

COLLECTED TECHNICAL DATASHEETS

Piranha

The rugged work lamp, in cast aluminium with an IK10 polycarbonate front and in solid 316L with a glass or diffuse borosilicate front.

DATASHEETS

2

OUTPUT RANGE

8,400_{lm}

POWER

70_w

TYPE

Heavy duty LED
work lamp



Piranha

Piranha SS

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	Piranha	8,400 lm luminous flux · 70 W power The indestructible work lamp of the range.
7	Piranha SS	8,400 lm luminous flux · 70 W power 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.

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

High temperature	Not available on this housing. See the Goby HT or the Snapper HT
Smaller alternative	The Goby and the Goby Mini

HEAVY DUTY LED WORK LAMP

Piranha



Shown: Piranha 9 DC, titanium-based e-coating, 14° lens, high tensile 316L bracket.

CE	IP69K	IK10	Class II	C5 ISO 9223
Ta -45 ... +50 °C		90-305 / 180-528 VAC		
12 and 24 VDC		Deutsch DT04-2P	Vibration 6 G	
Crane Light Director		5-year warranty		

The indestructible work lamp of the range. 8,400 lumens, IP69K, IK10 and a 316L bracket that swings from -45 to +90 degrees without a stop, for machines, cranes and heavy plant.

LUMINOUS FLUX	POWER	WEIGHT
8,400 lm	70 W	3.1 kg
INGRESS	IMPACT	SUPPLY
IP69K	IK10	12 and 24
		VDC

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

IK10 and IP69K where things actually hit. A work lamp on a haul truck or a crane cab is struck by material, by tools and by a pressure washer every week. The Piranha is rated for all three.

A bracket with a range no other work lamp has. The 316L bracket rotates without limit from -45 to +90 degrees, so the mounting position can be decided by the structure instead of by the lighting.

Built heavier than its size suggests. At 3.1 kg the Piranha weighs almost as much as the far larger Snapper. That is not an accident, it is the reason it lasts.

WHERE IT IS USED

Mining haul trucks and excavators	Ship gangways and mooring stations
Loaders, dozers and rough terrain machines	Engine rooms and pump rooms
Crane cabs, booms and service positions	Walkways, stairs and access platforms
Service and maintenance vehicles	Conveyor and transfer point lighting
Grinding, digging and material handling zones	Vehicle inspection pits and wash bays
Machine and process area task lighting	

VERSIONS

	Piranha 9 AC	Piranha 9 DC	Piranha 6 DC
Code	PIAC01	PIDC02	PIDC01
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, 12 or 24 V
Driver	Remote BLD075	On board	On board
Weight	3.1 kg	3.1 kg	3.1 kg

There is no Piranha 6 in AC and there will not be one. For 316L see the **Piranha SS**, for high ambient temperatures the **Goby HT** or the **Snapper HT**.

Light output and optics

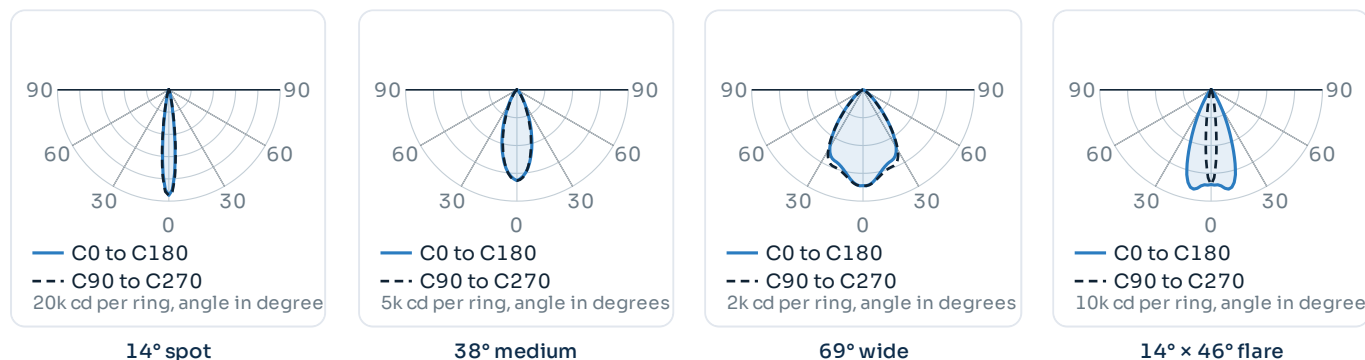
Values apply to the standard configuration at Ta 25 °C and include lens losses and driver consumption. Photometry is measured in house to IES LM-79 and the files are downloadable per optic from the product page.

