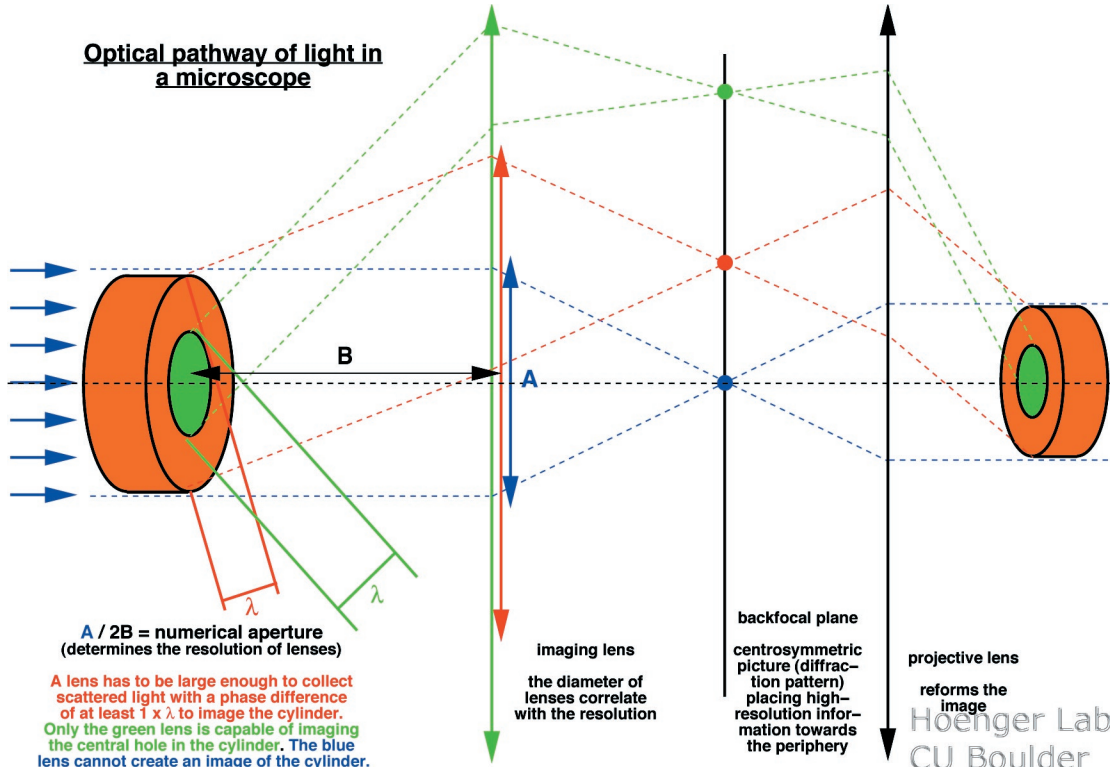


Optical pathway of light in a microscope



$A / 2B = \text{numerical aperture}$
(determines the resolution of lenses)

A lens has to be large enough to collect scattered light with a phase difference of at least $1 \times \lambda$ to image the cylinder.
Only the green lens is capable of imaging the central hole in the cylinder. The blue lens cannot create an image of the cylinder.

imaging lens
the diameter of lenses correlate with the resolution

backfocal plane
centrosymmetric picture (diffraction pattern) placing high-resolution information towards the periphery

projective lens
reforms the image

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