



# Cooke <sup>MINI</sup>S4/<sub>f</sub> Lenses



## S4 Quality Deserves The S4 Name

The <sup>MINI</sup>S4/<sub>f</sub> lenses incorporate everything today's filmmakers ask for: smaller, lighter-weight lenses that offer the same resolution, optical quality and reliability as the S4/<sub>f</sub> lenses, but at a lower price – and, they are interchangeable for shooting film and digital images up to and beyond a 4K resolution.

Cooke <sup>MINI</sup>S4/<sub>f</sub> Prime Lenses are designed and developed in close technical collaboration with industry professionals. They are colour-matched and compatible with Cooke S4/<sub>f</sub>, 5/<sub>f</sub>, CXX 15-40 mm T2 S4/<sub>f</sub> Zoom, 18-100mm T3.0, 25-250mm T3.7 and the SK4 16mm lenses.

<sup>MINI</sup>S4/<sub>f</sub> optics offer superb optical and mechanical performance, control of flare, distortion, veiling glare and spherical aberrations at full aperture. The cam-type focus mechanism allows for smooth focus adjustments. Modular construction increases ease of maintenance and serviceability. Cooke <sup>MINI</sup>S4/<sub>f</sub> lenses are manufactured by us to our traditional high standards in Leicester, England.

### Feature Highlights

- Lenses available 18, 25, 32, 50, 65, 75, 100 and 135mm
- T2.8 to T22 aperture
- Colour matched with all other Cooke lenses
- <sub>f</sub> Technology included as standard
- Lightweight
- Cooke quality and S4/<sub>f</sub> like construction
- Linear iris
- Cam-style focus

### <sub>f</sub> Technology

All of our <sup>MINI</sup>S4/<sub>f</sub> Prime lenses are supplied with <sub>f</sub> Technology, and are designed for all PL mounted professional motion picture film and electronic cameras. Cooke's <sub>f</sub> Technology provides cinematographers and camera operators with vital information on lens setting, focusing distance, aperture and depth-of-field, hyperfocal distance, serial number, owner data, lens type and focal length in both metric and footage measurements. All the information is captured downstream for use in post-production.



# Technical Specifications



## Optical Design

The optics are designed to give maximum performance at full aperture with superior control of flare, distortion and spherical aberration.

## $\frac{1}{8}$ Electronics

Accessible via contacts in mount that sync with  $\frac{1}{8}$  compatible cameras and accessories

## Colour Balance

All <sup>mini</sup>S4/ $\frac{1}{8}$  prime lenses are colour balanced to a specification within parameters approved by Kodak

## Aperture

All <sup>mini</sup>S4/ $\frac{1}{8}$  primes have a true T2.8 aperture and cover Super 35mm format.

## Index Marks

Every index mark is labelled. More detailed markings allow for more detailed focus control.

## Focus Movement

Our Academy Award® winning cam-style focus movement coupled with the added benefit of a large lens barrel diameter, has allowed for an increased number of focus markings, particularly at close focus. Spherical aberration has been controlled throughout the range of focal lengths to eliminate the need to compensate for changes in back focus with aperture. A four-point contact bearing provides a smooth positive backlash-free movement.

## Camera Mounts

Arriflex PL Mount

## Focus Scaling

Large, clear numerals on both sides of the focus barrel benefit the focus puller when shooting under difficult lighting conditions.

## Compatibility

All Cooke <sup>mini</sup>S4/ $\frac{1}{8}$  primes, except the 18mm, have a common fixed front diameter of 87mm, with a focus drive gear of 121T x 0.8 mod and an iris drive gear of 119T x 0.8.

## External Finish

A scratch resistant PTFE hard anodised finish is provided on all Cooke lenses, providing a durable, hard-wearing surface to meet the most demanding environmental conditions.

## Iris

An eight-leaf linear module iris assembly is fitted into <sup>mini</sup>S4/ $\frac{1}{8}$  primes with an aperture range of T2.8 to T22.

## Weight/Size Ratio

The lenses are designed for all shooting applications, including handheld and Steadicam, providing comfortable balance ratio with the latest compact cameras.

## Reliability and Service

<sup>mini</sup>S4/ $\frac{1}{8}$  prime lenses are designed to meet a market requirement for fully reliable performance with a minimum of downtime.

