

Even Light, Sharp Image. Set Up Köhler.

A quick reference for getting even, glare-free illumination on a brightfield lab microscope.

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Most bad images are a setup problem

Uneven brightness, glare, or a washed-out image usually comes down to how the light is set up, not the scope. Köhler setup takes two minutes and gives you the best image your microscope can make.



SCAN FOR VIDEO

✓ Do This

Focus a slide at 10x first

Raise the condenser close to the top before you start.

Close the field diaphragm

The ring on the base. Close it until a small bright shape appears.

Focus, then center the condenser

Raise or lower it until the edges are sharp, then center it with the centering screws.

Open the field just past the view

Stop as the edges leave the field of view.

Set the aperture to cover 20 to 30%

Remove one eyepiece, look down the tube, and close the aperture diaphragm until it covers 20 to 30% of the bright circle.

Repeat for a big power change

Switching to a much higher or lower objective? Run the setup again.

✗ Avoid This

Using the aperture for brightness

It controls contrast and resolution. Use the brightness dial.

Opening the field all the way

Extra field only adds glare and washes out contrast.

Leaving the condenser cranked down

A low condenser gives a dim, flat, uneven image.

Closing the aperture too far

Contrast goes up, but fine detail disappears.

Forcing centering screws

Won't center or won't stay put? That's a service call.

THE HABIT, EVERY TIME

STEP 1

Close the field

STEP 2

Focus the condenser

STEP 3

Center it

STEP 4

Set the aperture

Questions or want a hands-on refresher for your team?

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