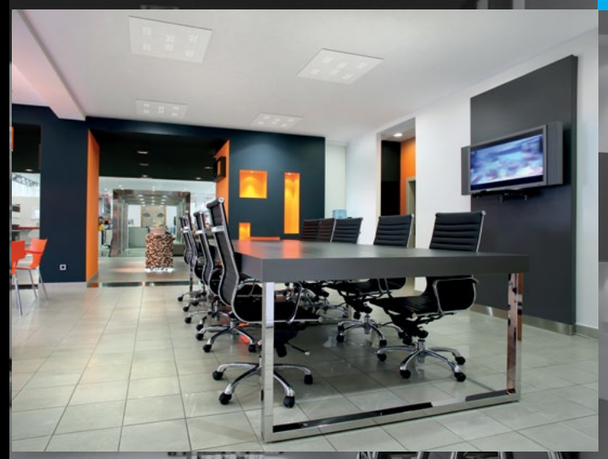

# Declan

So many possibilities with each luminaire

LED

2016 / EN


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# Declan

RECESSED
SURFACED / SUSPENDED

A unique family of general illumination luminaires built around the innovative Infinitas 3in1 LED unit. DECLAN provides excellent light quality and parameters to guarantee visual comfort.

Declan Recessed PB1

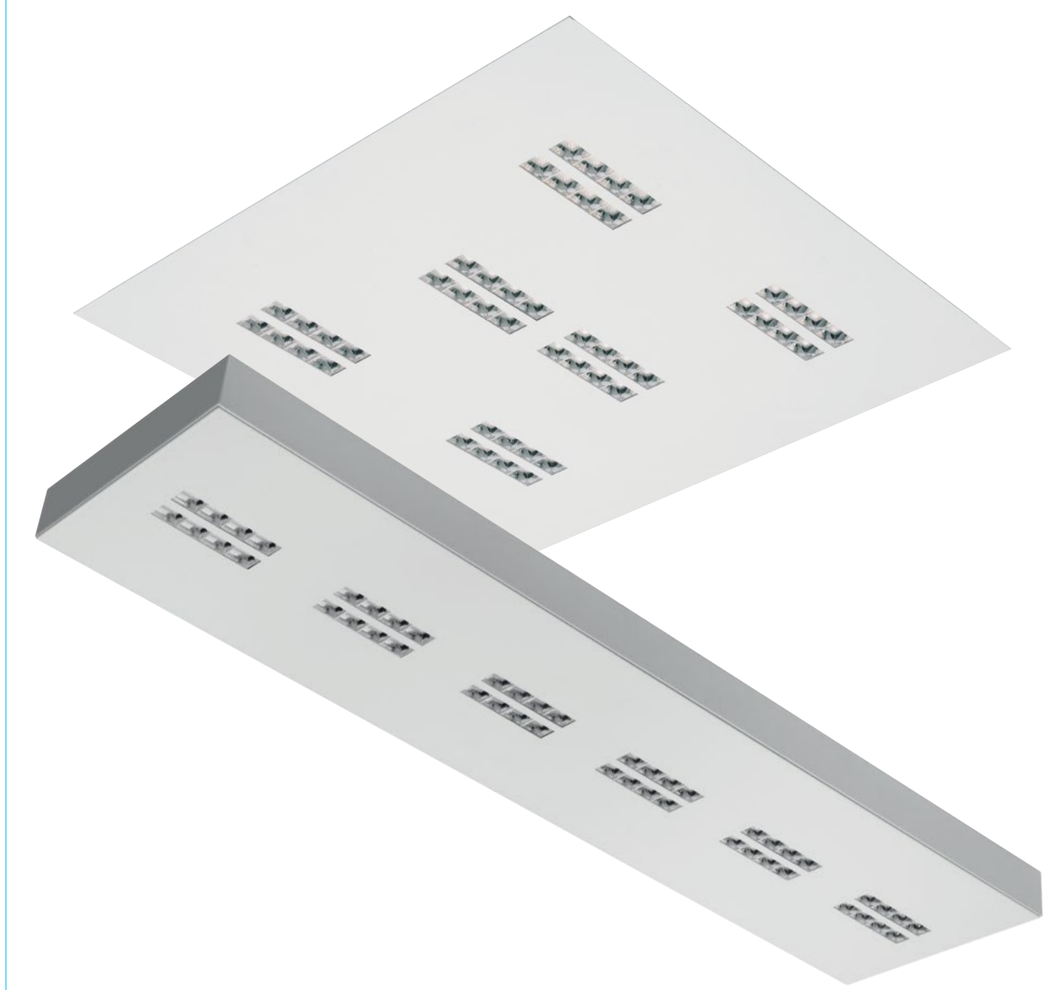
For many years now, general illumination has been dependent on standardised square and rectangular luminaires using fluorescent light sources.

## The past

Originally using FD fluorescent tubes, and later more effective FDH, general illumination is a fundamental field within lighting.

FDH up to 75 lm/W with a lifetime of 20,000 hours

Designed to take the physical place of conventional general illumination luminaires, modern LED products deliver so much more than just a required amount of light.



