

# OSRAM LIGHTIFY™ Home Professional

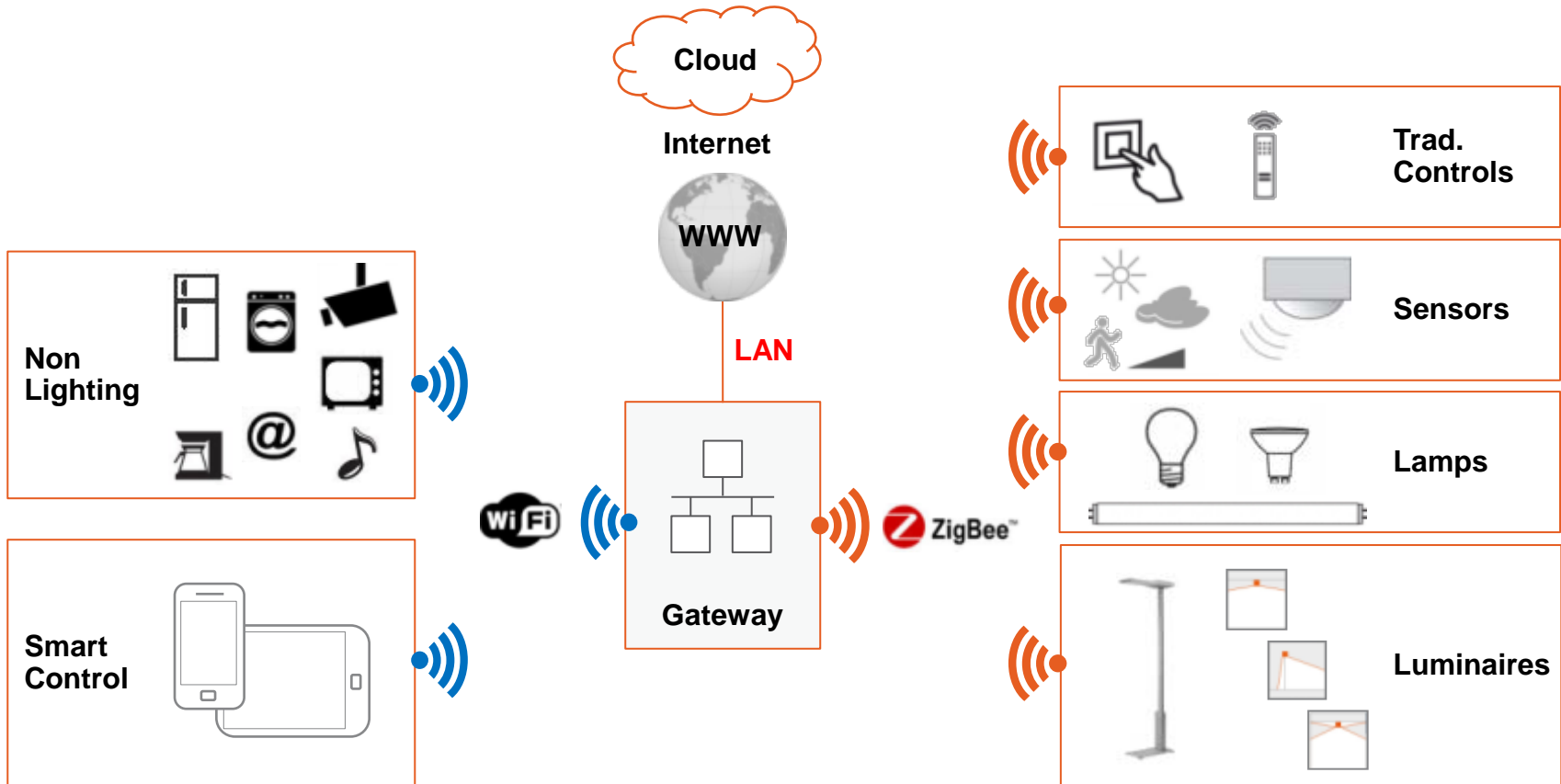


# LIGHTIFY™ Pro

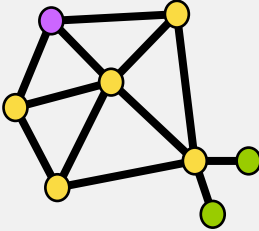
## Introducing digital opportunities to analog devices



Schematic overview of connected light:



# Benchmark Technology

Technology	Zigbee	Wi-Fi	Bluetooth
<p>General</p>  <p><b>Mesh network (Zigbee)</b></p>	<p>ZigBee is a low-cost, low-power, wireless mesh network standard. The low cost allows the technology to be widely deployed in wireless control and monitoring applications. Low power consumption allows longer life with smaller batteries. Mesh networking provides high reliability and more extensive range.</p>	<p>Comparing to Zigbee, Wi-Fi is able to control the lighting devices without gateway, but the high chip cost eliminates this advantage. High power consumption causes low energy efficiency and high standby power.</p>	<p>Bluetooth is a wireless technology standard for exchanging data over short distances as a cable replacement. Bluetooth 4.0 now includes a mesh network but without routing function, the applications are limited to small space.</p>
Standard	IEEE 802.15.4	IEEE 802.15.1	IEEE 802.11b
Distance (m)	1 – 100+	1 - 100	1 – 10+
Network architecture	Mesh, Multiple Star	Point-To-Point	Mesh (BT4.0)
Battery life	years	days	months
Cost of chipset	low	low	high
Max. Data Rate (KB/S)	20 - 250	11.000+	720
Operating Frequency	2.4 GHz (worldwide)	2.4 and 5 GHz	2.4 GHz
Standby time	<30ms	<3s	<10s
Application Focus	Monitoring & Control	Web, Email, Video	Cable Replacement

