The PHOTON2 lab kit is different from the kits found in educational catalogs because it contains industry-quality components and mounts as well as “educational optics.” Not only is the equipment more versatile than the “educational” variety, it is similar to what students will see on industry field trips, making the school laboratory experience more relevant to the world of work. It takes a little practice to learn to use, but the results are well worth the effort. The kit is no longer available commercially, but the list below indicates parts needed to replicate it and to perform the 25 experiments in the lab manual and more.

Kit Contents

- 1 24″ x 24″ Aluminum optical breadboard tapped 1/4-20 on 1″ center
- 1 Ray box/Light source (PASCO)
- 1 Laser tilt table
- 1 HeNe laser, polarized
- 1 Spectrum tube power supply
- H specturm He spectrum tubes
- 1 HeNe Optical Power Meter
- 2 1-inch 50/50 Cube beam splitters
- 2 linear polarizers, 42 mm dia
- 2 Mounted 1″ plane front surface mirror
- 1 Mounted Objective Lens d= 12 mm, f= 8 mm
- 1 Microscope Objective Holder

- 1 Concave spherical mirror front surface f=6 mm
- 4 Plane Mirror 50 mm x 50 mm, front surface
- 2 Rotary Mount Assembly
- 1 single axis translational stage
- 1 Plate holder
- 6 Lens holders (bar-type)
- 3 Base plates
- 1 Custom plastic Refraction Box
- 4 each 2″ Post, 3″ post, 2″ post holder, 3″ post holder
- 1-m Plastic optical fiber
- 1 kit Acrylic refraction shapes
- 20 Card mounted diffraction viewers
- 1 Flat Glass Plate kit
- 1 Quantitative Spectrometer
- 1 Iceland Spar Crystal
- 1 1 and 2 slit diffraction slide
- 1 Small Parts Kit, including 1/4-20 and 8/32 socket head screws and cap screws; hex keys
- 1 Lens kit and mirror kit containing 50 mm diameter lenses and mirrors:
- 2 each Plano convex lens f=150 mm, f=200 mm ? 2 each Double convex lens f=75 mm, 150 mm, f=250 mm
- 1 each Double concave lens f=-100 mm, f=-200 mm
- 1 each Concave Mirror f=75 mm, Convex Mirrors f=-75 mm