ES-SYSTEM
Light is Life

OFFICE LIGHTING

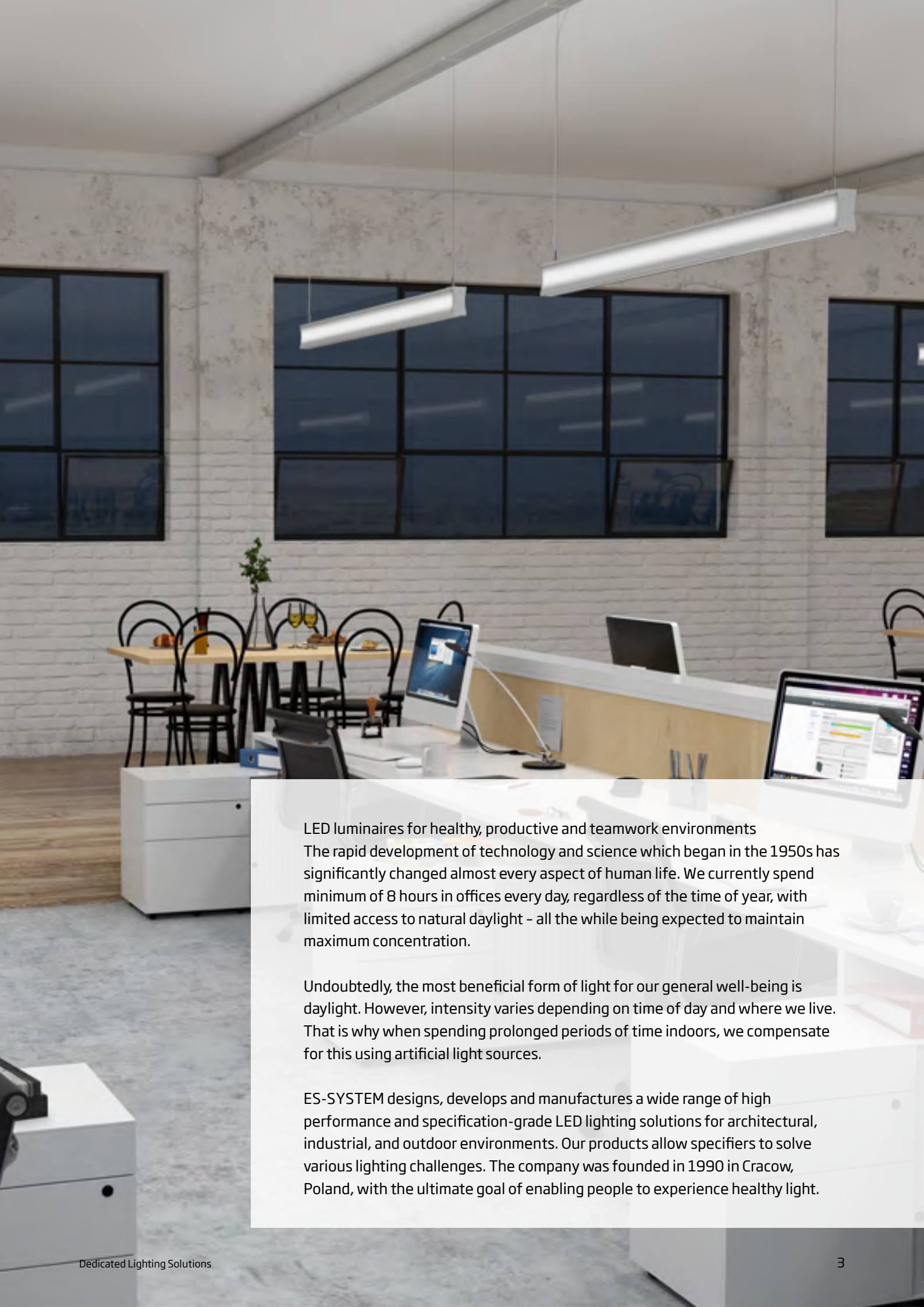
Dedicated Lighting Solutions

CONTENTS

SPACES

PRODUKTY

OŚWIETLENIE AWARYJNE



LED luminaires for healthy, productive and teamwork environments
The rapid development of technology and science which began in the 1950s has significantly changed almost every aspect of human life. We currently spend minimum of 8 hours in offices every day, regardless of the time of year, with limited access to natural daylight – all the while being expected to maintain maximum concentration.

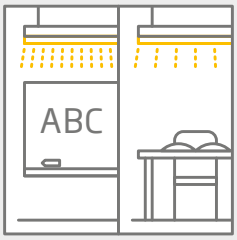
Undoubtedly, the most beneficial form of light for our general well-being is daylight. However, intensity varies depending on time of day and where we live. That is why when spending prolonged periods of time indoors, we compensate for this using artificial light sources.

ES-SYSTEM designs, develops and manufactures a wide range of high performance and specification-grade LED lighting solutions for architectural, industrial, and outdoor environments. Our products allow specifiers to solve various lighting challenges. The company was founded in 1990 in Cracow, Poland, with the ultimate goal of enabling people to experience healthy light.

A FRIENDLY WORKING ENVIRONMENT

Using light sources with modern LED technology can significantly reduce electricity costs and provide employees with a more comfortable workplace. When selecting a lighting system, special attention should be paid to:

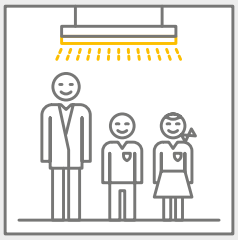
- THE SERVICE LIFE OF THE LIGHTING SOLUTION
- ENERGY EFFICIENCY AND OPERATING COSTS
- COMPLIANCE WITH THE PN-EN-12464 STANDARD
- THE PARAMETERS OF THE LIGHT SOURCES



Luminous flx (Lx)

An appropriate level of brightness must be provided:

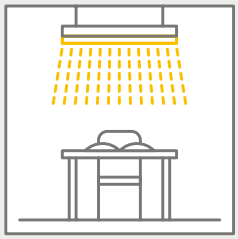
- 500 lx - workstations, meeting rooms, conference rooms
- 300 lx - reception area,
- 200 lx - archives, storage rooms, restrooms
- 100 lx - corridors and passages



The employees' working comfort and well-being (UGR)

The glare factor at workstations should amount to at least:

- UGR<19 at workstations
- UGR<22 at receptions
- UGR<25 in corridors



Lighting uniformity (E)

The lighting uniformity factor on the working plane should amount to at least:

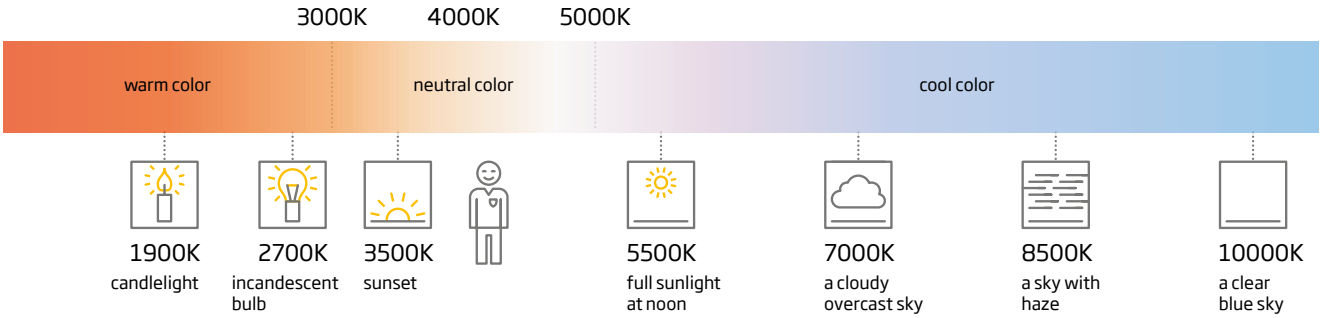
- 0.6 on the working plane
- 0.4 in corridors

Accurate color rendering (CRI)

The color rendering index must be greater than 80 in a workplace where employees stay for prolonged periods of time.

Color temperature (CCT/T_{cp})

Luminaires with a color temperature of 4000K have a positive influence on the comfort, concentration and general well-being of employees.



JUST LIKE DAYLIGHT

LEDs provide better quality and healthier light.
All ES-SYSTEM products are tested for photobiological safety and obtain relevant certificates.

Natural and artificial optical radiation sources can pose a serious photobiological threat to human eyes and skin. Ultraviolet radiation ranks among the most active and dangerous causes of this type of threat. However, visible light and infrared radiation may also be hazardous when certain exposure limits are exceeded. Assessing the level of photobiological threat that can come from optical radiation emitted from luminaires is a complicated process. It requires access to specialized, calibrated measuring equipment and laboratory personnel with the highest technical competences. ES-SYSTEM has its own testing laboratory which operates according to SMT procedures (Supervised Manufacturer's Testing – one of two manufacturer laboratories of this type in Poland), performing comprehensive photobiological testing.

The classification of luminaires in terms of their photobiological impact is based on risk groups which are defined as follows:

- Risk-free group 0: luminaires that do not pose a threat due to photobiological hazards,
- Risk group 1: luminaires that are not hazardous in normal conditions of use,
- Risk group 2: luminaires that do not pose a threat due to an aversion to very bright light sources or thermal discomfort,
- Risk group 3: luminaires that are hazardous even following temporary or brief exposure. Their use in general lighting is not permitted.

Most ES-SYSTEM luminaires are classified as risk-free in group 0, which means that they do not pose a photobiological risk. This has been confirmed by the appropriate certificates.

Results of clinical studies and my long-standing medical practice serve as a confirmation that light is extremely important for our vision process. I have repeatedly come in contact with patients, whose vision impairment progressed due to inadequate lighting in the workplace. That is why we should pay particular attention to proper lighting in places where we read, work or study. Lighting isn't the only factor influencing our vision. We are often required to spend long hours working in front of monitors. This also has a negative impact on our eyesight. In order to minimize these consequences, it's a good idea to think about taking breaks. Once an hour, we should look away from the computer and gaze out the window or somewhere into the distance. This will loosen the strained extraocular muscles, allowing them to relax.

Aleksandra Kuska-Grządziel, opthalmologist

HUMAN CENTRIC LIGHTING: TRANSPARENT CIRCADIAN

Human Centric Lighting is a concept for artificial interior lighting, which takes the human circadian rhythm into account. The goal is to use advanced color rendering technology in order to generate light with a spectrum similar to the spectrum of sunlight, which varies throughout the day.

The mature retina of the human eye contains approximately 3000 photosensitive ganglion cells (ipRCG), which are most sensitive to a blue light range of a specifically defined wavelength. It is a radiation within a given range which has the strongest effect on the human circadian system and the pupillary reflex.

