Light is OSRAM

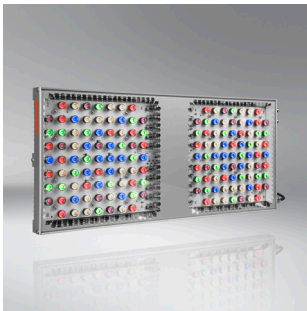**OSRAM**

PHYTOFY® RL

Designed for the research and development of plant-specific light recipes.
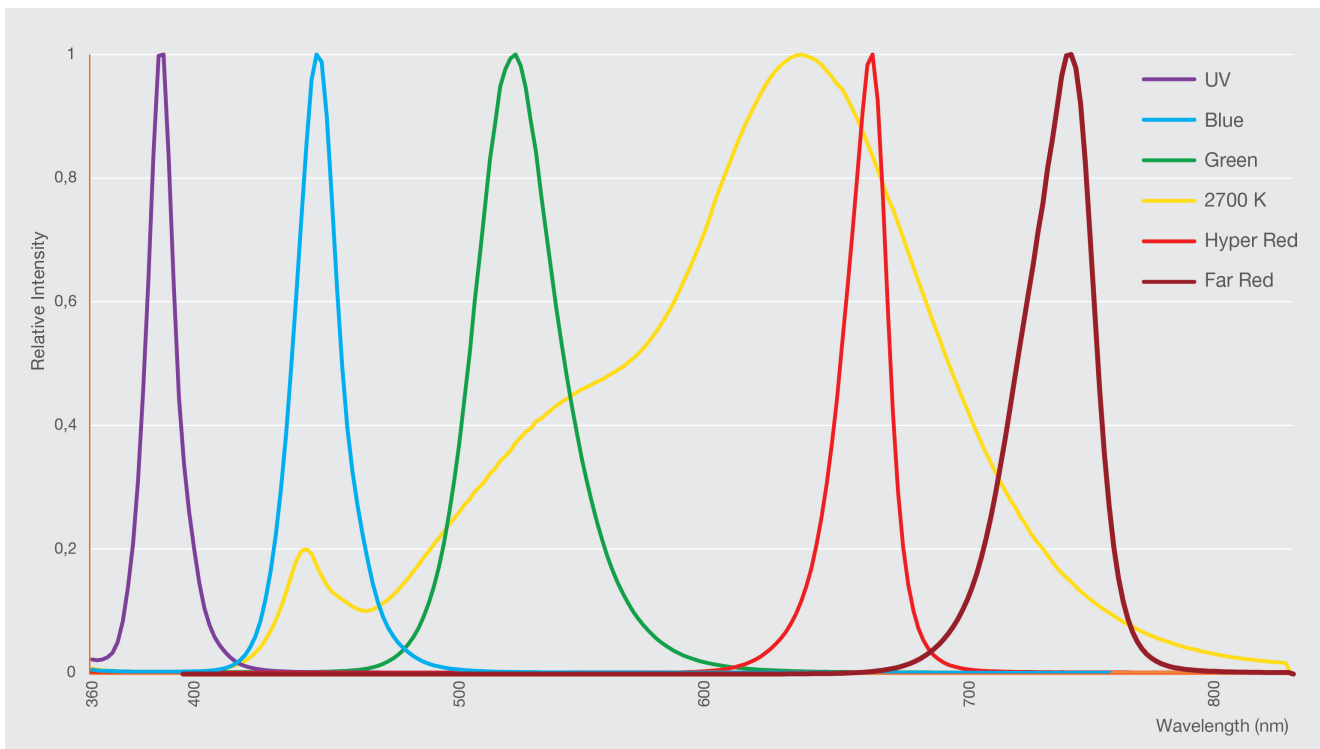Independent control and scheduling of each LED color channel.

