**Supplementary materials**

**Supplementary Table 1.** Principles for the temperature exceedance calculation.

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| * Mezzanine * Glass percentage facade: 80 [%] * *U*-value glazing: 0.94 [W/(m².K)] * G- value glazing: 0.26 [-] * G- value glazing + sun protection: 0.14 [-] (sun blind slats in the cavity) * LT value glazing: 0.60 [-] * Person occupancy: 1 person at 80 [W/10 m²] * Installed lighting power: 10 [W/m²] * Heat emission equipment: 10 [W/m²] * Plenum space function: negative pressure * Infiltration rate: 0.3 [m3/(h.m3)] * Mechanical ventilation rate: 2.7 [m3/(h.m3)] * Minimum inlet temperature: 16.0 [°C] * Fan and duct heating: 1.5 [°C] * Inlet temperature: outside temperature * Working hours: 09:00 to 17:00 * Minimum indoor temperature: 22.0 [°C] during working hours * Minimum indoor temperature: 15.0 [°C] after working hours * Blinds operated during working hours: if Qtransmitted sun ≥ 120 [W/m²] * No sun blind after working hours * Additional ventilation through facade (during working hours): if Ti > 24°C, Tu >16°C,(Ti-Tu) >1 K * Additional ventilation through facade (after working hours): none * Net opening glass outer side of the facade: 0.2 [m²/m] * Net opening glass inner side of the facade: 2.08[m²/m] * Type of opening outer side of the facade: flaps (opening angle: 15 degrees) * Type of opening inner side of the facade: tilt window (opening angle: 15 degrees) * Surface gap under door: 0.005 [m²] * Night/weekend ventilation: none * Inner walls: Metal Stud * Floor construction (top – bottom):   + project carpet   + 36 mm plasterboard (incl. water tubes)   + 50 mm screed   + 200 mm concrete floor   + Plenum space   + 50 mm mineral wool   + 18 mm plasterboard (incl. water tubes) |