

Technology With Respect to Nature.



**ACCÈS
DISTRIBUTION
PRODUITS INC.**



GROWSPEC

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One-stop Solution

For Horticultural Lighting



One-stop Solution For Horticultural Lighting

Generally speaking, the purpose of growers to switch from HPS to LED are increase yield, increase the content of cannabinoids, terpenes and better energy efficiency. But how to achieve these goals by light? How many lights will the grow room need in how many wattage? Simply hanging your LED over the crops and just turning them on will not be an optimal and cost-effective strategy for plant growth. Our engineers will make light distribution simulations by horticultural software with support from plant scientists and physics, combined with our experience of cooperation with growers all over the world will help you to achieve the goals. Under our solution design, you will get the light recipe designed especially for your crops under your aim of growing, reducing the light wasted to air or aisles, here is what we will do for you by "One-Stop Solution"



Step 01

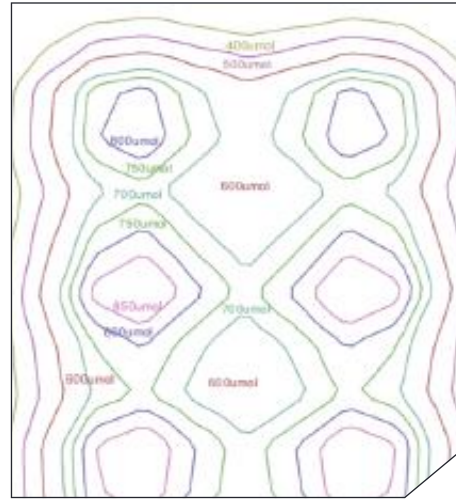


Initial Consultant

When you first time contact us with a project, we will offer our suggestion on what types of LED you can choose and how many pcs you may need. It will help you to determine how much light you need for your specific crop and growth goals. This will illustrate an optimal lighting layout for your facility to maximize light intensity and uniformity. We may also make a ROI simulation (including device initial invest, power cost, maintenance charge, air-conditioning cost...) for your project in accordance with the information you give us. Additionally, your electrician will be able to have a light solution to run electrical wiring efficiently ahead of time.

- **What plants do you grow ?**
- **What type of farm are you running ?**
- **What is the area of your plantation ?**
- **Where is your farm ?**
- **How much power available (KW) ?**
- **Height of crops when it's ready to harvest**
- **Height of lamp hanging(from floor to girder)**

Step 02



Tailor-Made Engineering

Tailor-made Engineering include combines the following elements: light spectrum, intensity, illumination moment, uniformity, and positioning. Using such tailor-made engineering, a grower can steer specific plant characteristics, from compactness, color intensity, and branch development to flowering and more to improve results.

- **Tailor-made Light Recipe**
- **Tailor-Made Light Fixture**
- **Simulation of Light Distribution and DLI (daily light integral)**

Step 03



Production & QC

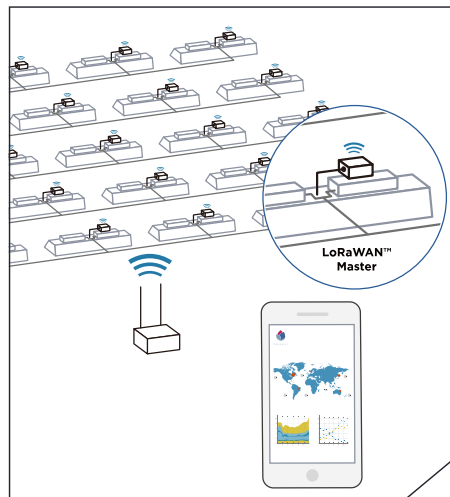
GrowSpec has a production facility of 20,000 square meters in china, with 2 laboratories, 6 workshops, 250 staffs and 11 years of experience on LED lights production, we react fast on customers orders. We have matured process of sourcing, producing and quality control, this all will qualify us to be your ideal cooperator as a grow light supplier.

More Business:

OEM / ODM

- Consultant & Design
- Simulate
- Tooling
- Manufacturing

Step 04



Control System Solution

For big scale of land, growers normally will use thousands of light. Most of situation, we have to put the lights in many sections for different crops or same crop in different stage of grow. All the sections should be controlled in coordination. GrowSpec can supply different control systems - Analog Dimming, DALI system or IoT system. With these systems we can satisfy different requirements of lights management. You can set everyday different light recipe or photo-period to control the life circle of plants, or manage the power consumption each week or month, or just let light sensor control the power of each lamp in accordance with the solar light. A detailed user manual will be available for your project, and GrowSpec will also give lift-time service for free.

Learn More:

manager@growspec-inc.com



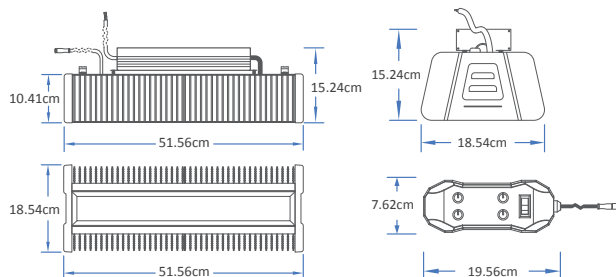
SR4DIM300 Sunray

Product Profile

Grow spec offers “One-stop Solution” aimed to meet farm owners’ expectation such as increase yield, improve quality or shorten growth cycle, etc., all for helping them realize a higher return on their crops and stand out in their market. In order to provide our customers with optimal lighting solution and LED fixture, we combined our advanced LED technology with custom light spectrum supported from our experienced plant specialist and other partners working on plant study institution.

