



# All Purpose Grow Light

IP66

WARRANTY  
5 YEAR  
WARRANTY

UL  
LISTED



## Description

The LITELUME™ All Purpose Grow Light (LL-APGL) features a state of the art foldable design and tool free installation. Extruded Aircraft Aluminum light bar engines, removable driver, and secondary optics. This product is specialized for Cannabis growing with an offering of 2 different spectrums in 4 different wattages. Applications include Indoor and Greenhouse. This Luminaire achieves an impressive efficiency of 2.6  $\mu\text{mol s}^{-1}$  per watt. 4, 6, 8 or 10 passively cooled LED bars engines provide an intense light coverage with no fans.

## Fixture Information

Size:	400W/600W/720W/1000W
Housing:	Aircraft Aluminum
Power Cord:	3' Minimum (1.2 meter actual)
Finish:	Protective powdercoat
Lens:	High Performance clear optics with secondary heat resistant polycarbonate
Colors:	Standard: Grey Optional: Black
Mounting::	Suspended
Dimmable:	Standard
Operating Temperature:	-40°C to +45°C
Power Factor:	.95
THD:	less than 20%
Voltage:	Standard: 120-277V
Warranty:	Luminaire and LED's: 5-Year Limited Warranty Inventronics Driver: 7-Year Limited Warranty

## Performance Data

### CCT Spectrum:

Greenhouse;  
WW(3000K) + CW(6000K) + 660nm  
Indoor;  
WW(3000K) + PW(5000K) + 660nm

### LEDs

Proprietary blend of high performance Sanan + EpiLEDs specially binned

### Lifespan:

Up to 100,000 running hours

### Ratings & Certificates

UL Listed for Wet Locations  
IP66 rated

### Power Supply

Featuring Inventronics EUD-600SxxxDT series 600W, constant-current, programmable LED driver  
Ultra High Efficiency (Up to 95.0%)  
Digital Dimming  
Dim-to-off mode with low standby power  
Compact metal case  
Protection against input surge, output over voltage, short circuit, and over temperature.  
Full Power at Wide Output Current Range (Constant Power)  
Thermal Sensing and Protection for LED Module  
Isolated 0-10V/PWM/3-Timer-Modes Dimmable  
Dim-to-Off with Standby Power  $\leq 0.5$  W  
Always-on Auxiliary Power: 12Vdc, 200mA (Transient Peak Current up to 400mA)  
Output Lumen Compensation  
Input Surge Protection: DM 6kV, CM 10kV  
All-Around Protection: OVP, SCP, OTP  
IP67 and UL Dry / Damp / Wet Location SELV Output



<b>Project Name</b>	
<b>Catalog #</b>	
<b>Job Type</b>	
<b>Prepared By</b>	
<b>Notes</b>	

### Fixture Ordering Information

#### GREENHOUSE SPECTRUM WW(3000K) + CW(6000K) + 660nm

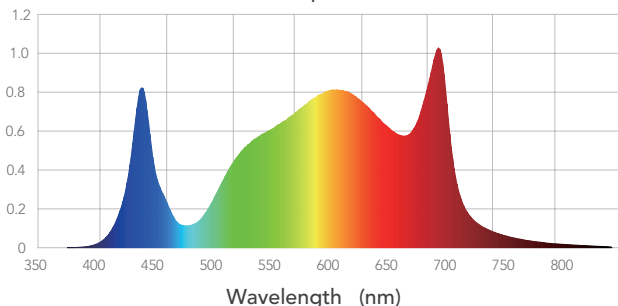
LITELUME PART #	WATTS	KELVIN	VOLTAGE	Color	Efficacy (μmol/j)	PPF (μmol/s)	Light Bar Engines	LED QTY WW 3000K	LED QTY CW 6000K	LED QTY 660nm
LL-GL-400-WWCW660-UNV-GY	400	WW + CW + 660nm	120-277V	Grey	2.5 - 2.6	1020	4	1344	384	48
LL-GL-400-WWCW660-UNV-BK	400	WW + CW + 660nm	120-277V	Black	2.5 - 2.6	1020	4	1344	384	48
LL-GL-600-WWCW660-UNV-GY	600	WW + CW + 660nm	120-277V	Grey	2.5 - 2.6	1550	6	2016	576	72
LL-GL-600-WWCW660-UNV-BK	600	WW + CW + 660nm	120-277V	Black	2.5 - 2.6	1550	6	2016	576	72
LL-GL-720-WWCW660-UNV-GY	720	WW + CW + 660nm	120-277V	Grey	2.5 - 2.6	1870	8	2688	768	96
LL-GL-720-WWCW660-UNV-BK	720	WW + CW + 660nm	120-277V	Black	2.5 - 2.6	1870	8	2688	768	96
LL-GL-1000-WWCW660-UNV-GY	1000	WW + CW + 660nm	120-277V	Grey	2.5 - 2.6	2450	10	3360	960	120
LL-GL-1000-WWCW660-UNV-BK	1000	WW + CW + 660nm	120-277V	Black	2.5 - 2.6	2450	10	3360	960	120

