



Presented 1st Aug 2019 to
UC Santa Cruz
Lick Observatory
in Commemoration of the
Apollo 11 Lunar Laser
Ranging Experiment

On 1 August 1969, the first accurate measurement of the distance between the earth and the moon was determined by firing a laser from Lick Observatory at retro-reflectors placed on the lunar surface by Apollo 11 astronauts, then measuring the time delay for detection of the reflected beam. The gigawatt-powered crystal ruby laser was manufactured by KORAD Lasers in Santa Monica, California.

Science and engineering teams from Lick Observatory and KORAD Lasers were jointly responsible for the success of the Lunar Laser Ranging Experiment known as LURE. Planning began more than a year earlier with the KORAD team led by Ted Maiman, the inventor of the laser, Bill Rundle, the designer, and Hildreth (Hal) Walker Jr. who installed, operated and fired the laser from Lick Observatory in July and August of 1969. The team responsible for operating the telescope, precision targeting at the retro-reflectors, and performing the electronic data collection and measurements was led by James Faller and Irvin Winer of Wesleyan University, and Lloyd Robinson, E. Joseph Wampler, and Donald Wieber of Lick Observatory.