

JEL PRODUCTS

SUSTAINABLE | LIGHTING | SOLUTIONS

INDUSTRIAL & SPORTS LIGHTING



BROCHURE | DCBRIGHT & DARK LIGHT
SUSTAINABLE LIGHTING SOLUTIONS



THE COMPANY

JEL Products is a key partner of the European Lighting brand DCbright with research and development in the Netherlands, administration in Hong Kong and manufacturing in Shanghai. We combine excellence from these regions and our partnership to deliver the most cost-effective innovative luminaires to the international lighting market.

The DCbright product series was established in Holland's long history in the lighting industry. The Woelders family from Holland have been in lighting for two generations. The family has a deep understanding and commitment to the international lighting industry. The focus in 2015 was to research and design innovative European quality luminaires and manufacture them in their new world class DCBright production facility.

OUR PRODUCTION

DCbright's production is carried out under extremely strict management by our European management team. Every component has been strategically hand selected and tested to maximize the performance and reliability. The most advanced equipment and methods are adopted for the soldering and assembling of the products to ensure stable and reliable quality. Every product has passed burn-in test and thermal test and every detail is strictly checked by our QC before shipping to guarantee that we deliver the best products to our customers.

PRODUCT RANGE

Since 2015, the DCbright brand has been made great strides. The product range has been greatly expanded. Our focus has shifted from mining broadly to industrial in general. With this we currently provide construction cranes, haul trucks, construction sites, ports, asphalt paver machines, storage locations, industrial sites and mining lighting.

With this background, the brand started developing sports and terrain lighting in 2019. Lamps that are innovative and will last for years. After a period of research and development, Dark Licht was released in 2021. The Dark Licht Series of light fittings were developed to meet the increasing market demand for optimum flexibility and efficiency in glare free cut-off sports lighting applications.

DCbright Industrial LED Solutions

World's highest performing industrial LED light solutions for mining and other industries

DCbright sees quality as a habit. We only work with the highest quality materials, so that the end products meet our high standards. DCbright's standard manufacturing quality starts where most others end. Only with DCbright's quality and safety standards and JEL Products' expertise we can provide you with the best lighting and the highest level of service. The following quality points are standard on all our products and ensure that the products last the longest and can be used in the toughest conditions.

DCbright standard production quality: discover more of DCbright's production quality and all used production methods at www.jelproducts.nl/productinfo

Reversed polarity protection: DCbright products with polarity protection are protected against accidentally wrong connecting the polarity.

Active polarity protection: see www.jelproducts.nl

Over voltage protection: This is a protection that interrupts the power supply when the occurring voltage exceeds a preset voltage margin.

Transil protection: The light is protected against static voltage discharges on the connection wires.

Thermal management: DCbright uses a system for thermal management that, with the help of a temperature sensor, prevents the maximum permissible temperature to be exceeded.

Dump load transient: A "dump load transient" is a component that can absorb power when the voltage exceeds a preset point.

Active dump load protection: see www.jelproducts.nl

Surge protection: Surge protection protects electronic components against voltage spikes.

Inrush current limiter: An inrush current limiter is a component used to limit the inrush current to prevent gradual damage to components and to prevent fuses or circuit breakers.

Heat transfer PCB: DCbright is focused to use the best for our customers. So we use circuit board with the heat conductance of up to 390wmk.

Short circuit protection: The short-circuit protection switches off the voltage supply if a short-circuit occurs in the lamp.

Flicker free lighting: DCbright uses completely flicker-free lamps! This is achieved by applying a frequency of 1 MHz for example. In addition, a capacitor is used to smooth out wrinkles.

Anti vibration: In order to make the lamps as vibration-resistant as possible, the heavier components are soldered and glued onto the PCB.

EMV - EMC: DCbright lamps have a component that suppresses interference.

Low glare: In order to prevent light pollution or 'glare' (light that falls outside the desired distribution angle), there are "low-glare" variants available for the vast majority of the products that DCbright offers.

