ENLARGE YOUR VISION

THE NEW LARGE-FORMAT CAMERA SYSTEM

ALEXA LF | Signature Prime

The new large-format camera system

ARRI introduces a complete large-format system that meets and exceeds modern production requirements, delivering unprecedented creative freedom. Based on a large-format 4K version of the ALEXA sensor, the system comprises the ALEXA LF camera, ARRI Signature Prime lenses, LPL lens mount and PL-to-LPL adapter. These system elements have been designed to take full advantage of the enlarged sensor, while also offering compatibility with existing lenses, accessories and workflows.

Shot with ALEXA LF and ARRI Signature Prime lenses

Photo © Thanaporn Arkamanon

"THE ALEXA LF CAMERA AND SIGNATURE PRIME LENSES ARE AN ELEGANT COMBINATION. I LOVE THE LENSES; THEY STRIKE A WONDERFUL BALANCE BETWEEN MODERNITY AND CHARACTER."

Cinematographer Matias Boucard

"WE WERE TRYING TO TELL A STORY ABOUT WIDENESS AND FREEDOM; THE ALEXA LF WORKED REALLY WELL. THE DEPTH OF FIELD IS SO SMALL, CREATING ITS OWN WORLD. IT'S FANTASTIC.

WITH THE 25 MM LENS, YOU FEEL LIKE YOU ARE THERE IN THE SCENE WITH THE ACTORS. THE LENSES ARE LIGHTWEIGHT AND ARE NOT TOO SHARP, BUT WITH A CERTAIN SOFTNESS AND VERY SPECIFIC."

Cinematographer Dan Laustsen ASC, DFF

Photo © Chase Hagen

Photo © Zihao Chen

"I INTENTIONALLY SHOT MUNDANE SUBJECTS I WOULDN'T NORMALLY COVER, AND THE RESULTS GOT ME REALLY EXCITED. THE CAMERA AND LENS CAPTURED EVERY TONAL NUANCE WITH UNMATCHED DETAIL, GRADATION AND COLOR.

I LOVE HOW THE OUT-OF-FOCUS AREAS ARE RENDERED, CONTRIBUTING TO A RICH AND VIVID OVERALL LOOK."

Cinematographer Wang Yu

"TO ME, THE SYSTEM EMBODIES TYPICAL ARRI QUALITY, BUT THERE IS A NEW LEVEL OF EMOTION TO THE IMAGES– A SMOOTHNESS TO THE WAY THE CAMERA AND LENSES WORK TOGETHER."

