



## LED Video Screen Correction System VisionCAL-X™



### Applications

- Optimize LED video screen visual appearance
- Correct LED video screens on-site at stadiums, events, or roadside
- Correct LED video screens in manufacturing

### Benefits

- Achieve the best possible LED video screen visual appearance
- Keep LED video screens looking their best with regular screen recalibrations
- Reduce manufacturing cost
- Save time by having immediate access to all the methods developed in years of LED video screen correction
- Start fast with world-class training and technical support

## Your LED video screen should look its best—and using VisionCAL-X™, it will!

When LED video screens are not properly adjusted for luminance (brightness) and color uniformity, every imperfection is visible. Modules do not match, pixel-to-pixel variation results in scintillation, and colors are wrong — shifted away from true white and often oversaturated. These problems can occur anytime during the life of the screen, either because of manufacturing variations, or aging of the screen LEDs, or module replacements.

**So, can anything be done to reliably and predictably improve the visual appearance of an LED video screen?** Absolutely yes! Radiant Imaging's VisionCAL™ screen correction system (formerly known as PM-LEDC) integrates comprehensive LED screen measurement, analysis and correction tools. Based on over 5 years of experience, correcting thousands of screens, the VisionCAL system uses a high resolution ProMetric® Imaging Colorimeter to simultaneously measure the brightness and color of individual LEDs in a screen and computes correction coefficients to optimize the screen appearance. For LED video screens that use a screen controller that supports correction, these coefficients can be downloaded directly to the screen. In addition, VisionCAL provides native support for the VisionLINK™ processor, so any LED video screen can be corrected.

**VisionCAL automates the correction process**, including screen registration, screen control, measurement, correction coefficient calculation, and uploading correction coefficients to the LED video screen controller or VisionLINK. The correction coefficients calculations in VisionCAL are sophisticated and address edge effects, gradients, dim LEDs, multiple screen geometries, and customer-specified targets.

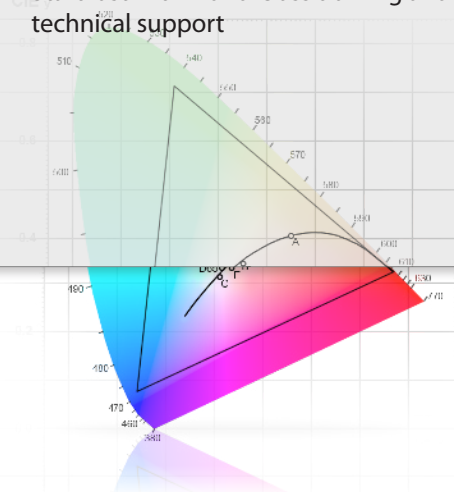
**How good are the results?** The VisionCAL screen correction system is used for both on-site and factory applications. It is the same system that Radiant Imaging uses for our VisionTUNE™ LED video screen correction service. With thousands of screens around the world corrected using the VisionCAL system, only Radiant Imaging has the experience and expertise to make sure that you are successful in optimizing the visual appearance of your LED video screens.

Find out what we can do for you by contacting [sales@radiantimaging.com](mailto:sales@radiantimaging.com).

**Radiant ZEMAX, LLC**  
22908 NE Alder Crest Drive Suite 100  
Redmond, WA 98053 USA  
T: +1 425 844 0152  
F: +1 425 844 0153

Sales and marketing: [sales@radiantimaging.com](mailto:sales@radiantimaging.com)  
Technical support: [support@radiantimaging.com](mailto:support@radiantimaging.com)  
Website: [www.radiantimaging.com](http://www.radiantimaging.com)  
[www.visionbyradiant.com](http://www.visionbyradiant.com)

Copyright ©2011 Radiant ZEMAX, LLC. All rights reserved.





## Key Features

- Complete measurement system for LED video screen correction
- ProMetric® Imaging Colorimeter measures the brightness and color of all LEDs in the screen
- VisionCAL™ software manages the correction process, including: autoregistration, data acquisition, computations, and direct download of correction parameters to the screen controller
- Fully integrated support for VisionLINK™ processor

## Specifications\*

### Hardware Components

PM-1433F-1 Imaging  
Colorimeter

14-bit dynamic range (>16k grey levels)  
3072 × 2048 pixel resolution  
Cooled, full-frame CCD  
Integrated CIE matched color filters  
Integrated NDO, 1, and 2 filters  
Precision 50mm - 500mm zoom lens

Calibration source

Spectroradiometer

Heavy duty tripod with geared pan-tilt head

### Software Components

VisionCAL

LED screen measurement, analysis, and correction  
Enables full automation of the correction process

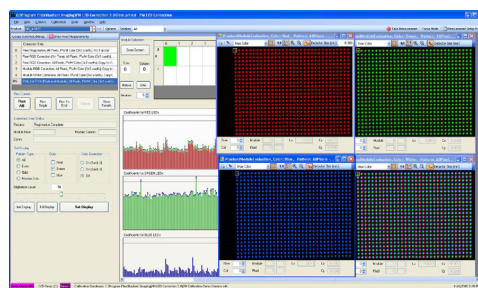
### Support

Training on imaging colorimeter and correction software operation

Optional LED screen controller integration

Technical support hot-line

2 year warranty for imaging colorimeter



\* Specifications subject to change without notice

## System Requirements

- Windows® XP or Vista (32-bit)
- 2.0 GHz or faster processor
- 3GB or greater RAM
- SXGA or larger monitor
- Ethernet port
- USB 2.0 interface