



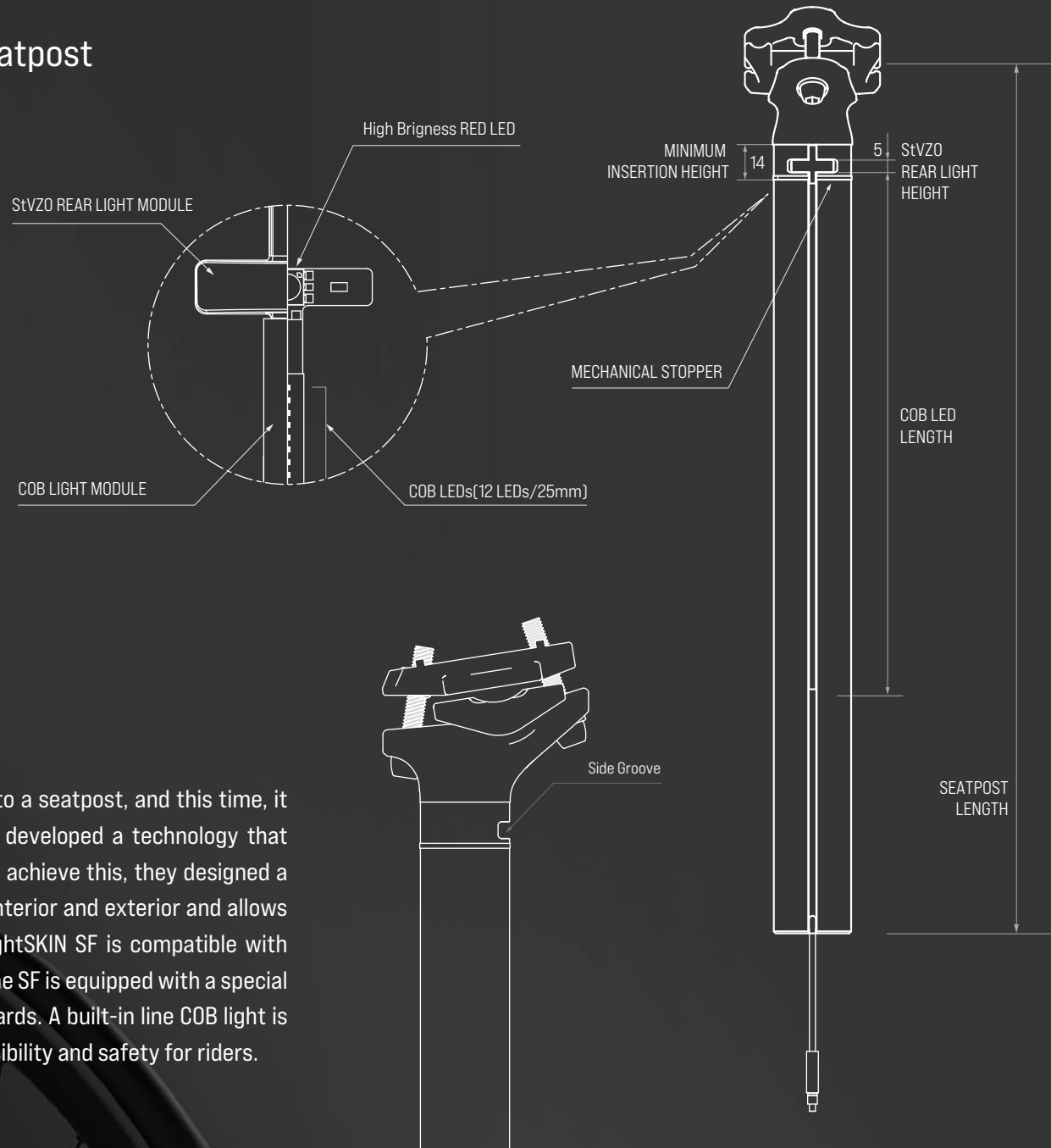
Light **SKIN**

2024-2025
Integration technology
V.2

www.lightskin.co.kr

Next generation of built-in light seatpost

SF



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 COB strips to make light emitted as a line. To achieve this, they designed a unique cross-sectional seatpost that connects the interior and exterior and allows for securing the COB strip on the seatpost. The LightSKIN SF is compatible with seatposts of various sizes and materials. The top of the SF is equipped with a special lighting module that passes StVZO's rear light standards. A built-in line COB light is under the StVZO light module, providing enhanced visibility and safety for riders.



SF-Basic



SFE-S



SFE-C.4



SFE-C.9



SFE-SC

E-bike

StVZO
ZUGELASSEN



110 ° back side

SFE - SC ●

SFE - SC is a product of StVZO rear lighting modules and red COB lighting strips and complies with StVZO certification. The StVZO module at the top is a technology from the automobile industry and has a size of 17 mm width and a height of 5 mm. With a total COB length of 225mm, it is a complete product with perfect light performance and design elements.

Features

Diameter	27.2 / 30.9 (mm)
Length	D27.2mm(350mm) / D30.9mm(350, 400mm)
color surface finish	Matt Black
Seatpost Type	2 bolt clamp offset 9mm mechanical stopper 14mm from top
Seapost material	Aluminum 6061 T6

Light unit

Light Module	high brightness StVZO rear light module Red COB light strip
Power Source	The on-board battery of the e-bike
Nominal voltage	DC 12V (6V-24V)
Power consumption	2w

ETC

Seatpost test standard	EN15194, EN17404, ISO-M
Compliant with standard or directive	CE, RoHS, StVZO §22a TA Nr.14b (Rear lights for bicycles), IPX6
Package Contents	rear light seatpost

E-bike

StVZO
ZUGELASSEN



110 ° back side

SFE - S ●

SFE-S is a derivative product for cases where it is hard to provide sufficient height for COB strip, and is characterized by low power consumption while complying with the StVZO standard. This product satisfies sufficient light standards with a minimal design.

