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First early time symmetry and hot electron measurements for indirect drive ignition implosions on the National Ignition Facility¹ EDUARD DEWALD, JOSE MILOVICH, CLIFF THOMAS, STEVEN GLENN, Lawrence Livermore National Laboratory, JOHN KLINE, Los Alamos National Laboratory, JOE HOLDER, HARRY ROBEY, OTTO LANDEN, Lawrence Livermore National Laboratory — In ignition experiments on the National Ignition Facility (NIF), the symmetry of the hohlraum radiation drive for the first 2 ns is tuned using the re-emit technique [1]. At the same time, in order to maintain the capsule fuel on a low adiabat for successful ignition, the level of early > 170 keVhot electrons generated in the hohlraum that reach the DT fuel [2] has to be < few Joules. The generated hot electrons are inferred from the hohlraum hard x-ray (20-500 keV) spectra measured with the FFLEX diagnostic [3]. We report on the first re-emit symmetry experiments performed on NIF in full ignition scale hohlraums. We also infer the level of hot electrons intercepted by the capsule from >30 keV xray imaging of the re-emit sphere and hohlraum bremsstrahlung onto image plates whose data is normalized to the FFLEX spectra. [1] E.L. Dewald, et. al., Rev. Sci. Instrum. 79, 10E903 (2008). [2] E.L. Dewald et. al., J. Phys.: Proceedings IFSA 2009.

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