NebuLite
Lighting with Innovations

NB-GL1140 Foldable Grow Light

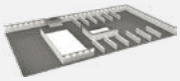
DLC LISTED | 5 YEAR WARRANTY | °F OPERATING -40°F - 140°F | ETL US | CE | UL | RoHS | 24

PROJECT DETAILS BOX	
PROJECT	
PRODUCT	
PREPARER	
TYPE	
NOTES	

DESCRIPTION

The NB-G1140 Foldable Grow Light offers wide light coverage and a long lifespan that makes it suitable for all stages of plant growth. It utilize less power and comes in Full Spectrum. Optimized for Greenhouse environments and is the best option for large scale greenhouse operations. It comes with an adjustable hanging cable system and suspension with stainless cable which can adjust installation height easily. It also features one hook for suspending or 4 hooks for suspending.

SPECIFICATIONS Product Features



Applications: Factories, greenhouses, cannabis growing facilities and other indoor lighting applications.

Construction

This grow light offers multiple spectral distributions; it can be customized to match your specific needs. Intended for operations using C02 supplementation, this fixture is geared towards advanced growers and their need for extremely high output.

Electrical

0-10V dimming
12V AUX Power
Sosen VP series LED power supply, efficiency > 96%
Rated for -4°F - +122°F temperature operations
High efficiency Samsung 301B, efficiency >2.6µmol/J

