



HORTICULTURE LIGHTING

GLOSSARY



FC

EN
EC

CB



CE RoHS

LeDinPro, pioneering the LED technology since 2008 with the brand of "Harvelite" for the Led Grow Light. Committed in research of horticulture and optical technology. With the concept of "Bring more harvests", we continuously strive to provide highly efficient and specialized products for horticulture projects. Our solutions are applied in numerous horticulture projects all over the world at all scales.

Now with offices located in USA, Germany, and China, HarveLite is helping customers generating more and more value and benefit.

Choose HarveLite, boost your harvest!

Facts speak louder than words...

PAR

(Photosynthetically Active Radiation)

PAR defines the type of light which is needed to support photosynthesis in plant life.

PPF

(Photosynthetic Photon Flux)

PPF tells us how much PAR is emitted by a light source Measured in "micromoles per second" and expressed as: $\mu\text{mol}/\text{second}$.

PPFD

(Photosynthetic Photon Flux Density)

PPFD is measured over a one meter square area in "micromoles per square meter per second" and expressed as $\mu\text{mol}/\text{m}^2/\text{s}$.

DLI

(Day Light Integral)

DLI is measured over an one meter square area in "moles per square meter per day" and expressed as $\text{mol}/\text{m}^2/\text{d}$.

$\mu\text{mol}/\text{J}$

(Stands for Micromole per Joule)

$\mu\text{mol}/\text{J}$ is a measurement to determine how efficient a light is at converting electrons into photons.

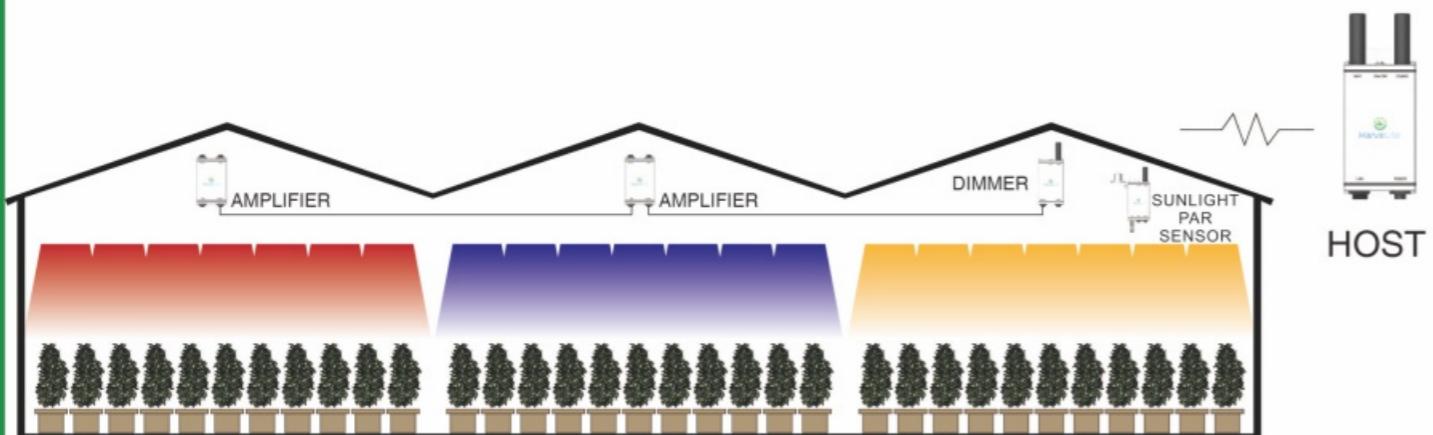
HarveStation

ZigBee



Features of HarveStation

- PAR sensor detection
- Greenhouse DLI control
- Mesh wireless control network based on Zigbee
- Cloud management/Remote control management
- Smart dimming control and spectrum adjustment control
- Photoperiod adjustment and management based on the cultivation period

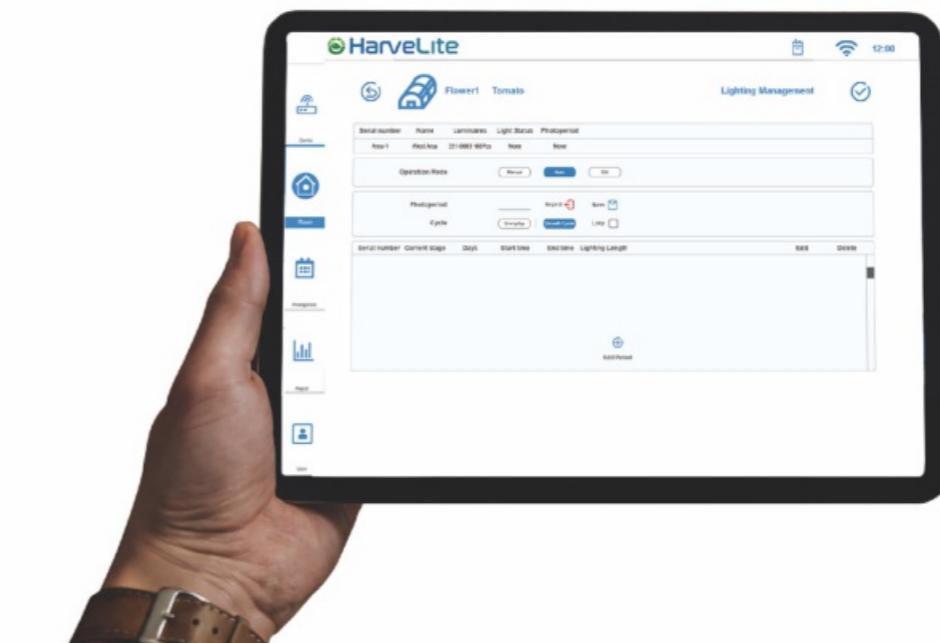
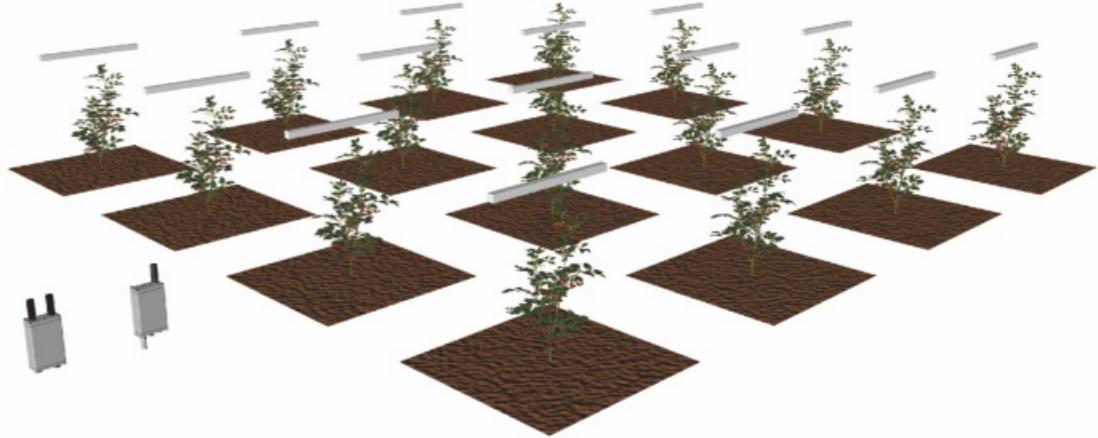


Zigbee system is mostly used for indoors and rarely used for plants application scenario where there is a great influence on the radio signal, but its mesh network and characteristics make it very suitable for this application, therefore we made bold innovations and adopted the Zigbee network with full consideration of the influence of leaves shield. In addition, the Zigbee network originally requires a complicated configuration, but we adopt an improved network technology to achieve a very simple configuration that is different from the ordinary zigbee network.

HarveStation is the world's first waterproof industrial-grade Zigbee wireless control system in the field of horticulture lighting. Compared with the RS485 wired network lighting control system which have used before, HarveStation is a brand-new wireless control system product based on mesh network and cloud. This is a huge step and a great leap.

What's more, for the software, although there is cloud control, it adopts the local/cloud mixed control method. The control is mainly based on the local, and record is mainly based on the cloud, which can realize the seamless connection control method from the software. Moreover, Harvestation adapts the new DLI control algorithm.

HarveStation by Harvelite is a high-tech smart product and suitable for the global market; HarveStation is a plug-play product, which consists of a host, dozens of dimming control slaves, and several temperature, humidity and PAR value sensor slaves. It can be installed in any position within distance between nodes no more than 50 meters. After installing and powering up, it will network automatically, and then customer can customize the area and customize the function. HarveStation can be controlled and managed inside and outside the plant factory or anywhere in the world by using a Pad. All devices are IP66, which is completely suitable for the plant factory environment.

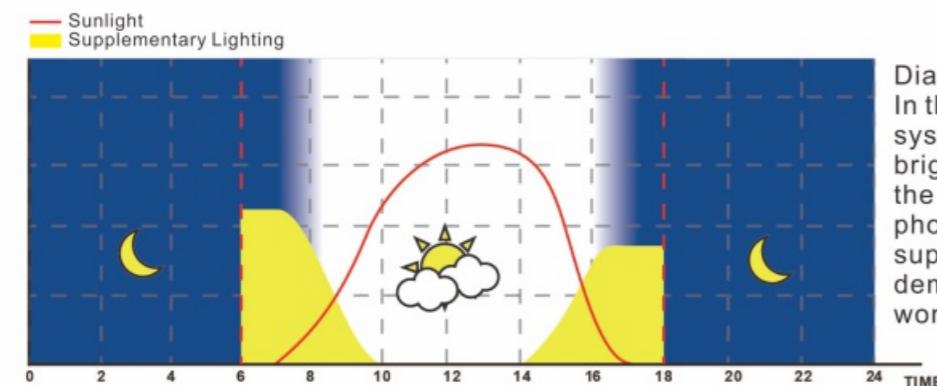
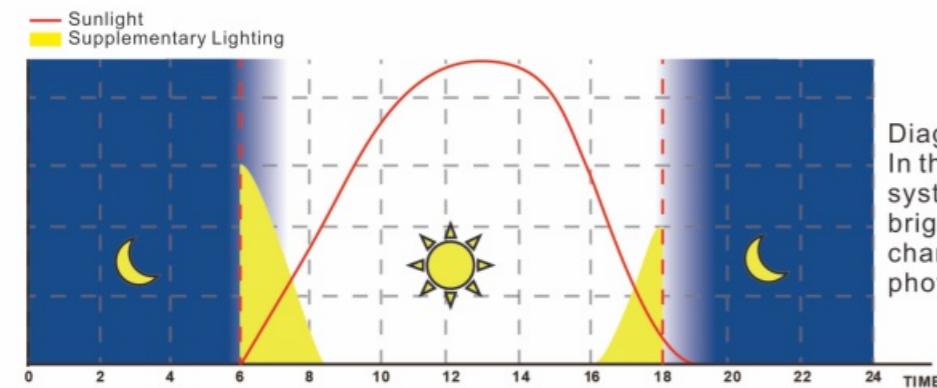


This lighting control system is different from the industrial control system of large plant factories which including all control from lighting to temperature control. However, it's very expensive mainly used in large-scale plant factories. Also this system is different from small-scale project which are only used for simple dimming.



