

# DFW Airport

Pilot demonstration  
and research study



A photograph of an airport terminal interior. In the foreground, a man in a light-colored jacket and dark pants is walking away from the camera, carrying a black suitcase. To his left, a woman in a white shirt and dark shorts is walking towards the camera. In the background, there are two sets of escalators. A man in a blue cap and white shirt is walking up the left escalator. A group of people is walking up the right escalator. Above the escalators, a large blue directional sign with white text and icons is visible. The sign includes an arrow pointing left, a Skylink icon, and text: 'Skylink', 'Gates D30-D40', and 'Gates A B C E'. To the right of this sign, another sign reads 'Gates D1-D20 Exit / Bag Claim Concessions'. In the background, there is a 'DFW TRAVELMART' store and an 'Elevator' sign. The floor has a colorful, circular pattern. The ceiling is high with recessed lighting.

# Study Overview

Today's airports are often stressful environments. Beyond the travel-related stressors of security screening and wayfinding, discomfort due to the physical environment can increase travelers fatigue and decrease the overall passenger experience. Discomfort due to poor acoustics, glare, or thermal control are common. In order to quantify the positive impacts View Smart Windows on passenger experience and revenue in an airport setting, a full-scale technology demonstration and research study was performed at the Dallas Fort Worth Airport in October 2017. View Smart Windows replaced the existing Low-E insulated glass in two locations of Terminal A - American Airlines' Gate A28 and at the Twisted Root restaurant. Both locations are oriented due east and experience significant morning glare and heat gain throughout the year. For the study, the dynamic glass was operated in its automated Intelligence mode.

The existing Terminal A glazing is an insulated Solarban 70XL glass with an Arctic Blue mate light, that has a ceramic frit applied to the upper rows of glass in the gate areas.