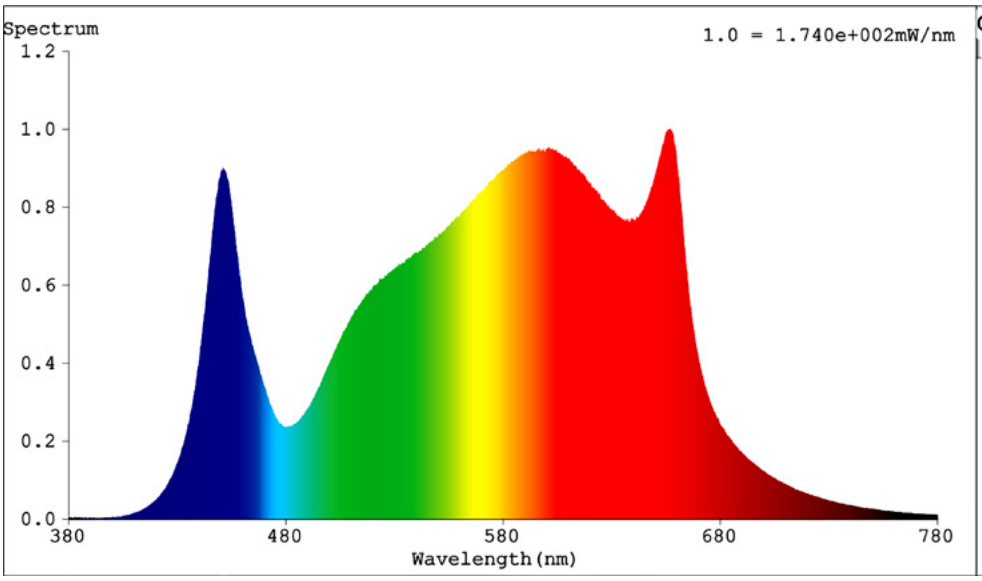
App Control Features

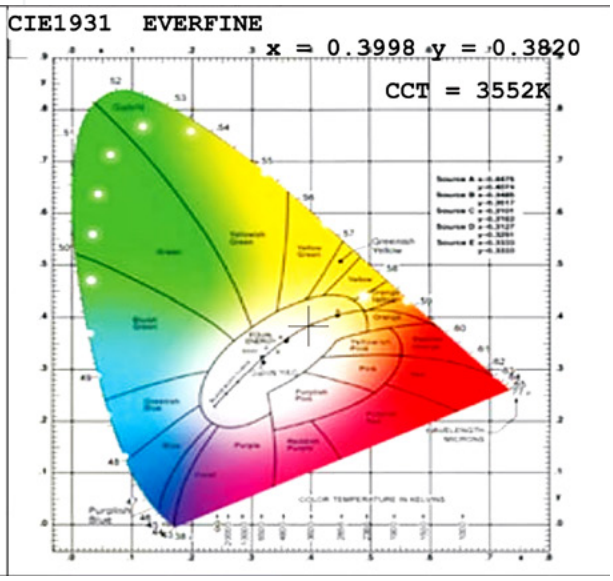
Scheduling, Zones & Events
Controls On I off I Dim
Digital controller with RJ45
Bluetooth Controls (available)
(all controls sold seperately)

Other Features

High efficacy (2.6 µmol s1 per watt)
High output for high intensity
FCC & UL8800 compliant, IP66 wet rated in North America
Top bin LEDs
Reduced HVAC requirement (30-40% less)
Dimming function control (manual knob)
Lamps can be interconnected using RJ45 netword cable
Main control box (touch screen) can control 500 units in a unified way

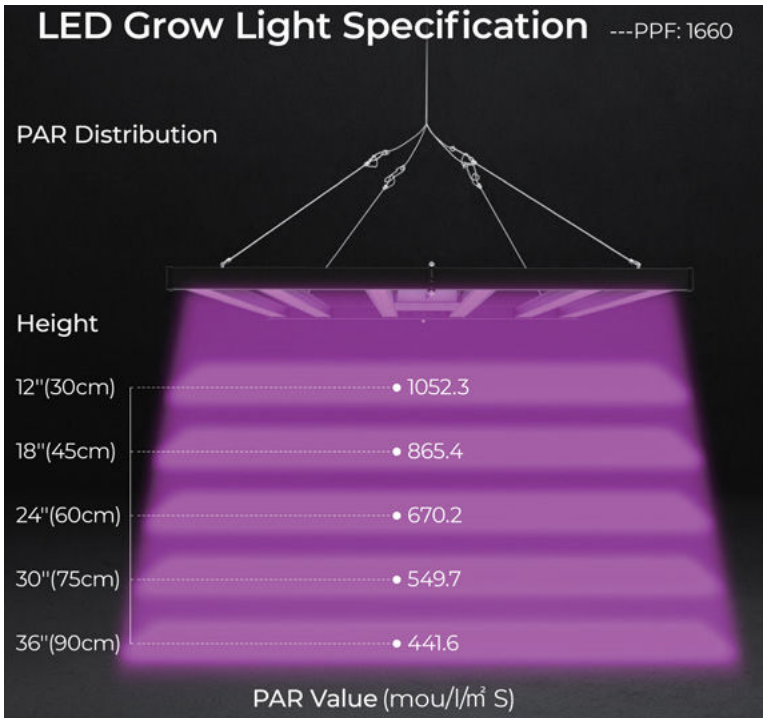
SPECTRUM





Performace Summary

Input Voltage	100-277V, 180-520V
Input Frequency	50/60 Hz
Rated Wattage	400W, 600W, 640W, 720W, 1000W
Efficacy	145 lm/W
Efficiency	2.6μmol/J
Available CCT	Full Spectrum
Rated Life (L70)	54,000 hrs
Dimming	0-10V
PF	>0.95
Certifications	ETL, DLC, CE, RoHS
Working Temp. (°C)	-4°F - +122°F
Light Distribution	120°



