

Cooke Optics Ltd

Super 35mm Coverage of Cooke Varotal (18-100 mm T3.0) and Cooke Cinetal (25-250 mm T3.7)

Jon Maxwell and Trevor Ayrton
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BOTH COOKE VAROTAL AND COOKE CINETAL COVER ALL THE SUPER 35MM CAMERA FORMATS (with the exception of "Camera Full Aperture" commercials on film).

If this claim is unfamiliar to you, or if you are sceptical about it, it is probably because you are aware that the corners of viewfinder ground glasses are not always illuminated by these two lenses. Please read section 4 below, that deals with this issue.

1 Lens Coverage: Cooke Varotal and Cooke Cinetal cover a 28mm image diagonal (a little more actually: 28.2mm for Cooke Varotal and 28.1mm for Cooke Cinetal (but see the note below)). This is the minimum coverage for these lenses, which occurs when they are at their shortest focal length setting, and when they are being used at close focus and stopped down. *Note: When Cooke Cinetal is used at its widest angle focal length (25mm), is stopped down below T11 (larger T numbers) and is used at focussing distances less than 6ft 6in (≈2m) it doesn't quite cover the not-widely-used 1.66:1 Super 35mm format (or Camera Full Aperture commercials on film)*

2 Super 35mm Formats which are smaller than the Camera Full Aperture mask: Both Cooke Varotal and Cooke Cinetal cover all of the following Super 35mm camera formats. These are rationalised to the 24mm width of the largest Super 35mm "camera full aperture" mask, and are listed here in ascending order of negative area:

- (a) 2.35:1 ("Scope S35" Camera gate mask 24mm x 10.5mm, diagonal **26.20mm**)
- (b) 1.85:1 (Camera gate mask 24mm x 13.2mm, diagonal **27.39mm**) *not widely used*
- (c) 1:78:1 ("16x9 TV transmitted S35" Camera gate mask 24mm x 13.5mm, diagonal **27.54mm**)
- (d) 1.66:1 (Camera gate mask 24mm x 14.4mm, diagonal **27.99mm**) *not widely used, and see section 3 below.*

