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Very forward calorimeters at ILC/ILD

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Detectors at future e+e- colliders need special calorimeters in the very forward region for a fast estimate of instantaneous and precise measurement of the integrated luminosity. In ILD detector concept, two such calorimeters are foreseen, LumiCal and BeamCal. Both are designed as sandwich calorimeters with very thin sensor planes to keep the Molière radius small, facilitating measurement of the high-energy electron showers. Silicon sensor prototypes and dedicated FE ASICs have been developed and produced matching the timing and dynamic range requirements. The status of the calorimeter prototype performance in the recent beam tests at DESY will be presented, against the expected performance obtained from simulation.

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