



EV CHARGING

The ability to charge electric vehicles in both residential & commercial settings is now considered to be an essential service, with new build applications continually increasing their provisions whilst existing sites determine what infrastructure changes are required to facilitate an installation.

SmartScan Analytics and all its proprietary hardware and software is all built around the circular economy principle of “extract the maximum value from them in use”.

The Passway EV charging bollard can be configured to suit the user’s power availability and charging needs whilst also providing compliant ground illumination in variable optical arrays.

The light engine is controlled through the SmartScan lighting management portal whilst the electrical consumption from both feeds is metered separately in SmartScan Analytics for data analysis purposes.



SUB-METRICS

SSA portal enables notification setting parameters with LIVE customisable limits.

- Electric Vehicle Charging (kWh) (Kg CO2)
- Light Engine (kWh)
- EVC Utilisation (hrs)
- EVC Triggers (n)

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.



INDEMNITY

Indemnity and risk are key issues for property managers it is therefore imperative that where technology can assist in preventing potential incidents, we integrate the solutions holistically.

A single thermal imaging camera can monitor both the vehicle and charging station simultaneously providing LIVE temperature readings with trend alerts to any unusual activity helping to prevent ignition; upon a flag, a signal is sent to the electric charging bollard to stop charging preventing further risk.

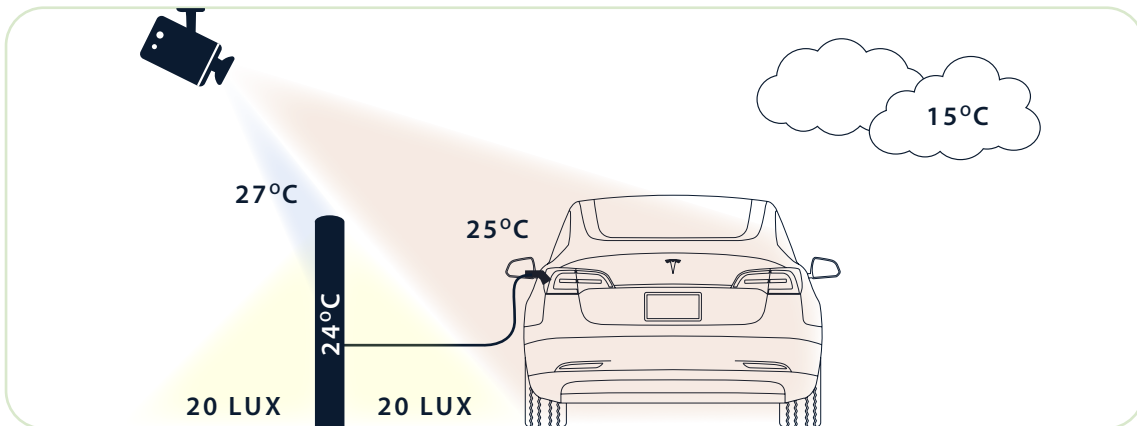
The EVC Passway bollard also contains a further failsafe in term of an internal temperature sensor that monitors the LED light engine and other high-temperature hidden danger areas such as connecting cables, electric boxes, charging gun heads sockets, and various contact points of line terminals.

Temperature is not only a key indemnity and risk metric but also impacts upon battery charging rate and life, cold temperatures affect the chemical reaction and the transfer of energy (increased impedance) conversely, high temperatures can

damage batteries during charging because they increase the effective force of the electric current that drives lithium ions from one node of the battery to the other increasing potential stress fractures.

SmartScan Analytics monitors ambient weather conditions & temperature, risk temperatures and operating temperatures all within one portal discipline that can be used for:-

- > Efficiency Scheduling
- > Utilisation Monitoring
- > Preventative Maintenance
- > Reduced Risk



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.



Thorlux