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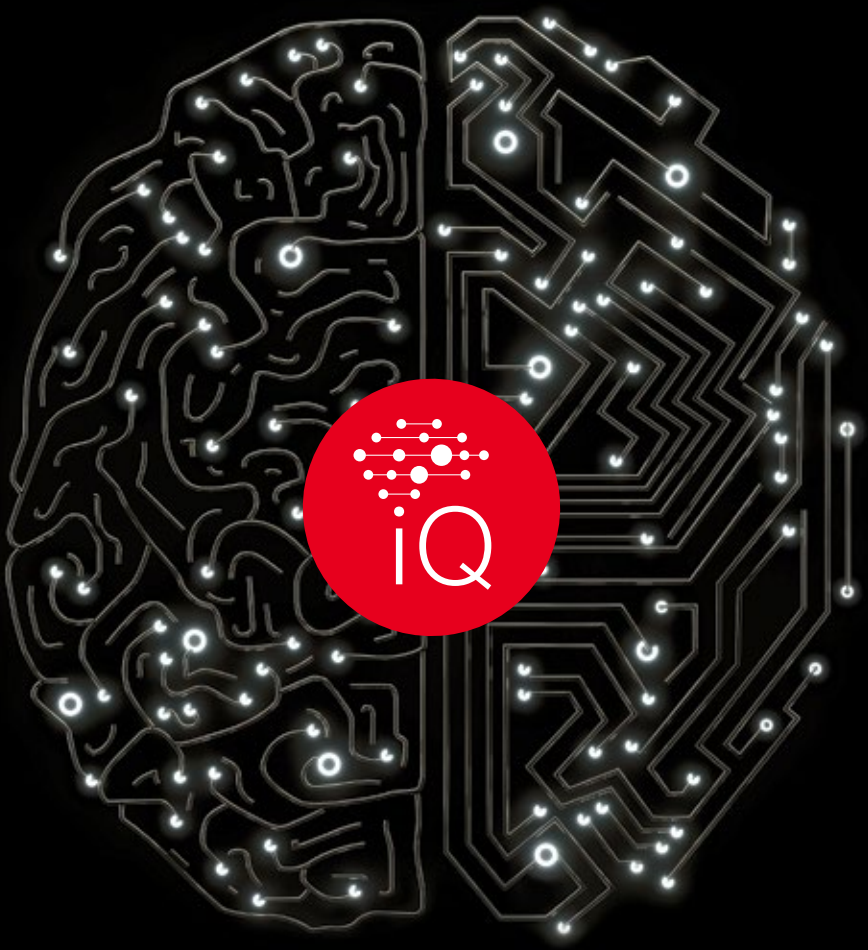


SITECO iQ

Handbook

Version 2.0, Oct. 2023

Thank you for choosing
SITECO iQ luminaires.
SITECO iQ luminaires feature an even greater selection of lighting control options and even easier operation. These future-oriented, sustainable products will not only allow you to fulfill the many requirements of today, they will equip you to meet the challenges of tomorrow.

This handbook will familiarize you with the many functions this cutting-edge technology offers.

Contents

Adjusting and checking

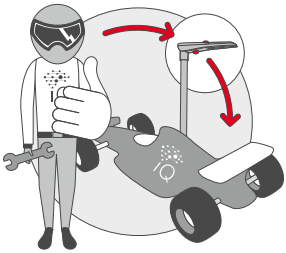
Dimming and switching

Automatic features and safety

iQ app

Related links

Auto-Match



Exchanging components, updating components
SITECO Auto-Match makes everything about this easy. That's because the information and values needed are available over a nervous system in both the ECG and the LED module, and the components communicate with each other.

As soon as an ECG or LED module is added to the luminaire, it automatically receives all the settings and information from the system and begins its initial training autonomously. Gone are the days when someone had to painstakingly read out operating hours or dimming settings and manually transfer them. This saves a lot of time and effort both on site and in the organization because it is no longer necessary to look up configuration information for an old luminaire anymore.

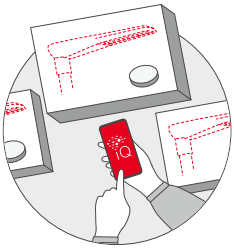
Auto-Match secures and transfers, for example:

- Master data such as the luminaire designation, the order number and the LumIdent serial number.
- Settings or configuration data – for example, all iQ functions including the adjusted Lumen-Switch, Night-Set, Fading and Smart-Wire.
- Measurement data such as operating hours and the historical operating conditions of the luminaire, including previous switch-on cycles and the LED module's temperature history – particularly important for luminaires with SITECO CLO 2.0 and higher.

Note: iQ luminaires may only be operated in conjunction with suitable SITECO LED modules designed for this purpose. For iQ luminaires with more than one LED module, the LED modules must be replaced together if necessary. Use of LED modules from different generations within one luminaire is not permitted.

When changing the LED module – for example, to a new, more efficient LED module – the new LED module will autonomously adjust the existing iQ ECG to the required values.

If both devices need to be replaced at the same time – that is, the iQ ECG and iQ LED module due to, for instance, lighting damage – the original settings can be accessed and adjusted using the iQ app.



Desk-Remote

Adjusting the luminaire in the workshop

With SITECO iQ Desk-Remote, you no longer have to remove the luminaire from its packaging – let alone open it – to transfer all parameters securely and without connecting to the power supply. Desk-Remote with improved near-field communication (NFC) and our iQ app make this possible.

A major advantage of Desk-Remote is the long range of the radio signal. iQ luminaires can be checked and adjusted without opening the luminaire or the shipping box. This saves a lot of time. Desk-Remote also makes it possible to work without a cable and without connecting to the power supply. Besides not needing to be connected to the power supply, the luminaire also doesn't require connection to DALI cables, which saves even more time and eliminates the need for specially trained electrical engineering personnel.

The following is needed to use Desk-Remote:

- A zero-potential SITECO iQ luminaire with Desk-Remote function (power off).
- The iQ app with user account and access data.
- A SITECO iQ handheld device (order number 5EA6HBR02) or a smartphone with Android or iOS operating system and the SITECO mobile RFID interface (order number 5EA6ABR01). Conventional NFC transmitters are not compatible due to SITECO Desk-Remote's greater range.

The SITECO mobile RFID interface or the SITECO iQ handheld device must be held within at least 30 centimeters of the luminaire glass or placed on the symbol shown on the right-hand side of the box. The iQ app displays all iQ luminaires in the near vicinity along with the luminaire identification number. If several luminaires are in the vicinity, the technician simply selects one of the displayed luminaires. The iQ app documentation provides more detail about the procedure for checking and adjusting luminaires.

Several security measures have been implemented for Desk-Remote:

- The iQ luminaires can only be checked and adjusted using the iQ app.
- Only registered app users with access rights and password can access or adjust an organization's luminaires.
- Different roles can be assigned to users with the possibility of restricting authorization to individual installations (luminaire groups) as well as a specific range of functions.
- Access is only possible in the immediate vicinity of the luminaire (up to 30 cm) or via the sticker on the outer packaging of the luminaire.
- A specific transmitter is required (as described previously).

Street-Remote

Adjusting the luminaire from the sidewalk

Spending huge amounts of time adjusting or checking streetlights is a thing of the past: Thanks to SITECO Street-Remote, no tools and cables are needed as all parameters are easily and quickly transmitted via a stable Bluetooth connection from the sidewalk or from the vehicle. Road closures, the need to use cherry pickers and the risk of having to remove parked vehicles all vanish. Personnel specially trained in electrical engineering can also be dispensed with if necessary. This means adjustments – for example, to accommodate events or at the request of residents – can be made quickly and easily.

