



# Occupant Study:

Brownsville South Padre  
Island International Airport



**SageGlass**  
SAINT-GOBAIN



## SageGlass for First-Class Comfort

SageGlass Smart Windows are helping create a comfortable occupant experience at Brownsville South Padre Island International Airport (BRO). SageGlass products dynamically respond to sunlight levels, changing tint to enhance comfort, and providing control of daylight, glare, and energy use.

## Smart Windows Significantly Improve Passenger & Employee Experience

We wanted to see the difference that SageGlass Smart Windows make at BRO. So we turned them off for one week to see how it impacted energy use and to hear what travelers, employees, and TSA agents had to say.

### RESPONSE

#### SageGlass OFF



Travelers reported thermal discomfort when sitting next to a window



Squinting and use of sunglasses indoors to regulate daylight



Employees reported using personal fans all day long

### RESPONSE

#### SageGlass ON



**3x**

Improvement in thermal comfort<sup>2</sup>



**2.5x**

Improvement amount of daylight<sup>2</sup>



**2.5x**

Improvement in glare control<sup>2</sup>

*"It's hard to give a good passenger experience when you're sweating and can't see the passenger in front of you."*

Airline Employee

<sup>1</sup>Survey results based on data from 160 participants gathered from 7/11/2022-7/25/2022.

<sup>2</sup>Comparison is between those reporting very satisfied/satisfied to very unsatisfied/unsatisfied.

# Study Results

Over a two-week period in July of 2022, survey results were compiled from 160 respondents at the Brownsville South Padre Island International Airport, consisting of passengers, airline employees and TSA personnel. Respondents were asked to rate their satisfaction in three areas: thermal comfort, the amount of daylight and glare control.

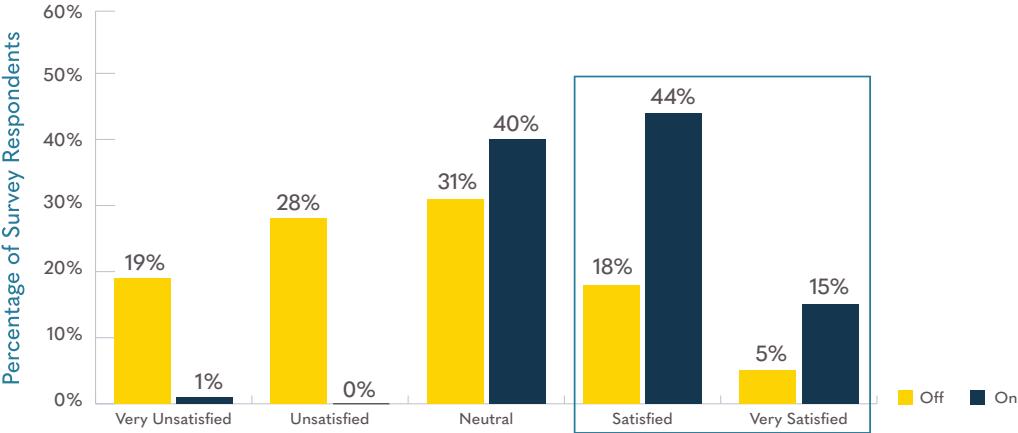
## Thermal Comfort

### Glass Off:

- 23% of survey respondents were satisfied or very satisfied with the temperature in the space.
- People reported a more negative experience, including sweating and using fans due to uncomfortably warm temperatures.

### Glass On:

- 59% of survey respondents were satisfied or very satisfied with the temperature in the space.
- One passenger cited "It feels nice inside even sitting next to a window."



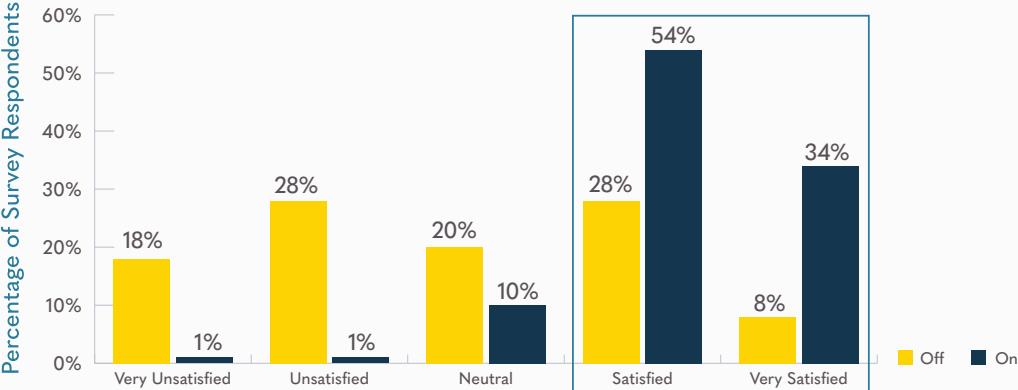
## Amount of Daylight

### Glass Off:

- 36% of survey respondents were satisfied or very satisfied with the brightness in the space.
- Airport employees were observed squinting or using sunglasses to regulate sunlight.
- Interior light sensors detected more light but the security checkpoint on the mezzanine experienced lower light levels, impacting the ability of TSA agents to read IDs efficiently.

