

## GADGETS

# Prime Imagery

LARGE-FORMAT LENSES SHAPE VISUAL STORYTELLING | BY DARON JAMES

Every story evokes a distinct visual tone. Lenses help detail the style. In the Summer 2019 issue we detailed how large-format digital cameras are becoming commonly used. Large-format lenses are following suit, capable of covering the larger image circles without a crop factor. With a dense field to choose from—including additional options from Canon, Rokinon, Tokina and Zeiss—here are five companies offering prime lens choices.

## ▶ ARRI PRIME DNA

### THE INNOVATION:

Developed for the ALEXA 65 camera platform, each lens can be customized to create an inimitable visual palette—one that matches the artistic style and emotion of the story. ARRI combined vintage optics with modern housing to help soften the digital look and keep up with complex workflow demands. Since being introduced, ARRI has expanded its customizable lenses to other formats with DNA LF—lenses designed with a 49mm image circle to match the sensor of ALEXA LF and ALEXA Mini LF cameras.

### IN PRACTICE:

The versatile lenses have been attached to Barry Jenkins' *If Beale Street Could Talk* and Ron Howard's *Solo: A Star Wars Story*. Recently, *Joker* director Todd Phillips paired multiple Prime DNA lenses of different focal lengths with the ALEXA 65 to stylize its visual language. Each spherical lens was detuned in a way to give a portrait-style feel and a distinct bokeh effect.



### THE SPECS:

**Focal Lengths:**  
35mm - 200mm

**Aperture:** T1.6 or higher  
(depending on lens)

**Image Circle:** 62mm

## ▶ COOKE - S7/I

### THE INNOVATION:

Cooke, which has manufactured lenses since 1894, is known for creating sharp images that have a sense of depth and shape with warm and natural tones. The “Cooke Look” continues for full-frame sensors and beyond with the S7/i lenses. Cooke stands out for its consistent color balance across focal lengths and control of flare, distortion and aberrations at full aperture. Integrated Cooke i/Technology collects detailed lens data, including focus distance, aperture and depth-of-field for production and VFX teams to reference. The technology is an open protocol aimed to create workflow standards by making equipment digitally compatible.

### IN PRACTICE:

Director Richard Shepard and cinematographer Vanja Černjul shot *The Perfection*, starring Allison Williams, using Cooke Optics' S7/i Full Frame Plus and Anamorphic/i lenses. “The structure of the story was told in three sections, and we wanted each section to have a different feel and color palette,” says Shepard. “We didn't want it to be over the top or too obvious but subtle enough so you could still feel it. We were able to accomplish this visually in part through lens choice.”



### THE SPECS:

**Focal Lengths:**  
16mm - 180mm

**Aperture:** T2

**Image Circle:**  
46.31mm

## ▶ LEITZ THALIA

### THE INNOVATION:

Capable of covering the ALEXA 65 sensor, Thalia lenses are loosely based on the Leica S-Lens series but with significant changes, including iris design, coatings and housing. Lightweight and compact, each focal length touts a consistent look, and the iris keeps a circular shape through the entire aperture range. Visually, the images are not overly sharp and skin tones are natural and smooth, with accurate color rendition. The bokeh is smooth and full of character. The lenses are available in PL, LPL and XPL mount with Cooke i/Technology. The company also has introduced a new set of Leitz Primes for full-frame image capture.

### IN PRACTICE:

Since released, Thalia lenses have been used on commercials, television series and feature films, most recently *Stranger Things* Season 3 and the HBO series *The Undoing* from director Susanne Bier and cinematographer Anthony Dod Mantle.



### THE SPECS:

**Focal Lengths:** 24mm - 180mm

**Aperture:** T2.2 or higher (depending on lens)

**Image Circle:** 60mm



## ▶ PANAVISION PRIMO ARTISTE

### THE INNOVATION:

Panavision has deep roots in film dating back to the CinemaScope era of the 1950s and is widely known today for lens customization, whether for rehousing, coating, detuning, flare, glass arrangement or anything in between. The Primo Artiste was born out of the most requested customizations of its Primo 70 line. The large-format optics include a fully internalized motor, focus breathing control and metadata compatibility. Mechanically, they're as flexible as the Primo 70s but aesthetically offer a softer, champagne look reminiscent of vintage lenses.

### IN PRACTICE:

*Just Mercy* director Destin Daniel Cretton embraced large format for its wider field of view and intimate portrait aesthetic. "We wanted the audience to be so close to these characters that sometimes it might feel uncomfortable," says Cretton. "I think that's one of the most interesting things about this format and lensing, to be so close to the performances, but still feel the set and surroundings, without feeling claustrophobic."