Features

Diameter	27.2 / 30.9 (mm)
Length	D27.2mm(350mm) / D30.9mm(350, 400mm)
color surface finish	Matt Black
Seatpost Type	2 bolt clamp offset 9mm mechanical stopper 14mm from top
Seapost material	Aluminum 6061 T6

Light unit

Light Module	high brightness StVZO rear light module
Power Source	The on-board battery of the e-bike
Nominal voltage	DC 12V (6V-24V)
Power consumption	0.48w

ETC

Seatpost test standard	EN15194, EN17404, ISO-M
Compliant with standard or directive	CE, RoHS, StVZO §22a TA Nr.14b (Rear lights fot bicycles), IPX6
Package Contents	rear light seatpost



SFE - C ●

SFE-C is a product with only COB strip applied, and the length of COB strip can be manufactured in 25mm increments from 25mm to 225mm. For the rider's safety, a side view is still provided from the side groove.

⚙️ Features

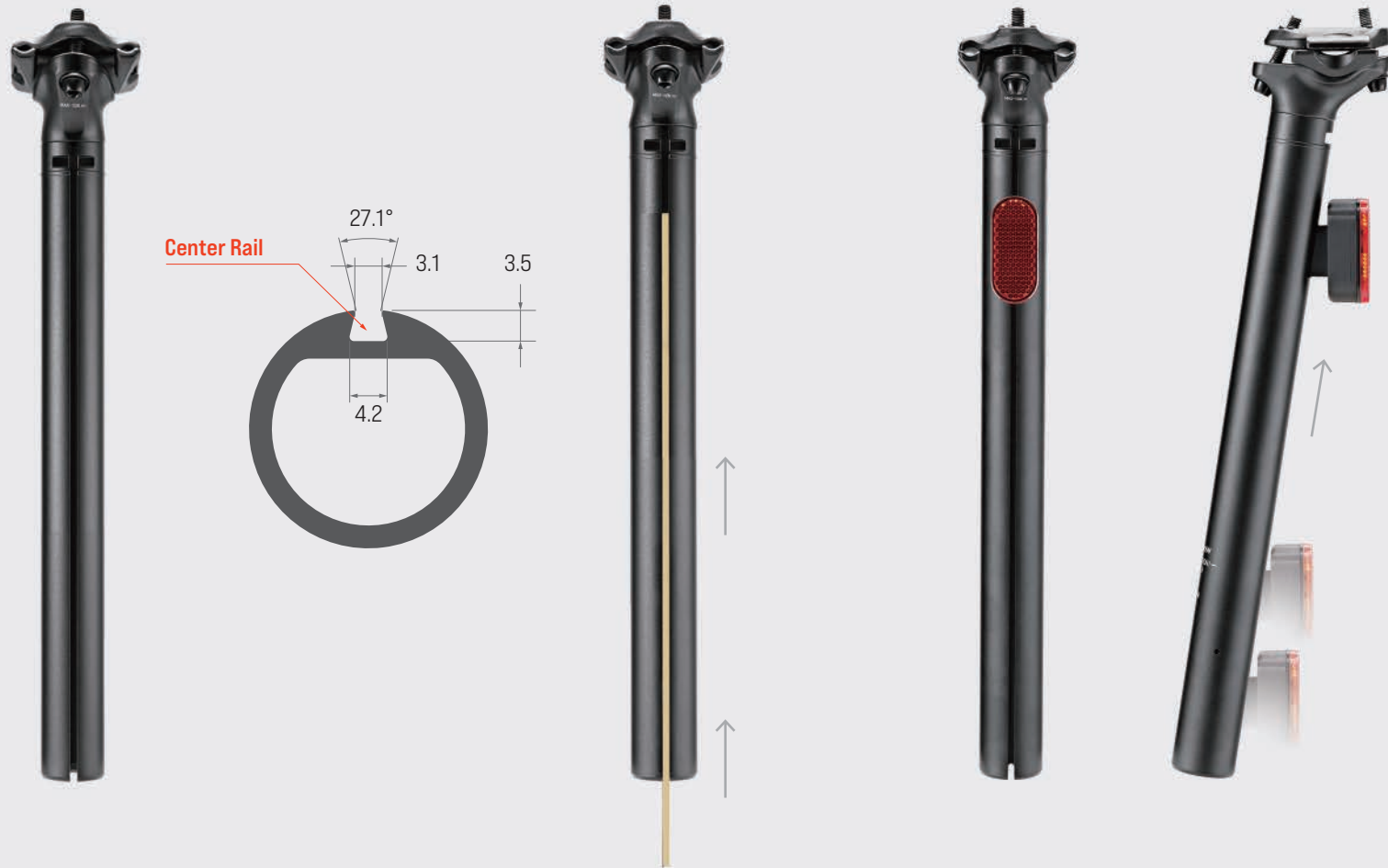
Diameter	27.2 / 30.9 (mm)
Length	D27.2mm(350mm) / D30.9mm(350, 400mm)
color surface finish	Matt Black
Seatpost Type	2 bolt clamp offset 9mm mechanical stopper 14mm from top
Seapost material	Aluminum 6061 T6

💡 Light unit

Light Module	Red COB light strip
COB length	25mm(Min, 1unit) to 225mm(Max, 9units) SFE-C.4 100mm COB (4units) SFE-C.9 225mm COB (9units)
Power Source	The on-board battery of the e-bike
Nominal voltage	DC 12V (6V-24V)
Power consumption	SFE-C.4 0.6W (100mm COB) SFE-C.9 1.4W (225mm COB)

📋 ETC

Seatpost test standard	EN15194, EN17404, ISO-M
Compliant with standard or directive	CE, RoHS, StVZO §22a TA Nr.14b (Rear lights for bicycles), IPX6
Package Contents	rear light seatpost



SF - Basic : infinity application

SF-Basic is a uniquely shaped SF Rail with a groove that allows various additional parts to be installed in the groove, and this groove can also be used as a passage for cables when connecting other products to an e-bike motor. In addition to this, SF-Basic can be used in various ways, and infinite possibilities are expected.



