

# WCL Fact Sheet



## Wide converter lenses for side masked screen auditoriums

### Q. Why use a WCL?

The WCL achieves an accurate unattended zoom from a "flat" image format of 1.85:1 to a "scope" image format of 2.39:1. At the same time, it maintains the full resolution of the source data. Other possible solutions are either impractical, cost-prohibitive or simply do not exist.

### Q. How does the WCL work?

The WCL simply mounts in front of a standard prime lens and expands the image just like a zoom of 1.26X, expanding the image to effectively decrease the throw ratio. For example, it converts the zoom range of our 2.2-3.0 lens to 1.75-2.38. In essence, the WCL is a focal length adapter.

### Q. How is the WCL different from an anamorphic lens?

The WCL magnifies both the horizontal and vertical image just like a large range zoom lens. An anamorphic lens uses special lenses to expand only in the horizontal direction. Physically, the WCL fits into the same size mount as the anamorphic lens, and is very close to the same weight as well.

### Q. Does the WCL cost less than an anamorphic lens?

Yes, since the WCL uses less costly spherical lens elements. Due to the need for large-scale installations of the WCL, volume pricing can be achieved.

### Q. Does the WCL maintain square pixels?

Yes, since the vertical and horizontal directions are both increase by 1.26X, an aspect ratio of 1:1 is maintained.

### Q. How do you focus the WCL?

It has a separate focus ring that adjusts and optimizes the "scope" image only when it is aligned in front of the prime lens. The lens also has a locking set screw to prevent the focus from drifting over time.

### Q. Does the WCL affect the "flat" image?

No, the motorized auxiliary lens mount (MALM) moves the WCL out of the light path, so that it does not affect the "flat" image focus, location or performance in any way.

### Q. Does the WCL affect image centering?

No, not if an auditorium requires no lens offset. Our projectors perform extremely well optically when offset is minimized and this is again true when the WCL is installed.

### Q. When image offset is required, is centering affected?

Yes, in the same way zooming a prime lens will move the image center, the WCL does move the image center. This can be brought back by electronic offset of the image. Any keystone distortion can be minimized by taking advantage of the safe image area allowance for cropping. Follow the WCL set-up procedure in order to do this efficiently.

### Q. What lenses can I use the WCL with?

Only lenses with the throw ratios of 1:45-1.8, 1.8-2.4, 2.2-3.0 and 3.0-4.3 are certified to work with the WCL.

### Q. Have the Studios accepted the WCL lens as a DCI-compliant solution to scaling?

Absolutely. The major studios have seen demonstrations of the new lens and not only have accept it, but expect it to be used in all installations where it is required.

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