M Series

3D mapping
Auditoriums
Boardrooms
Broadcast studios
Business presentations

Civil engineering
Construction management
Energy
Events and large venues
Home cinema

Houses of worship
Industrial design
Medical training
Museums and education
Post-production

Scientific research
Theme parks
And more…

CHRISTIE

HD10K-M

DLP
TEXAS INSTRUMENTS

Redefine your expectations.

CHRISTIE®

We didn't just raise the bar, we redefined the entire game.

The Christie M Series
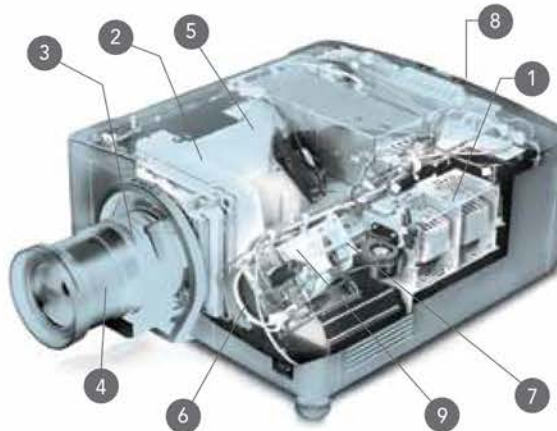### shining even brighter than before

We've designed the M Series, a flexible, efficient line of 3-chip DLP® projectors, with your needs in mind.

The most compact in its class, this dual mercury lamp platform, now with even more choice in brightness levels, provides the high-performance and feature-rich standards you've come to expect from all Christie® products. We've also made it possible to future-proof your investment. Select M Series[1] projectors can be upgraded from their existing 2D display technology to include 3D capabilities – ensuring your 3D needs are met for today and tomorrow.

Ranging from 2360 ANSI (2600 center) lumens (single lamp, 200W) to 12,500 ANSI (14,000 center) lumens (dual lamp, 450W), each M Series projector offers high efficiency and low cost of ownership by operating at 1500W (450W lamp) – giving you full brightness while using less power.

The Christie M Series platform includes four resolutions, WXGA (1366 x 768), SXGA+ (1400 x 1050), HD (1920 x 1080) and WUXGA (1920 x 1200), all with a variable contrast ratio of 2500-10,000:1[2] full on/full off (650:1 ANSI) for crisp, detailed images. Each of the projectors in the series can also be fitted with the broadest range of high quality lenses – all with true Intelligent Lens System (ILS™) capabilities.

All this, combined with a 3-year warranty and our industry leading service and support, enables the M Series to provide high performance and peace of mind for everyone.

Brightness	Center lumens	Resolution
Christie WX10K-M[1]	10,450	WXGA
Christie DS+6K-M	6930	SXGA+
Christie DS+10K-M	11,550	SXGA+
Roadster S+10K-M	11,550	SXGA+
Christie DS+14K-M	14,000	SXGA+
Roadster S+14K-M	14,000	SXGA+
Christie HD6K-M	6600	1080 HD
Christie HD10K-M	11,000	1080 HD
Roadster HD10K-M	11,000	1080 HD
Christie HD14K-M	13,500	1080 HD
Roadster HD14K-M	13,500	1080 HD
Christie WU7K-M	6930	WUXGA
Christie WU12K-M	11,550	WUXGA
Roadster WU12K-M	11,550	WUXGA
Christie WU14K-M	14,000	WUXGA
Roadster WU14K-M	14,000	WUXGA

[1] Dual-lamp system[3, 4]

High-efficiency, dual-lamp system

200W, 350W or 450W (two-lamp system)

120V (operation) for full brightness

At maximum brightness 12,500 ANSI (14,000 center) lumens the unit only draws 1500W (450W lamp)

