

Transforming retail with AI video security

In today's fast-evolving retail environment, operational visibility, efficiency, and workforce optimization are foundational to success. Lumana's AI video intelligence platform enables organizations to monitor and improve store layout decisions, accelerate digital fulfillment, and support staff optimization—all by turning existing security camera infrastructure into a real-time monitoring and analytics engine.

This document outlines key use cases for retail organizations to leverage Lumana's AI video solution to drive positive impact throughout all areas of retail operations.

! Missing merchandise

An alert box with a white exclamation mark icon on a dark background, indicating a missing merchandise event.

Workforce productivity and behavior insights

As labor costs rise and in-store fulfillment becomes the primary channel for digital orders, optimizing how employees interact with their environment is increasingly critical. Lumana leverages existing security camera infrastructure to provide real-time visibility into workforce behavior and fulfillment performance. The platform can detect late arrivals, periods of inactivity during order prep, and automatically trigger alerts when fulfillment delays occur.

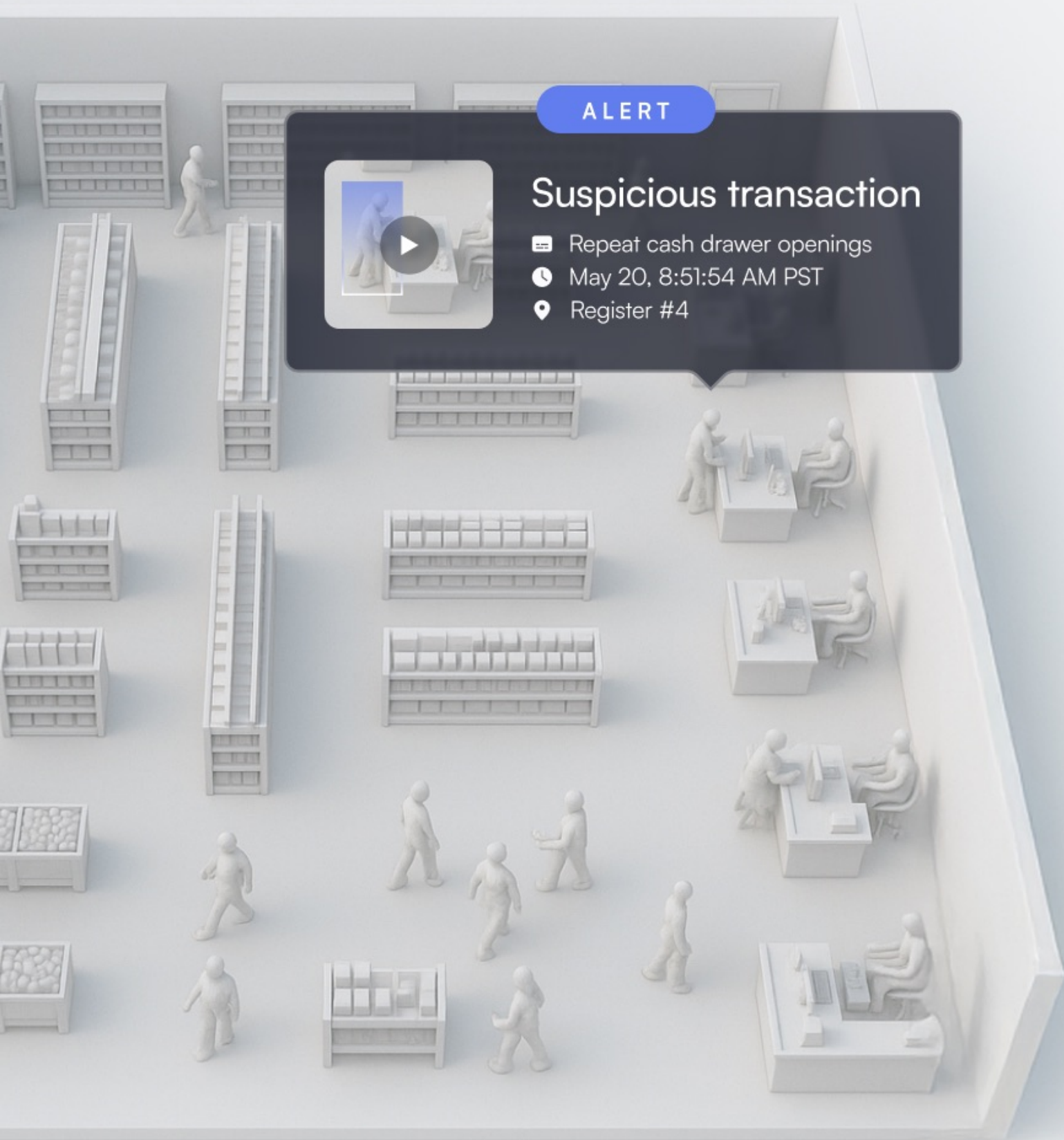
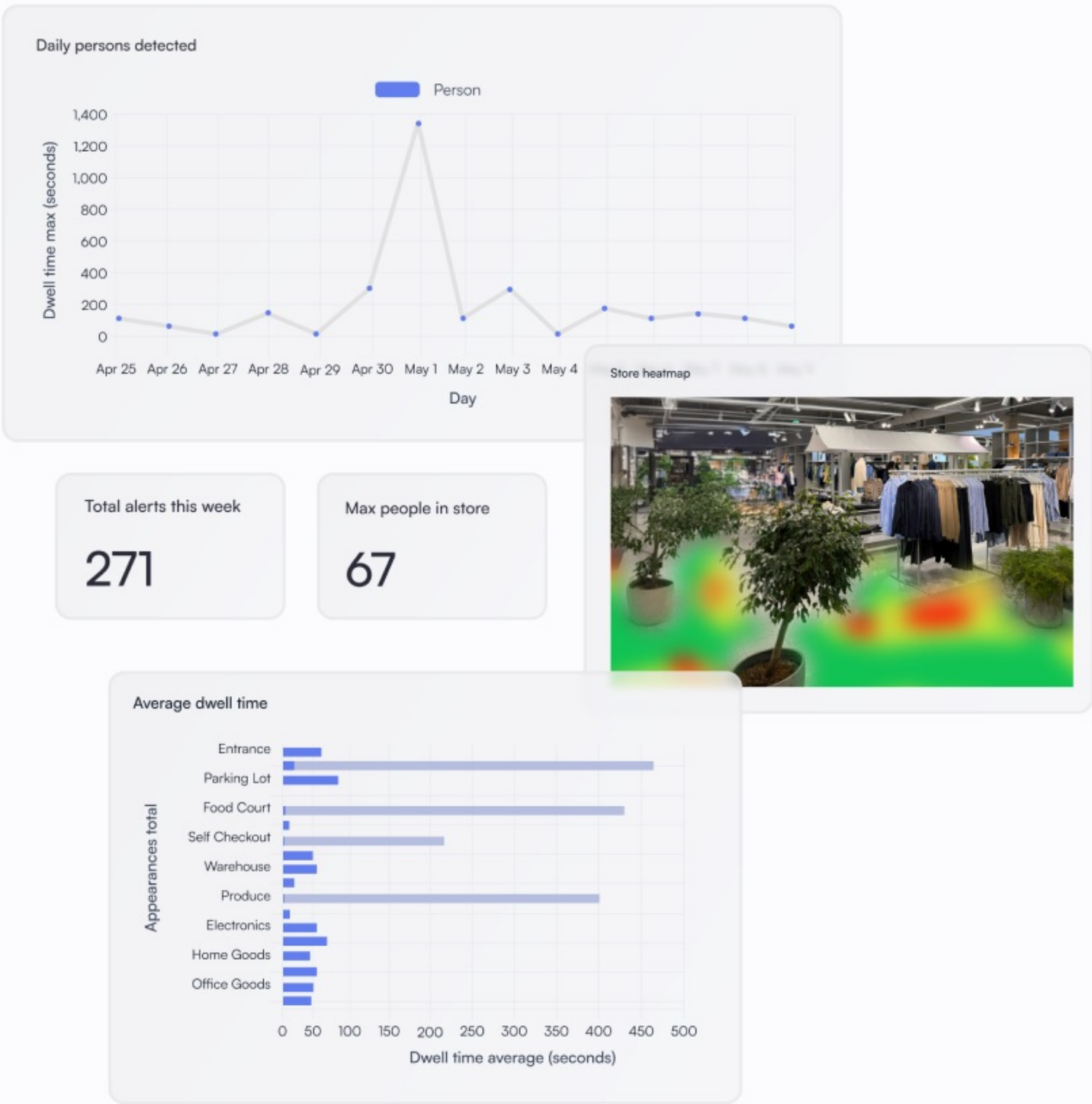
Through custom video AI models and open APIs, Lumana can track order receipt-to-fulfillment workflows and surface performance metrics in configurable dashboards. Teams can compare individual and group trends daily, weekly, or monthly, enabling operation leaders to identify bottlenecks, drive accountability, and optimize workforce productivity at scale.



