Game on for HDR

Low latency and HDR compatibility make gaming on this 1080p Optoma a bright idea, says **Steve May**



SMART AND COMPACT, with a glossy white finish, this new 1080p DLP projector from Optoma is designed for living room rather than dark theatre use. So far, so typical, but what makes the HD29H particularly interesting is that while it's unequivocally a Full HD model, it's also HDR compatible. It'll read HDR10 metadata and attempt to produce a correctly balanced dynamic image.

The combination might seem odd, but makes perfect sense for its core audience: gamers. All iterations of the Sony PlayStation 4 can present games in HDR – the feature isn't limited to the high-end 4K-capable PS4 Pro.

Another key attribute is low image lag, with Optoma suggesting a best-in-class 8.4ms response time. It also has the ability to accept a 1080p 120Hz input. Anyone up for a *Quake* marathon?

To suit this target market, the HD29H

AV INFO

PRODUCT: Single-chip DLP Full HD projector with HDR10

POSITION: Optoma's only HDR-compatible 1080p PJ

PEERS: BenQ W1210ST; Epson EH-TW650 claims a brightness of 3,400 Lumens. In use this makes it entirely possible to play games or watch sports with high levels of ambient light in the room.

The PJ will most likely end up installed on a coffee table. Light at just 2.5kg, it's no hassle to roll-out when the mood takes you. A 1.1x zoom enables a throw ratio of 1.47-1.62:1. Zoom and focus adjustments are manual. Vertical keystone correction is provided if needed.

Connections include two HDMI inputs, of which one is v2.0 and accepts 4K sources, which are then downscaled to 1080p. A benefit for AV fans is that you'll not need to constantly adjust the output setting of your source device depending on whether you're hooking up to a TV or the projector.

The HD29H is also 3D compatible, although active shutter 3D glasses are an optional extra.

Over the rainbow

This Optoma may be gaming-focused, but its image quality is solid with movies too. There's no shortage of detail and nuance in Michael Douglas's visage, even when he has been de-aged, in *Ant Man* (Blu-ray). I did pick up on some DLP colour fringing in areas of high contrast (AKA rainbow effect), but generally found this DLP trait not overly intrusive. And the native brightness creates noticeable colour vibrancy; animated content and console game cut-scenes in particular look spectacular.

More contentious is black level performance. A Dynamic Black mode adjusts the projector's lamp output dynamically based on the brightness of each frame, resulting in a contrasty image which makes a good fist of retaining dark detail; a play-through of *Sekiro: Shadows Die Twice* (PS4) provides the projector with a chance to show this off.

SPECIFICATIONS

3D: Yes. DLP active shutter 4K: No. 1,920 x 1,080 Full HD HDR: Yes. HDR10 CONNECTIONS: 2 x HDMI inputs; 3.5mm audio minijack; powered USB BRIGHTNESS (CLAIMED): 3,400 Lumens CONTRAST RATIO (CLAIMED): 50,000:1 ZOOM: 1.1x DIMENSIONS: 316(w) x 108(h) x 244(d)mm WEIGHT: 2.5kg

FEATURES: Single-chip DLP; built-in 10W sound system; lamp life claimed at 6,000 hours (Bright), 10,000 hours (Eco); Cinema, Vivid, Game, Reference, Bright and User picture presets; 1.47:1-1.62:1 throw ratio; ISF Day/Night calibration support

The PJ sports Optoma's usual design

Yet deeper blacks can grey out, leading to near black shadow loss and a flattening of the image depth.

Overall, however, the picture remains consistently contrasty and engaging. A binge of *Stranger Things* (Netflix) kept much of the darker mood intact.

When an HDR source is received, the HD29H's default image preset kicks in. In truth, with movies, this can make pictures a little dim. Thankfully, there's the option to switch HDR support off.

With non-HDR content you get a far wider selection of display modes, including ISF support for calibrated Day and Night settings. There are also colour management, colour temperature and gamma adjustments (and more) for fine-tuning,

Operating noise is minimal, and easily disguised by an exterior sound system (there's an integrated 10W speaker too, which isn't short of volume, although you really wouldn't want to listen for long on maximum). Selecting the Eco brightness mode leads to a further reduction in hubbub – frankly, the average Xbox One X is noisier. When running HDR, however, the HD29H does fluctuate in fan noise, which can be a bit distracting.

Heaps of fun

As an all-purpose media room projector, Optoma's HD29H has a lot going for it. Its bright output makes it easy to use in less than perfect conditions and picture quality is impressive, save for some black level shortcomings. The combination of 1080p and HDR is unusual, but worthwhile. Brilliant for gaming, good for general entertainment, not too pricey... and heaps of fun ■

HCC VERDICT + + + + + +

Optoma HD29H

 \rightarrow £700 \rightarrow www.optoma.co.uk

WE SAY: This blindingly fast DLP gaming projector brings HDR support to bright, colourful 1080p images. The combo is a bigscreen winner.