



**LumiNature**

# **NATURAL LIGHT RECREATED**

*Real Human Centric Lighting*  
by **SYLVANIA**

**Concord**  
by **SYLVANIA**



## ***Living in natural light***



### ***Driven by the Sun***

*We humans have thrived over 200'000 years under natural sunlight. Our brain activity is linked to the rhythm of the Sun.*



### ***Time indoors***

*Due to modern lifestyle, 90% of our time is spent indoors. When our cognitive activity is at its strongest, we are most often subjected to artificially lit environments.*



### ***Lighting plays a major role***

*It has a significant impact on how people feel and how they perform.*



## **Circadian rhythm**

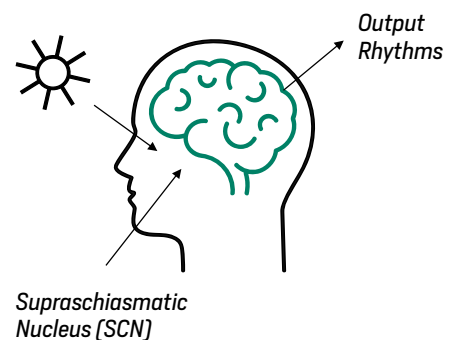
*Circadian rhythms are physical, mental and behavioural changes that follow roughly a 24-hour cycle responding primarily to light and darkness in an organism's environment. They can influence important bodily functions, sleep/wake cycles, hormone releases and more.*



## **Physiological response**

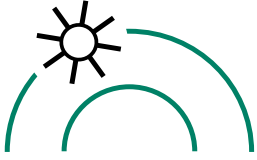
*Light regulates so much more than what we see – beyond visible light. Natural-like light can impact:*

- *Your mood*
- *Your behaviour*
- *Your cognitive functions*
- *Your motivation levels*
- *Your sleep/wake cycles*

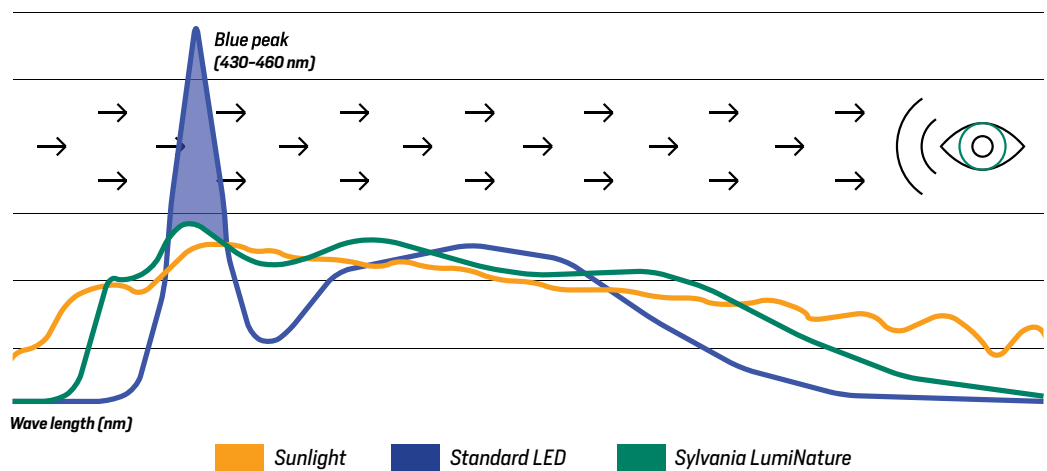


# LumiNature

## Fuller, richer, more natural light - no blue peak



Our LumiNature lighting delivers a complete and balanced spectral distribution with all colours of light more evenly represented while eliminating the blue peak. This produces a natural, full-spectrum artificial light which enriches the colour of its surroundings and removes a major contributor to disturbed health cycles. Combine this with class-leading low glare optical solutions of Sylvania and Concord luminaires with exceptional low flicker rates for enhanced occupant comfort.

