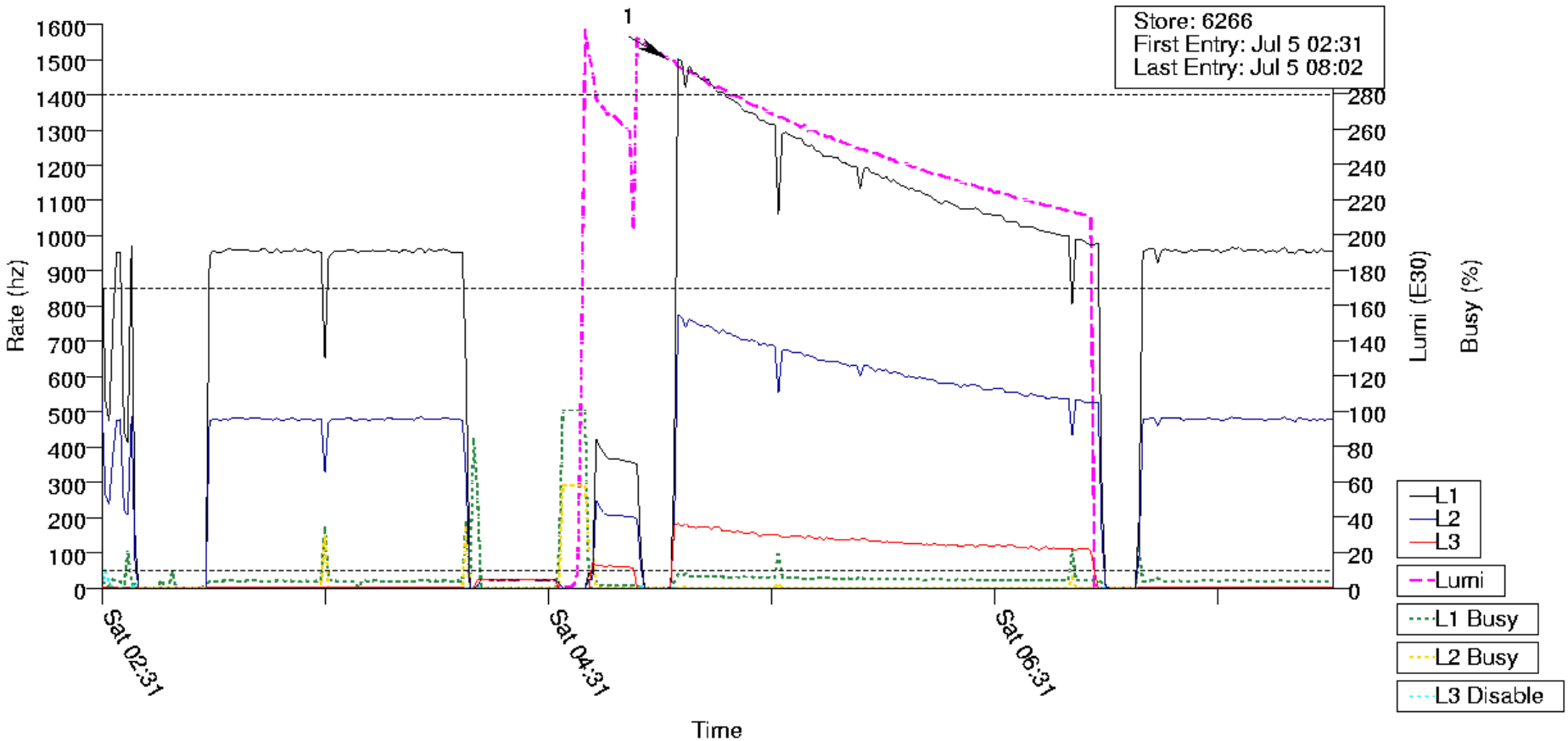
Operating at High Lumi

George Ginther

24 September 2008

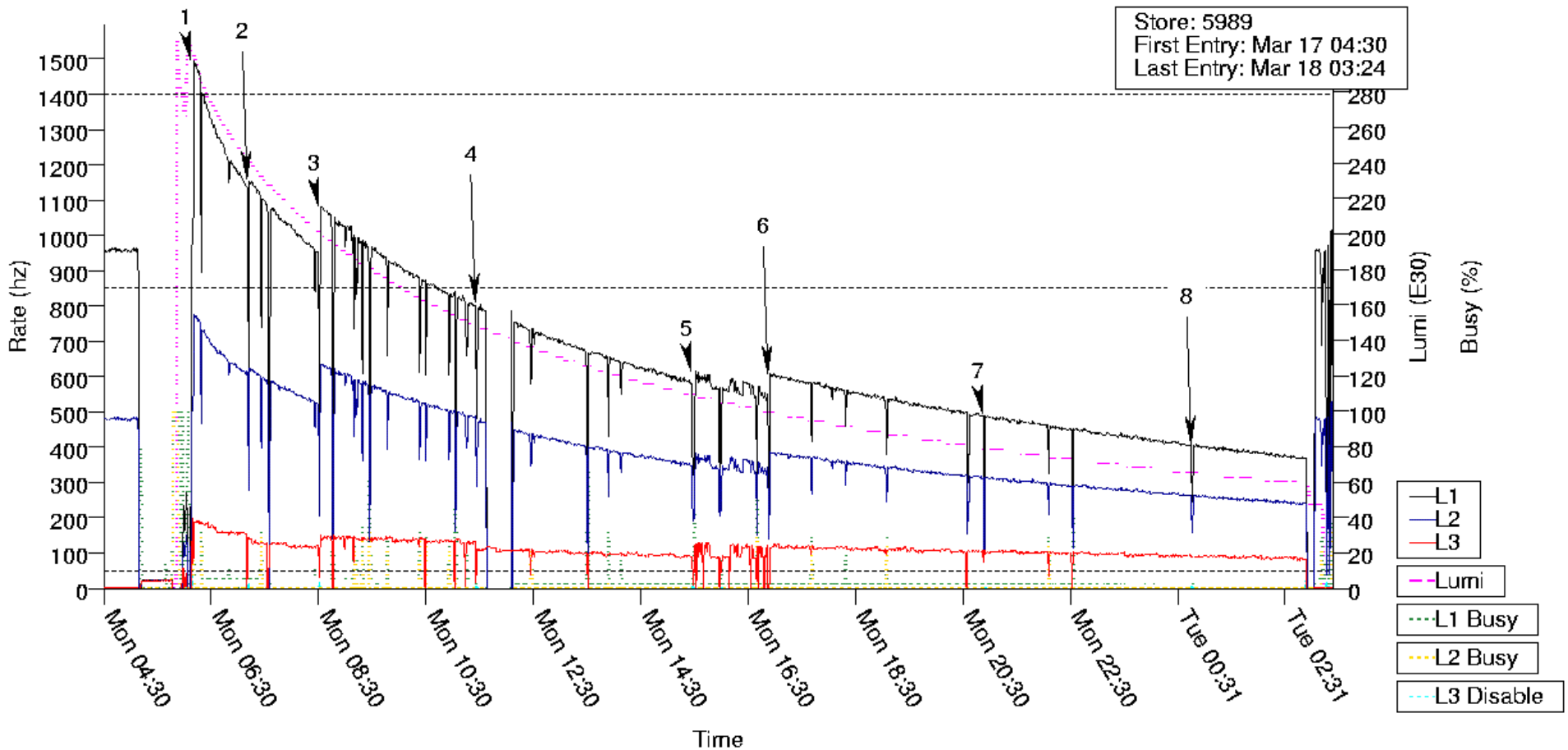
Store 6266—311E30

