

Sales Contacts

Susie
susie@szhilloptical.com
+86 135 2874 2790 (WhatsApp)

Judy
judy@szhilloptical.com
+86 159 9288 7669 (WhatsApp)

COMPANY PROFILE

Hill Optical was established in 2007 and located in Shenzhen China. We are a technology company integrating design, manufacture, tooling R&D, sales and service together. We mainly engaged in outdoor cycling equipment: bicycle lights, Ebike headlights, head lamp and LED optical lens, etc. We have professional and excellent researching and manufacture team, structure designer for riding lights, electronics engineer, industrial design engineer, mold design engineer, injection engineer and excellent staff team. Company import modernization professional production equipment, the technology come up to internal advanced standard of similar product. Hill Optical have CNC from Taiwan, EDM machine, wire cut machine, grinding machine, milling machine, etc; HAITIAN injection molding machine; have Deed VMC50 vertical machining center, MX-520 MATSUURA five axes vertical machining center, Mazak 1-100S car milling compound machine center, WENZEL XOplus55 CMM, JDGR400 five axes machining center, etc.

We have professional design team, from product design, molding making, molding to product assembling, each process have undergone stringent test and quality control. We insist innovation is core element, uphold 'independent R&D, manufacturing, sales promotion and information service integration' as the policy of enterprise, adhere to the 'service first, quality first' business philosophy. We will ensure our product quality through improving manufacturing technique continually, to provide safety and reliable product to outdoor cycling enthusiasts and relevant customers.



Front Bike Light Series

Product Item

IGS-B01 StVZO Approved





Specifications	
Material:	Aluminum Alloy
Dimensions:	105.6*37.8*96mm
Weight:	165g
LED:	OSRAM
Battery:	18650 Li-ion, 2600 mAh
Modes:	High / Medium / Strobe (Optional)
Max Output:	300 lm / 600 lm (Optional)
Light Intensity:	⩾60Lux (at 10m)
Beam Distance:	245 m
Input:	5V / 1A
Waterproof Rating:	IPX6



Product Item

IGS-B02

Specifications
Material: Aluminum Alloy + PC/ABS
Dimensions: 40.5 × 95.4 × 79.2 mm
Weight: 110g
LED: OSRAM
Battery: 2 × 14430 Li-ion, 1800 mAh
Modes: High / Medium / Strobe
Max Output: 300 lm
Beam Distance: 120 m
Input: 5V / 1A
Waterproof Rating: IPX6

Product Item

IGS-B03

Specifications
Material: Aluminum Alloy
Dimensions: 40.4*106.1*104.3mm
Weight: 156g
LED: OSRAM
Battery: 18650 Li-ion, 2600 mAh
Modes: High / Medium / Strobe
Max Output: 600lm
Beam Distance: 260 m
Input: 5V / 1A
Waterproof Rating: IPX6





Product Item

IGS-B04

Specifications
Material: Aluminum Alloy
Dimensions: 36*106.3*102mm
Weight: 190g
LED: OSRAM
Battery: 18650 Li-ion, 2600 mAh
Modes: High / Medium / Strobe
Max Output: 300lm
Beam Distance: 200 m
Input: 5V / 1A
Waterproof Rating: IPX6



Replaceable Li-ion Battery

IGS-B05

Specifications
Material: Aluminum Alloy + PC
Dimensions: 61*59*46mm
Weight: 135.8g
LED: OSRAM
Battery: 1600 mAh
Runtime: High ⩾ 3 h / Low ⩾ 4 h
Max Output: 300lm
Input: 5V / 1A
Light Intensity: ⩾ 85 lux (at 10 m)
Waterproof Rating: IPX6

Replaceable Battery

IGS-B04 (B)

Specifications
Material: Die-Cast Aluminum
LED: OSRAM
Battery: 3 × AA Batteries
Input Voltage: 4.5 V (3 × 1.5 V)
Max Output: 170 lm
Low Output: 108 lm
Runtime: High ⩾ 4 h / Low ⩾ 7 h
Waterproof Rating: IPX6



Replaceable Li-ion Battery

IGS-B07

Optional: Detachable Battery Version Available

Specifications
Material: Aluminum Alloy + PC
Dimensions: 110*50.5*29mm
Weight: 152g
LED: LatticePower
Battery: 5000 mAh
Runtime: High ⩾ 3 h / Low ⩾ 5 h
Max Output: 1200lm
Input: 5V / 2A
Light Intensity: ⩾ 50 lux (at 10 m)
Waterproof Rating: IPX6



Replaceable Li-ion Battery

IGS-B08

Specifications
Material: Aluminum Alloy + PC
Dimensions: 102*52*27mm
Weight: 140g
LED: LMP
Battery: 5000 mAh
Runtime: High ⩾ 3h / Low ⩾ 5h
Max Output: 1200lm
Input: 5V / 2A
Light Intensity: ⩾ 50 lux (at 10 m)
Waterproof Rating: IPX6



Replaceable Li-ion Battery

IGS-B12 (B)

