

view

Dynamic Glass

DFW Airport

PILOT AND RESEARCH STUDY



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 traveler 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 of dynamic glass 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 beginning in October 2017. View Dynamic Glass replaced the existing conventional 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.

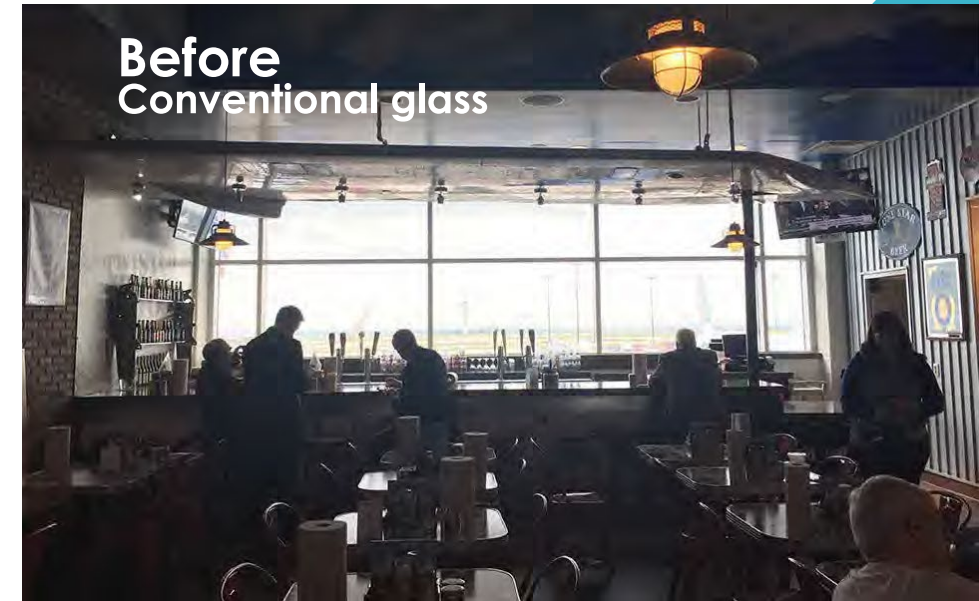


Increased Restaurant Revenue

In addition to the boarding area demonstration, the bar section of the Twisted Root restaurant also replaced the conventional 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 dynamic glass installation, the restaurant reported an 89% increase in concession sales over 2016. This trend was repeated in November 2017 with a 108% increase over November 2016 and in December 2017 with a 101% increase over December 2016. For the 6 month period post-installation of the View Dynamic Glass compared to the 6 months prior, 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.

The Results

102% overall increase in revenue

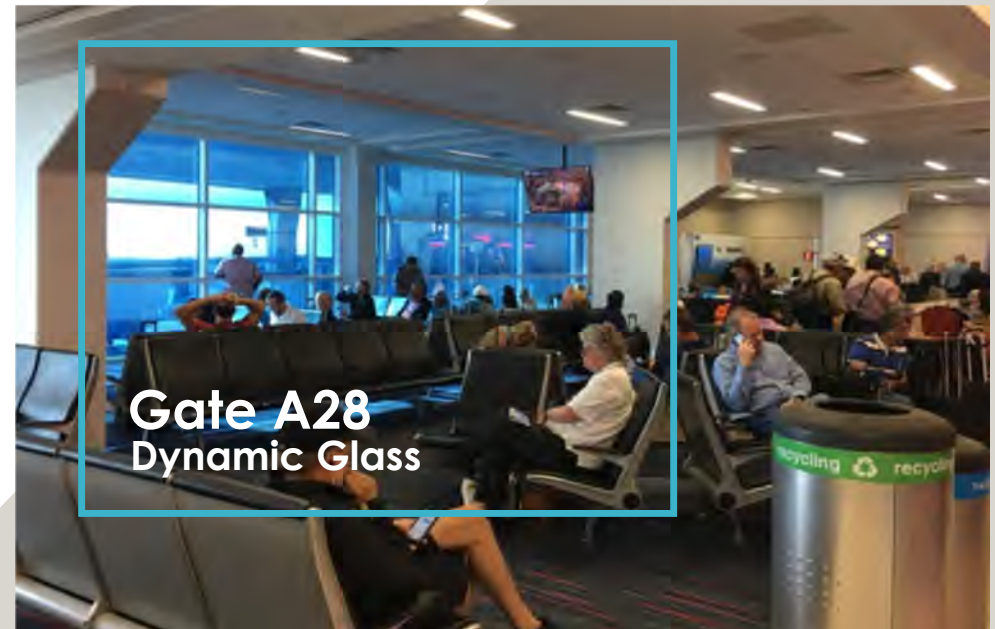


Boarding Area Demo

Passenger experience in the DFW boarding areas was measured at two adjacent Terminal A gates. Gate A25 is a gate with existing conventional 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 conventional glass and **Gate A28 (bottom right) with View Dynamic Glass.** Both gates experience full sun penetration in the morning.



Passenger Comfort Study

The results show that **dynamic glass** significantly improves the passenger experience in the boarding area. The study found that passengers prioritize access to light and views as their second highest seating priority. Within 10 feet of the glass (the preferred seating location for 84% of passengers), increased comfort prompted a passenger dwell time that was 83% longer. Visually, passengers preferred the aesthetic appearance of view Dynamic Glass 3x over existing conventional glass.