To implement settings over Bluetooth, simply:

- Use the iQ app on a smartphone (with Bluetooth 4.0 or higher) or, alternatively, the SITECO iQ handheld device (order number 5EA6HBR02).
- Walk towards a switched on (light on) SITECO iQ luminaire with Bluetooth function. To check which SITECO luminaires have Bluetooth, use the iQ app to scan the LumIdent QR code on the box or in the installation space of the luminaire. For this purpose, it's a good idea to adhere one of the LumIdent QR codes inside the mast door.

It is both important and a precondition for Street-Remote that the luminaires have power. If necessary, briefly switch the luminaire's fuse off and then on again. For safety reasons, the Bluetooth function only remains on for a certain time after the power is switched on (time can be set in the iQ app).

The iQ app can then be used to check and adjust the luminaire. Select the luminaire you want to check or adjust. LumIdent recognizes all luminaires with Street-Remote switched on within a distance of 20 meters. The list of all Bluetooth luminaires within this range is displayed along with the luminaire identification number. To check that the correct luminaire has been selected, click on the luminaire and the LED module will flash. This function makes it easier to select the right luminaire and to work with larger luminaire inventories.

Optional

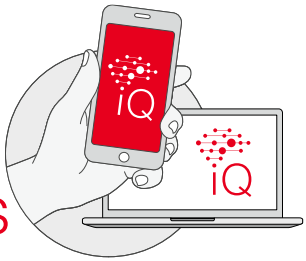
Street-Remote is an **optional** iQ function available only in **iQ SR luminaires**.

The iQ app can subsequently be used to check the luminaire's current settings and such data as operating hours and temperatures, view any error messages and change all adjustable iQ functions. In addition, the luminaire can also be reset to the original configuration it had at the time of delivery.

Important: To check and adjust the luminaire using the iQ app, the smartphone's Bluetooth function also has to be activated. Any changes made to the settings become active after the luminaire is restarted (power off / on).

Several security measures have been implemented for checking and adjusting iQ luminaires using Street-Remote:

- The iQ luminaires can only be checked and adjusted using the iQ app.
- Only registered app users with access rights and password can access or adjust an organization's luminaires.
- Different roles can be assigned to users with the possibility of restricting authorization to individual installations (luminaire groups) as well as a specific range of functions.
- Access is only possible in the immediate vicinity (up to 20 meters) of the luminaire.
- The factory default setting is for the Bluetooth function to remain on for only one hour after the luminaire is switched on (either power on or light on via DALI or D4i) in order to increase safety. If required, this time can be adjusted to a value of between 15 minutes and 4 hours in quarter-hour intervals for selected luminaires using the iQ app, or it can be activated permanently.
- The radio link between the iQ app and the luminaire is encrypted using AES-128.



iQ on smartphones and PCs

Obtain information, check, adjust and digitally manage
iQ offers a modern software concept for configuring and managing luminaires using a smartphone and PC.

iQ is available at no cost as a smartphone app in the Apple App Store or Google Play Store. For those who don't have their own smartphone readily available, SITECO offers an iQ handheld device installed with the iQ software.

Users can also use the iQ web tool to conveniently implement many default settings and view documentation on the PC at **www.lumident.siteco.com**.

Obtaining information
A LumIdent QR code is affixed to the luminaire boxes and in the installation space of each iQ luminaire to enable identification of individual luminaires.

Your advantages:
- Quickly identify luminaires in the warehouse
- Quickly call up technical data on installed street luminaires by scanning the QR code
- Always have documentation – for example, data sheets – readily available

Simply scan the QR code to display information about the luminaire – for example, technical data such as the luminous flux and the light color. In addition, the technical data sheet, installation instructions and photometric test report can be called up with a smartphone.

Note: For luminaires equipped with two ECGs, the values of both ECGs are shown separately.

Checking and adjusting
iQ on a smartphone also makes it possible to read out and check the luminaires. In addition, the iQ functions can be adjusted. Using the → Desk-Remote and → Street-Remote functions, the smartphone connects to the iQ luminaires over a wireless connection. It is usually also possible to connect to the SITECO ServiceBox 3 to implement SITECO outdoor luminaire settings by cable.

The iQ app on a smartphone or alternatively the SITECO iQ handheld device is required for checking and adjusting iQ luminaires. Logging in to the iQ app requires a user account and access data assigned by the person responsible for the lighting installation. If the luminaire has already been assigned to a lighting installation, authorization to access this installation by the person responsible for the lighting installation is likewise required.

SITECO offers the SITECO ServiceBox 3 to allow luminaires to be adjusted and checked conventionally by cable. The ServiceBox 3 connects to a smartphone over Bluetooth (with Bluetooth 4.0 or higher). When doing this, the smartphone's Bluetooth function needs to be activated. The luminaire and ServiceBox 3 DALI inputs are then connected. ServiceBox 3 documentation provides further information about using the ServiceBox.

Other settings:
The iQ tools (iQ app and iQ web tool) can be used to check and change various measurement and diagnostic data according to the DALI standard (Parts 250 to 253) as well as advanced settings:

- CLO: Switch the constant lumen output function on / off.
- Power-on time of Street-Remote: Set the Bluetooth power-on time to between 15 minutes and 4 hours or activate it permanently (adjustable in quarter-hour intervals for selected luminaires).
- Dimming curve: Switch the DALI dimming curve between linear and logarithmic for operation with D4i or other external DALI controllers.
- DALI Power ON: Set the lumen value that will be activated when powering on using external DALI controllers.
- DALI System Failure: Set the lumen value that will be activated during operation using external DALI controllers when the control voltage fails.
- Settings for DC operation: Switch on / off operation on DC mains.

Your advantages:

- Implement the lumen package settings for the luminaire in the workshop before installation
- Quickly change the nighttime reduction after installation
- Check the luminaire's condition at any time

Digitally managing

The luminaire can also be inventoried by scanning the LumIdent QR code. This will create a digital luminaire registry resulting in documentation for all scanned SITECO luminaires. The luminaires can be displayed in a table and map, thereby providing a good overview of the lighting installation.

Default settings of the luminaires can be specified on a PC using the iQ web tool, for example by creating parafiles, to simplify implementation of settings on the street or in the workshop. In addition, organizations (luminaire groups) can, for example, be created and authorizations assigned.

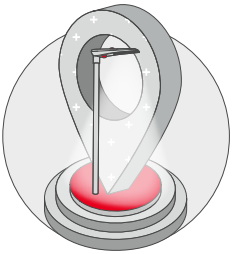
Your advantages:

- Luminaires clearly displayed on a map
- Settings can be tracked at all times
- Information can be quickly accessed for making investment decisions

For advanced inventory management functions, SITECO offers an automatic data exchange interface to sixData's luxData system. With administrator rights, the data of an iQ customer organization can be enabled for data exchange with luxData. Scanned luminaire information is then automatically transferred to luxData.

Download on the App Store

GET IT ON Google Play



Lumen-Switch

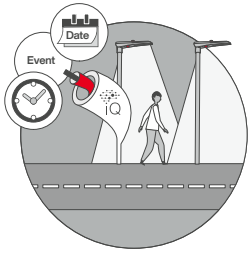
Where exactly does the luminaire get positioned? What light is needed there?
With SITECO Lumen-Switch, the answers to these questions can change. This is because the function makes it possible to adjust and readjust the luminous flux at any time, even later on – for example, when updated nature conservation requirements make it necessary or if the neighborhood has requested it. This means the luminaire is and remains ready for the future.

