

COLLECTED TECHNICAL DATASHEETS

LED Floodlights

Six heavy duty floodlights from 18,000 to 111,300 lumens, in AC, in 24 and 48 V DC and in solid 316L stainless steel. One optic family, one accessory line, one environmental standard.

LUMINAIRES

6

OUTPUT RANGE

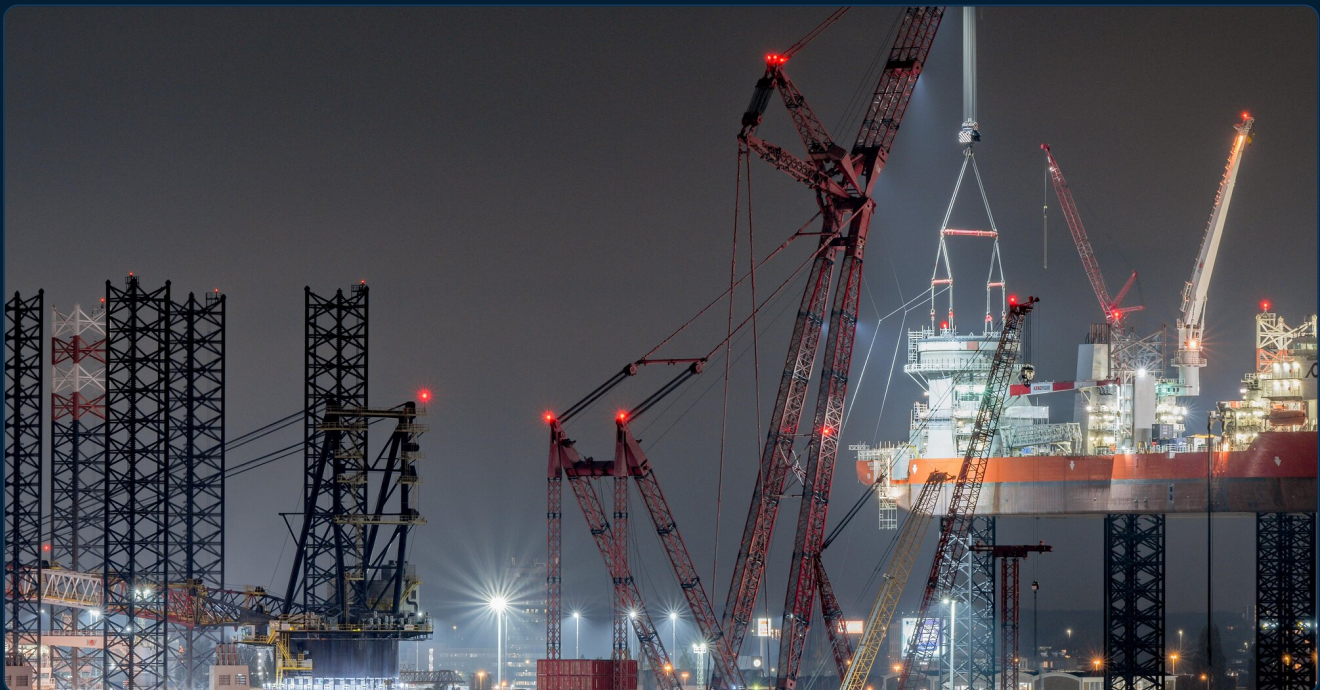
18,000 to
111,300 lm

MASS RANGE

3.1 to 22.7
kg

INGRESS

IP69K



Orca

Shark

Barracuda

Snapper HC

Snapper

Marlin

Contents

Six floodlights, in the order they appear. The page numbers run through the whole document.

1	Contents	How this document is built
2	Selection table	All six side by side on the figures that decide a specification
3	Crane Light Stabilizer	The bracket that holds the aim while the boom moves

THE LUMINAIRES

4	Orca	111,300 lm at 800 W. The highest output floodlight in the range
9	Shark	50,000 lm at 320 W. The second generation heavy duty type, with a 200 G bracket
14	Barracuda	44,100 lm at 320 W. The reference luminaire, with SS and HT versions
19	Snapper HC	Up to 83,000 lm at 12.6 kg. Modular, one to three cast modules
24	Snapper	31,000 lm at 3.1 kg. The retrofit and light tower type
29	Marlin	18,000 lm at 5.5 kg. The compact type for cranes and machines

RELATED DOCUMENTS

	Barracuda SS and Orca SS	316L stainless steel versions. See the Stainless Steel collection
	Barracuda HT and Orca HT	To +120 °C ambient. See the High Temperature collection
	DarkLight	Full cut off, where the site has an obtrusive light condition

HOW TO READ THIS DOCUMENT

Every luminaire 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 below run through the whole document.

The selection table on the next page is the fastest route. It puts the luminaires side by side on the figures that actually decide a specification: output, mass, impact class, supply and what the housing is made of. The individual datasheets follow in the same order.

Selection table

The figures that decide a specification, side by side. AC values at 6500 K.

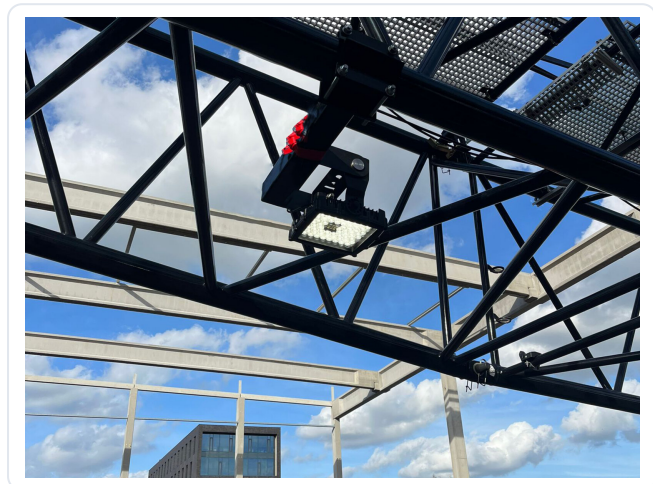
Luminaire	Flux lm	W	lm/W	kg	Impact	Supply	Housing	Optics
Orca	111,300	800	139	22.7	IK10	AC · 24 V · 48 V DC	Aluminium or 316L	14 · 38 · 69 · 14×46
Shark	50,000	320	156	9.2	IK10	AC · 24 V · 48 V DC	Aluminium	14 · 38 · 69 · 14×46 · none
Barracuda	44,100	320	138	10.1	IK10	AC · 24 V DC	Aluminium or 316L	14 · 38 · 69 · 14×46
Snapper HC x3	83,000	500	166	12.6	IK08	AC · 24 V DC	Aluminium	15 · 30 · 60 · 90 · asym
Snapper HC x2	55,000	320	172	9.9	IK08	AC · 24 V DC	Aluminium	15 · 30 · 60 · 90 · asym
Snapper	31,000	180	173	3.1	IK08	AC · 24 V DC	Aluminium or 316L	15 · 30 · 60 · 90 · asym
Marlin	18,000	120	150	5.5	IK10	AC · 24 V DC	Aluminium	14 · 38 · 69 · 14×46

Impact class is stated with the polycarbonate front cover, which is what is supplied as standard; with chemically hardened glass the class is IK09. Mass is stated including the bracket. All seven versions share the same corrosion class C5, the same operating range from -45 °C and the same 6 G vibration rating, so the choice between them is about output, mass and impact rather than about environment.

Crane Light Stabilizer

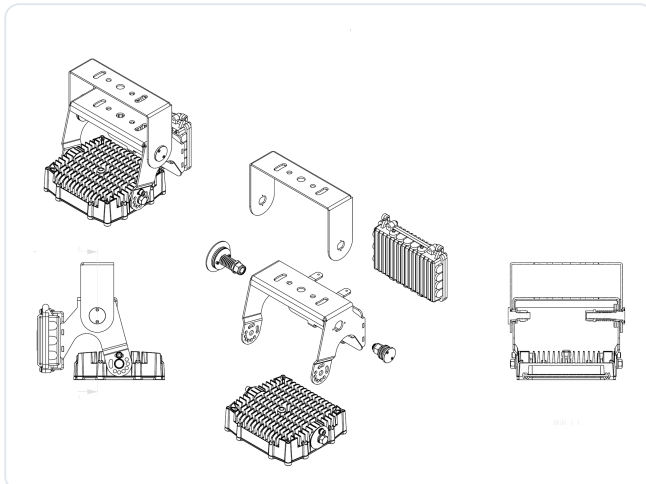
A boom moves, the work zone does not. The stabilizer keeps the beam on the load while the boom is raised, lowered or slewed, so the crane driver is not lighting the sky on the way up. It is a bracket, not a luminaire, and it carries the floodlights on this page.

ON THE MACHINE



Shark on the Crane Light Stabilizer, mounted on a lattice boom.

HOW IT GOES TOGETHER



Exploded view, Barracuda rear mount version.

WHICH LUMINAIRES IT CARRIES

Shark	AC and DC, the standard choice on a lattice boom
Barracuda	AC and DC, driver carried on the bracket
Orca	AC and DC, with or without the driver on the bracket

WHAT TO CHECK BEFORE ORDERING

Boom type	Lattice and telescopic booms are different brackets
Supply	AC and DC, taken from the machine
Aim	Held mechanically, no power needed to keep the aim
Fixing	Structure specific, confirmed at order on the boom drawing
Documents	Separate datasheet, DXF and STEP on request

INDUSTRIAL LED FLOODLIGHT

Orca



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

CE	IP69K	IK10	Class II	C5 ISO 9223
Ta -45 ... +50 °C	180-528 VAC	24 and 48 VDC		
DALI-2 · 0-10 V · PWM · NFC	Vibration 6 G	ULOR 0 %		
5-year warranty				

The highest output floodlight in the JEL range: 111,300 lumens from 156 lenses in one cast aluminium housing, in AC and in 24 and 48 V DC. Specified where mounting points are few and expensive to reach, and chosen for the Mammoet SK6000, the largest land based crane in the world.

