

# CASE STUDY – Longhorn Steakhouse

## Delivering Guest Comfort and Energy Savings

### THE CHALLENGE:

Darden Restaurants, the largest fine dining restaurant group in the world with over 1,500 locations, was looking for a partner that could solve their comfort issues for their Longhorn Steakhouse Brand. Simultaneously, they sought a company that would help them meet their long-term energy efficiency goals. They ordered pilots for two Illinois locations, Orland Park and Bolingbrook, which received constant guest feedback regarding temperature related comfort issues. These comfort issues were primarily driven by two factors. First, their current programmable thermostats were unable to solve the temperature imbalances created by varying heat loads in their dining area. Second, their existing system required too much human intervention. They were looking for a simpler and systematic approach that could respond to the complex needs of their buildings.

“The 75F system has definitely made a positive impact to the bottom line of the P&L with savings in utility expenses year over year” – **Managing Partner**

### AT A GLANCE

Location	Orland Park & Bolingbrook, IL
Project	Dynamic Airflow Balancing Outside Air Optimization
Square Footage	6,000 (total)
Rooftop Units	3
Average RTU Size	5 tons
Previous System	Programmable Remotes
Zones	32

### THE 75F SOLUTION:

75F installed the Dynamic Airflow Balancing™ solution and the Outside Air Optimization solution in both locations.

#### **Dynamic Airflow Balancing**

The Dynamic Airflow Balancing solution was installed in restaurant dining areas. By obtaining a live weather feed and collecting empirical data, the cloud-based algorithm was able to rapidly learn and adjust the balance of airflow, so that temperatures became uniform throughout service hours.

#### **Outside Air Optimization**

75F combines demand control ventilation (DCV) and enthalpy economizer solutions into one easy strategy. The solution offers the following advantages:

1. 75F receives enthalpy from live weather feeds, which inform the economizer wirelessly. Other economizers receive enthalpy data from a module received on the rooftop unit; should that fail, the economizer fails.
2. The 75F economizer solution uses temperature and humidity sensors to calculate indoor enthalpy. With an understanding of outside and inside enthalpy, free cooling is provided when conditions are right.



The actual temperature in all areas is within 2°F of the desired temperature when occupied (starting at 6AM) and is allowed to drift up to 5°F when not occupied, to drive energy savings.

When indoor air quality reaches a maximum threshold of CO2, the outside air damper will bring in fresh air to modulate the percentage necessary to achieve ideal comfort.

**Snapshot from Facilisight of the 75F Outside Air Optimizer solution working in an area consisting of 16 zones.**

**THE RESULT:**

Within 24 hours, managers at both the Orland Park and Bolingbrook locations reported a noticeable difference in comfort. The building was being conditioned without human intervention thanks to the predictive power of the 75F proprietary algorithms. Not only that, they were able to prove it from Facilisight, our online reporting tool.

“This summer has been a blessing versus prior years due to 75F” – **Managing Partner**

Each box represents an area where a remote temperature sensor was installed. In an instant, Facility Managers, can monitor temperature drifts and receive real-time alerts from Facilisight.

Orland Park heatmaps show temperatures before and after 75F was activated.



**After**