Space utilization and customer experience impact

Store layout directly impacts both customer experience and operational efficiency, yet many design decisions are still made based on intuition rather than data. Lumana transforms existing video security infrastructure, providing deep visibility into how customers and employees navigate high-impact areas such as registers, pickup counters, and service zones. Through video-derived heatmaps and proprietary AI models, businesses can identify congestion points, monitor dwell times, track line formation, and analyze foot traffic and transaction activity.

Customizable dashboards can be created to visualize this data at the store, regional, or global level. At the same time, real-time alerts notify managers of potential issues as they arise, enabling immediate action and resolution. By leveraging real-world video data, Lumana helps teams accurately forecast and measure whether layout or operational changes will reduce friction, increase efficiency, or unintentionally disrupt flow.



POS integration for transaction monitoring

Integrating Lumana with point-of-sale (POS) systems creates a seamless connection between transaction data and video footage, reducing fraud and theft while unlocking new levels of operational visibility and efficiency. Every transaction is automatically paired with a corresponding video clip, allowing teams to quickly pinpoint and review specific events, dramatically cutting investigation time.

Lumana monitors all registers in real-time, identifying high-risk behaviors such as transactions executed without a customer present, frequent voids, repeated cash drawer openings, and unusual refund activity. Real-time alerts can be configured for these scenarios, enabling loss prevention and operation teams to respond immediately to potential incidents.

Custom dashboards provide a searchable, timestamped video log of every transaction across all locations, simplifying investigations, dispute resolution, and compliance verification. This integration strengthens accountability at the point of sale and empowers teams to proactively reduce shrinkage and maintain operational integrity with minimal overhead.