Sunray 4DIM series is an innovative high-power LED light fixture which has unmatched passive cooling system. It performs robustly and stable. The light output ranges from 570 $\mu\text{mol/s}$ to 780 $\mu\text{mol/s}$. What special is it’s dimmable and adjustable spectrum, which enable plant specialists to select the ideal light spectrum on the basis of the crop. It consists of 4 major color, white, deep blue, hyper red, far red. This series is a greatest gift to those experts well in the knowledge of biology and photology.

Measurements



Product Specifications

Product Name	GS Sunray300
Model	SR4DIM300
Power	300 W
PPF	570-780 $\mu\text{mol/s}$
Efficacy	1.9-2.6 $\mu\text{mol/j}$
Input Voltage	100-277V AC
Power Factor	>0.95@220 V
Mounting Height	60 cm-300 cm
Radiation Angle	80° / 120° / 150°
Cooling	Passively air-cooled
Original Power Cord	1 ft pigtail
Lifetime	L80: Up to 35000hrs @25 °C
Warranty	3 years
Weight	21.8 lbs / 9.9 Kg
Light Color	

Features

- Spectrum-adjustable Design
- Top High Light Intensity
- Top Efficient Passive Cooling System
- Low-maintenance Design
- Convenience Installation

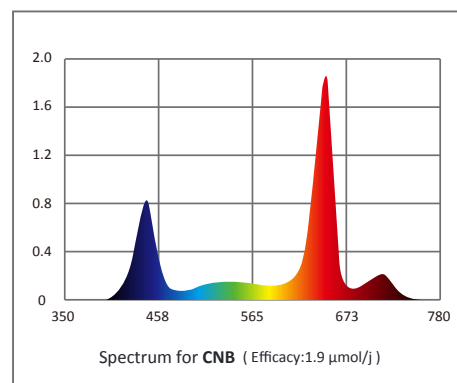
Applications

- **Optimal For:** laboratory Studies In Plant As Lighting Source Device
- **Good For:** greenhouse Light Supplementary & Indoor Grow Sole Source Lighting

GrowSpec has developed some typical proven light recipe as below:

- **VCR:**For vine crops flower&fruit grow stage, eg.tomato & cucumber
- **CNB:**Specially designed for medicine cannabis plants
- **SFF:**For soft fruits
- **GMB:**For germination and breeding
- **FLW:**Strongly for flower growing
- **UNV:**Universal, suitable for all plant types and all growth stages, recommended for cultivation areas where people are working.
- **HRB:**Add flavor to herbs
- **MGL:**For micro-greens or leafy vegetables

And more light recipe can be tailor-made based on customer's project





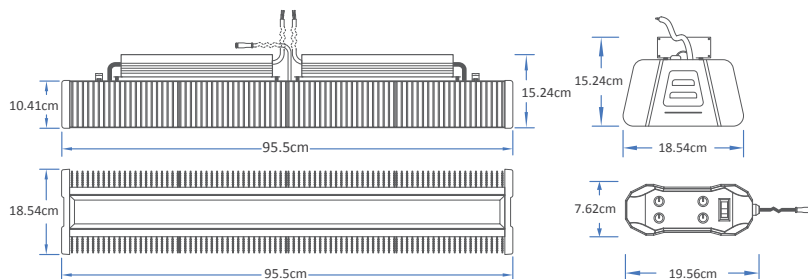
SR4DIM600 Sunray

Product Profile

Grow spec offers “One-stop Solution” aimed to meet farm owners’ expectation such as increase yield, improve quality or shorten growth cycle, etc., all for helping them realize a higher return on their crops and stand out in their market. In order to provide our customers with optimal lighting solution and LED fixture, we combined our advanced LED technology with custom light spectrum supported from our experienced plant specialist and other partners working on plant study institution.

Sunray 4DIM series is an innovative high-power LED light fixture which has unmatched passive cooling system. It performs robustly and stable. The light output ranges from 1140 $\mu\text{mol/s}$ to 1560 $\mu\text{mol/s}$. What special is it’s dimmable and adjustable spectrum, which enable plant specialists to select the ideal light spectrum on the basis of the crop. It consists of 4 major color, white, deep blue, hyper red, far red. This series is a greatest gift to those experts well in the knowledge of biology and photology.

Measurements



Product Specifications

Product Name	GS Sunray600
Model	SR4DIM600
Power	600 W
PPF	1140-1560 $\mu\text{mol/s}$
Efficacy	1.9-2.6 $\mu\text{mol/j}$
Input Voltage	100-277V AC
Power Factor	>0.95 @220 V
Mounting Height	90 cm-400 cm
Radiation Angle	80° / 120° / 150°
Cooling	Passively air-cooled
Original Power Cord	1 ft pigtail
Lifetime	L80: Up to 35000hrs @25 °C
Warranty	3 years
Weight	41 lbs / 18.6 Kg
Light Color	

Features

- Spectrum-adjustable Design
- Top High Light Intensity
- Top Efficient Passive Cooling System
- Low-maintenance Design
- Convenience Installation

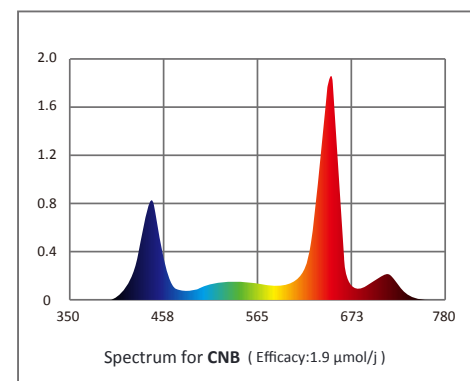
Applications

- **Optimal For:** laboratory Studies In Plant As Lighting Source Device
- **Good For:** greenhouse Light Supplementary & Indoor Grow Sole Source Lighting

