

Integration technology

"Why can't bicycle lights be like car lights?"

The development of NACAROAD started with the question of an automotive lamp engineer. In particular, the headlight of a road bike, which travels at high speeds on roads, must illuminate farther and wider at night without dazzling the driver of oncoming vehicles. NACAROAD applied projection lens technology used in automobile headlights to achieve precise cut-off lines, a 72m irradiation distance, and a visibility of 52° at the level of automotive lights. Additionally, NACAROAD's aerodynamic lens design achieved a drag coefficient of 0.267, maximizing the road bike's performance.







0

_



 $\sim\!\!\!\sim$ K 2067

NACAROAD

Bicycle front light with automotive projection lamp technology









工

S



NACAROAD is a battery integrated head lamp with high performance projection lens according to automotive standards.

NACARDAD

 $\sim \sim$ K 2067

Features

Incorporating automotive projection lens technology, the NACAROAD enables a very compact design while providing maximum performance. The light, which comes from only one LED, is optimally directed, refracted and distributed very efficiently as a homogeneous carpet of light on the road - scattering losses are thus reduced to a minimum. As a result, NACAROAD shines brighter than products from other manufacturers despite comparatively lower lumen/lux values. A sharp cut-off line prevents the glare of other people in traffic perfectly.

Dimensions 56.7 mm x 41.5mm x 103.6 mm

Weight 163gram without mount



Light unit

Light Module Etendue lighting Projection Light module

Luminous flux Max: 520lm/90lx, Min: 185lm/30lx

Power Source Lithium-polymer battery 3.7V, 2700mAh,

Mode Max power → Sports mode → Touring mode

 \rightarrow City mode

Light Duration (fully charged battery)

Max brightness: 1,5h Min brightness: 7.3h

Charging Time 3h (USB type-C)



ETC

Approval Code K 2067

Compliant with standard or directive

CE, RoHS, UN3481, StVZ0 §22a TA Nr,23

(Headlights fot bicycles), IP66

NACA ROAD **Package Contents**

C-type USB charge cable (100cm)

Anti-glare cap

Mount Go-pro mount compatiable

* Mount not included

工

S



Battery

Flash



NACAROAD INTERNATIONAL •

NACAROAD INTERNATIONAL is a battery integrated head lamp with high performance projection lens according to automotive standards, with blinking modes.



∤†↓ Features

For the rest of the world, NADAROAD INTERNATIONAL was realsed . blinking patterns not only extend battery life, they help drivers notice us. The "International Version" that includes two blinking modes – a 400-lumen Day Flash and a 185-lumen Night Flash.

Dimensions 56.7 mm x 41.5mm x 103.6 mm

Weight 163gram without mount



Light Module Etendue lighting Projection Light module

Luminous flux Max: 520lm/90lx, Min: 185lm/30lx

Power Source Lithium-polymer battery 3.7V, 2700mAh

Mode Max power \rightarrow Sports mode \rightarrow Touring mode

 \rightarrow City mode \rightarrow Night flash \rightarrow Day flash

Light Duration Max brightness: 1.5h

(fully charged battery) Min brightness in continuous mode: 7.3h

Night flash: 31.7h Day flash: 10h

Charging Time 3h (USB type-C)



Compliant with standard or directive

CE, RoHS, UN3481

Package Contents NACA ROAD

C-type USB charge cable (100cm)

