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**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB/T 36075.3-2018

**Acoustics -- Measurement of room acoustic parameters -- Part
3: Open plan offices**

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Foreword

GB/T 36075 Acoustic Acoustic Parameters Measurement includes the following three parts.

---Part 1. The viewing space;

---Part 2. General room reverberation time;

---Part 3. Open Office.

This section is Part 3 of GB/T 36075.

This section was drafted in accordance with the rules given in GB/T 1.1-2009.

This section uses the translation method equivalent to the use of ISO 3382-3:2012

"Acoustic acoustical indoor acoustics measurement Part 3. Open Office room".

The Chinese documents that have a consistent correspondence with the normatively quoted international documents in this section are as follows.

---GB/T 3241-2010 Electroacoustic octave and fractional octave filters (IEC 61260:1995 and AM1:2001,

MOD)

---GB/T 3767-2016 Acoustics - Sound pressure method for the determination of sound power levels and acoustic energy levels of noise sources - Approximate free-field over reflective surfaces

Engineering Act (ISO 3744:2010, IDT)

---GB/T 3785.1-2010 Electroacoustic sound level meter Part 1. Specification (IEC 61672-1:2002, IDT)

--- GB/T 12060.16-2017 Acoustic system equipment - Part 16. Objective evaluation of speech intelligibility through speech transmission index

(IEC 60268-16:2011, MOD)

---GB/T 14367-2006 Guidelines for the use of sound-power levels for the determination of acoustic noise source standards (ISO 3740:2000,

IDT)

---GB/T 27763-2011 Acoustic evaluation of spatial sound field distribution curves for acoustic performance in work rooms and parameters

Description (ISO 14257:2001, IDT)

---GB/T 36075.1 Acoustic acoustical parameters for indoor acoustic measurements Part 1. Presentation space (ISO 3382-1:2009, IDT)

This section was proposed by the Chinese Academy of Sciences.

This part is under the jurisdiction of the National Acoustical Standardization Technical Committee (SAC/TC17).

This section was drafted by: China Academy of Building Research, Institute of Acoustics, Chinese Academy of Sciences, Tsinghua University, Huaqiao University, Tongji University, Datong

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Introduction

The "open office" mentioned in this section refers to the ability to accommodate a large number of employees in a collective office, and colleagues can talk and interact with each other, or employees can concentrate on security.

Large space offices and similar spaces in various unitized workstations. Employees in open-plan offices are affected by staff around the station

The impact of movement, if the acoustics are poor, can lead to distractions and lack of privacy. Inattention can reduce work efficiency, especially

Some of the work that requires high cognitive ability. Poor privacy will not allow confidential or partially confidential conversations. Private conversations may be misunderstood.

People hear that this is what the interviewer does not want.

The design of an open office space includes the rational placement of staff positions and the mutual position of team members or team members. Open Office

Acoustic performance can be affected by indoor sound absorption conditions, partitions and locker heights, background noise, station envelope, station spacing, and room dimensions.

The influence of factors. The room's reverberation time was used as the main indicator of its acoustic performance. However, there is evidence that a more comprehensive assessment is required.

The price also requires the measurement of other acoustic parameters, such as the spatial attenuation rate of the sound pressure level, the speech transmission index, and the background noise level. If you need to test

Reverberation time, according to GB/T 36075.2.

This section specifies the measurement method for the open office acoustic performance. Based on the measurement results, it can be calculated to characterize the open office.

The individual evaluation of volume acoustic properties. The main goal is to make the stations have good verbal privacy. This measurement method and its derived

There is a good correspondence between the individual evaluation value and the staff's acoustic sensation.

Placement of furniture has a great influence on the acoustics of the room. Therefore, the measurement should be carried out after the renovation and office furniture layout is completed, without furniture

The measurement of the room does not reflect the acoustic conditions felt by the staff. It is also important that measurements are taken indoors in an unoccupied state.

If there are people in the room when measuring, the background noise will constantly change, and it is difficult to obtain reliable results. The room should have a normal daytime background

Noise, background noise may be generated by ventilation and air conditioning, traffic noise or artificial sound masking systems.

The condition represented by the single-valued evaluation amount is that only one person speaks, and the other person does not speak. Therefore, this part uses a single speaker for measurement. If several

When people speak at the same time, the masking will increase, making the degree of distraction lessen (see Reference [10]). So, this part of the measurement results

Describe what is the most distracting situation. However, this section can also be used to measure the room acoustic quality of places like call centers.

Many people at the same time continue to speak in a continuous manner. This sound environment has played an active masking role. This section may underestimate this.

Perceived speech private density in class situations.

Acoustic indoor acoustic parameters measurement

Part 3. Open Office

1 Scope

This part of GB/T 36075 specifies the measurement method of indoor acoustic performance of an open office with office furnishings.

Including measurement methods, equipment, test requirements, evaluation methods and expression of results.

The measurement results can be used to evaluate the acoustic performance of open offices.

This section applies to medium and large open offices.

2 Normative references

The following documents are indispensable for the application of this document. For dated references, only dated versions apply to this article

Pieces. For undated references, the latest version (including all amendments) applies to this document.

ISO 3382-1 Acoustic acoustical parameters for indoor measurement - Part 1.

Acoustics-Measurement of room

acoustic parameters-Part 1. Performance spaces)

ISO 3740 Acoustic Noise Source Sound Power Level Determination Guide Standard Guide (Acoustics-Determination of

sound power levels of noise sources-Guidelines for the use basic)

ISO 3744 Acoustic sound pressure method for the determination of sound power level and sound energy level of noise sources. Engineering method for an approximately free field above a reflective surface (A-

coustics-Determination of sound power levels and sound energy levels of noise sources using sound

pressure-Engineering methods for an essentially free field over a reflecting plane)

ISO 14257 Acoustics-Assessment of Spatial Acoustic Field Distribution Curves for Acoustic Performance in Workplaces and Expressions

(Acoustics-Measurement and parametric description of spatial sound distribution curves in workro