Stand-by power consumption (phantom power draw) is less than 20W

Lamps can be hot swapped while projector is powered on and in use

| Brightness		200W	350W	450W
Dual lamp	max power	6300 ANSI lumens (6930 center lumens)	10,500 ANSI lumens (11,500 center lumens)	12,500 ANSI lumens (14,000 center lumens)
	min power	4725 ANSI lumens (5200 center lumens)	8535 ANSI lumens (9400 center lumens)	9740 ANSI lumens (10,900 center lumens)
Single lamp	max power	3150 ANSI lumens (3465 center lumens)	5250 ANSI lumens (5775 center lumens)	6250 ANSI lumens (7000 center lumens)
	min power	2360 ANSI lumens (2600 center lumens)	4260 ANSI lumens (4700 center lumens)	4870 ANSI lumens (5450 center lumens)

Dual lamp design vs quad (4) lamp design

A dual lamp design:

Uses less power to achieve the same levels of brightness as quad lamps

Lowers cost of ownership:
• Only two lamps need to be replaced instead of four
• Less energy is used to power the projector

Redundancy – the second lamp remains in a state of readiness for continuous uptime

Flexibility – you can choose to operate in Single lamp mode:
• When ambient light is controlled
• Enhances energy and cost savings
• Extends life of the projector
Dual lamp mode:
• Ideal for applications where increased brightness is required

Consistent 24/7 operation – a dual lamp design enables continuous projection for long periods of time

◄ Lumen values are for SXGA+ models. Flexible lumens levels at various lamp powers. Lamp power is specific to each model and cannot be interchanged.
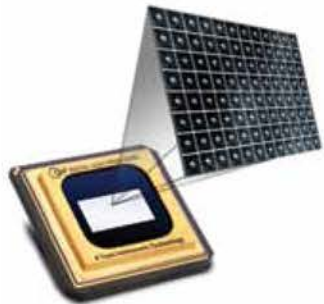
▲ 3-chip DLP technology

▲ Intelligent Lens System

▲ Full suite of lenses

▲ LCD keyboard

[2] Image quality

3-chip DLP technology, high-quality optics and world-class 10-bit image processing.

With low maintenance and highly reliable (>100,000 MTBF for DMDs) DLP technology, the Christie M Series delivers:

High brightness

Excellent color

Excellent uniformity

High contrast

Excellent fill ratio

[3] Intelligent Lens System (ILS)

The ILS automatically recognizes and calibrates a lens when it is installed. Stepper motor based encoding ensures that motor drift does not occur, as typically found with DC encoded motors, providing accurate and repeatable recall of all lens offset, zoom and focus positions. This lens system ensures that the images adjust to optimize screen coverage and maintain alignment in applications with moving screens or variable aspect ratios.

[4] Expanded lens suite

With the addition of a short zoom (1.25-1.6:1 SX+/1.16-1.49:1 HD) and a long zoom (7.5-11.2:1 SX+/6.9-10.4:1 HD), this expanded suite provides the broadest range of HD lenses in this marketplace.

LCD keyboard

This easy-to-use LCD keypad includes:

Contextual menus providing a fully-featured, intuitive interface; removing the need for a cluttered keypad

Large, four line LCD display

Adjustable brightness and timed LCD off mode

Intuitive keypad design that lights up when features are active – making it user friendly

Active keys that are color-coded amber to indicate that selections will result in changes visible to the audience

[6] Motorized yellow notch filter

The motorized yellow notch filter optically expands the color gamut for richer greens and yellows. Since you lose some brightness by improving the greens and yellows, this is a channel-configurable option which enables you to decide when it is needed. This filter, available on M Series HD and WUXGA models only[1], is ideal when video is being displayed.


Expanded color gamut

Regular color gamut

REC 709
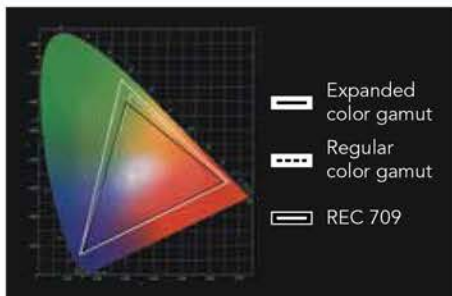
▲ Standard color gamut

▲ Expanded color gamut

[7] Dynamic iris[1]