Specifications

Light Source	LED
Spectrum	385 nm, 450 nm, 521 nm, 660 nm, 730 nm, 2700 K
PPF in µmol s^{-1} [1]	UV 53, Blue 252, Green 96, Hyper Red 245, Far Red 114, 2700 K 215
PPFD in µmol m^{-2} s^{-1} [1]	UV 50, Blue 250, Green 100, Hyper Red 250, Far Red 100, 2700 K 250
Input Power	Max 150 W
Input Voltage	Autosensing 100-240 V, 50/60 Hz
Dimming	PWM 10-100 %, individually per LED channel
Networking	Wired Ethernet or Wi-Fi, RS485 protocol
Interface	OSRAM User Interface
Thermal Management	Passive cooling
Operating Temperature	0 °C to + 35 °C
IP Rating	IP54
Fixture Dimensions	667 x 299 x 44 mm | 26,2" x 11,8" x 1,7" (l x w x h)
Fixture Weight	8,9 kg | 19,6 lbs
Lifetime	25.000hrs $L_{70}B_{50}$ [2]
Certification	CE, UL

1) Specific for three-fixture system with center-center fixture spacing of 406 mm (16") and canopy 406 mm (16") below fixtures.
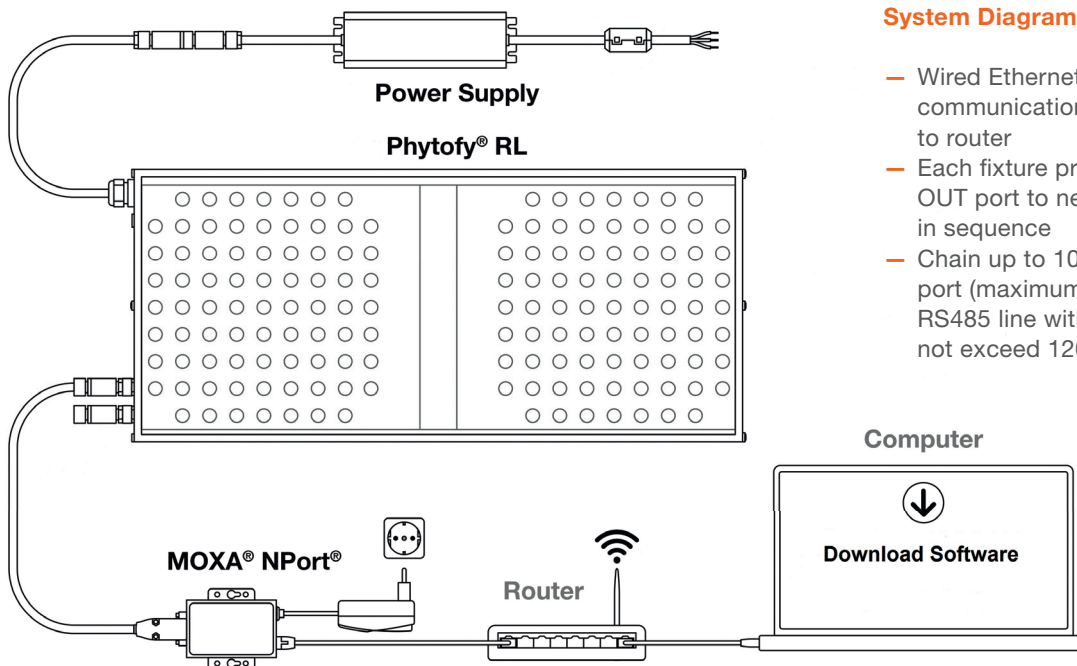2) $L_{70}B_{50}$ is taken to be the operating life during which the luminous flux is greater than or equal to 70 %, for 50 % of the population.

