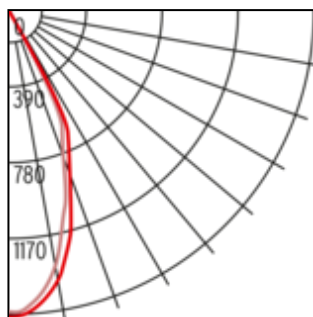
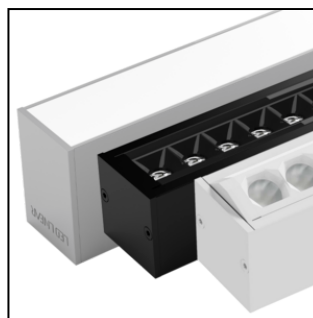


MARS ARCHITECTURAL Surface 42 IQW NANO

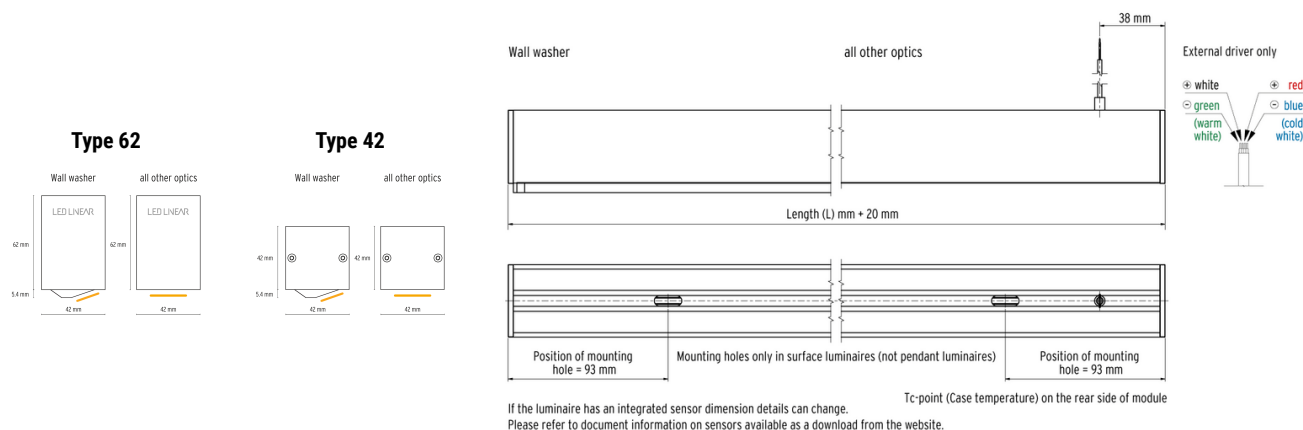
Order code: MARS ARCHITECTURAL SE542 40 40IQW2250 BBED 270

TECHNICAL SPECIFICATIONS

Length	270 mm
CRI	up to 85
R9	up to 22
Electrical Class	III
Lumen (Luminaire)	1060 lm
Color temperature range	2200 K - 5000 K
Lumen/Meter	4370 lm/m
Power of luminaire	10.9 W
Power	40 W/m
Efficiency	97.8
Housing color	Black
Controls	DALI DT-8
Antiglare color	Black
Type	Square, 42 mm
Optics	40° nano optics
Case Temperature (T _{cmin} & T _{cmax})	T _{cmin} = -25°C, T _{cmax} = 80°C
Storage Temperature (T _{smin} & T _{smax})	T _{smin} = -30°C, T _{smax} = 85°C
Ambient Temperature (T _{amin} & T _{amax})	T _{amin} = -25°C, T _{amax} = 35°C
Ingress protection	IP40



DIMENSIONS & AVAILABLE LENGTHS



Fixture built to length (not field-cuttable): $L = (N \times 250 \text{ mm}) + 20 \text{ mm}$; $N = 1 \dots 8$; $L = 270 \text{ mm} \dots 2,020 \text{ mm}$

