

# Beacon 40 Operation During Period of 2020-06-01 to 2020-09-01

## Introduction

The following presentation is a summary of the Beacon data from the study period indicated above.

## Sensor Data

### Total Volatile Organic Compounds

The TVOC values and reliability are summarized below

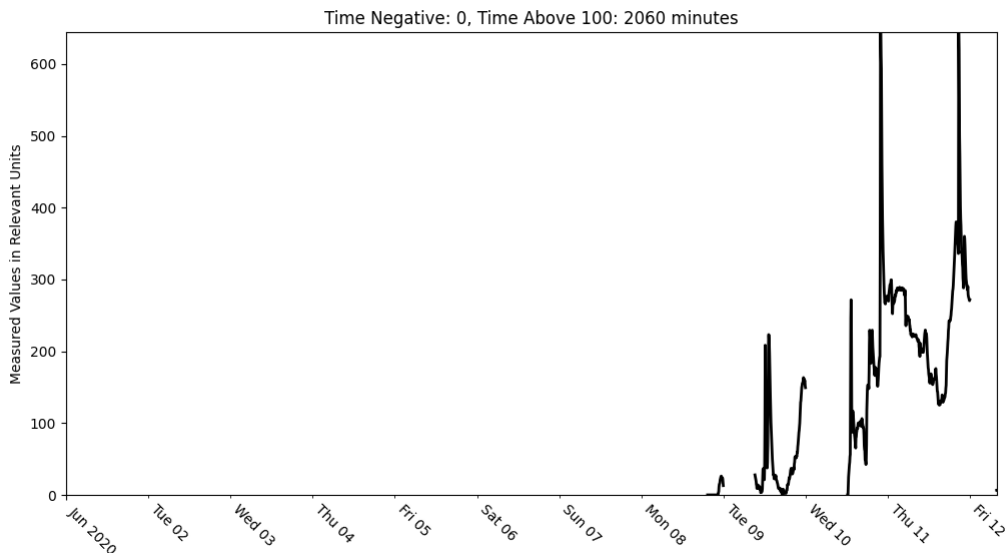


Figure 1.1 TVOC timeseries data with units of parts-per-million during the study period

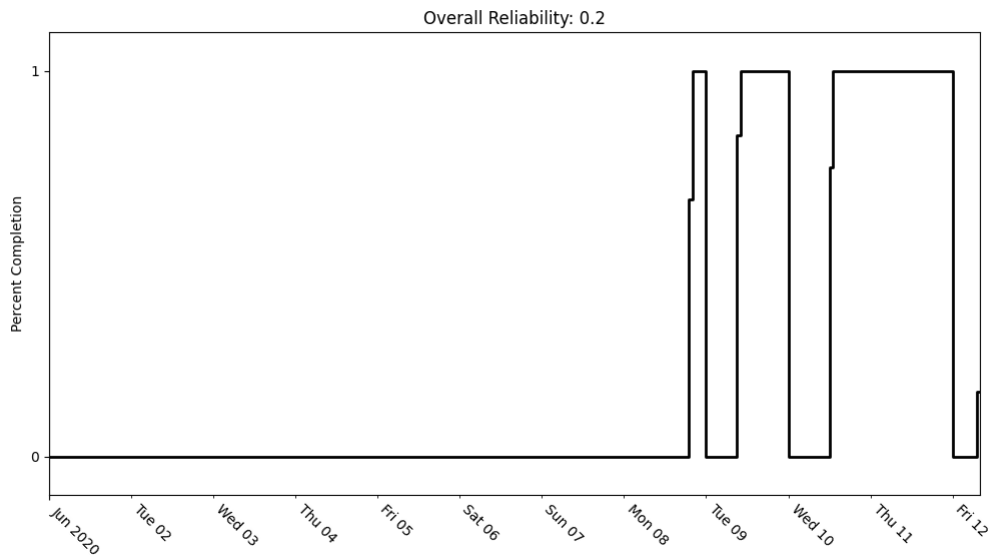
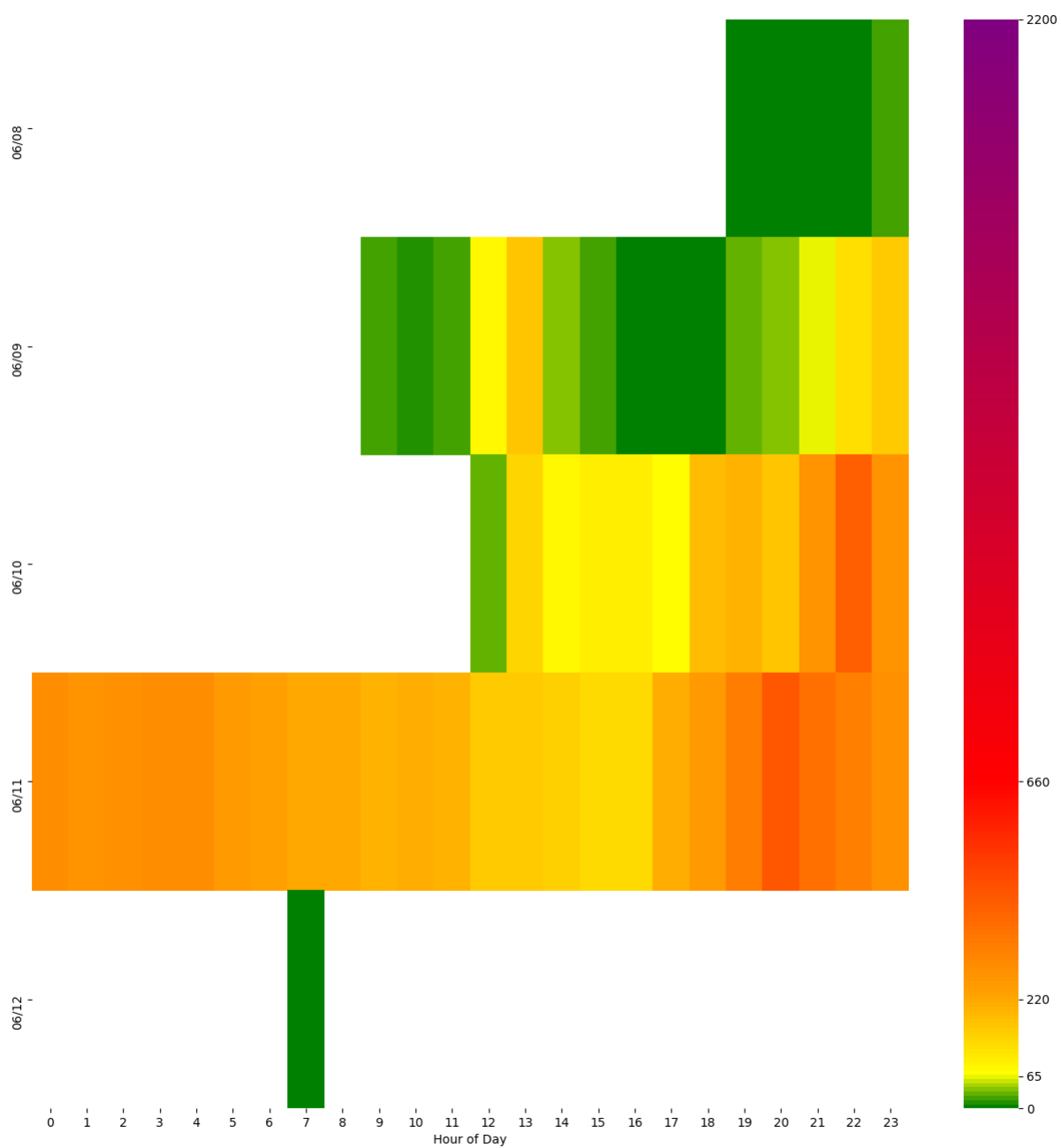