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And more light recipe can be tailor-made based on customer's project



SRFX300 Sunray

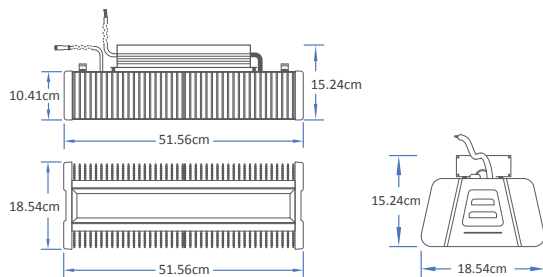


Product Profile

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Sunray FX series is an marvelous high-power LED light fixture which has unmatched passive cooling system. It performs robustly and stable. The light output ranges from 570 $\mu\text{mol/s}$ to 780 $\mu\text{mol/s}$, the efficacy is as high as 2.6 $\mu\text{mol/j}$. Sunray FX is the most versatile fixture and is suitable for top lighting of all types of crop. No matter it applies to greenhouse or indoor room, it can do perfect work for you.

Measurements



Product Specifications

Product Name	GS Sunray300
Model	SRFX300
Power	300 W
PPF	570-780 $\mu\text{mol/s}$
Efficacy	1.9-2.6 $\mu\text{mol/j}$
Input Voltage	100-277V AC
Power Factor	>0.95 @220 V
Mounting Height	60 cm-300 cm
Radiation Angle	80° / 120° / 150°
Cooling	Passively air-cooled
Original Power Cord	1 ft pigtail
Lifetime	L80: Up to 35000hrs @25 °C
Warranty	3 years
Weight	17.4 lbs / 7.9 Kg
Light Color	

Features

- Top High Light Intensity
- Spectrum-tailored Design
- Top Efficient Passive Cooling System
- High Light Efficacy
- Low-maintenance Design
- Convenience Installation

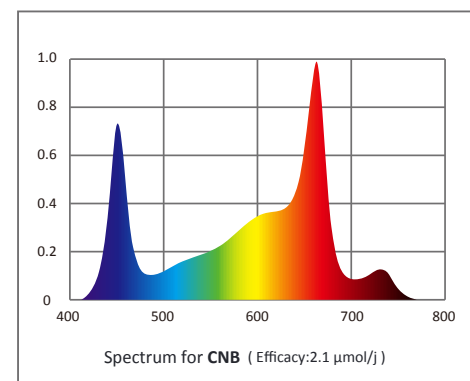
Applications

- **Optimal For:** Greenhouse Light Supplementary & Indoor Grow Sole Source Lighting

GrowSpec has developed some typical proven light recipe as below:

- **VCR:** For vine crops flower&fruit grow stage, eg. tomato & cucumber
- **CNB:** Specially designed for medicine cannabis plants
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- **FLW:** Strongly for flower growing
- **UNV:** Universal, suitable for all plant types and all growth stages, recommended for cultivation areas where people are working.
- **HRB:** Add flavor to herbs
- **MGL:** For micro-greens or leafy vegetables

And more light recipe can be tailor-made based on customer's project



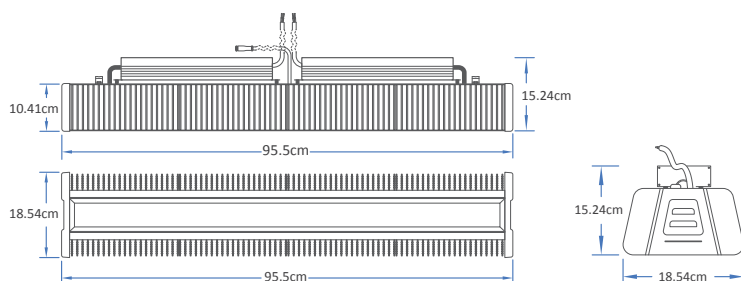
SRFX600 Sunray

Product Profile

Grow spec offers “One-stop Solution” aimed to meet farm owners’ expectation such as increase yield, improve quality or shorten growth cycle, etc., all for helping them realize a higher return on their crops and stand out in their market. In order to provide our customers with optimal lighting solution and LED fixture, we combined our advanced LED technology with custom light spectrum supported from our experienced plant specialist and other partners working on plant study institution.

Sunray FX series is an marvelous high-power LED light fixture which has unmatched passive cooling system. It performs robustly and stable. The light output ranges from 1140 $\mu\text{mol/s}$ to 1560 $\mu\text{mol/s}$, the efficacy is as high as 2.6 $\mu\text{mol/j}$. Sunray FX is the most versatile fixture and is suitable for top lighting of all types of crop. No matter it applies to greenhouse or indoor room, it can do perfect work for you.

