Abstract Submitted for the DPP05 Meeting of The American Physical Society

Developing a 9 keV zinc backlighter for use on the Z accelerator¹ M.R. LOPEZ, J.L. PORTER, G.R. BENNETT, M.C. JONES, L.E. RUGGLES, I.C. SMITH, Sandia National Laboratories, Albuquerque, New Mexico, 87185, R.G. WATT, G.C. IDZOREK, T.E. TIERNEY, Los Alamos National Laboratories, Los Alamos, New Mexico, 87545-0010 — A 9 keV zinc point projection backlighter was recently brought online at Sandia's 20 MA Z accelerator. Using the Z-Beamlet laser system, less than 100 micron spatial resolution has been achieved with high contrast on the Z accelerator. Dynamic range, signal-to-noise, signal-to-background, and spatial resolution of the 9 keV backlighter system will be presented. Additionally, advanced image processing techniques are being investigated to further improve the quality of the image. Sandia is a multiprogram laboratory operated by the Sandia Corporation, a Lockheed Martin Company, for the U.S. Department of Energy under Contract No. DE-AC04-94AL85000.

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