Anti-glare cap

Mount Go-pro mount compatiable

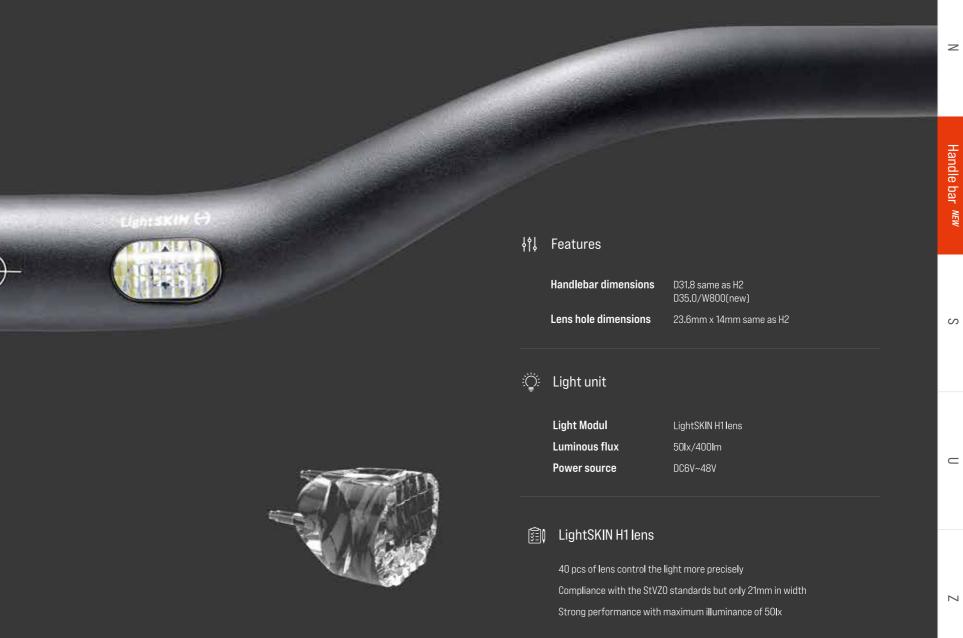
* Mount not included

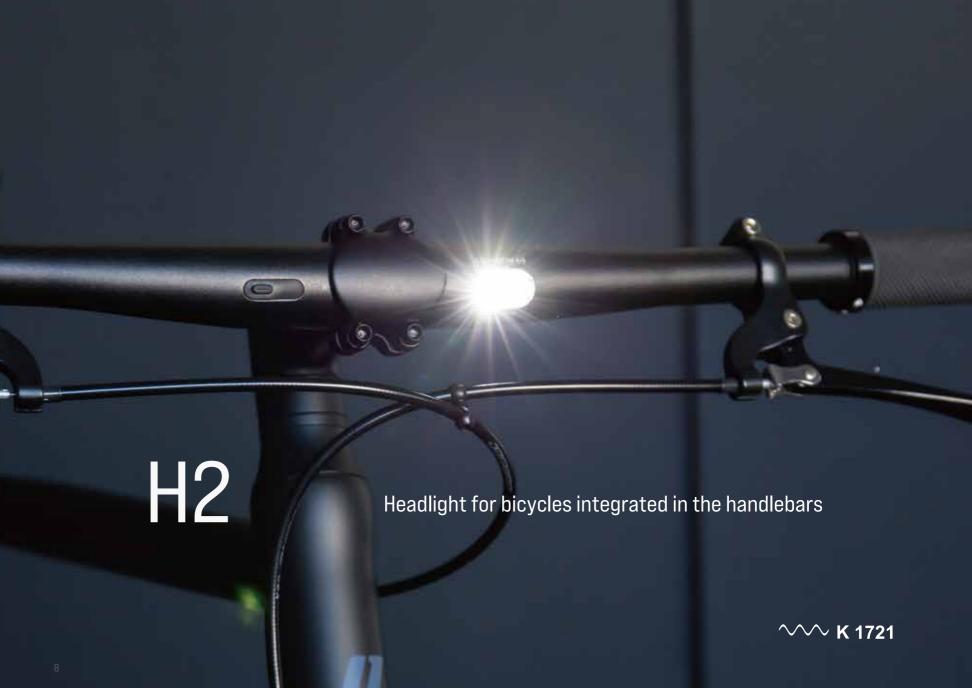


H1

High performance built-in light handlebar.

The LightSKIN built-in light handlebar has undergone further evolution with the introduction of H1. H1 represents a complete redefinition of optical technology in bicycle lights, offering users an unparalleled experience. Experience the new lens from LightSKIN, achieved through highly precise optic technology.





