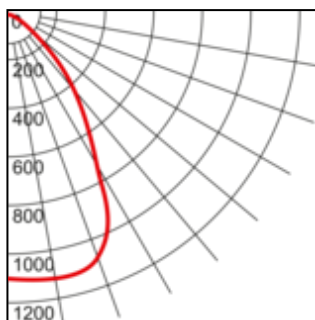
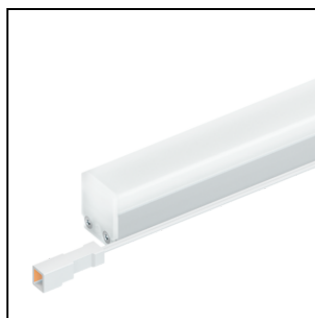


XOOLINE™ HYDRA HE IP40

Order code: XOOLINE HYDRA HE28 W830 1014 S 60 FSOCMP IP40

TECHNICAL SPECIFICATIONS

Length	1,014 mm
Color temperature (CCT)	3000 K
CRI	82
R9	4
R _f	82
R _g	97
Lumen (Luminaire)	3530 lm
Lumen/Meter ^A	3478 lm/m
Power of luminaire	28.1 W
Power ^A	28 W/m
Efficiency ^A	148 lm/W
Housing color	Silver
Optics	60°, diffuse
Case Temperature (T _{cmin} & T _{cmax}) ^B	T _{cmin} = -25°C, T _{cmax} = 85°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
Energy efficiency class	C

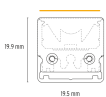


^AThe given data are typical values. Due to tolerances of the production process and the electrical components, photometric values and electrical power can vary up to 10%.

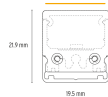
^BThe Tc-point should be measured in thermal equilibrium according to IEC EN 60598-1.

DIMENSIONS & AVAILABLE LENGTHS

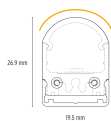
Linear lens



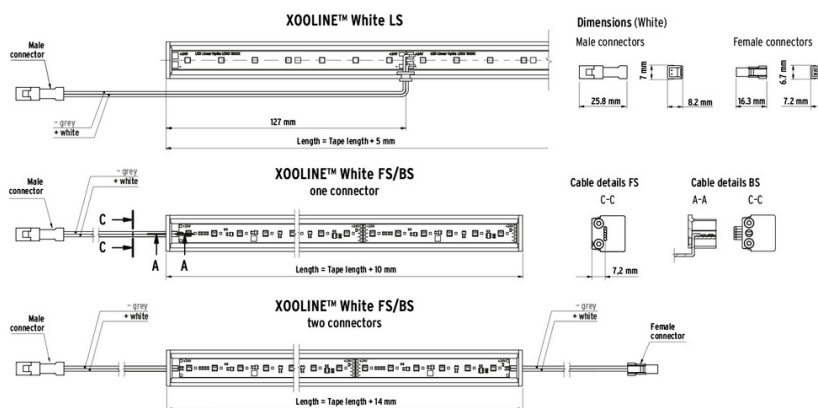
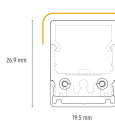
Low cover



Round cover



High square cover



Cable length on connectors for variants FS and BS is 190 mm. LS is 120 mm.
 For Cable / Connector configuration options 00 and 01 the existing connector(s) are replaced with open-ended cable(s) of 2 m length.

Fixture built to length (not field cuttable): $L = (N \times 62.5 \text{ mm}) + \text{ends}$ (ends vary from 5 mm to 14 mm depending on chosen cable feed and connector configuration); $N = 5 \dots 48$; $L_{\min} = 318 \text{ mm}$; $L_{\max} = 3,014 \text{ mm}$

XOOLINE™ HYDRA HE IP40

Order code: XOOLINE HYDRA HE28 W830 1014 S 60 FSDCMP IP40

TECHNICAL SPECIFICATIONS

Certifications



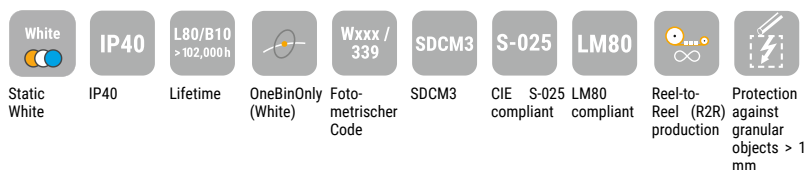
Family Key Features



Awards



Technical Data/Performance



SPECIFICATION TEXT

24 V compact linear LED luminaire in IP40 offering immense versatility and ease of installation. Extruded and anodized aluminium housing profile in silver or black color with connector(s) or open-ended cable(s) (length of 2 m), fed on either the luminaire's side or back or through end cap(s), with included mounting accessory of choice. Translucent end caps for an optimal gapless installation and light overlap. Ten high quality optics to choose from: clear, diffuse or opal optics for soft light settings, linear lens 10° optic for wall grazing or 30° and 60° for wide flood with precise light control. Assembled using state of the art automated Reel-to-Reel (R2R) production process supporting LED Linear™ Tj Away® thin flexible circuit board technology.