Lumen-Switch makes it possible to specify the dimming level when the luminaire is switched on (power on). This is also possible for the light color → Colour-Switch and light distribution → Light-Switch if the luminaire permits it.

The settings are supplied preset from the factory and can be changed using the iQ app.

When powered on, the luminaire performs a self-test with the factory settings and then adopts the power-on value.

Smart-Wire



Nighttime reduction over a control line has many uses
iQ luminaires enable the continued use of existing control lines. But iQ luminaires also allow for low-cost control options in newly constructed residential areas. SITECO Smart-Wire can even bring intelligence to existing control lines and provides an easy means for obtaining even more control options. For example, the control line can be used to retrieve up to 10 light settings for each iQ luminaire, allowing light distributions and light colors to be set in addition to dimming levels. This makes it very easy to switch the lighting, for example, to change between standard situations and a setting for the weekend, for emergencies or for an event.

The control line is an additional 230 V cable connected to the iQ luminaire's terminal block at the connection marked LST or SM. (Important note: Do not bridge SDI/DALI with the control line due to the lower dielectric strength!) When ordering iQ luminaires with a pre-assembled cable, the control line is identified with a cable label.

The control impulse to the ECG is initiated by switching on or off a supply voltage (230 V) on this phase. The luminaire then switches between two light settings when the control line is switched on or off in conventional mode. The iQ app can be used to determine whether or not the iQ luminaire reacts when the voltage on the control line is switched on or off.

SITECO Smart-Wire features a wide range of applications, so it can be used in many different ways:

1. **Standard control (2-stage)**
   Use the control line to switch between two dimming levels – for example, 100 % and 50 %. Smart-Wire expands this functionality to provide the option of changing the light color and light distribution in addition to the dimming level (if the LED module supports this function). This means that for each of the two light settings, a dimming level, a fading time, a light color and a light distribution can be selected. The light setting remains active as long as the control line's voltage state (for example, 0 V / 230 V) continues.

In combination with Night-Set
Smart Wire also makes it possible to switch back and forth between two Night-Set profiles. → Night-Set This enables, for example, switching between a weekday and a weekend profile or a standard and an event profile.

The switch between the two Night-Set profiles is initiated by activating the control line at the point the luminaire is switched on (supply power on the main phase). The settings can be implemented using the iQ app. In accordance with the factory settings, i.e., even if a control line is not used, the input for the control line is assumed to be voltage-free and profile 1 (default) is used.

If, on the other hand, voltage is applied to the control line when the luminaire is switched on (supply power on the main phase), the luminaire selects profile 2 (the Night-Set/Smart-Wire profile).

Instead of the second profile (Smart-Wire profile), a simple light setting without gradation can also be selected. This setting can be used, for example, to switch the lighting to 100 % in the event of a certain kind of operation. The standard profile is interrupted during the time the control line is activated and can be subsequently resumed.

2. Expanded control (10-stage)
Smart-Wire also recognizes the length of time that voltage is applied to the control line and the length of time the voltage has been interrupted. This makes it possible to switch between up to 10 light settings. The dimming level and the fading time can be set for each of these 10 light settings. If the LED module permits it, the light color and light distribution can also be selected.

The Smart-Wire settings are supplied preset from the factory and can be changed for the operating mode using the iQ app. The changes are written to the parafile as well. When making changes, it is therefore always necessary to transfer a new parafile to the luminaire on site.

Important: Light distributions and light colors require iQ luminaires with special LED modules, so-called Light-Switch and Colour-Switch types.

The ECG recognizes the following electrical current fluctuation durations (“pause time”):

Function	**Pause time** in s
Light setting 1	1.5
Light setting 2	2.5
Light setting 3	3.5
Light setting 4	4.5
Light setting 5	5.5
Light setting 6	6.5
Light setting 7	7.5
Light setting 8	8.5
Light setting 9	9.5
Light setting 10	10.5

Smart-Wire tolerates a deviation of up to ±0.2 seconds for these times.

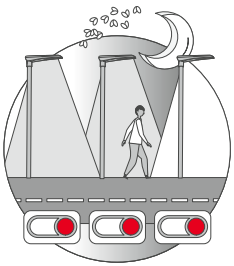
Besides the iQ luminaire, this functionality also requires a control unit in the electrical distribution system that switches the control line on and off. Conventional controls can be used. SITECO offers the product SITECO Connect Cabinet Control for this purpose. This is a communication module that allows remote access and provides radio clock functionality.

The Smart-Wire connection uses 1.8 mA – this means more than 5,000 luminaires, for example, can be simultaneously controlled by a 10 A fuse.

When using this function, the iQ luminaires have to be operated on their own control line. This is because the pulse will briefly affect older SITECO luminaires, which only recognize the conventional 2-stage control line mode and are operated on the same control line, by dimming them up and down for the duration of the command. If only one control line is available, it is possible to check whether the older or non-SITECO luminaire can be set with a tolerance related to the control pulse used, for example 2.5 seconds.

The default settings for the iQ luminaires are implemented using the iQ app.

Note: You can also operate a Smart-Interface luminaire with Smart-Wire. As soon as a Zhaga-D4i controller is connected to the Smart-Interface, the iQ system automatically deactivates the Smart-Wire function. After removing the Zhaga-D4i controller, iQ will return to Smart-Wire mode and to the saved settings after the next power off / on.



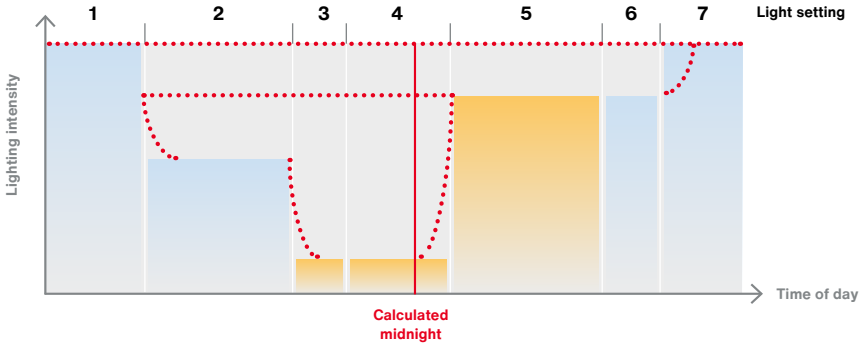
Night-Set

Night-Set controls nighttime reduction
while also offering a whole host of other control options. Additional dimming and lighting functions are available that allow a more customized approach to implementing night reductions – and you can switch between profiles, for example to vary weekdays and weekends. Time-dependent adjustments for light color and light distribution can also be made. This helps nighttime light use to be deployed in a way that protects nature and animals.

Night-Set is used for automatic nighttime reduction without the need for an additional control unit, so, the luminaire's ECG automatically implements the same lighting program every night. Up to seven dimming levels can be set for the course of the night.

Beyond dimming, Night-Set from SITECO allows seven light settings to be applied. For each light setting, the dimming level and the fading time at the start of the light setting as well as – if the LED module permits it – the light color and/or the light distribution can be applied. This means Night-Set in the iQ luminaires provides a very versatile automatic control option.

All Night-Set settings are supplied preset from the factory and can be changed using the iQ app.



On the basis of the power-on time of each of the last 7 nights, the iQ ECG then calculates an artificial midnight for each luminaire. For this reason, switching off the luminaire's power supply over the main phase during the day is necessary for Night-Set. This can be done, for example, by means of a central twilight switch with contactor or radio ripple control.