Handle bar

S

 \Box

Z













Light unit

Features

Diameter

Bar Type

Handlebar Widths

Handlebar color

and surface finish

Handlebar material

Light Module LightSKIN H2 Lens

Luminous flux 150 lm

Power Source Lithium-polymer battery 3.7V, 2000mAh,

8018120 with protection

Center 31.8mm / Grip 22.2mm

620 / 640 / 660 / 680 / 700 (mm)

Polished silver / Anodized black

Aluminum 6061T6

Flat, Back sweep 9°, Up sweep 0°, Rise ±5mm

Light Duration Extra bright: 4h (fully charged battery) Bright: 6h

Charging Time 5h



 $\sim \sim$ K 1721

Handlebar test standard

ETC

ISO 4210 Mountain

Approval Code K 1721

Compliant with standard or directive CE, RoHS, UN3481, StVZO §22a TA Nr.23

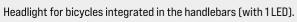
(Headlights for bicycles), IPX4

Package Contents Front light handlebar

USB charge cable (200cm)

H2B ●





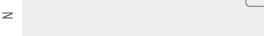
The "LightSKIN H2B" version features an integrated rechargeable battery.

The battery can be charged via a micro-USB port.

Handle bar

S

 \Box





Dynamo







Features

Diameter Center 31.8mm / Grip 22.2mm

Handlebar Widths 600 / 620 / 640 / 660 / 680 / 700 (mm) Bar Type Back sweep 9°, Up sweep 0°, Rise ±5mm

Handlebar color Polished silver / Anodized black and surface finish

Handlebar material Aluminum 6061T6

Light unit

Light Module LightSKIN H2 Lens

Luminous flux 150 lm

Power Source AC 6V(3W) Bicycle Dynamo

Nominal voltage AC 6V **Power consumption** 2.4w



ETC

Handlebar test standard

ISO 4210-Mountain, city

Approval Code K 1721

Compliant with standard or directive

CE. RoHS, StVZO §22a TA Nr.23 (Headlights for bicycles), IPX4

Package Contents Front light handlebar

H2D ● ■

 $\sim \sim$ K 1721

Headlight for bicycles integrated in the handlebars (with 1LED). In the "LightSKIN H2D" version, the headlight is powered by a dynamo hub.









 $\sim \sim$ K 1721

ETC

Handlebar test standard

ISO 4210 Mountain, EN 15194

Approval Code

K 1721

Compliant with standard or directive

CE, RoHS, StVZO §22a TA Nr.23 (Headlights for bicycles), IPX4

Package Contents

Front light handlebar

Features

Diameter Center 31.8mm / Grip 22.2mm

Handlebar Widths 600 / 620 / 640 / 660 / 680 / 700 (mm) Bar Type Back sweep 9°, Up sweep 0°, Rise ±5mm

Handlebar color and surface finish

Polished silver / Anodized black

Handlebar material Aluminum 6061T6

Light unit

Light Module LightSKIN H2 Lens

Luminous flux 150 lm

Power Source On-board battery of the e-bike

Nominal voltage DC 6V (5V-24V)

Power consumption 1.3w

H2E ● ●

Headlight for bicycles integrated in the handlebars (with 1LED). In the "LightSKIN H2E" version, the light is connected to an external power source

via a connection cable, for example to the battery of an e-bike.

11

Handle bar

S

 \Box

Z

Ζ







Headlight for bicycles integrated in the handlebars (with 1LED). In the "LightSKIN H2E" version, the light is connected to an external power source via a connection cable, for example to the battery of an e-bike.

StVZO ZUGELASSEN

E-bike





łήļ

Features

Diameter Center 31.8mm / Grip 22.2mm

Handlebar Widths

640 / 680 (mm)

Bar Type

Back sweep 15°, Up sweep 0°, Rise 20mm

Handlebar color

Polished silver / Anodized black

and surface finish
Handlebar material

Aluminum 6061T6

💢 Light unit

Light Module LightSKIN H2 Lens

Luminous flux

150 lm

Power Source

On-board battery of the e-bike

Nominal voltage

DC 6V (5V-24V)

Power consumption

1.3w



ETC

Handlebar test standard

EN 15194

Approval Code

K 1721

Compliant with standard or directive

CE, RoHS, StVZO §22a TA Nr.23 (Headlights for bicycles), IPX4

Package Contents

Front light handlebar

 \geq

 \Box

Z













H2D WIEN ●

 $\sim \sim$ K 1721

Headlight for bicycles integrated in the handlebars (with 1LED). In the "LightSKIN H2D" version, the headlight is powered by a dynamo hub.



