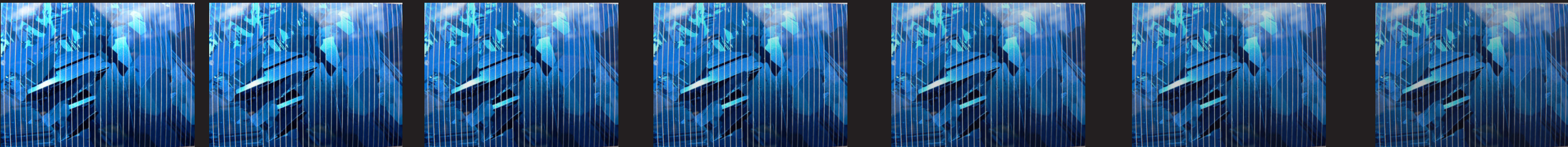


process

■ Insulated 119 in<sup>3</sup> boxes were placed on the inside of the glass facade, one behind a pv cell, the other in full view of the sun. Dataloggers collected temperature data over 3.5 hours (Images 1, 4)

■ Irradiance data was collected with a Ly-Cor Light Meter at fifteen minute intervals inside and outside the building at 5 different points on one pane of glass, both behind pv cells and beside them (See images 1, 2).

■ Surface temperature data was collected with a Raytek MiniTemp at fifteen minute intervals inside and outside the building at 5 different points on one pane of glass, both behind pv cells and beside them (See image 1, 3).



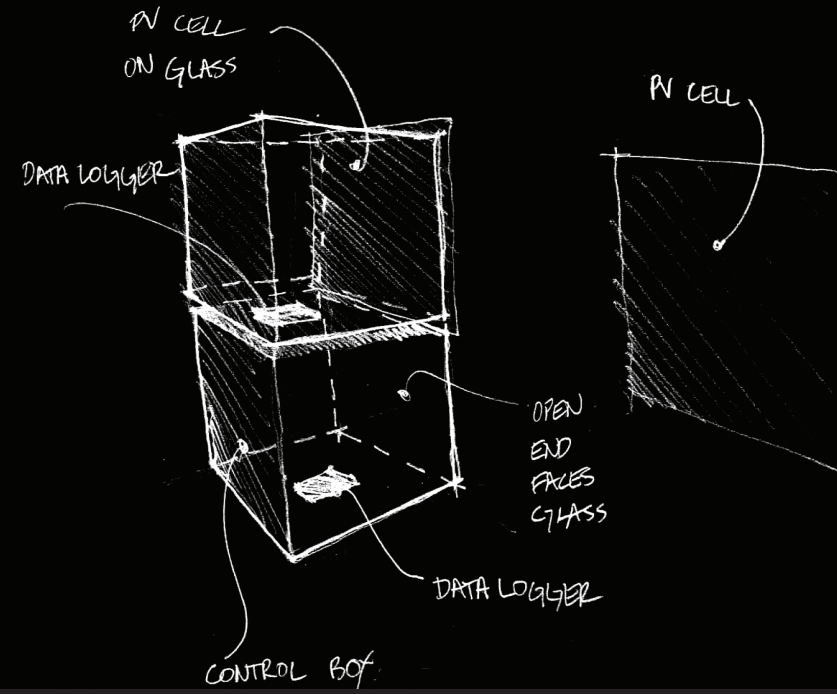
thermal analysis of the lillis business complex atrium photovoltaic facade



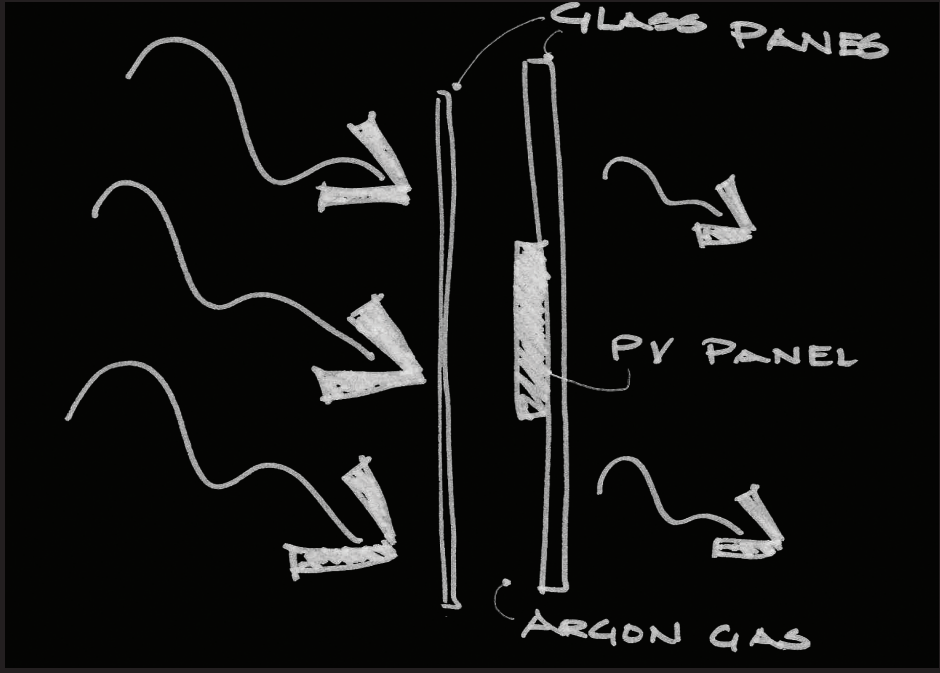
hypothesis:

The Photovoltaic array that populates the South façade of the Lillis Business Complex atrium has thermal effects on the interior space behind it.

18 degree (F) difference between control boxes



facade blocks 85% of irradiance



pv cell re-radiating heat to exterior layer of glass

