

PROCOGNITIVE LED LUMINAIRES

SPECTRASOL IBP

EMBEDDED IN A GRID CEILING



SPECTRASOL
BIODYNAMIC HUMAN SOLUTIONS



Recessed light fixtures in raster ceiling for daytime lighting

The patented Spectrasol EMBEDDED LED light fixtures 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 them and recall them 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 area 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. There are also biodynamic versions of the light fixtures, equipped with warm white LEDs for evening use in addition to the procognitive LEDs.

Lighting parameters

Light distribution	direct
Optical system	opal PS cover
UGR	> 19
CCT real ¹	4800 K (2600 K) ³
CCT specific ²	5000 K (2600 K) ³
CRI	> 95 (> 97) ³
Flicker	Flicker Free
Calculated LED lifetime	L80B20 70.000 h

Electrical parameters

Power supply	220-240 V 50-60 Hz
Connection	screwless terminal block ready for looping
Control options	ON/OFF, DALI, SWITCH DIM

Mechanical parameters

Body material	Steel sheet
Finishing degree	anodised, RAL 9016 white paint

Maximum ambient temperature	25 °C
Protection class	IP54 + IP20
Packing	Cardboard box

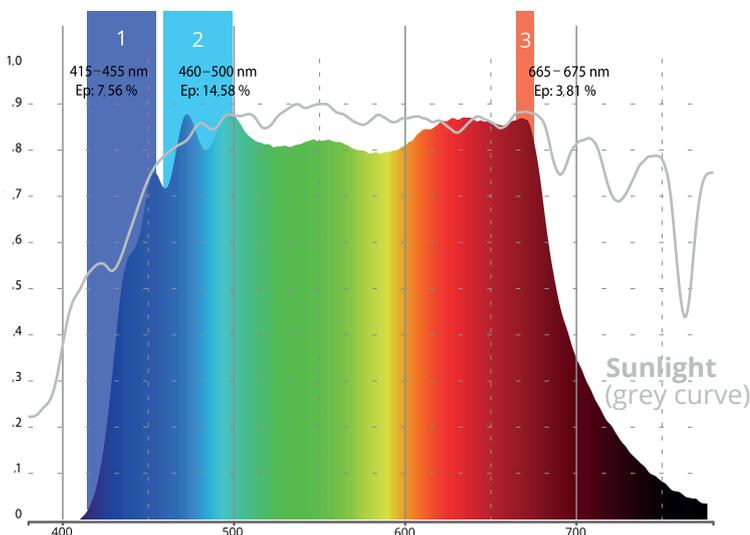
¹Real CCT in typical illuminated room

²Specific CCT of the light fixture (spherical integrator)

³The Second CCT and CRI value for is for BD variants only

Tolerance CCT +/- 200 K

Visualisation of Spectrasol spectral composition and description of its key areas



1 HARMFUL BLUE LIGHT
Does not damage retina cells
Does not emit concentrated energy in the harmful blue light risk region (415 - 455 nm)

2 PROCOGNITIVE - CIRCADIAN MELANOPIC ENERGY
Supports the circadian system and the resulting cognitive performance, health and mood
Better energy in cyan region (460 - 500 nm)

3 REGENERATIVE PHOTOBIMODULATION ENERGY
Regenerates damaged retinal cells
Peak emission in the photobiomodulation red (~ 670 nm)





Variants of SPECTRASOL IBP light fixtures

Order code	Variants	LED type	Light fixture luminous flux [W]	Light fixture power consumption [W]	Light fixture dimension [mm]			Weight [kg]
					A	B	C	
10105	Spectrasol IBP5000AKO600ND 600x600	procognitive*	6300	62	596	596	90	2,7
10106	Spectrasol IBP5000AKO600DALI 600x600							
10182	Spectrasol IBP5000AKO600DALIBD 600x600	procognitive*	6200	62	596	596	90	2,9
		warm white**	3050	45				
10205	Spectrasol IBP5000CKO600ND 1200x300	procognitive*	6200	62	1195	296	90	2,8
10206	Spectrasol IBP5000CKO600DALI 1200x300							
10281	Spectrasol IBP5000CKO600DALIBD 1200x300	procognitive*	6100	62	1195	296	90	3
		warm white**	3050	45				

* Procognitive LED Spectrasol 5000 K CRI 95

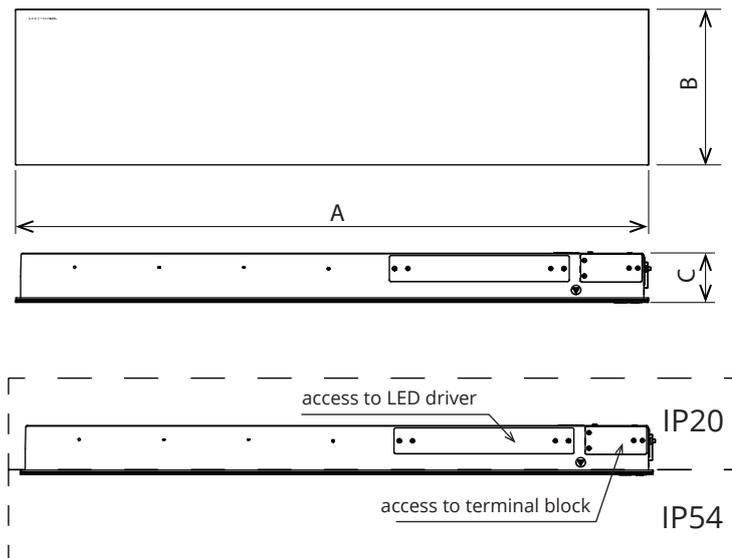
** LED 2700 K CRI 97

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

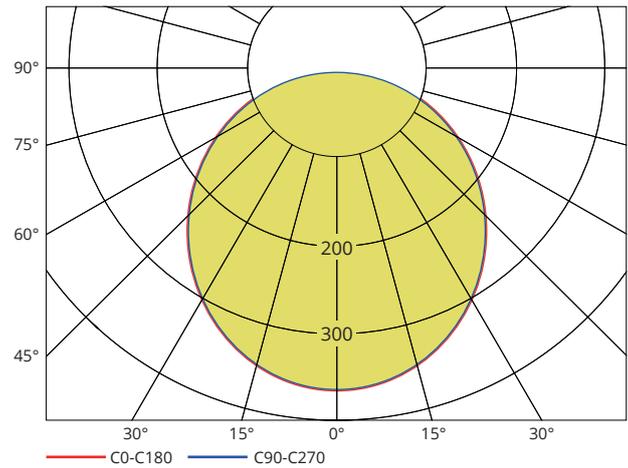
Accessories

Order code	Variants	Material
99101	Frame for mounting the light fixture into drywall	IBP-A aluminum
99201	Frame for mounting the light fixture into drywall	IBP-C aluminum
99102	Frame for surface mounting the light fixture	IBP-A aluminum
99202	Frame for surface mounting the light fixture	IBP-C aluminum

Specification of dimensions



Light distribution



Visualisation of light fixture