DCbright Product Specifications*

IP-rating :	IP69K
Impact rating :	IK10 (PC) - IK09 (glass)
CRI :	> 70
Temperature range :	-30 ~ +50°C
Lamp body material :	Aluminum alloy
Lamp body paint :	Conversion coating & 2 layers titanium based e-coating
Lamp bracket material :	200 stainless steel
Lamp bracket paint :	2 layer powder paint
Front cover material :	UV coated PC / High impact glass
Luminaire colour :	Titanium grey / black

Warranty

Warranty : 5 years

*Specifications apply to the following products unless otherwise stated: orca, shark, barracuda, snapper, moray, piranha

Dark Licht

Patented Glare Free & Highly Efficient Reflector System®

Powerful LED light sources are hidden in the back of the reflector system. Outside the field of view the light source becomes invisible and glare-free. The Dark light faces the ground and pushes light forward, stopping glare.

Safer Lighting on road and industrial sites

The glare from the LED light source can cause temporary blindness or impair the vision of drivers, causing a road safety hazard. In order to prevent dangerous situations DCbright designed the Dark Licht series to be Glare-Free.

Eco-Friendly Lighting

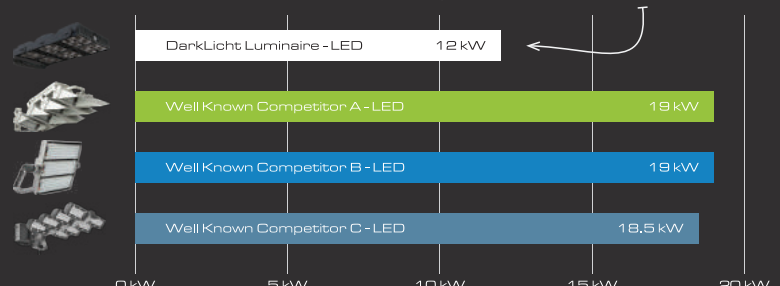
Light pollution is an unwanted consequence of outdoor lighting and includes such effects as sky glow, light trespass, and glare. There is no unwanted or offensive light when using Dark Licht light fixtures.

Cost Saving Lighting

Because Dark Licht does not produce light pollution, yet all the available light is precisely where you need it, Dark Licht saves up to 30-50% of energy consumption for any project compared to other LED light brands.



Save 50% energy with Dark Licht



MO-16 - MORAY

The Moray is a lamp with many possibilities. The lamp uses standard optics allowing for a multitude of options. In addition, the lamp is extremely efficient and strong.

The Moray is available in both DC and AC. The drivers are located inside the housing. From here, the connection cables are brought to the junction box through a double potting. As a result, water will not be able to find its way in. The junction box is easily accessible from the rear of the lamp.

The Moray is designed as lighting for offshore wind farms. In addition, there are many other possible applications like (advertisement) sign lighting.



MO-16 30AC - 50x2

Power : 30W
Light output : 3.960 lm
Efficiency : 132 lm/W
Voltage : 90-305Vac
127-250Vdc



MO-16 30DC - 50x2

Power : 30W
Light output : 3.960 lm
Efficiency : 132 lm/W
Voltage : 24V (20-35V)



Sign lighting by MO-16 Moray on offshore wind farm



Fits large variety of optics

Moray specifications

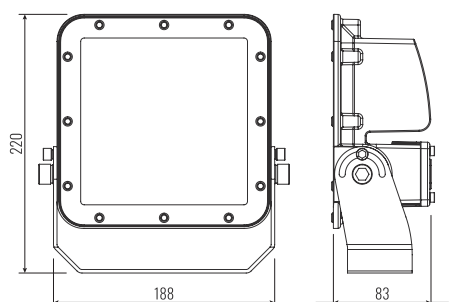
IP-rating : IP69K
Expected life span : 90 000 hours, L80B10
Light angle adjustment : -90° <-> +90° step-less

Weight and packaging

Lamp weight : 1.2 kg
Bracket weight : 0.3 kg
Gross weight : 1.5 kg
Product dimension : 200 x 165 x 65 mm
Packaging dimension : 240 x 200 x 160 mm

Available options

Light angles : Fits large variety of optics
Light beam colour : 6500K (different light colour on request)



Power consumption : 3 - 30W		Available driver : 90-305VAC / 127-250VDC
Power consumption :	Light output :	Efficiency :
3W	555 lm	185 lm/W
4W	720 lm	180 lm/W
6W	1 050 lm	175 lm/W
12W	1 800 lm	150 lm/W
18W	2 560 lm	142 lm/W
24W	3 280 lm	136 lm/W
30W	3 960 lm	132 lm/W

PI-9 & PI-6 - PIRANHA

The PIRANHA is your choice if you are looking for a powerful yet very compact light source. The Piranha is ideal for use in heavy machinery such as cranes, shovels and foundation rigs, but thanks to its excellent corrosion resistance, it is also suitable for commercial marine and offshore applications.

