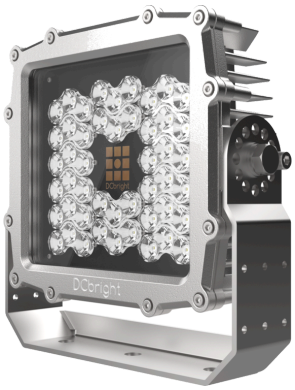
INDUSTRIAL LED FLOODLIGHT

Barracuda SS



Shown: Barracuda SS, 316L stainless steel, 14° lens, high tensile 316L bracket.

CE · IP69K · IK10 · Class II · 316L stainless steel · C5 and CX ISO 9223 · Ta −45 … +50 °C · 90–305 / 180–528 VAC · 24 VDC · DALI-2 · 0–10 V · PWM · NFC · 20-year housing warranty

The Barracuda in solid 316L stainless steel: 44,100 lumens at 320 W, identical light and identical optics to the cast aluminium version, in a housing that keeps working where corrosion is the deciding factor. For fishing and lift vessels, offshore platforms, chemical plants and quays under permanent salt exposure.

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

Values apply at 6500 K, Ta 25 °C, including lens losses and driver consumption. 4000 K delivers the same luminous flux as 6500 K. Photometry is identical to the cast aluminium Barracuda.

WHY IT IS SPECIFIED

Twenty years of warranty on the housing. Solid 316L, electrolytically polished. Corrosion resistance does not depend on a finish staying intact, so a scratch from a container corner is cosmetic.

Same light, same optics. Identical LED engine and the same four optics as the aluminium Barracuda, so a mixed site keeps one light calculation.

Serviceable driver. The remote driver is the wear part and is replaced without opening the luminaire.

WHERE IT IS USED

- Fishing vessels and lift vessels
- Offshore platforms and jack-ups
- Quays with permanent salt exposure
- Chemical plants and tank farms
- Fertiliser and salt handling
- Waste water and sludge treatment
- Fish processing and cold stores
- Dredging and marine construction
- Shipyards and dry docks
- Container terminals in coastal wind

COMPARED WITH THE CAST ALUMINIUM BARRACUDA

	Barracuda SS	Barracuda
Article base code	BASS01	BAAC01
Housing	316L stainless steel	Cast aluminium, e-coated
Luminous flux	44,100 lm	44,100 lm
Power and efficacy	320 W · 138 lm/W	320 W · 138 lm/W
Weight incl. bracket	16.0 kg	10.1 kg
Corrosion class	C5 and CX (ISO 9223)	C5 (ISO 9223)
Warranty	20 years housing, 5 years electrical	5 years

Light output and optics

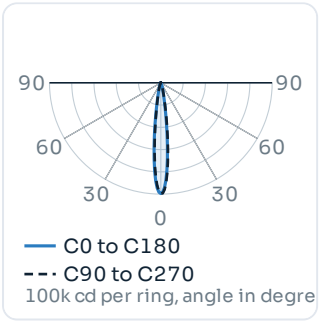
Photometry is identical to the cast aluminium Barracuda and is measured in house to IES LM-79. The IES files are downloadable per optic from the product page.

BEAM CHARACTERISTICS

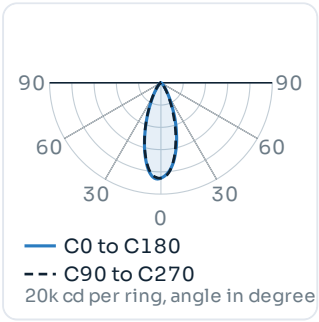
Lens	Distribution	Beam angle 50 % of peak	Field angle 10 % of peak	Typical use
14°	Spot, symmetric	13°	27°	Very long throw, beyond 100 m: high masts, crane booms, stockpiles
38°	Medium, symmetric	37°	70°	Long throw, typically beyond 30 to 35 m: yards, quays, terminals
69°	Wide, symmetric	69°	100°	Up 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.

