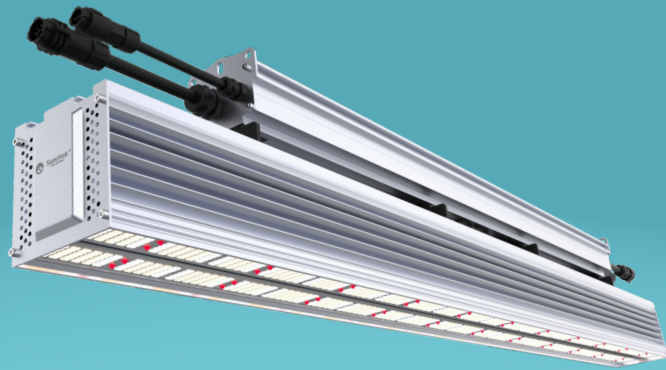




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Soluciones ecológicas para todos los proyectos de iluminación y alumbrado



# FKX series

LED GROW LIGHTS

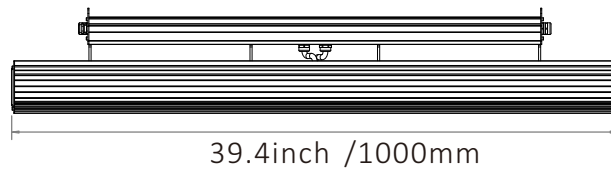
## Spec Sheets

## Product Description

- ◆ Fanless Design
- ◆ OSRAM LEDs, LM-80
- ◆ IP65 Waterproof
- ◆ ETL, LM-79, CE certification
- ◆ Dimmable: 0-10V/1-10V Dimming
- ◆ Linear design, perfect for Greenhouse planting.
- ◆ Easy to suspend on beams of Greenhouse by hooks.
- ◆ Lights can be connected in series, with simple power supply and dimming control function.
- ◆ More suitable for planting places with higher mounting position.

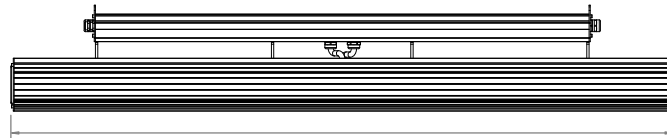
## Dimension

**FKX10 330W**

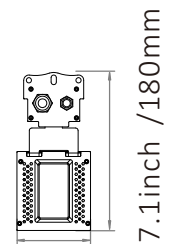


39.4inch /1000mm

**FKX12 530W**



44.9inch /1140mm



7.1inch /180mm

3.3inch /85mm

## Application Guide

### Greenhouse

To replace 1000W HPS/CMH.

Futur Vert LED Grow Light is 60% higher in PPF, 47% lower in power consumption and 47% less in BTU. FKX series is not only suitable for marijuana cultivation in greenhouse, but also suitable for vegetable & flower planting.