Ideal for video applications, the dynamic iris is a channel-configurable option. It automatically adjusts an internal iris to extend the range of blacks and provide richer details during dark scenes for true image reproduction. A variable contrast ratio of 2500-10,000:1 produces a picture with a rich, dynamic appearance.
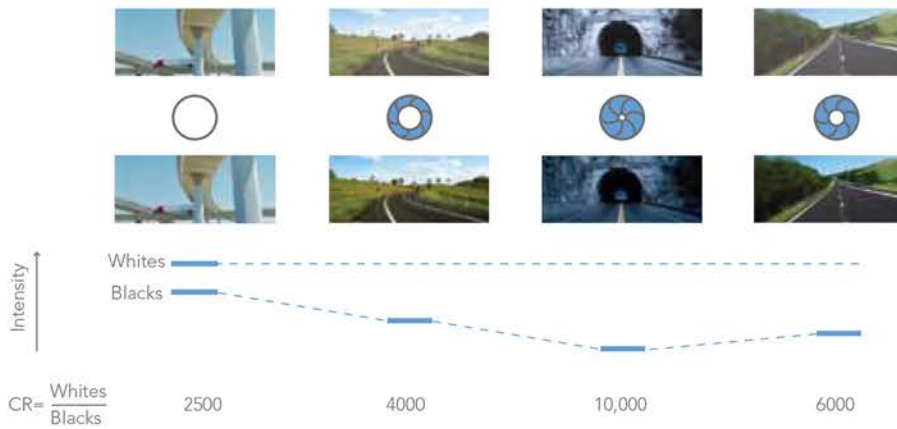
No Dynamic iris – standard contrast ratio.

Dynamic iris – this feature dramatically increases the on/off contrast ratio of the system. A fast-acting dynamic iris optically minimizes the black levels in the image while electronically increasing the gain in the image which enhances the overall detail in the blacks.

Intensity

Whites

Blacks

$$CR = \frac{Whites}{Blacks}$$

2500   4000   10,000   6000

[8] Embedded Christie Twist

Standard in all Christie® M Series models, Christie Twist™ enables seamless edge-blending of multiple curved images faster and more easily than through traditional, manual methods. Controlled by an easy-to-use GUI, users can expertly control and edge-blend or stack multiple curved images. As well, images can be warped to fit virtually any dimension or shape display. Embedded Christie Twist ensures that all M Series projectors work with value-added accessories, such as Christie AutoStack™.
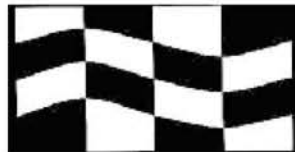
▲ Easy-to-use GUI   ▲ Easy-to-use GUI

▲ Image on curved screen – without blending   ▲ Curved screen – with blending

[8] Multi-window/screen processing

External processors are not required for simple, small tiled and blended arrays, therefore lowering your costs for installation. Each M Series projector has the ability to send signals to multiple projectors (up to a 3x3 array) without any additional hardware or software. The projectors in the tiled array can then show only the portion of the signal that they need to project.

Overlap area
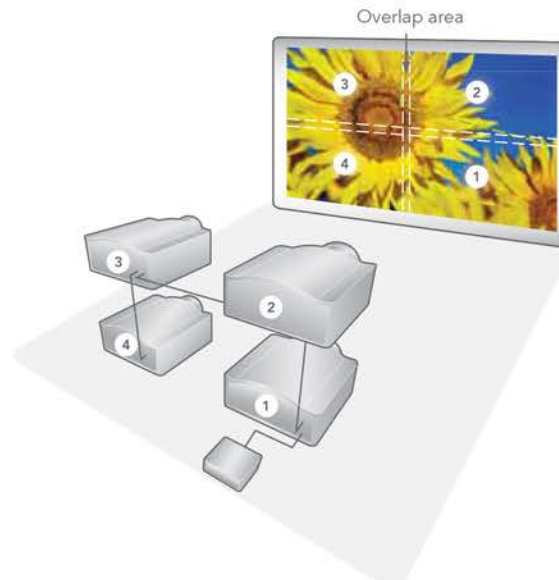
[8] Embedded edge blending and color matching