### THE SPECS:

**Focal Lengths:** 27 mm - 250mm

**Aperture:** T1.8 or higher (depending on lens)

**Image Circle:** 46mm or larger (depending on lens)

## ▶ SIGMA FF HIGH SPEED PRIMES

### THE INNOVATION:

Sigma is fairly new when it comes to cine lens development, but the FF High Speed Primes do not compromise. Optically, the lenses are ready for high-resolution 6K-8K shooting with edge-to-edge sharpness, a fast T-stop and a pleasing bokeh. Built with an aluminum body and a steel mount (PL, EF or E), they're fairly compact. Since their introduction, Sigma has released a second full-frame prime line called Classic Art Primes, which have a monolayer coating for warmer color tones. What makes them unique is their price point: A full set costs substantially less than most competitors.

### IN PRACTICE:

In filming *Top Gun: Maverick*, director Joseph Kosinski reconnected with cinematographer Claudio Miranda to frame the sequel to *Top Gun* (1986), using a complete set of FF High Speed Primes with i/Technology in combination with Fuji and Zeiss lenses for principal photography.



### THE SPECS:

**Focal Lengths:** 14mm - 135mm

**Aperture:** T1.5 or higher (depending on lens)

**Image Circle:** 43.3mm

## Visualizing Through Aspect Ratio

BY DARON JAMES

➤ Simply put, aspect ratio is a shape. Choosing one is crucial, however, as it affects the creative direction and mood of a story. Here's a look at some of the most-used aspect ratios in cinema and television history.



### ▶1.33:1 – Silent films (1892)

In 1909, Thomas Edison drafted cinema standards that included a 4:3 (1.33:1) aspect ratio. Countless classic films, including *A Trip to the Moon* (1902), Chaplin's *The Kid* (1921) and Hitchcock's *The Lodger: A Story of the London Fog* (1927) took to the format, and all of television was made this way until the advent of widescreen 16:9 (1.78:1).



### ▶1.19:1 (1.20:1) – Movietone (1926-1932)

"Talkies" devised several methods to deliver sound and picture. Movietone was commercialized by William Fox, which printed the soundtrack directly on the negative, altering the aspect ratio to 1.19:1. *Sunrise* (1927), directed by F.W. Murnau, was the first, followed by *Mother Knows Best* (1928) and Fritz Lang's *M* (1931). Recently, Robert Eggers used the aspect ratio on *The Lighthouse* (2019).



### ▶1.37:1 – Academy Ratio (1932)

The Academy of Motion Picture Arts and Sciences stepped in to standardize the picture and sound negative to 1.37:1, which dominated for more than 20 years. *The Wizard of Oz* (1939), Orson Welles' *Citizen Kane* (1941) and *Casablanca* (1942) are the most famous examples of films exhibited in this format. Contemporary films *Fish Tank* (2009), *Ida* (2013) and *The Grand Budapest Hotel* (2014) were framed with it too.



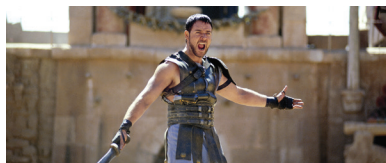
### ▶2.59:1 – Cinerama (1952)

Moviegoers were introduced to widescreen for the first time with *This Is Cinerama* (1952), which projected three standard 35mm images onto a giant curved screen. *Seven Wonders of the World* (1956) and *How the West Was Won* (1962) famously utilized the ratio before Ultra Panavision 70 and Super Panavision 70 gained popularity.



### ▶1.85:1 – VistaVision (1954)

Paramount Pictures created the look by rotating the standard 35mm film 90 degrees for a larger image. It's one of the most common projected ratios in film today. Hitchcock's *Catch a Thief* (1955) and *Vertigo* (1958) harnessed the style. Martin Scorsese framed *Taxi Driver* (1976) in 1.85:1, and Guillermo del Toro followed suit for *The Shape of Water* (2017).



### ▶2.35:1 to 2.66:1 (2.39:1) – CinemaScope (1954)

While CinemaScope fizzled in the 1960s, the aspect ratio lives on with massive popularity in part by the advancement in digital cameras and use of anamorphic lenses. It's become the widescreen standard for cinema where nearly every major motion picture or indie film is finished in it. Ridley Scott's *Gladiator* (2000), Peter Jackson's *Lord of the Rings* trilogy (2001-2003) and Dennis Villeneuve's *Blade Runner 2049* (2017) showcase the format.



### ▶2.76:1 – Ultra Panavision/MGM 65 (1957)

*Ben-Hur* (1959) was an early adopter of the technology that allowed for a single camera to project wide images, unlike its Cinerama counterpart. Quentin Tarantino's *The Hateful Eight* (2015) recently revisited the format.



### ▶2.20:1 – Super Panavision 70 (1959)

David Lean's *Lawrence of Arabia* (1962). Need we say more?



### ▶1.43:1 (1.90:1) – IMAX (1970)

The well-known format runs 70mm horizontally, improving resolution and quality. *Tiger Child* (1970) was the first, and today, directors such as Christopher Nolan capture specific scenes with it, such as in *The Dark Knight* (2008) and *Interstellar* (2014).