

# Beacon 22 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

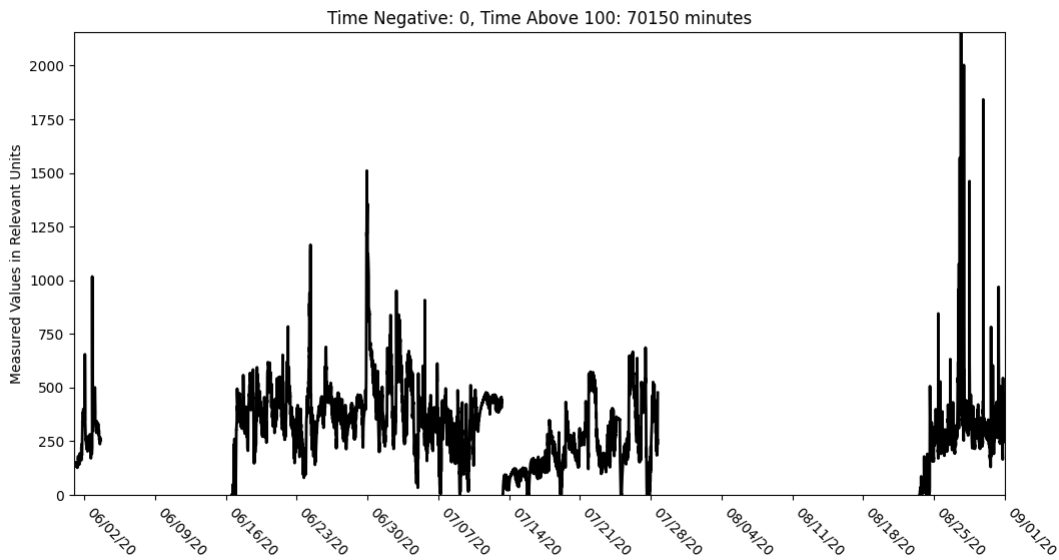


Figure 1.1 TVOC timeseries data with units of parts-per-million during the study period

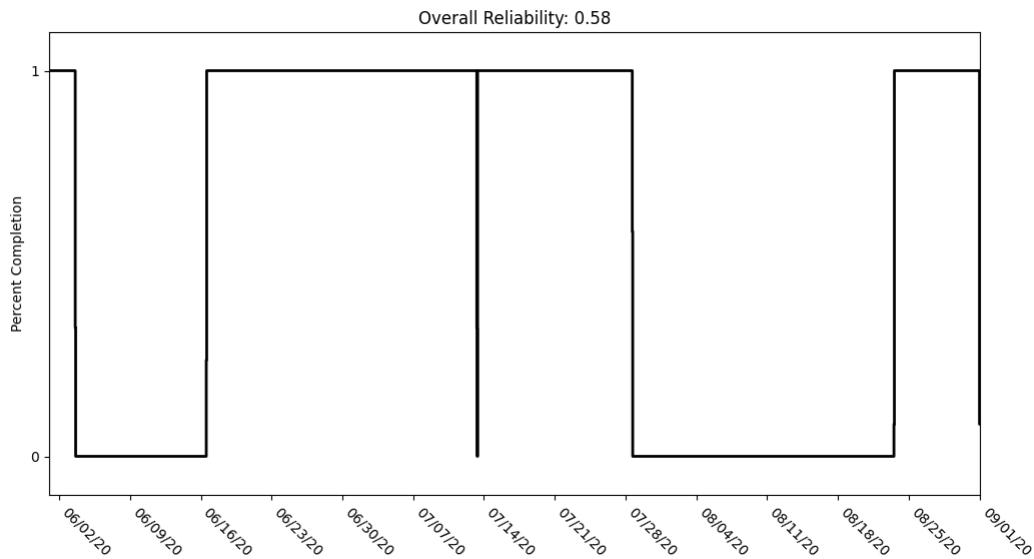
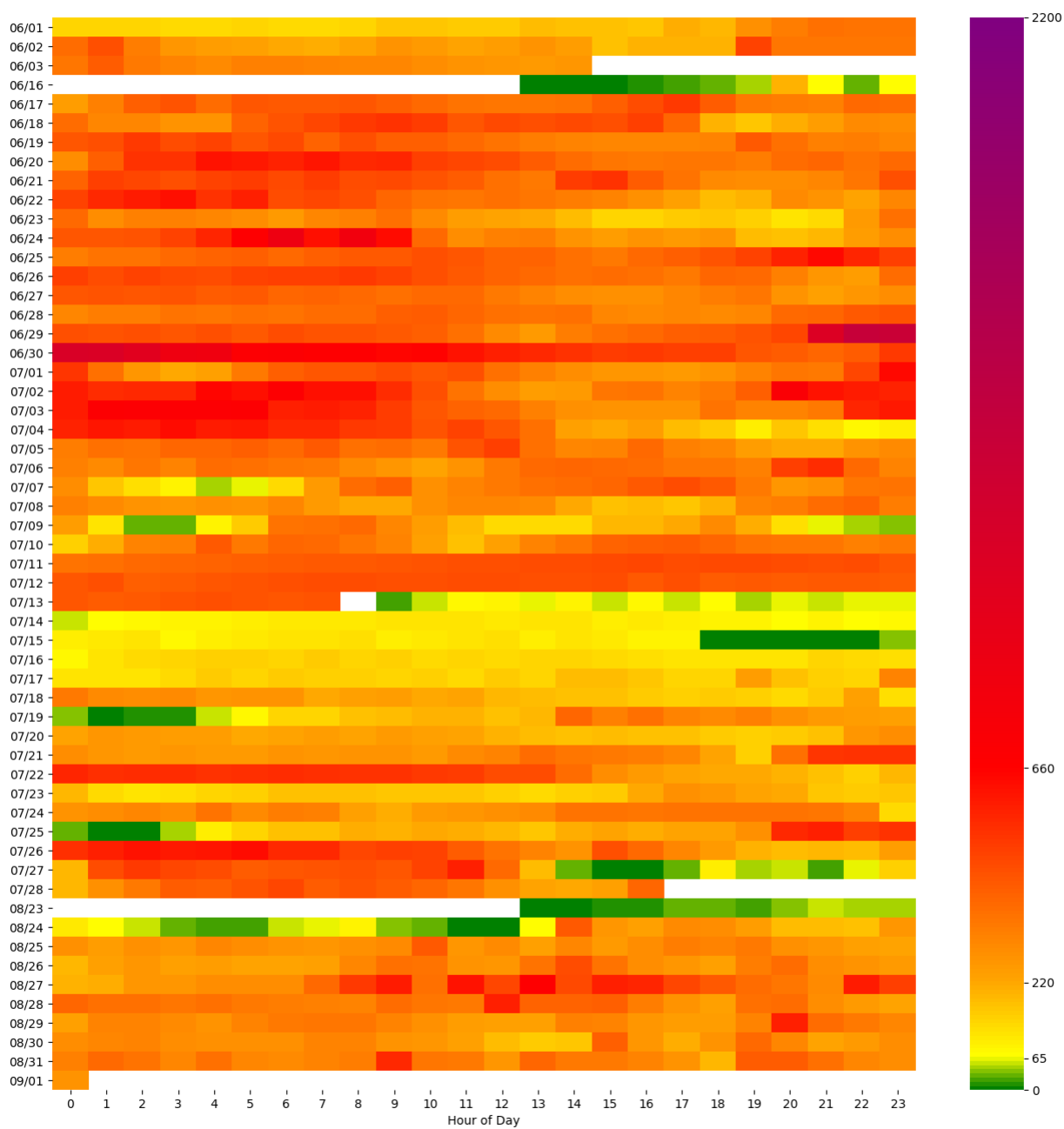


