

APPENDIX H TO SUBPART B OF PART 430—UNIFORM TEST METHOD FOR MEASURING THE POWER CONSUMPTION OF TELEVISION SETS

NOTE: After April 23, 2014, any representations made with respect to the energy use or efficiency of televisions must be made in accordance with the results of testing pursuant to this appendix. Given that after April 23, 2014 representations with respect to the energy use or efficiency of televisions 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 energy and power consumption of television sets that:

- (i) Have a diagonal screen size of at least fifteen inches; and
- (ii) Are powered by mains power (including TVs with auxiliary batteries but not TVs with main batteries).

2. DEFINITIONS AND SYMBOLS

2.1. *Additional functions* shall be defined using the additional functions definition in section 3.1.1 of IEC 62087 Ed. 3.0 (incorporated by reference, see § 430.3).

2.2. *Auxiliary Battery* means a battery capable of powering a clock or retaining TV settings but is incapable of powering the TV to produce dynamic video.

2.3. *Brightest selectable preset picture setting* means the preset picture setting in which the television produces the highest screen luminance within either the home or retail configuration.

2.4. *Default picture setting* means the preset picture setting that the TV enters into immediately after making a selection from the forced menu. If the TV does not have a forced menu, this is the as-shipped preset picture setting.

2.5. *Forced menu* means a series of menus which require the selection of initial settings before allowing the user to utilize primary functions. Within these menus contains an option to choose the viewing environment between retail and home configurations.

2.6. *Home configuration* means the TV configuration selected from the forced menu which is designed for typical consumer viewing and is recommended by the manufacturer for home environments.

2.7. *IEC 62087 Ed. 3.0* means the test standard published by the International Electrotechnical Commission, entitled “Methods of measurement of the power consumption of audio, video, and related equipment,” IEC 62087 Ed. 3.0 (incorporated by reference, see § 430.3).

2.8. *IEC 62087 Ed. 3.0 Blu-ray Disc™ Dynamic Broadcast-Content Video Signal* means the test video content published by the International Electrotechnical Commission, entitled “IEC 62087 Ed. 3.0, video content BD, video content for IEC 62087 Ed. 3.0 on Blu-ray™ Disc,” IEC 62087 Ed. 3.0 (incorporated by reference, see § 430.3).

2.9. *IEC 62301 Ed. 2.0* means the test standard published by the International Electrotechnical Commission, entitled “Household electrical appliances—Measurement of standby power,” IEC 62301 Ed. 2.0 (incorporated by reference, see § 430.3).

2.10. *Illuminance* means the luminous flux per unit area of light illuminating a given surface, expressed in units of lux (lx).

2.11. *Luminance* means the photometric measure of the luminous intensity per unit area of light traveling in a given direction, expressed in units of candelas per square meter (cd/m<sup>2</sup>).

2.12. *Main battery* means a battery capable of powering the TV to produce dynamic video without the support of mains power.

2.13. *Off mode* means the mode of operation in which the TV is connected to mains power, produces neither sound nor picture, and cannot be switched into any other mode of operation with the remote control unit, an internal signal, or external signal.

2.14. *On mode* means the mode of operation in which the TV is connected to mains power, and is capable of producing dynamic video.

2.15. *Preset picture setting* means a preprogrammed factory setting obtained from the TV menu with pre-determined picture parameters such as brightness, contrast, color, sharpness, etc. Preset picture settings can be selected within the home or retail mode.

2.16. *Retail configuration* means the TV configuration selected from the forced menu which is designed to highlight the TV’s features in a retail environment. This configuration may display demos, disable configurable settings, or increase screen brightness in a manner which is not desirable for typical consumer viewing.

2.17. *Special functions* shall be defined using the definition in section 3.1.18 of IEC 62087 Ed. 3.0 (incorporated by reference, see § 430.3).

2.18. *Standby-passive mode* means the mode of operation in which the TV is connected to mains power, produces neither sound nor picture, and can be switched into another mode with only the remote control unit or an internal signal.

