JEL PRODUCTS
SUSTAINABLE | LIGHTING | SOLUTIONS

COLLECTED TECHNICAL DATASHEETS

Goby

The compact work lamp platform: the Goby with four output levels, the smaller Goby Mini, and the Goby HT for a continuous ambient of +120 °C.

DATASHEETS	OUTPUT RANGE	POWER	TYPE
3	2,300 to 8,200 lm	13 to 65 W	Compact LED work lamp



Goby | Goby Mini | Goby HT

Contents

Every datasheet in this document has the same five sections: what it is and where it is used, the light output and the optics, the full specification, the mechanics and the driver, and the ordering information. The page numbers run through the whole document.

THE DATASHEETS IN THIS DOCUMENT

2	**Goby**	**8,200 lm luminous flux · 65 W power** The versatile professional work lamp of the range.
7	**Goby Mini**	**2,300 lm luminous flux · 18 W power** 2,300 lumens in 112 × 70 × 60 millimetres, at 1.1 kilograms.
12	**Goby HT**	**2,600 lm luminous flux · 13 W power** 2,600 lumens at 13 watts and an ambient temperature of +120 °C, which is 200 lumens per watt.

HOW TO READ THIS DOCUMENT

This is the complete set for one product. Every version has its own datasheet with the same five sections, so a specification can be compared line by line between the versions without opening a second document.

The photometry is measured per optic and the IES files are on the product page. Where a figure depends on the build, the specification states the condition next to it rather than in a footnote.

WHAT IS NOT IN THIS DOCUMENT

316L version	Not available on this housing. See the Piranha SS
Glare control	The DarkLicht Mini and the DarkLicht S

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

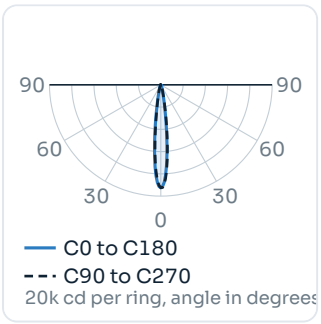
Values apply to the standard configuration at Ta 25 °C and include lens losses and driver consumption. Photometry is measured in house to IES LM-79 and the files are downloadable per optic from the product page.

BEAM CHARACTERISTICS

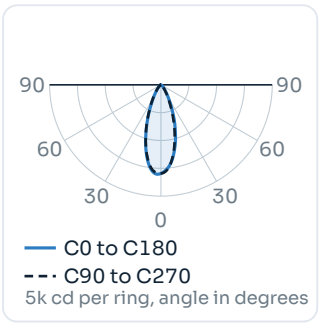
Lens	Distribution	Beam angle 50 % of peak	Field angle 10 % of peak	Typical use
14°	Spot, symmetric	13°	27°	Long throw from a machine or a boom onto a distant work point
38°	Medium, symmetric	37°	69°	The general purpose choice: machine areas, decks, platforms
69°	Wide, symmetric	72°	103°	Close range over 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.

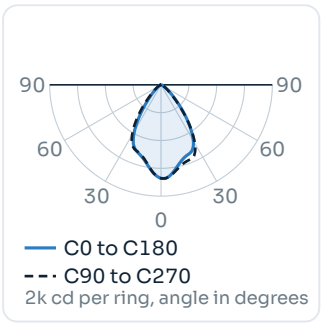
LIGHT DISTRIBUTION



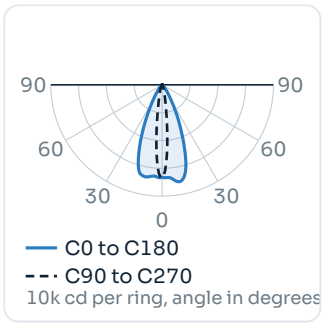
14° spot



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

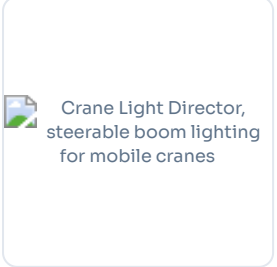
Standard bracket	High tensile 316L, supplied as standard
Mating connector	Deutsch DTP04, available as an accessory
Crane Light Director	Steerable boom system for mobile cranes. Separate datasheet
Glass front	Chemically hardened glass instead of polycarbonate, IK09
Goby HT	High temperature version to +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.