Figure 1.2 Reliability of the TVOC sensor during the study period



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

## Light Levels

The light level values and reliability are summarized below

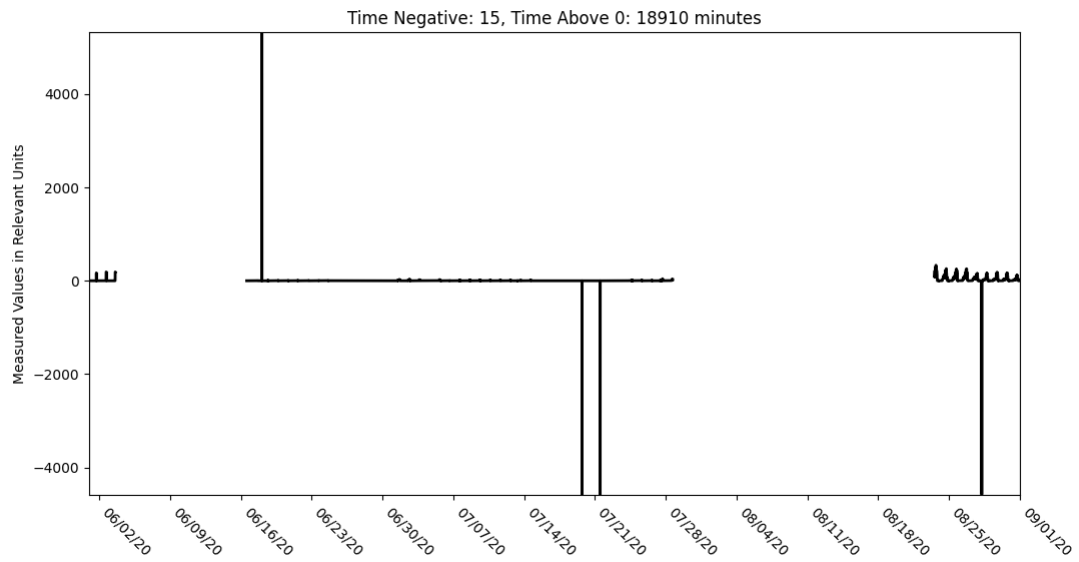


Figure 2.1 Light level timeseries data in units of lux during the study period

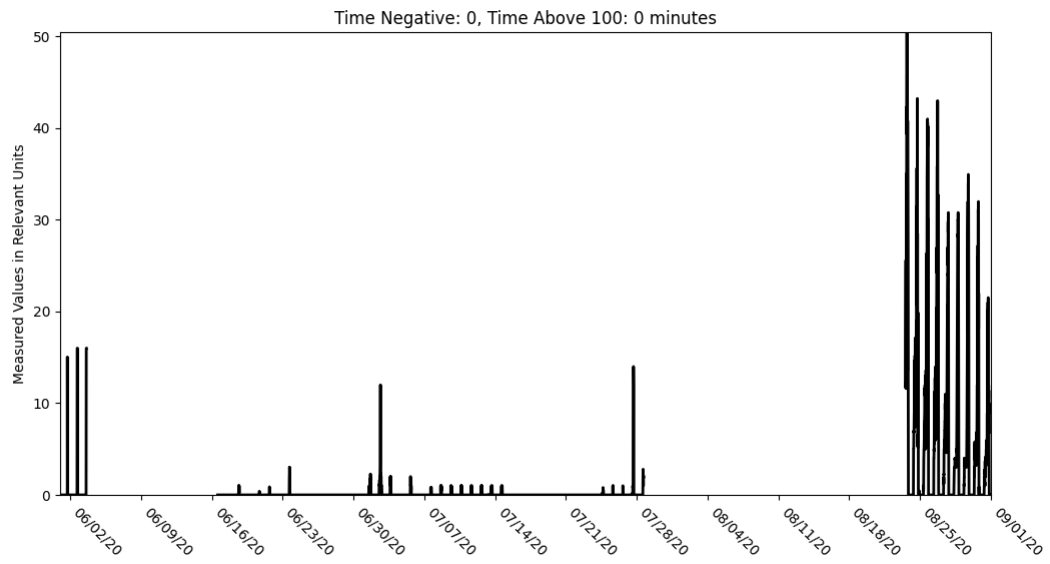


Figure 2.2 Infrared levels during the study period

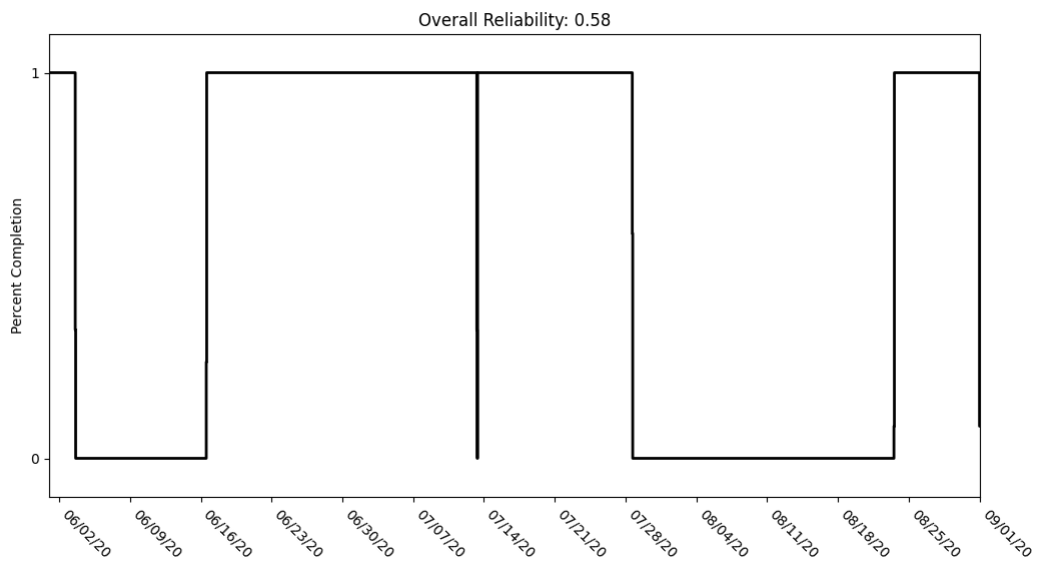
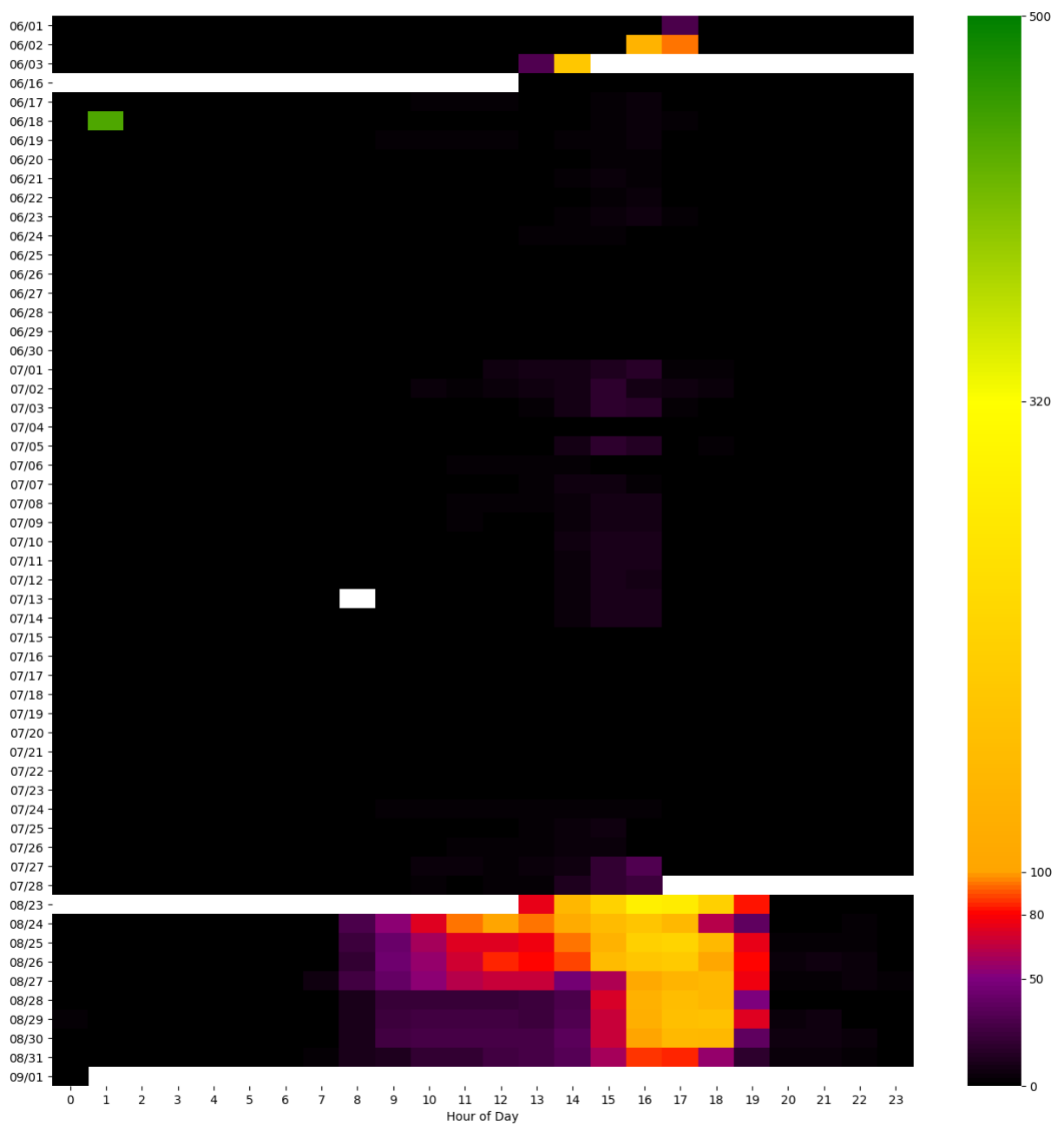


Figure 2.3 Reliability of the light sensor during the study period



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

## Nitrogen Dioxide

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

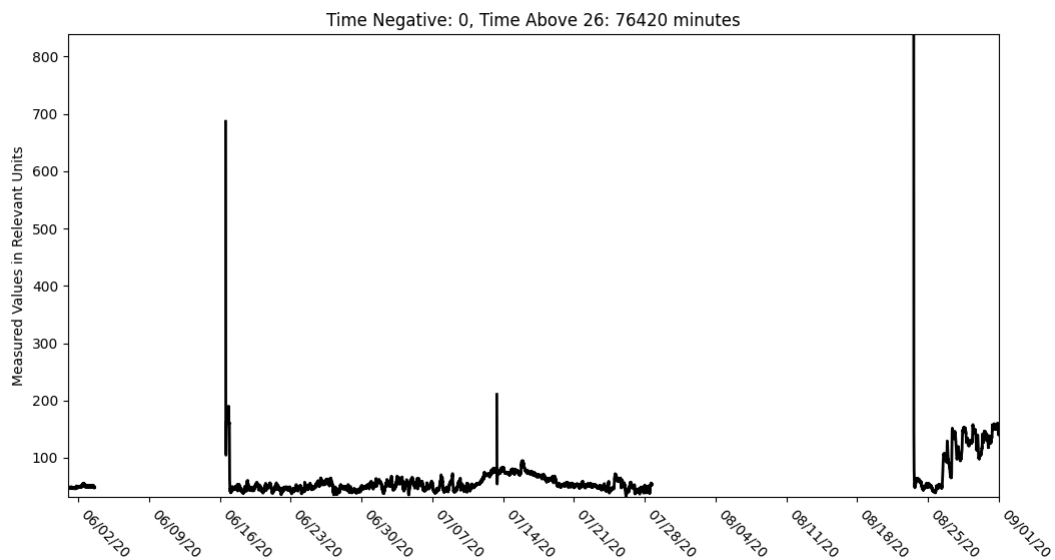


Figure 3.1 NO2 timeseries data with units of parts-per-billion during the study period