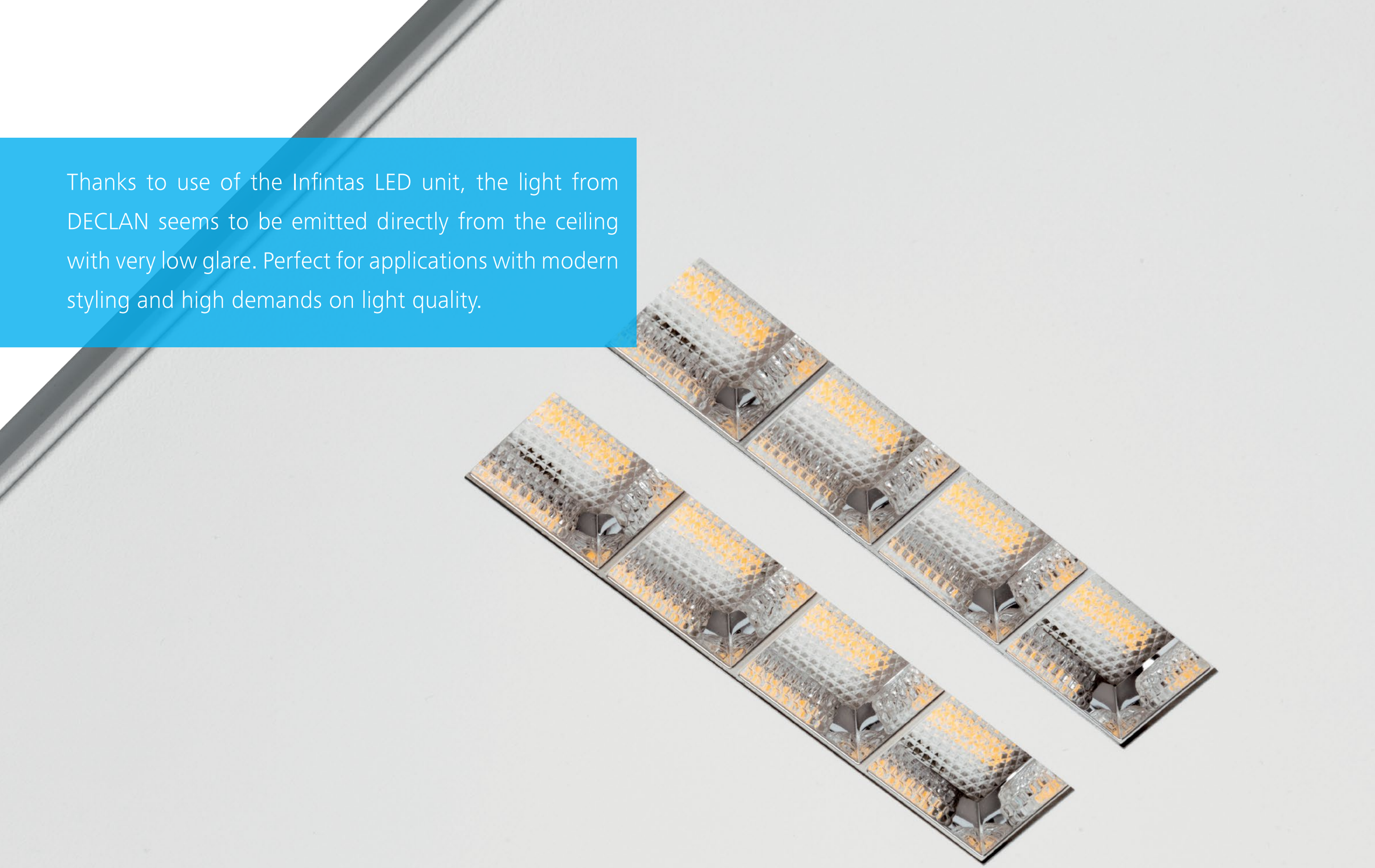
## The future

Higher efficiencies, improved lighting parameters, and almost infitinite controllabilty make LED the light source of choice for modern lighting.

LED

**up to 104 lm/W with a lifetime of 50,000 hours**

Thanks to use of the Infintas LED unit, the light from DECLAN seems to be emitted directly from the ceiling with very low glare. Perfect for applications with modern styling and high demands on light quality.



# Why LED

Many people still choose to install fluorescent luminaires despite the advancement of LED technology. So why exactly should we invest in LED?

■ **LEDs are more effective.** They consume less energy to produce the same light, making them cost effective to run and eco-friendly. This is further enhanced by the fact that LEDs work for longer, approximately twice as long as an equivalent fluorescent light source. And that makes a big difference in the long run, saving time and money on light source changes in addition to the amount and cost of energy used.

■ **LEDs are cleaner.** All light sources contain some amount of hazardous material. However, the amount contained in LEDs is negligible. On the other hand, fluorescent light sources contain significant quantities of mercury and other substances, which are not only dangerous when released into the environment, but also detrimental to our health. That is why fluorescent light sources must be carefully and appropriately disposed of – a hidden and often underestimated cost of conventional lighting systems.

■ **The light can be more easily controlled.** The light emitted from LEDs can be precisely controlled by optical systems designed specifically for LED. This means that light can be more evenly distributed, directed as needed, with reduced glare. Not only does this improve visual comfort, it further adds to the effectiveness of the overall lighting system.

■ **LEDs offer better quality light.** High-quality LEDs offer excellent colour rendition properties, a wide range of colour temperature options, are fully controllable using dimming and Tunable White, and can even emit physiologically beneficial light that benefits our health and wellbeing.

■ **LEDs are infinitely controllable.** LEDs can be dimmed as much as you want with little effect on their lifetime. This is not the case for any other type of light source. What's more, LEDs can be digitally controlled in ways no other light source can, which offers almost inexhaustible possibilities for inclusion into comfortable-to-use and energy saving Lighting Management Systems.

■ **LEDs bring some of the healthful properties of daylight indoors.** By combining Tunable White and dimming, LEDs can be used for daylight simulation, where lighting is used to support or enhance the natural cycle of the human body and so improve health, wellbeing, and performance.

■ **Air conditioning systems can work less.** It is important that indoor spaces not be too hot so that occupants are comfortable and motivated. In spaces where many luminaires are switched on for extended periods of time, an immense amount of heat is emitted from conventional light sources. Subsequently, air conditioning costs in such spaces are very high. By using low-IR LED, the energy consumption of AC systems and associated costs can be greatly reduced.

■ **LEDs improve user-comfort.** Modern LED lighting systems can be designed the way that users can control the lighting that directly affects them. When people have greater control over their environment, they not only benefit from improved comfort, they are happier, healthier, and more satisfied in their work.



In our fight to protect the environment, reduce energy use, and minimise costs, it is clear that LED is the future of lighting.

With consistently increasing demand for energy and its environmental impact, we want to make choices that are not only financially but also ecologically sound. As general illumination is a dominant field in artificial lighting, it is of vital importance to pay attention to long-term luminaire performance. Making the step to install new LED lighting really can make a difference. Maybe more than you expect.

### System efficacy

DECLAN luminaires offer exceptional efficacies. This is the result of combining the best LEDs with cleverly designed PCBs, selection of the most effective components, and the addition of high-performance optical systems.

- DECLAN RECESSED up to 104 lm/W
- DECLAN SURFACED / SUSPENDED up to 104 lm/W

### Service lifetime

All DECLAN luminaires have a lifetime of 50,000 hours / L80. Based on 12 hours of operation per day, 5 days per week, this equates to more than 16 years of reliable service without the need to change a single light source. This can be further improved by the use of a Lighting Management System that allows for dimming and switching off as required, meaning that 100 % output is not used all the time and energy use reduced.

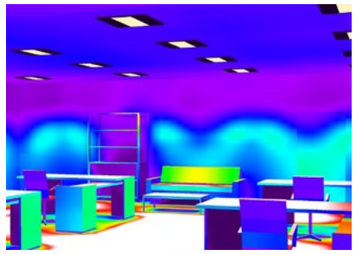
ENERGY SAVING

ECO FRIENDLY

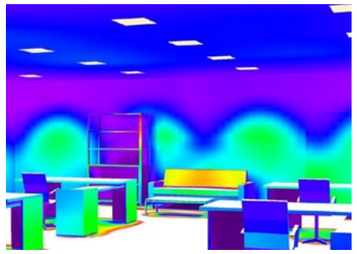
# The real difference LED makes

To fully understand the scope of benefits offered by installing DECLAN, let us make real world comparisons between it and conventional fluorescent luminaires.