Diameter Center 31.8mm / Grip 22.2mm

Handlebar Widths 640 / 680 (mm)

Bar Type Back sweep 15°, Up sweep 0°, Rise 20mm

Handlebar color and surface finish

Polished silver / Anodized black

Handlebar material Aluminum 6061T6



Light unit

Light Module LightSKIN H2 Lens

Luminous flux 150 lm

Power Source AC 6V(3W) Bicycle Dynamo

Nominal voltage AC 6V Power consumption 2.4w



ETC

Handlebar ISO 4210-Mountain, city test standard

Approval Code K 1721

CE, RoHS, StVZO §22a TA Nr.23 Compliant with standard or directive (Headlights for bicycles), IPX4

Front light handlebar **Package Contents**

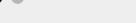






Ζ





Headlight for bicycles integrated in the handlebars (with 1LED). In the "LightSKIN H2E" version, the light is connected to an external power source via a connection cable, for example to the battery of an e-bike.



E-bike





ήţļ

Features

Diameter Center 31.8mm / Grip 22.2mm

Handlebar Widths 640 (mm)

Bar Type Back sweep 38°, Up sweep 0°, Rise 40mm

Handlebar color and surface finish

Polished silver / Anodized black

Handlebar material Aluminum 6061 T6



Light unit

Light Module LightSKIN H2 Lens

Luminous flux 150 lm

Power Source On-board battery of the e-bike

Nominal voltage DC 6V (5V-24V)

Power consumption 1.3w



 $\sim \sim$ K 1721

ETC

Handlebar test standard

EN 15194

Approval Code

K 1721

Compliant with standard or directive

CE, RoHS, StVZO §22a TA Nr.23 (Headlights for bicycles), IPX4

Package Contents

Front light handlebar

S

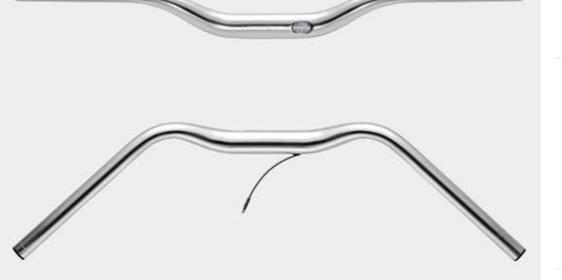
 \Box











H2D CITY ●

 $\sim\!\!\!\sim$ K 1721

Headlight for bicycles integrated in the handlebars (with 1 LED). In the "LightSKIN H2D" version, the headlight is powered by a dynamo hub.



Features

Diameter Center 31.8mm / Grip 22.2mm

Handlebar Widths 640 (mm)

Bar Type Back sweep 38°, Up sweep 0°, Rise 40mm

Handlebar color and surface finish

Polished silver / Anodized black

Handlebar material Aluminum 6061T6



Light unit

Light Module LightSKIN H2 Lens

Luminous flux 150 lm

Power Source AC 6V(3W) Bicycle Dynamo

Nominal voltage AC 6V
Power consumption 2.4w



ETC

Handlebar ISO 4210-Mountain, city test standard

Approval Code K 1721

Compliant with
standard or directiveCE, RoHS, UN3481, StVZO \$22a TA Nr.23
(Headlights for bicycles), IPX4

Package Contents Front light handlebar

Z













Features

Diameter

Center 31.8mm / Grip 22.2mm

Handlebar Widths

580 / 600 / 620 / 640 / 660 (mm)

Bar Type

Back sweep 18°, Up sweep 0°, Rise 0mm

Handlebar color and surface finish

Polished silver / Anodized black

Handlebar material

Aluminum 6061T6



Light unit

Light Module

LightSKIN H2 Lens

Luminous flux

150 lm

1.3w

Power Source

On-board battery of the e-bike

Nominal voltage

DC 6V (5V-24V)

