

cold and warm climates could provide further valuable information.

This building did not incorporate daylighting controls. While daylighting controls may not be as helpful on a building with a high roof-to-wall ratio, they could have a great effect on a building with a lower roof-to-wall ratio. Studying glazing's effects on a building with these controls and a low roof-to-wall ratio could result in significant differences on how energy use and costs change with a higher WWR. At the same time, with the advances in LED technology and prevalence of LED lighting, the cost for lighting is becoming much less relative to the other loads in a building, so daylighting controls may have a minimal affect on the energy costs as a whole.

While the cost analysis in this study accounts for inflation, it is still relatively simplified. It would be beneficial to do a more detailed analysis, such as the ASHRAE cost-effectiveness calculation since many complex factors affect the cost.

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NOMENCLATURE

CFD – computational fluid dynamics

EIFS – exterior insulation and finish system

IGU – insulated glazing unit

low-e – low-emissivity

RTU – rooftop unit

SHGC – solar heat gain coefficient

WWR – window-to-wall ratio

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