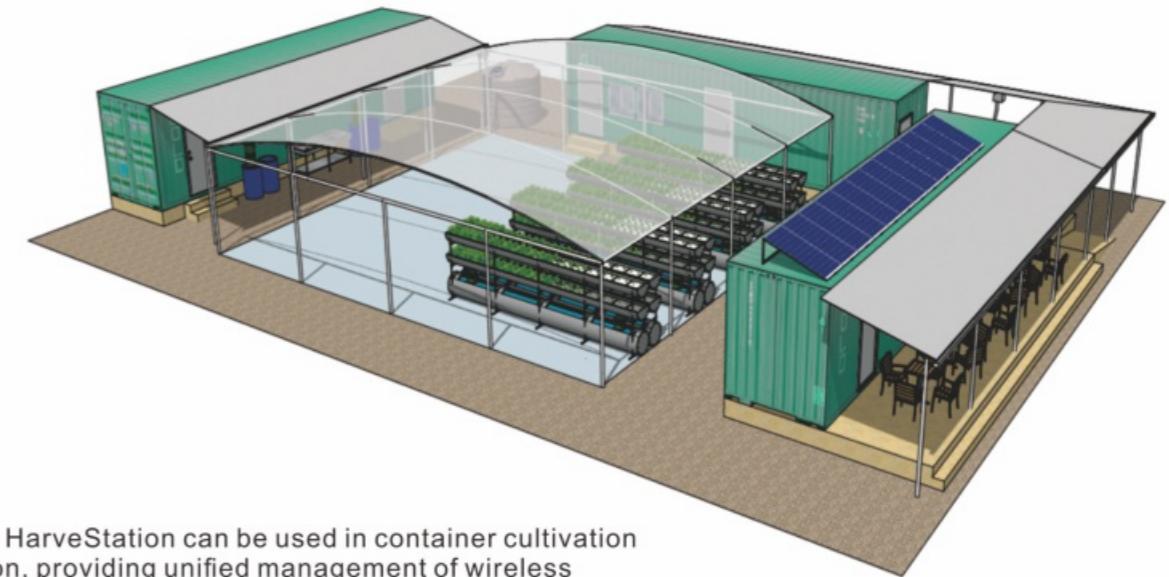
HarveStation by Harvelite is mainly used in plant factories (greenhouse or indoor farming) of medium-scale size or below, which often do not have large-scale industrial control systems and its lighting control is often controlled manually, or at most with a simple timer.

According to the plant variety and growth stage, the customer can preset the photoperiod in advance (or selects a preset). During the photoperiod, in order to achieve the plant required target DLI, HarveStation calculates the DLI data of daylight through an algorithm, dynamically changes the brightness of the supplement light, and meets the DLI target demand.



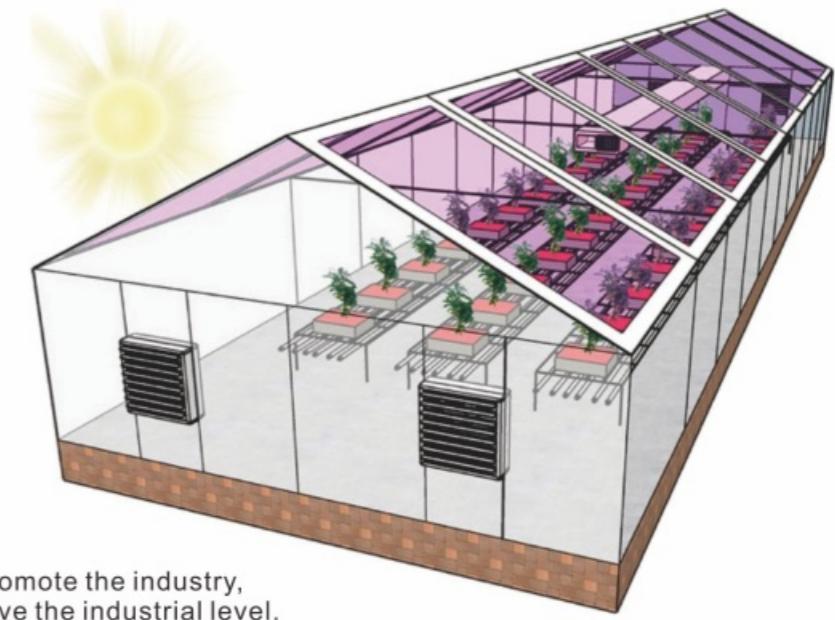
The change of sunlight is sensed by the sensor and transmitted to the host, The host computer controls the brightness of the fixtures in the entire planting area through data processing

But HarveStation provides the chance to improve the level of lighting control for such plant factories, It will automatically detect PAR value, adjust and manage the photoperiod according to complete cultivation circle, automatically adjust the spectrum, Providing DLI control of the greenhouse or indoor farming, record and analyze various cloud based lighting date that makes up for the shortcomings between large industrial control system and small lighting dimming controller. It also adopts a waterproof structure and antenna, which is more suitable for use in the factory site. Its wireless mesh network makes installation and system expansion very simple.



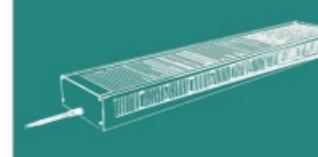
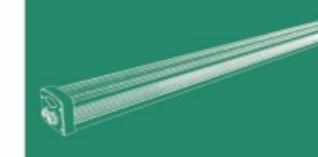
At the same time, HarveStation can be used in container cultivation and tent cultivation, providing unified management of wireless connections for multiple facilities, Easy move and installation.

In laboratory application, HarveStation is also convenient for multi-spectrum management experiments in multiple areas.



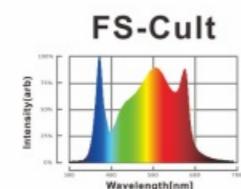
HarveStation by Harvelite will further promote the industry, innovation and infrastructure and improve the industrial level. Adopting innovative wireless control system will provide a better and more convenient control method for the vast number of small and medium-scale plant factories. to realize simple and convenient automated quantitative management without relying on people.

Now that traditional agriculture is facing more and more climate challenges, HarveStation will help plant factories to be promoted more widely around the world. To ensure that all countries, especially those without sufficient arable land and suitable climatic conditions, will have a stable food supply all year round, to achieve **zero hunger**.

PARSYS STAR	PARSYS GRO	PARSYS PRO	PARSYS PRO	SOLIFY PRO	SOLIFY UNI	PARSYS UNI	FlorAid
FS-Cult	FS-Gro	FS-Flow FS-Boost	FS-Gro	FS-Cult FS-Score Research-tunable spectrum	FS-Gro	FS-Nurse FS-Gro FS-Clone	S-UV Booster I S-UV Booster II S-UV+FR Booster
100Wx6 100Wx5 100Wx4 100Wx3 100Wx1	310W	620W 620W+60W(UV)	660W	630W 625W 620W	190W	9W 28W 30W	10W 25W
2.3µmol/J	2.4µmol/J	2.4µmol/J	2.8µmol/J	2.4µmol/J 2.5µmol/J 2.6µmol/J	2.3µmol/J 2.4µmol/J	2.2µmol/J 2.3µmol/J 2.4µmol/J	1.2µmol/J
							
							
1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16

IP LEVEL:IP66
Beam angle:120°
Cos/PF:>0.9
Warranty:5 years
Body:Aluminum+glass
0-10V Dimming
Inventronics Driver

PARSYS STAR



FEATURES

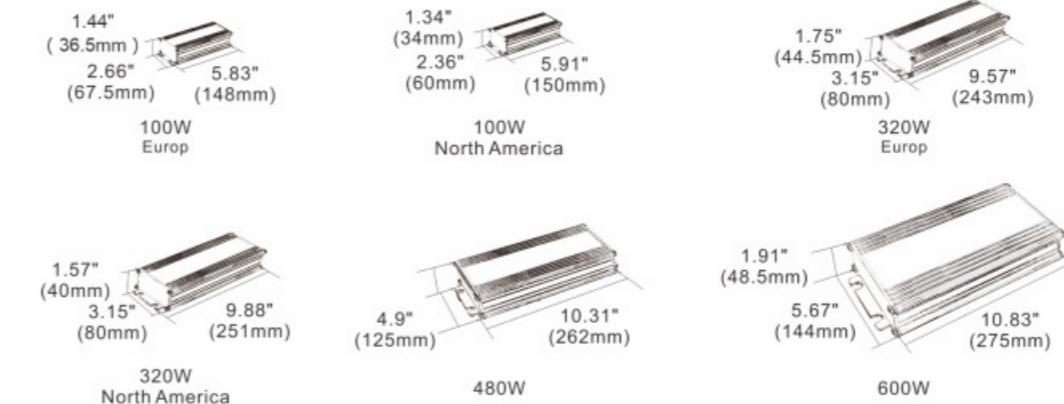
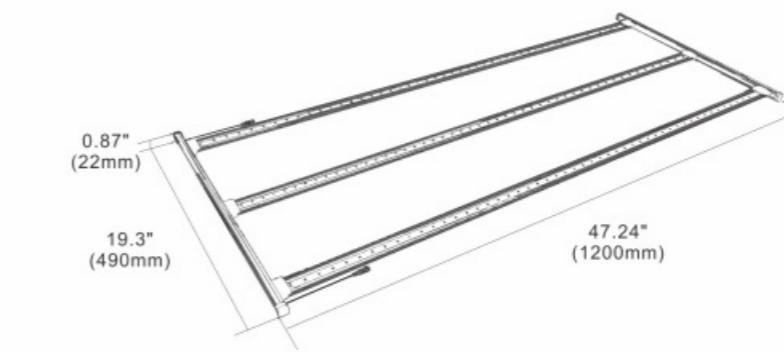
- Space saving design only 0.41"(10.5mm).
- Plug and Play.
- Protection Level IP66.
- 5 Years Warranty.
- Uniform light for plant grow.
- >50,000 hours lifespan at Q90
- High efficiency & competitive prices, for both hobbyists and commercial projects.

PARAMETER

	Model No.	Spectrum	Power	Efficiency	PPF	Voltage	LED
North America	367-0022	FS-Cult	600W	2.3μmol/J	1380μmol/s	100-277VAC	Samsung White+Nationstar Red
North America	367-0008	FS-Cult	500W	2.3μmol/J	1150μmol/s	100-277VAC	Samsung White+Nationstar Red
North America	367-0010	FS-Cult	400W	2.3μmol/J	920μmol/s	100-277VAC	Samsung White+Nationstar Red
North America	367-0012	FS-Cult	300W	2.3μmol/J	690μmol/s	100-277VAC	Samsung White+Nationstar Red
North America	367-0014	FS-Cult	100W	2.3μmol/J	230μmol/s	100-277VAC	Samsung White+Nationstar Red
Europe	367-0034	FS-Cult	600W	2.3μmol/J	1380μmol/s	100-240VAC	Samsung White+Nationstar Red
Europe	367-0035	FS-Cult	500W	2.3μmol/J	1150μmol/s	100-240VAC	Samsung White+Nationstar Red
Europe	367-0036	FS-Cult	400W	2.3μmol/J	920μmol/s	100-240VAC	Samsung White+Nationstar Red
Europe	367-0033	FS-Cult	300W	2.3μmol/J	690μmol/s	100-240VAC	Samsung White+Nationstar Red
Europe	367-0029	FS-Cult	100W	2.3μmol/J	230μmol/s	100-240VAC	Samsung White+Nationstar Red

AMPERAGE BY VOLTAGE SERVICE

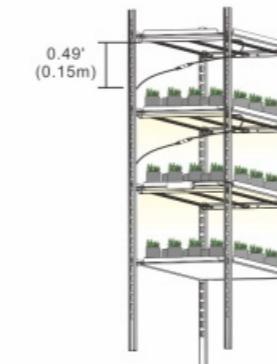
	VOLTAGE(AC)	120V	208V	230V	277V	
North America	367-0022	5.00A	2.88A	/	2.17A	
North America	367-0008	4.17A	2.40A	/	1.81A	
North America	367-0010	3.33A	1.92A	/	1.44A	
North America	367-0012	2.50A	1.44A	/	1.08A	
North America	367-0014	0.83A	0.47A	/	0.36A	
Europe	367-0034	/	/	2.61A	/	
Europe	367-0035	/	/	2.17A	/	
Europe	367-0036	/	/	1.74A	/	
Europe	367-0033	/	/	1.30A	/	
Europe	367-0029	/	/	0.43A	/	