MARS ARCHITECTURAL Surface 42 IQW NANO

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TECHNICAL SPECIFICATIONS

Certifications



Awards



Family Key Features



Surface-mounted
Ceiling



NanoRay
/ technology



Low glare



Photometric
code



CASAMBI
sensor



DALI
sensor

Technical Data/Performance



Tunable
White



IP40



Lifetime



OneBinOnly



Photo-
metrical
code



SDCM3



CIE S-025
compliant



LM80
compliant



Reel-to-
Reel (R2R)
production



Protection
against
granular
objects > 1
mm



Compliant
guidelines



with EU



ECODESIGN

SPECIFICATION TEXT

24 V slim linear LED invisible downlight luminaire in IP40 with optimal glare control available as surface-mounted in a robust 42 mm x 42 mm housing. Extruded and anodized aluminum housing and screwed aluminum end caps available in silver, black or white. Delivered with 2 m open end black cable. Nanometric lens optics enabling accurate 15°, 25°, 40° and 65° beam angle gaussian lighting distribution with no colour over angle. Antiglare optics available in black or white offering an UGR as low as 7 (depending on variant, see chart in configurator) for an optimal visual comfort. Furthermore wall wash optics with exceptional homogeneity and optimal glare control also available.

Light source assembled using state of the art automated Reel-to-Reel (R2R) production process supporting LED Linear™ Tj Away® thin flexible circuit board technology. In combination with Chip Scale Package LEDs (CSP) a thermal resistivity of 5.3 K/W is achieved for an optimal heat dissipation (junction to installation surface) which guarantees an outstanding lifetime of > 60,000 hrs (L80/B10). Each step embeds 14 high quality CSP LEDs with 3 step MacAdams (SDCM3) binning centered on target CCT (OneBinOnly) with an extended photometric code of Wxxx/339 ensuring an exceptional color consistency over the rated lifetime. Premium color rendition with a CRI of 84 (R₉ = 7) and TM-30-15 up to R_f = 84 / R_g = 96 (average over tuning range) ensuring a remarkable light quality. Consistent light intensity all along the strip length is obtained thanks to active current regulation operated by dedicated integrated circuits (ICs) on each step. Protected against electrostatic discharge +/- 2,000 V and polarity miswiring. Fully PWM dimmable for frequency > 0 Hz up to 2 kHz (flicker free for frequency higher then 1.2 kHz according to IEEE P1789 standard). Engineered and produced in Germany.

MARS ARCHITECTURAL Surface 42 IQW NANO

Order code: MARS ARCHITECTURAL SE542 40 40IQW2250 BBED 270

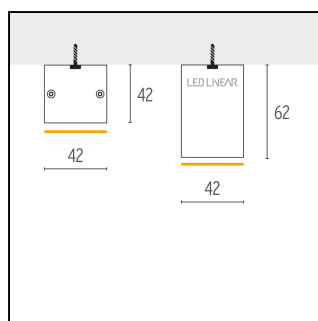
MOUNTING ACCESSORIES

1. Surface-mounted, horizontal

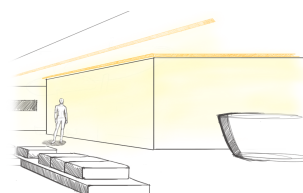
Mounting accessories

Description

Example of application



No additional accessories are required for this mounting option



VOLTAGE DROP INFORMATION FOR THE FEED-IN LINE (PSU / CONTROL TO FIXTURE)

Single

Power (Fixture)	10.9 W						
Cable cross section	0.25 mm ²	0.34 mm ²	0.5 mm ²	0.75 mm ²	1 mm ²	1.5 mm ²	2.5 mm ²
AWG (US)	23	22	20	18	17	15	13
Max feed-in length	13.1 m	17.8 m	26.2 m	39.4 m	52.5 m	78.7 m	131.2 m

Multiple

Fixture length	0.3 m						
Maximal run length at this power level*	2.0 m						
Feed-in cable cross section level	0.25 mm ²	0.34 mm ²	0.5 mm ²	0.75 mm ²	1 mm ²	1.5 mm ²	2.5 mm ²
AWG (US)	23	22	20	18	17	15	13
Max feed-in length	1.7 m	2.4 m	3.5 m	5.3 m	7.1 m	10.7 m	17.8 m

Calculation refers to the cable configuration on site.

The information listed in the table is only refers to the conductor-based voltage drop of max. 0.85V at 24V DC input voltage.

Regarding the electromagnetic compatibility (EMC) the maximum cable length is defined by the power supply manufacturer.

A cable length between power supply and planned product longer than indicated by the datasheet of the power supply is possible. However the electromagnetic compatibility can then be influenced by the conditions of the installation site. There is no data on electromagnetic compatibility for longer cable lengths, which might lead to the necessity of an evaluation of the electromagnetic compatibility by a third party.

Datasheets and mounting instructions of the components in combination with the planned product must be carefully read and followed.

* The remaining 1.7 m admissible to reach the maximal run length with one feed-in can be completed by configuring MARS ARCHITECTURAL Surface 42 IQW NANO with the same LED Tape in other lengths.

