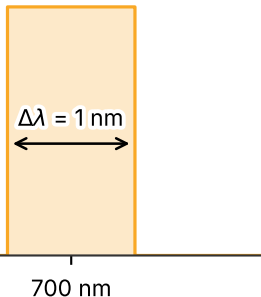


synthetic spectrum

$$\Phi_{\lambda, \text{nm}} = 21,559.86$$

photon $\text{s}^{-1} \text{m}^{-2} \text{nm}^{-1}$
(1 Jy at 700 nm)

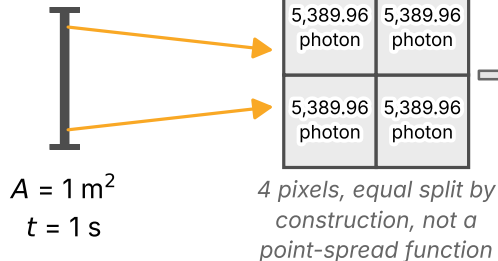


wavelength λ

collection and counting

$$\times A \times \Delta\lambda = 21,559.86 \text{ photon s}^{-1}$$

$\times t/4$: photons per pixel
in $t = 1 \text{ s}$



reference experiment, idealized

expected electrons

*constant QE q ; summed electrons $[e]$
= summed Poisson variance $[e^2]$,
numerically*

$q = 0.0$: 0.00

$q = 0.5$: 10,779.93

$q = 1.0$: 21,559.86

*no dark current, clock-induced
charge or read noise; expected
values, not a readout*