Performance Data

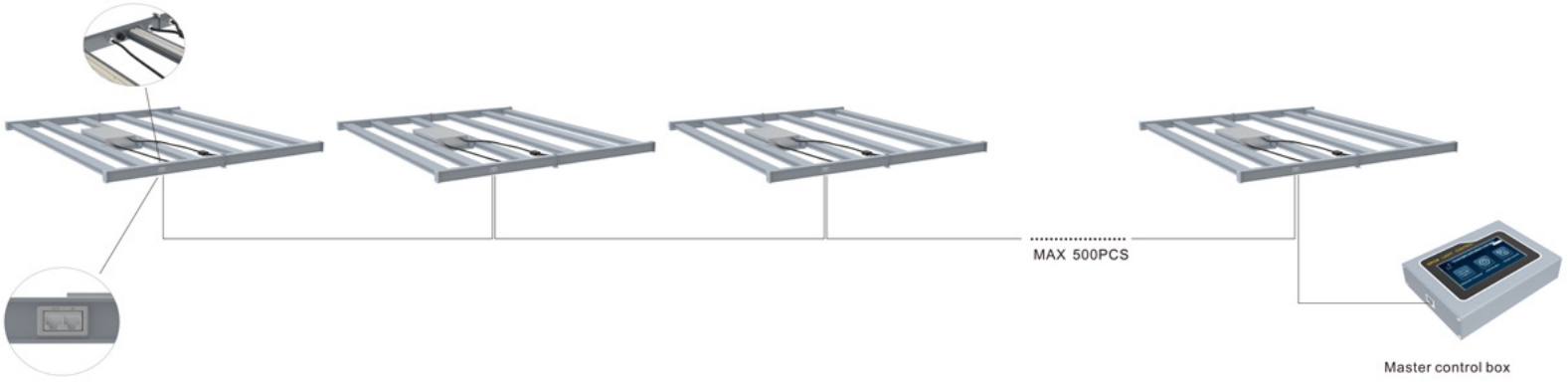
MODEL	WATTAGE	CCT	PPF	EFF (μmol/J)	VOLTAGE
NB-GL1140-W400	400 watt	Full Spectrum	1040 umol/s	2.6 lm/W	100-277vac
NB-GL1140-W600	600 watt	Full Spectrum	1560 umol/s	2.6 lm/W	100-277vac
NB-GL1140-W640	640 watt	Full Spectrum	1690 umol/s	2.6 lm/W	100-277vac
NB-GL1140-W720	720 watt	Full Spectrum	1872 umol/s	2.6 lm/W	100-277vac
NB-GL1140-W1000	1000 watt	Full Spectrum	2600 umol/s	2.6 lm/W	100-277vac

Ordering Format

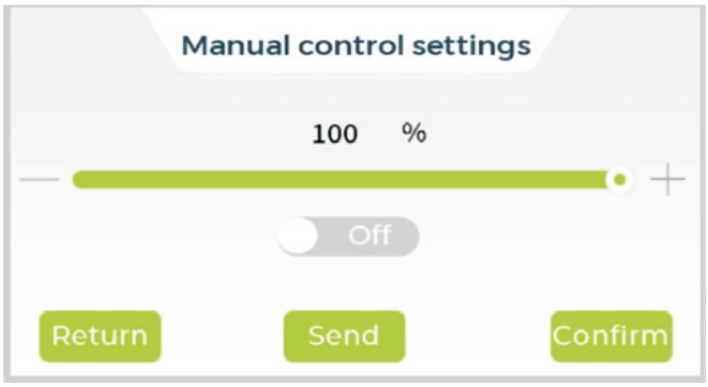
Sample: **NB-GL1140-W640**

SERIES	WATTAGE	LED	FINISH	EFF (μmol/J)	CONTROL
NB-GL1140-W400	400 watt	WW+CW+660nm 3500K+660nm Full Spectrum	Black White Silver	2.6	Manual Control Digital Controller APP Conrol
NB-GL1140-W600	600 watt				
NB-GL1140-W640	640 watt				
NB-GL1140-W720	720 watt				
NB-GL1140-W1000	1000 watt				