When first switched on, the Night-Set profile starts immediately and lasts eight hours. With each additional night, Night-Set measures the power-on time and adjusts the artificial midnight to the actual situation at the location. At the end of the seventh night, the artificial midnight has been calculated. This is then continuously calculated from the average power-on times of the past seven nights. In this way, Night-Set adapts to different power-on times in summer and winter.

The first dimming level or light setting starts when the luminaire is switched on.
The start time of each further dimming level or light setting is specified as negative or positive time before and after the artificial midnight. With –02:30, for example, the light setting starts 2 hours and 30 minutes before the calculated artificial midnight. With +03:55, the light setting starts 3 hours and 55 minutes after artificial midnight. The level can start a maximum of 10.5 hours before artificial midnight and end 10.5 hours after midnight. A profile start of "0" sets it exactly to virtual midnight. The start time of a level can be applied in minute increments.

The length of time for the dimming level or light setting is then determined by the start time of the other light settings.

In locations where nighttime varies significantly in the summer and winter, short lighting periods during the summer may not activate the Night-Set light settings that lie outside the actual power-on time.

If the ECG is switched on before the profile has started, the switch-on value is used and then the full profile is implemented. Switching on while one of the profile's seven light settings is active will result in the dimming level moving toward this light setting. SITECO has also thought ahead for maintenance operations: For maintenance work, luminaires are often switched on during the day. Out-of-the-ordinary switching on would normally lead to an unwanted change in the Night-Set profile's switching times. For this reason, power-on times of less than 2 hours or more than 18 hours are not considered when determining artificial midnight.

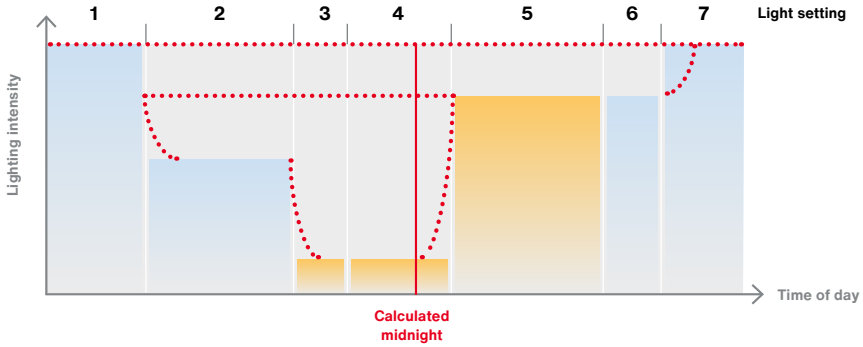
Night-Set combined with Smart-Wire

Additionally connecting a control line to the ECG → Smart-Wire makes it possible to switch between two profiles with Night-Set as well. This allows, for example, flexible selection between a weekday and a weekend profile or activation of a lighting profile for events. Temporarily switching to a special light setting to accommodate, for example, rescue operations, is also possible. Profile 1 (standard) is activated if 0 V is present on the control line when the luminaire is switched on (power on); Night-Set profile 2 (Smart-Wire) is activated if 230 V is present.

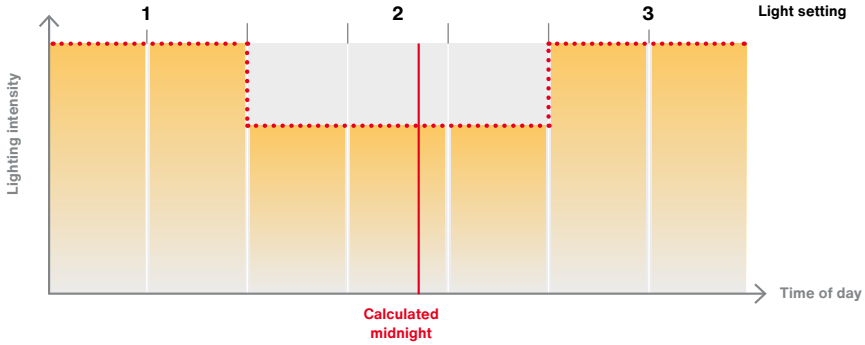
A detailed description can be found in the Smart-Wire chapter.

Note: You can also operate a Smart-Interface luminaire with Night-Set. As soon as a Zhaga-D4i controller is connected to the Smart-Interface, the iQ system automatically deactivates the Night-Set function. After removing the Zhaga-D4i controller, iQ will return to Night-Set mode and to the saved settings after the next power off / on.

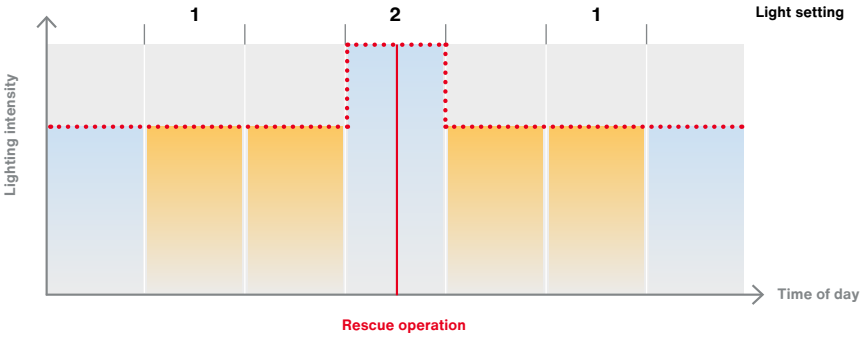
Standard Night-Set profile (example)



Smart-Wire Night-Set profile



Smart-Wire special light setting (example)



DALI-2 and SDI

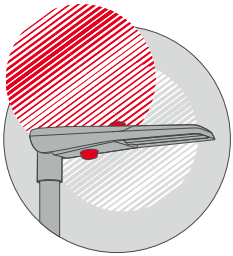
iQ luminaires can have DALI-2 or SDI
Besides wireless controlling, iQ luminaires without Smart-Interface also allow cable-based control using DALI-2 or SDI.

Unlike the well-known DALI, SDI only has a reduced set of DALI commands. SDI operates solely in broadcast mode and allows the following three commands:

- Dim
- Query the current dimming level
- Query if the ECG is in operation

When the iQ ECG receives a valid DALI command over the cable, it will deactivate other controllers such as Smart-Interface, Night-Set and Smart-Wire until the next power off.

Important note: The SDI/DALI connector may not be connected to the LST connector!
This is because the DALI input for the SITECO iQ ECGs is unsuitable for voltages higher than 25 V.



Light-Fading

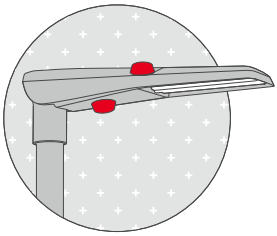
The Light-Fading function creates a gentle transition between two dimming levels, leading to a smooth progression among various dimming levels. This means that changes do not happen all at once and are instead perceived as part of a natural transition.

The settings can be conveniently implemented using the iQ app.

The fading time specifies how long it should take until the new brightness level of a light setting is reached, starting from the current brightness level.

The luminaire initially activates the value 100 % when power is switched on and then adopts the adjusted switch-on value. Light fading then ensures smooth transitions when further switching between the light settings – for example, between dimming.

Note: Fading is not possible when switching off the luminaire by powering it off.



