



**TRACY® Horticulture** is a linear panel integrated with growth light LEDs. Each panel supplies lots of lifegiving light for any type of plant - from baby sprouts to harvest.

The TRACY® panels are robust and highly water resistant and can easily be installed into any set-up due multiple mounting options.

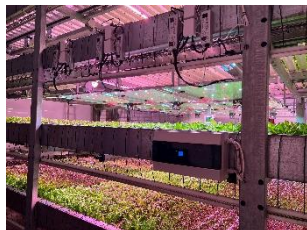
TRACY® Horticulture an innovative modular lighting solution with a market-leading lifespan and low power consumptions. The lightweight aluminum and 6mm slim design enable multiple horticulture applications and various configurations.



## Applications



Nurseries



Vertical Farms



Green Houses

## Specifications

<b>Electrical:</b> Voltage (single panel) Voltage system* Power/spot - Max Power/spot – typical drive Current/spot - Max Current into panel - Max Dimmable Ingress protection  *depends on number of panels and electrical configuration(series/parallel)	~10.V (9-11V) DC 10-40V DC 5W 3,5-4.1 W 480mA 15.000 mA Yes IP46/IP66	<b>Photometric:</b> Spectrum Energy efficacy*** Radiation (FWHM) PPF (400-700nm)/spot*** - Max PPF (400-700nm)/spot**** PBAR (320-800nm)/spot*** - Max PBAR (320-800nm)/spot****  **five standard spectrum available or customized ***depends on selected spectrum+drive current **** at typical drive ~4W/spot	Options** 2.7-2.9 umol/J 116 degrees 11,5 µmol/s ~9,5 µmol/s 13 µmol/s 11 µmol/s
<b>Conformity:</b> Marking RoHS compliant REACH complaint	CE Yes Yes	<b>Lifetime:</b> L90 @ max 30 C° ambient. Max ambient temperature	>50.000h 35 C°
<b>Origin</b> Manufacturing & assembly	Denmark	<b>Warranty:</b> Functional condition	5-years

## Control & power supply units

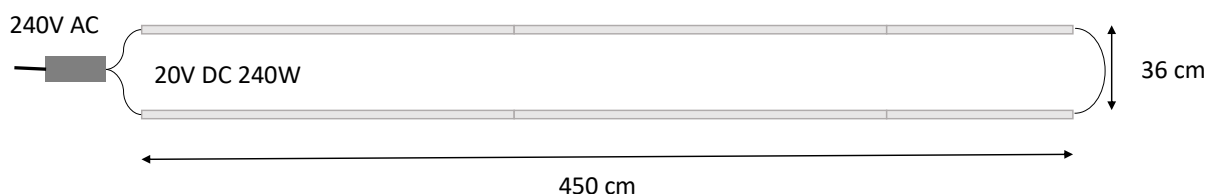
The TRACY® light panels are offered with several different power supplies (incl. w/DALI support) depending on system configurations, size of growth area, and other case specific requirements.

Options for DALI support. Light intensity and daily light cycles can be controlled via LED iBond app (optional) or via any 3rd party farm management system.

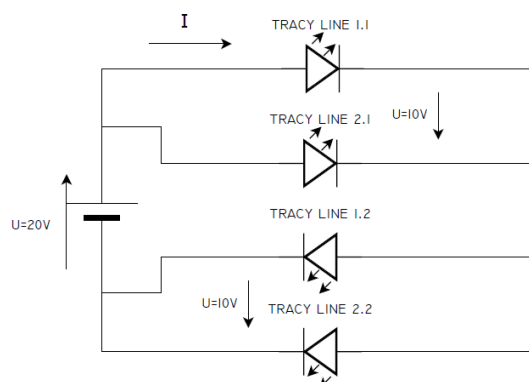
## Electrical configuration

Example - 20V configuration (recommended)

- 6 panels total (4x 1800 mm panels + 2x 900mm panels)
- Configuration: in series and in parallel (combination – see illustration)
- Total number of spots: 60 spots (4x 12 spots + 2 x 6 spot) – 240 Watt
- Max current into panels: 12A

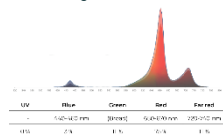
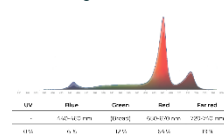
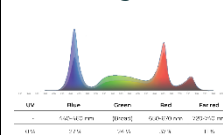
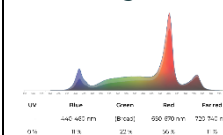
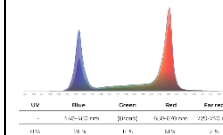


Electrical schematic (20V):



