

# ZU850

Ultimate colour performance

- Superior colour – 99% Rec. 709 colour gamut coverage
- 20,000 hours maintenance-free laser light source at full brightness
- Dust resistant – Independently tested, IP6X certification for total reliability
- 8200 lumens laser WUXGA DLP

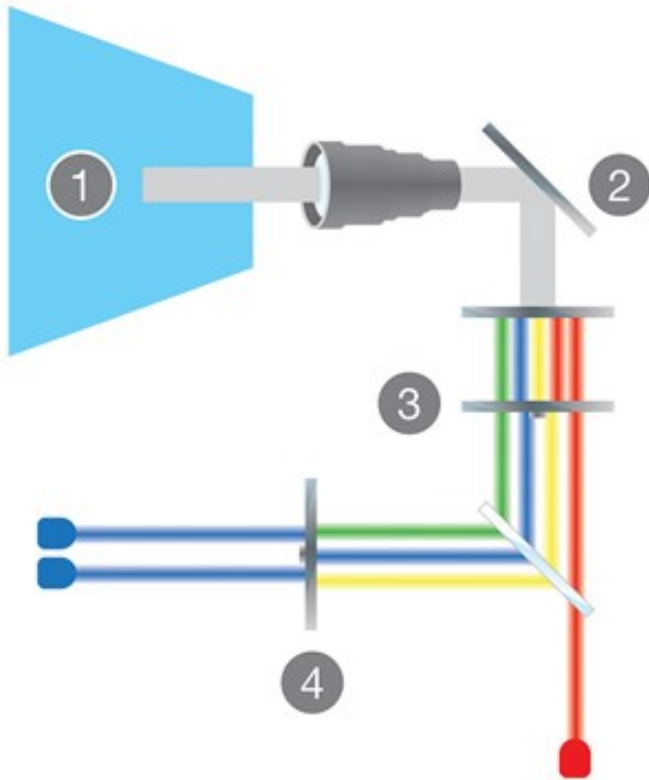


# ZU850

The ZU850 combines superior colour with exceptional brightness consistency. The innovative MultiColor Laser (MCL) technology delivers ultimate colour performance whilst the DuraCore laser light source maintains exceptional brightness consistency.

## MultiColor Laser

Innovative MultiColor Laser (MCL) technology adds a second red laser to the more usual blue. This results in greatly improved colour performance covering 99% of Rec. 709 colour gamut.



- 1. Screen
- 2. DMD chip
- 3. Colour wheel
- 4. Phosphor wheel

## Airtight optical engine

The ZU850 has been independently tested and certified with an IP6X dust resistance rating. Outstanding dust resistance combined with exceptional brightness ensures industry leading durability; paramount for 24/7 maintenance free operation in challenging environments, the dust resistance was tested by an independent laboratory in accordance with IEC standard 60529 and was certified with an IP6X rating- airtight sealed optical engine.



## Ultimate colour performance

The ZU850 boasts a wide colour gamut covering 99% of Rec. 709. Our advanced colour technology, multiple settings and advanced features enable users to enjoy long-lasting, reliable and precise colour – from vibrant, punchy presentations to lifelike images.



## Installation flexibility

Engineered for 24/7 continuous operation in 360° and portrait orientations the ZU850 supports optional lenses ranging from TR 0.37~5.5, and 100 adjustable brightness steps to control the laser power from 20%~100% making this flexible projector perfect for professional demanding applications such as simulation, live events, museums or theme parks.

## 24/7 operation

All ProScene projectors are designed for continuous 24/7 operation. Only industry proven components are used to ensure superior reliability.



## Image quality

Where detail really matters, the full WUXGA (1920 x 1200) resolution offers 15% more pixels than 1080p. This enables unscaled Full HD video and extra detail.

Optoma laser projectors have adopted DLP® micro-mirror technology which provides highly efficient bright images with high contrast, maintaining precise colour accuracy and natural real-world colour reproduction.

