

Procognitive LED luminaires

# Spectrasol Terra

FREESTANDING LUMINAIRE

SPECTRASOL  
PROCOGNITIVE LIGHTING



## LUMINAIRE DESCRIPTION

Spectrasol Terra luminaires are equipped with patented Spectrasol LED light sources that, thanks to their balanced spectral power distribution (SPD), positively influence the circadian rhythms of the body through the non-image forming (NIF) system of the eye. LEIRA luminaires offer biologically optimised full-spectrum lighting that supports overall health, physical and mental vitality and the cognitive function (cognitive performance and endurance, concentration, attention span, speed of thought, ability to understand information, remember and recall from memory). Moreover, the luminaire does 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 Terra is a procognitive standalone office lamp that fits into a wide range of interiors thanks to its minimalist design. Terra emits directly and indirectly full-spectrum and patented LED procognitive light. Terra combines the luminous comfort of indirect lighting with the high energy efficiency of the direct light component. The direct to indirect component ratio is adjustable by a button for switch-dim variants.

## TECHNICAL PARAMETERS

### Lighting parameters

Light distribution	direct-indirect
Optical system	microprismatic, clear
CCT actual <sup>1</sup>	4800 K
CCT specific <sup>2</sup>	5000 K
Luminous flux	10,000lm
EDImel(D65D50)	8,700 lm, 10,000 lm
CRI	>95
DER mel	(D65)=0.87; (D50)=1
UGR (typical room)	<16
Flicker	flicker free
Calculated LED lifetime	L80B20 70.000h

### Electrical parameters

Power supply	220-240 V 50-60 Hz
Power input	112 W
Connection	supply cord
Electrical class	1
Control options	ON/OFF, SWITCH DIM, presence and irradiation sensor

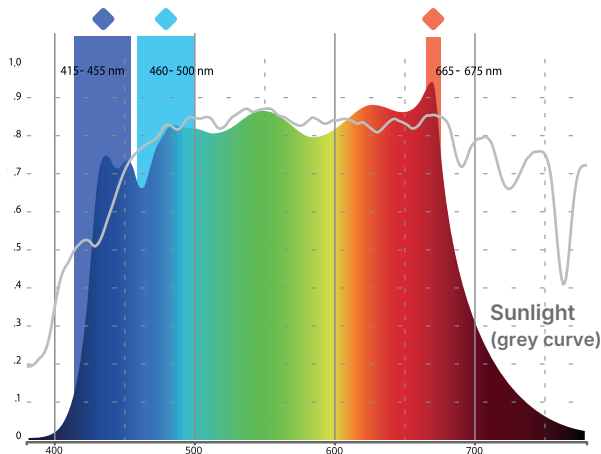
### Mechanical parameters

material	aluminium
Luminaire dimensions (mm)	615x325x1945
colour	white, silver, black
degree of protection	IP20
method of delivery	disassembled: head, stand, base

<sup>1</sup>actual CCT in a typical illuminated room  
<sup>2</sup>specific CCT luminaires (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

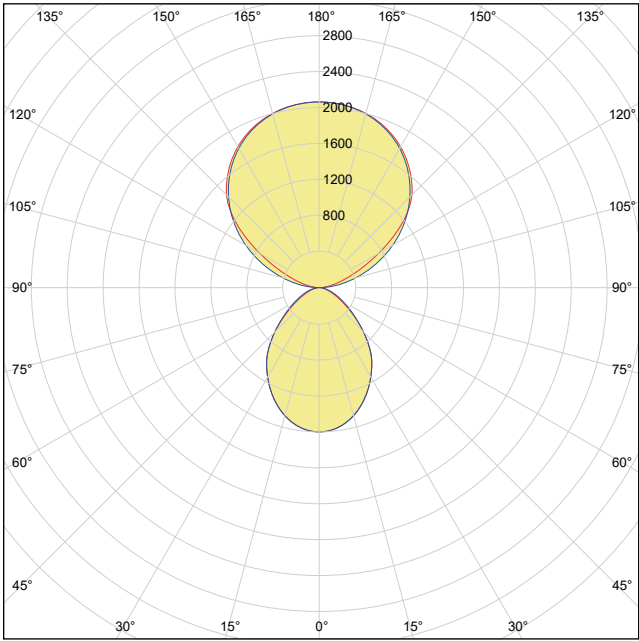
Peak emission in the photobiomodulation red (~670 nm)



SPECTRASOL TERRA LUMINAIRE VARIANTS

Order code	Variant
S07-02-001	Spectrasol <b>TERRA</b> on/off
S07-02-002	Spectrasol <b>TERRA</b> switch dim
S07-02-003	Spectrasol <b>TERRA</b> switch dim + sensor

LIGHTING DISTRIBUTION CHART



LUMINAIRE VISUALISATION