- Run 243573 Duration 1.92 hours
  - Efficiency 93.4%



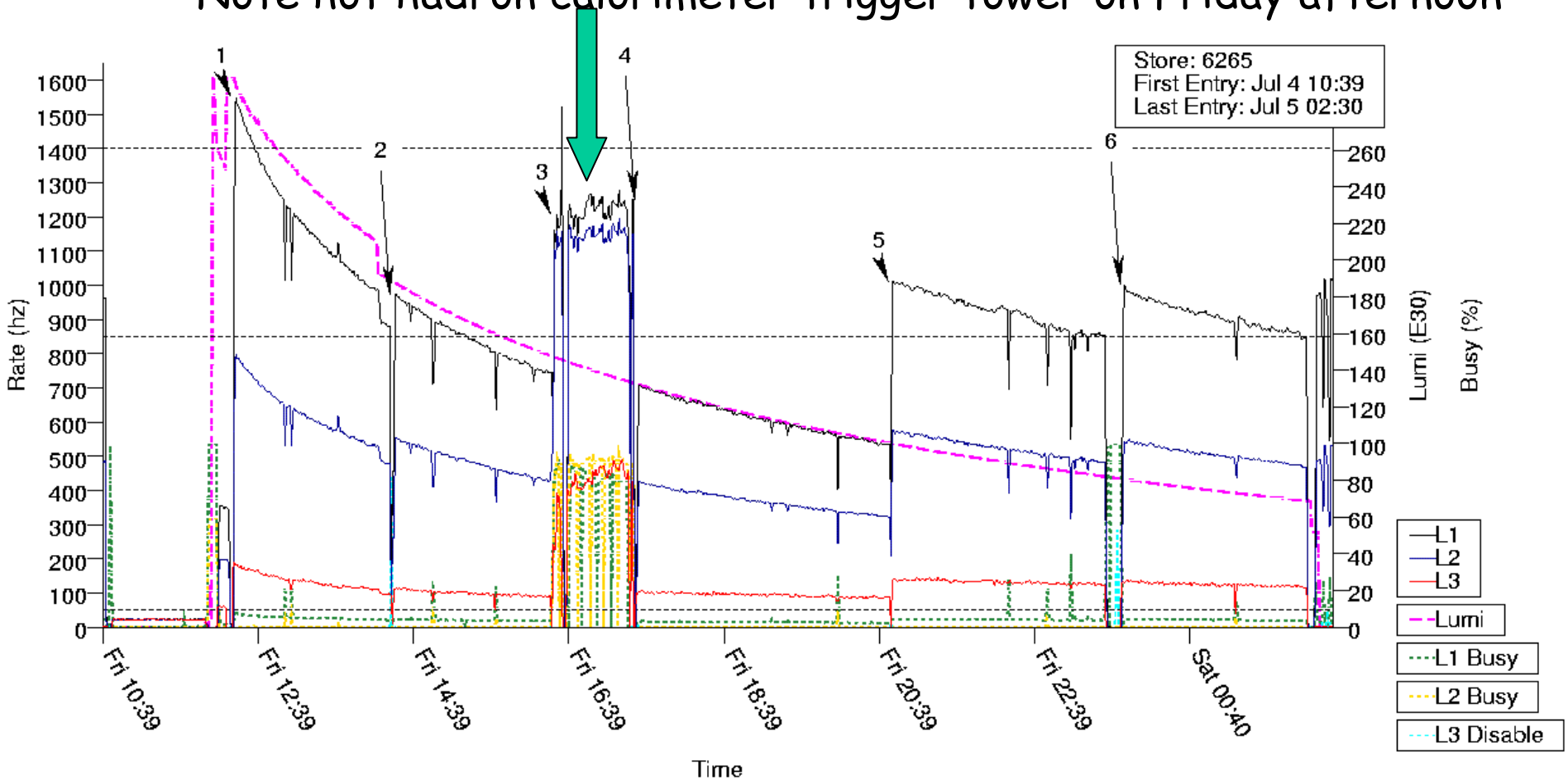
Store 5989—312E30

- Run 240822 Duration 1.04 hours
  - Efficiency 91.7%