S311

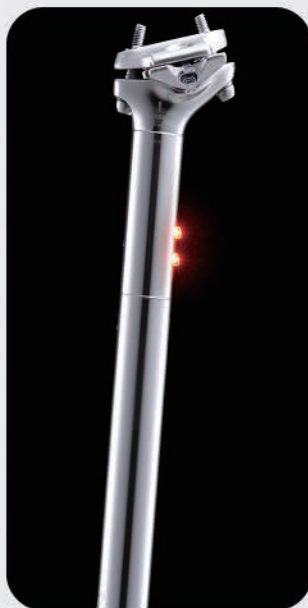
Rearlight for bicycles integrated in the seatposts

~~~~ K 1595





Battery

StVZO  
ZUGELASSEN**S311** ● ●

~~~~ K 1595

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.

⚙️ Features

| | |
|-----------------------------|---|
| 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 6061 T6 |

💡 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
(fully charged battery) | 5 LED: 10 hours
3 LED: 15 hours |
| Charging Time | 2.5h |

📋 ETC

| | |
|---|--|
| K-number | K 1595 |
| Seatpost
test standard | ISO 4210 City, Mountain |
| Compliant with
standard or directive | CE, RoHS, UN3481, StVZO §22a TA Nr.14b
(Rear lights fot bicycles), IPX5 |
| Package Contents | rear light seatpost
USB charge cable (200cm) |

SF NEW

S

H1 NEW

H2

U1 NEW

U2

U8

NR

ZR

2025

E-bike

StVZO
ZUGELASSEN



S311E ● ●

~~~~ K 1595

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.

## Features

|                             |                                           |
|-----------------------------|-------------------------------------------|
| <b>Diameter</b>             | 27.2 / 30.9 / 31.6 (mm)                   |
| <b>Length</b>               | D27.2mm(350mm) / D31.6mm(350, 400mm)      |
| <b>color surface finish</b> | Polished Silver / Matt Black              |
| <b>Seatpost Type</b>        | 2 bolt clamp, offset 9mm, mechanical stop |
| <b>Seapost material</b>     | Aluminum 6061 T6                          |

## Light unit

|                          |                                                      |
|--------------------------|------------------------------------------------------|
| <b>Light Module</b>      | 2 wide angle red LEDs,<br>3 high brightness red LEDs |
| <b>Brightness</b>        | 12cd                                                 |
| <b>Power Source</b>      | The on-board battery of the e-bike                   |
| <b>Nominal voltage</b>   | DC 6V (6V-12V)                                       |
| <b>Power consumption</b> | 0.3w                                                 |

## ETC

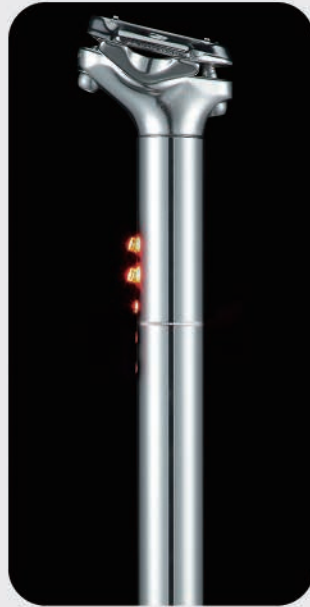
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|---------------------------------------------|--------------------------------------------------------------------|
| <b>K-number</b>                             | K 1595                                                             |
| <b>Seatpost test standard</b>               | EN 15194                                                           |
| <b>Compliant with standard or directive</b> | CE, RoHS, StVZO §22a TA Nr.14b<br>(Rear lights fot bicycles), IPX5 |
| <b>Package Contents</b>                     | rear light seatpost                                                |



Dynamo

StVZO  
ZUGELASSEN

reddot  
winner 2020



S311D ● ●

~~~~~ K 1595

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.

Features

| | |
|----------------------|---|
| 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 6061 T6 |

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 electronics or the LEDs from voltage surges. |

ETC

| | |
|--------------------------------------|---|
| K-number | K 1595 |
| Seatpost test standard | ISO City |
| Compliant with standard or directive | CE, RoHS, StVZO §22a TA Nr.14b (Rear lights fot bicycles), IPX5 |
| Package Contents | rear light seatpost |

SF NEW

S

H1 NEW

H2

U1 NEW

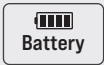
U2

U8

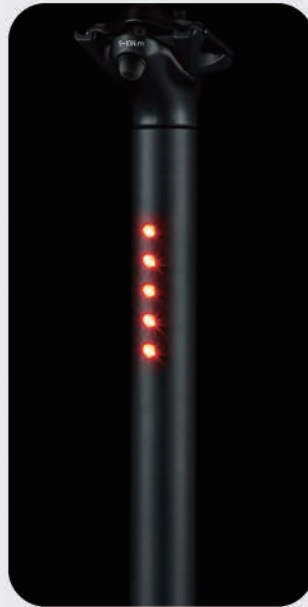
NR

ZR

2025



reddot design award
winner 2010



S341 ● ●

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.

