| 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.