



ColorVu

**FULL COLOR
IN COMPLETE
DARKNESS**



**PERFECT
VIEW**

VIDEO SURVEILLANCE

Vivid Color Images Around the Clock: **ColorVu Delivers Crisp, Full Color Images in Complete Darkness**



ColorVu imaging technology provides vivid images and video around the clock, even in zero-light environments, by using a high-performance sensor, a large iris, and gentle supplemental lighting.

Darkness provides cover for theft, trespassing, and other crimes. When incidents occur at night, conventional cameras without supplemental lighting miss or lose critical details. Infrared illumination brings out more details in nighttime lighting conditions, however, it provides only black and white images. Colors missing from the footage makes it difficult to provide a positive identification.

With ColorVu cameras, the true color of a person's clothing or the color of a vehicle will be clearly visible in live viewing mode and in recorded video footage—during daytime, nighttime, and poor lighting conditions.

**Imagine capturing vivid, colorful details, in total darkness.
ColorVu delivers this and more.**

ColorVu offers a wide array of benefits:

- Clear, full color images—day and night—with brilliant detail and clarity for more rapid identification of suspects.
- Improved safety for employees and customers walking in parking lots or other poorly lit areas at all times of day and night. It illuminates darkened walkways within cities, buildings, or on campuses.
- Around the clock, it reduces risk and enhances details when reviewing footage after an incident.



Conventional camera



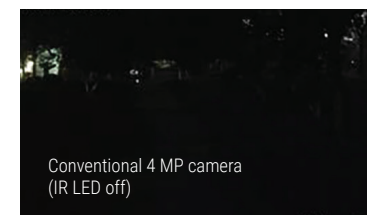
ColorVu camera

ColorVu Provides Bright Color, Full Motion Video & Images 24/7

ColorVu excels at capturing vivid true color reproduction in low light environments, such as public places, night security at industrial parks, traffic intersections with poor lighting, and many more—anywhere that detailed color imagery is important and where lighting may be a challenge.

One instance includes identifying license plate information from a suspect's vehicle during traffic accident investigations. When a vehicle is non-licensed or the license plate is deliberately obscured, the vehicle can only be identified by its features—brand, model, and especially the color. ColorVu cameras will capture valuable vehicle color identification, producing an amazing full color image, even when external lighting conditions are poor or completely dark, simplifying the investigation process.

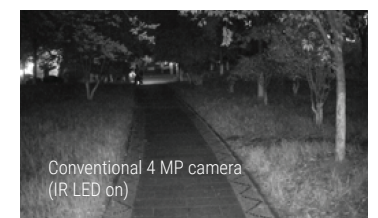
Comparison: Outdoor Scenes



Conventional 4 MP camera
(IR LED off)



ColorVu 4 MP camera (Warm
light LED off)



Conventional 4 MP camera
(IR LED on)



ColorVu 4 MP camera (Warm
light LED on)



Conventional Camera



ColorVu Camera

Protect People and Property



Small Business

Monitor entrances and exits as well as dimly-lit interior and exterior areas where theft or assaults could occur, such as dark hallways and walkways, dumpster areas, and loading docks. Better illumination with ColorVu cameras protects your employees, customers and assets, and helps them to feel safe around and within your business.



Parking Lots

Parking lots are difficult to protect for many reasons. ColorVu supplemental lighting makes them easier to secure and means there is no need for additional lighting to capture high-quality, full color images. ColorVu's eco-friendly, warm lighting does not interfere with drivers' vision. All these features save money and ensure high resolution, detailed imagery—such as the color of a person's clothing or the color of a car—are recorded for forensic review.



Residential

Residential buildings such as condominiums and townhouse complexes often have several low-light areas that become potentially risky and difficult to navigate in darkness, such as walkways, stairwells and other public areas. ColorVu provides unmatched surveillance where incidents might occur, and illuminates areas to reduce risk and improve safety for tenants and visitors in areas where incidents or accidents could occur. Better quality imagery improves ease of suspect identification if an incident occurs, and provides a safer environment for tenants and visitors.