⚙️ Features

| | |
|-----------------------------|--|
| 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 6061 T6 |

💡 Light unit

| | |
|---------------------|---|
| Lens Type | Non Protruding |
| Light Module | 5 high brightness red LEDs,
Non protruding LED Lens |
| Brightness | 15cd |
| Power Source | Lithium-polymer battery 3.7V, 800mAh,
801473 with protection |
| Mode Change | On → Chase → flashing → pulse
→ continuous → Off |

| Light Duration
(fully charged battery) | Chase | | | | |
|---|----------|-------|------------|------|-----|
| | flashing | pulse | continuous | | |
| | 5LEDs | 20h | 20h | 50h | 10h |
| | 3LEDs | 30h | 30h | 100h | 15h |

5 LED/continuous: 10 hours
3 LED/sparking: 100 hours

| | |
|----------------------|------|
| Charging Time | 2.5h |
|----------------------|------|

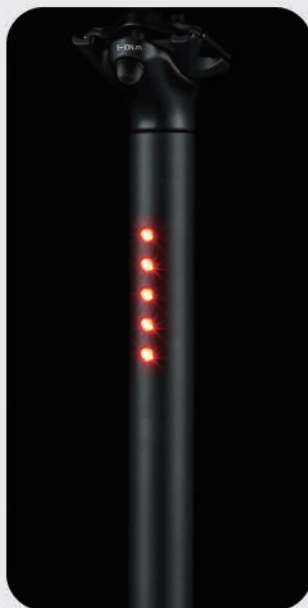
📋 ETC

| | |
|---|---|
| Seatpost test standard | ISO 4210 City(27.2),
Mountain(30.9, 31.6) |
| Compliant with standard or directive | CE, RoHS, UN3481, IPX5 |
| Package Contents | rear light seatpost
USB charge cable (200cm) |

E-bike



reddot design award
winner 2010



S341E ● ●

5 Flush LED make bike look neat and simple, 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.

Features

| | |
|----------------------|--|
| 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 6061 T6 |

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 test standard | EN 15194 |
| Compliant with standard or directive | CE, RoHS, IPX5 |
| Package Contents | Rear light seatpost |

SF NEW

S

H1 NEW

H2

U1 NEW

U2

U8

NR

ZR

2025

High performance built-in light handlebar.

H1



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.

E-bike

StVZO
ZUGELASSEN

H1E DROP ●

To pass the ISO-R, The H1E Dropbar has a light hole in the center and its shape is symmetrical . The same high performance light module as the H1E Flat bar is applied to the H1E Dropbar. A handlebar stem that does not cover the light hole in the center is required.

Features

| | |
|---|---|
| Diameter | Center 31.8mm |
| Handlebar Widths | 420 / 440 (mm) |
| Bar Type | Reach 80mm, Out sweep 3 ° 16 ° , Drop 121mm |
| Handlebar color and surface finish | Anodized black |
| Handlebar material | Aluminum 6061 T6 |

Light unit

| | |
|--------------------------|---|
| Light Module | LightSKIN V1 lens, 1 high-brightness LED |
| Luminous flux | 400 lm |
| Power Source | On-board battery of the e-bike or other devices |
| Nominal voltage | DC 12V (6V-24V) |
| Power consumption | 5w |

ETC

| | |
|---|---|
| Handlebar test standard | ISO-R |
| Compliant with standard or directive | CE, RoHS, UN3481, StVZO §22a TA Nr.23 (Headlights for bicycles), IPX4 |
| Package Contents | Front light handlebar |

SF NEW

S

H1 NEW

H2

U1 NEW

U2

U8

NR

ZR

2025

Experience the dazzling brilliance of the H1 lens



Put the H1 lens at the center of your design with dramatically improved brightness and performance. Our innovative front light is perfectly positioned in the center of your bike's stem, providing flexibility for a variety of bike designs. Enjoy the comfort of a symmetrical layout and the incredible performance of the H1 Hyper Lens.



⚙️ Features

D31.8 / W700

| | |
|------------------------------------|---|
| 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 | Anodized black / Polished silver |
| Handlebar material | Aluminum 6061 T6 |

⚙️ Features

D35.0 / W800

| | |
|------------------------------------|---|
| Diameter | Center 35.0mm / Grip 22.2mm |
| Handlebar Widths | 700 / 800 (mm) |
| Bar Type | Back sweep 9 ° , Up sweep 0 ° , Rise ±5mm |
| Handlebar color and surface finish | Anodized black / Polished silver |
| Handlebar material | Aluminum 6061 T6 |

H1E FLAT

● ●

H1E is a high-performance version of H2E. H1 is almost three times brighter than H2 and offers better waterproof performance through an independent lighting module.

💡 Light unit

| | |
|-------------------|---|
| Light Module | LightSKIN V1 lens, 1 high-brightness LED |
| Luminous flux | 400 lm |
| Power Source | On-board battery of the e-bike or other devices |
| Nominal voltage | DC 12V (6V-24V) |
| Power consumption | 5 W |

📋 ETC

| | |
|--------------------------------------|---|
| Handlebar test standard | EN17404, ISO 4210-Mountain, City |
| Compliant with standard or directive | CE, RoHS, StVZO §22a TA Nr.23 (Headlights for bicycles), IPX5 |
| Package Contents | Front light handlebar |

E-bike

StVZO
ZUGELASSEN

H1E WIEN



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 and surface finish | Anodized black / Polished silver |
| Handlebar material | Aluminum 6061 T6 |

E-bike

StVZO
ZUGELASSEN

H1E CITY



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 | Anodized black / Polished silver |
| Handlebar material | Aluminum 6061 T6 |