LUMINOUS FLUX	POWER	EFFICACY
111,300 lm	800 W	139 lm/W
INGRESS	IMPACT	BEAM ANGLES
IP69K	IK10	14 to 69°

Values apply to the AC 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

One mounting point instead of three. 111,300 lm from a single housing means fewer brackets, less cable, less mast load and fewer positions that will ever need to be reached at height again.

Proven on the largest machines built. Selected for the Mammoet SK6000 and for Liebherr 9600 class excavators, where a failed luminaire is not a maintenance item but a stoppage.

AC, 24 V DC and 48 V DC on one interface. Bracket, optics, cable entry and photometry are identical, so a site can mix supply types across positions and hold one set of spares.

WHERE IT IS USED

Offshore platform deck lighting	Quarry crushing and screening plant
Ring cranes and heavy lift cranes	Log yards and bulk storage yards
Shipyard building docks and dry docks	Heavy lift and project cargo quays
Steel plant bays and casting floors	Scrap yards and recycling plant
Open cast mining benches and haul roads	Cement and aggregate terminals
Large excavators and mining machines	Large equipment maintenance halls

VERSIONS

	Orca AC	DC 24 V	DC 48 V
Article base code	ORAC01	ORDC01	ORDC02
Luminous flux	111,300 lm	100,200 lm	100,200 lm
Power	800 W	800 W	800 W
Supply	180-528 VAC	20-35 VDC	35-60 VDC
Driver	Remote TLD800	On board	On board
Weight incl. bracket	22.7 kg	22.7 kg	22.7 kg

Also available as the **Orca SS** in solid 316L stainless steel, 36.3 kg, with twenty years of warranty on the housing, and as the **Orca HT** for ambient temperatures to +120 °C. Separate datasheets.

Light output and optics

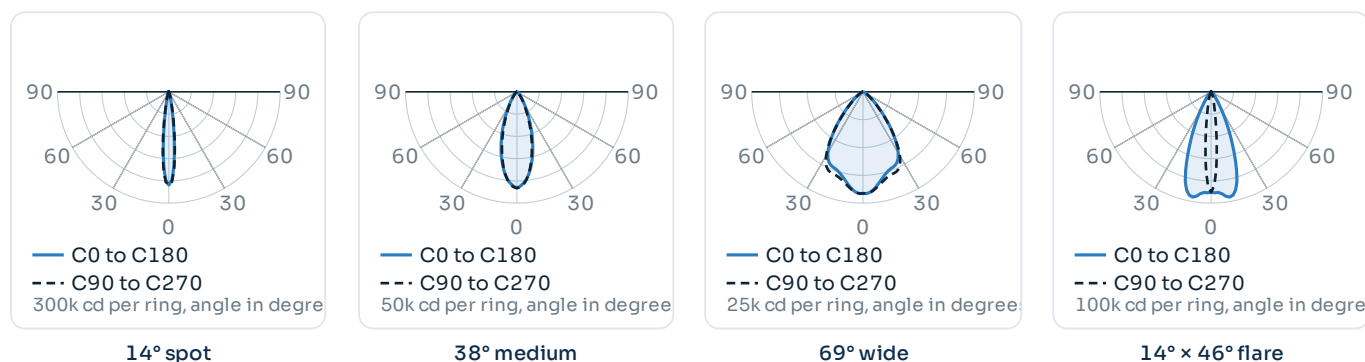
Values apply to the standard configuration at Ta 25 °C and include lens losses and driver consumption. Photometry is measured in house to IES LM-79 and the files are downloadable per optic from the product page.

BEAM CHARACTERISTICS

Lens	Distribution	Beam angle 50 % of peak	Field angle 10 % of peak	Typical use
14°	Spot, symmetric	13°	27°	Very long throw, beyond 150 m: high masts, crane booms, stockpiles
38°	Medium, symmetric	37°	69°	Long throw, beyond 40 m: yards, quays, terminals, mining benches
69°	Wide, symmetric	72°	103°	Up to around 45 m: decks, aprons, casting floors, work areas
14° × 46°	Flare, asymmetric	13° × 45°	30° × 70°	Throws far forward and stays wide across: quay edges, haul roads
No lens (.NOP)	Very wide, symmetric	136°	168°	Close range over a very wide field

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 terminal or a plant 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
IES files	Download per optic, product page

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.

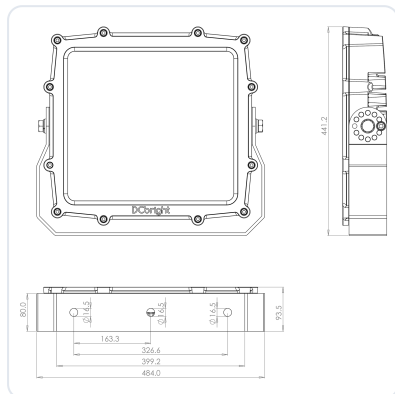
	Orca AC	Orca DC 24 V	Orca DC 48 V
PERFORMANCE			
Luminous flux	111,300 lm	100,200 lm	100,200 lm
Power consumption	800 W	800 W	800 W
Efficacy	139 lm/W	125 lm/W	125 lm/W
LED count	156 lenses in one cast housing		
ELECTRICAL AND DRIVER			
Supply voltage range	180–528 VAC or 250–740 VDC via TLD800, 50/60 Hz	20–35 VDC, 24 V nominal	35–60 VDC, 48 V nominal
Current draw	3.5 A at 277 V · 2.0 A at 480 V · 2.1 A at 380 V · 3.6 A at 220 V	33.4 A at 24 V	16.7 A at 48 V · 13.4 A at 60 V
Power factor at full load	> 0.9 at 60 to 100 % load	-	-
THD at full load	< 15 % at 60 to 100 % load	-	-
Inrush current at 220 V	5.4 A peak, T50 8 ms	-	-
Luminaires per MCB	B16 2 · C16 2 · C25 4 · D16 3	-	-
Surge protection	6 kV line to line, 10 kV line to earth (IEC 61000-4-5)	-	-
Leakage current	0.7 mA max at 400 VAC (IEC 60598-1)	-	-
Dimming	0–10 V, PWM, DALI-2, or over NFC	On request	On request
Driver	Remote TLD800, 237 × 125 × 49 mm, 2,600 g. Bare, or in the DRB-2	DC drivers on board	DC drivers on board
Driver life	≥ 100,000 h at Tc 75 °C, MTBF ≥ 320,000 h, Tc -40 to +90 °C. Replaced without opening the luminaire	-	-
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, adjustable through ±240° in 30° steps		
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, so IP69K does not imply IP68		
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	-45 to +50 °C	-45 to +50 °C
LED service life	TM-21 L90B05 > 360,000 h at 50 °C, so the driver is the wear part		
Cable and termination	H07BQ-F, 4 cores (2 × 2.5 mm² + 2 × 0.5 mm²), 2.0 m, pre-fitted with free wire ends	H07BQ-F, 2 cores (2 × 2.5 mm²), 2.0 m	H07BQ-F, 2 cores (2 × 2.5 mm²), 2.0 m
Dimensions	Luminaire with bracket 515 × 440 × 95 mm · housing without bracket 484.0 × 441.2 × 93.5 mm		
Weight	22.7 kg incl. bracket · 25.3 kg with loose driver · 33.1 kg with DRB-2	22.7 kg incl. bracket	22.7 kg incl. bracket
Warranty	5 years on the complete luminaire. The Orca SS carries 20 years on the housing and 5 years on the electronics and components		

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

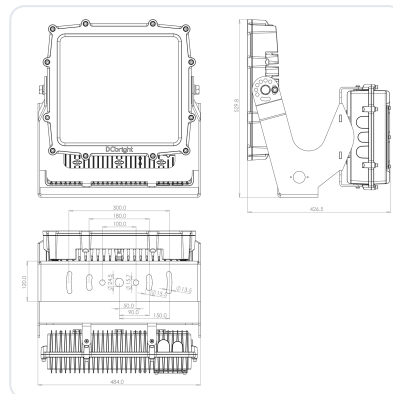
All drawings are to scale and dimensioned in millimetres. DXF and STEP models are available on request.

STANDARD BRACKET



Housing	484.0 × 441.2 × 93.5 mm
Incl. bracket	515 × 440 × 95 mm
Mounting foot	399.2 mm wide, 80.0 mm deep
Fixing holes	3 × Ø 16.5 mm
Hole centres	326.6 mm between outer holes, 163.3 mm pitch
Adjustment	±240° in 30° steps

REAR MOUNT BRACKET



Availability	AC version, flat against a structure
Mounting plate	300 × 180 mm
Fixing holes	Ø 15.7 mm, pitch 100.0 and 120.0 mm
Cable entry	Ø 24.5 mm
Stainless version	SS rear mount bracket for the Orca SS

MOUNTING AND ACCESSORIES

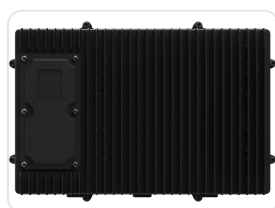
Standard bracket	High tensile 316L, supplied as standard
Rear mount bracket	Option on the AC version, SS version for the Orca SS
Crane Light Stabilizer	AC and DC. Holds the aim while the boom moves, see the Crane Light Stabilizer page
Tower crane frame	For tower crane jib mounting. Separate datasheet
Safety cable	Optional, supplied with the luminaire
Cable and retrofit brackets	Lengths beyond 2.0 m and structure specific brackets on request

REMOTE DRIVER

Type	TLD800, 180–528 VAC or 250–740 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	237 × 125 × 49 mm, 2,600 g
Enclosure	Bare as standard, or in the DRB-2

The LEDs outlive three drivers. The driver sits outside the luminaire and is replaced without opening the housing, so a driver fault is a ground level job instead of a lift and a dismantled luminaire.

