HEAVY DUTY LED WORK LAMP

Piranha SS



Shown: Piranha 9 SS DC, electrolytically polished 316L, 14° lens, Deutsch DT04-2P connector.

CE | IP69K | IK09 | Class II | 316L stainless steel | C5 and CX ISO 9223 | Ta −45 … +50 °C | 90–305 / 180–528 VAC | 12 and 24 VDC | Deutsch DT04-2P | Vibration 6 G | 20-year housing warranty

The Piranha in solid 316L stainless steel: the same 8,400 lumens and the same unlimited bracket rotation, in a housing that does not depend on a coating. For offshore, chemical and permanently salt loaded machine positions where a scratch is the start of the failure.

LUMINOUS FLUX	POWER	HOUSING
8,400 lm	70 W	316L
CORROSION	**INGRESS**	**IMPACT**
C5 and CX	IP69K	IK09

Values apply to the standard version at 6500 K, Ta 25 °C, including lens losses and driver consumption. 6500 K delivers the same luminous flux as 4000 K.

WHY IT IS SPECIFIED

Solid 316L, twenty years on the housing. Corrosion resistance as a material property, not as a coating thickness that a passing load can scratch through.

A pre-fitted Deutsch DT04-2P on the DC versions. A sealed connector on a two metre tail, so a machine builder can fit it without opening anything and without making a joint in a salt environment.

The same bracket range as the aluminium version. Unlimited rotation from -45 to +90 degrees, in 316L, with 316L fasteners throughout.

WHERE IT IS USED

- Offshore platform machine positions
- Deck cranes and mooring equipment
- Chemical and fertiliser plant
- Water and waste water treatment
- Food and beverage process areas
- Fish farms and aquaculture equipment
- Splash zones and permanent salt spray
- Washdown and cleaning regimes
- Dredgers and hopper equipment
- Desalination and brine handling
- Harbour and terminal vehicles
- Any machine position where a coating cannot be repaired

VERSIONS

	9 SS AC	9 SS DC	6 SS DC
Code	PISS01	PISS02	Not yet issued
Flux	8,400 lm	8,200 lm	6,300 lm
Power	70 W	70 W	55 W
Supply	90–305 / 180–528 VAC	20–32 VDC	9–35 VDC
Termination	Free wire ends	Deutsch DT04-2P	Deutsch DT04-2P
Weight	5.0 kg	5.0 kg	5.0 kg

The 316L versions are IK09: the front is chemically hardened glass or borosilicate, and the front cover is the limiting factor. For IK10 choose the aluminium **Piranha** with a polycarbonate front.

Light output and optics

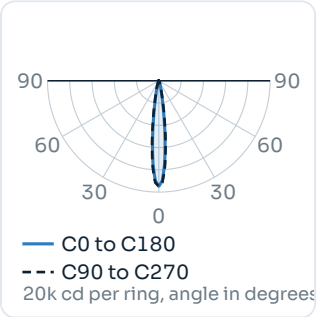
Values apply to the standard configuration at Ta 25 °C and include lens losses and driver consumption. Photometry is measured in house to IES LM-79 and the files are downloadable per optic from the product page.

BEAM CHARACTERISTICS

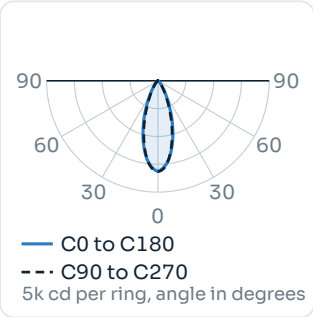
Lens	Distribution	Beam angle 50 % of peak	Field angle 10 % of peak	Typical use
14°	Spot, symmetric	13°	27°	Long throw from a machine onto a distant work point
38°	Medium, symmetric	37°	69°	The general purpose choice: decks, machine areas, platforms
69°	Wide, symmetric	72°	103°	Close range over a wide field: gangways, engine rooms
14° × 46°	Flare, asymmetric	13° × 45°	30° × 70°	Throws far forward and stays wide across: gangways, jetties

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 %. Both are read from the IES files, available per optic on the product page. Lens combinations within one luminaire are possible, and the optic is part of the order code as a suffix, for example .38.

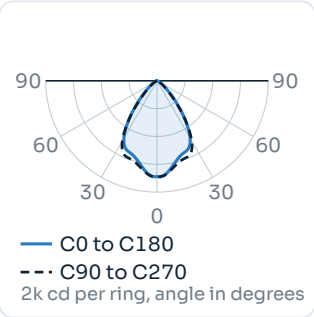
LIGHT DISTRIBUTION



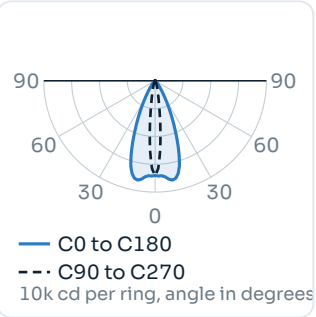
14° spot



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.