Smart-Interface

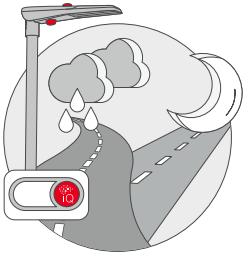
From simple control to a connected system.
The Smart-Interface version of SITECO iQ luminaires comes with one or two standardized connections for external attachment of controllers and sensors. SITECO iQ luminaires are Zhaga-D4i certified, which means that the connections comply with Zhaga Book 18 and the D4i standard. Smart-Interface thus not only offers certainty for the future, it also enables additional flexibility and greater independence. Cities, communities and companies can gradually adopt the lighting control technology, selecting when to launch or retrofit as required.

All iQ control functions are also available in combination with Smart-Interface.

The luminaire can therefore be dimmed with Night-Set or Smart-Wire, for example. As soon as a Zhaga / D4i device is connected to Smart-Interface, it takes control of the controller. The Night-Set or Smart-Wire function is automatically deactivated. After removing the Zhaga / D4i devices and powering off / on the luminaire, the iQ system resumes control according to the set values.

Optional

Smart-Interface is an **optional** iQ feature that is only available in **iQ Smart-Interface luminaires**.



Light-Switch

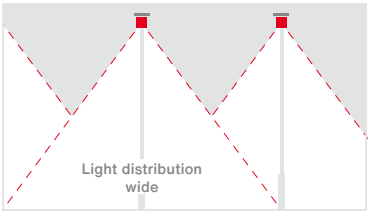
Adjusting light distribution

How does the weather affect light distribution? The Light-Switch function uncouples road safety from weather conditions just that much more. That's because Light-Switch ensures glare and reflections can be reduced when the roads are wet – an effect that results in improved visibility. And ultimately this positively contributes to the safety of all road users.

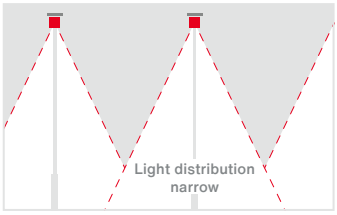
Light-Switch is a luminaire's ability to switch between various light distribution patterns. Besides providing for weather-related lighting, it can serve other purposes as well. The function is available as an option and can be selected when ordering the luminaire.

The Smart-Wire and Night-Set functions are used for controlling the light distribution patterns. → Smart-Wire → Night-Set

Control: "Smart-Wire" example



Dry street

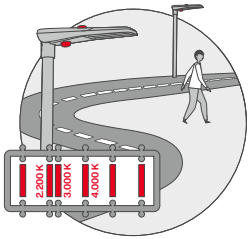


Wet street

Optional

Light-Switch is an **optional** iQ function that is only available in **iQ Light-Switch luminaires**.

Colour-Switch

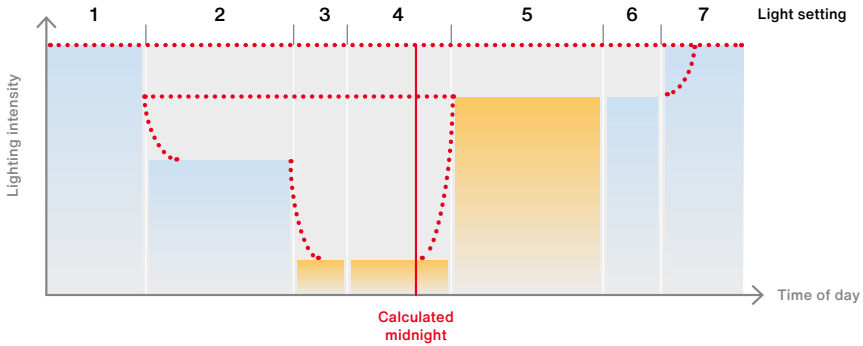


Adjusting light color

Which light colors will be stipulated in the future? Thanks to SITECO Colour-Switch, you don't have to worry about that. Investing in this feature will certainly pay off because you can easily adjust the light color later on; for existing luminaires, this can be done by simply changing the module. But Colour-Switch can deliver even more: It's able to switch between preset light color values in order, for example, to improve traffic safety at defined times. Or to avoid disturbing the rhythm of nocturnal insects through the use of warmer light. In this way, SITECO is making a long-term contribution to nature and species conservation.

Colour-Switch is available as an option and can be selected when ordering the luminaire. The Smart-Wire and Night-Set functions are used for controlling the colors.

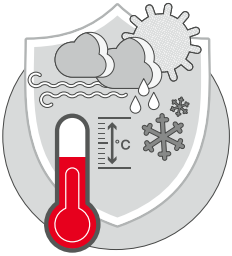
Color control and dimming using Night-Set as an example



Important note: For iQ luminaires with more than one LED module, the LED modules must be replaced together if necessary. Use of LED modules from different generations within one luminaire is not permitted.

Optional

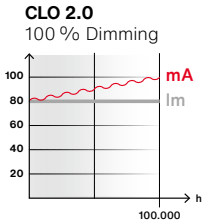
Colour-Switch is an **optional** iQ function that is only available in **iQ Colour-Switch luminaires**.



CLO 2.0

Constant luminous flux automatically at all times

CLO 2.0 compensates for minimal, but technically normal aging effects of the LEDs. After all, sun, wind and precipitation influence the environment in the luminaire. CLO 2.0 results in an ideal tracking curve and the ability to maintain a constant luminous flux throughout the luminaire's service life. That means there's always exactly as much light available as is really needed – no more, no less.



Readjustments are made continuously depending on the surroundings and dimming behavior.

SITECO's constant luminous flux regulation 2.0 and higher takes into account both current and past environmental and operating conditions, including the number of operating hours and switch-on cycles, protection provided by dimming and temperature related to the weather and climate. This is because the efficiency of LEDs increases as temperatures drop. Taking the temperature into account thus leads to additional energy savings.

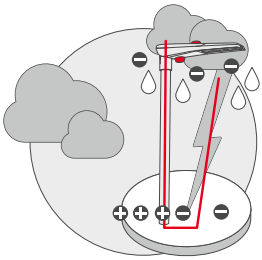
	Avg. ambient temperature at night
Germany	5.5 °C
Italy	11.6 °C
Norway	1.5 °C
Dubai	23 °C

Ambient temperature	–5 °C	0 °C	5 °C	10 °C	15 °C	20 °C	25 °C
Avg. energy savings with CLO 2.0 compared to normal CLO	7 %	6.5 %	6 %	4.5 %	3 %	1.5 %	–

Additional energy savings with CLO 2.0 compared to CLO 1.0.

The reduced current feed at the start of service life helps save energy, and the constant luminous flux ensures additional safety in the city. And thanks to **Auto-Match**, these values are not lost, even when the ECG is replaced. Instead, they are automatically transferred to the newly exchanged ECGs.

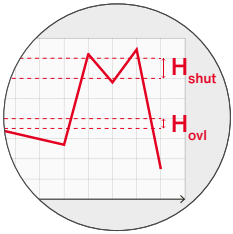
Surge protection



The surge protection (10 kV) integrated into the luminaire provides maximum protection for the luminaire electronics against the risks of power surges. This protection comprises all electronic components, including the ECG and the LED module.

Additionally, electronic circuits prevent static charge damage when non-conductive masts, such as those made of concrete, wood and plastic, are in use.

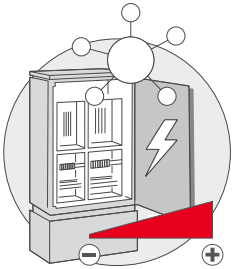
Temp-Guard



Temp-Guard delivers reliable protection against overheating: Several sensors permanently monitor the luminaire's temperature status, automatically dimming it when critical values are reached. This effectively protects the luminaire electronics from overheating. Temp-Guard provides a vital service, especially in southern countries and those with temperate climates but hot summers.

