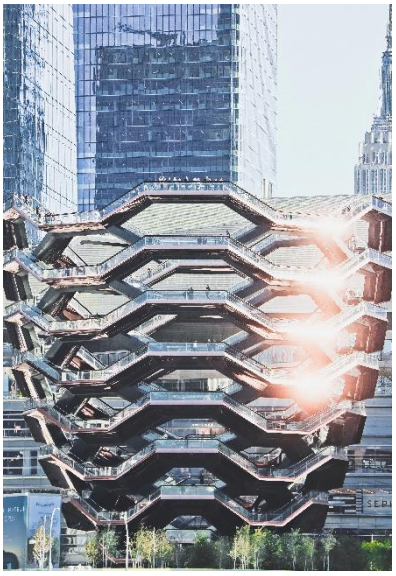
GLARE EFFECT

Quantifying buildings' interaction with the sun.
Safety and comfort.

alkazar

No design firm wants their next building to be known as a "ray of death" or create a safety hazard for vehicles or aircraft. However, reflections can cause less dramatic but equally effective headaches and unexpected eye problems. Glare and reflections can cause automated daylight controls to function poorly, create unforeseen visual nuisances and even increase cooling loads in neighboring buildings.



The glare is directly related to the amount and distribution of light. This means that even if you are in a building where the light distributes uniformly, if there is a glare from an outdoor source, you will be exposed to it. For this reason, when evaluating a project in context, it is necessary to think not only how the reflections in our building will affect you, but also how you can affect your neighbors.

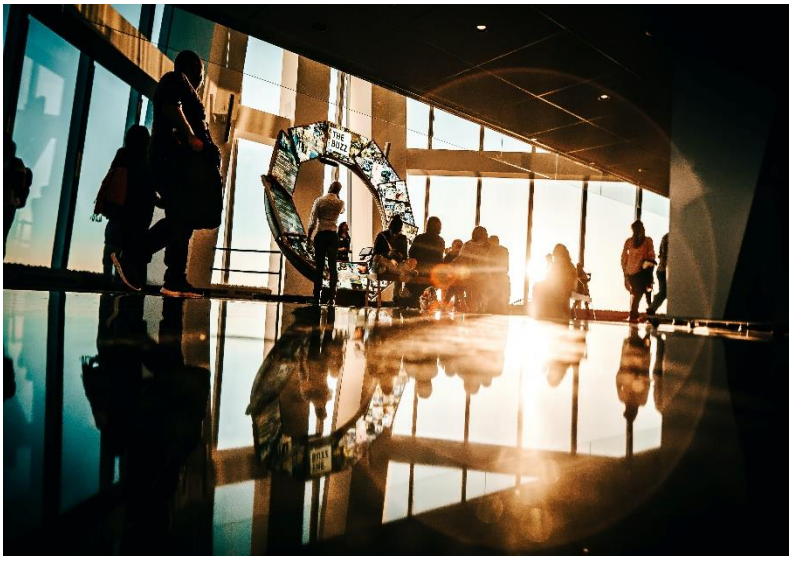
Our Service

We help you understand when, and how often direct and reflected sunlight can impact a space, either within or outside your project. With this information, you can move ahead with **highly glazed façades**, **photovoltaic systems**, or other **reflective building elements** confident that you will not create issues for others or experience problems within your own buildings.

We have experience in defining the criteria of glare and analyzing these criteria in existing designs. These analyzes can include both on-the-spot measurements and simulations to identify the sources of glare and reduce its effects.

Holistic Analysis

- Reflected Sunlight
- Direct Sunlight
- Human Thermal Comfort
- Interior Daylighting
- Solar Energy Viability
- Shadowing



Applications at All

- Urban Centers
- Stadium
- Airport
- Building Lobbies
- Individual Photovoltaic (PV) Cells

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TO BE YOUR MOST VALUABLE PARTNER...

ALKAZAR,

Explores Innovations

Design complex façade shapes while avoiding reflectivity issues.

We are with you to use high performance glazing effectively.

Support you to create iconic buildings by harnessing reflections to safely provide light or energy.

Creates Opportunities

We enable you to build high-value, certified towers by avoiding unpleasant flare and heat loads.

We do facade analysis for effective glare control inside and outside, at the lowest cost.

Meets Challenges

Address complaints and concerns with facts and data

Mitigate problems with confidence that solutions will be effective

Fulfills Your Expectations

In your designs, we handle glare problems in advance and quickly eliminate possible negative scenarios.

We offer comfort and acceptable costs to both residents and their neighbors.

How We Work?

Alkazar provides the calculation of acceptable reflection criteria for human safety as well as thermal and visual comfort in your projects. In our calculations, we use real-time simulation tools and physical testing tools that we can measure onsite. In this way, we advance the project with a mutual verification system.

We can use our Amazon (AWS) cloud-based high-performance decoding infrastructure for high-volume jobs. In this way, we can scale our analysis in areas that require larger analysis and reach results quickly. We use the solar data of the project location to investigate the long-term effects of reflections that may occur in your projects. The desired time in the analyzes may be for an annual and / or a specific time period. We present the results of the analysis with easy-to-understand graphics and simulations that we can show in real time. We can highlight periods and areas with disturbing reflections. These analyses can drive better decisions earlier, reducing rework at later design and construction stages.

In developing models and recommendations, we draw on our experience modeling complex geometries and materials, as well as our weather and climate expertise. We can investigate the impact of a single building in isolation or the cumulative effect of multiple buildings within a development or neighborhood. In addition, we constantly evolve our practice to identify and refine the most useful metrics in interpreting daylight performance.