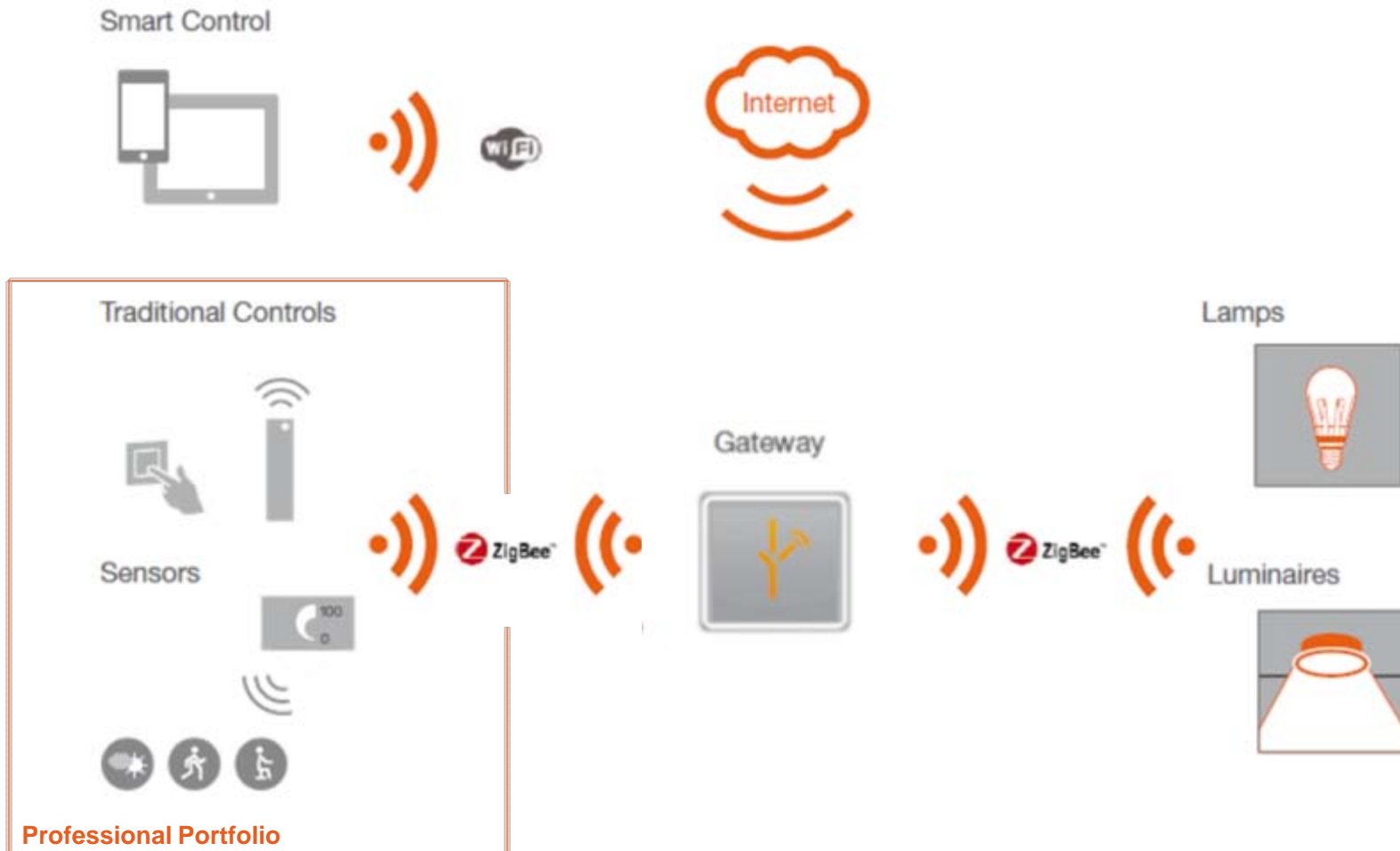


# OSRAM LIGHTIFY™ Home

# LIGHTIFY™

## System Overview

---



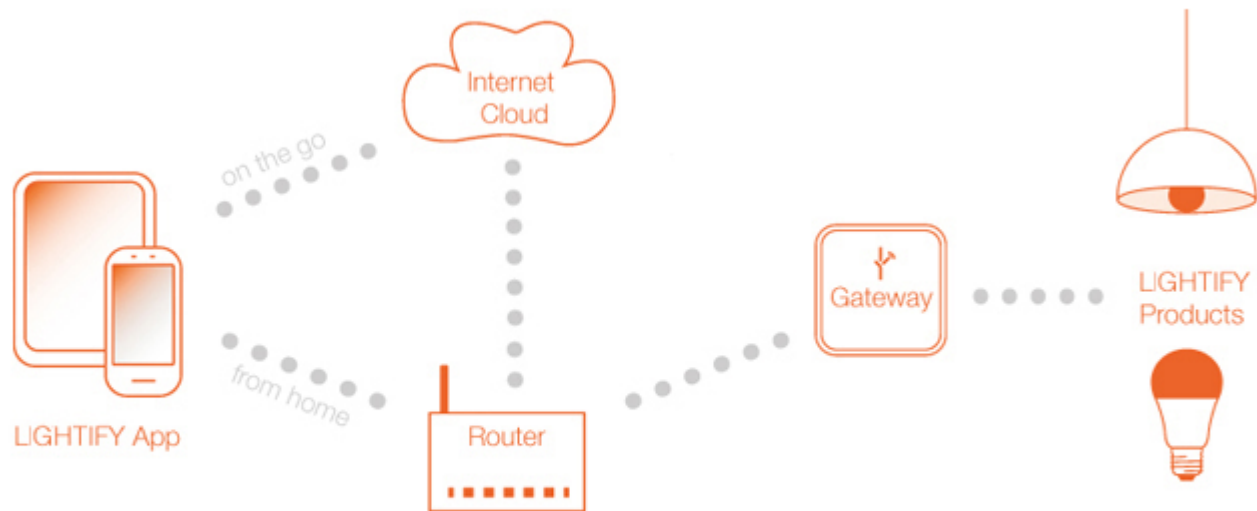
# LIGHTIFY™

## System Overview

---

LIGHTIFY is as simple as this

---



### It couldn't be simpler: LIGHTIFY installation via app

1. Download the free LIGHTIFY app on your iOS/Android smartphone or tablet PC
2. Follow the installation instructions in the app

# LIGHTIFY™:

## Make your home intelligent

Light was never so enriching, helpful, individual and connected ... and lighting was never so much fun.



You need:  
IOS/Android tablet-  
PC or smartphone or  
an iPod touch

an internet  
connection and a  
Wifi router

Download the  
LIGHTIFY™ App on  
your smart device



Replace common  
lamps with  
LIGHTIFY™ lamps,

install LIGHTIFY™  
luminaires or

unite the common  
luminaire with the  
LIGHTIFY™ Plug



Connect the  
LIGHTIFY™  
Gateway to the main  
electricity

Start the  
LIGHTIFY™ App  
and follow the  
instructions on your  
App:

Connect the  
Gateway wirelessly  
to your W-LAN



Identify our  
LIGHTIFY™  
products via  
LIGHTIFY™ App

All LIGHTIFY™  
lamps + luminaires  
will now be shown  
on your smart device

**The installation is  
fast, easy and  
mainly automatic**

# LIGHTIFY™

## Technical Benefits

Light was never so enriching, helpful, individual and connected ...



Lamps and luminaires can be controlled individually or as a group. The system can be expanded to up to 50 light sources



LED Technology



All LIGHTIFY™ lamps and luminaires are dimmable



Tunable White from 2.700 – 6.500K (CL A RGBW 2.000 - 6.500K)



Selection of a variety of colors according to moods and atmospheres



Luminaires for indoor and outdoor use



LIGHTIFY™ can be controlled by several smart phones or tablet PCs, while on the road or at home



Low transmission power of 1mW to 10mW



LIGHTIFY™ products are based on ZLL (Zigbee Light Link) and ZHA (Zigbee Home Automation)

Protocol standard for radio control with low data rate based on IEEE 802.15.4

Uses free frequency of 2.4GHz



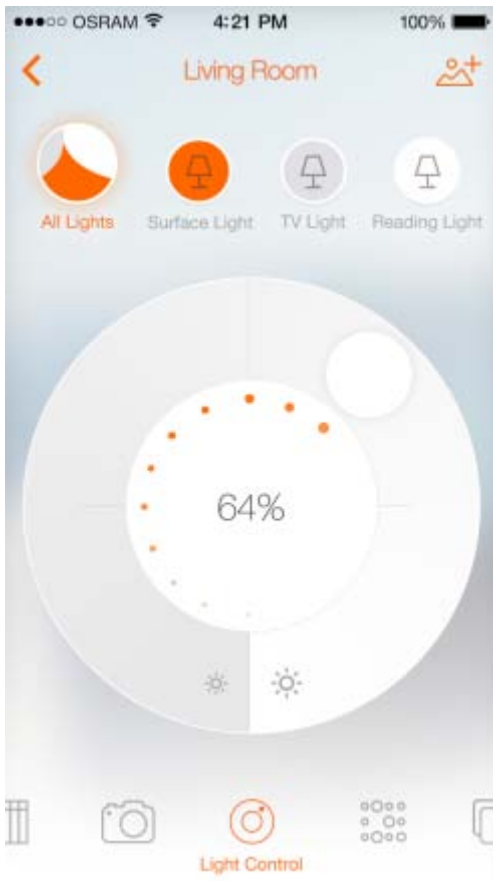
# LIGHTIFY™ App

## Your needs are always focused on

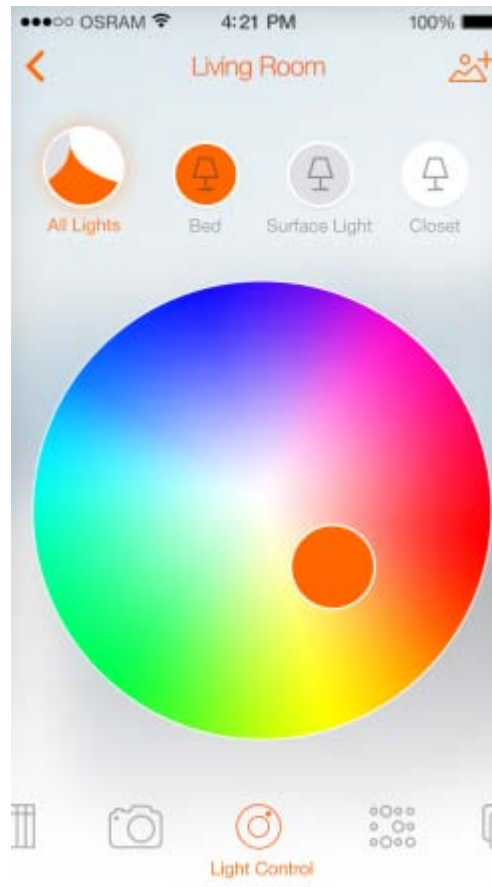


LIGHTIFY™ offers a wide variety of control options:

