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

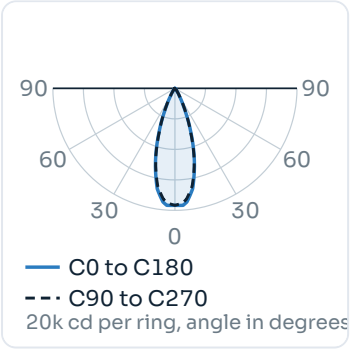
Values apply to the standard configuration at Ta 25 °C and include lens losses and driver consumption. Photometry is measured in house to IES LM-79 and the files are downloadable per optic from the product page.

## BEAM CHARACTERISTICS

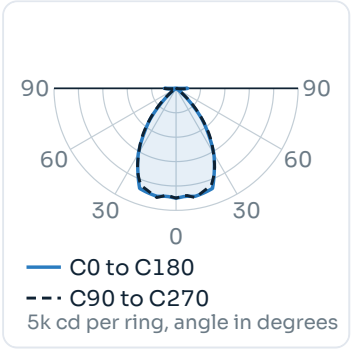
| Lens | Distribution | Beam angle 50 % of peak | Field angle 10 % of peak | Typical use |
|---|---|---|---|---|
| 15° | Spot, symmetric | – | – | Very long throw: masts, crane booms, stockpiles |
| 30° | Medium, symmetric | 36° | 58° | Long throw beyond 25 m: yards, quays, decks |
| 60° | Wide, symmetric | 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.

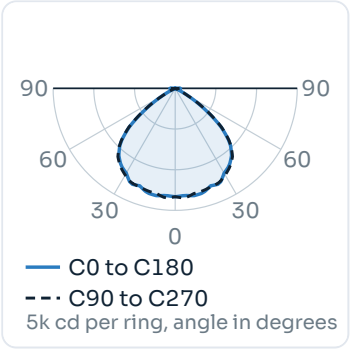
## LIGHT DISTRIBUTION




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 DarkLicht range.

## COLOUR AND CONSISTENCY

| | |
|---|---|
| Colour temperatures | 6500 K, 5000 K, 4000 K, 2700 K, amber 2200 K |
| Flux at 6500 K | Identical to 4000 K |
| Bi-colour | 4000 K with amber 2200 K, switchable in operation |
| Colour rendering | Ra > 70 standard, optionally 80 or 90 |
| Colour consistency | MacAdam step 3 or better |
| LED service life | TM-21 L90B05 > 360,000 h at 50 °C |

# Full specification

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

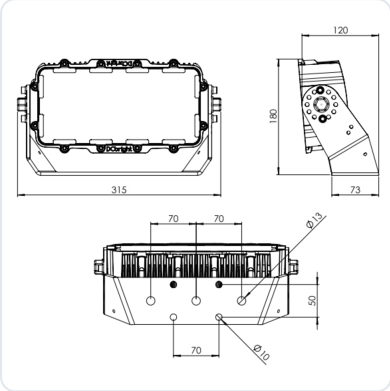
| | Snapper AC | Snapper DC 24 V |
|---|---|---|
| **PERFORMANCE** | | |
| Luminous flux | 31,000 lm | 25,000 lm |
| Power consumption | 180 W | 150 W |
| Efficacy | 173 lm/W | 168 lm/W |
| **ELECTRICAL AND DRIVER** | | |
| Supply voltage range | 90–305 VAC via BLD240, 50/60 Hz | 20–35 VDC, 24 V nominal |
| 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 | B16 3 · C16 6 · C25 9 · D16 10 | - |
| 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, fully rotatable through 360° 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 mm² + 2 × 0.5 mm²), 2.0 m | H07BQ-F, 2 cores (2 × 2.5 mm²), 2.0 m |
| Dimensions | 307.6 × 180.7 × 118.2 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

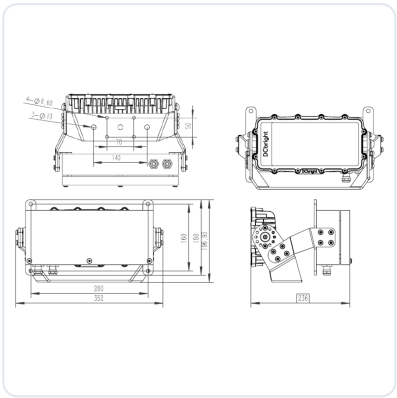
All drawings are to scale and dimensioned in millimetres. DXF and STEP models are available on request.

## STANDARD BRACKET




| | |
|---|---|
| Incl. bracket | 307.6 × 180.7 × 118.2 mm |
| Weight | 3.1 kg with bracket, 2.7 kg housing |
| Material | High tensile 316L stainless steel |
| Adjustment | 360° in 30° steps, twelve positions |
| Retrofit | Fits most existing discharge floodlight footprints |
| Structural check | Rarely needed at this mass |

## 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, separate datasheet |

## 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 |

## 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.

## 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 |

# 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 | Third party test |
| 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.

## 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.