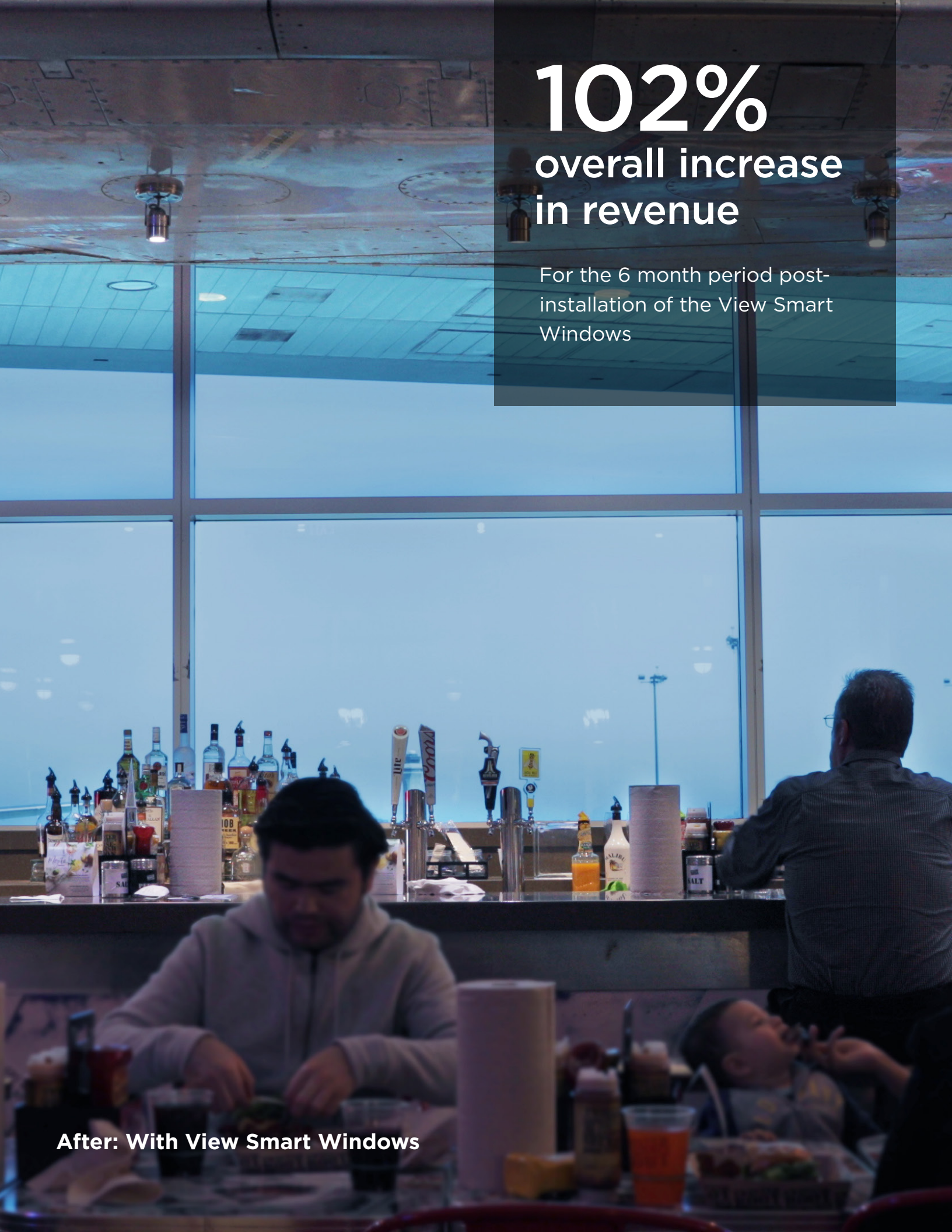


# Increased Revenue

In addition to the boarding area demonstration, the bar section of the Twisted Root restaurant also replaced the Low-E glass with dynamic glass. Since there wasn't a simultaneous comparison, benefits were evaluated on past performance in this location. In October 2017, following the smart windows installation, the restaurant reported an 89% increase in alcohol sales over 2016. This trend was repeated in November 2017 with a 108% increase over December 2016. For the 6 month period post-installation of the View Smart Windows, this represents an average 102% increase in revenue. Both restaurant staff and management report a qualitatively improved experience and a significant increase in profitability since the retrofit.



