www.themescene.tv

THEME|SCENE



"The HD82† has the highest ANSI contrast we have yet measured on any projector."

Evan Powell, Editor, ProjectorCentral.com

Purity of Vision

Full HD 1080p

COLOUR GUARANTEED 5 YEARS

Purity is Key



The astonishing ThemeScene range of Full HD projectors bring a truly astounding cinematic experience to your home.

Revolutionary PureEngine technologies combine to create the clearest and sharpest ever 1080p images with the purest, deepest colours; even the fastest action sequences are enhanced by our stunning PureMotion frame processing.

Easy to install with absolutely no routine maintenance; and because Optoma are the projector experts, we guarantee that the vibrant colours will be just as incredible after five years as they are out of the box.

PureEngine

The PureEngine contains the finest collection of signal processing technologies expertly blended to enhance the image on the screen whilst maintaining the purity of the original image.

PureDetail



With Without

PureDetail uses sophisticated motion adaptive edge enhancement algorithms to ensure that all the information contained in an image is faithfully reproduced on the screen giving a stunning crystal clear, pin sharp picture.

PureColor



With Without

PureColor provides vivid, perfectly balanced colour with impeccable colour uniformity for vibrant natural looking images. DeepColor makes it possible to reproduce billions of colours ensuring smooth tonal transitions and subtle graduations between hues.

PureMotion



With Without

PureMotion technology ensures you see all the detail in fast moving sequences. Traditional projection systems often suffer from “motion blur” or “judder” in moving images. These issues are not just distracting they also lower the resolution of the image – PureMotion eliminates these issues and ensures all of the detail from any source, especially High Definition, is preserved leaving a crystal clear image with pure natural motion.

Optoma guarantees colour quality will remain as new for 5 years*

For Home Cinema, colour accuracy is critical. Unlike competing analogue technologies, the semiconductor that makes DLP® projection possible is virtually immune to environmental factors that can cause an image to degrade over time.

24P

PureMotion works in harmony with 1080P24. Most movies are shot at 24 frames per second. To preserve the purity of the original image ThemeScene projectors can accept High Definition sources at 24 frames per second and so display movies exactly as the director intended.

Clarity of vision



Crystal Clear Optics

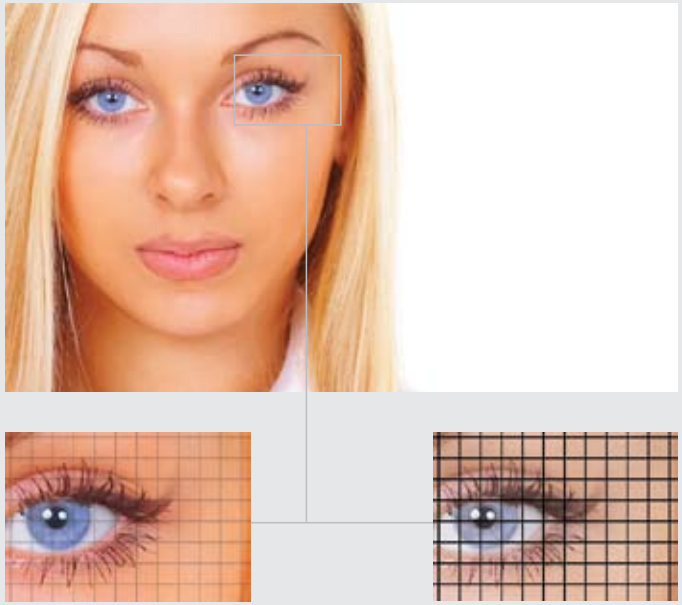
Nothing affects the image quality more than the lenses. Designed and manufactured in our own factory, specifically for our ThemeScene range, each optical system is individually tested and evaluated to the most stringent standards of resolution, uniformity and focus. The result is a first-class lens of unquestionable quality.