Connection for Smart Control Box



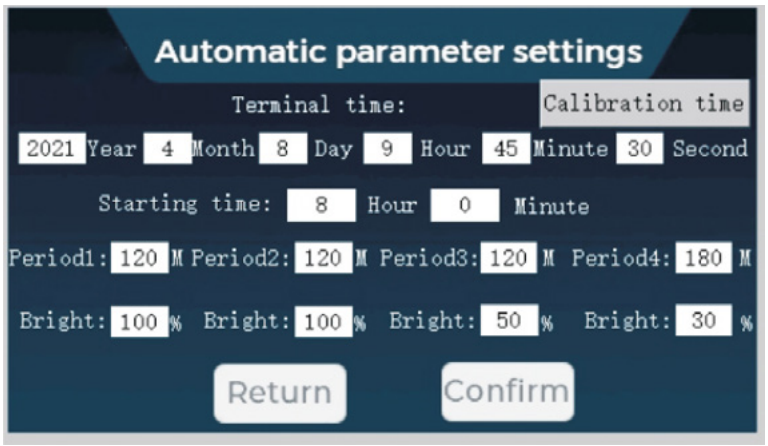
Operation Manual of Single Spectrum Centralized Controller System



In the second step, when you select "Mode switch" option and turn it on, the following interface will appear: Can be divided into manual control, automatic control options

The fourth step, when you select "Manual Control" option and turn it on, the following interface will appear: The brightness can be adjusted manually according to your site requirements

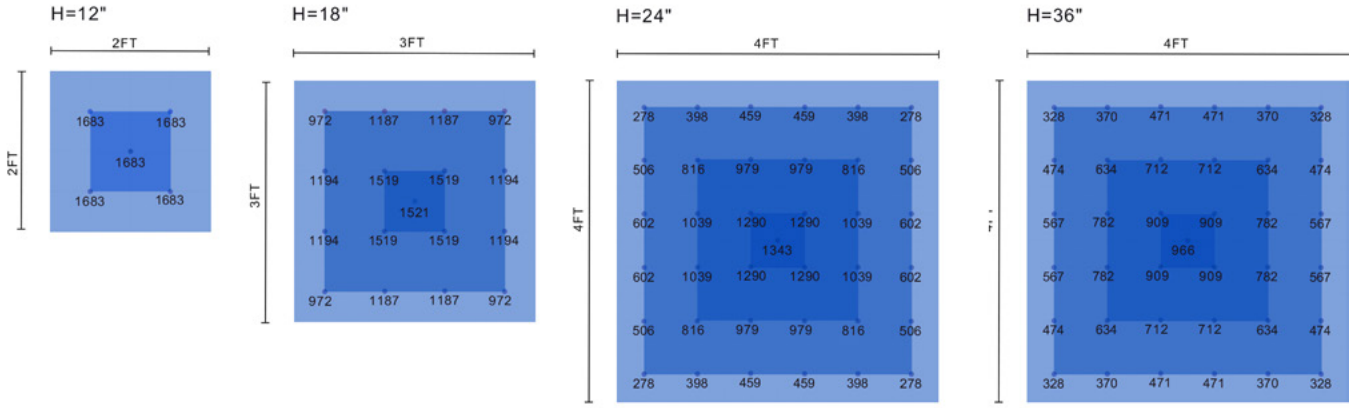
In the third step, when the option is select "Automatic" option and turn it on, the following interface will appear: Can calibrate the real-time time, set the start time, and the working status of the 4 set time periods



