



| v4 - LEED v4

## Thermal comfort

Possible 1 point

Glossary

### Intent

To promote occupants' productivity, comfort, and well-being by providing quality thermal comfort.

### Requirements

#### Establishment

##### Option 1. ASHRAE 55-2010

Have a permanent monitoring system to ensure ongoing building performance to the desired comfort criteria, as specified by ASHRAE Standard 55-2010, Thermal Comfort Conditions for Human Occupancy, Section 5.2 or 5.3, with errata, or a local equivalent.

#### OR

##### Option 2. ISO and CEN Standards

Have a permanent monitoring system to ensure ongoing building performance of the desired comfort criteria, as specified by the applicable standard:

- ISO 7730:2005 Ergonomics of the Thermal Environment, analytical determination and interpretation of thermal comfort using calculation of the PMV and PPD indices and local thermal comfort criteria; and
- CEN Standard EN 15251:2007, Indoor Environmental Input Parameters for Design and Assessment of Energy Performance of Buildings, addressing indoor air quality, thermal environment, lighting, and acoustics, Section A2.

#### Performance

The monitoring system must meet the following requirements.

- Continuous monitoring. Monitor at least air temperature and humidity in occupied spaces, at sampling intervals of 15 minutes or less.
- Periodic testing. Monitor air speed and radiant temperature in occupied spaces. Using handheld meters is permitted.
- Alarms. An alarm must indicate conditions that require system adjustment or repair.
- Prompt repair. Specify procedures for adjustments or repairs to be made in response to problems identified.
- Calibration. All monitoring devices must be calibrated within the manufacturer's recommended interval.