

CHANCCTV CCTV Lens Portfolio for Security Monitoring, Facial Recognition, and Smart Home Integration



Fuzhou, Fujian Aug 13, 2026 ([Issuewire.com](https://www.issuewire.com)) - Modern security systems demand precise optical matching based on surveillance distance, area coverage, low-light conditions, concealed installation requirements, and remote adjustment capabilities. When integrators attempt to cut corners with standard optical components, the resulting video feeds often suffer from corner distortion, poor night visibility, and failure to capture critical details like facial features or license plates. Approaching these multifaceted challenges requires more than generic hardware; it demands a [Reliable CCTV Lens Solution](#) built from a scenario-driven portfolio of fixed, varifocal, pinhole, motorized zoom, starlight, and IR-corrected lenses. The Fuzhou ChuangAn Optics Co., Ltd. (CHANCCTV) CCTV lens portfolio comprehensively covers security monitoring, smart homes, and adjacent recognition applications. The lineup provides M12 and C/CS mount configurations alongside diverse focal lengths and model-level environmental parameters. However, product breadth only translates into project certainty when supported by sample validation, reliable testing environments, and responsive technical mechanisms. CHANCCTV bridges this critical gap by combining transparent product data and accessible sample policies with a guaranteed 24-hour inquiry response. This structural approach ensures that complex procurement and engineering challenges translate directly into verifiable, field-ready optical specifications.

A CCTV Lens Portfolio Built Around Monitoring Tasks

Rather than organizing its inventory solely by focal length or physical sensor size, the CHANCCTV CCTV lens portfolio deliberately structures its offerings around specific monitoring tasks. The extensive selection encompasses IR-corrected ITS lenses, M12 fixed focus designs, varifocal options, pinhole architectures, motorized zoom units, and specialized starlight lenses. By focusing on the ultimate task rather than just the physical mount, the manufacturer streamlines the selection process for security integrators.

For instance, the M12 CCTV series delivers high-resolution capture up to **5 MP** and versatile focal lengths spanning **2.8–50 mm**. The varifocal series scales up to **12 MP** while providing flexible C/CS mount compatibility for larger sensor formats. Meanwhile, the starlight options are engineered specifically for low-illumination security cameras where ambient light is virtually nonexistent. This tiered optical architecture allows buyers to actively align specific hardware with targeted operational needs:

- **Fixed Area Observation:** Fixed-focus configurations establish steady, wide-angle baselines for building perimeters and entrances.
- **Variable Distance Tracking:** Varifocal and motorized zoom lenses adjust to shifting subjects in large lobbies or parking facilities without losing clarity.
- **Concealed Installation:** Pinhole designs maintain vital visual coverage in restricted, discrete, or high-vandalism spaces.
- **Nighttime Monitoring:** Starlight and IR-corrected units ensure continuous visibility and detail retention during off-hours.
- **Traffic Recognition:** ITS lenses provide the edge-to-edge sharpness necessary for high-speed license plate capture.

Segmenting the portfolio in this manner directly reduces the costly mismatch that occurs when attempting to cover every scenario with a single, universal CCTV Security Lens Solution. By treating optical selection as a task-driven process, engineers can source exactly what the environment dictates, preventing situations where a lens performs well in daylight but fails entirely during nighttime operations.

Security Monitoring Across Commercial Environments

The commercial application of CCTV lenses spans a vast array of physical layouts, including retail spaces, hotels, banks, construction sites, agriculture, and animal husbandry. Each of these unique environments imposes distinct, non-negotiable demands on coverage distance, installation height, low-light performance, and target detail. Sourcing optics for a climate-controlled bank lobby is fundamentally different from outfitting an exposed agricultural site subject to dust, rain, and extreme temperature fluctuations.

Retail centers and hotels typically prioritize broad public area coverage and general personnel activity recording. In these expansive indoor environments, wide-angle and varifocal lenses excel at monitoring aisles, check-out counters, and busy lobbies. In contrast, financial institutions and active construction sites emphasize high-resolution details in critical zones—such as teller stations or hazardous material storage—demanding sharper focal points and motorized zoom capabilities for real-time tracking. Agricultural and husbandry applications present entirely different challenges, requiring robust optics that can adapt to expansive outdoor spaces, varying weather conditions, and complex, dynamic lighting that changes drastically throughout the day.