E-bike

StVZO
ZUGELASSEN

H1E MOON



Features

| | |
|---|---|
| Diameter | Center 31.8mm / Grip 22.2mm |
| Handlebar Widths | 620 (mm) |
| Bar Type | Back sweep 18 ° , Up sweep 0 ° , Rise 0mm |
| Handlebar color and surface finish | Anodized black / Polished silver |
| Handlebar material | Aluminum 6061 T6 |



H2

Headlight for bicycles integrated in the handlebars

~ K 1721

SF NEW

S

H1 NEW

H2

U1 NEW

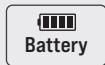
U2

U8

NR

ZR

2025



H2B FLAT ● ●

~~~~ K 1721

Headlight for bicycles integrated in the handlebars (with 1 LED).

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

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

## ⚙️ Features

|                                           |                                             |
|-------------------------------------------|---------------------------------------------|
| <b>Diameter</b>                           | Center 31.8mm / Grip 22.2mm                 |
| <b>Handlebar Widths</b>                   | 620 / 640 / 660 / 680 / 700 (mm)            |
| <b>Bar Type</b>                           | Flat, Back sweep 9°, Up sweep 0°, Rise ±5mm |
| <b>Handlebar color and surface finish</b> | Anodized black / Polished silver            |
| <b>Handlebar material</b>                 | Aluminum 6061T6                             |

## 💡 Light unit

|                                               |                                                                |
|-----------------------------------------------|----------------------------------------------------------------|
| <b>Light Module</b>                           | LightSKIN V2 Lens                                              |
| <b>Luminous flux</b>                          | 150 lm                                                         |
| <b>Power Source</b>                           | Lithium-polymer battery 3.7V, 2000mAh, 8018120 with protection |
| <b>Light Duration (fully charged battery)</b> | Extra bright: 4h<br>Bright: 6h                                 |
| <b>Charging Time</b>                          | 5h                                                             |

## 📋 ETC

|                                             |                                                                       |
|---------------------------------------------|-----------------------------------------------------------------------|
| <b>K-number</b>                             | K 1721                                                                |
| <b>Handlebar test standard</b>              | ISO 4210 Mountain                                                     |
| <b>Compliant with standard or directive</b> | CE, RoHS, UN3481, StVZO §22a TA Nr.23 (Headlights for bicycles), IPX4 |
| <b>Package Contents</b>                     | Front light handlebar<br>USB charge cable (200cm)                     |





## Light unit

E-bike

|                          |                                |
|--------------------------|--------------------------------|
| <b>Light Module</b>      | LightSKIN V2 Lens              |
| <b>Luminous flux</b>     | 150 lm                         |
| <b>Power Source</b>      | On-board battery of the e-bike |
| <b>Nominal voltage</b>   | DC 6V (5V-24V)                 |
| <b>Power consumption</b> | 1.3w                           |



## Light unit

Dynamo

|                          |                          |
|--------------------------|--------------------------|
| <b>Light Module</b>      | LightSKIN V2 Lens        |
| <b>Luminous flux</b>     | 150 lm                   |
| <b>Power Source</b>      | AC 6V(3W) Bicycle Dynamo |
| <b>Nominal voltage</b>   | AC 6V                    |
| <b>Power consumption</b> | 2.4w                     |

## H2E / H2D FLAT ● ●

## Features

K 1721

Headlight for bicycles integrated in the handlebars (with 1 LED).

|                                           |                                        |
|-------------------------------------------|----------------------------------------|
| <b>Diameter</b>                           | Center 31.8mm / Grip 22.2mm            |
| <b>Handlebar Widths</b>                   | 600 / 620 / 640 / 660 / 680 / 700 (mm) |
| <b>Bar Type</b>                           | Back sweep 9°, Up sweep 0°, Rise ±5mm  |
| <b>Handlebar color and surface finish</b> | Anodized black / Polished silver       |
| <b>Handlebar material</b>                 | Aluminum 6061 T6                       |



## ETC

|                                             |                                                                  |
|---------------------------------------------|------------------------------------------------------------------|
| <b>K-number</b>                             | K 1721                                                           |
| <b>Handlebar test standard</b>              | EN15194, EN17404<br>ISO 4210-Mountain, city                      |
| <b>Compliant with standard or directive</b> | CE, RoHS, StVZO §22a TA Nr.23<br>(Headlights for bicycles), IPX5 |
| <b>Package Contents</b>                     | Front light handlebar                                            |





Light unit

E-bike

|                          |                                |
|--------------------------|--------------------------------|
| <b>Light Module</b>      | LightSKIN V2 Lens              |
| <b>Luminous flux</b>     | 150 lm                         |
| <b>Power Source</b>      | On-board battery of the e-bike |
| <b>Nominal voltage</b>   | DC 6V (5V-24V)                 |
| <b>Power consumption</b> | 1.3w                           |



Light unit

Dynamo

|                          |                          |
|--------------------------|--------------------------|
| <b>Light Module</b>      | LightSKIN V2 Lens        |
| <b>Luminous flux</b>     | 150 lm                   |
| <b>Power Source</b>      | AC 6V(3W) Bicycle Dynamo |
| <b>Nominal voltage</b>   | AC 6V                    |