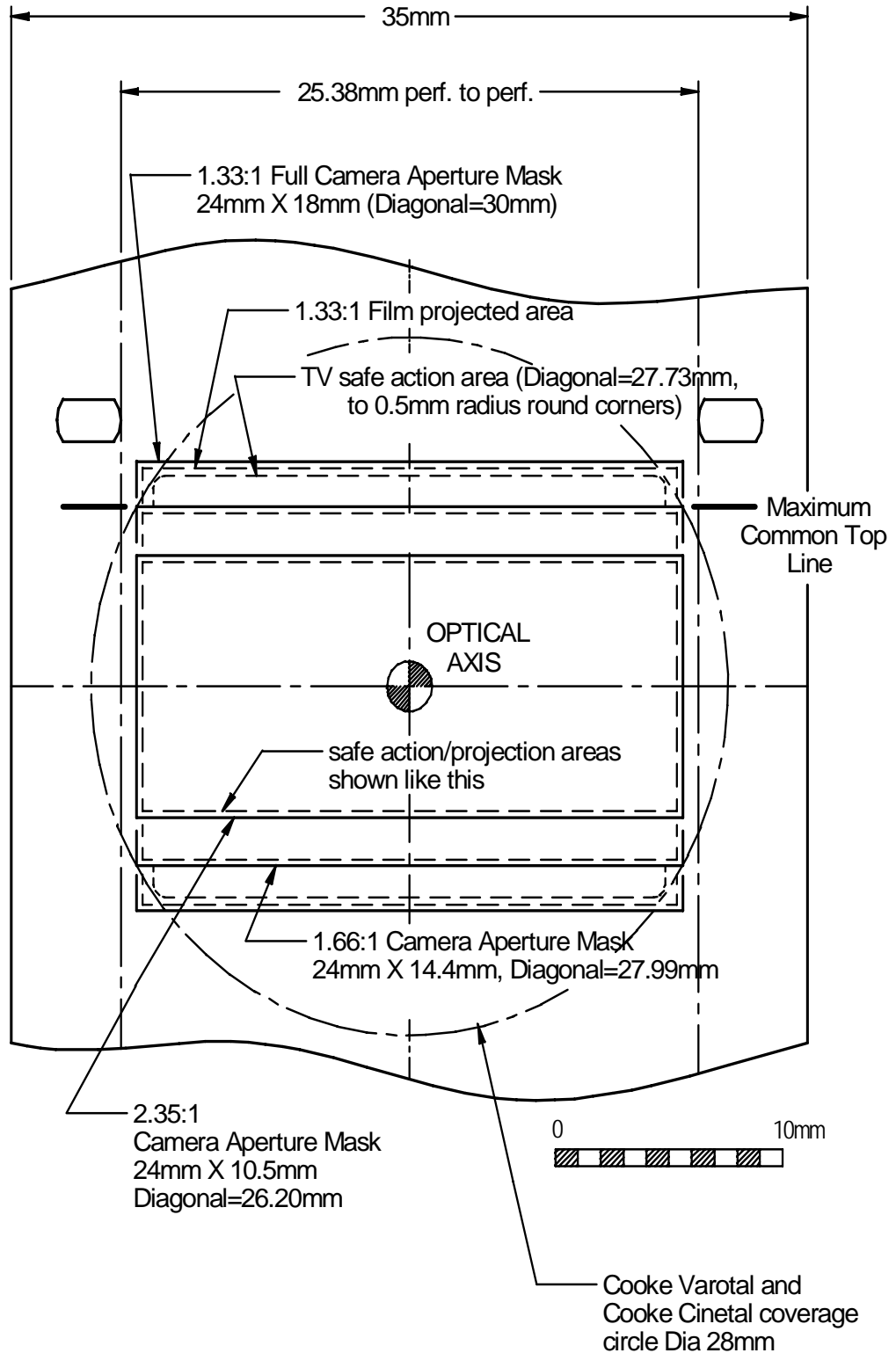
The dimensions given here are the maximum film gate mask dimensions. They are all a minimum of 0.5mm larger than the cinema-projected, or TV safe action areas of these formats (which are the rectangles shown as an engraved line on the viewfinder ground glass).

3 Common top line formats: The not widely used 1.66:1 format is the largest of the formats listed above, and any of the three other formats can be common top-lined with it, or with each other, and still be used with Cooke Varotal and Cooke Cinetal. Having said this, the rather rare 1.33:1 format is at the limit of the film gate mask coverage for these two lenses, *so when you use this format (or any other format common top-lined to it) you should check that you are satisfied with the coverage.*

4 Viewfinder ground glasses: These are always significantly larger than the camera mask dimensions given in section 2, so that the viewfinder displays as much of the action around the captured image as possible. They may be as large as 25 mm x 19mm (eg Arriflex, corresponding to a diagonal of **31.4mm**) In this way, there will *always* be some (purely cosmetic) cutting of the corners of the ground glass image by Cooke Varotal and Cooke Cinetal when they are working at their wide angle setting, *but this is outside the corners of the film gate masks (except in the case of the 1.33:1 full aperture camera mask),* and it only effects the *corners* of the ground glass image, should the camera person be specifically looking there for sound booms etc.

5 The two 1.33:1 Full Camera Aperture Formats used for Commercials:

- (a) Cooke Varotal and Cooke Cinetal both cover the *TV safe action area* of the "Camera full aperture, Silent 1.33:1" format (diagonal to round corners **27.73mm**),
- (b) **However**, *neither of them cover the cinema-projected film format area associated with this camera full aperture mask, which has a **29.3mm** diagonal.*



**Super 35mm Formats
covered by Cooke Varotal
and Cooke Cinetal**