Power consumption



ETC

 $\sim \sim$ K 1721

EN 15194

test standard
Approval Code

Handlebar

K 1721

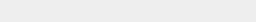
Compliant with standard or directive

CE, RoHS, StVZO §22a TA Nr.23 (Headlights for bicycles), IPX4

Package Contents

Front light handlebar

H2E MOON ● •



Headlight for bicycles integrated in the handlebars (with 1LED). In the "LightSKIN H2E" version, the light is connected to an external power source via a connection cable, for example to the battery of an e-bike.

 \geq

S

 \Box

Z





StVZO ZUGELASSEN









Diameter Center 31.8mm / Grip 22.2mm

Handlebar Widths 580 / 600 / 620 / 640 / 660 (mm)

Bar Type Back sweep 18°, Up sweep 0°, Rise 0mm

Handlebar color and surface finish

Polished silver / Anodized black

Handlebar material Aluminum 6061T6



Light unit

Light Module LightSKIN H2 Lens

Luminous flux 150 lm

Power Source AC 6V(3W) Bicycle Dynamo

Nominal voltage AC 6V Power consumption 2.4w



 $\sim\!\!\!\sim$ K 1721

ETC

Handlebar ISO 4210-Mountain, city test standard

Approval Code K 1721

Compliant with CE, RoHS, StVZO §22a TA Nr.23 standard or directive (Headlights for bicycles), IPX4

Package Contents Front light handlebar

H2D MOON ●



Headlight for bicycles integrated in the handlebars (with 1 LED). In the "LightSKIN H2D" version, the headlight is powered by a dynamo hub.

17





We sometimes have ingenious imaginations, but it's not easy to turn them into reality. LightSKIN has a lot of know-how to embed a light into a seatpost, and this time, it proposes a completely new method. LightSKIN has developed a technology that utilizes fiber optic cables to transmit internal light to the outside. To achieve this, they designed a unique cross-sectional seatpost that connects the interior and exterior, allowing for secure fixation of the fiber optic cables on the seatpost. The LightSkIN SF is compatible with seatposts of various sizes and materials. Also, it is a good solution for incorporating lights into aero-shaped carbon seatposts.













The light of S311 is powered by a built in, non-removable, rechargeable battery.

ļήĮ

Features

Patented seatpost with an integrated seat rail clamp. The seatpost tube features 5 holes in which the LEDs are enclosed. The USB 2.0 charging port is located in the lower section of the seat rail clamp. The port is accessible from the outside and can be closed using a transparent silicone cover.

 Diameter
 25.4 / 27.2 / 30.9 / 31.6 (mm)

 Length
 350mm / 400mm (30.9, 31.6mm)

color surface finish Polished Silver / Matt Black

Seatpost Type 2 bolt clamp, offset 9mm, mechanical stop

Seapost material Aluminum 6061T6



Light unit

Light Module 2 wide angle red LEDs,

3 high brightness red LEDs

Brightness 12cd

Power Source Lithium-polymer battery 3.7V, 800mAh,

801473 with protection

Light Duration 5 LED: 10 hours **(fully charged battery)** 3 LED: 15 hours

Charging Time 2.5h



ETC

K-number K 1595

Seatpost test standard

Compliant with

CE, RoHS, UN3481, StVZO §22a TA Nr.14b

standard or directive (Rear lights fot bicycles), IPX5

Package Contents rear light seatpost

USB charge cable (200cm)

ISO 4210 City, Mountain

工

Seat post









S311E ● ●

 $\sim\!\!\!\sim$ K 1595

In the S311E version, the light is powered via a cable connected to an external power source. For example, to the battery of a bicycle with electrical pedal assistance.

Features

Patented seatpost with an integrated seat rail clamp. The seatpost tube features 5 holes in which the LEDs are enclosed. A cable with a connector extends out of the lower end of the seatpost tube for connection to the electrical system of the e-bike.

