# All Services

# Consulting services available on an hourly, daily, or project basis

Do you need advice or assistance identifying, specifying and sourcing optical components such as prisms, waveplates, etalons, laser rods, polarizers, or lenses? Maybe you manufacture precision optics and need help with optical test methods, optical fabrication, or assembly - either training, documentation, tooling, or trouble-shooting?

Please look around or glance through the overview of my services. I hope you'll find something of interest and value. If so, please <u>contact</u> me to discuss it further.

#### Mission

I ensure success to my photonics industry clients by providing accurate, valuable, practical, understandable, ethical, and discreet solutions and services within my areas of expertise. To know when I don't know, and say so.

# **Optical Testing and Metrology**

My extensive library is supplemented with a collection of original instrument designs and little-known and undocumented techniques gathered over decades of practice. I also have access to a wide range of optical testing instrumentation with which I can provide independent assessments of components.

Engineering are intimately related, despite the organizational wall frequently erected between them.

From creating and administering quality systems (MIL-I-45208A, ISO-9001, and ISO-9000-2000) to training technicians, I bring experience and expertise to every client's project.

Learn More →

### **Technical Writing**

My writing is clear, accurate, organized, and appropriate to the audience and the task.

Learn More →

#### Liaison

Sometimes organizations have trouble communicating sound solutions that solve pressing business or engineering problems.

Lens designers, laser engineers, marketers, coaters, fabricators, customers, vendors, and QA departments all speak different languages. I can translate to create a common vision.

# Optical Manufacturing Processes

I have worked with optics both hands-on and in a process engineering capacity. From fine old craft to newest techniques, theory and practice; micro to massive; singles to mass production; and UV to IR — I offer practical tips and fine points on sequence, methods and tooling.

Your needs will be met only if you can afford to get it made to spec. I think practically about how to make what will work.

Learn More →

### **System Review**

Polarization; alignment; materials properties; optomechanical, thermal, and vibration issues; appropriate specifications; design for manufacture—there's more to it than "lens design."

## **Troubleshooting**

My critical thinking, physical intuition, and decades of lessons learned can help you out of a hole.

## **Training and Education**

A notable teacher, I can help with shop methods, shop math, test methods, quality awareness and general optics. I can create customized programs or present from my repertoire.

Learn More →

Email and Phone

raywilliamson@verizon.net

(727) 372-0346 main phone and fax

(727) 534-7964 mobile phone

ray@ray-optics.com alias email

Address

Ray Williamson

4984 Wellbrook Drive

New Port Richey, FL

34653-5611



Ray Williamson, All Rights Reserved.