JEL PRODUCTS
SUSTAINABLE | LIGHTING | SOLUTIONS

LIGHTING SYSTEMS FOR THE TOWER CRANE

Tower Crane Lighting

The site full of light, the neighbourhood beside it dark. Full cut-off luminaires in their own crane frame for the fixed jib, a stabilized bracket for the luffing jib, and a boom bracket where the trolley runs and the load hangs.

LESS ENERGY	ABOVE THE CUT-OFF	APPLIED UP TO	WARRANTY
73 %	0 %	50 m	5 years



Tower cranes above a lit construction site at night, SSB Alkmaar

DarkLicht crane frame · Crane Light Stabilizer · Barracuda boom bracket · Distribution unit · EN 12464-2 · Light calculation included

jelproducts.nl · +31 (0)33 785 9809 · info@jelproducts.nl

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A tower crane hangs above everything

Whatever you hang up there lights your work and the bedrooms around it. That is the problem in one sentence, and a better lamp does not solve it.

FROM A JIB, AN ORDINARY FLOODLIGHT WORKS AGAINST YOU

A classic floodlight uses a lens and spreads light in every direction the lens allows. Tens of metres above a construction site that means a part downward onto the work, a part horizontally into the neighbourhood, and a part straight up into the sky. That last part you have paid for, generated and hoisted up without anybody getting anything out of it.

WHAT YOU RUN INTO

Complaints from the neighbourhood. Building in a city centre means residents at a hundred metres. One complaint can cost you your evening hours, and with them your programme.

Permit conditions. More and more municipalities set limits on spill light and upward emission, with a reference to the national light nuisance guideline.

Fitting time at height. Every luminaire that has to go onto the jib separately is a climb, a lashing and a cable. At four positions per crane that adds up.

Consumption that shows. A crane burns ten hours a day in winter, for months on end. On a project with several cranes that is a line in the budget somebody will notice.



Tower crane lighting a construction site at night, seen from the side

The same site from the side. The work is lit, the line of trees behind it is not.



Aerial view at night of a construction site lit from the tower cranes

Seen from above at night. The light lands on the site and stops there.

WHAT THIS DOCUMENT COVERS

01	**The system**	Four parts that go up as one
02	**Mast lighting**	DarkLicht in the crane frame
03	**The cut-off**	The angle above which the light stops
04	**Luffing jib**	Crane Light Stabilizer
05	**Boom lighting**	Barracuda in the boom bracket
06	**Specification**	The three systems side by side

The light calculation is free of charge, also when the set is bought elsewhere. It states the illuminance and uniformity under the crane and the spill light outside the site boundary, tested against EN 12464-2 and the national light nuisance guideline.

Four parts that go up as one

We do not supply loose luminaires for a tower crane. The difference on site is not in the luminaire but in what sits around it: the frame, the distribution and the way the whole assembly reaches the jib. That is one system, and it is deliberately built so that a fitter at height has nothing left to do to it.

01 The crane frame. A hot dip galvanised frame with a robust pin system that fits every make of tower crane. Each frame carries one luminaire, and four per mast is the usual arrangement, at 0, 90, 180 and 270 degrees.
Four orientations means the site is lit all round, also while the jib slews. A universal frame means you do not need a different solution on the shelf for every make of crane.

02 The luminaires. DarkLicht full cut-off area floodlights of 400 or 600 W, with a factory set cut-off between 63 and 75 degrees and reflector modules that rotate through 90 degrees.
Above the set angle no light leaves the luminaire. That is what keeps the light inside the hoarding.

03 The distribution unit. A ready made unit with the distribution already in it, tested before delivery. On the 400 W version that distribution is built into the frame itself, the DL-CCB-400+DIS; on the heavier 600 W frames it sits in a separate unit. Either way a time switch or a twilight switch can be fitted.
No connection work at height, where every mistake costs a second climb. And a time switch saves the hours the crane burns for nothing, which are exactly the hours the neighbours call about.

04 The mounting. The frame is assembled completely at ground level, luminaires, distribution and the set cut-off angle included, and then goes to the jib in one hoist.
What happens on the ground happens safely and quickly. At height only hanging it on and one cable are left.


Crane frames with cable, stacked and ready for despatch

Complete sets in stock: frame, luminaire, distribution and cable on the pallet.


Barracuda boom lighting mounted in a crane structure

Barracuda boom lighting in the structure, Den Helder.