DRB DRIVER BOXES



Use	Housing for the remote driver, mounted outside the wash-down zone
DRB-2	Systems up to 2,000 W, and the box the TLD800 goes in. 441 × 290 × 145 mm, 10.4 kg, IP66 and IP67
DRB-1	One driver up to 320 W. Too small for the TLD800
Ingress protection	IP66 and IP67
System weight	33.1 kg, luminaire with bracket and DRB-2

Ordering, standards and documents

ORDER CODE

Example **ORAC01-65K.38**

Orca, AC, 6500 K, 38° optic

ORAC01	AC, 180–528 VAC, remote TLD800
ORDC01 · ORDC02	DC 20–35 V and DC 35–60 V, drivers on board
ORSS01 · ORSS02 · ORHT01 · ORHT02	316L stainless steel and high temperature versions
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, selected from the light calculation

The optic suffix follows the colour temperature, so one project can carry several beam angles, and a lower wattage is ordered as an extra suffix. Bracket, control protocol, cable length and the Ra 80 or Ra 90 option are confirmed at order.

COMBINATIONS

Optics within one luminaire	Possible
Amber 2200 K with flare optic	Possible
Bi-colour with DALI-2	Possible
Ra 90 with 6500 K	Possible
Rear mount bracket	AC version only
Crane Light Stabilizer	AC and DC
DC with dimming or lower wattage	On request

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/orca

WHERE IT EARNS ITS PLACE

The Orca earns its place where access is expensive and mounting points are few. On a crane boom or a high mast the cost of a luminaire is small next to the cost of reaching it. One Orca instead of three floodlights reduces the number of positions that will ever need reaching again. For permanent salt exposure choose the Orca SS, for hot process areas the Orca HT.

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.

INDUSTRIAL LED FLOODLIGHT

Shark



Shown: Shark AC, 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		
24 and 48 VDC		DALI-2 · 0-10 V · PWM · NFC		
Vibration 6 G		Shock 200 G	ULOR 0 %	

The second generation of the JEL heavy duty line. Built on more than thirteen years of Barracuda experience in mining, and more efficient at 156 lm per watt and lighter per lumen at 9.2 kg. Available in AC and in 24 and 48 V DC, with a mounting bracket rated to 200 G.

LUMINOUS FLUX	POWER	EFFICACY
50,000 lm	320 W	156 lm/W
INGRESS	IMPACT	SHOCK
IP69K	IK10	200 G

Values apply to the AC 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

A bracket rated to 200 G. A haul truck and a crawler crane do not vibrate, they hit. The mounting bracket absorbs shocks to 200 G, which is what decides service life on mobile plant.

48 V DC, which almost nothing else offers. Large electric cranes run at 35 to 60 V DC. The Shark delivers 46,000 lm on that supply directly, with no inverter in the chain.

More light per kilogram than the Barracuda. 50,000 lm against 44,100 lm, 156 lm per watt against 138, and 9.2 kg against 10.1 kg.

WHERE IT IS USED

Mining haul trucks, excavators and loaders

Large electric cranes on a 35 to 60 V DC supply

Crane booms, with the Crane Light Stabilizer

Mobile light towers, including the 2Axle

Reach stackers and straddle carriers

Mobile crushing and screening plant

Vessels and workboats with a DC supply

Offshore installations, in Marine White

Forestry, agricultural and winter service machines

Drilling rigs and workover units

Battery and solar powered temporary lighting

Standby and emergency circuits on a DC supply

VERSIONS

	Shark AC	DC 24 V	DC 48 V
Article base code	SHAC01	SHDC01	SHDC01
Luminous flux	50,000 lm	46,000 lm	46,000 lm
Power	320 W	320 W	320 W
Supply	90-305 / 180-528 VAC	20-35 VDC	35-60 VDC
Driver	Remote BLD320	On board	On board
Weight incl. bracket	9.2 kg	9.2 kg	9.2 kg

There is no stainless steel and no high temperature version of the Shark. That is deliberate: the **Barracuda** fills both, in 316L and to +120 °C, on the same accessory line.

Light output and optics

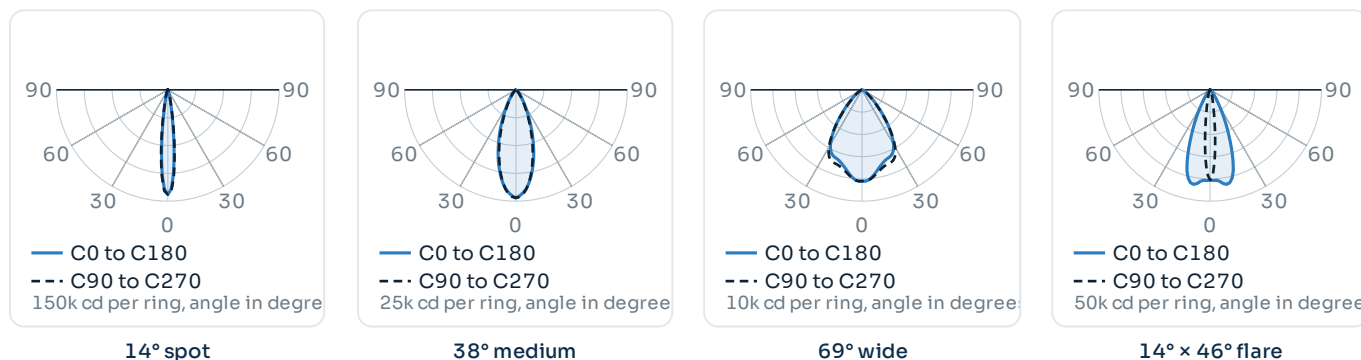
Values apply to the standard configuration at Ta 25 °C and include lens losses and driver consumption. Photometry is measured in house to IES LM-79 and the files are downloadable per optic from the product page.

BEAM CHARACTERISTICS

Lens	Distribution	Beam angle 50 % of peak	Field angle 10 % of peak	Typical use
14°	Spot, symmetric	13°	27°	Very long throw, beyond 100 m: high masts, crane booms, stockpiles
38°	Medium, symmetric	37°	69°	Long throw, beyond 30 m: yards, benches, haul roads
69°	Wide, symmetric	72°	103°	Up to around 35 m: decks, machine areas, work zones
14° × 46°	Flare, asymmetric	13° × 45°	30° × 70°	Throws far forward and stays wide across: haul roads, quay edges
No lens (.NOP)	Very wide, symmetric	120°	–	Close range over a very wide field, machine mounted

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. The suffix .NOP is the version supplied without optics.

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. On mobile plant the relevant question is usually not the permit but the operator: the bi-colour version switches to amber 2200 K in operation, which carries through fog, rain and dust far better than cold white. Where the site itself has an obtrusive light condition, 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
Housing colour	Titanium Black, or Marine White on request

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.

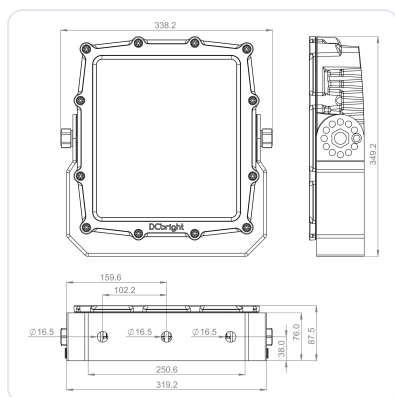
	Shark AC	Shark DC 24 V	Shark DC 48 V
PERFORMANCE			
Luminous flux	50,000 lm	46,000 lm	46,000 lm
Power consumption	320 W	320 W	320 W
Efficacy	156 lm/W	144 lm/W	144 lm/W
ELECTRICAL AND DRIVER			
Supply voltage range	90–305 VAC via BLD320, or 180–528 VAC via TLD320, 50/60 Hz	20–35 VDC, 24 V nominal	35–60 VDC, 48 V nominal
Current draw	2.9 A at 110 V · 1.5 A at 220 V · 0.9 A at 380 V	13.4 A at 24 V	6.7 A at 48 V
Power factor at full load	> 0.95 with BLD320 · > 0.9 with TLD320	-	-
THD at full load	< 15 % at 60 to 100 % load	-	-
Inrush current at 220 V	BLD320: 31.2 A peak, T50 1.3 ms · TLD320: 64 A peak, T50 400 µs	-	-
Luminaires per MCB	BLD320: B16 2 · C16 4 · C25 7 · D16 8. TLD320: B16 4 · C16 7 · C25 11 · D16 8	-	-
Surge protection	6 kV line to line, 10 kV line to earth (IEC 61000-4-5)	-	-
Leakage current	0.7 mA max (IEC 60598-1)	-	-
Dimming	0–10 V, PWM, DALI-2, or over NFC	On request	On request
Driver	Remote BLD320 or TLD320, 225 × 68 × 38.5 mm, 1,120 or 1,150 g	DC drivers on board	DC drivers on board
Driver life	≥ 100,000 h at Tc 75 °C, MTBF ≥ 280,000 h, Tc -40 to +90 °C. Replaced without opening the luminaire	-	-
CONSTRUCTION			
Housing	Cast aluminium, less than 0.08 % copper		
Surface finish	Conversion layer plus 2-layer titanium-based e-coating		
Colour	Titanium Black, or Marine White on request		
Bracket	High tensile 316L stainless steel, adjustable through ±240° in 30° steps, shock rated to 200 G		
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, so IP69K does not imply IP68		
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. Bracket rated to 200 G		
DURABILITY AND DIMENSIONS			
Ambient temperature	-45 to +50 °C	-45 to +50 °C	-45 to +50 °C
LED service life	TM-21 L90B05 > 360,000 h at 50 °C, so the driver is the wear part		
Cable and termination	H07BQ-F, 4 cores (2 × 2.5 mm ² + 2 × 0.5 mm ²), 2.0 m, pre-fitted with free wire ends	H07BQ-F, 2 cores (2 × 2.5 mm ²), 2.0 m	H07BQ-F, 2 cores (2 × 2.5 mm ²), 2.0 m
Dimensions	Luminaire 335 × 350 × 90 mm · with standard bracket 349.2 × 338.2 × 102.2 mm		
Weight	9.2 kg incl. bracket · 10.35 kg with loose driver · 13.4 kg with DRB-1	9.2 kg incl. bracket	9.2 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

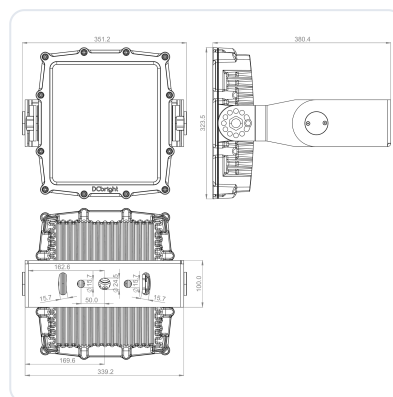
All drawings are to scale and dimensioned in millimetres. DXF and STEP models are available on request.

