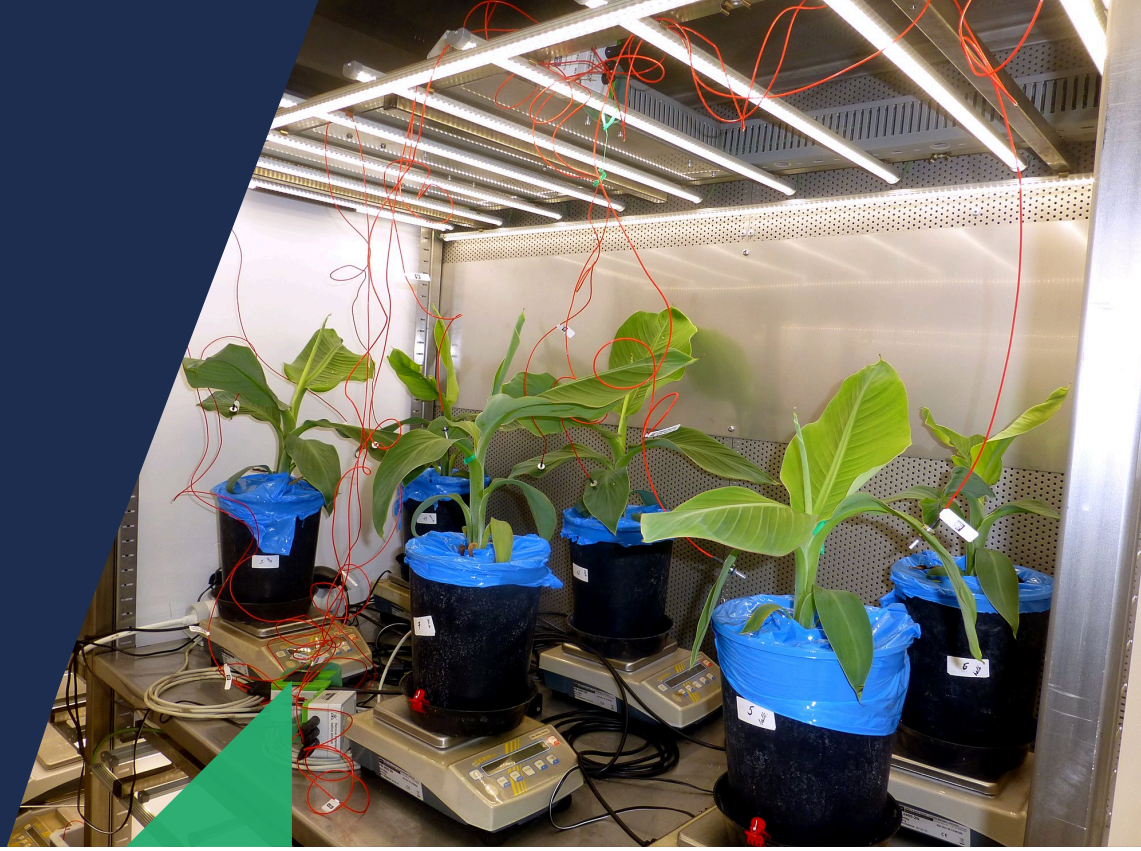
Colasse



CASE STUDY

**Horticulture · Vegeled**

Research growth chambers

# Colasse LED lighting for the growth chambers of KU Leuven

| 3 | 70–350 | 3 months | EOS |
|---|---|---|---|
| growth chambers equipped | µmol: light intensity range of the experiments | to complete the lighting project | custom Vegeled LED rails |

## Colasse meets the need

**KU Leuven** needed additional growth chambers to study the effects of light on plant growth. The university was looking for a partner able to provide lighting that would meet the researchers' demanding requirements.

