

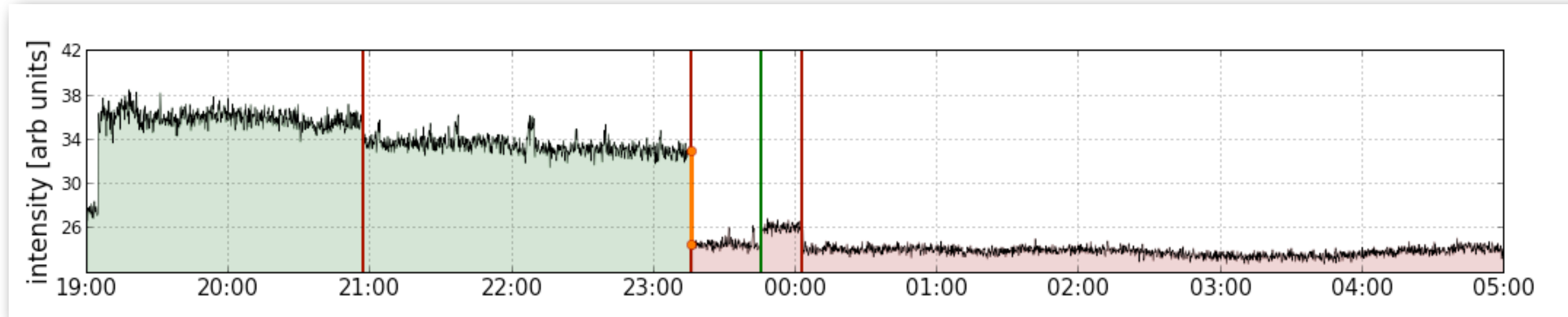
## Selecting “points of light”

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- each frame is “registered” to a common frame by spatial correlations
- 4,200 source apertures are identified by hand (out of approximately 20,000 windows in the scene)
- for each frame, the average brightness of each source is calculated in 3 bands (RGB)
- the brightness of a given source as a function of time is referred to as its “light curve”

# Selecting on/off transitions



For a given light curve, on/off transitions are identified via an automated algorithm:

- selects large “jumps” in the light curve relative to background fluctuations
- 3-color information and noise statistics are used to improve accuracy
- does not involve any human intervention or interpretation for analysis of individual light curve transitions (i.e., the analysis is de-identified)

In aggregate, on/off transitions are a measure of human (and automated) activity that can yield information about occupancy, **behavioral properties of the population**, etc.