### Dimming



### Colour picker



### Tunable White

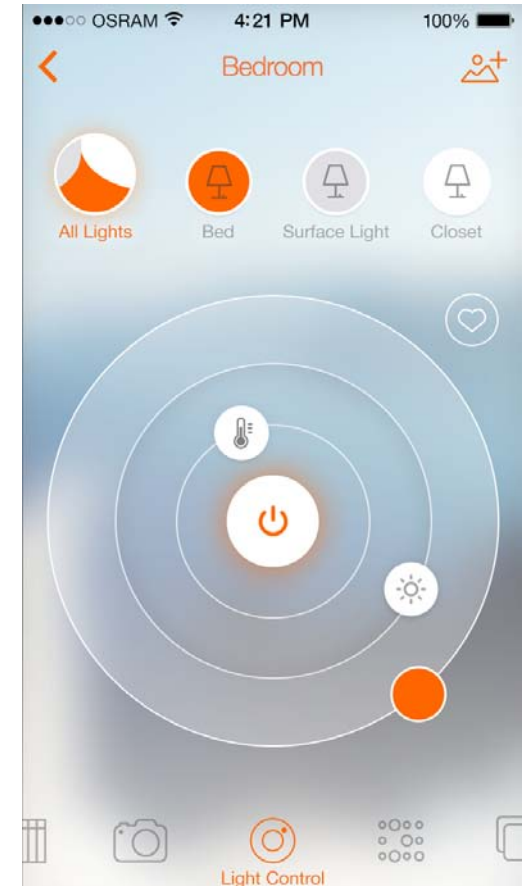
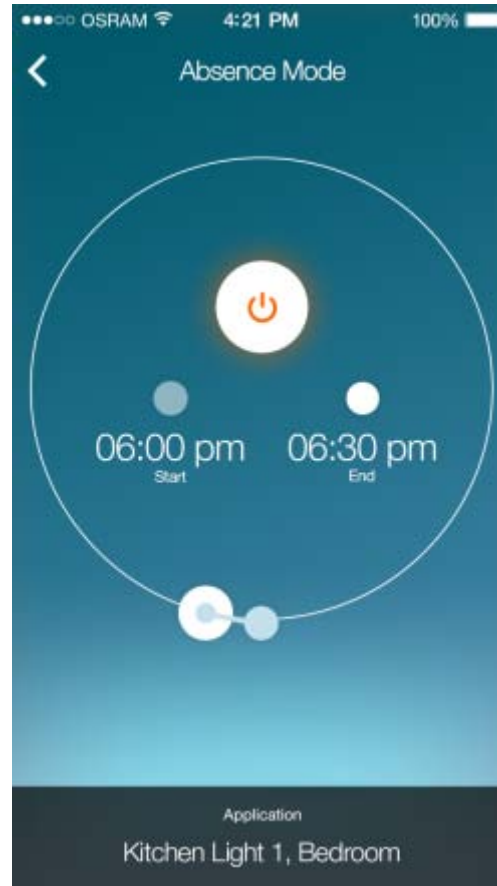
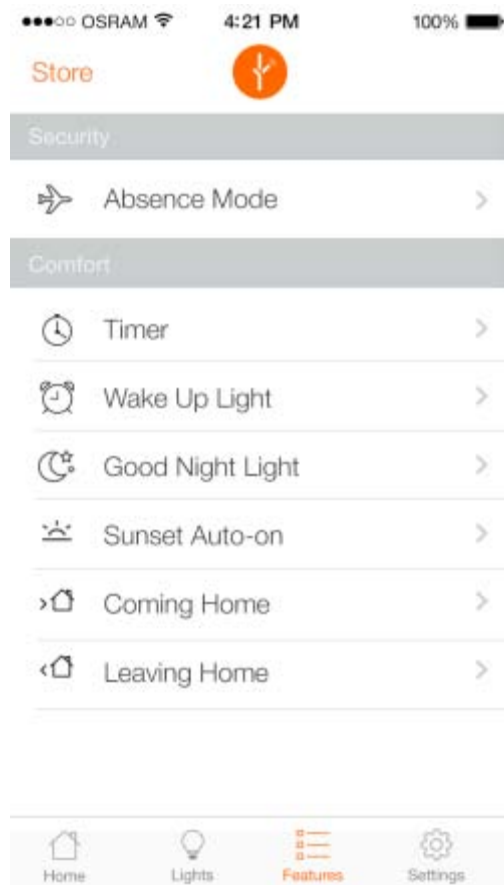


# LIGHTIFY™ App

## Your needs are always focused on



As well as presets and monitoring functions:





Light is supportive.  
Supporting you and your everyday needs.

A photograph of a modern interior space, likely a living room or office, viewed through large glass windows. The scene is dimly lit, with a prominent glowing cube-shaped pendant light in the center. A person is sitting on a light-colored sofa in the background. The text "Light is personalisation. Be individual." is overlaid in white on the image.

Light is personalisation.  
Be individual.

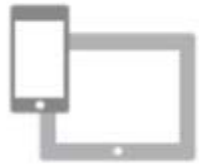


Light is joy.

Easy to use and full of fun.



# Portfolio – LIGHTIFY™ Home



Smartphone and tablet-PC



Gateway



CLAS A TW and RGBW



PAR16 50



Downlight



Flex



Garden Spot Mini



Surface light



Plug

# LIGHTIFY™ Classic A60 Tunable White



- LED Classic A lamp
- 60W incandescent lamp replacement
- With Tunable White 2700-6500K
- 810lm
- Diameter: 60mm
- Lamp height: 110mm

# LIGHTIFY™ Classic A60 RGBW



- LED Classic A lamp
- 60W incandescent lamp replacement
- With Tunable White 2700-6500K + RGB
- 810lm
- Diameter: 60mm
- Lamp height: 110mm



# LIGHTIFY™ PAR16 50 Tunable White



- LED Reflector lamp
- 50W halogen lamp replacement
- Tunable White 2700-6500K
- 350lm, 850cd
- Beam angle: 35°
- Diameter: 50mm / Lamp height: 58mm

# LIGHTIFY™ Surface Light Tunable White

---



- Flat LED ceiling and wall-mounted luminaire
- Tunable White 2700-6500K
- Up to 2000lm
- With customizable central section
- Diameter: 38cm / Height: 2,8cm
- CRI > 80

# LIGHTIFY™ Downlight Tunable White



- Downlight mit LIGHTIFY™ PAR16
- Replacement for 50W low-voltage halogen applications

- Tunable White 2700-6500K
- CRI > 80
- Beam angle: 35°

# LIGHTIFY™ Flex RGBW



- Flexible, adhesive LED Strip
- Tunable White 2900-6500K + RGB
- Up to 850lm
- Total length: 2m
- Cuttable (every 10cm)
- Ra > 80

# LIGHTIFY™ Gardenspot Mini RGB

## LIGHTIFY™ Gardenspot Mini White



- Connection ready starter set (contains 9 spots, 10m total length incl. 5m feed cable)
- Expandible up to max. 3 Add-ons
- Add-on kit available with 3 spots
- IP66(luminaire), IP44(ECG)
- Versatile, for various application areas
- Minimal energy consumption (0,5W/spot)
- First smart garden light without transformer
- For impressive RGB effects and/or with tunable white light (2700K)

# LIGHTIFY™ Gateway



- The heart of the LIGHTIFY™ System with integrated WiFi
- ZigBee Technology

- Wireless network and integration into your WLAN system
- Integrated power supply unit

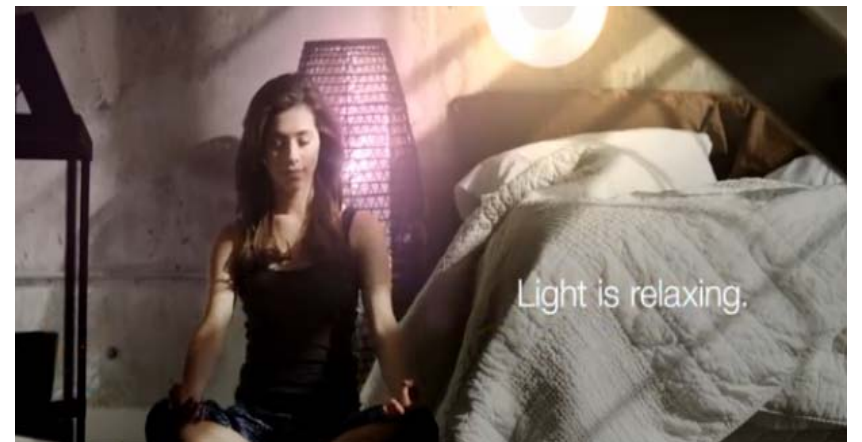
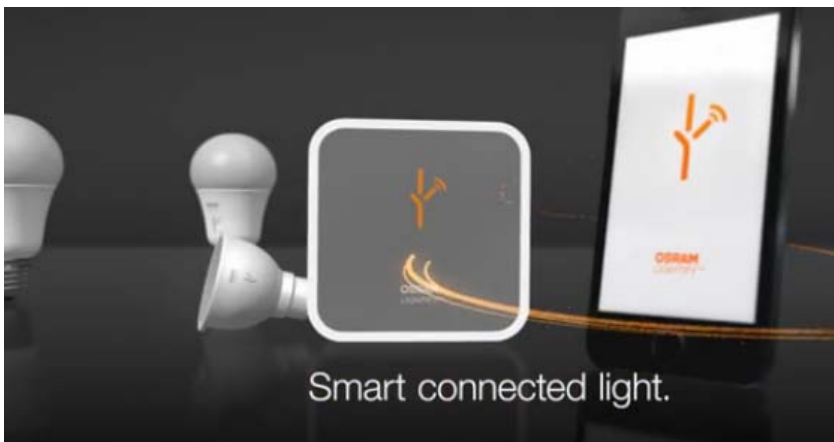
# LIGHTIFY™ Plug



- The LIGHTIFY™ Plug is a plug that enables your existing luminaires to connect to your LIGHTIFY system