**Before: With Low-E Glass**



# 102%

overall increase  
in revenue

For the 6 month period post-  
installation of the View Smart  
Windows

After: With View Smart Windows

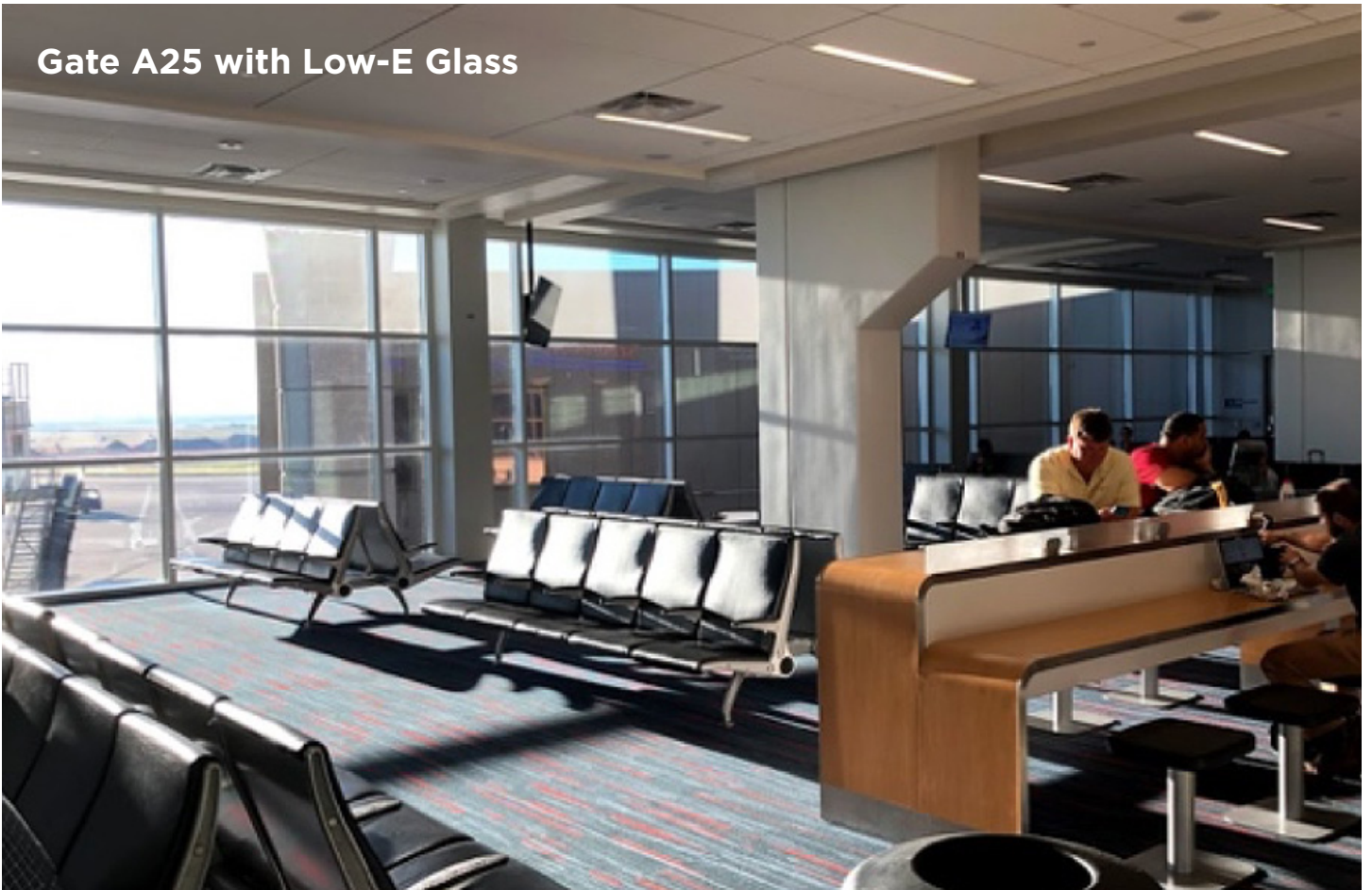
# Boarding Area Demo

Passenger experience in the DFW boarding areas was measured at two adjacent Terminal A gates. Gate A25 is a gate with existing Low-E glass and evaluated as the control for comparison to Gate A28, which was retrofit with dynamic glass. Over a 5 week period, more than 30 hours of boarding were monitored and evaluated. Customer seating was tracked via recorded video and 3rd party airport researchers who conducted over 500 in-person passenger surveys.

