



# KÖHLER ILLUMINATION PROCEDURE

## Principle

Köhler illumination is a way to adjust the condenser to get the optimum light path for the microscope. This method acts to generate an extremely even illumination of the sample and ensures that an image of the illumination source is not visible.

## Equipment Specifications

Köhler illumination requires the following optical components to function:

- Field diaphragm and lens
- Condenser

## Procedure

1. Rotate the condenser knob located on the left side of the microscope under the stage (not the fine/coarse focusing knobs) and move the condenser all the way up with the objective lens swung in.
2. Focus on the specimen with the 10X objective.
3. Close the field diaphragm while viewing the specimen.
4. Lower the condenser slightly using the condenser knob until the field diaphragm image is in focus.
5. Center the diaphragm image using the condenser centering screws.
6. Open the field diaphragm so that the image of the field diaphragm is at the edge of the field of view. Fine focus on the specimen. Open the field diaphragm until the image is just outside the field of view.
7. Adjust the contrast using the condenser iris lever.
8. Remove one eyepiece and check to see that 75% of the visible aperture is filled with light.

## Benefits

- Evenly illuminated image.
- Brilliant image without reflection or glare.