RELAX ECO A2 PAR-V
3 x 24 W, 75 W, 3500 lm, 47 lm/W

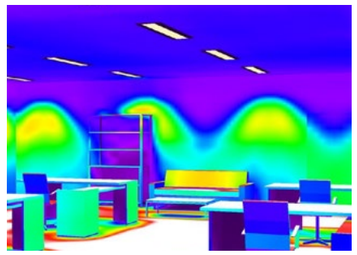


DECLAN RECESSED PV1
35 W, 3650 lm, 104 lm/W

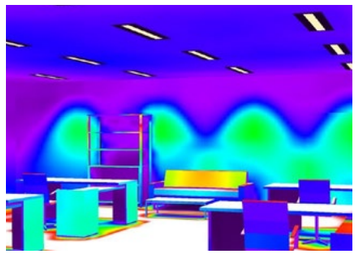


**System efficacy** ▲ 123 %
**Energy consumption** ▼ 53 %

RELAX A8 PAR-V2
2 x 28 W, 59 W, 3900 lm, 66 lm/W

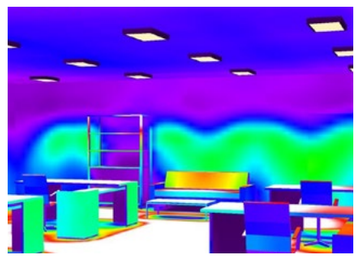


DECLAN RECESSED PV4
35 W, 3650 lm, 104 lm/W

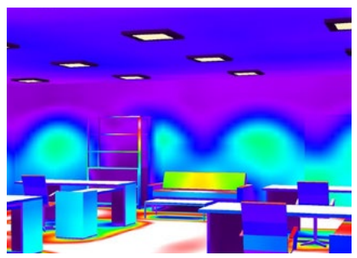


**System efficacy** ▲ 58 %
**Energy consumption** ▼ 41 %

CLASSIC NC PAR-V
4 x 24 W, 100 W, 3900 lm, 39 lm/W

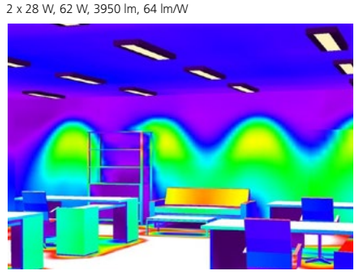


DECLAN SURFACED SS1
35 W, 3650 lm, 104 lm/W

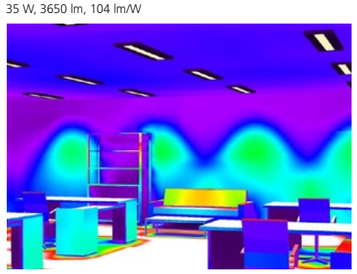


**System efficacy** ▲ 167 %
**Energy consumption** ▼ 65 %

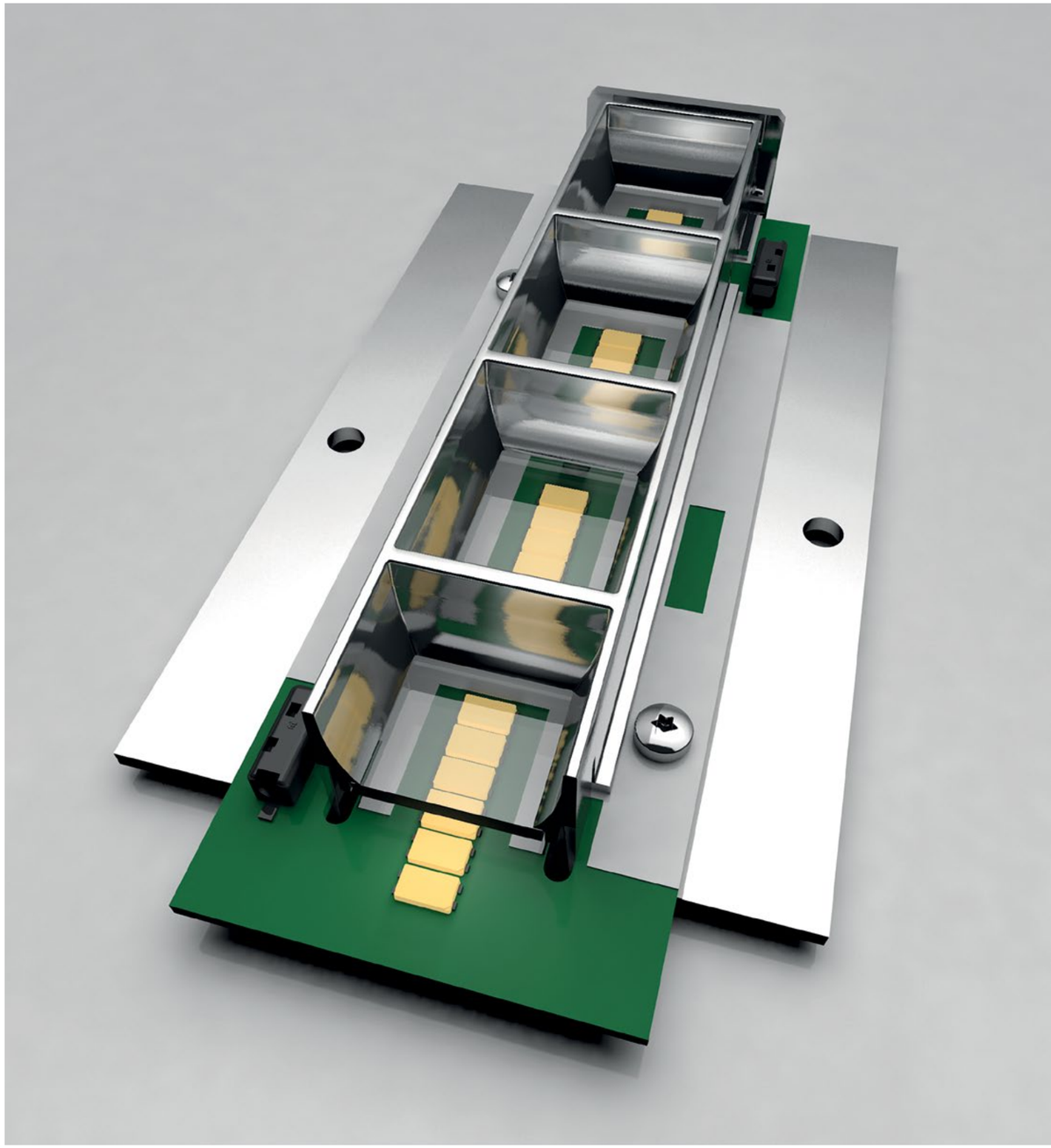
CLASSIC PAR-V2
2 x 28 W, 62 W, 3950 lm, 64 lm/W