[CHANCCTV](#) provides fixed, varifocal, motorized zoom, and starlight lenses that can be actively

combined according to these specific commercial scenarios. This approach establishes a layered configuration strategy. By deploying a calculated mix of focal lengths and capabilities, system integrators can build an optical network ranging from wide-area surveillance to high-priority target observation, ensuring that every operational zone receives the appropriate optical coverage.

Facial Recognition and Smart Home Integration Context

Facial recognition and smart home integration impose strict optical requirements centered on stable image capture, appropriate fields of view, precise subject distances, and consistent system illumination. However, accurate recognition results also depend heavily on the underlying sensor, illuminator, algorithmic efficiency, and calibration protocols. It is not just about mounting a high-resolution lens; it is about feeding flawless, artifact-free visual data into a complex software engine that depends on mathematical precision.

CHANCCTV explicitly targets smart homes, CCTV/surveillance, and iris recognition as core application areas. Its CCTV, M12, fisheye, IR-corrected, and ToF (Time-of-Flight) products provide the vital optical input necessary for diverse recognition and monitoring architectures. Whether the system requires wide-angle context from a fisheye lens or precise depth-sensing from ToF hardware, the portfolio is designed to supply the necessary raw image data.

When implementing facial recognition in access control or smart home environments, engineers must maintain clarity at the system application level: lens specifications and integration conditions form the necessary optical foundation, but optical parameters do not directly equate to algorithm recognition rates. By acknowledging the strict boundary between optics and algorithms, developers can deploy an M12 CCTV Lens Solution that feeds clean, distortion-minimized data into the system, allowing the recognition software to perform efficiently without overpromising the hardware's inherent capabilities.

Model-Level Evidence for Environmental Selection

Evaluating optical hardware requires moving beyond broad categories and examining exact specifications. The M12 CCTV model **CH3895CC** provides a concrete baseline for environmental selection, demonstrating exactly what rigorous optical engineering looks like in practice. This specific model features a **1/2-inch format**, **3 mm focal length**, **8 MP resolution**, an **F2.0 aperture**, and a wide **97.2° HFOV**. It also incorporates **IR650 nm** capability and operates reliably within an extreme temperature range of **-20°C to 85°C** while maintaining an **IP69K** ingress protection rating.

The detailed profile of the CH3895CC pushes CCTV lens procurement into rigorous environmental fields—resolution, field of view, filtration, temperature stability, and ingress protection—rather than lingering on generic product labels. When buyers evaluate this model, they are not just looking at a "security lens"; they are evaluating a highly specific tool engineered to survive extreme temperature swings and high-pressure water ingress. Buyers must note that specific environmental ratings apply exclusively to their respective models. Therefore, other products within the portfolio require individual datasheet verification.

This disciplined, specification-first approach prevents the dangerous assumption that a single model's parameters represent the universal capability of an entire product series, ensuring precise environmental matching for every installation.

Custom Support, Samples, and Supply Confidence

A reliable procurement framework is built on product coverage, transparent sample validation, proven testing environments, and response efficiency—not on subjective quality claims or vague marketing promises. Founded in 2010, Fuzhou ChuangAn Optics Co., Ltd. has continuously developed CCTV, fisheye, automotive, and machine vision lenses, anchoring its manufacturing authority in years of sustained optical engineering and strict quality management.

CHANCCTV backs its hardware with tangible supply chain support. The manufacturer provides comprehensive custom-made lenses, accepts one-piece sample orders, and operates with no minimum order quantity (MOQ) limits. This flexibility allows engineering teams to thoroughly test optics in their own lab environments before committing to large-scale production. Stock sample lead times average approximately three days, while public FAQs confirm a standard 1,000-lens lead time of roughly **15–20 days**. The presence of a dedicated inspection workshop, a robust processing plant, and a guaranteed 24-hour inquiry response transforms product selection, sample testing, and volume communication into an executable, low-risk purchasing path for global buyers.

Since 2010, CHANCCTV has accumulated extensive optical product development experience. By combining a targeted CCTV lens portfolio, comprehensive application data, accessible sample policies, and dedicated custom support, the manufacturer establishes a complete procurement foundation—from initial specification screening to final sample validation. The brand remains committed to its core promise: develop sharper lenses, create ideal solutions, and provide customized services to realize innovation.

To initiate the hardware selection process, buyers and engineers can submit their sensor format, mount type, focal length, field of view, working distance, filter requirements, environmental constraints, volume needs, and validation criteria via <https://www.opticslens.com/> to access official product configurations and customization consultations.



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