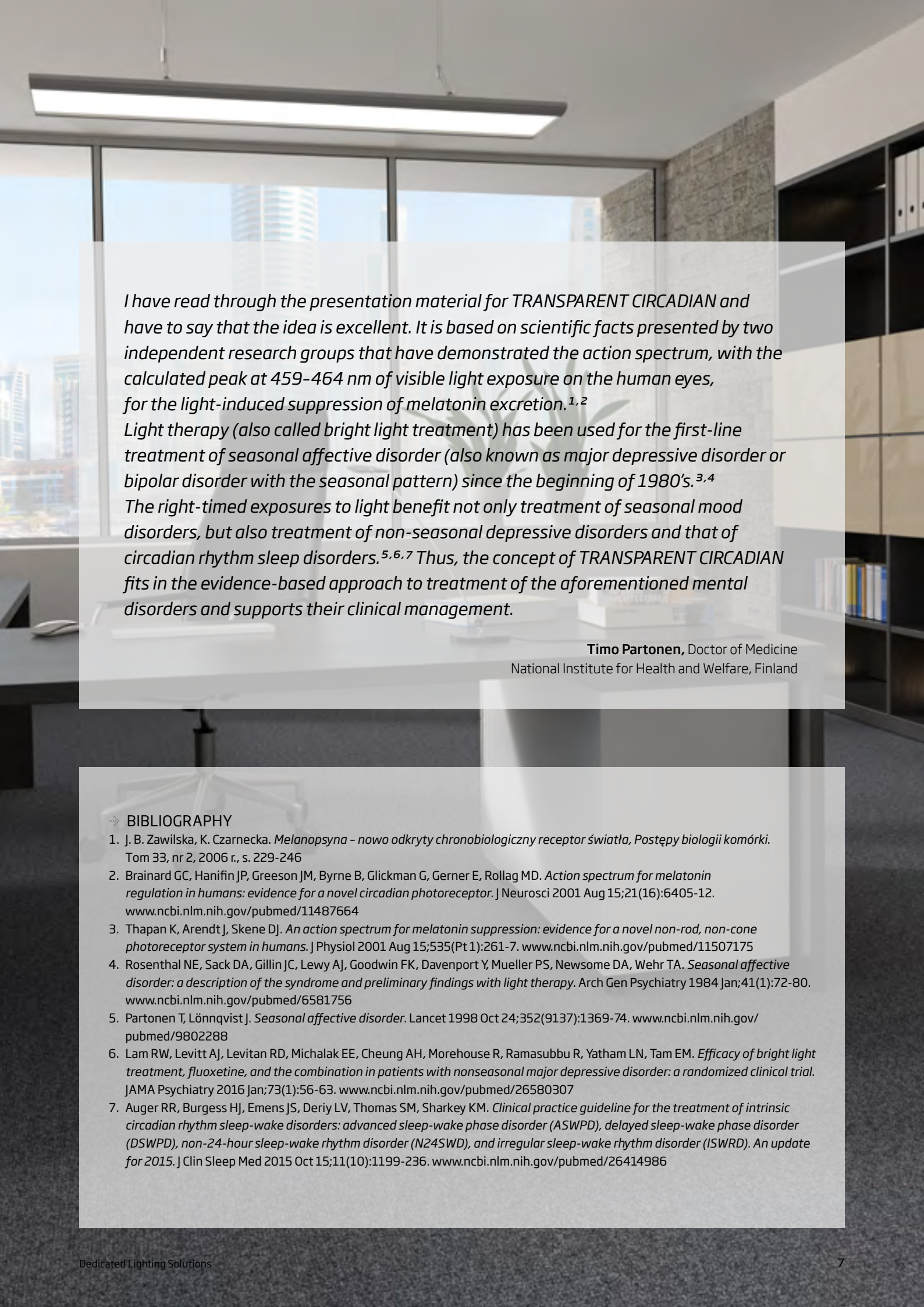
The ipRGC receptor encodes the energy of light radiation and records changes in the radiation intensity occurring in the morning (for at least 90 minutes). Then the signal is sent to the pineal gland, which causes the inhibition of melatonin secretion. The organism receives the information that the wake cycle has begun and awakens from sleep, thus preparing us for daily activity.

In contrast, when the radiation with red wavelengths of the light spectrum reaches the highest value at sunset, the process of melatonin secretion into the organism begins once more, gradually preparing us for sleep, regulating our circadian rhythm.

Staying in rooms with limited access to natural daylight for prolonged periods of time exposes us to the adverse phenomenon of melatonin secretion at an equal level throughout the day. This may result in many negative symptoms, such as: lack of concentration, feeling unwell, drowsiness, apathy, fatigue, and even depression.
In order for the ipRGC photoreceptor to be able to send the appropriate signal to the brain, so that the process of the secretion of the „sleep hormone" into the organism will be triggered or blocked, the retina of the eye must be reached by a certain amount of energy from blue light (in the morning) or red light (in the afternoon) of a strictly defined wavelength.

ES-SYSTEM 's TRANSPARENT luminaires have been equipped with the CIRCADIAN System which mixes blue and red LEDs of a particular wavelength to imitate the most important attribute of daylight - the ability to inhibit the secretion of sleep hormones into the organism at the right time.

TRANSPARENT CIRCADIAN is designed mainly for interiors with limited access to sunlight - hospital rooms, nursing homes, or schools.



I have read through the presentation material for TRANSPARENT CIRCADIAN and have to say that the idea is excellent. It is based on scientific facts presented by two independent research groups that have demonstrated the action spectrum, with the calculated peak at 459-464 nm of visible light exposure on the human eyes, for the light-induced suppression of melatonin excretion.[1,2]
Light therapy (also called bright light treatment) has been used for the first-line treatment of seasonal affective disorder (also known as major depressive disorder or bipolar disorder with the seasonal pattern) since the beginning of 1980's.[3,4]
The right-timed exposures to light benefit not only treatment of seasonal mood disorders, but also treatment of non-seasonal depressive disorders and that of circadian rhythm sleep disorders.[5,6,7] Thus, the concept of TRANSPARENT CIRCADIAN fits in the evidence-based approach to treatment of the aforementioned mental disorders and supports their clinical management.

Timo Partonen, Doctor of Medicine
National Institute for Health and Welfare, Finland

BIBLIOGRAPHY

1. J. B. Zawilska, K. Czarnecka. *Melanopsyna – nowo odkryty chronobiologiczny receptor światła, Postępy biologii komórki.* Tom 33, nr 2, 2006 r., s. 229-246
2. Brainard GC, Hanifin JP, Greeson JM, Byrne B, Glickman G, Gerner E, Rollag MD. *Action spectrum for melatonin regulation in humans: evidence for a novel circadian photoreceptor.* J Neurosci 2001 Aug 15;21(16):6405-12. www.ncbi.nlm.nih.gov/pubmed/11487664
3. Thapan K, Arendt J, Skene DJ. *An action spectrum for melatonin suppression: evidence for a novel non-rod, non-cone photoreceptor system in humans.* J Physiol 2001 Aug 15;535(Pt 1):261-7. www.ncbi.nlm.nih.gov/pubmed/11507175
4. Rosenthal NE, Sack DA, Gillin JC, Lewy AJ, Goodwin FK, Davenport Y, Mueller PS, Newsome DA, Wehr TA. *Seasonal affective disorder: a description of the syndrome and preliminary findings with light therapy.* Arch Gen Psychiatry 1984 Jan;41(1):72-80. www.ncbi.nlm.nih.gov/pubmed/6581756
5. Partonen T, Lönnqvist J. *Seasonal affective disorder.* Lancet 1998 Oct 24;352(9137):1369-74. www.ncbi.nlm.nih.gov/pubmed/9802288
6. Lam RW, Levitt AJ, Levitan RD, Michalak EE, Cheung AH, Morehouse R, Ramasubbu R, Yatham LN, Tam EM. *Efficacy of bright light treatment, fluoxetine, and the combination in patients with nonseasonal major depressive disorder: a randomized clinical trial.* JAMA Psychiatry 2016 Jan;73(1):56-63. www.ncbi.nlm.nih.gov/pubmed/26580307
7. Auger RR, Burgess HJ, Emens JS, Deriy LV, Thomas SM, Sharkey KM. *Clinical practice guideline for the treatment of intrinsic circadian rhythm sleep-wake disorders: advanced sleep-wake phase disorder (ASWPD), delayed sleep-wake phase disorder (DSWPD), non-24-hour sleep-wake rhythm disorder (N24SWD), and irregular sleep-wake rhythm disorder (ISWRD). An update for 2015.* J Clin Sleep Med 2015 Oct 15;11(10):1199-236. www.ncbi.nlm.nih.gov/pubmed/26414986

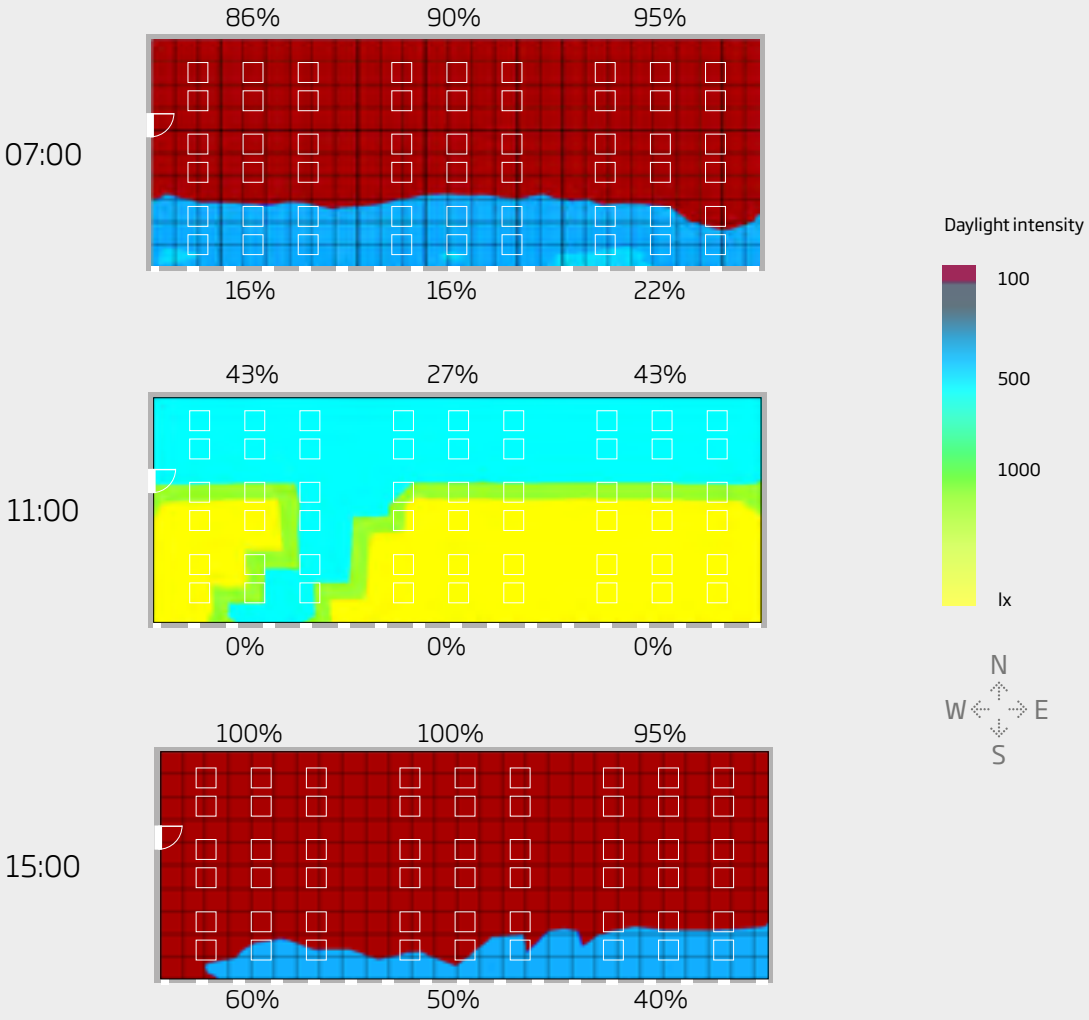
AN INTELLIGENT OFFICE

It has become increasingly important for employers to provide a comfortable working environment for their employees, while optimizing maintenance costs. So how can we provide employees with a space that will result in a comfortable and effective working environment and reduce office energy consumption? The best solution is to create an „intelligent office" by using the latest in software, sensor and lighting technology.