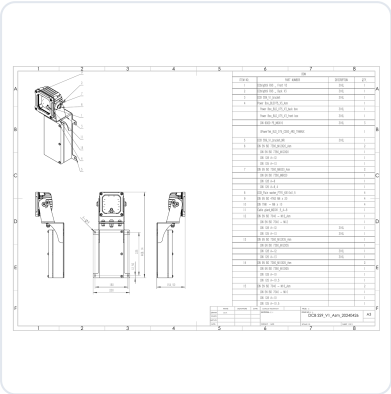
	Piranha 9 SS AC	9 SS DC	6 SS DC
PERFORMANCE			
Luminous flux	8,400 lm	8,200 lm	6,300 lm
Power consumption	70 W	70 W	55 W
Efficacy	120 lm/W	117 lm/W	115 lm/W
ELECTRICAL AND DRIVER			
Supply voltage range	90–305 or 180–528 VAC	20–32 VDC, 24 V nominal	9–35 VDC, 12 or 24 V nominal
Current draw	0.6 A at 120 V · 0.3 A at 220 to 277 V	2.9 A at 24 V	2.3 A at 24 V · 4.6 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)	-	-
Reverse polarity and surge	-	Protected	Protected
Dimming	0–10 V, PWM, DALI-2, or over NFC	On request	On request
Driver	Remote BLD075, fits the DRB-1	DC drivers on board	DC drivers on board
CONSTRUCTION			
Housing	Solid 316L stainless steel		
Surface finish	Electrolytically polished		
Bracket	High tensile 316L stainless steel, unlimited rotation from -45° to +90°		
Front	Chemically hardened glass IK09, or borosilicate glass		
Protection class	Class II		
Ingress protection	IP66, IP67, IP68 and IP69K, each class tested separately		
Impact resistance	IK09, set by the front cover (IEC 62262)		
Corrosion class	C5 and CX (ISO 9223). 316L is CRC III to EN 1993-1-4 at a PREN of approximately 24		
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		
Cable and termination	H07BQ-F, 2.0 m, free wire ends	H07BQ-F, 2.0 m with Deutsch DT04-2P	H07BQ-F, 2.0 m with Deutsch DT04-2P
Dimensions	166 × 166 × 102 mm including bracket		
Weight	5.0 kg incl. bracket		
Warranty	20 years on the housing. 5 years on the electronics, the components and the seals		

Power is a driver setting. Every AC version can be ordered programmed to a lower wattage by adding the wanted power as a suffix to the article code. DC versions run at a fixed constant current, so another power level there is a custom build. High voltage DC between 250 and 740 V is available on request.

Mechanics, mounting and driver

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

BRACKET AND ROTATION



Incl. bracket	166 × 166 × 102 mm
Weight	5.0 kg with bracket
Material	High tensile 316L, 316L fasteners throughout
Rotation	Unlimited from -45° to +90°
Finish	Electrolytically polished, no coating to damage
Aluminium equivalent	135 mm wide, 152 mm over the hinge bolts, 150 mm high on the foot, 131.5 mm deep, 3.1 kg

TERMINATION

AC version	H07BQ-F, 2.0 m, free wire ends
DC versions	H07BQ-F, 2.0 m with Deutsch DT04-2P
Why a connector	No joint to make in a salt environment, and the lamp can be swapped without tools
Mating connector	Available as an accessory, not supplied as standard
Longer runs	On request, same cable type

MOUNTING AND ACCESSORIES

Standard bracket	High tensile 316L, supplied as standard
Deutsch DT04-2P	Fitted on the DC versions
Mating connector	Available as an accessory
Borosilicate front	Option where the glass sees radiant heat
Crane Light Director	On the DC versions. Separate datasheet
Cable	Lengths beyond 2.0 m on request

REMOTE DRIVER, AC VERSION

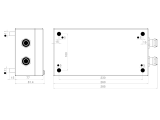
Type	BLD075, 90–305 VAC
Case temperature	Tc −40 to +90 °C
Lifetime	≥ 100,000 h at Tc 75 °C
MTBF	≥ 320,000 h at 75 °C case
Size and weight	131 × 68 × 33.5 mm, 650 g
DC versions	Drivers on board, no external box

On DC there is nothing external at all. The DC versions run the drivers on the board inside the housing, terminated in a sealed Deutsch connector, so a machine gets one sealed component.

DRB DRIVER BOX



Aluminium DRB



316L Power Box BLD075

Use	Optional housing for the remote driver on the AC version
DRB-1	One driver up to 320 W. 276 × 194 × 86.5 mm, 4.2 kg, IP66 and IP67
316L Power Box	Power Box BLD075, solid 316L, 260 × 130 × 80 mm. For the same driver as the DRB, chosen where the box sits in the same wash-down or salt zone as the luminaire
Ingress protection	IP66 and IP67
DC versions	Not applicable

Ordering, standards and documents

ORDER CODE

Example **PISS02-65K.38**

Piranha 9 SS, DC, 6500 K, 38° optic

PISS01	Piranha 9 SS, AC, remote BLD075
PISS02	Piranha 9 SS, DC, 20–32 VDC
Piranha 6 SS	Available, article code not yet issued
65K · 50K · 40K · 27K · 22K	6500 K · 5000 K · 4000 K · 2700 K · amber 2200 K
.14 · .38 · .69 · .14x46	Optic suffix, standard JEL optics
BORO	Borosilicate front instead of chemically hardened glass

The optic suffix follows the colour temperature. The mating Deutsch connector, cable length and front material are confirmed at order.

COMBINATIONS

Amber 2200 K with any optic	Possible
Bi-colour with DALI-2	AC version
Deutsch DT04-2P	DC versions, standard
Borosilicate front	Any version
IK10	Not available in 316L, see the aluminium Piranha
High temperature in 316L	Custom build, article code not yet issued. See also 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.

Twenty years warranty on the housing, five years on the electronics.

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

PRODUCT PAGE

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

WHERE IT EARNS ITS PLACE

On a machine in salt or in process chemistry the coating is the part that fails, and on a work lamp the coating is exactly what a passing load scratches. The Piranha SS removes that from the argument at the cost of two kilograms and one impact class.

Notes. Values are for the standard configuration; a bi-colour or high-CRI build changes the luminous flux and the quotation states the figure that applies. Luminaires per MCB is the manufacturer figure for ABB S200 at 220 V, a guide for engineering and not a substitute for the installation calculation. North American models on request. The JEL range is not ATEX or Ex certified.