phytoLABELbox Illumination Module

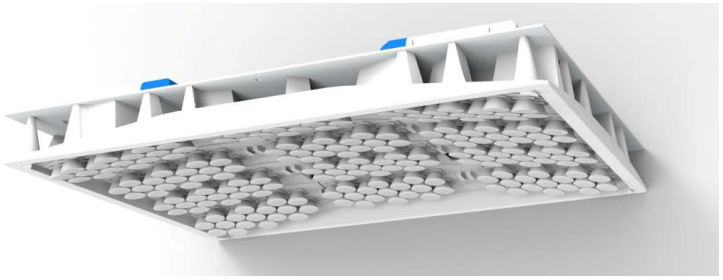
Product description

The Phytolabelbox of ECH is developed for controlled plant breeding. The Illumination Module extends the possibilities of the PhytolabelBox.

The luminous colour and illumination intensity are adjustable. Various climatic conditions can be simulated.

Spectral range and level of illumination of the LEDs are independently adjustable. The LEDs are fixed in a high quality aluminium heat sink with active, regulated conditioning. This ensures a constant illumination intensity.

The Illumination Module has 12 LED modules. Each module contains 51 LEDs. An optimal luminous efficiency is realised because of 17 assembled lenses.



Illumination Module for PhytolabelBox

Example of PhytolabelBox

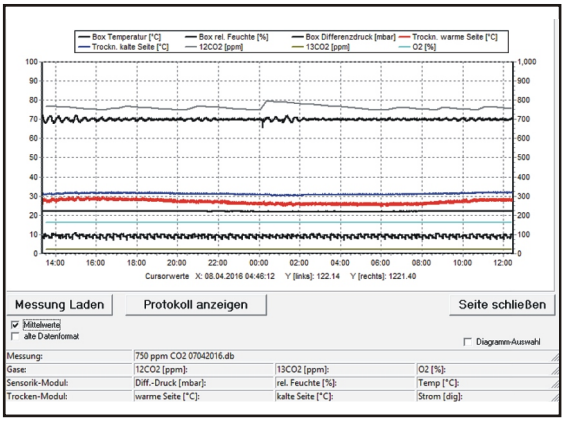
Applications

In combination with PhytolabelBox research on plants and its growth processes

- Basic research on plants
- Green biotechnology
- Plant breeding
- Proteomic and metabolomic research

Advantages

- Spectral range adjustable
- Illumination intensity adjustable (0 ... 100 %)
- Active, controlled cooling, thermal monitoring
- LEDs with high quality
- Lenses for optimal level of illumination and light concentration
- 12 LED modules, each with 51 LEDs and 17 lenses



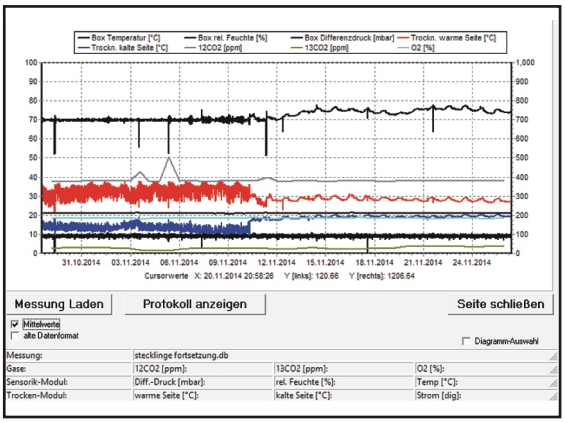
Example of control: 750 ppm $^{12}CO_2$ and 70 % humidity

Details

Luminous colour	Spectral range [nm]	Luminous flux [lm]	Efficacy (in a distance of 400 mm) [lux]
	Typical range		
White	5700K	15400	163440
Blue	460 ... 480	3300	48960
Deep red	650 ... 670	4700	63360
Red orange	610 ... 620	6700	43200

Specifications

Luminosity:	Up to 15400 Lumen
Wavelength:	460 nm ... 670 nm
Power input:	500 W
Power supply:	230 V
Degree of protection:	IP 44
Dimensions:	500 x 400 x 94 mm (W x D x H)
Weight:	12.5 kg
Working height:	Optimally at 400 mm



Example of measurement 24/7:
$^{13}CO_2$ (left axis) = 1 % of $^{12}CO_2$ (right axis)

We are here for you

ECH Elektrochemie Halle GmbH
Otto-Eissfeldt-Str. 8
D-06120 Halle (Saale)
Germany
Tel.: +49 345 279570-0
Fax: +49 345 279570-99
E-mail: info@ech.de
Website: www.ech.de

The Illumination Module is developed in cooperation with:
Gesellschaft zur Förderung von Medizin-, Bio- und Umwelttechnologien e. V. - www.gmbu.de