

# Theia

TECHNOLOGIES



Typical wide angle lens



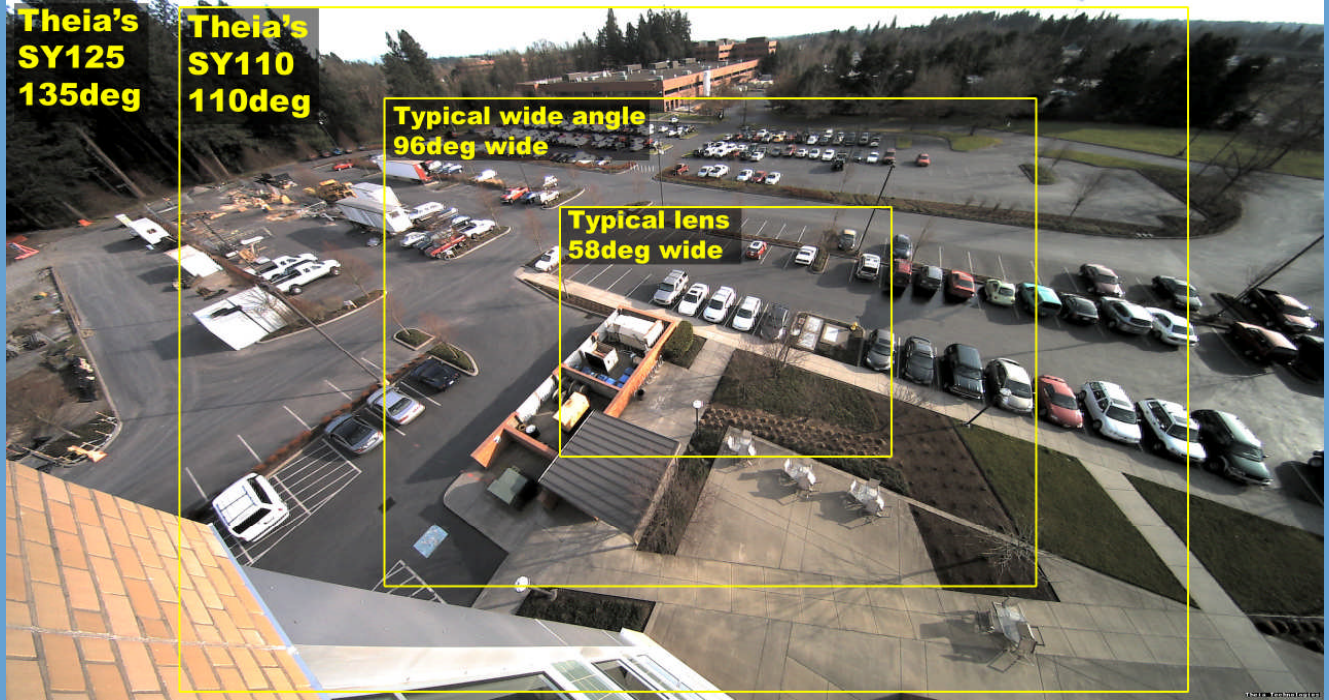
Theia's ultra wide lenses

## Linear Optical Technology®

Theia's family of ultra wide angle lenses use patented, award winning Linear Optical Technology® to create ultra wide fields of view without barrel distortion that allow straight lines to remain straight in the image. This increases the resolution of the image at the edges and improves the probability of recognizing an object compared to traditional wide angle lenses, all without the need for dewarping software.