DIMENSION

PAR DISTRIBUTION

PARSYS STAR		Coverage area
Height 0.33' (0.1m)	Average PAR output 316.21μmol/m²/s	4'x1.64' (1.2mx0.5m)
0.49' (0.15m)	273.39μmol/m²/s	4'x1.64' (1.2mx0.5m)
0.66' (0.2m)	242.05μmol/m²/s	4'x1.64' (1.2mx0.5m)
0.99' (0.3m)	194.51μmol/m²/s	4'x1.64' (1.2mx0.5m)

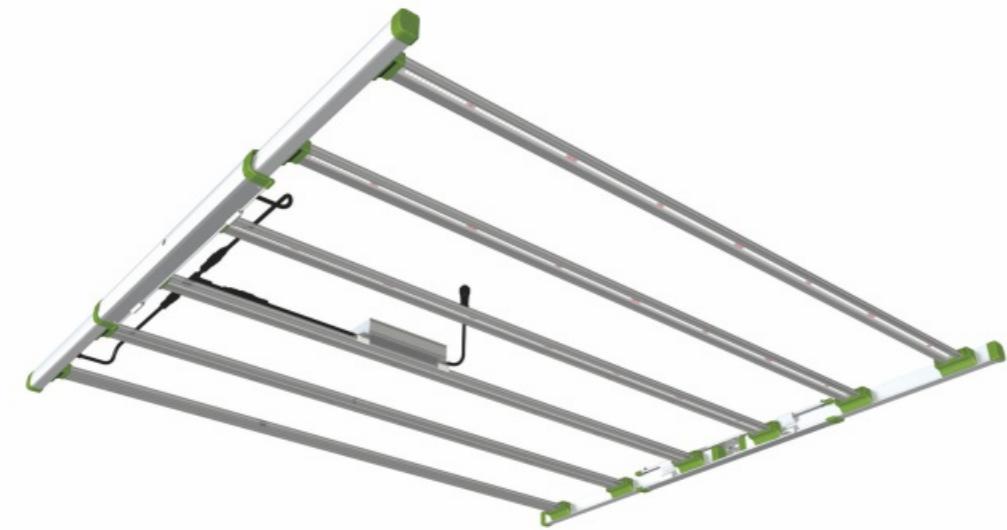


220.7	277.2	286.4	288.0	287.7	285.9	276.2	217.5	1.64' (0.5m)
223.2	283.1	293.6	295.5	295.4	293.2	281.8	219.6	
229.7	291.3	302.2	304.5	304.2	301.6	289.9	226.0	
223.2	281.7	291.5	293.3	293.2	291.1	280.4	219.9	
0.00								0.00
								4' (1.2m)

Application case of 367 for plants clone and seedling.
The distance between the lights and the plants is 0.49'(0.15m).

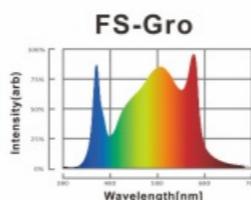
IP LEVEL:IP66
Dimming:0-10V
Beam angle:120°
Cos/PF:>0.9
Warranty:5 years
Body:Aluminum+tempered glass
Driver:Inventronics

PARSYS GRO



FEATURES

- Ultra slim design.
- Plug and Play.
- Protection level IP66.
- High efficiency & competitive prices, for both hobbyists and commercial projects.
- 5 Years Warranty.
- Designed for indoor plants cultivation. Outstanding uniformity of light irradiation in 4'x4'(1.2mx1.2m) area, providing adequate PAR for plants cultivation.
- The adjustable pulley lifting rope kit is convenient to operate and makes it possible to adjust the height of the lights quickly and labor-saving.
- >50,000 hours lifespan at Q90.

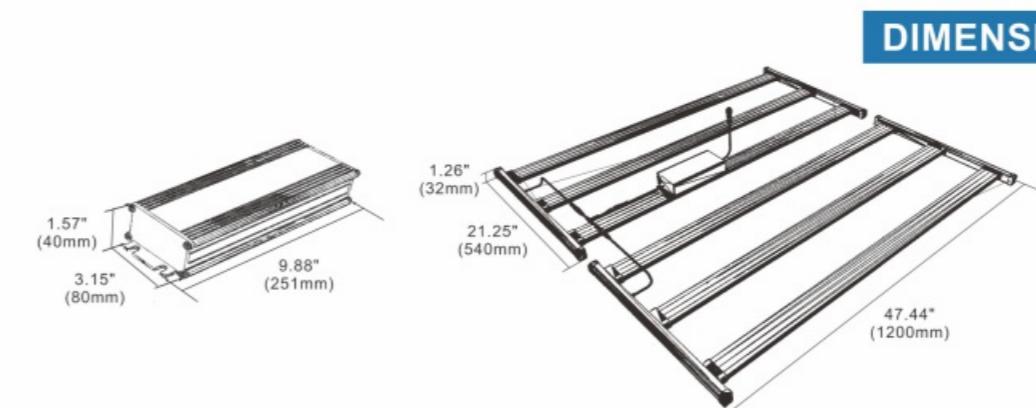


PARAMETER

	Model No.	Spectrum	Power	Efficiency	PPF	Voltage	LED
North America	380-0015	FS-Gro	310W	2.4μmol/J	744μmol/s	100-277VAC	Samsung White Osram Red
Europe	380-0018	FS-Gro	310W	2.4μmol/J	744μmol/s	100-240VAC	Samsung White Osram Red

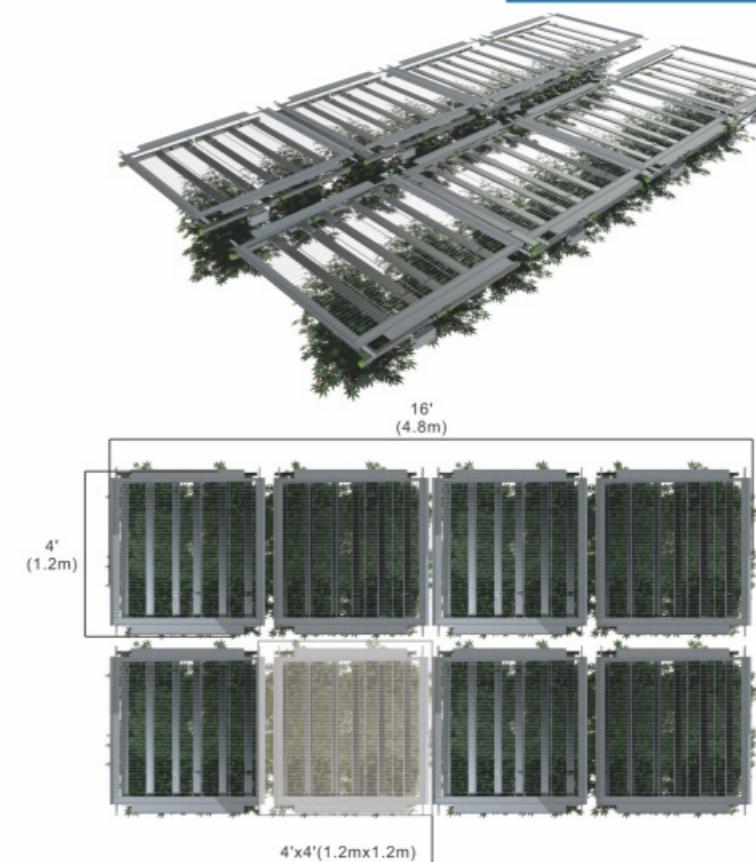
AMPERAGE BY VOLTAGE SERVICE

	VOLTAGE(AC)	120V	208V	230V	277V
North America	380-0015	2.58A	1.49A	/	1.12A
Europe	380-0018	/	/	1.35A	/



DIMENSION

TYPICAL APPLICATION



274.8	261.8	285.6	261.8	274.9	274.7	261.6	285.5	261.6	274.7
446.9	425.8	464.8	425.8	446.9	446.7	425.6	464.6	425.6	446.7
481.7	460.1	500.2	460.1	481.7	481.5	460.0	500.0	460.0	481.5
489.4	468.7	508.4	468.7	489.4	489.2	468.5	508.2	468.5	489.2
490.7	470.2	509.8	470.3	490.7	490.5	470.1	509.6	470.1	490.5
489.1	468.4	508.1	468.4	489.1	488.9	468.2	507.9	468.2	488.9
481.4	459.8	499.8	459.8	481.4	481.2	459.6	499.6	459.6	481.2
446.3	425.2	464.1	425.2	446.3	446.1	425.0	463.9	425.0	446.1
273.9	260.8	284.7	260.8	273.9	273.7	260.9	284.5	260.6	273.7
0.00									0.00

Application case of 380A for plants cultivation.
 380 with 310W installed in an area of 4'x4'(1.2mx1.2m)
 4' x 4'(1.2mx1.2m) PAR value map captured from a complete planting area.
 This application diagram displays 2 grow tables with dimension 16' x 4'(4.8m x 1.2m).
 Above each grow table there are installed 4 sets of 380 (8 modules in total).
 The distance between fixtures and plant canopy is 0.49'(15cm).

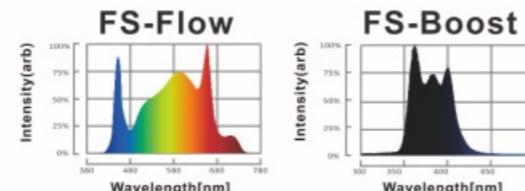
IP LEVEL:IP66
Dimming:0-10V
Beam angle:120°
Cos/PF:>0.9
Warranty:5 years
Body:Aluminum+tempered glass
Driver:Inventronics

PARSYS PRO



FEATURES

- Ultra slim design.
- Plug and Play.
- Protection level IP66.
- High efficiency & competitive prices, for both hobbyists and commercial projects.
- 5 Years Warranty.
- Designed for indoor plants cultivation. Outstanding uniformity of light irradiation in 4'x4'(1.2mx1.2m) area, providing adequate PAR for plants grow.
- The adjustable pulley lifting rope kit is convenient to operate and makes it possible to adjust the height of the lights quickly and labor-saving.
- >50,000 hours lifespan at Q90 (Flowering spectrum).



