### HASSELBLAD HCD 4/28

The HCD 28mm lens has been designed to be compact and to deliver optimal performance when used with the 48\*36mm sensor of the H system digital cameras. Image quality is refined with integral use of Digital Lens Correction which perfects the raw image by digitally removing any color aberration, vignetting and distortion. The resulting raw images have perfect pixel definition optimal for image rendering.

#### GENERAL LENS DATA

Focal length	28.9 mm
Equivavlent 35mm focal length 1)	21.2 mm
Aperture range	4 - 32
Angle of view diag/hor/vert 37x49 format	95°/83°/66°
Length/diameter	102 mm/100 mm
Weight (incl. covers and lens shade)	850 g
Filter diameter	95 mm

 $^{\scriptscriptstyle 1)}$  Horizontal coverage between 37x49 and 24x36 compared

#### CLOSE FOCUS RANGE DATA

Minimum distance object to film	0.35 m
Maximum image scale	1:7.3
Corresponding area of coverage	36 x 27 cm
Corresponding exposure reduction	0 f-stop



#### COMPATIBILITY

- The HCD 4/28 mm is designed for use on the H4X, H2D, H3D, H4D and H5D cameras only.
- The HCD 4/28 mm lens is designed solely for digital use. This means that the lens is designed for a format of 37x49 mm and does not cover the film format (41.5x56mm) and thus the function is disabled when using a film magazine.
- The HCD 4/28 mm lens is not compatible with the converter 1.7x.

### LENS DESIGN

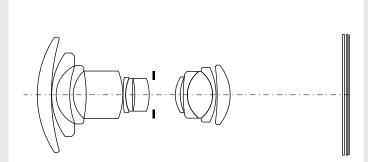
12 elements in 9 groups

FOCUS TYPE Rear focusing

#### ENTRANCE PUPIL POSITION

134 mm in front of the sensor 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.



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# HASSELBLAD

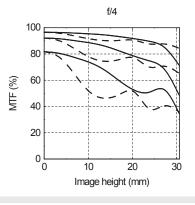
LENSES

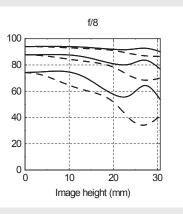
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#### MTF

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

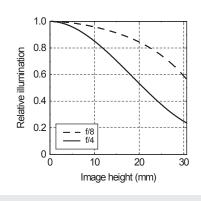
Sagittal slit orientation drawn with continuous line and tangential with dashed. White light. Spatial frequencies 10, 20 and 40 lp/mm

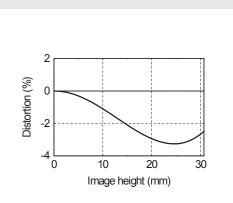




RELATIVE ILLUMINATION Infinity setting

DISTORTION Infinity setting





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www.hasselblad.com