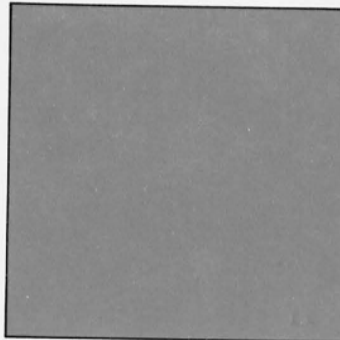


C20-ph 670

S-Planar
f/1.6-50 mm
Cat. No.
107782

Lenses
for
Production of
Micro-
Structures



ZEISS

Carl Zeiss
7082 Oberkochen
West Germany

Reduction ratio	1 : 10
Wavelength range	436 ± 5 nm
Object to image distance	602 ± 4 mm
Image field diameter	14,5 mm
Square image format	10,2 x 10,2 mm
Flange focal distance	24 ± 0,3 mm
Free working distance	min. 10 mm
Length of barrel	160,5 mm
Max. diameter	85,5 mm
Screw thread	M 76 x 1
Entrance pupil:	
Location behind the object	486 mm
Diameter	27,2 mm
Exit pupil:	
Location behind the image	512 mm
Diameter	287 mm
Effective focal length	49,1 mm
Distance of principal points	+ 8 mm
Numerical aperture	0,28
Diffraction limit of resolution	1285 Per/mm
Rayleigh depth in image space	± 2,8 μ

Data on image performance

Full field		
Distortion		max. ± 0,3 μ
Optical transfer factor for incoherent/partially coherent illumination ($\sigma = 0,5$)		
Spatial frequency	Lines and spaces resp.	
250 Per/mm	2 μ	59/92 %
500 Per/mm	1 μ	37/62 %
700 Per/mm	0,7 μ	25/27 %
Restricted field diameter 10 mm		
Distortion		max. ± 0,2 μ
Optical transfer factor for incoherent/partially coherent illumination ($\sigma = 0,5$)		
Spatial frequency	Lines and spaces resp.	
250 Per/mm	2 μ	69/96 %
500 Per/mm	1 μ	46/67 %
700 Per/mm	0,7 μ	30/30%
All data subject to revision		