2.19. *Standby-active, high mode* means the mode of operation in which the TV is connected to mains power, produces neither sound nor picture, is exchanging/receiving data with/from an external source, and can be switched into another mode of operation with the remote control unit, an internal signal, or an external signal.

2.20. *Standby-active, low mode* means the mode of operation in which the TV is connected to mains power, produces neither sound nor picture, can be switched into another mode with the remote control unit or an internal signal, and can additionally be switched into another mode with an external signal.

2.21. *Symbol usage.* The following identity relationships are provided to help clarify the symbols used throughout this test procedure.

ABC—Automatic Brightness Control  
 AEC—Annual Energy Consumption  
 BD—Blu-ray Disc™  
 DVD—Digital Versatile Disc™  
 DVI—Digital Visual Interface  
 HDMI®—High Definition Multimedia Interface  
 L<sub>brightest</sub>—Screen luminance in brightest selectable preset picture setting within the home configuration  
 L<sub>default</sub>—Screen luminance in default picture setting within the home configuration  
 L<sub>default-retail</sub>—Screen luminance in default picture setting within the retail configuration  
 LAN—Local Area Network  
 P<sub>on</sub>—Power consumed in on mode  
 P<sub>3</sub>—Average power consumed in on mode, ABC enabled, 3 lx  
 P<sub>12</sub>—Average power consumed in on mode, ABC enabled, 12 lx  
 P<sub>35</sub>—Average power consumed in on mode, ABC enabled, 35 lx  
 P<sub>100</sub>—Average power consumed in on mode, ABC enabled, 100 lx  
 P<sub>standby-passive</sub>—Power consumption in standby-passive mode  
 P<sub>standby-active, low</sub>—Power consumption in standby-active, low mode  
 P<sub>off</sub>—Power consumption in off mode  
 STB—Set-top Box  
 THD—Total Harmonic Distortion  
 TV—Television Set  
 USB—Universal Serial Bus  
 W<sub>3</sub>—Percent weighting for on mode, ABC enabled, 3 lx  
 W<sub>12</sub>—Percent weighting for on mode, ABC enabled, 12 lx  
 W<sub>35</sub>—Percent weighting for on mode, ABC enabled, 35 lx  
 W<sub>100</sub>—Percent weighting for on mode, ABC enabled, 100 lx  
 WAN—Wide Area Network

### 3. ACCURACY AND PRECISION OF MEASUREMENT EQUIPMENT

3.1. *Voltage and Frequency.* Set the test voltage and frequency to the rated electrical supply values of the region in accordance with Table 1 in section 4.3.1 of IEC 62301 Ed. 2.0

3.2. *Power Supply Requirements.* The TV power use shall be measured using a power supply that meets the specifications found in section 4.3.1 of IEC 62301 Ed. 2.0 (incorporated by reference, see § 430.3). The THD of the supply voltage shall not exceed 5%, inclusive to

the 13th order harmonic, when the unit is under test.

3.3. *Power Meter Requirements.* The power measurement shall be carried out directly by means of a wattmeter, a wattmeter with averaging function, or a watt-hour meter by dividing the reading by the measuring time. For TVs where the input video signal varies over time, use a wattmeter with an averaging function to carry out the measurement.

3.3.1. The sampling rate of the watt-hour meter or wattmeter with averaging function shall be one measurement per second or more frequent.

3.3.2. The power measurement instrument shall measure and record the power factor and the real power consumed during all on mode tests at the same sampling rate.

3.3.3. Power measurements of 0.5 W or greater shall be made with an uncertainty of less than or equal to 2 percent (at the 95 percent confidence level). Measurements of power of less than 0.5 W shall be made with an uncertainty of less than or equal to 0.01 W (at the 95 percent confidence level). The power measurement instrument shall have a resolution of:

0.01 W or better for power measurements of 10 W or less;

0.1 W or better for power measurements of greater than 10 W up to 100 W;

1 W or better for power measurements of greater than 100 W.

3.4. *Luminance Meter Requirements.* Contact or non-contact luminance meters shall have an accuracy of  $\pm 2$  percent  $\pm 2$  digits of the digitally displayed value. Non-contact meters are also required to have an acceptance angle of 3 degrees or less.