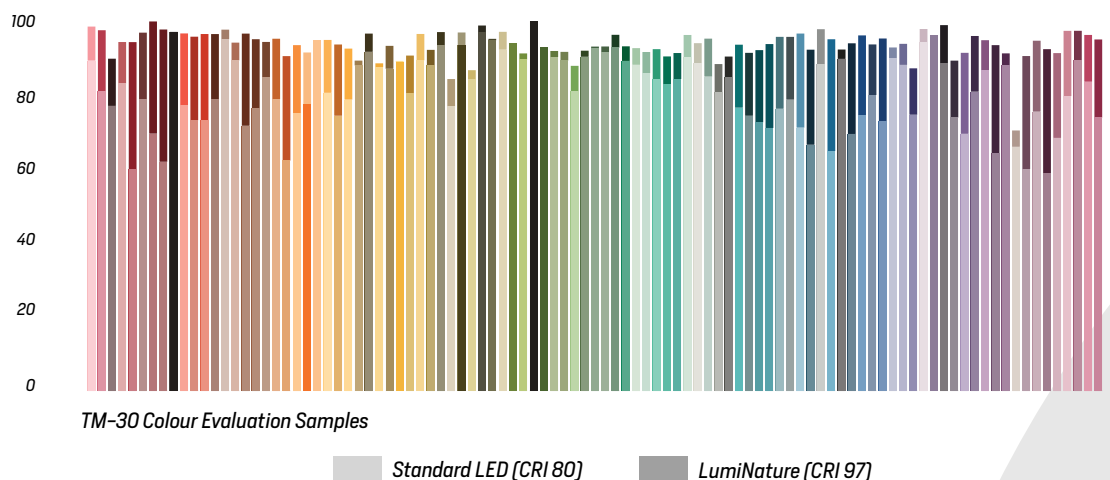


## Excellent colour rendering - ideal for many applications



Get the most natural and truest colour reproduction in your spaces thanks to our exceptional colour rendering and colour fidelity across all colour temperatures. Enjoy all the benefits of more depth of colour and contrast without ultra-violet or infrared.

LumiNature provides high CRI97+ from all colour temperatures, including the truest reds (R9>90).



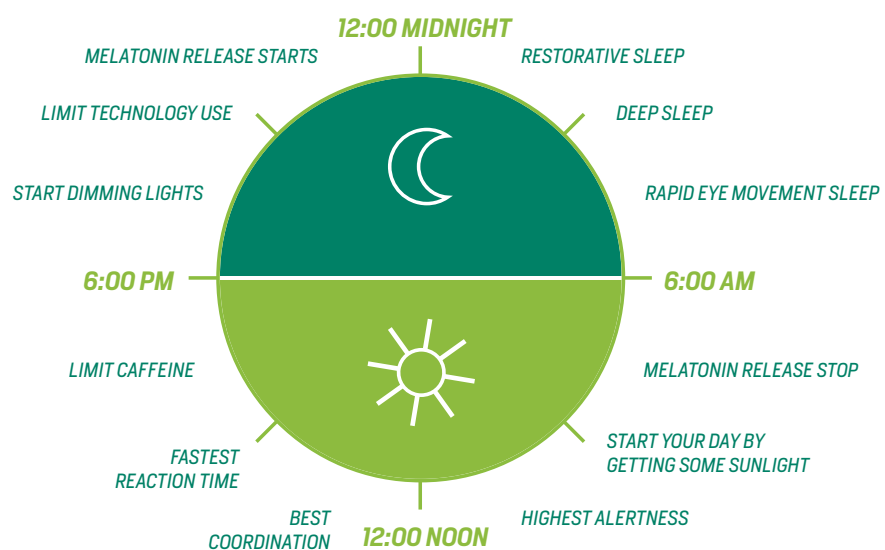
# ...bringing the Sunlight indoors

## Dynamic light - 100% adapted to the circadian rhythm



Our intelligent, wireless SylSmart system enables dimmable, auto-adjusting tunable white light, that respects the circadian rhythm of the Sun while also enabling full optimisation, automation, personalised control and flexibility. All installed with minimum effort and 100% programmed using the SylSmart mobile app.