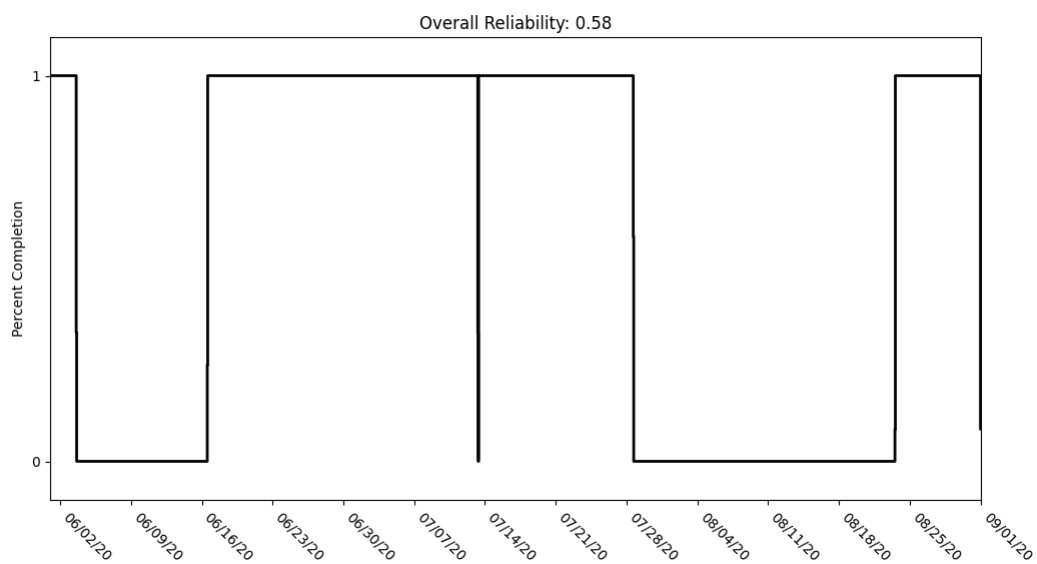
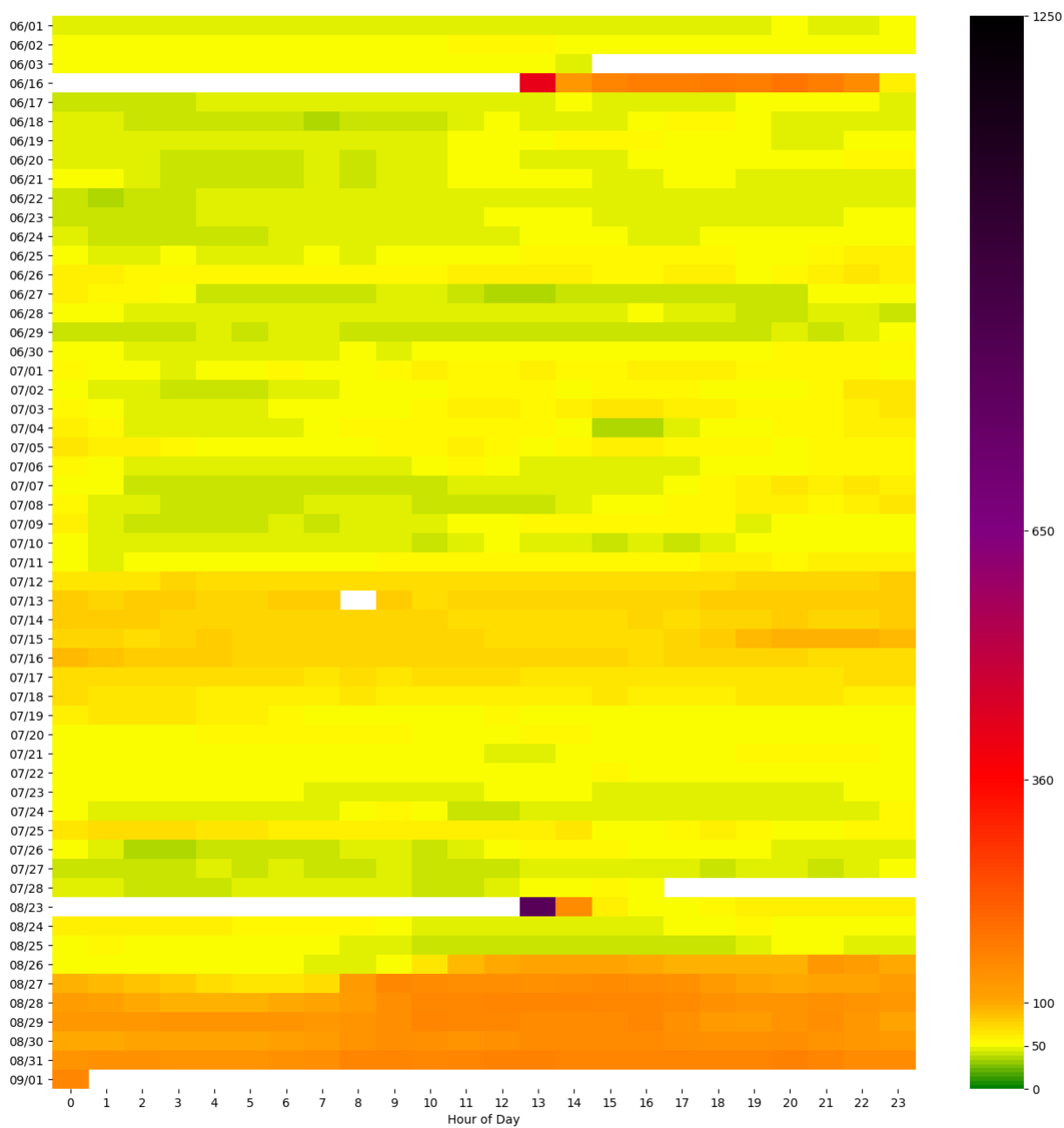


Figure 3.2 Reliability of the NO2 sensor during the study period



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

## Carbon Monoxide

The CO values and reliability are summarized below

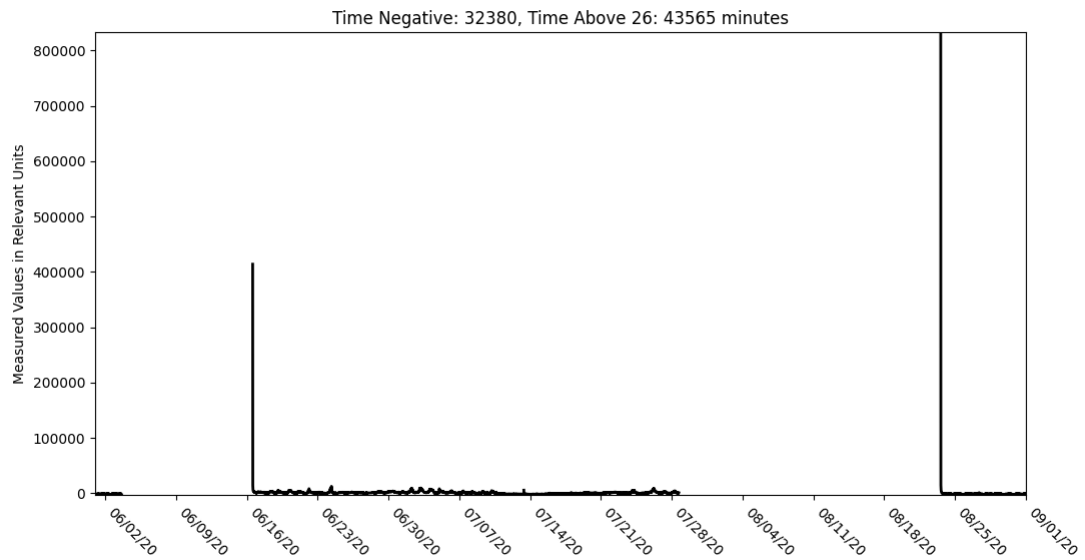


Figure 4.1 CO timeseries data with units of parts-per-billion during the study period