COMPACT LED WORK LAMP

Goby Mini



Shown: Goby Mini, 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

2,300 lumens in 112 × 70 × 60 millimetres, at 1.1 kilograms. The Goby Mini is for machines, vehicles and mounting positions that have no room for a luminaire and still have to be lit to an industrial standard.

LUMINOUS FLUX	POWER	WEIGHT
2,300 lm	18 W	1.1 kg
SUPPLY	**INGRESS**	**IMPACT**
9–32 VDC	IP69K	IK10

Values apply at 6500 K, Ta 25 °C, including lens losses. The full JEL optic set is available, which is what decides whether a small lamp is usable at three metres or only at one.

WHY IT IS SPECIFIED

It fits where nothing else does. At 112 × 70 × 60 mm, 90.5 mm high over the bracket and 1.1 kg the Goby Mini goes into positions that are otherwise fitted with a consumer grade lamp or left dark. The size is the specification.

Full industrial class in the smallest housing. IK10 with the polycarbonate cover, IP69K, corrosion class C5 and the same 316L bracket as the rest of the range.

The same optic set as the large floodlights. 14°, 38°, 69° and 14° × 46°. On a small lamp the optic matters more than the lumen package, because the distance is what it is.

WHERE IT IS USED

- Compact machinery and vehicle positions
- Mobile crane booms, on the Crane Light Director
- OEM integration on equipment
- Service points and maintenance zones
- Forklifts, reach trucks and small plant
- Machine interiors and tool areas
- Ladder, hatch and step positions
- Small pump and valve stations
- Ship lockers, berths and store rooms
- Instrument and gauge positions
- Marker and orientation lighting
- Retrofit of small halogen work lamps

VERSIONS

	Goby Mini
Article base code	GODC01
Luminous flux	2,300 lm
Power	18 W
Efficacy	128 lm/W
Supply	9–32 VDC, 12 and 24 V nominal
Dimensions	112 × 70 × 60 mm, 90.5 mm high over the bracket
Weight incl. bracket	1.1 kg

There is one version. For more output in a slightly larger housing see the **Goby** at 4,600 to 8,200 lm, for a punished position the **Piranha**, and for glare control the **DarkLicht Mini**.

Light output and optics

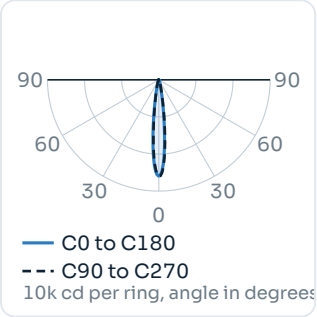
Values apply to the standard configuration at Ta 25 °C and include lens losses and driver consumption. Photometry is measured in house to IES LM-79 and the files are downloadable per optic from the product page.

BEAM CHARACTERISTICS

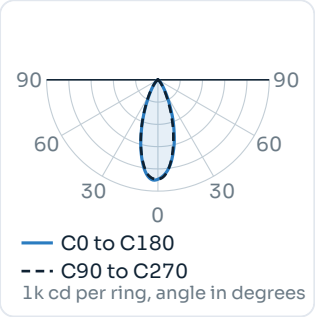
Lens	Distribution	Beam angle 50 % of peak	Field angle 10 % of peak	Typical use
14°	Spot, symmetric	13°	27°	Long throw from a machine or a boom onto a distant work point
38°	Medium, symmetric	37°	69°	The general purpose choice: machine areas, decks, platforms
69°	Wide, symmetric	72°	103°	Close range over 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 lamp this size the optic is the whole specification: 2,300 lumens through a 14° spot reaches a target at twenty metres, and the same 2,300 lumens through a 69° wide lights a hatch at arm's length. Both are the same article with a different suffix.