STANDARD BRACKET



Luminaire	335 × 350 × 90 mm
Incl. bracket	349.2 × 338.2 × 102.2 mm
Mounting foot	319.2 × 87.5 mm
Fixing holes	3 × Ø 16.5 mm
Hole centres	250.6 mm between outer holes
Adjustment	±240° in 30° steps, shock rated to 200 G

SWING BRACKET



Use	Boom and structure mounting, absorbs movement
Overall	380.4 × 351.2 × 323.5 mm
Mounting centres	339.2 mm, 169.6 mm from centre
Fixing holes	Ø 15.7 mm at ± 50.0 mm from centre
Cable entry	Ø 24.5 mm central
Related	Crane Light Stabilizer, see the page in this document

MOUNTING AND ACCESSORIES

Standard bracket	High tensile 316L, supplied as standard, shock rated to 200 G
Rear mount bracket	Option on the AC version
Crane Light Stabilizer	AC and DC. Holds the aim while the boom moves, see the Crane Light Stabilizer page
Safety cable	Optional, supplied with the luminaire
Cable and retrofit brackets	Lengths beyond 2.0 m and structure specific brackets on request
Marine White	Housing colour option, not a separate version

REMOTE DRIVER

Type	BLD320 for 90–305 VAC · TLD320 for 180–528 VAC
Case temperature	Tc -40 to +90 °C
Lifetime	≥ 100,000 h at Tc 75 °C
MTBF	≥ 280,000 h at 75 °C case
Size and weight	225 × 68 × 38.5 mm, 1,120 or 1,150 g
Enclosure	Bare as standard, or in the DRB-1

The LEDs outlive three drivers. The driver sits outside the luminaire and is replaced without opening the housing, so a driver fault is a ground level job instead of a lift and a dismantled luminaire.

DRB DRIVER BOXES



Use	Optional housing for the remote driver, outside the wash-down zone
DRB-1	One driver, up to the 320 W TLD320. 276 × 194 × 86.5 mm, 4.2 kg, IP66 and IP67
DRB-2	Systems up to 2,000 W. 441 × 290 × 145 mm, 10.4 kg, IP66 and IP67
Ingress protection	IP66 and IP67
System weight	13.4 kg, luminaire with bracket and DRB-1

Ordering, standards and documents

ORDER CODE

Example **SHAC01-65K.38**

Shark, AC, 6500 K, 38° optic

SHAC01	AC, 90–305 or 180–528 VAC, remote driver
SHDC01	DC, 20–35 V or 35–60 V, 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

The optic suffix follows the colour temperature, so one project can carry several beam angles, and a lower wattage is ordered as an extra suffix. Marine White, bracket, control protocol and cable length are confirmed at order.

COMBINATIONS

Optics within one luminaire	Possible
Amber 2200 K with flare optic	Possible
Bi-colour with DALI-2	Possible
Marine White with any optic	Possible
Crane Light Stabilizer	AC and DC
316L or high temperature	See the Barracuda
DC with dimming or lower wattage	On request

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, bracket to 200 G · ISO 9223 class C5	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.



PRODUCT PAGE

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

WHERE IT EARNS ITS PLACE

The Shark earns its place on machines. A haul truck, a crawler crane or a workboat has a DC supply, a shock profile and a mounting position that a building never has. This is thirteen years of Barracuda experience in mining, rebuilt around a shock bracket and a DC front end. Where 316L or +120 °C is required, choose the Barracuda.

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.

INDUSTRIAL LED FLOODLIGHT

Barracuda



Shown: Barracuda AC, 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	24 VDC		
DALI-2 · 0-10 V · PWM · NFC	Vibration 6 G	ULOR 0 %		
5-year warranty				

The wide-body heavy-duty floodlight for large areas: 44,100 lumens at 320 W out of one cast aluminium housing, rated IP69K and IK10. For container terminals, quays, yards and process plants where output and mechanical robustness weigh heavier than the last kilogram.

LUMINOUS FLUX	POWER	EFFICACY
44,100 lm	320 W	138 lm/W
INGRESS	IMPACT	BEAM ANGLES
IP69K	IK10	14 to 69°

Values apply to the AC 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

Serviceable driver. The remote driver is the wear part and is replaced without opening the luminaire, so a driver fault is a ground level job.

10.1 kg for 44,100 lm. Lighter brackets, smaller mast loads and a faster installation than any comparable output in this class.

One housing, four optics. Beam angles can be mixed within one project and even within one luminaire.

WHERE IT IS USED

Container terminals and stacking yards	Process plants and tank farms
Ship to shore and RTG crane booms	Outdoor storage and log yards
Quays, jetties and ro-ro ramps	Recycling and waste transfer sites
Bulk terminals and stockpiles	Heavy vehicle and equipment yards
Shipyards and dry docks	Perimeter and high mast area lighting

VERSIONS

	Barracuda AC	DC 24 V
Article base code	BAAC01	BADC01
Luminous flux	44,100 lm	40,800 lm
Power	320 W	320 W
Efficacy	138 lm/W	128 lm/W
Supply	90-305 / 180-528 VAC	20-35 VDC
Driver	Remote	On board
Weight incl. bracket	10.1 kg	10.1 kg

Light output and optics

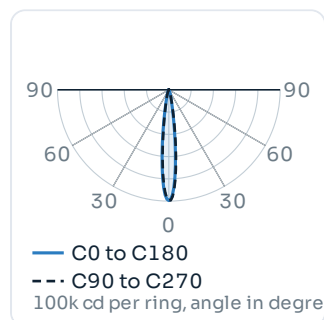
Values apply to the standard configuration at Ta 25 °C and include lens losses and driver consumption. Photometry is measured in house to IES LM-79 and the files are downloadable per optic from the product page.

BEAM CHARACTERISTICS

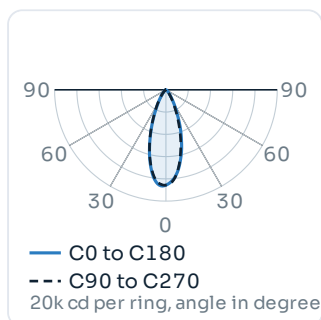
Lens	Distribution	Beam angle 50 % of peak	Field angle 10 % of peak	Typical use
14°	Spot, symmetric	13°	27°	Very long throw, beyond 100 m: high masts, crane booms, stockpiles
38°	Medium, symmetric	37°	70°	Long throw, typically beyond 30 to 35 m: yards, quays, terminals
69°	Wide, symmetric	69°	100°	Up to around 35 m: decks, aprons, platforms, work areas
14° × 46°	Flare, asymmetric	13° × 46°	31° × 70°	Throws far forward and stays wide across: quay edges, roadways

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.

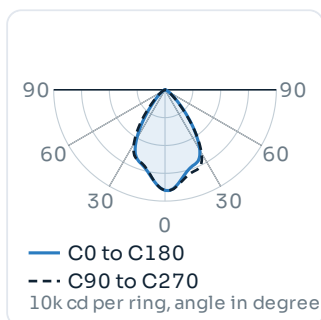
LIGHT DISTRIBUTION



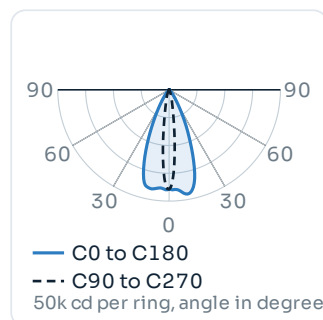
14° spot



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, for sites with a night regime

Nothing is emitted above the horizontal at 0° tilt. That is the figure a permitting authority asks for when a terminal 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.

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
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
IES files	Download per optic, product page

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.

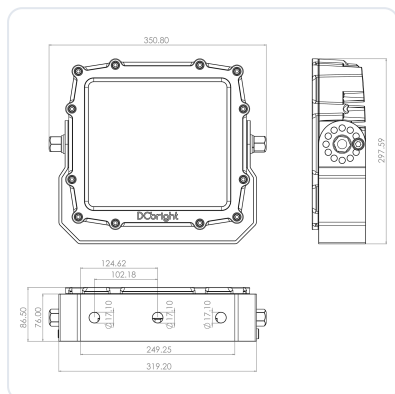
	Barracuda AC	Barracuda DC 24 V
PERFORMANCE		
Luminous flux	44,100 lm	40,800 lm
Power consumption	320 W	320 W
Efficacy	138 lm/W	128 lm/W
ELECTRICAL AND DRIVER		
Supply voltage range	90–305 VAC via BLD320, or 180–528 VAC via TLD320, 50/60 Hz	20–35 VDC, 24 V nominal
Current draw	BLD320: 2.9 A at 120 V · 1.5 A at 220 V · TLD320: 1.3 A at 277 V · 0.75 A at 480 V	13.4 A at 24 V
Power factor at full load	> 0.95 with BLD320, 0.96 measured at 230 V · > 0.9 with TLD320	-
THD at full load	< 15 % at 60 to 100 % load	-
Inrush current at 220 V	BLD320: 31.2 A peak, T50 1.3 ms · TLD320: 64 A peak, T50 400 µs	-
Luminaires per MCB	BLD320: B16 2 · C16 4 · C25 7 · D16 8 · TLD320: B16 4 · C16 7 · C25 11 · D16 8	-
Surge protection	6 kV line to line, 10 kV line to earth (IEC 61000-4-5)	-
Leakage current	0.7 mA max (IEC 60598-1)	-
Dimming	0–10 V, PWM, DALI-2, or over NFC	On request
Driver	Remote BLD320 or TLD320, 225 × 68 × 38.5 mm, 1,120 or 1,150 g	DC drivers on board
Driver life	≥ 100,000 h at Tc 75 °C, MTBF ≥ 280,000 h, Tc -40 to +90 °C. Replaced without opening the luminaire	-
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, fully rotatable through 360° in 30° steps	
Front	Polycarbonate IK10 as standard, impact-resistant glass IK09 on request	
Protection class	Class II	
Ingress protection	IP66, IP67, IP68 to 5 m and IP69K, each class tested separately, so IP69K does not imply IP68	
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	-45 to +50 °C
LED service life	TM-21 L90B05 > 360,000 h at 50 °C, so the driver is the wear part	
Cable and termination	H07BQ-F, 4 cores (2 × 2.5 mm ² + 2 × 0.5 mm ²), 2.0 m, pre-fitted with free wire ends	H07BQ-F, 2 cores (2 × 2.5 mm ²), 2.0 m
Dimensions	Luminaire 320 × 290 × 90 mm · with standard bracket 351 × 298 · with rear mount 331 × 297 × 338 (w × d × h)	
Weight	10.1 kg incl. bracket · 11.25 kg with loose driver · 14.3 kg with DRB-1	10.1 kg incl. bracket
Wind load area, frontal	0.104 m ² standard bracket · 0.112 m ² rear mount · 0.026 m ² side view. Cd 1.2 gives Cd-A 0.125 and 0.134 m ² . Warranty 5 years	
CONSTRUCTION		
Housing	Cast aluminium, less than 0.08 % copper, one piece per module without seams or end caps	
Surface finish	Conversion layer plus 2-layer titanium-based e-coating	
Colour	Titanium Black	
Bracket	High tensile 316L stainless steel, adjustable through ±180° in 30° steps	
Front	Impact resistant glass, IK08	
Protection class	Class II	
Ingress protection	IP66, IP67 and IP68, each class tested separately	
Impact resistance	IK08 (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, so the driver is the wear part	
Cable and termination	H07BQ-F, 4 cores (2 × 2.5 mm ² + 2 × 0.5 mm ²), 2.0 m, pre-fitted with free wire ends	
Dimensions	312 × 181 × 118 mm	320 × 314 × 205 mm 320 × 484 × 205 mm
Weight incl. bracket	3.1 kg	9.9 kg 12.6 kg
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. Switching the modules of an x2 or x3 separately is possible on request; the standard build switches them together.