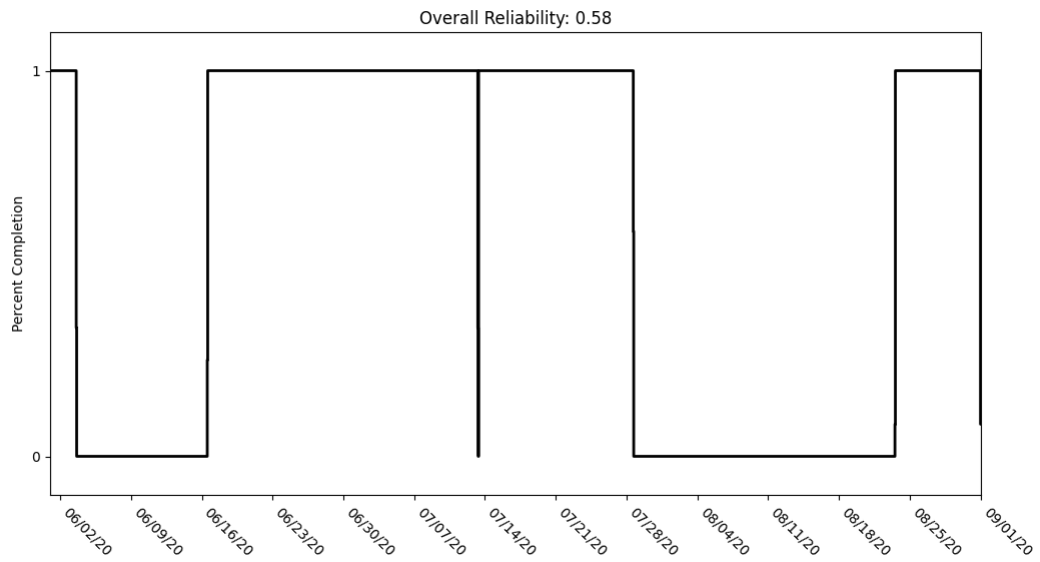
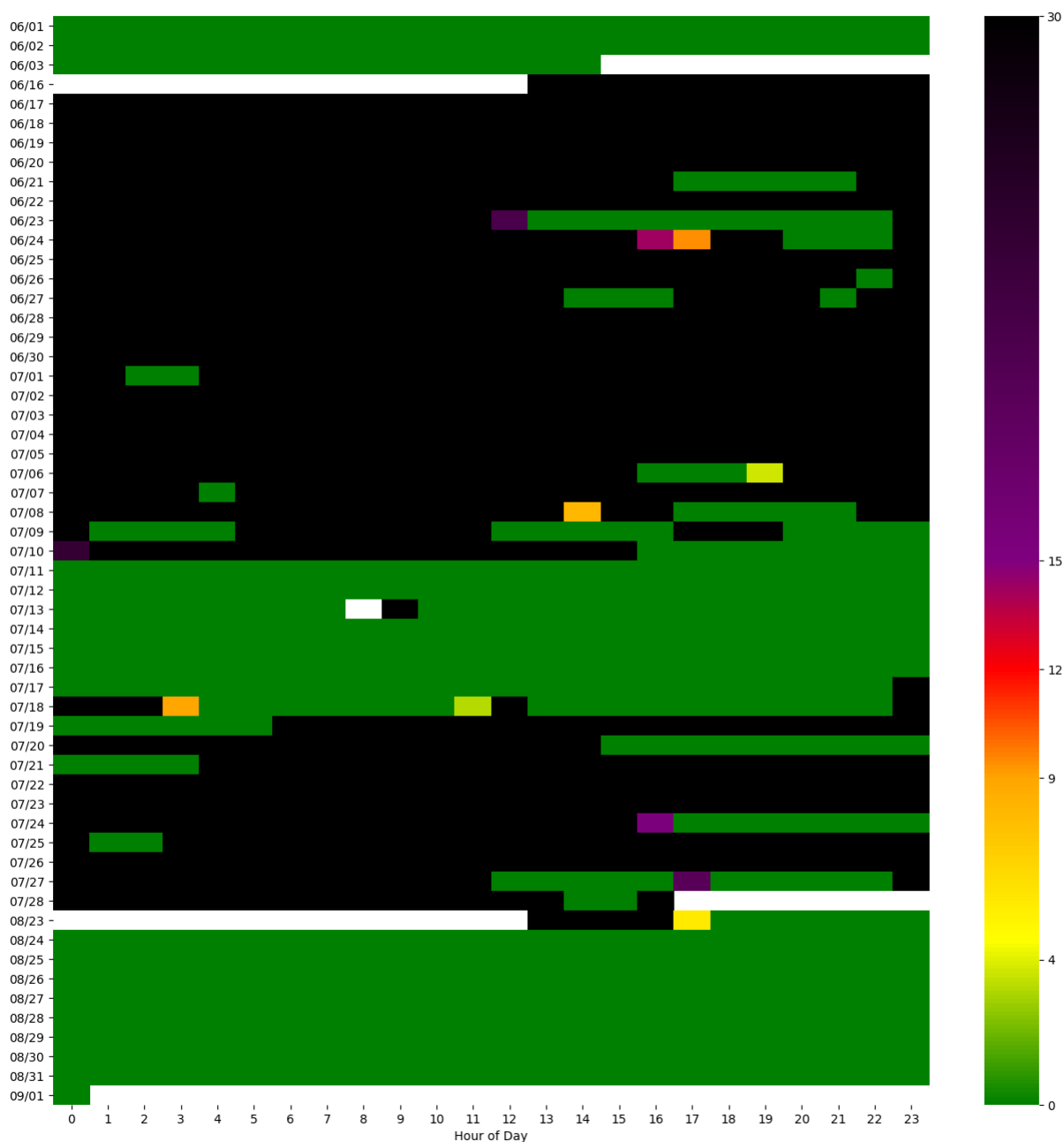


Figure 4.2 Reliability of the CO sensor during the study period



**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



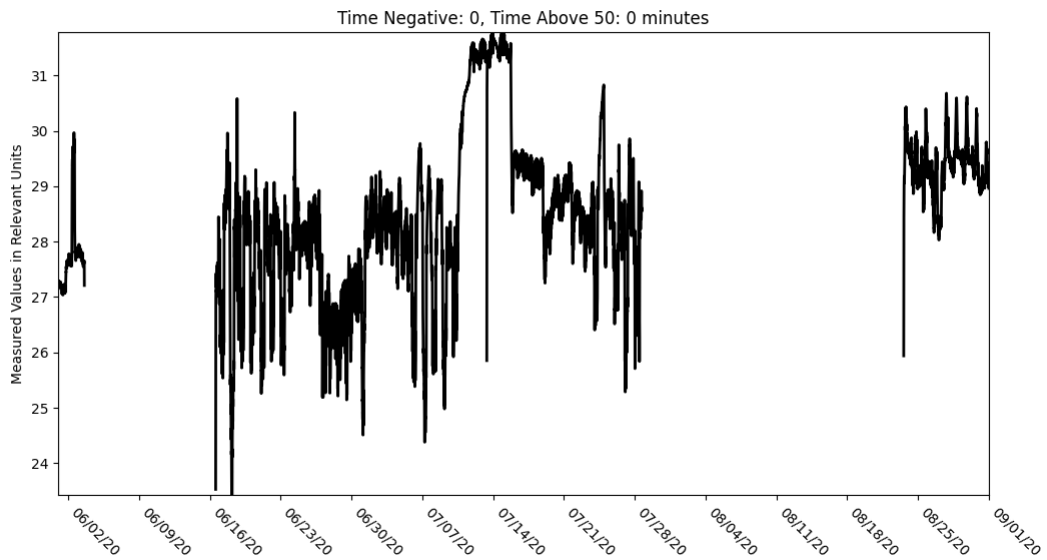


Figure 5.1 Temperature timeseries data in Celsius measured by the Sensirion SCD30 sensor

