Projectiondesign FL32

Fancy a projector with a lamp that runs continuously for over 11 years?

Text:/ Paul Newton

Having reviewed two very small, domestic (10 ANSI lumen) LED projectors in the last issue, I was very interested to see how a brighter, higher resolution LED projector would shape up.

For the those of you who are unaware (which included myself until quite recently), LED projection still utilises a DLP panel/chip to display information – but the traditional single light source (lamp) has been replaced with a matrix of low voltage (extremely) high brightness LEDs. The main advantages of this new approach to projection are extended lamp life (100,000 hours compared to 1000) and low, overall power consumption/draw (350W). Lamp life and ongoing maintenance are major factors when purchasing projectors and need to be considered when calculating the total cost of ownership. The purchase price of the FL32 effectively includes the price of the first 50 replacement lamps.

Discharge lamps degrade quite quickly after being struck multiple times, and eventually descend into unstable flickering or discolouration. ReaLED technology claims to ensure complete colour stability of the product throughout its very long lifetime. That's a big claim and a very impressive statement. I'd be very curious to see how this claim was tested considering how new the product is on the market.

The FL32 looks like any other projector. It is quite large (376mm x 510mm x 223mm and around 15kg with a lens) for an 800 ANSI lumen projector, but considering the technology is only in its infancy, this should really be overlooked. I was ultimately more interested in the colour, brightness and detail of this unit, not the cosmetic aspects. That said, it is an attractive, streamlined projector. Projector stacking is also an option with this series of projector – chassis recesses allow the top projector to perfectly join the bottom projector.

Lens installation is simple. The bayonet connection with the projector ensures a tight and safe fit. The external lens release button on the chassis of the projector is a great feature – it's easy to access and would make lens replacement a breeze. All the lens features you'd expect on a traditional projector are present: electronic zoom, focus, shutter, iris and horizontal/vertical shift. This series of projector boasts a very wide range of lenses from a fixed 0.79:1 up to 3.8 – 6.5:1 zoom lenses.

ONE CHIP, NO WHEEL

The FL32 is a single-chip DLP projector with ReaLED technology. Unlike other single chip DLP projectors, it doesn't use a colour wheel; instead the three panels of coloured LEDs are individually driven to produce the colour image. I was also lucky enough to have two of the actual projector LEDs provided with my review unit. When I connected the green LED to the supplied 9V battery, my entire office was instantly illuminated in colour. It's quite staggering how much light comes out of these little (approximately 4mm) LEDs, particularly when you consider that they're driven at around 30V in the projector. The unit is rated to 800 ANSI lumens but when compared side-by-side with our 1500 ANSI projector in the studio, brightness seemed on par.

The review model featured a full 1920 x 1080 HD panel, allowing true 30-bit RGB displayable colours. I ran a multitude of different signals to this projector: component, HDMI/DVI, and analogue RGB (from 640 x 480 up to 1920 x 1080). Signal locking occurred every time, with minimal geometry adjustments required. It took less than three minutes to configure each signal, and I've never used Projectiondesign products before. Truly intuitive. Scan frequencies ranged from 15-150kHz vertical and 48-190Hz horizontal, as you would expect from any decent DLP projector.

While brightness may be lacking, the colour reproduction of these projectors is exceptional. HDCAM and Blu-Ray content that I tested was as accurate as the hi-res Mac monitors in our studio. Flawless reproduction of fast moving content (I was using high-definition Formula 1 car racing footage) is also handled very well by this unit.

The internal menu is deceptively detailed. When I first fired up the unit and saw the simple, cute icon structure, I was a little concerned that there would be very little image adjustment available. How wrong was I? The menus are extremely detailed and allow the multitude of fine geometry and colour adjustments commonly seen on high-end three-chip DLP projectors. As well as the usual colour balancing options, the FL32 boasts extended colour options for specifically dealing with skin tones. Reproducing skin tones and warmer, sepia colours have always been a challenge with modern digital projectors. Electronic filters and colour options to 'shortcut' matching these colours are becoming increasing popular with new projectors.

LONG HAUL

These projectors are designed, and expected, to run 24/7 year after year. Mission-critical applications such as defence, air traffic control, medical and simulation industries demand such reliability. Low power draw and 100,000 hour lamp life (100,000hrs = 11.4 years) will go a long way to cementing this product within these industries. Permanent installation environments such as airports, shopping centres and universities will also be a market for these projectors.

Control/remote options are therefore quite comprehensive. The projector has a multitude of features such as interval timing ability (turning itself on and off each day and night), LAN connectivity and centralised PC control. The Projectiondesign website has a lot of useful support information for its products. While not as comprehensive as its competitors I found it very useful and learned a lot about other Projectiondesign products.

As the projector rental business is predominantly driven by brightness and pixels, LED needs to increase in overall light output to the 5000 ANSI lumen mark before that market will adopt this technology. I'm told that LED-powered projectors in this output range should begin to appear within a year or two, although it may take a while longer before they run for 100,000 hours.

I'm very impressed with LED projection technology in general. Image colour reproduction suffers very little with this high-efficiency, low-voltage light source. This is a *massive* step in the right direction for the world of video projection.

Info

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Retail Pricing:
1920x1080 model: $57,500
1920x1200 model: $60,000

Professional pricing:
Contact Amber Technology