- Plug & Play

# LIGHTIFY™ Imagefilm





# OSRAM LIGHTIFY™ Professional

LIGHTIFY™  
Professional



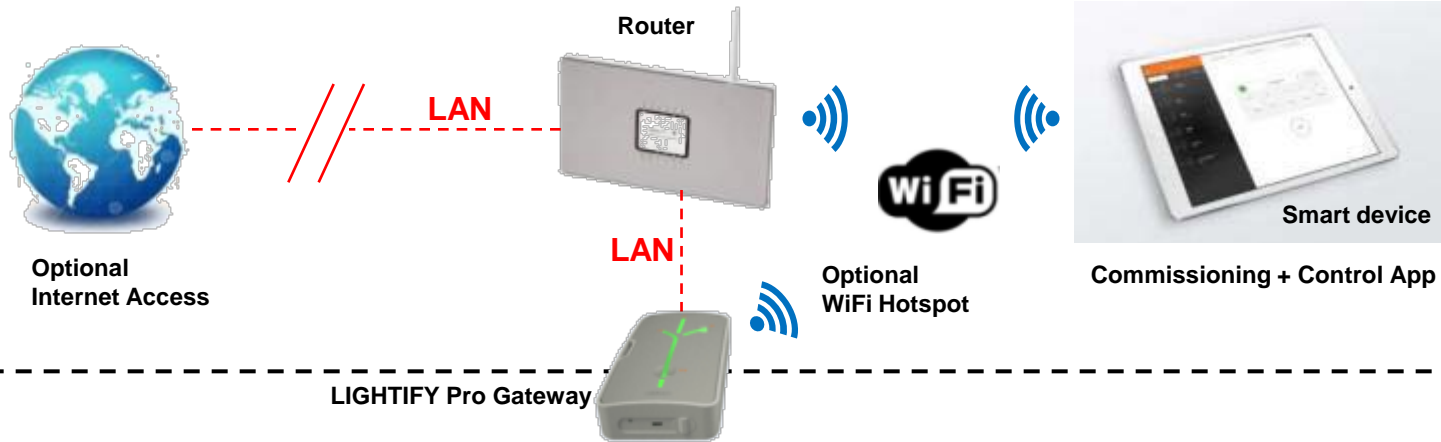
Sales Presenter

OSR IQL PM-PL | July 2014 | Munich



# LIGHTIFY™ Pro

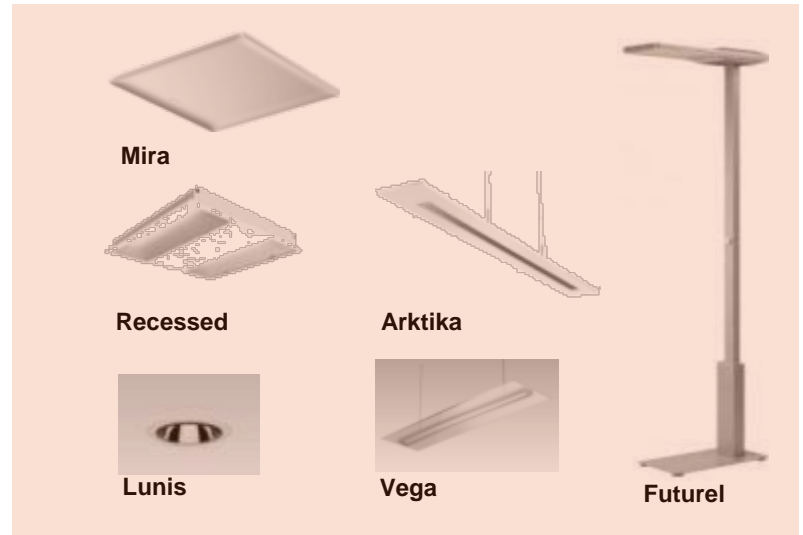
## Product overview



### LIGHTIFY Pro Components



### LIGHTIFY Pro Luminaires

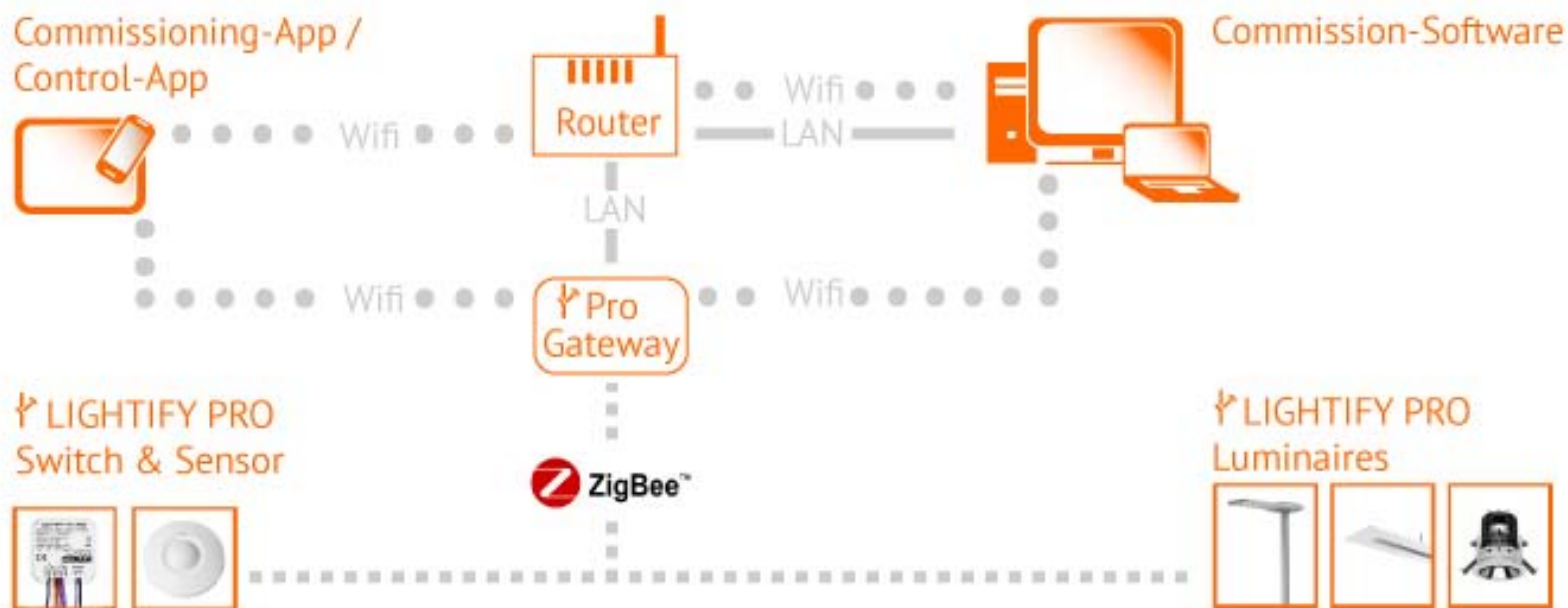


# LIGHTIFY™ Pro

## Control & Commissioning via Smart Device



LIGHTIFY Pro operating principle





# LIGHTIFY™ Pro

## Control & Commissioning via Smart Device

Intuitive control and commissioning of light points:

LIGHTIFY Pro Commissioning app



▶ LIGHTIFY Pro Commissioning app

LIGHTIFY Pro Control app



▶ LIGHTIFY Pro Control app



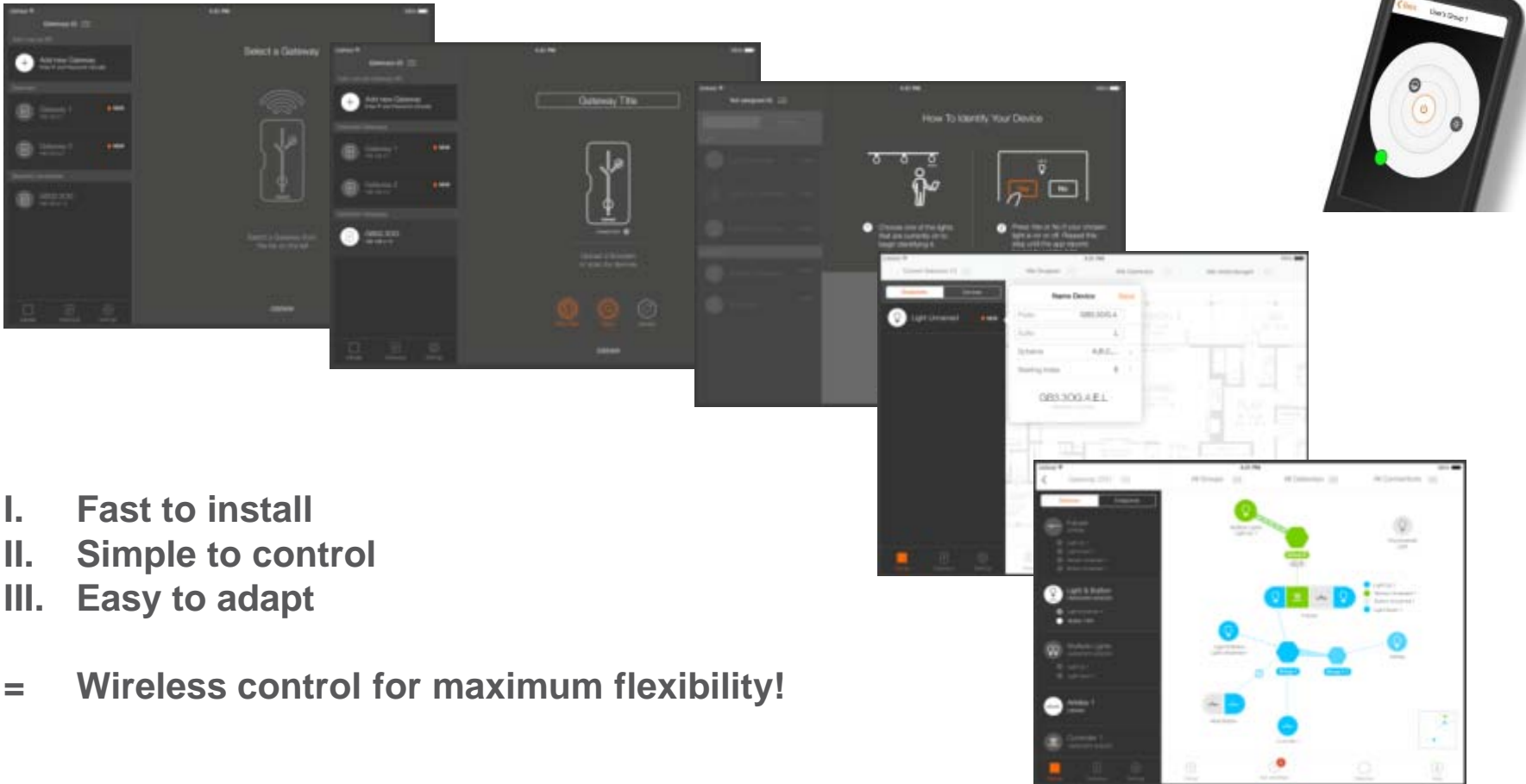
# LIGHTIFY™ Pro

## Control & Commissioning via Smart Device



Intuitive control and commissioning of light points:

LIGHTIFY Pro Control app



- I. Fast to install
  - II. Simple to control
  - III. Easy to adapt
- = **Wireless control for maximum flexibility!**

# The most important benefits at a glance

## How can LIGHTIFY™ Pro improve your business?

---



### LIGHTIFY™ Pro is supportive ...

- define your own personal lighting scenario
- comfortable planning of daily business routine
- trigger pre-set functions on demand
- control of single, individual light sources or complete light groups
- store your personal light settings with almost unlimited light setting possibilities
- scalable from small (1-10 light points) to large systems (100 wireless network nodes)



**→ LIGHTIFY™ Pro is your bridge to enable smart lighting in your professional environment with almost unlimited light setting possibilities**

# The most important benefits at a glance

## How can LIGHTIFY™ Pro improve your business?

---



### LIGHTIFY™ Pro is connective ...

- smart lighting connects people
- connected light stimulates daily business activities
- create your preferred business atmosphere
- let your lighting help you to facilitate communication
- establish your own smart connected lighting network based on your everyday needs
- create a private, autonomous lighting system or use an existing IT infrastructure



**→ LIGHTIFY™ Pro is your key for smart connected light in professional lighting applications**

# The most important benefits at a glance

## How can LIGHTIFY™ Pro improve your business?

---



### LIGHTIFY™ Pro is wireless ...

- wireless control of your lighting via Smart devices (phones & tablets & PC)
- attune the light to your changing business requirements
- maximum flexibility with low installation effort & costs
- wireless system integration of manual control devices – switches, remote controls
- intelligent upgrading of existing lighting installations to wireless smart lighting



**→ LIGHTIFY™ Pro is wireless and provides you the advantage of maximum system flexibility to adapt the light to your personal business requirements**



# The most important benefits at a glance

## How can LIGHTIFY™ Pro improve your business?

---



### LIGHTIFY™ Pro is easy to operate ...

- experience new facets of light
- flexible and convenient light control via Smart devices
- personalize your lighting with password access
- fast adaption of light to your personal needs
- intuitive and easy system operation based on “touch” & “drag&drop” App functions
- pre-programmed light modes for “1-klick” operation



**→ LIGHTIFY™ Pro is your system control made easy by using Apps available for Smart devices (phones & tablets & PC)**

THERE IS A NEW **GLOBALLY VISIBLE TREND** EXPRESSED BY KEY WORDS LIKE INTERNET OF THINGS, NETWORKED SOCIETY, WIRELESS CONTROL, CONNECTED ENVIRONMENT, BIG DATA, ...

**DIGITAL AND COMPUTER**  **CONTROLLED DEVICES**  
**BECOME SMALLER, EASIER** **TO HANDLE AND CAN**  
**SLIGHTLY BE EMBEDDED IN** **PEOPLES' ENVIRONMENT.**

OBJECTS CAN BE CONTROLLED WIRELESSLY VIA DIFFERENT COMMUNICATION STANDARDS AND THE INTERNET.

**OBJECTS BECOME INTELLIGENT, PERSONALIZED, INDIVIDUAL, HUMAN CENTERED.** OSRAM IS GOING TO USE THESE NEW OPPORTUNITIES TO PROVIDE **USE-ORIENTED PRODUCTS** TO ITS CUSTOMERS, WHICH WILL **MAKE LIGHT MORE FLEXIBLE, COMFORTABLE AND SAFE.**

# LIGHTIFY™ Pro

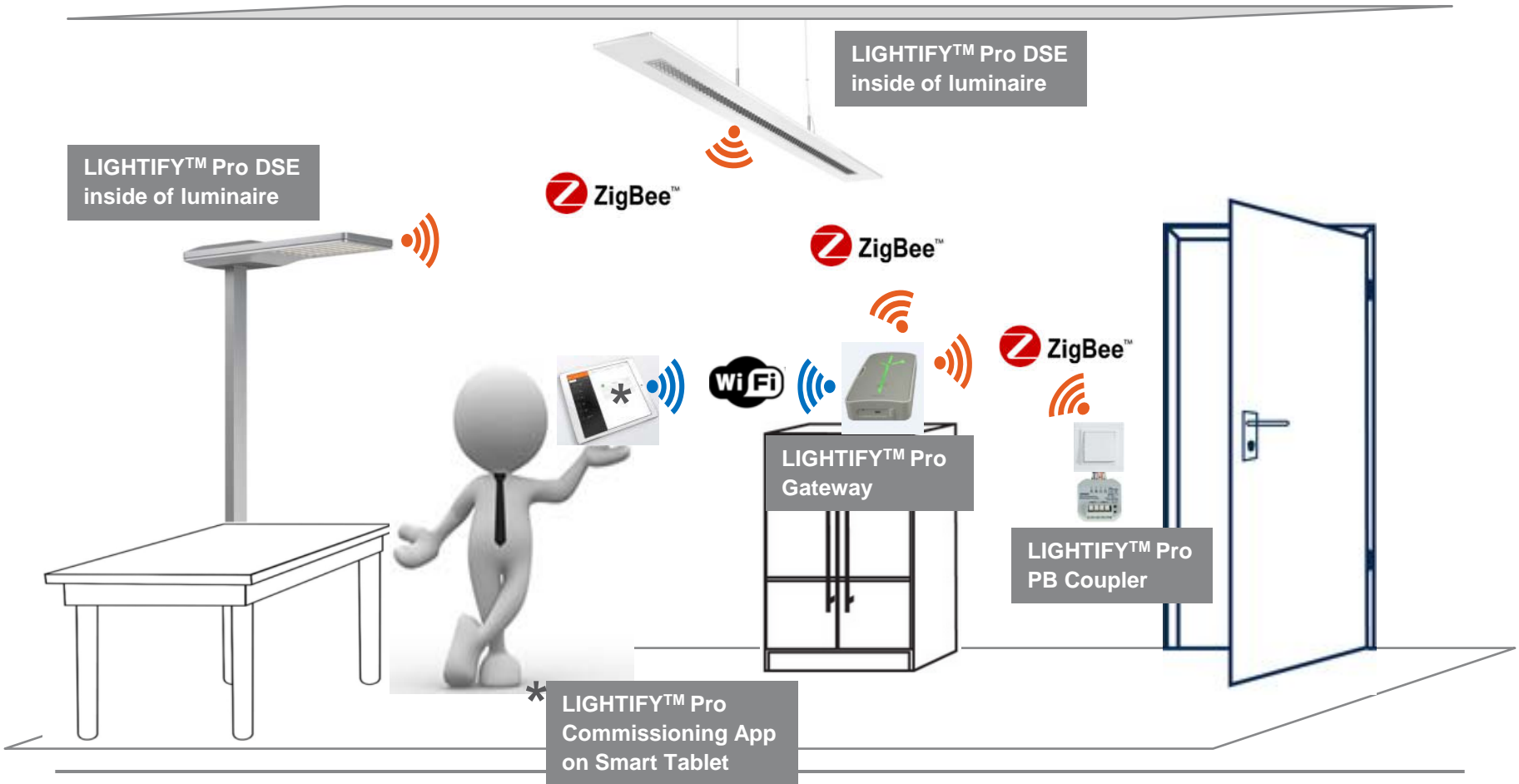
## Product portfolio overview



# LIGHTIFY™ Pro System approach



Wireless communication between LIGHTIFY™ Pro components:



# LIGHTIFY™ Pro System approach



LIGHTIFY Pro DSE



▶ LIGHTIFY Pro DSE

LIGHTIFY Pro SSE



▶ LIGHTIFY Pro SSE

LIGHTIFY Pro PBC



▶ LIGHTIFY Pro PBC

LIGHTIFY Pro Gateway



▶ LIGHTIFY Pro Gateway

# Product Information Sheet

## LIGHTIFY™ Pro Gateway



### Key facts:

- Gateway with ZigBee & WLAN interface
- Control of up to 100 ZigBee notes
- High memory capacity
- Lighting group & scene settings
- System setup via LIGHTIFY™ Pro Commissioning App

### Gateway



### Smart Device



### Most important technical data\*:

<b>Voltage</b>	100-240VAC, 50/60Hz
<b>Power supply</b>	5V (Micro-B)
<b>No. of notes</b>	100
<b>ZigBee wireless</b>	Yes
<b>WLAN</b>	Yes
<b>Dimensions (l/w/h)</b>	160/85/26mm
<b>Mounting</b>	Variable (ceiling/wall/desk/etc.)
<b>Protection class</b>	IP20
<b>Weight</b>	250g (incl. power supply)
<b>EAN MLFB</b>	4052899930384

\*Preliminary technical data

### Product characteristics:

- The LIGHTIFY™ Pro Gateway is the bridge between smart devices, e.g. Tablet-PC, and lighting products (lamps, luminaires and accessories) with SMART lighting function (Zigbee Light Link)
- Simply plug & play

### Product benefits:

- High memory capacity to store settings and personal configurations
- System can control up to 100 ZigBee notes
- Almost unlimited possibilities of lighting group & scene settings
- Variable mounting options

### Applications:

- Professional Lighting Applications in general:
  - Office
  - Shop
  - Hospitality

Your bridge to enable wireless smart lighting in your professional environment with big memory and almost unlimited light setting possibilities

# Product Information Sheet

## LIGHTIFY™ Pro DSE



### Key facts:

- DALI control unit w/ ZigBee interface for luminaire / ceiling integration
- Control of up to 8\* DALI ECGs
- PIR- / HF-Sensor usability
- Pre-configured light modes for Office areas, Corridors, Staircase, etc.