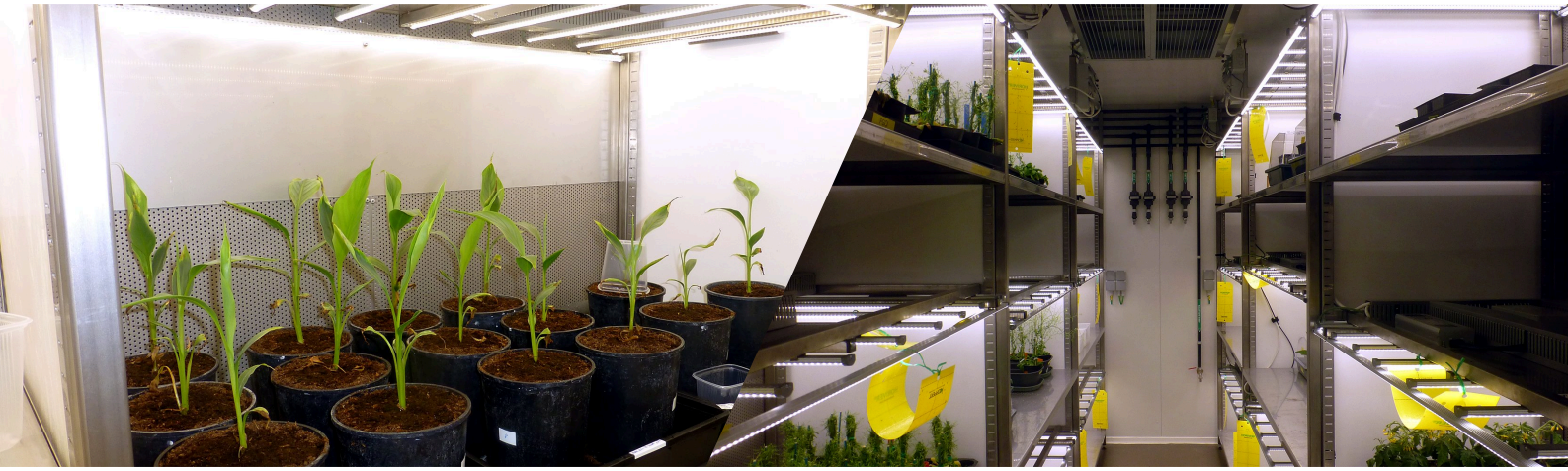
Following a public tender, the project was awarded to **Axima Refrigeration**, an Antwerp-based company of the Engie group, which designed and installed the growth chambers and their technical systems, including the lighting.

Colasse carried out an **in-depth lighting study** and produced luminaires that meet the quality requirements – lifespan, warranty, light spectrum and uniformity – with the best value for money.

## The challenge

The three chambers were previously lit by fluorescent tubes, which were no longer acceptable in terms of energy consumption. The researchers themselves went looking for dimmable LED lighting and came across Colasse's solutions.

The main challenge: **distributing light evenly** throughout the chamber and over all plants, with the same high intensity, while getting as close as possible to natural sunlight in order to reproduce the conditions of certain ecosystems (variety selection, effects of GMOs, etc.).



## The lighting solution

Colasse's **Vegeled™** horticultural range already included a suitable fixture: **custom-made rails from the EOS series**. They fully met KU Leuven's requirements, and the tailor-made design made it possible to achieve the required levels of uniformity.

In the first two chambers, experiments are run at an intensity of 70 to 200 µmol; in the third, up to 350 µmol.

## The result

The project was completed in three months. Colasse proposed a simple and versatile lighting concept for the university's research on the effect of light on plant growth. After fine-tuning the lighting, temperature, humidity and $CO_2$, the chambers now host research on seeds and plants of great scientific interest.

> Colasse offered its professional support from the design phase onwards, even though the project was awarded through a public tender and other competitors had the opportunity to prove themselves. We could always count on them to answer our questions and send us figures. As Colasse was not yet sure of winning the project, we really appreciated this positive attitude. During the project, we experienced Colasse's excellent service, which fully met our expectations. We highly recommend working with such a professional partner.
>
> **Griet Goris**
> Project team member, technical department of KU Leuven

## About KU Leuven

- Research and teaching institution of international standing.
- All its programmes are based on the innovative research of its scientists and professors.
- As a research university, KU Leuven ranks among the best universities in Europe.

More information: **www.kuleuven.be**

Colasse

Understanding your challenges is already securing your project.
Let's talk.

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