

# Spectrasol INO PRO-SCHOOL

Surface-mounted 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 types of classrooms and staffrooms where boosting cognitive performance, learning abilities, attention, concentration, and vitality is essential.

## TECHNICAL PARAMETERS

### Light parameters

Light distribution	direct
Optical system	semi-opal PMMA cover
UGR	<19
Real CCT <sup>1</sup>	4800K
Specific CCT <sup>2</sup>	5000K
CRI	>95
DER mel	(D65)=0,85 ; (D50)=0,98
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 <sup>3</sup>
Maximum ambient temperature	25°C
Luminaire protection rating	IP20
Packaging	cardboard box

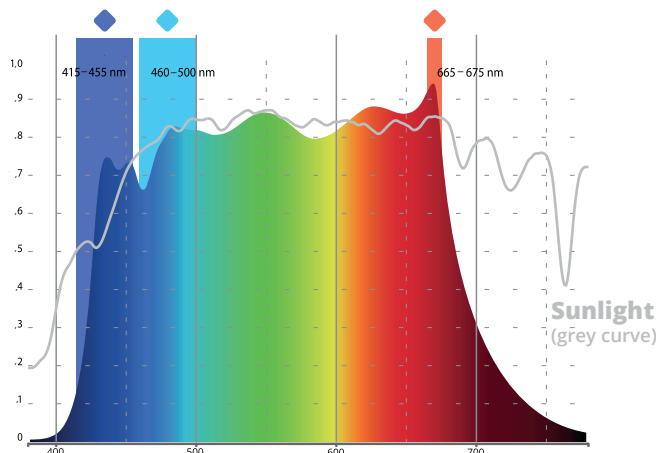
<sup>1</sup>real CCT in typically illuminated room

<sup>2</sup>specific CCT of luminaire (integrating sphere)

<sup>3</sup>Cable 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-WORK

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-S02-006-013	Spectrasol INO-M W&S 1300x200 3K5	procognitive LED Spectrasol 5000 K CRI 95	3500	2980;	32	1293	208	77	1150	2.6
1-S02-006-014	Spectrasol INO-M W&S 1300x200 DALI 3K5			3430						
1-S02-006-003	Spectrasol INO-M W&S 1300x200 4K3		4300	3660;	39	1293				
1-S02-006-004	Spectrasol INO-M W&S 1300x200 DALI 4K3			4200						
1-S02-006-015	Spectrasol INO-M W&S 1300x200 5K4		5400	4590;	49	1293				
1-S02-006-016	Spectrasol INO-M W&S 1300x200 DALI 5K4			5290						
1-S02-006-005	Spectrasol INO-L W&S 1500x200 5K4		5400	4590;	49	1593			1450	3.1
1-S02-006-006	Spectrasol INO-L W&S 1500x200 DALI 5K4	5290								

Tolerance of photometric and electric values 10%

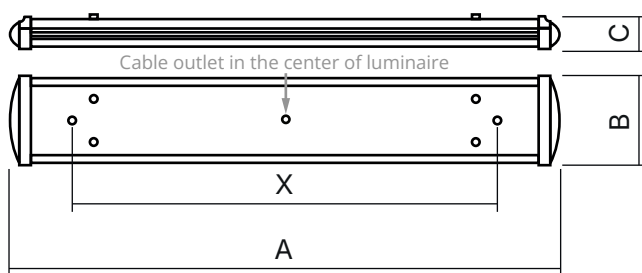
CIRCUIT PROTECTION

Luminaire type	Maximum number of luminaires per circuit breaker								Inrush current	
	C10	C13	C16	C20	B10	B13	B16	B20	I <sub>max</sub>	Time
Spectrasol INO-M W&S 1300x200	15	20	27	33	9	12	16	20	30 A	250 μs
Spectrasol INO-L W&S 1500x200										
Spectrasol INO-M W&S 1300x200 DALI	21	28	35	45	13	17	21	27	35 A	170 μs
Spectrasol INO-L W&S 1500x200 DALI										

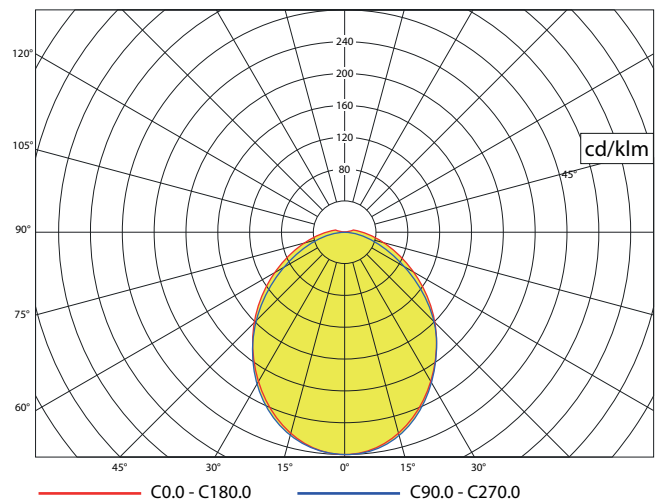
CONNECTION AND CONTROL OF LUMINAIRES DALI/PUSH



LUMINAIRE DIMENSION



LIGHT DISTRIBUTION DIAGRAM



LUMINAIRE DIMENSIONS



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

