E152 telescope will be used for future characterization of exoplanets and so testing of its instruments is needed along with construction and testing of a pipeline, which is going to process acquired frames. This pipeline, which performs calibration of frames from photometric CCD camera C4-16000 placed on the E152 telescope and aperture and differential photometry, has been developed, successfully tested and applied on sequences of frames acquired from a testing run of the camera. During this testing run, two flare stars AU Microscopii (AU Mic) and DS Tucanae (DS Tuc) with known exoplanets have been observed. Problems with electronics system and flat frames of the camera have been revealed. Light Curves of stars AU Mic and DS Tuc have been analyzed. No transit or flare has been detected for DS Tucanae A, but a flare has been detected for AU Mic whose energy in Sloan g filter has been approximated as $E_{flare} = 8,7352.10^{27}$ erg which is of the order of expected value within range of error. In the AU Mic field an object with name 2MASS 20450857-3123234 has been detected, it is likely a δ Scuti variable star.