Highly modern LED packages lead to an optimal heat dissipation (junction to installation surface), which guarantees an outstanding lifetime of > 102.000 hrs (L80/B10). Embedded 2835 LEDs with 3 step MacAdams (SDCM3) binning centered on target CCT (One Bin Only) with an extended photometric code of Wxxx/338 ensuring an exceptional color consistency over the rated lifetime. Good color rendition with a CRI above 80 (R9 > 0) and TM-30-15 in the range of Rf = 83 / Rg = 98 ensuring a suitable light quality. Consistent light intensity all along the luminaire length is obtained thanks to active current regulation operated by dedicated integrated circuits (ICs) on each step. This leads to a constant luminous flux per step for the length specified in the data sheet (see graph luminous flux degradation in datasheet). All mounted components are precisely qualified regarding their thermal and mechanical performance in the application. Protected against electrostatic discharge +/- 8,000 V, temporary electrical overstress and polarity miswiring. Fully PWM dimmable from 100 % to 0 % for frequencies from 0 Hz up to 2 kHz (flicker free for frequencies higher than 1.2 kHz according to IEEE P1789 standard).

Engineered and manufactured in Germany.

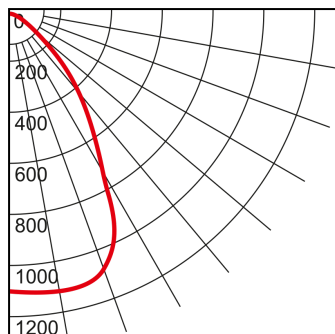
XOOLINE™ HYDRA HE IP40

Order code: XOOLINE HYDRA HE28 W830 1014 S 60 FSDCMP IP40

OPTICAL INFORMATION

Light distribution

CRI



TM30-15

This chart displays the average Fidelity Index for all samples within the hue bin. The number of samples per bin, which can vary based on the CCT used for the calculation, is shown at the top. The color of the bar is based on the average chromaticity under the 5000 K reference illuminant; the colors may not display accurately depending on the calibration of the monitor, and should be used for orientation only.

STABILITY OF LUMINOUS FLUX

The data is valid for $T_a = 25^\circ\text{C}$ and an input voltage of 24 V DC.

The graphic below shows the expected typical change in luminous flux in %, while having one sided power supply, between the first and last step of the named LED tape length.

To ensure the highest possible quality of the installation, LED Linear™ recommend to limit the maximum LED tape length, based on the individual tape power, to the maximum length, showed in the graph.

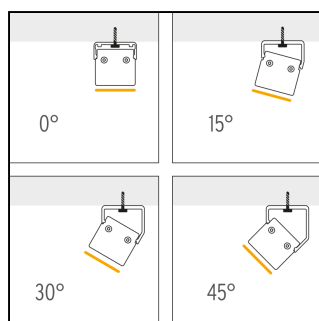
Hereby it will be ensured, that the typical maximum reduction will remain below 10% on the displayed LED tape length.

XOOLINE™ HYDRA HE IP40

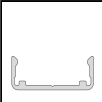
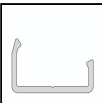
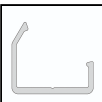
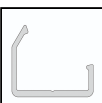
Order code: XOOLINE HYDRA HE28 W830 1014 S 60 FSOCMP IP40

MOUNTING

1. Surface-mounted, horizontal



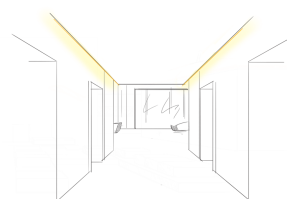
Mounting accessories

-  Full length mounting channel
Digits in order code: MP
-  0° aluminum mounting clip in 90 mm length
Digits in order code: C00
-  15° aluminum mounting clip in 90 mm length
Digits in order code: C15
-  30° aluminum mounting clip in 90 mm length
Digits in order code: C30
-  45° aluminum mounting clip in 90 mm length
Digits in order code: C45

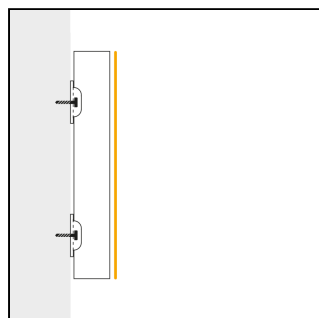
Description

- Aluminum surface mounting bracket, recommended to use every 50 cm.
- Aluminum surface mounting bracket, recommended to use every 50 cm.
- Aluminum surface mounting bracket, recommended to use every 50 cm.
- Aluminum surface mounting bracket, recommended to use every 50 cm.
- Aluminum surface mounting bracket, recommended to use every 50 cm.

