PROFESSIONAL LED WORK LAMP

# Goby




Shown: Goby Ultra, titanium-based e-coating, 14° lens, high tensile 316L bracket.

CE | IP69K | IK10 | Class II | C5 ISO 9223 | Ta −45 … +50 °C | 9–32 VDC | 12 and 24 V | Deutsch DTP04 in housing | Vibration 6 G | Crane Light Director | 5-year warranty

The versatile professional work lamp of the range. Four output levels from 4,600 to 8,200 lumens on 9 to 32 volts DC, in a 1.8 kg housing rated IP69K and IK10, with the Deutsch connector fitted in the housing so there is no cable tail to route or damage.

| LUMINOUS FLUX | POWER | WEIGHT |
|---|---|---|
| 8,200 lm | 65 W | 1.8 kg |
| **SUPPLY** | **INGRESS** | **IMPACT** |
| 9–32 VDC | IP69K | IK10 |

Values apply to the Ultra at 6500 K, Ta 25 °C, including lens losses. All four output levels share the same housing, bracket, connector and dimensions.

## WHY IT IS SPECIFIED

**Four output levels on one 1.8 kg housing.** The Ultra, the Pro, the 9 and the 6 differ in lumen package and in price, not in mounting, connector, bracket or dimensions. One spare covers the fleet.

**9 to 32 V DC on one part number.** A 12 volt vehicle and a 24 volt machine take the same lamp, with the Deutsch DTP04 connector fitted in the housing and no cable to gland or shorten.

**A European work lamp, built to the range standard.** IP69K, IK10, corrosion class C5 and a 316L bracket. The Goby is the versatile one; where the position is punished, the Piranha is the rugged one.

## WHERE IT IS USED

- Machine and vehicle integration on 12 and 24 V DC
- Mobile crane booms, on the Crane Light Director
- Service and maintenance vehicles
- Excavators, loaders and forklifts
- Workstation and inspection positions
- Engine rooms, pump rooms and switch rooms
- Ship accommodation and working alleyways
- Access platforms, ladders and stairs
- Conveyor and transfer point lighting
- Loading dock and shelter lighting
- Agricultural and forestry machines
- OEM integration on equipment

## VERSIONS

| | Ultra | Pro | 9 | 6 |
|---|---|---|---|---|
| Code | GODC07 | GODC06 | GODC05 | GODC03 |
| Flux | 8,200 lm | 7,200 lm | 6,300 lm | 4,600 lm |
| Power | 65 W | 55 W | 55 W | 35 W |
| Efficacy | 126 lm/W | 131 lm/W | 115 lm/W | 131 lm/W |
| Supply | 20–32 V | 9–32 V | 9–32 V | 9–32 V |

The Pro and the 9 use different LEDs at the same wattage: the Pro is the preferred build, the 9 is there for a budget that can accept slightly less light. All four have the same size and weight, the HT version included.

# Light output and optics

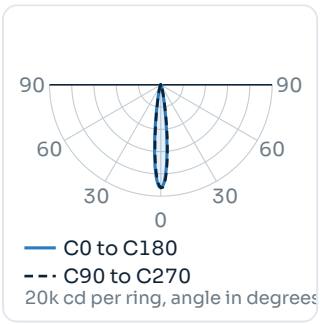
Values apply to the standard configuration at Ta 25 °C and include lens losses and driver consumption. Photometry is measured in house to IES LM-79 and the files are downloadable per optic from the product page.

## BEAM CHARACTERISTICS

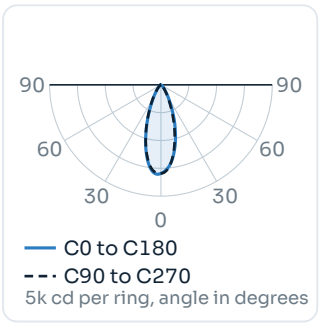
| Lens | Distribution | Beam angle 50 % of peak | Field angle 10 % of peak | Typical use |
|---|---|---|---|---|
| 14° | Spot, symmetric | 13° | 27° | Long throw from a machine or a boom onto a distant work point |
| 38° | Medium, symmetric | 37° | 69° | The general purpose choice: machine areas, decks, platforms |
| 69° | Wide, symmetric | 72° | 103° | Close range over a wide field: cabs, walkways, engine rooms |
| 14° × 46° | Flare, asymmetric | 13° × 45° | 30° × 70° | Throws far forward and stays wide across: haul roads, gangways |
| No lens (.NOP) | Very wide, symmetric | 136° | 168° | Very close range, machine interiors and confined spaces |

The beam angle is the full angle between the two directions where the intensity has fallen to 50 % of the peak. The field angle uses 10 %. On a work lamp the optic decides usability far more than the lumen package does: a 14° spot and a 69° wide from the same 8,200 lm housing are two different products in practice. Diagrams are shown for the Ultra; the other output levels have the same distribution.

