

## **The Observer's Challenge Objects**

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December: **NGC 188** – Open Cluster - Cepheus; mag<sub>v</sub> =+8.1; RA: 0h 47m 30s Dec: +85° 16' 0"

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The 8th magnitude open star cluster **NGC188** nicknamed the “Polarissima Cluster” is located in the Fall constellation of Cepheus – “The King”. It is located about 4.5 degrees from the North Celestial Pole. The NGC188 cluster is about 5,400 light years distant, and ~ 11 light-years in diameter, and around 6.8 billion years old.

John Herschel discovered NGC188 in 1831 using the restored 20 ft reflector (originally built by his father William Herschel) at his home in Slough near Windsor Castle.

### **EAA Observation:**

07/22/2025 from the Bortle-4 dark-sky site ORAS Observatory, in Western PA.

Using an 8" SCT optical tube @ f6.3 on a GEM mount, with a CMOS/USB color camera and broadband filter @ 15-second guided exposure livestacked for 10 minutes.



Using EAA techniques, visually on the monitor the open cluster is fully resolved into numerous faint stars that fill the center of the screen.