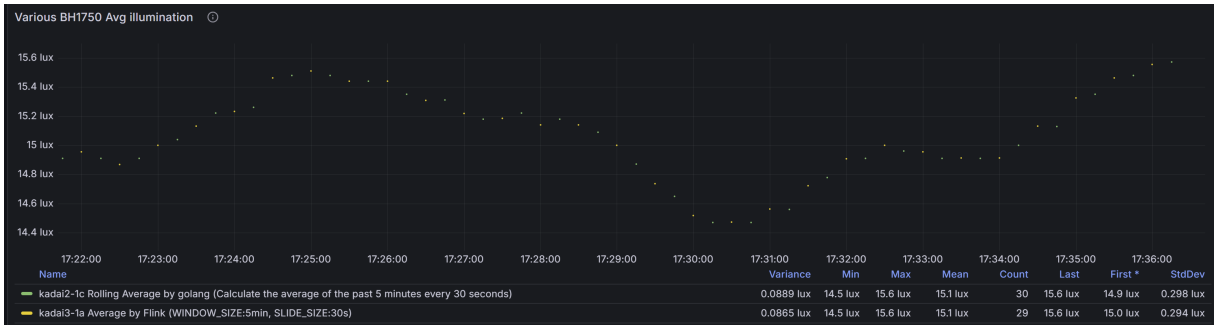
Kadai3-2(e) Comparison of Different Rolling Average Methods

1 Go Implementation vs. Flink Rolling Window Average

The lines from both methods almost overlap. This proves that **the rolling average calculated in Go is basically the same as Flink's window average**. Any small differences are mainly because the **window start times are different**.



2 IoTDB Dropdown List AVG vs. Full Customized AVG

- **Dropdown List AVG** uses a **sliding window**: it calculates the average every 30 seconds for the past 5 minutes.
- **Full Customized AVG** uses a **tumbling window**: it calculates the average once every 5 minutes only.

3 Flink vs. IoTDB Dropdown List AVG

- The main difference is the **window start time**. So, the lines are offset by one SLIDING STEP (like 30 seconds).
- **Flink's window is left-closed, right-open** $[start, end)$; it counts 59 points in 30 minutes, but IoTDB counts 60 because it includes the endpoint.
- Because of this, the peaks and valleys do not line up exactly on the time axis.