

# LIGHTNING Pro Series II

LIGHTNING 30-1080p • LIGHTNING 40-1080p • LIGHTNING 45-1080p • LIGHTNING 1080p Ultra Contrast



## PERFORMANCE SPECIFICATIONS

### Brightness (±10%)

30-1080p: 15,000 ANSI Lumens  
40-1080p: 20,000 ANSI Lumens  
45-1080p: 30,000 ANSI Lumens  
Ultra Contrast: 10,000 ANSI Lumens

### Contrast Ratio (±10%)

30-1080p: 2000:1  
40-1080p: 2000:1  
45-1080p: 2000:1  
Ultra Contrast: 4000:1

### Display Type

3 x .95" Darkchip 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
- High definition RGB and color difference standards
- High definition / standard definition serial digital formats (SD/HD-SDI)

### 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)<sup>1</sup>

30 -1080p: 750 hours  
40/45 -1080p: 500 hours

### Lens Mount

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

### Lens Shift (maximum)

Fixed 1.12 and Zoom Lenses:  
• Vert: +0.5, -0.375 frame; Hor: ±0.1875 frame  
0.67 Fixed lens:  
• Vert: ±0.1 frame; Hor: ±0.1 frame

### Lens Options

0.67 :1 fixed 1.87-2.56 :1 zoom  
1.12 :1 fixed 2.56-4.16 :1 zoom  
1.16- 1.49:1 zoom 4.16-6.96 :1 zoom  
1.39-1.87 :1 zoom 6.16-10.49 :1 zoom

- 1.12:1 Lenses include manual aperture
- High-contrast 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 LIGHTNING 30-1080p, 40-1080p, 45-1080p and 1080p Ultra Contrast. These new Pro Series II projectors employ the latest in dark metal, 3-chip DLP™ technology, and include DPI's exceptional RapidRig™ staging and stacking hardware with integrated pitch, roll and yaw adjustments. When considered along with their 10,000-30,000 ANSI lumen brightness and 2000:1 contrast performance, not to mention the Ultra Contrast's 5000:1 contrast, the 30-1080p, 40-1080p, 45-1080p and 1080p Ultra Contrast are ideally suited for the most challenging staging and large-venue permanent installations in the world.

The LIGHTNING 1080p 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.

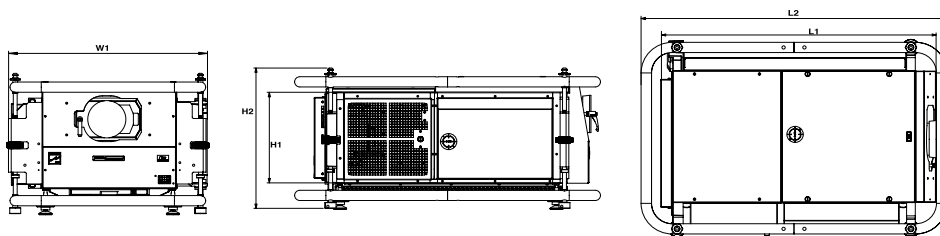
Other key benefits of the LIGHTNING 1080p line include:

- DP's NextGen electronics with class leading video de-interlacing. SD and HD sources are processed using auto 3:2 and 2:2 extraction
- Minimal video delay from input to screen - as low as 1 frame, depending on source
- Sealed optics to protect DMD's and other focal plane components from airborne contaminants
- Six user-selectable inputs including HDCP compliant DVI
- ColorMax calibration capabilities, including enhanced seven-point color correction for broader color space and accurate color alignment
- DP's CoolTek engineering, which delivers the highest lumen performance with the lowest thermal (BTU) and noise level (dB) output
- A range of precision optics with extended lens shift, compatible with all TITAN and LIGHTNING sx+ and 1080p models
- 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 30-1080p, 40-1080p, 45-1080p and 1080p Ultra Contrast Pro Series II projectors - ultra-powerful display systems for major events and applications - bring the precision of Digital Projection to every venue.

## 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	DVI	1
Serial Digital SD/HD-SDI (SMPTE 259M/292M)	BNC	1



### Projector Dimensions

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



## ADVANCED TECHNICAL SPECIFICATIONS

PARAMETERS	LIGHTNING 30-1080p	LIGHTNING 40-1080p	LIGHTNING 45-1080p
Native Color Temperature	6,000°K ±500°K; white balance-adjustment: 3,000°K to 10,000°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 35°C / Storage: -10 to 50°C /		
Operating Humidity	20 to 80% non-condensing		
Thermal Dissipation	13,640 BTU	15,695 BTU maximum	
Fan Noise	Less than 59dB		
Power Requirements	208-240 VAC, 50/60Hz single phase		
Power Consumption	4,000 watts	4,600 watts maximum	

### Projectors

LIGHTNING 30-1080p	107-686
LIGHTNING 30-1080p w/ SDI	108-659
LIGHTNING 40-1080p	107-688
LIGHTNING 40-1080p w/ SDI	108-662
LIGHTNING 45-1080p	109-671
LIGHTNING 1080p Ultra Contrast	108-718

### Part #

107-686
108-659
107-688
108-662
109-671
108-718

### Accessories

LIGHTNING 30 Series Hypercooled Lamp & Housing	103-238
Hypercooled Refurb Lamp & Housing	103-238R
LIGHTNING 40 Series Hypercooled Lamp & Housing	104-578
Hypercooled Refurb Lamp & Housing	104-578R
Lamp Exchange	103-238E
Infrared Remote (Replacement)	105-023

### Part #

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

### Lenses

0.67:1	105-607
1.12:1	105-608
1.12:1 (short)	105-609
1.16 - 1.49	109-236
1.39 - 1.87:1	105-610
1.87 - 2.56:1	105-611
2.56 - 4.16:1	105-612
4.16 - 6.96:1	105-613
6.92 - 10.36:1	109-235

### HB Part #

105-607
105-608
105-609
109-236
105-610
105-611
105-612
105-613
109-235

<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. Installations requiring horizontal or vertical tilt orientations greater than 15 degrees may reduce the actual operational hours of one of the two lamps.