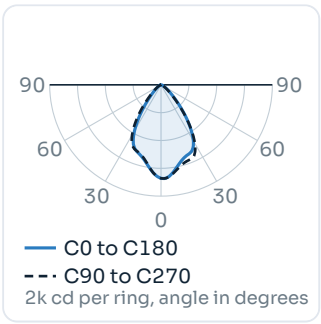
## LIGHT DISTRIBUTION



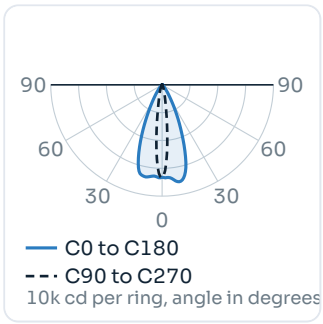

14° spot




38° medium




69° wide




14° × 46° flare

## OBTRUSIVE LIGHT

| | |
|---|---|
| ULOR at 0° tilt | **0 %** |
| Amber 2200 K | Available on every optic, for light sensitive surroundings |
| Bi-colour 4000 K with amber 2200 K | Switchable in operation, for fog, dust and night regimes |

Nothing is emitted above the horizontal at 0° tilt. That is the figure a permitting authority asks for when a site borders a residential area or a protected zone, and it is the starting point for any assessment against NEN-EN 12464-2 and the NSVV guidance on obtrusive light. Where the site condition demands a cut off optic rather than a controlled floodlight, see the DarkLicht range.

## COLOUR AND CONSISTENCY

| | |
|---|---|
| Colour temperatures | 6500 K, 5000 K, 4000 K, 2700 K, amber 2200 K |
| Flux at 6500 K | Identical to 4000 K |
| Bi-colour | 4000 K with amber 2200 K, switchable in operation |
| Colour rendering | Ra > 70 standard, optionally 80 or 90 |
| Colour consistency | MacAdam step 3 or better |
| LED service life | TM-21 L90B05 > 360,000 h at 50 °C |

# Full specification

All values apply to the standard configuration at 25 °C ambient, including lens losses and driver consumption. A hyphen means the entry does not apply to that version.

| | Goby Ultra | Pro | 9 | 6 |
|---|---|---|---|---|
| **PERFORMANCE** | | | | |
| Luminous flux | 8,200 lm | 7,200 lm | 6,300 lm | 4,600 lm |
| Power consumption | 65 W | 55 W | 55 W | 35 W |
| Efficacy | 126 lm/W | 131 lm/W | 115 lm/W | 131 lm/W |
| **ELECTRICAL** | | | | |
| Supply voltage range | 20–32 VDC | 9–32 VDC | 9–32 VDC | 9–32 VDC |
| Nominal voltage | 24 V | 12 and 24 V | 12 and 24 V | 12 and 24 V |
| Current draw | 2.7 A at 24 V | 2.3 A at 24 V · 4.6 A at 12 V | 2.3 A at 24 V · 4.6 A at 12 V | 1.5 A at 24 V · 2.9 A at 12 V |
| Driver | DC drivers on board, no external box | | | |
| Reverse polarity and surge | Protected | | | |
| Dimming | On request | | | |
| **CONSTRUCTION** | | | | |
| Housing | Cast aluminium, less than 0.08 % copper | | | |
| Surface finish | Conversion layer plus 2-layer titanium-based e-coating | | | |
| Colour | Titanium Black | | | |
| Bracket | High tensile 316L stainless steel, unlimited rotation from -60° to +30° | | | |
| Front | Polycarbonate IK10 as standard, chemically hardened glass IK09 on request | | | |
| Protection class | Class II | | | |
| Ingress protection | IP66, IP67, IP68 and IP69K, each class tested separately | | | |
| Impact resistance | IK10 with polycarbonate, IK09 with glass (IEC 62262) | | | |
| Corrosion class | C5 industrial and marine (ISO 9223) | | | |
| Vibration and shock | 6 G at resonant frequency (IEC 60068-2-6), shock tested to IEC 60068-2-27 | | | |
| **DURABILITY AND DIMENSIONS** | | | | |
| Ambient temperature | −45 to +50 °C | | | |
| LED service life | TM-21 L90B05 > 360,000 h at 50 °C | | | |
| Termination | Deutsch DTP04 two pole connector fitted in the housing. There is no cable | | | |
| Mating connector | Available as an accessory, not supplied as standard | | | |
| Dimensions | 120 × 141 × 79 mm including bracket | | | |
| Weight | 1.8 kg incl. bracket | | | |
| Warranty | 5 years on the complete luminaire | | | |

DC versions run at a fixed constant current, so a different power level is a custom build. A high temperature version to +120 °C is available and is covered by the Goby HT datasheet.

# Mechanics, mounting and driver

All drawings are to scale and dimensioned in millimetres. DXF and STEP models are available on request. All four output levels share these dimensions.