Example of application



2. Surface-mounted, vertical



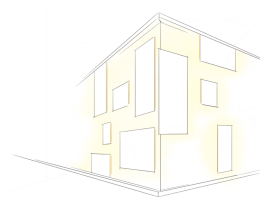
Mounting accessories

-  Plastic Mounting Clip
Digits in order code: PCL

Description

- White plastic surface mounting clip. Recommended to use every 50 cm. Cannot be used together with the aluminum mounting profile.

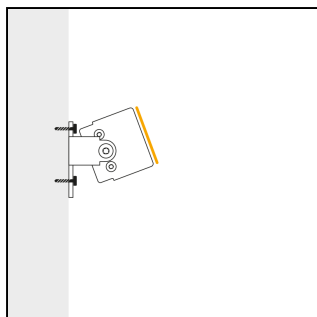
Example of application



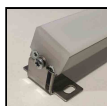
XOOLINE™ HYDRA HE IP40

Order code: XOOLINE HYDRA HE28 W830 1014 S 60 FSDCMP IP40

3. Adjustable, vertical



Mounting accessories



Adjustable Bracket
 Digits in order
 code: AMC

Description

Use to adjust and fix the angle of fixture. 180 degrees adjusting range. Delivered with axis screw.

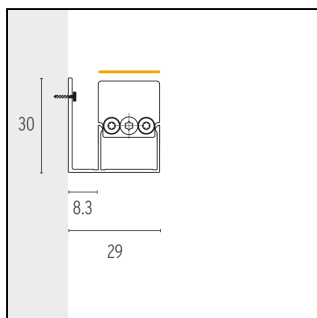
Mounting option AMC is not available for Tunable White Luminaires in combination with an 'LD' light engine.

Cable feed options BS and FS can't be combined with mounting option AMC.

Example of application



4. Wall-mounted



Mounting accessories

No additional accessories are required for this mounting option

Description

XOOLINE™ HYDRA HE IP40

Order code: XOOLINE HYDRA HE28 W830 1014 S 60 FSDCMP IP40

POWER SUPPLY UNIT (PSU) & CONTROLS

Recommended PSU

Item.	Description	Part number	Unit	Min. OQ28.0878
 VarioPSU 24V/60W IP20, ON/OFF	LED driver from SELF Electronics Germany GmbH with 24 V constant voltage and a maximum output power of 60 W. Type of protection IP20, class II power unit with an input voltage range of 220 – 240 V AC. Dimensions (L x W x H): 188 mm x 45 mm x 30 mm. Not dimmable. Product on secondary side dimmable with IN.finite™ controller range.	16000367	piece (pc)	5

Recommended Control

Item	Description	Part number	Unit	Min. OQ
 IN.finite™ DALI® DT6 2CH CV ULT	2-Kanal-Steuergerät, DALI® DT6-Protokoll, Eingang für 1 – 10 V-Schnittstellen, Eingangsspannung 12 V – 48 V, I _{out} max. 2 x 4 A, L x H x B – 188 mm x 21 mm x 30 mm. Optimierte zur Dimmung von ULTIMA-S mit Magnetbefestigung.	16000268-DT6-ULT	piece (pc)	10

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

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.

XOOLINE™ HYDRA HE IP40

Order code: XOOLINE HYDRA HE28 W830 1014 S 60 FSDCMP IP40

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

0.34 mm² / AWG 22

XOOLINE™ HYDRA HE IP40	HE 05	HE 10	HE 15	HE 20	HE 28	HE 36
Product run Length	max. cable length between PSU / Control unit and the luminaire					
1 m	38.8 m	19.4 m	12.9 m	9.7 m	6.9 m	5.3 m
2 m	19.4 m	9.7 m	6.4 m	4.8 m	3.4 m	2.6 m
3 m	12.9 m	6.4 m	4.3 m	3.2 m	2.3 m	1.7 m
4 m	9.7 m	4.8 m	3.2 m	2.4 m	1.7 m	-
5 m	7.7 m	3.8 m	2.5 m	1.9 m	-	-
6 m	6.4 m	3.2 m	2.1 m	-	-	-
7 m	5.5 m	2.7 m	1.8 m	-	-	-

1.5 mm² / AWG 15

XOOLINE™ HYDRA HE IP40	HE 05	HE 10	HE 15	HE 20	HE 28	HE 36
Product run Length	max. cable length between PSU / Control unit and the luminaire					
1 m	171.3 m	85.6 m	57.1 m	42.8 m	30.6 m	23.8 m
2 m	85.6 m	42.8 m	28.5 m	21.4 m	15.3 m	11.9 m
3 m	57.1 m	28.5 m	19 m	14.2 m	10.2 m	7.9 m
4 m	42.8 m	21.4 m	14.2 m	10.7 m	7.6 m	-
5 m	34.2 m	17.1 m	11.4 m	8.5 m	-	-
6 m	28.5 m	14.2 m	9.5 m	-	-	-
7 m	24.4 m	12.2 m	8.1 m	-	-	-

Calculation refers to the cable configuration on site.