Measurements



Product Specifications

Product Name	GS Sunray600
Model	SRFX600
Power	600 W
PPF	1140-1560 $\mu\text{mol/s}$
Efficacy	1.9-2.6 $\mu\text{mol/j}$
Input Voltage	100-277V AC
Power Factor	>0.95 @220 V
Mounting Height	90 cm-400 cm
Radiation Angle	80° / 120° / 150°
Cooling	Passively air-cooled
Original Power Cord	1 ft pigtail
Lifetime	L80: Up to 35000hrs @25 °C
Warranty	3 years
Weight	36.6 lbs / 16.6 Kg
Light Color	<div> <div></div> <div></div> <div></div> <div></div> </div>

Features

- Top High Light Intensity
- Spectrum-tailored Design
- Top Efficient Passive Cooling System
- High Light Efficacy
- Low-maintenance Design
- Convenience Installation

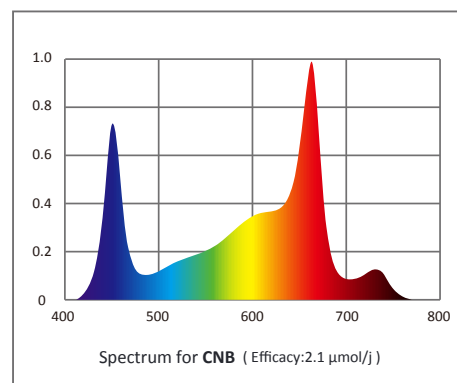
Applications

- **Optimal For:** Greenhouse Light Supplementary & Indoor Grow Sole Source Lighting

GrowSpec has developed some typical proven light recipe as below:

- **VCR:** For vine crops flower&fruit grow stage, eg. tomato & cucumber
- **CNB:** Specially designed for medicine cannabis plants
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And more light recipe can be tailor-made based on customer's project



AB150 AgriBar

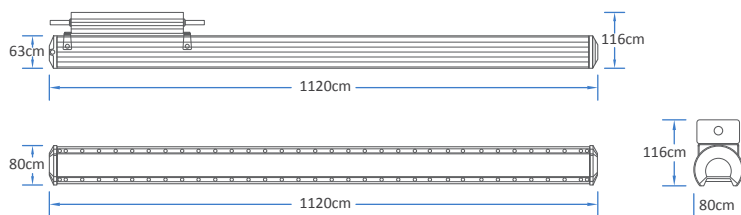
Product Profile

HPS has been used for greenhouse light supplementary for decades. While the disadvantages should be overcome due to its low efficacy, high heat radiation and low photosynthetic rate yellow & green light. AgriBar is a high efficacy LED top light fixture specially designed under this target. As a 150W high power luminaire, its slender heat-sink will minimize the light-shade from greenhouse roof. Compared to the most efficient double-end HPS which achieved 1.9 $\mu\text{mol}/\text{Joule}$, AgriBar has an efficiency level of 2.6 $\mu\text{mol}/\text{J}$ (under red/blue spectrum), and the light output can reach up to 390 $\mu\text{mol}/\text{s}$. AgriBar has wide variety of light angles for customization: from 30/60/80 degree to 120/150 degree, depending on height of hanging and light solution design. The "light-recipe" can also be tailor-made in accordance with different crops and purpose of grow.

Applications

- **Optimal For:** Greenhouse Light Supplementary
- **Good For:** Indoor Grow Sole Source Lighting

Measurements



Product Specifications

Product Name	AgriBar
Model	AB150
Power	150 W
PPF	285-390 $\mu\text{mol}/\text{s}$
Efficacy	1.9-2.6 $\mu\text{mol}/\text{J}$
Input Voltage	100-277V AC
Power Factor	>0.95 @220 V
Mounting Height	20 cm-250 cm
Radiation Angle	30° / 60° / 80° / 120° / 150°
Cooling	Passively air-cooled
Original Power Cord	1 ft pigtail
Lifetime	L80: Up to 35000hrs @25 °C
Warranty	3 years
Weight	12.4 lbs / 5.6 Kg
Light Color	

Features

- Wide Radiation Area In Uniform Distribution
- Low Heat Radiation And High Light Efficacy
- Minimum Light Shadow
- Easy To Install

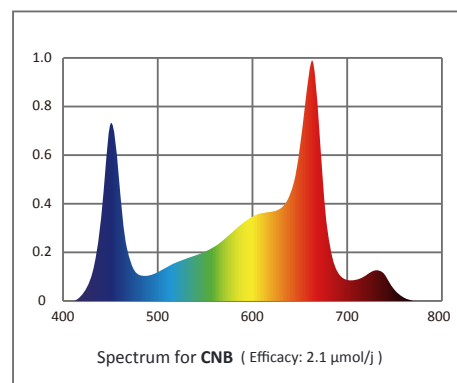
Additional Accessories Available

- **Cord Options:** 5 ft. / 10 ft. Cord
- **Plugs For Cord:** 5-15P / 6-15P / 6-15P / 6-20P / EU-VDE

GrowSpec has developed some typical proven light recipe as below:

- **VCR:** For vine crops flower & fruit grow stage, eg. tomato & cucumber
- **CNB:** Specially designed for medicine cannabis plants
- **SFF:** For soft fruits
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- **FLW:** Strongly for flower growing
- **UNV:** Universal, suitable for all plant types and all growth stages, recommended for cultivation areas where people are working
- **HRB:** Add flavor to herbs
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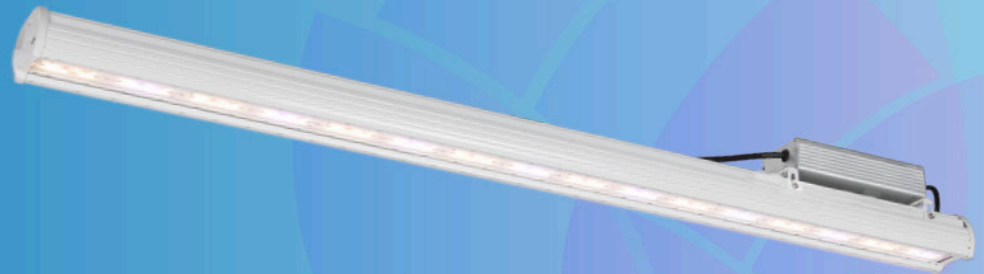
And more light recipe can be tailor-made based on customer's project