Mechanics, mounting and driver

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

STANDARD BRACKET



Luminaire	320 × 290 × 90 mm
Incl. bracket	350.80 × 297.59 mm
Mounting foot	319.20 × 86.50 mm
Fixing holes	3 × Ø 17.10 mm
Hole centres	249.25 mm between outer holes
Adjustment	360° in 30° steps

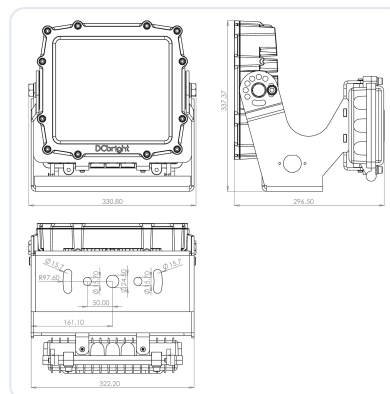
MOUNTING AND ACCESSORIES

Standard bracket	High tensile 316L, supplied as standard
Rear mount bracket	Option on the AC version
Retrofit bracket	On request, codes issued per structure
Boom and tenon mount	On request
Safety cable	Optional, supplied with the luminaire
Cable	Lengths beyond 2.0 m on request, same H07BQ-F type
Crane Light Stabilizer	AC and DC, for crane boom mounting
Crane boom lighting frame	AC version

DRB DRIVER
BOXES

Use	Optional housing for the remote driver, mounted outside the wash-down zone
DRB-1	One driver, up to the 320 W TLD320 which is the largest that fits. 276 × 194 × 86.5 mm, 4.2 kg, IP66 and IP67
DRB-2	Systems up to 2,000 W. 441 × 290 × 145 mm, 10.4 kg, IP66 and IP67
Ingress protection	IP66 and IP67
System weight	14.3 kg, luminaire with bracket and DRB-1

REAR MOUNT BRACKET



Availability	AC version, flat against a structure
Incl. bracket	331 × 297 × 338 mm (w × d × h)
Mounting plate	322.20 mm wide
Fixing holes	2 × Ø 15.70 mm at ± 50.00 mm from centre
Slots	2 × Ø 15.7 obround on R 97.60 mm
Cable entry	Ø 24.50 mm central

REMOTE DRIVER

Type	BLD320 for 90–305 VAC · TLD320 for 180–528 VAC
Case temperature	Tc –40 to +90 °C
Lifetime	≥ 100,000 h at Tc 75 °C
MTBF	≥ 280,000 h at 75 °C case
Size and weight	225 × 68 × 38.5 mm, 1,120 or 1,150 g
Enclosure	Bare as standard, or in the DRB-1

The LEDs outlive three drivers. The driver sits outside the luminaire and is replaced without opening the housing, so a driver fault is a ground level job instead of a lift and a dismantled luminaire.

Ordering, standards and documents

ORDER CODE

Example **BAAC01-65K.38**

Barracuda, AC, 6500 K, 38° optic

BAAC01	AC, 90–305 or 180–528 VAC, remote driver
BADC01	DC, 20–35 VDC, drivers on board
65K · 50K · 40K · 27K · 22K	6500 K · 5000 K · 4000 K · 2700 K · amber 2200 K
BI	Bi-colour 4000 K with amber 2200 K
.14 · .38 · .69 · .14x46	Optic suffix, selected from the light calculation

The optic suffix follows the colour temperature, so one project can carry several beam angles. Bracket type, control protocol, cable length and the Ra 80 or Ra 90 option are confirmed at order and are not part of the code.

COMBINATIONS

Optics within one luminaire	Possible
Amber 2200 K with flare optic	Possible
Bi-colour with DALI-2	Possible
Ra 90 with 6500 K	Possible
Rear mount bracket	AC version only
DC version with dimming	On request

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	TÜV
Marine EMC	IEC 60533, bridge and open deck	TÜV
Ingress	IEC 60529 and ISO 20653. IP66, IP67, IP68 to 5 m, IP69K	In-house test
Impact	IEC 62262, IK10 with polycarbonate	In-house test
Vibration	IEC 60068-2-6, 6 G at resonant frequency	In-house test
Shock	IEC 60068-2-27	In-house test
Corrosion	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/barracuda

WHERE IT EARNS ITS PLACE

Where a work light or a lightweight floodlight becomes the weak link, the Barracuda keeps working: a cast housing under a titanium-based e-coating, a glass or polycarbonate front and a bracket in high tensile 316L. For permanent salt exposure, choose the Barracuda SS.

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. The number of luminaires per MCB is the manufacturer figure for ABB S200 at 220 V, a guide for the engineering phase and not a substitute for the installation calculation. Packaging dimensions depend on the order quantity and are stated at quotation. North American models on request.

HIGH CAPACITY LED FLOODLIGHT

Snapper HC



Shown: Snapper HC x3 AC, titanium-based e-coating, 15° lens, high tensile 316L bracket.

CE	IP68	IK08	Class II	C5 ISO 9223
Ta -45 ... +50 °C	90-305 / 180-528 VAC	24 VDC		
DALI-2 · 0-10 V · PWM · NFC	Vibration 6 G	ULOR 0 %		
safety cable standard				

The highest light output per kilogram in the JEL range: 83,000 lumens at 12.6 kg, in one, two or three cast modules on a single bracket. Built for cranes and masts that need a large lumen package without the mass that normally comes with it, and available in 24 V DC for light towers and crane supplies.

LUMINOUS FLUX	WEIGHT	EFFICACY
83,000 lm	12.6 kg	166 lm/W
INGRESS	IMPACT	BEAM ANGLES
IP68	IK08	15 to 90°

Values apply to the x3 AC version at 500 W, 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

The highest output per kilogram in the range. 83,000 lm at 12.6 kg and 55,000 lm at 9.9 kg. On an STS or RTG boom every kilogram is a load the structure carries through every cycle it makes.

Cast modules, not extrusions. Each module is cast in one piece, so there are no seams and no end caps, which is where extruded housings let water in and lose heat transfer.

One optic per module, from an off the shelf range. The aluminium Snapper HC does not use a proprietary optic set, so the choice is effectively unlimited and can differ per module inside one luminaire.

WHERE IT IS USED

Ship to shore and RTG crane booms	Warehouse and distribution centre high bay
RMG and rail mounted gantry cranes	Cold store high bay
Container terminal and quay apron lighting	Production halls with mixed bay heights
Mobile light towers, directly on 24 V DC	Aircraft and vehicle maintenance hangars
Ro-ro ramps and vehicle decks	Bulk handling and conveyor transfer towers
Offshore terminals and jetties	Outdoor process plant and tank farms

VERSIONS

	x1	x2	x3
Luminous flux AC	31,000 lm	55,000 lm	83,000 lm
Power AC	180 W	320 or 270 W	500 or 400 W
Luminous flux DC 24 V	25,000 lm	44,100 lm	66,200 lm
Dimensions	312 × 181 × 118	320 × 314 × 205	320 × 484 × 205
Weight incl. bracket	3.1 kg	9.9 kg	12.6 kg
Driver	BLD240	BLD320	TLD400 or TLD600

The x1 is the **Snapper**, which has its own datasheet including the 316L stainless steel and the high temperature versions. There is no Snapper HC HT; for that output at high ambient temperature, see the **Orca HT**.

Light output and optics

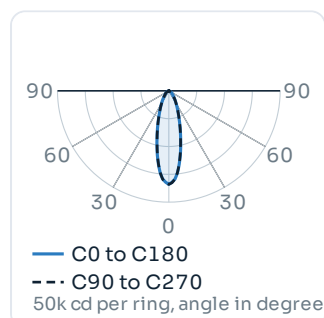
Values apply to the x3 at 500 W and Ta 25 °C, including lens losses and driver consumption. Photometry is measured in house to IES LM-79 and the files are downloadable per optic and per module count.