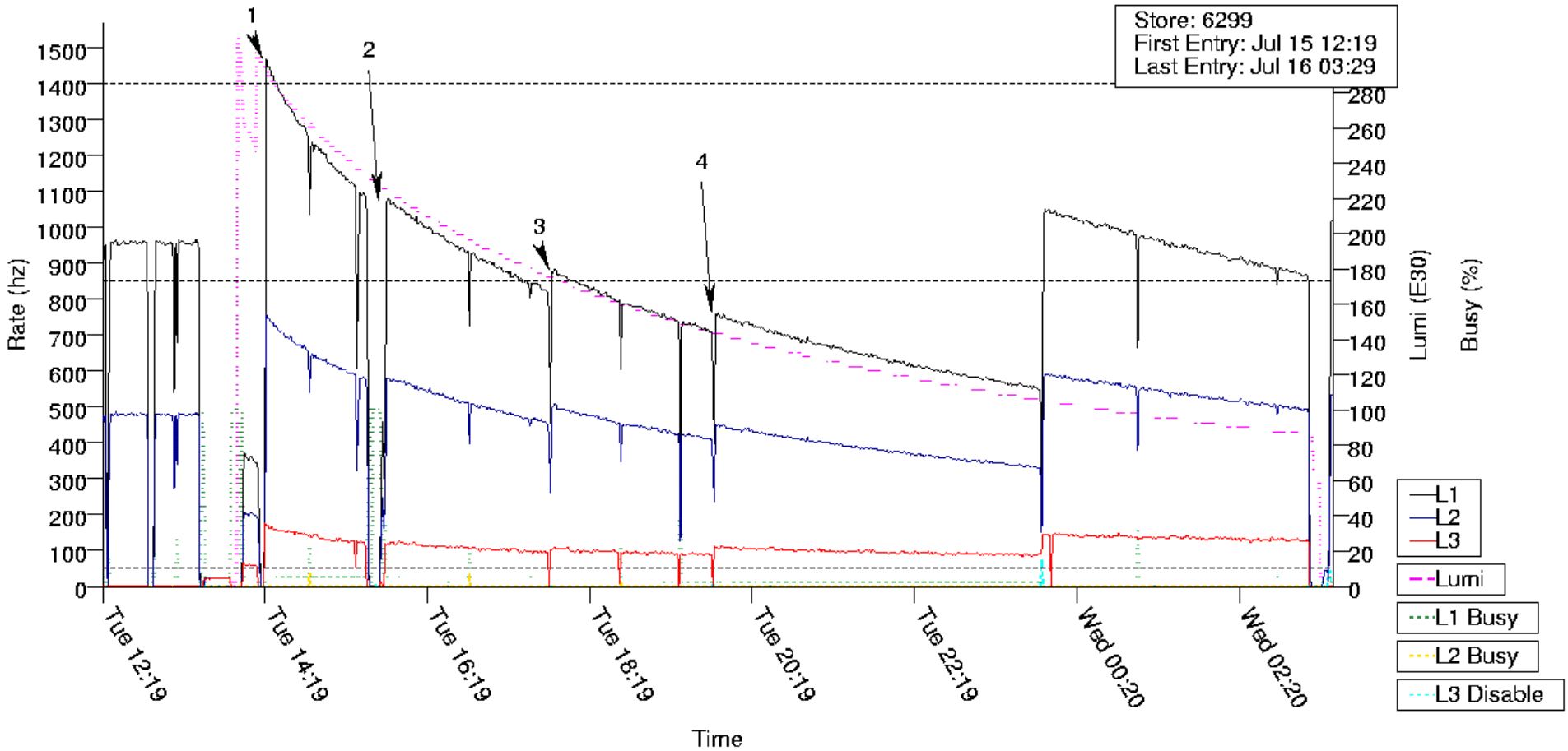
Store 6265—303E30

- Run 243558 Duration 2.04 hours
  - Efficiency 93.7%
  - Note hot hadron calorimeter trigger tower on Friday afternoon



