Method of Testing Ultraviolet Lamps for Use in HVAC&R Units or Air Ducts to Inactivate Microorganisms on Irradiated Surfaces


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FOREWORD

Addendum a corrects an error in airflow rate by removing the unintended value and replacing it with the correct one.

Note: In this addendum, changes to the current standard are indicated in the text by underlining (for additions) and strikethrough (for deletions) unless the instructions specifically mention some other means of indicating the changes.

Addendum a to Standard 185.2-2014

Modify Section 4 as shown.

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 2.54 ± 0.05 m/s (500 ± 10 fpm) 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).

Modify Table 5-1 as shown. The remainder of the table is unchanged.

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</td>
<td>2.39 ± 0.05 mps (470 ± 10 fpm) 2.54 ± 0.05 m/s (500 ± 10 fpm)</td>
</tr>
<tr>
<td>Duct leakage</td>
<td>Ratio &lt; 1.0%</td>
</tr>
</tbody>
</table>

*D\(V\)=coefficient of variance
ASHRAE is concerned with the impact of its members’ activities on both the indoor and outdoor environment. ASHRAE’s members will strive to minimize any possible deleterious effect on the indoor and outdoor environment of the systems and components in their responsibility while maximizing the beneficial effects these systems provide, consistent with accepted Standards and the practical state of the art.

ASHRAE’s short-range goal is to ensure that the systems and components within its scope do not impact the indoor and outdoor environment to a greater extent than specified by the Standards and Guidelines as established by itself and other responsible bodies.

As an ongoing goal, ASHRAE will, through its Standards Committee and extensive Technical Committee structure, continue to generate up-to-date Standards and Guidelines where appropriate and adopt, recommend, and promote those new and revised Standards developed by other responsible organizations.

Through its Handbook, appropriate chapters will contain up-to-date Standards and design considerations as the material is systematically revised.

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