The human body clock (circadian rhythm) and the role of melatonin



## Rich and energising light – the role of melatonin

Melatonin is often referred to as a sleep hormone that regulates our chronobiological rhythms. Furthermore it is an anti-oxidant as well as an anti-aging hormone that can support the fight against cancer. Melatonin is vital to the wellbeing of humans. Melatonin production is heavily influenced by the right kind of light at the right time of the day which the Sun delivers effortlessly. Too much time under standard artificial light reduces the body's ability to regulate the level of this unique hormone.

LumiNature ignites your body's healthy cycle for improved sleep, stronger productivity, and better health. Working in conjunction with your biological clock, it regulates a beneficial melanopic ratio throughout the day.



# *The real Human Centric Lighting*

**1.**

## **Full spectrum**

*Covering the complete visible light spectrum, all wavelengths which are useful for humans. With the truest colours and without the disturbing blue peak of conventional LEDs.*

**2.**

## **Colour temperature**

*Adjustable colour temperature (CCT) between 2700-6500K to match the tone of light for the right time and place.*

**3.**

## **Intensity**

*Providing the adequate light levels at the right place and time, with automated smooth transitions for occupant comfort.*

**4.**

## **Time and location**

*Follow the Sun's behaviour in your location by adapting the colour temperature and the intensity of the light according to the latitude and the time of the season.*



## Concord Optix (LumiNature)

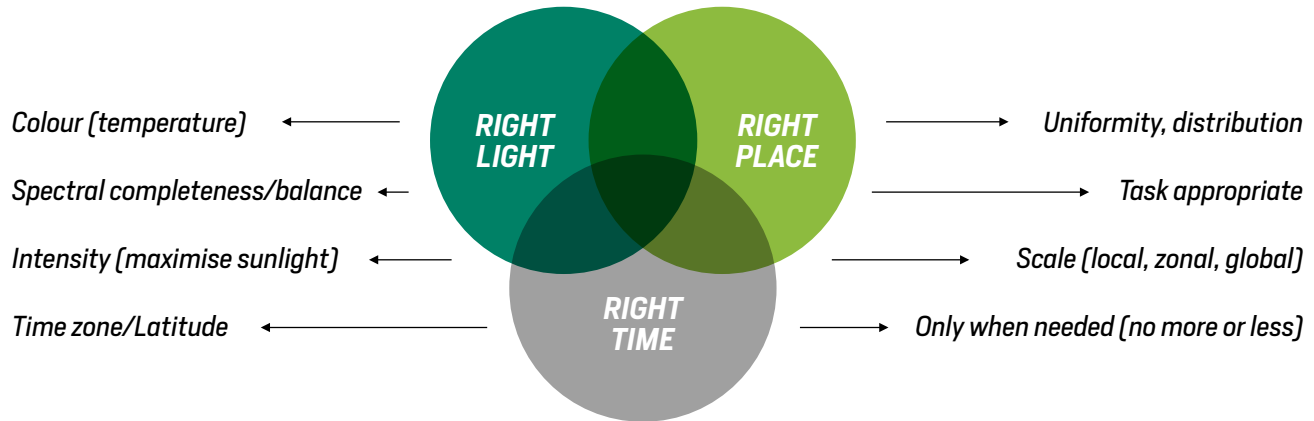
	<i>Sylvania LumiNature</i>	<i>Lead Competitor</i>	<i>Challenger</i>
<i>Tunable White</i>	YES	YES	YES
<i>Full Spectrum Light</i>	YES	NO	NO
<i>Colour rendering</i>	CRI 97	CRI 90+	CRI 80+
<i>Low Glare</i>	UGR 16* Optix	UGR 19	UGR 19
<i>Flickering Rate</i>	Extra low [<5%]	Low [not declared]	Low [not declared]
<i>Luminance @65° [cd/m²]</i>	< 200	< 3000	< 3000
<i>Circadian Rhythm*</i>	YES	YES	YES with extra hardware
<i>Automation [control]</i>	Calibrated daylight / Occupancy / Timer / Scene	Uncalibrated daylight / Occupancy	On-off control / Occupancy
<i>Real Human Centric Lighting</i>	<b>YES</b>	<b>NO</b>	<b>NO</b>

\* including CCT & light intensity

# The right light

## The paradigm of lighting control

Lighting controls can be complicated. The main objective is to deliver the right light, in the right place, at the right time. Conventional controls often yield one or two but rarely all three. Intelligent systems such as SylSmart combined with LumiNature HCL deliver all that you need with lower complexity.