BEAM CHARACTERISTICS

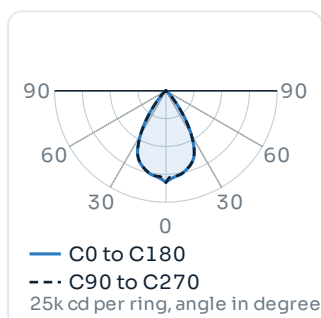
Lens	Distribution	Beam angle 50 % of peak	Field angle 10 % of peak	Typical use
15°	Spot, symmetric	–	–	Very long throw: high masts, crane booms, stockpiles
30°	Medium, symmetric	29°	73°	Long throw beyond 30 m: yards, quays, terminals
60°	Wide, symmetric	63°	86°	Up to around 30 m: aprons, decks, high bay
90°	Very wide, symmetric	92°	114°	Close range over a wide field: low bay, work areas
120°	Very wide, batwing	119°	141°	Uniform cover at low mounting height
20° × 50° and 20° × 85°	Asymmetric	–	–	Quays, aprons and long aisles, keeps spill off the water

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. The 15°, 20° × 50° and 20° × 85° optics are supplied but not yet in the measured library; the file is issued with the quotation. Optics can be selected per module inside one luminaire.

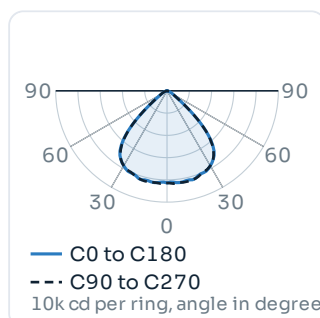
LIGHT DISTRIBUTION



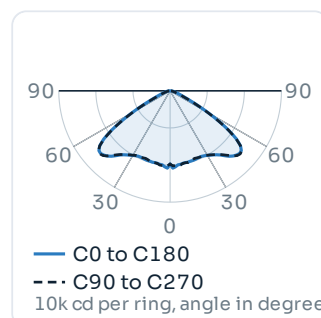
30° medium



60° wide



90° very wide



120° batwing

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 and night regimes

Nothing is emitted above the horizontal at 0° tilt. On a terminal the asymmetric optics do most of the work: a 20° × 85° distribution covers a rectangular apron without throwing light over the quay edge. Where the site has a formal obtrusive light condition, 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
Optic per module	Selectable individually within one luminaire

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.

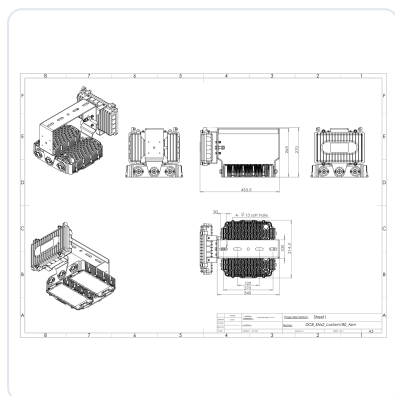
	Snapper HC x1	x2	x3
PERFORMANCE			
Luminous flux AC	31,000 lm	55,000 lm at 320 W · 49,500 lm at 270 W	83,000 lm at 500 W · 73,000 lm at 400 W
Luminous flux DC 24 V	25,000 lm	44,100 lm at 300 W	66,200 lm at 450 W
Power consumption	180 W	320 or 270 W · DC 300 W	500 or 400 W · DC 450 W
Efficacy	172 lm/W	172 lm/W · DC 147 lm/W	166 lm/W · DC 147 lm/W
ELECTRICAL AND DRIVER			
Supply voltage range	90–305 VAC	90–305 or 180–528 VAC · DC 20–35 V	90–305 or 180–528 VAC · DC 20–35 V
Current draw	1.7 A at 110 V · 0.8 A at 220 V	2.9 A at 110 V · 1.5 A at 220 V · 0.8 A at 380 V · DC 12.5 A at 24 V	4.6 A at 110 V · 2.3 A at 220 V · 1.4 A at 380 V · DC 18.8 A at 24 V
Power factor at full load	> 0.95	> 0.95	> 0.9
THD at full load	< 15 % at 60 to 100 % load		
Inrush current at 220 V	66.0 A peak, T50 0.5 ms	31.2 A peak, T50 1.3 ms	TLD400 64 A, T50 400 µs · TLD600 5.4 A, T50 8 ms
Luminaires per MCB	B16 3 · C16 6 · C25 9 · D16 10	B16 2 · C16 4 · C25 7 · D16 8	TLD400 B16 4 · C16 5 · C25 8 · D16 6
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. DC on request		
Driver	Remote BLD240, fits the DRB–1	Remote BLD320, fits the DRB–1 · DC drivers on board	Remote TLD400 or TLD600 in the DRB–2 · DC drivers on board
Driver life	≥ 100,000 h at Tc 75 °C, MTBF ≥ 280,000 h, Tc –40 to +90 °C. Replaced without opening the luminaire		
CONSTRUCTION			
Housing	Cast aluminium, less than 0.08 % copper, one piece per module without seams or end caps		
Surface finish	Conversion layer plus 2–layer titanium–based e–coating		
Colour	Titanium Black		
Bracket	High tensile 316L stainless steel, adjustable through ±180° in 30° steps		
Front	Impact resistant glass, IK08		
Protection class	Class II		
Ingress protection	IP66, IP67 and IP68, each class tested separately		
Impact resistance	IK08 (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, so the driver is the wear part		
Cable and termination	H07BQ–F, 4 cores (2 × 2.5 mm² + 2 × 0.5 mm²), 2.0 m, pre–fitted with free wire ends		
Dimensions	312 × 181 × 118 mm	320 × 314 × 205 mm	320 × 484 × 205 mm
Weight incl. bracket	3.1 kg	9.9 kg	12.6 kg
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. Switching the modules of an x2 or x3 separately is possible on request; the standard build switches them together.

Mechanics, mounting and driver

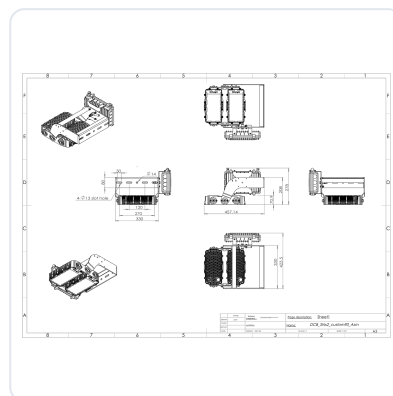
All drawings are to scale and dimensioned in millimetres. DXF and STEP models are available on request. Dimensions shown are for the x2.

TOP MOUNT BRACKET



Module x2	320 × 314 × 205 mm
Overall height	433.5 mm
Mounting plate	340 × 265 mm
Fixing holes	4 × Ø 13 mm slotted
Hole pattern	270 × 100 mm
Adjustment	±180° in 30° steps

SIDE MOUNT BRACKET



Use	Against a vertical structure or a boom web
Overall	457.1 × 423.5 mm
Mounting plate	330 × 278 mm
Fixing holes	4 × Ø 13 mm slotted
Hole pattern	270 × 120 mm
Standard bracket	Also available, same interface

MOUNTING AND ACCESSORIES

Standard bracket	High tensile 316L, supplied as standard
Top mount and side mount brackets	Options, same luminaire interface
Safety cable	Supplied as standard with every Snapper HC
Cable and retrofit brackets	Lengths beyond 2.0 m and structure specific brackets on request
Module switching	Separate switching of the x2 and x3 modules on request

REMOTE DRIVER

x1	BLD240, 215 × 67.5 × 33.5 mm, 1,100 g
x2	BLD320, 225 × 68 × 38.5 mm, 1,120 g
x3	TLD400 at 400 W or TLD600 at 500 W
Case temperature	Tc -40 to +90 °C
Lifetime	≥ 100,000 h at Tc 75 °C
Enclosure	x1 and x2 in the DRB-1, x3 in the DRB-2

The LEDs outlive three drivers. The driver sits outside the luminaire and is replaced without opening the housing, so a driver fault is a ground level job instead of a lift on a crane boom.

DRB DRIVER BOXES



Use	Housing for the remote driver, outside the wash-down zone
DRB-1	One driver up to 320 W. 276 × 194 × 86.5 mm, 4.2 kg, IP66 and IP67
DRB-2	Systems up to 2,000 W, and the box for the x3. 441 × 290 × 145 mm, 10.4 kg, IP66 and IP67
Ingress protection	IP66 and IP67
System weight	23.0 kg, x3 with bracket and DRB-2

Ordering, standards and documents

ORDER CODE

Example **SNHC05-65K.30**

Snapper HC x3, 500 W, 6500 K, 30° optic

SNHC02 · SNHC04 · SNHC05	x2 at 320 W · x3 at 400 W · x3 at 500 W
AC · DC	90–305 or 180–528 VAC · 20–35 VDC
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
.15 · .30 · .60 · .90 · .20x50 · .20x85	Optic suffix, selectable per module

The optic suffix follows the colour temperature and can be given per module, so one luminaire can carry a spot on one module and a wide distribution on the next. Bracket, control protocol and cable length are confirmed at order.

COMBINATIONS

Different optic per module	Possible
Amber 2200 K with asymmetric optic	Possible
Bi-colour with DALI-2	Possible
Separate switching per module	On request
316L or high temperature	See the Snapper and the Orca HT
IK10 front	See the Barracuda or the Orca

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	In-house test
Impact and vibration	IEC 62262 IK08 · 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 and flicker	IES LM-79, IES files per optic · flicker measured per version	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/snapperhc

WHERE IT EARNS ITS PLACE

The Snapper HC earns its place on structures that move and structures that count every kilogram. A crane boom carries its lighting through every cycle it makes, and a light tower has to be towed, raised and set down. Putting 83,000 lm on that structure at 12.6 kg is the reason the lighting can go where it is actually needed.

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 and is stated per driver, so with more than one driver in a luminaire divide by the driver count. North American models on request. The JEL range is not ATEX or Ex certified.

LIGHTWEIGHT LED FLOODLIGHT

Snapper



Shown: Snapper AC, titanium-based e-coating, 15° lens, high tensile 316L bracket.

