



Designation: ~~E1179–11~~ E1179 – 13

# Standard Specification for Sound Sources Used for Testing Open Office Components and Systems<sup>1</sup>

This standard is issued under the fixed designation E1179; the number immediately following the designation indicates the year of original adoption or, in the case of revision, the year of last revision. A number in parentheses indicates the year of last reapproval. A superscript epsilon ( $\epsilon$ ) indicates an editorial change since the last revision or reapproval.

## 1. Scope

- 1.1 This specification states the requirements for sound sources used for measuring the speech privacy between open offices and for measuring the laboratory performance of acoustical components (see Test Methods [E1111](#) and [E1130](#)).
- 1.2 The sound source shall be a loudspeaker located in an enclosure driven with an appropriate test signal.
- 1.3 This specification describes the sound source and method of qualifying it using a special qualification signal. Test signals required by open office test methods may differ.
- 1.4 The values stated in SI units are to be regarded as standard. No other units of measurement are included in this standard.

## 2. Referenced Documents

### 2.1 ASTM Standards:<sup>2</sup>

[C384](#) Test Method for Impedance and Absorption of Acoustical Materials by Impedance Tube Method

[C634](#) Terminology Relating to Building and Environmental Acoustics

[E1050](#) Test Method for Impedance and Absorption of Acoustical Materials Using a Tube, Two Microphones and a Digital Frequency Analysis System

[E1111](#) Test Method for Measuring the Interzone Attenuation of Open Office Components

[E1130](#) Test Method for Objective Measurement of Speech Privacy in Open Plan Spaces Using Articulation Index

### 2.2 ANSI Standards:<sup>3</sup>

[S1.4](#) Specification for Sound Level Meters

[S1.6](#) Preferred Frequencies, Frequency Levels, and Band Numbers for Acoustical Measurements

[S1.11](#) Specification for Octave Band and Fractional OB Analog and Digital Filters

[S1.43](#) Specifications for Integrating-Averaging Sound Level Meters<sup>13</sup>

### 2.3 IEC Standards:<sup>4</sup>

[61260](#) Electroacoustics—Octave and fractional-octave band filters

[61672–1](#) Electroacoustics—Sound Level Meters—Part 1: Specifications

## 3. Terminology

### 3.1 Definitions:

3.1.1 The acoustical terminology used in this specification is consistent with Terminology [C634](#).

### 3.2 Definitions of Terms Specific to This Standard:

3.2.1 *directivity measurement*—the measurement used to determine directivity as defined in [4.2](#).

3.2.2 *qualification signal*—a test signal of broadband noise or bands of white or pink noise as defined in Terminology [C634](#).

3.2.3 *source point*—the point at which the loudspeaker axis intersects the front plane of the loudspeaker (see [Fig. 1](#)).

3.3 The following terms in this standard have specific meanings that are defined in Terminology [C634](#):

<sup>1</sup> This specification is under the jurisdiction of ASTM Committee [E33](#) on Building and Environmental Acoustics and is the direct responsibility of Subcommittee [E33.02](#) on Open Plan Spaces/Speech Privacy.

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<sup>2</sup> For referenced ASTM standards, visit the ASTM website, [www.astm.org](http://www.astm.org), or contact ASTM Customer Service at [service@astm.org](mailto:service@astm.org). For *Annual Book of ASTM Standards* volume information, refer to the standard's Document Summary page on the ASTM website.

<sup>3</sup> Available from American National Standards Institute (ANSI), 25 W. 43rd St., 4th Floor, New York, NY 10036, <http://www.ansi.org>.

<sup>4</sup> Available from International Electrotechnical Commission (IEC), 3, rue de Varembe, P.O. Box 131, CH-1211 Geneva 20, Switzerland, <http://www.iec.ch>.