

HC 3,5-4,5/50-110

The HC 50-110mm zoom lens has a range from wide-angle to short telephoto. This lens boasts exceptionally high image quality at all focal length settings, whether shooting film or digital, and is comparable in quality with corresponding fixed focal length lenses.

GENERAL LENS DATA

Focal length	51,6 (108,3)mm
Equivalent 35mm focal length ¹	33,5 (70,2) mm
Aperture range	3,5 (4,5) - 32
Angle of view diag/hor/vert 53,4 x 40 format	66°/55°/43° (35°/28°/21°)
Angle of view diag/hor/vert 44 x 33 format	56°/46°/35° (28°/23°/17°)
Length/diameter	152 mm/103 mm
Weight	1650 g
Filter diameter	95 mm

¹ Horizontal coverage between 53,4 x 40 and 36 x 24 compared

CLOSE FOCUS RANGE DATA

Minimum distance object to film	0,70 m
Maximum image scale	1:10,8 (1:5,2)
Corresponding area of coverage	58 x 43 (28 x 21) cm
Corresponding exposure reduction	0 f-stop



LENS DESIGN

14 elements in 9 groups

FOCUS TYPE

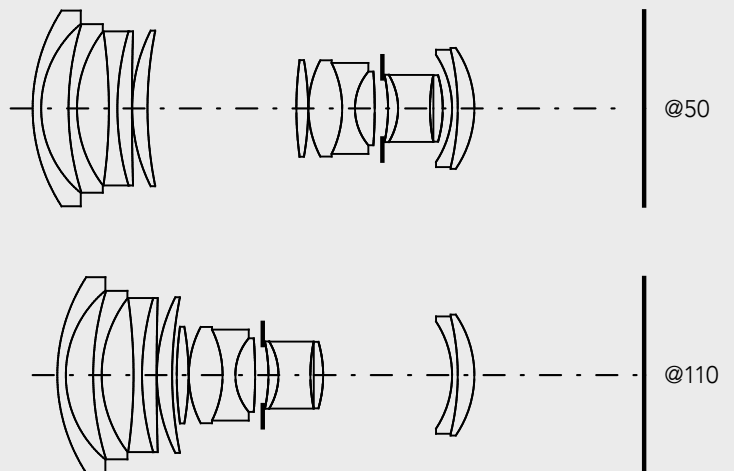
Internal focusing

ENTRANCE PUPIL POSITION

- @50mm: 164 mm
- @80mm: 161 mm
- @110mm: 173 mm

In front of the film plane
(at infinite focus setting)

The entrance pupil position is the correct position of the axis of rotation when making a panorama image by combining individual images of a scene.

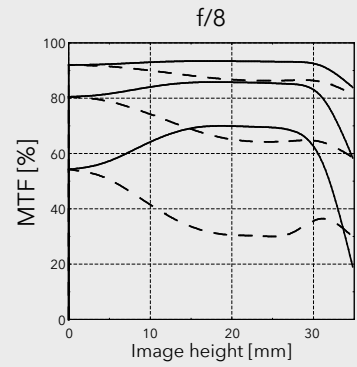
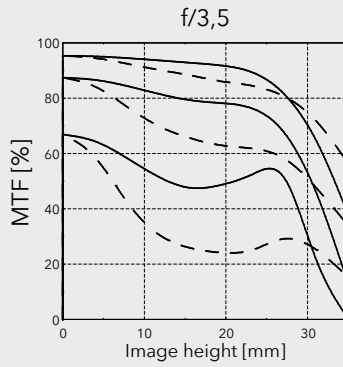


HC 3,5-4,5/50-110

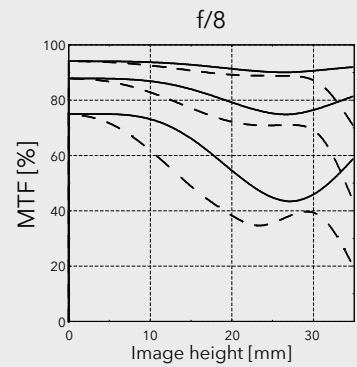
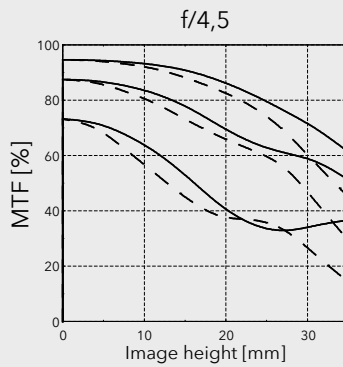
MTF

Modulation Transfer as a function of image height at infinite focus setting.