WIRING DIAGRAM

Typical Wiring – Monochromatic

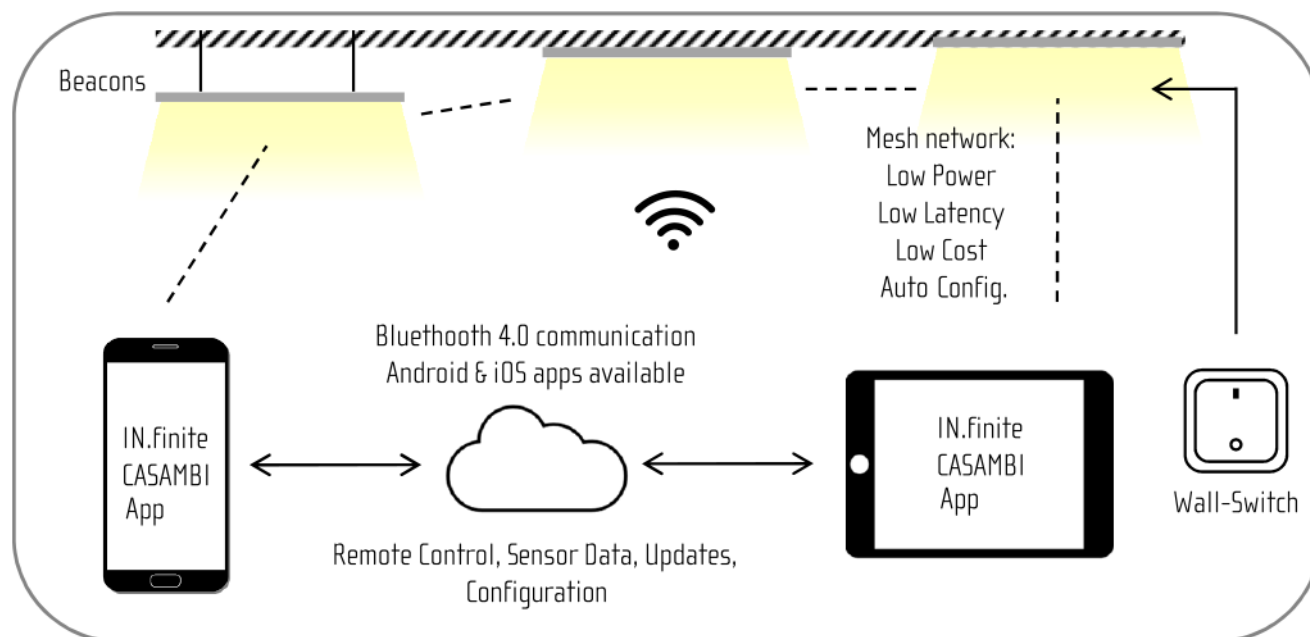
* Detailed information on the wiring of the control line is shown in the datasheet of the desired control gear

MARS ARCHITECTURAL Surface 42 IQW NANO

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TYPES OF ANALOG & DIGITAL CONTROL

DMX	DALI	CASAMBI BLE	DMX/RDM	1-10V	Switch-DIM
Digital control system which is particularly suitable for RGB and IQ White applications. With this system it is possible to dim luminaires and to set soft color gradients just in the range RGB.	Digital control system which is suitable especially for White and IQ White applications. With this system it is possible to dim the luminaires and to adjust soft gradients in the range White and IQ White.	Digital control system based on Bluetooth LE which is particularly suitable for applications in which a smart remote control is required. With this system it is possible to dim luminaires and to adjust soft gradients in the range White, IQ-White and RGB.	Digital control system which is particularly suitable for RGB and IQ White applications. With this system it is possible to dim luminaires and to set soft color gradients just in the range RGB.	Analog control system which is suitable for White applications. With this system it is possible to dim luminaires with a potentiometer via a control voltage (SELV).	Analog control system which is suitable for White applications. With this system it is possible to dim luminaires using commercially available switches on the mains voltage.



Quick start guide wireless Communication

Casambi Technologies' wireless lighting control solution is not just a lighting control system - Casambi is a technology based on Bluetooth Low Energy, Casambi has developed an own proprietary mesh network where all the intelligence of the system is replicated in every node and in such a way creates a system with no points of failure. The solution is selfhealing and self-organizing. In this kind of fully distributed and symmetric architecture any IN.finite Casambi unit can go offline and catch up from others when they return back online.