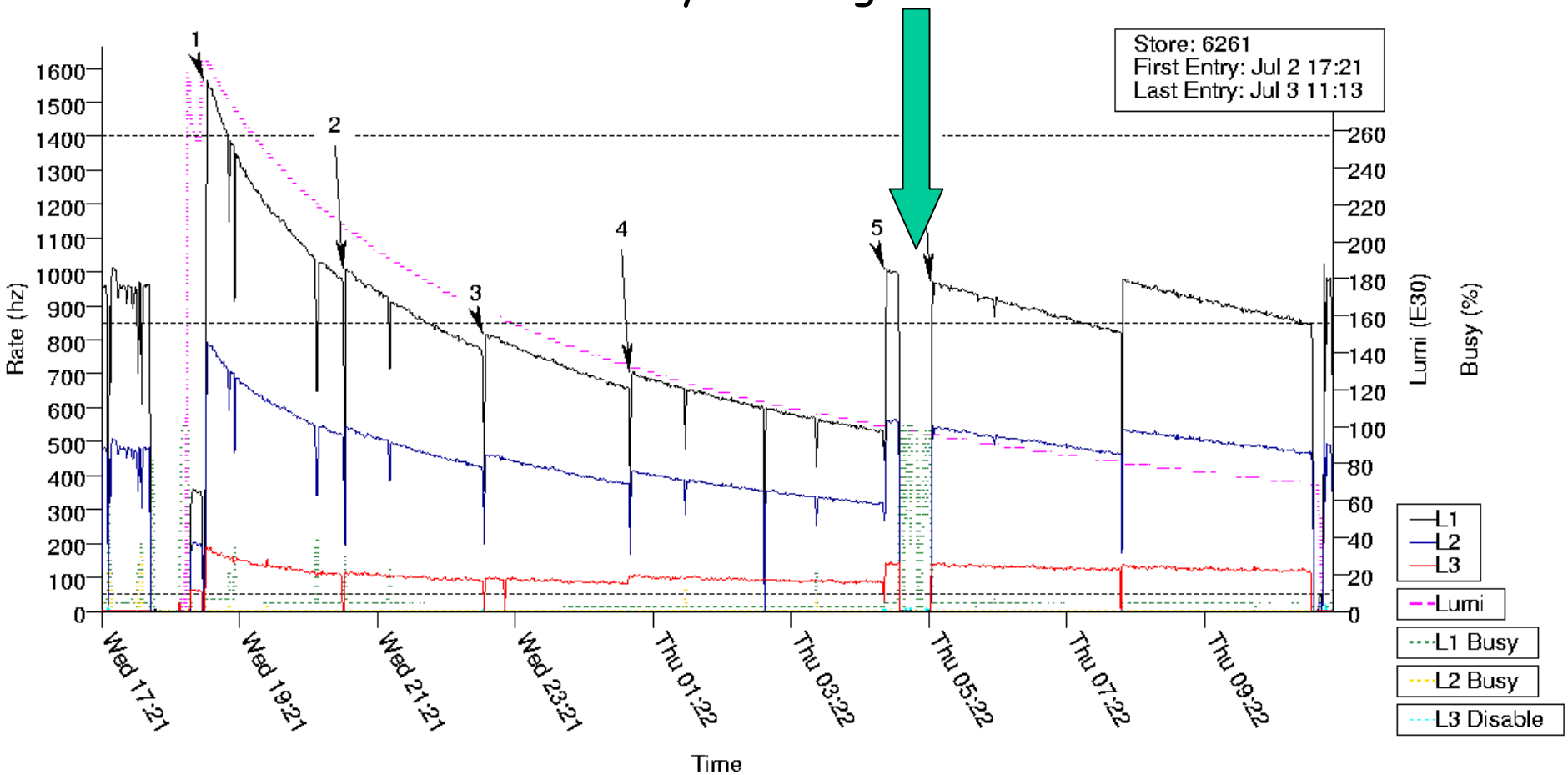
Store 6299—299E30

- Run 243828 Duration 1.36 hours
  - Efficiency 86.3% including 4.5% downtime at end of run due to Muon PDT 213 readout problem