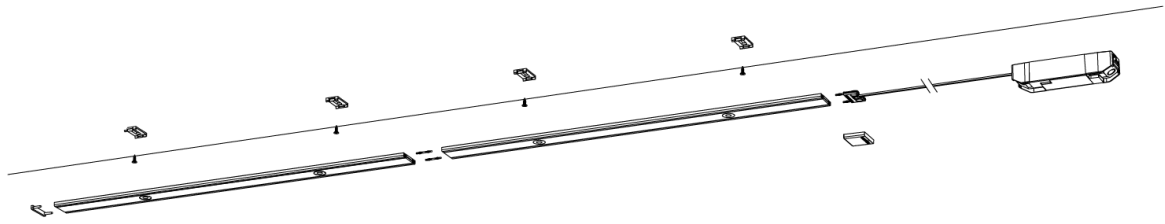
## Optical Spectrum

The TRACY® growth light features a customizable light spectrum based on customers' requirements. The following five pre-defined standard spectra are available as off-the-shelf products:

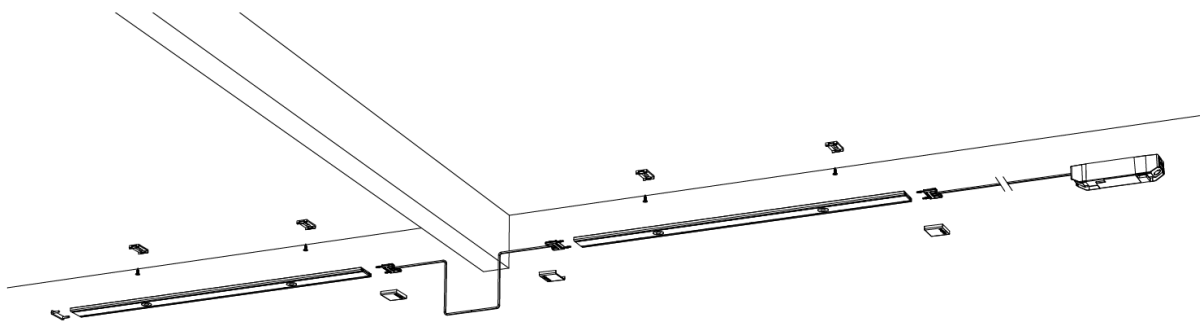
Nursery Red	Nursery Far Red	Growth Light Full	Growth Light Drive	Pre-Harvest
				
Spectrum with focus on the red and far red color to promote growth in the early stages of plant development	Spectrum with added far red which focus on the red and far red color to promote growth in the early stages of plant development	Full spectrum growth light suitable for varying crops and the use during the entire crop growth phase.  Recommended for versatile use.	Full spectrum growth light suitable for an efficient growth phase.  Recommended for use in combination with a preharvest light stage.	Preharvest spectrum for adding flavour and ensure freshness.  Recommended for use in combination with a growth stage with a high proportion of reds

## Installation configurations

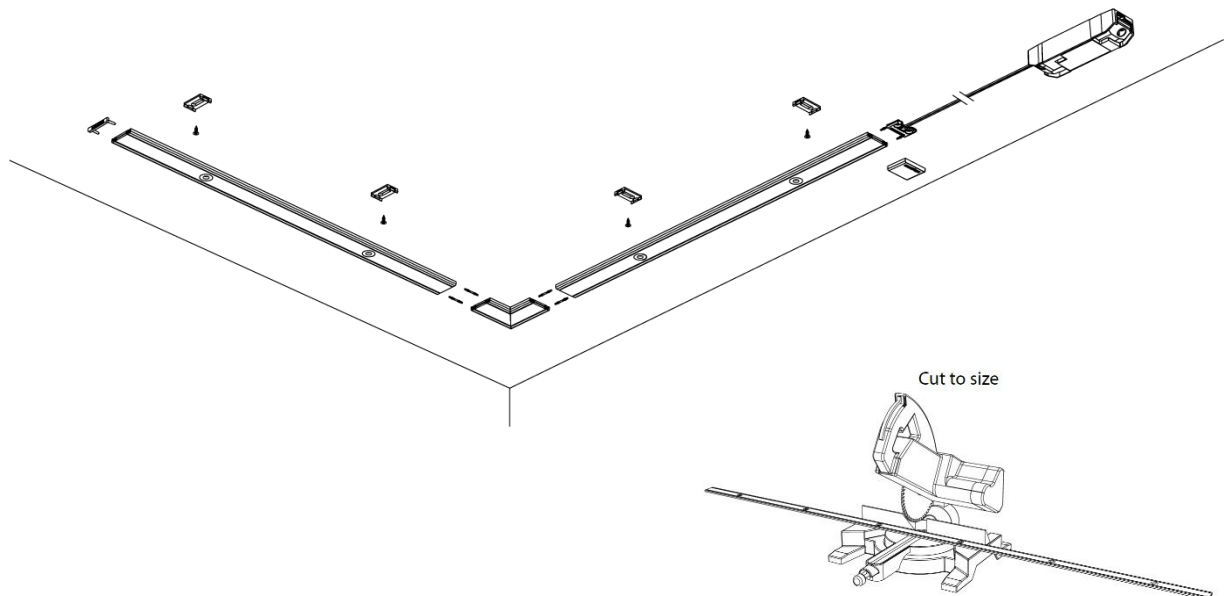
Linear solution:



Separated solution:



Corner solution:



## Mounting options and Installation

TRACY® light panels come with two mounting options (wire insert and Clip for Click-on) which both are flexible solutions and easy-to-install.

