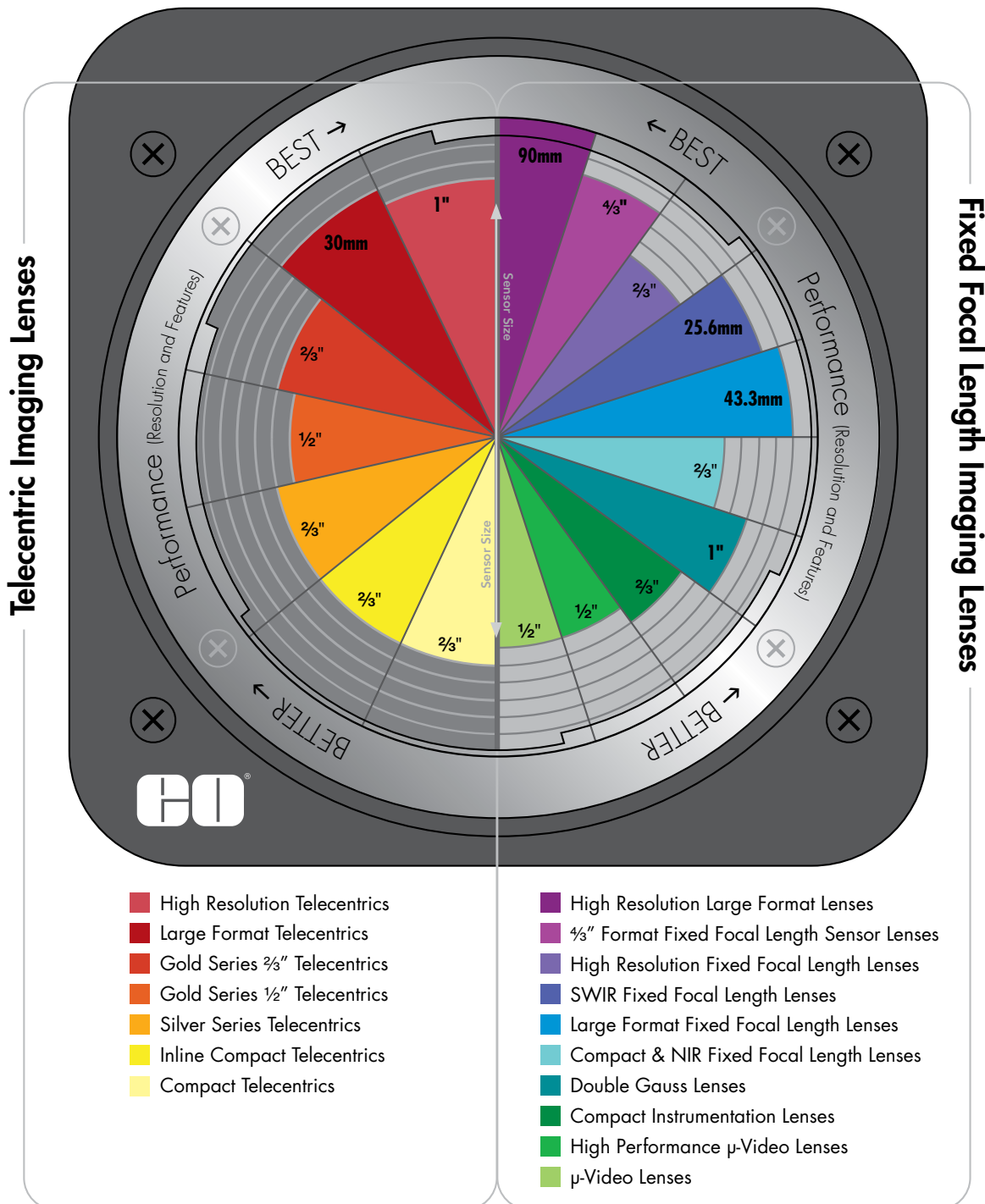


We Cover Your Sensor

Select the right lens for your application with our sensor map.