ES-SYSTEM uses lighting control systems which makes it possible to program lighting precisely according to the customer's preferences. Thanks to special multisensor technology, this solution not only saves energy by maintaining a constant light intensity on the work plane, but it also imitates natural daylight. In addition, technology allows you to personalize the selected luminaire and control

DAYLIGHT PROFILE THROUGHOUT THE DAY :

The percentages given represent the artificial lighting intensity. These calculations were performed on November 1st in a 350m² open space office.



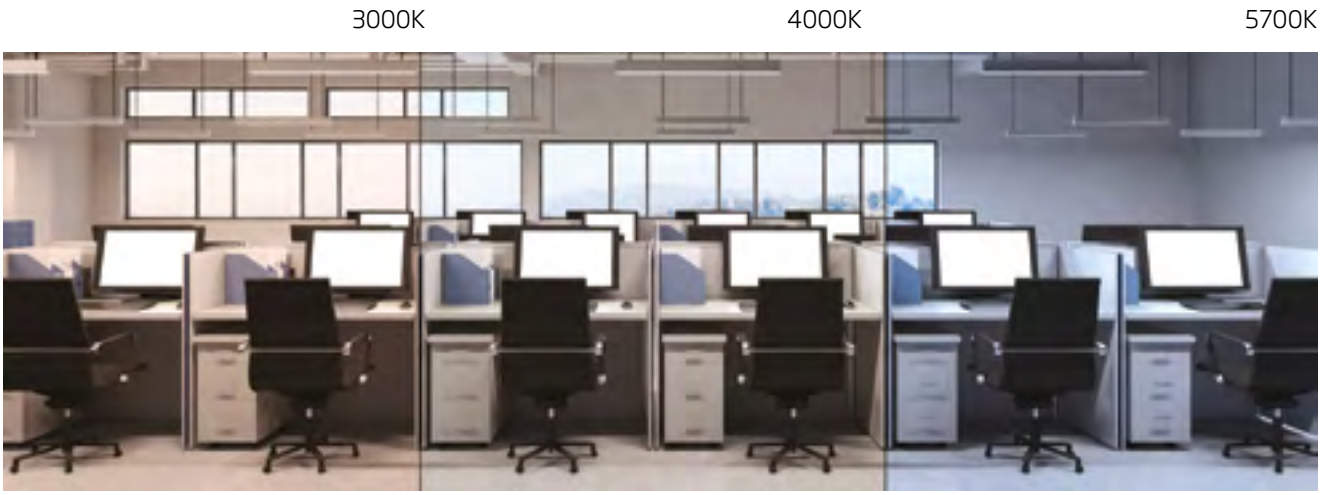
it via mobile phone. The app recognizes the presence of employees in individual rooms. The light then follows the employee, simultaneously taking into account the time of day and even the weather outside. In the evenings, when there are only a few people or a cleaning crew left in the office, there is no need to light an entire floor of the building. Instead of keeping all the lights, it's better to target which workplaces should remain lit in order to provide working comfort.

This solution grants the users complete control over the lighting and additionally protects against unauthorized use by applying a high level of encryption. Our system can also be used with software that provides a full bird's eye visualization and monitoring of the lighting installation, collecting a multitude of data related to maintenance and energy consumption.

Energy Savings and Comfort

Occupancy sensing

DYNAWHITE



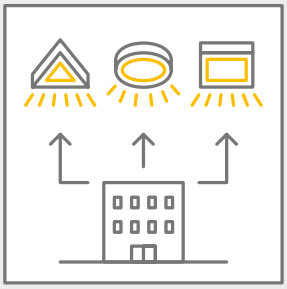
A COMPREHENSIVE RANGE OF SERVICES

ES-SYSTEM designs, develops, manufactures and sells a wide assortment of high performance, specification grade lighting solutions and offers a comprehensive range of services – from itemizing lighting, analyzing and diagnosing customer needs, to working out and designing a customized lighting solution, as well as performing installation and after-sales services.

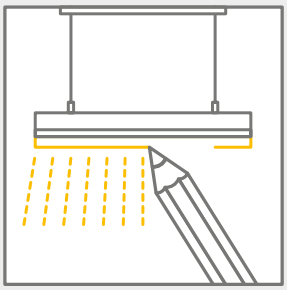
SERVICES WE OFFER:

Assessing needs of end-users

Collaboration with architects and lighting designers



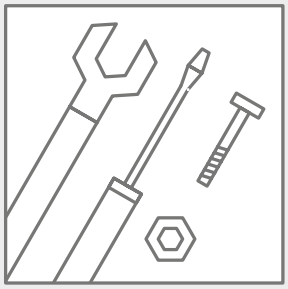
Lighting design



Technical design

Production

Logistics



Advisory service for installers

After-sales service

WE ILLUMINATE ANY SPACE

Offices

Education & Sports

Retail

Arts & Culture

Hotels & Residential

Street & Infrastructure

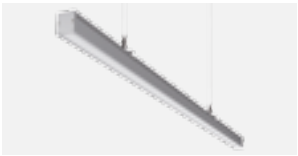
Industry & Infrastructure

HealthCare

Urban and Facade Illuminations

EXECUTIVE OFFICES

PRODUCTS

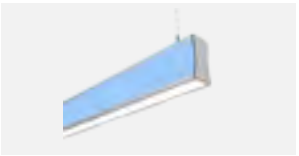


S4000 LED
→ 30

ANGLE 30
→ 31

MODERNA 3Z
→ 37

TRANSPARENT
→ 42



WHY 3
→ 43

EXAMPLE

Luminaire: MODERNA 3Z
Floor space: 11,33 m²

Energy consumption:
192 W

Energy consumption using conventional light sources:
348 W

Energy savings compared to conventional luminaires:
45%

Number of luminaires: 8

Energy demand:
1,27 W/m²/100 lx

Energy demand using conventional light sources:
2,62 W/m²/100 lx

OPEN SPACES

PRODUCTS

S6000 LED
→ 30

MODERNA 2
→ 37

OPPOSITE 1 &2
→ 38

TRANSPARENT
→ 42

BRACKET 2
→ 33

EXAMPLE

Luminaire: MODERNA 2
Floor space: 281,46 m²

Energy consumption:
1435 W

Energy consumption using conventional light sources:
3102 W

Energy savings compared to conventional luminaires:
54%

Number of luminaires: 43

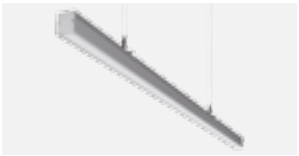
Energy demand:
1,03 W/m²/100 lx

Energy demand using conventional light sources:
2,16 W/m²/100 lx

OFFICE ROOMS

PRODUCTS

S6000 LED
30



S4000 LED
30

DOMINO
35

MODERNA 2
37

WHY S3
44

EXAMPLE

Luminaire: S6000 LED
Floor space: 8,21 m²

Energy consumption:
168 W

Energy consumption using conventional light sources:
354 W

Energy savings compared to conventional luminaires:
53%

Number of luminaires: 8

Energy demand:
1,87 W/m²/100 lx

Energy demand using conventional light sources:
3,86 W/m2/100 lx

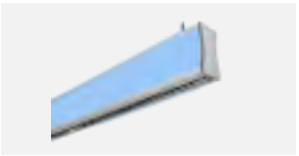
CONFERENCE ROOMS

PRODUCTS

LUNA LED
37

MODERNA 3Z
37

TRANSPARENT
42



WHY 4
44

BRACKET 2
33

EXAMPLE

Luminaire: MODERNA 3Z
Floor space: 14,15 m²

Energy consumption:
96 W

Energy consumption using conventional light sources:
248 W

Energy savings compared to conventional luminaires: 61%

Number of luminaires: 4

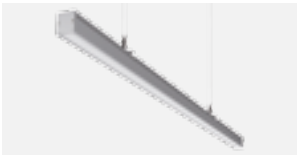
Energy demand:
1,35 W/m²/100 lx

Energy demand using conventional light sources:
3,53 W/m²/100 lx

VIDEO CONFERENCE ROOMS

PRODUCTS

S6000 LED
→ 30



S4000 LED
→ 30

ANGLE 30
→ 31

OPPOSITE 1 &2
→ 38

WHY S3
→ 44

EXAMPLE

Luminaire: ANGLE 30
Floor space: 25,17 m²

Number of luminaires: 4

Energy consumption:
348 W

Energy demand:
2,78 W/m²/100 lx

Energy consumption using conventional light sources:
696 W

Energy demand using conventional light sources:
5,09 W/m²/100 lx

Energy savings compared to conventional luminaires: 50%

RECEPTIONS/LOBBIES

PRODUCTS

S6000 LED
→ 30

LUNA LED
→ 37

TRANSPARENT
→ 42

TRIANGLE
→ 42

EXAMPLE

Luminaire: TRIANGLE
Floor space: 50,14 m²

Number of luminaires: 43

Energy consumption:
328 W

Energy demand:
2,13 W/m²/100 lx

Energy consumption using conventional light sources:
708 W

Energy demand using conventional light sources:
4,01 W/m²/100 lx

Energy savings compared to conventional luminaires: 54%

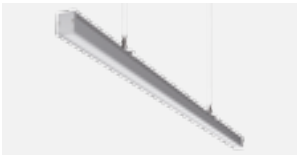

NOBEL TOWER


OPTeam s.a.