CE	IP68	IK08	Class II	C5 ISO 9223
Ta -45 ... +50 °C	90-305 VAC	24 VDC		
DALI-2 · 0-10 V · PWM · NFC	Vibration 6 G	ULOR 0 %		
5-year warranty				

One of the best lumen per kilogram ratios on the market: 31,000 lumens from a 3.1 kg cast aluminium housing. The Snapper puts a full industrial lumen package on structures that were never designed to carry one, which is what most retrofits actually need.

LUMINOUS FLUX	POWER	EFFICACY
31,000 lm	180 W	173 lm/W
WEIGHT	INGRESS	IMPACT
3.1 kg	IP68	IK08

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

Mass is a specification, not a detail. A retrofit rarely comes with a new bracket. At 3.1 kg the Snapper goes onto the structure that is already there, which removes the structural check and the crane from the job.

173 lm per watt from a sealed housing. No vents and no fan. Everything that keeps salt out stays out and everything that cools the LED is passive, so the figure holds for the life of the installation.

Nine versions on one housing. Aluminium AC and DC, 316L in AC and DC, and five high temperature versions to +120 °C. One product covers a hot process, a wet process, a vehicle and a yard.

WHERE IT IS USED

Retrofit of discharge floodlights on existing brackets	Fish farm and aquaculture platforms
Crane booms and hoisting equipment	Temporary and project site lighting
Excavators, service vehicles and mobile plant	Scaffolding and shutdown lighting
Vessel deck and working area lighting	Loading bays and yard lighting
Offshore platforms and jack up rigs	Workshops and vehicle bays
Mobile light towers on 24 V DC	Perimeter and fence line lighting

VERSIONS

	Snapper AC	DC 24 V
Article base code	SNAC01	SNDC01
Luminous flux	31,000 lm	25,000 lm
Power	180 W	150 W
Efficacy	173 lm/W	168 lm/W
Supply	90-305 VAC	20-35 VDC
Driver	Remote BLD240	On board
Weight incl. bracket	3.1 kg	3.1 kg

Also available as the **Snapper SS** in solid 316L stainless steel and as the **Snapper HT** to +120 °C, including a 316L and a chemically resistant version. Separate datasheets. The **Snapper HC** is the same module in a two or three module housing, up to 83,000 lm.

Light output and optics

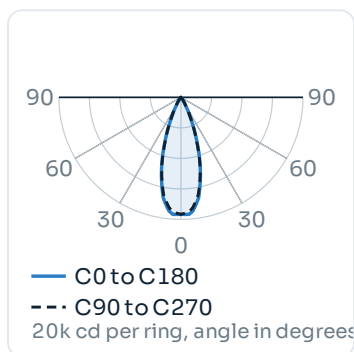
Values apply to the standard configuration at Ta 25 °C and include lens losses and driver consumption. Photometry is measured in house to IES LM-79 and the files are downloadable per optic from the product page.

BEAM CHARACTERISTICS

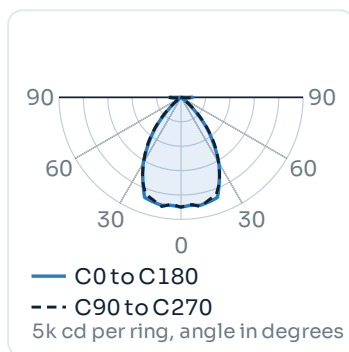
Lens	Distribution	Beam angle 50 % of peak	Field angle 10 % of peak	Typical use
15°	Spot, symmetric	–	–	Very long throw: masts, crane booms, stockpiles
30°	Medium, symmetric	36°	58°	Long throw beyond 25 m: yards, quays, decks
60°	Wide, symmetric	71°	97°	Up to around 25 m: aprons, work areas, high bay
90°	Very wide, symmetric	102°	122°	Close range over a wide field: low bay, machine areas
20° × 50° and 20° × 85°	Asymmetric	–	–	Quays, aprons and long aisles, keeps spill off the water

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 %. The aluminium Snapper uses off the shelf optics rather than a proprietary set, so the choice is effectively unlimited; the 316L version uses the standard JEL optics of 14°, 38°, 69° and 14° × 46°. The 15°, 20° × 50° and 20° × 85° optics are supplied but not yet in the measured library and the file is issued with the quotation.

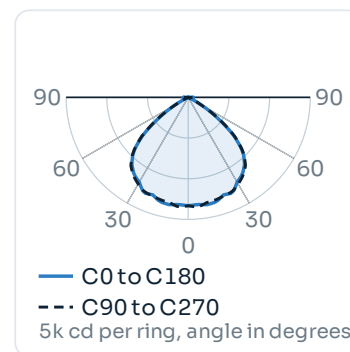
LIGHT DISTRIBUTION



30° medium



60° wide



90° very wide

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.

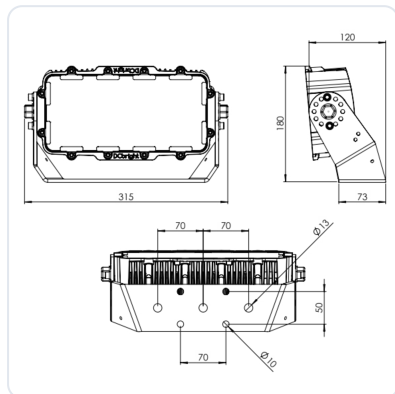
	Snapper AC	Snapper DC 24 V
PERFORMANCE		
Luminous flux	31,000 lm	25,000 lm
Power consumption	180 W	150 W
Efficacy	173 lm/W	168 lm/W
ELECTRICAL AND DRIVER		
Supply voltage range	90–305 VAC via BLD240, 50/60 Hz	20–35 VDC, 24 V nominal
Current draw	1.7 A at 110 V · 0.8 A at 220 V	6.3 A at 24 V
Power factor at full load	> 0.95 at 60 to 100 % load	-
THD at full load	< 15 % at 65 to 100 % load	-
Inrush current at 220 V	66.0 A peak, T50 0.5 ms	-
Luminaires per MCB	B163 · C166 · C259 · D1610	-
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
Driver	Remote BLD240, 215 × 67.5 × 33.5 mm, 1,100 g. Fits the DRB-1	DC drivers on board
Driver life	≥ 100,000 h at Tc 75 °C, MTBF ≥ 280,000 h. Replaced without opening the luminaire	-
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, adjustable through ±240° in 30° steps	
Front	Impact resistant glass, IK08	
Protection class	Class II	
Ingress protection	IP66, IP67 and IP68, each class tested separately	
Impact resistance	IK08 (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	-45 to +50 °C
LED service life	TM-21 L90B05 > 360,000 h at 50 °C, so the driver is the wear part	
Cable and termination	H07BQ-F, 4 cores (2 × 2.5 mm ² + 2 × 0.5 mm ²), 2.0 m	H07BQ-F, 2 cores (2 × 2.5 mm ²), 2.0 m
Dimensions	312 × 181 × 118 mm including bracket	
Weight	3.1 kg incl. bracket, 2.7 kg housing only	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.

STANDARD BRACKET



Incl. bracket	312 × 181 × 118 mm
Weight	3.1 kg with bracket, 2.7 kg housing
Material	High tensile 316L stainless steel
Adjustment	±240° in 30° steps
Retrofit	Fits most existing discharge floodlight footprints
Structural check	Rarely needed at this mass

MOUNTING AND ACCESSORIES

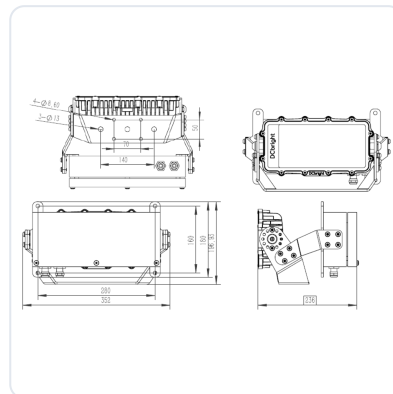
Standard bracket	High tensile 316L, supplied as standard
Rear mount bracket	Option on the AC version
Safety cable	Optional, supplied with the luminaire
Cable and retrofit brackets	Lengths beyond 2.0 m and structure specific brackets on request
Higher output	Snapper HC x2 and x3 on the same platform

DRB DRIVER BOXES



Use	Optional housing for the remote driver, mounted outside the wash-down zone
DRB-1	One driver up to 320 W. 276 × 194 × 86.5 mm, 4.2 kg, IP66 and IP67
DRB-2	Systems up to 2,000 W. 441 × 290 × 145 mm, 10.4 kg, IP66 and IP67
Ingress protection	IP66 and IP67
System weight	7.3 kg, luminaire with bracket and DRB-1

REAR MOUNT BRACKET



Availability	AC version, flat against a structure
Material	High tensile 316L
Cable entry	Through the mounting plate
SS version	SS rear mount for the Snapper SS
Crane mounting	Crane Light Stabilizer, see the page in this document

REMOTE DRIVER

Type	BLD240, 90–305 VAC
Case temperature	Tc –40 to +90 °C
Lifetime	≥ 100,000 h at Tc 75 °C
MTBF	≥ 280,000 h at 75 °C case
Size and weight	215 × 67.5 × 33.5 mm, 1,100 g
Enclosure	Bare as standard, or in the DRB-1

The LEDs outlive three drivers. The driver sits outside the luminaire and is replaced without opening the housing, so a driver fault is a ground level job instead of a lift and a dismantled luminaire.

Ordering, standards and documents

ORDER CODE

Example **SNAC01-65K.30**

Snapper, AC, 6500 K, 30° optic

SNAC01	AC, 90–305 VAC, remote BLD240
SNDC01	DC, 20–35 VDC, drivers on board
SNSS01 · SNSS02	316L stainless steel, AC and DC
SNHT01 ... SNHT05	High temperature, aluminium, 316L and chemically resistant
65K · 50K · 40K · 27K · 22K	6500 K · 5000 K · 4000 K · 2700 K · amber 2200 K
.15 · .30 · .60 · .90 · .20x50 · .20x85	Optic suffix, aluminium versions

The optic suffix follows the colour temperature and a lower wattage is ordered as an extra suffix. The 316L versions use the standard JEL optics of 14°, 38°, 69° and 14° × 46°.

