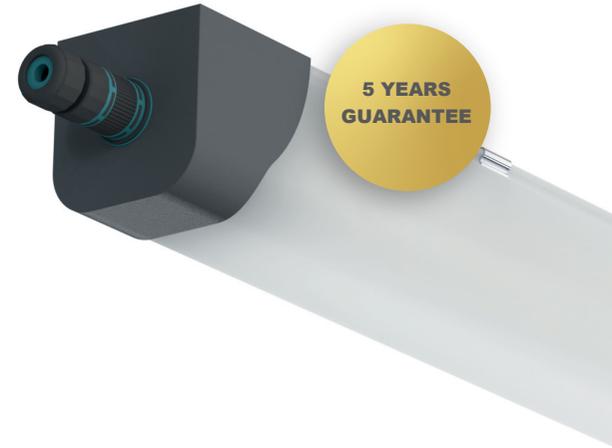


Spectrasol PHD

LUMINAIRES WITH ENHANCED IP PROTECTION



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 PHD luminaires deliver procognitive light in a durable dustproof design. They feature IP68 protection and high mechanical or chemical resistance. They are suitable for applications in industry, gastronomy, agriculture and the defence and security sectors. By default, PHD luminaires come with connectors on both sides and do not need to be disassembled for mounting. PHD luminaires allow for continuous mounting and can be connected directly to each other or by wiring. The brackets allow for the mounted luminaires to be spaced as desired.

TECHNICAL PARAMETERS

Lighting parameters

Light distribution	direct
Optical system	opal PC cover
UGR	<19 (in a typical room)
CCT actual ¹	4800 K
CCT specific ²	5000 K
CRI	>95
DER mel (daily)	(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	connector, cable connector
Control options	ON/OFF, DALI, SWITCH DIM

Mechanical parameters

Body	PC cover, PC/PS faceplates
Dimensions of luminaire	75x78 mm (BxC)

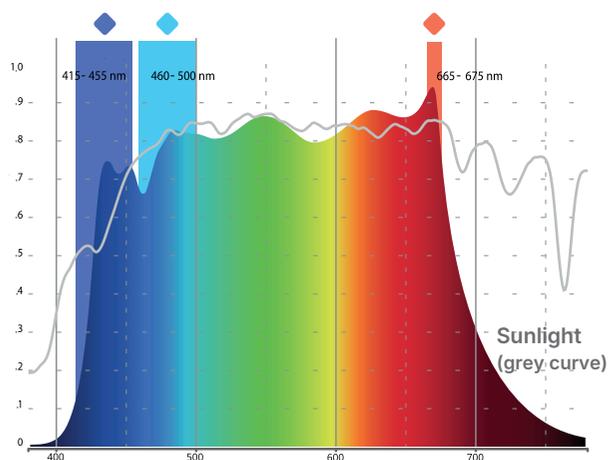
Luminaire protection	IP65
Packaging	Cardboard box

¹actual CCT in a typical illuminated space

²specific CCT of luminaire (spherical integrator)

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)



PHD LUMINAIRE VARIANTS

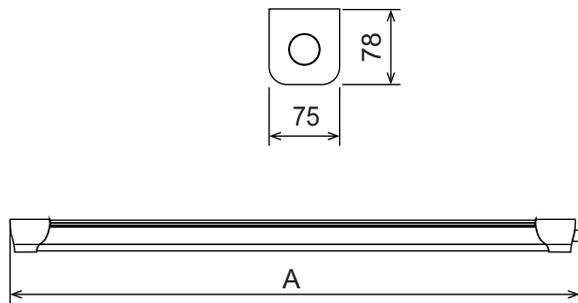
Order code	Title		LED TYPE	Luminous flux of luminaire	EDImel (D65; D50)	Power consumption luminaire	Luminaire length [mm]	Weight of luminaire
				[lm]	[lm]	[W]	A	[kg]
S05-02-001	Spectrasol PHD4000MPC/P1	1300	procognitive LED Spectrasol 5000 K CRI 95	4000	3480; 4000	47	1310	2,1
S05-02-002	Spectrasol PHD4000MPC/R1	1300						
S05-02-003	Spectrasol PHD2000SPC/P1	700		2000	1740; 20000	26	710	1,7
S05-02-004	Spectrasol PHD2000SPC/R1	700						

Tolerance on photometric quantities and power consumption of luminaire $\pm 10\%$

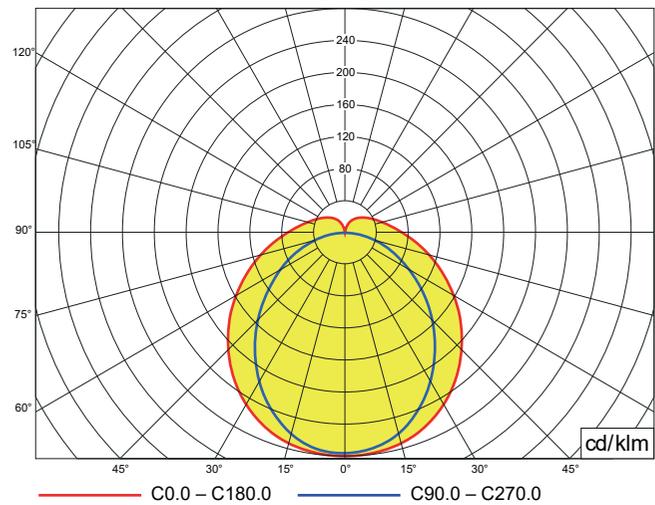
PHD LUMINAIRE ACCESSORIES

Order code	Variants
P01-00-001	Universal 4-cable suspension system (ZH UNI4) (one set for 2 lights)
P05-02-001	Input connector counterpart + output connector plug (for R1 variants) (PH/PK/ND)
P05-02-002	Strap suspension system

LUMINAIRE DIMENSIONS



LIGHTING DISTRIBUTION CHART



LUMINAIRE VISUALISATION



connection of multiple luminaires



retaining bracket



luminaire faceplate

