

INDO

fresh thinking
trusted technology



HORTICULTURE

INDO ELEMENT



The management system governing the manufacture of this product is ISO 9001:2015 certified

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INDO ELEMENT

Greenhouses



Grow tents

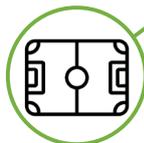


Features

- Direct Drive® Technology
- Lightweight
- NEW Light Mixes: Propagator, Accumulator, Cultivator
- Phosphor-conversion LED technology
- Range of optics for optimum uniformity over crop
- Excellent thermal management
- 1 for toplighting **replacement**
- up to 250,000 hrs **WITHOUT** component failure



Nurseries & Small Grow Sites



Sports Pitches



Turf Farms



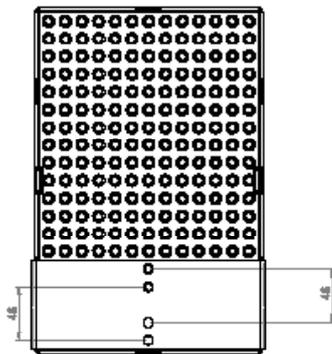
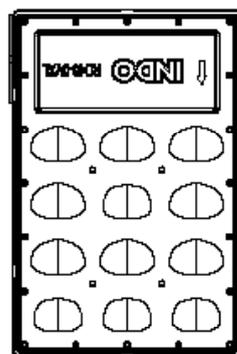
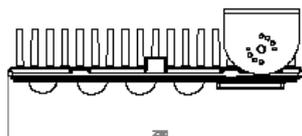
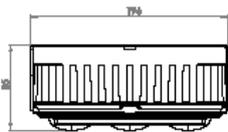
Hydroponic Facilities



Commercial Glasshouses

Benefits

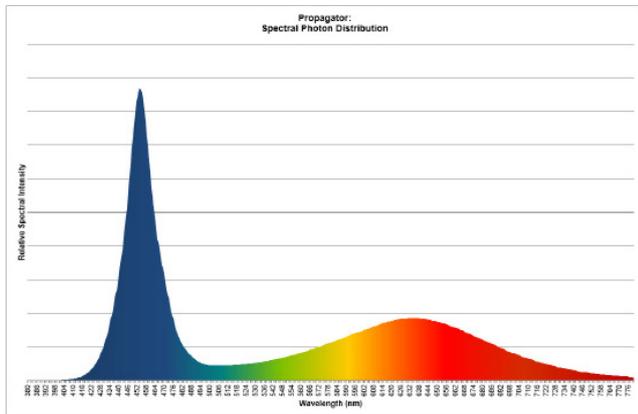
- Up to 60% energy reduction
- 10-year Warranty
- Quick and simple to install
- No driver = Low maintenance
- Low inrush current
- Market-leading performance in hot environments
- Superior reliability and lifetime