DATA SHEET

AB185

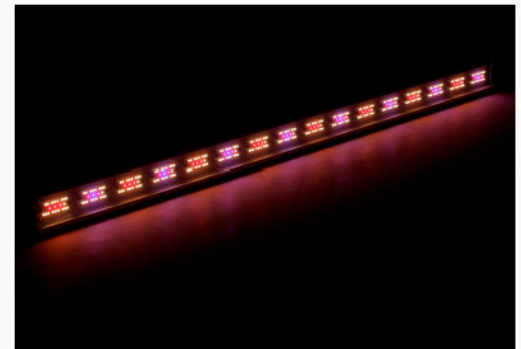
AgriBar



AgriBar is a high efficacy LED top light fixture specially designed under this target. As a 185W high power luminaire, its slender heat-sync will minimize the light-shade from greenhouse roof. AgriBar has wide variety of light angles for customization: from 30/60 degree to 80/120 degree, depending on height of hanging and light solution design. The "light-recipe" can also be tailor-made in accordance with different crops and purpose of grow.

Features

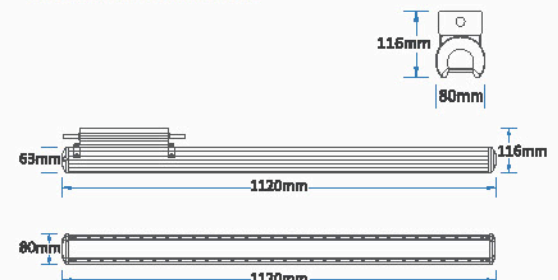
- Wide Radiation Area In Uniform Distribution
- Low Heat Radiation And High Light Efficacy
- Minimum Light Shadow
- Easy To Install
- Achieve up to 70% in energy savings versus HID
- Runs cooler than HID
- Maintains light output longer than HID




Applications

Optimal For	Greenhouse Light Supplementary
Good For	Indoor Grow Sole Source Lighting

Measurements



Product Specifications

SERIES	AgriBar
Model	AB185
Power	185 W
PPF	352-518 $\mu\text{mol/s}$
Efficacy	1.9-2.8 $\mu\text{mol/j}$
Input Voltage	100-277V AC
Power Factor	>0.95@220 V
Mounting Height	20 cm-250 cm
Radiation Angle	30° / 60° / 80° / 120°
Cooling	Passively air-cooled
Original Power Cord	1 ft pigtail
Lifetime	L80: Up to 35000hrs @25 °C
Warranty	3 years
Weight	12.8 lbs / 5.8 Kg
Light Color	

Temperature Change At Different Using Time

The parts of AB185 are made of aluminum with quick thermal conductivity and rapid heat dissipation that can greatly guarantee the life of the product. Using unique fins on heat sink, and also adding a number of vice fins on the heat sink to increase the heat dissipation area.

20°C at room temperature

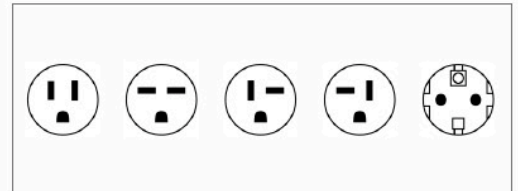
Time(h)		1	2	3	4	5	6	7	8	9
Temperature	°C	42.7	49.6	51.7	52.1	52.2	52.4	52.5	52.6	52.6
	°F	108.9	121.3	125	125.8	126	126.3	126.5	126.7	126.7

Additional Accessories Available

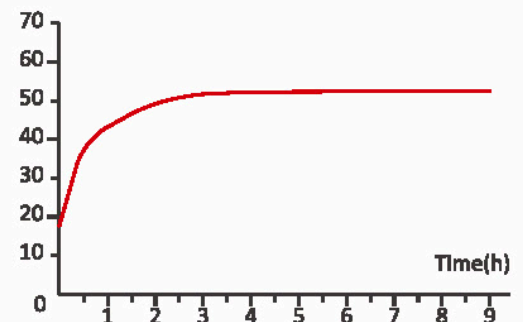
• **Cord Options:** 5 ft. / 10 ft. Cord



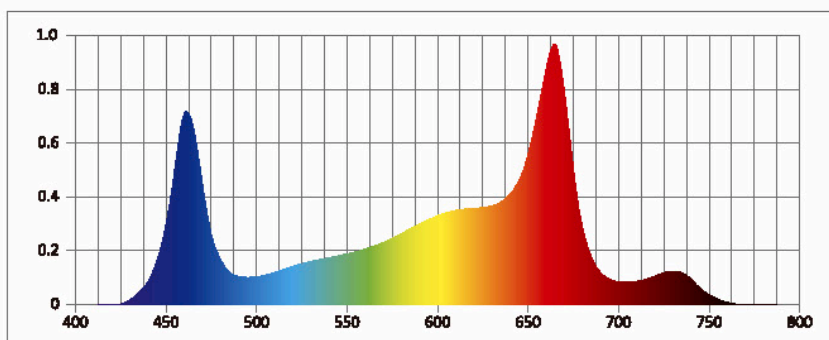
• **Plugs For Cord:** 5-15P / 6-15P / 5-20P / 6-20P / EU-VDE



Temperature — °C



Spectrum For CNB - AB185



Light	(nm)	(%)
UV	360-399	0.0
BLUE	400-499	23.0
GREEN	500-599	23.0
RED	600-699	44.0
FR	700-780	10.0

And more light recipe can be tailor-made based on customer's project.