Latest DLP® technology

The latest DarkChip3 technology from Texas Instruments ensures an invisible pixel structure from normal viewing distances and provides the highest ANSI contrast ratios available.

- DarkChip3- High contrast film-like images



DarkChip3- High contrast film-like images

Conventional – Visible pixel structure mars image quality and reduces the contrast ratio

ANSI Contrast

ANSI Contrast is a way of measuring the true “real world” contrast performance you can expect from a projector. Only ANSI contrast has a documented, reproducible procedure that can be used to compare the performance of projectors using different display technologies. With an ANSI contrast ratio significantly higher (in some cases 2-3 times) than projectors using other technologies, DLP® is the only choice for Home Cinema purists that expect the ultimate image fidelity in their home.



High ANSI Contrast



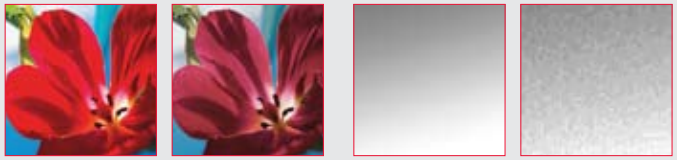
Low ANSI Contrast

Natural Light

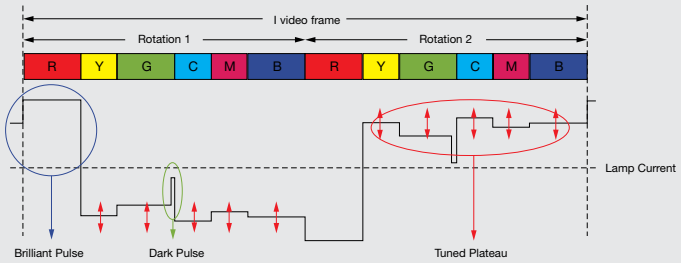


Improved Colour

Advanced lamp-pulsing technologies enable colour performance to be fine tuned directly from the lamp – this unprecedented control makes it possible to achieve vibrant, perfectly saturated colours across the whole light spectrum resulting in stunningly natural and life-like images.



With | Without | With | Without



DynamicBlack



A large aperture for natural contrast during bright scenes

DynamicBlack adjusts the lamp output automatically based on the brightness information of each scene

A smaller aperture for dynamic dark scenes

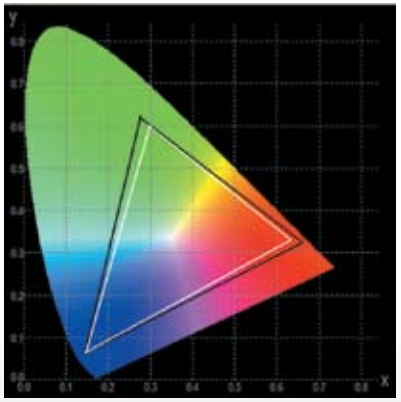
Bright scenes are crisp and clear



Dark scenes are detailed with deep blacks

Colour Gamut Control - CMS+

The HD87 incorporates CMS+ giving you the flexibility to choose between 5 preset colour gamuts: HDTV (Rec 709), ITU 601, DLP Cinema, SMPTE-C & Native. Fine tune intensity and primary colour co-ordinates for ultimate calibration precision.



Installation is a breeze



FLEXIBLE PLACEMENT

The combination of lens-shift and optional lenses* enable a broad range of projector placement possibilities. This remarkable combination makes it easier to position the projector in your viewing room and allows a wider range of screen size options. The diagrams show some positions in which the projector can be placed. For detailed information please refer to the User Manual.