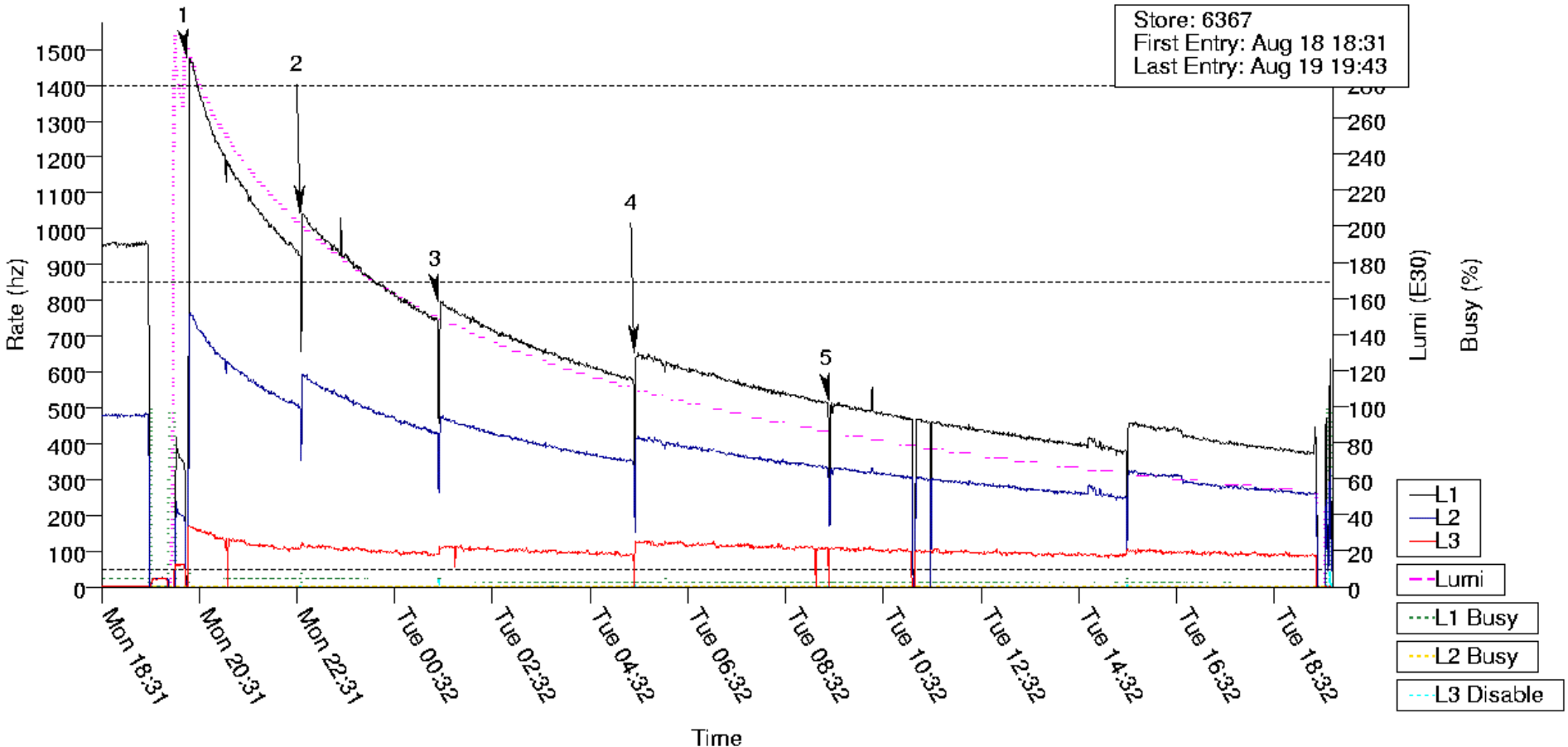
Store 6261—303E30

- Run 243516 Duration 2.00 hours
  - Efficiency 93%
  - Note downtime Thursday morning due to Level 2 muon