GrowSpec has developed some typical proven light recipe as below:

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- **FLW:** Strongly for flower growing
- **UNV:** Universal, suitable for all plant types and all growth stages, recommended for cultivation areas where people are working
- **HRB:** Add flavor to herbs
- **MGL:** For micro-greens or leafy vegetables

PN80 Panel

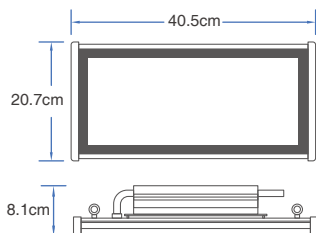
Product Profile

Panel series is ideal for multi-layer planting and other indoor planting which has strict demand on high uniformity of light intensity. Its flat and thin shaped form makes its PPFD in high uniform distribution and has marvelous effect on heat dissipation which greatly extends its lifetime. It is quite easy to install owing to its lightweight and low-maintenance design. Panel series comes in 3 sizes to meet with various scale of vertical farming. They are the first choice for low space plantation.

Applications

- **Optimal For:** Vertical Farms As Sole Source Lighting
- **Good For:** Indoor Grow Sole Source Lighting

Measurements



Product Specifications

Product Name	Panel80
Model	PN80
Power	80 W
PPF	152-208 $\mu\text{mol/s}$
Efficacy	1.9-2.6 $\mu\text{mol/j}$
Input Voltage	100-277V AC
Power Factor	>0.95 @220 V
Mounting Height	20 cm-100 cm
Radiation Angle	80° / 120° / 150°
Cooling	Passively air-cooled
Original Power Cord	1 ft pigtail
Lifetime	L80: Up to 35000hrs @25 °C
Warranty	3 years
Weight	6.8 lbs / 3.1 Kg
Light Color	<input checked="" type="radio"/> Blue <input checked="" type="radio"/> White <input checked="" type="radio"/> Red <input checked="" type="radio"/> Purple

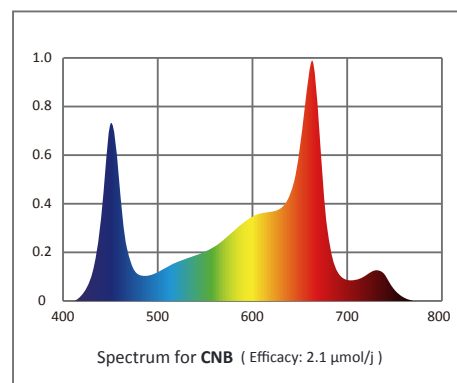
Features

- High Uniformity Of Light Intensity
- High Light Efficacy
- Spectrum-tailored Design
- Low Heat Radiation
- Low-maintenance Design
- Convenience Installation

GrowSpec has developed some typical proven light recipe as below:

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And more light recipe can be tailor-made based on customer's project



PN240 Panel

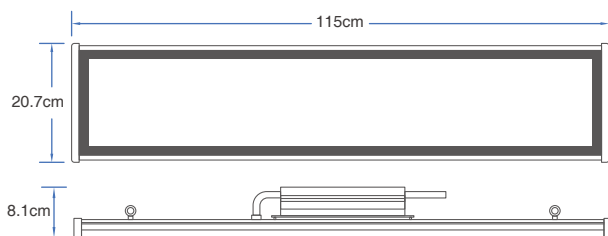
Product Profile

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Applications

- **Optimal For:** Vertical Farms As Sole Source Lighting
- **Good For:** Indoor Grow Sole Source Lighting

Measurements



Product Specifications

Product Name	Panel240
Model	PN240
Power	240 W
PPF	456-624 $\mu\text{mol/s}$
Efficacy	1.9-2.6 $\mu\text{mol/j}$
Input Voltage	100-277V AC
Power Factor	>0.95 @220 V
Mounting Height	20 cm-100 cm
Radiation Angle	80° / 120° / 150°
Cooling	Passively air-cooled
Original Power Cord	1 ft pigtail
Lifetime	L80: Up to 35000hrs @25 °C
Warranty	3 years
Weight	16.1 lbs / 7.3 Kg
Light Color	<input checked="" type="radio"/> Blue <input checked="" type="radio"/> White <input checked="" type="radio"/> Red <input checked="" type="radio"/> Purple

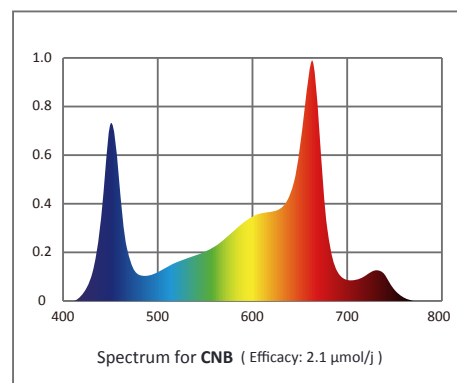
Features

- High Uniformity Of Light Intensity
- High Light Efficacy
- Spectrum-tailored Design
- Low Heat Radiation
- Low-maintenance Design
- Convenience Installation

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SS050 Slim-Spec



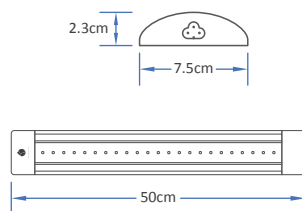
Product Profile

People has great demand for the freshest vegetables and fruits, urban farming is becoming a new trend. In order to make better use of land, urban farming is mostly carried out in vertical framing. SLIMSPEC is a great solution for vertical framing systems, its slender form and high uniformity of light intensity is optimal for short-range illumination. As a high efficiency luminaire, its low heat radiation and a compact size allows easy installation and maintenance. SlimSpec has multiple spectrum available, such as leafy vegetables,universal, strawberry, germination, flower, herbs, cannabis.... The "light-recipe" can also be tailor-made in accordance with different crops and purpose of grow.