## Precision optics

High quality optical elements maintain optimum sharpness and focus uniformity over the entire image. Uncompromising optical quality delivers extremely low colour flare and chromatic aberration resulting in a crystal clear, high contrast image.



## Total cost of ownership

For demanding applications the total cost of ownership of a projector is not in the purchase cost, but in expensive maintenance and service. ProScene projectors require very little maintenance; have no user serviceable parts inside and no filters that require periodic replacement. The result is low cost, predictable service cycles, enabling planned down time to be minimised.

## Colour guarantee

We are so confident that the ZU850 image colour quality will remain as good as the day you bought it that Optoma will guarantee this projector for five years.



## 360° and portrait projection capability

Images can be projected over a full 360° range along the vertical axis, including reproduction on a ceiling or floor. The projector can also be placed in portrait mode for applications such as digital signage or for tall thin projection areas.

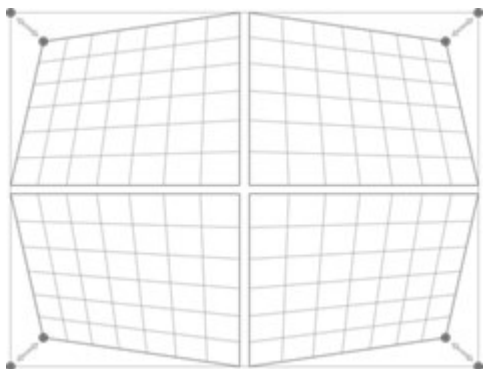


## Quick start-up and shutdown

The ZU850 features quick start-up and shutdown and reaches full brightness quickly. To maximise energy saving it also includes a 'pause projection' feature where the light source can be completely shut off. Unlike conventional lamp based projectors, the laser- light source requires minimal cool-down time.

## Corner adjustment

Fast and simple geometric correction using individual corner control.



## HDBaseT™

Uncompromised, uncompressed Full HD video, audio, network and control commands all delivered on a single CAT- type cable capable up to 100 meters/328 feet without signal loss makes installation hassle-free. HDBaseT™ simplifies cabling requirements and reduces installation complexity saving both time and reducing costs.



## Colour matching

This projector has a colour matching system, which combined with accurate measurements can create seamless blends every time.

## Eco friendly and highly efficient

Cut up to 30% from your energy bills using 24-hour automated power scheduling to ensure that projectors power off when not in use.

### Direct power on

The projector will start up instantly when power is supplied to the unit. This eliminates the need to manually turn on the projector via the remote control or the keypad, ideal for use in rooms with a "master" power switch.

### Auto power off

If after a pre-determined time the projector does not receive a signal, it will turn itself off automatically, conserving power and extending the life of the light source.

### Eco standby mode

Reduces energy consumption to less than 0.5W when the projector is not in use.

## 3G-SDI

3G-SDI (Serial Digital Interface) is used for transmission of uncompressed, unencrypted digital video signals at a data rate of 2.97Gbit/s. The bitrate can support 1080p/60p Full HD video via one single coaxial cable up to 100 meters, which reduces the set-up complexity in live events or staging shows.

## Project Green

We know that improving our products is the best way to reduce our impact on the environment. That's why at Optoma we design our products to have a long usable life, use fewer materials, ship with the minimum packaging and be free of all possible toxic substances. Naturally, energy efficiency and being recyclable are built in at the design stage. With each new product, we strive towards minimising our environmental impact.

## DuraCore

Industry leading lifetime is achieved using Optoma's new DuraCore technology. Implementing advanced laser diode cooling techniques and an innovative dust resistant design. 20,000 hours provides a staggering 13 years of normal use\*1 or 2.2 years if run continuously 24/7.



