

linear greenhouse  
ultra-high efficacy LED



## A new benchmark in horticultural lighting.

With maximum PPE up to **4.6  $\mu\text{mol}/\text{J}$**  (DLC validation pending) SmartGRO EDEN is engineered to deliver **unmatched greenhouse crop performance with industry-leading energy savings**. Our patent-pending **PRISM™ technology** leverages our AI-powered light engine and cutting-edge crop science to push efficiency, yield and quality beyond the limits of traditional LED lighting - positioning growers for the highest ROI in the industry.

SPECIFICATIONS	
Light Distribution Beam Angle	120°
AC Input Voltage	120-480 VAC
Power Factor	>0.98
Thermal Management	Active or Passive Cooling
Max. Ambient Temperature	45°C
Lifetime L90	>50,000 Hrs
Warranty	5 year Limited
Waterproof IP Rating	IP66
Power Connector	Wieland RST203 Green
Dimensions	56.8" X 5.5" X 5.2"
Weight	21 lbs
Spectrum	Dynamic 5-channel spectrum
Efficacy ( $\mu\text{mol}/\text{J}$ )	3.9 - 4.6
AI-Efficacy ( $\mu\text{mol}/\text{J}$ )	8.6 - 13.8
Fixture PPF ( $\mu\text{mol}/\text{s}$ )	2316-2800
Power Consumption	596-676W (AI mode: 235-338W)

### Game-changing efficacy

AI-Efficacy™ is SmartGRO's breakthrough performance metric, driven by the PRISM™ lighting engine and amplified through AI biofeedback. PRISM™ delivers ultra-high-frequency pulsed light that aligns with plant photochemistry, while AI continuously adapts spectrum and intensity to match crop response in real time. Unlike conventional efficacy ratings based only on photons per joule, AI-Efficacy™ reflects leading-edge research trials showing greater harvest size versus baseline LEDs — a true yield-normalized measure of efficiency. With AI-Efficacy™ of up to **13.8  $\mu\text{mol}/\text{J}$** , SmartGRO uses up to **five times less energy per kilogram harvested** and can replace a 1000W HPS with as little as 235W, delivering both superior yield and enhanced photochemistry.

### Wireless Communication

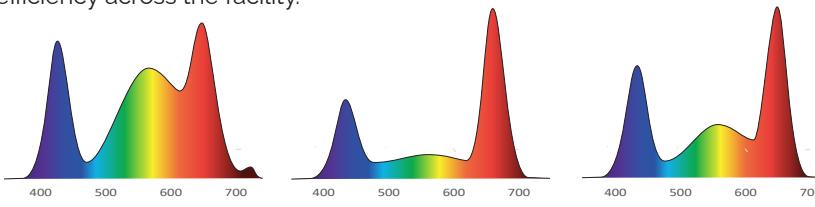
All SmartGRO lights include wireless control and intelligent pairing for streamlined installation including simplified zone setup without the need for additional cables. Embedded Energy monitoring enables seamless integration with various Grower's energy rebate programs including Save-On Energy Advanced Greenhouse Controls. The integrated wireless platform enables intuitive crop control via mobile and Web-based options.

### Precision Agriculture with Biofeedback Control

SmartGRO's AI-powered biofeedback system continuously monitors plant health and vegetative indices through integrated vision sensors. Lighting output is dynamically adjusted to support plant steering strategies that maximize harvest size and light-use efficiency. The platform provides growers with real-time insights, while autonomous controls cut labor hours and boost energy savings. Advanced sensing capabilities integrate seamlessly with CEA platforms, enabling fully automated operation.

### AI-Tunable Dynamic Crop Steering

SmartGRO's PRISM™ spectrum technology delivers precise spectral shifts without loss of intensity, closely aligned with the photosynthetic action spectrum. The AI-tunable, multi-channel array empowers growers to dynamically steer crops through every stage — from vegetative growth to flowering, coloration, and flavor development. Guided by biofeedback data or advanced automation, zones and fixtures can be independently adjusted to optimize yield, quality, and energy efficiency across the facility.



One Light, Every Stage.