Cinematographer Tom Fährmann BVK

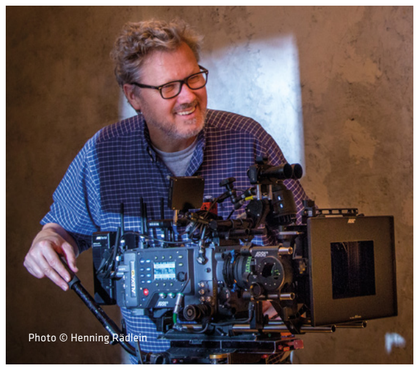
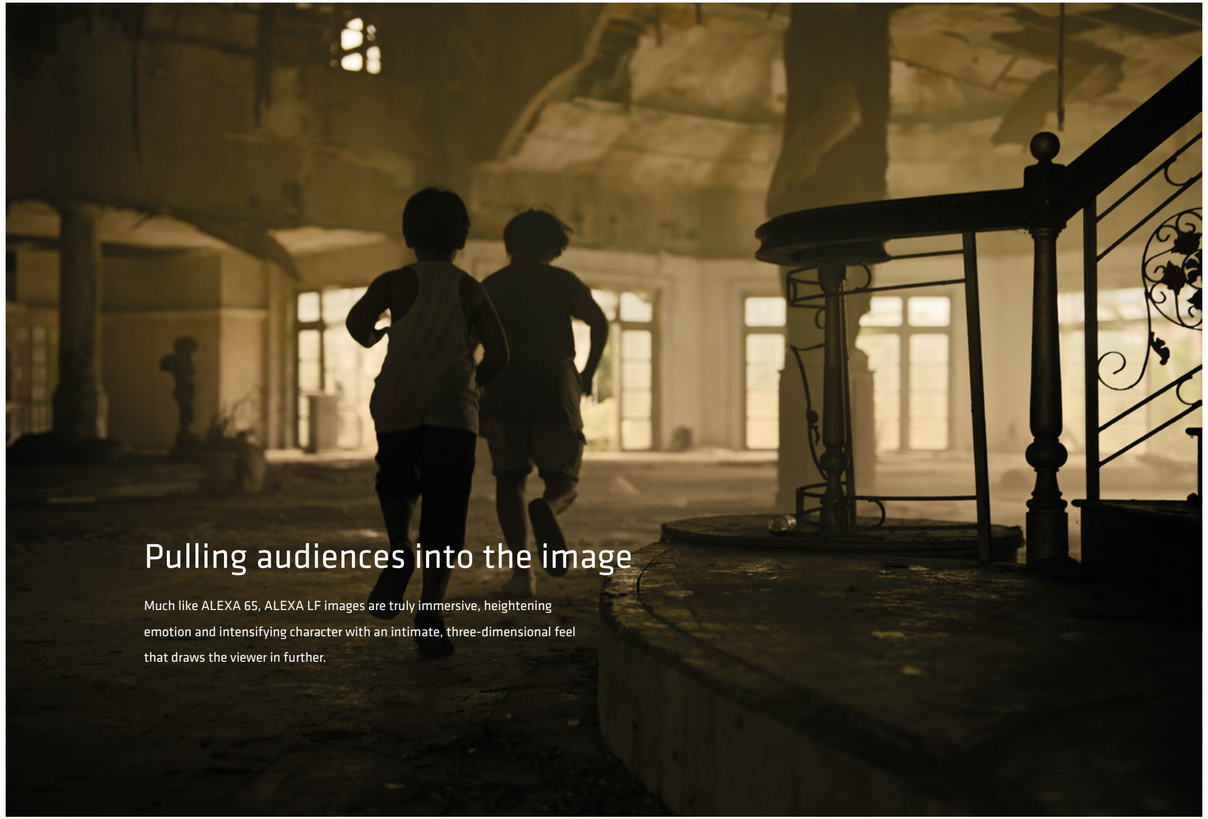


Photo © Henning Radlein



Pulling audiences into the image

Much like ALEXA 65, ALEXA LF images are truly immersive, heightening emotion and intensifying character with an intimate, three-dimensional feel that draws the viewer in further.

Both images shot with ALEXA LF and ARRI Signature Prime lenses

ALEXA LF

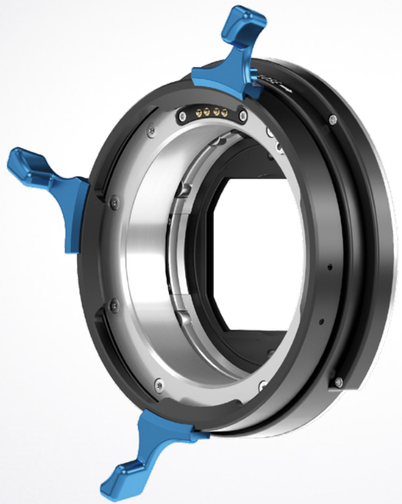
Large-format aesthetic with ALEXA image quality

Featuring a sensor slightly larger than full frame, ALEXA LF records native 4K with ARRI's best overall image quality. This allows filmmakers to explore an immersive large-format aesthetic while retaining the sensor's natural colorimetry, pleasing skin tones and stunning capability for HDR and WCG workflows. Versatile recording formats, including efficient ProRes and uncompressed, unencrypted ARRIRAW up to 150 fps, encompass all on-set workflow requirements.

Three sensor modes for limitless applications

ALEXA LF has the largest sensor of any full-frame cinema camera on the market. Maintaining the ALEXA family's optimal pixel size for highest overall image quality results in a 4448 x 3096 picture, which can be recorded in full using the LF Open Gate mode. An LF 16:9 mode maximizes lens options while meeting 4K deliverable standards, and an LF 2.39:1 mode combines a cinematic widescreen image with high frame rates up to 150 fps for sensuous slow motion. All sensor modes offer true 800 ASA sensitivity as well as reduced noise, providing the perfect canvas for modern, subtle lighting techniques.