PARAMETER

	Model No.	Spectrum	Power	Efficiency	PPF	Voltage	LED
North America	380-0016	FS-Flow	620W	2.4μmol/J	1488μmol/s	100-277VAC	Samsung White Osram Red
North America	380-0017	FS-Flow+FS-Boost	620W+ 60W(UVA)	2.4μmol/J	1488+ 66μmol/s	100-277VAC	Samsung White Osram Red Osram Far Red Nationstar UV
Europe	380-0019	FS-Flow	620W	2.4μmol/J	1488μmol/s	100-240VAC	Samsung White Osram Red
Europe	380-0020	FS-Flow+FS-Boost	620W+ 60W(UVA)	2.4μmol/J	1488+ 66μmol/s	100-240VAC	Samsung White Osram Red Osram Far Red Nationstar UV

AMPERAGE BY VOLTAGE SERVICE

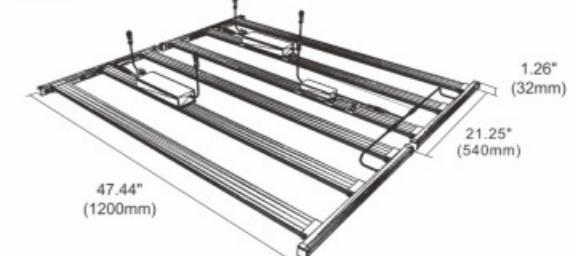
	VOLTAGE(AC)	120V	208V	230V	277V
North America	380-0016	5.17A	2.98A	/	2.24A
North America	380-0017	5.67A	3.27A	/	2.45A
Europe	380-0019	/	/	2.70A	/
Europe	380-0020	/	/	2.96A	/



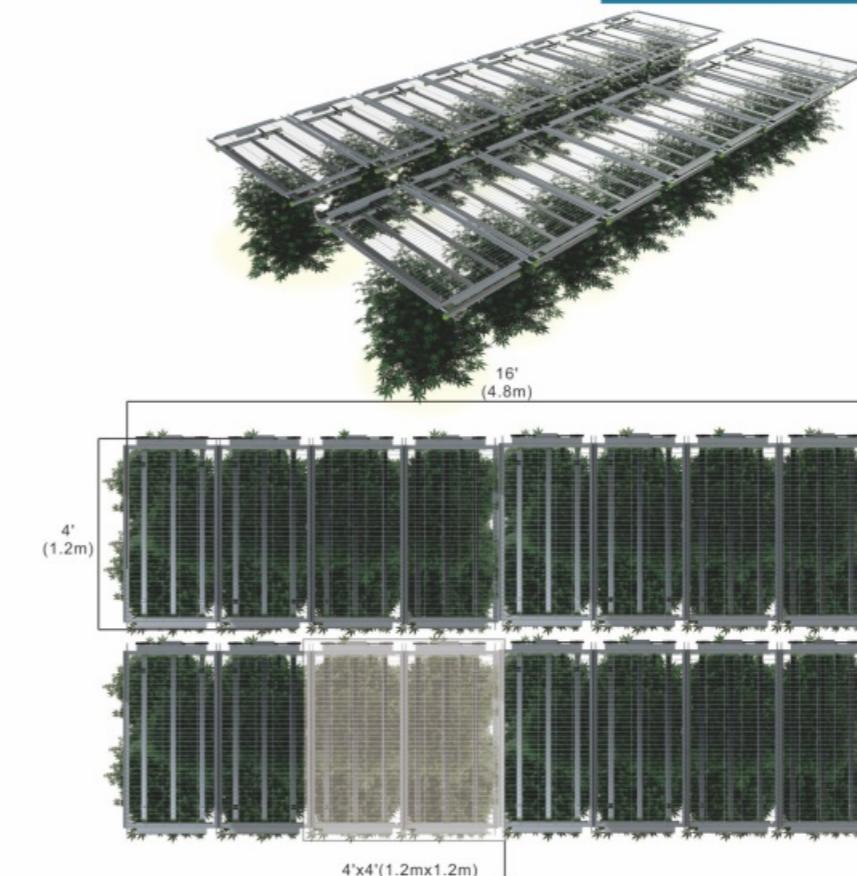
320W



60W

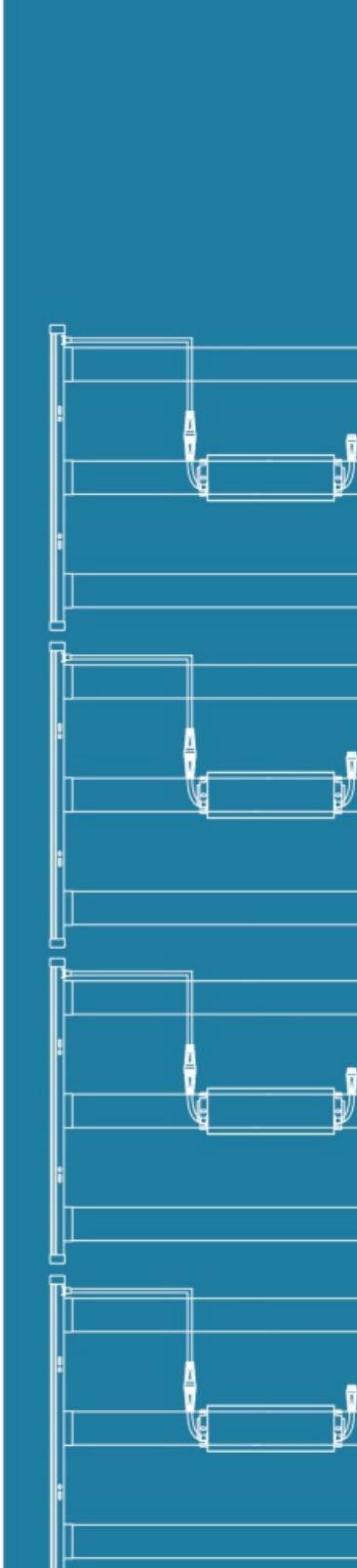


TYPICAL APPLICATION



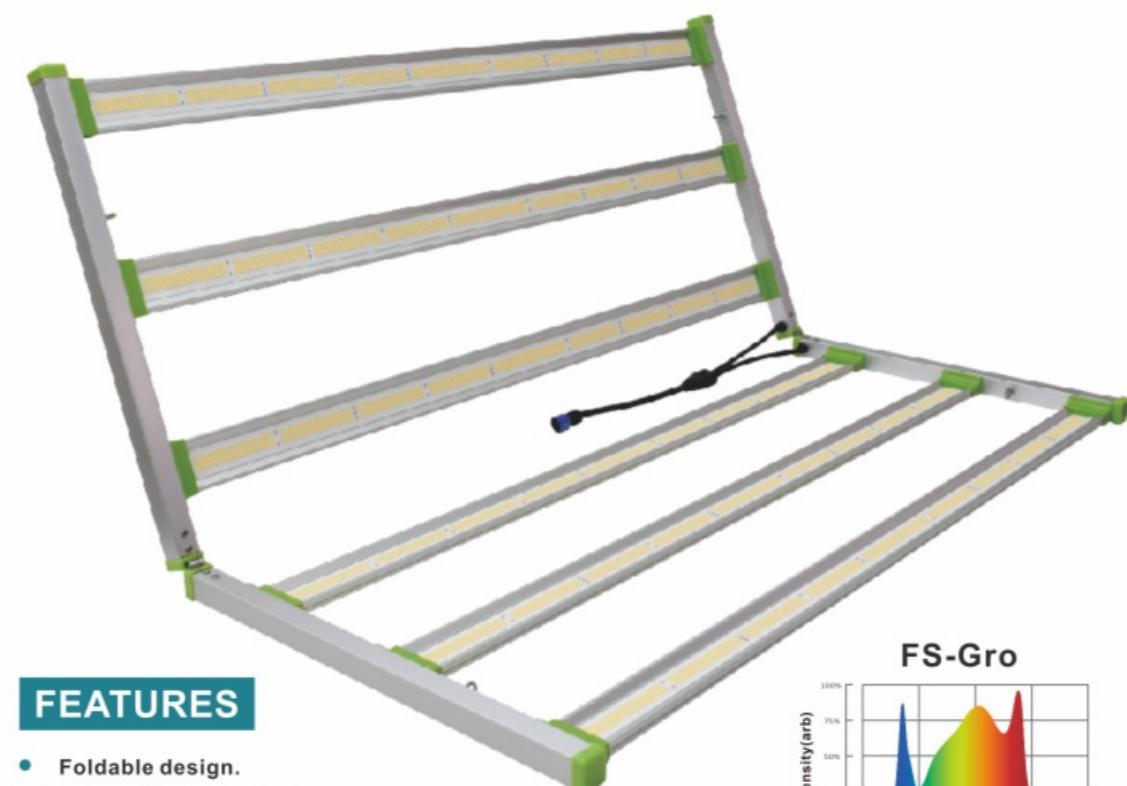
556.3	529.8	578.2	529.8	556.3	557.0	530.5	578.8	530.5	557.0
902.6	859.8	940.7	859.8	902.6	903.3	860.5	941.3	860.5	903.3
975.3	932.2	1012.8	932.2	975.3	976.0	932.8	1013.5	932.8	976.0
994.2	951.0	1030.7	951.0	994.2	994.8	951.6	1031.3	951.6	994.8
995.0	953.6	1033.6	953.6	995.0	995.6	954.3	1034.2	954.3	995.6
993.4	950.2	1029.9	950.2	993.4	994.0	950.8	1030.5	950.8	994.0
974.5	931.4	1012.0	931.4	974.5	975.1	932.0	1012.6	932.0	975.1
901.0	858.2	939.1	858.2	901.0	901.6	858.8	939.7	858.8	901.6
554.1	527.5	575.9	527.6	554.1	554.7	528.2	576.5	527.7	554.7
0.00									0.00

2pcs of Model 380B with 620W installed in an area of 4'x 4' (1.2mx1.2m)PAR distribution for plants cultivation.
 4'x 4'(1.2mx1.2m) PAR value map captured from a complete planting area.
 This application diagram displays 2 grow tables with dimension 16' x 4'(4.8m x 1.2m).
 Above each grow table there installed 4 sets of 380 (8 modules in total).
 The distance between fixtures and plant canopy is 0.49'(15cm).



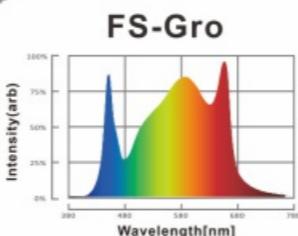
IP LEVEL:IP66
 Beam angle:120°
Cos/PF:>0.9
Warranty:5 years
Body:Aluminum
Dimming:0-10V

PARSYS PRO



FEATURES

- Foldable design.
- 14mm-ultra slim structure.
- Comply with standards.
- >50,000 hours lifespan at Q90.
- Saving up to 33% energy comparing to HPS.
- 45% less weight, while greatly saving installation time.
- Optimized full spectrum, with PPE 2.8 $\mu\text{mol}/\text{J}$, PPF 1680 $\mu\text{mol}/\text{s}$.
- Different spectrums can be optional or customized, from veg to bloom.
- Self-locking waterproof connector. Plug & play, the installation is fast and easy.
- Daisy chain T-shape interconnection cables are customizable based on projects requirements.
- New engineering fixture design, packaging size perfectly matches the standard container size.
- The PCB after spraying the glue, it has a very high hardness, which can reach 80 Shore A.
- Excellent waterproof and chemical corrosion resistance, can reach 5VA flame retardant grade with the fixture.
- Minimalism designed for both hobbyists and commercial projects, can be used for single or multi-tier racking.
- Outstanding uniformity of light irradiation in 4' x 4' (1.2m x 1.2m) area, providing optimum PPFD for plant growth, to maximum crop yields.