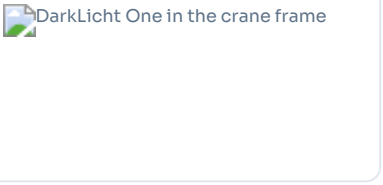
WHICH SYSTEM BELONGS TO WHICH JIB

Jib	System	Luminaire	Why
Fixed jib, hammerhead or flat top	DarkLicht in the crane frame	DarkLicht One	The jib is horizontal and the luminaires look down from a fixed point. Here light control decides everything, and full cut-off keeps it all inside the hoarding
Luffing jib	Crane Light Stabilizer	Shark DC or Barracuda AC	A luffing jib tilts and a rigidly mounted luminaire tilts with it. The beam then walks off the work zone at the moment you need it
The jib itself	Barracuda boom bracket	Barracuda AC or DC	Where the trolley runs and the load hangs, a directed floodlight is needed instead of a wide light pattern

The three systems side by side

A tower crane is not a singular. Which system belongs to your crane follows from the jib type, the hoisting height and the size of the site. Below is what each system is for; the full specification is on page 12.

MAST LIGHTING



DarkLicht One in the crane frame

Luminous flux	68,400 to 102,600 lm
Power	400 or 600 W
Efficacy	171 lm/W
Light control	Full cut-off, 63° to 75°
Ingress and impact	IP67, IK07
Applied up to	50 m to the work floor

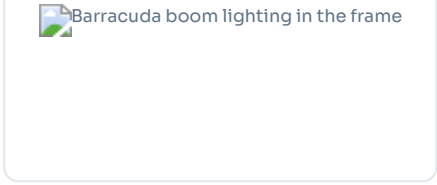
LUFFING JIB



Shark or Barracuda on the Crane Light Stabilizer

Luminous flux	Up to 50,000 lm
Power	240 to 320 W
Efficacy	156 lm/W with the Shark
Light control	Lens optic per working distance
Ingress and impact	IP69K, IK10
Movement	Stabilized, the beam holds its aim

BOOM LIGHTING



Barracuda in the boom bracket

Luminous flux	32,600 to 44,100 lm
Power	240 or 320 W
Efficacy	138 lm/W in AC
Light control	14°, 38°, 69° and 14° × 46°
Ingress and impact	IP69K, IK10
Mounting	Boom bracket, inside the jib

HOW THE CHOICE IS MADE

The jib type decides the system	A fixed jib asks for light control from a fixed point, a luffing jib asks for a beam that keeps its aim, and the jib itself asks for a directed beam near the trolley and the load
The hoisting height decides the power	The 600 W version is applied up to 50 metres above the work floor, the 400 W version up to 35 metres, with 15 metres as the lower limit
The site decides the cut-off and the number	The cut-off angle and the number of luminaires follow from the hoisting height and the dimensions of the site, and that is what the light calculation is for
Several crane types in one fleet	If you light more than one type, we match the sets to each other so that your fitters work with one system

0 %
Above the set cut-off there is no light. Not little light, no light

50 lux
Guide value around the crane under EN 12464-2, tested in the calculation

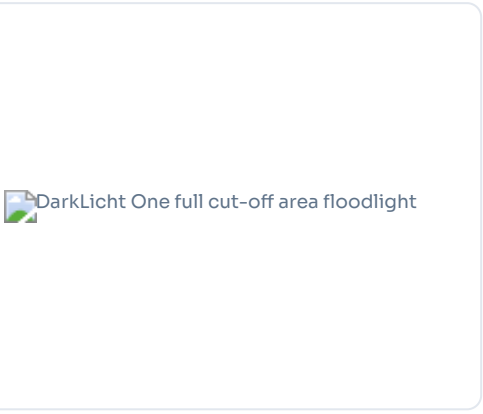
1 cable
The distribution sits in the unit. One supply cable and the set runs

4 per mast
At 0, 90, 180 and 270 degrees, so the site is lit all round

Luminous flux and power are per luminaire, not per set. On a high rise project it is normal for the luminaires to be moved down as the building grows: the distance to the work floor becomes shorter, and a luminaire left where it was overlights the site and increases the spill light rather than reducing it. The light plan states at which building height that is sensible.

DarkLicht in the crane frame

The standard arrangement on a hammerhead or flat top. The jib stands horizontal, the luminaires look down from a fixed point, and everything above the set angle stays dark.