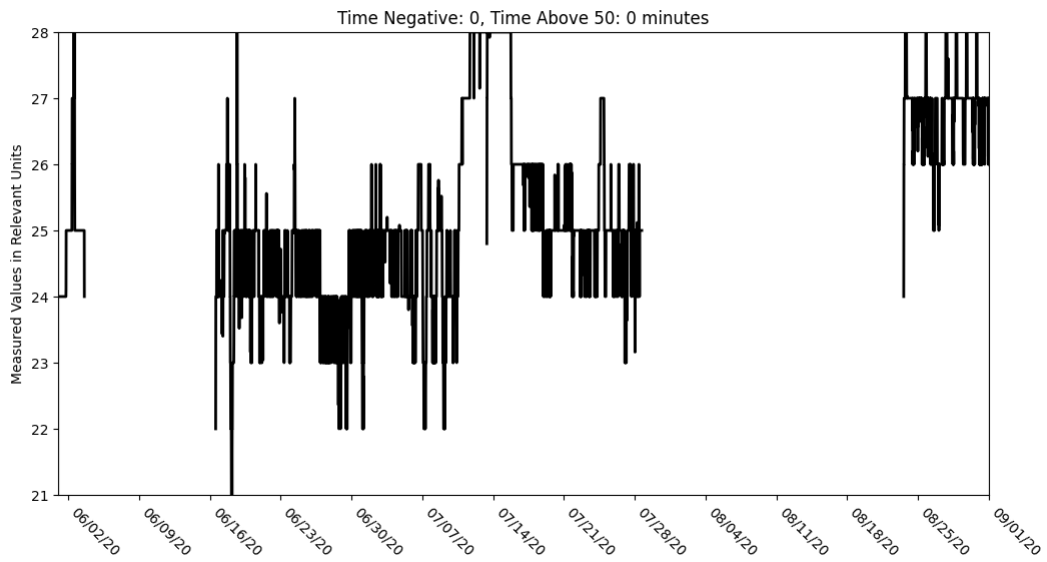


Figure 5.2 Temperature timeseries data in Celsius measured by the DGS-CO sensor

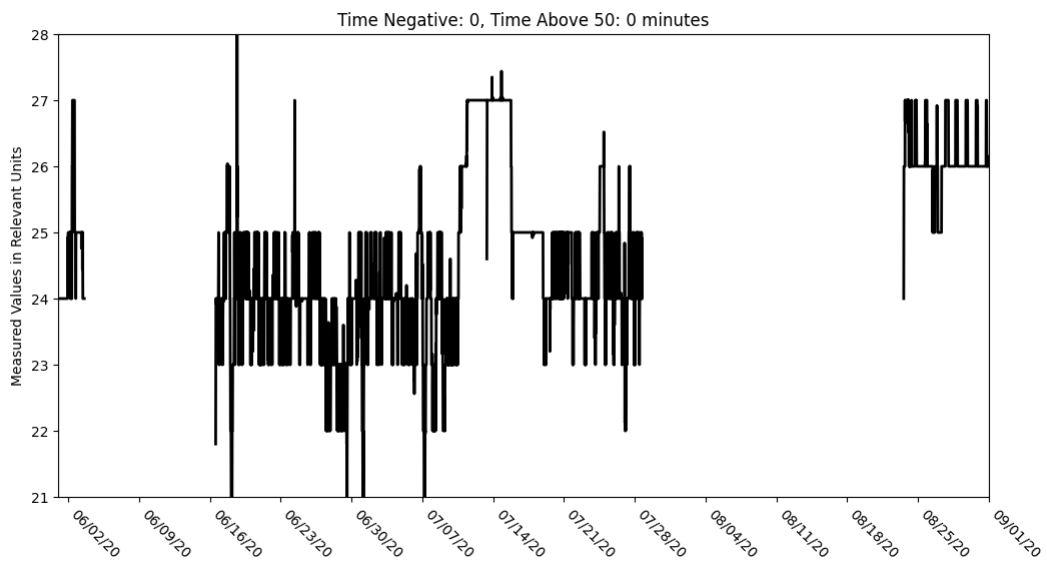
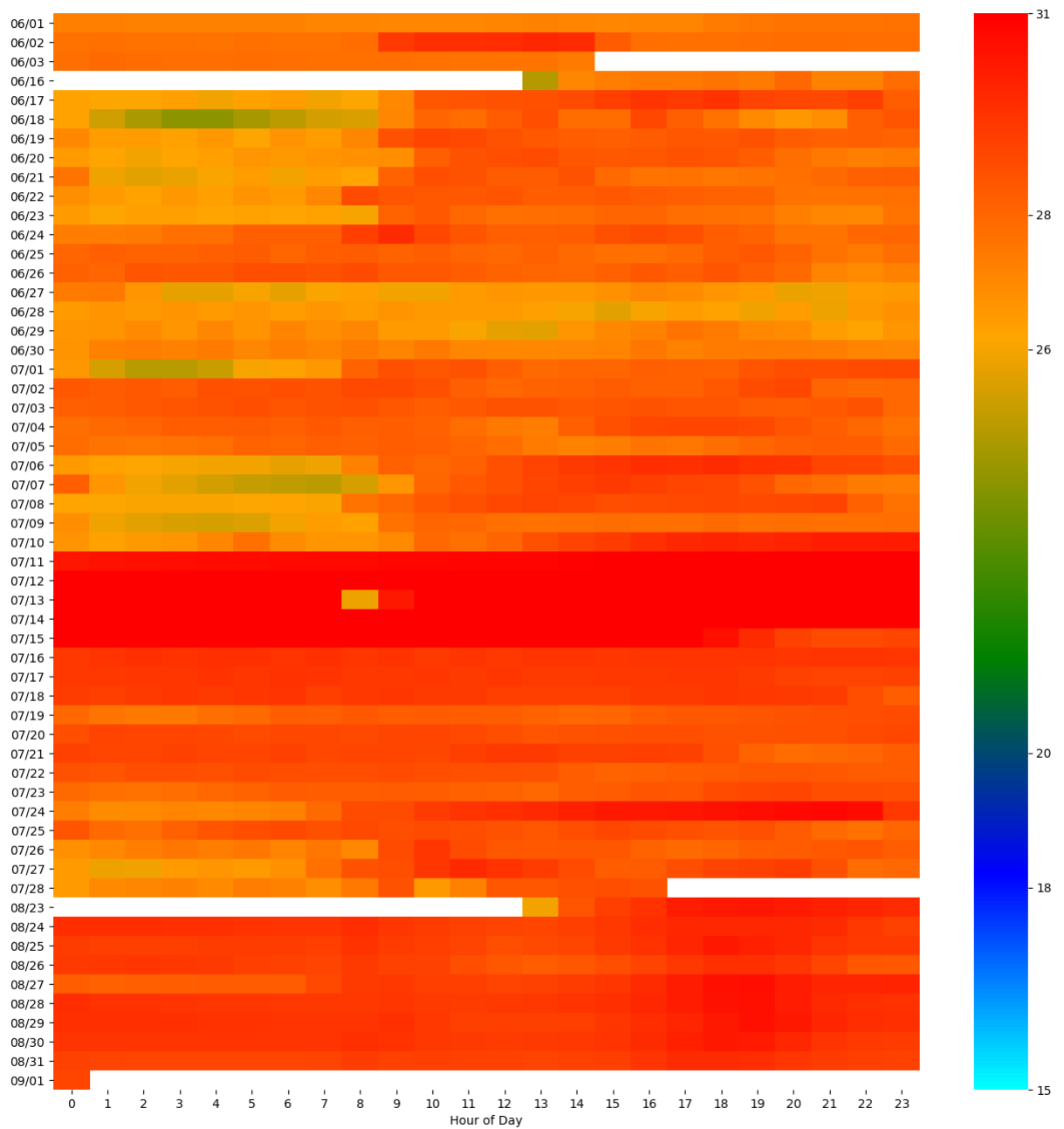
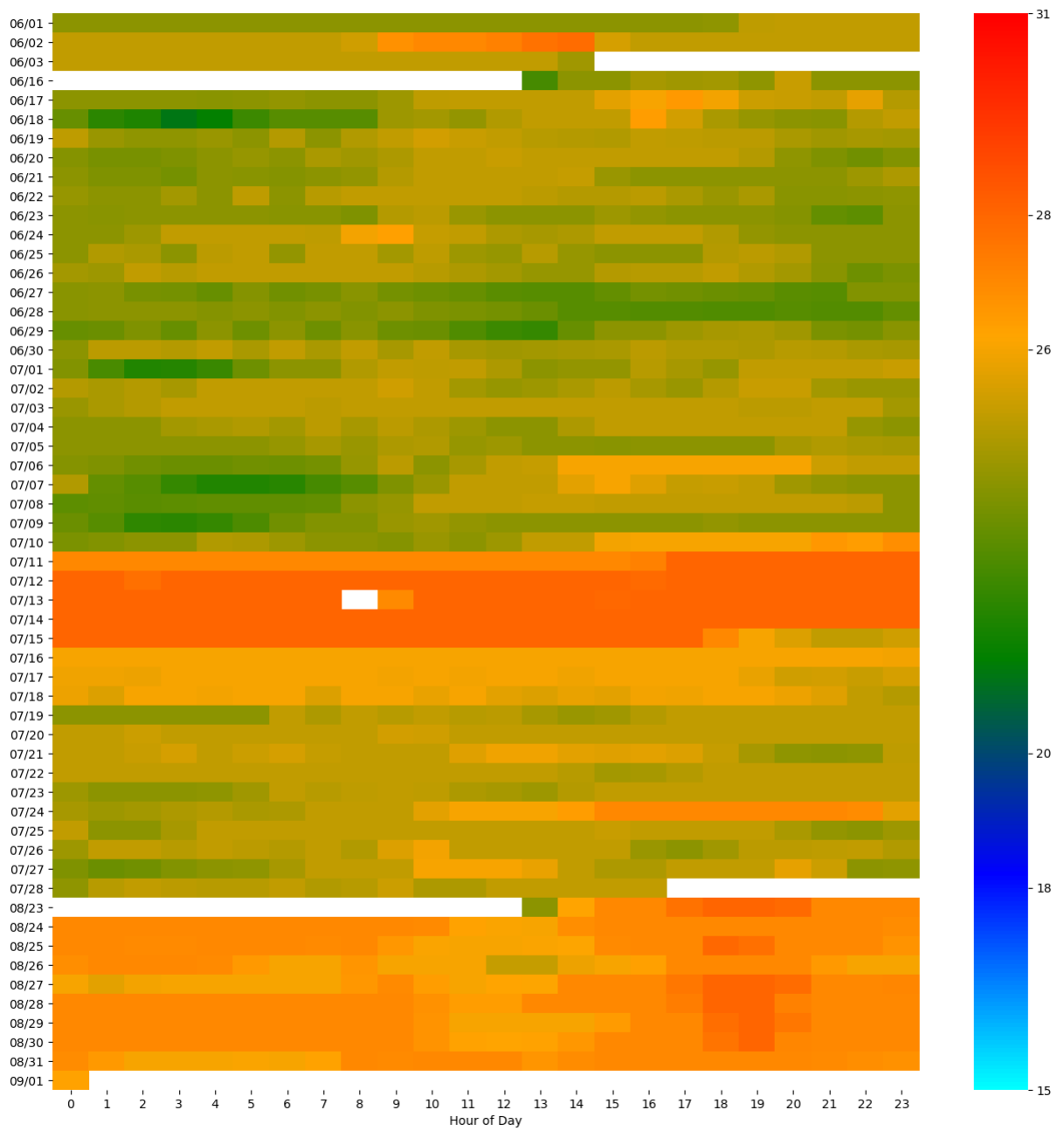


