

Colasse's LED solution provides light for growing rooms at KU Leuven

CUSTOMER CASE

Colasse was able to satisfy the university's requirements

KU Leuven (a highly respected Belgian university) needed additional growth chambers to conduct research into the effects of light on plant growth. It was looking for a partner who could offer a lighting system that met the researchers' demanding requirements.

In a public tender procedure, the project was awarded to Axima Refrigeration, an Antwerp-based company belonging to the Engie group. Axima designed and installed the growing rooms and the accompanying equipment, of which lighting was an integral part.

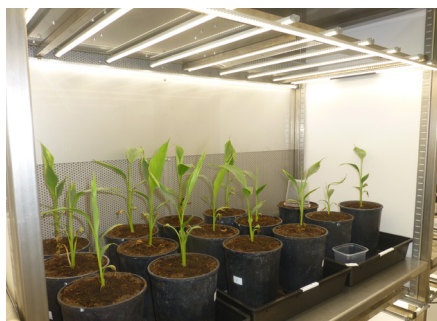
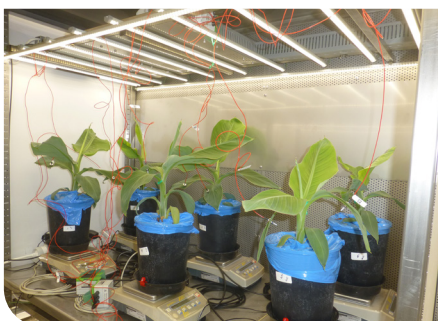
Colasse carried out a thorough study of the lighting and proposed a solution that met the rigorous specifications (in terms of life span, guarantee, light spectrum and uniformity). The company also offered the best value for money.

The three growing rooms at KU Leuven were previously illuminated by fluorescent lights (TL). In terms of energy consumption, this type of lighting was no longer sufficient for this project. The researchers themselves began looking for a variable intensity LED system and, after various enquiries and consultations, they found Colasse's LED solutions.

The major challenge for the project was to find a solution that would allow light to be distributed evenly throughout the room and onto all the plants at the same high intensity. In addition, the lighting had to be as close as possible to natural sunlight and reproduce the climate conditions of certain ecosystems in order to be able to carry out tests on plants, such as the selection of varieties, the effects of GMOs, etc.

"Colasse offered professional support right from the design phase, despite the fact that the project was awarded by public tender and other competitors were also in the running. We were always able to count on them to answer our questions and provide us with figures. As Colasse was not yet sure of winning this project at that time, we greatly appreciated their positive attitude. During the project itself, we discovered the excellent service provided by Colasse, which fully met our requirements. For this reason, we strongly recommend other researchers work with a highly professional company like Colasse."

Griet Goris,
Member of the project team,
KU Leuven technical department



The Colasse lighting solution

Colasse had a suitable frame in its Vegeled™ horticultural range. In concrete terms, Colasse proposed custom-made rails from the EOS series. These fully satisfied KU Leuven's specifications and the customisation enabled the high levels of uniformity required to be achieved. In the first two growing rooms, the researchers will conduct experiments with a light intensity of between 70 and 200 micromoles. In the third growing room, experiments will be carried out with a light intensity of up to 350 micromoles.

Results of the collaboration

The lighting project took a total of three months to complete. Colasse proposed a simple, versatile lighting concept to KU Leuven for the university's research into the effect of light on plant growth. The test period is still ongoing: the installation of the lighting, temperatures, humidity and CO2 have been adjusted in the growing rooms with a view to starting experiments in mid-March. Valuable scientific research will then be carried out on a variety of seeds and plants.



KU Leuven

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