Advanced blending capabilities and Comprehensive Color Adjustment (CCA™) ensure digitally accurate color matching and uniformity across multi-screen blended or tiled images.
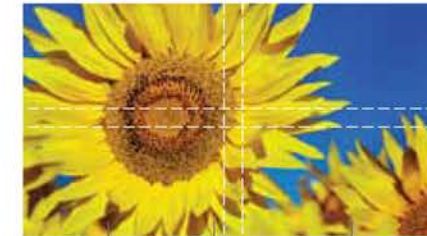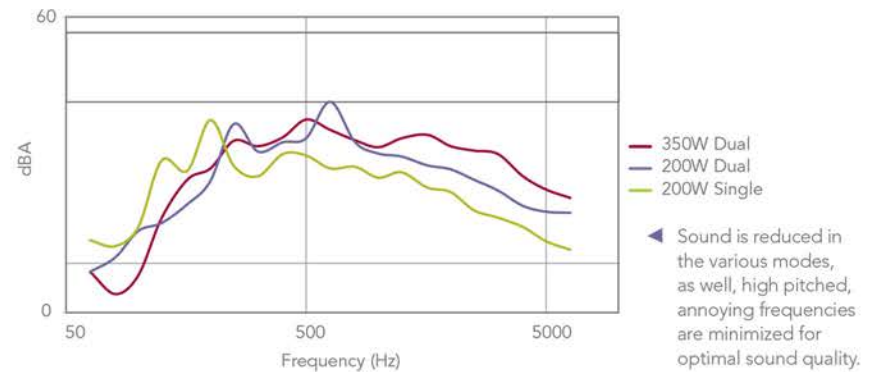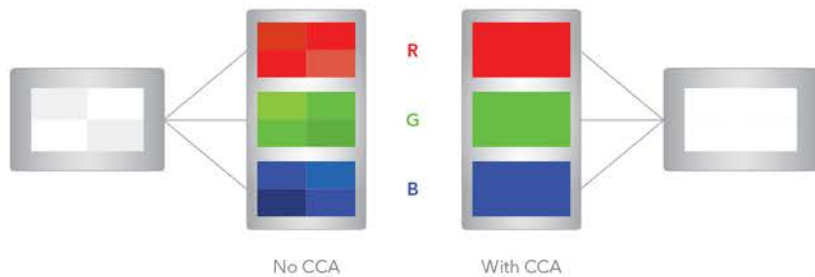
Color matching   Edge blending

▼ Without edge blending   ▼ With edge blending

Overlapping image edges

Comprehensive Color Adjustment (CCA)

R
G
B

No CCA   With CCA

Sound and Output Frequency

dBA

60

0

50   500   5000

Frequency (Hz)

— 350W Dual
— 200W Dual
— 200W Single

◄ Sound is reduced in the various modes, as well, high pitched, annoying frequencies are minimized for optimal sound quality.

[8] Projector control and management

Users can access all projector menus and control through a web interface (via Ethernet) without disrupting the live presentation. This allows for real-time adjustments and monitoring of each projector on the network – regardless of geographic location.


▲ Main page controls and information

▲ Virtual On Screen Display (OSD): access full menu structure, remotely

▲ Status and diagnostics: display alarm events for quick projector monitoring and diagnosis

▲ Admin screen includes upload, backup, restore and more

[8] Automatic shut-off[1]

This feature lowers the cost of ownership by reducing power consumption and extending lamp life when the projector is not in use. In this mode, if a signal is not detected, the projector will close the shutter and reduce power to the lamps. If there is still no signal, the system will go into standby mode. If a signal is detected during the ramp-down phase, the unit will revert back to its full power, dual lamp mode.

Lamp Power Management (LPM)

Brightness

Time
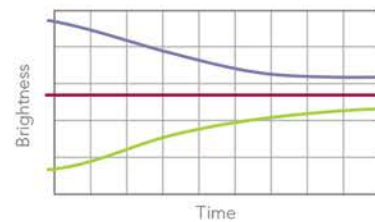
— Constant regulated brightness
— Natural lamp brightness
— Lamp power

Quiet operation

When a presentation depends on the full attention of the audience, noise from a projector can be distracting. The filter-free design with auto-sensing fan and temperature sensors automatically adjust for a virtually noise-free operation.

