ABSTRACT

The design proposed for LARES-2 uses 1.0 inch uncoated COTS cube corners with no intentional dihedral angle offset. The cubes are held in a floating mount that virtually eliminates conductive heat transfer to the cubes. This design minimizes the effect of thermal gradients and manufacturing errors in the dihedral angle offsets. The isothermal transfer function should be very close to the actual performance in orbit. Testing of a set of 10 COTS cubes shows good optical performance. The cubes are inexpensive and are manufactured in bulk. Simulations show that the systematic range errors should be on the order of a half millimeter.