	LF Open Gate 36.70 x 25.54 mm 4448 x 3096 ø 44.71 mm		LF 16:9 31.68 x 17.82 mm 3840 x 2160 ø 36.35 mm		LF 2.39:1 36.70 x 15.31 mm 4448 x 1856 photo sites ø 39.76 mm	
Maximum frame rates with SXR Capture Drives Top speed: 150 fps ARRIRAW 100 fps ProRes	ARRIRAW	90 fps	ARRIRAW	90 fps	ARRIRAW	150 fps
	ProRes 422	60 fps	ProRes 422	60 fps	ProRes 422	100 fps
	ProRes 422 HQ	60 fps	ProRes 422 HQ	60 fps	ProRes 422 HQ	100 fps
	ProRes 4444	60 fps	ProRes 4444	60 fps	ProRes 4444	100 fps
	ProRes 4444 XQ	40 fps	ProRes 4444 XQ	60 fps	ProRes 4444 XQ	60 fps
Maximum frame rates with SxS PRO+ cards Top speed: 90 fps ProRes	ARRIRAW	-	ARRIRAW	-	ARRIRAW	-
	ProRes	-	ProRes 422	60 fps	ProRes 422	90 fps
			ProRes 422 HQ	60 fps	ProRes 422 HQ	60 fps
			ProRes 4444	40 fps	ProRes 4444	40 fps
			ProRes 4444 XQ	30 fps	ProRes 4444 XQ	30 fps



A larger mount for a larger format

A crucial element of this new system is the LPL lens mount, optimized for large-format sensors. A wider diameter and shorter flange focal depth allows the ARRI Signature Prime lenses and all future large-format optics to be small and lightweight, with a fast T-stop and pleasing bokeh—a combination of features that would not be possible within the confines of the PL lens mount. The LPL mount will also be available for other ARRI cameras such as the ALEXA Mini, and is being licensed to third-party lens and camera manufacturers.

Shot with ALEXA LF and ARRI Signature Prime lenses

Signature Prime

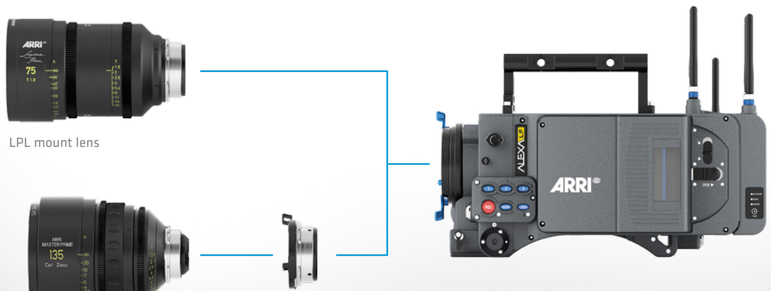
Organic images filled with life and emotion

Accompanying the ALEXA LF camera are 16 large-format ARRI Signature Prime lenses, ranging from 12 mm to 280 mm and fitted with the ARRI LPL mount. While the Signature Primes exemplify state-of-the-art optical precision, they have been designed to render organic, emotionally engaging images, gently softening and texturizing the large format with natural skin tones and creamy bokeh. A fast T-stop of T1.8 facilitates shallow depth of field and the smooth focus fall-off gives subjects heightened presence in the frame.

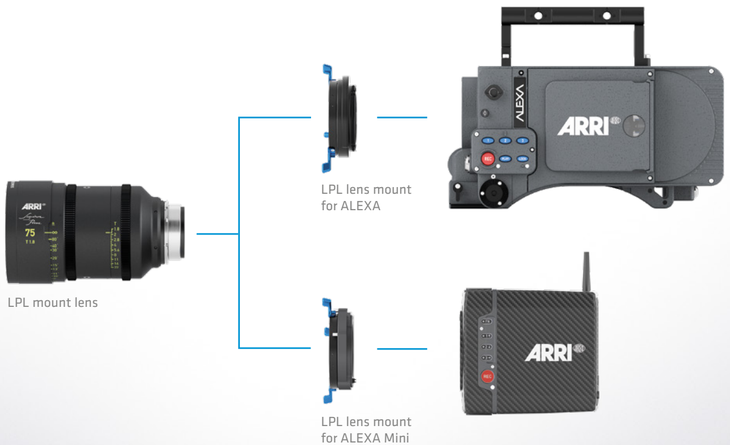
The ARRI Signature Prime range is the first cine lens series to feature machined magnesium lens barrels, making the optics incredibly lightweight and robust. They are also the first to incorporate ARRI's next-generation LDS-2 Lens Data System, with high data rates and absolute encoders for fast initializing. LDS-2 extends the possibilities of lens data and is being licensed to other lens and camera manufacturers.