The PIRANHA housing is designed for world's toughest surroundings. DCbright housings makes use of chrome conversion coated and dual layer powder painted high (x-ray tested) grade aluminum. This model includes a series of electrical protections including the following: thermal, surge, over voltage and dump load protections. DCbright can offer at least 3-year warranty through those protections.



PI-9 70DC

Power : 70W
Light output : 8.400 lm
Efficiency : 120 lm/W
Voltage : 24V (20-35V)

PI-9 45DC - 2200K

Power : 45W
Light output : 5.300 lm
Efficiency : 117 lm/W
Voltage : 24V (20-35V)
Light colour : 2200K

PI-6 55DC

Power : 55W
Light output : 6.300 lm
Efficiency : 115 lm/W
Voltage : 24V (20-35V)

PI-6 55DC 12-24V

Power : 55W
Light output : 6.300 lm
Efficiency : 115 lm/W
Voltage : 12-24V (10-35V)

Piranha specifications

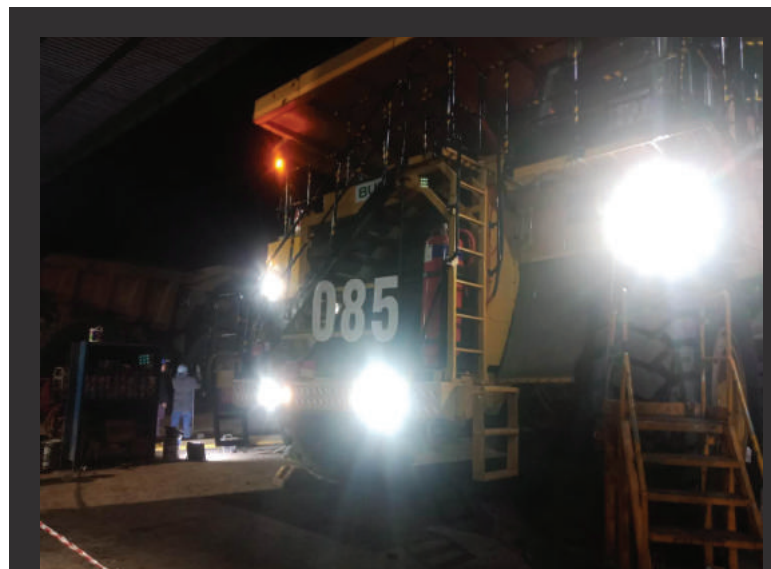
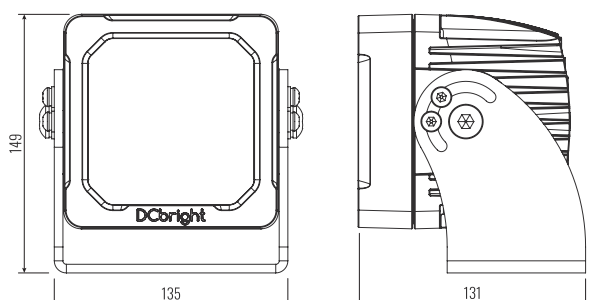
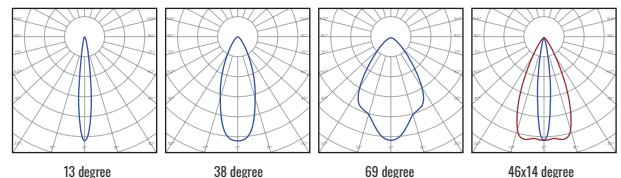
IP-rating : IP69K
Expected life span : 145 000 hours, L80B10
Light angle adjustment : -45° <> +90° step-less
Cable type : PUR + DT04-2P Deutsch plug
Cable length : 30 cm

Weight and packaging

Lamp weight : 2.9 kg
Bracket weight : 0.2 kg
Gross weight : 3.1 kg
Product dimension : 150 x 122 x 115 mm
Packaging dimension : 170 x 170 x 160 mm

