

DLP™ PROJECTOR

REFLECTION™ SERIES CL-410




RUNCO
THE WORLD'S FINEST
HOME THEATER PRODUCTS™

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With the Reflection CL-410, Runco brings its famous video performance to a new level of affordability, putting Runco quality within reach of many aspiring home theater aficionados.

By combining a highly efficient optical light engine with broad installation and integration options, the CL-410 establishes the perfect balance between performance and affordability.

Runco has implemented a host of advancements into the projector's light engine to take full advantage of its widescreen, high definition DMD™ chip. The CL-410 features Enhanced GEN 3™ technology to produce deeper blacks, greater contrast ratio and brightness, and richly saturated colors. Among the CL-410's features are a sophisticated color-balancing system that results in the industry's best gray scale tracking, and far surpasses the capabilities of CRT projectors. Accurate gray scale reproduction

is vital to vibrant, true-to-life color reproduction, as well as superior black level and white level performance. Runco's acclaimed Vivix™ video processing and scaling assure pristine video imagery, while the CL-410's generous light output capability is powerful enough to handle screens as large as 96 inches wide with ease.

The CL-410 features a 16:9 aspect ratio resolution of 1024 x 576, and provides a DVI input for pure digital video signal transmission. In addition, the projector's broad lens shift capability, variable throw distance, and keystone correction allow for flexible placement within virtually any theater environment. Also featured are discrete IR and RS-232 controls making it simple to partner the CL-410 with other audio/video components and automated control systems for a truly high-end, home theater system.



SPECIFICATIONS

Projector Type:	Digital Light Processing (DLP™), Single-Chip DMD™ Chip
Native Resolution:	1024 x 576
Aspect Ratios:	4:3, Letterbox, 16:9 Anamorphic, VirtualWide™, Cinema, Virtual Cinema™
Video Standards:	NTSC, PAL
DTV Compatibility:	480p, 720p, 1080i
Picture Size: (16:9 screens)	Recommended Width: 72–96 in. Maximum Width: 150 in.

Throw Distance: (Factor x Screen Width)	Lens Option : Zoom 1.3–1.6
Horizontal and Vertical Shift	Horizontal shift: ± 15%, Vertical shift: ± 50%
Light Output:	CSMS™** Specifications: Home Theater Calibration: 412 ANSI Lumens; 16 Foot-Lamberts (fL); 800 ANSI Lumens*
Contrast Ratio:	CSMS** Contrast Ratio: 221:1; 2500:1
Lamp:	250W NSH

Lamp Life:	2000 hours @ 6500 Kelvin
Inputs:	(1) Composite Video, (1) S-video, (2) RCA Component Video, (1) DVI w/HDCP, (1) VGA (1) RS-232
Power Requirements:	100–240V AC, 50/60Hz, 370W
Operating Environments:	40 to 95°F (5 to 35°C); 20-80% humidity (non-condensing)
Dimensions (w/o feet):	Width: 14 in. (356 mm) Depth: 16 3/8 in. (416 mm) Height: 6 2/3 in. (169 mm) Weight: 25lbs. (11.34kg)

Regulatory Approvals:	Complies with FCC Class B, CE, C-Tick
Limited Warranty:	Projector: (2) Two years parts and labor from the date of delivery to the end user. Lamp Warranty: 1000 hours or (6) Six months, which ever comes first.

*ANSI Lumen specification:

This is the typical projector luminosity (brightness) specification found in most sales literature. This measurement is included in RUNCO literature to allow for direct comparison with other manufacturer's projectors. These measurements can be taken at 9,000 to 13,000°Kelvin to get expected performance data when the projector is used in professional, commercial, and industrial displays.

**CSMS Home Theater Calibration ANSI Lumen Specification:

These measurements are taken from the projector as set up in a home theater environment. The projector is calibrated to ISF specifications including setting the color temperature to 6500°Kelvin, the standard for reproducing video.

**CSMS Home Theater Calibration foot-Lambert (fL) Specification:

This is the unit of measurement used in commercial movie theaters to express image brightness. The Society of Motion Picture and Television Engineers (SMPTE) specifies 16 fL as the target image brightness for film-based projectors using an open gate (without film in the projector). More importantly, today SMPTE specifies 12 fL as the target image brightness in Digital Cinema theaters using DLP™ technology. The foot-Lambert is dependant on screen size, screen gain, and projector light output.

All measurements are made at RUNCO to ANSI/NAPM IT7.228-1997 specifications using the Photo Research PR-650 SpectraColorimeter and Minolta LS-100 Luminance Meter, Video Essentials test DVD, and a Da-Lite 1.5 gain, 100-inch wide screen. The projector is calibrated to a color temperature of 6500° Kelvin and has a minimum of 150 hours of usage.



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