### Glass On:

- 88% of survey respondents were satisfied or very satisfied with the brightness in the space.
- Airport employees reported a more comfortable environment for communicating with passengers at the gate.



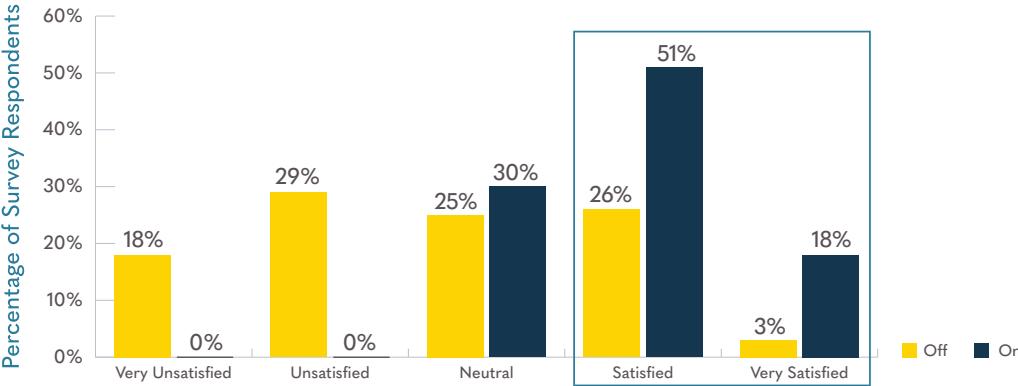
## Control of Glare

### Glass Off:

- 29% of survey respondents were satisfied or very satisfied with glare control.
- Airport employees complained that glare interfered with their ability to comfortably perform tasks such as reviewing travel documents on devices or monitors.
- Airport executives with west-facing offices cited difficulties when working on their computers.

### Glass On:

- 69% of survey respondents were satisfied or very satisfied with glare control.
- Passengers and employees near the windows were observed using mobile devices and computers comfortably without experiencing glare.



# Deliver a First-Rate Passenger Experience

World-class airports are choosing smart windows to meet their goals for passenger experience, energy performance, and aesthetics. Ensuring a positive passenger experience can also improve an airport's bottom line. Studies show that even a 1% increase in customer satisfaction can lead to a 1.5% increase in non-aeronautical revenue.<sup>1</sup>

*"It's a top priority for us to provide a comfortable space for travelers and workers at the airport. Workers and travelers alike need to be able to interact without distractions from the heat, glare or brightness coming from the windows surrounding them."*

Bryant Walker  
 Assistant City Manager and Aviation Administrator  
 Brownsville South Padre Island International Airport



Looking for more reasons to choose SageGlass?

BRO Airport saw a  
**26.8%**  
**ENERGY SAVINGS**

when comparing  
 July 2021 to July 2022!

## Project Information

**Location:** Brownsville, Texas

**Owner:** City of Brownsville

**Architect:** Corgan

**Product:** SageGlass Classic

**SageGlass SF:** 13,165 ft<sup>2</sup> / 1,223 m<sup>2</sup>

**Completed:** 2020

## Weather Conditions

GLASS OFF	7.11.2022	7.12.2022	7.13.2022	7.14.2022	7.15.2022	7.16.2022	7.17.2022
	97°F 36°C	97°F 36°C	97°F 36°C	90°F 32°C	88°F 31°C	95°F 35°C	95°F 35°C
GLASS ON	7.18.2022	7.19.2022	7.20.2022	7.21.2022	7.22.2022	7.23.2022	7.24.2022
	95°F 35°C	97°F 36°C	95°F 35°C	95°F 35°C	95°F 35°C	93°F 34°C	95°F 35°C

<sup>1</sup>2016 study by the Airports Council International

# See SageGlass in Action

SageGlass has worked to bring beautiful, dynamic smart window solutions to airports all over the world. Below are a few who have chosen to Build Unbound.

- Brownsville South Padre Island International Airport (BRO)
- Haneda Airport (HND)
- John F. Kennedy International Airport, Delta One Sky Lounge (JFK)
- Key West International Airport (EYW)
- Lafayette Regional Airport (LFT)
- Minneapolis-St. Paul International Airport (MSP)
- Nashville International Airport (BNA)
- Orly Airport, Air France Lounge (ORY)
- Portsmouth International Airport at Pease (PSM)
- Ronald Reagan Washington National Airport (DCA)
- Southwest FL International (RSW)
- Spokane International Airport (GEG)
- Thurgood Marshall International Airport (BWI)

**Not all  
smart glass  
is created equal**

**1,300+**  
Installations

**1,300+** Patents   **27+** Countries

**30+**  
Years

SageGlass® is the world leader in smart glass. Our electrochromic glass tints and clears automatically to offer all the benefits of glass without the downsides of blinds and shades. Design gorgeous views that optimize daylight and comfort without excessive heat or glare. SageGlass solutions also improve building performance and reduce energy use. As a Saint-Gobain company, SageGlass is part of a group that spans 70 countries and 350 years of building science expertise.

To learn more about our product portfolio visit: [sageglass.com/products](https://www.sageglass.com/products)

Contact your local representative at: [sageglass.com/contact](https://www.sageglass.com/contact)

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