How to set up Koehler Illumination

3 minutes to optimize your image quality

Step 1: Fully open the FD and AD, then adjust brightness using the illumination intensity control.

Step 2: Focus on specimen.

Step 3: Close the FD.

Step 4: Bring the FD into focus by adjusting the height of the condenser.

Step 5: Center the FD aperture, using the condenser centering screws.

Step 6: Open FD aperture until its edges are just outside the field of view. AD closed, highest contrast; AD open, highest resolution.

Step 7: Optimize the contrast and resolution to your sample with the AD. Adjust the image brightness using the illumination intensity control.

Why you should set up Koehler Illumination:
A correctly set up Koehler illumination delivers a homogeneous illumination across your specimen. It maximizes image contrast, minimizes stray light, and makes optimum use of the illumination intensity. Good Koehler illumination is needed for achieving best image resolution, reproducibility, and image quality as well as a prerequisite for other transmitted light contrasting methods. Recheck regularly to ensure that your system is set up correctly for Koehler Illumination. The openings of the FD and AD need to be adjusted for each objective.

See also the interactive tutorial on Science Lab “Koehler Illumination – Step by Step Guide to Optimal Illumination of Specimen”: www.leica-microsystems.com/science-lab/koehler-illumination