

# Sports Gyms & Sports Grounds

## Smart Lighting Solution Case Study

 Pavilhões Desportivos  
Lourosa, Lobao & Arrifana, Portugal

### Goals achieved:

Luminaires divided to groups, with each group separately controlled remotely and locally

Maximum power level is set by schedule or by remote supervisor, to provide necessary luminosity on particular day and time

Failure detection is enabled for undervoltage, overvoltage and overconsumption

Individual luminaires are displayed on building scheme, with status indicated by color

All electrical measurements are stored to statistics server, and ready to be displayed (in table or as graph) and analyzed (alarms, warnings, power consumption/energy saving reports)

85% energy saving total (including replacement of old luminaires with LED)



# Qulon smart municipality solutions is designed to provide following features:

Lighting control for municipal buildings and outdoor facilities (sports gyms, sports grounds, schools)

Lighting scheduling for achieving maximum energy saving

Compatibility with conventional manual controls like switches, buttons, etc

Group or individual luminaire control

Individual luminaire monitoring via different medium (DALI, power line communication, radio communication)

1-phase and 3-phase power metering

Range of communication options for on-site controllers (GSM 2G/3G/4G, Ethernet, Fiber optic, etc)

SMS notifications on failures and other events

Geographic information system (GIS) functionality, including status indication on map/scheme, equipment properties database, maintenance tasking, etc

Automatic report generation and distribution

Cloud-based architecture, multiple users with different access rights

Windows-based Qulon Client for setting up

Qulon Web CMS (desktop and mobile versions) for basic control, event logs, telemetry archive and statistics analysis

Node Manager mobile app for basic control functions on Android smartphones



# Example projects:

## Pavilhões Desportivos

Lourosa, Lobao & Arrifana,  
Portugal



## Equipment used:

Qulon C (central controller),

DALIGate DIN (DALI bus controller)

Smart 3-phase power meter

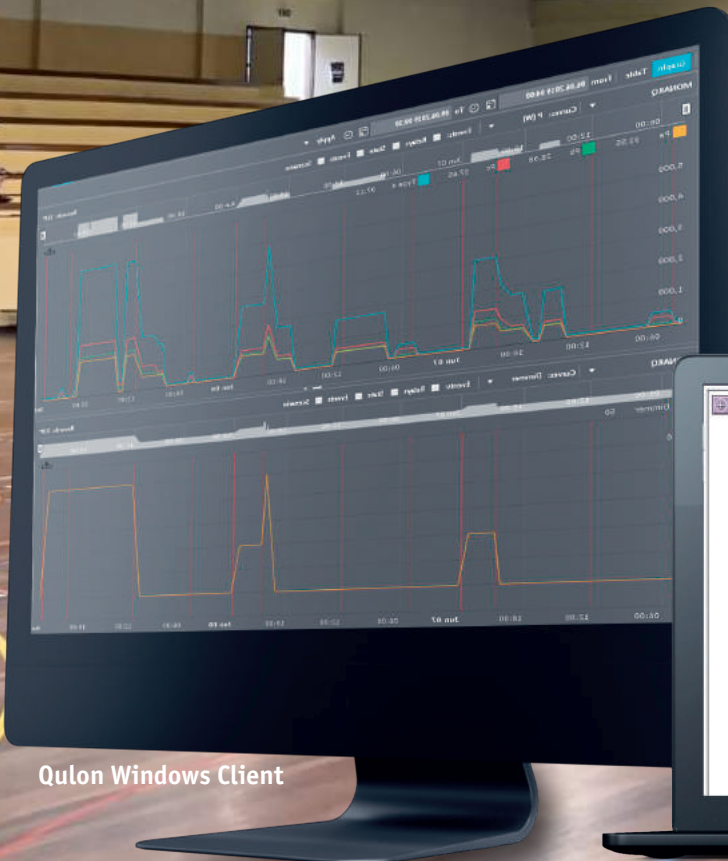
50 LED luminaires equipped with standard  
DALI-controlled drivers

Pushbuttons for manual control of luminaire groups

All equipment (except luminaires) is installed into standard  
DIN rail cabinet.



Qulon Web CMS:



Qulon Windows Client