Available Versions:
A – Tool-Free Rear Cap
B – Screw-Open Rear Cap, 300 lm
C – Screw-Open Rear Cap, 1200 lm

Specifications
Material: Aluminum Alloy + PC
Dimensions: 100*38*28mm
Weight: 112g
LED: OSRAM
Battery: 18650 Li-ion, 2600 mAh
Charging Time: 3 h
Runtime: High ⩾ 3h / Low ⩾ 5h
Max Output: 300lm
Low Output：200lm
Input: 5V / 1A
Light Intensity: ⩾ 60 lux (at 10 m)
Waterproof Rating: IPX6





Replaceable Li-ion Battery

IGS-B13 (B)

Available Versions:
A – Tool-Free Rear Cap
B – Screw-Open Rear Cap, 300 lm
C – Screw-Open Rear Cap, 1200 lm

Specifications
Material: Aluminum Alloy + PC
Dimensions: 100*35*34mm
Weight: 118g
LED: OSRAM
Battery: 18650 Li-ion, 2600 mAh
Charging Time: 3 h
Runtime: High ⩾ 3h / Low ⩾ 5h
Max Output: 300lm
Low Output：200lm
Input: 5V / 1A
Light Intensity: ⩾ 60 lux (at 10 m)
Waterproof Rating: IPX6

Replaceable Li-ion Battery

IGS-B14 (C)

Available Versions:
A – Tool-Free Rear Cap
B – Screw-Open Rear Cap, 300 lm
C – Screw-Open Rear Cap, 1200 lm

Specifications
Material: Aluminum Alloy + PC
Dimensions: 112*37*32mm
Weight: 163g
LED: LMP
Battery: 21700 Li-ion, 5000 mAh
Runtime: High ⩾ 2h / Low ⩾ 5h
Max Output: 1200lm
Low Output：600lm
Input: 5V / ⩾2A
Light Intensity: ⩾ 110 lux (at 10 m)
Waterproof Rating: IPX6





Replaceable Li-ion Battery

IGS-B15 (C)

Available Versions:
A – Tool-Free Rear Cap
B – Screw-Open Rear Cap, 300 lm
C – Screw-Open Rear Cap, 1200 lm

Specifications
Material: Aluminum Alloy + PC
Dimensions: 109*38.5*29mm
Weight: 158g
LED: LMP
Battery: 21700 Li-ion, 5000 mAh
Runtime: High ⩾ 2h / Low ⩾ 5 h
Max Output: 1200lm
Low Output: 600lm
Input: 5V / ⩾2A
Light Intensity: ⩾ 110 lux (at 10 m)
Waterproof Rating: IPX6

Replaceable Li-ion Battery

IGS-B16

Available Sizes:
A – Large (45 × 43 × 43 mm)

Specifications
Material: Aluminum Alloy + PC
Dimensions: 38*43*43mm
Weight: 92g
LED: OSRAM
Battery: 2 × 14430 Li-ion, 1600 mAh
Charging Time: 2 h
Runtime: High ⩾ 2h / Low ⩾ 3 h
Max Output: 300lm
Low Output: 200lm
Input: 5V / 1A
Light Intensity: ⩾ 50 lux (at 10 m)
Waterproof Rating: IPX6



Replaceable Li-ion Battery

IGS-B17



Specifications	
Material:	Aluminum Alloy + PC
Dimensions:	78*47.5*45mm
Weight:	146g
LED:	OSRAM
Battery:	2600 mAh
Runtime:	High ⩾ 2h / Low ⩾ 3.5 h
Max Output:	300lm
Low Output:	200lm
Input:	5V / 1A
Light Intensity:	⩾ 50 lux (at 10 m)
Waterproof Rating:	IPX6

Kids' Bike Light Series

2-in-1 Kids Bike Light & Projector

IGS-B09







Specifications	
Material:	PC/ABS
Dimensions:	48.5*82.7*79.7mm
Weight:	103g
LED:	OSRAM
Battery:	2 × 14430 Li-ion, 1600 mAh
Mode:	High brightness
Beam Distance:	50 m
Input:	5V/500mA
Waterproof Rating:	IPX4



Product Item

IGS-B10

Specifications
Material: PC/ABS
Dimensions: 80*40*65mm
Weight: 52g
LED: OSRAM
Mode: High brightness
Beam Distance: 50 m
Battery: 3 x AAA
Waterproof Rating: IPX4

2-in-1 Kids Bike Light & Projector

IGS-B11

Specifications
Material: PC/ABS
Dimensions: 40*84.5*83.5mm
Weight: 90g
LED: OSRAM
Battery: 14500 Li-ion, 900 mAh
Mode: High brightness
Beam Distance: 50 m
Input: 5V/500mA
Waterproof Rating: IPX4



Rear Light Series

Product Item

IGS-T01



Specifications	
Material:	PC/ABS
Dimensions:	100*49.6*25mm
Weight:	54g
LED:	LIGHTBEL
Battery:	380 mAh
Modes:	Steady/ Slow Flash/ Fast Flash/ Breathing
Beam Distance:	50 m
Input:	5V / 500mA
Waterproof Rating:	IPX6

