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

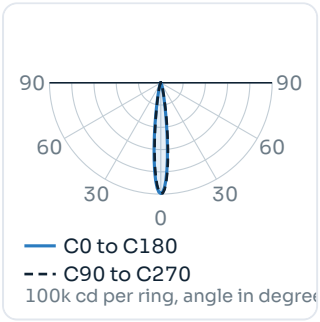
Values apply to the standard configuration at Ta 25 °C and include lens losses and driver consumption. Photometry is measured in house to IES LM-79 and the files are downloadable per optic from the product page.

BEAM CHARACTERISTICS

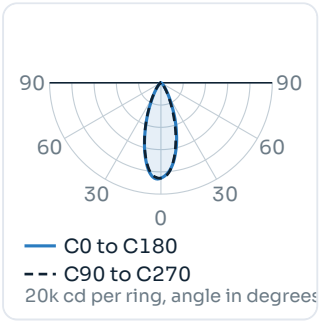
Lens	Distribution	Beam angle 50 % of peak	Field angle 10 % of peak	Typical use
14°	Spot, symmetric	13°	27°	Very long throw, beyond 100 m: high masts, crane booms, stockpiles
38°	Medium, symmetric	37°	70°	Long throw, typically beyond 30 to 35 m: yards, quays, terminals
69°	Wide, symmetric	69°	100°	Up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

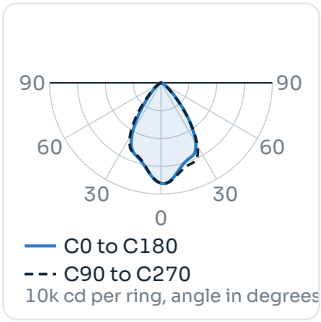
LIGHT DISTRIBUTION



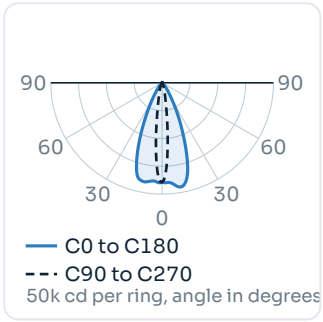
14° spot



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

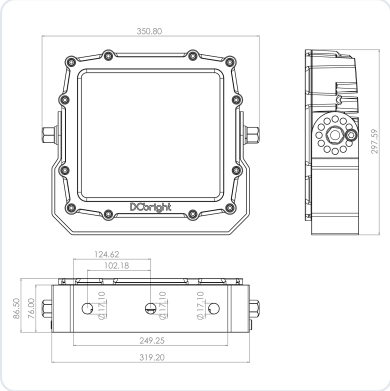
All values apply to the standard configuration at 25 °C ambient, including lens losses and driver consumption. A hyphen means the entry does not apply to that version.

	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 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 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 m² standard bracket · 0.112 m² rear mount · 0.026 m² side view. Cd 1.2 gives Cd·A 0.125 and 0.134 m². Warranty 5 years	

Mechanics, mounting and driver

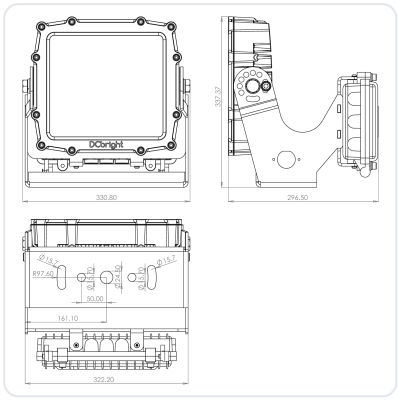
All drawings are to scale and dimensioned in millimetres. DXF and STEP models are available on request.

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

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

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

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, 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

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	Third party test
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.

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.