Available options

Light angles : 14° - 38° - 70° - 14x46°
Light beam colour : 6500K (different light colour on request)

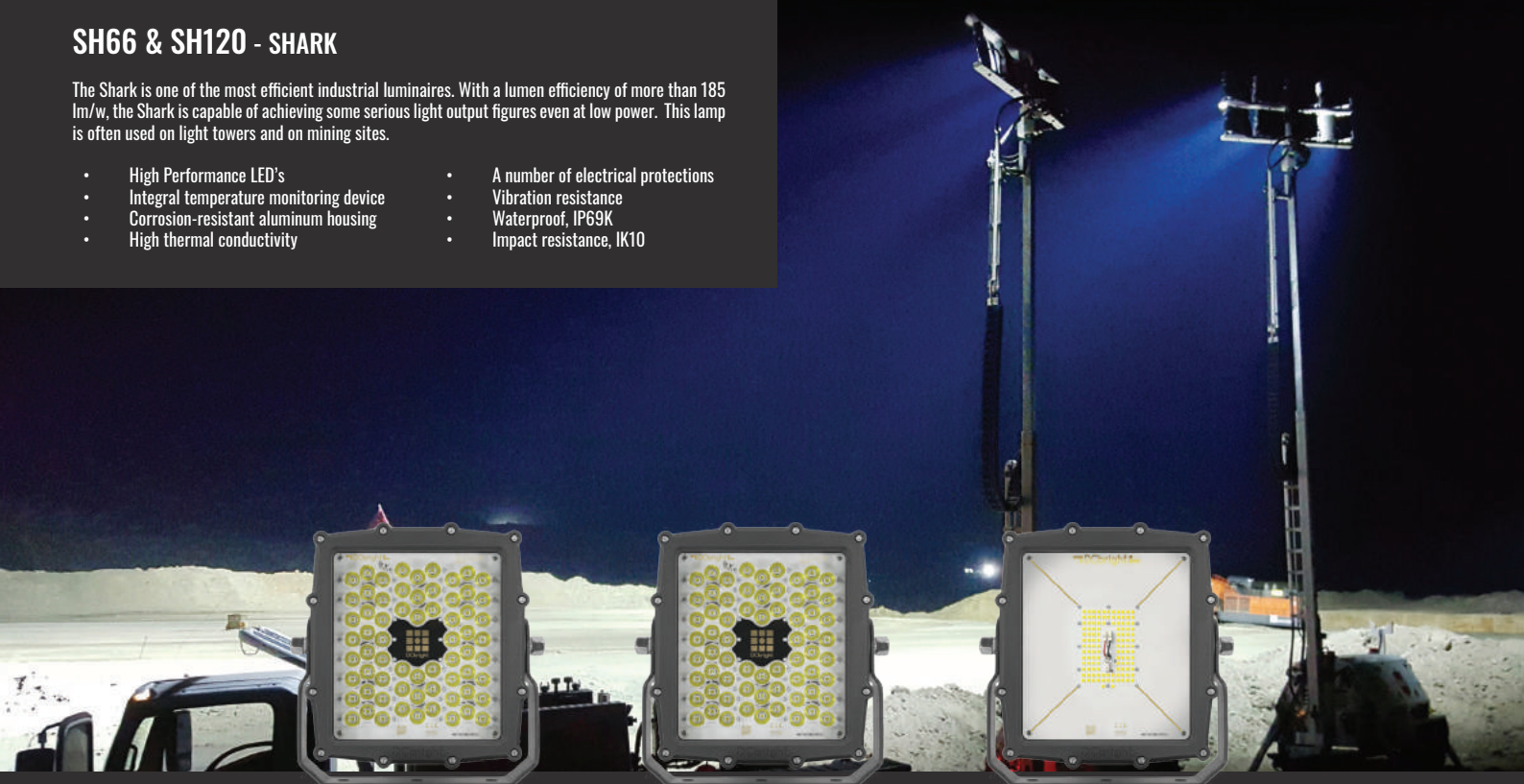


Piranha on caterpillar

SH66 & SH120 - SHARK

The Shark is one of the most efficient industrial luminaires. With a lumen efficiency of more than 185 lm/w, the Shark is capable of achieving some serious light output figures even at low power. This lamp is often used on light towers and on mining sites.

