



EXTERIOR AIR QUALITY

SSA exterior air quality sensor provides simultaneous measurement of particulate matter, meteorological data and gaseous pollutants in real-time for: -

- > Compliance against recognised standards such as Well Building & DEFRA.
- > Demand side gains through staggered operational procedures.
- > Historical building & operational analytics, a digital shadow.
- > Development of responsive interventions.

The sensor communicates via API to the Thorlux Lighting SmartScan network independently without intrusion to additional site networks.

The sensors are supplied stand-alone and located onto exterior lighting columns.

Reassurance through deploying state-of-the-art air quality monitoring technology to limit the contributive impact of on-site air pollution.

Share accurate real-time data with community stakeholders, demonstrating your commitment to safeguarding employee & public health.

SUB-METRICS

SSA portal enables notification setting parameters with LIVE customisable limits.

METEOROLOGICAL

- > Temperature [°C]
- > Humidity [%]
- > Barometric Pressure [mb]

PARTICULATE MATTER

- > TSP
- > PM10
- > PM4
- > PM2.5
- > PM1



Exterior Air Quality Sensor

SMARTSCAN ANALYTICS

SmartScan Analytics (SSA) is an online portal that utilises the lighting network to transmit data from either stand-alone or integral sensors & meters.

SSA is a complete digital twin with defined limit notifications, alerts & trend regression, for demand side gains through open-protocol sensors and meters.

SSA records the simultaneous daily conditions & correlates previously known unknown data & metrics, i.e. power, people, movement, air quality etc, as a complete digital shadow.

A digital shadow provides evidential data of everything that happened in the space & adjoining space.





GASES



HUMANS



PLANET



Ozone
[O₃]

Ozone can damage the tissues of the respiratory tract, causing inflammation and irritation, and result in symptoms such as coughing, chest tightness and worsening of asthma symptoms.

Ozone damages vegetation and ecosystems by inhibiting the ability of plants to open the microscopic pores on their leaves to breathe. It interferes with the photosynthesis process by reducing the amount of carbon dioxide the plants can process and release as oxygen.



Nitrogen
Dioxide
[NO₂]

Nitrogen dioxide can decrease the lungs' defences against bacteria making them more susceptible to infections.

High levels of nitrogen dioxide are also harmful to vegetation; damaging foliage, decreasing growth or reducing crop yields.



Carbon
Monoxide
[CO]

Breathing air with a high concentration of CO reduces the amount of oxygen that can be transported in the blood stream to critical organs like the heart and brain.

When carbon monoxide is emitted into the atmosphere it effects the amount of greenhouse gases, which are linked to climate change and global warming.



Sulphur
Dioxide
[SO₂]

Sulphur dioxide can cause respiratory problems such as bronchitis, can irritate your nose, throat and lungs; Sulphur dioxide has been linked to cardiovascular disease.

Acid rain can cause deforestation, acidifying the waterways to the detriment of aquatic life.

If it counts,
count it...

Linear metrics can be used to monitor trends, when combined with quantitative or qualitative metrics for cross analytics, further insights can be realised. SSA can measure anything digital or physical, please contact your Thorlux Lighting representative to discuss custom metrics for your business.