#### INDOOR SPECTRUM WW(3000K) + PW(5000K) + 660nm

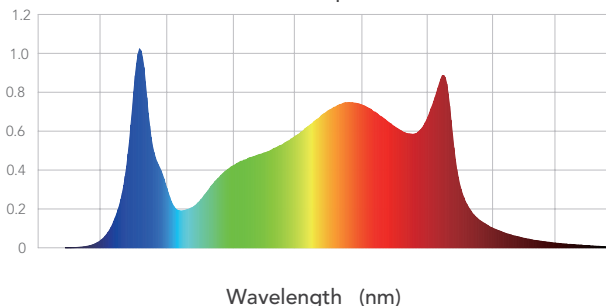
LITELUME PART #	WATTS	KELVIN	VOLTAGE	Color	Efficacy (μmol/j)	PPF (μmol/s)	Light Bar Engines	LED QTY WW 3000K	LED QTY CW 5000K	LED QTY 660nm
LL-GL-400-WWPW660-UNV-GY	400	WW + PW + 660nm	120-277V	Grey	2.5 - 2.6	1020	4	1344	384	48
LL-GL-400-WWPW660-UNV-BK	400	WW + PW + 660nm	120-277V	Black	2.5 - 2.6	1020	4	1344	384	48
LL-GL-600-WWPW660-UNV-GY	600	WW + PW + 660nm	120-277V	Grey	2.5 - 2.6	1550	6	2016	576	72
LL-GL-600-WWPW660-UNV-BK	600	WW + PW + 660nm	120-277V	Black	2.5 - 2.6	1550	6	2016	576	72
LL-GL-720-WWPW660-UNV-GY	720	WW + PW + 660nm	120-277V	Grey	2.5 - 2.6	1870	8	2688	768	96
LL-GL-720-WWPW660-UNV-BK	720	WW + PW + 660nm	120-277V	Black	2.5 - 2.6	1870	8	2688	768	96
LL-GL-1000-WWPW660-UNV-GY	1000	WW + PW + 660nm	120-277V	Grey	2.5 - 2.6	2450	10	3360	960	120
LL-GL-1000-WWPW660-UNV-BK	1000	WW + PW + 660nm	120-277V	Black	2.5 - 2.6	2450	10	3360	960	120

### Spectrum

Indoor Spectrum



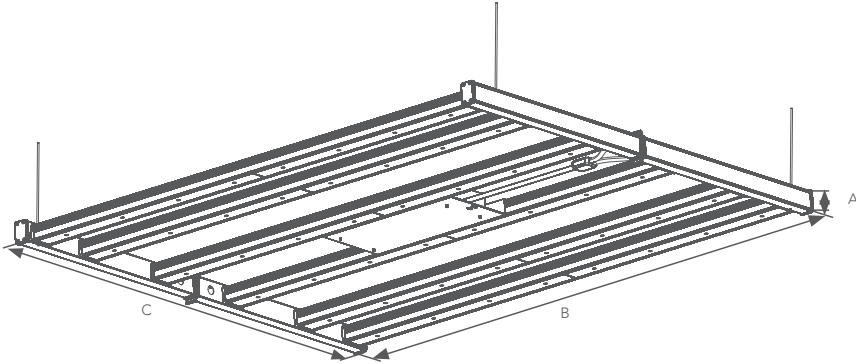
Greenhouse Spectrum



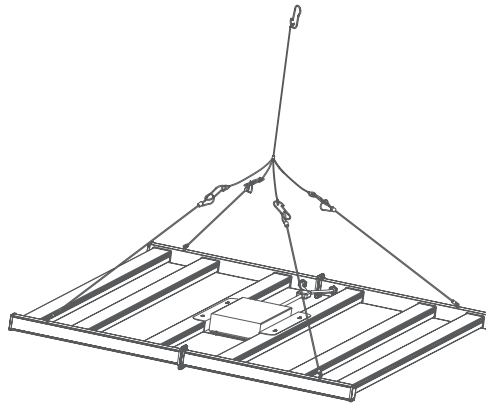
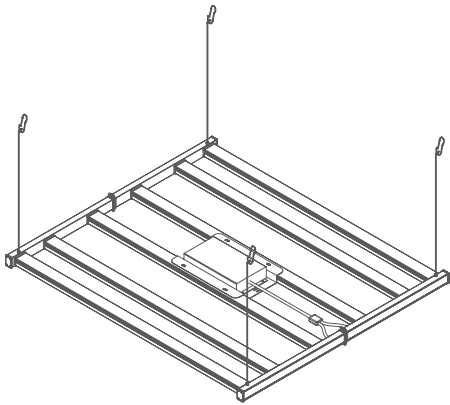