CE · IP67 · IK07 · Full cut-off 63° to 75° · ULOR 0 % · 171 lm/W · Ta −45 … +50 °C · L90B05 · 5 years

Where a lens sends part of its light sideways and upward whatever you do, the DarkLicht uses a parabolic reflector. Above the set cut-off nothing leaves the luminaire, and that is the difference between four floodlights on a beam and a tower crane set.

LUMINOUS FLUX	POWER	EFFICACY
102,600 lm	600 W	171 lm/W

CUT-OFF	INGRESS	LED LIFE
63° to 75°	IP67	103,500 h

Highest values within the product line, at Ta 25 °C. The 400 W version delivers 68,400 lm. Luminous flux per luminaire, not per set.

VERSIONS

	400 W	600 W
Luminous flux	68,400 lm	102,600 lm
Applied up to	35 m to the work floor	50 m to the work floor
Distribution	Built into the frame, DL-CCB-400+DIS	Separate unit
Supply	230 or 400 VAC	230 or 400 VAC
Weight per luminaire	14.0 to 15.0 kg	14.0 to 15.0 kg

LIGHT AND COLOUR

Colour temperature	5700K down to 1700K, 4000K as standard
Which colour when	Cool white gives the sharpest contrast on site but reads as harder to the neighbours. Next to housing or a nature area a warmer colour is usually the better choice
Reflector modules	Rotate through 90 degrees, in both directions, so the distribution is laid over the shape of the site instead of over a circle
Upward light output	0 % above the set cut-off, forward and backward
LED life	L90B05, 103,500 h

ON THE CRANE

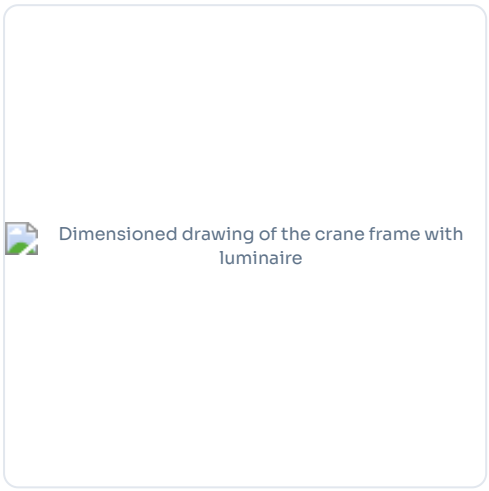
Luminaires per frame	One. Four frames per mast is the usual arrangement
Orientation	0, 90, 180 and 270 degrees, so no shadow side appears when the jib slews
Ambient temperature	−45 to +50 °C
Ingress and impact	IP67 and IK07
Warranty	5 years industrial use, on the frame and the luminaires
Retrofit	The most common assignment. Existing mounting points and existing cabling are used where possible

At MORE in Leiden four luminaires fitted where three had hung before, because the DarkLicht is more compact. More light on the site and still 73 percent less consumption than the installation it replaced.

The crane frame

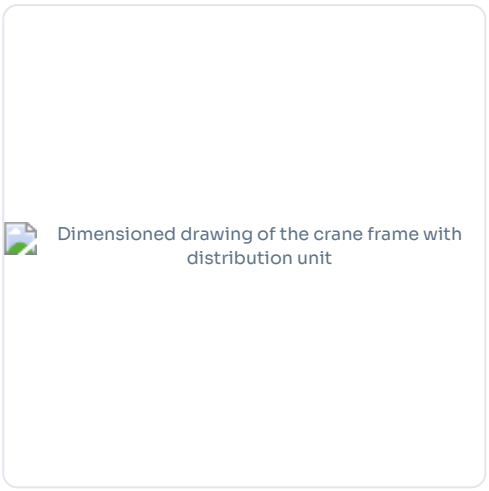
Hot dip galvanised steel with a pin system that fits every common make of tower crane. All drawings are to scale and dimensioned in millimetres. DXF and STEP models are available on request.

