

Spectrasol INO PRO-SCHOOL

SURFACE-MOUNTED LUMINAIRES WITH DIRECT DISTRIBUTION



developed in collaboration with:

UNIVERZITNÍ
CENTRUM
ENERGETICKY
EFEKTIVNÍCH BUDOV
EVUT V PRAZE

PODPOŘENO S I C

STŘEDOČESKÉ
INOVACNÍ
CENTRUM

LUMINAIRE DESCRIPTION

The patented Spectrasol LED luminaire will illuminate your interior with artificial light with properties close to natural sunlight. Thanks to its balanced spectral composition (SPD), which positively influences the body's circadian rhythms through the non-visual system of the eye (NIF), you will obtain biologically optimised full-spectrum lighting that supports overall health, physical and mental vitality, and cognitive functions (cognitive performance and endurance, concentration, attention, speed of thought, ability to understand information, memorisation and recall) indoors during the day.

Spectrasol luminaires do not emit concentrated energy in the short wavelengths of the blue part of the light spectrum in the harmful blue light range, which increases the risk of macular degeneration. Spectrasol, on the other hand, regenerates the eyes by emitting energy in the red, photobiomodulation part of the light spectrum, which acts as a compensatory factor for harmful blue light with both preventive and therapeutic effects.

Spectrasol INO PRO-SCHOOL is a surface-mounted pro-cognitive LED luminaire with maximum price optimization. Its simple design construction, advanced patented spectral composition, and exceptional lighting comfort achieved through wide light distribution make this model an ideal choice for all classrooms and staff rooms where it is important to support cognitive performance, learning ability, attention, concentration, and vitality.

TECHNICAL PARAMETERS

Light parameters

Light distribution	direct
Optical system	semi-opal PMMA cover
UGR	<19
Real CCT ¹	4800K
Specific CCT ²	5000K
CRI	>95
DER _{mel}	(D65)=0,87 ; (D50)=1
Flicker	flicker free
Calculated LED lifetime	L80B20 70.000h

Electrical parameters

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

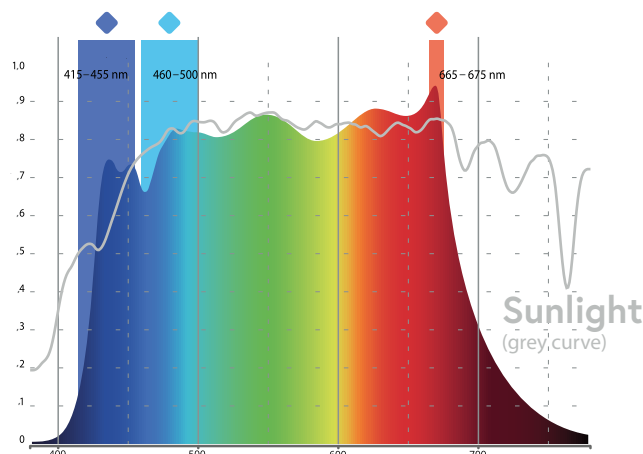
Mechanical parameters

Housing	steel sheet
Surface finish	powder coat white - RAL 9016
Possibility of linear connection	yes ³
Maximum ambient temperature	25°C
Luminaire protection rating	IP20
Packaging	cardboard box

¹real CCT in typically illuminated room²specific CCT of luminaire (integrating sphere)³Cable entries in end caps

tolerance of photometric values +/- 10%

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



◆ Supressed harmful blue light

Does not damage retina cells

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

◆ Procognitive - Circadian melanopic energy

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

Balanced energy in the cyan procognitive range (460-500 nm)

◆ Regenerative photobiomodulation energy

Regenerates damaged retinal cells

Peak emission in the photobiomodulation red range (~ 670 nm)

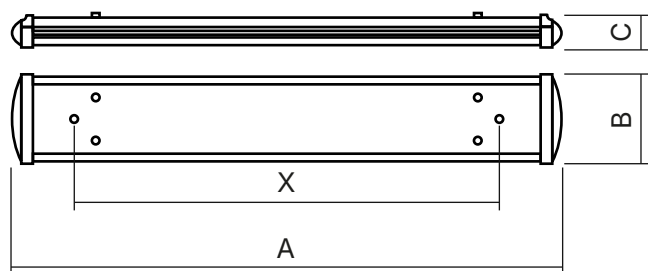


LUMINAIRE VARIANTS OF INO PRO-SCHOOL

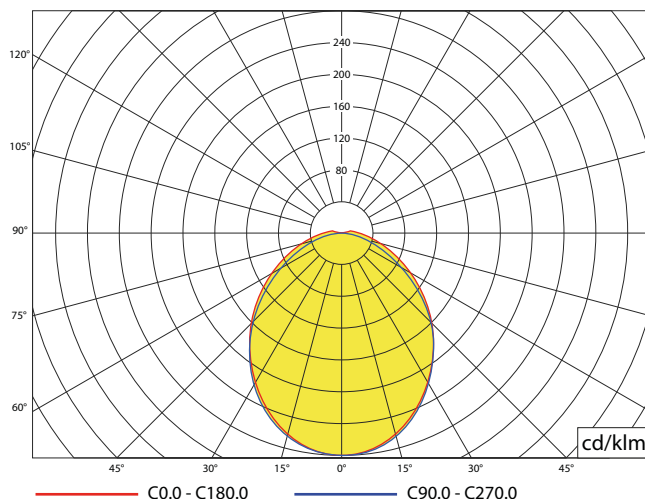
Order Code	Variant		LED Type	Luminous flux	EDImel (D65; D50)	Power consumption	Luminaire dimensions [mm]				Luminaire weight
				[lm]	[lm]	[W]	A	B	C	X	[kg]
1-S02-006-003	Spectrasol INO W&S 4000M	1300×200	procognitive LED Spectrasol 5000 K CRI 95	4300	3740; 4300	39	1293	208	77	1150	2,6
1-S02-006-004	Spectrasol INO W&S 4000M DALI	1300×200									
1-S02-006-005	Spectrasol INO W&S 5000L	1500×200		5400	4690; 5400	49	1593			1450	3,1
1-S02-006-006	Spectrasol INO W&S 5000L DALI	1500×200									

tolerance of photometric values +/- 10%

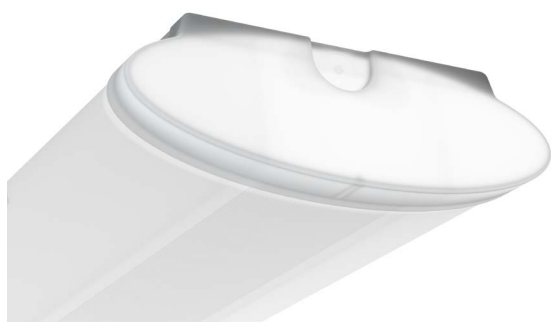
LUMINAIRE DIMENSIONS



LIGHT DISTRIBUTION DIAGRAM



LUMINAIRE VISUALIZATION



This product was developed in cooperation with CTU UCEEB within
the INO:EX grant programme of the Central Bohemian Innovation Centre.