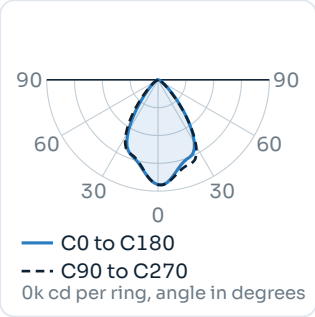
LIGHT DISTRIBUTION



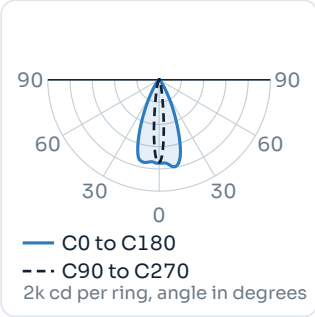
14° spot



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 Mini
PERFORMANCE	
Luminous flux	2,300 lm
Power consumption	18 W
Efficacy	128 lm/W
ELECTRICAL	
Supply voltage range	9–32 VDC
Nominal voltage	12 and 24 V
Current draw	0.8 A at 24 V · 1.5 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	112 × 70 × 60 mm, 90.5 mm high over the bracket including bracket
Weight	1.1 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. There is no high temperature and no 316L version of the Goby Mini; see the Goby HT and the Piranha SS.

Mechanics, mounting and driver

All drawings are to scale and dimensioned in millimetres. DXF and STEP models are available on request.

BRACKET AND ROTATION



Maattekening Goby Mini met maatvoering in millimeters

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

TERMINATION

Connector	Deutsch DTP04, two pole, fitted in the housing
Cable	None. There is no tail
Why	On an OEM machine there is nothing to route, gland or shorten
Mating connector	Available as an accessory, not supplied as standard
Same on	Goby and DarkLicht Mini

MOUNTING AND ACCESSORIES

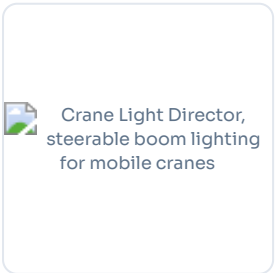
Standard bracket	High tensile 316L, supplied as standard
Mating connector	Deutsch DTP04, available as an accessory
Crane Light Director	Steerable boom system for mobile cranes. Separate datasheet
Glass front	Chemically hardened glass instead of polycarbonate, IK09
More output	Goby, 4,600 to 8,200 lm in the same style
Glare control	DarkLicht Mini, 4,800 lm with a full cut off reflector

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
AC version	Not available

One component instead of three. With the drivers on board and the connector in the housing, an OEM fits a Goby Mini 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 Mini on the system	2,300 lm per tilting module, the lightest option
Other luminaires	Goby, Piranha, DarkLicht S and Marlin
Control	From the cabin, over a LoRa controller or a cabin switch

Ordering, standards and documents

ORDER CODE

Example **GODC01-65K.38**

Goby Mini, 6500 K, 38° optic

GODC01	Goby Mini, DC, 9–32 VDC, drivers on board
65K · 50K · 40K · 27K · 22K	6500 K · 5000 K · 4000 K · 2700 K · amber 2200 K
BIC	Bi-colour 4000 K with amber 2200 K
.14 · .38 · .69 · .14x46 · .NOP	Optic suffix, .NOP is supplied without optics
Mating connector	Ordered separately as an accessory

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	Standard
Glass front, IK09	Possible
AC supply	Not available
High temperature	Not in aluminium. A 316L Piranha HT is a custom build, article code not yet issued. See also the Goby HT

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.

WHERE IT EARNS ITS PLACE

The Goby Mini earns its place in the positions a lighting design never reaches. Machine interiors, hatches, small platforms and tight mounting points get whatever fits, and whatever fits is usually not built for the environment. This brings those positions inside the same specification as the rest of the machine.

QR-code naar de productpagina van de Goby Mini

PRODUCT PAGE

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

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.

HIGH TEMPERATURE LED WORK LAMP

Goby HT



Shown: Goby HT, chemically hardened glass front, remote driver box.

CE | IP69K | IK09 | Class II | Ta −45 … +120 °C | C5 ISO 9223 | 90–305 VAC | 24 VDC | silicone cable 15 m | borosilicate option | remote driver on AC | 5-year warranty to +120 °C

2,600 lumens at 13 watts and an ambient temperature of +120 °C, which is 200 lumens per watt. The smallest high temperature luminaire in the range, for the positions inside an oven, a kiln or a drying tunnel where the light has to sit close to the work.

LUMINOUS FLUX	POWER	EFFICACY
2,600 lm	13 W	200 lm/W
AMBIENT	**INGRESS**	**IMPACT**
+120 °C	IP69K	IK09

Values apply at 6500 K and the stated ambient temperature, including driver consumption. Bi-colour and amber are not available on the high temperature versions.

WHY IT IS SPECIFIED

The driver leaves the hot zone. Electrolytic capacitors are what fail in heat. On the AC version the driver sits outside the zone and is connected with 15 m of heat resistant silicone cable.

