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# Sill Optics 48mm FL, 6 x 6mm Scan Area, 515-532nm F-Theta Scanning Lens, S4LFT4148-292

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Stock #70-155 **3 In Stock**

⊖ 1 ⊕ C\$9,240<sup>00</sup>

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## Product Downloads

### General

S4LFT4148-292 **Model Number:**

F-Theta Lens **Type:**

### Physical & Mechanical Properties

**Maximum Diameter (mm):**

88.00	
99.0	<b>Flange Distance (mm):</b>
15.00	<b>Input Beam Diameter, 1/e<sup>2</sup> (mm):</b>
64.00	<b>Maximum Length (mm):</b>
0.36	<b>Weight (kg):</b>

## Optical Properties

48.00	<b>Focal Length FL (mm):</b>
±5.08	<b>Scan Angle (°):</b>
6.0 x 6.0	<b>Scan Field (mm):</b>
1.8	<b>Telecentricity (°):</b>
>98	<b>Transmission (%):</b>
60.00	<b>Working Distance (mm):</b>
532	<b>Design Wavelength DWL (nm):</b>
515 - 532	<b>Wavelength Range (nm):</b>
515nm - 545nm R < 0.20% - low absorption	<b>Coating Specification:</b>
3.15	<b>Focus Size Diameter, 1/e<sup>2</sup> (µm):</b>
2.5 J/cm <sup>2</sup> per 1ns pulse at 50Hz	<b>Damage Threshold, Pulsed:</b>
2.5 MW/cm <sup>2</sup>	<b>Damage Threshold, CW:</b>

## Threading & Mounting

M85 x 1.0	<b>Mounting Threads:</b>
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## Regulatory Compliance

<a href="#">View</a>	<b>Certificate of Conformance:</b>
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## Product Details

- Ideal for High-Precision Material Processing and Laser Scanning Applications
- Large Scan Fields Up to 410mm x 410mm
- High Damage Thresholds and Low Telecentricity Errors
- [Galvanometers](#), [Beam Expanders](#), and [Laser Sources](#) Also Available

Sill Optics F-Theta Lenses are high quality lenses specifically designed for laser material processing applications for industrial mechanical engineering. These F-Theta Lenses offer a wide range of focal lengths up to 650mm, and large scan fields up to 410mm (X) x 410mm (Y). Optimized for Nd:YAG fundamental, second, or third harmonic laser wavelengths, these lenses are available in design wavelengths of 355nm, 532nm, and 1064nm with common mounting threads for easy integration into galvo systems. Sill Optics F-Theta Lenses feature fused silica substrates and utilize a special low-absorption coating to minimize thermal effects and increase damage thresholds up to 5.0 J/cm<sup>2</sup> (1ns, 50Hz) for pulsed lasers and 5.0 MW/cm<sup>2</sup> for continuous wave (CW) lasers. These lenses are ideal for a range of material processing and medical applications such as laser cutting, welding, and drilling, confocal microscopy, and ophthalmology.