DECLAN SURFACED SS4
35 W, 3650 lm, 104 lm/W



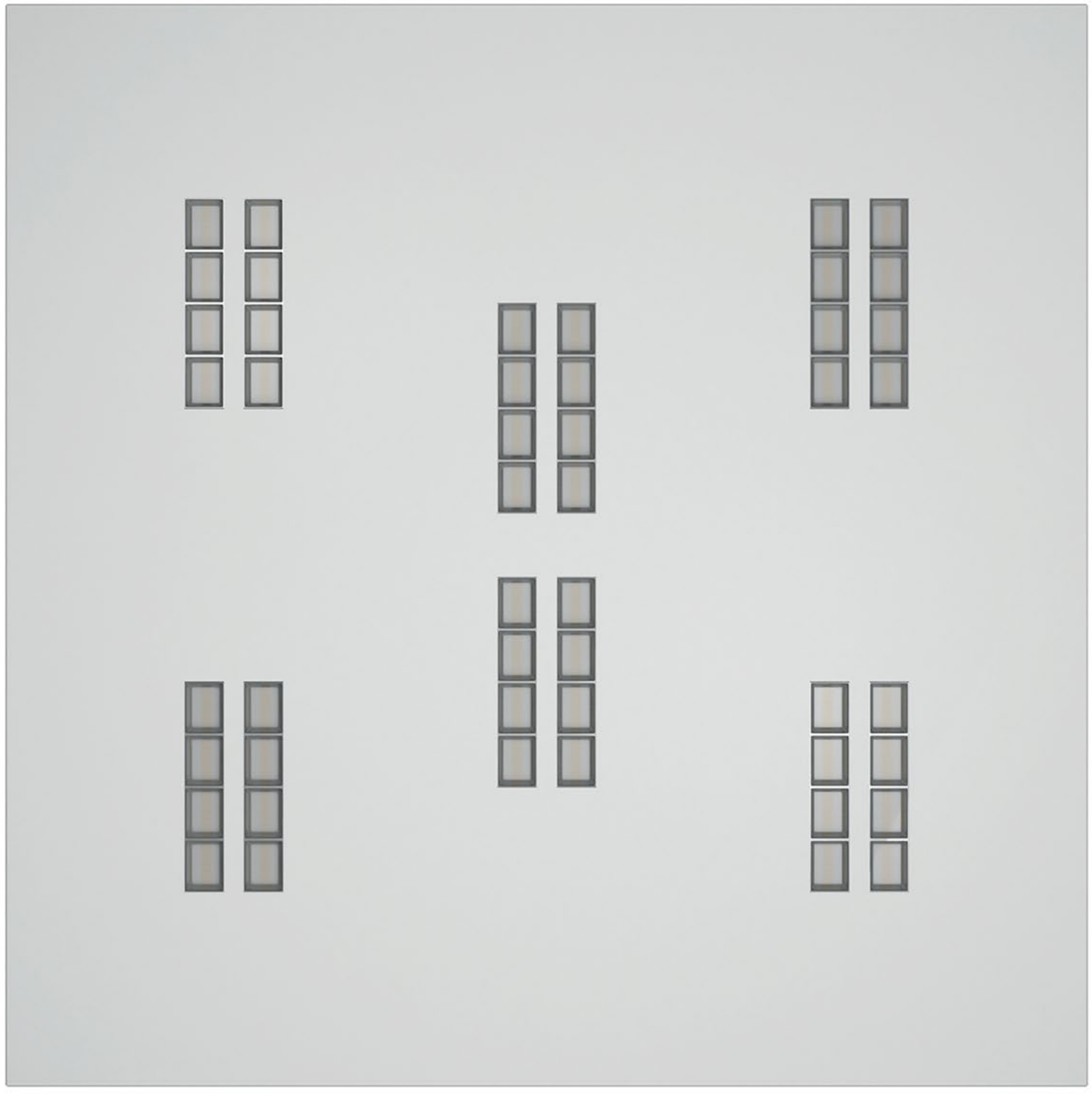
**System efficacy** ▲ 63 %
**Energy consumption** ▼ 44 %



ECO FRIENDLY

ENERGY SAVING

LIGHTING MANAGEMENT SYSTEM



# Declan

General illumination luminaires are the most used type of interior luminaire, with some being found in almost every interior space from offices, receptions, meeting rooms, and classrooms to conferences centres, event halls, hotel rooms, and shops.

**EVEN MORE ON REQUEST**

DECLAN standardly provides illumination with CRI 80+ in CCTs of 3000 K or 4000 K. However, we also offer CRI 90+, and CCTs of 2700 K, 5000 K and 6500 K on request. So, rest assured that even if you have atypical illumination needs, DECLAN will still deliver.

**INNOVATIVE LED UNIT FOR EXCELLENT LIGHT QUALITY**

The most interesting aspect of DECLAN has to be the clever LED unit housed within. The Infinitas 3in1 LED unit combines high-performance LED light sources with carefree thermal management and an original hybrid diffuser and reflector optical system. The resultant LIDC is ideal for offices, classrooms, and visually demanding workplaces in accordance with standards thanks to UGR <19.

**EASY TO CUSTOMISE**

Thanks to the nature of the Infinitas 3in1 LED unit, it is incredibly easy to create a customised version of DECLAN to meet more demanding requirements. Whether you need a higher lumen output, a different shaped luminaire, to use alternative materials, or anything else, we can surely provide what you need.

**A SAFE CHOICE**

DECLAN is IEC Class I, with up to IP40 of the optical part, making the luminaire ideal for use at lower installation heights such as in offices and classrooms where there is always the possibility of contact with the luminaire. This also means DECLAN is easy to clean because there is no risk involved. What's more, each variant can be fitted with a 3H emergency unit on request to ensure sufficient illumination even in crisis situations.

# Design and materials

Designed to guarantee visual comfort and provide optimal efficiency.