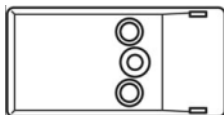
### DSE



### PIR



### HF



### Most important technical data\*:

<b>Voltage</b>	220-240VAC, 50/60Hz
<b>Power consumption</b>	1W – 3W (load dependant)
<b>No. of ECGs</b>	max. 8 (16mA)
<b>ZigBee wireless</b>	Yes
<b>Dimensions (l/w/h)</b>	Control: 201/30/21mm
	Sensor PIR: 48/15/17mm
	Sensor HF: 55/27/20mm
<b>Mounting</b>	Variable (luminaire/ceiling)
<b>Protection class</b>	IP20
<b>Weight</b>	85g (DSE only)
<b>EAN</b>	4052899930353 (DSE only)
<b>MLFB</b>	4052899930391 (DSE + PIR)
	4052899930407 (DSE + HF)

\*Preliminary technical data

### Product characteristics:

- The LIGHTIFY™ Pro DSE is a DALI control unit w/ ZigBee interface meant for luminaire / ceiling integration
- Sensor functionality incl. movement detection and daylight regulation for maximum energy-savings and convenience
- Internal/external antenna for max. installation flexibility and optimal wireless range

### Product benefits:

- Preconfigured light modes for “Single Office”, “Open-plan Office”, “Corridor”, “Staircase”
- Easy configuration of control and sensor functions incl. dimming and light level setup via LIGHTIFY™ Pro Commissioning App

### Applications:

- Professional Lighting Applications in general:
  - Office
  - Shop
  - Hospitality

Your wireless ZigBee solution for a DALI-based luminaire control with sensor functionality incl. movement detection and daylight regulation.

# Product Information Sheet

## LIGHTIFY™ Pro SSE



### Key facts:

- Switch (On/Off) control unit w/ ZigBee interface for luminaire / ceiling integration
- Control of up to 12 non-dimmable ECGs
- PIR- / HF-Sensor usability
- Pre-configured light modes for Office areas, Corridors, Staircase, etc.

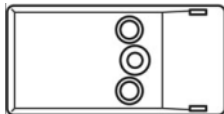
### SSE



### PIR



### HF



### Most important technical data\*:

<b>Voltage</b>	220-240VAC, 50/60Hz
<b>Power consumption</b>	1W – 3W (load dependant)
<b>No. of ECGs</b>	max. 8 (16A – resistive load)
<b>ZigBee wireless</b>	Yes
<b>Dimensions (l/w/h)</b>	Control: 201/30/21mm
	Sensor PIR: 48/15/17mm
	Sensor HF: 55/27/20mm
<b>Mounting</b>	Variable (luminaire/ceiling)
<b>Protection class</b>	IP20
<b>Weight</b>	To be finalized
<b>EAN</b>	4052899930360 (SSE only)
<b>MLFB</b>	

\*Preliminary technical data

### Product characteristics:

- The LIGHTIFY™ Pro SSE is a switching / non-dimming control unit w/ ZigBee interface meant for luminaire / ceiling integration
- Sensor functionality incl. movement detection and light level switching for maximum energy-savings and convenience
- Internal/external antenna for max. installation flexibility and optimal wireless range

### Product benefits:

- Preconfigured light modes for “Single Office”, “Open-plan Office”, “Corridor”, “Staircase”, ...
- Easy configuration of control and sensor functions incl. light mode and light level setup via LIGHTIFY™ Pro Commissioning App

### Applications:

- Professional Lighting Applications in general:
  - Office
  - Shop
  - Hospitality

Your wireless ZigBee solution for a switching / non-dimmable luminaire control with sensor functionality incl. movement detection and light level switching.



# Product Information Sheet

## LIGHTIFY™ Pro PBC



### Key facts:

- Push Button Coupler w/ ZigBee interface for wall-/flush-mounting box installation
- Up to 4\* push button connectable
- Use of existing standard push button possible, manufacturer independent

### Up to 4 push button



PBC

### Most important technical data\*:

<b>Voltage</b>	220-240VAC, 50/60Hz
<b>Power consumption</b>	<0.5W
<b>No. of Push Button</b>	max. 4
<b>ZigBee wireless</b>	Yes
<b>Dimensions (l/w/h)</b>	45/45/18mm
<b>Mounting</b>	Wall- / Flush-mounting box
<b>Protection class</b>	IP20
<b>Weight</b>	50g
<b>EAN</b>	4052899930377
<b>MLFB</b>	

\*Preliminary technical data

### Product characteristics:

- The LIGHTIFY™ Pro PBC is a 4-channel push button interface for wall-/flush-mounting box installation
- Connectability of up to 4 push button
- Installation behind existing or new push button. Push button design is manufacturer independently selectable

### Product benefits:

- Easy installation due to small housing design and pre-wired connection cables
- Fast configuration of PBCoupler functions incl. switching/dimming functionalities via LIGHTIFY™ Pro Commissioning App

### Applications:

- Professional Lighting Applications in general:
  - Office
  - Shop
  - Hospitality

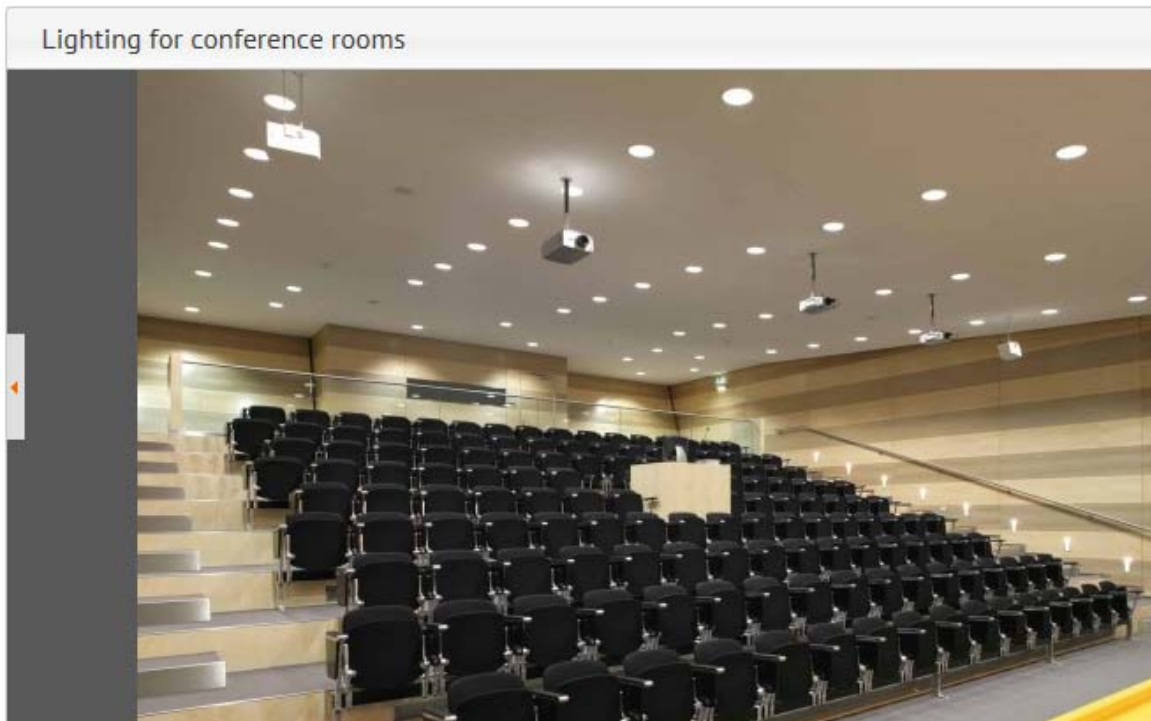
Your manual access point integrated in your smart wireless lighting application situated in an easily accessible installation area.

