

Abstract Submitted
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Absorption and Scattered-Light Asymmetry in OMEGA Implosions DANA EDGELL, JOSEPH KATZ, DUSTIN FROULA, University of Rochester — Hydrodynamics codes predict that the laser absorption and unabsorbed light distribution over the spherical surface should be very uniform, with an rms deviation of at most a few percent when the effects of energy redistribution caused by cross-beam energy transfer (CBET) are included. Measurements show much larger variations of the order of tens of percent in the unabsorbed light distributed over the target chamber surface in three independent diagnostics: scatteredlight calorimeters, the CBET beamlets diagnostic, and the TOP9 transmitted-beam diagnostic. The variation is larger than can be reasonably accounted for by beam imbalance. The possibility of a CBET polarization effect being the source of the asymmetry will be examined. This material is based upon work supported by the Department of Energy National Nuclear Security Administration under Award Number DE-NA0003856.

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