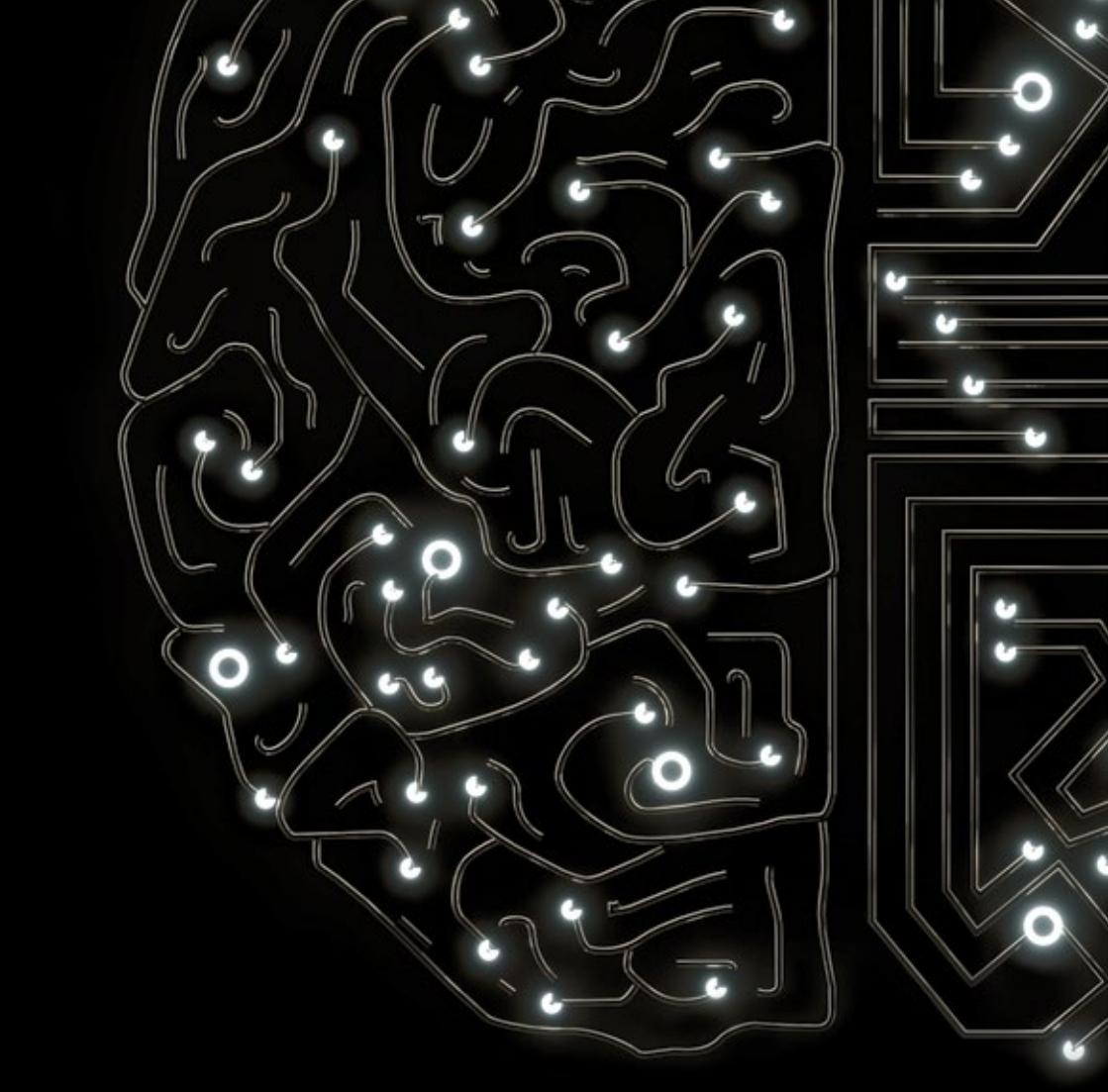
The maximum ambient temperature specified on the luminaire is the benchmark value for operation. If this value is exceeded, Temp-Guard will kick in to protect the components from overheating.

Fuse-Plus



This control technology in the luminaire minimizes switch-on surges. When converting from conventional lighting to LED, the high inrush currents of LED luminaires made by other manufacturers often require a new fuse plan or different fuse ratings. In contrast, SITECO iQ luminaires have very low switch-on surges. This means a large number of luminaires can be protected by one fuse and existing fuse concepts are not negatively impacted.

The number of iQ luminaires that can be operated on a single circuit breaker can be found in the data sheet for the respective iQ ECG.



SITECO **iQ app**
Guide

The SITECO iQ app's **main functions**

Obtain information, check, adjust and digitally manage. iQ offers a modern software concept for configuring and managing luminaires using a smartphone and PC.

You can conveniently manage inventoried luminaires using the iQ app or the web tool on a PC. Both ways let you access all important information at all times.

Inventorying
SITECO luminaires have a LumIdent sticker with a QR code that provides access to technical information about the luminaire. When you scan the code, you can assign luminaires to your organization and an area – for example, to a neighborhood or a street – and then add the luminaire along with this information to your inventory. To easily scan the QR code, we recommend placing the sticker on the inside of the mast door so all the data is available at all times without having to use a cherry picker.

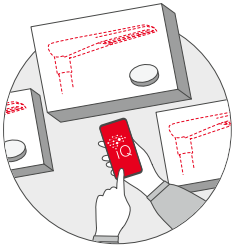
What are the benefits of inventorying? Inventorying allows you to add additional important information to your luminaire data such as the location of the luminaire, its installation date and the type of installation – all digitally. At the same time, inventorying is the required first step for using other iQ functions.

Access to the iQ web tool:
Visit lumident.siteco.com or download the iQ app now:

Download on the App Store

GET IT ON Google Play

Checking and adjusting
The iQ app gives you two convenient ways to check and adjust iQ luminaire settings wirelessly.



Desk-Remote: Configuring in the workshop
Thanks to improved near-field communication (RFID), you can configure luminaires before they leave the workshop using the SITECO iQ handheld device or the SITECO mobile RFID interface.

Important: When configuring, ensure the luminaires are voltage-free.

Street-Remote: Configuring on the road
If the luminaires have already been mounted, you can check and adjust the settings on location using a cell phone or the SITECO iQ handheld device.
No other devices or cables are needed. This setting option is available for iQ luminaires equipped with the professional add-on Street-Remote.

Important: When configuring, ensure the luminaires are switched on.