[9] LiteLOC

The LiteLOC™ feature automatically manages your display's brightness levels over time so that you can match the brightness of a multiple projector system in tiled or blended arrays. This feedback system continuously monitors lamp brightness, so that as the lamp goes through its natural brightness decay, the system increases the lamp power in order to maintain consistent brightness.

▲ Without LiteLOC   ▲ With LiteLOC

Aspect ratios

Wide screen ratios provide a multitude of benefits in a variety of different projection applications. Carefully matching the pixel format of the projector with that of the sources to be displayed will ensure the best image quality and maximum impact. The M Series offers 4:3, 16:9 and 16:10 models to match the aspect ratio requirements of any application.
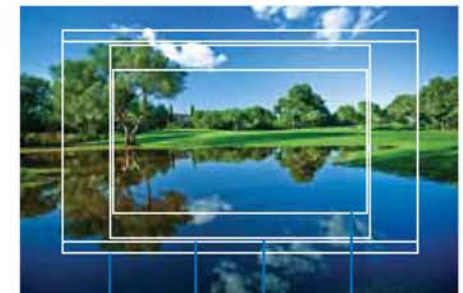
WUXGA   HD   SXGA+   WXGA

[1] Users determine the length of time before shutter closes, as well as when to go into stand-by mode.

In total, there are four input card slots available. Each projector is equipped with a standard set of input cards.

Twin HDMI input card

The Twin HDMI™ input card accepts two HDMI inputs and provides 12-bit deep color handling on the input. It also supports the HDMI v1.4a format required for 3D systems providing the projector is upgraded with 3D capabilities. Additionally, advanced loop-through allows any input on any input card to be looped through to the two HDMI outputs on the card.

This functionality ensures that when stacking systems with any input, the Twin HDMIcard can be used to send the signal to a second projector. This stacked system is also a passive loop-through providing the repeater projector has AC power, even when powered off, the signal will continue to be looped out to the second projector.

Analog input card

The Analog input card accepts an analog video signal input over a 5 BNC connector interface. It can accept RGBH&V signals over 5 connectors, as well as component YPrPb signals on the RGB inputs.

Dual-link DVI input card

The Dual-link DVI input card has a 330 MHz DVI-I connector which can support a single or dual-link DVI, analog and HDCP video signals with proper cables. There is also an additional 15-pin VGA connector. Only one input is active on this card at a time. Christie® Mirage M Series models come standard with two of these cards installed.

Dual 3G SD/HD-SDI input card

The Dual 3G SD/HD-SDI input card accepts both standard definition (SD) and high-definition (HD) serial-digital-interface (SDI) signals, and enables you to connect two of either types of signal. Both single-link HD and dual-link HD signals are accepted. This card also has two 3G SD/HD-SDI outputs to enable "loop-through" for its respective input.

Video decoder input card

The Video decoder input card accepts various types of standard definition (SD) video, including CVBS (composite video), S-video, and component. It accepts NTSC 3.58, NTSC 4.4, PAL, PAL-N, PAL-M or SECAM formats. This card has two mini-DIN connectors (for S-video signals) and four BNC connectors that can be grouped to allow combinations of CVBS, S-Video, YPbPr or RGB video sources.

▲ Christie Roadster HD10K-M

▲ Optional coarse dust filter

▲ Optional fog juice filter

Roadster models

The Christie M Series Roadster models have been designed with stagers in mind. Each of these Roadster models ships equipped with more input cards than the other M Series models, as well as a stacking frame.

Christie AutoStack

Christie AutoStack™ is a software driven, camera-based system that enables stacking and blending of projector arrays in a fraction of the time it takes to do manually and automates the regular maintenance of a blended display. It is designed for use on a flat screen and supports various screen sizes and aspect ratios, using screen points for quick geometric calibration. An optional curve module (sold separately) is also available for curved screen applications.

DMX512 interface card

This interface card supports the DMX512 communication standard through two 5-pin XLR connectors.