## Cases Available

# MINI S4/i Range of Lenses

	Units	18mm	25mm	32mm	50mm	65mm	75mm	100mm	135mm
<b>T Stop Range</b>		T2.8 - T22	T2.8 - T22	T2.8 - T22	T2.8 - T22	T2.8 - T22	T2.8 - T22	T2.8 - T22	T2.8 - T22
<b>Angular Rotation of Iris Scale</b>	Degrees	77	77	77	77	77	77	77	96
<b>Minimum Marked Object Distance</b>	mm inches	250 10	250 10	300 12	500 20	TBD	750 30	900 36	1000 39
<b>Close Focus from Lens Front</b>	mm inches	80 3	93 4	139 5	311 12	TBD	564 22	711 28	790 31
<b>Angular Rotation to MOD Endstop</b>	Degrees	300	300	300	300	300	300	300	300
<b>Maximum Diagonal Angle for S35 Format</b>	Degrees	80	62	50	34	TBD	22	17	14.16
<b>Length from Front of Lens to Lens Mount</b>	mm inches	120 4.72	106 4.17	110 4.33	137 5.39	TBD	137 5.39	137 5.39	157.8 6.21
<b>Maximum Front Diameter</b>	mm inches	110 4.33	87 3.43	87 3.43	87 3.43	87 3.43	87 3.43	87 3.43	87 3.43
<b>Total Weight</b>	kg lbs	1.3 2.86	1.4 3.08	1.6 3.52	1.5 3.30	TBD	1.6 3.52	1.6 3.52	1.8 3.96
<b>Max. Format Covered</b>	33.54mm Diagonal, Red EPIC S35 Format								
<b>Focus Scales</b>	Two opposing focus scales - metric or footage. Scales marked from infinity to MOD								
<b>Focus Drive Gear</b>	121 teeth 0.8 metric module x 5.0 wide x 99 from the image plane								
<b>Iris Scales</b>	Two opposing linear T scales - whole and third stops marked								
<b>Iris Drive Gear</b>	119 teeth 0.8 metric module x 2.5 wide x 84 from image plane								
<b>Screw-In Filter</b>	M82 x 0.75 (25mm - 135mm)								

\* Specifications subject to change

## Further resources

Depth of Field charts  
[http://www.cookeoptics.com/cooke.nsf/technical/depth\\_of\\_field\\_charts.html](http://www.cookeoptics.com/cooke.nsf/technical/depth_of_field_charts.html)

Downloads  
<http://www.cookeoptics.com/cooke.nsf/technical/downloads.html>



## About Cooke

**For 100 years, Cooke has been at the centre of the filmmaking business. We've been listening to the community of which we are a part. We lead by introducing new products such as /<sub>8</sub> Technology and now the 5/<sub>8</sub> range, and we remember our success is built on a simple idea – do what the filmmaker needs.**

Our factory in Leicester, England has generations from the same family working side by side. That experience is unbeaten anywhere. We manufacture a full range of primes and zooms for 35mm and digital photography, as well as large format stills lenses.

We know our customers, and they know us, as individuals. Our rental partners do their training next to the craftsman who built their lenses. There are no barriers. We meet our customers at trade shows, on location around the world, and we welcome customers by appointment to our factory in the U.K. for an informal tour and discussion.

Our quality is monitored at every stage of manufacturing. Our Quality Control technicians carry out a 20 point check to ensure that the lenses leaving our factory are made to the highest quality possible. We're intolerant when it comes to tolerances. We research continuously to drive innovation. Our lenses are dependable and practical in use on the set; our optics superb. The lenses are straightforward to maintain – which is why so many rental facilities carry our products. Our manufacturing and testers keep going until we get each lens within our very tight specification. We get it right, whatever it takes.

At the heart of what makes Cooke special is "The Cooke Look". The Cooke Look® is about the science of creating beautiful images for the motion picture industry.

As a result, for over a century, cinematographers have chosen Cooke lenses for a smooth roundness and dimensionality to the picture and for the velvety skin tones that flatter.



## Cooke Contact information

Cooke Optics Ltd.  
Cooke Close  
Thurmaston  
Leicester, LE4 8PT  
United Kingdom  
T +44 (0) 116 264 0700  
F +44 (0) 116 264 0707  
[lenses@cookeoptics.com](mailto:lenses@cookeoptics.com)

All information correct at time of printing.

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