- High Performance LED's
- Integral temperature monitoring device
- Corrosion-resistant aluminum housing
- High thermal conductivity
- A number of electrical protections
- Vibration resistance
- Waterproof, IP69K
- Impact resistance, IK10



SH-66 320AC

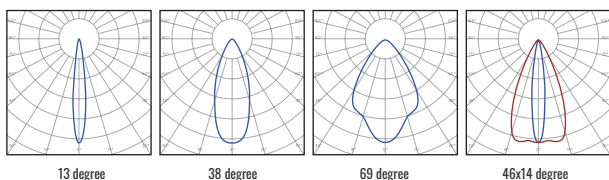
Power : 320W
Light output : 50.000 lm
Efficiency : 156 lm/W
Driver : 90-305Vac
127-250Vdc

SH-66 320DC

Power : 320W
Light output : 46.000 lm
Efficiency : 144 lm/W
Voltage : 24V (20-35V)

SH-120 160-240NOP

Power : 160 - 240W
Light output : 25.700 - 47.500 lm
Efficiency : 161 - 198 lm/W
Driver : 90-305Vac
127-250Vdc
Light angle : 120° (no optics)



Shark specifications

IP-rating : IP69K
Expected life span : 196 000 hours, L80B10
Light angle adjustment : +/- 240° in 30° steps
Cable type : PUR or silicone
Cable length : 2m

Weight and packaging

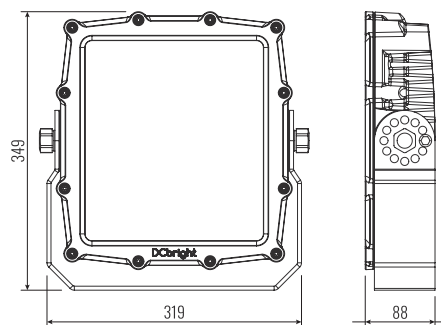
Lamp weight : 7.2 kg
Bracket weight : 2.0 kg
Gross weight : 9.2 kg
Product dimension : 320 x 350 x 90 mm
Packaging dimension : 380 x 410 x 150 mm

Available options

Light angles : 14° - 38° - 70° - 14x46°
Light beam colour : 6500K (different light colour on request)



Shark lighting result of mining light tower



SN32 & SN35 - SNAPPER

The Snapper is DCbright's most versatile lamp. The lamp is modular and this allows us to connect multiple housings to create a higher light output. Ideal for customization. The Snapper uses standard 50-50 optics. This makes the Snapper extremely flexible and meets the requirements of the assignment.

- High Performance LED's
- Light weighted luminaire housing
- Large variety of standard 50-50 optics
- DCbright production quality
- A number of electrical protections
- Multiple mounting options
- Waterproof, IP66 (IP67)
- Impact resistance, IK10



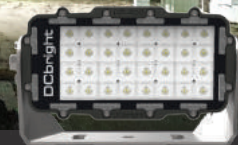
SN-32 150DC

Power : 150W
Light output : 22.000 lm
Efficiency : 147 lm/W
Voltage : 24V (20-35V)



SN-32 150DC-SIDE

Power : 150W
Light output : 22.000 lm
Efficiency : 147 lm/W
Voltage : 24V (20-35V)
Bracket : Side bracket



SN-35 35HT

Power : 35W
Light output : 7.000 lm
Efficiency : 200 lm/W
Driver : 90-305Vac
127-250Vdc
Temp range : Up to 120°C



SN-35 35HT (DC)

Power : 35W
Light output : 6.400 lm
Efficiency : 183 lm/W
Voltage : 24V (20-35V)
Temp range : Up to 100°C

Snapper specifications

IP-rating : IP67 (including IP66 protection)
Expected life span : 196 000 hours, L80B10
Light angle adjustment : +/- 240° in 30° steps
Cable type : PUR or silicone
Cable length : 2m (HT version: 15m)

