HORTICULTURE

LED LIGHTING MODULES

ADURA LED SOLUTIONS

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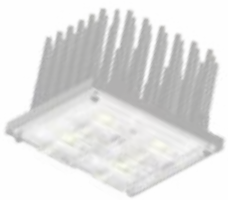

MODULE - **1966-GLA**

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THE **HORTICULTURE LED LIGHTING** MODULES

In June of 2016, CREE Inc. released its LED Horticulture Reference Design specifications outlining its superiority over the 1000w HPS HID industry standard. HPS or High Pressure Sodium had been the current gold standard for greenhouse or sole source farming. LED technology, however, has rapidly advanced to surpass traditional technology in the horticultural industry. This reference design showcases designing with the world's most efficient LEDs (XP-G3 and XP-E) to meet HPS performance at half the wattage.

The ADURA LED Solutions Horticultural Lighting Modules combine the most advanced LED technology(outlined in CREE's Horticulture Reference Design) with SinkPad™ II, a second generation Printed Circuit Board technology with the primary focus of solving the thermal demands of high power horticultural lighting. SinkPad™ II PCBs featuring CREE LEDs deliver lower junction temperatures of high power LEDs by utilizing a Direct Thermal Path to the heatsink, allowing the implementation of passive cooling, negating the need for a fan. Increased LED life, higher Light output, product reliability and even a reduction in cost of operation result from maintaining lower junction temperatures.

Another benefit over HPS technology is the ability to tune the LED spectrum. The Cree Horticultural Reference design features full spectrum output with peaks in the Chlorophyll-A and Chlorophyll-B wavelengths surpassing that of HPS. Combined with the effective use of secondary optics, an equivalent PPFD on a 4x4' plot at half the wattage of an 1000W HPS solution can be achieved.

Various crops have different lighting requirements for optimum growth and the ability to custom-build science-based solutions for the customer provides us the flexibility to suit a very wide range of horticultural applications.

Request more information on CREE Reference Design - Sales@aduraled.com

THE **FARMING** METHOD OF **FUTURE** IS HERE EXPLORE ABOUT **LED** LIGHTING IN **CROP SCIENCE**

- Photosynthetic Photon Flux - PPF 56.22 (umol/s)
- Lumen Efficiency 122.2 LPW
- Effective use of secondary optics to achieve equivalent light uniformity
- Full spectrum lighting matching that of HPS
- Effective use of LED system design to enable passive cooling
- No active cooling fan compared to majority of the LED fixtures on the market
- Use off-the-shelf parts for assembly
- Modular design
- IP65+ rated

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MODULE PART NO. **1966-GLA**

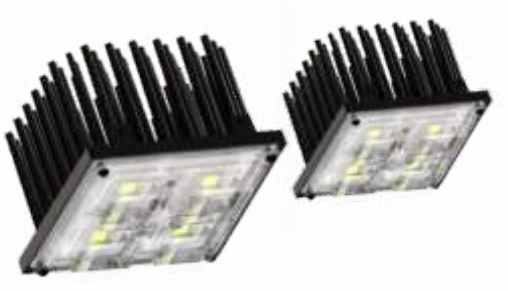
PRODUCT FEATURES

- ✓ — High Efficiency Grow Light Modules
- ✓ — SinkPAD™-II MCPCB Technology
- ✓ — Effective use of LED System design to enable passive cooling
- ✓ — Latest high efficiency LEDs from CREE and other top tier LED manufacturers
- ✓ — High quality Aluminum or Copper substrate made with SinkPADTM II MCPCB Technology
- ✓ — Compatible with High efficiency Optics from LEDIL with various beam angle options (2x2 MX)
- ✓ — Graphite Thermal Interface for higher reliability and consistent Thermal performance
- ✓ — High quality, manufacturing in California
- ✓ — Modular design

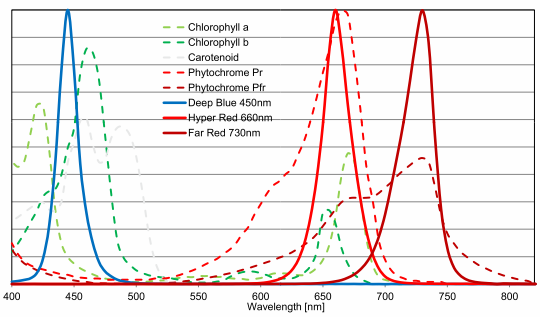
Specification

Parameter	Value	Unit
Voltage	43-46	V
Current (IF)	700	mA
Total Power (W) 29.62	29.62	watt
Correlated Color Temperature (CCT)	3600	K
CRI	82.5	-
R9	72.3	-
Photosynthetic Photon Flux -PPF	56.22	(µmol/s)
Lumen Flux	3619	lumen
Lumen Efficacy	122.2	LPW

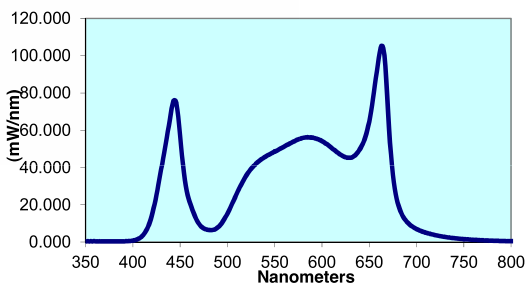
Product Picture



Full Spectrum Wavelength



1966-GLA Spectrul Data Over Visible Wavelengths



*Note: Only values between 400nm and 700nm were used to calculate the PPF value.

Explore Test Report

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