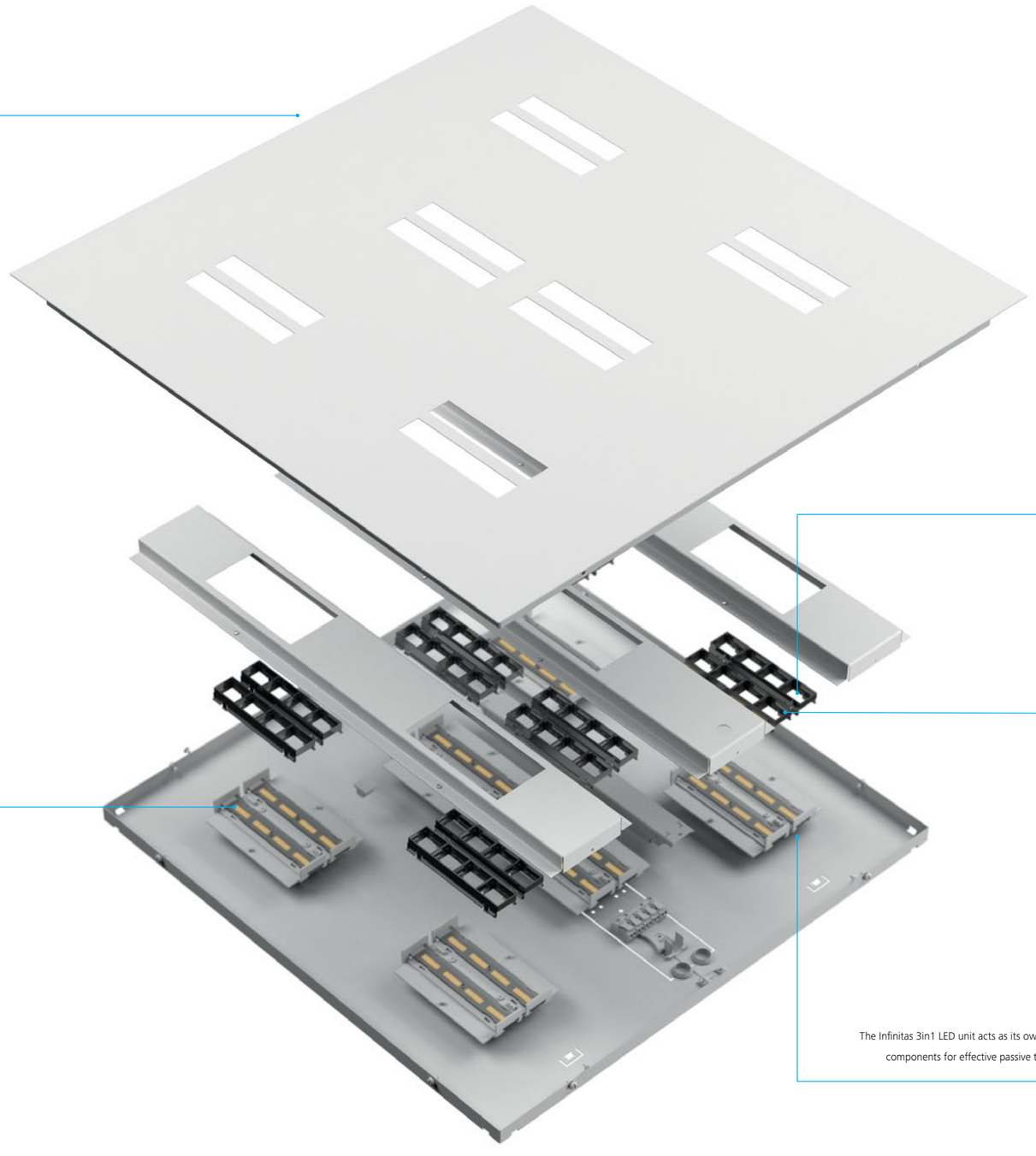
## DECLAN RECESSED

The sheet steel housing is finished in white (RAL 9003) with other colours available on request. Housings have IP20.

3H emergency units can be fit to all variants on request.

Choose between FIX and DALI drivers in all variants. DALI gives you the possibility to use DECLAN in a Lighting Management System.

High-quality LEDs ensure comfortable, effective illumination.



SUSPENDED variants come with 4x 1.35 m suspension ropes (ordered seperately, other lengths available on request).

The diffuser is made of microprismatic PMMA and guarantees the light is emitted evenly across surfaces. It ensures IP40 of the optical part on RECESSED variants.

The reflector is made of polished anodised polycarbonate and ensures the LIDC provided is suitable for visually demanding applications.

The Infinitas 3in1 LED unit acts as its own heatsink, dissipating heat away from the enclosed components for effective passive thermal management and optimal luminaire lifetime.

Declan Recessed PV1

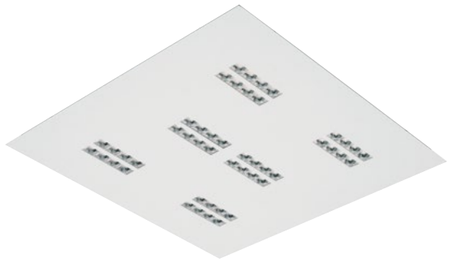
# Declan variants

DECLAN delivers low-glare, comfortable lighting for a wide range of applications.