Flower, vegetable and fruit growing

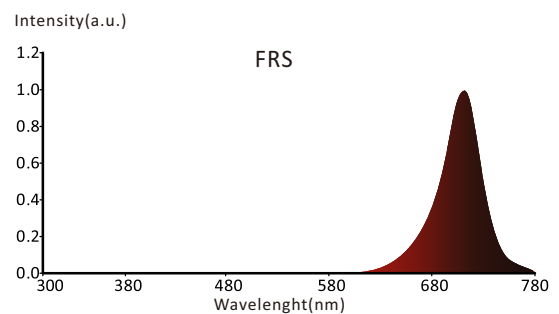
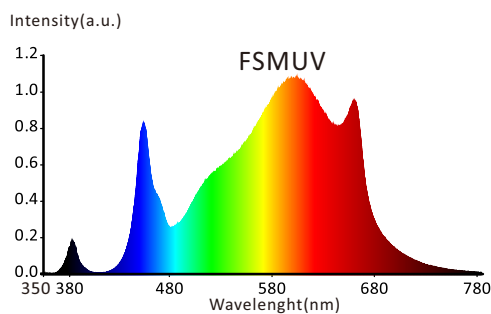
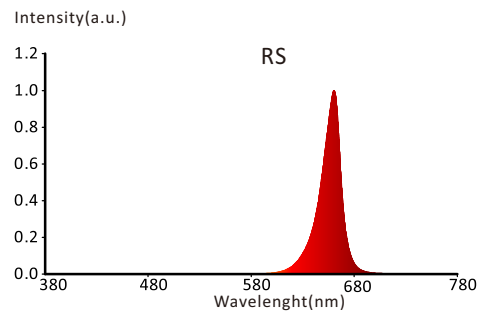
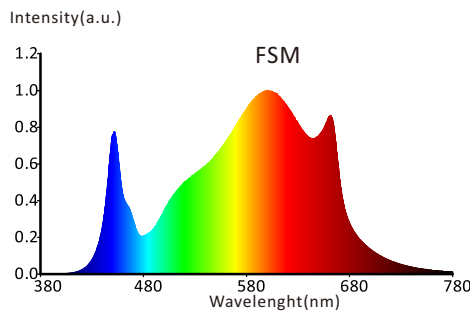
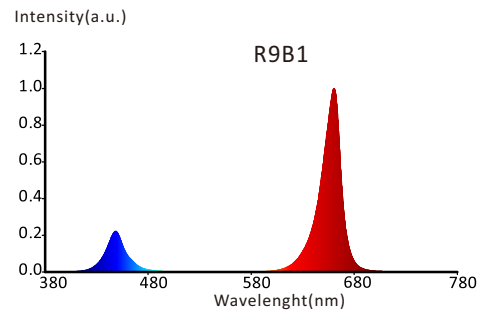
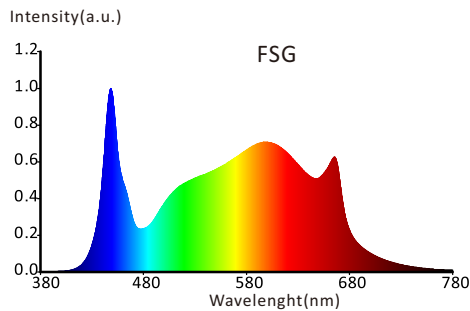


Marijuana Cultivation

## Performance Summary

Model	FKX10								FKX12							
Power Consumption (incl. driver)	330W								530W							
Input Voltage	AC100-277V															
Input Current	Max 4A@100V <sub>AC</sub> Max 1.6A@230V <sub>AC</sub> Max 1.4A@277V <sub>AC</sub>								Max 6A@100V <sub>AC</sub> Max 3A@230V <sub>AC</sub> Max 2.2A@277V <sub>AC</sub>							
Input Frequency	50/60Hz															
Power Factor	>0.9															
Spectrum	FSM		FSG		FSMUV		R9B1		FSM		FSG		FSMUV		R9B1	
PPF(μmol/s)	726	792	792	858	693	759	726	891	1166	1272	1272	1378	1113	1219	1166	1431
Efficacy(μmol/J)	2.2	2.4	2.4	2.6	2.1	2.3	2.2	2.7	2.2	2.4	2.4	2.6	2.1	2.3	2.2	2.7
Heat Output	1122 BTU/h								1802 BTU/h							
Dimming	0-10V / 1-10V															
Operating Temperature	-4-113°F (-20-45°C)															
Storage Temperature	-40-176°F (-40-80°C)															
Dimensions (L x W x H)	39.4*3.3*7.1inch (1000*85*180mm)								44.9*3.3*7.1inch (1140*85*180mm)							
Weight	15.7lbs(7.1kg)								21.6lbs(9.8kg)							
L70 Rating	>78,000 hrs															
L90 Rating	>54,000 hrs															
ETL Certification	UL 8750 Luminaires [UL 1598:2008 Ed.3 +R:17Oct2012] Luminaires (R2013) [CSA C22.2#250.0:2008 Ed.3 +G1;G2]															
Location Rating	Damp															
LVD Certification	IEC/EN 60598-2-1 IEC/EN 60598-1															

## Spectrum selected



### Full Spectrum :FSG

The specially deployed full spectrum fills the negligence of the main photoreceptors and pigments outside the 660nm and 450nm range, and it is suitable for reproduction to aging in indoor environments, which increases the radiant energy of red light at 660nm wavelength in white light. The overall color temperature of FSG's full spectrum is controlled at 4000K. It provides a beautiful working environment and a more realistic color reproduction degree at a CRI level of 88.

