

PIXIM REVIEW

Correctional Facilities

Pixim-Powered Cameras Meet Tough Requirements Posed by Correctional Facilities

Most security tactics are designed to keep people from getting into something. Correctional facilities focus on the opposite goal: keeping people from getting out of jails or prisons. From a surveillance standpoint, however, it doesn't matter which direction of movement is of interest; the objective is still to focus security cameras on the areas under watch. Security cameras in correctional facilities monitor activities within cells and cell blocks, as well as in common areas such as eating and kitchen areas, meeting rooms and offices, bathrooms and exercise rooms, and areas outside the building. Traditional CCD-based security cameras have difficulty recording accurate, identifiable images under the wide range of lighting conditions typical in these different areas.

Common security camera problems for correctional facilities include:

- › Lack of detail in backlight, under fluorescent lights, or outdoors
- › Low clarity in shadows, such as corridors, bathrooms, or in corners of exercise facilities
- › Image washes out due to glare and reflections from glass and metal
- › Color inaccuracies in varying lighting conditions
- › Low-quality Digital Video Recorder (DVR) recordings

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At-A-Glance:

Pixim Digital Pixel System[®] (DPS) Technology

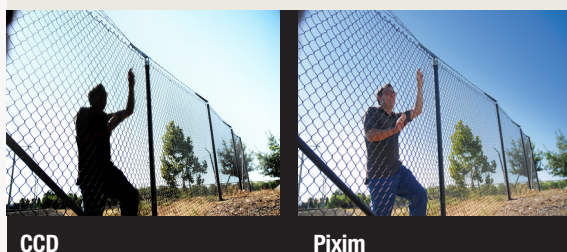
- › Widest Dynamic Range (WDR): Captures up to 1024 times more data (dynamic range) than standard CCD cameras
- › Signal-to-noise ratio (SNR): >50 dB (max)
- › Sensitivity: <0.5 lux (CMY) minimum illumination f/1.2, 50 IRE
- › Resolution: 540 horizontal TV lines (HTVL) equivalent



Pixim-Powered Cameras Meet Tough Requirements Posed by Correctional Facilities [continued]

Pixim's Digital Pixel System® (DPS) ultra-wide dynamic range technology, a true breakthrough in imaging technology, delivers unprecedented image quality in all lighting conditions. Cameras powered by Pixim's specialized image processing chipsets can significantly enhance security at correctional facilities through the following capabilities:

- › **Widest dynamic range:** Captures highlight and shadow detail in the same scene.
- › **Highest total resolution:** Makes it easy to distinguish image features and details, even in highly variable lighting conditions.
- › **Superior color rendering:** Accurately displays color even in difficult lighting such as backlight, mixed indoor/outdoor scenes, glare, reflection, and fluorescent lighting.
- › **No "camera blindness":** Eliminates the vertical smear, pixel blooming, and other image artifacts commonly encountered in high-contrast scenes.
- › **High image compression:** Improves image quality with smaller file size – allowing DVRs to record with higher frame rate or higher resolution, or both, while maintaining the same total recording time.



› Significant loss of information in strong backlight

› Superior image quality despite harsh lighting conditions

Security cameras based on Pixim technology enable correctional officers to capture details of prisoners and prison activities, even in variable and challenging lighting conditions and despite low-quality DVRs. The ability to detect suspicious behavior before it gets out of hand can help maintain order behind bars. And if incidents do occur, the clear, accurate images captured by Pixim-Powered security cameras can be used to identify what happened and who was responsible, so that appropriate disciplinary actions can be initiated and justified.



1395 Charleston Road
Mountain View
CA 94043

P: 650 934.0550
F: 650 934.0560

www.pixim.com