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The EUSO-SPB2 Cherenkov Telescope, Performance of Camera ELIZA GAZDA, NEPOMUK OTTE, OSCAR ROMERO MATAMALA, MAHDI BAGHERI, Georgia Institute of Technology, LAWRENCE WIENCKE, Colorado School of Mines, PATRICK REARDON, University of Alabama, Huntsville, VICTORIA KUNGEL, WILLIAM FINCH, Colorado School of Mines, EVGENY KUZNETSOV, University of Alabama, Huntsville, ELEANOR JUDD, Space Science Laboratory, University of California, Berkeley, JOHN KRIZMANIC, NASA Goddard Space Flight Center, EUSO-SPB2 COLLABORATION — Recently detected high-energy neutrinos by IceCube have given us an exciting new tool to help us understand how cosmic-ray sources accelerate particles to the highest energies and has strengthened interest in measuring the neutrino flux at even higher energies. However, detecting ultrahigh-energy (UHE) neutrinos is challenging because fluxes are low, and the interaction cross-sections are minute. We are developing a Cherenkov telescope to detect Earth-skimming UHE neutrinos from a long-duration balloon flight. It will fly aboard the Extreme Universe Space Observatory Super Pressure Balloon 2 (EUSO-SPB2) a precursor to the proposed Probe of Extreme Multi-Messenger Astrophysics (POEMMA) mission. I will present the status of the Cherenkov telescope camera development and supporting laboratory measurements combined with simulations that demonstrate the performance of the Cherenkov camera.

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