Spectral Distribution

System Features

— Tunable LED system with six different channels.
— The variable spectra can be used for far red end-of-day light, UV light supplementation, night-interruption, etc.
— Advanced software, designed with plant biologists, to schedule different light treatments throughout photoperiod and/or plant life-cycle.
— Precise irradiance map, calculated by the software – no quantum flux measurements required.
— Thin and robust form factor, ideal for growth chambers, racks and vertical farm operations.
— Perfect choice for developing light recipes, allowing growers and researchers to improve flavor, nutrition profile and overall production.
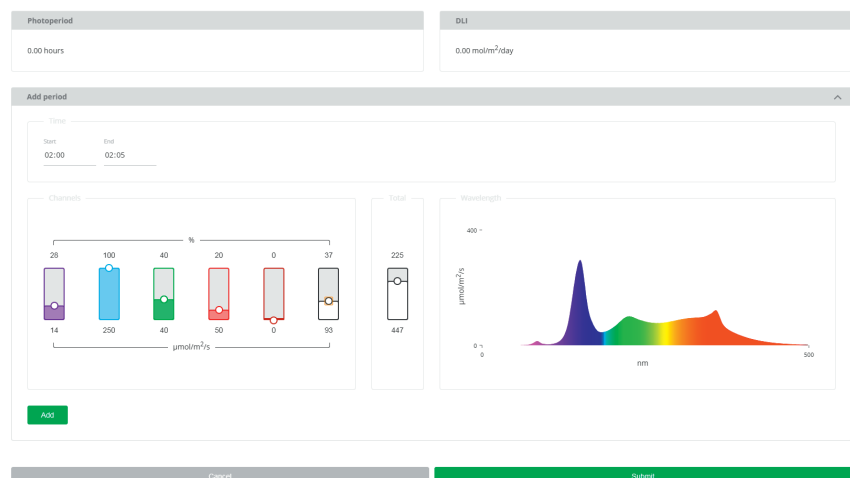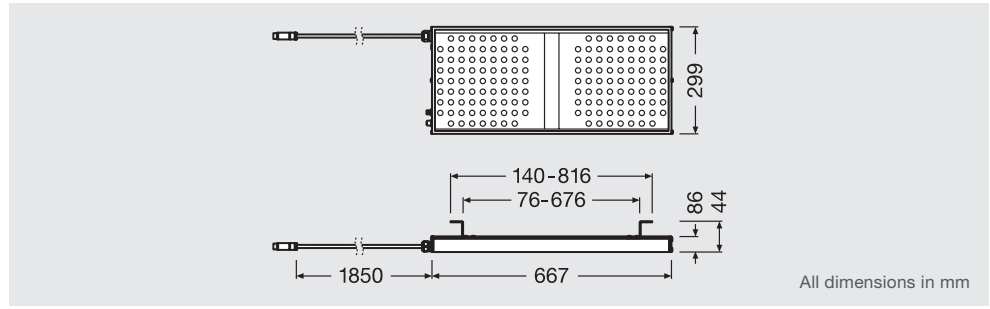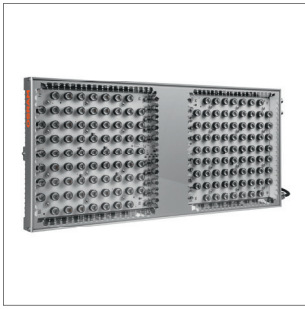
Power Supply

Phytofy® RL

System Diagram

— Wired Ethernet or WiFi communication from computer to router
— Each fixture provided with IN and OUT port to next fixture in sequence
— Chain up to 100 fixtures from one port (maximum total length for RS485 line with 1 Mb/s should not exceed 120 m (393') in total)

Computer

Download Software

MOXA® NPort®

Router

User Interface

— Design a fixture layout in the software to match your system set-up.
— Create light recipes for a certain time of the day. For example, add far red at the end of the day, give a brief duration of UV light or interrupt nights by sliding bars or entering the desired PPFD values.
— Observe irradiance map to insure desired PPFD is being achieved throughout the research project.

Photoperiod	DLI
0.00 hours	0.00 mol/m^2/day

Add period

Time
Start 02:00   End 02:05

Channels
% 26 100 40 20 0 37
µmol/m^2/s 14 250 40 50 0 93

Total 225 447

Wavelength
400
µmol/m^2/s
0
0   nm   500

Add

Cancel   Submit

All dimensions in mm

PHYTOFY® RL

Family	Power Cord	End	Mounting	EAN
PHYTOFY® RL	3 m | 9.8'	Open wire	Mounting bracket, power supply, slot stone, screws and washers, Ferrite core, signal cable (1m | 3.3')	4062172040310
Moxa® NPort®	1 m | 3.3'	EU CEE 7/7 NEMA 5-15 BS1363	End terminator, signal cable (5 m) End terminator, signal cable (16.4') End terminator, signal cable (16.4')	4062172038690 4062172038683 4062172058407
Signal Cable 3m / 9.8'	-	Circular M12		4062172065474
Signal Cable 5m / 16.4'	-	Circular M12		4062172065498

Light recipes

Are you interested in receiving light recipes for free?
Register your PHYTOFY® RL at www.osram.com/phytofy and download five light recipes
for the most common plants and herbs.

In case you have questions concerning the product, please contact us at horticulture@osram.com.

06/19

OSRAM