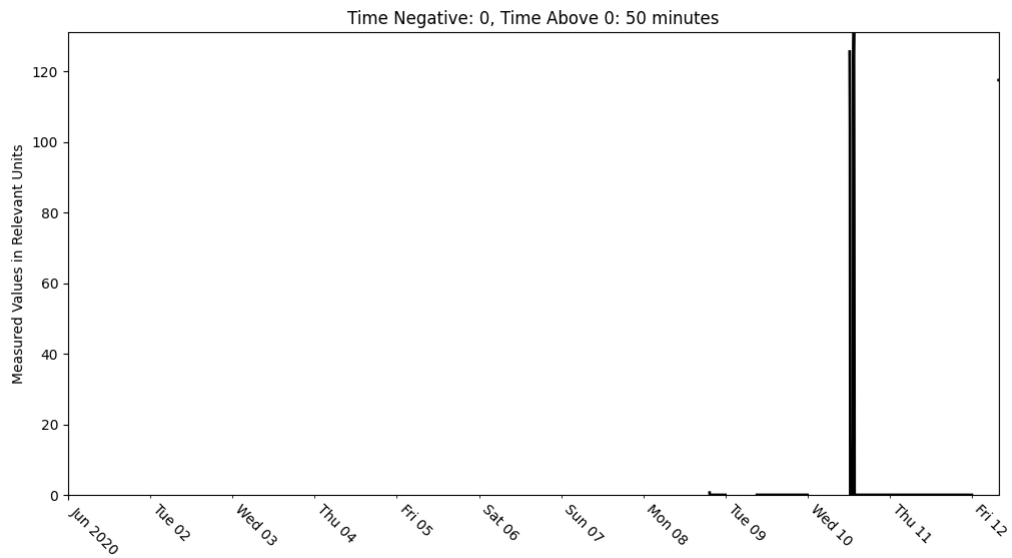
Figure 1.2 Reliability of the TVOC sensor during the study period



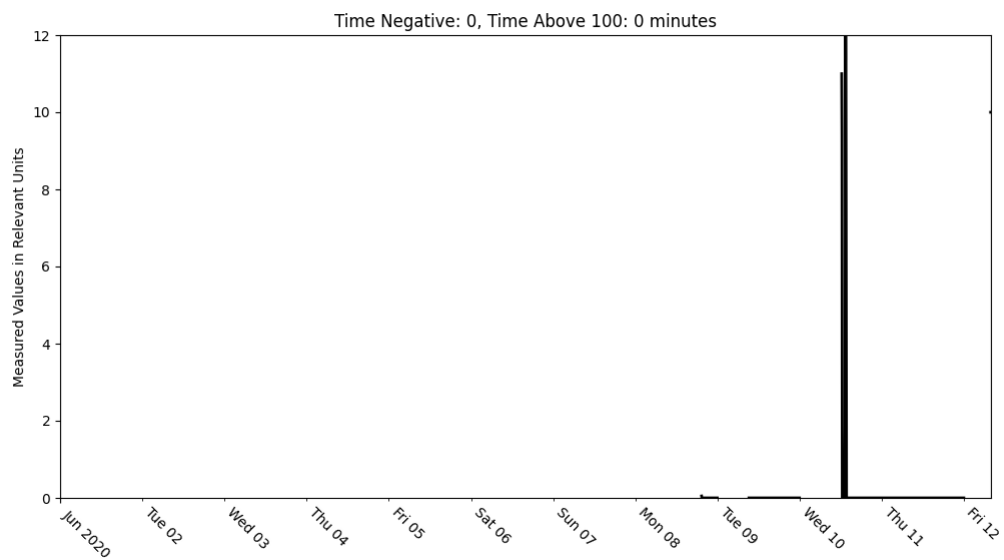
**Figure 1.3** Heatmap of TVOC measurements during the study period

## Light Levels

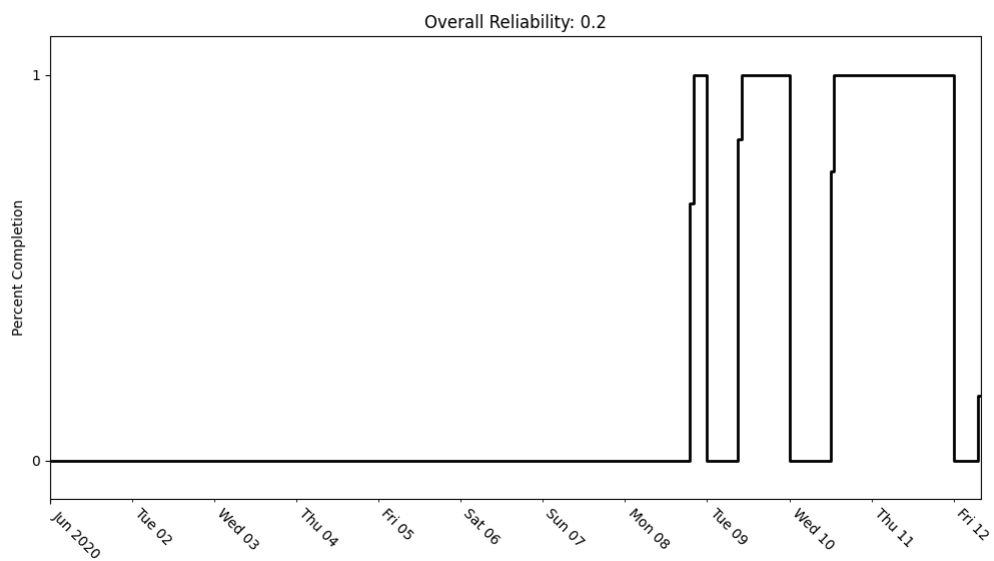
The light level values and reliability are summarized below



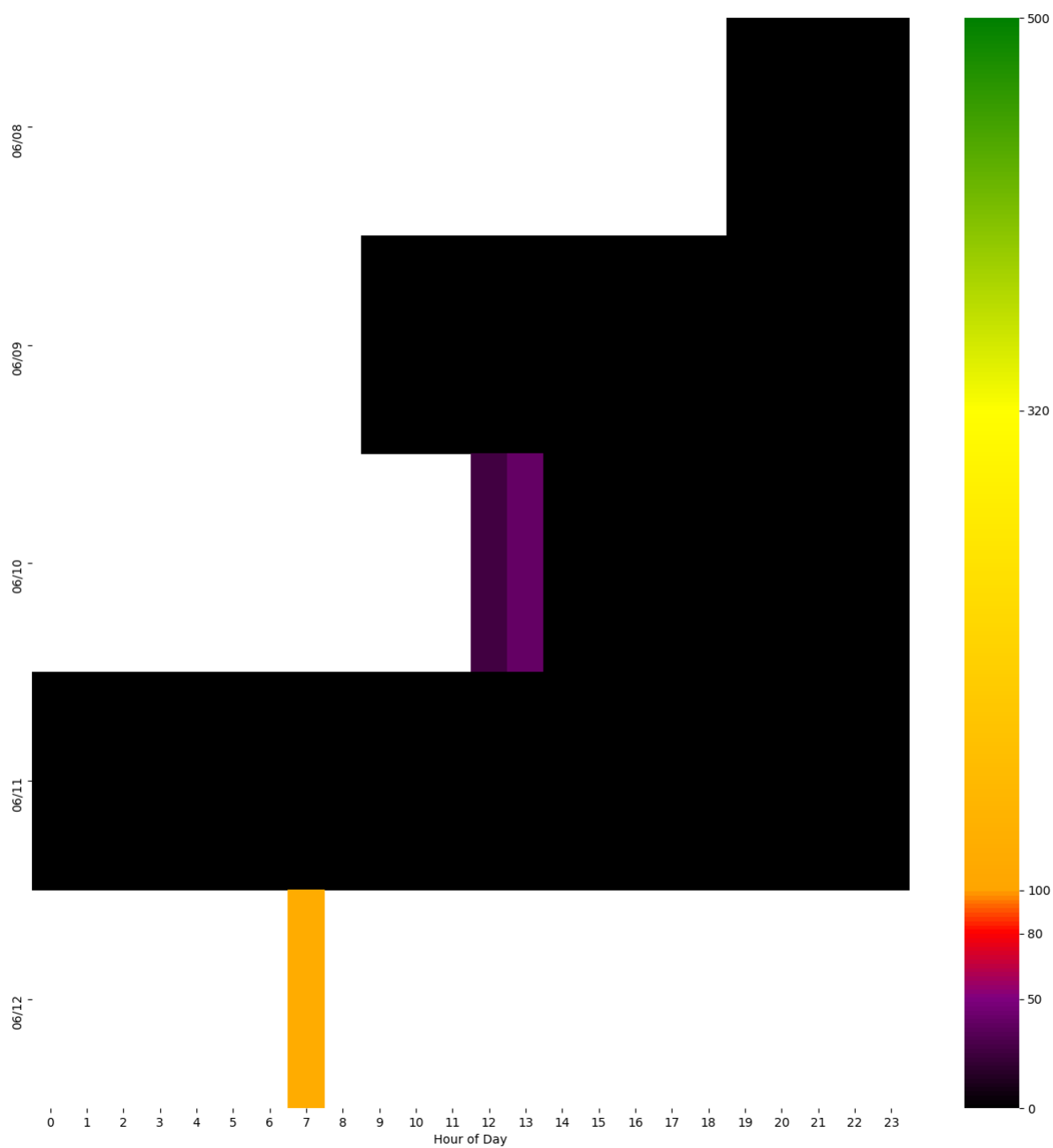
**Figure 2.1** Light level timeseries data in units of lux during the study period



