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

VERSIONS

	x1	x2	x3
Article base code	see the Snapper	SNHC02 AC · SNHC03 DC	SNHC04 and SNHC05 AC · SNHC06 DC
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	307.6 × 180.7 × 118.2	320 × 314 × 205	320 × 484 × 205
Weight incl. bracket	3.1 kg	9.9 kg	12.6 kg
Driver	BLD240	BLD320	TLD400 or TLD600

Light output and optics

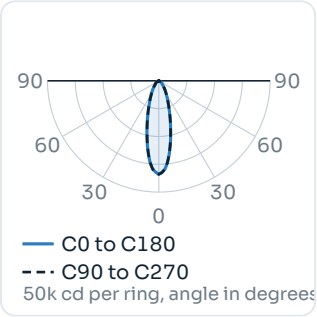
Values apply to the x3 at 500 W and Ta 25 °C, including lens losses and driver consumption. Photometry is measured in house to IES LM-79 and the files are downloadable per optic and per module count.

BEAM CHARACTERISTICS

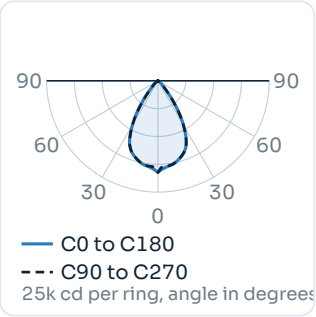
Lens	Distribution	Beam angle 50 % of peak	Field angle 10 % of peak	Typical use
15°	Spot, symmetric	–	–	Very long throw: high masts, crane booms, stockpiles
30°	Medium, symmetric	29°	73°	Long throw beyond 30 m: yards, quays, terminals
60°	Wide, symmetric	63°	86°	Up to around 30 m: aprons, decks, high 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.

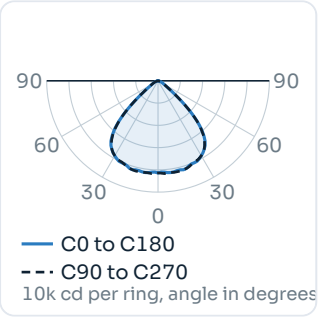
LIGHT DISTRIBUTION



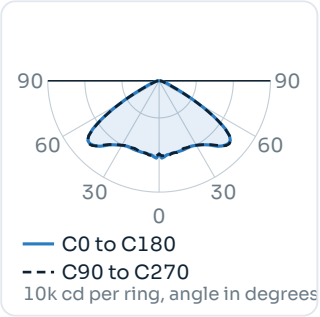
30° medium



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 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
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.

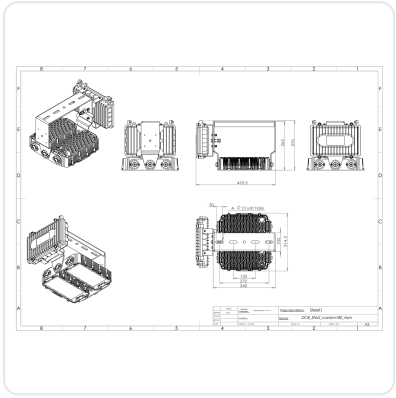
	Snapper HC x1	x2	x3
PERFORMANCE			
Luminous flux AC	31,000 lm	55,000 lm at 320 W · 49,500 lm at 270 W	83,000 lm at 500 W · 73,000 lm at 400 W
Luminous flux DC 24 V	25,000 lm	44,100 lm at 300 W	66,200 lm at 450 W
Power consumption	180 W	320 or 270 W · DC 300 W	500 or 400 W · DC 450 W
Efficacy	172 lm/W	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	307.6 × 180.7 × 118.2 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

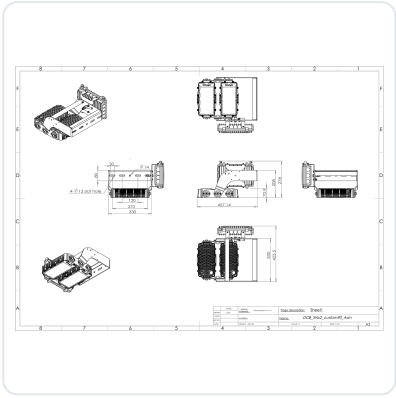
All drawings are to scale and dimensioned in millimetres. DXF and STEP models are available on request. Dimensions shown are for the x2.

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	AC, x2 at 320 W · x3 at 400 W · x3 at 500 W
SNHC03 · SNHC06	DC, x2 · x3
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	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 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.

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.