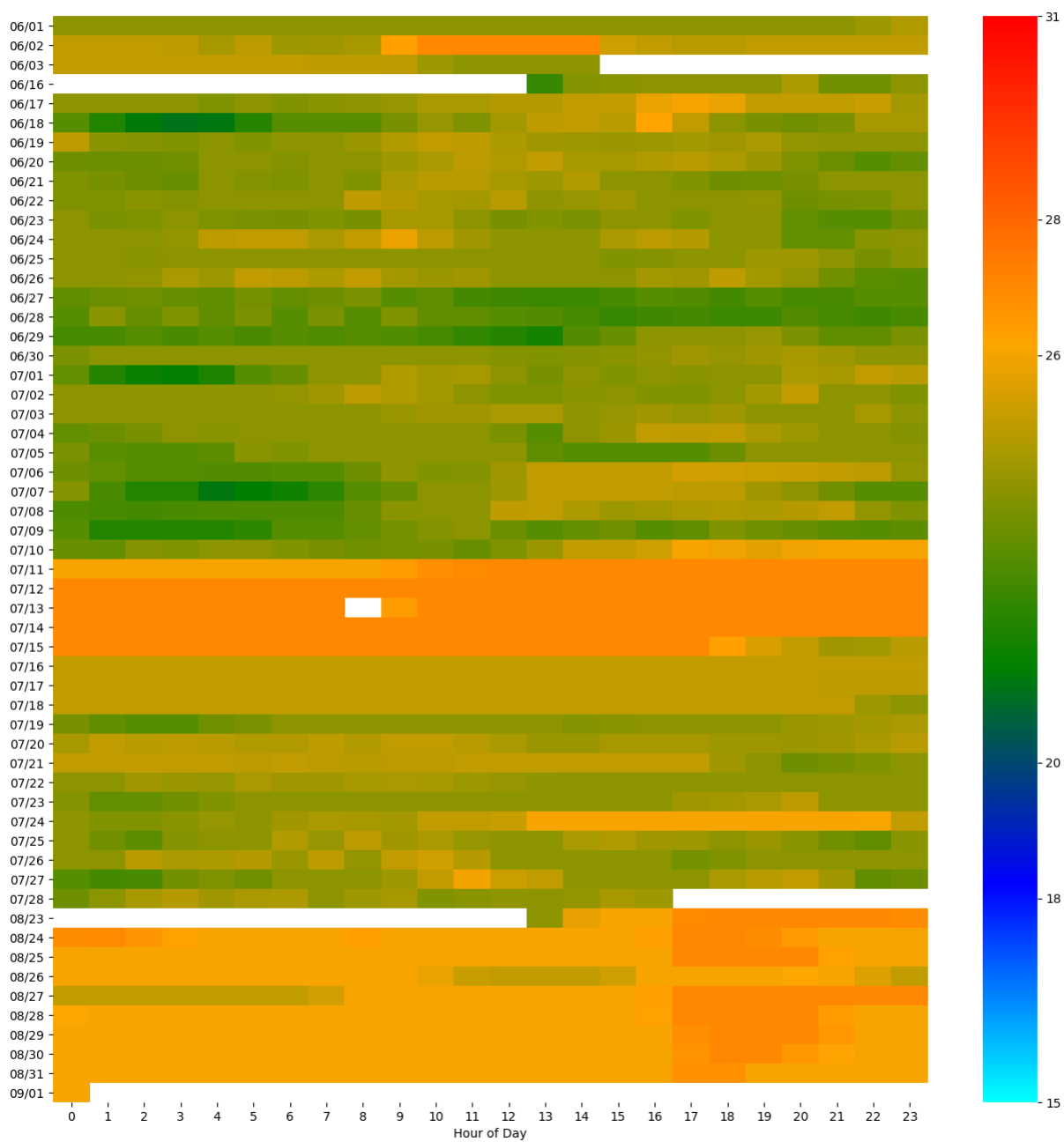
Figure 5.3 Temperature timeseries data in Celsius measured by the DGS-NO2 sensor



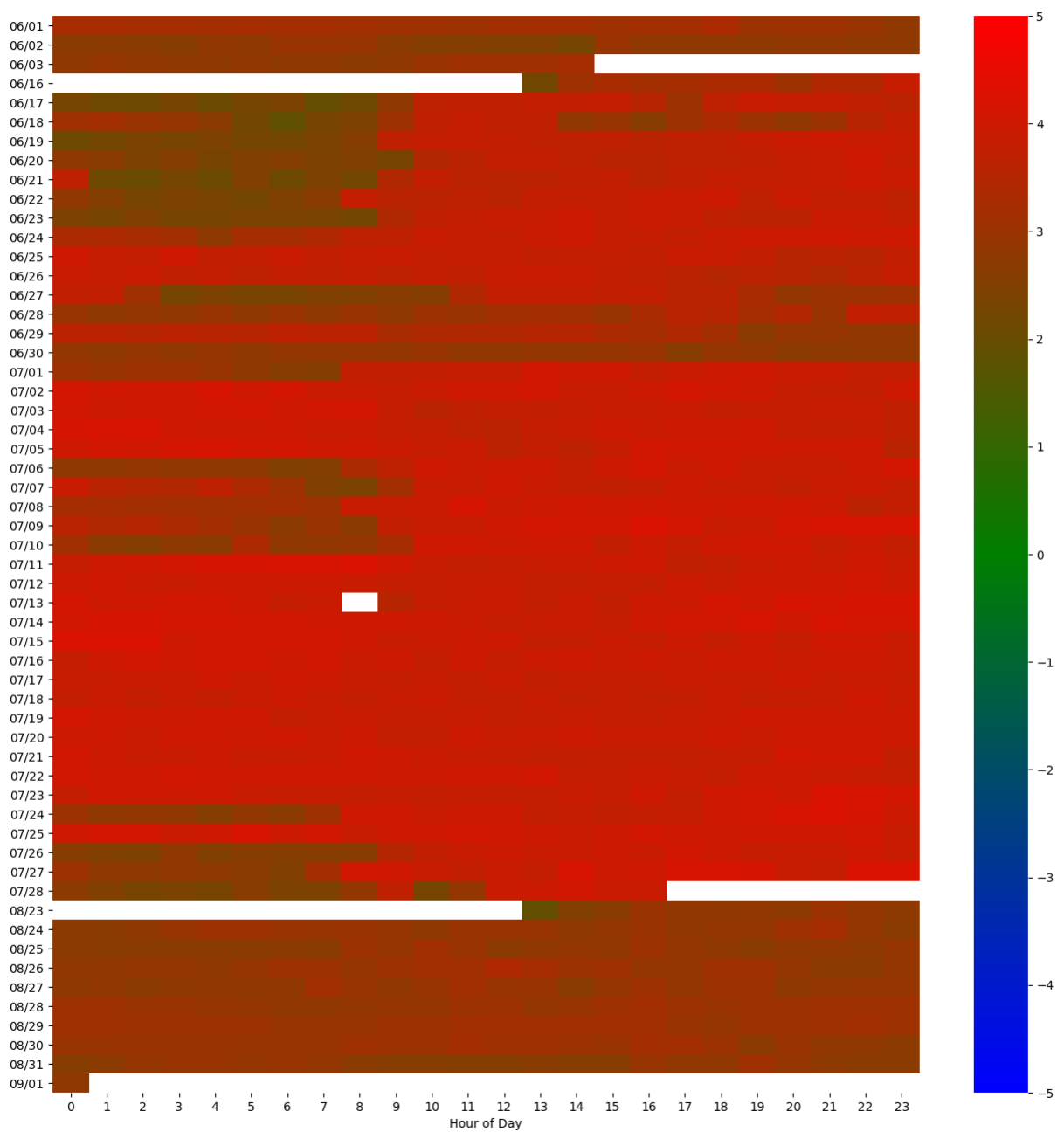
**Figure 5.4** Temperature heatmap data in Celsius measured by the Sensirion SCD30 sensor



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



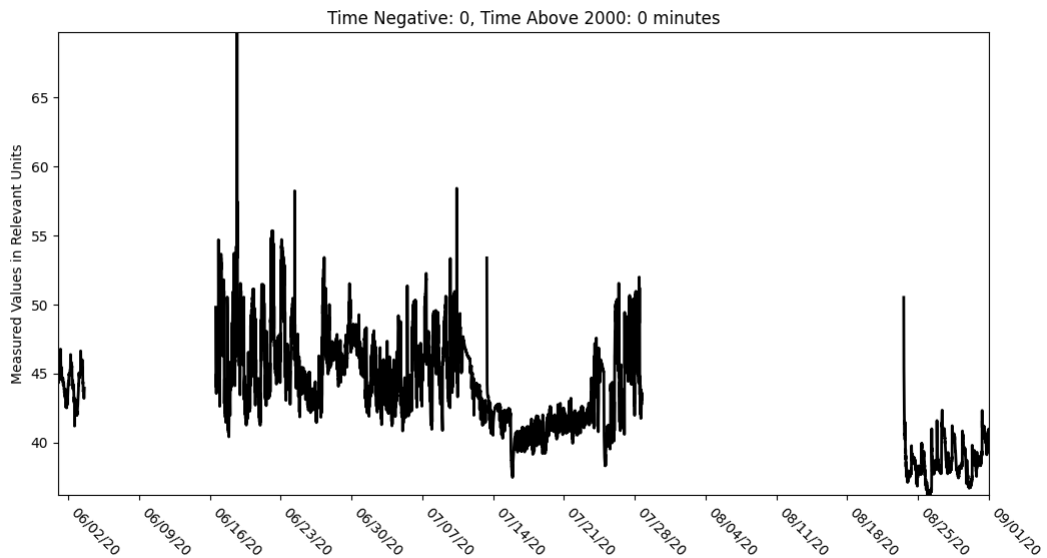
**Figure 5.6** Temperature heatmap data in Celsius measured by the DGS-NO2 sensor