**Figure 2.2** Infrared levels during the study period



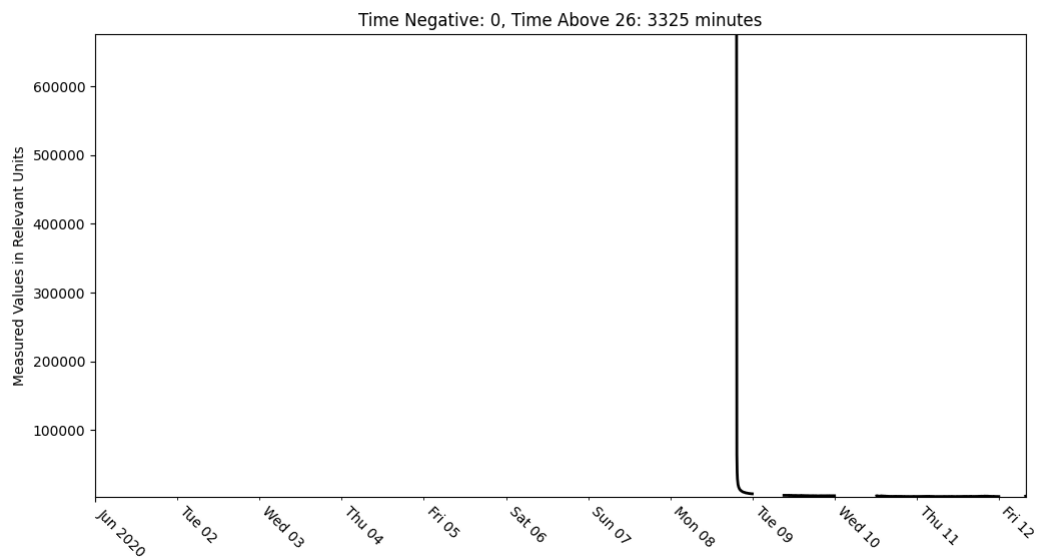
**Figure 2.3** Reliability of the light sensor during the study period



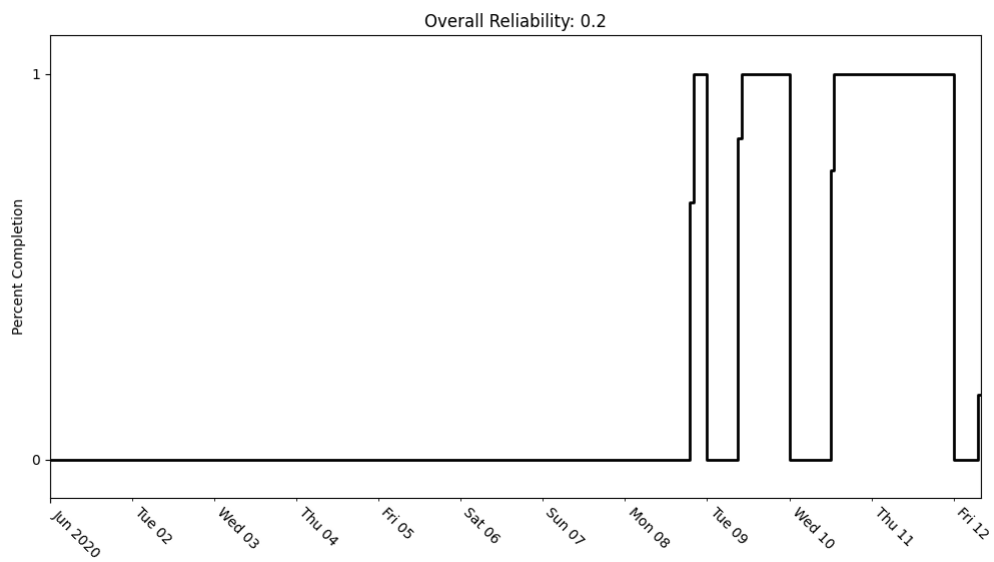
**Figure 2.4** Heatmap of light measurements during the study period

## Nitrogen Dioxide

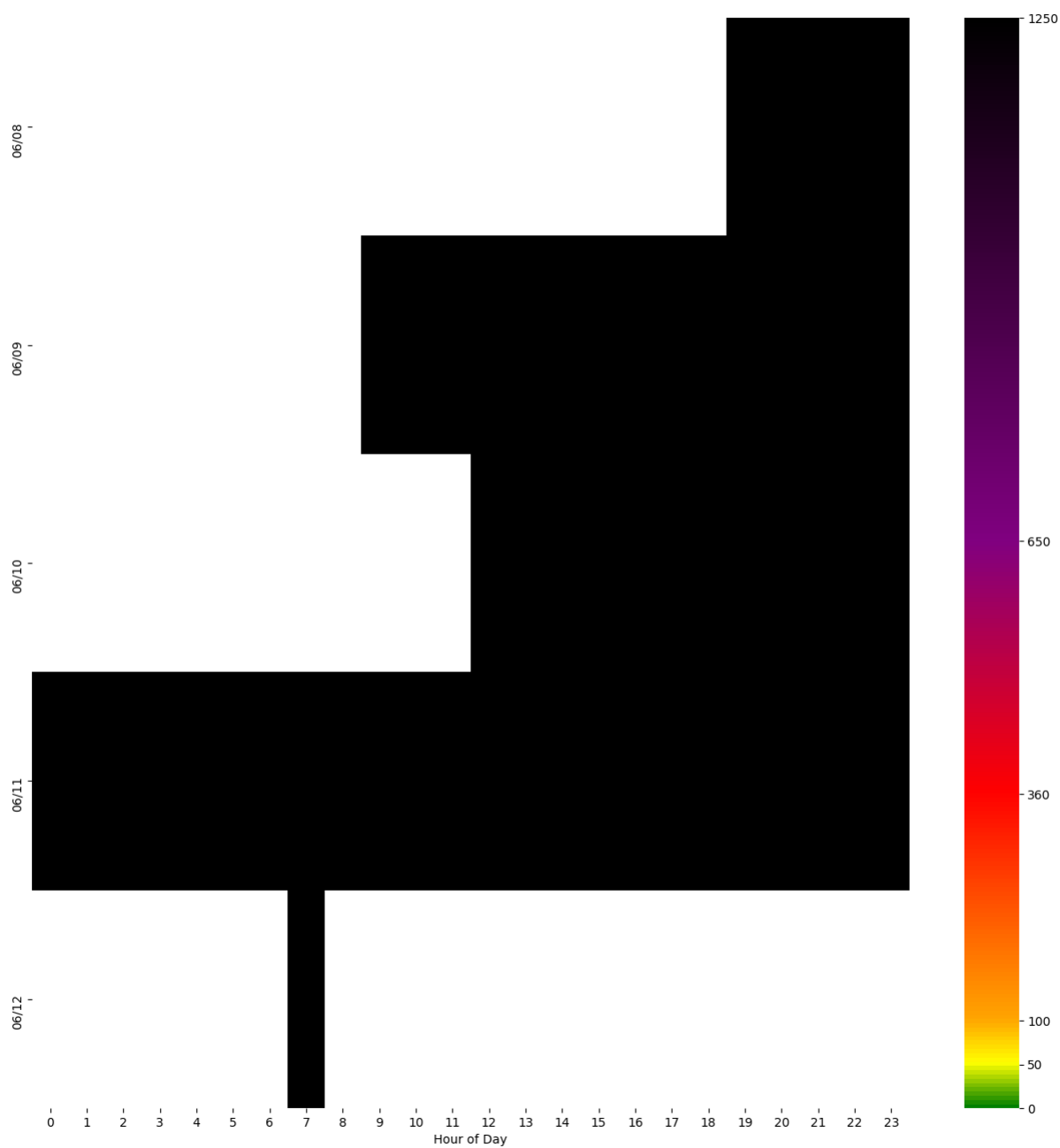
The NO<sub>2</sub> values and reliability are summarized below



