



**PHILIPS**

LED Electronics

Connected lighting

# Increased productivity in classrooms with connected lighting

At Skovlunde Skole Syd in Denmark, the smart connected system from Philips and X Light enables a comfortable, efficient, and sustainable environment for students and staff.



Library with pendants



X Touch placed by the whiteboard

## Request for a smart and efficient lighting solution

When the engineering company MOE was invited to define the lighting installation in the Skovlunde Skole Syd school, the project goal was clear. The school required new lighting to deliver a more comfortable, efficient, and human-centric solution for students and staff, that would be equally impressive in terms of aesthetics and energy performance.

Skovlunde Skole Syd is a large school in Denmark. The classrooms were equipped with old-fashioned luminaires and electrical installations, with just three wired installation in the class rooms. While the teachers wished for a smart lighting solution, budget constraints indicated that re-wiring the building was not an option. A meeting with the headmaster and teachers also revealed an important wish for dynamic lighting.

## To be a “first-mover” of the new wireless lighting system

To approach the challenge, the Danish luminaires manufacturer X Light partnered up with Signify. Thanks to the close collaboration, a smart, wireless connected solution was designed using Signify’s latest innovations – Philips EasyAir SNS210 MC sensors, Philips FlexTune SR drivers and Philips LED modules. All the classrooms were renovated with X Light luminaires Plafo 430 TW and Philips EasyAir SNS210, enabling a wireless approach to achieve the desired result by replacing the existing luminaires efficiently. Nearly 1200 smart luminaires were used to create a connected lighting system throughout the school buildings with the tunable white functionality.

Adhering to end users’ wish, the system enables teachers to customize the light color temperature and intensity by using Philips field app MC and/or the X Touch wall switch. Furthermore, spots were installed on tracks integrated with X Light track adaptors that contains Philips connected components, linked to the X Touch wall switch. Blackboard luminaires and spotlight fixtures were installed to provide the classrooms with accent lighting and various lighting scenarios, improving visual comfort, concentration levels and the overall sense of wellbeing for students.

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Thanks to the Tunable White technology, we have much better light and comfort in the classrooms.”

Torben Søfelde, CEO, X Light

## Light, comfort and energy savings in one connected solution

Thanks to close collaboration between Signify, X Light, its manufacture partner Imperial and the engineering company MOE, the school achieved a state-of-the-art lighting solution —better comfort and a significant reduction in energy consumption in the building.

Human-centric lighting is an important trait throughout the project—with tunable white technology, teachers can set all lights in a predefined color and adjust the lighting

according to their educational needs through Philips field app MC and the X Touch wall switch, providing a pleasant environment for both students and staff. The functionality of occupancy detection and daylight calibration enables automated lighting, granting great energy savings for the school buildings. The co-municipality Ballerup extensively uses the Philips SNS210 technology in their buildings due to the simple installation and the advanced benefits the system provides.

“

It has been a success and teachers are very happy to be able to control both the light color and the light intensity. When they enter the classroom the light automatically turns on if there is not enough daylight and the dynamic cycle starts.”

Anni Høy, Lighting Designer, MOE



# Benefits



## Simple

- Zero wiring cost for controls.
- Wireless system –easy and quick to setup via mobile phone app.
- 90% lower system installation cost.



## Scalable and Flexible

- Customization of lighting scenes and light provides end users control of their environment.
- Easy to scale to big projects with more than 1000s of luminaires.
- More components and functionalities can be added to the system at any time.



## Standardized and future-proof

- With global open standards, all the solutions work seamlessly together.
- Upgrade to latest features via Over-the-Air (OTA) updates with no hardware changes.



## Energy efficient

- Motion detection and daylight harvesting minimize the unnecessary use of lighting to maximize energy savings.

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In Skovlunde Syd school project, the combination of our flagship Plafo products with the latest Philips EasyAir SNS210 MC sensors, Philips SR FlexTune drivers and Philips LED modules gave an excellent lighting effect and will positively affect the efficiency of students' work and significant energy saving in the building.”

**Bartłomiej Drużba, Sales Director, Imperial**



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