
28.1 Photometric Zero Point

The zero point of an instrument, by definition, is the magnitude of an object that produces one count (or data number, DN) per second. The magnitude of an arbitrary object producing DN counts in an observation of length EXPTIME is therefore:

$$m = -2.5 \times \log_{10}(\text{DN} / \text{EXPTIME}) + \text{ZEROPOINT}$$