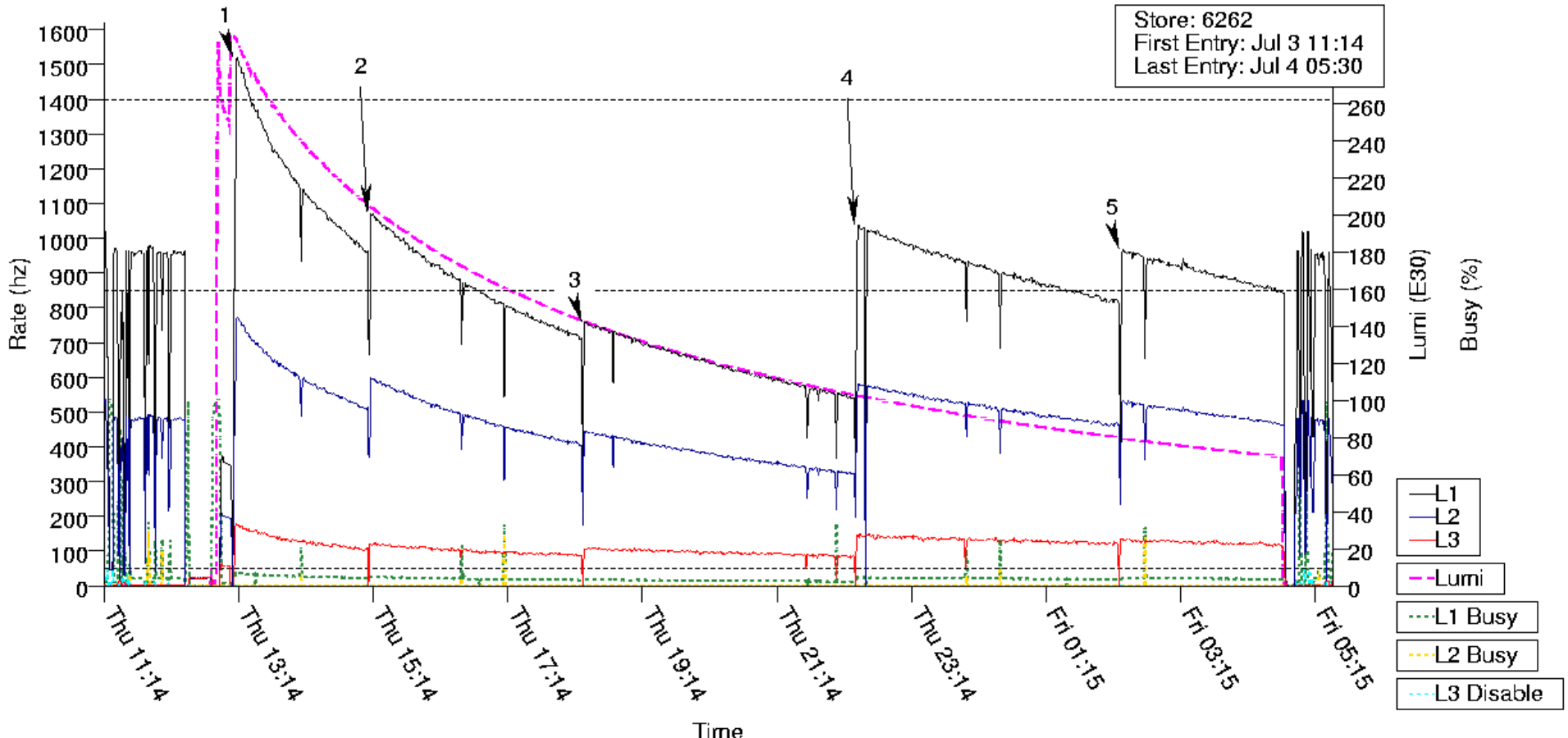
Store 6367—297E30

- Run 244799 Duration 2.31 hours
  - Efficiency 94.2%



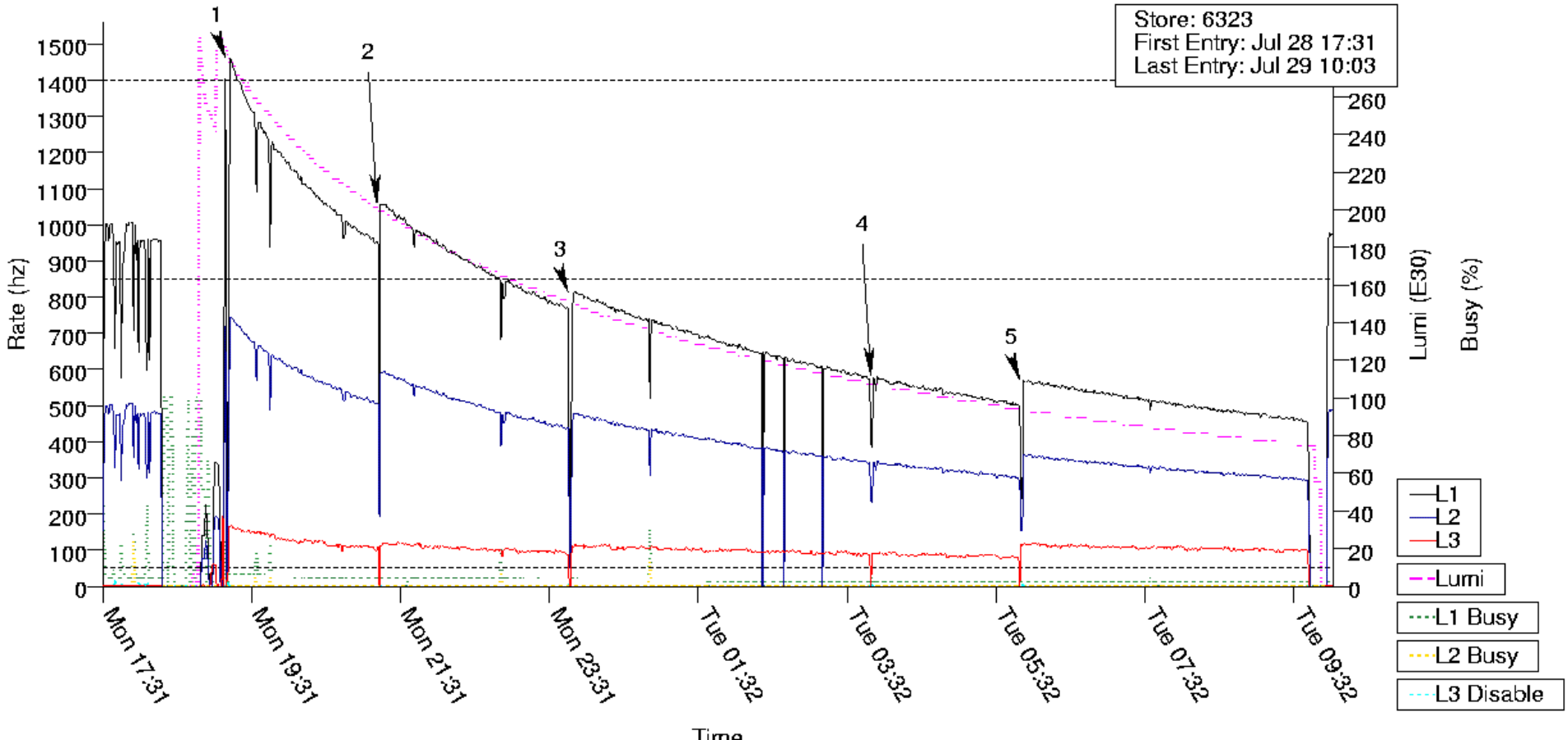
Store 6262—299E30

- Run Number 243542 Duration 2.00 hours
  - Efficiency 93.8%



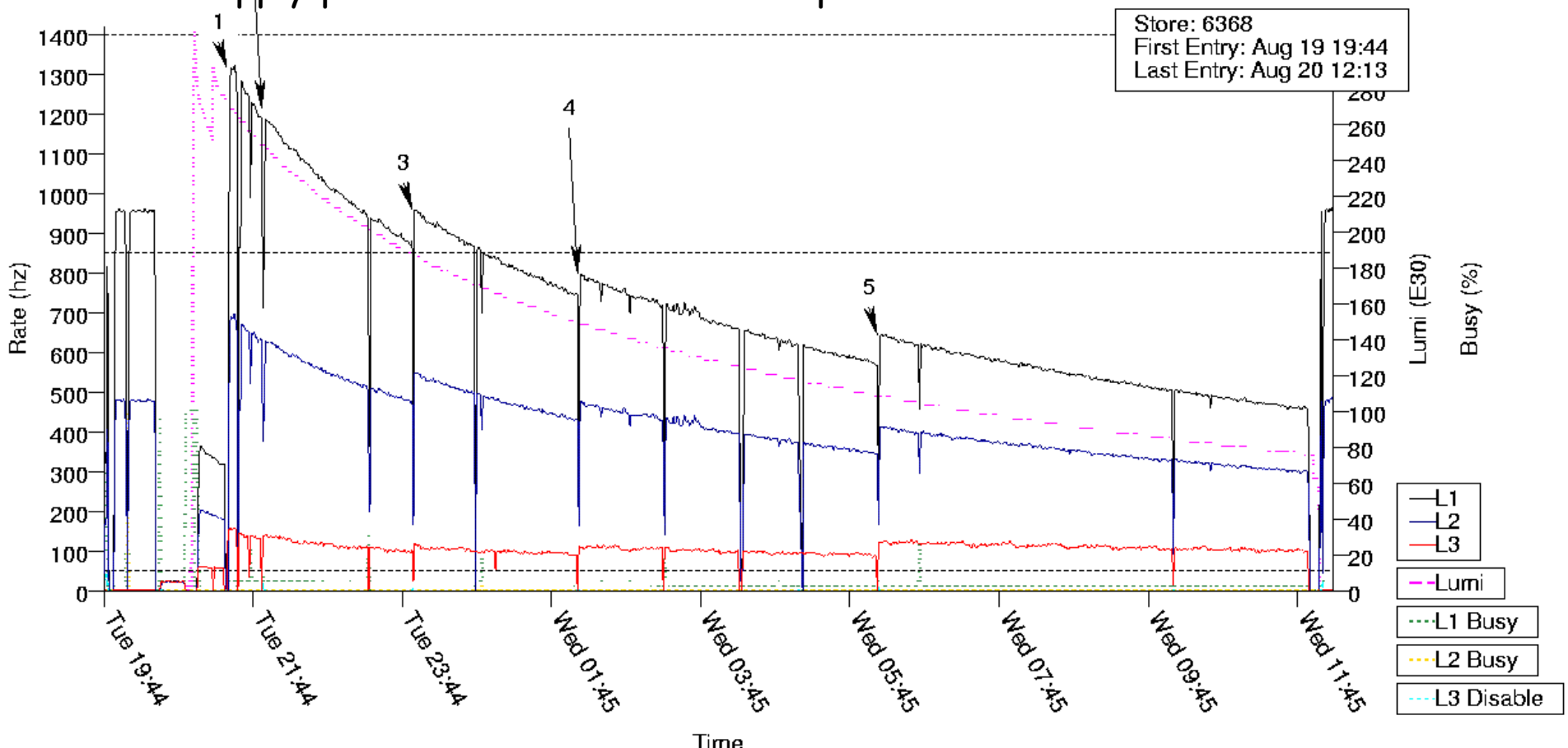
Store 6323—299E30

- Run Number 244284 Duration 2.03 hours