**Figure 3.1** NO2 timeseries data with units of parts-per-billion during the study period



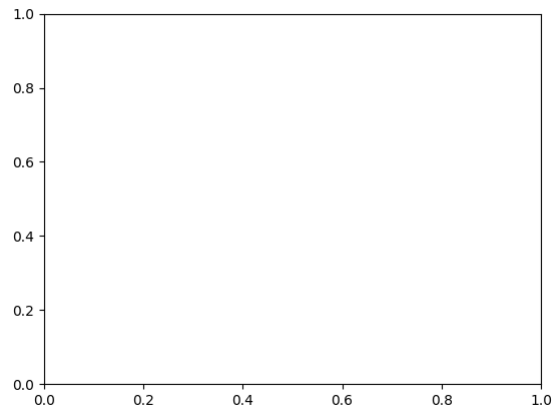
**Figure 3.2** Reliability of the NO2 sensor during the study period



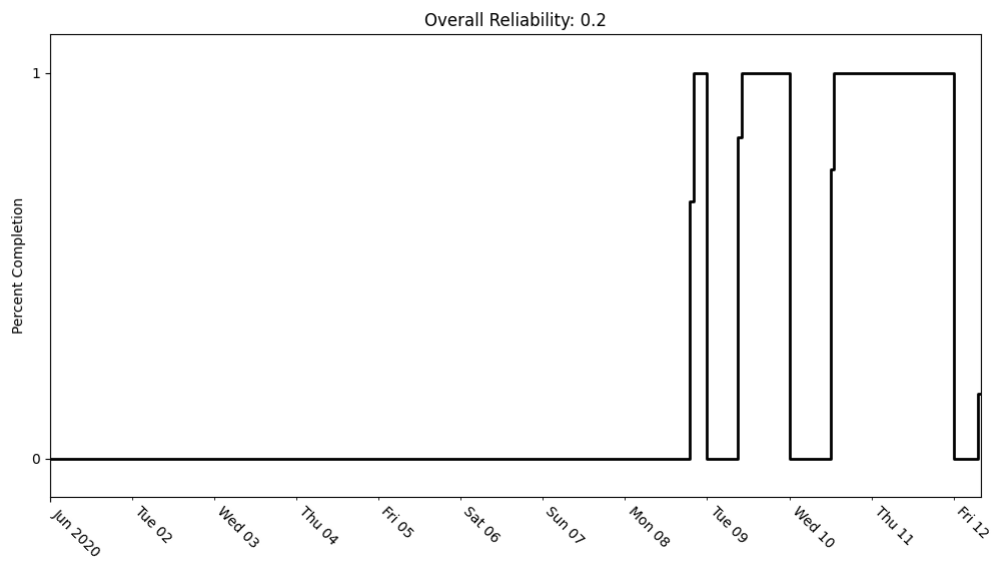
**Figure 3.3** Heatmap of the NO2 measurements during the study period

## Carbon Monoxide

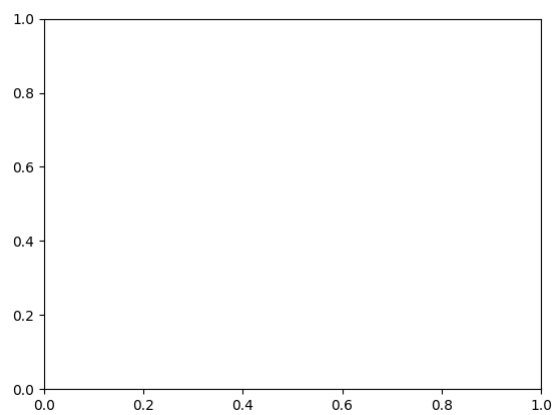
The CO values and reliability are summarized below



**Figure 4.1** CO timeseries data with units of parts-per-billion during the study period



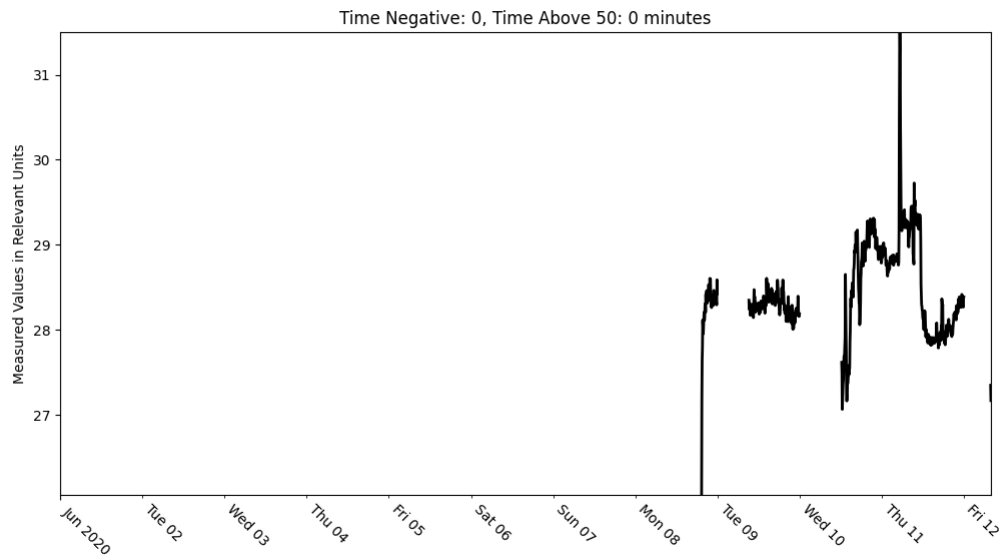
**Figure 4.2** Reliability of the CO sensor during the study period



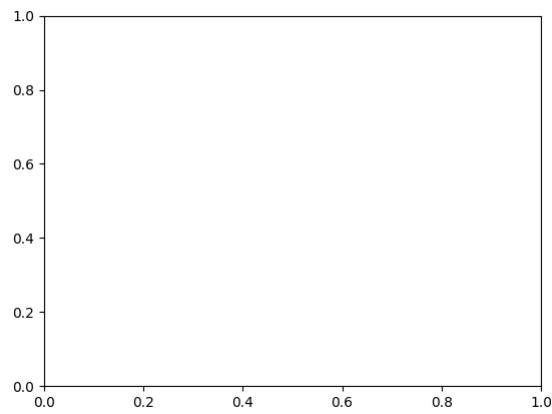
**Figure 4.2** Heatmap of the CO measurements during the study period

## Temperature

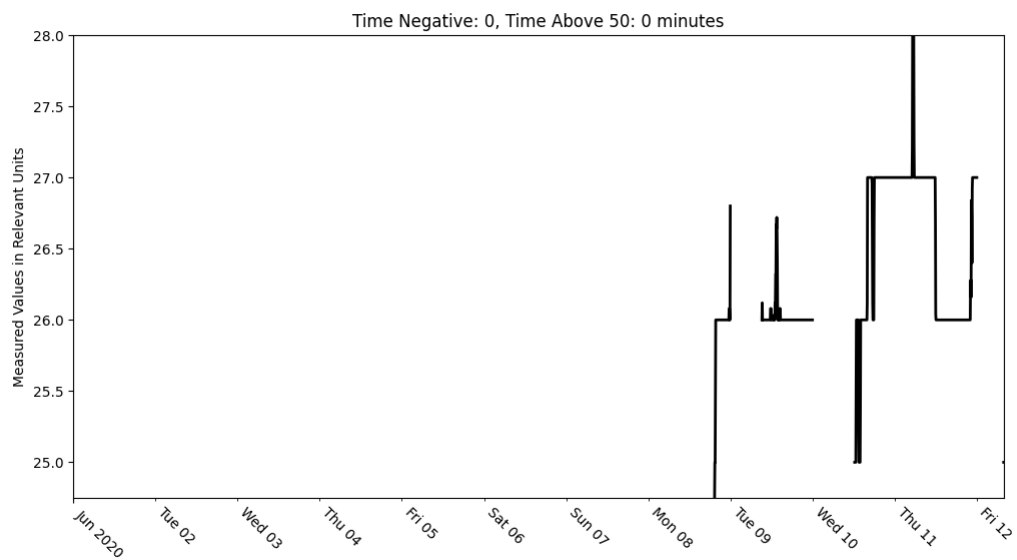
The temperature values from three various sensors and reliability are summarized below