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 %. 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



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 DarkLight 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.

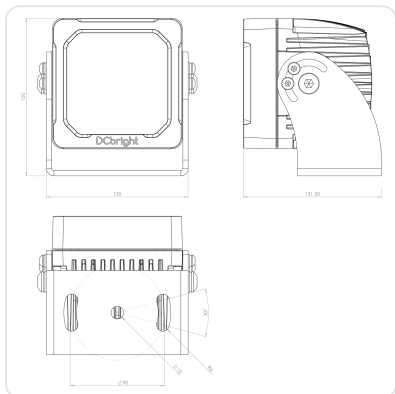
	Piranha 9 AC	Piranha 9 DC	Piranha 6 DC
PERFORMANCE			
Luminous flux	8,400lm	8,200lm	6,300lm
Power consumption	70 W	70 W	55 W
Efficacy	120lm/W	117lm/W	115lm/W
ELECTRICAL AND DRIVER			
Supply voltage range	90–305 or 180–528 VAC	20–32 VDC, 24 V nominal	9–35 VDC, 12 or 24 V nominal
Current draw	0.6 A at 120 V · 0.3 A at 220 to 277 V · 0.2 A at 380 to 480 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	-	-
Inrush current at 220 V	66 A peak, T50 170 μs	-	-
Luminaires per MCB	B16 11 · C16 19 · C25 30 · D16 32	-	-
Surge protection	6 kV line to line, 10 kV line to earth (IEC 61000–4–5)	-	-
Dimming	0–10 V, PWM, DALI-2, or over NFC	On request	On request
Driver	Remote BLD075, 131 × 68 × 33.5 mm, 650 g. Fits the DRB-1	DC drivers on board	DC drivers on board
Reverse polarity and surge	-	Protected	Protected
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 -45° to +90°		
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		
Cable and termination	H07BQ-F, 4 cores (2 × 1.5 mm² + 2 × 0.5 mm²), 0.3 m	H07BQ-F, 2 cores (2 × 1.5 mm²), 0.3 m	H07BQ-F, 2 cores (2 × 1.5 mm²), 0.3 m
Dimensions	150 × 122 × 115 mm including bracket		
Weight	3.1 kg incl. bracket		
Warranty	5 years on the complete luminaire		

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	150 × 122 × 115 mm
Weight	3.1 kg with bracket
Material	High tensile 316L stainless steel
Rotation	Unlimited from -45° to +90°
Why that range	On a machine the structure decides the position, not the lighting designer
316L version	166 × 166 × 102 mm, 5.0 kg, see the Piranha SS

MOUNTING AND ACCESSORIES

Standard bracket	High tensile 316L, supplied as standard
Crane Light Director	On the DC versions, steerable boom system. Separate datasheet
Deutsch DT04-2P	Fitted on the 316L DC versions
Glass front	Chemically hardened glass instead of polycarbonate, IK09
Cable	Lengths beyond 0.3 m on request, same H07BQ-F type
316L housing	See the Piranha SS datasheet

DRB DRIVER BOX



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
Ingress protection	IP66 and IP67
DC versions	Not applicable

CRANE LIGHT DIRECTOR



What it is	Steerable boom lighting for mobile cranes, fitted as a retrofit
Piranha on the system	8,400 lm per tilting module
Other luminaires	Goby Mini, Goby, DarkLicht S and Marlin
Control	From the cabin, over a LoRa controller or a cabin switch
Supply	12 and 24 V DC from the machine, or 230 and 400 V AC from site power

REMOTE DRIVER, AC VERSION

Type	BLD075, 90–305 VAC or 127–420 VDC
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, with reverse polarity and surge protection, so a machine gets one component instead of three.

Ordering, standards and documents

ORDER CODE

Example **PIDC02-65K.38**

Piranha 9, DC, 6500 K, 38° optic

PIAC01	Piranha 9, AC, remote BLD075
PIDC02	Piranha 9, DC, 20–32 VDC
PIDC01	Piranha 6, DC, 9–35 VDC, 12 or 24 V
PISS01 · PISS02	316L stainless steel versions
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, bracket and cable length are confirmed at order. The Piranha 6 in 316L does not yet have an article code.

