

# Tinsley Custom Optics

## Precision Optical Fabrication

Coherent is a world-renowned supplier of custom optical components and assemblies for diverse applications such as silicon annealing, directed energy, and astronomy.

We provide components and subsystems for aspheric lenses, and mirror-based systems.

The technology for creating these high-performance optical surfaces is based on a sophisticated, computer-driven manufacturing, testing and measurement technique called "Computer-Controlled Optical Surfacing" (CCOS).

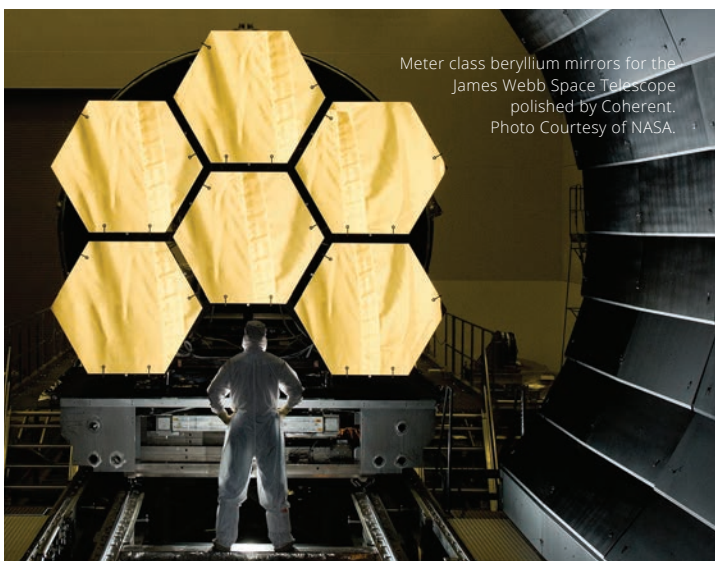
By pushing optical fabrication and polishing performance to higher levels, we enable customer success in exacting applications. Superior performance and quality is engineered into every product through extensive knowledge and an open, customer-centric collaborative process.

### FEATURES & BENEFITS

- Aperture sizes over 1m
- Aspheres, free-forms, cylinders
- Any optical substrate material – aluminum, silicon carbide, low-expansion glass, standard optical glass
- Space qualified coatings including FSS99 (protected silver), FSG98 (protected gold)
- World-class optical testing capabilities

### APPLICATIONS

- Space-based Imaging (Satellites)
- Ground-based Telescopes
- Military Identification, Surveillance, and Reconnaissance
- Laser Beam Delivery Systems
- Directed Energy
- Scientific Research

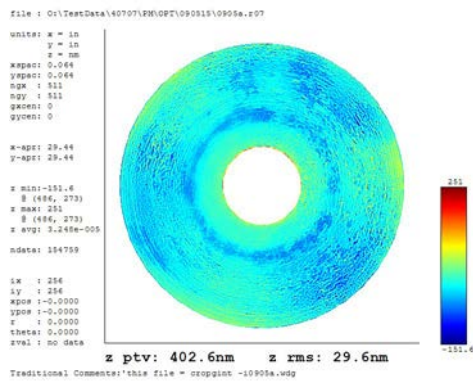


Meter class beryllium mirrors for the James Webb Space Telescope polished by Coherent. Photo Courtesy of NASA.

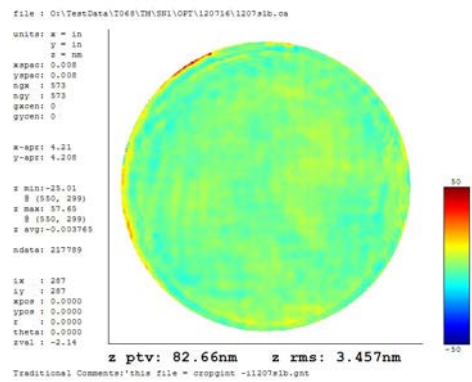
SPECIFICATIONS	Glass	Metal	SiC (Si Clad)
Operating Wavelength	UV to IR	UV to IR	UV to IR
Surface Accuracy (nm, RMS)	3	12	3
Surface Roughness (Å, RMS)	5	15	5
Dimensions	15 mm to 1.6m		

## SURFACE MAPS

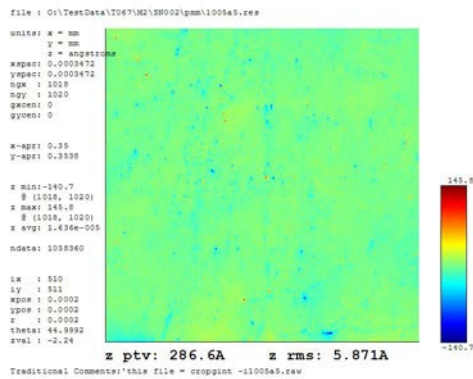
### 30 inch Aluminum Optic



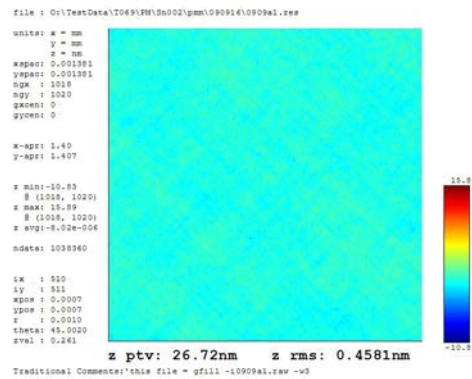
### 4 inch Wedge Ellipse Zerodur



### 40x 5A RSP Roughness



### 10x 5A Zerodur Glass



Coherent, Inc.,  
 5100 Patrick Henry Drive Santa Clara, CA 95054  
 p. (800) 527-3786 | (408) 764-4983  
 f. (408) 764-4646

[tech.sales@coherent.com](mailto:tech.sales@coherent.com) [www.coherent.com](http://www.coherent.com)

Coherent follows a policy of continuous product improvement. Specifications are subject to change without notice.  
 Coherent offers a limited warranty for all Custom Optics. For full details of this warranty coverage, please refer to the Service section at [www.coherent.com](http://www.coherent.com) or contact your local Sales or Service Representative.  
 Printed in the U.S.A. MC-008-17-0M1018Rev.C Copyright ©2018 Coherent, Inc.