| <b>Power consumption</b> | 2.4w                     |

## H2E / H2D WIEN ● ●

Features

~ K 1721

Headlight for bicycles integrated in the handlebars (with 1 LED).

|                                           |                                            |
|-------------------------------------------|--------------------------------------------|
| <b>Diameter</b>                           | Center 31.8mm / Grip 22.2mm                |
| <b>Handlebar Widths</b>                   | 640 / 680 (mm)                             |
| <b>Bar Type</b>                           | Back sweep 15 ° , Up sweep 0 ° , Rise 20mm |
| <b>Handlebar color and surface finish</b> | Anodized black / Polished silver           |
| <b>Handlebar material</b>                 | Aluminum 6061 T6                           |



ETC

|                                             |                                                               |
|---------------------------------------------|---------------------------------------------------------------|
| <b>K-number</b>                             | K 1721                                                        |
| <b>Handlebar test standard</b>              | EN15194, ISO 4210-Mountain, city                              |
| <b>Compliant with standard or directive</b> | CE, RoHS, StVZO §22a TA Nr.23 (Headlights for bicycles), IPX5 |
| <b>Package Contents</b>                     | Front light handlebar                                         |





## Light unit

E-bike

|                          |                                |
|--------------------------|--------------------------------|
| <b>Light Module</b>      | LightSKIN V2 Lens              |
| <b>Luminous flux</b>     | 150 lm                         |
| <b>Power Source</b>      | On-board battery of the e-bike |
| <b>Nominal voltage</b>   | DC 6V (5V-24V)                 |
| <b>Power consumption</b> | 1.3w                           |



## Light unit

Dynamo

|                          |                          |
|--------------------------|--------------------------|
| <b>Light Module</b>      | LightSKIN V2 Lens        |
| <b>Luminous flux</b>     | 150 lm                   |
| <b>Power Source</b>      | AC 6V(3W) Bicycle Dynamo |
| <b>Nominal voltage</b>   | AC 6V                    |
| <b>Power consumption</b> | 2.4w                     |

## H2E / H2D CITY



## Features

K 1721

Headlight for bicycles integrated in the handlebars (with 1 LED).

|                                           |                                            |
|-------------------------------------------|--------------------------------------------|
| <b>Diameter</b>                           | Center 31.8mm / Grip 22.2mm                |
| <b>Handlebar Widths</b>                   | 640 (mm)                                   |
| <b>Bar Type</b>                           | Back sweep 38 ° , Up sweep 0 ° , Rise 40mm |
| <b>Handlebar color and surface finish</b> | Anodized black / Polished silver           |
| <b>Handlebar material</b>                 | Aluminum 6061 T6                           |



## ETC

|                                             |                                                               |
|---------------------------------------------|---------------------------------------------------------------|
| <b>K-number</b>                             | K 1721                                                        |
| <b>Handlebar test standard</b>              | EN15194, ISO 4210-Mountain, city                              |
| <b>Compliant with standard or directive</b> | CE, RoHS, StVZO §22a TA Nr.23 (Headlights for bicycles), IPX5 |
| <b>Package Contents</b>                     | Front light handlebar                                         |





Light unit

E-bike

|                          |                                |
|--------------------------|--------------------------------|
| <b>Light Module</b>      | LightSKIN V2 Lens              |
| <b>Luminous flux</b>     | 150 lm                         |
| <b>Power Source</b>      | On-board battery of the e-bike |
| <b>Nominal voltage</b>   | DC 6V (5V-24V)                 |
| <b>Power consumption</b> | 1.3w                           |



Light unit

Dynamo

|                          |                          |
|--------------------------|--------------------------|
| <b>Light Module</b>      | LightSKIN V2 Lens        |
| <b>Luminous flux</b>     | 150 lm                   |
| <b>Power Source</b>      | AC 6V(3W) Bicycle Dynamo |
| <b>Nominal voltage</b>   | AC 6V                    |
| <b>Power consumption</b> | 2.4w                     |

## H2E / H2D MOON ● ●

Features

~ K 1721

Headlight for bicycles integrated in the handlebars (with 1 LED).

|                                           |                                           |
|-------------------------------------------|-------------------------------------------|
| <b>Diameter</b>                           | Center 31.8mm / Grip 22.2mm               |
| <b>Handlebar Widths</b>                   | 620 (mm)                                  |
| <b>Bar Type</b>                           | Back sweep 18 ° , Up sweep 0 ° , Rise 0mm |
| <b>Handlebar color and surface finish</b> | Anodized black / Polished silver          |
| <b>Handlebar material</b>                 | Aluminum 6061 T6                          |



ETC

|                                             |                                                               |
|---------------------------------------------|---------------------------------------------------------------|
| <b>K-number</b>                             | K 1721                                                        |
| <b>Handlebar test standard</b>              | ISO 4210-Mountain, city                                       |
| <b>Compliant with standard or directive</b> | CE, RoHS, StVZO §22a TA Nr.23 (Headlights for bicycles), IPX5 |