**Figure 5.1** Temperature timeseries data in Celsius measured by the Sensirion SCD30 sensor

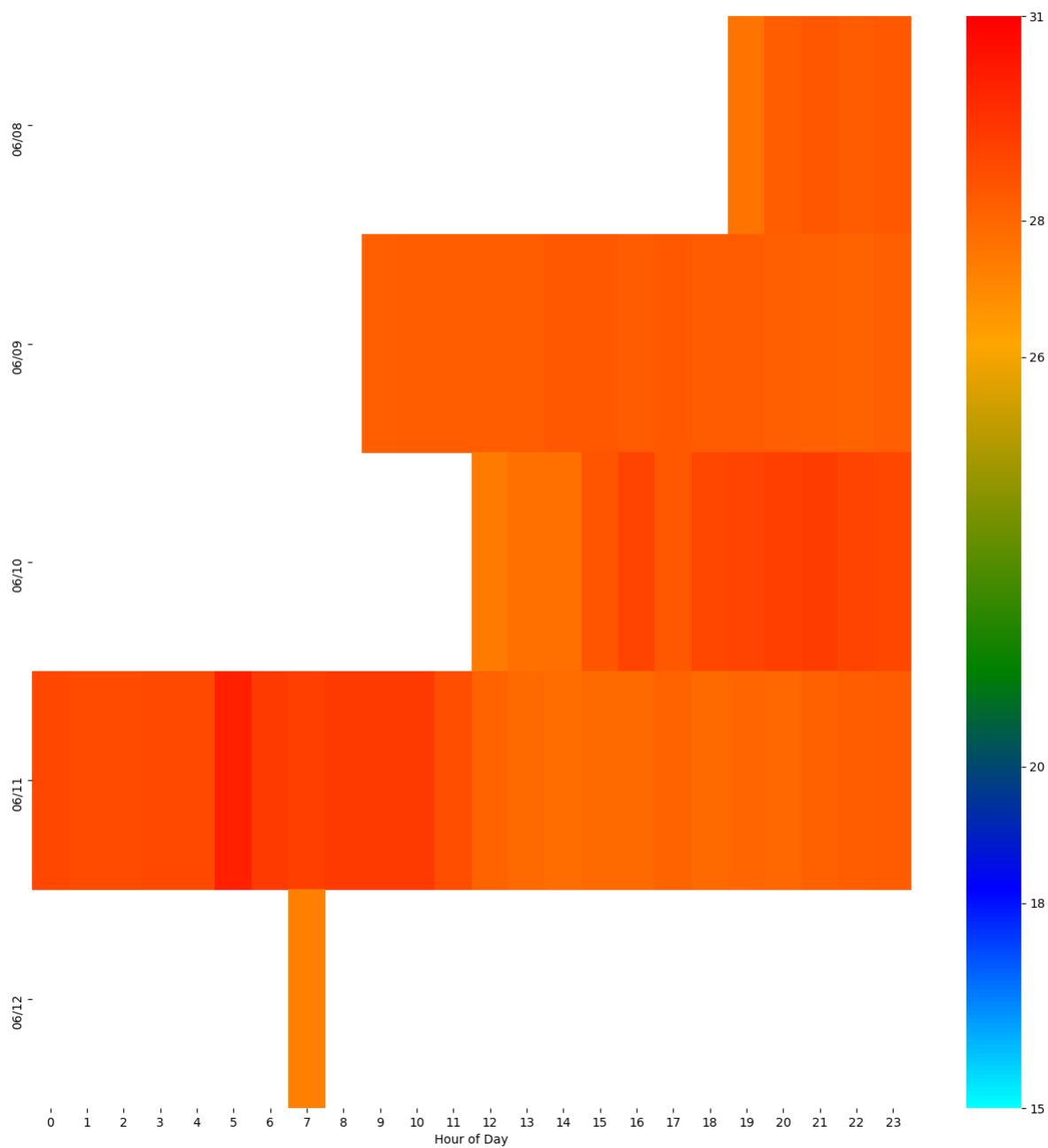


**Figure 5.2** Temperature timeseries data in Celsius measured by the DGS-CO sensor

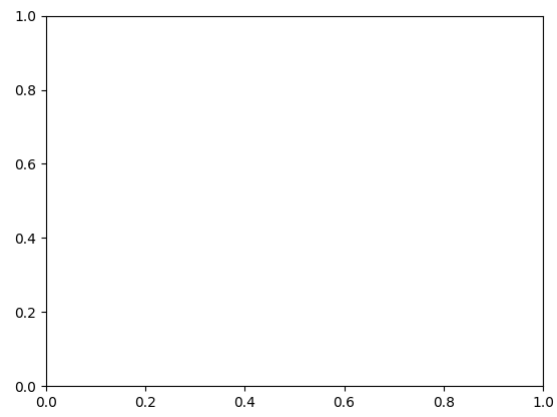


**Figure 5.3** Temperature timeseries data in Celsius measured by the DGS-NO2 sensor

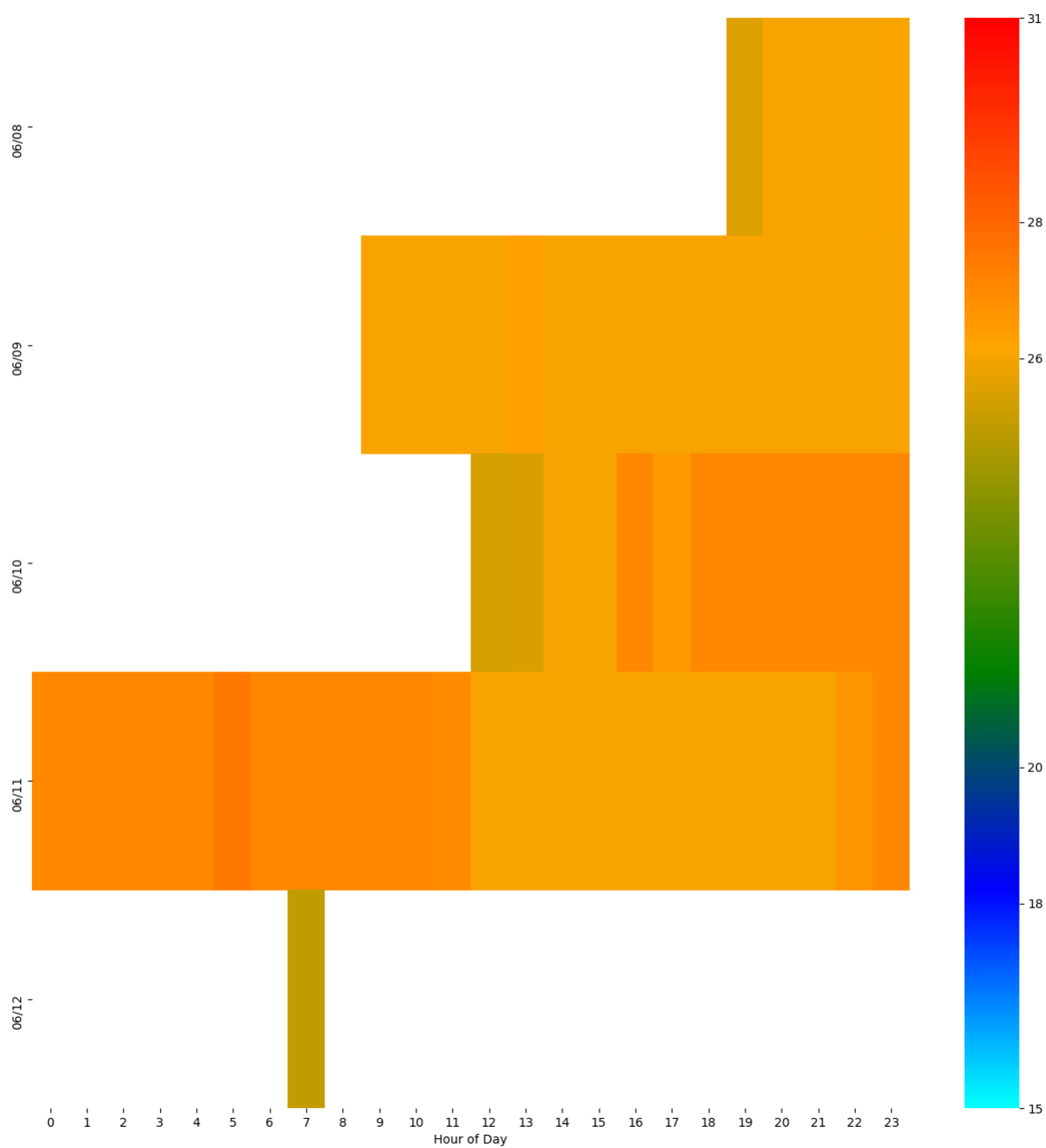




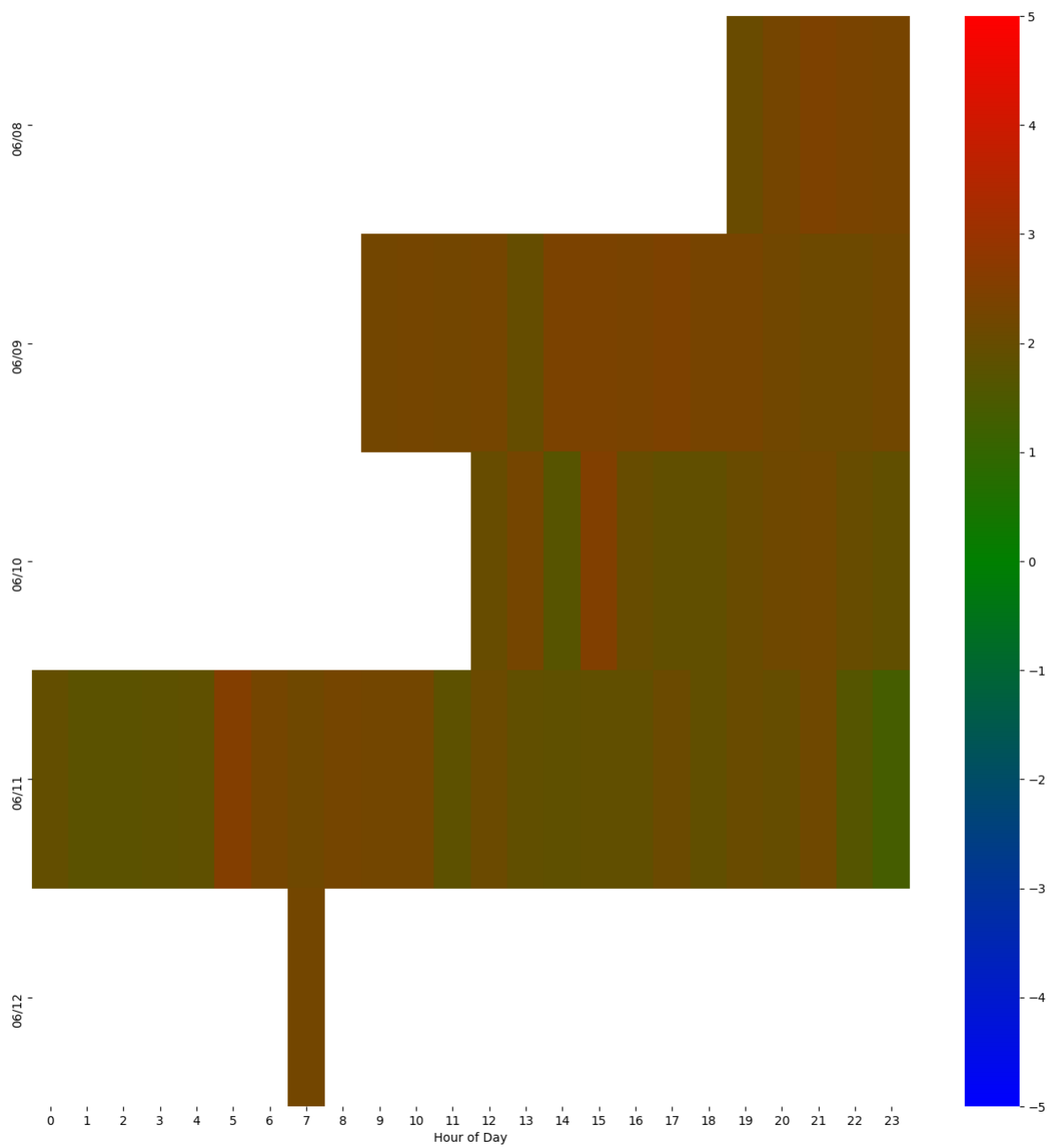
**Figure 5.4** Temperature heatmap data in Celsius measured by the Sensirion