PARAMETER

	Model No.	Spectrum	Power	Efficiency	PPF	Voltage	LED
North America & Europe	380-0028	FS-Gro	660W	2.8 $\mu\text{mol}/\text{J}$	1848 $\mu\text{mol}/\text{s}$	100-277VAC	Samsung White Osram Red
						100-240VAC	
Europe	380-0029	FS-Gro	600W	2.8 $\mu\text{mol}/\text{J}$	1680 $\mu\text{mol}/\text{s}$	100-240VAC	Samsung White Osram Red

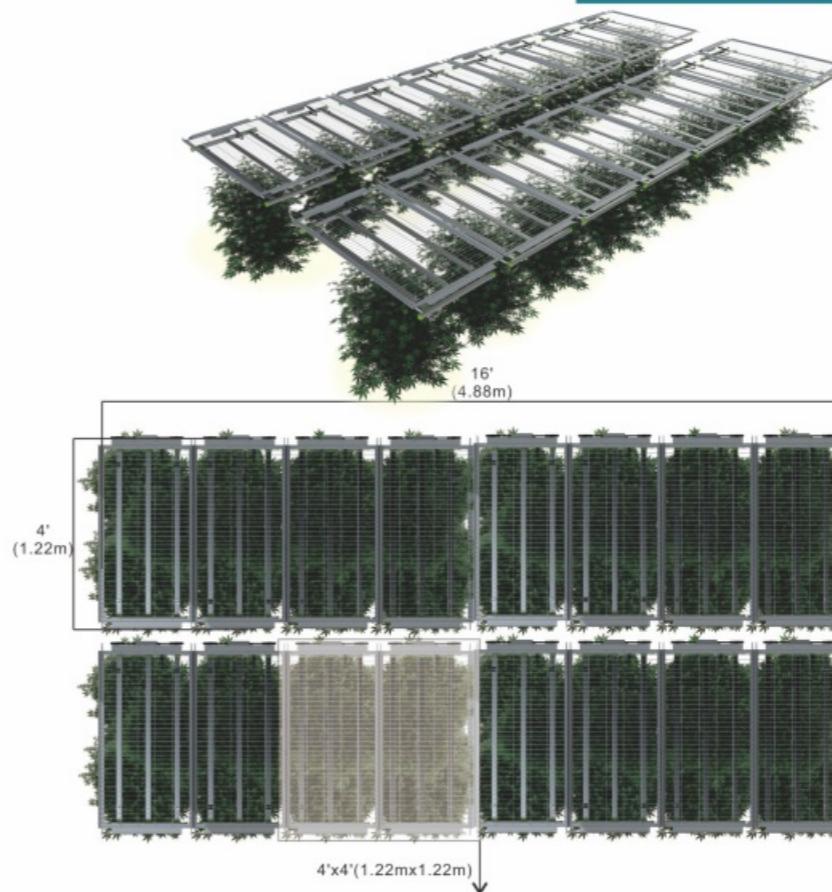
AMPERAGE BY VOLTAGE SERVICE

	VOLTAGE(AC)	120V	208V	230V	277V
North America & Europe	380-0028	5.50A	/	2.87A	2.38A
Europe	380-0029	/	/	2.61A	/

DIMENSION



TYPICAL APPLICATION



765.5	740.6	772.0	732.4	773.0	742.1	760.5	757.3	743.8	771.7	4'
985.7	945.3	997.5	935.2	991.6	947.6	973.2	970.0	949.9	989.7	
1116.1	1075.6	1129.0	1058.0	1123.6	1073.6	1102.8	1098.3	1076.1	1121.5	
1181.1	1139.8	1195.0	1126.7	1188.1	1137.4	1167.0	1163.3	1140.8	1185.9	
1212.5	1169.6	1224.9	1157.2	1218.0	1171.4	1198.4	1194.4	1173.6	1215.8	
1232.2	1189.2	1245.1	1177.8	1238.3	1191.3	1218.2	1214.4	1193.9	1236.1	
1241.6	1195.2	1252.3	1184.2	1245.3	1198.0	1227.4	1223.7	1200.4	1244.5	
1245.3	1198.9	1255.8	1187.8	1250.6	1201.7	1230.9	1227.0	1204.1	1248.4	
1240.9	1194.4	1251.4	1183.4	1246.1	1197.4	1226.3	1222.5	1199.7	1243.8	
1235.9	1189.2	1248.5	1178.4	1243.8	1192.5	1222.3	1218.5	1194.8	1241.6	
1220.3	1174.5	1233.0	1163.6	1228.2	1178.8	1206.9	1203.1	1180.0	1225.9	
1200.8	1154.9	1210.9	1141.4	1206.4	1158.2	1185.3	1181.2	1160.4	1204.2	
1141.8	1096.8	1153.6	1082.8	1147.0	1098.6	1125.9	1122.1	1101.9	1144.8	
1036.7	996.0	1047.7	980.6	1043.8	995.4	1021.8	1017.7	998.1	1041.7	
829.4	802.1	838.6	786.0	833.9	796.8	817.8	815.0	799.9	832.2	
550.5	537.0	554.0	531.4	551.0	535.1	544.1	544.0	536.2	550.3	
0.00m										
4'										

2pcs of Model 380B with 660W installed in an area of 4' x 4' (1.22m x 1.22m)

PAR distribution for plants cultivation.4'x4'(1.22mx1.22m)

PAR value map captured from a complete planting area.

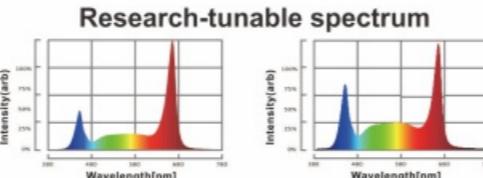
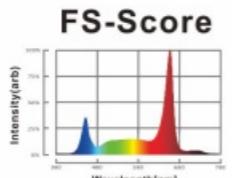
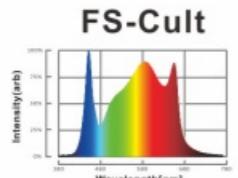
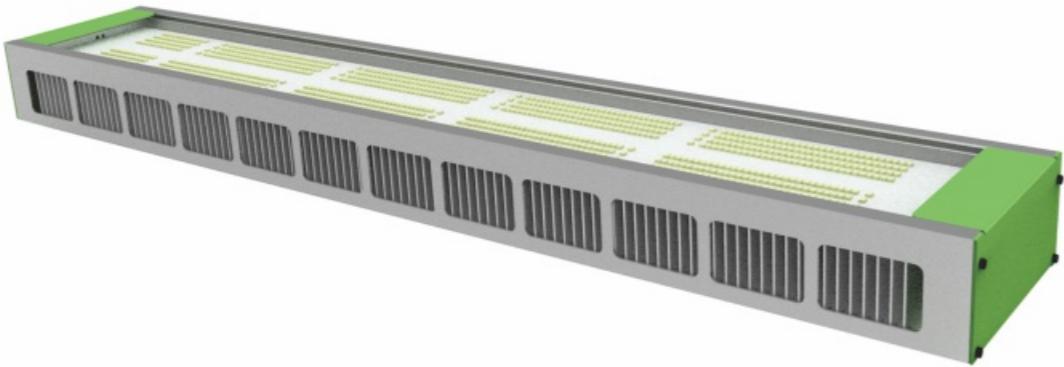
This application diagram displays 2 grow tables with dimension 16' x 4'(4.88m x 1.22m).

Above each grow table there installed 4 sets of 380 (8 modules in total).

The distance between fixtures and plant canopy is 0.59'(18cm).

IP LEVEL:IP66
Dimming:0-10V
Beam angle:120°
Cos/PF:>0.9
Warranty:5 years
Body:Aluminum+tempered glass
Driver:Inventronics

SOLIFY PRO



FEATURES

- Protection level IP66, safe to clean with high-pressure water gun.
- Reliable and robust performance, long life more than 40,000 Hrs.
- Replace 1000W HPS one-to-one saving 37% energy consumption.
- 100-277 VAC&277-480 VAC, meets requirements of varied projects.
- Passive cooling design with cutting edges, rarely creates radiant heat in greenhouse, comparing with traditional grow lights (HPS).
- 40,000 hours lifespan at Q90.

PARAMETER

	Model No.	Spectrum	Power	Efficiency	PPF	Voltage	LED
North America	351-0003	FS-Cult	630W	2.4μmol/J	1512μmol/s	100-277VAC	Samsung White Osram Red
North America	351-0004	FS-Cult	630W	2.4μmol/J	1512μmol/s	277-480VAC	Samsung White Osram Red
North America	351-0005	FS-Score	625W	2.6μmol/J	1600μmol/s	100-277VAC	Samsung White Osram Red Osram Far Red
North America	351-0006	Research-tunable	620W	2.5μmol/J	1550μmol/s	100-277VAC	Samsung White Osram Red
Europe	351-0008	FS-Cult	630W	2.4μmol/J	1512μmol/s	100-240VAC	Samsung White Osram Red
Europe	351-0009	FS-Score	625W	2.6μmol/J	1600μmol/s	100-240VAC	Samsung White Osram Red Osram Far Red
Europe	351-0010	Research-tunable	620W	2.5μmol/J	1550μmol/s	100-240VAC	Samsung White Osram Red
Europe	351-0011	FS-Cult	630W	2.4μmol/J	1512μmol/s	277-480VAC	Samsung White Osram Red

AMPERAGE BY VOLTAGE SERVICE

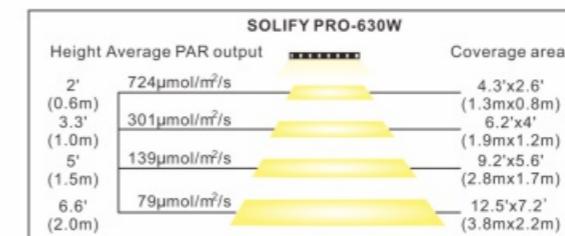
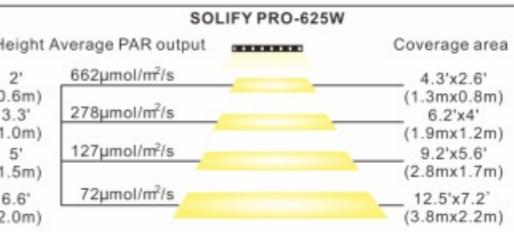
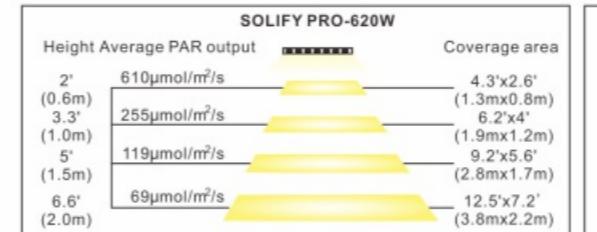
	VOLTAGE(AC)	120V	208V	230V	277V	348V	400V	480V
North America	351-0003	5.25A	3.03A	2.74A	2.27A	/	/	/
North America	351-0004	/	/	/	2.27A	1.81A	/	1.31A
North America	351-0005	5.21A	3.00A	3.72A	2.26A	/	/	/
North America	351-0006	5.17A	2.98A	2.70A	2.24A	/	/	/
Europe	351-0008	/	/	2.74A	/	/	/	/
Europe	351-0009	/	/	3.72A	/	/	/	/
Europe	351-0010	/	/	2.70A	/	/	/	/
Europe	351-0011	/	/	/	/	/	1.58A	/

351-0006/351-0010



DIMENSION

PAR DISTRIBUTION



TYPICAL APPLICATION



403.6	379.4	390.0	390.0	399.1	373.4	409.3	364.3	413.7	371.0	409.0	4' (1.2m)
411.3	390.8	397.9	397.9	406.9	385.1	417.1	376.5	423.0	378.7	416.9	
439.8	413.6	422.1	422.1	434.0	406.5	446.4	396.1	456.0	402.5	444.3	
453.6	422.5	434.9	434.9	447.6	415.4	461.2	404.4	472.6	411.4	461.3	
455.2	427.2	435.9	435.9	448.8	418.8	465.6	410.7	472.6	411.4	461.3	
431.9	408.5	415.8	415.8	426.6	400.7	440.3	393.8	449.0	398.7	436.9	
407.0	385.1	394.6	394.6	403.1	378.1	415.1	372.5	420.8	377.7	413.0	
412.8	389.8	379.9	379.9	407.8	381.4	422.3	374.7	429.8	376.0	418.2	0.00
											16' (4.8m)

This map displays PAR distribution in an area of 4'x16'(1.2mx4.8m).

The application case of SOLIFY PRO for greenhouse plants cultivation.

The distance between the lights and the plants is 6'(1.8m), and 90pcs 351 are needed in the planting area of 249'x16'(76mx4.8m).