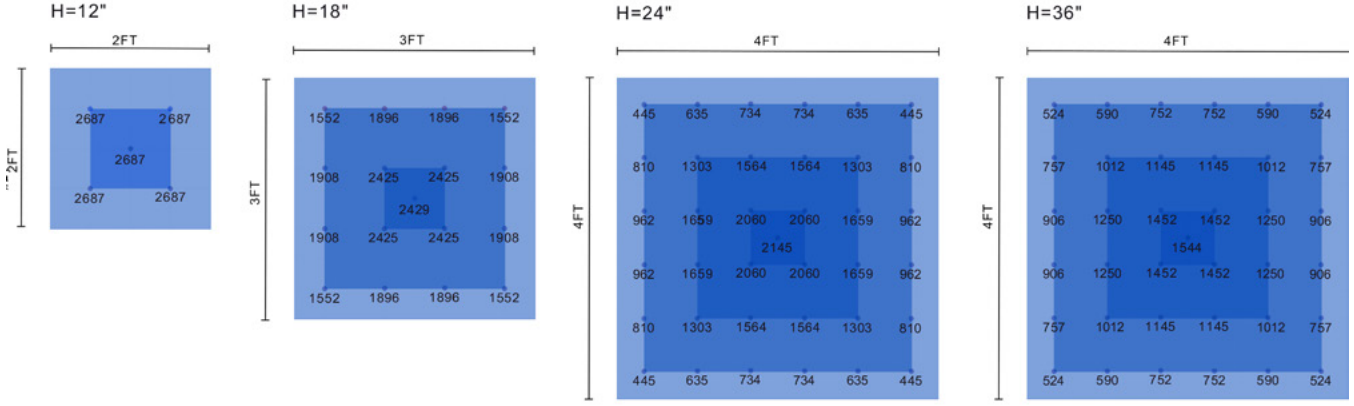
The operation steps are as follows: The first step is to connect the lamp to the RJ45 interface of the controller. The home page interface of the centralized controller is as follows: It can switch between Chinese and English versions. The option menu consists of four selection menus: manual control, automatic control, mode conversion, and live data.