3.5. *Illuminance Meter Requirements.* All illuminance meters shall have an accuracy of  $\pm 2$  percent  $\pm 2$  digits of the digitally displayed value.

3.6. *Video Input Device.* The video input device (i.e. BD player) shall be capable of decoding a BD signal. The video input device manufacturer shall be different from the manufacturer of the TV under test to prevent device interaction.

### 4. TEST ROOM SET-UP

4.1. *Ambient Temperature Conditions.* For all testing, maintain ambient temperature conditions in accordance with in section 11.4.1 of IEC 62087 Ed. 3.0 (incorporated by reference, see § 430.3).

4.2. *Ambient Relative Humidity Conditions.* For all testing, maintain the ambient relative humidity between 10 and 80 percent.

4.3. *Room Illuminance Level.* All luminance testing (with a non-contact meter) and on mode testing (with ABC enabled by default) shall be performed in a room which measures less than or equal to 1.0 lx measured at the ABC sensor while the TV is in off or a standby mode. If the TV does not have an ABC

sensor, measure at the bottom center of the TV bezel.

4.4. *Installation.* Install the TV in accordance with manufacturer’s instructions.

4.5. *TV Placement.* TVs which have an ABC sensor enabled by default shall be placed at least 0.5 meters away from any wall surface (i.e. wall, ceiling, and floor). This does not include the furnishings which the TV may be placed on or the wall which the back of the TV faces. All four corners of the face of the TV shall be placed equidistant from a vertical reference plane (e.g. wall).

5. TV AND VIDEO SIGNAL CONFIGURATION

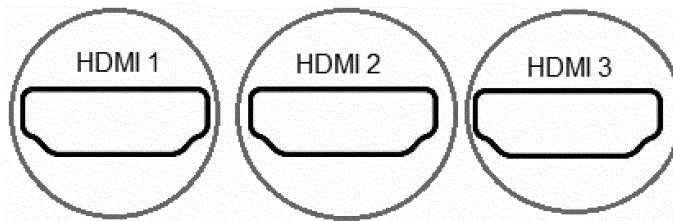
5.1. *Additional Functions.* The TV shall be set up according to the requirements in sec-

tion 11.4.5 of IEC 62087 Ed. 3.0 (incorporated by reference, see § 430.3).

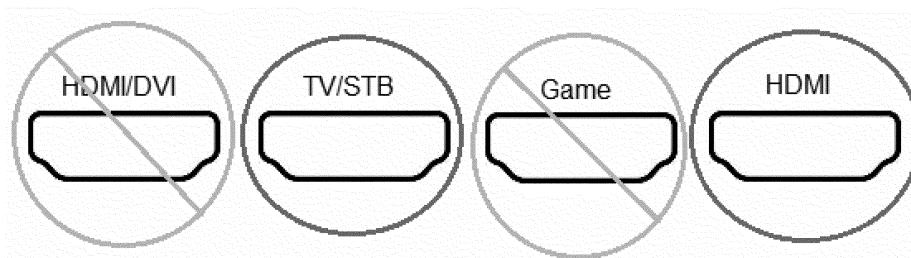
5.2. *Video Connection Priority.* The TV and the video input device shall be connected using an HDMI input cable. If the TV does not have an HDMI input terminal, the specified input terminals shall be used in the following order: Component video, S-video, and Composite video.

5.3. *Input Terminal.* If the TV has multiple input terminals of the same type (i.e. HDMI 1, HDMI 2), testing shall only be performed using any input terminal designed for viewing live TV or dynamic content from a BD player or STB, not from an input designed for an alternative purpose. Examples 1 and 2 provide visual explanations of this requirement.