ASSEMBLY HALLS

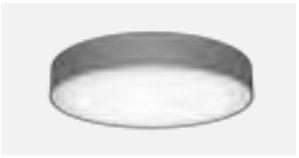
PRODUCTS

S6000 LED
→ 30



S4000 LED
→ 30

CANOS
→ 34



LUNA LED
→ 37

BRACKET 2
→ 33

EXAMPLE

Luminaire: S6000 LED
Floor space: 300 m²

Energy consumption:
2250W

Energy consumption using conventional light sources:
4760 W

Energy savings compared to conventional luminaires: 53%

Number of luminaires: 30

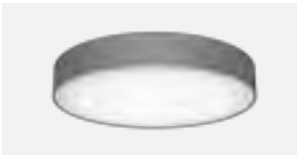
Energy demand:
1,46 W/m²/100 lx

Energy demand using conventional light sources:
3,2 W/m²/100 lx

FUN ROOMS

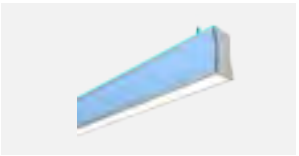
PRODUCTS

ARCH FLOWER
→ 34



LUNA LED
→ 38

RETRO
→ 42



WHY 2
→ 44

WHY S1
→ 44

EXAMPLE

Luminaire: ARCH FLOWER
Floor space: 77,28 m²

Number of luminaires: 10

Energy consumption:
230W

Energy demand:
1,16 W/m²/100 lx

Energy consumption using conventional light sources:
354 W

Energy demand using conventional light sources:
3,86 W/m²/100 lx

Energy savings compared to conventional luminaires: 53%

ARCHIVES

PRODUCTS

COSMO LED LAM
→ 35

LEDEX N
→ 36

PLATO LED
→ 38

REGLx
→ 40

EXAMPLE

Luminaire: COSMO LED LAM
Floor space: 19,66 m²

Number of luminaires: 2

Energy consumption:
54 W

Energy demand:
1,20 W/m²/100 lx

Energy consumption using conventional light sources:
135 W

Energy demand using conventional light sources:
3,10 W/m²/100 lx

Energy savings compared to conventional luminaires: 60%

SERVER ROOMS

PRODUCTS

COSMO LED
→ 35

BASE LED
→ 32

REGLx
→ 40

EXAMPLE

Luminaire: COSMO LED
Floor space: 19,57 m²

Number of luminaires: 3

Energy consumption:
150 W

Energy demand:
1,53 W/m²/100 lx

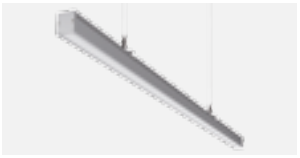
Energy consumption using conventional light sources:
352 W

Energy demand using conventional light sources:
3,36 W/m²/100 lx

Energy savings compared to conventional luminaires: 57%

CANTEENS

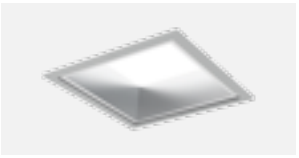
PRODUCTS



S4000 LED
→ 30

DOMINO
→ 35

OPPOSITE 1 / DYNAWHITE
→ 38



QUADRA LED
→ 40

EXAMPLE

Luminaire: QUADRA LED
Floor space: 82,67 m²

Number of luminaires: 16

Energy consumption:
176 W

Energy demand:
1,09 W/m²/100 lx

Energy consumption using conventional light sources:
704 W

Energy demand using conventional light sources:
4,08 W/m²/100 lx

Energy savings compared to conventional luminaires: 75%

KITCHENS/PANTRIES

PRODUCTS

CAMELEON MIDI 2
→ 34

TITANIA LED
→ 41

TRIANGLE
→ 42

BRACKET 1
→ 33

EXAMPLE

Luminaire: TRIANGLE
Floor space: 15,75 m²

Number of luminaires: 2

Energy consumption:
82 W

Energy demand:
2,43W/m²/100 lx

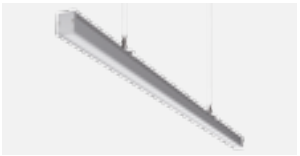
Energy consumption using conventional light sources:
150 W

Energy demand using conventional light sources:
4,7 W/m²/100 lx

Energy savings compared to conventional luminaires: 45%

CORRIDORS

PRODUCTS



S4000 LED
30

ANGLE 30
31

CANOS
34

PLATO LED
38

WHY S
44

EXAMPLE

Luminaire: CANOS
Floor space: 34,38 m²

Number of luminaires: 4

Energy consumption:
96 W

Energy demand:
2,79 W/m²/100 lx

Energy consumption using conventional light sources:
342 W

Energy demand using conventional light sources:
8,49 W/m²/100 lx

Energy savings compared to conventional luminaires: 72%

RESTROOMS

PRODUCTS

AMARO
→ 31

BASE LED
→ 32

CAMELEON MIDI 1
→ 34

PRIMA LED
→ 39

EXAMPLE

Luminaire: PRIMA LED
Floor space: 1,32 m²

Number of luminaires: 1

Energy consumption:
22 W

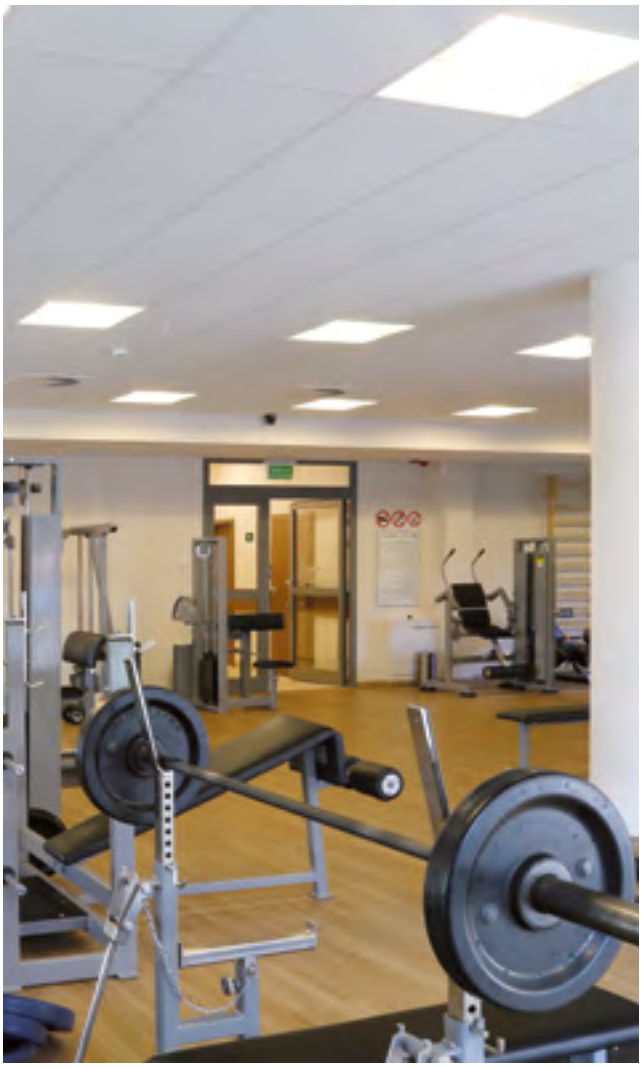
Energy demand:
8,03 W/m²/100 lx

Energy consumption using conventional light sources:
84 W

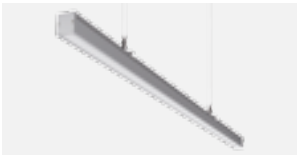
Energy demand using conventional light sources:
26,45 W/m²/100 lx

Energy savings compared to conventional luminaires: 74%

FITNESS CENTERS



PRODUCTS



S4000 LED
→ 30

FLAT LED
→ 36

EXAMPLE

Luminaire: FLAT LED
Floor space: 80 m²

Number of luminaires: 12

Energy consumption:
480 W

Energy demand:
1,75 W/m²/100 lx

Energy consumption using conventional light sources:
744 W

Energy demand using conventional light sources:
3,12 W/m²/100 lx

Energy savings compared to conventional luminaires: 35%

PARKING LOTS

PRODUCTS

COSMO LED
→ 35

MILEDIA 2
→ 46

PARK FLOWER
→ 46

RACER MINI
→ 47

EMERGENCY LIGHTING

One of the requirements during the construction of office buildings is for them to have appropriate emergency lighting installations. A reliable network ensures the employees' safety in case of an emergency and allows fast and easy evacuation. The system's correct operation and the type and frequency of its control testing are strictly defined by emergency lighting standards and legislation. ES-SYSTEM manufactured central monitoring systems for autonomous luminaires and central power supply systems for emergency lighting guarantee compliance with all these conditions. Our assortment includes a variety of escape route and directional luminaire systems. In addition, we have developed NESSI, our own unique application which makes it possible to supervise and configure central monitoring and power supply systems. Our systems automatically monitor the status of individual luminaires, ensuring the electronic systems, light sources and batteries work perfectly at all times. The system indicates luminaires that are not working correctly and makes it possible to fix them before a general power failure occurs. This eliminates risk of escape routes being left without lighting in an emergency. NESSI allows you to plan functional and back-up time tests whenever it is most convenient for the user, and their results are automatically recorded in the emergency lighting system's event log. NESSI makes it possible to place icons symbolizing the installed luminaires and devices on maps of the building, which clearly determines their location and makes it easier to maintain the system. The application's intuitive user interface ensures comfort and reliability while using it. Our systems have been in place for years in various public buildings such as office complexes, museums, shopping malls or airports all over the world, proving that they are dependable, functional and among the top emergency lighting fixtures on the market.

