

# PROCOGNITIVE LED LUMINAIRES SPECTRASOL PHD

with increased IP coverage



SPECTRASOL  
BIODYNAMIC HUMAN SOLUTIONS



## Proognitive LED Luminaires with incresed IP coverage

The patented Spectrasol LED light fixtures will illuminate your interior with artificial light with properties close to natural sunlight. Thanks to a balanced spectral composition (SPD) that positively influences the body's circadian rhythms through the non-image-forming (NIF) system of the eyes, you will get biologically optimised full-spectrum lighting that supports overall health, physical and mental vitality and cognitive functions (cognitive performance and endurance, concentration, attention, quick thinking, ability to comprehend information, remember and recall it from memory) indoors during the day.

Moreover, Spectrasol light fixtures do not emit concentrated energy in the short-wavelength blue part of the light spectrum, the so-called harmful blue light, which increases the risk of macular degeneration. On the contrary, Spectrasol actually regenerates the eyes by emitting energy in the red, photobiomodulating part of the light spectrum, which acts as a compensating factor for harmful blue light with both preventive and therapeutic effect.

Spectrasol lights shine instantly at full power, are resistant to frequent switching, have a long lifetime and suppress the flicker effect. They are also designed to easily replace existing light sources with conventional wiring.

## Lighting parameters

Light distribution	direct
Optical system	opal PS cover
CCT real <sup>1</sup>	4800 K
CCT specific <sup>2</sup>	5000 K
CRI	> 95
Flicker	Flicker Free
Calculated LED lifetime	L80B20 70.000 h

## Elektrické parametry

Power supply	220-240 V 50-60 Hz
Connection	connector, Cable connector
Control options	ON/OFF, DALI, Switch dim

## Mechanical parameters

Body material	PC cover, PC/PS face
light fixture intersection	75 x 78 (mm)

Protection class IP65

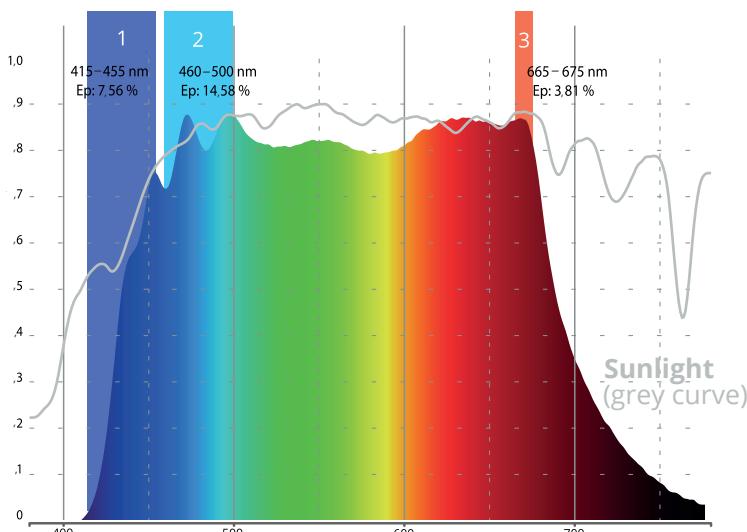
Packaging Cardboard Box

<sup>1</sup>Real CCT in a typical illuminated room

<sup>2</sup>Specific CCT lights (spherical integrator)

Tolerance CCT +/- 200 K

## Visualisation of Spectrasol spectral composition and description of its key areas



### HARMFUL BLUE LIGHT

Does not damage retina cells  
Does not emit concentrated energy in the harmful blue light risk region (415 – 455 nm)

### PROCOGNITIVE - CIRCADIAN MELANOPIC ENERGY

Supports the circadian system and the resulting cognitive performance, health and mood  
Better energy in cyan region (460 – 500 nm)

### REGENERATIVE PHOTOBIOMODULATION ENERGY

Regenerates damaged retinal cells  
Peak emission in the photobiomodulation red (~ 670 nm)





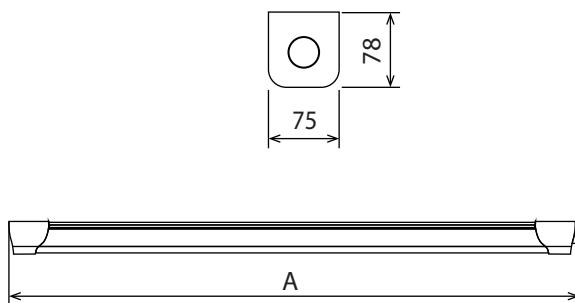
## Variants of Spectrasol PHD light fixtures

Order Code	Variant	LED type	Light fixture luminous flux [lm]	Light Fixture Power consumption [W]	Light fixture length [mm]	Light Fixture Weight [kg]
					A	
41201	Spectrasol <b>PHD4000MPC/P1</b>	procognitive*	1300	4500	1310	2,1
41202	Spectrasol <b>PHD4000MPC/R1</b>		1300			
41101	Spectrasol <b>PHD2000SPC/P1</b>	procognitive*	700	2300	21	1,7
41102	Spectrasol <b>PHD2000SPC/R1</b>		700			

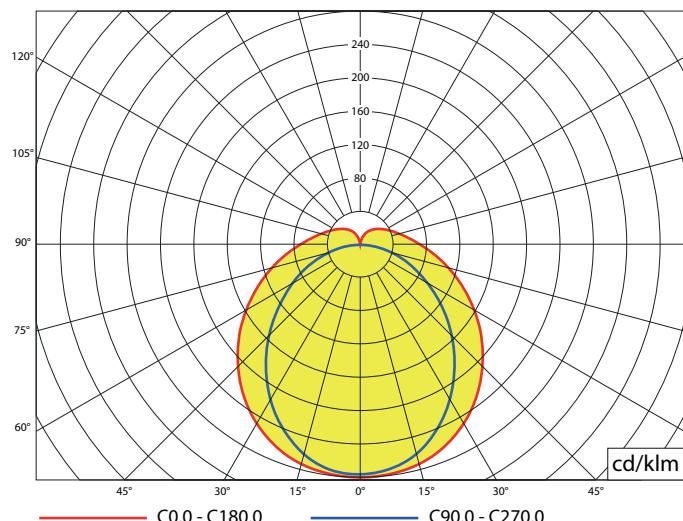
\*Procognitive LED Spectrasol 5000 K CRI 95

Tolerance of luminous flux and light fixture power consumption +/- 10%

## Specification of dimensions



## Light distribution



## Visual of light fixture



Lamp face



Interconnection of multiple lamps



Fixing strap

