

HUSSMANN®

Innovator Glass Doors



IR Ingersoll Rand
Climate Control Technologies

INNOVATOR GLASS DOORS



Clearly Superior Doors for Reach-Ins

Hussmann's Innovator doors take a radically new approach to door construction, substantially reducing energy costs and increasing product illumination. Consider the benefits.

- ▶ **25% Reach-In Energy Savings**
- ▶ **40% Brighter Product Lighting**
- ▶ **Reliable, Optimized Lighting System**
- ▶ **Reliable Door Hold-Open, "Shopper Friendly" Handle**
- ▶ **Simplified Service/Maintenance**

The "Innovator Series" redefines the standards in glass door efficiency, lighting and reliability.

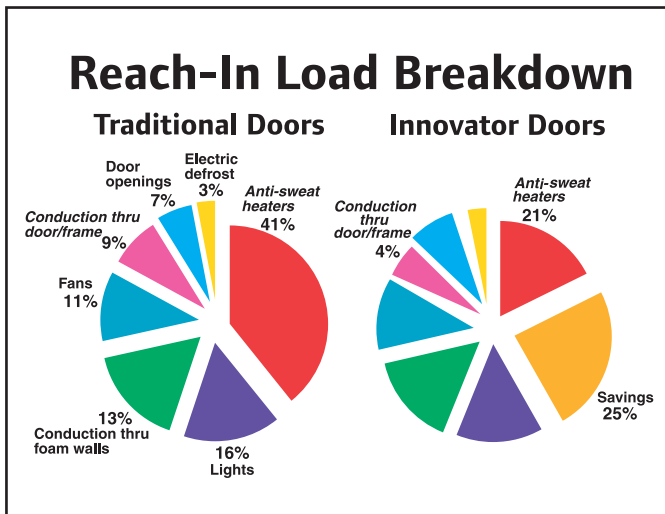
25% Energy Savings

As shown in the "traditional door" pie chart, 41% of a reach-in's energy use results from anti-sweat heaters. Another 9% results from conduction through doors and frames.

To reduce energy use in these two areas, Hussmann developed a new molded door frame made with strong, non-conductive material (not the aluminum used on traditional doors) and superior insulation. Anti-sweat heaters in the door's perimeter frame were completely eliminated. Triple pane glass with non-metallic spacers and optimal air spacing also improved insulation. The case frame is constructed of strong non-conductive fiberglass, instead of aluminum. Anti-sweat heat transmitted into the case was reduced, and compressor energy (or case load) was also lowered.



Innovator's well-insulated, fiberglass frame

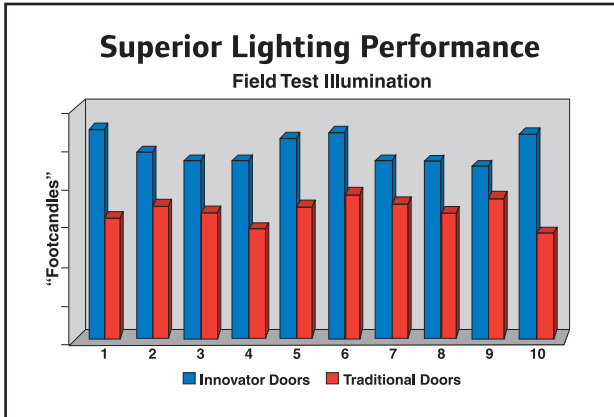


As the "Innovator" pie chart shows, this produced a total energy savings of 25%. In a store with 100 doors, and an energy cost of 8¢ per KWH, that yields an annual energy savings of approximately \$6,000-\$10,000, depending on anti-sweat run-time.

In addition to energy savings, there are first cost savings. Due to lower case BTU loads, compressors and condensers are sized smaller. Also, because of the reduction in anti-sweat loads, fewer electrical circuits are required.

Over 40% More Light on Products

As the chart shows, your product display will be more than 40% brighter with Impact Innovator doors! The chart compares light readings with Innovator and competitive doors in the same store. The Innovator advantage is made possible with 58 watt lamps, custom ballasts and a special lamp lens to maximize light coverage.



The unique, faceted, acrylic lens directs lamp light into the product zone, reducing lamp glare into aisles. The bulb placement and lens are optimized exclusively for Hussmann reach-ins to evenly distribute light across the face of the product display. This provides excellent illumination in both full load and shop down conditions.



Reliable, Optimized Lighting System

Most traditional reach-in doors use high output ballasts which overdrive 40 watt T-8 lamps, leading to premature burn-out.

Hussmann Innovator doors use 58 watt T-8 lamps with matched electronic ballasts. These ballasts have anti-arc protection to improve safety and prevent damage, and they have regulated output to maintain constant lumens. Lamps can be expected to reach their full 20,000 hours of rated life. The entire lighting system ... lamps, ballasts, sockets, and harnessing ... is balanced for maximum reliability and durability.



Reliable Door Hold-Open, "Shopper Friendly" Handle

A new, ergonomic handle (gently rounded with a comfortable, warm grip) has been endorsed by shoppers in field tests as "more user friendly".



Innovator's heavy-duty door hold-open is designed to withstand the abuse of high traffic shopping and keep on working. It is manufactured in tempered steel with solid, one-piece construction.

Simplified Service and Maintenance



Easy-to-remove lens

Innovator doors include a variety of features which improve reliability and simplify maintenance.

- ▶ **Clip-on lens is easy to remove for cleaning or relamping**
- ▶ **"Straight Path" lamp wiring from bulb to ballast, with no intermediate connections**
- ▶ **One piece molded door increases strength, eliminates door sag**
- ▶ **No heater wires in the door frame to burn out**
- ▶ **No busbar connectors inside glass pack to fail**



Climate Control Technologies

Providing equipment and services to manage controlled-temperature environments for food and other perishables, our Climate Control Technologies sector encompasses both transport and stationary refrigeration solutions. Our product brands include Thermo King®, a world leader in transport temperature control systems, and Hussmann®, a manufacturer of refrigeration and food merchandising equipment.

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