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XENONnT light sensors: performance and reliability

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XENONnT is a dark matter direct detection experiment, currently in commissioning phase, located at Laboratori Nazionali del Gran Sasso. It utilizes a TPC filled with 8.5 t of liquid xenon of which 5.9 t instrumented with 494 3-inch Hamamatsu R11410-21 photomultiplier tubes (PMTs) divided into two arrays, placed at the top and bottom of the active volume. The light sensors have been selected after a testing campaign to ensure a reliable response and a time-stable functioning. These operations are briefly summarized, while the discussion is focused on the current PMT performance.

Primary author: VOLTA, Giovanni (University of Zurich)

Co-author: XENON COLLABORATION

Presenter: VOLTA, Giovanni (University of Zurich)

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