Key benefits for retail



SINGLE PANE OF GLASS

Manage video security and AI on one platform



BRING AI TO YOUR SOC

Receive intelligent, real-time insights from video

ADDITIONAL USE CASES

Security and safety

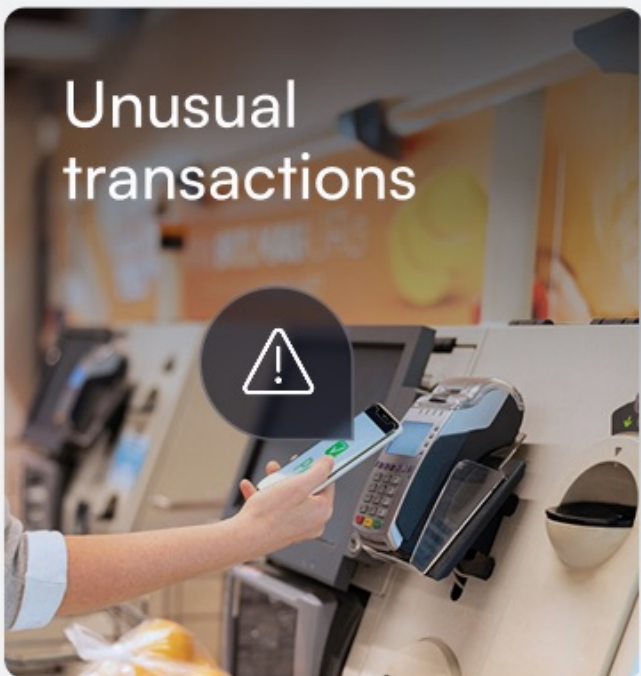


Known thieves



Suspect

Suspect identified



Unusual transactions



Threats



Violence



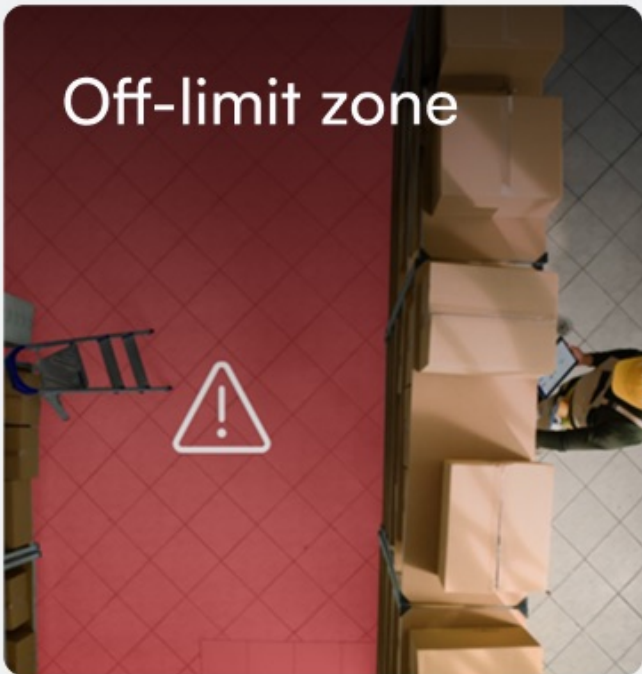
Loitering



Trespassing



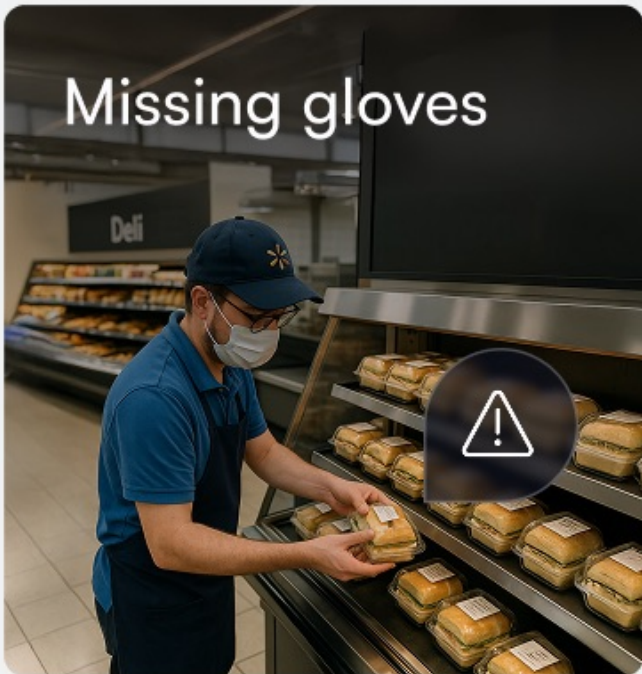
Tampering



Off-limit zone



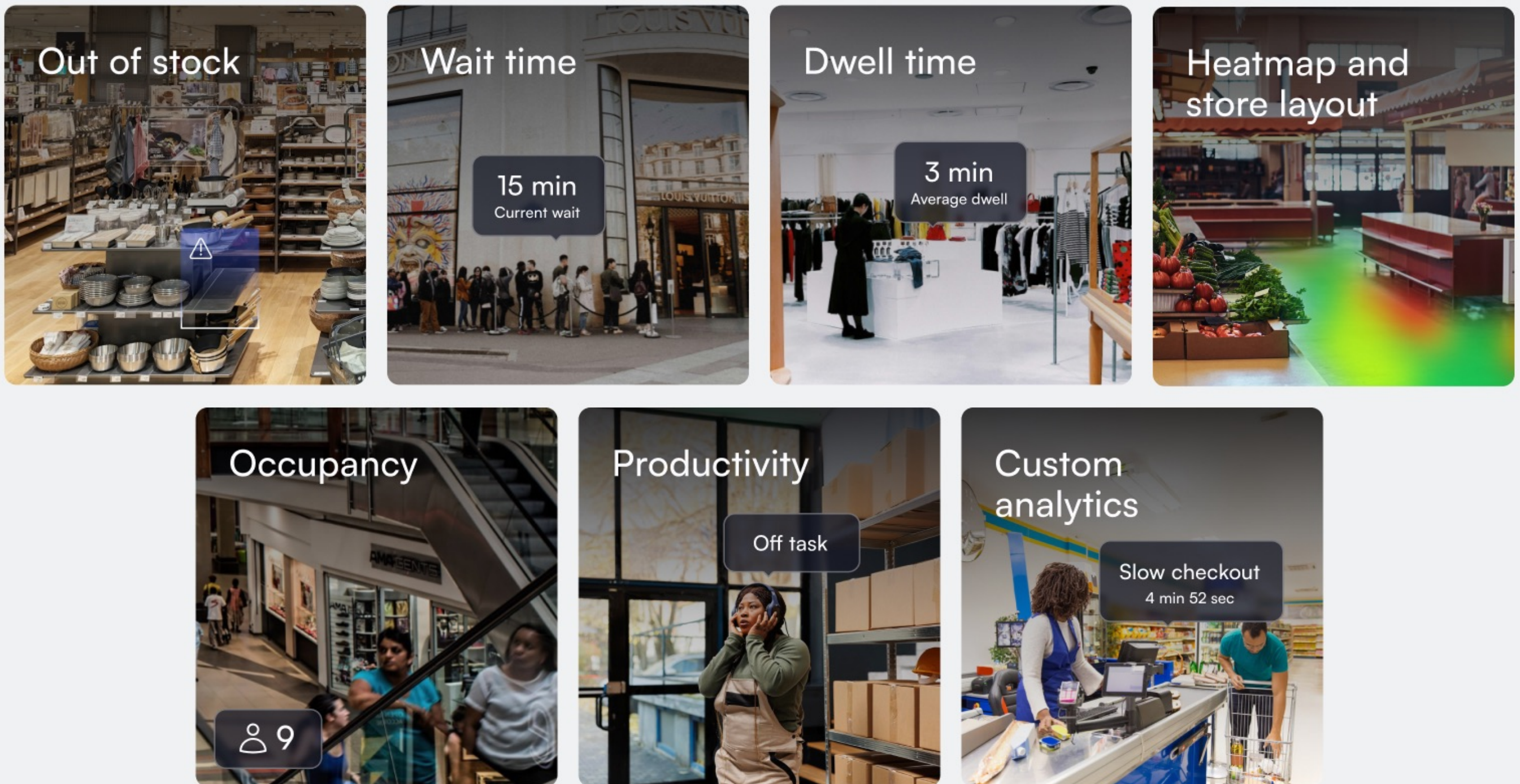
Blocked exits



Missing gloves

ADDITIONAL USE CASES

Operational analytics and insights



Final thoughts

Retail success today demands more than just visibility—it requires actionable intelligence that spans workforce performance, operational efficiency, customer experience, and safety. Lumana brings a new layer of insight to traditional video security systems by transforming passive camera infrastructure into a proactive, intelligent platform for retail operations.

From reducing fulfillment delays, improving store layout decisions, detecting known thieves, and enforcing safety standards, Lumana helps retailers move from reactive problem-solving to real-time optimization. Its flexible architecture, custom AI models, and seamless integrations with POS and business systems make it easy to deploy and scale across locations.

As retailers continue to adapt to new consumer expectations and operational challenges, Lumana offers a path forward: a smarter, more automated approach to understanding what's happening in-store at every moment. By making video data searchable, quantifiable, and deeply actionable, Lumana empowers organizations to turn video data into valuable insight.