| <b>Package Contents</b>                     | Front light handlebar                                         |



# U1

## Neo Ultra Light



Neo Ultra Light is a high-powered variant of the Ultramini light.  
Although slightly larger in size, it delivers over three times the power.  
For bicycle manufacturers and consumers seeking a combination of compactness and superior illumination,  
the Neo Ultra Light stands out as the obvious choice.





The U1E has much more powerful light performance while providing a flexible solution for controlling LEDs and other functions on electric bikes and other devices. Dual control modes of UART communication and external switches, automatic mode conversion and various LED configurations allow it to adapt to different requirements.

## Communication and Control

### **UART Communication**

This allows external devices to transmit commands to the U1E. UART (Universal Asynchronous Receiver-Transmitter) is a serial communication protocol used for data exchange between devices.

### **External Switch Control**

The U1E can also be controlled via an external switch. This provides a manual method of control, which can be particularly useful in situations where simplicity and reliability are needed.

## Automatic Mode Conversion

### **Shared Wire for Control Modes**

Both UART communication and the external switch mode use the same wire. The U1E automatically switches between these modes, ensuring seamless operation without the need for additional wiring or manual switching.



- E-bike
- Flash
- 3LEDs



\* Actual size

# U1E-3L ●

U1E-3L is a variant of the U1E, featuring three LEDs with advanced functionalities designed for a variety of visual signaling options. This unit is particularly suited for applications that require multiple light modes, such as e-bikes and other smart devices.

## ⚙ Features

|                  |                       |
|------------------|-----------------------|
| Dimensions       | 36mm ×16mm ×52mm      |
| Weight           | 43gram                |
| Color and finish | Matt black            |
| Housing material | Aluminum 6061 T6      |
| Bracket          | Dual position bracket |

## 💡 Light unit

|                   |                                                 |
|-------------------|-------------------------------------------------|
| Light module      | LightSKIN V1 lens, 3 high-brightness LEDs       |
| Power source      | On-board battery of the e-bike or other devices |
| Brightness        | 800 lm                                          |
| Voltage           | DC 12V (5V - 18V)                               |
| Power consumption | 10 W                                            |

## ⚙ Functions

|                |                                                                   |
|----------------|-------------------------------------------------------------------|
| Wired control  | It can be turned on/off from other devices via UART communication |
| Control switch | Internal switch, External switch                                  |
| Protection     | Overheating protection sensor<br>Reverse polarity protection      |
| Modes          | Super brightness mode, Low beam(Max),<br>Low beam, Flash          |

## 📋 ETC

|                       |                                                                  |
|-----------------------|------------------------------------------------------------------|
| Standard or directive | CE, RoHS<br>StVZO §22a TA Nr.23(Headlights for bicycles)<br>IPX5 |
|-----------------------|------------------------------------------------------------------|

SF NEW

S

H1 NEW

H2

U1 NEW

U2

U8

NR

ZR

2025



E-bike

StVZO  
ZUGELASSEN



## U1E-1L / U1E-1L-S (StVZO) ●

U1E-1L is a high-performance version of ultramini light.

It shares a bracket with U2 and can be controlled in various ways, such as UART communication and internal/external switches.

### ⚡ Features

|                         |                       |
|-------------------------|-----------------------|
| <b>Dimensions</b>       | 36mm ×16mm ×52mm      |
| <b>Weight</b>           | 43gram                |
| <b>Color and finish</b> | Matt black            |
| <b>Housing material</b> | Aluminum 6061 T6      |
| <b>Bracket</b>          | Dual position bracket |

### 💡 Light unit

|                          |                                                 |
|--------------------------|-------------------------------------------------|
| <b>Light module</b>      | LightSKIN V1 lens, 1 high-brightness LED        |
| <b>Power source</b>      | On-board battery of the e-bike or other devices |
| <b>Brightness</b>        | 400 lm                                          |
| <b>Voltage</b>           | DC 12V (5V - 18V)                               |
| <b>Power consumption</b> | 5 W                                             |

### ⚙ Functions

|                       |                                                                   |
|-----------------------|-------------------------------------------------------------------|
| <b>Wired control</b>  | It can be turned on/off from other devices via UART communication |
| <b>Control switch</b> | Internal switch, External switch                                  |
| <b>Protection</b>     | Overheating protection sensor<br>Reverse polarity protection      |
| <b>Modes</b>          | Low beam(Max), Low beam                                           |

### 📝 ETC

|                              |                                                                  |
|------------------------------|------------------------------------------------------------------|
| <b>Standard or directive</b> | CE, RoHS<br>StVZO §22a TA Nr.23(Headlights for bicycles)<br>IPX5 |
|------------------------------|------------------------------------------------------------------|





# U2

The smallest bike front light approved StVZO

~ K 1817

SF NEW

S

H1 NEW

H2

U1 NEW

U2

U8

NR

ZR

2025



E-bike

StVZO  
ZUGELASSEN



\* Actual size

## U2E ● ●

