Development of an integrated thermal-lighting analysis tool for building perimeter zones

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Objective: Develop a façade design and retrofit performance guide for perimeter offices

✓ An integrated thermal-lighting simulation tool with powerful engine
✓ Open source, flexible and fast
✓ A guide tool with a simple interface allowing customized controls and detailed inputs
✓ Climate-based façade design and retrofit analysis
Interfaces and detailed analysis tool
Daylighting and energy results

Comparison of glazing and shading options
Flexible and customized lighting, façade and HVAC control
Validation with full-scale experiments

Architectural Engineering Labs- test offices with reconfigurable façade and lighting systems and controls