  - Efficiency 93.4%



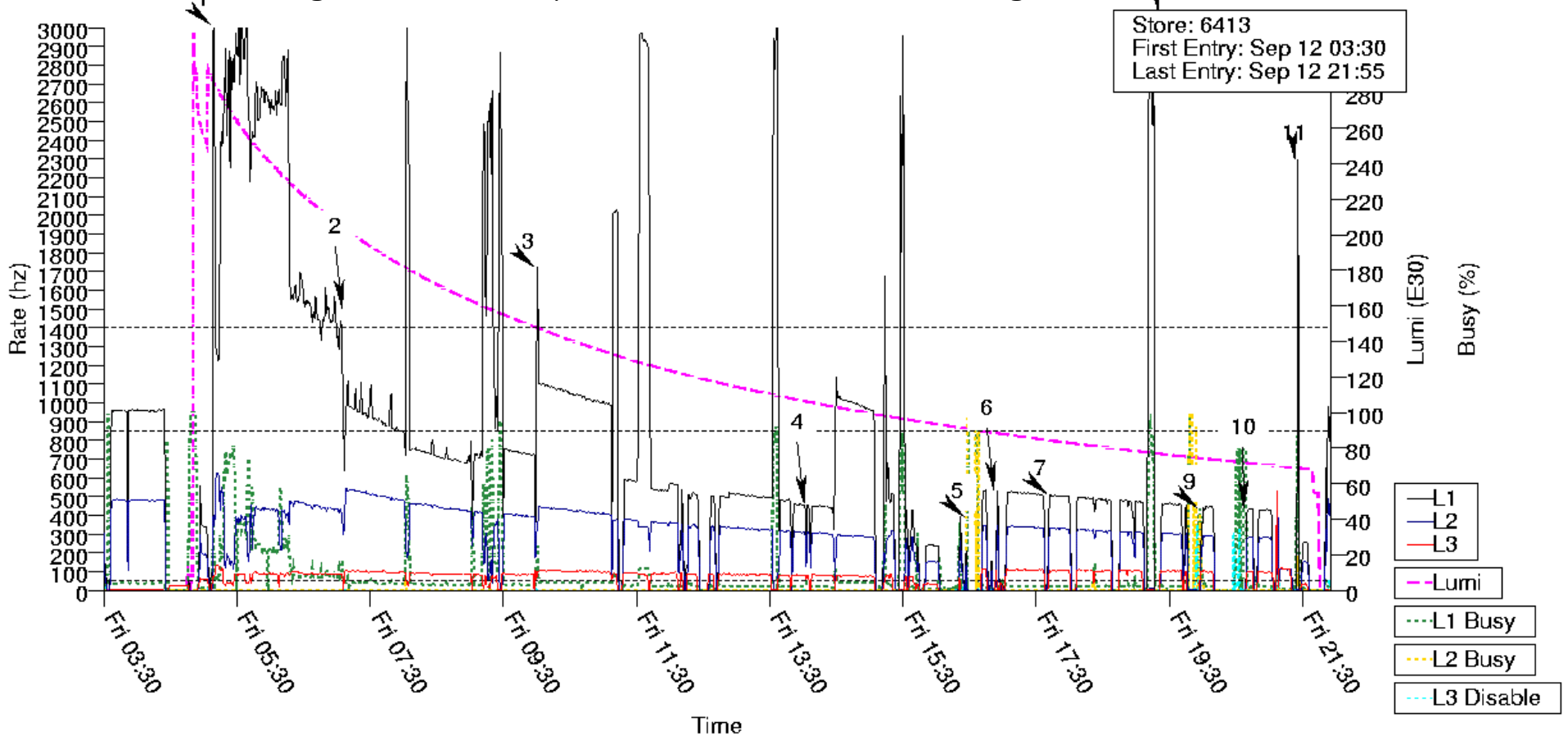
Store 6368—288E30

- Run Number 244811 Duration 0.45 hours
  - Start of first run delayed by assessment of radiation monitor alarms
  - Efficiency 83.7% including 10% downtime due to calorimeter power supply problem and muon readout problem