Example 1: All input terminals present are acceptable for testing



Example 2: Only TV/STB and HDMI are acceptable input terminals for testing



5.4. *Special Functions.* The TV shall be set up according to the requirements in section 11.4.6 of IEC 62087 Ed. 3.0 (incorporated by reference, see § 430.3).

5.5. *Special Function Configuration.* If at any time during on mode operation a message prompt is displayed requesting the configuration of special functions, the most power consumptive configuration shall be selected. If it is unknown which configuration yields the most power consumptive state, verify

the selection by measuring the power consumption of each possible configuration.

NOTE: The selection of the home or retail configuration within the forced menu is not considered the configuration of a special function, and is therefore exempt from this requirement.

5.6. *On Mode Picture Setting.* Ensure that the TV is in the default picture setting within the home configuration for all on mode tests. This picture setting shall only be changed as instructed by the luminance test.

5.7. *Video Aspect Ratio.* The input video signal shall be configured in accordance with section 11.4.9 of IEC 62087 Ed. 3.0 (incorporated by reference; see § 430.3)

5.8. *Frame Rate.* The video frame rate shall be selected in accordance with section 11.4.10 of IEC 62087 Ed. 3.0 (incorporated by reference; see § 430.3)

5.9. *Sound level.* The TV sound level shall be configured in accordance with section 11.4.11 of IEC 62087 Ed. 3.0 (incorporated by reference; see § 430.3)

5.10. *Network Connection Configuration.*

5.10.1. *Network Connections and Capabilities.* Network connections should be listed in the user manual. If no connections are specified in the user manual, verify that the TV does not have network capabilities by checking for the absence of physical connections and the absence of network settings in the menu. If the TV has the capability to be connected to a network but was not shipped with a required piece of hardware (e.g. wireless adapter), that connection type shall not be tested.

5.10.2. *Network Configuration.* If the TV is network enabled, connect it to a LAN in on mode and prior to being placed into standby mode. The LAN shall allow devices to ping other devices on the network but will not allow access to a WAN. If the TV has multiple network connections (e.g., Wi-Fi and Ethernet), the TV shall be configured and connected to a single network source in accordance with the hierarchy of connections listed in Table 1 of this section.

TABLE 1—NETWORK CONNECTION HIERARCHY

Priority	Network connection type
1 .....	Wi-Fi (Institution of Electrical and Electronics Engineers—IEEE 802.11–20072)
2 .....	Ethernet (IEEE 802.3). If the TV supports Energy Efficient Ethernet (IEEE 802.3az–20103), then it shall be connected to a device that also supports IEEE 802.3az.

6. CALCULATION OF AVERAGE POWER CONSUMPTION

6.1. *Average Power Calculation.* For all tests in the on, standby-active, low, and standby-passive modes, the average power shall be calculated using one of the following two methods:

6.1.1. Record the accumulated energy ( $E_i$ ) in kilo-watt hours (kWh) consumed over the time period specified for each test ( $T_i$ ). The average power consumption is calculated as  $P_i = E_i/T_i$ .

6.1.2. Record the average power consumption ( $P_i$ ) by sampling the power at a rate of at least 1 sample per second and computing the arithmetic mean of all samples over the time period specified for each test ( $T_i$ ).

The resulting average power consumption value for each mode of operation shall be rounded according to the accuracy require-

ments specified in section 3.3.3 of this section.

7. Test Measurements.

7.1. *On Mode Test.*

7.1.1. *On Mode Stabilization.* If the TV has an ABC sensor enabled by default, direct at least 300 lx into the ABC sensor. The TV shall be stabilized prior to testing on mode using the IEC 62087 Ed. 3.0 Blu-ray Disc™ dynamic broadcast-content video signal in accordance with section 11.4.2 of IEC 62087 Ed. 3.0 (incorporated by reference, see § 430.3).