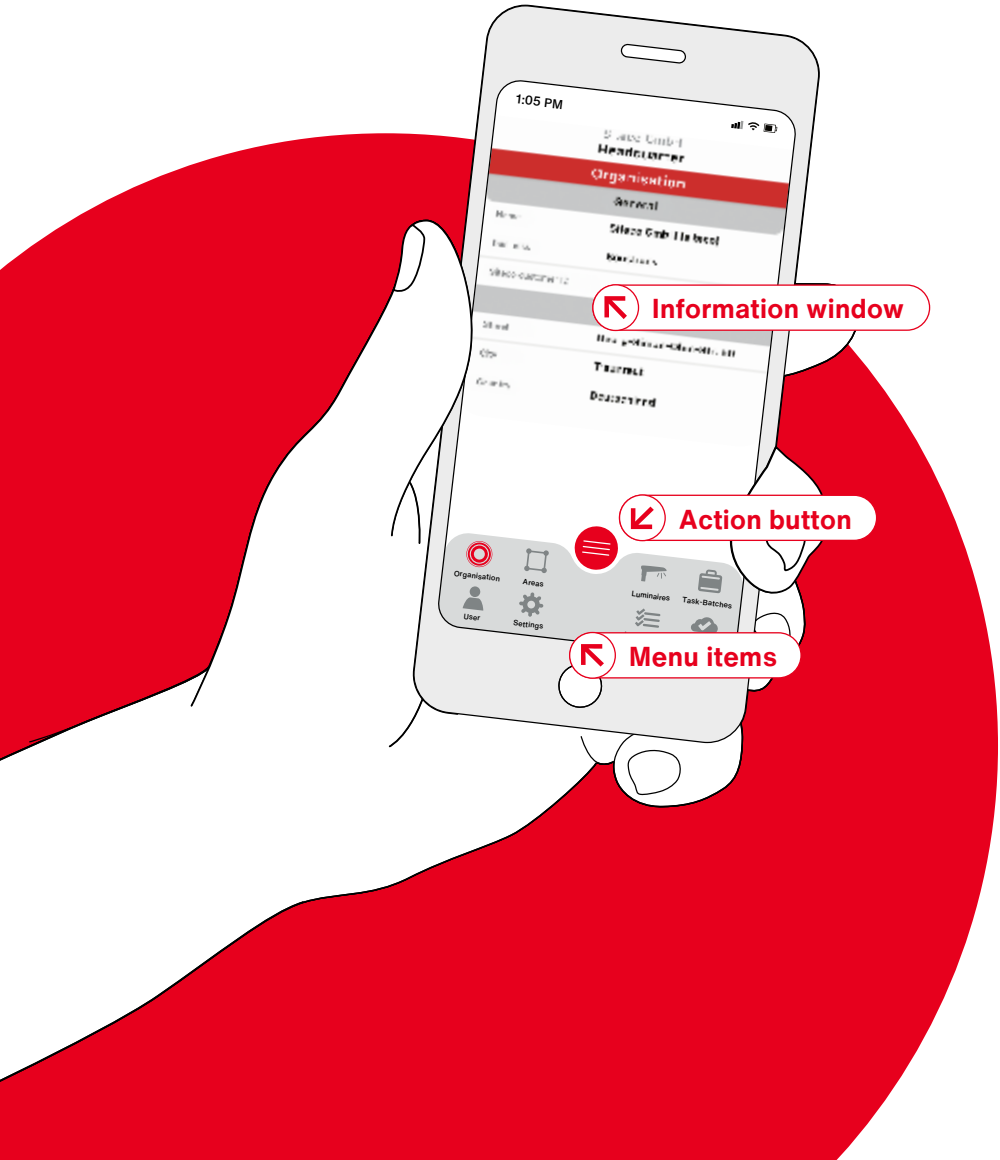
Note: For security reasons, you can only use Street-Remote and Desk-Remote with luminaires that have been inventoried for your organization and for users who have been stored for your organization.

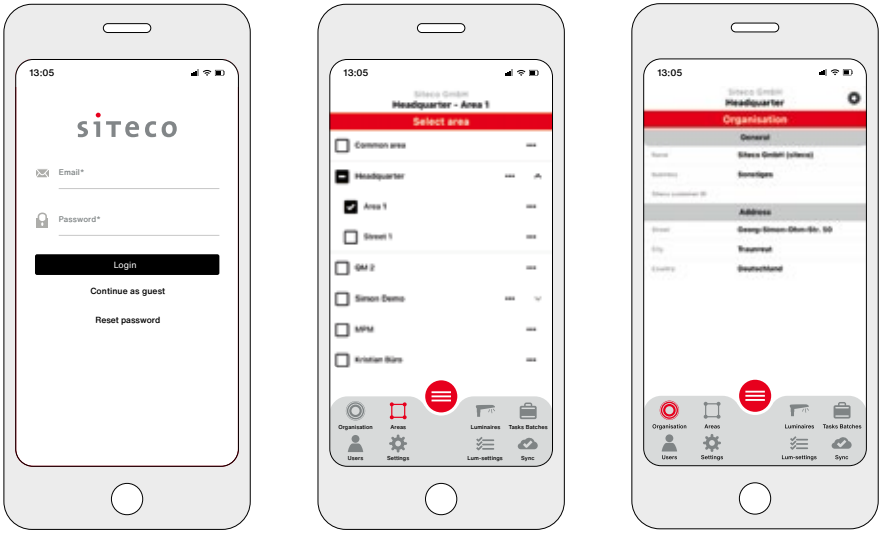
Password protection and security

SITECO iQ luminaires are protected against unauthorized access through the following measures:

- The iQ luminaires can only be checked and adjusted using the iQ app.
- Only registered app users with access rights and password can access or adjust an organization's luminaires.
- User data can only be created and changed by the person responsible for the lighting system.
- Different roles can be assigned to users with the possibility of restricting authorization to individual installations (luminaire groups) as well as a specific range of functions.
- Wireless access to the luminaires is particularly protected as well. You can find out more about this in the sections on Desk-Remote and Street-Remote functions.

Getting started with the SITECO iQ app





Log in

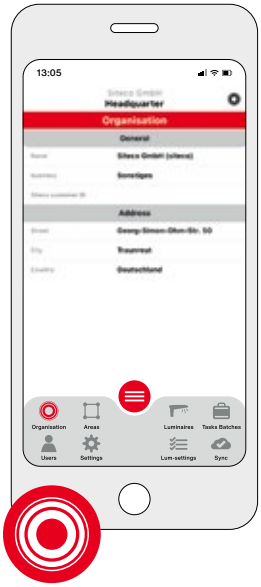
A user account is required to log in to the iQ app. New customers can set themselves up as new users on the start page of the iQ app or the iQ web tool. In organizations that already use iQ, the authorized administrator decides on the creation of new users and also creates them.

Select organization and area

You can use all the app's functions once you've created an organization. This can be requested after logging in. Processing can take up to one day to complete.

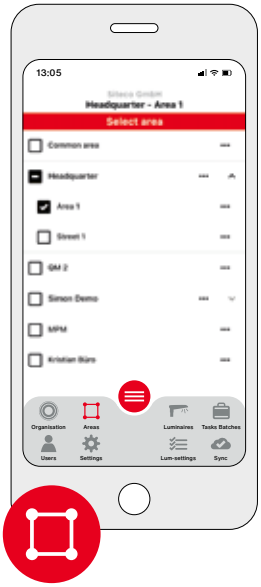
Get started

All **functions** centrally under control



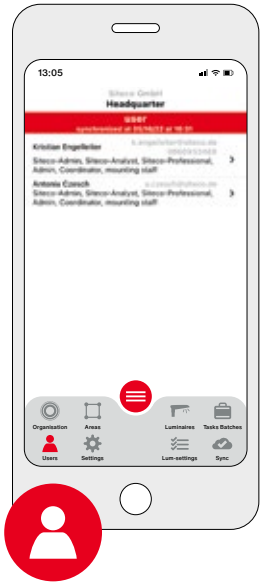
Organization

Start menu.



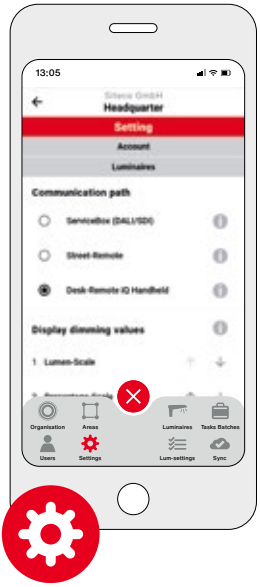
Areas

Overview of all created areas such as zones, streets, etc.