Diameter 272 / 30.9 / 31.6 (mm)

Length D27.2mm(350mm) / D31.6mm(350, 400mm)

color surface finish Polished Silver / Matt Black

Seatpost Type 2 bolt clamp, offset 9mm, mechanical stop

Seapost material Aluminum 6061T6



Light unit

Light Module 2 wide angle red LEDs,

3 high brightness red LEDs

Brightness 12cd

Power Source The on-board battery of the e-bike

Nominal voltage DC 6V (6V-12V)

Power consumption 0.3w



ETC

K-number K 1595

Seatpost EN 15194 test standard

Compliant with standard or directive CE, RoHS, StVZO §22a TA Nr.14b (Rear lights fot bicycles), IPX5

Package Contents rear light seatpost Dynamo









S311D ●

 $\sim\!\!\!\sim$ K 1595

In the S311D version, the light is powered by a hub dynamo.

ļήĮ

Features

Patented seatpost with an integrated seat rail clamp. The seatpost tube features 5 holes in which the LEDs are enclosed. A cable with two open ends extends out of the lower end of the seatpost tube for connection to the bicycle dynamo.

Diameter 27.2 / 30.9 / 31.6 (mm)

Length D27.2mm(350mm) / D31.6mm(350, 400mm)

color surface finish Polished Silver / Matt Black

Seatpost Type 2 bolt clamp, offset 9mm, mechanical stop

Seapost material Aluminum 6061T6



Light unit

Light Module 2 wide angle red LEDs,

3 high brightness red LEDs

Brightness 12cd

Power Source AC 6V(3W) Bicycle Dynamo

Nominal voltage AC 6V

Power consumption 0.5w

Surge Protection A zener diode prevents damage to the

electonics or the LEDs from voltage surges.



ETC

K-number K 1595

Seatpost ISO City

Compliant with
standard or directiveCE, RoHS, StVZO §22a TA Nr,14b
(Rear lights fot bicycles), IPX5

Package Contents rear light seatpost

 \geq

工

Seat post

Z

Battery





The light of S341 is powered by a built in, non-removable, rechargeable battery.

1 20日本で



reddot design award winner 2010



Features

Patented seatpost with an integrated seat rail clamp. The seatpost tube features 5 holes in which the LEDs are enclosed. The USB 2.0 charging port is located in the lower section of the seat rail clamp. The port is accessible from the outside and can be closed using a transparent silicone cover.

Diameter 27.2 / 30.9 / 31.6 (mm)

Length 350mm(D27.2mm) / 400mm(D30.9, D31.6mm)

color surface finish Polished Silver / Matt Black Seatpost Type 2 bolt clamp, offset 9mm

Seapost material Aluminum 6061T6



Light unit

Lens Type Non Protruding

5 high brightness red LEDs, **Light Module** Non protruding LED Lens

Brightness 15cd

Lithium-polymer battery 3.7V, 800mAh, **Power Source**

801473 with protection

Light Duration 5 LED/contiuous: 10 hours (fully charged battery) 3 LED/sparking: 100 hours

Charging Time 2.5h



ETC

ISO 4210 City(27.2), Seatpost test standard Mountain(30,9, 31,6)

Compliant with standard or directive

CE, RoHS, UN3481, IPX5

rear light seatpost **Package Contents** USB charge cable (200cm)

Ν

24

E-bike







S341E ● ■

In the S341E version, the light is powered via a cable connected to an external power source. For example, to the battery of a bicycle with electrical pedal assistance.

ी Features

Patented seatpost with an integrated seat rail clamp. The seatpost tube features 5 holes in which the LEDs are enclosed. A cable with a connector extends out of the lower end of the seatpost tube for connection to the electrical system of the e-bike.

Diameter 27.2 / 30.9 / 31.6 (mm)

Length 350mm(D27.2mm) / 400mm(D30.9, D31.6mm)

color surface finishPolished Silver / Matt BlackSeatpost Type2 bolt clamp, offset 9mm

Seapost material Aluminum 6061T6



Light unit

Lens Type Non Protruding

Light Module 5 high brightness red LEDs,

Non protruding LED Lens

Brightness 15cd

Power Source The on-board battery of the e-bike.

