FL300 GROW WHITE FIXTURE

The LED fixture for special lighting requirements

Highlights
- Ability of dynamic control of the intensity and spectral composition
- Energy saving verified through independent research
- Easy replacement of your old HPS lights
- A combination of the Grow and the Sunlight – an efficient but eye-friendly spectrum
- Designed, developed and manufactured in Denmark since 2005

The FL300 Grow White LED top-light is a 550 watt fixture emitting light in the photosynthetic active region of the visible light spectrum. Our solutions suit most modern production greenhouses in the world and are designed to withstand the harsh environment of a glass house and keep working year after year. The minimalistic design means easy installation using standard connection technology, and with a minimal shadow footprint, the FL300 Grow White is able to produce good quality plants year round. This makes it a natural replacement to the conventional HPS systems used today.

Controllable
The light spectrum can be designed for individual crops in combination with LCC4 climate control systems. An alternative to the LCC4 climate control system is a small Control Unit which controls up to 49 fixtures. A further alternative is the LED Light Controller, which can be connected with your climate computer from another provider. That way you can maintain the full control of your LED installation.

FL300 Grow White is CE marked according to standards in horticultural lighting and ROHS compliant.

Documented results
Saatzucht Bauer is one of Germany's leading grain research institutes with a particular focus on wheat. Saatzucht Bauer is pursuing the production of new wheat varieties that offer increased yield, but without compromising stability or quality.

The institute evaluated the FL300 Sunlight solution and liked the spectrum, but they also wanted to increase the production rate with no loss in colour recognition. Saatzucht Bauer naturally chose our FL300 Grow White, which is designed for exactly that purpose.

There are several full spectrum LED solutions currently on the market, but none are controllable. The FL300 Grow White installed at Saatzucht Bauer, however, offers the full package – an efficient but eye-friendly spectrum, a compact stable fixture and a dynamic controllable fixture.

The institute is pleased with both the light and the spectrum, and plant quality results already look promising.
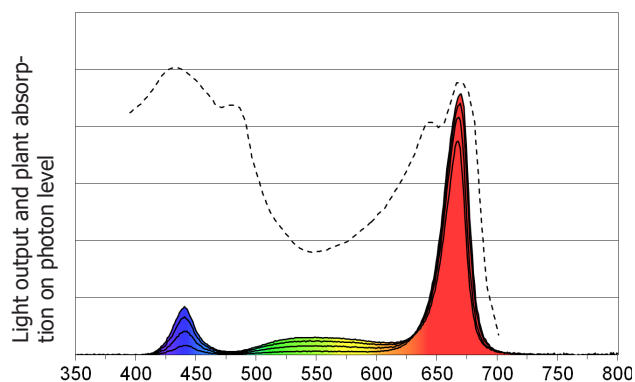
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SPECIFICATIONS / FL300 GROW WHITE FIXTURE

Parameter

Parameter	
Power input	230 V AC / 50/60 Hz
Nominal current	2.4 A
Power usage	100 - 550 watt (adjusted via controller)
Light output	Up to 2.3 µmol/s per Watt*
Net weight	12.4 kg
Dimensions L x W x H	550 x 230 x 160 mm
Operating temperature	0 - 40° C
Light intensity decay	At least 70,000 hours at L80B10
Coverage	Up to 12 m² (depending on light intensity)
Light modulation range	From 2 - 14 % blue light of total light
Green / white content	From 3 - 22 % of total light*

*Depending on light modulation

When evaluating possible LED solutions, it is important to check two parameters: Temperature of the LED when the fixture is running and the distribution profile on your plants. The FL300 Grow White is equipped with a patented active cooling system that enables a low LED temperature and therefore a long lifetime that a passive cooled LED fixture does not have.

The FL300 Grow White is designed with a patent pending optical lens system that enables a traditional installation plan similar to HPS with homogenous distribution profile on plant level - but with less waste of light.

Spectral distribution of FL300 Grow White together with a general action spectrum of plants. Spectral distribution for FL300 shown for 2, 6, 10, 14 % blue

FL300 Grow White - Light Modulation Range

	100W	150W	200W	250W	300W	350W	400W	450W	500W	550W
2 % blue	✓	✓	✓	✓	✓	✓	✓			
4 % blue	✓	✓	✓	✓	✓	✓	✓			
6 % blue	✓	✓	✓	✓	✓	✓	✓	✓		
8 % blue	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
10 % blue	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
12 % blue	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
14 % blue	✓	✓	✓	✓	✓	✓	✓	✓		