200 lm per watt at +120 °C. A high temperature luminaire normally costs efficacy because the usual approach is to derate a standard product. This one is designed for the condition.

Same housing as the standard Goby. Same size, same weight, same bracket and the same mounting positions, so a plant can standardise on one work lamp across hot and normal areas.

WHERE IT IS USED

- Drying ovens and curing tunnels
- Bakery and food process ovens
- Paint lines and powder coating booths
- Kilns and annealing lehrs
- Heat treatment and forging shops
- Foundry service positions
- Climate and test chambers
- Sterilisation and autoclave rooms
- Paper machine drying sections
- Asphalt and bitumen plant
- Boiler houses and incineration halls
- Confined hot spaces and inspection hatches

VERSIONS

	Goby HT AC	Goby HT DC
Code	GOHT01	GOHT02
Flux	2,600 lm	2,600 lm
Power	13 W	13 W
Supply	90–305 VAC	9–32 VDC
Ambient	−45 to +120 °C	−45 to +110 °C
Driver	Remote BLD075	On board

Goby HT DC is identical to Goby HT AC apart from the supply and the ambient limit. HT optics are not possible on the Goby: the housing is too small, so both versions are 120° very wide.

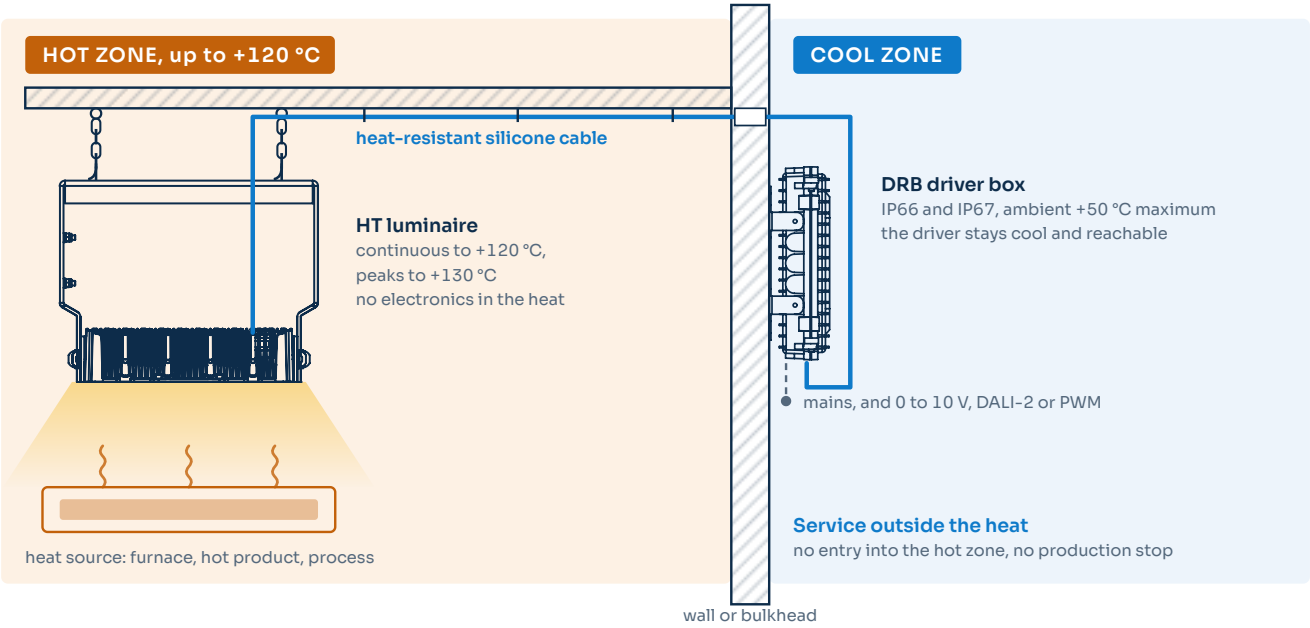
The HT system

Engineered as a system for heat, not as a luminaire that tolerates it.

Standard industrial LED luminaires are specified to roughly +50 °C ambient. Above that the driver electronics fail first: in virtually every failure of LED lighting in a hot environment, the driver is the weak link. Every installation in the HT line therefore consists of two parts. The heat resistant luminaire sits in the hot zone and the driver sits outside it, supplied bare as standard or built into a DRB driver box, joined by heat resistant silicone cable. Nothing that fails at temperature is left in the heat.