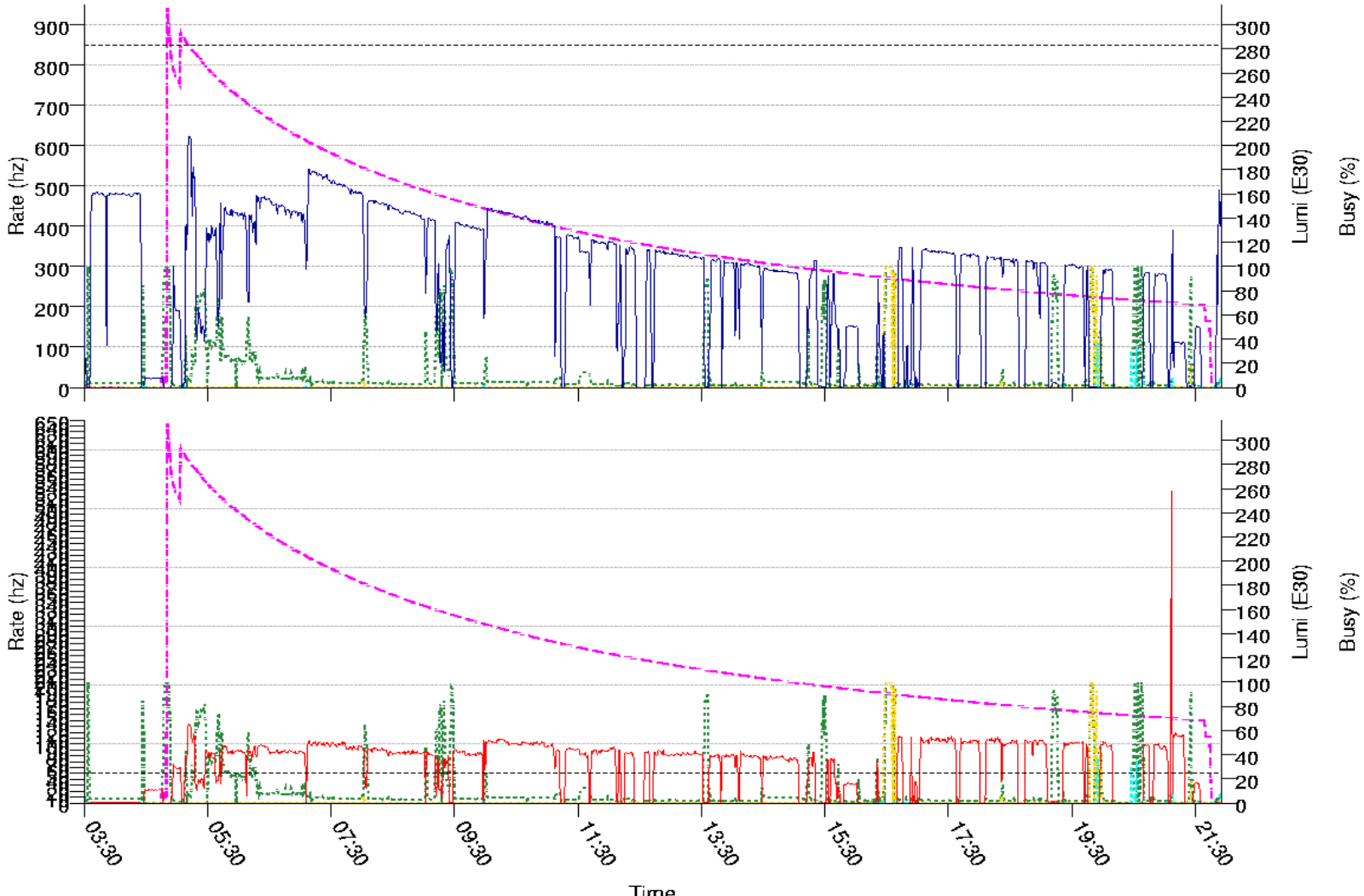
Store 6413—290E30

- Run Number 245470 Duration 1.97 hours
  - Efficiency 72.8% due to unexpected Level 1 accept rate
  - Level 1 Cal Track trigger temporarily compromised by hardware failure
  - Investigations interrupt data flow in effort to diagnose root cause of failure



Store 6413
Level 2 and 3 trigger rates

- Note that the Level 2 and Level 3 trigger rates are smooth (when data is flowing)
- Data that was recorded should be fine, but some does not include Level 1 Cal Track trigger



Running at High Lumi

- The DZero V16 triggerlist was designed to be able to efficiently handle initial luminosities above 300 E30 without prescaling any of the high priority high p_t physics triggers

- Performance to date confirms that this trigger list has achieved its goals

- Running smoothly with less than 10% deadtime at the highest luminosities delivered to date