

# Daylight and the workplace study

How natural light improves worker health, wellness and productivity.

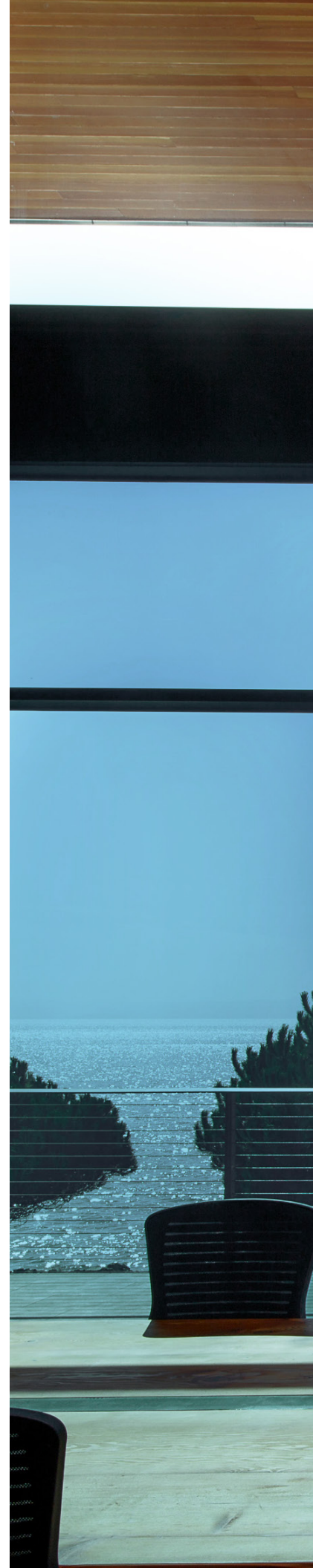
# Illuminating the ideal office environment

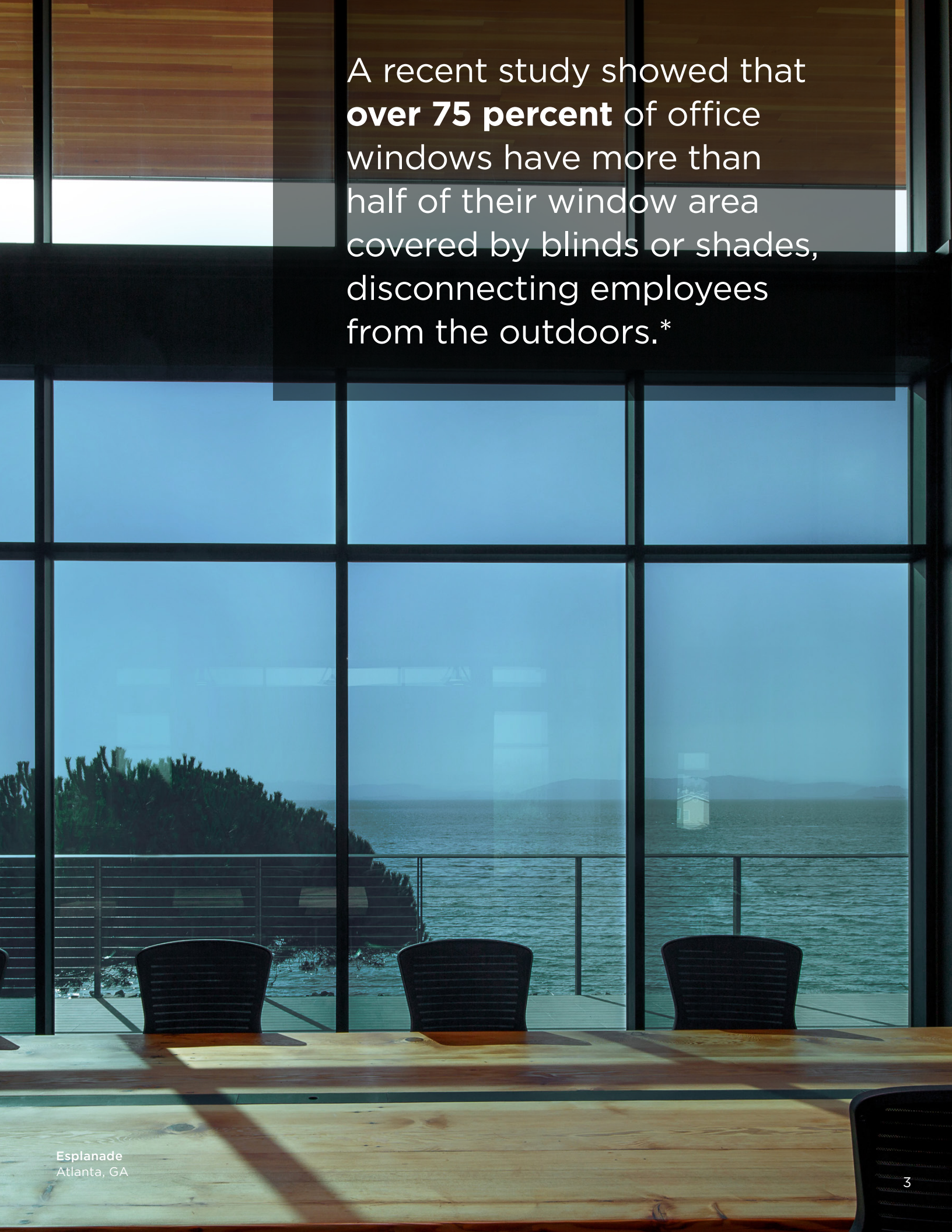
The concept of our workplaces awash in daylight sounds great in theory, but it's difficult to balance how much light to let in to keep people comfortable. Uncontrolled sunlight quickly becomes a problem for employees, reflecting unwanted glare into their eyes and computer screens and raising office temperatures and tempers over what the thermostat setting should be.

