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(iii) The air velocity must be maintained as natural convection conditions as described in ASTM C1363. The test must be completed using the masked method and with surround panel in place as described in ASTM C1363.

(3) Required Test Measurements

(i) Non-floor Panels

1. Panel Edge Region U-factor: $U_{nf, edge}$

2. Panel Core Region U-factor: $U_{nf, core}$

(ii) Floor Panels

1. Floor Panel Edge Region U-factor: $U_{fp, edge}$

2. Floor Panel Core Region U-factor: $U_{fp, core}$

5.2 Measuring Long Term Thermal Resistance (LTTR) of Insulating Foam

Follow the test procedure in Annex C of DIN EN 13164 or Annex C of DIN EN 13165 (as applicable), (incorporated by reference; see § 431.303), exactly, with these exceptions:

(1) Temperatures During Thermal Resistance Measurement

(i) For freezers: 20 °F ± 1 °F must be used.

(ii) For coolers: 55 °F ± 1 °F must be used.

(2) Sample Panel Preparation

(i) A 800mm × 800mm square (× thickness of the panel) section cut from the geometric center of the panel that is being tested must be used as the sample for completing DIN EN 13165.

(ii) A 500mm × 500mm square (× thickness of the panel) section cut from the geometric center of the panel that is being tested must be used as the sample for completing DIN EN 13164.

(3) Required Test Measurements

(i) Non-floor Panels

1. Long Term Thermal Resistance: $R_{LTTR, nf}$

(ii) Floor Panels

1. Long Term Thermal Resistance: $R_{LTTR, fp}$

5.3 U-factor of Doors and Display Panels

(a) Follow the procedure in NFRC 100, (incorporated by reference; see § 431.303), exactly, with these exceptions:

(1) The average convective heat transfer coefficient on both interior and exterior surfaces of the door should be based on the coefficients described in section 4.3 of NFRC 100.

(2) Internal conditions:

(i) Air temperature of 35 °F (1.7 °C) for cooler doors and -10 °F (-23.3 °C) for freezer doors

(ii) Mean inside radiant temperature must be the same as shown in section 5.3(a)(2)(i), above.

(3) External conditions

(i) Air temperature of 75 °F (23.9 °C)

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(ii) Mean outside radiant temperature must be the same as section 5.3(a)(3)(i), above.

(4) Direct solar irradiance = 0 W/m² (Btu/h-ft²).

(b) Required Test Measurements

(i) Display Doors and Display Panels

1. Thermal Transmittance: U_{dd}

(ii) Non-Display Door

1. Thermal Transmittance: U_{nd}

[76 FR 21606, Apr. 15, 2011, as amended at 76 FR 31796, June 2, 2011; 76 FR 33632, June 9, 2011]

Subpart S—Metal Halide Lamp Ballasts and Fixtures

SOURCE: 74 FR 12075, Mar. 23, 2009, unless otherwise noted.

§ 431.321 Purpose and scope.

This subpart contains energy conservation requirements for metal halide lamp ballasts and fixtures, pursuant to Part A of Title III of the Energy Policy and Conservation Act, as amended, 42 U.S.C. 6291–6309.

[75 FR 10966, Mar. 9, 2010]

§ 431.322 Definitions concerning metal halide lamp ballasts and fixtures.

AC control signal means an alternating current (AC) signal that is supplied to the ballast using additional wiring for the purpose of controlling the ballast and putting the ballast in standby mode.

Active mode means the condition in which an energy-using product:

(1) Is connected to a main power source;

(2) Has been activated; and

(3) Provides one or more main functions.

Ballast means a device used with an electric discharge lamp to obtain necessary circuit conditions (voltage, current, and waveform) for starting and operating.

Ballast efficiency means, in the case of a high intensity discharge fixture, the efficiency of a lamp and ballast combination, expressed as a percentage, and calculated in accordance with the following formula: Efficiency = P_{out}/P_{in} where:

(1) P_{out} equals the measured operating lamp wattage;