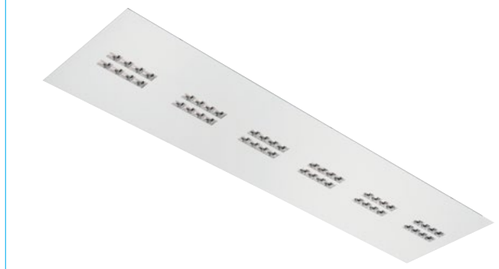
**DECLAN RECESSED**

IP20 IP40

PV / PR 1



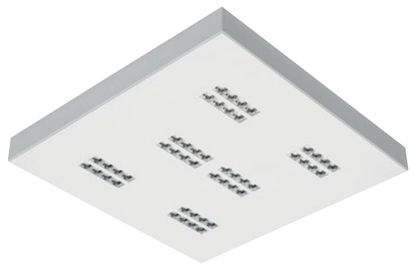
PV / PR 4



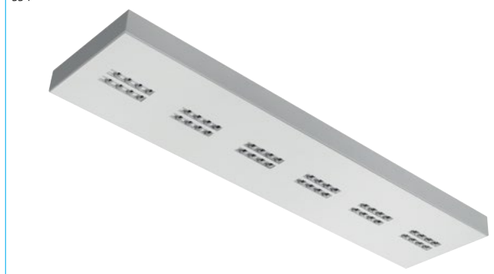
**DECLAN SURFACED / SUSPENDED**

IP20

SS1

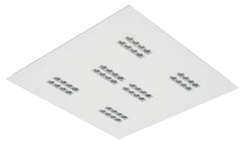


SS4



# Application

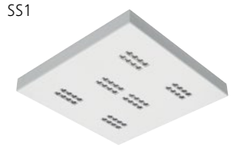
DECLAN RECESSED PV / PR / PB1



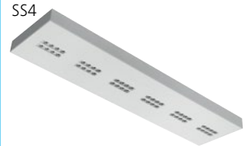
DECLAN RECESSED PV / PR / PB4

**RECESSED**
Ideal for installation in spaces where visually demanding tasks are performed.

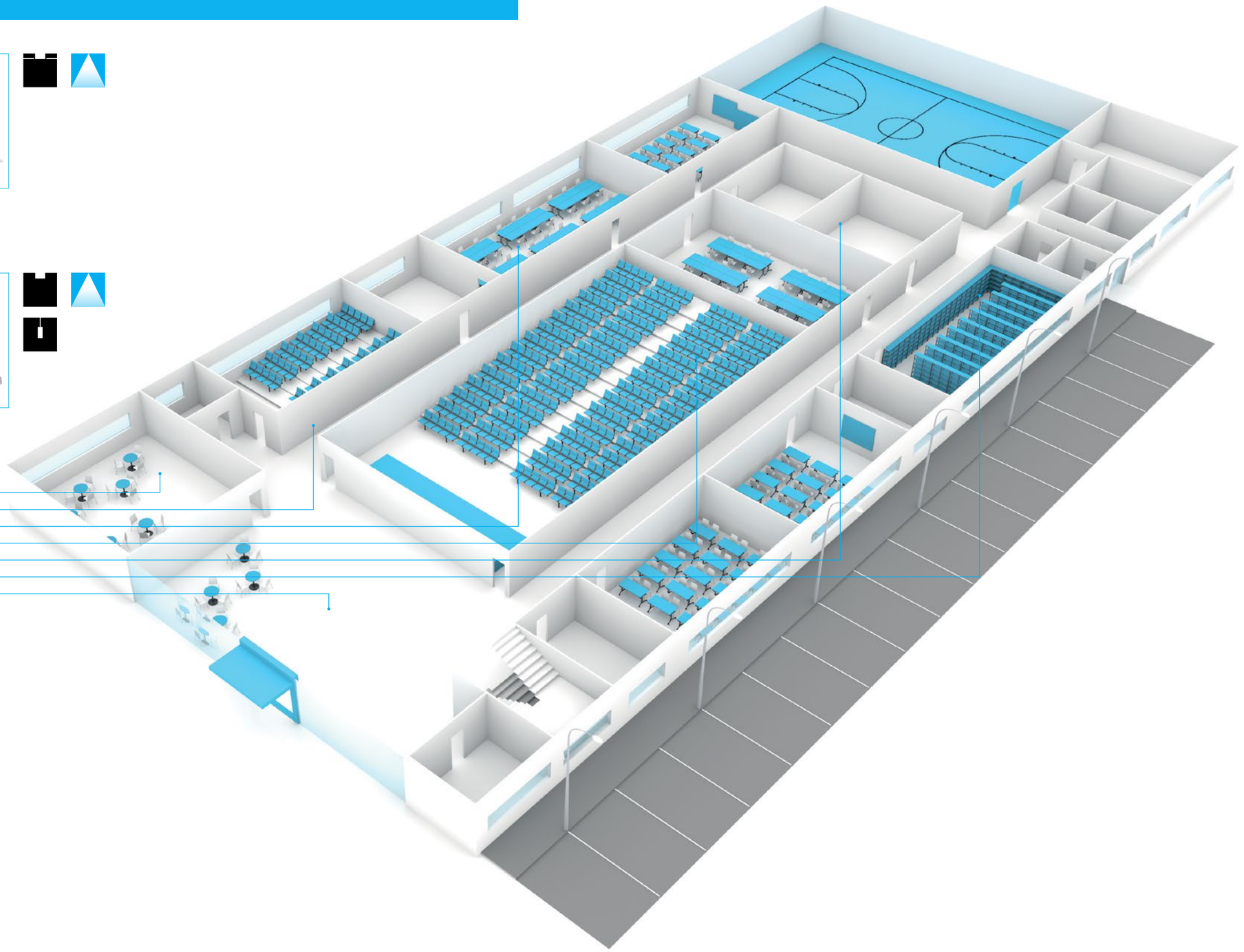
DECLAN SURFACED / SUSPENDED SS1



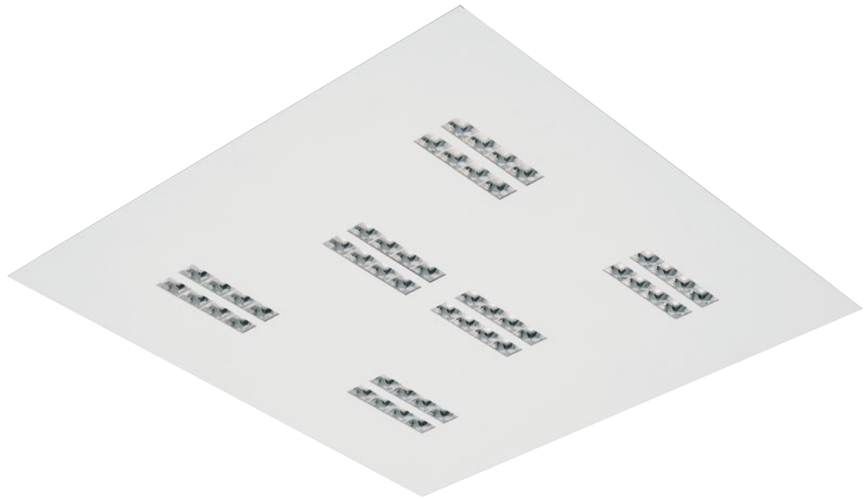
DECLAN SURFACED / SUSPENDED SS4

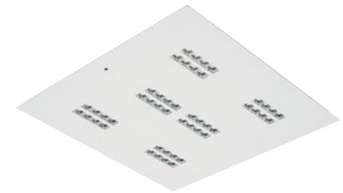


**SURFACED**
Ideal for installation in spaces where visually demanding tasks are performed.

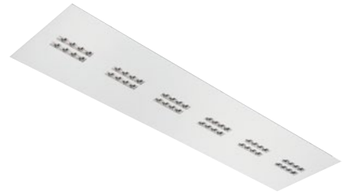



Declan Recessed PB1





PV1 EM



PV4

PB4

PV1 EM

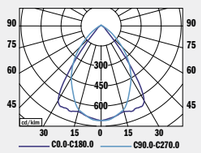
SEPARATING TOOL

# Declan Recessed

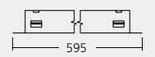
220-240V 50-60Hz | LED | CRI 80+ Ra | CCT 3000 K | CCT 4000 K | ECG | ECG DALI | EMERGENCY | IP 20 | IP 40

| | |
|---|---|
| **Mounting** | Ceiling recessed<br>PVx / PRx – T-ceiling<br>PB – plasterboard ceiling |
| **Light source** | LED |
| **Optical system** | Diffuser + reflector (MCL) |
| **Wiring** | Electronic control gear FIX/DALI (ECG/EDA)<br>Emergency unit variant (3H) |
| **Materials** | Housing: sheet steel<br>Diffuser: microprismatic PMMA<br>Reflector: polished metallised polycarbonate |
| **Surface finish** | Housing: white RAL 9003 (W03) |
| **Accessories** | Separating tool |
| **Service lifetime** | 50,000 hours/L80 |
| **Ambient temperature** | From -20 °C to +35 °C<br>(from 0 °C with EM unit) |