### Full Spectrum :FSM

The specially deployed full spectrum fills the negligence of the main photoreceptors and pigments outside the 660nm and 450nm range, and it is suitable for reproduction to aging in indoor environments. The overall color temperature of FSM's full spectrum is controlled at 3000-3300K, which increases the radiant energy of red light at 660nm wavelength in white light. It provides a beautiful working environment and a more realistic color reproduction degree at a CRI level of 85.

### Spectrum :FSMUV

FSMUV is 385nm ultraviolet radiation and Full Spectrum, Studies have shown that THC content can be increased in cannabis plants if done correctly. If improper operation, studies have shown that UV stress will effects light suppression of chloroplasts, the reduction of plant yields and lamina deaths

### Spectrum :R9B1

R9B1 use 450nm blue light and 660nm red light with bimodal spectrum, based on the latest academic research, which is the most efficient spectrum in increasing plant anthocyanin, chlorophyll and carotenoid yield.

### Spectrum :RS

With a peak spectrum at 660nm, RS is designed to exclusively target phytochrome red photoreceptors. This spectrum is widely used to target Phytochrome Red (Pr) in photomorphogenic lighting applications, and it is used to delay flowering in short-day plants.

### Spectrum :FRS

With a peak spectrum at 730nm, FRS is designed to exclusively target phytochrome far red photoreceptors. This spectrum is widely used to target Phytochrome Far Red (Pfr) in photomorphogenic lighting applications, and it is used to lengthen the dark period to encourage the flowering process in Short Day Plants.

# LM-80 Report Of OSRAM

IES TM-21-11 Projection

160522W4

## Appendix A: Lumen Maintenance Projection (IES TM-21-11)

For Information Only!

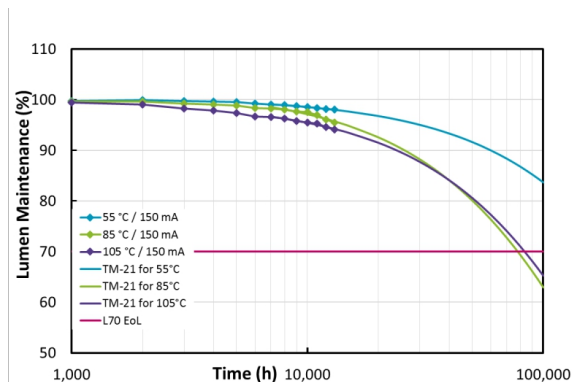
### 1. General Information

Description of LED light source tested	DURIS E 5 GW JDSRS1.EC
Sample size per temperature	30
LED drive current used in the test	150 mA
Test duration	13,000 hours
Test duration used for projection	8,000 hours to 13,000 hours

### 2. Projection Data

	I	II	III
Case temperature (solder point)	$T_s = 55\text{ }^\circ\text{C}$	$T_s = 85\text{ }^\circ\text{C}$	$T_s = 105\text{ }^\circ\text{C}$
$\alpha$	1.818E-06	4.821E-06	4.227E-06
B	1.004E+00	1.019E+00	9.957E-01
Reported L70	>78,000 hours	77,955 hours	>78,000 hours