7.1.2. *On Mode Test for TVs without ABC Enabled by Default.* The following test shall be performed if the TV is shipped with ABC disabled by default or the ABC function is unavailable. Display the IEC 62087 Ed. 3.0 Blu-ray Disc™ dynamic broadcast-content video signal for one 10-minute period (incorporated by reference, see § 430.3). Measure and record the average power consumption value over the test duration as  $P_{on}$ .

7.1.3. *On Mode Test for TVs with ABC Enabled by Default.* The following test shall be performed if the TV is shipped with ABC enabled by default:

7.1.3.1. *Illuminance Values.* Display the IEC 62087 Ed. 3.0 Blu-ray Disc™ dynamic broadcast-content video signal for one 10-minute period (incorporated by reference, see § 430.3) with 100 lx ( $\pm 5$  lx) entering the ABC sensor. Measure and record the average power consumption value over the test duration as  $P_{100}$ . Repeat the measurements with 35 lx ( $\pm 2$  lx), 12 lx ( $\pm 1$  lx), and 3 lux ( $\pm 1$  lx) entering the ABC sensor and record the values as  $P_{35}$ ,  $P_{12}$ , and  $P_3$  respectively. Testing shall be performed from the brightest to dimmest illuminance value and the values shall be changed by varying the input voltage to the light source.

NOTE: The 3 lx illuminance value shall be simulated using a 67 mm 2 F-stop neutral density filter. 12 lx is measured at the ABC sensor prior to the application of the neutral density filter.

7.1.3.2. *On Mode Power Calculation.* All illuminance values shall be weighted equally when calculating the on mode power for a TV with ABC enabled by default and shall be determined by the following equation:

$$P_{on} = P_{100} * W_{100} + P_{35} * W_{35} + P_{12} * W_{12} + P_3 * W_3$$

Where:

$$W_{100} = W_{35} = W_{12} = W_3 = 0.25$$

7.1.3.3. *Lamp Requirements.* A standard spectrum, halogen incandescent aluminized reflector lamp with a lamp diameter of 95 mm ( $\pm 10$  mm), a beam angle of 30 degrees ( $\pm 10$  degrees), and a center beam candlepower of 1500 cd ( $\pm 500$  cd) shall be positioned in front of the ABC sensor so that the light is directed into the sensor.

NOTE: Lamps with spectrum modifying qualities, such as an IR coating, are not considered to meet a standard spectrum.

7.1.3.4. *Light Source Set-up.* The center of the lamp shall measure 1.5 m ( $\pm 0.1$  m) from the center of the ABC sensor. The light source shall be aligned ensuring that the center focal point of the lamp is perpendicular to the center of the ABC sensor.

7.1.3.5. *Illuminance Measurement.* The room illuminance shall be measured at the sensor in the direction of the light source while the TV is on and displaying the first menu from the IEC 62087 Ed. 3.0 Blu-ray Disc™ dynamic broadcast-content video signal.

7.2. *Luminance Test.*

7.2.1. *Luminance Test Set-up.*

7.2.1.1. *Picture Setting Set-up.* When transitioning from the on mode power consumption test to the luminance test, the TV shall remain in the default picture setting within the home configuration for the first luminance measurement.

7.2.1.2. *ABC Configuration.* The ABC sensor shall be disabled at all times during the luminance test. If the ABC sensor is incapable of being disabled through the TV settings menu, direct at least 300 lx of light into the ABC sensor.

7.2.1.3. *Stabilization.* Prior to the first luminance measurement, the TV must undergo a 10-minute re-stabilization period using the IEC 62087 Ed. 3.0 Blu-ray Disc™ dynamic broadcast-content video signal.

7.2.2. *Luminance Meter Set-up.* Align the luminance meter perpendicular to the center of the TV screen. If a non-contact luminance meter is used to measure the screen luminance, the luminance measurement shall be taken at a distance capable of meeting the meter specifications outlined in section 3.1.3, and in accordance with the meter's user manual.