SCD30 sensor



**Figure 5.5** Temperature heatmap data in Celsius measured by the DGS-CO sensor



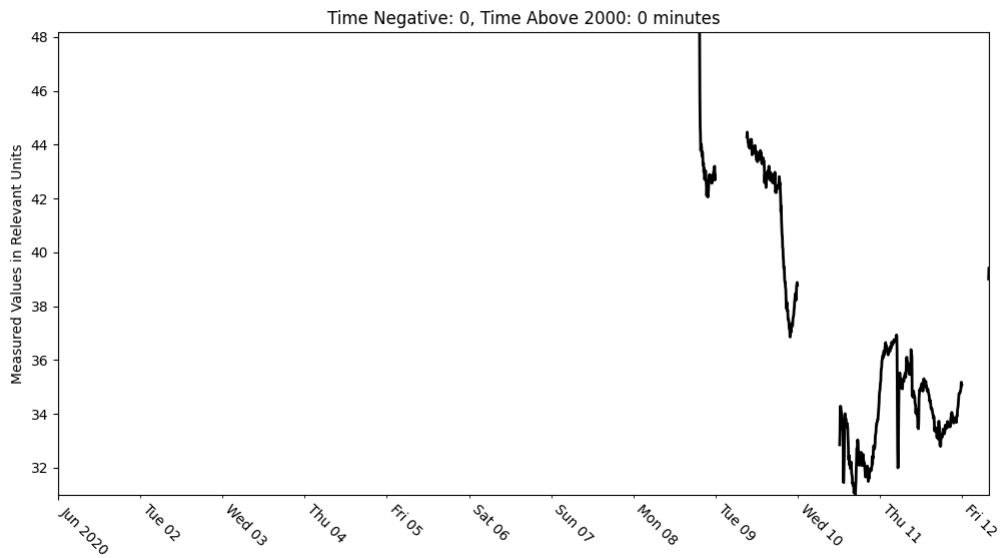
**Figure 5.6** Temperature heatmap data in Celsius measured by the DGS-NO2 sensor



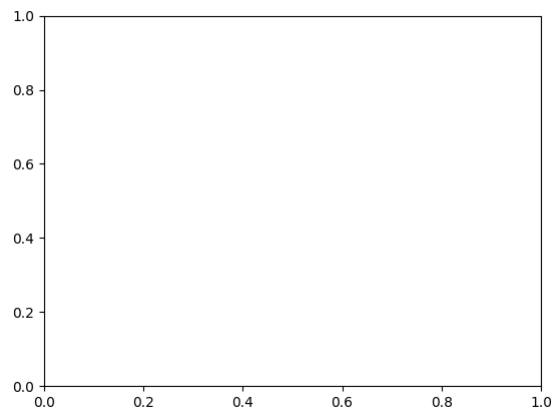
**Figure 5.7** Difference in temperature measured by Sensirion and the average DGS (Sensirion - mean DGS)

## Relative Humidity

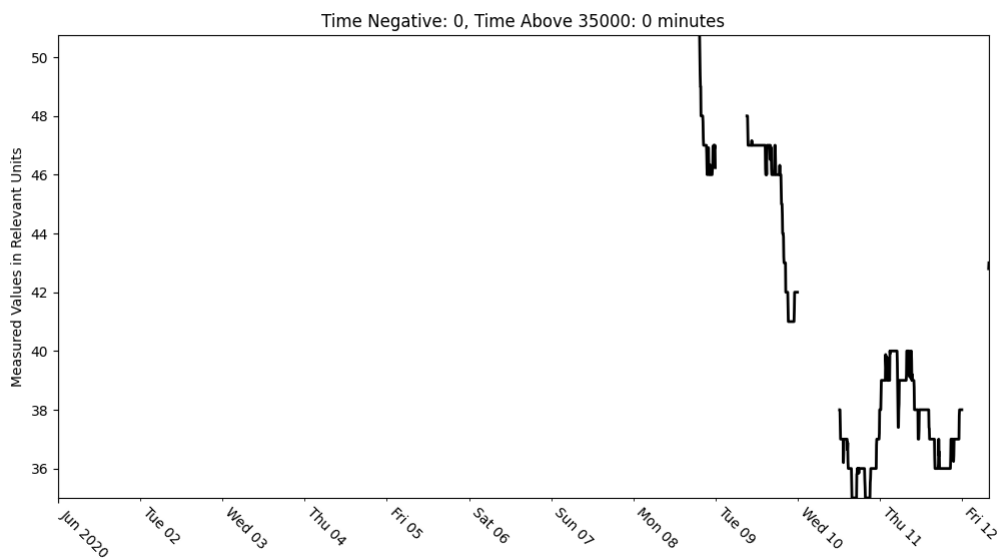
The RH values from three various sensors and reliability are summarized below