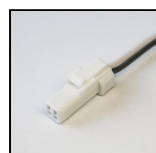
The information listed in the table is only refers to the conductor-based voltage drop of max. 0.85V at 24V DC input voltage.

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

CABLING ACCESSORIES



VarioCon Female Mini 2 x 0.34 mm² 0.2 m IP67

Art.-#: **15000141**

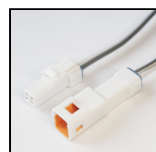
Required quantity: -



VarioCon Female Mini 2 x 0.34 mm² 2 m IP67

Art.-#: **15000142**

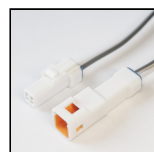
Required quantity: -



VarioCon Extension Mini 2 x 0.34 mm² 0.1 m IP67

Art.-#: **15000143**

Required quantity: -



VarioCon Extension Mini 2 x 0.34 mm² 2 m IP67

Art.-#: **15000144**

Required quantity: -



VarioCon Extension Mini 2 x 0.34 mm² 1 m IP67

Art.-#: **15000368**

Required quantity: -

XOOLINE™ HYDRA HE IP40

Order code: XOOLINE HYDRA HE28 W830 1014 S 60 FSDCMP IP40

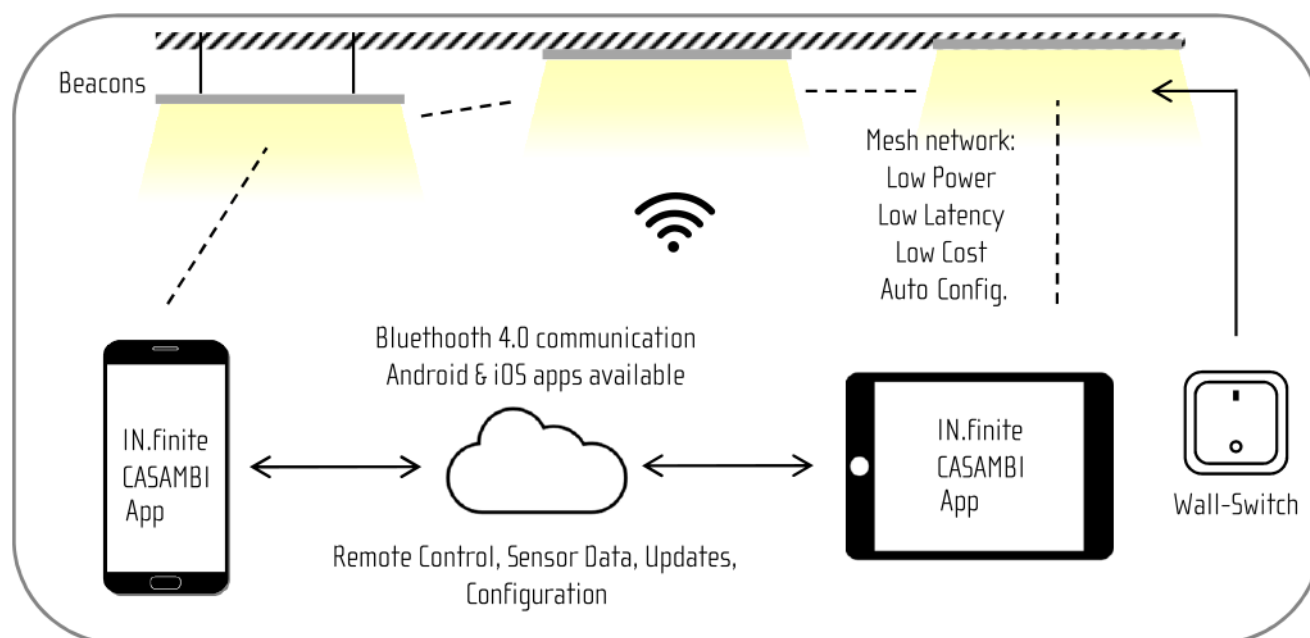
WIRING DIAGRAM

Typical Wiring – Monochromatic

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

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.