FRAME WITH LUMINAIRE



Overall	600 × 800 × 290 mm
Pin centres	429 mm
Pin diameter	15.5 mm, seat 25.5 mm
Mounting plate	540 mm, inner 504 mm
Heights	455 mm and 265 mm
Side depth	135 mm

FRAME WITH DISTRIBUTION UNIT



Overall	600 × 800 × 340 mm
Pin centres	428 mm
Pin diameter	15.5 mm, seat 25.5 mm
Mounting plate	540 mm
Unit height	720 mm within the frame
Side depth	135 mm

MATERIAL AND FIT

Material	Hot dip galvanised steel, 5 mm
Fit	Universal pin system, fits every common make of tower crane
Frame weight	29.2 kg, 44.1 kg gross with the 400 W luminaire
Model	DL-CCB-400+DIS and DL1-600CCB
What we need	Make, type and hoisting height. In case of doubt a photograph of the mounting point
Wind and vibration	A tower crane moves continuously and stands outside for months, and the fixing is chosen on that. A specific wind load calculation needs the crane data

MOUNTING SEQUENCE

1	The frame is assembled completely at ground level, with luminaire, distribution and the set cut-off angle
2	The frame is hung on the mast beam and secured with the locking pin
3	One supply cable is connected to the distribution unit
4	The time switch or twilight switch is set to the working hours on site

Nothing is welded to the crane and nothing about the structure changes. The frame is an independent product and is often supplied as an accessory with the lighting.

The cut-off

The angle above which the light stops. This is the part that separates a tower crane set from four floodlights on a beam. It is a factory setting between 63 and 75 degrees, shield position S1 to S5, given with the order.

WHY IT IS CHOSEN PER PROJECT

On a crane of fifty metres you need a different angle than on a crane of twenty five. The distance to the hoarding is the same but the viewing angle is not, so one shielding angle would be right on one project and wrong on the next. That is why the angle is a shield position, S1 to S5, set in the factory and stated on the order. Give us the crane height and the site and the set arrives with the right position fitted; the light calculation is made on that same angle.



Seen from the jib. The work is lit and the streets below stay as they were.

CUT-OFF AND WHAT IT IS FOR

Angle	Chosen for
75°	Maximum forward shielding, on a low jib or a narrow site
72°	The standard setting, the best balance between reach and uniformity
69°	For the highest achievable uniformity across the site
66°	For the greatest distances to the work floor, where the viewing angle flattens out
63°	For the strictest light nuisance requirements, combined with a low colour temperature

THE REFLECTOR MODULES

Besides the cut-off, the reflector modules rotate through 90 degrees in both directions. That lays the light distribution over the shape of the site instead of over a circle, which matters on a long narrow plot where a circular pattern would put half its light on the hoarding.

TWO STANDARDS, TWO QUESTIONS

Document	What it asks	What we deliver
EN 12464-2	Illuminance and uniformity at outdoor work places, with 50 lux as the guide value around the crane	The calculated illuminance and uniformity under the crane, in the report. After an accident with insufficient light, this is the document that gets asked for
National light nuisance guideline	The limit on what falls outside the site boundary	The calculated spill light at the boundary and in the facades around it, in the same report

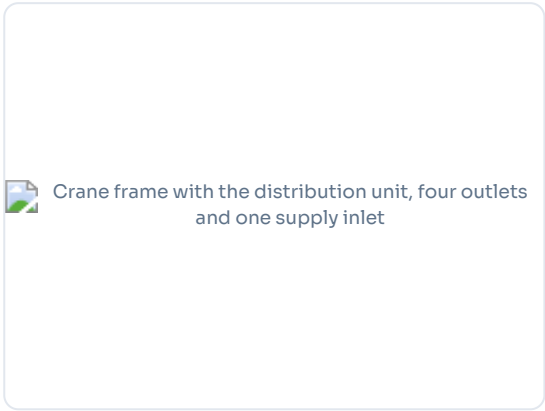
The light calculation is free of charge and is supplied even when the set is bought elsewhere. Say at the enquiry that it is for a permit and the report is written to suit. The 50 metres in this document is the distance between the luminaire and the work floor, not the height of the crane: a luminaire at ninety metres is fine as long as the building has reached forty at that moment.

Distribution and switching

The distribution is in the unit and the unit is tested before it leaves. On the crane you connect one supply cable, and the luminaires are already on it.