**Figure 6.1** Relative humidity timeseries data during the study period by the Sensirion SCD30 sensor



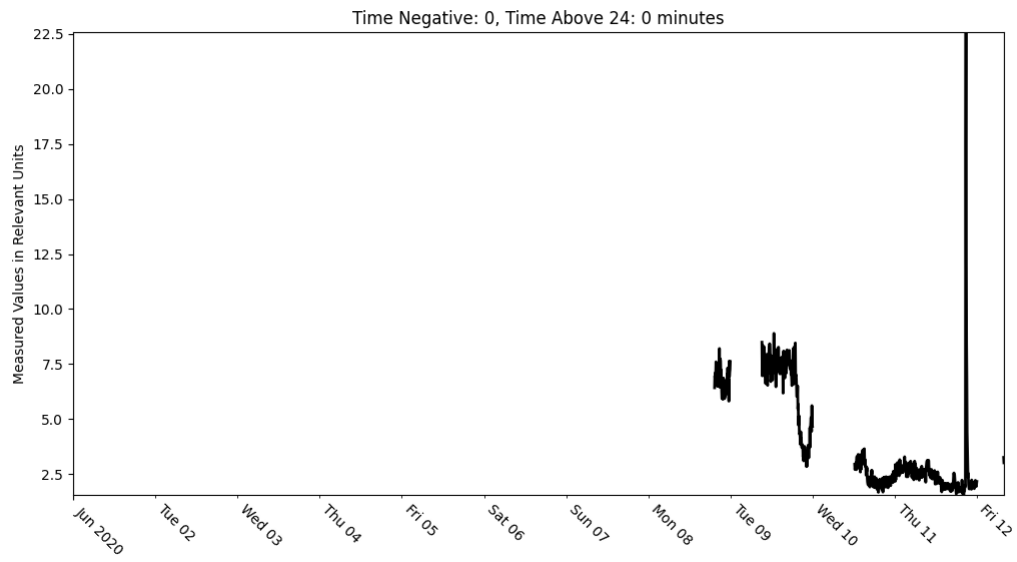
**Figure 6.2** Relative humidity timeseries data in units of Celsius during the study period by the DGS-CO sensor



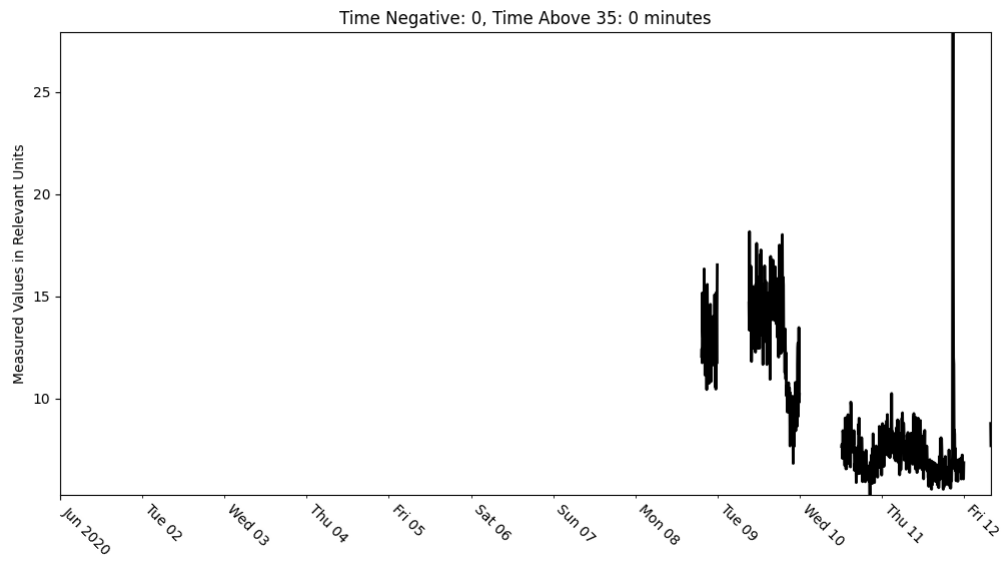
**Figure 6.3** Relative humidity timeseries data in units of Celsius during the study period by the DGS-NO2 sensor

## Particulate Matter

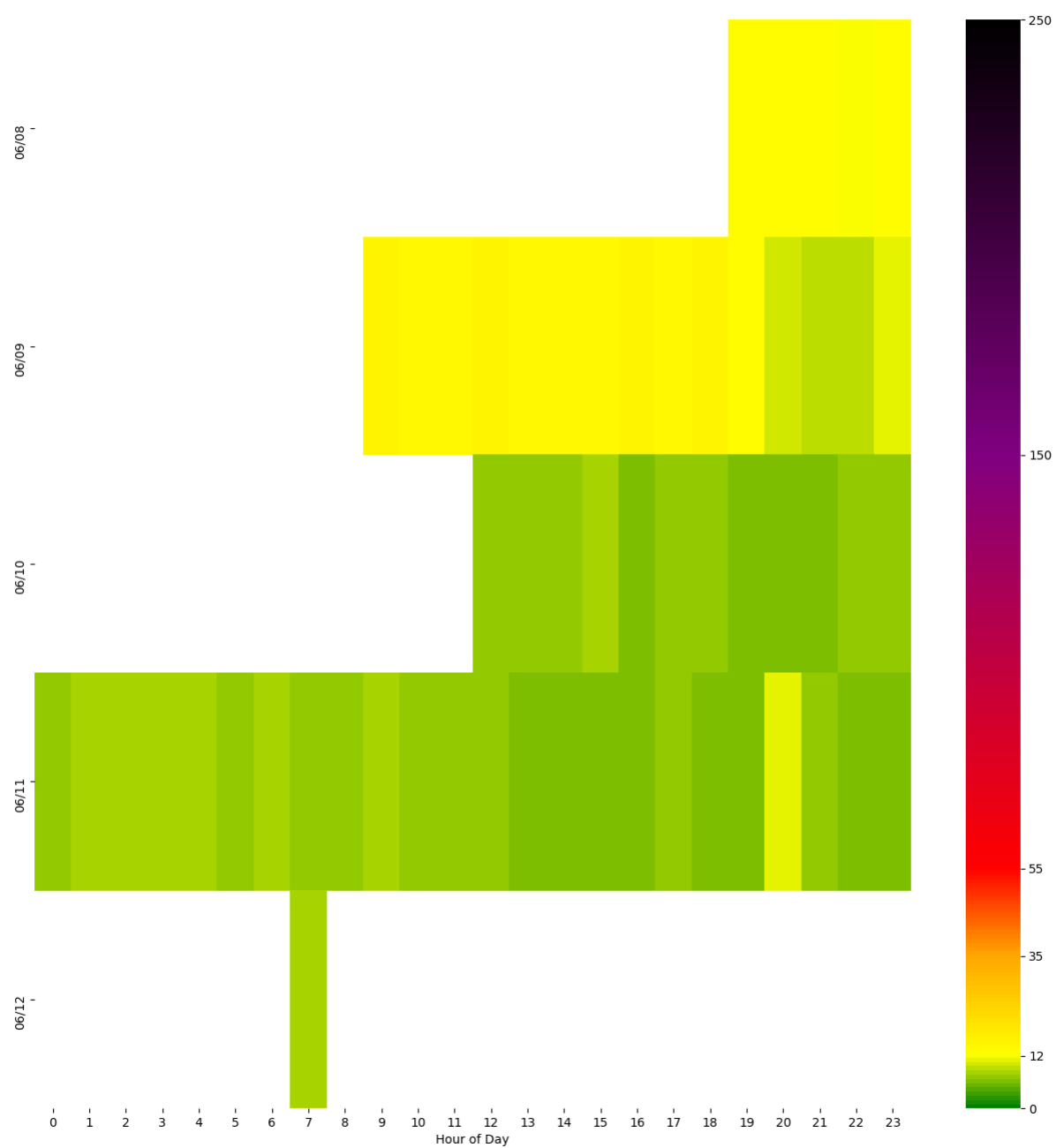
The Particulate Matter values (PM1, PM2.5, and PM10) and reliability are summarized below



