

Using the USAF1951 Resolution Target to estimate the resolving limit of a fluorescence microscope configuration.

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Summary: The USAF1951 resolution target is used to estimate the resolving power of a fluorescence microscope.

NOTE: The USAF1951 target we use is chrome plated glass (opaque) with bar pattern areas that are transparent.

1. A 10 cm TCPS dish with a 2 cm hole in the middle of the dish bottom was prepared.
2. The USAF1951 target was placed over the hole and a fluorescent glass (OG650 Schott glass) was placed over the target. When illuminated with incident light, the emitted fluorescence light is observed through the bar pattern.
3. The filter set was set to appropriate conditions and the USAF1951 target was imaged.
4. The images were analyzed by identifying the last bar pattern that could be unambiguously resolved.

PWFMR_USAF1951ResolutionTarget_0004.png