Applications

- **Optimal For:** Vertical Farming
- **Good For:** Greenhouse Light Supplementary

Measurements



Product Specifications

Product Name	Slim-Spec						
Model	SS050						
Light recipe	FLW	SFF	HRB	CNB	UNV	GMB	MGL
Power (W)	30	28	30	28	20	30	30
PPF (μmol/s)	66	61.6	66	61.6	38	63	60
Efficacy (μmol/j)	2.2				1.9	2.1	2
Input Voltage	24-48V DC						
Mounting Height	20 cm-50 cm						
Radiation Angle	80° / 120° /150°						
Cooling	Passively air-cooled						
Original Power Cord	1 ft pigtail						
Lifetime	L80: Up to 35000hrs @25 °C						
Warranty	3 years						
Weight	0.62 lbs / 0.28 Kg						
Light Color							

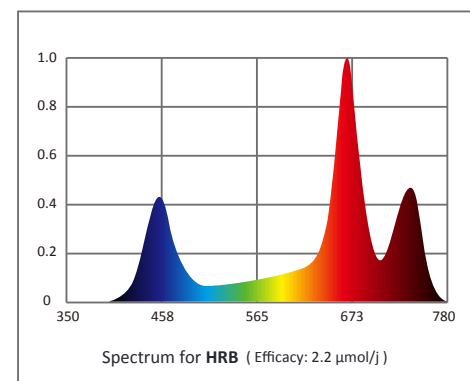
Features

- Low Heat Radiation And High Light Efficacy
- Easy To Mount And Maintain
- Multiple Spectrum Available
- Short-range Illumination

GrowSpec has developed some typical proven light recipe as below:

- **VCR:**For vine crops flower&fruit grow stage, eg.tomato & cucumber
- **CNB:**Specially designed for medicine cannabis plants
- **SFF:**For soft fruits
- **GMB:**For germination and breeding
- **FLW:**Strongly for flower growing
- **UNV:**Universal, suitable for all plant types and all growth stages, recommended for cultivation areas where people are working
- **HRB:**Add flavor to herbs
- **MGL:**For micro-greens or leafy vegetables

And more light recipe can be tailor-made based on customer's project



SS080 Slim-Spec

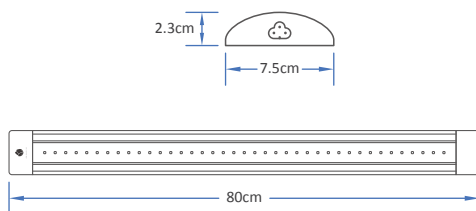
Product Profile

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Applications

- **Optimal For:** Vertical Farming
- **Good For:** Greenhouse Light Supplementary

Measurements



Product Specifications

Product Name	Slim-Spec						
Model	SS080						
Light recipe	FLW	SFF	HRB	CNB	UNV	GMB	MGL
Power (W)	56	55	53	55	30	43	43
PPF (μmol/s)	123.2	121	116.6	121	57	90.3	86
Efficacy (μmol/j)	2.2				1.9	2.1	2
Input Voltage	24-48V DC						
Mounting Height	20 cm-50 cm						
Radiation Angle	80° / 120° / 150°						
Cooling	Passively air-cooled						
Original Power Cord	1 ft pigtail						
Lifetime	L80: Up to 35000hrs @25 °C						
Warranty	3 years						
Weight	0.99 lbs / 0.45 Kg						
Light Color							

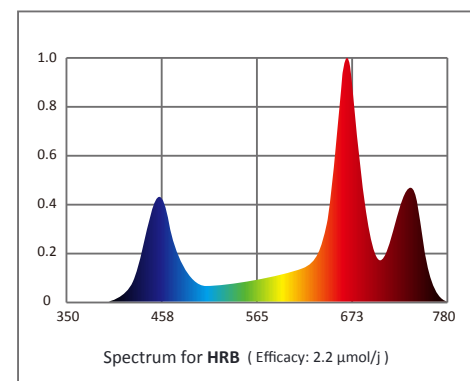
Features

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And more light recipe can be tailor-made based on customer's project



SS110 Slim-Spec

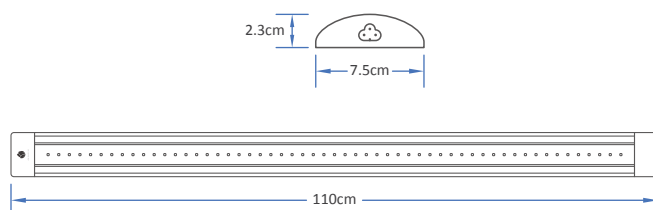
Product Profile

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Applications

- **Optimal For:** Vertical Farming
- **Good For:** Greenhouse Light Supplementary