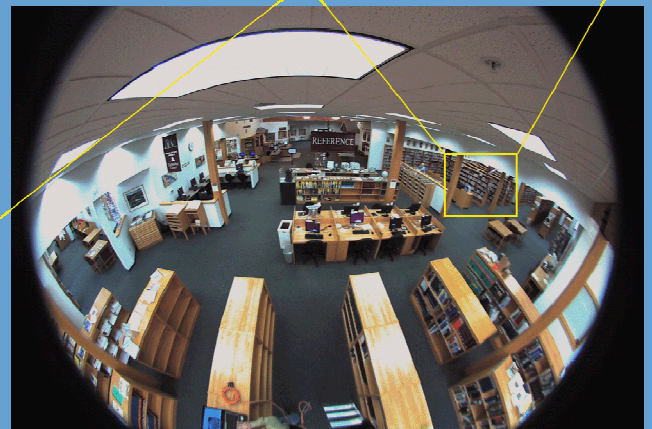
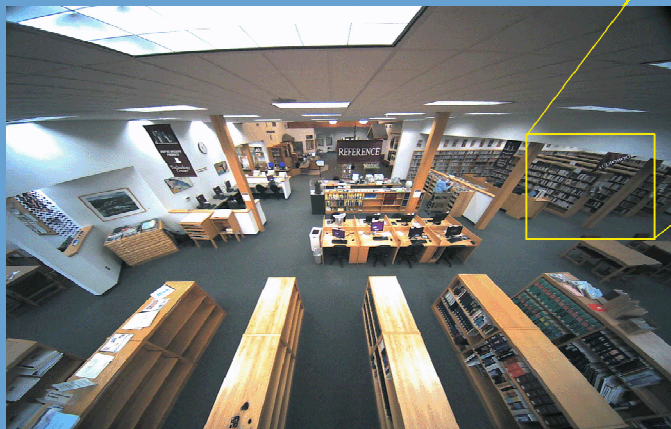
# Ultra wide field of view

Theia's lenses give an ultra wide field of view up to **135° horizontally**, which can be **70% greater field of view** than other wide angle lenses available, allowing the integrator to take full advantage of the capabilities of today's megapixel cameras. With a multi megapixel camera, Theia's lenses allow installation and maintenance of fewer cameras while still covering a large surveillance area such as a parking lot, lobby, border, or fence.



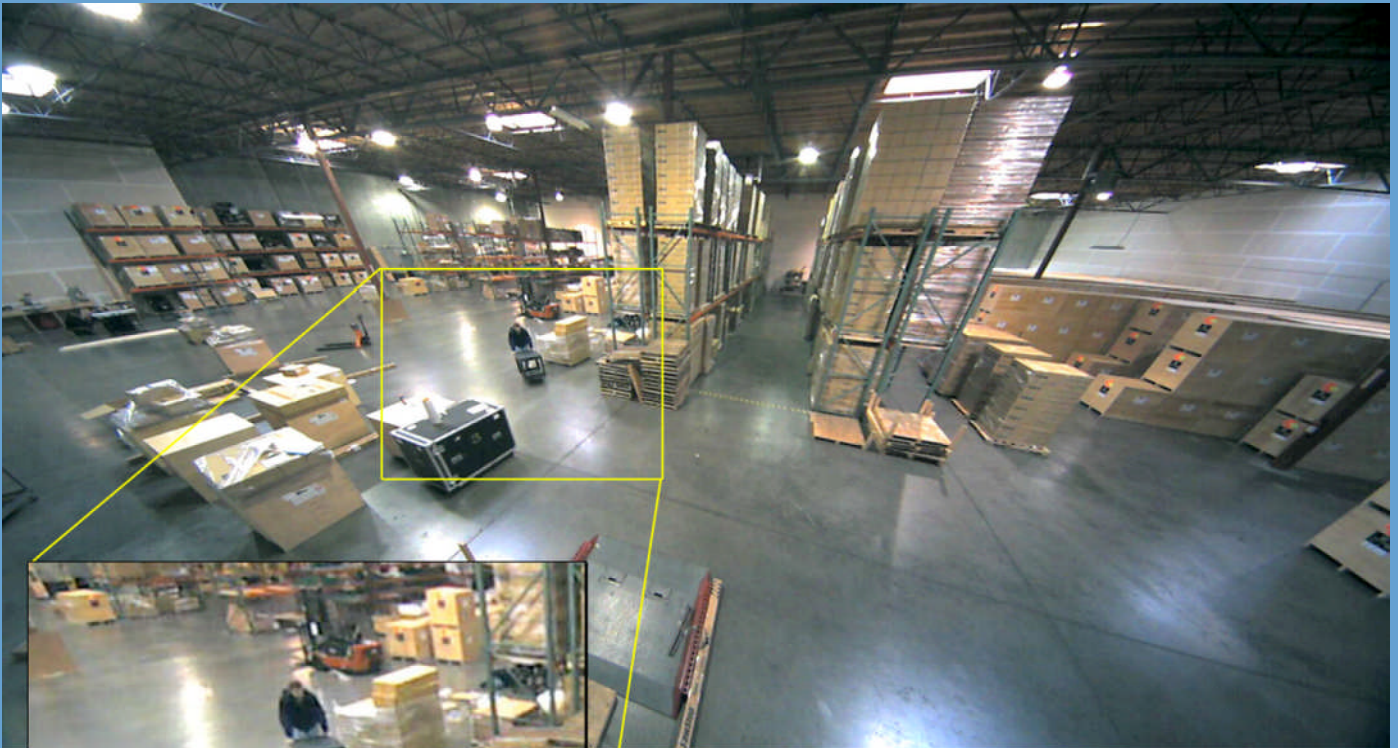
Theia's **Linear Optical Technology®** is an all-optical distortion correction technology that creates an ultra wide field of view while correcting barrel distortion in the lens itself. Other wide angle lenses show barrel distortion, compressing the image at the edges and reducing resolution, Theia's technology maintains linearity in the image increasing object size and resolution at the image edges, increasing the probability of identification compared to other wide angle lenses.

