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Light detection results in ProtoDUNE Dual-Phase[1] JOSE SOTO-OTON[2], Centro de Investigaciones Energeticas, Medioambientales y Tecnologicas, DUNE COLLABORATION — ProtoDUNE Dual-Phase is a 300 ton liquid argon Time Projection Chamber (LArTPC) of 6x6x6 m^3 fiducial volume placed at CERN. This detector is a prototype for the Dual-Phase module of the Far Detector of DUNE (Deep Underground Neutrino Experiment). DUNE will be a dual-site experiment for long-baseline neutrino oscillation studies, neutrino astrophysics and nucleon decay searches. The far detector will be placed in Sanford Underground Research Facility (USA), containing 40 kton of the fiducial mass of LAr with a fiducial volume of 12x12x60m^3. The Photon Detection System (PDS) of ProtoDUNE-DP consists of 36 PMTs covered with a wavelength shifting material (either TPB or PEN), and a LED-based calibration system. The operation of the detector started in July 2019, and it will contribute to the validation of the Dual-Phase technology and will provide valuable information for the design of the Photon Detection System of DUNE. The talk will cover the performance of the ProtoDUNE Dual-Phase Photon Detection System and the first results from the light data.

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