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CMS Zero Degree Calorimeter Performance

Two identical Zero Degree Calorimeters (ZDCs), designed to measure neutrons and very forward photons in the heavy-ion and low luminosity pp collisions at the LHC, are located at ± 140 m from the CMS interaction point. Each ZDC consist of two independent compartments: the electromagnetic (EM) and hadronic section (HAD). The calorimeter sections are sampling calorimeters, and core of structure consists of a tungsten plate / quartz ribbon stack which is readout by PMT. Significantly, the calorimeter will be very compact, extremely fast and radiation-hard. We present results on the linearity and the energy resolution of the ZDCs using high energy positrons and pions from the 2006 test beam run at the CERN H2 beam line.

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