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**Double Shell Target Design in a 620 Hohlraum** RYAN SACKS, ERIC LOOMIS, PAUL KEITER, ELIZABETH MERRITT, JOSHUA SAUPPE, DAVID MONTGOMERY, DOUG WILSON, TANA CARDENAS, SEAN FINNEGAN, STEVE BATHA, JOHN KLINE, Los Alamos National Laboratory — The double shell target provides an alternative platform for reaching a burning plasma regime on the NIF. Concerns regarding target engineering impacts, such as the fill tube, and ablator shape on overall performance of the design requires investigation of ways to mitigate these worries. Moving from a 575 hohlraum with a reverse ramp pulse shape to a larger 620 hohlraum with a higher-adiabat three shock pulse is one path to mitigating these impacts. Average measured P2/P0 and P4/P0 values are 2.8% and 1.7% respectively. Measured values are compared with simulation, and computational fill tube results will be examined. \*This work conducted under the auspices of the U.S. Department of Energy, contract number 89233218CNA0000001, release number LA-UR-1926095

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