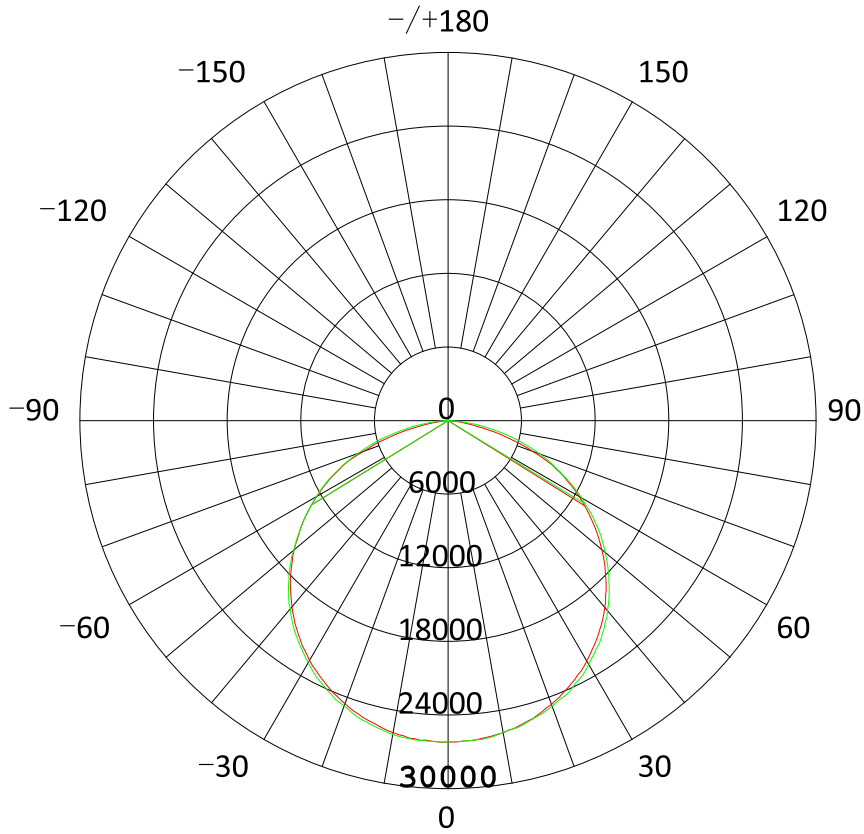
### 3. Graphic chart



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# IES



UNIT:cd

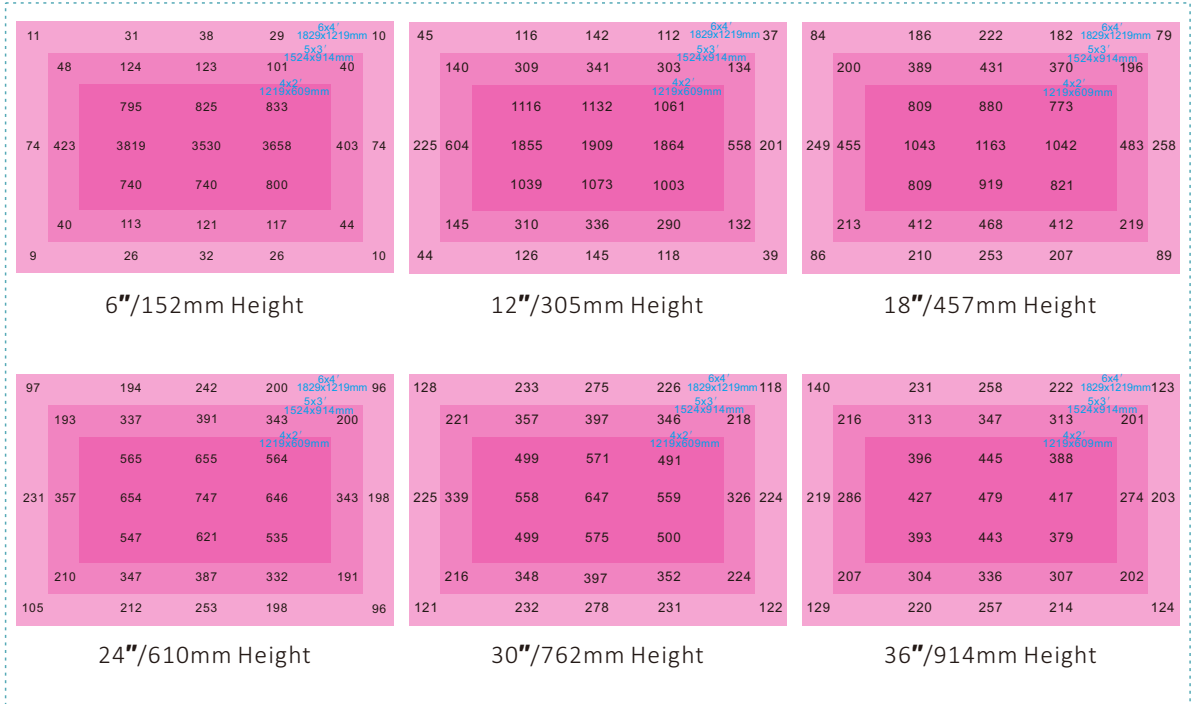
- C0/180,116.3
- C90/270,117.0

Beam Angle(50%Imax):C0/180Left:58.1 Right:58.1 [C0/180]Total=116.3  
:C90/270Left:58.5 Right:58.5 [C90/270]Total=117.0

