). The flushometer valve used in the water consumption test shall represent the maximum design flush volume of the water closet. Measurements shall be recorded at the resolution of the test instrumentation. Calculations of water consumption for each tested unit shall be rounded off to the same number of significant digits as the previous step.

b. The test apparatus and instructions for testing urinals shall conform to the requirements specified in section 8.2, Test Apparatus and General Instructions, subsections 8.2.1, 8.2.2, and 8.2.3 of ASME A112.19.2–2008 (incorporated by reference, *see* §430.3). The flushometer valve used in the water consumption test shall represent the maximum design flush volume of the urinal. Measurements shall be recorded at the resolution of the test instrumentation. Calculations of water consumption for each tested unit shall be rounded off to the same number of significant digits as the previous step.

### 3. Test Measurement

#### a. Water closets:

(i) The measurement of the water flush volume for water closets, expressed in gallons per flush (gpf) and liters per flush (Lpf), shall be conducted in accordance with the test requirements specified in section 7.4, Water Consumption Test, of ASME A112.19.2–2008 (incorporated by reference, *see* §430.3). For dual-flush water closets, the measurement of the water flush volume shall be conducted separately for the full-flush and reduced-flush modes and in accordance with the test requirements specified section 7.4, Water Consumption Test, of ASME A112.19.2–2008.

(ii) *Static pressure requirements:* The water consumption tests of siphonic and blowout water closets shall be conducted at two static pressures. For flushometer valve water closets with a siphonic bowl, the test pressures shall be 80 psi and 35 psi. For flushometer valve water closets with a blowout bowl, the test pressures shall be 80 psi and 45 psi. The test shall be run three times at each pressure as specified in section 7.4.3 “Procedure,” of ASME A112.19.2–2008 (incorporated by reference, *see* §430.3). The final measured flush volume for each tested unit shall be the average of the total flush vol-

umes recorded at each test pressure as specified in section 7.4.5 “Performance,” of ASME A112.19.2–2008.

(iii) *Flush volume and tank trim component adjustments:* For gravity flush tank water closets, trim components that can be adjusted to cause an increase in flush volume, including (but not limited to) the flapper valve, fill valve, and tank water level, shall be set in accordance with the printed installation instructions supplied by the manufacturer. If the installation instructions for the model to be tested do not specify trim setting adjustments, these trim components shall be adjusted to the maximum water use setting so that the maximum flush volume is produced without causing the water closet to malfunction or leak. The water level in the tank shall be set to the maximum water line designated in the printed installation instructions supplied by the manufacturer or the designated water line on the tank itself, whichever is higher. If the printed installation instructions or the water closet tank do not indicate a water level, the water level shall be adjusted to  $\pm 0.1$  inches below the top of the overflow tube or  $\pm 0.1$  inches below the top rim of the water-containing vessel (for gravity flush tank water closets that do not contain an overflow tube) for each designated pressure specified in Table 5 of ASME A112.19.2–2008 (incorporated by reference, *see* §430.3).

b. *Urinals—*The measurement of water flush volume for urinals, expressed in gallons per flush (gpf) and liters per flush (Lpf), shall be conducted in accordance with the test requirements specified in section 8.6, Water Consumption Test, of ASME A112.19.2–2008 (incorporated by reference, *see* §430.3). The final measured flush volume for each tested unit shall be the average of the total flush volumes recorded at each test pressure as specified in section 8.6.4 “Performance,” of ASME A112.19.2–2008.

[63 FR 13317, Mar. 18, 1998, as amended at 78 FR 62987, Oct. 23, 2013]

### APPENDIX U TO SUBPART B OF PART 430—UNIFORM TEST METHOD FOR MEASURING THE ENERGY CONSUMPTION OF CEILING FANS

Prior to January 23, 2017, manufacturers must make any representations with respect to the energy use or efficiency of ceiling fans as specified in Section 2 of this appendix (other than hugger ceiling fans, multi-mount ceiling fans in the hugger configuration, and large-diameter ceiling fans) in accordance with the results of testing pursuant either to this appendix, or to the applicable test requirements set forth in 10 CFR parts 429 and 430, as they appeared in the 10 CFR parts 200 to 499 edition revised as of January 1, 2016. On or after January 23, 2017, manufacturers