PAR Mapping

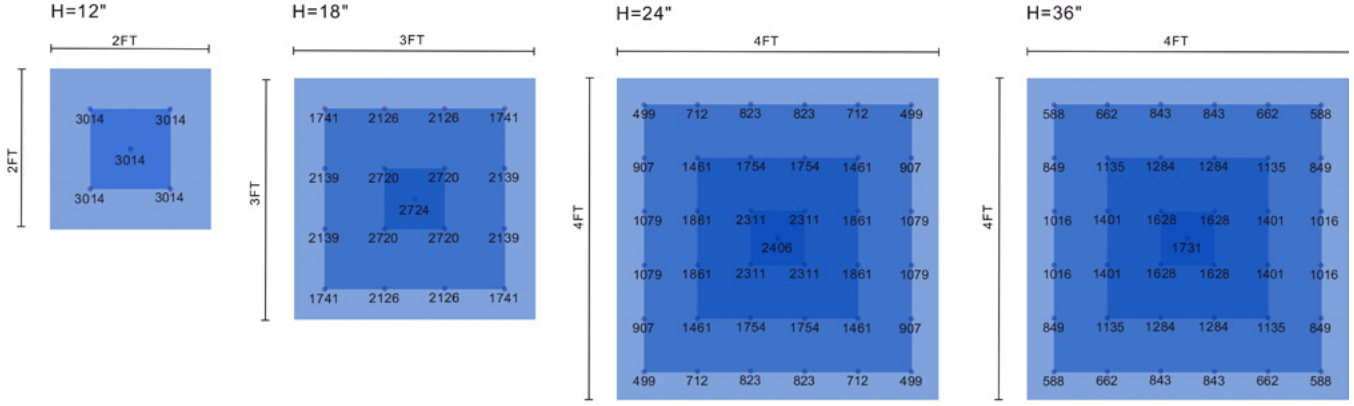
400W (unit: μmol/m^2/s) 2.6 μmol/J



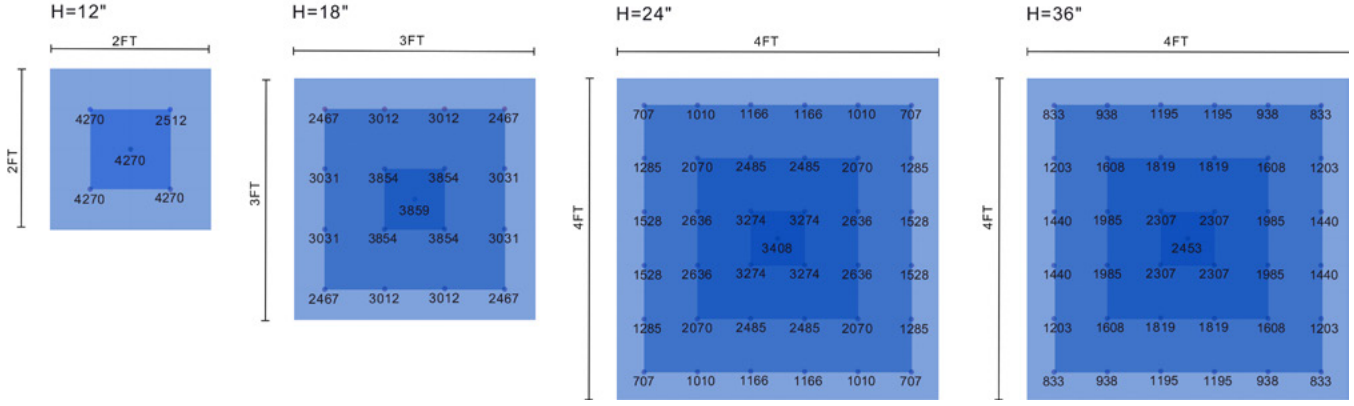
640W (unit: μmol/m^2/s) 2.6 μmol/J



720W (unit: μmol/m^2/s) 2.6 μmol/J



1000W (unit: μmol/m^2/s) 2.6 μmol/J



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.

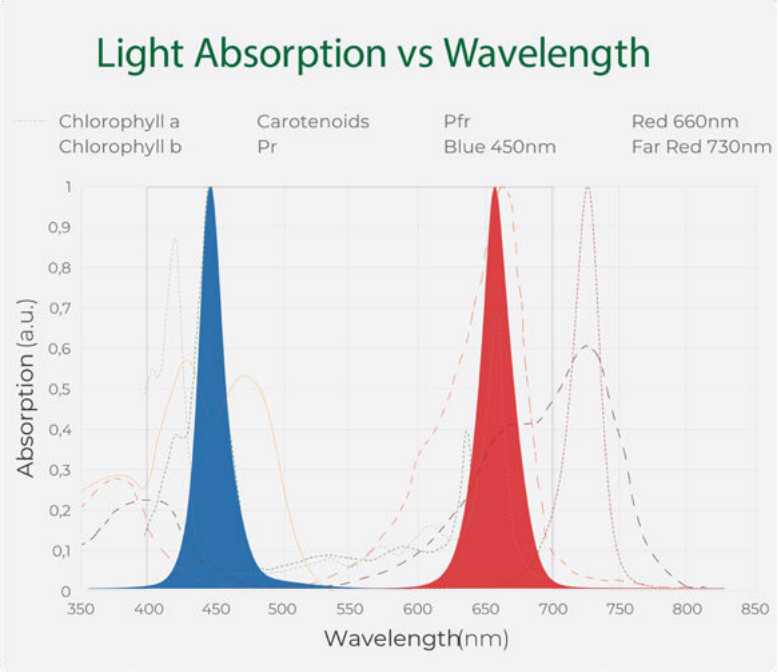
3. The wavelength of 720nm-610nm is the strongest absorption band of chlorophyll, which has strong photosynthesis, in many cases also exhibits strong light periodic effects.

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.