~~~~ 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

| | |
|--------------------------|---------------------------------|
| Light Module | LightSKIN V2 Lens |
| Power source | On-board battery of the e-bike. |
| Brightness | 150 lm |
| Voltage | DC 6V (5V - 12V) |
| Power consumption | 1.3 W |



ETC

| | |
|------------------------------|--|
| K-number | K 1817 |
| Standard or directive | CE, RoHS
StVZO §22a TA Nr.23(Headlights for bicycles)
IPX5 |

dynamo

StVZO
ZUGELASSEN



U2D ● ●

~~~~ K 1817

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

## Features

|                  |                              |
|------------------|------------------------------|
| Dimensions       | 39mm × 19mm × 28mm           |
| Weight           | 22gram                       |
| Color and finish | Polished silver / Matt black |
| Housing material | Aluminum 6061 T6             |
| Bracket          | Dual position bracket        |

## Light unit

|                   |                          |
|-------------------|--------------------------|
| Light Module      | LightSKIN V2 Lens        |
| Power source      | AC 6V(3W) Bicycle Dynamo |
| Brightness        | 150 lm                   |
| Normal voltage    | AC 6V                    |
| Power consumption | 2.3 W                    |

## ETC

|                       |                                                                  |
|-----------------------|------------------------------------------------------------------|
| K-number              | K 1817                                                           |
| Standard or directive | CE, RoHS<br>StVZO §22a TA Nr.23(Headlights for bicycles)<br>IPX5 |

SF NEW

S

H1 NEW

H2

U1 NEW

U2

U8

NR

ZR

2025



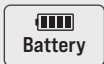


# U8

LightSKIN

The development of the U8 bicycle headlight began with the question: "What would make the perfect bike front light that satisfies everyone?" The U8's dual mount function allows it to be attached to various types of bicycles, including road, mountain, and city bikes. With a 5000mAh high-capacity lithium-ion battery, it can be used with confidence even on long rides. Additionally, it provides both high and low beam options, making it suitable for a variety of environments, from complex urban settings to dark outdoor areas. The wireless controller allows the bike front light to be safely operated even while riding.





## U8-433plus ●

High & Low beam  
Wireless controller  
Day flash mode  
IPX6

3.4 ° Dual cut-off line  
5,000mAh Li-Ion battery  
Intelligent power saving  
185g

Dual mount position  
USB-C  
Power bank function

### Features

|            |                       |
|------------|-----------------------|
| Dimensions | 31mm x 31mm x 118 mm  |
| Weight     | 183gram without mount |

### Light unit

|                |                                                                                                                                       |
|----------------|---------------------------------------------------------------------------------------------------------------------------------------|
| Light Module   | LightSKIN Low/High beam dual optic lenses                                                                                             |
| Power Source   | Lithium-Ion 21700/5,000mAh                                                                                                            |
| Mode           | Low beam : Strong → Normal → Power saving<br>→ Low beam Flash(Night)<br><br>High beam : Strong → Normal<br>→ Daylight Flash(Daylight) |
| Light Duration | 8.5h(Low beam), 4h(High beam)                                                                                                         |
| Charging Time  | 4h (USB type-C)                                                                                                                       |

### ETC

|                                      |                                                                                                             |
|--------------------------------------|-------------------------------------------------------------------------------------------------------------|
| Compliant with standard or directive | CE, RoHS, UN3481<br>(Headlights for bicycles), IPX6                                                         |
| Package contents                     | U8<br>Handlebar mount<br>Bracket (For GoPro, Garmin)<br>USB A to C cable, USB A to C gender<br>Allen wrench |
| Wireless controller                  | 433Hz<br>3 buttons<br>* Not available in some countries.                                                    |



# NACAROAD

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.

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



WINNER

AWARD 2023

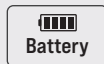
designed by



ETENDUE  
LIGHTING

ETENDUE LIGHTING is a company with the best automotive lens technology. Nacaroad is the essence of their technology. ETENDUE LIGHTING is trying to expand their advanced optical technology to the field of personal mobility.





## NACAROAD ●

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

~~~~~ K 2067

designed by



⚙️ 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
→ City mode |
| Light Duration
(fully charged battery) | Max brightness: 1.5h
Min brightness: 7.3h |
| Charging Time | 3h (USB type-C) |

📋 ETC

| | |
|---|--|
| K-number | K 2067 |
| Compliant with
standard or directive | CE, RoHS, UN3481, StVZO §22a TA Nr.23
(Headlights for bicycles), IP66 |
| Package Contents | NACAROAD
C-type USB charge cable (100cm)
Anti-glare cap |
| Mount | Go-pro mount compatible
* Mount not included |

SF NEW

S

H1 NEW

H2

U1 NEW

U2

U8

NR

ZR

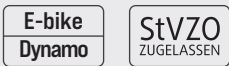
2025

A close-up photograph of the rear wheel and fender of a bicycle. The fender is black and curved, following the shape of the wheel. A red, curved rear light is integrated into the fender. The wheel has many thin spokes, and the chain and rear cassette are visible in the lower-left portion of the frame.

ZR

Curved fender reflector integrated rear light

The LightSKIN ZR is a curved reflector designed for bike fenders that integrates a rear light. The advantage of its curved design is that it perfectly matches the curved surface of the bicycle fender, greatly enhancing the bicycle's overall design. ZR almost does not protrude and adheres closely to the fender, so it is less likely to break, is safe and can be used for a long time. Existing reflectors have a flat shape to maximize reflection efficiency, but LightSKIN has created a rearlight integrated reflector with a curvature of 1.62/m through precise processing and clever optic design. The ZR has passed StVZO regulations for both reflectors and rear lights.



ZRE / ZRD ●

~~~~ 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.

⚙ Features

| | |
|------------------|----------------------------|
| Dimension | 128.2mm x 22.6 mm x 14.6mm |
| Material | Reflector=PMMA |
| Weight | 40gram |

💡 Light unit

| | |
|--------------------------|----------------------------|
| ZRE Light Modul | 2 high brightness red leds |
| Brightness | 12cd |
| Power Source | DC 5~24V |
| Power consumption | 0.4W |

| | |
|--------------------------|----------------------------|
| ZRD Light Modul | 2 high brightness red leds |
| Brightness | 12cd |
| Power Source | AC6V |
| Power consumption | 0.3W |

📋 ETC

K-number K 2135(Rearlight), K 2136(Reflector)

Compliant with standard or directive CE, RoHS, UN3481, StVZO §22a TA Nr.14b(Rearlight) StVZO §22a TA Nr.18(Reflector) IP66

Contents Rear light integrated reflector for bike fender
* fender not included

SF NEW

S

H1 NEW

H2

U1 NEW

U2

U8

NR

ZR

2025

L- Handlebar

Achieving right angles for a perfect flush fit



Lightskin creates a new handlebar shape with a neat look while perfectly integrating various bicycle parts. The shape of the handlebar, which is at a right angle between the 31.8mm main tube and the 22.2mm grip tube, allows the parts and handlebar to be combined without steps, creating a bicycle handlebar that is perfectly integrated in design.

LightSKIN's latest front light, H1 front light, and e-trimm can be applied to the L-handlebar.



Light**SKIN**-**e-trimm**

The LightSKIN e-trimm is another built-in technology component of LightSKIN, and in addition to displaying the various states of the bike and turning the lights on and off, it already has navigation and maps, and there is a lot of potential for expansion of other functions, such as anti-theft. Since e-trimm was planned from the beginning to create services and customized hardware with low CPU and low memory, it can be made light and small, contain only the necessary functions, and implement an optimized system.

e-trimm was created in collaboration with 'trimm', an e-bike computer specialist. trimm is in charge of the smart technology part, and lightskin is in charge of the built-in integration, creating an electric bicycle display that can perfectly meet the manufacturer's requirements.



*Light***SKIN**

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