	LUMINATURE FIXED CCT (3000K/4000K)			LUMINATURE HCL TUNABLE WHITE	
	STD	DALI	SYLSMART	DALI	SYLSMART
ON / OFF	✓	✓	✓	✓	✓
Dimming		✓ ✓	✓ ✓	✓ ✓	✓ ✓
Personalised / Dynamic light (addressable)		✓ ✓	✓ ✓	✓ ✓	✓ ✓
CCT Control (physiological response)				✓ ✓	✓ ✓
Circadian Rhythm (including light intensity)				✓ ✓	✓ ✓
Smart HCL (automation options available)					✓ ✓ ✓



# Simplicity with so much flexibility

## SylSmart Standalone – Few components, many possibilities



**Wireless Luminaire**  
Best controls and light  
on board plug and play



**Wireless Switch**  
Zero maintenance



**Sensor Technology**  
Maximise efficiency



**100% app setup**  
Intuitive and fast

### Key benefits



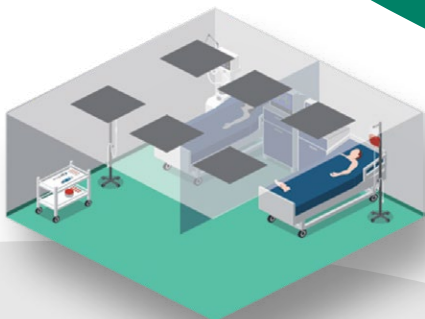
Easy setup &  
intuitive control



High energy efficiency  
& cost effective



Secure &  
future-proof



### Small treatment spaces (no windows)

- Circadian Rhythm – Aid recovery – Provide sun-like experience
- Automation (Timed scenes) – Dim light at night to prevent waking patients up
- Enhance energy saving motion sensors



### Classrooms

- Circadian Rhythm – Ensure alertness and productivity
- Personalised light with individual control – ideal for presentations
- Enhance energy saving with sensors (motion and daylight)



### Small office areas

- Circadian Rhythm – Ensure alertness and productivity
- Multi-use areas with tailored zone control – re-configure quickly and easily
- Personalised light with individual control – ideal for presentations



**LumiNature**



## ***Beneficial in many applications***

**TRUEST  
COLOURS**

### ***Commercial spaces***

*Short presence in the environment,  
emotional lighting*

- Showroom / High-end fashion / Retail
- Cosmetics / Fabrics
- Printhouse / Painting control
- Food

### ***Our solution***

*Perfect colour rendering  
from each colour  
temperature for the most  
accurate results mixed with  
the best light quality for the  
occupants and workers*

**People first  
– always**

**90%** of the building cost  
are human

**1%** gain in productivity  
is a profitable investment

**87%** of people wish  
to customize lighting

Source for figures: DG Energy, EU Energy in figures, 2012.

**HIGHEST  
PRODUCTIVITY**

### **Workspaces**

*Significant presence with  
partial or missing daylight*

- Meeting room / Board room
- Open space office
- Break out room
- Laboratory / Quality control

### **Our solution**

*Full spectrum light with  
tunable white, lighting  
control, low glare and low  
flicker to improve during  
the whole day the occupant  
comfort, learning and  
creativity*





## **INCREASED CONCENTRATION**

### **Education spaces**

*Significant presence with  
partial or missing daylight*

- School classroom /  
Seminar rooms
- Auditorium
- Library
- Nursery

### **Our solution**

*Full spectrum light with  
tunable white, lighting  
control, low glare and  
low flicker to enhance  
concentration, creativity  
and learning*

