



TVs/DISPLAYS

LP Morgan/ Panamorph

anamorphic home cinema



When you're at the cinema, there's one magical moment that is deliberately designed to emphasise you're watching the real thing. It happens after the advertising, after the trailers, just before the main presentation — when the lights dim and the side curtains roll back those extra few metres to reveal a truly wide screen. Oooh, you think. It's movie time.

This is the 2.39-to-1 experience. Meaning that the screen is 2.39 times wider than it is high. Such ratios have defined true cinema since the 1950s when CinemaScope was introduced (partly as a response to a rather shorter-lived fad then popular in the cinema called '3D').

In fact the methods used for Cinemascope allowed an even wider ratio (2.66 to one), but in those days part of the film frame was reserved for the soundtrack, first magnetic and then optical, leaving an image ratio of 2.35 to 1. Since 1970, this has been standardised at 2.39-to-1.

Anamorphic projection

Film frames are actually closer to 4:3 ratio than widescreen. So the earliest widescreen films were shown by simply masking off top and bottom to create a letterbox shape. Of course this wasted a large area of the available film frame. To use the full available film area (and resolution), the 'anamorphic' system was introduced, using a special lens in front of the camera, vertically stretching the desired widescreen image to fill the whole frame.

Then in the cinema, a second anamorphic lens reverses the process, thereby yielding the maximum clarity and brightness that is available from the source.

A similar process is used on DVD — with widescreen material the frames are stretched vertically to use all the available vertical resolution. On a normal projection system, however, the image gets shrunk back electronically before reaching the panel or micromirror device in the AV projector. Much of the available brightness and resolution of your full-HD projector is thus being used to project black bars. What a waste.

But there is a solution — anamorphic projection at home. Many projectors have an anamorphic setting to allow the addition of an anamorphic lens. We have experienced anamorphic home cinemas many times — and there is always something extra spectacular about them. Even with Blu-ray widescreen movies (which aren't yet stored anamorphically), they provide additional brightness and a certain quality that brings you into a true cinema environment.

LP Morgan CineTheatre

You need, of course, a proper ratio screen, and an anamorphic lens, which can usually be moved into place on a track either manually or automatically when widescreen material is detected.

One company driving the move to anamorphic presentation in Australia is Herma Technologies, which owns and produces LP Morgan projection screens, and recently took over distribution of Panamorph's anamorphic lenses in Australia.

The company has always had the aim of delivering movies as the director intended. The LP Morgan CineTheatre range, for example, brings together award-winning screens, lenses, and even the motorised reclining chairs into which you can sink to enjoy the widescreen experience.

The LP Morgan Galleria screen range is available in 2.35:1, 2.37:1, 2.39:1 or 2.40:1 ratios, flat or curved — basically it can be custom made to your requirements. Options include a wide variety of roller and frame-based screens, using black onyx powdercoat frames or deluxe flock velour coating, and available in screen sizes from 72-inch diagonal up to a huge 140 inches. The Galleria's mounting system ensures that the viewing surface is kept totally flat at every point along the frame, and won't sag over time — the screen is "always flat, always perfect", as the company says. New to the range is a Galleria system with integrated motorised masking, using horizontal masking to block off the left and right of the screen for lesser aspect ratio viewing.

The standard Galleria versions use the company's Plana U screen material; there is the

premium Novares fabric available, and also Plana AT, a special woven fabric designed for acoustic transparency so you can put speakers behind the screen (as in a real cinema).

LP Morgan Scope lens

As for that anamorphic lens, the LP Morgan Scope is a lens designed and priced to be an accessible way into anamorphic projection. It is a prismatic horizontal expansion lens (as opposed to a cylindrical lens) and has dual prisms. The lens offers a light transmission rate of 94%, and its geometry is configured for 2.37:1 images. RRP is \$1999.

Panamorph lenses

Panamorph is perhaps the most recognised brand of anamorphic lens in digital projection. Its UH480 lens system gives plug-and-play performance on suitable projectors — indeed Panamorph claims that in combination with 1080p projectors it actually delivers higher resolution than most commercial digital cinemas, because of the anamorphic widescreen enhancement process. The UH480 lens system uses a hybrid cylindrical-prism design that installs easily, using either a manual or motorised transport system.

There's an interesting debate over the anamorphic presentation of Blu-ray movies. Blu-ray Discs currently retain a non-anamorphic storage system, so anamorphic display of widescreen from Blu-ray requires an additional scaling conversion of the original signal to fill the projection panel. But there's no doubt that this still provides additional brightness and a higher effective resolution to your screen.

In any case, the proof is in the pudding. We'd certainly advise anyone investing in a good theatre room to get a demonstration of anamorphic projection before buying anything else. ■

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