WHAT IS IN THE UNIT

Distribution	The complete distribution to the luminaires, ready made and tested before delivery
Where it sits	Built into the frame on the 400 W version, the DL-CCB-400+DIS. In a separate unit on the 600 W frames
Supply	One supply cable to the unit. How many luminaires fit on one group follows from the power and the cable length along the mast, and we calculate that on request as a load table with the plan
Cable	60 m of 5 × 2.5 mm² neoprene cable is part of the complete set
Time switch	Fitted in the same unit, so the lighting runs with the working hours instead of somebody having to remember
Twilight switch	Alternative to the time switch, where the working hours vary
Group switching	A separate group is possible, for example to leave only the orientation lighting burning outside working hours


Crane frame with the distribution unit, four outlets and one supply inlet

The distribution frame: four outlets to the luminaires and one supply inlet.

THE COMPLETE TOWER CRANE SET

4 ×	Crane frame with luminaire and driver
1 ×	Crane frame with distribution unit
1 ×	60 m neoprene cable, 5 × 2.5 mm²
Option	Time switch or twilight switch in the unit

WHY THE SWITCH MATTERS

On a site next to housing this is often the difference between complaints and no complaints. The crane does not need to burn when nobody is working, and nobody has to go and do something about that in the evening. On inner city projects such a switch is sometimes a permit condition in itself.

WHAT THE FITTER DOES ON SITE

Step	At ground level	At height
1	Frame assembled with luminaire, distribution and the cut-off angle set	Nothing. The frame arrives complete
2	Cut-off angle and reflector rotation set to the light plan	Nothing. The setting travels up with the frame
3	Distribution unit tested before it leaves our works	Hang the frame on the pin and secure it
4	Cable run measured against the mast height	Connect one supply cable to the unit
5	Time switch or twilight switch set to the working hours	Nothing. The switching is in the unit

The number of luminaires per crane follows from the hoisting height and the dimensions of the site, and that is what the light calculation determines. Four per mast is the usual arrangement and the set above is built around it. How many luminaires fit on one group follows from the power and the cable length along the mast, and we supply that as a load table with the plan.

Transport and ground assembly

The frames slide into one another and lock, so a fleet of them travels on a europallet instead of loose on the bed of a truck.

STACKED ON A EUROPALLET

Dimensioned drawing of crane frames stacked on a europallet

Pallet	Europallet, 1200 × 800 mm
Stack height	1084 mm over the pallet
Frames	Two rows, five layers within that height
Securing	Locking pins between the layers
Why	Shipping cost and warehouse space, and no loose parts on the truck

ON THE WAY TO SITE


Crane frames stacked on pallets ready for shipping

A shipment of crane frames and boom lighting, stacked and pinned.

Assembly	Complete at ground level, including the cut-off setting
At height	Hang on the pin and connect one cable
Rebuilds	The warranty covers repeated erecting and dismantling of the crane and transport between projects

CONVERTING AN EXISTING FLEET

The usual assignment	Contractors and rental companies convert their fleet in stages, after a trial installation on one crane. We look at the existing mounting points and the cabling already there, so the conversion fits inside a regular maintenance visit
Trial installation	On one crane from your fleet. With a conversion programme that is also the sensible order: let one crane run for a season, then do the rest. Your fitters then see straight away how the mounting works out in practice
Moving the luminaires	On high rise, moving the luminaires down as the building grows keeps the light level right and the nuisance limited. The light plan states at which building height that is sensible

Crane Light Stabilizer

A luffing jib tilts, and a rigidly mounted luminaire tilts with it. The beam then walks off the work zone at exactly the moment you need it. The stabilizer holds the aim while the jib moves.


Shark on the Crane Light Stabilizer, mounted on a lattice jib

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

CE | Machinery Directive | Shock 10 g | C5 Maritime | Fully mechanical | No welding to the jib | 5 years on the bracket

A spring presses two discs together, and that friction decides how much force is needed to move the luminaire out of its position. Below that set point the luminaire holds its aim while the jib moves. Above it, at a real shock, the joint gives way instead of passing the load into the housing.

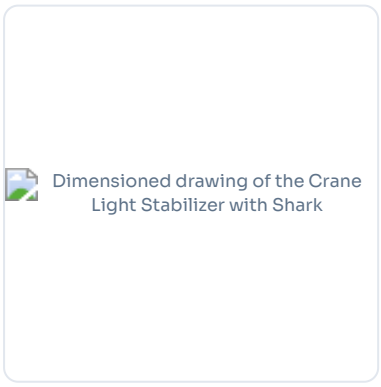
WHY IT IS MECHANICAL

There is no hydraulics, no gas spring and no electronics in the bracket. An oil damped construction is more sensitive to leakage and to temperature, and asks for maintenance that on a crane in the field does not happen. Two discs and a spring fit into the maintenance interval of the crane.