\*1 6 hours per day, 250 days per year

## DLP® technology

DLP® technology from Texas Instruments® is widely recognised and acclaimed for its unmatched reliability and long lasting image performance. When combined with high brightness and native contrast ratios, it becomes the obvious choice for demanding applications. Independent testing has proven DLP® to be the most reliable of projector technologies. Whilst other technologies may show image quality decline after only a few thousand hours, DLP® technology can remain unchanged over hundreds of thousands of hours. Images remain accurate, and colours suffer virtually no degradation over time.

## 100 constant power and luminance modes

### Constant power mode

There are 100 adjustable steps to control the laser power from 20%~100%. It means the brightness can dim to 20% of full brightness if your application requires.

### Constant luminance mode

There are 100 adjustable steps to control brightness from 50%~100%. Brightness can be kept constant at desired level. Very useful for blending.

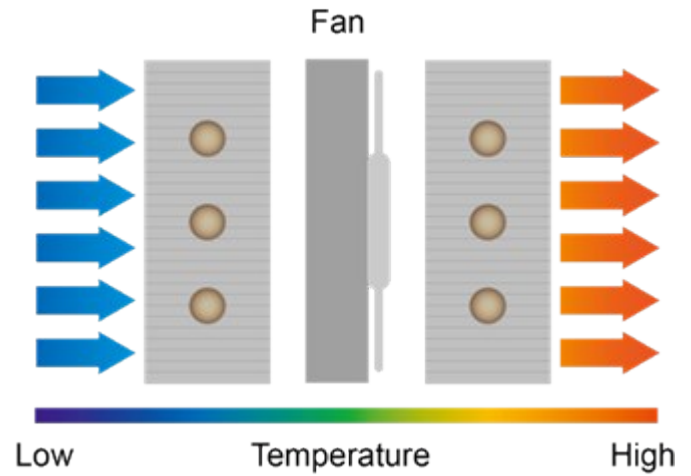
## Compact and quiet

Due to sophisticated thermal engineering, the ZU850 is compact in size allowing for an easier install. The advanced cooling laser diodes enable the projector to run more efficiently with 10% higher heat dissipation. This efficiency makes the ZU850 produce less noise, and in turn extends the overall lifetime of the projector whilst maintaining high brightness.



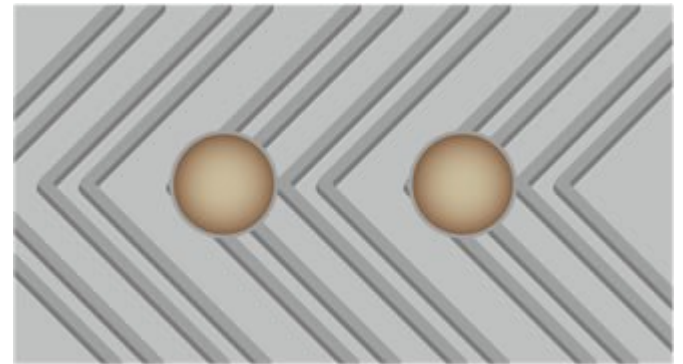
## Sandwich structure

A complete reconfiguration of the heat pipes, fan and thermal fins enables an additional 10% total system heat dissipation.



## V-shape structure on thermal fins

Precision etched thermal grooves on each individual fin take 10% more heat away from the system and results in 2% increase in brightness.



## Edge blending tools

No two projectors are completely identical. When performing complex, or even simple edge-blend projects using multiple projectors, it can be difficult to achieve good results if the images do not match. This projector incorporates the following features to ensure high quality and consistent results.

The distinct advantage of our longer lifetime light source is consistent brightness that resists decay for longer. This is verification that DuraCore laser projectors are the perfect fit for multiple blending applications where brightness consistency is key.

## Projector security

The ZU850 features both a Kensington lock and security bar for enhanced theft prevention.

## Custom ID colours

If your project calls for a higher level of customisation, the ZU850 is available in any colour from the RAL colour space system.



Please contact your local sales representative for more information.