Product Item

IGS-T02



Specifications	
Product model:	IGS-T02
Material:	PC/ABS
Dimensions:	100*52.9*41.7mm
Weight:	103g
LED:	LIGHTBEL
Battery:	900mAh
Modes:	Steady/ Flowing/ Breathing/ Flash
Beam distance:	50m
Visibility Angle:	180°
Input:	5V/1A
Waterproof Rating:	IPX6



Product Item

IGS-T03 StVZO Approved

Material: PC/ABS

Dimensions: 54*57*35mm

Weight: 31g

LED: LIGHTBEL

Battery: 200 mAh

Mode: Steady

Beam Distance: 50 m

Visibility Angle: 180°

Input: 5V / 500mA

Waterproof Rating: IPX6



Brake Tail Light

Product Item

IGS-T04





Specifications	
Material:	PC + rubber
Dimensions:	Ø40*37mm
Battery:	380 mAh
Charging Time:	< 1 h
Runtime:	50% brightness, brake mode excluded
Steady mode:	⩾10 h
Flash (single):	⩾18 h
Flash (double):	⩾18 h
Breathing mode:	⩾15 h
Input:	5V / 500mA
Waterproof Rating:	IPX6



Replaceable Li-ion Battery

IGS-T05PRO

Specifications
Material: PC + Rubber
Dimensions: 50*40*35mm
Weight: 25g
Battery: 250 mAh
Mode: Steady
Input: 5V / 500mA
Charging Time: ⩽ 1 h
Runtime: ⩾ 5h
Waterproof Rating: IPX6

Replaceable Li-ion Battery

IGS-T06



Specifications	
Material:	PC/ABS
Dimensions:	76*39*18mm
Weight:	34g
Battery:	300 mAh
Modes:	Steady, Slow Flash, Fast Flash
Input:	5V / 500mA
Charging Time:	⩽ 1 h
Runtime:	Steady: ⩾ 2 hrs
	Slow Flash: ⩾ 10 hrs
	Fast Flash: ⩾ 8 hrs
Waterproof Rating:	Waterproof Rating: IPX6

Replaceable Li-ion Battery

IGS-T05

Specifications
Material: PC + Rubber
Dimensions: 50*40*35mm
Weight: 24.5g
Battery: 250 mAh
Mode: Steady
Input: 5V / 500mA
Charging Time: ⩽ 1 h
Runtime: ⩾ 5h
Waterproof Rating: IPX6



E-Bike Lighting Series





Product Item

IGS-EB01 StVZO Approved

Specifications
Material: Aluminum Alloy
Dimensions: 82*66.5*92.5mm
Weight: 122g
LED: OSRAM
Power Supply: E-bike Battery
Mode: High
Output: 1200lm
Beam Distance: >250 m
Input Voltage: DC 15-90V
Waterproof Rating: IPX6



Product Item

IGS-EB03

Specifications
Material: Die-cast aluminum + PC
Dimensions: 57*48*67mm
Weight: 145g
LED: LatticePower
Power: 12W
Output: 800lm
Input Voltage: DC 15-90V
Waterproof Rating: IPX6

Product Item

IGS-EB02

Specifications
Material: Aluminum Alloy
Dimensions: 56*33.3*49mm
Weight: 85g
LED: OSRAM
Power Supply: E-bike Battery
Modes: High / Low
Output: 600lm
Beam Distance: >250 m
Input Voltage: DC 12V
Waterproof Rating: IPX6



Product Item

IGS-EB04

Specifications
Material: PC
Dimensions: Ø200*146mm
LED: OSRAM
Max Output: 1200lm
Low Output：700lm
Battery Voltage: 8.4V
Battery: 9000mAh (2 × 4500mAh)
Input：5V/2A
Runtime: High≥3h / Low≥6h
Waterproof Rating: IPX6



Integrated Front Light

IGS-T05 (A)



Specifications

Material: PC + Aluminium
Dimensions: 50*12*30mm
Weight: 26g
Power: 2.5W
Max output: 260lm
Input: DC 12V / 1A
Waterproof Rating: IPX6

Smart Brake Function

Motion Sensor Auto ON/OFF

- Turns off after 30s of inactivity
- Activates automatically when motion is detected

Integrated Rear Light

IGS-T05 (B)



Specifications

Material: PC + Aluminium
Dimensions: 50*12*30mm
Weight: 26g
Power: 2.5W
Max output: 260lm
Input: DC 12V
Current Consumption: 28mA (Low)/ 60mA (High)
Waterproof Rating: IPX6

Smart Brake Function

- 50% brightness while riding
- Boosts to 100% brightness for 5s when braking
- Auto OFF after 30s of inactivity
- Auto ON by vibration detection



Product Item

IGS-EB05

Specifications
Material: Die-cast aluminum + PC
Dimensions: 78*61*45mm
LED: LMP
Power: 12W
Max Output: 800lm
Low Output: 400lm
Input Voltage: DC 12-48V
Waterproof Rating: IPX6

Mounting Accessories



M01



M04

M05



M06



M07



M08