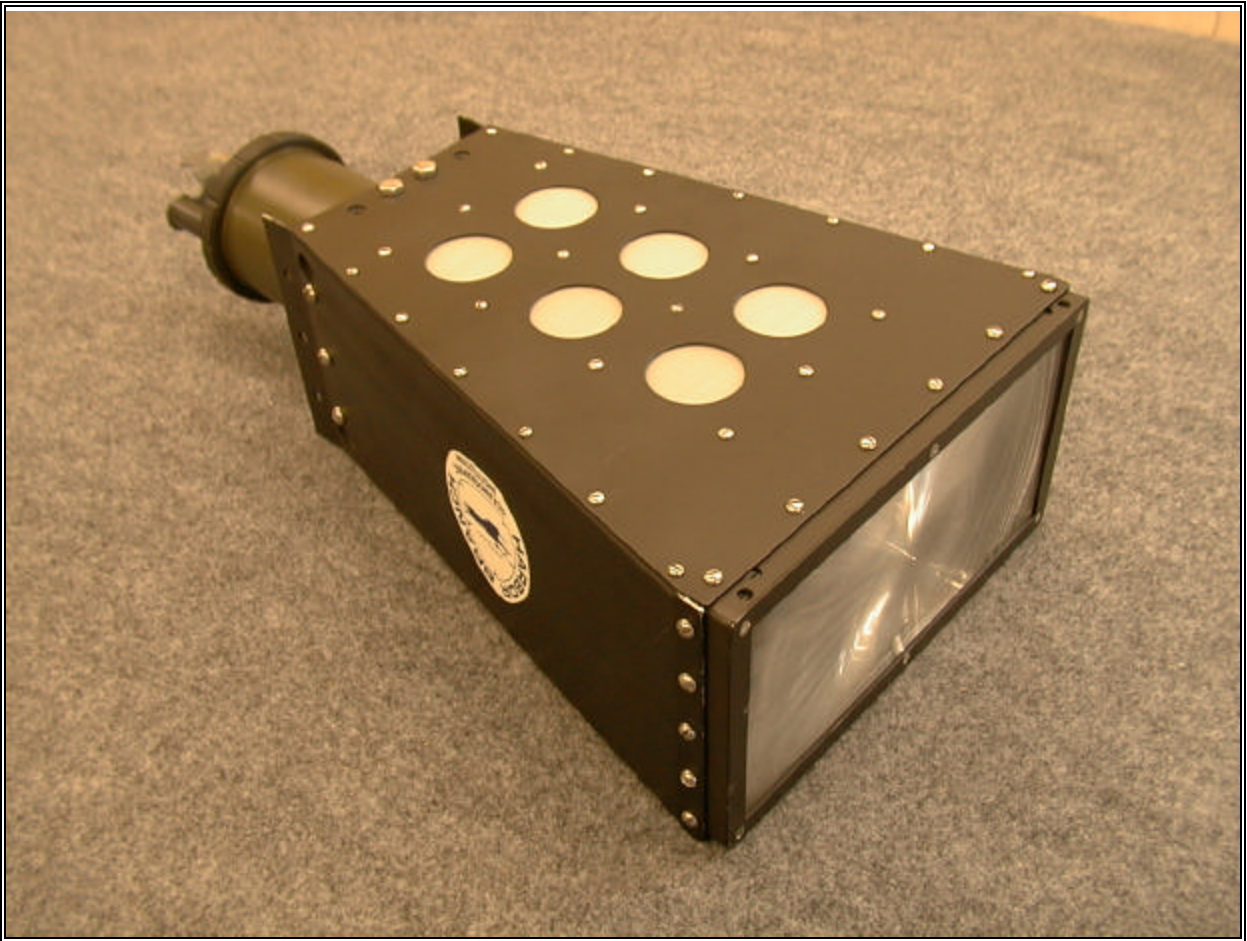


COLLIMATED ILLUMINATOR



APPLICATION: The collimated illuminator is designed to illuminate a rectangular volume of water with sufficient flux so that small biological specimens within the volume can be photorecorded with a moderate-sensitivity video camera. Microscopic animals are seen as bright points of light moving erratically in the bright, focused light beam generated by the collimated illuminator. The collimated illuminator is mainly used on submersible and ROV systems.

DESCRIPTION: The collimated illuminator provides a light source operating at a color temperature of 3400°K. The light output is effectively focused into a uniform and parallel light field (cross-sectional area is 5" x 10") using a short focal length, large-aperture lens. The light source and power supply are housed in a pressure vessel designed to operate at a maximum depth of 3280 ft. (1000 m). With an orthogonally-mounted video camera, the volume photosampled is well defined and approximately rectangular.