Weight and packaging

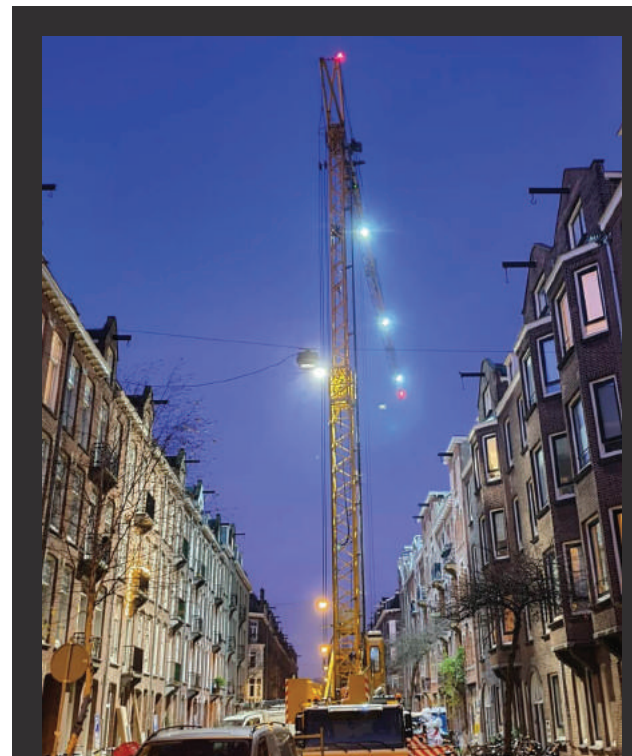
Lamp weight : 2.7 kg
Bracket weight : 0.4 kg
Gross weight : 3.1 kg
Product dimension : 320 x 1800 x 120 mm
Packaging dimension : 340 x 220 x 100 mm

Available options

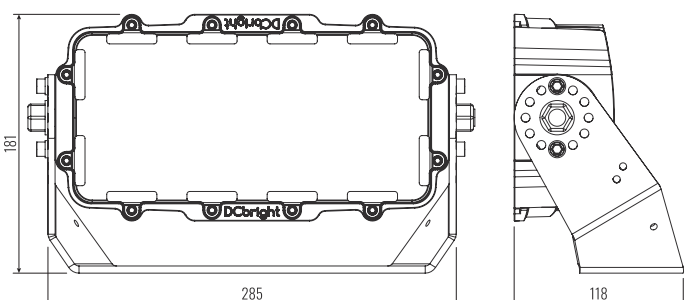
Light angles : Fits large variety of optics
Light beam colour : 6500K (different light colour on request)



Fits large variety of optics



Snapper on mobile light tower



OR156 - ORCA

The Orca is one of the brightest industrial luminaires available worldwide. With a lumen output of more than 110,000 lumen, the ORCA is one of the real powerhouses. This lamp is often used on construction-/ harborcranes and on large industrial sites or machines.

- High Performance LED's
- Integral temperature monitoring device
- Corrosion-resistant aluminum housing
- High thermal conductivity
- A number of electrical protections
- Vibration resistance
- Waterproof, IP69K
- Impact resistance, IK10



OR-156 800AC

Power : 800W
Light output : 111.300 lm
Efficiency : 139 lm/W
Driver : 180-528Vac
250-740Vdc



OR-156 800DC

Power : 800W
Light output : 100.200 lm
Efficiency : 125 lm/W
Voltage : 24V (20-35V)



OR-156 240HT

Power : 240W
Light output : 55.000 lm
Efficiency : 230 lm/W
Temp range : Up to 120°C
Driver : 90-305Vac
127-250Vdc



OR-156 800AC - SS*

Power : 800W
Light output : 111.300 lm
Efficiency : 139 lm/W
Lamp material : Stainless steel
Driver : 180-528Vac
250-740Vdc

*Product available on request

Orca specifications

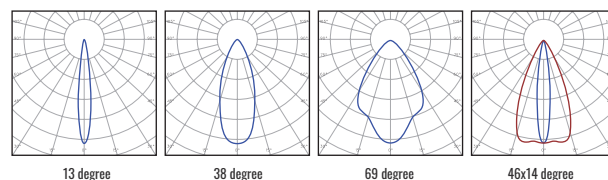
IP-rating : IP69K
Expected life span : 145 000 hours, L80B10
Light angle adjustment : +/- 240° in 30° steps
Cable type : PUR or silicone
Cable length : 2m (HT version: 15m)

Weight and packaging

Lamp weight : 18.2 kg
Bracket weight : 2.9 kg
Gross weight : 22.7 kg
Product dimension : 515 x 440 x 95 mm
Packaging dimension : 570 x 505 x 165 mm