Total lens and accessory compatibility

Although the camera, lens mount and lenses are new, full compatibility with existing PL mount lenses and ALEXA accessories is a cornerstone of the system's design. A PL-to-LPL adapter offers backwards compatibility with all PL mount lenses, be they Super 35 or full frame. The adapter attaches securely to the LPL lens mount without tools, allowing crews to rapidly switch between PL and LPL lenses on set. Cinematographers are therefore offered an unlimited lens choice, with complete lens metadata accessible from LDS-2, LDS-1 or /i lenses.



For even further cross-system compatibility, an LPL lens mount can be fitted to existing ALEXA, ALEXA Mini and AMIRA cameras. ARRI Signature Primes and other future LPL mount lenses can therefore be used for both Super 35 and large format on productions combining the two.

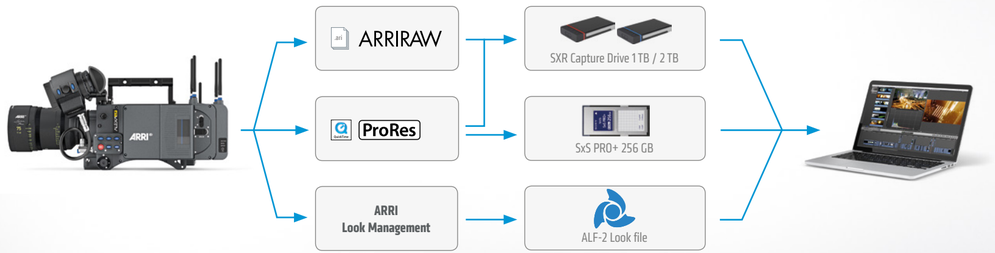


ALEXA LF is based on the proven, robust ALEXA camera design, so all existing accessories will work right out of the box. Since all other features and the user interface are the same as in the ALEXA SXT W–including the integrated wireless video transmitter and the user interface–crews will adapt quickly.

Shot with ALEXA LF and ARRI Signature Prime lenses

Simple ARRI workflows

ALEXA LF offers the same tried-and-true, versatile workflows as other ALEXA cameras. Recording at various resolutions is possible in uncompressed, unencrypted ARRIRAW or fast, efficient ProRes. Existing ARRI Look Files can be used with ALEXA LF, and the entire range of ARRI workflow software tools will support ALEXA large-format images. Lens metadata can be recorded from LDS-1, LDS-2 or /i capable lenses.



Helpful tools and applications

Lens Illumination Guide

A visual online guide to how different lenses illuminate different sensor modes and target aspect ratios.

ARRI Frameline Composer

Easily create custom framelines online, based on your specific requirements.

Formats & Data Rate Calculator

Calculate duration and data rates online for ARRI cameras.

ALEXA LF Camera Simulator

An interactive online training tool for familiarizing yourself with the menu navigation of the ALEXA LF camera.

ARRI Color Tool

Create and load CDLs and 3D LUTs into ARRI cameras with this free-of-charge application.

ARRIRAW Converter

View and convert ARRIRAW for postproduction with this free-of-charge application.

ARRI Meta Extract

Use this free-of-charge application to extract metadata from captured footage.