DIGITAL DOWNLOADS TO IMPROVE YOUR VISION

Without the proper specifications, it can be difficult to choose the best lens for your imaging system. It is critical to know more than just the field of view or working distance of a lens. Performance characteristics such as Modulation Transfer Function (MTF), depth of field, distortion, and relative illumination provide important information, and understanding the associated curves can simplify the selection process.

Why are these curves important, and how do they help select the right lens?

While MTF may appear complex, understanding how to read an MTF curve can greatly simplify your lens selection. An MTF curve is a measure of the resolving power of the lens versus the contrast it can be resolved at, and is an excellent means for knowing the theoretical best image that can be achieved. For lenses in general, as the spatial frequency of an object increases, the diffraction limited contrast (what physics defines as the best performance of a lens) naturally decreases. The closer a lens' MTF curve is to the diffraction limit, the higher the resolving power of your system.

TECH TIP: MTF curves are very application dependent. An MTF curve that may be poor for one application may be suitable for another.

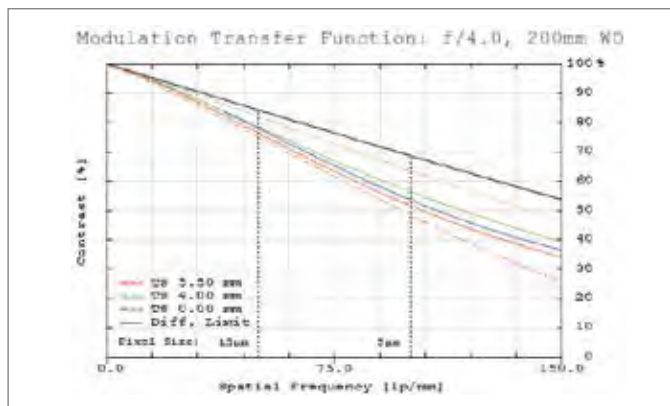
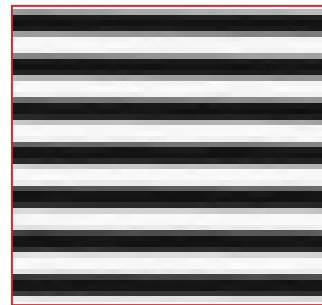


Figure 1: Plot of theoretical MTF for our 16 mm TECHSPEC® Compact Fixed Focal Length Lens, #59-870.

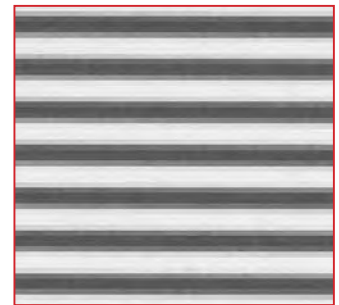
Having the right technical information at your disposal is critical when choosing the best components for your vision system. To help in choosing the right lens from the start, Edmund Optics® has introduced specification sheets that provide detailed performance information for the individual TECHSPEC® Imaging Lenses. For each unique lens, we

16mm TECHSPEC® Compact Fixed Focal Length Lens, #59-870



Contrast 77 %

Competition



Contrast 42 %

Figure 2: Contrast performance for our 16 mm TECHSPEC® Compact Fixed Focal Length Lens, #59-870.

provide data curves on MTF, distortion, relative illumination and depth of field, in addition to detailing the field of view for various sensors, and fully dimensioned drawing. If you need additional information beyond what we provide in our datasheets, just contact one of our imaging experts at visionsupport@edmundoptics.com

NEED HELP SELECTING THE RIGHT LENS FOR YOUR IMAGING SYSTEM?

Download EO's TECHSPEC® Lens Data Sheets to quickly understand key factors designed to help you select and compare the right lens for your imaging system.

- Modulation Transfer Function (MTF)
- Distortion
- Depth of Field
- Relative Illumination



2D & 3D MODELS AVAILABLE ONLINE

www.edmundoptics.eu/imaging