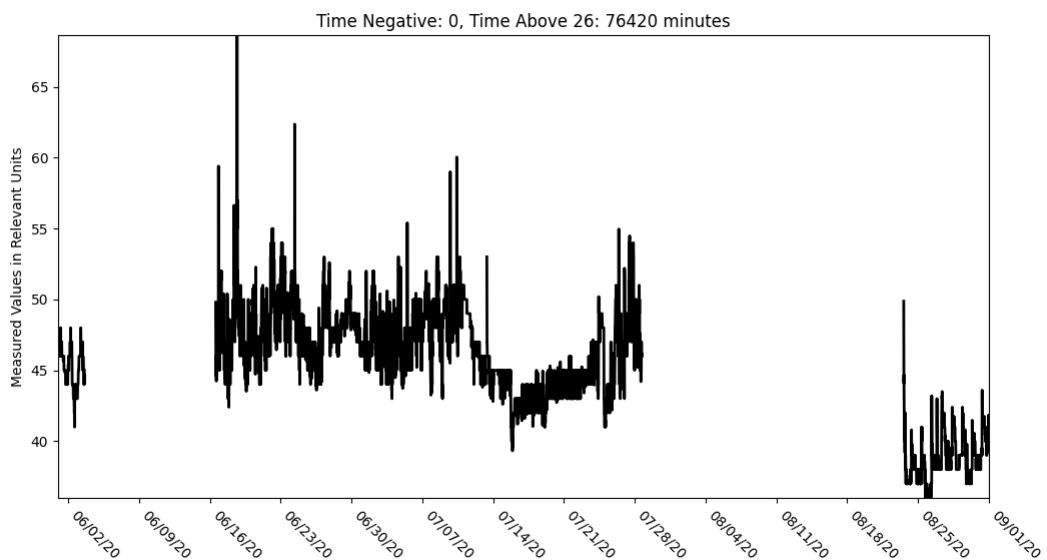
**Figure 5.7** Difference in temperature measured by Sensirion and the average DGS (Sensirion - mean DGS)

## Relative Humidity

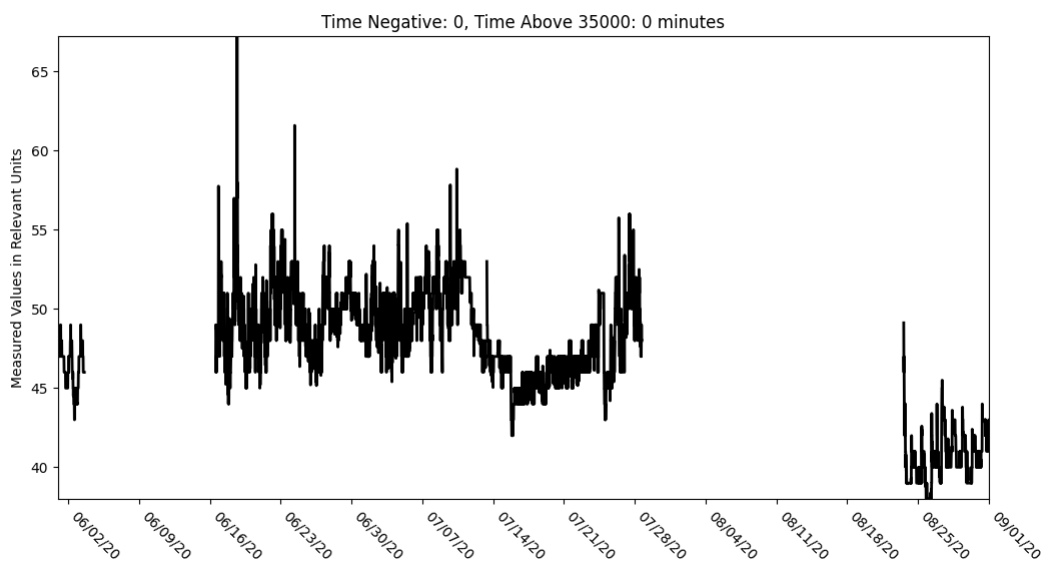
The RH values from three various sensors and reliability are summarized below



**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

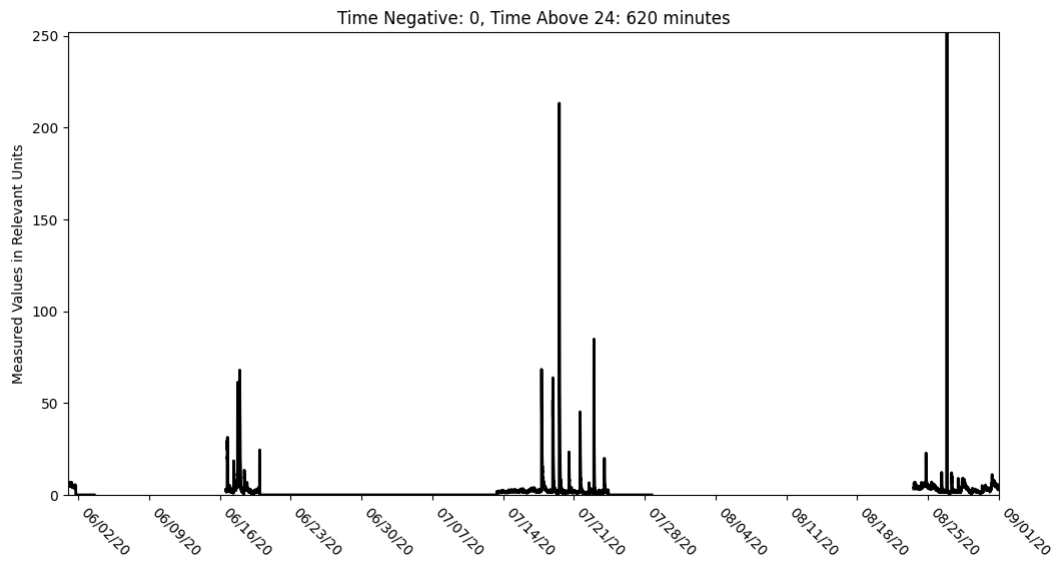


Figure 7.1 PM1 Timeseries data with units of micrograms per cubic meter

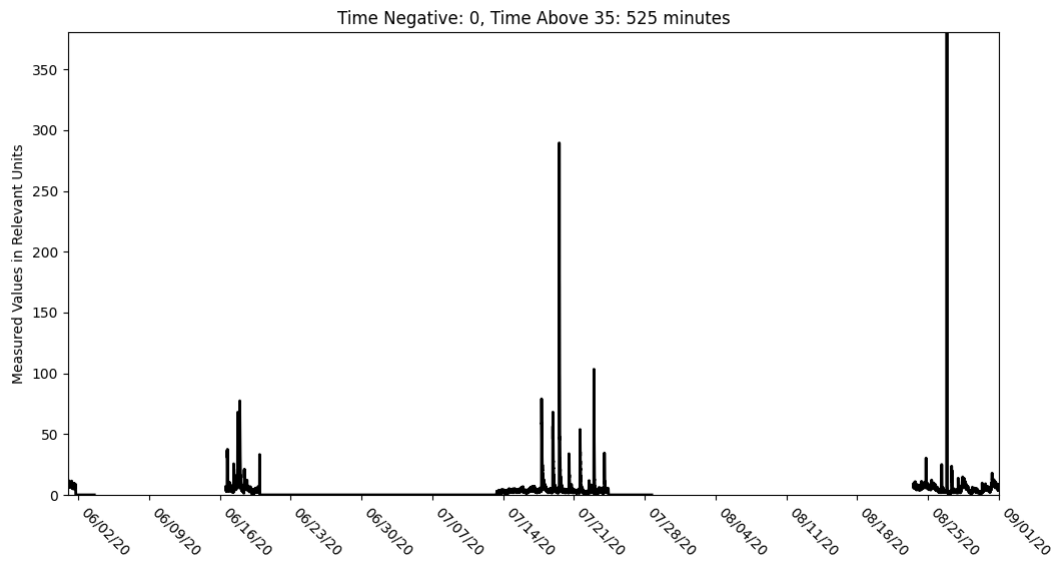
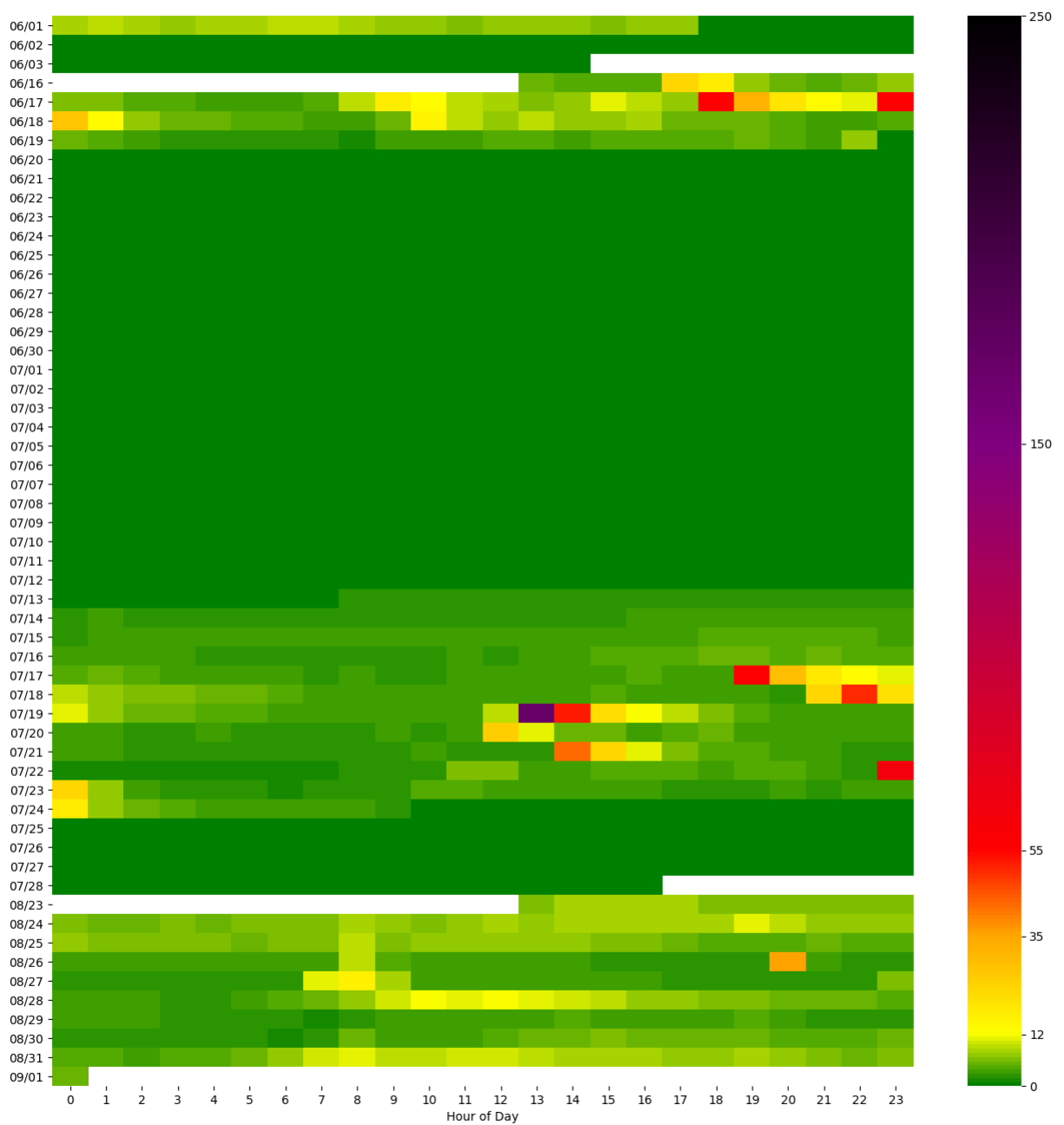
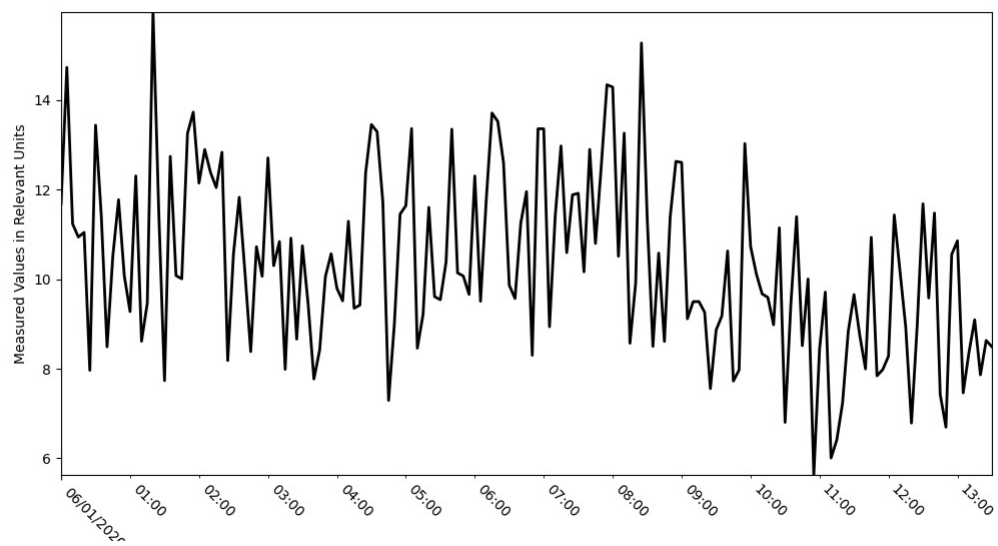


