

# REFERENCE Displays

LIGHTNING Reference 1080p-30 • LIGHTNING Reference 1080p-40



## PERFORMANCE SPECIFICATIONS

### Brightness (±10%)

1080p-30: 6,000 - 10,000 ANSI Lumens  
1080p-40: 8,000 - 14,000 ANSI Lumens

### Contrast Ratio (±10%)

5000:1

### Display Type

3 x .95" Dark Metal 1080p DMD™ with Fast Transit Pixels for smooth greyscale and improved contrast

### DMD Specification

1920 x 1080 pixels native, 12° tilt angle

### Fill Factor

87%

### Sealed Optics at DMD™ Interface

Protects DMD's™ from optical contamination

### Source Compatibility

- Composite, s-video, and color difference video standards
- RGB graphics standards up to 1920 x 1080
- DVI standards with HDCP compliance
- High definition RGB and color difference standards

### Video Processing

- Enhanced 7 point color correction
- Class leading Video de-interlacing/processing of SD and HD sources using auto 3:2 and 2:2 extraction, ruggedized for editing discontinuities
- Pixel-based motion adaptive interpolation
- User selectable preset, parametric de-gamma and user downloadable de-gamma
- Frame Delay: as low as 1 frame, source dependant
- Auto mode selection - plug and play setup

### Network Connection

LAN via RJ 45, Wireless 802.11b, full protocol feature set

### Lamp Type

Proprietary xenon arc, bubble. Hyper-cooled lamp module with directional-flow reflector mask and radial heat exchanger. Digital Hour meter.

### Lamp Life (typical)¹

1080p-30: 750 hours  
1080p-40: 500 hours

### Lens Mount

Zoom: Motorized horizontal and vertical lens shift, zoom and focus  
Fixed: Manual Focus

### Lens Shift (maximum)

Zoom Lenses:  
Vert: Vert: +0.5 -0.375 frame;  
Hor: ±0.25(L) 0.17(R) frame  
0.67 Fixed lens:  
Vert: ±0.11 frame; Hor: ±0.07 frame

### Lens Options

0.67 :1 fixed  
1.12 :1 fixed (1.2-2.0m throw)  
1.12 :1 fixed (3-15m throw)  
1.39-1.87 :1 zoom  
1.87-2.56 :1 zoom  
2.56-4.16 :1 zoom  
4.16-6.96 :1 zoom  
• 1.12:1 Lenses include manual aperture  
• High-brightness lenses available for 0.67:1 and all zoom lenses

### Mechanical Mounting

Floor or ceiling, front or rear. Integrated handles and rigging frame with pitch and roll adjustments, flexible stacking/rigging points. Rugged, stager tolerant chassis.

### Orientation

360° front to back  
±15° left to right

### Weight (chassis only)

249 lbs (113 kg)

## Overview

Digital Projection International (DPI), Texas Instruments' first DLP™ partner and the original innovator of the 3-chip DLP™ projector, proudly introduces the flagships of our Reference Display lineup, the LIGHTNING Reference 1080p-30 and Reference 1080p-40.

Based on the same rugged, mechanically capable chassis as our highly acclaimed LIGHTNING Pro-Series II commercial products, the new LIGHTNING Reference Displays employ the latest in Texas Instruments' Dark Chip 1080p DLP™ technology, and are equipped with DPI's newest imaging innovations, including our exclusive ColorMax™ calibration system, rendering deeply saturated, color-accurate imagery which is simultaneously true to life and powerfully immersive. When considered along with their 8000-14000 ANSI lumen brightness and astounding 5000:1 contrast performance, the LIGHTNING Reference 1080p-30 and 1080p-40 represent the absolute ultimate in large-scale home entertainment displays – suitable for nearly any venue and any screen size.

The LIGHTNING Reference projectors also incorporate DPI's Hyper-Cooled lamp module, one of our CoolTek™ innovations. Engineered with a proprietary, directional-flow reflector mask and radial heat exchanger, the Hyper-Cooled module dramatically improves projector thermal characteristics and extends reflector life and lumen maintenance. In turn, these operating benefits provide a significant reduction to the long-term cost of ownership, while also enhancing component reliability.

