



LumiNature

NATURAL LIGHT RECREATED

Real Human Centric Lighting

Concord
by SYLVANIA Group



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

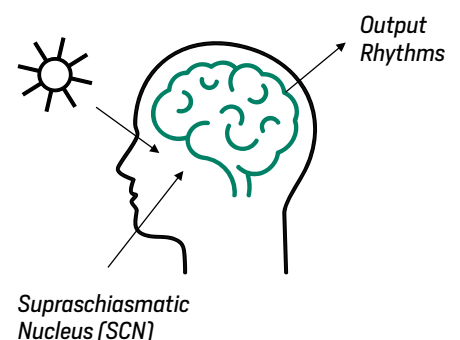
Circadian rhythms are physical, mental and behavioural changes that follow roughly a 24-hour cycle responding primarily to light and darkness in an organism's environment. They can influence important bodily functions, sleep/wake cycles, hormone releases and more.



Physiological response

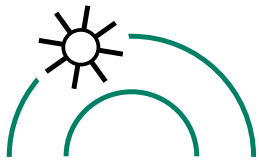
Light regulates so much more than what we see – beyond visible light. Natural-like light can impact:

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

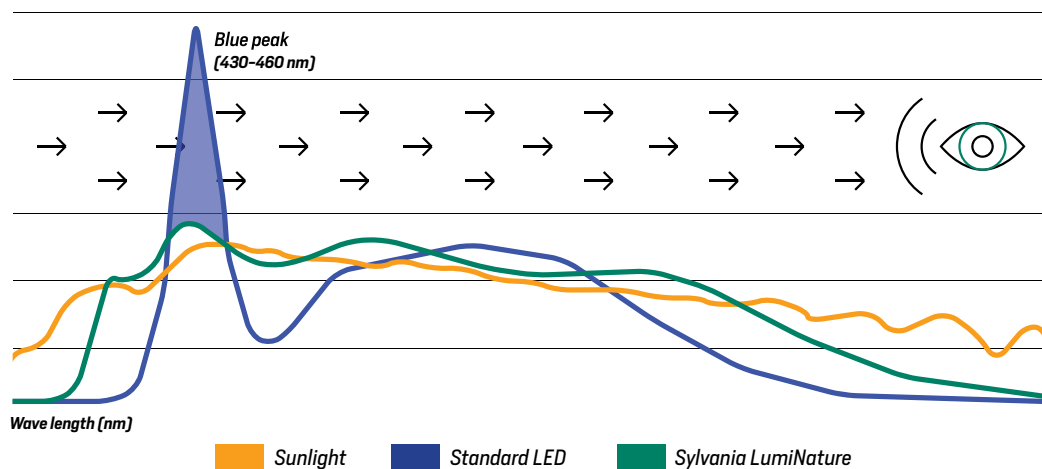


LumiNature

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.

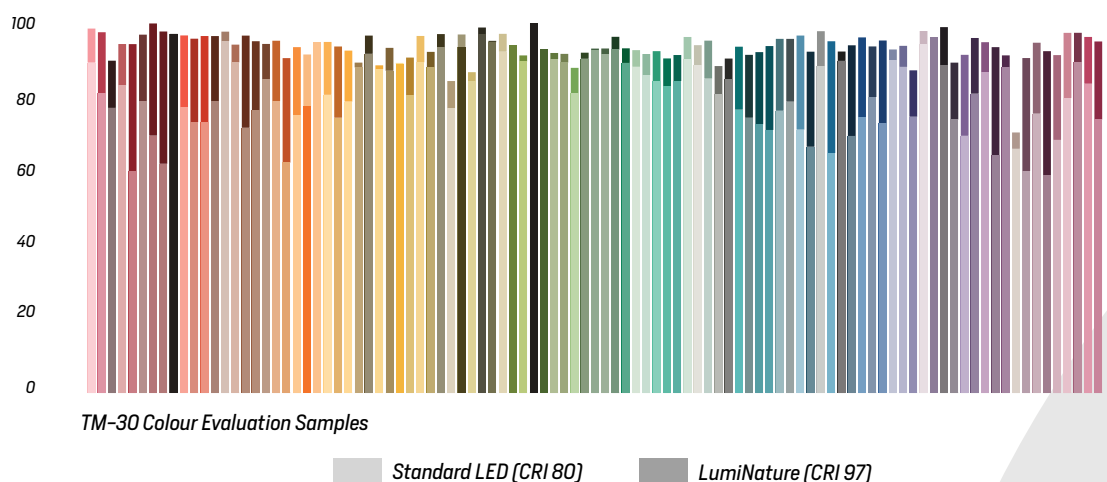


Excellent colour rendering - ideal for many applications



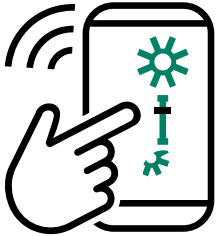
Get the most natural and truest colour reproduction in your spaces thanks to our exceptional colour rendering and colour fidelity across all colour temperatures. Enjoy all the benefits of more depth of colour and contrast without ultra-violet or infrared.

