

Spectrasol INO Work

RECESSED LUMINAIRES WITH DIRECT DISTRIBUTION



LUMINAIRE DESCRIPTION

The patented Spectrasol linear LED luminaire will illuminate your interior with artificial light that has properties close to those of 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 INO is a procognitive LED luminaire available at an optimised price. The simple engineering design, superior patented spectral power distribution and exceptional light comfort thanks to wide light distribution makes this model the ideal choice for all offices and production sites where it is important to promote cognitive performance, attention, low error rate, concentration, alertness, vitality and health of users.

TECHNICAL PARAMETERS

Lighting parameters

Light distribution	direct
Optical system	semi-opal PMMA cover
UGR	<19
CCT actual ¹	4800 K
CCT spec ¹ /c ²	5000 K
CRI	>95
DER mel	(D65)=0.87; (D50)=1
Flicker	flicker free
Calculated LED lifetime	L80B20 70.000h

Electrical parameters

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

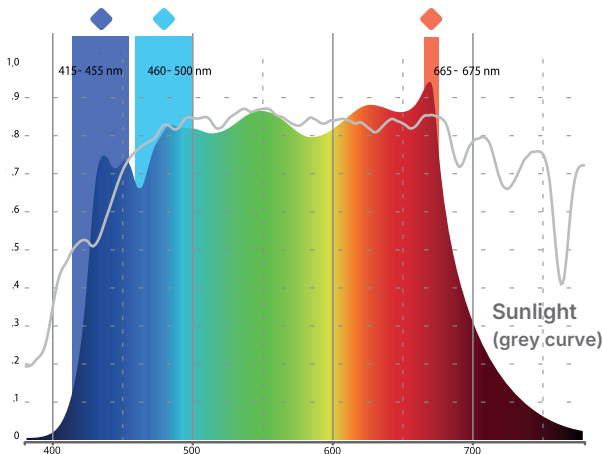
Mechanical parameters

Body	sheet steel
Finish	Powder-coating white RAL 9016
Option to connect multiple units in a line	yes ³
Maximum ambient temperature	25°C
Luminaire protection	IP20
Packaging	Cardboard box

¹actual CCT in a typical illuminated room
²specific CCT luminaires (spherical integrator)

³wire openings in faceplates
tolerance on 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)
- Procognitive – Circadian melanopic energy**
Supports the circadian system and the resulting cognitive performance, health and mood
Balanced energy in the cyan procognitive region (460-500 nm)
- Regenerative photobiomodulating energy**
Regenerates damaged retinal cells
Peak emission in the photobiomodulation red (~670 nm)

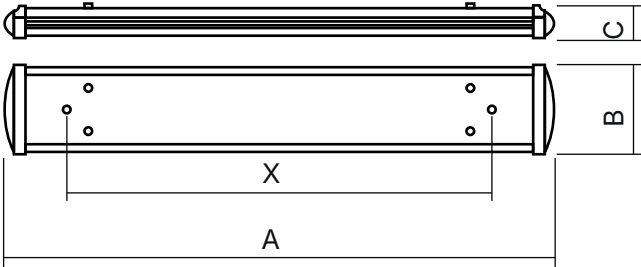


INO WORK LUMINAIRE VARIANTS

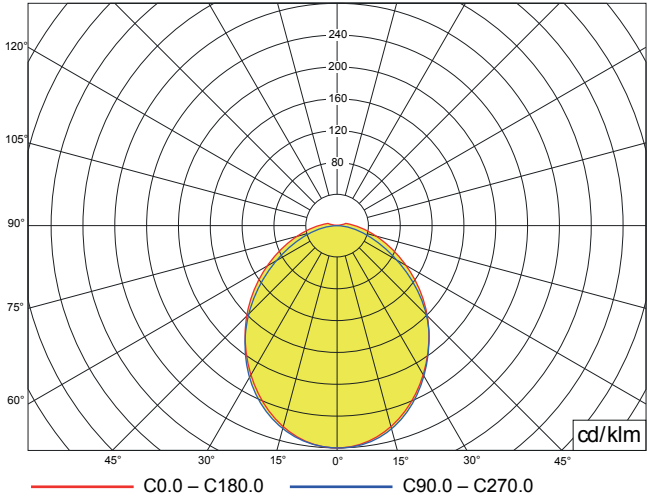
Order code	Variant		LED type	Luminous flux of luminaire [lm]	EDImel (D65; D50) [lm]	Luminaire power consumption [W]	Light fixture dimension [mm]				Weight of luminaire [kg]
							A	B	C	X	
1-S02-006-003	Spectrasol INO W&S 4000M	1300x200	procognitive LED Spectrasol 5000 K CRI 95	4300	3740; 4300	39	1293	208	77	1150	2,6
1-S02-006-004	Spectrasol INO W&S 4000M DALI	1300x200									
1-S02-006-005	Spectrasol INO W&S 5000L	1500x200		5400	4690; 5400	49	1593			1450	3,1
1-S02-006-006	Spectrasol INO W&S 5000L DALI	1500x200									

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

LUMINAIRE DIMENSIONS



LIGHTING DISTRIBUTION CHART



LUMINAIRE VISUALISATION



The product has been developed in cooperation with CTU UCEEB as part of the Central Bohemian Innovation Centre's INO:EX subsidy programmes