COMBINATIONS

Amber 2200 K with any optic	Possible
Bi-colour with DALI-2	AC version
Crane Light Director	DC versions
Glass front, IK09	Any version
Piranha 6 in AC	Not available
High temperature	Not available, see 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 · IEC 60533 marine, bridge and open deck	TÜV
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.
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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

The Piranha earns its place on the machine. A work lamp on heavy plant is not a light fitting, it is a component that has to survive the same duty cycle as the hydraulics around it. It is specified where the machine is expensive, the downtime is expensive, and nobody wants to talk about the lighting again.

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.

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	Splash zones and permanent salt spray
Deck cranes and mooring equipment	Washdown and cleaning regimes
Chemical and fertiliser plant	Dredgers and hopper equipment
Water and waste water treatment	Desalination and brine handling
Food and beverage process areas	Harbour and terminal vehicles
Fish farms and aquaculture equipment	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

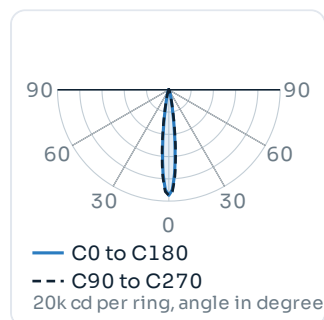
Values apply to the standard configuration at Ta 25 °C and include lens losses and driver consumption. Photometry is measured in house to IES LM-79 and the files are downloadable per optic from the product page.

BEAM CHARACTERISTICS

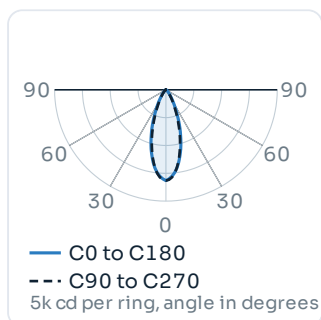
Lens	Distribution	Beam angle 50 % of peak	Field angle 10 % of peak	Typical use
14°	Spot, symmetric	13°	27°	Long throw from a machine onto a distant work point
38°	Medium, symmetric	37°	69°	The general purpose choice: decks, machine areas, platforms
69°	Wide, symmetric	72°	103°	Close range over a wide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

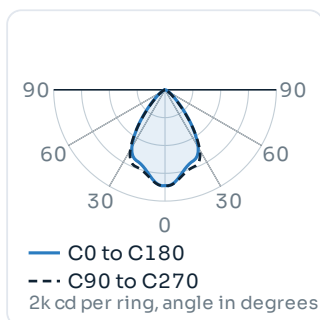
LIGHT DISTRIBUTION



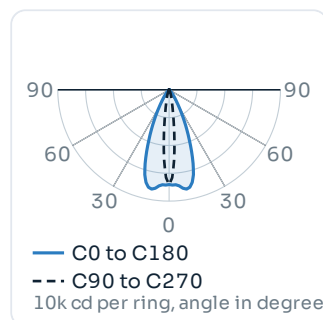
14° spot



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 DarkLight 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.

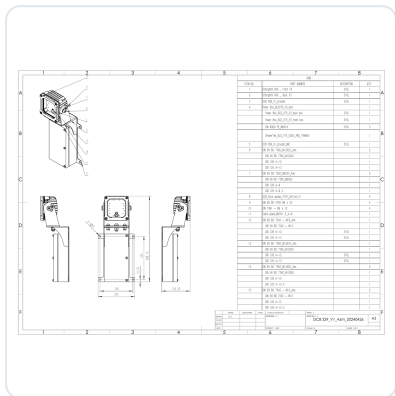
	Piranha 9 SS AC	9 SS DC	6 SS DC
PERFORMANCE			
Luminous flux	8,400 lm	8,200 lm	6,300 lm
Power consumption	70 W	70 W	55 W
Efficacy	120 lm/W	117 lm/W	115 lm/W
ELECTRICAL AND DRIVER			
Supply voltage range	90–305 or 180–528 VAC	20–32 VDC, 24 V nominal	9–35 VDC, 12 or 24 V nominal
Current draw	0.6 A at 120 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	150 × 122 × 115 mm, 3.1 kg

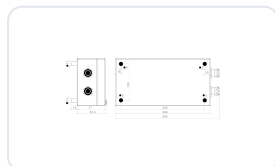
MOUNTING AND ACCESSORIES

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

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

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

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.

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	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 · IEC 60533 marine, bridge and open deck	TÜV
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.
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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.