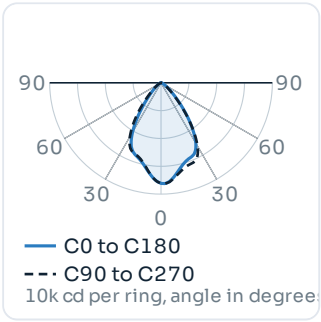
LIGHT DISTRIBUTION



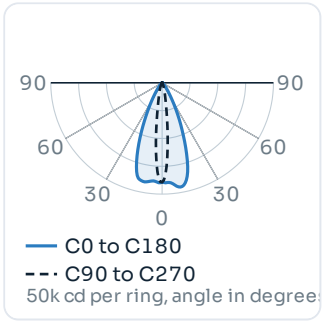
14° spot



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

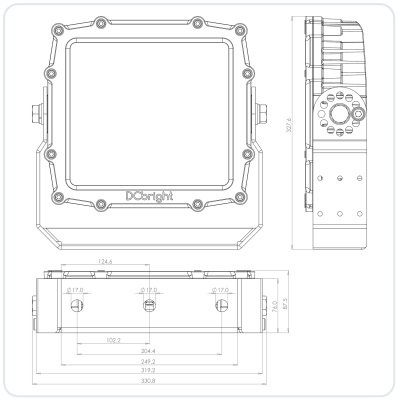
All values apply to the standard configuration at 25 °C ambient, including lens losses and driver consumption.

	Barracuda SS, AC	Barracuda SS, 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	Custom
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	316L stainless steel	
Surface finish	Electrolytically polished	
Colour	Stainless steel	
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 and CX (ISO 9223). 316L is CRC III per EN 1993-1-4, PREN 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	−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
Dimensions	Luminaire 320 × 290 × 90 mm · with standard bracket 331 × 328 · with rear mount 412 × 295 × 328 (w × d × h)	
Weight	14.3 kg luminaire · 1.7 kg bracket · 16.0 kg incl. bracket · 17.2 kg with loose driver	
Wind load area, frontal	0.108 m² standard bracket · 0.135 m² rear mount · 0.026 m² side view. Cd 1.2 gives Cd·A 0.130 and 0.162 m²	
Warranty	20 years on the housing. 5 years on the electrical components and the seals	

Mechanics, mounting and driver

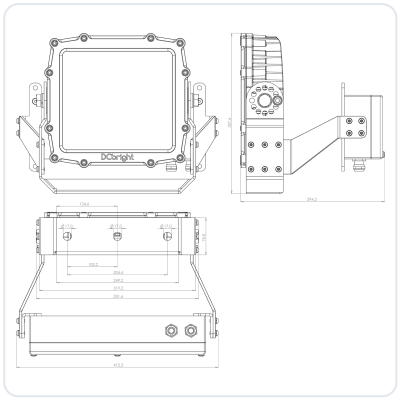
All drawings are to scale and dimensioned in millimetres. DXF and STEP models are available on request.

STANDARD BRACKET



Luminaire	320 × 290 × 90 mm
Incl. bracket	331 × 328 mm
Mounting foot	319.20 × 87.50 mm
Fixing holes	3 × Ø 17.00 mm
Hole centres	249.20 mm between outer holes
Adjustment	360° in 30° steps

REAR MOUNT BRACKET



Availability	Flat against a structure
Incl. bracket	412 × 295 × 328 mm (w × d × h)
Mounting foot	319.20 mm
Fixing holes	3 × Ø 17.00 mm
Hole centres	249.20 mm between outer holes

MOUNTING AND ACCESSORIES

Standard bracket	High tensile 316L, supplied as standard
SS rear mount bracket	Option
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	On request
Crane boom lighting frame	On request

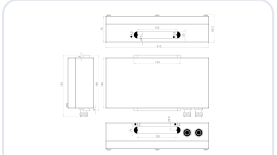
REMOTE DRIVER

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

Aluminium DRB



316L Power Box BLD320

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
316L Power Box	Power Box BLD320, solid 316L, 360 × 180 × 85 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
System weight	20.2 kg, luminaire with bracket and DRB-1

Ordering, standards and documents

ORDER CODE

Example **BASS01-65K.38**

Barracuda SS, 6500 K, 38° optic

BASS01	316L stainless steel, AC, 90–305 or 180–528 VAC, remote driver
BASS02	316L stainless steel, DC, 20–35 VDC, drivers on board
65K · 40K · 27K · 22K	6500 K · 4000 K · 2700 K · amber 2200 K. 50K on request
BI	Bi-colour 4000 K with amber 2200 K
.13 · .38 · .69 · .13x46	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	Available
24 V DC version	BASS02

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 and CX. EN 1993-1-4 CRC III, PREN approximately 24	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/barracuda-ss

WHERE IT EARNS ITS PLACE

Where a coating is the weakest link, the Barracuda SS removes it from the equation. Solid 316L, electrolytically polished, with twenty years of warranty on the housing, at the cost of six kilograms over the aluminium version. Where mast load decides and the atmosphere is merely industrial, the cast aluminium Barracuda is the better buy.

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. Photometry, optics and light output are identical to the cast aluminium Barracuda. North American models on request.