+120 °C continuous, with full warranty	**+130 °C** short peaks permitted	**15 m** heat-resistant silicone cable	**130,000 h** driver life at Tc 50 °C	**IP67** remote driver and DRB box

THE HIGH TEMPERATURE SYSTEM



The HT system: the luminaire in the heat, the driver outside it.

BUILT-IN SELF-PROTECTION

The luminaire protects itself with internal temperature feedback. As the internal temperature rises it dims back automatically, and on overheating it switches itself off. That feedback runs through the four core supply of every luminaire: two cores of 1.0 mm² for power and two of 0.5 mm² for temperature control. It is the reason the cable specification has four cores rather than two.

Above +130 °C, or unsure about the thermal load? Our engineers calculate the thermal load per mounting position and design the complete system, including the driver location, cable route and DRB selection. Photometric values are measured at a +50 °C reference ambient. HT luminaires are not ATEX certified.

Light output and optics

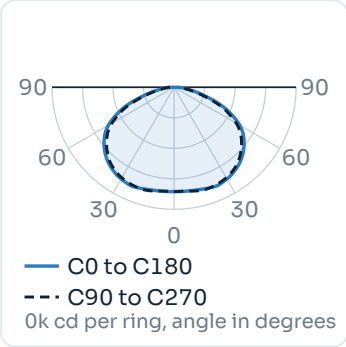
Values apply at Ta 25 °C, including driver consumption. The luminous flux is maintained across the full ambient range; what changes with temperature is the LED service life, stated as a ladder in the colour table.

BEAM CHARACTERISTICS

Version	Distribution	Beam angle 50 % of peak	Field angle 10 % of peak	Typical use
Both versions	No optics, very wide	136°	168°	Close range over a wide field: oven interiors, drying tunnels, hatches
HT optics	Not available on the Goby	–	–	See the Barracuda HT, the Orca HT or the Linear HT

HT optics of 20°, 40° and 60° exist for the Orca, the Barracuda and the Linear only. On the Goby, the Snapper and the Manta the housing is too small to carry one, so those versions are supplied as 120° very wide. Inside an oven or a tunnel that is normally what is wanted anyway.

LIGHT DISTRIBUTION



120° very wide, both versions

OBTRUSIVE LIGHT

ULOR at 0° tilt	**0 %**
Colour temperatures	6500 K, 4000 K and 2700 K
Bi-colour	Not available on the high temperature versions

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, 4000 K, 2700 K
Bi-colour	Not available on the high temperature versions
Colour rendering	Ra > 70 standard, optionally 80 or 90
Colour consistency	MacAdam step 3 or better
LED service life	TM-21 L90B05, see the temperature ladder below
Ladder	> 360,000 h at 50 °C · 103,000 h at 85 °C · 71,700 h at 105 °C · 51,400 h at 120 °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 HT AC	Goby HT DC
PERFORMANCE		
Luminous flux	2,600 lm	2,600 lm
Power consumption	13 W	13 W
Efficacy	200 lm/W	200 lm/W
Beam	120° very wide	
ELECTRICAL AND DRIVER		
Supply voltage range	90–305 VAC, 50/60 Hz	9–32 VDC, 12 and 24 V nominal
Current draw	0.1 A at 120 V · 0.05 A at 220 to 277 V	0.55 A at 24 V · 1.1 A at 12 V
Power factor at full load	> 0.9 at 65 to 100 % load	-
Surge protection	6 kV line to line, 10 kV line to earth (IEC 61000-4-5)	Protected
Dimming	0–10 V, PWM, DALI-2	On request
Driver	Remote BLD075, 131 × 68 × 33.5 mm, 650 g. Fits the DRB-1	DC drivers on board
Driver ambient	The driver box must sit in an ambient of at most +50 °C	-
CONSTRUCTION		
Housing	Cast aluminium, less than 0.08 % copper	
Surface finish	Conversion layer plus 2-layer titanium-based e-coating	
Bracket	High tensile 316L stainless steel, unlimited rotation from -60° to +30°	
Front	Chemically hardened glass IK09, or borosilicate glass	
Protection class	Class II	
Ingress protection	IP66, IP67, IP68 and IP69K, resistant to steam and high pressure cleaning	
Impact resistance	IK09, set by the front cover (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 +120 °C	−45 to +110 °C
LED service life	TM-21 L90B05: > 360,000 h at 50 °C · 103,000 h at 85 °C · 71,700 h at 105 °C · 51,400 h at 120 °C	
Cable and termination	SiHF-OB silicone, 4 cores (2 × 1.0 mm² + 2 × 0.5 mm²), 15.0 m	SiHF-OB silicone, 2 cores (2 × 1.0 mm²), 15.0 m
Dimensions	120 × 141 × 79 mm including bracket	
Weight	1.8 kg incl. bracket, driver box separate	1.8 kg incl. bracket
Warranty	5 years to +120 °C	5 years to +110 °C