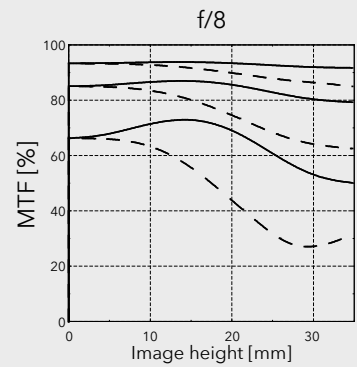
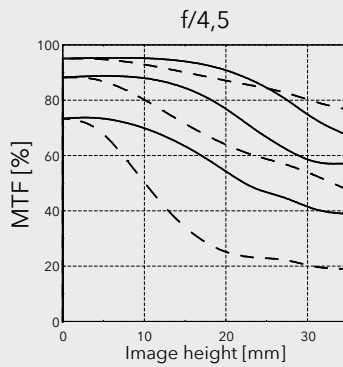
Sagittal slit orientation drawn with continuous line and tangential with dashed. White light. Spatial frequencies 10, 20 and 40 lp/mm



@50



@80

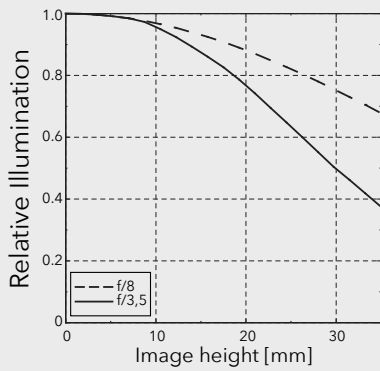


@110

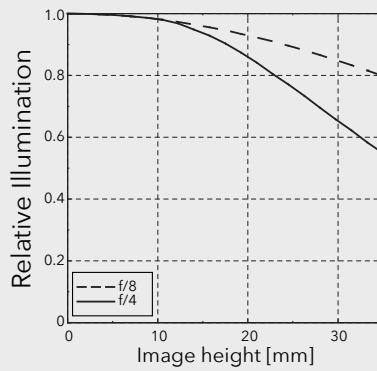
RELATIVE ILLUMINATION

Infinity setting

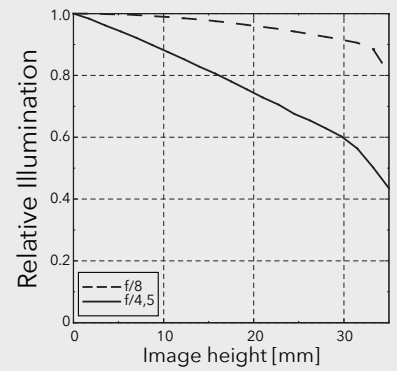
When images are imported to Phocus, light fall-off is automatically removed.



@50



@80

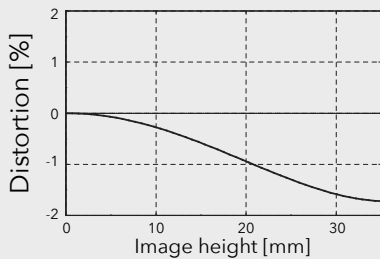


@110

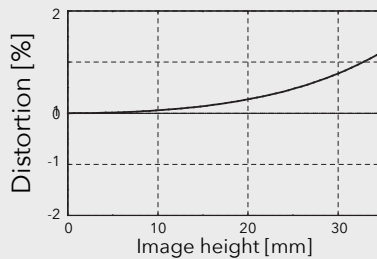
DISTORTION

Infinity setting

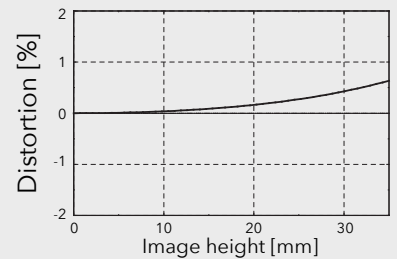
When images are imported to Phocus, distortion is automatically removed.



@50



@80



@110