X22a CFHT Megaprime u-band Source Catalog of the AKARI North Ecliptic Pole Field

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AKARI infrared (IR) space telescope carried out a survey in the North Ecliptic Pole (NEP) field using its Infrared Camera (IRC), and detected more than 100,000 IR sources. AKARI IRC's 9 filters continuously cover the wavelength from near- to mid-IR, making AKARI unique in comparison with other IR space telescopes like Spitzer or WISE. However, the research in the AKARI NEP field was limited due to the lack of sufficient optical and ultraviolet (UV) observations. Recently, we have performed an observation in the AKARI NEP field using Subaru HSC, and obtained deep optical images. Now we further provide the near-UV (u band) catalog from Canada-France-Hawaii Telescope (CFHT) Megaprime to assist the precious AKARI data. The observation was conducted in 7 nights under the Queued Service Observations mode in 2015 and 2016, and covered a 3.6-deg² area. The data were processed by the ELIXIR pipeline, and the mosaic image was created by the ASTROMATIC software. Compared with previous work, this work not only extends the area coverage to the whole AKARI NEP field, but also reaches a deeper imaging, which is a significant improvement for us to estimate photometric redshifts of galaxies or study stellar populations.