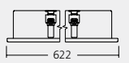
DECLAN PV1
3450 lm 3000 K



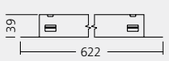

LOR =100 %
lower flux fraction 100 %
upper flux fraction 0 %
UGR <19

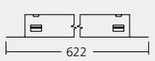





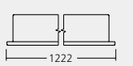


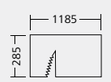


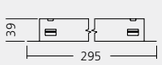


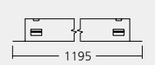



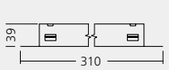


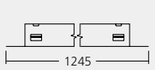


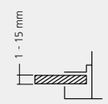




PV (CEILING 600 X 600)

PR (CEILING 625 X 625)



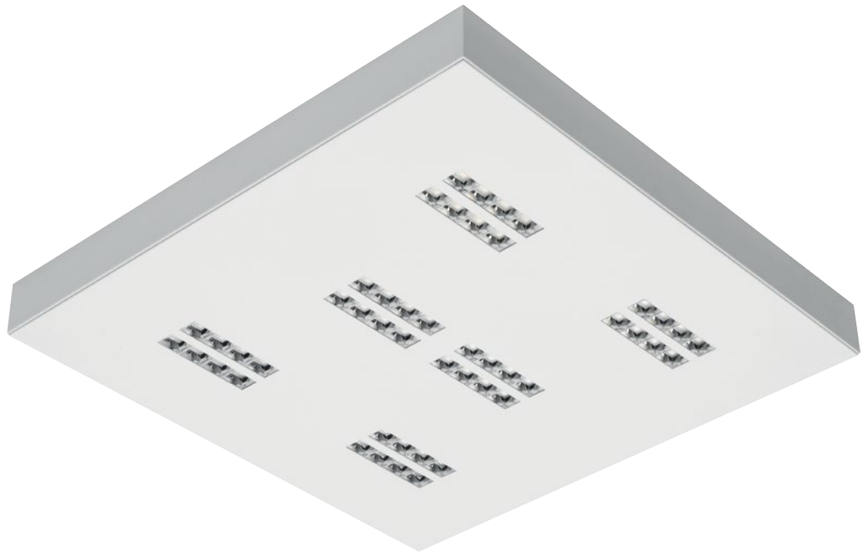

PB CEILING

| TYPE | NET LUMEN OUTPUT (at Ta = 25 °C) [lm] | POWER CONSUMPTION [W] | SYSTEM EFFICACY [lm/W] | COLOUR RENDERING INDEX CRI [Ra] | CORRELATED COLOUR TEMPERATURE CCT [K] | BEAM ANGLE (C0-180, C90-270) | EMERGENCY UNIT 3H [lm] | WEIGHT [kg] |
|---|---|---|---|---|---|---|---|---|
| DECLAN PV/PR/PB 1 | 3450 | 35 | 99 | 80+ | 3000 | 74° | 310 | 5.9 |
| DECLAN PV/PR/PB 1 | 3650 | 35 | 104 | 80+ | 4000 | 74° | 330 | 5.9 |
| DECLAN PV/PR/PB 4 | 3450 | 35 | 99 | 80+ | 3000 | 74° | 310 | 5.7 |
| DECLAN PV/PR/PB 4 | 3650 | 35 | 104 | 80+ | 4000 | 74° | 330 | 5.7 |

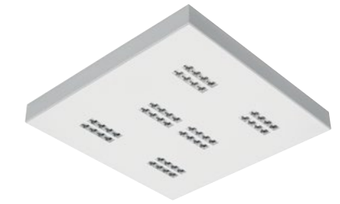
Luminous flux tolerance +/- 10 %.

5 YEARS WARRANTY | MAINTENANCE FREE | ECO FRIENDLY | ENERGY SAVING | UV/IR | HEAT SINK | EEC A++/A+/A

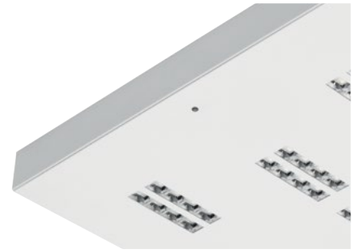
Declan Recessed PV1



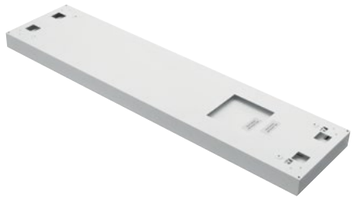
# Declan
# Surfaced / Suspended



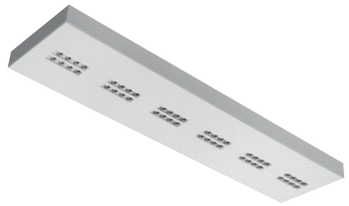
SS1



SS1 EM



SS4 FOR SUSPENDED MOUNTING



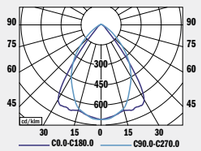
SS4

SUS 1.35 C0/003 SUSPENSION 03

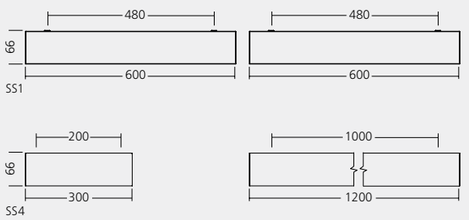
220-240V 50-60Hz | LED | CRI 80+ Ra | CCT 3000 K | CCT 4000 K | ECG | ECG DALI | EMERGENCY | IP20

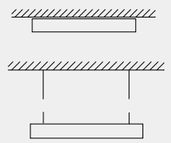
| | |
|---|---|
| **Mounting** | Surfaced/Suspended (SSx) |
| **Light source** | LED |
| **Optical system** | Diffuser + reflector (MCL) |
| **Wiring** | Electronic control gear FIX/DALI (ECG/EDA)<br>Emergency unit variant (3H) |
| **Materials** | Housing: sheet steel<br>Diffuser: microprismatic PMMA<br>Reflector: polished metallised polycarbonate |
| **Surface finish** | Housing: white RAL 9003 (W03) |
| **Service lifetime** | 50,000 hours/L80 |
| **Ambient temperature** | From -20 °C to +35 °C<br>(from 0 °C with EM unit) |

DECLAN PV1
3450 lm 3000 K




LOR =100 %
lower flux fraction 100 %
upper flux fraction 0 %
UGR <19



| TYPE | NET LUMEN OUTPUT (at Ta = 25 °C) [lm] | POWER CONSUMPTION [W] | SYSTEM EFFICACY [lm/W] | COLOUR RENDERING INDEX CRI [Ra] | CORRELATED COLOUR TEMPERATURE CCT [K] | BEAM ANGLE (C0-180, C90-270) | EMERGENCY UNIT 3H [lm] | WEIGHT [kg] |
|---|---|---|---|---|---|---|---|---|
| DECLAN SS1 | 3450 | 35 | 99 | 80+ | 3000 | 74° | 310 | 8.2 |
| DECLAN SS1 | 3650 | 35 | 104 | 80+ | 4000 | 74° | 330 | 8.2 |
| DECLAN SS4 | 3450 | 35 | 99 | 80+ | 3000 | 74° | 310 | 8.2 |
| DECLAN SS4 | 3650 | 35 | 104 | 80+ | 4000 | 74° | 330 | 8.2 |

Luminous flux tolerance +/- 10 %.