## System integration control

Multiple ZU850's can be monitored over LAN and also provide the user with an email message alert in case an error occurs or a light source fails or needs to be replaced, using Crestron RoomView. While the web browser interface and full support for Extron's IP Link, AMX dynamic device discovery and PJ-Link protocols, allow almost all aspects of the ZU850 to be controlled across a network, keeping you in control, wherever you are.



Global monitoring of all AV devices



Track projector light source usage



Email alerts and instant notifications - help desk requests, service reminders, device failure or theft



Event scheduling

## Ultimate control

Cut up to 30% from your energy bills using 24-hour automated power scheduling to ensure that projectors power off when not in use.



Download Crestron RoomView® Express for free at

[www.crestron.com/getroomview](http://www.crestron.com/getroomview)

### Help alert

Real-time interactive help desk requests are sorted to come to the top. The help desk then has the ability to respond with an automatic message or instant message the room with exact procedures.

### Display power

Check on/off status of display power and system power. View a bar graph to monitor the percentage of available projector light source usage and set an alert to notify the services department when maintenance is needed.

### Display usage

A visual indication of light source or service interval status.

### Schedule event

RoomView Express makes scheduling of recurring or one-time events easy. Setting RoomView to automatically power down at midnight throughout the week can save valuable light source life and ensure security inside the facility.

Selected view by rooms, attributes or contacts

RoomView Express gives you the ability to simultaneously view more than 250 rooms from a single screen. Customise RoomView to view by room name, locations and group.

### Event log

Automatically generates log files, reports and charts to analyse ROI and budget allocation. Track device usage, call statistics and user history.

## Lens options

Optoma model name	A15
Focal length (f) (mm)	11.11 ~ 14.06
F number	2.30 ~ 2.53
Zoom range (ratio)	1.26x
Zoom and focus adjustment	Motorised
Throw ratio (WUXGA)	0.75 ~ 0.95
Throw distance (m)	0.81 ~ 6.13
Projection image size	50" ~ 300"

Optoma model name	A01
Focal length (f) (mm)	14.03 ~ 17.95
F number	2.30 ~ 2.57
Zoom range (ratio)	1.28x
Zoom and focus adjustment	Motorised
Throw ratio (WUXGA)	0.95 ~ 1.22
Throw distance (m)	1.02 ~ 7.88
Projection image size	50" ~ 300"

Optoma model name	A06
Focal length (f) (mm)	18.2 ~ 22.6
F number	2.00 ~ 2.30
Zoom range (ratio)	1.25x
Zoom and focus adjustment	Motorised
Throw ratio (WUXGA)	1.22 ~ 1.52
Throw distance (m)	1.31 ~ 9.82m
Projection image size	50" ~ 300"

Optoma model name	A03
Focal length (f) (mm)	22.56 ~ 42.87
F number	2.30 ~ 3.39
Zoom range (ratio)	1.9x
Zoom and focus adjustment	Motorised
Throw ratio (WUXGA)	1.52 ~ 2.92
Throw distance (m)	1.64 ~ 18.87
Projection image size	50" ~ 300"

Optoma model name	A13
Focal length (f) (mm)	42.60 ~ 80.90
F number	2.30 ~ 2.74
Zoom range (ratio)	1.9x
Zoom and focus adjustment	Motorised
Throw ratio (WUXGA)	2.90 ~ 5.50
Throw distance (m)	3.12 ~ 35.54
Projection image size	50" ~ 300"