PRODUCTS

MONITOR1 IP40 LED
→ 49

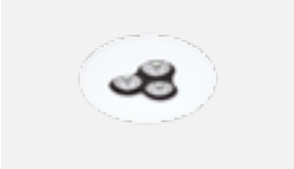
MONITOR1 IP65 LED
→ 49

SCREEN BASIC LED
→ 49

VERSO LED
→ 50

VERSO LED-HO
→ 50

MONITOR1 IP65 LED-HO
→ 50



COBRA LED
→ 51

POINT LED
→ 51

ES-CTI2 3x64
→ 51

ES-NET CB220
→ 52

ES-CTI2 CB24V
→ 52

EMERGENCY LIGHTING

PRODUCTS

system 4000 LED

S4000 LED

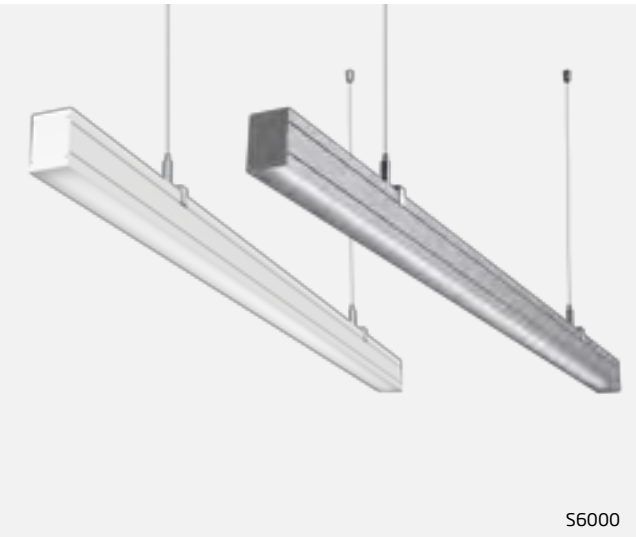
Technical data:

- Luminous flx: 1000–4300 lm
- Power: 12–43 W
- Max. luminous efficacy: 88–102 lm/W
- Color temperature: 3000K, 4000K
- CRI: > 80
- IP20
- Power supply: 230 V AC

4000 LED system features include:

- 2 color temperatures available – 3000K and 4000K
- 2 diffuser types – opal and microprismatic
- HO and HE versions available
- perfect for the creation of light lines
- a linear pendant luminaire also suitable for surface mounting on ceilings
- the luminaires can be combined in linear structures and adjusted according to the length and shape of the rooms
- different module lengths – 530, 1030, 1535, 2035 mm
- ON/OFF and DALI versions available
- versions for pendant, recessed and surface ceiling installation available

system 6000 LED



S6000

Technical data:

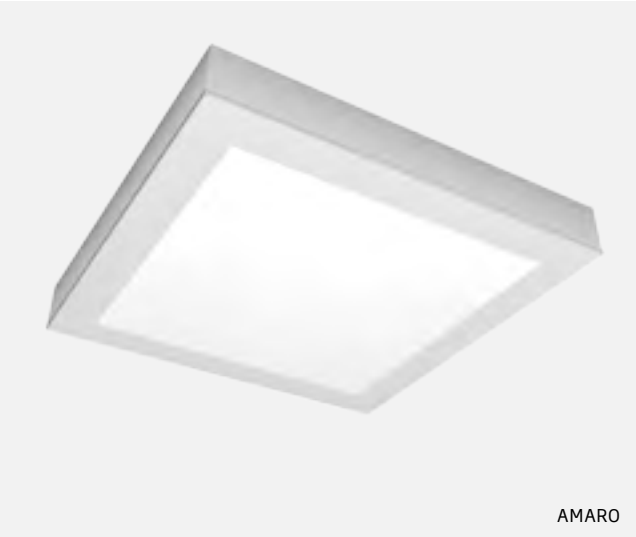
- Luminous flx: 1200–6350 lm
- Power: 14–82 W
- Max. luminous efficacy: 93–104 lm/W
- Color temperature: 3000K, 4000K
- CRI: > 80
- IP20
- Power supply: 230 V AC

6000 LED system features include:

- 2 color temperatures available – 3000K and 4000K
- 2 diffuser types – opal and microprismatic
- HO and HE versions available
- perfect for the creation of light lines
- a linear pendant luminaire also suitable for surface mounting on ceilings
- the luminaires can be combined in linear structures and adjusted according to the length and shape of the rooms
- different module lengths – 515, 1015, 1515, 2020 mm
- ON/OFF and DALI versions available
- versions for pendant, recessed and surface ceiling installation available

PRODUCTS

system AMARO



AMARO

Technical data:

- Luminous flx: 1600–3000 lm
- Power: 23–45 W
- Max. luminous efficacy: 67–70 lm/W
- Color temperature: 3000K, 4000K
- CRI: > 80
- IP44
- Power supply: 230 V AC

AMARO system features include:

- ceiling and wall mounted luminaire
- two color temperatures: 3000K, 4000K
- opal diffuser
- different light distribution options
- emergency versions also available: STI, ATI, CTI2, CTI DALI, CB, CB24 *

*STI – standard version, ATI – version for individual monitoring, CTI2 3x64 – version for central monitoring, CTI-DALI – DALI version for central monitoring, CB24 – version for the 24V central battery, CB24A – version for the 24V central battery with addressing, CB220 – version for the 220V central battery

system ANGLE 30

ANGLE 30

Technical data:

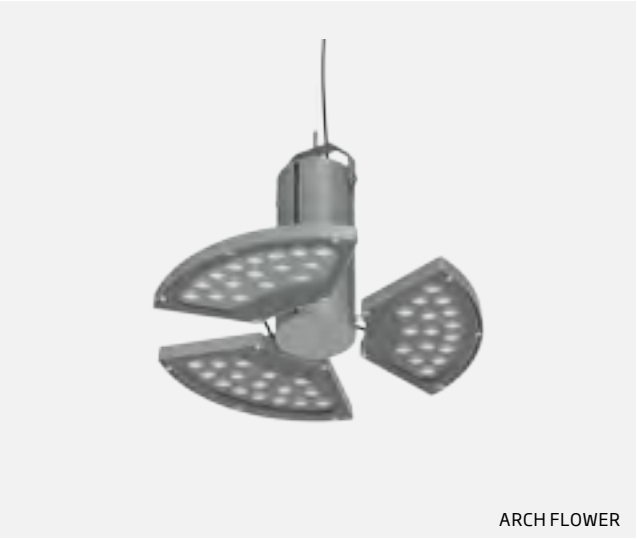
- Luminous flx: 3630–14520 lm
- Power: 30–120 W
- Max. luminous efficacy: 121 lm/W
- Color temperature: 3000K, 4000K
- CRI: > 80
- IP40
- Power supply: 230 V AC

ANGLE 30 system features include:

- pendant luminaire with indirect light distribution
- glare is completely eliminated to ensure exceptional working comfort
- excellent lighting uniformity
- modern and unique design by Professor Lars Bylund
- also available with an integrated power supply unit, improving the product's aesthetic appeal

PRODUCTS

system ARCH FLOWER



ARCH FLOWER

Technical data:

- Luminous flx: 2200–4300 lm
- Power: 23–47 W
- Max. luminous efficacy: 95 lm/W
- Color temperature: 3000K, 4000K
- CRI: > 80
- IP40
- Power supply: 230 V AC

ARCH FLOWER system features include:

- an innovative solution
- 3 system sizes – MINI, MIDI and MAXI
- 2 color temperatures – 3000K and 4000K
- MIDI and MAXI versions with 30° and 50° lenses available
- MINI and MIDI versions with microprismatic diffusers available
- each module is freely adjustable
- 2-, 3- and 4-petal versions available
- the luminaire can be painted in any RAL color
- ON/OFF and DALI versions available

system BASE LED

BASE LED

Technical data:

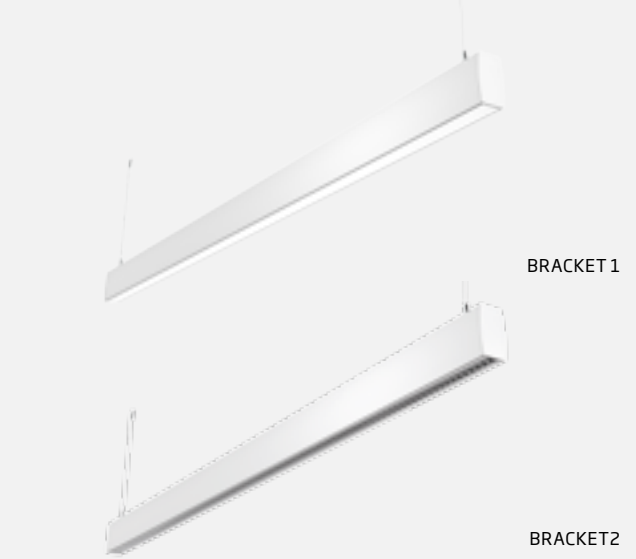
- Luminous flx: 1400 lm
- Power: 19 W
- Max. luminous efficacy: 93 lm/W
- Color temperature: 3000K, 4000K
- CRI: > 80
- IP21, IP44
- Power supply: 230 V AC

BASE LED system features include:

- luminaire for surface mounting on walls or ceilings
- an opal diffuser to ensure even light distribution
- increased ingress protection rating (IP44)
- also available with a motion sensor – a great way to optimize operating costs

PRODUKTY

system BRACKET 1



Technical data BRACKET 1:

- Luminous flx: 3000 – 9300 lm
- Power: 26–85 W
- Maximum luminous efficacy: 122 lm/W
- Tcp: 3000K, 4000K
- CRI: > 80
- IP20
- Power supply: 230 V AC

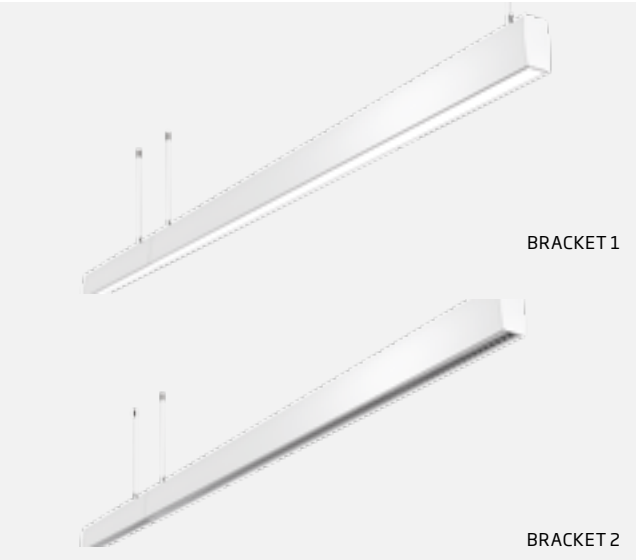
Technical data BRACKET 2:

- Luminous flx: 3400-10200 lm
- Power: 26–85 W
- Maximum luminous efficacy: 132 lm/W
- Tcp: 3000K, 4000K
- CRI: > 80
- IP20
- Power supply: 230 V AC

BRACKET system features:

- a luminaire made of white powder-coated aluminum profile direct and indirect light
- 2 light distribution options available – with an opal diffuser or a parabolic louvre made of miro sheet
- 2 color temperatures available – led 830, led 840
- ON/OFF and DALI versions available
- 3 lengths available – 980 mm, 1465 mm, 1950 mm

system BRACKET 2



Technical data BRACKET 1:

- Luminous flx: 3400-10200 lm
- Power: 26–85 W
- Maximum luminous efficacy: 132 lm/W
- Tcp: 3000K, 4000K
- CRI: > 80
- IP20
- Power supply: 230 V AC

Technical data BRACKET 2:

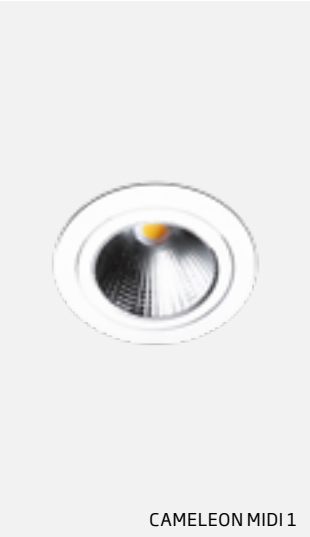
- Luminous flx: 14300-14600 lm
- Power: 120 W
- Maximum luminous efficacy: 122 lm/W
- Tcp: 3000K, 4000K
- CRI: > 80
- IP20
- Power supply: 230 V AC

BRACKET module features:

- modules made of white powder-coated aluminum profile modules with direct and indirect light
- 2 light distribution options available – with an opal diffuser or a parabolic louvre made of miro sheet
- 2 color temperatures available – led 830, led 840
- ON/OFF and DALI versions available
- starting, middle/end and end modules available for creating linear luminaire structures

PRODUCTS

system CAMELEON MIDI



CAMELEON MIDI 1

CAMELEON MIDI 2

Technical data:

- Luminous flx: 790–5600 lm
- Power: 8–58 W
- Max. luminous efficacy: 90–103 lm/W
- Color temperature: 3000K, 4000K
- CRI: > 80
- IP20, IP54
- Power supply: 230 V AC

CAMELEON MIDI system features include:

- a luminaire system with individual configuration, adaptable to suit the requirements of any given room
- available in two shapes: round or square
- 4 sizes, 3 light distribution variants, tilted or fixed optics, different color versions available
- ceiling luminaires suitable for recessed or surface mounting
- versions with higher ingress protection (IP54) made to order
- DALI dimmable version optionally available

system CANOS

CANOS

Technical data:

- Luminous flx: 1600–2500 lm
- Power: 16–24 W
- Max. luminous efficacy: 104 lm/W
- Color temperature: 3000K, 4000K
- CRI: > 80
- IP20
- Power supply: 230 V AC

CANOS system features include:

- 2 system sizes – 190 mm and 225 mm
- 2 color temperatures – 3000K and 4000K
- ON/OFF and DALI versions available
- emergency version available
- options with an external PICO power supply available (integrated in the LED plate)

PRODUCTS

system COSMO LED

COSMO LED (clear)

COSMO LED (opal)

COSMO LED LAM

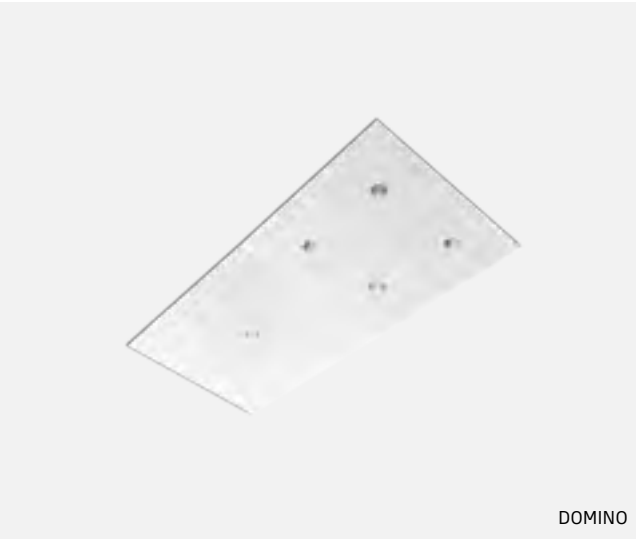
Technical data:

- Luminous flx: 3000-9800 lm
- Power: 25-79 W
- Max. luminous efficacy: 120-132 lm/W
- Color temperature: 3000K, 4000K
- CRI: > 80
- IP65
- IK08
- Power supply: 230 V AC

COSMO LED system features include:

- ceiling-mounted or pendant luminaire
- very high efficiency due to the use of LED technology
- two types of diffusers to choose from, both ensuring uniform light distribution
- increased ingress protection rating (IP65)
- a lamella louvre to reduce unpleasant glare (COSMO LAM)

system DOMINO



DOMINO

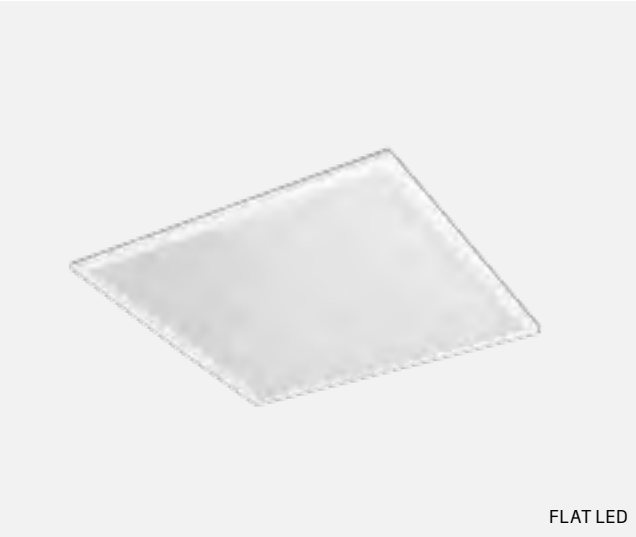
Technical data:

- Luminous flx: 950-11400 lm
- Power: 9-115 W
- Max. luminous efficacy: 105 lm/W
- Color temperature: 3000K, 4000K
- CRI: > 80
- IP20
- Power supply: 230 V AC

DOMINO system features include:

- ceiling recessed or pendant luminaire
- a luminaire made of steel sheet powder coated in black or white (like dominoes)
- 2 color temperatures: 3000K, 4000K
- power supply versions: ON/OFF, DALI
- 3 different sizes: 600x600, 1200x300, 600x300
- versions for German-type ceilings also available : 622x311, 622x622
- 1-12 light modules in different configurations inspired by dominoes and dice
- a luminaire height of only 25 mm
- wide light distribution for excellent lighting uniformity
- low unified gare rating

system FLAT LED



FLAT LED

Technical data:

- Luminous flx: 1400–4000 lm
- Power: 18–40 W
- Max. luminous efficacy: 78–100 lm/W
- Color temperature: 4000K
- CRI: > 80
- IP/IK: 20
- Power supply: 230 V AC

FLAT LED system features include:

- a very flat, narrow luminaire for installation in suspended ceilings with low ceiling voids
- uniform light distribution
- suitable for installation in modular ceilings or for surface mounting or installation in plasterboard ceilings using additional accessories

system LEDEX N

LEDEX N

Technical data:

- Luminous flx: 6500 lm
- Power: 50 W
- Max. luminous efficacy: 130 lm/W
- Color temperature: 4000K
- CRI: > 80
- IP/IK: 20
- Power supply: 230 V AC

LEDEX N system features include:

- ceiling-mounted or pendant luminaire
- a high performance lens system to ensure exceptional working and learning comfort
- an asymmetrical version for lighting blackboards and whiteboards in classrooms
- a high color rendering index ensures adequate contrast and improves students' working comfort

PRODUCTS

system LUNA LED

LUNA LED

Technical data:

- Luminous flx: 1250- 16 000 lm
- Power: 16-206 W
- Max. luminous efficacy: 78-88 lm/W
- Color temperature: 3000K, 4000K
- CRI: > 80
- IP20
- Power supply: 230 V AC

LUNA LED system features include:

- 2 color temperatures - 3000K and 4000K
- ON/OFF and DALI versions available
- an evenly illuminated diffuser that ensures ideal light dispersion
- DYNAWHITE version available
- versions for pendant, recessed and surface ceiling installation available (LUNA BIS LED)

system MODERNA

MODERNA 2 (600)

MODERNA 2N (1200)

MODERNA 3Z

Technical data:

- Luminous flx: 2650-5400 lm
- Power: 24-47 W
- Max. luminous efficacy: 114-117 lm/W
- Color temperature: 3000K, 4000K
- CRI: > 80
- IP20
- Power supply: 230 V AC

MODERNA system features include:

- luminaire for recessed installation in suspended and plasterboard ceilings, optionally suitable for pendant mounting
- a specialist MIRO SILVER aluminum louvre for very good glare protection (UGR 16-19) and high lighting uniformity
- a luminaire housing height of only 26 mm
- DALI dimmable version available
- quick and intuitive installation

PRODUCTS

system OPPOSITE

OPPOSITE 1/DYNAWHITE

OPPOSITE 2/DYNAWHITE

Technical data:

- Luminous flx: 4000–4200 lm
- Power: 46–50 W
- Max. luminous efficacy: 80–87 lm/W
- Color temperature: 3000K, 4000K, 2700–6500 K
- CRI: > 80
- IP40
- Power supply: 230 V AC

OPPOSITE system features include:

- luminaire for recessed installation in modular and plasterboard ceilings
- square and circular, concave and convex versions available, allowing the creation of exceptional interior arrangements
- a microprismatic diffuser for excellent light distribution and very good glare protection (UGR 18–19)
- DALI dimmable version available
- also comes in a DYNAWHITE variant, with a dynamically changing color temperature of the emitted white light

system PLATO LED

PLATO LED

Technical data:

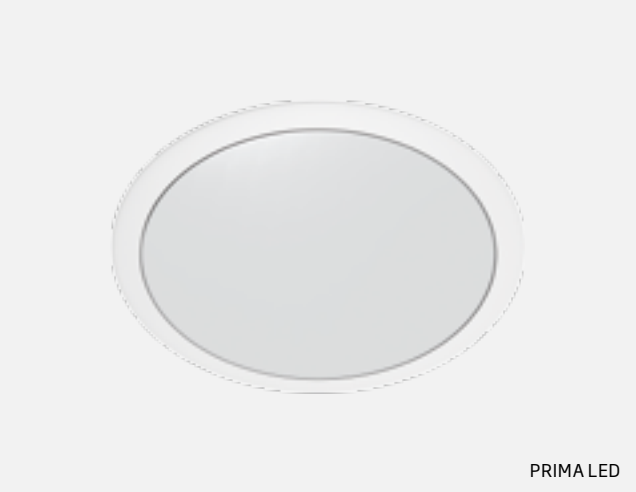
- Luminous flx: 1300–4600 lm
- Power: 13–47 W
- Max. luminous efficacy: 98–100 lm/W
- Color temperature: 3000K, 4000K
- CRI: > 80
- IP40
- Power supply: 230 V AC

PLATO LED system features include:

- luminaire for surface installation on ceilings or walls, with a safe plastic diffuser
- available in 3 sizes
- evenly distributed light
- two color temperatures to choose from
- DALI dimmable version optionally available

PRODUCTS

system PRIMA LED



PRIMA LED

Technical data:

- Luminous flx: 1100–1900 lm
- Power: 11–22 W
- Max. luminous efficacy: 100 lm/W
- Color temperature: 3000K, 4000K
- CRI: > 80
- IP44
- Power supply: 230 V AC

PRIMA LED system features include:

- high ingress protection rating – IP44
- 2 color temperatures – 3000K and 4000K
- ON/OFF and DALI versions available
- emergency version also available

system PURE 1

PURE 1

Technical data:

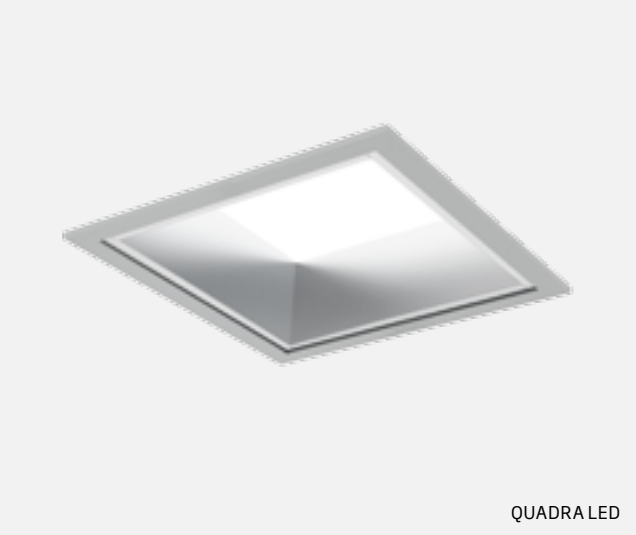
- Luminous flx: 4200–5600 lm
- Power: 34–45 W
- Max. luminous efficacy: 124 lm/W
- Color temperature: 4000K
- CRI: > 90, > 80
- IP65
- Power supply: 230 V AC

PURE 1 system features include:

- 3 system versions available – PURE 1, PURE 3 and PURE 4
- 2 color temperatures: 3000K and 4000K
- high ingress protection rating – IP65
- designed for use in clean rooms
- long LED service life
- 3 optical systems – with matte glass, a microprismatic diffuser or louvre
- 2 sizes – 597x597 and 1197x297
- ON/OFF and DALI versions available

PRODUCTS

system QUADRA LED



QUADRA LED

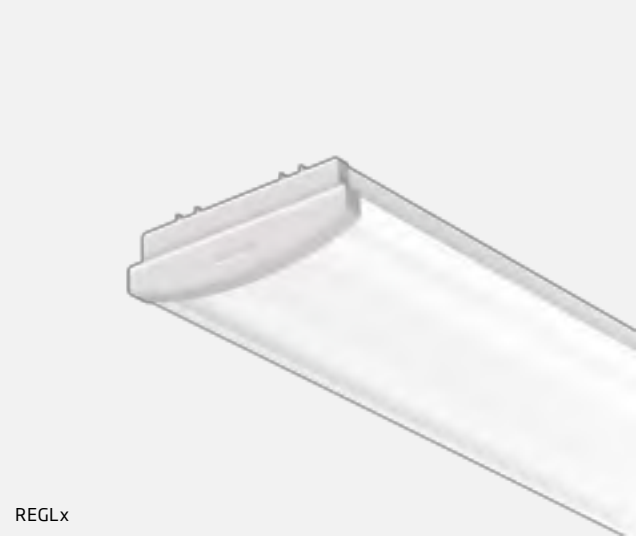
Technical data:

- Luminous flx: 1200–2300 lm
- Power: 11–22 W
- Max. luminous efficacy: 105 lm/W
- Color temperature: 3000K, 4000K
- CRI: > 80
- IP20
- Power supply: 230 V AC

QUADRA LED system features include:

- 2 color temperatures – 3000K and 4000K
- ON/OFF and DALI versions available
- emergency version available
- high quality reflector made of MIRO aluminum sheet
- also available as QUADRA 2 with a PICO power supply (integrated with the LED light source)

system REGLUX



REGLx

Technical data:

- Luminous flx: 3200–7400 lm
- Power: 30–67 W
- Max. luminous efficacy: 107–120 lm/W
- Color temperature: 3000K, 4000K
- CRI: > 80
- IP44
- Power supply: 230 V AC

REGLx system features include:

- a modern ceiling luminaire
- Two color temperatures to choose from
- available in two luminous flx and power variants:
- HO (high output), which ensures an excellent luminous flx value and a high luminous efficacy, and
- HE (high efficiency), for the most efficient and cost-effective light distribution at a given rated power

PRODUCTS

system RETRO

RETRO

Technical data:

- Luminous flx: 1400–2100 lm
- Power: 15–26 W
- Max. luminous efficacy: 93 lm/W
- Color temperature: 3000K
- CRI: > 80
- IP20
- Power supply: 230 V AC

RETRO system features include:

- a luminaire for lighting in clubs, cafes, restaurants, receptions, hotels and lofts
- retro design
- two luminaire sizes: 375 mm and 450 mm
- color temperature: 3000K
- different colors to choose from

system TITANIA LED

TITANIA LED 300/400/500

Technical data:

- Luminous flx: 2200–4600 lm
- Power: 23–47 W
- Max. luminous efficacy: 94–98 lm/W
- Color temperature: 3000K, 4000K
- CRI: > 80
- IP20
- Power supply: 230 V AC

TITANIA LED system features include:

- luminaire for surface installation on ceilings or walls
- a steel gray frame to give the product a contemporary, elegant look
- an opal diffuser for uniform light distribution
- two color temperatures to choose from
- DALI dimmable version optionally available

PRODUCTS

system TRANSPARENT

TRANSPARENT

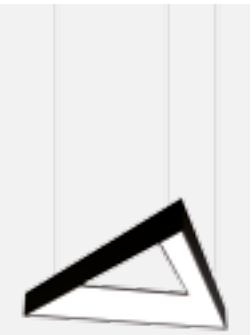
Technical data:

- Luminous flx: 2900–5800 lm
- Power: 38–76 W
- Max. luminous efficacy: 76 lm/W
- Color temperature: 3000K, 4000K
- CRI: > 80
- IP40
- Power supply: 230 V AC

TRANSPARENT system features include:

- pendant luminaire
- modern design and lightweight construction
- a unique light distribution technology thanks to the use of a transparent diffuser provides evenly distributed light and a low glare index
- 2 luminaire sizes
- two color temperatures
- DALI dimmable version also available
- CIRCADIAN version optionally available; this version changes the color temperature, influencing the process of melatonin release and regulating the human circadian rhythm

system TRIANGLE



TRIANGLE 650

TRIANGLE 1300

Technical data:

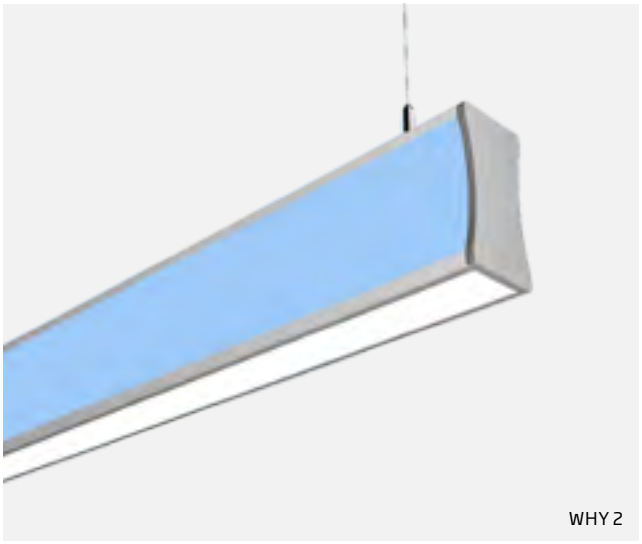
- Luminous flx: 3500–7600 lm
- Power: 41–82 W
- Max. luminous efficacy: 93 lm/W
- Color temperature: 3000K, 4000K
- CRI: > 80
- IP20
- Power supply: 230 V AC

TRIANGLE system features include:

- innovative design by the MEDUSA GROUP
- the possibility of creating multi-level light structures
- the system comes in 2 sizes – 650 mm and 1300mm
- 2 color temperatures – 3000K and 4000K
- 2 types of diffusers – opal and microprismati
- ON/OFF, DALI and SWITCH DIM versions available
- long LED service life
- unlimited design possibilities

PRODUCTS

system WHY 1, WHY 2



WHY 2

Technical data:

- Luminous flx: 5200–10800 lm
- Power: 67–167 W
- Max. luminous efficacy: 71–72lm/W
- Color temperature: 3000K, 4000K
- CRI: > 80
- IP20
- Power supply: 230 V AC

WHY 1, WHY 2 system features include:

- a unique design
- 2 WHY system types – WHY 1, WHY 2
- 2 color temperatures available – 3000K and 4000K + RGB
- available opal diffuser
- different light distribution directions – direct only, direct/indirect, direct/indirect and sideways
- different light control systems available

system WHY 3, WHY 4

WHY 3

Technical data:

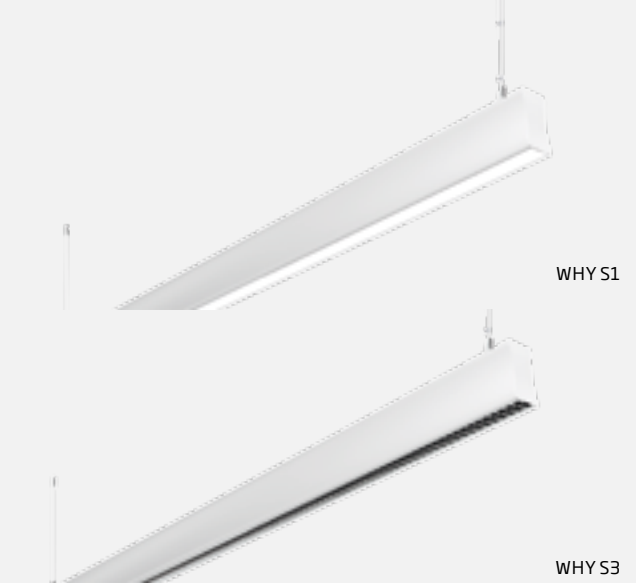
- Luminous flx: 5800–12000 lm
- Power: 67–167 W
- Max. luminous efficacy: 71–90lm/W
- Color temperature: 3000K, 4000K
- CRI: > 80
- IP20
- Power supply: 230 V AC

WHY 3, WHY 4 system features include:

- a unique design
- 2 WHY system types – WHY 3, WHY 4
- 2 color temperatures available – 3000K and 4000K + RGB
- available opal diffuser
- different light distribution directions – direct only, direct/indirect, direct/indirect and sideways
- different light control systems available

PRODUKTY

system WHY S1 and WHY S3



Technical data WHY S1:

- Luminous flx: 3000-9300 lm
- Power: 26-85 W
- Maximum luminous efficacy: 122 lm/W
- Tcp: 3000K, 4000K
- CRI: > 80
- IP20
- Power supply: 230 V AC

