



Photo courtesy of Lockheed Martin

## PROSIM™ ULTRA CONTRAST PROJECTOR

# CONSTANT BRIGHTNESS, UNRIVALED REALISM

## The visual performance for “train as you fight” simulation

Your crews are responsible for piloting the world’s most sophisticated aircraft in the most demanding environments. Simulation training that provides the “train as you fight” realism of night unaided, night vision systems (NVS) and flight in adverse weather conditions is mission critical.

Our ProSim™ ultra contrast projector is designed to provide the darkest night and NVS capabilities while still providing full-bright light points. ProSim delivers the unprecedented contrast, dynamic range and black levels that are essential for full-capability, highly immersive night and night vision simulations.

### EXTENDED PROJECTOR LIFE FOR LOWER COSTS

Several enhanced capabilities of the ProSim extend the life of the projector:

- Lamp power managed by the Intensity Management System (IMS) for intensity based on required brightness. Fewer lamp changes and improved lifetime, consistency and performance.
- IMS protects optics from excessive brightness
- Filtration improvements prevent ingress of dust particles

### KEY FEATURES AND BENEFITS

- Designed for professional civil and military simulation applications
- Electronic edge blending – without the need for optical or mechanical masks/filters
- Provides the highest contrast, with simultaneous true black and peak white
- Extreme dynamic range, comparable to CRT black levels
- Market-leading >50,000:1 NVIS Radiance (NRb) contrast for best-in-class night vision stimulation and training fidelity
- Ease of use and field maintenance
- Constant brightness – day-to-day brightness variance controls maintain blending quality and reduce maintenance





## SPECIFICATIONS

Four LCD panels	2048 x 1536 native resolution, Collins Aerospace patented four-panel RGBK optics technology
Video input	DVI 8 bits per color, 10- or 12-bit inputs available
Light source	330 W ultra-high performance lamp (two in landscape model)
Latency	17 ms typical

## PERFORMANCE

Brightness	Capable of maintaining up to 1,100 lumens over 15,000 hours lifetime (with lamp changes)
Sequential contrast*	500,000:1 minimum (simultaneous light point contrast) without any aperture or iris; achieved through patented technology exclusive to Collins Aerospace
ANSI contrast*	>150:1
ANSI uniformity*	> 80%
NRb contrast*	>50,000:1
Color uniformity*	Variation of 0.01 in u' and v' in the 1976 CIE color space, at 9 ANSI points
Convergence*	Color convergence error 0.5 pixels in quality area, 0.8 pixel to corners
Motion blur reduction	

## ENVIRONMENTAL

Dimensions	400 x 450 x 400 mm (W/H/D), excluding lens
Weight	30 kg (66 lbs.), excluding lens
ANSI contrast*	>150:1
Temperature	
Operating	15° C to 30° C
Storage	-20° C to 40° C
Motion compatible	Qualified in FAA Level D simulator systems
Power	600 W, input voltage 115/230 V auto ranging
<b>Landscape version</b> Light source	2 x 330 W ultra-high-performance lamps, singular operation, dual redundancy for landscape, one lamp for portrait

## SYSTEM INTEGRATION FEATURES

- Compatible with Collins Aerospace auto-alignment system
- Seamless electronic edge blending in multichannel configurations
- No need to reconfigure for day, night or night vision goggle modes
- Wide range of lenses available
- Full control of all projectors with Cobra graphical user interface (GUI) software. Each projector has embedded Cobra control software built in.
- Color space remapping (patented), color uniformity/shading, scan conversion
- Precise distortion correction through tri-linear image remapping
- Enhanced gamma correction, adjustable

\*Image performance specifications are met in factory tests at Collins Aerospace production facility. Some degradation will naturally occur over lifetime.

Specifications subject to change without notice.



**Collins Aerospace**

800.321.2223 | +1.319.295.5100

learnmore@collins.com

collinsaerospace.com