As a result, the benefits of natural light and views are often neutralized in a building through the frequent use of blinds or shades. A recent study showed that over 75 percent of office windows have more than half of their window area covered by blinds or shades, disconnecting employees from the outdoors.\*

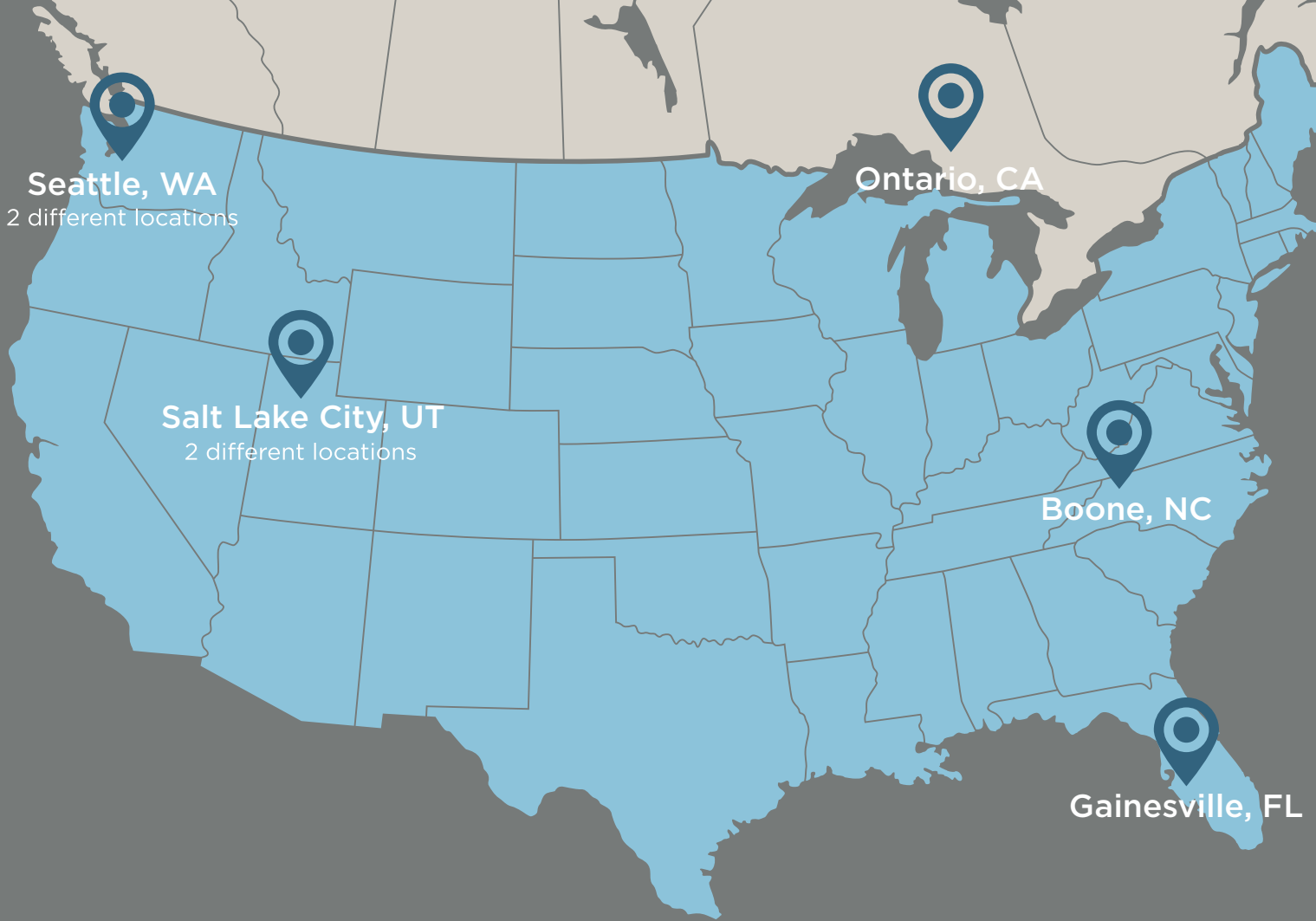
To better understand the benefits of daylit workspaces, Dr. Alan Hedge, a professor in the Department of Design and Environmental Analysis at Cornell University, conducted a study of 313 office workers. The results indicate that increased exposure to natural light unlocks a tremendous competitive advantage for companies by positively impacting the health, energy and work-related performance of their workforces.