Filters (optional)

If the environment you're working in requires more than the protection of our dust sealed engine, choose from one of two filters (coarse dust and fog juice). Help extend the life of your projector and protect your investment from dirt, dust, sand as well as fog, smoke, hazers and pyrotechnics. Each Christie M Series projector is equipped with two removable side panels that are designed to hold a filter, if required.

[5] Dust sealed engine

Christie M Series projectors can operate filter-free because of dust-sealed engines and optics. Since dust and dirt cannot affect the system and filters are not required, image quality is maintained and maintenance costs are lower. Removable side panels enable the addition of optional coarse dust and fog juice filters for projectors that are exposed to harsh environments.

▲ Dust sealed engine

Wireless projection control

Christie wireless projector control brings projection management to your fingertips – literally – with wireless projector control applications for Apple® iOS and Android-based mobile digital devices.

The Christie InControl app lets you control Christie projectors directly from your iPhone, iPad and iPod; The Christie Virtual Remote app offers the ability to manage Christie projectors using your Android-based mobile device.

The two applications are designed to control any Christie J Series and M Series projectors. Each projector can be controlled individually, or grouped together and controlled simultaneously.

The Christie InControl app is available as a free download from the Apple App Store. The Christie Virtual Remote is available as a free download from the Google Play store.

Portrait display capabilities

M Series 200W and 350W models have built-in capabilities to project in portrait orientation – no additional equipment required. Legacy M Series models require the latest firmware to enable portrait capabilities.

◀ The M Series in portrait orientation.

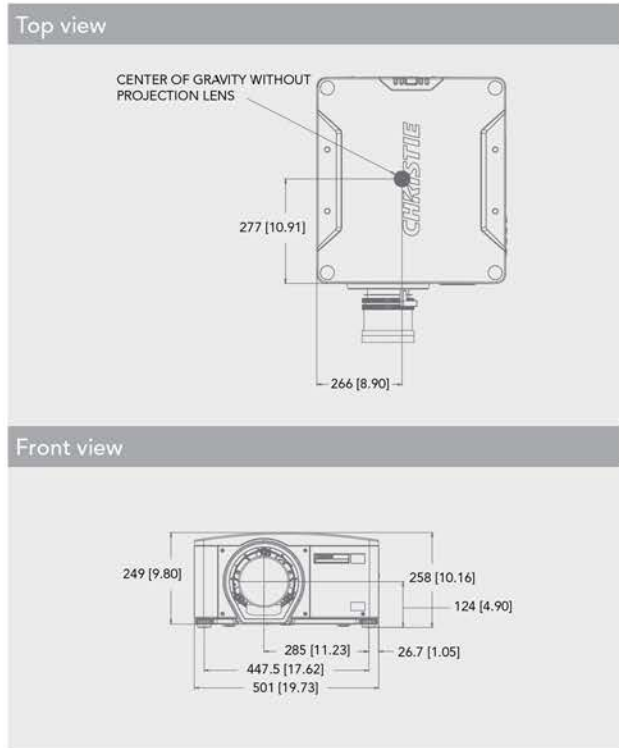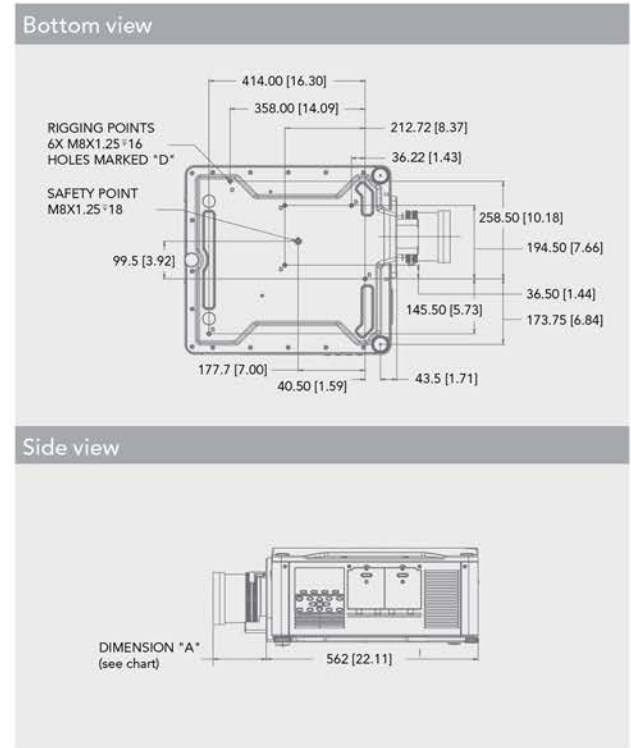| WUXGA (16:10)		
Mirage WU7K-M	Mirage WU12K-M	Mirage WU14K-M
• 6300 ANSI lumens (6930 center lumens)	• 10,500 ANSI lumens (11,550 center lumens)	• 12,500 ANSI lumens (14,000 center lumens)
• 3150 ANSI lumens (3465 center lumens)	• 5250 ANSI lumens (5775 center lumens)	• 6250 ANSI lumens (7000 center lumens)
• 2500-10,000:1 (full on/off) 650:1 ANSI (typical)		• 2500:1 (full on/off) 650:1 ANSI (typical)
• 3-chip 0.96" DMD		
• WUXGA (1920 x 1200)		
• Dual 200W P-VIP Osram	• Dual 350W P-VIP Osram	• Dual 450W NSH
• 2000 hrs @ 200W	• 1500 hrs @ 350W	• 1000 hrs @ 450W
• 3000 hrs @ 150W	• 2000 hrs @ 300W	• 1500 hrs @360W
• Two dual link DVI-I with VGA		• 2x Dual-link DVI

