



Predictable Impact of Lighting Control on the Energy Consumption of a Building through Computational Simulation

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Abstract. Building energy simulation tools provide accurate predictions of the energetic performance of buildings and thermal comfort of its occupants, allowing an evaluation of the impact of proposed improvement measures, in order to support choice for the more economically viable.

This paper aims at determining the energy saving potential that can be obtained by adequate measures and investments. It presents the simulated values of the impact on the energy consumptions of a building, caused by artificial lighting control systems set to maximize use of natural lighting.

Results show that optimization measures have a significant impact on energy consumptions reduction, and lead to important economical savings.

Key words

Energy efficiency in buildings, energy simulation tools, lighting.

References

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