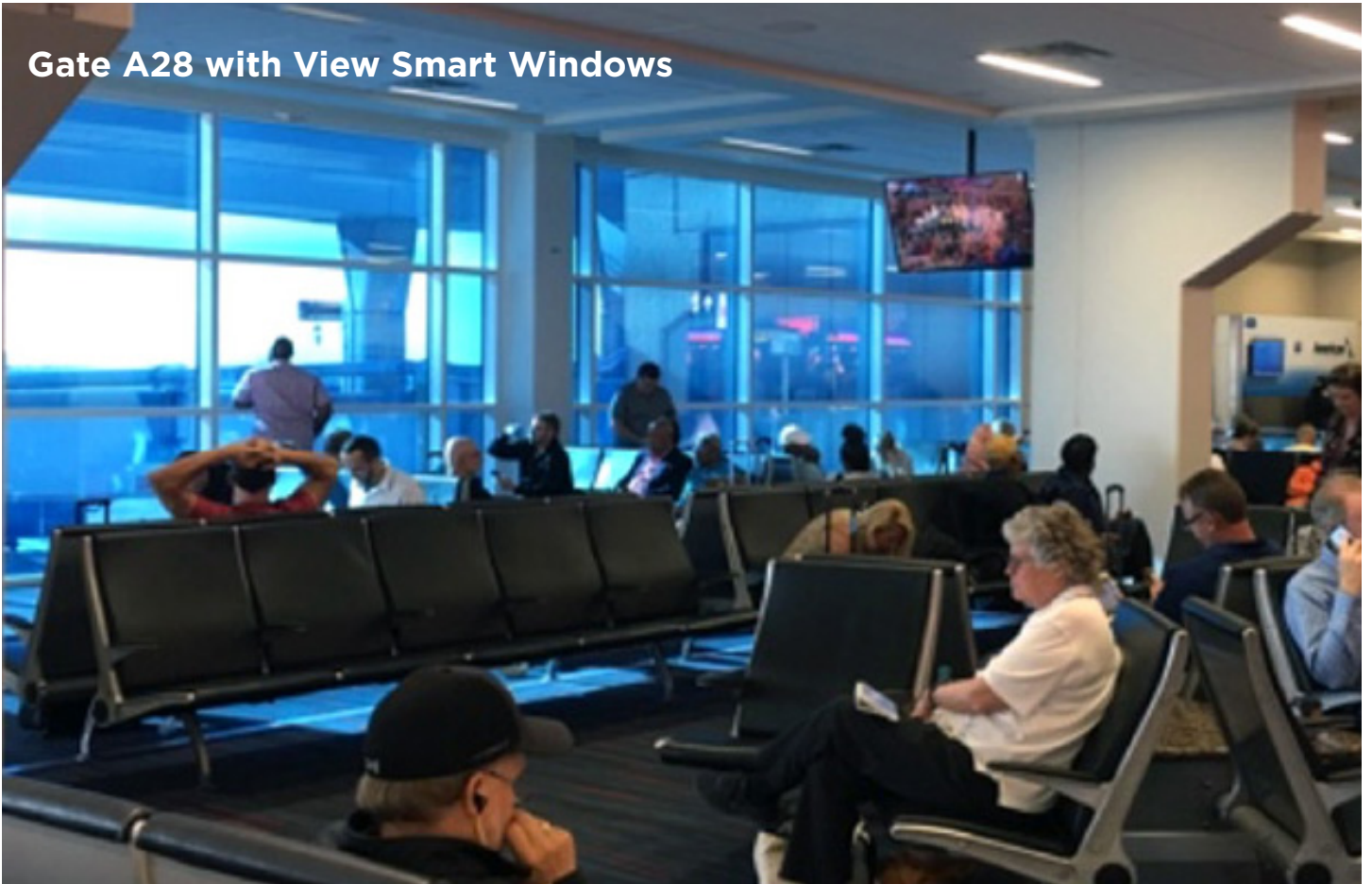
## **Gate Area Comparison Photos**

Gate A25 (top right) with Low-E glass and Gate A28 (bottom right) with View Dynamic Glass. Both gates experience full sun penetration in the morning.

**Gate A25 with Low-E Glass**



**Gate A28 with View Smart Windows**



# Passenger Comfort Study

The results show with View Smart Windows, the passengers experience in the boarding area significantly improved. The study found that passengers prioritize access to light and views as their second highest seating priority, outweighing electrical outlets and bathrooms in importance. The improvement in passenger comfort in the gate area led to an increase in dwell time of 83%. Visually, passengers preferred the aesthetic appearance of View Smart Windows 3-4x over the existing Low-E glass.

## Without View Smart Windows

Passengers at Gate A25 (below) frequently used their body to shield their electronic devices from glare and wore sunglasses while at the gate.







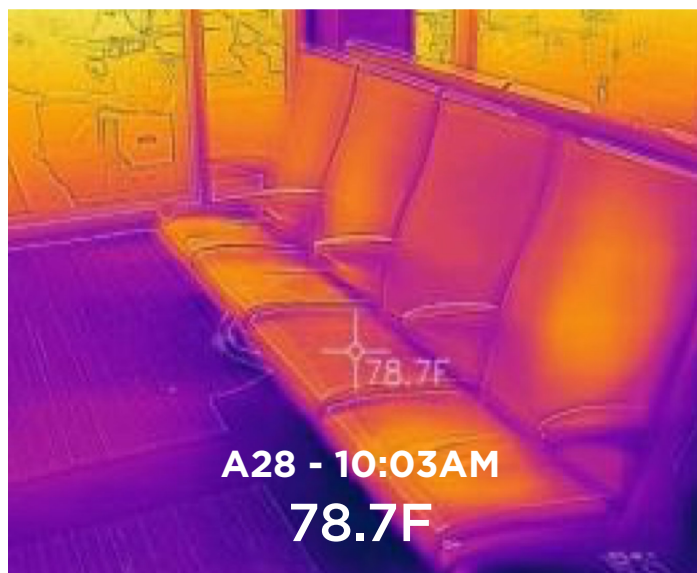
## Comfort Device Usage

With View Smart Windows, the study also found that passengers comfortably used their personal electronic devices like tablets, laptops, and mobile phones.

**83%**  
longer dwell time  
with View Smart  
Windows

# Infrared Testing

Increased passenger comfort was also directly observed via infrared (thermal) imaging. At the untreated gate, surface temperatures were up to 90 degrees Fahrenheit. At the gate with View Smart Windows, the surface temperatures on seats, carpets, glass, and passenger clothing and skin were 10 to 15 degrees cooler.



# Conclusions

In partnership with the DFW airport and 3rd party researchers, View was able to conclusively demonstrate significant improvements to passenger experience in both boarding area and restaurant environments. In both settings, passenger dwell times improved, and spending behavior increased. The technology is well received by travelers and airport staff.

**102%**

Higher spending in  
restaurant with View  
Dynamic Glass

**15°**

Cooler temp at  
gate with View  
Smart Windows

**view**<sup>®</sup>

To learn more, visit **view.com**  
or contact us at **1-855-478-8468**

© Copyright 2019 View, Inc.