



HORTICULTURE

Controllable LED Fixtures - The Bright Choice For Your Business

iSiinitzan
our flag is a big PLUS! 



Why invest in LED fixtures from iSiinitzan?

The LED fixtures are available in two types - FL300 and FL100 - and both types come in 3 variants (Grow, Grow White and Sunlight) for different and many purposes. A major benefit is that they are all controllable. Investing in a controllable LED fixture means you always have the option to adjust the light and spectral composition to the cultures need.

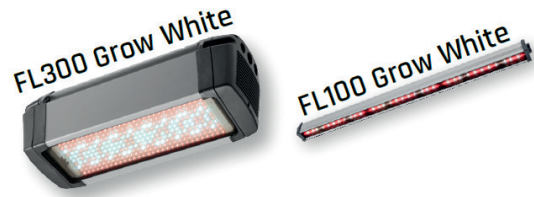
Simply put, an investment in iSiinitzan LED fixtures will not leave you with a fixed spectrum or light but lead to endless possibilities.

Highlights

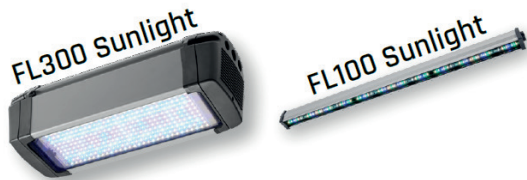
- Control of spectral composition (Grow & Grow White).
- Dynamic control of the light intensity.
- The natural replacement for the conventional HPS systems.
- Minimize the use of Plant Growth Regulation (PGR) (Grow & Grow White).
- Better plant quality and higher output.
- Long lifetime with no reduction of the light output over time.
- Consistent light on the plants due to a patented optical lens system.
- Innovative solution for growing in layers for vertical farming (FL100).
- FL100 fixtures can be interlinked.
- Enables easy integration with climate control systems.
- Get a specific lighting plan based on your need for lighting.
- Danish developed and manufactured.



FL300 & FL100 Grow
Emitting light in the photosynthetic active region of the visible light spectrum.



FL300 & FL100 Grow White
Combines the spectrums from Grow and Sunlight for areas with special light requirements.



FL300 & FL100 Sunlight
Designed with a spectrum replicating the sunlight.

Where to use which fixture.

	FL300 Grow	FL300 Grow White	FL300 Sunlight	FL100 Grow	FL100 Grow White	FL100 Sunlight
Greenhouses	✓	✓		✓	✓	
Garden centers		✓	✓		✓	✓
Research	✓	✓	✓	✓	✓	✓
Climate chambers		✓	✓		✓	✓
Vertical farming				✓	✓	✓
Indoor farming					✓	✓

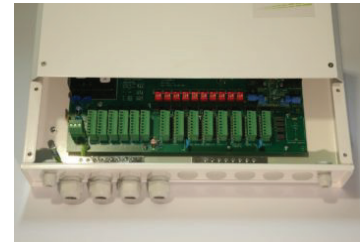


How to control the fixtures?

The fixtures can be controlled by iSii GSC computer , which can be connected to your climate computer, also from another provider.

- Control of fixtures based on light sum or dynamic light measured through a quantum sensor.
- Control of light intensity in time zones.
- Dividing the LED installation into groups.
- More quantum sensors can be interlinked for optimizing of the light control.

That way you can maintain the full control of your LED installation.

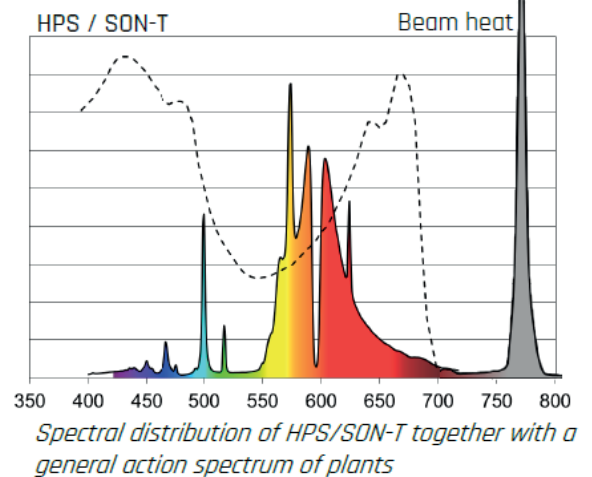
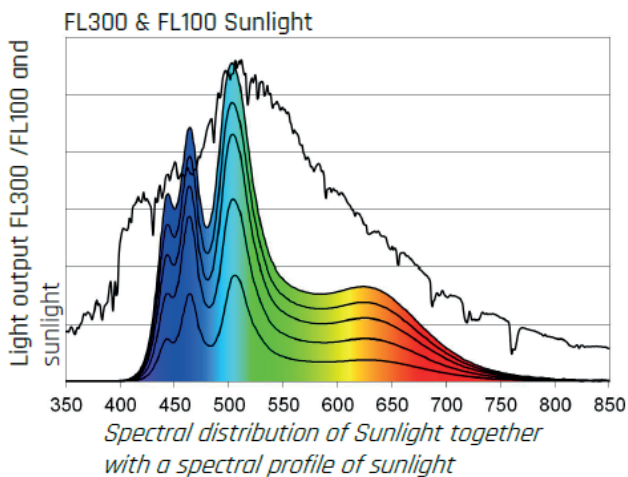
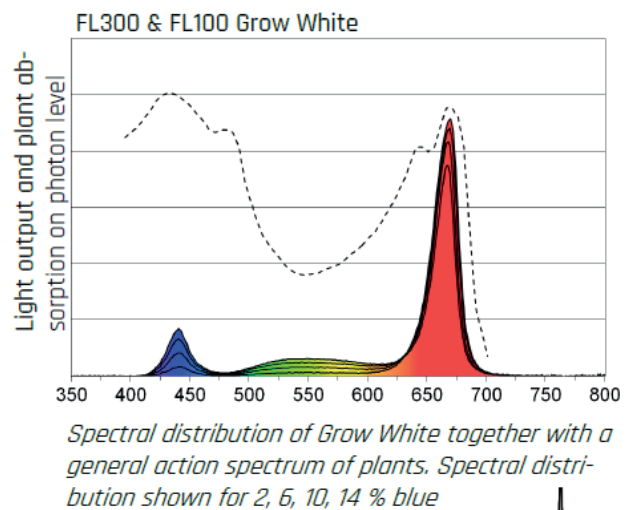
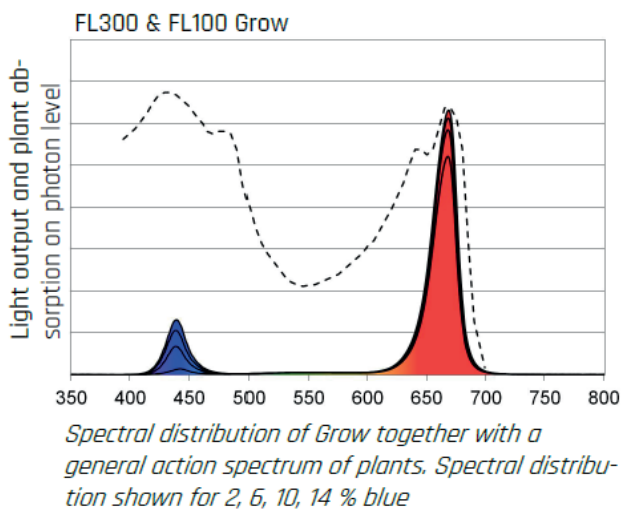