The driver box is mounted outside the hot zone and is connected with heat resistant silicone cable. The LED life ladder applies to every high temperature luminaire in the range and is stated in the colour table rather than as a footnote.

Mechanics, mounting and driver

All drawings are to scale and dimensioned in millimetres. On the AC version the driver box is a separate item and is mounted outside the hot zone.

BRACKET AND ROTATION



Incl. bracket	120 × 141 × 79 mm
Weight	1.8 kg with bracket
Material	High tensile 316L stainless steel
Rotation	Unlimited from -60° to +30°
Front	Chemically hardened glass, or diffuse borosilicate for food industry applications
Same housing as	The standard Goby

LUMINAIRE AND DRIVER BOX



In the hot zone	The luminaire only
Outside the hot zone	The BLD075 driver on the AC version
Between them	Heat resistant silicone cable, 15.0 m
Driver ambient	+50 °C maximum
DC version	Drivers on board, nothing external

MOUNTING AND ACCESSORIES

Standard bracket	High tensile 316L, supplied as standard
DRB-1 driver box	Housing for the remote driver on the AC version
Borosilicate front	Option where the glass sees direct radiant heat
Silicone cable	15.0 m as standard. Longer runs on request
Higher output at temperature	Snapper HT at 7,000 lm, Barracuda HT at 20,600 lm
Linear alternative	Linear HT, for a continuous run inside a tunnel

REMOTE DRIVER, AC VERSION

Type	BLD075, 90–305 VAC or 127–420 VDC
Position	Outside the hot zone, ambient +50 °C maximum
Case temperature	Tc −40 to +90 °C
Lifetime	≥ 100,000 h at Tc 75 °C
MTBF	≥ 320,000 h at 75 °C case
DC version	Drivers on board

Heat is what kills a driver, not the LED. Electrolytic capacitors dry out. Moving the driver out of the hot zone is the single change that turns a high temperature installation from a yearly job into a ten year one.

DRB-1 DRIVER BOX



Use	Housing for the remote driver, outside the hot zone
DRB-1	One driver up to 320 W. 276 × 194 × 86.5 mm, 4.2 kg, IP66 and IP67
Ingress protection	IP66 and IP67
Ambient	+50 °C maximum

Ordering, standards and documents

ORDER CODE

Example **GOHT01-65K**

Goby HT, AC, 6500 K

GOHT01	High temperature, AC, remote BLD075
GOHT02	High temperature, DC, drivers on board
65K · 40K · 27K	6500 K · 4000 K · 2700 K
BORO	Borosilicate front instead of chemically hardened glass
Beam	120° very wide, no optic suffix

Bi-colour and amber are not available on the high temperature versions. Cable length beyond 15.0 m and the diffuse borosilicate front are confirmed at order.

COMBINATIONS

Borosilicate front	Both versions
DC to +110 °C	Standard
AC to +120 °C	Standard
Bi-colour or amber	Not available
HT optics	Not possible on this housing
316L housing	Not available, see the Snapper HT

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 IK09, set by the front cover · 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 HT

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

Inside an oven, a kiln or a drying tunnel there is no room for a floodlight and no access during production. The Goby HT is the smallest luminaire in the range that can sit there permanently, at 200 lumens per watt, with the only heat sensitive component mounted somewhere a technician can actually reach it.

Notes. Values are for the standard configuration. The warranty follows the operating temperature: five years to +120 °C on AC and to +110 °C on DC. The LED life ladder in the colour table is the same for every high temperature luminaire in the range. North American models on request. The JEL range is not ATEX or Ex certified.