## BRACKET AND ROTATION


Maattekening Goby met maatvoering in millimeters

| | |
|---|---|
| Incl. bracket | 120 × 141 × 79 mm |
| Weight | 1.8 kg with bracket |
| Material | High tensile 316L stainless steel |
| Rotation | Unlimited from -60° to +30° |
| Mounting | One person, one hand, single fixing |
| Smaller version | Goby Mini, 112 × 70 × 60 mm, 90.5 mm high over the bracket, 1.1 kg |

## TERMINATION

| | |
|---|---|
| Connector | Deutsch DTP04, two pole, fitted in the housing |
| Cable | None. There is no tail |
| Why | Nothing to route, nothing to shorten and nothing to damage on a machine |
| Mating connector | Available as an accessory, not supplied as standard |
| Same on | Goby Mini and DarkLicht Mini |

## MOUNTING AND ACCESSORIES

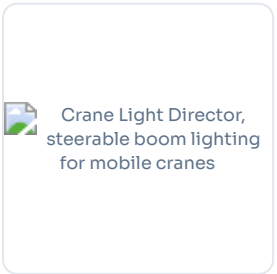
| | |
|---|---|
| Standard bracket | High tensile 316L, supplied as standard |
| Mating connector | Deutsch DTP04, available as an accessory |
| Crane Light Director | Steerable boom system for mobile cranes. Separate datasheet |
| Glass front | Chemically hardened glass instead of polycarbonate, IK09 |
| Goby HT | High temperature version to +120 °C. Separate datasheet |
| Rugged alternative | Piranha, for positions with handling damage |

## DRIVERS ON BOARD

| | |
|---|---|
| Type | DC drivers on the board inside the housing |
| External box | None |
| Reverse polarity | Protected |
| Surge | Protected |
| Supply range | 9 to 32 V DC, or 20 to 32 V on the Ultra |
| AC version | Only in the HT build, see the Goby HT |

**One component instead of three.** With the drivers on board and the connector in the housing, a machine builder fits a Goby with one plug. There is no external driver, no gland and no junction box.

## CRANE LIGHT DIRECTOR


Crane Light Director, steerable boom lighting for mobile cranes

| | |
|---|---|
| What it is | Steerable boom lighting for mobile cranes, fitted as a retrofit |
| Goby on the system | 8,200 lm per tilting module |
| Other luminaires | Goby Mini, Piranha, DarkLicht S and Marlin |
| Control | From the cabin, over a LoRa controller or a cabin switch |

# Ordering, standards and documents

## ORDER CODE

Example **GODC07-65K.38**

Goby Ultra, 6500 K, 38° optic

| | |
|---|---|
| **GODC07 · GODC06** | Ultra 8,200 lm · Pro 7,200 lm |
| **GODC05 · GODC03** | 9 at 6,300 lm · 6 at 4,600 lm |
| **GOHT01 · GOHT02** | High temperature, AC and DC |
| **65K · 50K · 40K · 27K · 22K** | 6500 K · 5000 K · 4000 K · 2700 K · amber 2200 K |
| **.14 · .38 · .69 · .14x46 · .NOP** | Optic suffix, .NOP is supplied without optics |

The optic suffix follows the colour temperature. Front material and the mating connector are confirmed at order and are not part of the code.

## COMBINATIONS

| | |
|---|---|
| Amber 2200 K with any optic | Possible |
| Bi-colour 4000 K with 2200 K | Possible |
| Crane Light Director | All DC versions |
| Glass front, IK09 | Any version |
| AC supply | Only in the HT build |
| 316L housing | Not available, see the Piranha SS |

## STANDARDS AND VERIFICATION

| Subject | Standard | Verification |
|---|---|---|
| Luminaire safety | IEC/EN 60598-1, -2-5 | In-house test |
| EMC emission and immunity | EN 55015, EN 61547 | Third party test |
| Ingress | IEC 60529 and ISO 20653. IP66, IP67, IP68, IP69K | In-house test |
| Impact and vibration | IEC 62262 IK10 with polycarbonate · IEC 60068-2-6 at 6 G | In-house test |
| Shock and corrosion | IEC 60068-2-27 · ISO 9223 class C5, industrial and marine | In-house test |
| Photometry | IES LM-79, IES files per optic | In-house test |
| Substances | RoHS, REACH | Self-declaration |

## BEFORE YOU ORDER

A sample luminaire to hang before you commit to a project quantity.

Five years warranty on the complete luminaire.

A DIALux calculation from our engineers, on your site drawing.

QR-code naar de productpagina van de Goby

## PRODUCT PAGE

IES files and revision history, DXF and STEP on request, and project references.
jelproducts.nl/en/products/goby

## WHERE IT EARNS ITS PLACE

The Goby earns its place at the working position. Most of the light a person actually works under is not the floodlight on the mast, it is the lamp two metres from the task, on the machine, in the engine room or over the bench. That position needs the right amount of light, a supply the machine already has, and a housing that lasts as long as the machine it serves.

**Notes.** Values are for the standard configuration. The AC version always delivers more light than the DC version of the same product. Power is a driver setting on AC and is ordered as a suffix; DC versions run at a fixed constant current. North American models on request. The JEL range is not ATEX or Ex certified.