Spectral distribution

All our LED fixtures are designed with an optical lens system enabling a traditional installation plan similar to HPS with homogenous distribution profile on plant level - but with less waste of light.

For detailed information of light modulation range for each fixture, please ask for the specific product sheet.

Below you can find a comparison of the spectral distributions of the iSiinitzan LED fixtures and HPS.





Parameters and specifications for version 1.2

	FL300 Grow 1.2	FL300 Grow White 1.2	FL300 Sunlight 1.2	FL100 Grow 1.2	FL100 Grow White 1.2	FL100 Sunlight 1.2
Power input	230V AC / 50/60 Hz	230V AC / 50/60 Hz	230V AC / 50/60 Hz	400V AC / 50/60 Hz (380 - 480V AC)	400V AC / 50/60 Hz (380 - 480V AC)	400V AC / 50/60 Hz (380 - 480V AC)
Nominal current	2.2 A	2.0 A	2.0 A	0.4 A	0.4 A	0.4 A
Power usage	100 - 500 watt (adjusted via controller)	100 - 460 watt (adjusted via controller)	100 - 460 watt (adjusted via controller)	75 - 150 watt (adjusted via controller)	50 - 150 watt (adjusted via controller)	50 - 150 watt (adjusted via controller)
Light output from fixture	3.2 $\mu\text{mol/s}$ per Watt*	2.94 $\mu\text{mol/s}$ per Watt*	1.78 $\mu\text{mol/s}$ per Watt*	2.96 $\mu\text{mol/s}$ per Watt*	2.92 $\mu\text{mol/s}$ per Watt*	1.74 $\mu\text{mol/s}$ per Watt*
PPF	1600 $\mu\text{mol/s}$	1352 $\mu\text{mol/s}$	818 $\mu\text{mol/s}$	444 $\mu\text{mol/s}$	438 $\mu\text{mol/s}$	261 $\mu\text{mol/s}$
Light output from diodes	3.51 $\mu\text{mol/j}$	3.23 $\mu\text{mol/j}$	1.95 $\mu\text{mol/j}$	3.24 $\mu\text{mol/j}$	3.19 $\mu\text{mol/j}$	1.91 $\mu\text{mol/j}$
Net weight	12.4 kg	12.4 kg	12.4 kg	3 kg	3 kg	3 kg
Dimensions L x W x H	550 x 230 x 160 mm	550 x 230 x 160 mm	550 x 230 x 160 mm	1165 x 67x 90 mm	1165 x 67x 90 mm	1165 x 67x 90 mm
Operating temperature	0 - 40° C	0 - 40° C	0 - 40° C	0 - 40° C	0 - 40° C	0 - 40° C
Coverage	Up to 12 m ² (de- pending on light intensity)	Up to 12 m ² (de- pending on light intensity)	0.25 - 12 m ² (de- pending on light intensity)	Up to 12 m ² (de- pending on light intensity)	Up to 12 m ² (de- pending on light intensity)	Up to 12 m ² (de- pending on light intensity)
Light modula- tion range	From 2 - 14 % blue light of total light	From 2 - 14 % blue light of total light	From 20 - 100 % intensity	From 2 - 14 % blue light of total light	From 2 - 14 % blue light of total light	From 30 - 100 % intensity
Green / white content	From 1 - 5 % of total light*	From 3 - 22 % of total light*	See table below	From 1 - 5 % of total light*	From 5 - 22 % of total light*	See table below

*Depending on the spectral settings.

% Light in terms of total PAR light		
	Natural sunlight	FL300 & FL100 Sunlight
400 - 500 nm	33 %	33 %
500 - 600 nm	41 %	40 %
600 - 700 nm	26 %	27 %