7.2.3. *Three Vertical Bar Signal Measurement.* The IEC 62087 Ed. 3.0 three vertical bar signal found in section 11.5.5 of IEC 62087 Ed. 3.0 (incorporated by reference, see §430.3) shall be displayed for no more than 5 seconds when each luminance measurement is taken. The luminance measurement taken in the default picture setting within the home configuration shall be recorded as  $L_{\text{Default—Home}}$ .

7.2.4. *Luminance in the Brightest Selectable Preset Picture Setting.* Using the IEC 62087 Ed. 3.0 three vertical bar signal, determine the brightest selectable preset picture setting within the home configuration. Measure and record the screen luminance in the brightest selectable preset picture setting as  $L_{\text{Brightest—Home}}$ .

7.2.5. *Retail Configuration Luminance Measurement.* If the TV has a retail configuration and the retail configuration is acceptable for making a luminance measurement, measure and record the screen luminance in the default picture setting within the retail configuration as  $L_{\text{Default—Retail}}$ . A retail configuration is considered acceptable for a luminance measurement if the TV does not display a demo or ticker which alters the screen con-

tent, or if such features are present, they must be capable of being disabled for the entire re-stabilization period and measurement.

7.3. *Standby Mode Test.*

7.3.1. *Video Input Device.* The video input device shall be disconnected from the TV for all testing in standby mode.

7.3.2. *Standby-Passive Mode.* The standby-passive mode test shall be performed according to section 5.3.1 of IEC 62301 Ed. 2.0 (incorporated by reference, see §430.3). Measure and record the average power consumption value over the test duration as  $P_{\text{standby-passive}}$ .

7.3.3. *Standby-Active, Low Mode.* The standby-active, low mode shall only be tested if the TV is capable of connecting to a network and is capable of entering this mode of operation. The standby-active, low mode test shall be performed according to section 5.3.1 of IEC 62301 Ed. 2.0 (incorporated by reference, see §430.3). Measure and record the average power consumption value over the test duration as  $P_{\text{standby-active,low}}$ .

7.4. *Off Mode Test.*

7.4.1. The off mode test shall be performed according to section 5.3.1 of IEC 62301 Ed. 2.0 (incorporated by reference, see §430.3). Measure and record the average power consumption value over the test duration as  $P_{\text{off}}$ .

8. ANNUAL ENERGY CONSUMPTION

8.1. *Input Value.* The annual energy consumption (AEC) of the TV shall be calculated using on mode, standby mode, and off mode power consumption values as measured pursuant to section 7.1, 7.3, and 7.4 respectively.

8.2. *Rounding.* Calculate the AEC of the TV using the equation below. The calculated AEC value shall be rounded as follows:

If the calculated AEC value is 100 kWh or less, the rated value shall be rounded to the nearest tenth of a kWh;

If the calculated AEC value is greater than 100 kWh, the rated value shall be rounded to the nearest kWh.

8.3. *Calculations.* Express the AEC in kWh per year, according to the following:

$$\text{AEC} = 365 * (P_{\text{on}} * H_{\text{on}} + P_{\text{standby-active, low}} * H_{\text{standby-active, low}} + P_{\text{standby-passive}} * H_{\text{standby-passive}} + P_{\text{off}} * H_{\text{off}}) / 1000$$

Where:

$P_m$  = power measured in a given mode  $m$  (in Watts)

$H_m$  = hours per day spent in mode  $m$

365 = conversion factor from daily to yearly

1000 = conversion factor from watts to kilowatts

Values for  $H_m$  (in hours/day) are specified in Table 2 of this section:

TABLE 2—HOURLY WEIGHTINGS

Standby-active, low mode	H <sub>on</sub>	H <sub>standby-active, low</sub>	H <sub>standby-passive</sub>	H <sub>off</sub>
Yes .....	5	19	0	0
No .....	5	0	19	0

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APPENDIX I TO SUBPART B OF PART 430—UNIFORM TEST METHOD FOR MEASURING THE ENERGY CONSUMPTION OF CONVENTIONAL RANGES, CONVENTIONAL COOKING TOPS, CONVENTIONAL OVENS, AND MICROWAVE OVENS

NOTE: Any representation made after April 29, 2013 related to standby mode and off mode energy consumption of conventional ranges, conventional cooking tops, and conventional ovens, or after July 17, 2013 for standby and off mode energy consumption of microwave ovens, must be based upon results generated under this test procedure.