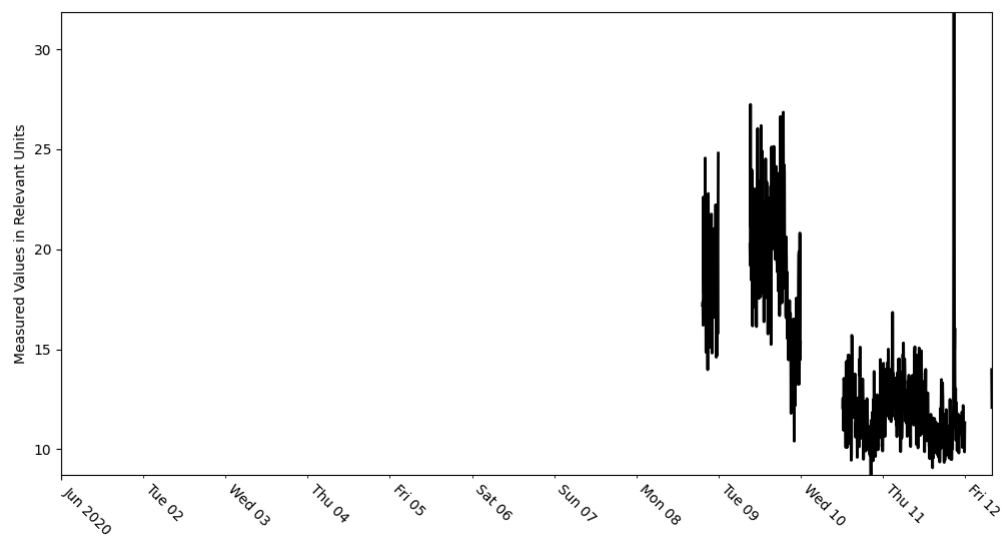
**Figure 7.1** PM1 Timeseries data with units of micrograms per cubic meter



**Figure 7.2** PM2.5 Timeseries data with units of micrograms per cubic meter



**Figure 7.2** PM2.5 heatmap with units of micrograms per cubic meter



**Figure 7.2** PM2.5 Timeseries data with units of micrograms per cubic meter



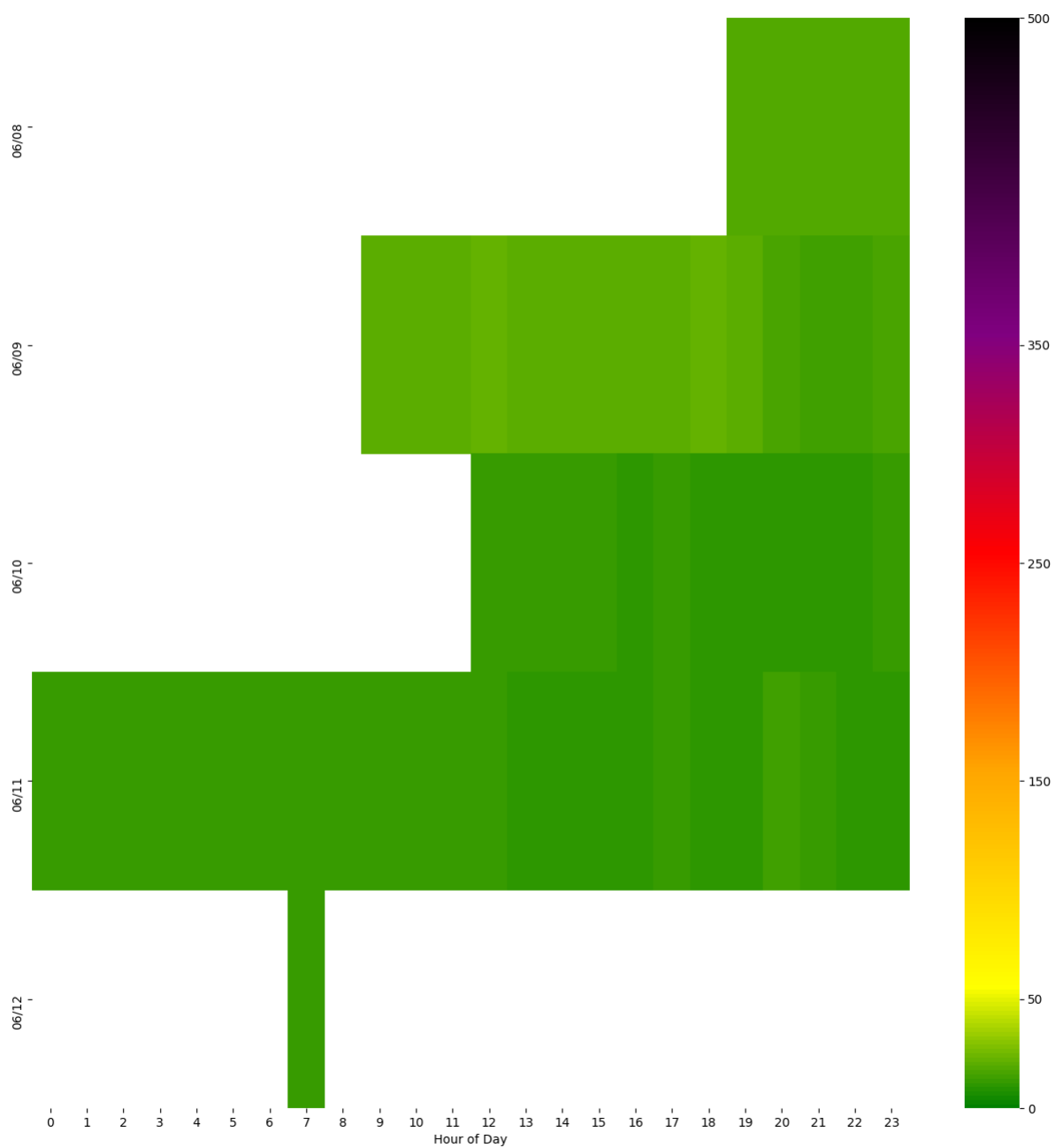
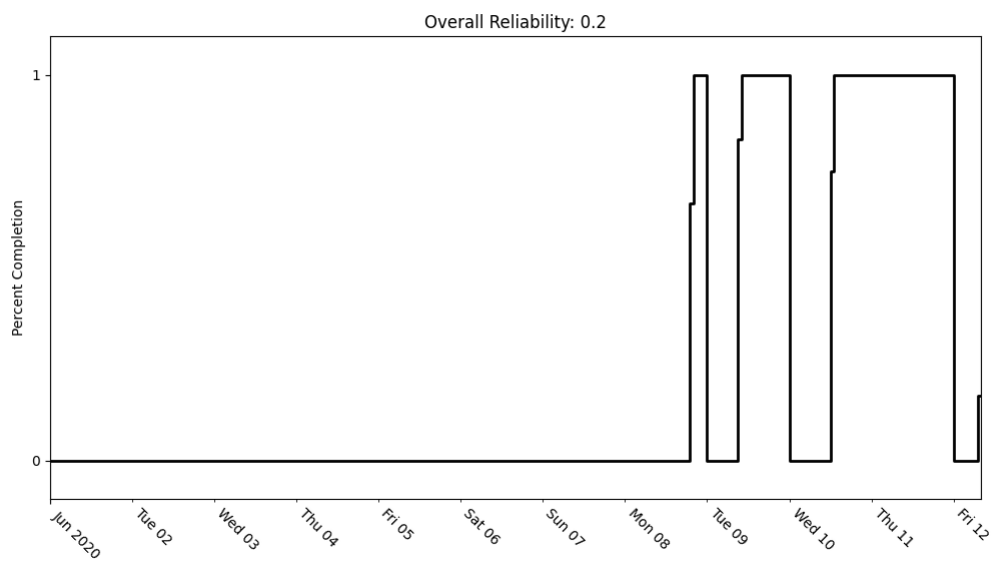


Figure 7.3 PM10 heatmap with units of micrograms per cubic meter



**Figure 7.4** Reliability of the PM sensor (using PM2.5 values)