# LIGHTIFY™ Pro

## Control & Commissioning via Smart Device



Intuitive control and commissioning of light points:



LIGHTIFY Pro Commissioning app

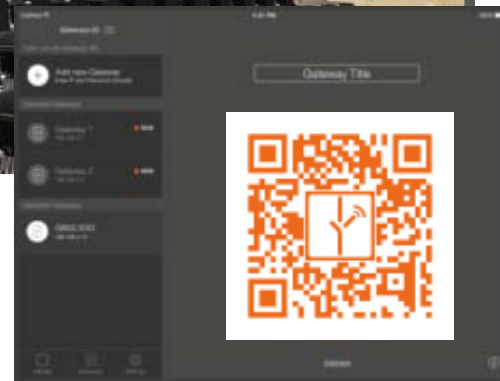
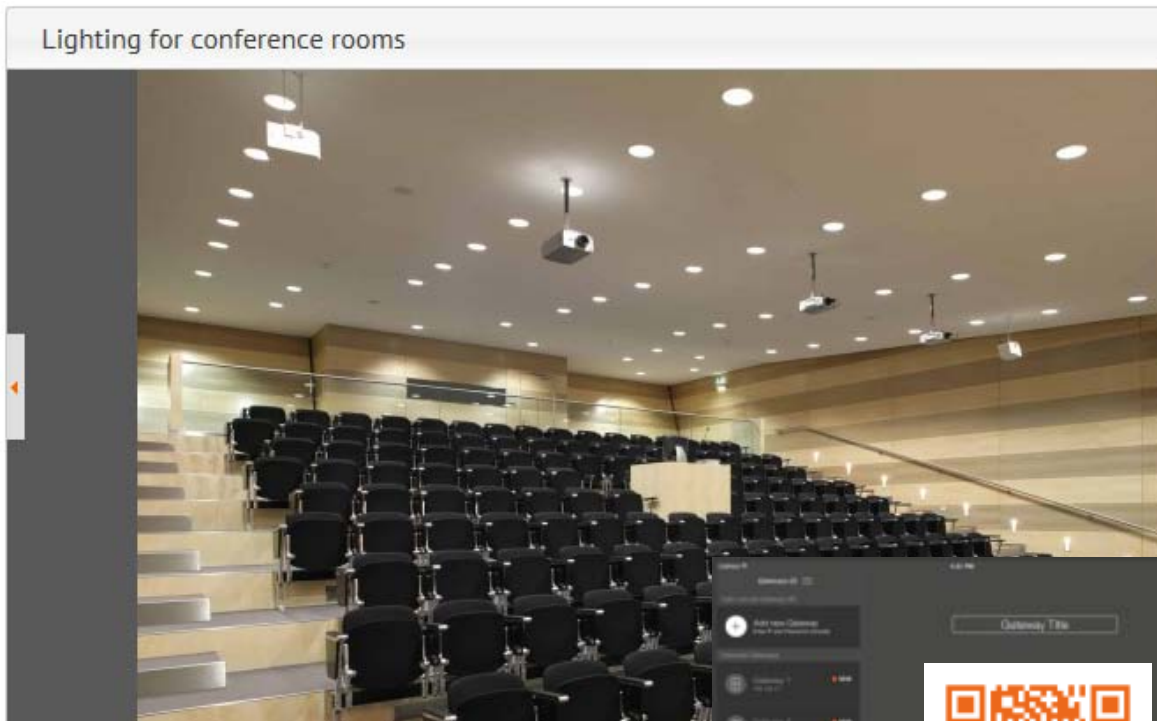


# LIGHTIFY™ Pro

## Control & Commissioning via Smart Device



Intuitive control and commissioning of light points:

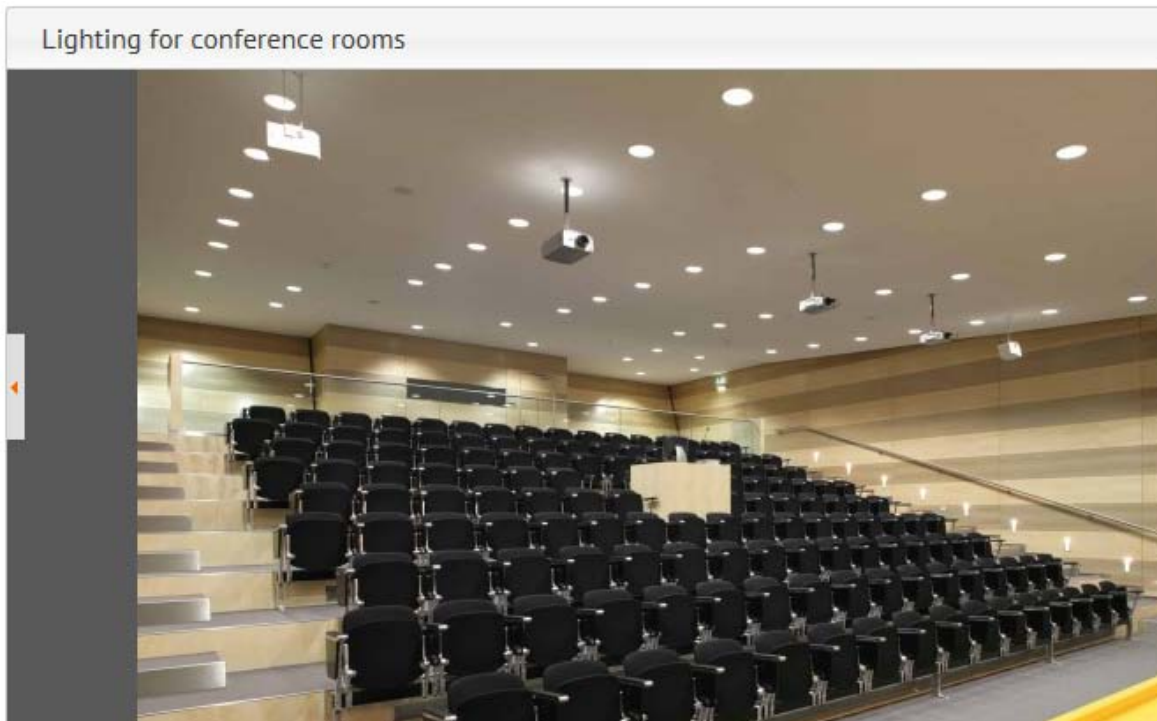


# LIGHTIFY™ Pro

## Control & Commissioning via Smart Device



Intuitive control and commissioning of light points:



LIGHTIFY Pro Control app



# LIGHTIFY™ Pro

## Control & Commissioning via Smart Device

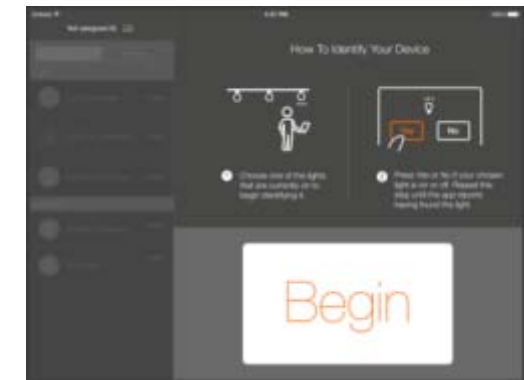


Intuitive control and commissioning of light points:

Lighting for conference rooms



LIGHTIFY Pro Commissioning app



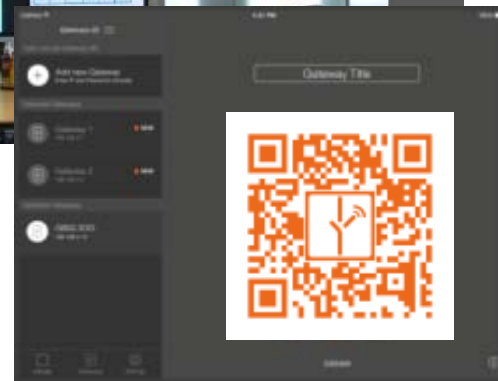
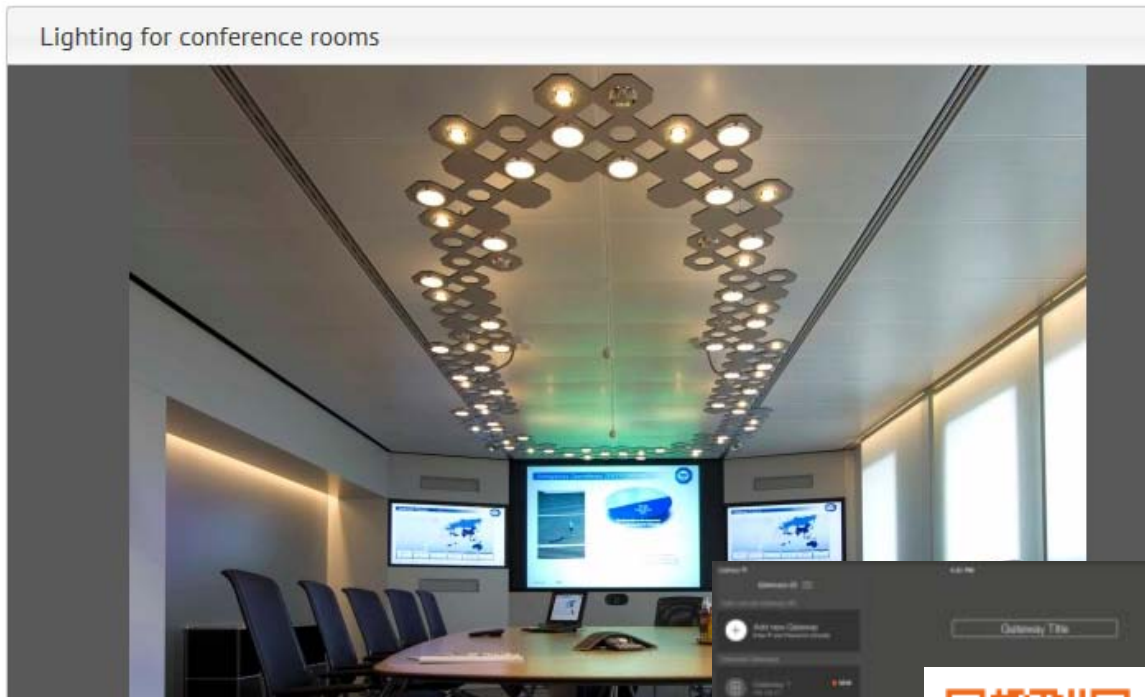