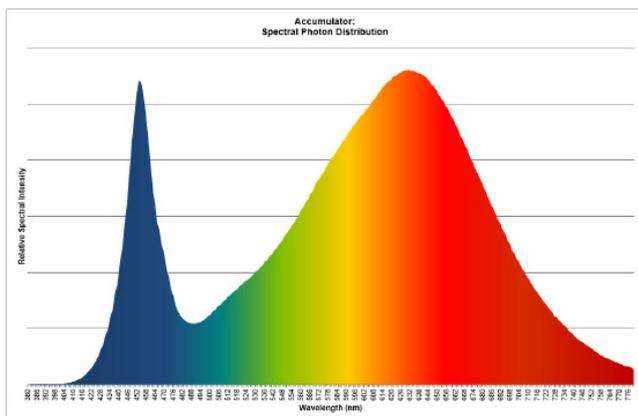
All dimensions in mm

INDO ELEMENT

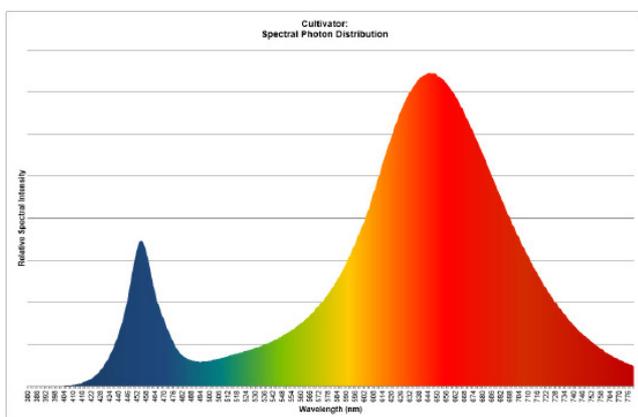
Spectra Light Mixes



Propagator Spectra



Accumulator Spectra



Cultivator Spectra

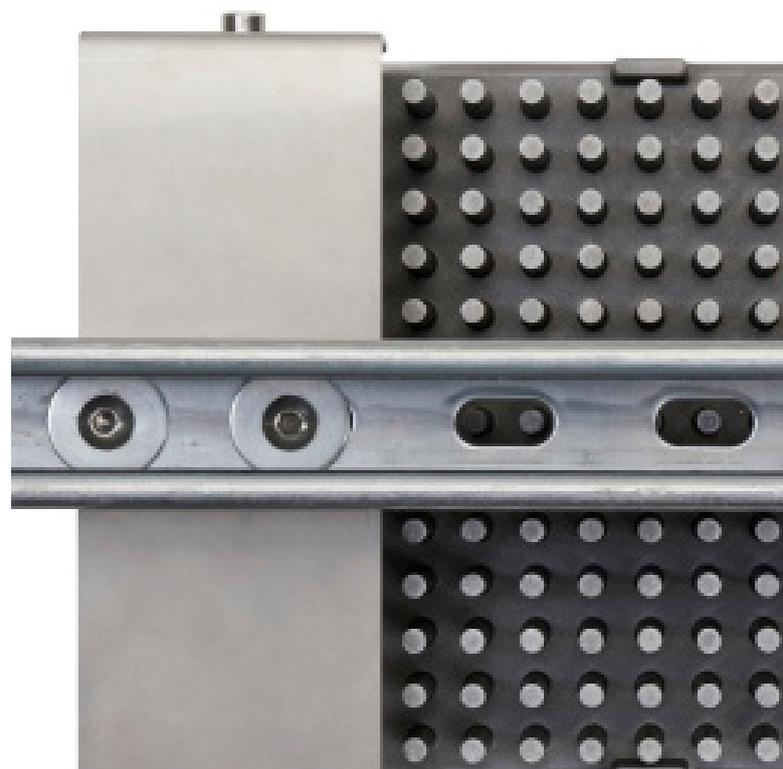
Product Overview

The INDO ELEMENT is an innovative new LED grow light for the horticultural market that utilises Direct Drive® technology to give customers a host of unique benefits over other grow lights; including less heat production, lower weight and no maintenance. While other LED products require regular driver changes (every 5-7 years), the INDO ELEMENT is driver-free and does not need altering in any way throughout its lifetime, removing the risk of changes that might otherwise affect a crop's predicted growth.

In contrast with other grow lights available, INDO ELEMENT uses a more stable LED technology - phosphor-converted blue LEDs. This means the light spectrum does not shift or degrade over the product's lifetime - again giving you peace of mind that growth rates and production yields will be consistent for the short, medium and long term

A range of optics is available to provide optimum uniformity over various crop set-ups, with spectra choices as shown (left). **Propagator** is high blue to encourage root and stem germination and avoid flowering. Ideal spectra choice for early growth. **Accumulator** features a wider spectrum for great all-round plant growth. **Cultivator** contains high red to encourage vertical growth and flowering in certain plants. Bespoke spectra mixes can also be developed for specific project requirements

Dimmable and mercury-free, INDO's pioneering Direct Drive modules are highly reliable; operating very happily in extreme temperature environments, such as glasshouses where traditional LED drivers will struggle over time



Technical Specifications

PRODUCT ORDERING OPTIONS

Model	ELEMENT
Power	150W - 645W
LED Spectra	Propagator - High Blue Accumulator - Wide Spectra Cultivator - High Red
Light Distribution Optics	DR1-5
Luminaire Colour	Not Applicable

For more information on selecting the correct lantern specification to suit your crop and set-up criteria, please contact your local account manager direct or call the main office (option1 sales)

KEY FEATURES

Direct Drive®	Yes
Replacement For	150W - 1000W HPS Equivalent
Photosynthetic Flux	Propagator - 334 to 1458
PPF (umol/sec)	Accumulator - 330 to 1438 Cultivator - 320 to 1393
PPF/Watt (umol/s/watt)	Propagator - 2.26 Accumulator - 2.23 Cultivator - 2.16
Blue:Red	Propagator - 73:27 Accumulator - 28:72 Cultivator - 12:88
Blue, Green, Red, Far Red (%)	Propagator 60.1%, 18.2%, 20.2%, 1.6% Accumulator 20.1%, 29.2%, 45.2%, 5.4% Cultivator 9.5%, 18.8%, 61.8%, 9.9%
Dimming Range (DALI)	100% down to 10% output
Reliability	0.81 failures per 1 million operating hrs
Materials	LM6 Aluminium body and heatsink UV stabilised polycarbonate lens

NB. PPF for LED sources are not comparable with PPF for HPS sources due to the more efficient spectral output. The LED wattages we offer have been carefully selected to deliver the same growth rates as typical HPS equivalents.

PHYSICAL PROPERTIES

IK Rating	IK09
IP Rating (Optic + Gear)	IP66
Single Unit Dimensions (LxWxD)	300mm x 190mm x 80mm
Net Weight	From 2.9kg
Operating Temperature Range	Up to -40°C to +55°C

Being driver-free, the ELEMENT is able to withstand much higher temperature operation. Traditional LED drivers are susceptible to heat degradation, significantly shortening driver lifespan.

LEDs

LED Module	CHROMA
Product Rated Life L80B50	Up to 250,000 hrs (Spectra dependent)
Direct Drive® Current	480mA to 690mA
Photobiological Risk Group	Up to RG2

Working under INDO LEDs is much more comfortable than other systems on the market, due to the wider spectrum light mixes

ELECTRICAL

Input Voltage Range	220-240 VAC @50/60Hz
Operating Frequency	100 Hz
Power Factor	> 0.95
Soft Start	Yes
Extreme Soft Start	Yes
Fully CMS Addressable	Yes

Please note: Surge protection isn't included with the product and must be ordered separately

INSTALLATION

Mounting Options	Unistrut channel mounted as standard. Custom adaptor plates e.g. chain or hook mounting, are available on request
Mounting Heights	0.5m to 4m
Single-phase supply	Yes, 220-240V
3-phase supply	Yes, Install with Y connection
Integrated Photocell	Built-in option