Parks and Recreation Areas

Strategically placed ColorVu cameras can illuminate areas that pose a risk for accidents or other incidents with limited lighting such as walkways, play areas, entrances to restroom areas and exercise areas. Better illumination keeps the community safe and comfortable in public areas.

ColorVu Technology: Lenses and Sensors Work Together to Deliver Breakthroughs that Produce Brighter Images

ColorVu cameras use advanced lenses and high-sensitivity sensors to capture details in low lighting, poor lighting, zero-light scenarios, and nighttime environments. The cameras are equipped with eco-friendly supplemental lighting that is adjustable on a scale of 0-100 to ensure detailed, full color video and images. The adjustable lighting level allows the customer to properly illuminate the area as needed to best suit the scene.

ColorVu delivers a powerful breakthrough in full color video and images, day and night, using three key technologies:

- Wider super-aperture lens, up to $f/1.0$, to enable more light to enter the camera
- Advanced high-sensitivity sensor maximizes the amount of light entering the camera to capture brilliant, full color images
- Supplemental light to illuminate the field of view in all lighting conditions, including total darkness

Self-adapting 3D Digital Noise Reduction (DNR) aids with noise removal to ensure high-quality, full motion video and imaging.



LARGE APERTURE

- $f/1.0$ super aperture collects more light to produce brighter images
- 4x amount of light of conventional cameras
- Includes BBAR coating, ED Optical glass

SUPPLEMENTAL LIGHT

- Eco-friendly, warm supplemental lighting adjustable from 0-100 illumination
- Anti-glare diffusion lens (TurboHD)

ADVANCED SENSOR

The IP advanced sensor is enhanced with backside illumination (BSI) and the TurboHD model includes frontside illumination (FSI) technology. All cameras include self-adaptive 3D Digital Noise Reduction to remove noise from the image and ensure high quality, full motion video and imaging.

How it Works

ColorVu Camera



Conventional Camera



ColorVu Super-Aperture Lenses:

Unlike conventional lenses, ColorVu lenses:

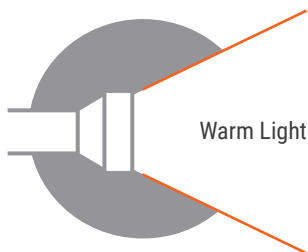
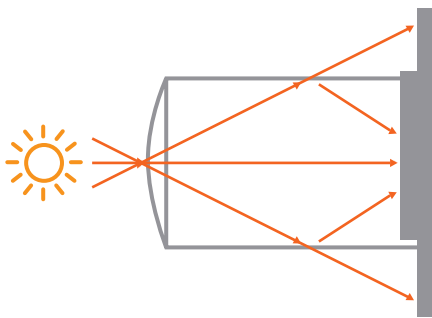
- Are equipped with a wider-than-average super-aperture, reaching up to $f/1.0$, which allows more light to enter the lens, increasing image brightness.
- Feature Broadband anti-reflection (BBAR) coating and Extra-Low Dispersion (ED) optical glass to reduce light flare and efficiently replicate image sharpness and color saturation. These two technologies—BBAR and ED—effectively overcome blocks to collecting key information that may be hidden by a light flare.

ColorVu Advanced, High-Sensitivity Sensors:

ColorVu's high-sensitivity sensors are designed for surveillance applications where high resolution color images are required, even in ultra-low light environments. ColorVu sensors efficiently transfer light through its surface to produce a vivid video image, one that nearly mimics the light conditions and details from the original scene.

Unlike conventional sensors, ColorVu sensors:

- Employ an advanced sensor technology that vastly improves the utilization of light for better image quality.
- Continually provide colorful, sharp images down to the lowest light levels.
- Deliver self-adapting 3D Digital Noise Reduction (DNR) to remove noise from the image and ensure high quality full motion video and imaging.



ColorVu Supplemental Lighting:

Equipped with warm supplemental light, so when there is no light source whatsoever—not even starlight or street lights—ColorVu cameras still produce full color video and imaging. In addition, extreme light conditions were taken into consideration during design for the best results in real-world applications. Supplemental lighting provides environmentally-friendly, warm lighting, and reduces harsh discoloration of the scene being illuminated.