ON A LUFFING JIB TOWER CRANE

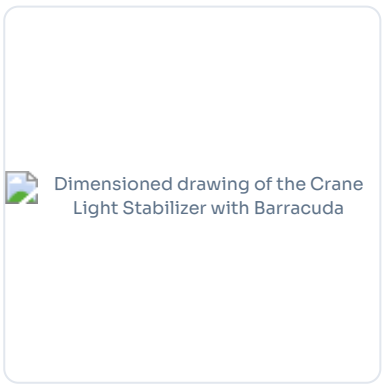
Damping class	Light. Long, calm movements and little shock, so the task is holding the aim rather than absorbing impact
Luminaire	Shark DC or Barracuda AC, up to 50,000 lm
Adjustable	Damping through spring tension, luminaire angle in steps, set at commissioning
Topping and de-topping	The luminaire angle is retained, so nobody has to go up the jib to re-aim the light
Glare	High mounting points and a strict requirement not to dazzle the neighbours, so the optic is chosen on the working distance

SHARK STABILIZING BRACKET


Dimensioned drawing of the Crane Light Stabilizer with Shark

Overall	351.2 × 380.4 × 323.5 mm
Mounting plate	339.2 × 100.0 mm
Fixing holes	Ø 15.7 mm, plus slots
Cable entry	Ø 24.5 mm central

BARRACUDA BRACKET, DRIVER ON THE BRACKET


Dimensioned drawing of the Crane Light Stabilizer with Barracuda

Overall	351.2 × 424.0 × 385.4 mm
Mounting plate	339.2 × 100.0 mm
Fixing holes	Ø 15.7 mm, plus slots
Cable entry	Ø 24.5 mm central

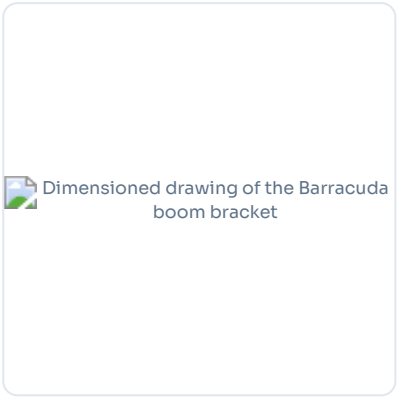
Mounting uses existing holes in the jib or a clamp system around the section, so nothing is welded to a certified jib section. The bracket has its own datasheet, which also covers the Orca versions and the three damping classes for harbour, offshore and bulk work.

Barracuda in the boom bracket

In the jib itself, where the trolley runs and the load hangs, a directed floodlight is needed instead of a wide light pattern. The boom bracket puts it inside the jib silhouette.

A DIFFERENT JOB FROM SITE LIGHTING

The frames on the mast light the site. The boom light lights the jib and what hangs under it, at the moment of hooking on and setting down. That asks for a narrow beam from close range, not a wide pattern from high up, and it asks for a bracket that keeps the luminaire within the profile so that nothing is damaged at the first erection.



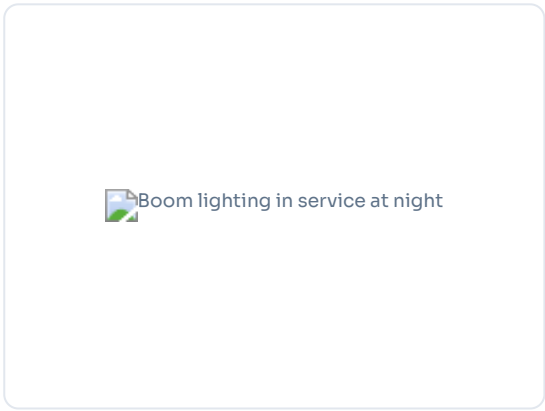
Barracuda boom bracket, dimensions in millimetres.

THE BRACKET

Model	Barracuda boom bracket, 320 mm
Overall	558.6 × 320.0 × 350.8 mm
Mounting centres	230 mm and 307 mm, over a width of 320 mm
Assembly weight	17.1 kg
Mounting	Inside the jib, on the existing structure
If the jib moves	On a jib that tilts, the Crane Light Stabilizer is the better choice

THE LUMINAIRE

Luminous flux	32,600 to 44,100 lm
Power	240 or 320 W
Efficacy	138 lm/W in AC
Optics	14° spot, 38°, 69° and 14° × 46°, chosen on the working distance
Supply	90–305 or 180–528 VAC, or 20–35 VDC
Ingress and impact	IP69K and IK10



Boom lighting in service, seen along the jib.