Figure 7.2 PM2.5 Timeseries data with units of micrograms per cubic meter

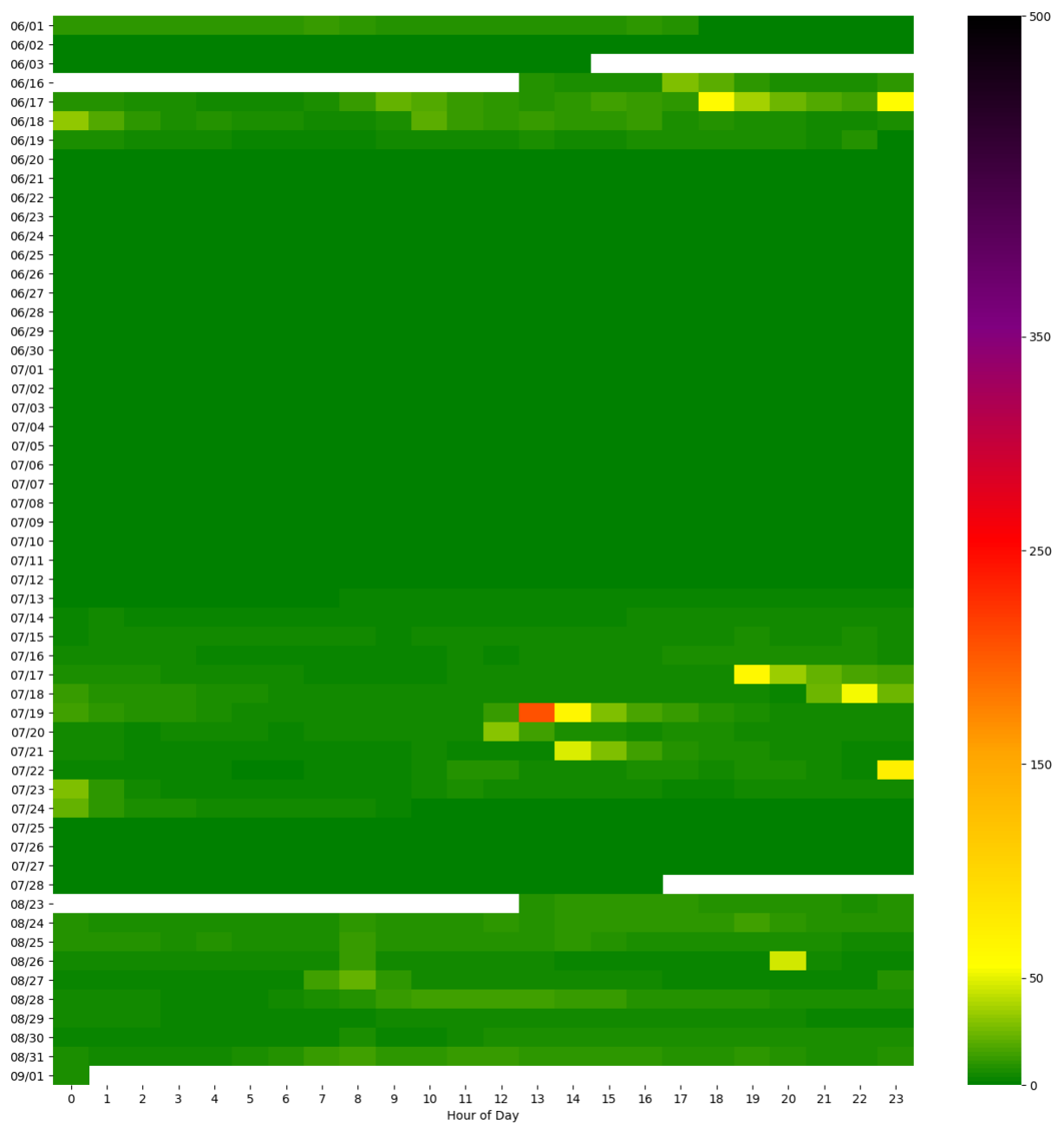


**Figure 7.2** PM2.5 heatmap with units of micrograms per cubic meter

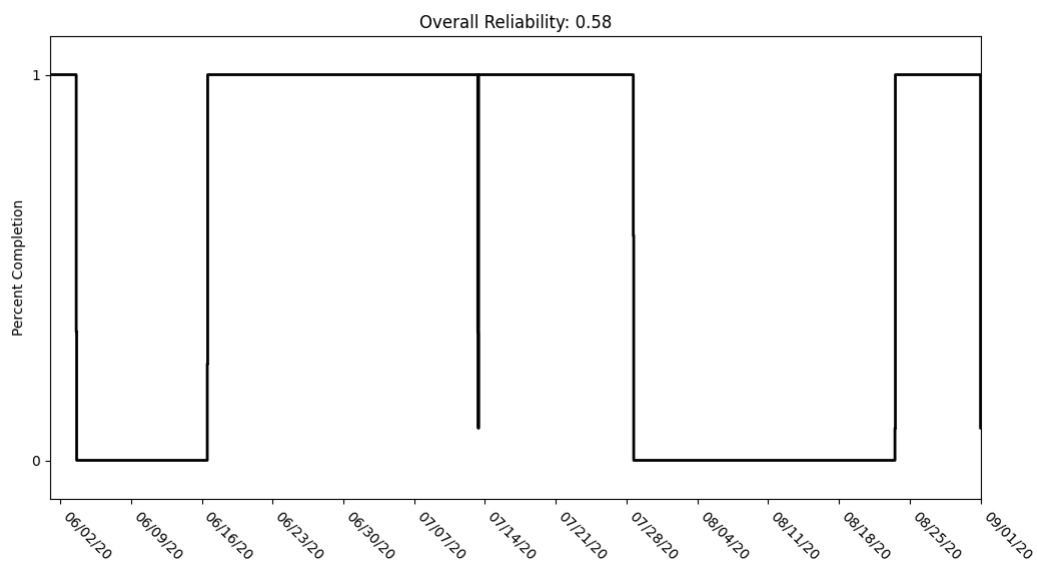




**Figure 7.2** PM2.5 Timeseries data with units of micrograms per cubic meter



**Figure 7.3** PM10 heatmap with units of micrograms per cubic meter



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