HD87

HD87 STD Lens

Projection Distance (m)	Diagonal Image Size (inch)	Max Vertical optical shift (m)	Max Horizontal optical shift (m)
2.5	58.5 - 73.3	-0.14 +0.32	+/- 0.24
3.5	81.9 - 102.7	-0.19 +0.45	+/- 0.34
4.5	105.3 - 132	-0.25 +0.58	+/- 0.44
5.5	128.7 - 161.3	-0.3 +0.7	+/- 0.54

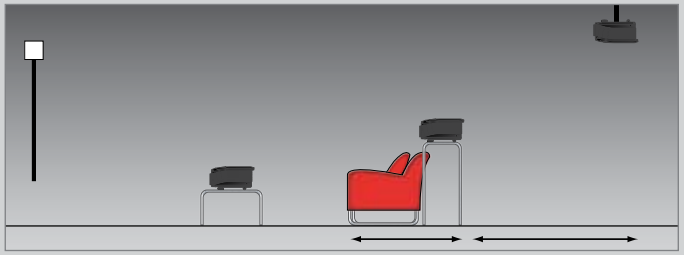
HD87 Short-Throw Lens (Fixed)

Projection Distance (m)	Diagonal Image Size (inch)	Max Vertical optical shift (m)	Max Horizontal optical shift (m)
1	58.66	-0.11 +0.26	+/- 0.19
1.5	88.00	-0.16 +0.38	+/- 0.29
2	117.33	-0.22 +0.51	+/- 0.39
2.5	146.66	-0.56 +0.64	+/- 0.49

Diagrams are for illustration only. *HD87 only.

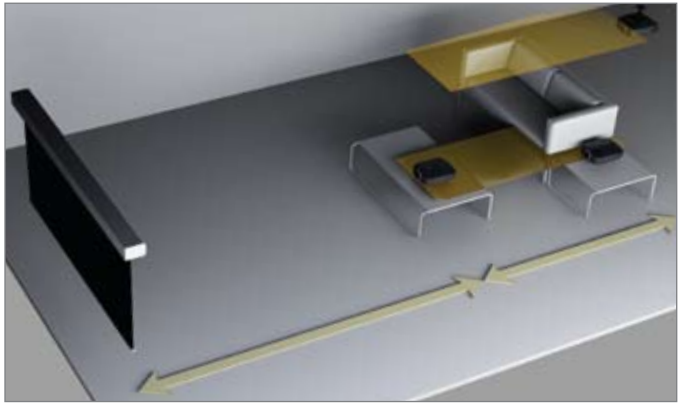
HD87 Long-Throw Lens

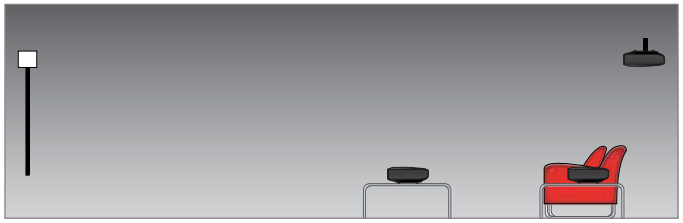
Projection Distance (m)	Diagonal Image Size (inch)	Max Vertical optical shift (m)	Max Horizontal optical shift (m)
4	62.3 - 93.6	-0.17 +0.41	+/- 0.31
5	77.9 - 117	-0.22 +0.51	+/- 0.49
6	93.5 - 140.4	-0.26 +0.61	+/- 0.47
7	109 - 163.8	-0.31 +0.71	+/- 0.54



Flexible placement options for easy installation

HD82





HD82

Projection Distance (m)	Diagonal Image Size (inch)	Max Vertical optical shift (m)	Max Horizontal optical shift (m)
3	60.2 - 90.3	0.06 - 0.22	0.2 - 0.3
4	80.3 - 120.4	0.07 - 0.3	0.27 - 0.40
5	100 - 150	0.09 - 0.37	0.33 - 0.50



FULLY AUTOMATED CONSTANT HEIGHT PROJECTION

The optional Optoma BX-AL133-B Anamorphic Projection Kit, combined with with a Themscene projector, provides a unique “fit and forget” solution for Constant Height projection. Most major movie titles are released in the 2.35:1 format and the BX-AL133-B Kit provides uncompromised widescreen reproduction of this format. When a change from a 1.78:1 (16:9) to a 2.35:1 movie is detected the image simply gets wider - the full screen height is maintained and so eliminates black bars. The resulting 2.35:1 image is bigger, brighter, higher resolution and completely immersive - exactly as it would be at the cinema.

