Public Review Draft

Proposed Addendum a to Standard 185.2-2014, Method of Testing Ultraviolet Lamps for Use in HVAC&R Units or Air Ducts to Inactivate Microorganisms on Irradiated Surfaces

First Public Review (March 2020)  
(Draft shows Proposed Changes to Current Standard)

This draft has been recommended for public review by the responsible project committee. To submit a comment on this proposed standard, go to the ASHRAE website at www.ashrae.org/standards-research--technology/public-review-drafts and access the online comment database. The draft is subject to modification until it is approved for publication by the Board of Directors and ANSI. Until this time, the current edition of the standard (as modified by any published addenda on the ASHRAE website) remains in effect. The current edition of any standard may be purchased from the ASHRAE Online Store at www.ashrae.org/bookstore or by calling 404-636-8400 or 1-800-727-4723 (for orders in the U.S. or Canada).

This standard is under continuous maintenance. To propose a change to the current standard, use the change submittal form available on the ASHRAE website, www.ashrae.org.

The appearance of any technical data or editorial material in this public review document does not constitute endorsement, warranty, or guaranty by ASHARE of any product, service, process, procedure, or design, and ASHRAE expressly disclaims such.

©2020 ASHRAE. This draft is covered under ASHRAE copyright. Permission to reproduce or redistribute all or any part of this document must be obtained from the ASHRAE Manager of Standards, 1791 Tullie Circle, NE, Atlanta, GA 30329. Phone: 404-636-8400, Ext. 1125. Fax: 404-321-5478. E-mail: standards.section@ashrae.org.

ASHRAE, 1791 Tullie Circle, NE, Atlanta GA 30329-2305
BSR/ASHRAE Addendum a to ANSI/ASHRAE Standard 185.2-2014,
Method of Testing Ultraviolet Lamps for Use in HVAC&R Units or Air Ducts to Inactivate Microorganisms on Irradiated Surfaces
First Public Review

(This foreword is not part of this standard. It is merely informative and does not contain requirements necessary for conformance to the standard. It has not been processed according to the ANSI requirements for a standard and may contain material that has not been subject to public review or a consensus process. Unresolved objectors on informative material are not offered the right to appeal at ASHRAE or ANSI.)

FOREWORD

This proposed change fixes an error in the original document. The intended airflow rate was 2000 cfm (500 fpm). For unknown reasons, the value was put into the document incorrectly. This removes the unintended value and replaces it with the correct one.

[Note to Reviewers: This addendum makes proposed changes to the current standard. These changes are indicated in the text by underlining (for additions) and strikethrough (for deletions) except where the reviewer instructions specifically describe some other means of showing the changes. Only these changes to the current standard are open for review and comment at this time. Additional material is provided for context only and is not open for comment except as it relates to the proposed changes.]

Proposed changes:

4.3.2 Test duct shall be capable of providing three test temperatures of 12.78°C, 23.89°C, and 48.89°C ± 2.2°C (55°F, 75°F, and 120°F ± 4°F). Relative humidity shall be 50% ± 5%, and air velocity shall be 2.39 ± 0.05 mps (470 ± 10 fpm).2.54 ± 0.05 m/s (500 ± 10 fpm).

4.4.2.4 Start airflow through the duct and set the appropriate test conditions for the measurements. Air velocity shall be 2.39 ± 0.05 mps (470 ± 10 fpm), and relative humidity shall be 50% ± 10%, for every test. Measurements are to be conducted at each of three air temperatures: 12.8°C (55°F), 23.9°C (75°F), and 48.9°C (120°F).

TABLE 5-1 System Qualification Measurement Requirements

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Control Limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Air velocity uniformity is based on traverse measurements over a nine-point cross-sectional grid at the test flow rate. The velocity measurements shall be made with an instrument having an accuracy of 10% with 0.05 meter per second resolution.</td>
<td>CV’ &lt; 10%</td>
</tr>
<tr>
<td>Test velocity shall be 2.54 ± 0.05 m/s (500 ± 10 fpm)2.39 ± 0.05 m/s (470 ± 10 fpm).</td>
<td></td>
</tr>
<tr>
<td>Duct leakage</td>
<td>Ratio &lt; 1.0%</td>
</tr>
<tr>
<td>Ratio of leak rate to test flow rate. Determined by sealing the duct at inlet filter bank and at the ASME flow nozzle locations followed by metering in air to achieve a steady duct pressure. The flow rate of the metering air (equal to the leakage flow) is measured for a range of duct pressures.</td>
<td></td>
</tr>
</tbody>
</table>
CV = coefficient of variance