## Dimensions

Item	Height (A)	Length (B)	Width (C)
400W	2.6"	45.3"	28.3"
600W	2.6"	45.3"	37.8"
720W	2.6"	45.3"	50.4"
1000W	2.6"	45.3"	61.4"



## Adjustable Hanging Cable Options



## Applications

Medicinal Planting



Plant Factory



Flower Planting



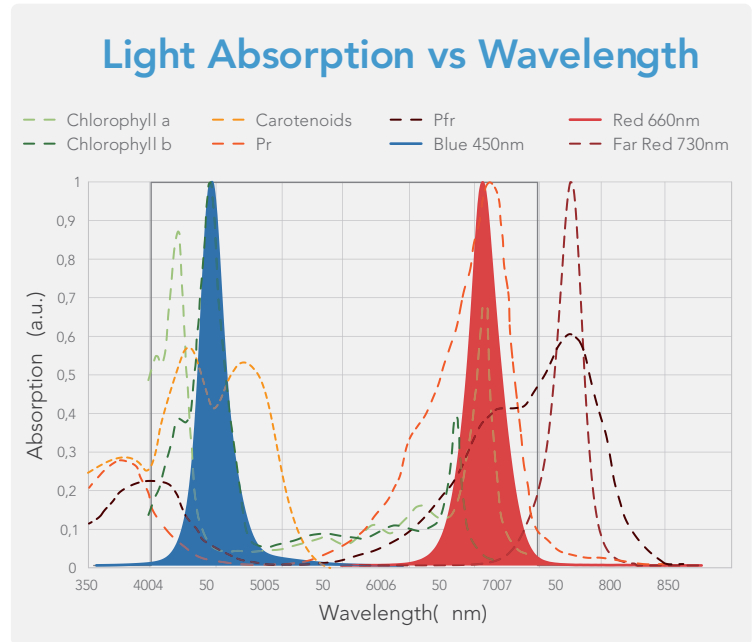
City Farming







### Light Distribution Curve:

1. Wavelengths more than 1000nm can not participate in photosynthesis, but can only be converted into heat energy.
2. The wavelength of 1000nm-720nm, which can promote the growth of stems and have a certain effect on flowering and germination.
3. The wavelength of 720nm-610nm is the strongest absorption band of chlorophyll, which has strong photosynthesis, in many cases also exhibits strong light periodic effects.
4. The wavelength of 610nm-510nm, which is the inefficient region of photosynthesis and weak shaping effect.
5. The wavelength of 510nm-400nm is the strong absorption band of chlorophyll and yellow pigment, the second peak area of photosynthesis, and strong shaping effect.
6. UV-A with a wavelength of 400nm-320nm can make plants dwarf and leaves thicker. Most pests have phototaxis to radiation in this wavelength.
7. The dark blue at 450nm and the dark red at 660nm are the optimal spectrum for plant growth and lighting. These two bands can be called the "light fertilizer" of plants.



-  Blue LED around 450nm promotes germination
-  Red LED around 660nm promotes photosynthesis, germination and flowering

### What is a good PAR reading for growing plants?

To determine how good your PAR output is, you'll need to consider what stage your plants are in and what your goals are as a grower. PAR readings between 200-400 PPFD are great for seedlings, clones and mother plants.

These younger plants and mother plants have lower light intensity requirements than a flowering plant would, and extending out of this range would be overkill. Here, you will see growth rates between 30-55%.

As your plants progress through veg and you want to encourage robust, vegetative growth, PAR readings should be between 400-600 PPFD. Here, growth rates can spike up to 85%.

One common misconception is that to increase growth further, you can bump up PPFD. However, there are diminishing returns based on a plants specific stage of growth, and in this stage 85% growth is right where you want to be.

Once your plants are flowering, readings between 600-900 PPF are ideal. This will encourage heavy buds, and increase the quality and quantity of your harvest.

Once you shoot past 1,000 PPFD, your plants will reach a point where they can't use anymore light.

They become carb limited, and the only way to increase growth further is by supplementing with CO2.

CO2 can be very effective at supercharging plant growth, but only if light is at a certain level (above 1,000 PPFD).