The BX-AL133-B Anamorphic Projection Kit Comprises:

Anamorphic Lens

- Five element, 100% glass, fully multicoated optical design corrected for chromatic aberration and astigmatism
- Optics designed to exceed the resolution requirements for 1080p projection

Motorised Lens Mount

- Integrates with the ThemeScene Auto235 feature to automatically detect 2.35:1 presentations and configure the projector and anamorphic lens accordingly
- High Precision maintenance free mechanism

Mounting Plate

- Allows the lens and the motorised lens mount to be mounted perfectly in relation to the projector
- Enables the projector and the Anamorphic Projection Kit to be mounted as one

CEILING MOUNT ASSEMBLY

What is Constant Height Projection?

Many movies are presented in 2.35:1 aspect ratio. When these are viewed on a 16:9 projector with a 16:9 screen black bars are visible at the top and bottom of the image as below. A 16:9 source – like TV fills all of a 16:9 screen with no black bars. This is called Constant Width projection as with both formats the width of the image stays the same.



2.35:1 Movie



16:9 TV

Constant Height projection uses a 2.35:1 aspect ratio screen. A 2.35:1 movie is displayed with no black bars top and bottom. 16:9 TV is displayed with black bars at the sides.



2.35:1



16:9

Constant Height projection is optimised for watching movies. When using the Optoma Anamorphic Kit the full potential of the projector is used when displaying 2.35:1 movies. This enables a brighter, higher resolution image.

Image Sizes

For the same throw distance the Optoma Anamorphic Lens Kit increases the horizontal size of a 2.35:1 image by 33% relative to the same 2.35:1 image being displayed on a 16:9 screen. The vertical height stays the same.