INSIDE THE JIB OR ON THE OUTSIDE

Position	What it gives you	What to watch
Inside the jib	The luminaire stays within the profile, so nothing catches during erection, transport or dismantling. The beam runs along the jib and down onto the load	The mounting points have to be there or a clamp is needed, and the beam angle is limited by the structure around it
On the outside of the jib	A free aim and a wider choice of beam angle, useful where the work zone sits beside the jib rather than under it	The luminaire sticks out of the profile, which on a crane that is erected and dismantled repeatedly is where damage starts
On a jib that tilts	The Crane Light Stabilizer holds the aim while the jib moves, so the beam stays on the load	The bracket is chosen on the luminaire, so the choice of luminaire and bracket is made together

Which of the three applies is settled per crane, on the make, the type and the jib section. Send us a few photographs of the intended position and we come back with the mounting that fits.

The three systems, full specification

All figures on one page, so that three documents do not have to be laid side by side. Which power, which cut-off angle and how many luminaires belong to your crane follows from the hoisting height and the dimensions of the site, and that is what we calculate.

Specification	DarkLicht crane frame	Barracuda boom bracket	Crane Light Stabilizer
What it is for	Mast lighting, site lighting	Jib, trolley and load	Luffing jib and lattice jib
Type designation	DL-CCB-400+DIS and DL1-600CCB	Barracuda boom bracket 320	CLS
Luminaire	DarkLicht One	Barracuda AC or DC	Shark DC or Barracuda AC
Luminous flux per luminaire	68,400 to 102,600 lm	32,600 to 44,100 lm	Up to 50,000 lm
Power	400 or 600 W	240 or 320 W	240 to 320 W
Efficacy	171 lm/W	138 lm/W in AC	156 lm/W with the Shark
Light control	Full cut-off, 63° to 75°	14°, 38°, 69°, 14° × 46°	Lens optic per working distance
Movement	Fixed, modules rotate 90°	Fixed in the jib	Stabilized, the beam holds its aim
Supply	230 or 400 VAC	90–305 or 180–528 VAC, 20–35 VDC	35 to 60 VDC or 90–305 VAC
Distribution	In the frame at 400 W, separate unit at 600 W	Internal	Per version
Luminaires per bracket	1, usually 4 per mast	1 per bracket	1 per stabilizer
Switching	Time or twilight switch, fitted in the unit	On request	On request
Ingress and impact	IP67, IK07	IP69K, IK10	IP69K, IK10
Weight per luminaire	14.0 to 15.0 kg	10.1 kg	9.2 to 10.1 kg
Bracket weight	29.2 kg, 44.1 kg gross at 400 W	17.1 kg complete	On request
Bracket dimensions	600 × 800 × 290 mm, 340 mm with the unit	558.6 × 320.0 × 350.8 mm	351.2 × 380.4 × 323.5 mm with the Shark
Material	Hot dip galvanised steel	Confirmed at order	Aluminium with titanium-based coating, 316L optional
Colour temperature	5700K to 1700K, 4000K standard	6500K, 4000K, 2700K, amber 2200K	6500K, 4000K, 2700K
Ambient temperature	−45 to +50 °C	−45 to +50 °C	−45 to +50 °C
LED life	L90B05, 103,500 h	L90B05, 360,000 h	L90B05, 360,000 h
Warranty	5 years	5 years	5 years on the bracket, discs are wear parts

Luminous flux and power are per luminaire, not per set. The number of luminaires per crane follows from the light calculation. For the complete specification per luminaire, see the datasheets of the DarkLicht One, the Barracuda and the Shark, and the separate datasheet of the Crane Light Stabilizer.

Standards, calculation and what we need

Two documents decide whether a tower crane installation is right: one for the light on the site, one for the light beside it. We test against both and supply the report.