• All lenses ±112% Vertical ±54% Horizontal except where noted
 * 0.67:1 fixed lens ±22%V ±6%H ** 1.16-1.49:1 zoom lens ±82%V ±38%H

• Auto setup • Digital keystone correction • Dynamic iris[2] • Menus in five languages

• 8.7A @ 100 VAC	• 13.2A @ 100 VAC	• 15A @ 100 VAC
		• 1500W
• 2971 BTU/hr	• 4508 BTU/hr	• 5118 BTU/hr

Top view

CENTER OF GRAVITY WITHOUT PROJECTION LENS

277 [10.91]

266 [8.90]

Front view

249 [9.80]
258 [10.16]
124 [4.90]
285 [11.23]   26.7 [1.05]
447.5 [17.62]
501 [19.73]

Bottom view

414.00 [16.30]
358.00 [14.09]
212.72 [8.37]
36.22 [1.43]

RIGGING POINTS 6X M8X1.25▾16 HOLES MARKED "D"

SAFETY POINT M8X1.25▾18

258.50 [10.18]
194.50 [7.66]
99.5 [3.92]
36.50 [1.44]
173.75 [6.84]
145.50 [5.73]
177.7 [7.00]
40.50 [1.59]
43.5 [1.71]

Side view

DIMENSION "A" (see chart)
562 [22.11]

Description	Part number	Dimension 'A'
Lens ILS 0.73:1 SX+/0.67:1 HD	118-100110-XX	217mm (8.54")
Lens ILS 1.2SX+/1.1HD	118-100117-XX	281mm (11.06")
Lens ILS 1.25-1.6 SX+/ 1.16-1.49 HD	118-100111-XX	238mm (9.37")
Lens ILS 1.5-2.0 SX+/1.4-1.8 HD	118-100112-XX	206mm (8.11")
Lens ILS 2.0-2.8 SX+/1.8-2.6 HD	118-100113-XX	171mm (6.73")
Lens ILS 2.8-4.5 SX+/2.6-4.1 HD	118-100114-XX	157mm (6.18")
Lens ILS 4.5-7.5 SX+/4.1-6.9 HD	118-100115-XX	141mm (5.51")
Lens ILS 7.5-11.2 SX+/ 6.9-10.4 HD	118-100116-XX	201mm (7.91")

3 FOR 3
3 YEAR WARRANTY
CHRISTIE 3-CHIP DLP®

CERTIFIED CRESTRON Integrated Partner

AMX

HDMI
HIGH-DEFINITION MULTIMEDIA INTERFACE

DLP
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ISO 14001
Kitchener, Ontario

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CHRISTIE®

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