# LIGHTIFY™ Pro

## Control & Commissioning via Smart Device



Intuitive control and commissioning of light points:



# LIGHTIFY™ Pro

## Control & Commissioning via Smart Device



Intuitive control and commissioning of light points:

Lighting for conference rooms



LIGHTIFY Pro Control app



# LIGHTIFY™ Pro

## Control & Commissioning via Smart Device

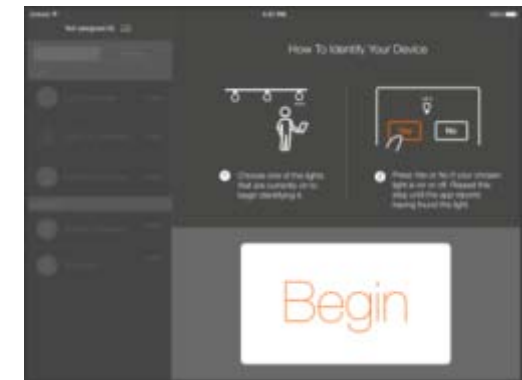


Intuitive control and commissioning of light points:

Lighting for open-plan offices



LIGHTIFY Pro Commissioning app



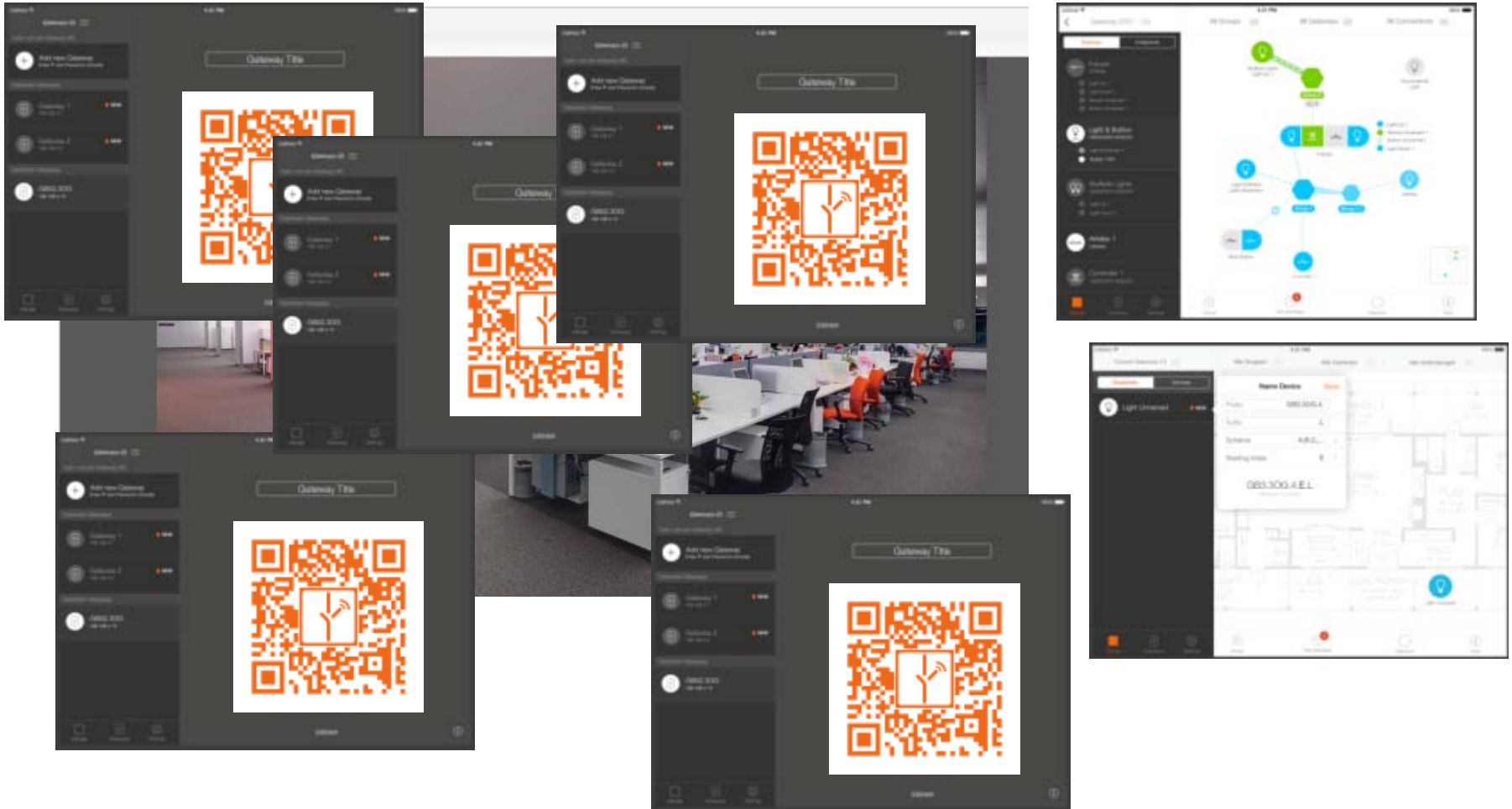


# LIGHTIFY™ Pro

## Control & Commissioning via Smart Device



Intuitive control and commissioning of light points:

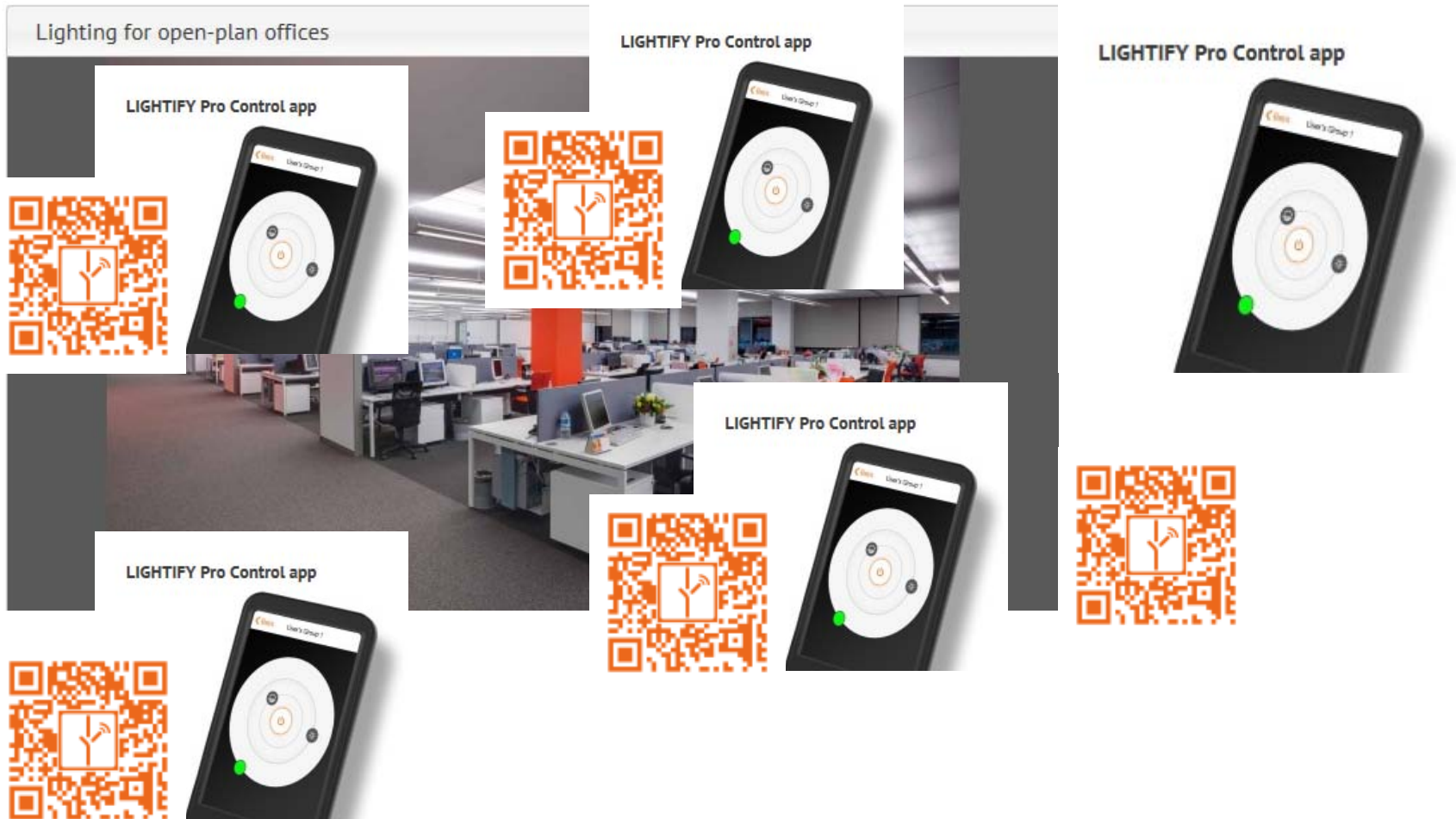


# LIGHTIFY™ Pro

## Control & Commissioning via Smart Device



Intuitive control and commissioning of light points:



# Innovation cycles of Lighting