Specifications	HD82	HD87
Highlights		
Full HD	Native 1080P	Native 1080P
Display Technology	DLP 1080P	DLP 1080P
ANSI Contrast	680:1	800:1
Contrast	20,000:1	80,000:1
Audible Noise	22dB Standard mode	29dB Standard mode
Optical Image Shift	Vertical : +105% ~ +130%, Horizontal : -15% ~ +15% ■	Vertical : +30% ~ +110%, Horizontal : -10% ~ +10%
Brightness	1300 ANSI Lumens	1700 ANSI Lumens
Connections		
HDMI	2 x HDMI (V1.3 with Deep Color)	3 x HDMI (V1.3 with Deep Color)
Component	3 x RCA	3 x RCA
SCART RGB	VGA via supplied adaptor	VGA via supplied adaptor
S-Video (Y/C)	3 Pin Mini DIN	3 Pin Mini DIN
Composite Video (CVBS)	RCA	RCA
DVI-D Computer	DVI connector	-
RGB Computer	VGA	VGA
Screen triggers	1 x Standard 12v screen trigger, 1 x Programmable 12v trigger	1 x Standard 12v screen trigger, 1 x Programmable 12v trigger
RS232	9 pin D-Sub	9 pin D-Sub
Video Compatibility	PAL, SECAM (576i/p), NTSC (480i/p), HD1080P60\50\24, 1080i, 720p)	PAL, SECAM (576i/p), NTSC (480i/p), HD1080P60\50\24, 1080i, 720p)
Display		
Aspect Ratio	16:9 Native Anamorphic Lens for 2.35:1	16:9 Native Anamorphic Lens for 2.35:1
Throw Ratio	1.50-2.28 (Projection Distance/Image Width)	Standard : 1.54 – 1.93 (1.25x) Long: 1.93 – 2.9:1 (1.5x) Short: 0.77:1
Manual zoom	x1.5	Dependent on lens (as above)
Projection Distance	1.5m – 12.5m	1.5m – 12.5m
Image Size	0.76 - 7.67m (16:9 Diagonal)	0.74 - 11.9m (16:9 Diagonal)
Keystone Correction	Vertical	Vertical
Projection Types	Front, Ceiling, Rear, Rear ceiling	Front, Ceiling, Rear, Rear ceiling
Lamp Type	220w	280w
Lamp Life	Standard mode 3000 hours •	Standard mode 3000 hours •
General		
Dimensions	490 x 372 x 194 mm	430 x 340 x 181 mm (inc. feet), 430 x 340 x 164 mm (excl. feet)
Weight	8.5 kg	8 kg
Operating Temperature	5-35°C Max, 80% Humidity	5-35°C Max, 80% Humidity
Mounting	Ceiling mount points	Ceiling mount points
Warranty	Warranty may vary by country. Please see www.optomaeurope.com or ask your local supplier for details	Warranty may vary by country. Please see www.optomaeurope.com or ask your local supplier for details
Lamp Warranty	6 months or 1000 hours whichever is the sooner	6 months or 1000 hours whichever is the sooner
OSD Languages	English, French, German, Spanish, Italian, Portuguese, Dutch, Swedish, Finnish, Greek, Danish, Norwegian, Polish, Russian, S Chinese, T Chinese, Korean, Japanese, Hungarian, Czech, Arabic & Turkish	English, French, German, Spanish, Italian, Portuguese, Dutch, Swedish, Finnish, Greek, Danish, Norwegian, Polish, Russian, S Chinese, T Chinese, Korean, Japanese, Hungarian, Czech, Arabic & Turkish
Supplied accessories	AC power cord, 1 x HDMI cable 1.8m, SCART RGB to VGA 15 Pin D-Sub adaptor, VGA cable, Main Remote control with backlight, Backup remote control, Batteries for Remote controls, Lens cap, Users guide, 2 x 12v trigger connectors, 4 x M6 screws for use with ceiling mount	AC power cord, 1 x HDMI cable 1.8m, VGA cable, Main Remote control with backlight, Backup remote control, Batteries for Remote controls, Lens cap, Users guide, 2 x 12v trigger connectors, 5 x M4 screws for use with ceiling mount
Optional accessories	Anamorphic Projection Kit BX-AL133-B	Anamorphic Projection Kit BX-AL133-B
EAN Number	5060059043637	5060059045273

• Typical lamp life achieved through testing. Will vary according to operational use and environmental conditions

■ HD82 Optical Image Shift – Both extremes of the horizontal and vertical shift can not be used simultaneously. See user manual for future details.

HD82 Connections



HD87 Connections



HD82 Connections

1 +12V Trigger A
2 +12V Trigger B
3 RS232 (9-pin)
4 Composite Video
5 S-Video
6 Component (RCA)
7 VGA
8 DVI-D
(PC Digital and DVI-HDCP)
9 HDMI 1
10 HDMI 2
11 Power Socket

HD87 Connections

1 3 x HDMI
2 Composite Video
3 Component (RCA)
4 Backup Remote
5 VGA
6 S-Video
7 RS232 (9-pin)
8 2 x +12V trigger

Remotes



Copyright © 2010, Optoma Europe Ltd. †The HD82 is supplied in the USA as the HD8200. *Optoma guarantees that in normal use, Optoma DLP® colour quality will be indistinguishable from when new. Please note that worn lamps will give slight variance. Exclusions: *(1) Guarantee is voided if the projector is subject to damage through mis-use. (2) Guarantee may be void in industrial or commercial entertainment environments where dust or smoke is particularly excessive (3) Guarantee will not apply if lamp brightness is below 50% due to wear or if the projector is not working due to other fault.

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DVI HDCP COMPLIANT

HDMI HIGH DEFINITION MULTIMEDIA INTERFACE V1.3 with DeepColor

BrilliantColor

DLP TEXAS INSTRUMENTS

V3 - 30/11/10