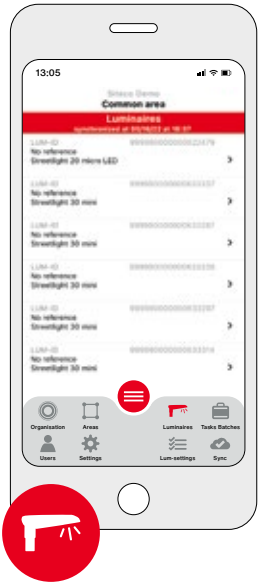
Users

Get an overview of stored users and their permissions for a given area.



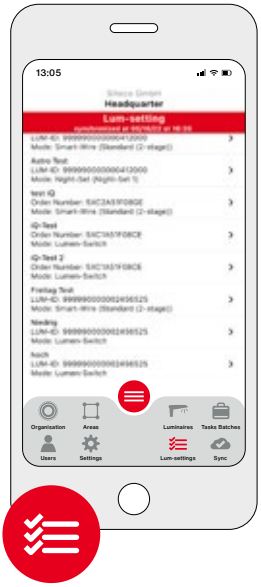
Settings

Gain access to basic settings like language, password, logging out.



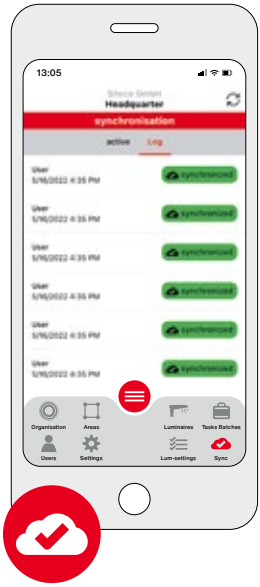
Luminaire

Get all info at a glance, including location.



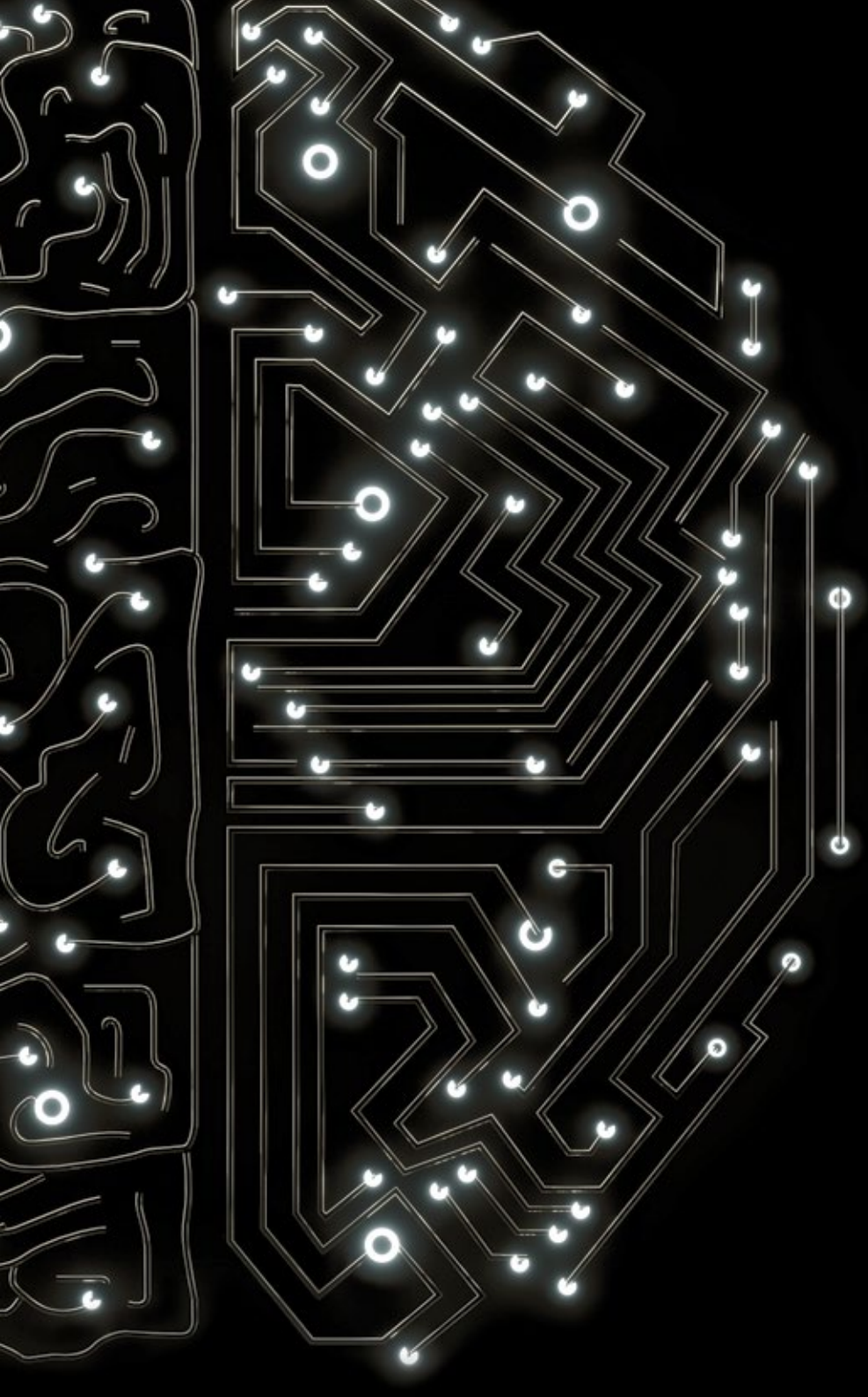
Parafiles

Get an overview of created parafiles all located in one area.



Synchronizing

Get an overview of the exchange between the luminaire and the app as well as the web tool and the app – particularly helpful if there's a poor internet connection.



Related **links**

Adding existing luminaires to the iQ app that have been upgraded to Module 540 iQ.
Existing urban luminaires can be equipped with iQ functionalities by simply replacing the Module 540. To be able to control this luminaire via the iQ app in the future, both Module 540 iQ and luminaire must be inventoried. The instructions available via the QR code show you how the inventorying process works.

Inventorying, adjusting and checking decorative luminaires with Module 540 that are not supplied pre-assembled.
Decorative luminaires with Module 540 iQ can be supplied pre-assembled or in individual parts. To ensure that luminaires delivered in individual parts are displayed as a complete luminaire in the iQ app, all components can be inventoried. The instructions available via the QR code show you how the inventorying process works for the decorative luminaires with Module 540 iQ.

Adjusting and checking older SITECO iQ luminaires.
The instructions that can be accessed via the QR code are used to adjust older SITECO luminaires that had not yet been supplied with a LumIdent QR code. The settings are made using the SITECO iQ app on the smartphone and with the help of the ServiceBox 3.

If you have any further questions, please contact your sales representative.

The contents of this document do not contain any guarantees or warranties. As iQ is continuously being developed, there may be deviations from the contents described here. The contents described refer to the iQ system and are not necessarily collectively present in every luminaire. New iQ functions are not necessarily available for older luminaires. Information on luminaires may be presented differently for individual luminaire types. It does not claim to be complete or correct. SITECO shall only be liable for gross negligence and intent as well as within the scope of the product liability regulations. Indirect and consequential damages are excluded.

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