COMBINATIONS

Optics within one luminaire	Possible
Amber 2200 K with asymmetric optic	Possible
Bi-colour with DALI-2	Possible
Rear mount bracket	AC version only
IK10 front	See the Barracuda or the Shark

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	In-house test
Impact and vibration	IEC 62262 IK08 · 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/snapper

WHERE IT EARNS ITS PLACE

The Snapper earns its place on structures that already exist. Most industrial lighting projects are not new builds, they are replacements on brackets, masts and booms that were dimensioned for something else decades ago. A luminaire that fits those positions without a structural argument gets installed. One that does not gets postponed.

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.

COMPACT HEAVY DUTY LED FLOODLIGHT

Marlin



Shown: Marlin AC, 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	24 VDC		
DALI-2 · 0-10 V · PWM · NFC	Vibration 6 G			
Crane Light Director	5-year warranty			

18,000 lumens at 5.5 kg in a housing of 235 × 215 × 90 mm. The Marlin is the luminaire for the positions where a work lamp is not enough and a Barracuda or an Orca does not fit, and it is the largest luminaire the Crane Light Director carries.

LUMINOUS FLUX	POWER	EFFICACY
18,000 lm	120 W	150 lm/W
WEIGHT	INGRESS	IMPACT
5.5 kg	IP69K	IK10

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

It is what the Crane Light Director carries at full output. The system takes the Goby Mini, the Goby, the Piranha, the DarkLight S and the Marlin. A twin Marlin configuration reaches 33,800 lm from the boom.

5.5 kg on a moving structure. A crane luminaire accelerates and stops all day. Mass on a jib or a trolley is a fatigue load on the structure and on the luminaire itself.

Heavy duty class in a compact format. IK10 at the front cover, IP69K, corrosion class C5 and the full JEL optic set, in a housing that fits where a floodlight physically cannot.

WHERE IT IS USED

Mobile crane booms, on the Crane Light Director	Service platforms and gantries
Tower crane jibs and cab positions	Steel, bulk handling and production plant
Overhead and gantry crane runways	Technical installations and service points
Ship to shore crane trolley lighting	Confined mounting positions on heavy plant
Machine mounted and mobile equipment lighting	Workshop crane bays
Offshore and maritime work decks	Supporting positions alongside larger floodlights

VERSIONS

	Marlin AC	Marlin DC
Article base code	MAAC01	MADC01
Luminous flux	18,000 lm	16,900 lm
Power	120 W	120 W
Efficacy	150 lm/W	141 lm/W
Supply	90-305 / 180-528 VAC	20-35 VDC
Driver	Remote TLD160	On board
Weight incl. bracket	5.5 kg	5.5 kg

There is no stainless steel and no high temperature version of the Marlin. For 316L see the **Barracuda SS** or the **Snapper SS**, and for high ambient temperatures the **Barracuda HT** or the **Snapper HT**.

Light output and optics

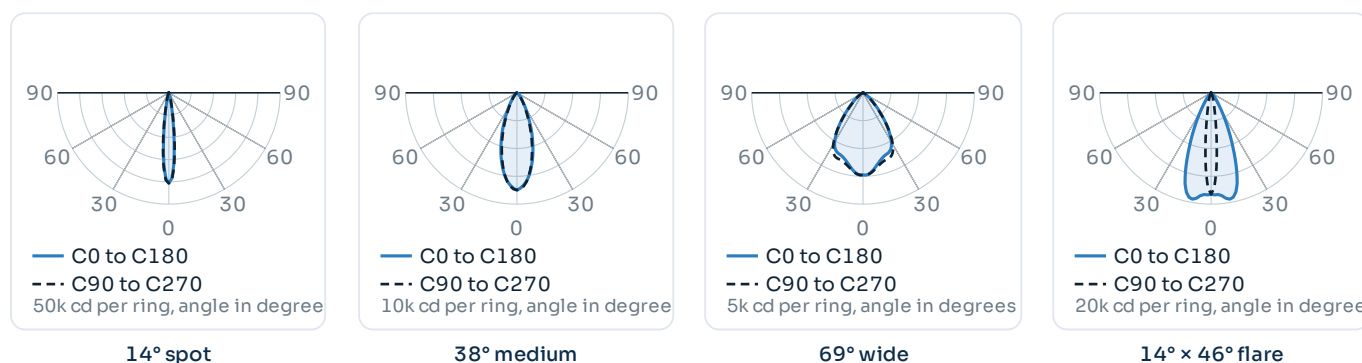
Values apply to the standard configuration at Ta 25 °C and include lens losses and driver consumption. Photometry is measured in house to IES LM-79 and the files are downloadable per optic from the product page.

BEAM CHARACTERISTICS

Lens	Distribution	Beam angle 50 % of peak	Field angle 10 % of peak	Typical use
14°	Spot, symmetric	13°	27°	Very long throw: masts, booms, distant targets
38°	Medium, symmetric	37°	69°	Long throw: yards, decks, machine areas
69°	Wide, symmetric	72°	103°	Wide cover at short range: platforms, work zones
14° × 46°	Flare, asymmetric	13° × 45°	30° × 70°	Throws far forward and stays wide across: roadways, edges
No lens (.NOP)	Very wide, symmetric	136°	168°	Close range over a very wide field

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.

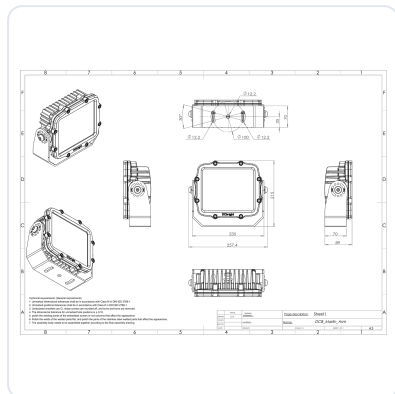
	Marlin AC	Marlin DC 24 V
PERFORMANCE		
Luminous flux	18,000 lm	16,900 lm
Power consumption	120 W	120 W
Efficacy	150 lm/W	141 lm/W
ELECTRICAL AND DRIVER		
Supply voltage range	90–305 VAC or 180–528 VAC via TLD160, 50/60 Hz	20–35 VDC, 24 V nominal
Current draw	1.0 A at 120 V · 0.43 to 0.55 A at 220 to 277 V · 0.25 to 0.32 A at 380 to 480 V	5.0 A at 24 V
Power factor at full load	> 0.9 at 70 to 100 % load	-
THD at full load	< 15 % at 70 to 100 % load	-
Inrush current at 220 V	60 A peak, T50 250 µs	-
Luminaires per MCB	B16 8 · C16 13 · C25 21 · D16 15	-
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
Driver	Remote TLD160, 225 × 68 × 33.5 mm, 1,100 g. Fits the DRB-1	DC drivers on board
Driver life	≥ 100,000 h at Tc 75 °C, MTBF ≥ 280,000 h. Replaced without opening the luminaire	-
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, adjustable through ±240° in 30° steps	
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	-45 to +50 °C
LED service life	TM-21 L90B05 > 360,000 h at 50 °C, so the driver is the wear part	
Cable and termination	H07BQ-F, 4 cores (2 × 1.5 mm ² + 2 × 0.5 mm ²), 2.0 m	H07BQ-F, 2 cores (2 × 1.5 mm ²), 2.0 m
Dimensions	235 × 215 × 90 mm including bracket	
Weight	5.5 kg incl. bracket	5.5 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.

STANDARD BRACKET



Incl. bracket	235 × 215 × 90 mm
Weight	5.5 kg with bracket
Material	High tensile 316L stainless steel
Adjustment	±240° in 30° steps
Mounting	Machine frame, jib, trolley or platform
Related	Crane Light Director, separate datasheet

MOUNTING AND ACCESSORIES

Standard bracket	High tensile 316L, supplied as standard
Crane Light Director	Steerable boom system, separate datasheet
Safety cable	Optional, supplied with the luminaire
Cable and retrofit brackets	Lengths beyond 2.0 m and structure specific brackets on request
Glare control on a crane	DarkLight S on the Crane Light Director

DRB DRIVER BOXES



Use	Optional housing for the remote driver, mounted outside the wash-down zone
DRB-1	One driver up to 320 W. 276 × 194 × 86.5 mm, 4.2 kg, IP66 and IP67
DRB-2	Systems up to 2,000 W. 441 × 290 × 145 mm, 10.4 kg, IP66 and IP67
Ingress protection	IP66 and IP67
System weight	9.7 kg, luminaire with bracket and DRB-1

CRANE LIGHT DIRECTOR



What it is	Steerable boom lighting for mobile cranes, fitted as a retrofit
Luminaires	Goby Mini, Goby, Piranha, DarkLight S and Marlin
Maximum output	33,800 lm with a twin 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
Rotation	360°, unlimited

REMOTE DRIVER

Type	TLD160, 180–528 VAC or 250–740 VDC
Case temperature	Tc –40 to +90 °C
Lifetime	≥ 100,000 h at Tc 75 °C
MTBF	≥ 280,000 h at 75 °C case
Size and weight	225 × 68 × 33.5 mm, 1,100 g
Enclosure	Bare as standard, or in the DRB-1

The LEDs outlive three drivers. The driver sits outside the luminaire and is replaced without opening the housing, so a driver fault is a ground level job instead of a lift and a dismantled luminaire.

Ordering, standards and documents

ORDER CODE

Example **MAAC01-65K.38**

Marlin, AC, 6500 K, 38° optic

MAAC01	AC, 90–305 or 180–528 VAC, remote TLD160
MADC01	DC, 20–35 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

The optic suffix follows the colour temperature and a lower wattage is ordered as an extra suffix. Bracket, control protocol and cable length are confirmed at order.

COMBINATIONS

Optics within one luminaire	Possible
Amber 2200 K with flare optic	Possible
Bi-colour with DALI-2	Possible
Crane Light Director	AC and DC
316L housing	Not available, see the Barracuda SS
High temperature	Not available, see the Barracuda 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/marlin

WHERE IT EARNS ITS PLACE

The Marlin earns its place in the positions that are too small for a floodlight and too important for a work lamp. On a crane boom, a machine frame or a service platform the available space is fixed and the light requirement is not negotiable. The Marlin is dimensioned for exactly that gap.

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.