## **People first – always**

### **End user benefits:**

- Well-being and comfort of a natural lit space
- Stress-free, healthy lighting
- Energising and dynamic light

### **Management benefits:**

- Employer branding
- Health and productivity of staff
- Helps to meet progressive legislative needs  
such as WELL BUILDING STANDARD

**BETTER  
HEALTH**

## **Healthcare & night shift places**

*Full cycle presence (day+night)  
or daylight missing*

- Hospital / Examination room
- Dentist / Dermatologist
- Elderly House
- 'Blind office'  
(room without daylight)

## **Our solution**

*Sun spectrum light for  
healthy cycle (including  
auto adjusting tunable  
light for circadian rhythm)  
to enhance the correct  
physiological response,  
aid recovery and  
boost mood*



# An innovation applied to our best-in-class luminaires

## Typical application:

### LumiNature HCL TW:

- Hospitality areas, hotels, restaurants
- High-end offices

### LumiNature 3K / 4K:

- Small Classroom / Meeting room
- Personal offices / Larger office / Larger classrooms

## Features & benefits:

- Efficient and decorative downlights designed for small apertures of 120mm and 160mm
- Full consistent light spectrum and SylSmart Standalone - MR > 0.75 @ 4000K, > 1.12 @ 6500K, < 0.53 @ 2700K
- Colour Rendering Index [Ra] > 97, LED Colour consistency between luminaires < 2 SDCM

## Types:

Available in various sizes as a recessed luminaire.

- LumiNature HCL Tunable White (Lumi HCL TW) SylSmart capable (SylSmart Standalone)
- LumiNature 3000K/4000K (Lumi 3K/4K) DALI dimmable

## Ascent 100

Architectural / Decorative  
downlights





reddot winner 2023  
lighting design

# Concord Equinox

Inspirational  
halo effects



## Typical application:

### LumiNature HCL TW:

- Hospitality areas, hotels, restaurants, retail
- High-end offices

## Types:

**The LumiNature version is available in 165mm size as a recessed luminaire in black and white housing finish.**

- LumiNature HCL Tunable White (2700K-6500K), with SylSmart SSC driver which unveils the luminaire's full spectrum of possibilities.

## Features & benefits :

- Colour temperature: 2700-6500K
- High colour rendering LED chips of CRI97
- Low glare (UGR<19) with comfortable ambient light
- Using QuarkStar's award-winning system of light refraction, which provides functional downwards lighting with a simultaneous upper lighting. The halo effect can be regulated with a unique adjustable optic system



**LumiNature**







## Optix

Best-in-class  
visual comfort



## Typical application:

### LumiNature 4K:

- Small Classroom / Meeting room
- Personal offices / Larger office / Larger classrooms

### LumiNature HCL TW:

- Hospitals / Care homes
- Areas of long or night time work hours
- High-end small offices and schools

## Types:

Available in recessed, linear, surface, and suspended structures.

- LumiNature HCL Tunable White DALI (Lumi HCL TW DALI) dimmable or SylSmart capable (SylSmart Standalone)
- LumiNature 4000K (Lumi 4K) switched, DALI dimmable, SylSmart capable (SylSmart Standalone & SylSmart Connected Building)

## Features & benefits \*Optix:

- High performance architectural modular luminaires with glare-controlled optics- typical UGR<16
- Full consistent light spectrum and SylSmart Standalone
  - MR > 0.77 @ 4000K, > 1.07 @ 6200K, < 0.52 @ 2800K
- Low flicker (< 5%)
- Luminance (< 200 cd / m<sup>2</sup> @65°)



**LumiNature**

# SYLVANIA



[sylvania-lighting.co.uk/luminature](https://sylvania-lighting.co.uk/luminature)

*Although every effort has been made to ensure accuracy in the compilation of the technical detail within this publication, specifications and performance data are constantly changing. Current details should therefore be checked with Feilo Sylvania International Group Kft.*

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[sylvania-lighting.com](https://sylvania-lighting.com)

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