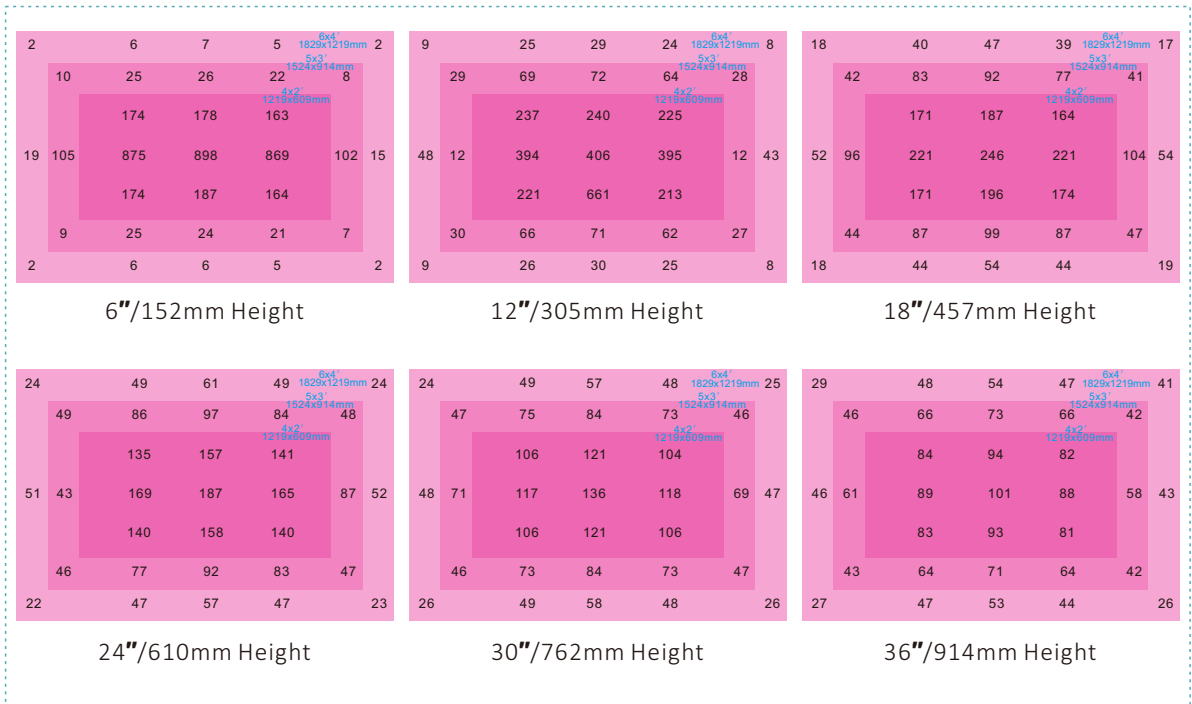
# Photon Flux Distribution

Measured in isolation on at 100% light intensity with fixture centrally hanging at pre-determined height above a 4'x6' grow area.

## 530W FKX12 PPFD Distribu on<sup>1,2</sup> FSG 2.4umol/s





## 530W FKX12 PAR Distribu on<sup>1,2</sup> FSG 2.4umol/s




1. At 100% light intensity
2. Measured in isolation, no adjacent grow lights, no reflective walls

## Plug Specifications

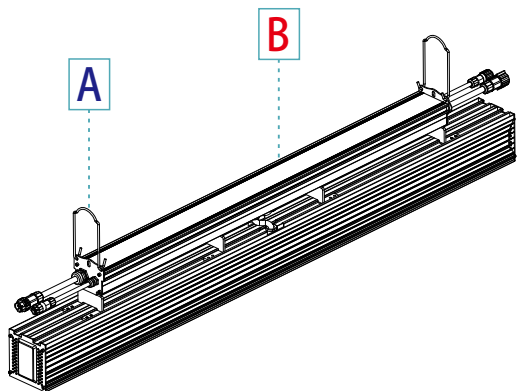
### Plug for the US and Canada

-  • Plug type: NEMA 5-15P and NEMA 6-15P
- 120V/60Hz and 208V/60Hz
-  • UL certified