Any representation related to standby mode and off mode energy consumption of microwave ovens made between February 19, 2013 and July 17, 2013 may be based upon results generated under this test procedure or upon the test procedure as it appeared at 10 CFR part 430, subpart B, appendix I as contained in the 10 CFR parts 200 to 499 edition revised as of January 1, 2012.

Upon the compliance date(s) of any energy conservation standard(s) for conventional ranges, conventional cooking tops, conventional ovens, and microwave ovens that incorporates standby mode and off mode energy consumption, use of the applicable provisions of this test procedure to demonstrate compliance with the energy conservation standard will also be required.

1. DEFINITIONS

1.1 *Active mode* means a mode in which the product is connected to a mains power source, has been activated, and is performing the main functions of producing heat by means of a gas flame, electric resistance heating, or microwave energy, or circulating air internally or externally to the cooking product. Delay start mode is a one-off, user-initiated, short-duration function that is associated with an active mode.

1.2 *Built-in* means the product is supported by surrounding cabinetry, walls, or other similar structures.

1.3 *Combined low-power mode* means the aggregate of available modes other than active mode, but including the delay start mode portion of active mode.

1.4 *Cycle finished mode* means a standby mode in which a conventional cooking top, conventional oven, or conventional range

provides continuous status display following operation in active mode.

1.5 *Drop-in* means the product is supported by horizontal surface cabinetry.

1.6 *Fan-only mode* means an active mode that is not user-selectable and in which a fan circulates air internally or externally to the cooking product for a finite period of time after the end of the heating function, where the end of the heating function is indicated to the consumer by means of a display, indicator light, or audible signal.

1.7 *Forced convection* means a mode of conventional oven operation in which a fan is used to circulate the heated air within the oven compartment during cooking.

1.8 *Freestanding* means the product is not supported by surrounding cabinetry, walls, or other similar structures.

1.9 *IEC 62301 (First Edition)* means the test standard published by the International Electrotechnical Commission, titled “Household electrical appliances—Measurement of standby power,” Publication 62301 (First Edition 2005-06) (incorporated by reference; see § 430.3).

1.10 *IEC 62301 (Second Edition)* means the test standard published by the International Electrotechnical Commission, titled “Household electrical appliances—Measurement of standby power,” Publication 62301 (Edition 2.0 2011-01) (incorporated by reference; see § 430.3).

1.11 *Inactive mode* means a standby mode that facilitates the activation of active mode by remote switch (including remote control), internal sensor, or timer, or that provides continuous status display.

1.12 *Normal non-operating temperature* means the temperature of all areas of an appliance to be tested are within 5 °F (2.8 °C) of the temperature that the identical areas of the same basic model of the appliance would attain if it remained in the test room for 24 hours while not operating with all oven doors closed.

1.13 *Off mode* means a mode in which the product is connected to a mains power source and is not providing any active mode or standby mode function, and where the mode may persist for an indefinite time. An indicator that only shows the user that the product is in the off position is included within the classification of an off mode.

1.14 *Primary energy consumption* means either the electrical energy consumption of a conventional electric oven or the gas energy consumption of a conventional gas oven.

1.15 *Secondary energy consumption* means any electrical energy consumption of a conventional gas oven.

1.16 *Standard cubic foot (or liter (L)) of gas* means that quantity of gas that occupies 1 cubic foot (or alternatively expressed in L) when saturated with water vapor at a temperature of 60 °F (15.6 °C) and a pressure of 30 inches of mercury (101.6 kPa) (density of