IP LEVEL:IP66

Dimming:0/1-10V

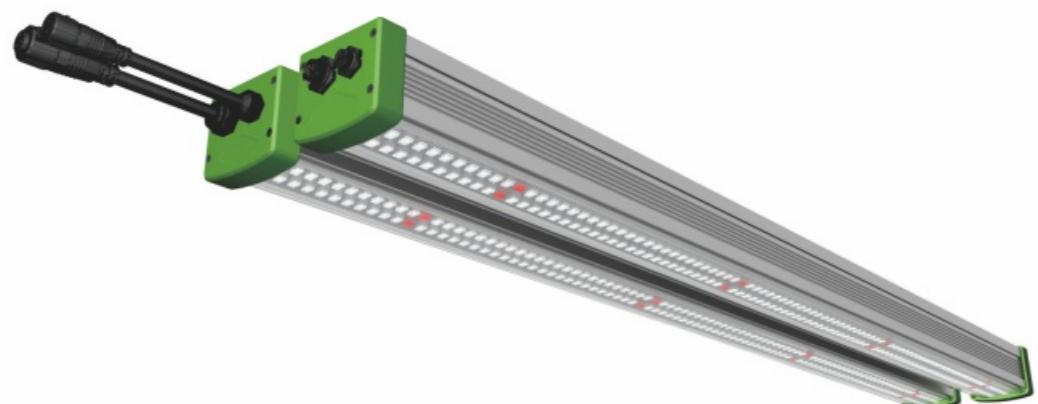
Beam angle:120°

Cos/PF:>0.9

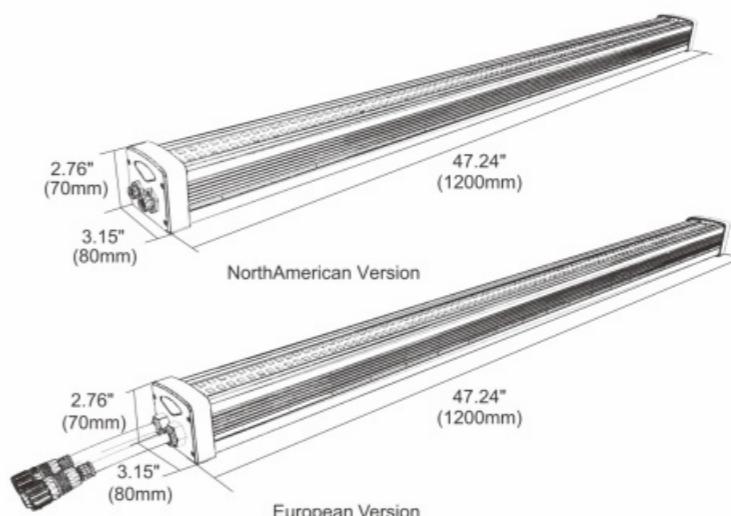
Warranty:5 years

Body:Aluminum+PC

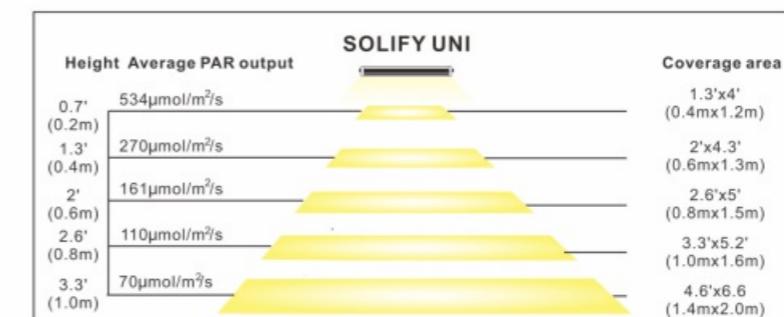
SOLIFY UNI



DIMENSION

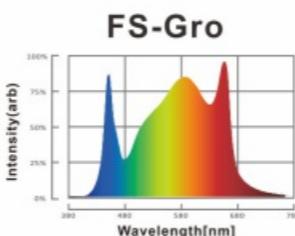


PAR DISTRIBUTION



FEATURES

- Protection level IP66, safe to clean with high-pressure water gun.
- Self-locking plug.
- 40,000 hours life span at Q90.
- Uniform Lighting.
- Full spectrum.
- 0/1-10V Dimming.



PARAMETER

	Model No.	Driver	Spectrum	Power	Efficiency	PPF	Voltage	LED
North America	350-0001	Philips	FS-Gro	190W	2.3μmol/J	437μmol/s	120-277VAC	Samsung White+Osram Red
Europe	350-0012	Harvelite	FS-Gro	190W	2.4μmol/J	456μmol/s	120-240VAC	Samsung White+Osram Red

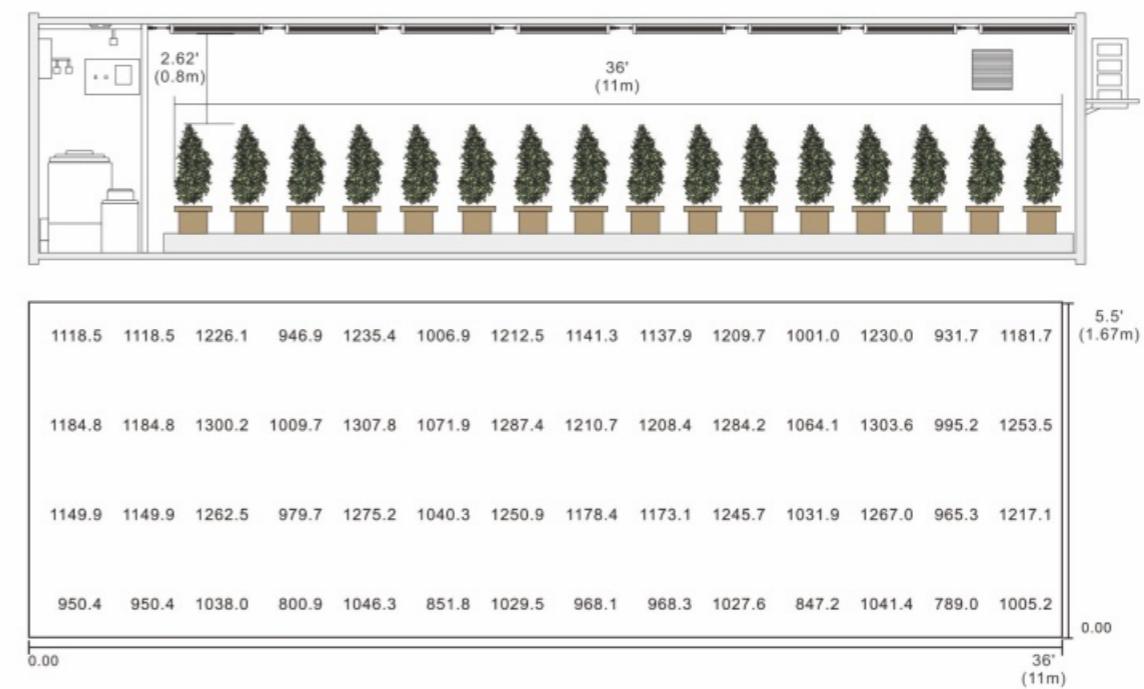
AMPERAGE BY VOLTAGE SERVICE

	VOLTAGE(AC)	120V	208V	230V	277V
North America	350-0001	1.58A	0.91A	/	0.69A
Europe	350-0012	/	/	0.83A	/

MAX CONNECTION QTY

	VOLTAGE(AC)	120V	208V	230V	277V
North America	350-0001	6	12	/	14
Europe	350-0012	/	/	11	/

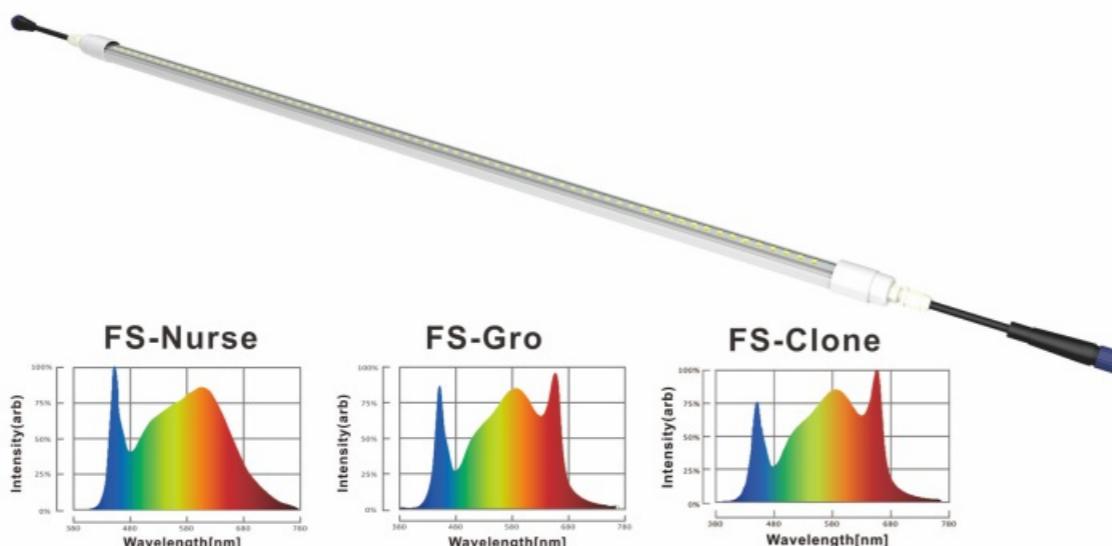
TYPICAL APPLICATION



48pcs of SOLIFY UNI installed in a 40' container offers high PAR value distribution with high uniformity

IP LEVEL:IP66
Beam angle:120°
Cos/PF:>0.9
Warranty:5 years
Body:Aluminum+PC
Driver:Internal

PARSYS UNI



FEATURES

- Protection level IP66.
- Easy to install.
- Quick interconnection.
- 40,000 hours life span with 90% initial photon flux.
- Optimized full-spectrum accelerates crop growth.

PARAMETER

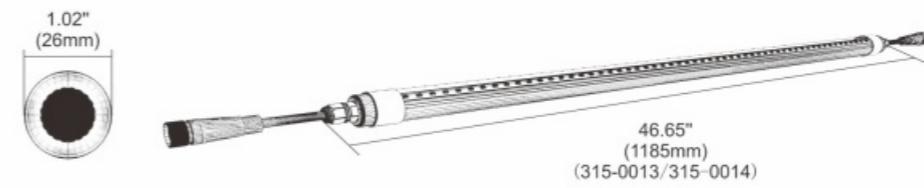
	Model No.	Spectrum	Power	Efficiency	PPF	Voltage	LED
Europe	315-0007	FS-Nurse	9W	2.2μmol/J	19.8μmol/s	200-240VAC	Samsung White
Europe	315-0008	FS-Gro	28W	2.4μmol/J	67.2μmol/s	200-240VAC	Samsung White+Red
Europe	315-0009	FS-Gro	9W	2.3μmol/J	20.7μmol/s	200-240VAC	Samsung White+Red
Europe	315-0013	FS-Clone	20W	2.2μmol/J	44μmol/s	100-240VAC	Samsung White+Red
North America	315-0014	FS-Clone	20W	2.2μmol/J	44μmol/s	100-277VAC	Samsung White
North America	315-0016	FS-Gro	30W	2.2μmol/J	66μmol/s	100-277VAC	Samsung White+Red
Europe	315-0019	FS-Nurse	28W	2.4μmol/J	67.2μmol/s	200-240VAC	Samsung White

AMPERAGE BY VOLTAGE SERVICE

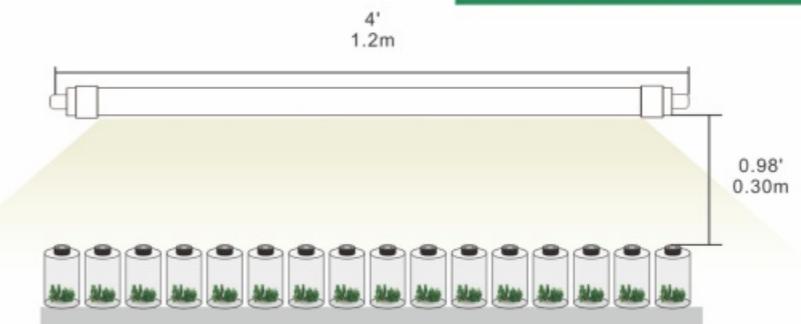
	VOLTAGE(AC)	120V	208V	230V	277V
Europe	315-0007	/	/	0.04A	/
Europe	315-0008	/	/	0.12A	/
Europe	315-0009	/	/	0.04A	/
Europe	315-0013	/	/	0.09A	/
North America	315-0014	0.17A	0.10A	/	0.07A
North America	315-0016	0.25A	0.14A	/	0.11A
Europe	315-0019	/	/	0.12A	/

