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2D LMJ target design for early ignition experiments STEPHANE LAFFITE, STEPHANE LIBERATORE, PASCAL LOISEAU, CEA/DIF BP12 91680 Bruyeres le Chatel France — Achieving ignition is one of the objective of the “Laser MegaJoule” (LMJ), which will deliver up to 1.8 MJ and 600 TW. Several indirect drive target were designed to reach ignition on this facility. The nominal point design target, called A1040, is composed of a doped plastic capsule in a gold cylindrical hohlraum. Other experiments are planned before the laser being totally built. They include the attempt of ignition and burn of an ICF capsule with 40 laser quads (of 4 beams each), delivering up to 1.2 MJ and 390 TW. We present here the 2D design of two target requiring 1 MJ, 300 TW and 1.2 MJ, 360 TW of laser energy and power. For both targets, the hohlraum is cylindrical, made up with gold. Yield is about 10 for the smaller one, more than 15 for the other one. The beam passage through the laser entrance holes, the radiation symmetry and the susceptibility to laser-plasma interactions are analyzed.

Stephane Laffite
CEA/DIF BP12 91680 Bruyeres le chatel France

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