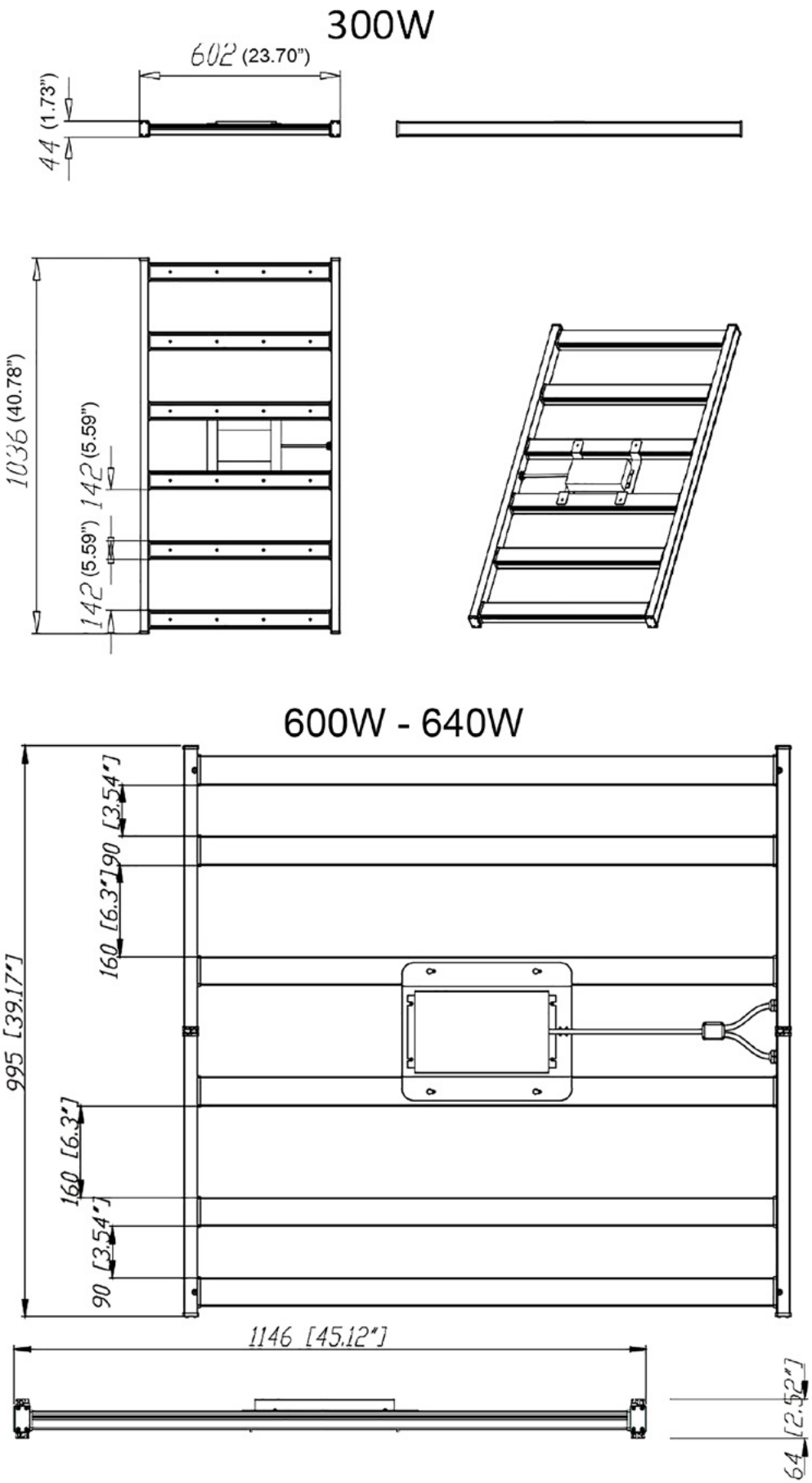
Once your plants are flowering, readings between 600-900 PPF are ideal. This will encourage heavy buds, and increase the quality and quantity of your harvest.

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).

Dimensions


300W
602 (23.70")
44 (1.73")
1036 (40.78")
142 (5.59")
142 (5.59")
600W - 640W
995 [39.17"]
160 [6.3"]
90 [3.54"]
160 [6.3"]
90 [3.54"]
1146 [45.12"]
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