energies

MDPI

Article

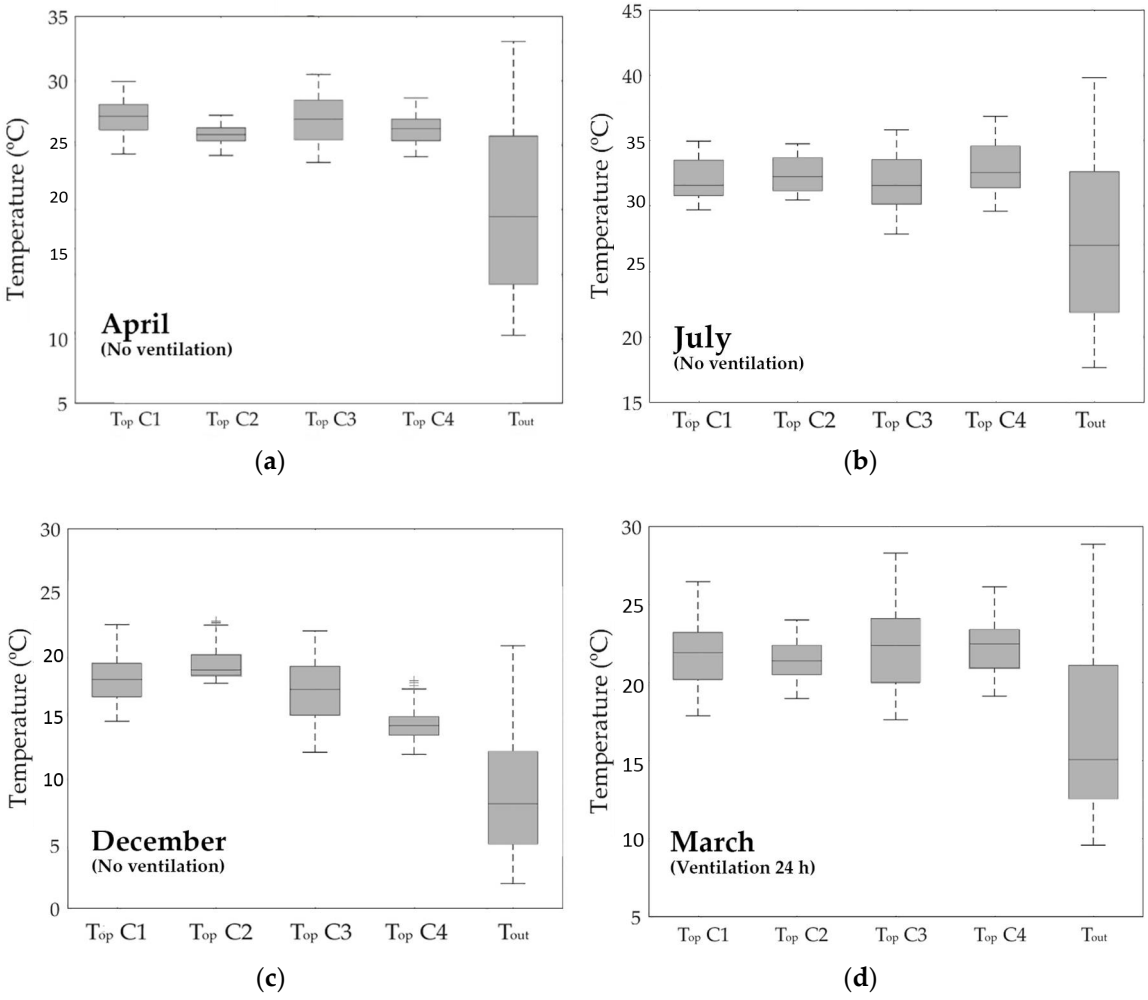
Evaluation of Thermal Comfort Conditions in Retrofitted Facades Using Test Cells and Considering Overheating Scenarios in a Mediterranean Climate

Carmen María Calama-González *, Rafael Suárez, Ángel Luis León-Rodríguez and Samuel Domínguez-Amarillo

Instituto Universitario de Arquitectura y Ciencias de la Construcción, Escuela Técnica Superior de Arquitectura, Universidad de Sevilla, Av. Reina Mercedes 2, 41012 Seville, Spain; rsuarez@us.es (R.S.); leonr@us.es (Á.L.L.-R.); sdomin@us.es (S.D.-A.)

* Correspondence: ccalama@us.es; Tel.: +34-95-4559517

A statistical test was conducted and the results represented graphically in a box-and-whisker plot (Figure S1).



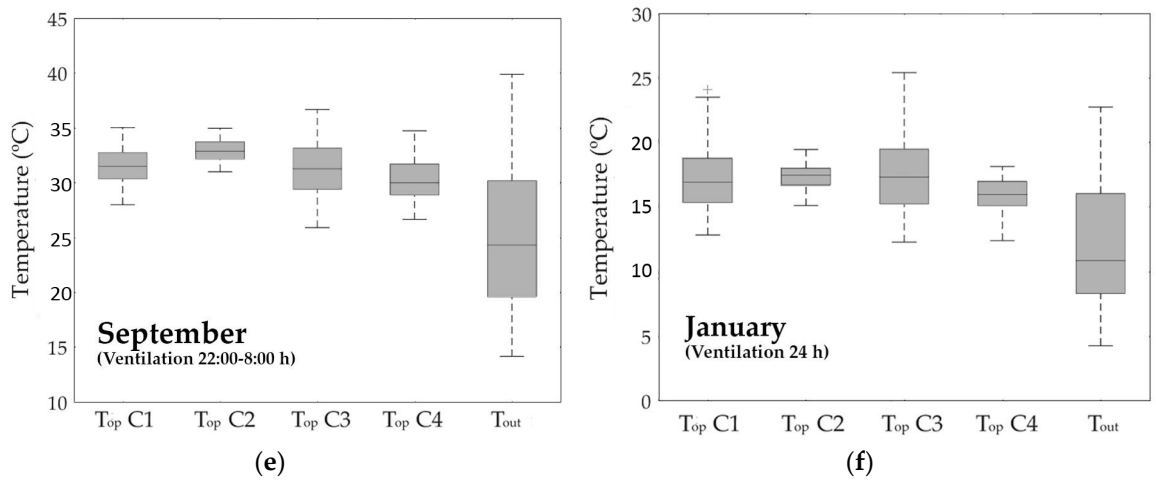


Figure S1. Box-and-whisker plots of outdoor temperatures and indoor operative temperatures for the four protocols analysed: (**a**) March; (**b**) April; (**c**) July; (**d**) September; (**e**) December; and (**f**) January.

It is generally observed that distributions are asymmetrical, either with a right or a left tail (median higher than mean). There is a lower dispersion of the operative temperature values registered in north-facing cells (C2 and C4), due to the greater proximity of the whiskers to the boxes, compared with the remaining cells (C1 and C3). In the south, data measured in cell C1 (ETICS facade) present a lower variation than those of cell C3 (basic facade). For instance, in cell C1 and considering similar outdoor temperatures (all three groups analysed), there are higher differences between values when the ventilation system is on.