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The Cosmology Large Angular Scale Surveyor (CLASS)[1] SUMIT DAHAL, Johns Hopkins University, CLASS COLLABORATION — The Cosmology Large Angular Scale Surveyor (CLASS) aims to make a near cosmic-variance-limited measurement of the optical depth to reionization and characterize the primordial gravitational waves by mapping the cosmic microwave background (CMB) polarization on large angular scales. CLASS is an array of four telescopes: two 90 GHz telescopes optimized for CMB observation near the minimum of polarized Galactic emission, with 40 GHz and dichroic 150/220 GHz receivers designed to probe the polarized synchrotron and dust emissions, respectively. In addition to large sky coverage and broad frequency range, a rapid front-end polarization modulator and background-limited detectors provide CLASS with high sensitivity. In September 2019, CLASS had all its four frequencies on the sky. In this talk, we present the on-sky performance of CLASS telescopes and give an update on early results and project status.

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