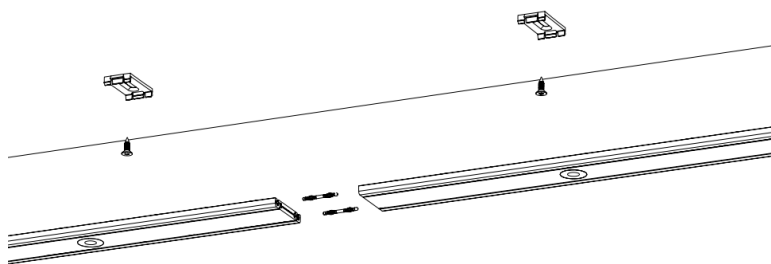
The wire insert is a small plastic insert which fits into the TRACY® panels mounting holes and a steel wire with hooks can be connected. The steel wire comes in a variation of different lengths making the system modular and gives maximum flexibility in mounting height above the plants (typical 15-40 cm above). The panels can also easily be dismantled from the wires for service or cleaning.

The clip for click-on are designed to be mounted on a hard surface like, e.g., a beam structure in the vertical farm construction. The TRACY® panel can then be mounted by simple click-on to the clip.



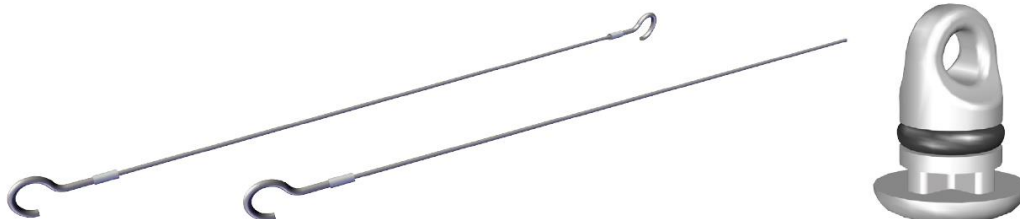
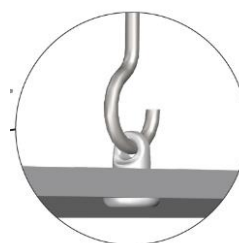
*Picture: Mounting options - Wire Insert or Clip for Click-on*

Mounting clip (click-on):



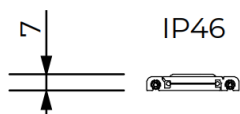
Mounting Wire insert:

Product Image	Dimensions
	$D_1 = 8 \text{ mm}$ $d_1 = 4 \text{ mm}$ $H = 16 \text{ mm}$

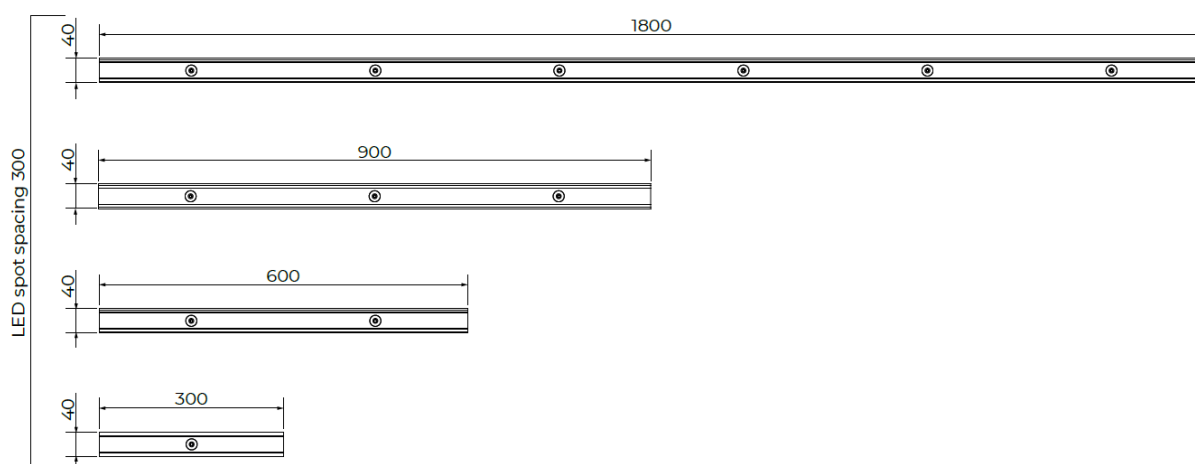


## Panel Sizes

Dimensions in mm



LED spot spacing – standard 150 mm or 300 mm (center-to-center)



Panel size	Number of spots – 150 mm	Number of spots – 300 mm
1800 mm	12 spots	6 spots
900 mm	6 spots	3 spots
600 mm	4 spots	2 spots
300 mm	2 spots	1 spot