Nominal voltage DC 6V (5V -12V)

Power consumption 0.3w



ETC

Seatpost EN 15194

Compliant with CE, RoHS, IPX5 standard or directive

Package Contents Rear light seatpost

 \Box

 \geq

工

Seat post



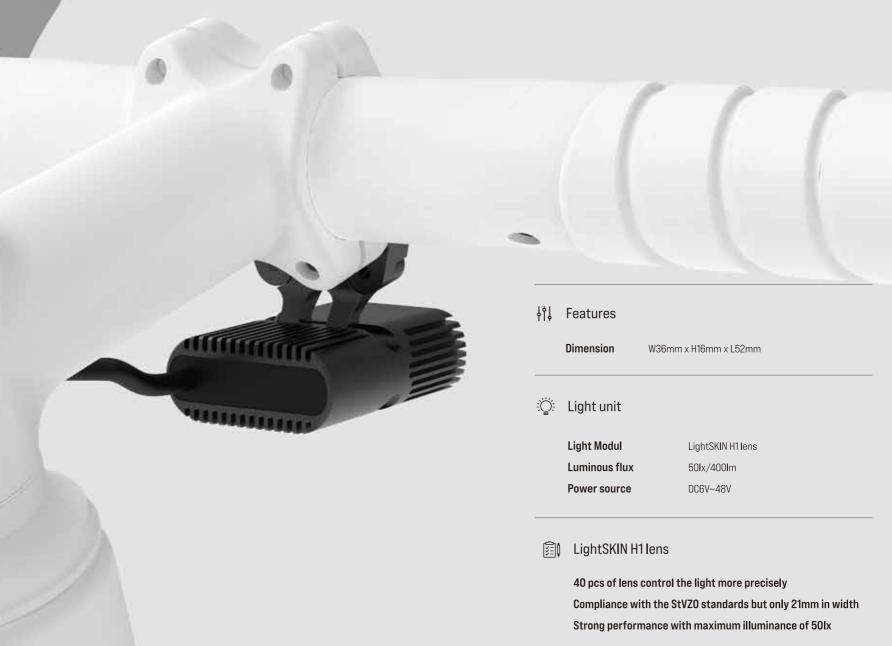
U1 Neo Ultra Light













工

S

Ultramini light

U2E

 $\sim\!\!\!\sim$ K 1817

The smallest bike front light approved StVZO. In the "LightSKIN U2E" version, the light is powered via a cable connected to an external power source.

Features

Dimensions

34.7mm ×19mm ×28mm

Weight

20.5gram

Color and finish

Polished silver / Matt black

Housing material

Aluminum 6061 T6

Bracket

Dual position bracket



Light unit

Power source

On-board battery of the e-bike.

Brightness

Voltage DC 6V (5V - 24V)

Power consumption 1.3 W



Standard and approval

Approval Code

K 1817

150 lm

Standard or directive

CE, RoHS

StVZO §22a TA Nr.23(Headlights for bicycles)

IPX5

工

S

Ultramini light

Dimensions 39mm ×19mm ×28mm

Weight 22gram

Color and finish Polished silver / Matt black

Housing material Aluminum 6061 T6

Bracket Dual position bracket



Light unit

Features

Power source AC 6V(3W) Bicycle Dynamo

Brightness 150 lm Norminal voltage AC 6V Power consumption 2,3 W



Standard and approval

Approval Code K 1817

Standard or directive CE, RoHS

StVZO §22a TA Nr.23(Headlights for bicycles)

IPX5





U2D



extstyle ext

The smallest bike front light approved StVZO. In the "LightSKIN U2D" version, the headlight is powered by a dynamo hub

Z

LightSKIN U8 is a bike front light of high and low beam and 5,000mAh battery light and controlled by wireless switch. U8 will contribute to the safe riding of cyclists through its excellent performance and high user convenience.