Declan Recessed PR1

# OMS

## Quality lighting developed and produced in Europe.

OMS is the developer and producer of industrial and state-of-the-art luminaires and comprehensive interior and exterior lighting solutions. Since our establishment back in 1995, we have risen to become one of the fastest growing lighting companies in Europe, operating in 122 countries around the globe.

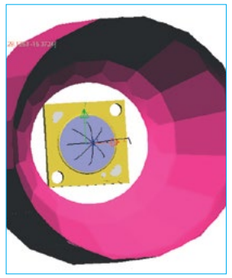
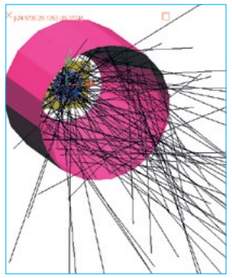
| | |
|---|---|
| Established | 1995 |
| Number of employees | 950 |
| Export | 98.5 % |
| Production surface area | 93,500 m² |

DECLAN

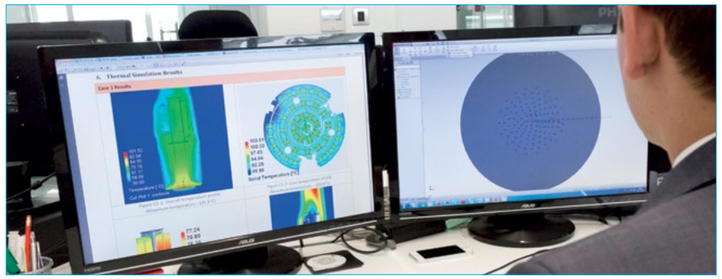
# Innovation requires a different approach.

We have one of the best equipped R&D departments in Europe where you will find a team of highly qualified and experienced specialists. This allows us to develop products from concept to manufacture all under one roof.

**OPTICAL DESIGN**
Optimal luminaire performance is only achieved if effective and appropriate optical parts are selected and refined to meet the specific needs of each product. We have access to the latest development technologies as well as having vast practical experience and theoretical knowledge, all of which are applied to every product that passes through our hands.

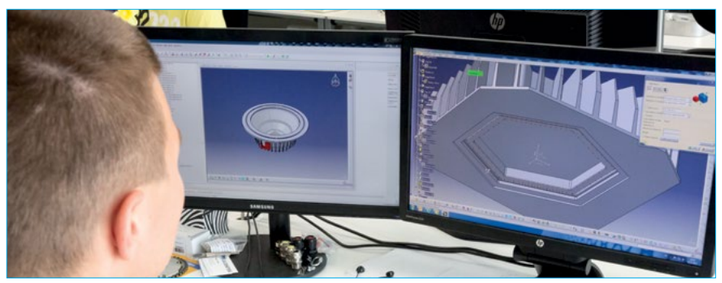
**THERMAL DESIGN**
The digitisation and miniturisation of technologies places increased emphasis on the use of optimal thermal management. We have extensive test facilities that allow us to characterise every product to ensure reliable performance. We are also active in research and the development of innovative concepts.



**ELECTRONIC DESIGN**
The boundaries of electronic design are consistently being broken by new technologies as well as by the innovative use of existing ones, highligthing the need for flawless development processes. We create advanced system level designs with all stages verified in-house, including DALI compatibility and long-term performance. In addition, we put a great deal of energy into the innovation of new products.

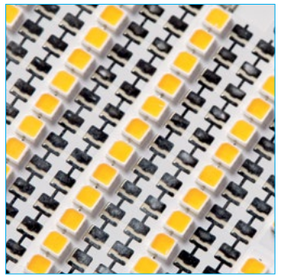
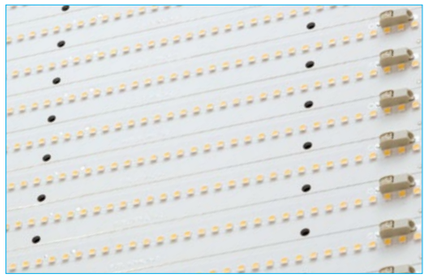


**MECHNICAL ENGINEERING**
We have more than 20 years of experience in the mechanical design of luminaires, their customisation, and the development of other mechanical appliances and precision tools such as optical measurement and electronic testing devices. Using the latest software, analysis methods, and equipment, we can develop mechanical designs for anything from the simplest tools to complete mechanical solutions.

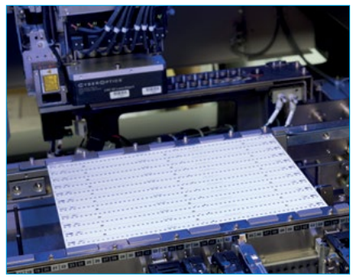


# From concept to manufacture, under one roof.

Our superior manufacturing capabilities are the backbone of the company. For this reason, we view continual technological development as paramount and invest our energy in what matters most.

**LED PRODUCT DEVELOPMENT**
LED light sources offer a great many advantages over conventional ones because they are fundamentally different technologies. This means that the development of LED products requires a fundamentally different approach to their industrial, optical, electronic, thermal, and mechanical design.




**LED PRODUCT MANUFACTURE**
Our LED modules are designed by our own electrical engineers in close collaboration with the optical and thermal teams. This, in combination with fully automated PCB production, means our products meet the most rigorous design standards. All of our LED luminaires are assembled in a specialised ESP facility and thoroughly tested using precision equipment in line with stringent ISO 9001 technical standards.

**METAL & PLASTICS PRODUCTION**
We have been manufacturing luminaires for more than 20 years. That history stands as a firm foundaton for our current high-tech production facilities and processes. We use a wide range of machines that together offer us unbeatable production scalability and versatility.


**SPECIAL REQUEST FACTORY**
Our special request factory provides us with unrivalled flexibility. The machines allow us to make very small and precise parts with ease and at speed so that we can respond quickly to customer demand, produce rapid prototypes and customised solutions, and shorten the development time of new products.

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