Without View Dynamic Glass

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

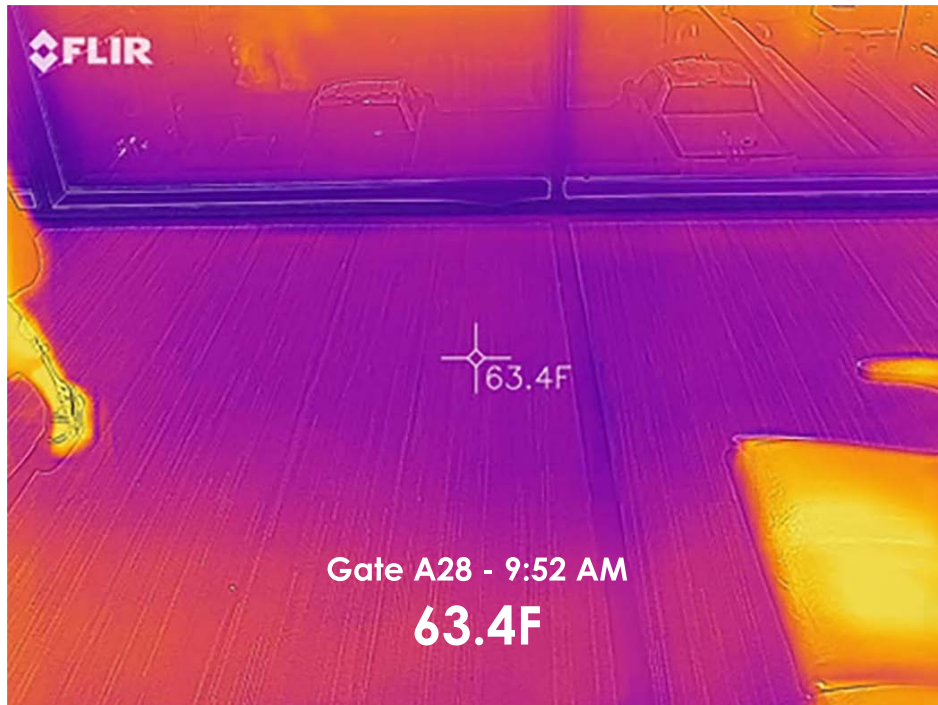
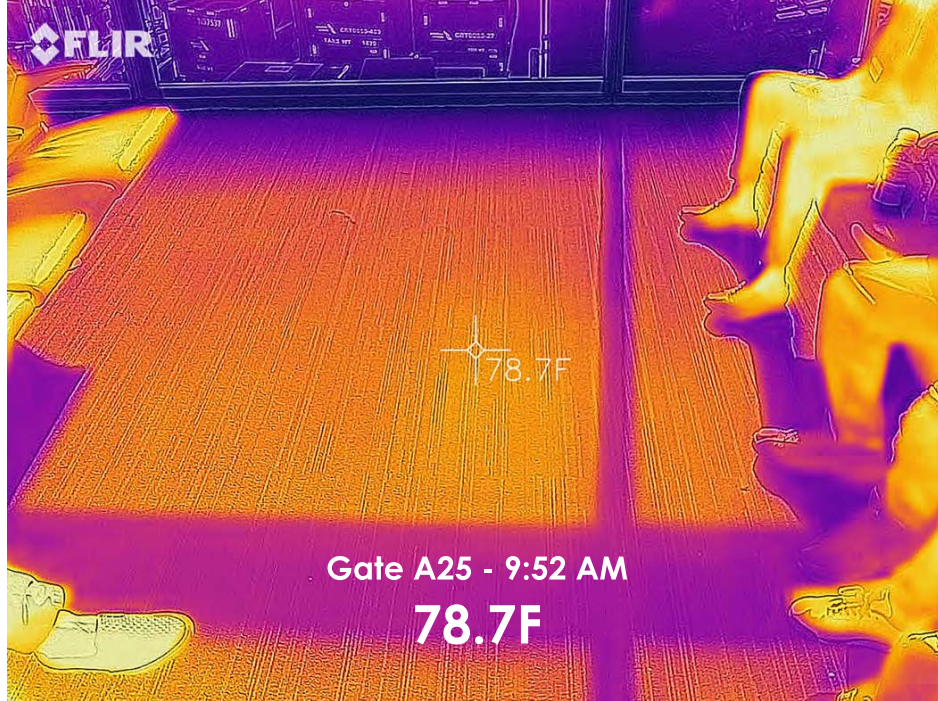
83% longer dwell time
with View Dynamic Glass



Comfortable Device Usage

- P** PHONE (6)
- T** TABLET (1)
- L** LAPTOP (3)





DFW REPORT

Infrared Imaging

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 dynamic glass gate, the surface temperatures on seats, carpets, glass, and passenger clothing and skin were **10 to 15 degrees cooler**.

Conclusions

By incorporating View Dynamic Glass, DFW airport demonstrated significant improvements to passenger experience in both boarding areas and restaurant environments. In both settings, passenger dwell times improved, and spending behavior increased. View Dynamic Glass significantly enhanced the employee and passenger experience.

83%

Longer gate dwell time near View Dynamic Glass vs. standard glass

84%

Passengers want to **sit by windows** with View

102%

Higher spending in restaurant with View Dynamic Glass

#2

Access to views is the #2 seating priority for passengers at gate

15°

Cooler temp at gate with View Dynamic Glass