\*<https://urbangreencouncil.org/content/news/report-seduced-view>





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# The research

## Study of 313 people in 7 locations

In the Fall of 2017, Cornell University Professor Alan Hedge conducted a study of people from seven different locations across North America, who worked in offices with traditional windows or offices with self-tinting “smart” windows. The smart windows were View dynamic glass.

People were surveyed about their experience with daylight and its perceived impact on their wellness, happiness and work-related performance. The research and its results were conducted independently by Professor Hedge with full autonomy over all aspects, including the survey design and data analysis.

# Dr. Alan Hedge

Dr. Alan Hedge is a professor in the Department of Design and Environmental Analysis, Cornell University. He directs the Human Factors and Ergonomics teaching and research programs. His research and teaching activities have focused on issues of design and workplace ergonomics as these affect the health, comfort and productivity of workers.

He has authored over 50 book chapters and 250 articles on the subject of human factors. He is extensively cited in the national and international media and has appeared on several TV and radio programs.

“He is perhaps the most often cited ergonomist in the media.”

The current president of the International Ergonomics Association recently said.





# Benefits of natural light at work

## Health benefits

Offices where natural light was intelligently optimized significantly reduced the health incidences that lead to Computer Vision Syndrome, an occupational hazard impacting 70 million workers worldwide.\*

Computer Vision Syndrome is a condition that can result from prolonged computer use (i.e. three or more hours a day). Symptoms include eyestrain, blurred or double vision, and tension headaches.

Overall, workers in offices with optimized natural light reported a 51 percent drop in the incidence of eyestrain and a 63 percent drop in the incidence of headaches, both of which can detract from productivity.

Lack of daylight and access to views decreases the ability of the eye to relax and recover from fatigue. By prioritizing controlled daylight in their offices, companies can increase workers' ability to work comfortably longer.



American Savings Bank  
Honolulu, HI



**63%** Fewer headaches



**56%** Less drowsiness



**51%** Reduced eyestrain

## Wellness benefits

Workers in offices with the optimal amount of natural light reported an 82 percent increase in the perceived daylight quality (in terms of color and brightness of light)

Better quality daylight not only resulted in fewer headaches and less eyestrain, but also decreased fatigue among workers. Workers in offices with optimized natural light reported a 56 percent decrease in drowsiness.

By enabling more high quality natural light at work, companies can benefit from a more energetic and attentive workforce.

\*<https://well.blogs.nytimes.com/2016/05/30/computer-vision-syndrome-affects-millions/>

## Performance benefits

Improving light quality leads to better energy which leads to better work performance. With increased access to views and natural light from smart windows, workers reported 2 percent greater productivity - the equivalent of an additional \$100,000 of annual value for every 100 workers.\*

Productivity gains (and losses) are connected to employees' environmental conditions, so companies that create ideal office environments with abundant natural light and unobstructed outdoors views will reap the dividends.

\*Assuming an average annual salary of \$50,000.





Netflix  
Los Gatos, CA

# About View

## Intro to Dynamic Glass

Situated at the intersection of human wellness, smart connectivity and energy efficiency, View designs and manufactures View Dynamic Glass, a new generation of digitally connected, architectural glass that intelligently tints to control glare and heat, while eliminating blinds and maximizing natural light. View creates more comfortable, inspiring and healthy environments, leading to improved productivity.

Due to its superior material properties, View also lowers HVAC and lighting energy consumption by up to 20% and blocks over 99% of UV light. Every View Smart Window is network addressable, providing a high-density, powered, connected platform for smart buildings and cities – leading to potentially transformative applications including personalization and wellness, digital and physical building security, connectivity and collaboration.

## Business overview

Targeting the 25 billion square feet (SF) annual global market for architectural window glass, View Smart Windows replace traditional windows in both new construction and building renovations. View Smart Windows were launched in 2012, and is the market leader with installations across 50 million SF of real estate. Today, the company focuses on the high value corporate office, healthcare, education, aviation and multifamily sectors.



CenturyLink Technology Center  
Monroe, LA

## Fast Facts



**50M**  
Building SF



**50M**  
Occupants



**96%**  
Overall occupant  
delight



**450+**  
Projects installed



**250**  
More in progress

Founded: **2007**

Funding: **\$2B+**

Employee: **950**

Patent: **850**

Headquarters | R&D  
**Milpitas, CA**

Manufacturing  
**Olive Branch, MS**

**view**<sup>®</sup>

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