



Horticulture

LED Products from LightDec

German engineering

LightDec LED lighting combined with our dedicated light recipes, open up new opportunities for every greenhouse grower to increase their quality and yields and move to year-round production. LightDec offers light output levels typically ranging from 410 - 550 $\mu\text{mol/s}$ per module at a very high efficiency reaching $2.6 \mu\text{mol} / \text{Joule}$. It offers growers unique advantages as a direct replacement for traditional lighting systems or as an energy-efficient supplement.

Improve your production

- Shorten growth cycles
- Improve color, shape, and taste
- Grow with more control over your climate
- Grow year round in low greenhouses



Cravo-Greenhouse

Cravo purchased a new lighting installation consisting of two lines of JJT LED baton lighting with an output of $520 \mu\text{mol/s}$ per module, supplemented with 300 watt JJS LED lights. Seventy percent of the lighting capacity comes from the baton LEDs ($100 \mu\text{mol/m}^2/\text{s}$) and 30 percent from the JJS lighting ($50 \mu\text{mol/m}^2/\text{s}$).

Together they produce $150 \mu\text{mol/m}^2/\text{s}$. Using just the LEDs, Cravo can now achieve a higher light capacity than his entire old system. "It took a while to see how intense the output of the LED's would be without the replaced HPS lights, but it has really been a success," says Cravo. "Now we are one of the few rose nurseries in Germany that has to turn off the lights for five hours per night, but that does not limit us. I think it benefits the shelf life of the roses."



Energy Saving **-68%**
 Intensity (PPFD) **+78%**
 Life Time **+80%**

Baton (JJT)	Spot (JJS or JJR)
	
<ul style="list-style-type: none"> • More PAR per kilowatt hour • Quality light for quality growth: Offers the right levels of red, far red, and blue that support quality growth. • Lasts more than twice as long as conventional horticultural lighting 	<ul style="list-style-type: none"> • Controlled, uniform, high-quality plant output • Proven for different growth characteristics, including full spectrum versions • Ideal for multilayer installations • Energy savings of up to 75%

Roses with stem-lighting