STANDARDS AND VERIFICATION

Subject	Standard	Verification
Illuminance on site	EN 12464-2, 50 lux guide value around the crane	Light calculation, free of charge
Light nuisance	National light nuisance guideline, spill light outside the site boundary	Light calculation, free of charge
Upward light output	0 % above the set cut-off	In-house test
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. IP67 on the DarkLicht, IP69K on the Barracuda and the Shark	In-house test
Impact	IEC 62262. IK07 on the DarkLicht, IK10 on the Barracuda and the Shark	In-house test
Photometry	IES LM-79, IES files per optic	In-house test
Substances	RoHS, REACH	Self-declaration

WHAT WE NEED FOR A PROPOSAL

The crane	Make, type and jib type, and the hoisting height
The site	Dimensions, and what stands around it
The supply	230 or 400 volt, and where the feed comes from
The requirement	Whether the calculation is for your own use or for a permit application
In case of doubt	A few photographs of the intended mounting point

BEFORE YOU ORDER

A trial installation on one crane from your fleet, before you commit the rest.

A light calculation from our engineers, on your site drawing, free of charge and without obligation.

Five years industrial warranty on the complete set, frame and luminaires, under heavy site use.

WHY IT IS ONE SYSTEM

The difference on a construction site is not in the luminaire. It is in the cut-off that keeps the light inside the hoarding, in the distribution that is already in the frame, and in the fact that everything is assembled at ground level. Take one of those three away and you are back to four floodlights on a beam.

QR code to the tower crane lighting page

TOWER CRANE PAGE

Video of the system, project references and the frequently asked questions.
jelproducts.nl/en/tower-crane-lighting

Best performing construction site in the Netherlands

Tower cranes are the application we have been in longest and most widely, from rental companies converting a whole fleet to manufacturers supplying our lighting from the factory.

MORE 1 AND 2, LEIDEN

With Ballast Nedam Materieel and Heddes. Because the DarkLicht luminaires are more compact, four fitted per crane where three had hung before: more light on the site and still 73 percent less consumption than the installation they replaced. The project was named best performing construction site in the Netherlands.

73 %
Less energy than the previous installation

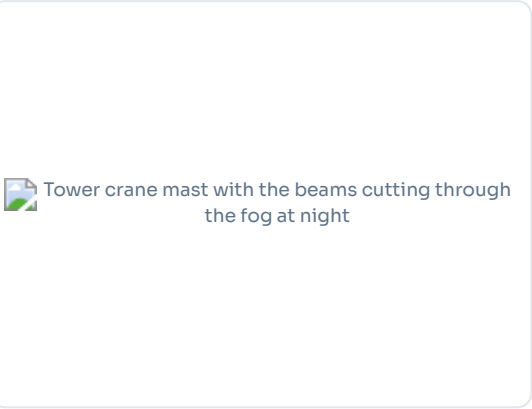
4 per crane
Instead of three, in the same space

0 %
Above the set cut-off

SSB ALKMAAR

Filmed during the work. What stands out is the edge of the site: that is where the light stops, and that is precisely what the cut-off does.

> “We use JEL Products lighting on all our tower cranes. The visibility, the product quality and the service have proved themselves in daily practice. Having worked with this solution, we do not want to go back to anything else.”
>
> Marcel P., Schot Verticaal Transport



Tower crane mast with the beams cutting through the fog at night

The beam in the fog, and above it nothing. That is the cut-off doing its work.

ALSO FOR

Mobile tower crane	Fast erecting cranes, with a dedicated luminaire for erecting in the dark
Mobile crane	The Crane Light Director for telescopic cranes, where the light has to tilt with the boom
Lattice crawler crane	The Crane Light Stabilizer, in the heavier damping classes
Harbour crane	Handling and crane runways, where salt, wind and continuous duty set the requirements

A FEW OF THE PROJECTS

Project	What was done	Why it is worth reading
MORE 1 and 2, Leiden	Tower crane sets with Ballast Nedam Materieel and Heddes	Best performing construction site in the Netherlands, with 73 percent less consumption
Van der Spek	A tower crane fleet converted in stages	What a fleet conversion looks like when it runs alongside regular maintenance
SSB Alkmaar	Tower crane lighting filmed in service	The light stops at the edge of the site, on camera
Jeddah Superdome	Construction lighting from the cranes	The same principle at a scale where moving the luminaires with the building height decides everything

Notes. Luminous flux and power are stated per luminaire and apply to the standard configuration; the quotation states the figure that applies. The number of luminaires and the cut-off angle follow from the light calculation and are not a fixed property of the set. The 50 metres in this document is the distance between the luminaire and the work floor, not the height of the crane. The JEL range is not ATEX or Ex certified.