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



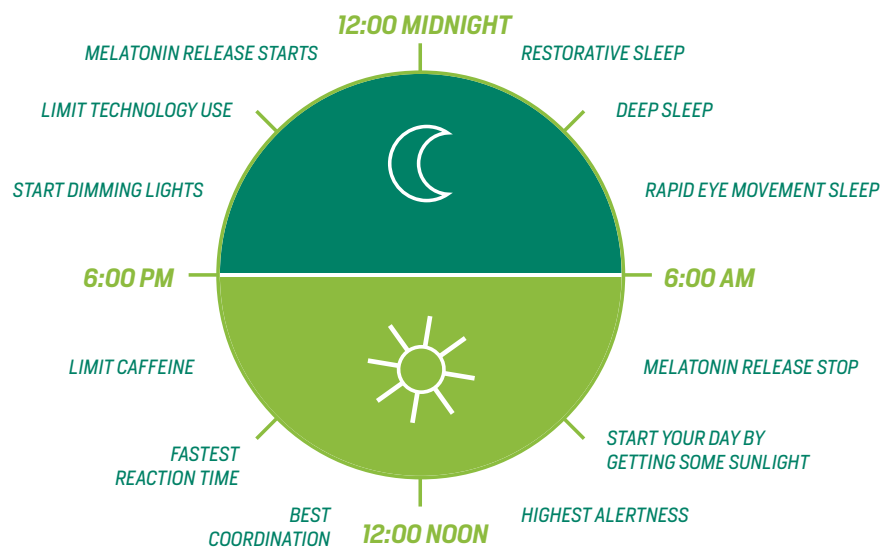
...bringing the sunlight indoors

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.



Optix (LumiNature)

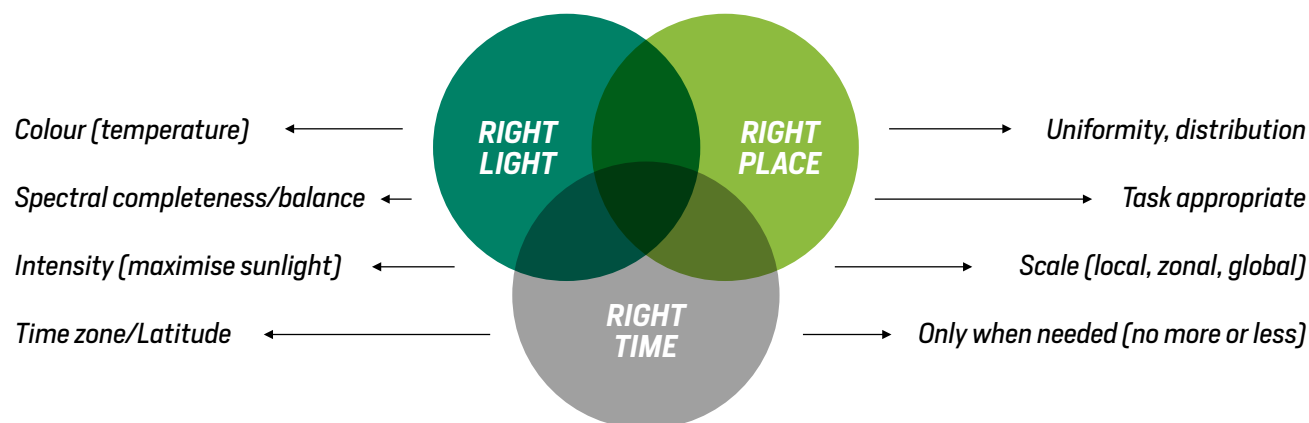
	<i>Sylvania LumiNature</i>	<i>Lead Competitor</i>	<i>Challenger</i>
Tunable White	YES	YES	YES
Full Spectrum Light	YES	NO	NO
Colour rendering	CRI 97	CRI 90+	CRI 80+
Low Glare	UGR 16* Optix	UGR 19	UGR 19
Flickering Rate	Extra low [<5%]	Low [not declared]	Low [not declared]
Luminance @65° [cd/m²]	< 200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

* 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



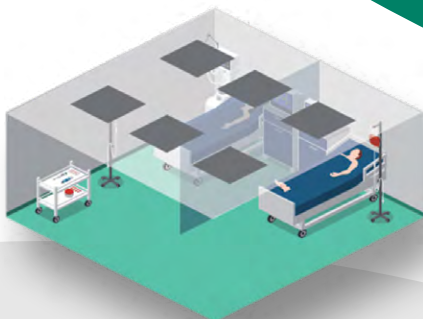
Easy setup & intuitive control



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
- Printing house / Paint-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*

High productivity

Workspaces

*Significant presence with
partial or missing daylight*

- Meeting room / Board room
- Open space office
- Breakout room
- Laboratory / Quality control

Our solution

*Full spectrum light with
tunable white, lighting
control, low glare
and low flicker which
improves the comfort,
learning and creativity
of the occupants*





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 which enhances
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 rooms
- Dentist / Dermatologist
- Elderly home
- Rooms with no access
to daylight

Our solution

*Sun spectrum light for
healthy cycle (including
auto adjusting tunable
light for circadian rhythm)
which enhances the
correct physiological
response, aids recovery
and boosts mood*



An innovation applied to our best-in-class luminaires

Typical application:

LumiNature HCL TW:

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

LumiNature 3000K/4000K:

- Small classrooms / Meeting rooms
- Offices / Large classrooms

Types:

Available in two sizes (150mm and 200mm) as a recessed luminaire.

- LumiNature HCL Tunable White (2700K-6500K), with SylSmart SSC dimmable driver which unveils the luminaire's full spectrum of possibilities
- LumiNature 3000K/4000K, with DALI dimmable and with SylSmart SSC and SSA dimmable driver

Features & benefits:

- Sustainable and efficient downlight, available in white and black housing with a choice of four different reflector colours: silver, white, black and gold
- High visual comfort due to the deep reflector design. Low glare (UGR<19) with comfortable ambient light
- Colour temperature: 2700-6500K (HCL TW version) and 3000K/4000K DALI versions
- High colour rendering LED chips of CRI97 and CRI90

Solstice

Sustainability and high visual comfort hand in hand





red dot winner 2023
lighting design

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





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 / m² @65°)



LumiNature



sylvania-lighting.com/en-int/luminature-hcl

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

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