

How to select a (wireless) light control system?

Are you struggling to choose a light control system for your general lighting? The decisions are not too hard if you know what to look at.

This guide will help you to select and assess a wired or wireless light control system using 10 different assessment criteria:

1. Required light control and light management functionality.

Discuss the light control requirements with the real estate owner or his consultant.

- a. Automatic light control functions: scheduling with a timer, daylight harvesting with a light sensor, presence detection with a motion sensor
- b. Manual light control functions: light switches for on, off, dimming, scenes and multi-way switching
- c. Central light control options: overrule functions, day / night changeover on floor or building level
- d. Light management functions: monitoring of energy consumption and status/failures lighting system (1st line maintenance) , remote control, commissioning and network diagnostics (2nd line maintenance)

2. System overview and configuration.

What light control products are used and how is the network structure (topology)?

- a. Determine how the products need to be connected to each other (wired or wireless)
- b. Determine how the network is configured. One network, multiple separate networks or hybrid solution that interconnect networks in the cloud.

3. Scalability.

How scalable is your light control solution?

- a. Residential use 0 – 100 luminaires
- b. Small business use 100 – 250 luminaires
- c. Professional use 250 -10,000 luminaires

4. Security.

How is your light control solution protected against unauthorized use.

- a. Open source or proprietary solution in respect to interoperability?
- b. What security measures are taken? For example: network encryption, security key generation & management

5. Future proof.

How flexible is the light control system in respect of modifications, expansion or new functionality?



6. **User interface.**

What user interfaces are required to control, commission or manage your network?

- a. Switches, End-user App
- b. Commissioning App / Tooling
- c. API for data transfer to third party IoT platform
- d. Light Management dashboard

7. **Robustness/resiliency of the system configuration.**

- a. Try to avoid single point of failure components that can shut down the whole system
- b. Self-organising and self-healing capabilities of communication between components

8. **Autonomy.**

Do you have a self-operating sensor & control system or do you require interfaces to cloud or local servers?

9. **Software updates.**

Does the light control system supports Over-the-Air network updates, 1-on-1 component updates or not at all?

10. **Ease of installation.**

- a. How to install the light control components?
- b. Do you need additional control cables?
- c. How to commission your light control system?

Depending on your application, some criteria are more or less important. Dive deeper into subjects that are relevant to your project.

Now you are prepared to start asking questions to your light control system supplier.