MAX CONNECTION QTY

	VOLTAGE(AC)	120V	208V	230V	277V
Europe	315-0007	/	/	90	/
Europe	315-0008	/	/	28	/
Europe	315-0009	/	/	90	/
Europe	315-0013	/	/	45	/
North America	315-0014	22	40	/	56
North America	315-0016	15	15	/	37
Europe	315-0019	/	/	28	/



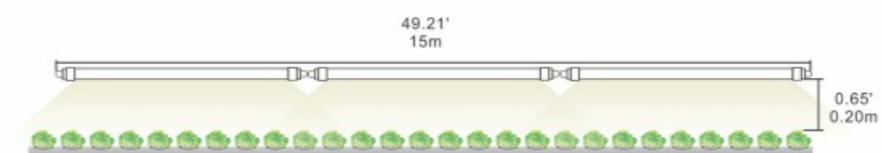
TYPICAL APPLICATION



27.3	24.7	29.4	30.3	30.6	30.6	29.4	27.3	24.7	18.4
34.6	31.4	37.2	38.3	38.6	38.6	38.3	37.2	31.4	23.2
34.4	31.1	37.1	38.3	38.6	38.6	38.3	37.1	31.1	23.1
34.4	31.1	37.1	38.3	38.6	38.6	38.3	37.1	31.1	23.1
34.6	31.4	37.2	38.3	38.6	38.6	38.3	37.2	31.4	23.2
27.3	24.8	29.4	30.3	30.6	30.6	30.3	29.4	24.7	18.4
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

4' (1.20m)

This map displays PAR distribution in an area of 4'x1.96'(1.2mx0.6m). The distance between the lights and the plants is 0.98'(0.30m), and 2pcs 315-0007 are needed in the planting area of 4'x1.96'(1.2mx0.6m).



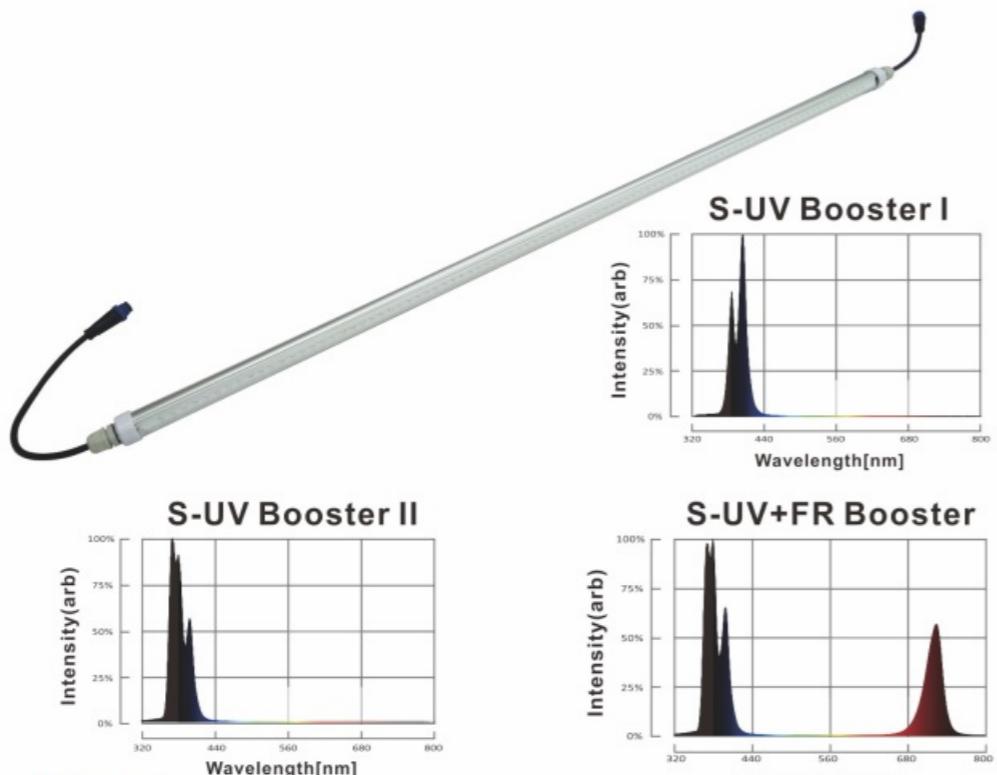
148.7	205.4	218.2	219.9	220.5	219.9	218.2	205.4	148.7
142.4	199.2	214.9	217.1	217.8	217.1	214.9	199.2	142.4
157.9	219.7	236.3	238.8	239.6	238.8	236.3	219.7	157.9
160.0	222.5	239.1	241.6	242.3	241.6	239.1	222.5	160.0
141.2	197.6	213.3	215.5	216.2	215.5	213.3	197.6	141.2
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

4' (1.20m)

This map displays PAR distribution in an area of 4'x1.96'(1.2mx0.6m). The distance between the lights and the plants is 0.65'(0.20m), and 3pcs 315-0008 are needed in the planting area of 4'x1.96'(1.2mx0.6m).

IP LEVEL:IP66
Beam angle:120°
Cos/PF:>0.9
Warranty:5 years
Body:Aluminum+PC

FlorAid



FEATURES

- Most effective UV bands are all included.
- IP66 protection level. More reliable and more durable.
- Built-in driver. Simple and convenient to install and use.
- Unique integrated UV+FR spectrum help boost flowering and growths.
- High-grade quartz glass. Ensure the effective penetration of light in various bands.
- Up to 36 interconnections, fully meet the demand of large-scale facility applications.
- The uniquely designed fixture end can be easily attached to other grow lights or grow racks.

PARAMETER

	Model No.	Spectrum	Power	Efficiency	PPF	Voltage	LED
Europe	363-0007	S-UV Booster I	10W	1.2μmol/J	12μmol/s	100-277VAC	385nm+395nm
Europe	363-0008	S-UV Booster II	25W	1.2μmol/J	30μmol/s	100-277VAC	365nm+385nm+395nm
Europe	363-0009	S-UV+FR Booster	25W	1.2μmol/J	30μmol/s	100-277VAC	365nm+385nm+395nm+730nm

AMPERAGE BY VOLTAGE SERVICE

	VOLTAGE(AC)	120V	208V	230V	277V
Europe	363-0007	/	/	0.04A	/
Europe	363-0008	/	/	0.11A	/
Europe	363-0009	/	/	0.11A	/

MAX CONNECTION QTY

	VOLTAGE(AC)	120V	208V	230V	277V
Europe	363-0007	/	/	90	/
Europe	363-0008	/	/	36	/
Europe	363-0009	/	/	36	/



DIMENSION



APPLICATION

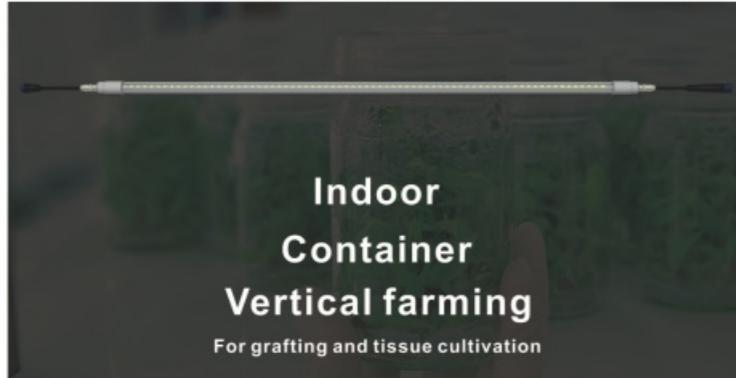
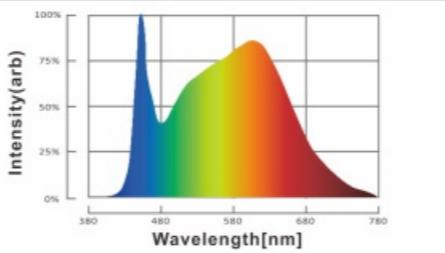


Now, you can both pursuit flexibility and crops quality. The newly designed FlorAid UV FR supplement light, will enhance your cultivation facilities in one action. There is no need to spend more to buy grow lights that with built-in UV chips. FlorAid can be easily attached to other lighting fixtures, and quickly installed on the racks.

Controlling as you wish with the independent switch. Improving the secondary metabolites and nutrient content of crops is no longer difficult.

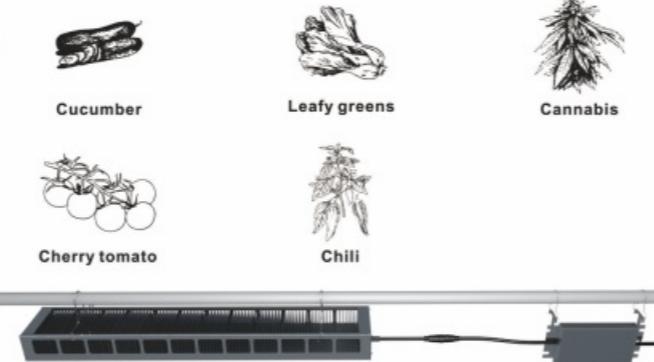
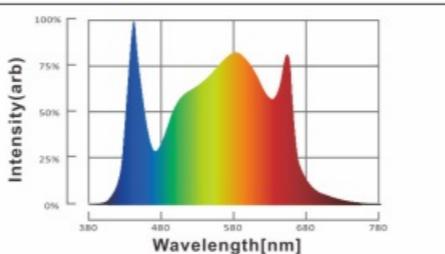
FS-Nurse

Full spectrum with blue peak.
Contains wavelengths between 400-700nm.



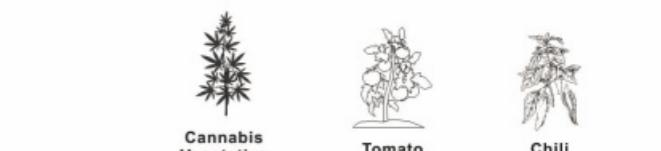
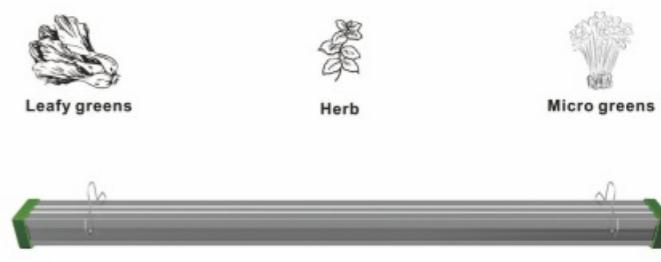
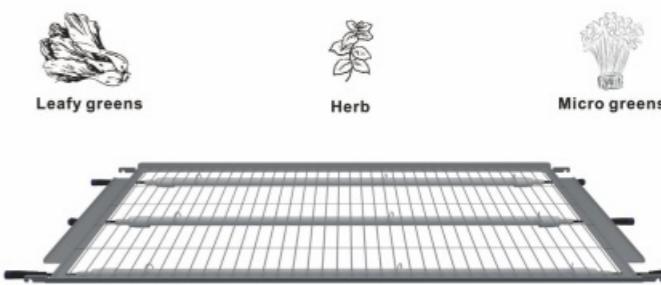
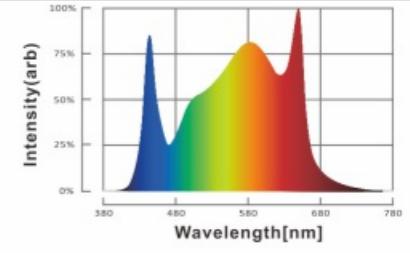
FS-Cult

Full spectrum with blue peak.
Contains wavelengths between 400-700nm.
Slightly enhance energy at 660nm.



