Pro-cognitive LED luminaires

Spectrasol CBP Basic

LUMINAIRES EMBEDDED IN A RASTER SYSTEM

PATENT NO. 309539 PATENTED

IP20 | 220-240V 50-60 Hz | ON 0 sec | CRI ≥95 | LED | CE | RoHS

3 years WARRANTY

LUMINAIRE DESCRIPTION

The patented Spectrasol LED luminaire brightens 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 eye, 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 part of the light spectrum, which acts as a compensating factor for harmful blue light with both preventive and therapeutic effect.

Spectrasol CPB Basic are simple purpose-built pro-cognitive luminaires. With a simple low profile design made of thin lightweight materials, maximum affordability is achieved while maintaining the patented spectrum and large-scale light distribution. This Basic model is the ideal choice for all offices, classrooms, study rooms and other spaces where it is important to support cognitive performance, learning skills, attention concentration and vitality while keeping the budget at the level of the standard luminaires. The luminaires are supplied with a separately packaged LED driver that can be placed directly on or near the luminaire. A pair of tin-plated wires is used for connection to the network.

TECHNICAL PARAMETERS

Lighting parameters

Light distribution	direct
Optical system	opal diffuser
UGR	<19
CCT real[1]	4800K
CCT specific[2]	5000K
CRI	>95
DER mel (daily)	(D65) = 0.80; (D50) = 0.93
Flicker	flicker free
Calculated LED lifetime	L80B20 70.000h

Electrical parameters

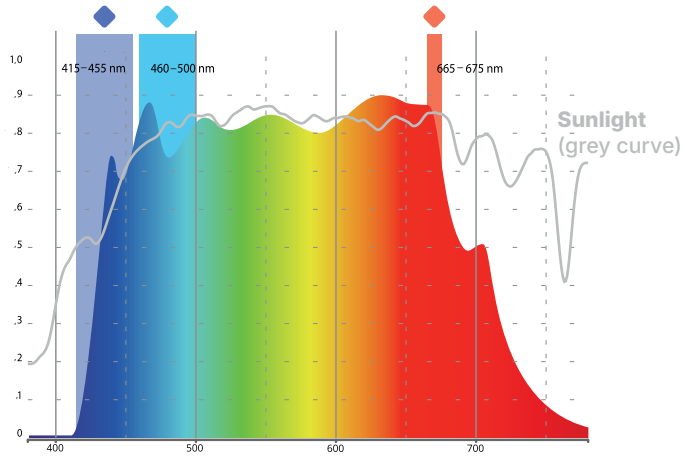
Power supply	220-240V 50-60HZ (external driver)
Connecting the mains	tinned wires
Connecting the luminaire to the driver	bayonet connector
Control options	ON/OFF, DALI, SWITCH DIM

Mechanical parameters

Body	steel plate, plastic frame
Colour	white
Height	33 mm (60 mm with driver laid on the luminaire)
Maximum ambient temperature	25 °C
Luminaire protection	IP20
Packaging	cardboard box + separately packed driver

[1]real CCT in a typical illuminated room
[2]measure CCT luminaires (integrating sphere)
tolerance of photometric quantities ±10%

SPECTRASOL SPECTRAL COMPOSITION VISUALISATION IN A TYPICAL ILLUMINATED SPACE AND DESCRIPTION OF ITS KEY REGIONS



Harmful blue light suppressed

Does not damage retinal cells

Does not emit concentrated energy in the harmful blue light risk region (415-455 nm)

Pro-cognitive – Circadian melanopic energy

Supports the circadian system and the resulting cognitive performance, health and mood

Balanced energy in the cyan pro-cognitive region (460-500 nm)

Regenerative photobiomodulating energy

Regenerates damaged retinal cells

Peak emission in the photobiomodulation red (~670 nm)

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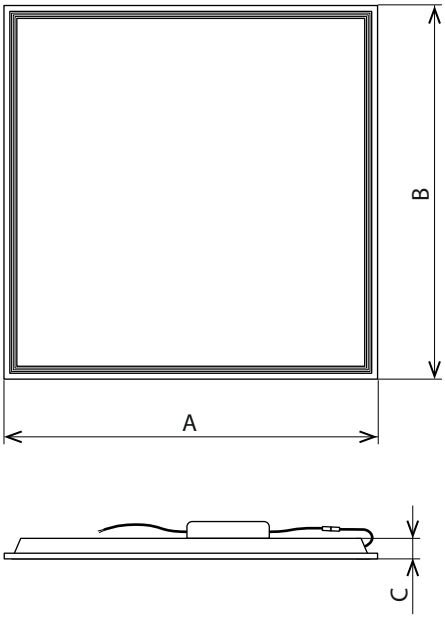
SPECTRASOL CBP BASIC LUMINAIRE VERSIONS

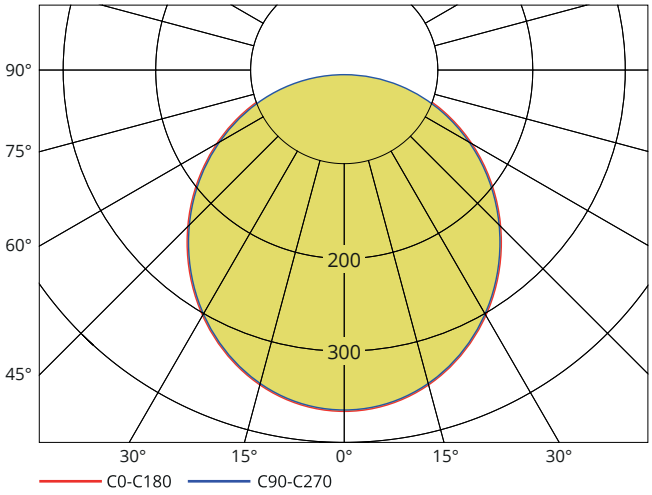
Order code	Title		LED TYPE	Luminous flux of luminaire	EDImel (D65; D50)	Luminaire power consumption	Light fixture dimension [mm]			Weight [kg]
				[lm]	[lm]	[W]	A	B	C	Luminaires
S01-04-001	Spectrasol **CBP**4000**A**	600×600	pro-cognitive LED Spectrasol 5000 K CRI 95	4000	3200;3720	43	595	595	33	1,8
S01-04-002	Spectrasol **CBP**4000**A DALI**	600×600								
S01-04-003	Spectrasol **CBP**4000**C**	1200×300	pro-cognitive LED Spectrasol 5000 K CRI 95	4000	3200;3720	43	1195	195	33	1,8
S01-04-004	Spectrasol **CBP**4000**C DALI**	1200×300								

Tolerance of photometric quantities and power consumption of luminaire ±10%

LUMINAIRE DIMENSIONS



ILLUMINATION DISTRIBUTION DIAGRAM



LUMINAIRE VISUALIZATION