ALEXA LF technical details

Camera Type	Large Format (LF) digital camera with electronic viewfinder EVF-1 and built-in radios for ARRI Wireless Remote System, ARRI Wireless Video System and WiFi	
Compatibility	All current ARRI ALEXA accessories, LPL lenses and PL lenses with PL-to-LPL adapter	
Sensor Mode LF Open Gate	36.70 x 25.54 mm 4448 x 3096, ø 44.71 mm	ARRIRAW: 0.75 - 90 fps ProRes: 0.75 – up to 60 fps
Sensor Mode LF 16:9	31.68 x 17.82 mm 3840 x 2160, ø 36.35 mm	ARRIRAW: 0.75 - 90 fps ProRes: 0.75 – 60 fps
Sensor Mode LF 2.39:1	36.70 x 15.31 mm 4448 x 1856, ø 39.76 mm	ARRIRAW: 0.75 - 150 fps ProRes: 0.75 – up to 100 fps
Shutter	Electronic rolling shutter, 5.0° - 358.0°	
Internal ND Filter	One of 8 available Large Format Full Spectrum Neutral Density (LF FSND) filters can be inserted manually in front of the sensor (ND 0.3 to ND 2.4)	
Exposure Latitude	14+ stops	
Exposure Index	EI 800	
Sound Level	≤ 20 db(A) while recording LF Open Gate ProRes 4.5K 4444 @ 30 fps and ≤ +30° Celsius (≤ +86° Fahrenheit), measured 1 m/3 feet in front of the lens	
Power In	11.5 to 34 V DC	
Power Out	4x RS (24 V), 1x 12V (12 V), 1x EXT (24 V), 1x ETH (24 V)	
Weight (body + LPL)	7.8 kg/17.2 lbs.	
Dimensions (body + LPL)	L 364 mm/14.33" W 201 mm/7.91" H 158 mm/6.22"	
Operating Temperature	-20° C to +45° C (-4° F to +113° F)	
Lens Mount	62 mm LPL mount (LDS-1, LDS-2 & /i)	
Flange Focal Depth	44 mm	
Recording Codecs	ARRIRAW (.ari) QuickTime/ProRes (422, 422 HQ, 4444 & 4444 XQ)	
Recording Resolutions	4.5K (sensor modes LF Open Gate and LF 2.39:1) UHD (sensor mode LF 16:9) 2K 16:9 (in-camera downscale in sensor mode LF 16:9) HD 16:9 (in-camera downscale in sensor mode LF 16:9)	
Supported Media	SxS PRO+ 256 GB (ProRes) SXR Capture Drives 1 TB (ARRIRAW or ProRes) SXR Capture Drives 2 TB (ARRIRAW or ProRes)	
Monitor Outputs	MON OUT 1a, 1b and 2: SDI 6G UHD or SDI 1.5G HD up to 30 fps MON OUT 3: SDI 1.5 G HD up to 30 fps, also wireless video Anamorphic de-squeeze for 1.25x, 1.3x, 1.5x, 2x lens squeeze ratios	
Image Processing	16 bit linear in ALEXA Wide Gamut/Log C color space Target output color spaces: Log C, Rec 709 or Rec 2020 Supports ARRI Look File (ALF-2) with CDL values and a 3D LUT ARRI Look Files available for SDR, HDR PQ and HDR HLG	
Playback	ARRIRAW or ProRes	
Audio	1x XLR 5 pin AUDIO IN for 2 channels, line level	

Signature Prime technical details

Name	ARRI SIGNATURE PRIME 18/T1.8	ARRI SIGNATURE PRIME 21/T1.8	ARRI SIGNATURE PRIME 25/T1.8	ARRI SIGNATURE PRIME 29/T1.8
Release	2018	2018	2018	2018
Lens Mount	LPL	LPL	LPL	LPL
MOD from sensor plane (minimum marked disctance)	0.35 m / 14"	0.35 m / 14"	0.35 m / 14"	0.35 m / 14"
MOD from lens front	0.13 m / 5.1"	0.13 m / 5.1"	0.13 m / 5.1"	0.13 m / 5.1"
Length from flange	178 mm / 7.01"	178 mm / 7.01"	178 mm / 7.01"	178 mm / 7.01"
Magnification Ratio at MOD (Paraxial)	1:9.2	1:8.2	1:7.1	1:6.4
Entrance pupil position (related to image plane, in direction to object)	189.9 mm / 7.48"	183.4 mm / 7.22"	178.1 mm / 7.01"	166.0 mm / 6.54"
Angle of view H - V - D for LF Open Gate	91.4° / 71.0° / 102.6°	82.8° / 63.0° / 94.0°	73.0° / 54.4° / 84.0°	65.2° / 47.8° / 75.8°
Front diameter	114 mm / 4.49"	114 mm / 4.49"	114 mm / 4.49"	114 mm / 4.49"
Maximum housing diameter	115 mm / 4.53"	115 mm / 4.53"	115 mm / 4.53"	115 mm / 4.53"
Weight (lens only)	2.0 kg / 4.4 lb	1.9 kg / 4.2 lb	1.9 kg / 4.2 lb	1.8 kg / 4.0 lb