## Specification

Display Technology	DLP™ Technology by Texas Instruments, 0.67" WUXGA, DC3, Type A chip
Resolution	WUXGA 1920 x 1200
Brightness <sup>1</sup> (Bright Mode)	8200 centre lens (8000 ANSI) lumens
Contrast	2,000,000:1 ExtremeBlack enabled (2000:1 full on/off)
ANSI Contrast	250:1
Typical lamp life <sup>2</sup> Bright	20,000 hours to 50% brightness** (hrs)
Lens Options	A15-0.75-0.95 A01-0.95-1.22 A06-1.22-1.53 A03-1.52-2.92 A13- 2.90-5.50
Throw Ratio	0.75 ~ 5.50 "lens dependent"
Zoom Type	Motorised
Lens Shift	Motorised lens shift, focus and zoom horizontal: +/-15% (typical; tolerance +/-4%) vertical: +/-50% (typical; tolerance +/-4%)
I/O Connectors	1 x HDMI, 1 x DVI-D, HDBaseT™, 1x SDI, Component Video, 1 x VGA, VGA Out, HDMI Out, RJ45, RS232, wired remote in, wired remote out, USB A, 3d sync (din)
Keystone Correction	V: +/- 20 degrees, H: +/- 20 degrees
Weight (kg)	23
Dimensions (W x D x H)	484 x 509 x 185mm without lens
Aspect Ratio	16:10 native, 16:9/4:3 compatible
Projection Screen Size	Dependent upon lens
Projection Distance	Dependent upon lens
Projection Lens	Multiple lens options "no lens supplied as standard"
Uniformity	90%
Maximum Resolution	Native WUXGA (1920 x 1200)
Computer Compatibility	WUXGA, HD, UXGA, WXGA, SXGA+, SXGA, XGA, SVGA, VGA Resized, VESA, PC and Macintosh Compatible
Video Compatibility	PAL (625/576i/p), SECAM, NTSC (525/480i/p), HDTV (720p, 1080i/1080p)
3D Support	Full 3D - The 3D features of Optoma projectors can only be used with compatible 3D content. Typical applications include use with 3D educational or 3D design and modelling systems. 3D TV broadcast systems, (SKY in the UK), Blu-ray 3D™ and 3D games from the Sony® PS3 or Microsoft® Xbox 360 are now supported as part of the HDMI v1.4a specification.
3D Compatibility	Side-by-Side: 1080i50 / 60, 720p50 / 60 Frame-pack: 1080p24, 720p50 / 60 Over-Under: 1080p24, 720p50 / 60
Horizontal Scan Rate	15kHz to 100kHz
Vertical Scan Rate	25Hz to 85Hz
Displayable Colours	16.7 million
Noise Level (Eco mode)	32db
Power Supply	100 – 240V AC @ 50 – 60Hz
Power Consumption	770W +/-15% @ 110VAC in Normal brightness Mode/ 395W +/-15% @ 110VAC in ECO brightness Mode
Lamp Type	Laser Phosphor
Operating Conditions	5~40°C (>35°C, auto dim to 75% normal mode), 10~85%RH, non-condensing
Operating Temperature	for 0 ~ 2500 ft, 5 ~ 40°C for 2500 ~ 5000 ft, 5 ~ 35°C for 5000 ~ 10000 ft, 5 ~ 30°C
Heat Dissipation	2625.7BTU/hr (Normal mode) 1346.95BTU/hr (ECO mode)
Security	4-digit PIN code, Kensington lock port, security bar
On Screen Display	18 languages: English, German, French, Italian, Spanish, Portuguese, Polish, Dutch, Russian, Finnish, Swedish, Greek, Norwegian/Danish, Hungarian, Czech
Remote Control	Infra-red remote control, wired connection
Standard Accessories	VGA cable, AC power cord, Infra-red remote control, 2 x batteries, user manual CD, quick start card, WEEE card, warranty card
Optional Wireless	No
360° Operation	Yes
Portrait Mode	Yes
Warranty	3 Years
Conformances	CE, TUV-GS, CB
RoHS	RoHS and WEEE
DICOM Simulation Mode	YES
Features	Integrated edge-blending processor, Multiple lens options, motorised full lens shift, Crestron RoomView®, PJ-Link, 360° operation
Warranty	5 years/ 12,000 hours light source. 3 years projector.