32



工

S





∤†↓ Features

Dimension 31mm x 31mm x 118mm

Weight 190gram

* weight and dimensions may vary depending on detailed specifications

Light unit

Light Modul LightSKIN Low/High beam dual optic lenses

Low beam 400lm
High beam 1,000lm

Power SourceLithium-lon 21700/5,000mAhLight duration5h(Low beam), 2.5(High beam)

Charging time 4h





Functions

Dual position mount

Vibration detection

USB-C Charging/Discharging

Battery level indication by blue, green, red



Wireless switch

400hz wireless connection

3 buttons (low beam, high beam, super beam)

* some countries may not be available.









U12T

Innovative E-bike monitor integrated front light.

U12T ensures safe riding during nighttime with its low/high beam functionality and the wireless connection between the E-bike and the monitor elevates the E-bike's capabilities to a whole new level. Additionally, the built-in map navigation feature enhances convenience for cyclists, allowing for a more enjoyable riding experience.

INTERGRATED FRONT LIGHT

This integrated front light features a powerful LED lighting system that ensures excellent visibility during nighttime or low-light riding conditions. The brightness and beam pattern are optimized to illuminate the rider's path effectively while also increasing their visibility to other road users.







E-bike monitor designed by





Trimm is a company with excellent technology in the field of cycling computers. LightSKIN U12T was created through collaboration with Trimm. Trimm plans to extend their technology to e-bikes.

The beginning is the LightSKIN U12T.

https://trimm.bike



E-bike monitoring

Communication protocols Wireless: Bluetooth 4.0, Ant+

Wired: UART, LIN, CAN, etc

Functions Speed, Battery level, PAS level

Connectable E-bike system Mahle motor available

Shimano motor will be available soon

Riding monitoring

Connectable drivetrain systems Shimano Di2, SRAM AXS

Functions

Distance, Altitude, Cadence, Heart rate, Power,
Electric shifters, Riding record management

Map navigations OpenStreetMap, offline map download

Smart services

Phone call, Text messsage, Whatsapp, Wechat, Line notifications in most languages.

Automatic localizations in 10 languages

USB-C charging output



工

S

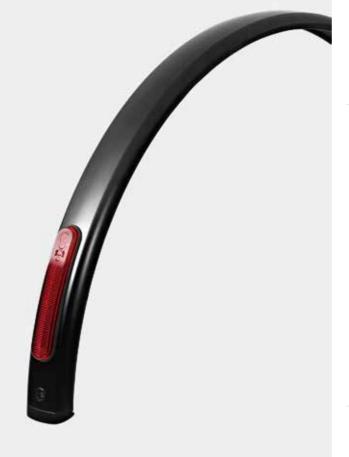
 \Box

 \geq











~~~ K 2135 ~~~ K 2136

 ZRE and ZRD are rear light integrated reflector for bike fender.

In the ZRE version, the light is powered via a cable connected to an external power source. In the ZRD version, the light is powered by a hub dynamo.



Dimension 128.2mm x 22.6 mm x 14.6mm

Material Refelctor=PMMA

Weight 40gram



Light unit

ZRE Light Modul 2 high bightness red leds

Brightness 12cd

Power Source DC 5~24V

Power consumption 0.4W

RD Light Modul 2 high bightness red leds

 Brightness
 12cd

 Power Source
 AC6V

 Power consumption
 0.3W



ETC

Approval Code K 2135(Rearlight), K 2136(Reflector)

Compliant with standard or directive

StVZO §22a TA Nr.14b(Rearlight) StVZO §22a TA Nr.18(Reflector)

StVZU §22a IA Nr.18(1 IP66

Contents Rear light integrated reflector for bike fender

* fender not included





www.lightskin.co.kr

Manufacturer International Sales

Evergreen I&D

1273-39 Bamtijae-ro, Geochang-gun, Gyeongnam, 50147 South Korea www.lightskin.co.kr janet@lightskin.co.kr +82 70 4222 1273

German

c2g-engineering GmbH

Schlesische Str. 27 10997 Berlin Germany www.lightskin.org info@lightskin.org +49 30 695 351 900