

## XCD 2,8/135mm

The XCD 135mm is a short telephoto lens with a dedicated 1,7 Converter providing 135 and 230mm focal lengths. It compares to a 105 or 178mm full frame equivalent lens, making it the perfect landscape or portrait lens. The lens features a 1 m close distance setting (1:5.8 and 1:3.4 image scale) and an aperture range between 2,8 and 32 (4,8 - 32 with converter). The XCD 135mm

features full automatic focusing as well as instant manual focus. All XCD lenses contain a lens shutter delivering shutter speeds from 60 minutes to 1/2000 second. Synchronizing with flash at all speeds allows full creative freedom when mixing flash and daylight. The lens shutter also generates very little vibration providing hand-held shots with perfect sharpness.

### GENERAL LENS DATA

Focal length	133 (226) mm
Equivalent Focal length (24x36)	105 (178) mm
Aperture range	2,8 - 32 (4,8 - 32)
Angle of view diag/hor/vert	23°/19°/14° (14°/11°/8°)
Length/diameter	149 mm/81 mm (195 mm/81 mm)
Weight (excl. covers and lens shade)	935 g (1372 g)
Filter diameter	77 mm
Product number XCD 135 Lens	CP.HB.00000243.01
Product number X Converter 1,7	CP.HB.00000334.01

### CLOSE FOCUS RANGE DATA

Minimum distance object to image plane	1.0 (1.05) m
Maximum image scale	1:5.8 (1:3.4)
Corresponding area of coverage	26 x 19 cm (15 x 11)
Corresponding exposure reduction	0 (0) f-stops

Data for Lens + Converter within parenthesis.

### COMPATIBILITY

- Hasselblad X1D cameras



### LENS DESIGN

10 elements in 6 groups

### CONVERTER DESIGN

6 elements in 4 groups

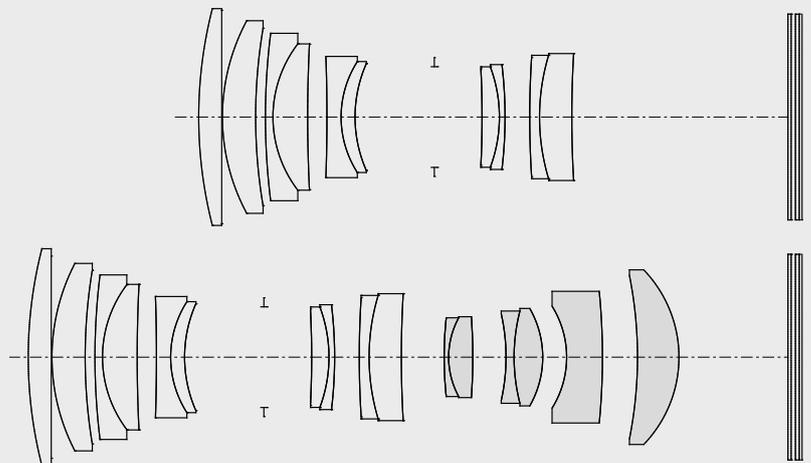
### FOCUS TYPE

Internal focusing

### ENTRANCE PUPIL POSITION

57 mm (102 mm) in front of image plane

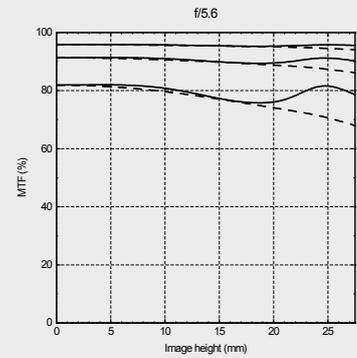
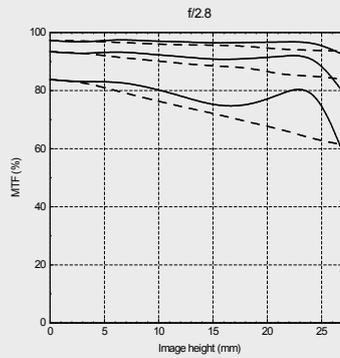
The entrance pupil position is the correct position of the axis of rotation when making a panorama image by combining individual images of a scene.



MTF

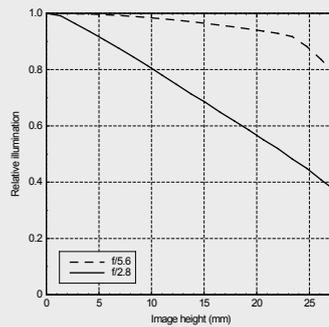
Modulation Transfer as a function of image height at infinity setting.

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



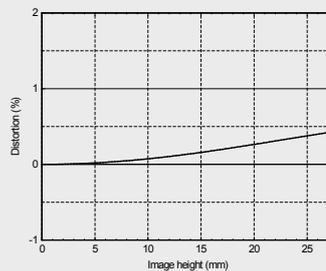
RELATIVE ILLUMINATION

Infinity setting



DISTORTION

Infinity setting

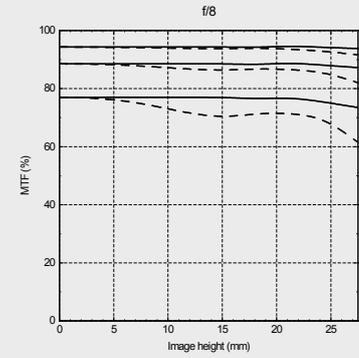
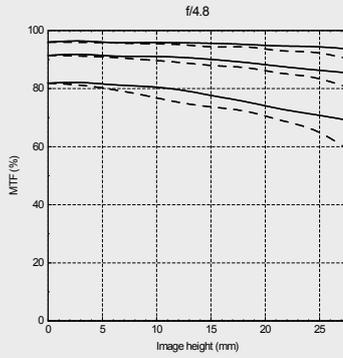


**XCD 2,8/135mm + X Converter 1,7**

MTF

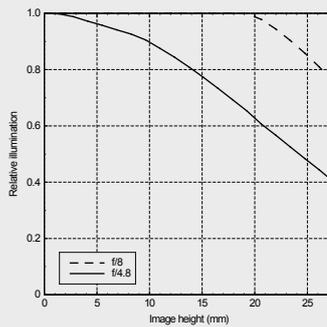
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