Measurements



Product Specifications

Product Name	Slim-Spec						
Model	SS110						
Light recipe	FLW	SFF	HRB	CNB	UNV	GMB	MGL
Power (W)	68	66	68	66	40	53	53
PPF (μmol/s)	149.6	145.2	149.6	145.2	76	111.3	106
Efficacy (μmol/j)	2.2				1.9	2.1	2
Input Voltage	24-48V DC						
Mounting Height	20 cm-50 cm						
Radiation Angle	80° / 120° / 150°						
Cooling	Passively air-cooled						
Original Power Cord	1 ft pigtail						
Lifetime	L80: Up to 35000hrs @25 °C						
Warranty	3 years						
Weight	1.32 lbs / 0.6 Kg						
Light Color							

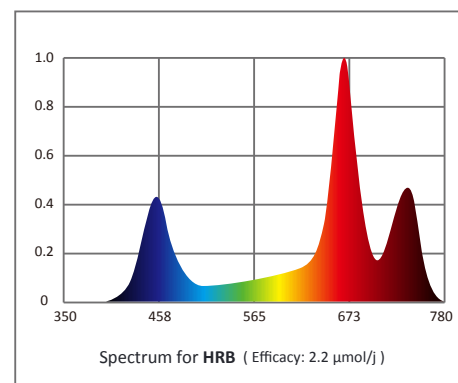
Features

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- Multiple Spectrum Available
- Short-range Illumination

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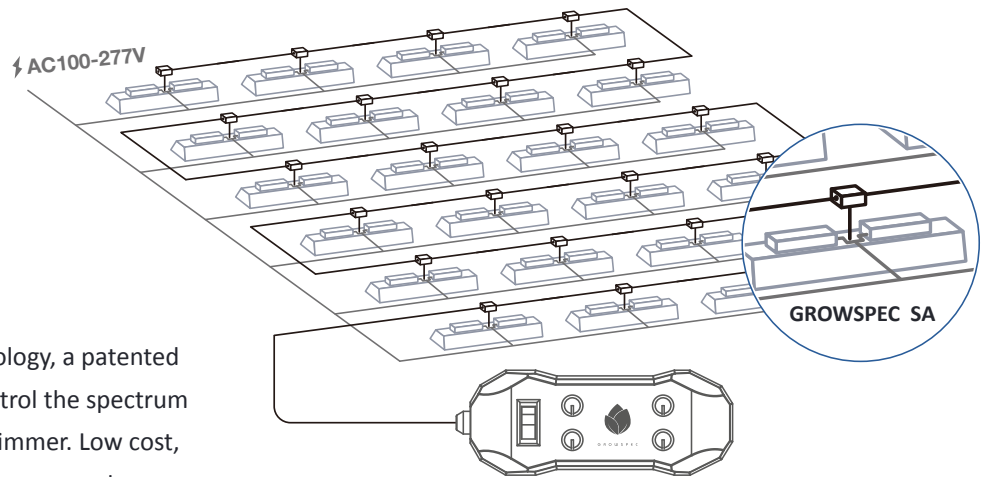
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Small Plant Lighting Control Solutions

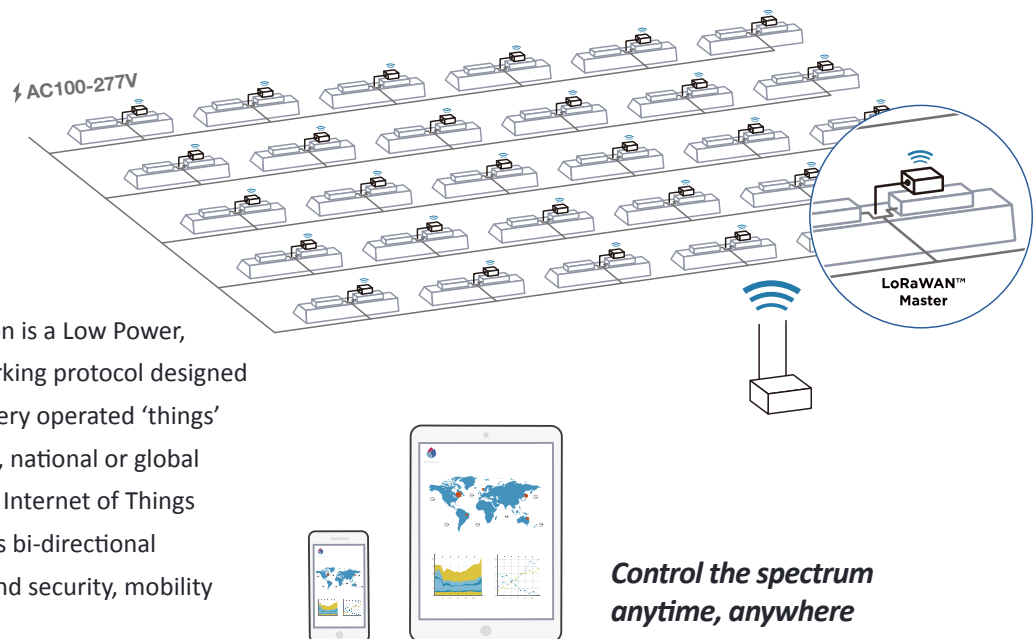
Group spectrum control technology, a patented technology of guesbei, can control the spectrum of a batch of lights through a dimmer. Low cost, suitable for small planting room or greenhouse.



Large Scale Greenhouse Lighting Control Solution



The LoRaWAN specification is a Low Power, Wide Area (LPWA) networking protocol designed to wirelessly connect battery operated 'things' to the internet in regional, national or global networks, and targets key Internet of Things (IoT) requirements such as bi-directional communication, end-to-end security, mobility and localization services.



**Control the spectrum
anytime, anywhere**



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