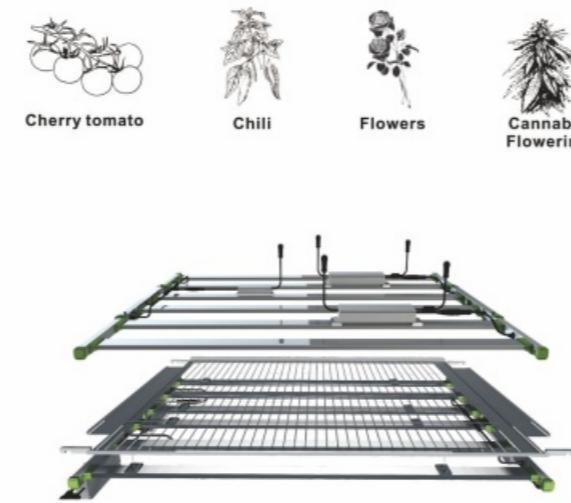
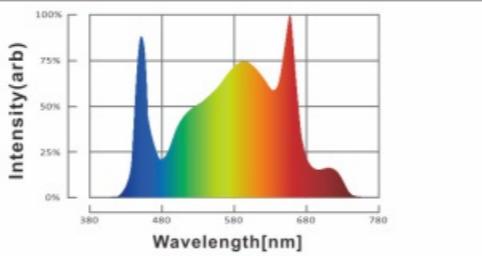
FS-Gro

Full spectrum with deep red peak.
Contains wavelengths between 400-700nm.
Drastically enhance energy at 660nm.
Meets the needs of most plant growth.



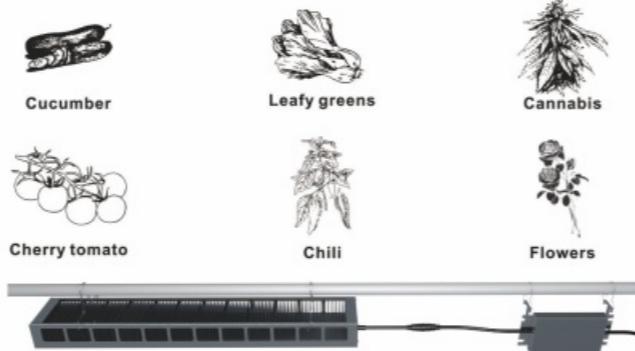
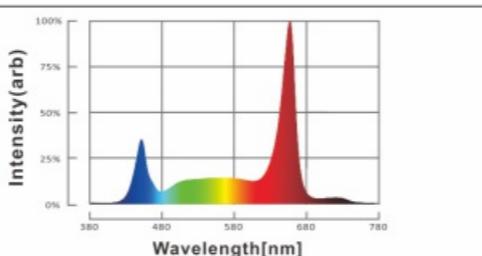
FS-Flow

Full spectrum with deep red peak.
Contains wavelengths between 400-700nm.
Drastically enhance energy at 660nm.
Meantime, supplement the energy at 730nm.
Better growth for flowering plants.



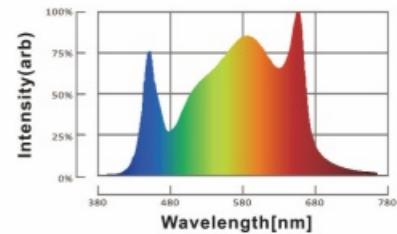
FS-Score

Full spectrum with deep red peak.
Contains wavelengths between 400-700nm.
Slightly enhance green, yellow, FR.
Meantime drastically enhance energy at 660nm.
Spectrum of high efficiency light supplemental.



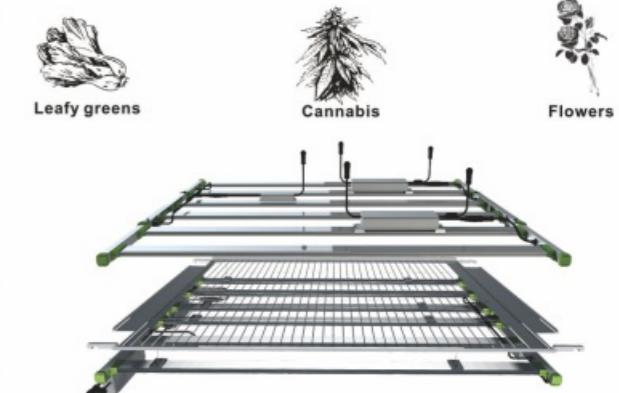
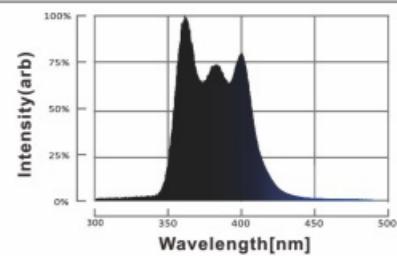
FS-Clone

Full spectrum with blue peak.
Contains wavelengths 450nm.
Meets the needs of most plant clone.



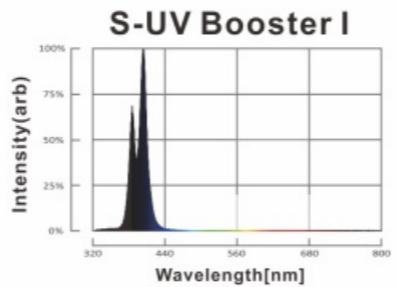
FS-Boost

UVA spectrum with peak at 365nm.
Contains wavelengths between 355nm-420nm.
Supplying continuous spectral energy at UVA band.

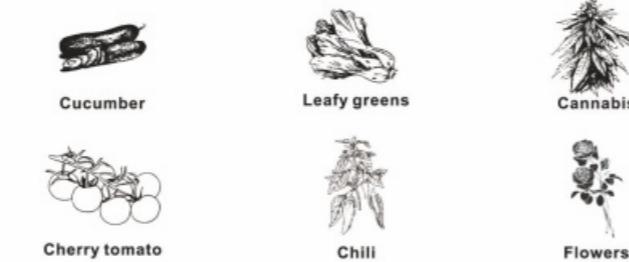
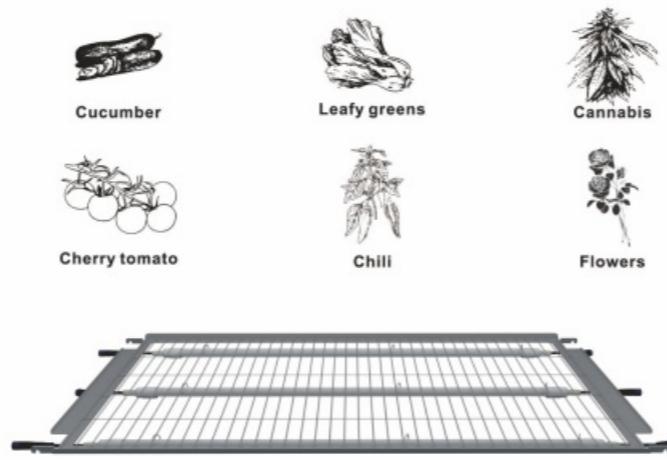


S-UV Booster I

This spectrum covers UV light at wave length 370-410nm.
For supplementary lighting of lettuce, fruits and other plants to enhance secondary metabolites.
Darken colors and increase fragrance.

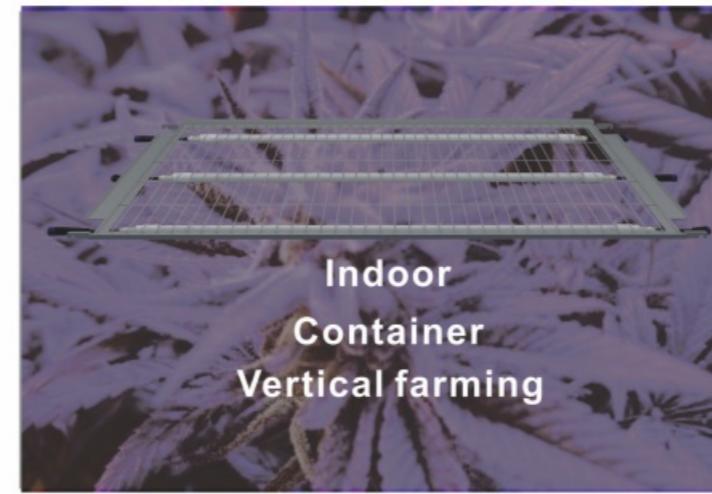
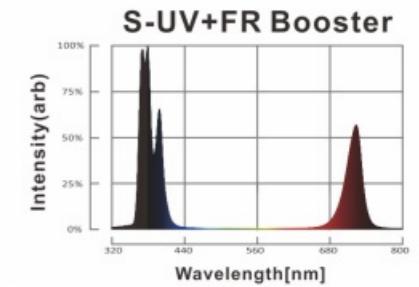


Indoor
Container
Vertical farming

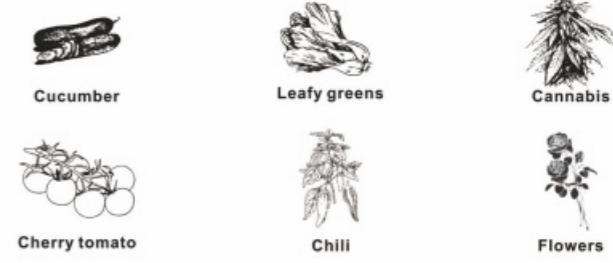
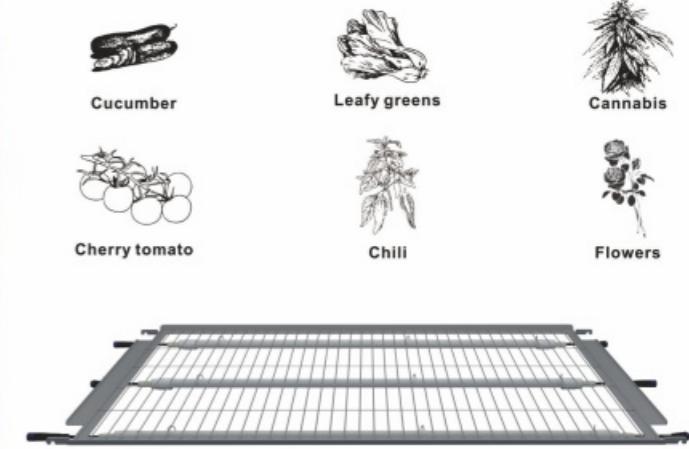


S-UV+FR Booster

This spectrum covers the UV light at wave length 360-410nm band plus the far-red wave length at 720-740nm.
For supplemental lighting in the cannabis flowering stage, used to increase stimulating metabolites and increase THC content.
Besides, to accelerate cannabis photosynthesis rate and increase cannabis flowers weight.

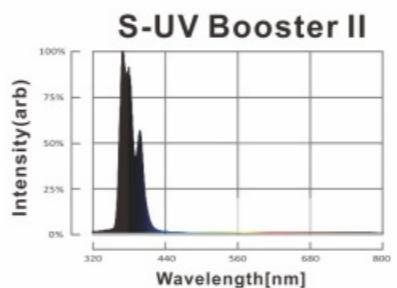


Indoor
Container
Vertical farming



S-UV Booster II

This spectrum covers the UV light at wave length 360-410nm.
For supplemental lighting in cannabis flowering stage, to increase stimulating metabolites and increase the content of THC.



Indoor
Container
Vertical farming