### Plug for the EU

-  • Plug type: CEE 7/7
- 230V/50Hz

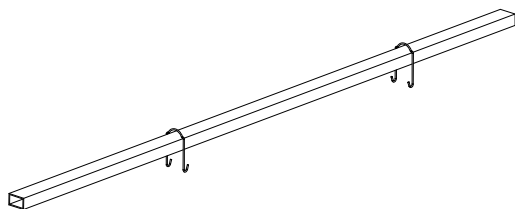
## Installation



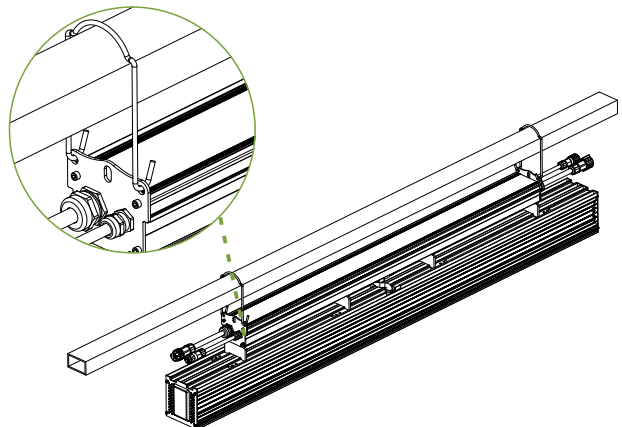
A: Hanging Hook

B: Light Fixture

1. Hang the hooks on the beam.



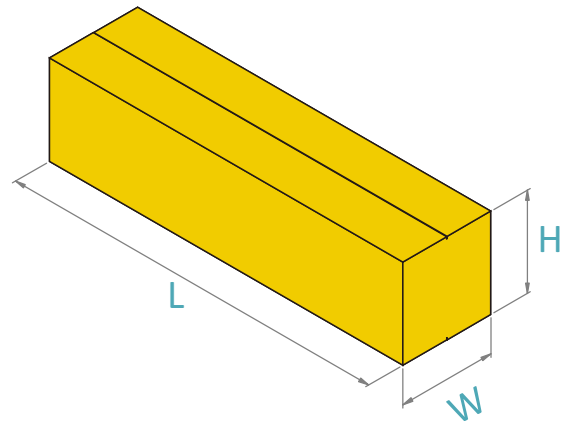
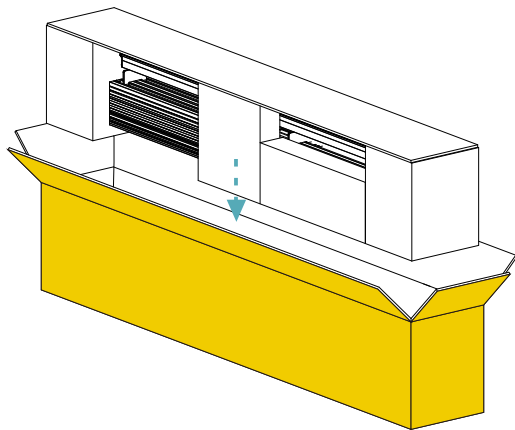
2. Hang the light into feet of hooks.





## Packing

Type	Carton Size	G.W per Carton	Quantity per Carton
FKX10	L41.5*W7.3*H8.9inch (1054*185*225mm)	18lbs (8.2kg)	1 PCS
FKX12	L47*W7.3*H8.9inch (1195*185*225mm)	23.8lbs (10.8kg)	1 PCS



## Manufacturer s Recommendations

1. Risk of fire or electric shock, please turn off power before installing.
2. Always use product within its stated Safe Working Load.
3. Do not use for lifting, such as in a crane or pulley situation, or for hanging services exhibiting movement or dynamic behavior. Designed for hanging statically positioned services only.
4. Do not walk or stand on the product installation.
5. Always use manufacturer supplied and specified cable. Never use on coated cable or other cable.
6. Do not apply oil or any other lubricant to the fastener or any other part of the cable assembly.

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