

Radiance Tech Tip 3

Movable anamorphic lens

Introduction

The Radiance can be used for any system that has a movable anamorphic lens. In this system the lens is slid in front of the projector when viewing a 2.35 aspect ratio movie. There are two types of anamorphic lenses, a HE (horizontal expansion) lens and a VC (vertical compression) lens. With either type of lens, a 16.9 projector will project a 2.35 image on the screen, when the lens is in front of the projector.

Horizontal Expansion Lens

A HE lens horizontally expands a 16:9 image to create a 2.35 aspect ratio image on the screen. A system that uses a HE lens is commonly referred to as a "constant height system".



Figure 1, Horizontal Expansion anamorphic lens

- 4:3 The lens is moved out of the image path. The active 16:9 image fills the height of the 2.35 screen and narrow black bars are added on both sides by the Radiance.
- 16:9 The lens is moved out of the image path. The active 16:9 image fills the height of the 2.35 screen
- 2.35 The lens is moved into the image path. The image is horizontally expanded to fill the 2.35 screen.

Vertical Compression Lens

A VC lens vertically compresses a 16:9 image to create a 2.35 aspect ratio image on the screen.



Figure 2, Vertical Compression anamorphic lens

- 4:3 The lens is moved out of the image path. The active 16:9 image fills the 16:9 screen and narrow black bars are added on both sides by the Radiance.
- 16:9 The lens is moved out of the image path. The active 16:9 image fills the 16:9 screen
- 2.35 The lens is moved into the image path. The image is vertically compressed to a 2.35 aspect ratio.

The procedure

This is the preferred procedure to configure the Radiance for a system that includes a movable anamorphic lens.

1. Set the output aspect ratio by pressing "MWNU, Output, Styles, [Style], Aspect, OK, Output aspect per input aspect, OK".
2. Change the 2.35 input aspect to use the "2.35" output aspect.

Input aspect	->	Output aspect
4:3	uses	1.78
Lbox	uses	1.78
16:9	uses	1.78
1.85	uses	1.78
2.35	uses	2.35

3. When you are finished, save your new settings by pressing "MENU, Save, Save, OK, OK".
4. Set the projector to its default 16:9 mode.
5. Set all the video sources to widescreen 16:9 output.
6. Press the appropriate input aspect ratio button on the Lumagen remote that matches the aspect of the video input. To horizontally stretch a 16:9 image to fill the 2.35 screen, press "16:9" and then press "NLS".