Other key benefits of the LIGHTNING Reference series include:

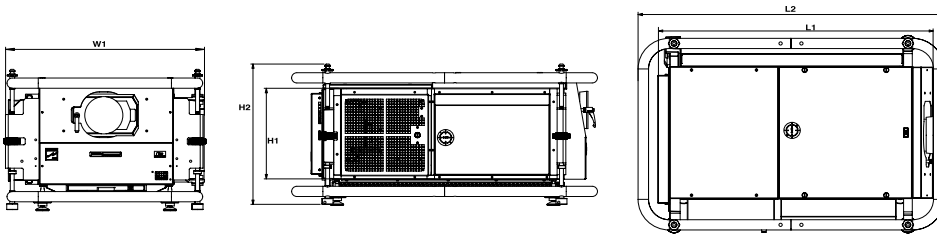
- ColorMax™ calibration capabilities including enhanced seven-point color correction for broader color space, accurate color alignment and higher color saturation.
- DP's NextGen electronics, featuring class leading de-interlacing with SD and HD sources processed using auto 3:2 and 2:2 extraction
- Six user-selectable inputs, including HDCP compliant DVI
- Xenon lamp systems for the broadest spectral output and the most stable long-term color performance
- A wide range of precision, high contrast optics. All zoom lenses include extensive horizontal and vertical lens shift, providing great flexibility to work around mechanical installation challenges
- DP's CoolTek engineering, which delivers the highest lumen performance with the lowest power consumption, thermal output (BTU) and noise level output (dB).
- Intelligent Lens Mount (ILM) - provides the ability for the user to program up to 10 distinct presets for lens zoom, focus and shift. The ILM presets can be assigned and automatically recalled, by source and input.

The LIGHTNING Reference 1080p-30 and 1080p-40 – ultra powerful and intensely accurate display systems - for exceptional large scale imaging - bringing the precision of Digital Projection – to your legendary home venues.

## INPUT CAPABILITIES

Type	Connector	Quantity
Composite	BNC	1
S-Video	4-pin mini DIN	1
Component Interlaced/Std def Y, Cr/Pr, Cb/Pb, S	BNCx4	1
Graphics Progressive RGB/Progressive Interlaced Hi def Y, Cr/Pr, Cb/PB	BNCx5	1
RGBHV (Progressive)	D sub (15-pin)	1
Digital RGB (HDCP Compliant)	DVI	1

# REFERENCE Displays



Projector Dimensions

Without Frame		With Frame	
Projector dimensions (in)	L1 40.5 W1 28.5 H1 19.5	Projector dimensions (in)	L2 43.4 W2 28.1 H2 20.5
Projector dimensions (mm)	L1 1028 W1 728 H1 495	Projector dimensions (mm)	L2 1116 W2 714 H2 522



LIGHTNING Reference 1080p Back Panel

## ADVANCED TECHNICAL SPECIFICATIONS

PARAMETERS	REFERENCE 1080p DISPLAYS LIGHTNING 3D	REFERENCE 1080p DISPLAYS LIGHTNING 4D
Native Color Temperature	6000°K ±500°K; white balance-adjustment: 3000°K to 10000°K	
HDTV Formats Supported	1080i (50Hz, 60Hz), 1080p (24Hz, 25Hz, 30Hz, 50Hz, 60Hz), 1080 24sf, 720p (50, 60Hz), 480i, 480p	
Scan Rates Supported	Horizontal: 15kHz to 100kHz / Vertical: 24Hz to 85Hz	
Remote Control	Addressable IR remote control, wireless and wired with loop-through / On board invertable keypad	
Automation Control	LAN connection via RJ45 / RS232 9-pin D type	
Operating/Storage Temperature	Operating: 0 to 45°C / Storage: -10 to 50°C /	
Operating Humidity	20 to 80% non-condensing	
Thermal Dissipation	13640 BTU	15,695 BTU maximum
Fan Noise	Less than 59dB	
Power Requirements	200-240 VAC, 50/60Hz single phase	
Power Consumption	4000 watts	4600 watts maximum

### Projectors

LIGHTNING Reference 1080p-30  
 LIGHTNING Reference 1080p-40

### Part #

107-967  
 107-968

### Accessories

LIGHTNING 30 Hypercooled Lamp & Housing  
 LIGHTNING 30 Hypercooled Refurb Lamp & Housing  
 LIGHTNING 30 Lamp Exchange  
 LIGHTNING 40 Hypercooled Lamp & Housing  
 LIGHTNING 40 Hypercooled Refurb Lamp & Housing  
 LIGHTNING 40 Lamp Exchange  
 Infrared Remote (Replacement)

### Part #

103-238  
 103-238R  
 103-238E  
 104-578  
 104-578R  
 104-578E  
 105-023

### Lenses

0.67:1  
 1.12:1  
 1.12:1 (short)  
 1.39 - 1.87:1  
 1.87 - 2.56:1  
 2.56 - 4.16:1  
 4.16 - 6.96:1

### HC Part#

107-195  
 105-608  
 105-609  
 107-196  
 107-197  
 107-198  
 107-199

TheaterScope Compatible



<sup>1</sup> Based on 4-6 hour/day operational profile. Venue and application conditions may impact actual lamp life. See Digital Projection's Product Warranty Statement for details on lamp warranty.