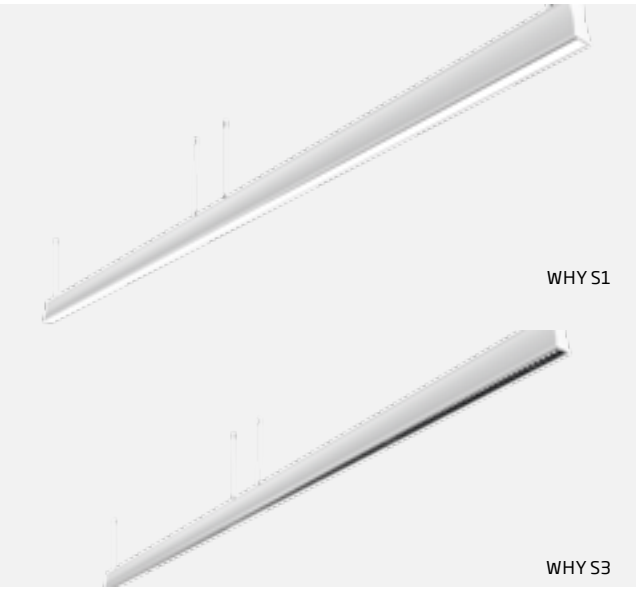
Technical data WHY S3:

- Luminous flx: 3400-10200 lm
- Power: 26-85 W
- Maximum luminous efficacy: 132 lm/W
- Tcp: 3000K, 4000K
- CRI: > 80
- IP20
- Power supply: 230 V AC

WHY S system features:

- a luminaire made of white powder-coated aluminum profile
- direct and indirect light
- 2 light distribution options available - with an opal diffuser or a parabolic louvre made of miro sheet
- 2 color temperatures available - led 830, led 840 ON/OFF and dali versions available
- 3 lengths available - 980 mm, 1465 mm, 1950 mm

module WHY S1 and WHY S3



Technical data WHY S1:

- Luminous flx: 13000 - 13300 lm
- Power: 120 W
- Maximum luminous efficacy: 111 lm/W
- Tcp: 3000K, 4000K
- CRI: > 80
- IP20
- Power supply: 230 V AC

Technical data WHY S3:

- Luminous flx: 14300-14600 lm
- Power: 120 W
- Maximum luminous efficacy: 122 lm/W
- Tcp: 3000K, 4000K
- CRI: > 80
- IP20
- Power supply: 230 V AC

WHY S module features:

- modules made of white powder-coated aluminum profile modules with direct and indirect light
- 2 light distribution options available - with an opal diffuser or a parabolic louvre made of miro sheet
- 2 color temperatures available - led 830, led 840 ON/OFF and dali versions available
- starting, middle/end and end modules available for creating linear luminaire structures

OUTDOOR LIGHTING

system MILEDIA

MILEDIA

Technical data:

- Luminous flx: 3800–5000 lm
- Power: 41–55 W
- Max. luminous efficacy: 91 lm/W
- Color temperature: 3000K, 4000K
- CRI: > 80
- IP65
- IK10
- Power supply: 230 V AC

MILEDIA system features include:

- luminaire for installation on poles
- single chamber construction, aluminum housing
- 4DIM (AstroDIM) lighting control system compatibility
- 3 diffuser types: opal, ribbed and transparent
- 3 color temperatures available: 3000K, 4000K and 5700K

system PARK FLOWER

PARK FLOWER

Technical data:

- Luminous flx: 6200–13600 lm
- Power: 63–130 W
- Max. luminous efficacy: 108–109 lm/W
- Color temperature: 3000K, 4000K
- CRI: > 80
- IP65
- Power supply: 230 V AC

PARK FLOWER system features include:

- versions with 2, 3, 4 or more petals available
- the unique possibility of changing the luminaire's photometry by tilting or rotating the petals
- optional lighting control via DALI
- 2 diffuser types: transparent or matte
- 2 color temperatures available: 3000K and 4000K

system RACER MINI

RACER MINI

Technical data:

- Luminous flx: 1800-14500 lm
- Power: 20-143 W
- Max. luminous efficacy: 121 lm/W
- Color temperature: 4000K, 6000 K
- CRI: > 70
- IP66
- Power supply: 230 V AC

RACER MINI system features include:

- die-cast aluminum housing
- tool-free access to the gear compartment
- dual chamber construction – optics separated from the gear compartment
- StepDIM, AstroDIM, DALI and Zlight control system compatibility
- operating temperature ranging from -30 to 50°C

EMERGENCY LIGHTING

system MONITOR1 IP40 LED

MONITOR1
IP40 LED

Technical data:

- Light source power: 1,2 W
- IP40
- Protection class: II, III
- Power supply: 230 V AC, 220 V DC, 24 V DC

MONITOR1 IP40 LED system features include:

- available versions: STI, ATI, CTI2 3x64, CTI-DALI, CB24, CB24A, CB220
- materials: plastic, PC
- installation: surface mounting on walls
- operating time: 1 h, 3 h
- sign visibility range: 20 m

*STI – standard version, ATI – version for individual monitoring, CTI2 3x64 – version for central monitoring, CTI-DALI – DALI version for central monitoring, CB24 – version for the 24V central battery, CB24A – version for the 24V central battery with addressing, CB220 – version for the 220V central battery

system MONITOR1 IP65 LED

MONITOR1
IP65 LED

Technical data:

- Light source power: 1,2 W
- IP65
- Protection class: II, III
- Power supply: 230 V AC, 220 V DC, 24 V DC

MONITOR1 IP65 LED system features include:

- available versions: STI, ATI, CTI2 3x64, CTI-DALI, CB24, CB24A, CB220
- materials: plastic, PC
- installation: surface mounting on walls
- operating time: 1 h, 3 h
- sign visibility range: 22 m

system SCREEN BASIC LED

SCREEN
BASIC LED

Technical data:

- Light source power: 1,2 W
- IP20
- Protection class: II, III
- Power supply: 230 V AC, 220 V DC, 24 V DC

SCREEN BASIC LED system features include:

- available versions: STI, CB24, CB24A, CB220
- materials: aluminum profile, Plexiglas
- installation: surface mounting on ceilings
- operating time: 1 h, 3 h
- sign visibility range: 30 m

EMERGENCY LIGHTING

system VERSO LED

VERSO LED

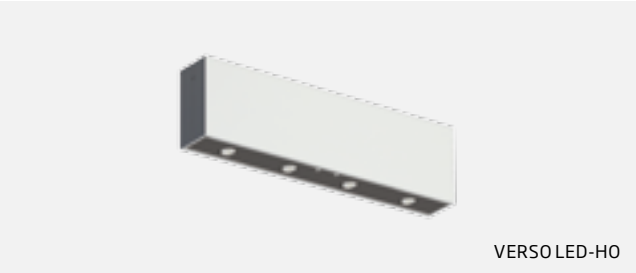
Technical data:

- Light source power: 1,2 W
- IP40
- Protection class: II, III
- Power supply: 230 V AC, 220 V DC, 24 V DC

VERSO LED system features include:

- available versions: STI, ATI, CTI2 3x64, CTI-DALI, CB24, CB24A, CB220
- materials: plastic, PC
- installation: surface mounting on ceilings
- operating time: 1 h, 3 h
- sign visibility range: 30 m

system VERSO LED-HO



VERSO LED-HO

Technical data:

- Light source power: 4x1 W
- IP40
- Protection class: II, III
- Power supply: 230 V AC, 220 V DC, 24 V DC

VERSO LED-HO system features include:

- available versions: STI, ATI, CTI2 3x64, CTI-DALI, CB24, CB24A, CB220
- materials: plastic, PC
- installation: surface mounting on ceilings
- operating time: 1 h, 3 h

system MONITOR1 IP65 LED-HO

MONITOR1
IP65 LED-HO

Technical data:

- Light source power: 4x1 W
- IP65
- Protection class: II, III
- Power supply: 230 V AC, 220 V DC, 24 V DC

MONITOR1 IP65 LED-HO system features include:

- available versions: STI, ATI, CTI2 3x64, CTI-DALI, CB24, CB24A, CB220
- materials: plastic, PC
- installation: surface mounting on ceilings
- operating time: 1 h, 3 h

EMERGENCY LIGHTING

system COBRA LED

COBRA LED

Technical data:

- Light source power: 2x1 W, 3x1 W
- IP20
- Protection class: I, III
- Power supply: 230 V AC, 220 V DC, 24 V DC

COBRA LED system features include:

- available versions: STI, ATI, CTI2 3x64, CTI-DALI, CB24, CB24A, CB220
- materials: painted steel sheet
- installation: recessed mounting in ceilings
- operating time: 1 h, 3 h

system POINT LED

POINT LED

Technical data:

- Light source power: 1x1 W
- IP40/20
- Protection class: II, III
- Power supply: 230 V AC, 220 V DC, 24 V DC

POINT LED system features include:

- available versions: STI, ATI, CTI2 3x64, CTI-DALI, CB24, CB24A, CB220
- materials: plastic, PC
- installation: recessed mounting in ceilings
- operating time: 1 h, 3 h

ES-CTI2 3x64

ES-CTI2 3x64

Technical data:

- Maximum number of devices per unit: 192
- Maximum number of devices per bus: 64
- No. of communication buses: 3
- LCD display
- Power supply: 230 V AC

ES-CTI2 3x64 features include:

- battery and light source status monitoring in emergency luminaires
- manual and automatic functional test activation
- manual and automatic autonomy test activation
- grouping of the installed luminaires according to their function
- maximum number of devices per system: unlimited

EMERGENCY LIGHTING

ES-NET CB220

ES-NET CB220

Technical data:

- Maximum number of devices per unit: unlimited
- Maximum number of devices per bus: 20
- No. of communication buses: unlimited
- Load current of each circuit: 3 A
- Maximum power load of the system: 1.5 kVA, 2 kVA, 5.2 kVA, 9.2 kVA, 14.4 kVA, 18 kVA
- IP20
- LCD display
- Power supply: 230 V AC

ES-NET CB220 features include:

- system programming via: a system application, a web browser and a master module keyboard
- luminaire testing via the power supply line
- compatible with BMS (Building Management System)
- direct communication with any computer via Ethernet
- AGM batteries with a declared service life of 10 years
- automatic luminaire and circuit calibration

ES-CTI2 CB24V

ES-CTI2 CB24V

Technical data:

- Maximum number of devices per unit: 80
- Maximum number of devices per bus: 20
- No. of communication buses: 4
- Circuit load: 6 A
- System load: 16 A
- IP20
- LCD display

ES-CTI2 CB24V features include:

- automatic testing according to a set schedule
- reading and printing from the event log
- freely programmable mixed-mode operation on a circuit for addressable luminaires
- CB24A system communication with the luminaires via the power supply lines
- grouping of the luminaires according to their function
- monitoring of power failures by means of voltage and potential-free connectors
- batteries with a declared service life of 10 years

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