## Distortion Correction



Ultra wide Theia lens  
[www.TheiaTech.com](http://www.TheiaTech.com)

Typical fisheye lens  
**+1-503-570-3296**



## Digital Pan-Tilt-Zoom

With today's megapixel cameras, Theia's lenses enable **usable digital pan-tilt-zoom** capability up to 16X while maintaining resolution greater than standard analog cameras, enabling continuous recording of the entire scene and the ability to zoom in after the fact. Theia's high quality optics support cameras with resolution up to five megapixels.

When switching from daylight to night illumination, Theia's IR corrected lenses maintain a megapixel resolution image. The optimized field flatness and IR correction for **Day/Night** allows the image to be in sharp focus from center to edge under many different light sources. Theia's lenses use the latest aspherical lens manufacturing technology and low dispersion glass to create this combination of multi megapixel resolution and IR correction, a feature found in few other lenses.

## Day/Night correction with Multi Megapixel resolution





Winner of Security Industry Assoc. (SIA) New Product Showcase award at ISC West 2008



Winner of Security Sales and Integration Magazine's Show Stealer award 2007



Finalist in Government Security News (GSN) Homeland Security Awards 2009



Lens models	SY125A & SY125M	SY110A & SY110M	SL183A & SL183M
Focal length	1.28mm	1.67mm	1.8-3.0mm
Linear Optical Technology®	Yes	Yes	Yes
Field of view	<b>Up to 135°</b>	Up to 120°	115° - 77°
Distortion	<3%	<1%	<1%
F/#	F/1.8 to close	F/1.8 to close	F/1.8 to close
IR Correction	No	<b>Day/Night</b>	Day/Night
Varifocal	n/a	n/a	<b>TrueZoom™</b>

Some applications benefitting from ultra wide, no distortion, megapixel lenses:

- Reduce **shrinkage** in your retail store
- Control **vandalism** in schools and public areas
- Avoid **blind spots** in prison rooms, interrogation rooms, and elevators
- Reduce **sweethearting** at the register or till
- Monitor **red light violations** and accidents at intersections
- Prevent **drive-offs** at gas stations
- Reduce **muggings** and theft from ATM machines
- Prevent **car theft** and break-ins in parking lots
- **Verify transactions** in casino cages
- Prevent **copper theft** from power lines and substations
- Control **unauthorized access** across fence lines and borders
- Monitor **traffic flow** from low-boom mobile traffic control centers
- Enforce **safety compliance** in assembly and sorting areas
- Deter **loitering** and vandalism at public gathering areas and malls
- Predict **queue backup** at retail store checkout registers
- **Count passengers** at airports and ferry terminals
- **Control access** at secure parking garages

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