Name	ARRI SIGNATURE PRIME 35/T1.8	ARRI SIGNATURE PRIME 40/T1.8	ARRI SIGNATURE PRIME 47/T1.8	ARRI SIGNATURE PRIME 58/T1.8
Release	2018	2018	2018	2018
Lens Mount	LPL	LPL	LPL	LPL
MOD from sensor plane (minimum marked disctance)	0.35 m / 14"	0.35 m / 14"	0.45 m / 18"	0.45 m / 18"
MOD from lens front	0.13 m / 5.1"	0.13 m / 5.1"	0.23 m / 9.0"	0.23 m / 9.0"
Length from flange	178 mm / 7.01"	178 mm / 7.01"	178 mm / 7.01"	178 mm / 7.01"
Magnification Ratio at MOD (Paraxial)	1:5.4	1:4.8	1:6.3	1:5.3
Entrance pupil position (related to image plane, in direction to object)	162.5 mm / 6.40"	159.8 mm / 6.29"	156.1 mm / 6.15"	145.4 mm / 5.72"
Angle of view H - V - D for LF Open Gate	55.4° /40.2° / 65.2°	49.2° / 35.4° / 58.2°	42.6° / 30.4° / 50.8°	34.8° / 24.8° / 41.8°
Front diameter	114 mm / 4.49"	114 mm / 4.49"	114 mm / 4.49"	114 mm / 4.49"
Maximum housing diameter	115 mm / 4.53"	115 mm / 4.53"	115 mm / 4.53"	115 mm / 4.53"
Weight (lens only)	1.7 kg / 3.7 lb	1.8 km / 4.0 lb	1.8 kg / 4.0 lb	2.0 kg / 4.4 lb

Name	ARRI SIGNATURE PRIME 75/T1.8	ARRI SIGNATURE PRIME 95/T1.8	ARRI SIGNATURE PRIME 125/T1.8	ARRI SIGNATURE PRIME 150/T1.8
Release	2018	2018	2018	2018
Lens Mount	LPL	LPL	LPL	LPL
MOD from sensor plane (minimum marked disctance)	0.65 m / 26"	0.85 m / 3' 1"	1 m / 3' 4"	1.5 m / 5'
MOD from lens front	0.43 m / 16.9"	0.63 m / 2' 1"	0.78 m / 2' 7"	1.25 m / 4' 2"
Length from flange	178 mm / 7.01"	178 mm / 7.01"	178 mm / 7.01"	208 mm / 8.19"
Magnification Ratio at MOD (Paraxial)	1:7.2	1:7.9	1:7.0	1:9.0
Entrance pupil position (related to image plane, in direction to object)	118.6 mm / 4.67"	86.6 mm / 3.41"	66.3 mm / 2.61"	145.4 mm / 5.72"
Angle of view H - V - D for LF Open Gate	27.6° / 19.4° / 33.2°	21.8° / 15.2° / 26.4°	16.6° / 11.6° / 20.2°	13.8° / 9.8° / 16.8°
Front diameter	114 mm / 4.49"	114 mm / 4.49"	114 mm / 4.49"	114 mm / 4.49"
Maximum housing diameter	115 mm / 4.53"	115 mm / 4.53"	115 mm / 4.53"	135 mm / 5.31"
Weight (lens only)	1.9 kg / 4.2 lb	2.4 kg / 5.3 lb	2.3 kg / 5.1 lb	3.5 kg / 7.7 lb

Name	ARRI SIGNATURE PRIME 200/T2.5	ARRI SIGNATURE PRIME 12/T1.8	ARRI SIGNATURE PRIME 15/T1.8	ARRI SIGNATURE PRIME 280/T2.8
Release	2018	2019	2019	2019
Lens Mount	LPL	LPL	LPL	LPL
MOD from sensor plane (minimum marked disctance)	1.8 m / 6'	0.35 m / 14"	0.35 m / 14"	2.5 m / 8' 2"
MOD from lens front	1.54 m / 5'	tbd	tbd	tbd
Length from flange	218 mm / 8.58"	tbd	tbd	tbd
Magnification Ratio at MOD (Paraxial)	1:8.3	tbd	tbd	tbd
Entrance pupil position (related to image plane, in direction to object)	48.0 mm / 1.89"	tbd	tbd	tbd
Angle of view H - V - D for LF Open Gate	10.4° / 7.2° / 12.6°	113.6° / 93.6° / 123.5°	101.5° / 80.8° / 112.3°	7.5° / 5.2° / 9.1°
Front diameter	114 mm / 4.49"	tbd	tbd	134 mm / 5.28"
Maximum housing diameter	135 mm / 5.31"	tbd	tbd	tbd
Weight (lens only)	3.6 kg / 7.9 lb	tbd	tbd	5.5 kg / 12.1 lb

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Visit the website to learn more and book a training course:

www.arri.com/academy

ARRI ACADEMY

All images shot with ALEXA LF and ARRI Signature Prime lenses

Watch the showreels:
www.arri.com/largeformat

ALEXA LF | Signature Prime