Available options

Light angles : 14° - 38° - 70° - 14x46°
Light beam colour : 6500K (different light colour on request)



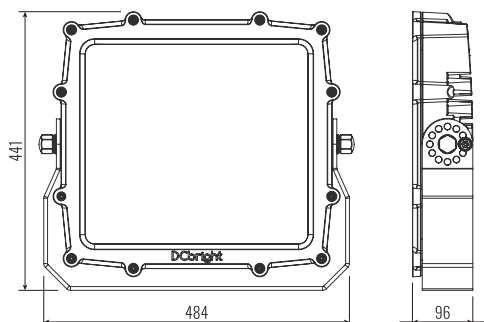
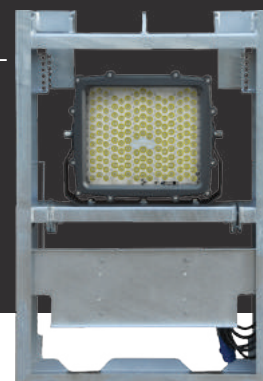
DCbright - crane bracket

The demand for this product came from the Dutch importer of Liebherr Towercranes. Together with the firm we looked at the current situation and ways to simplify the current use of mounting and aiming the lights. This resulted in the DCbright crane bracket. The bracket ensures that the lamps can be transported easily, hung in place quickly and have good light distribution at different heights.

Crane bracket specifications

Material	5 mm, hot dip galvanized steel
Bracket weight	52 kg
Bracket + lamp weight	82.6 kg
Warranty	5 years

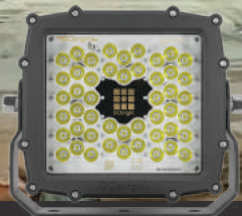
Ten of these crane brackets fit together on a single euro pallet for transportation. Contact for information.



BA33 & BA48 - BARRACUDA

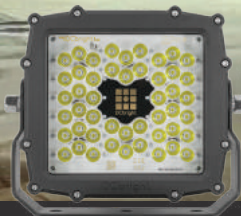
The Barracuda is our powerful LED light source in compact size. The Barracuda is ideal for use in heavy machinery such as cranes, shovels and large excavators and is widely used in light towers all around the globe. Thanks to its excellent corrosion resistance, the barracuda is also suitable for offshore, shipping, military and petrochemical applications.

- High Performance LED's
- Integral temperature monitoring device
- Corrosion-resistant aluminum housing
- High thermal conductivity
- A number of electrical protections
- Vibration resistance
- Waterproof, IP69K
- Impact resistance, IK10



BA-48 320AC/DC

Power : 320W
 Light output : 44.100 lm (ac)
 40.800 lm (dc)
 Efficiency : 138 lm/W (ac)
 127 lm/W (dc)
 Driver (ac) : 90-305Vac
 127-250Vdc
 Voltage (dc) : 24V (20-35V)



BA-48 240AC/DC

Power : 240W
 Light output : 32.600 lm (ac)
 29.900 lm (dc)
 Efficiency : 136 lm/W (ac)
 125 lm/W (dc)
 Driver (ac) : 90-305Vac
 127-250Vdc
 Voltage (dc) : 24V (20-35V)



BA-33 150IN

Power : 150W
 Light output : 22.400 lm
 Efficiency : 149 lm/W
 Driver : Internal driver
 90-305Vac
 127-250Vdc



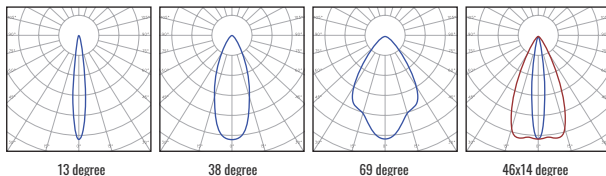
BA-48 120HT

Power : 120W
 Light output : 20.600 lm
 Efficiency : 172 lm/W
 Temp range : Up to 120°C
 Driver : 90-305Vac
 127-250Vdc



BA-48 320AC - SS

Power : 320W
 Light output : 44.100 lm
 Efficiency : 138 lm/W
 Lamp material : Stainless steel
 Driver : 90-305Vac
 127-250Vdc



Barracuda specifications

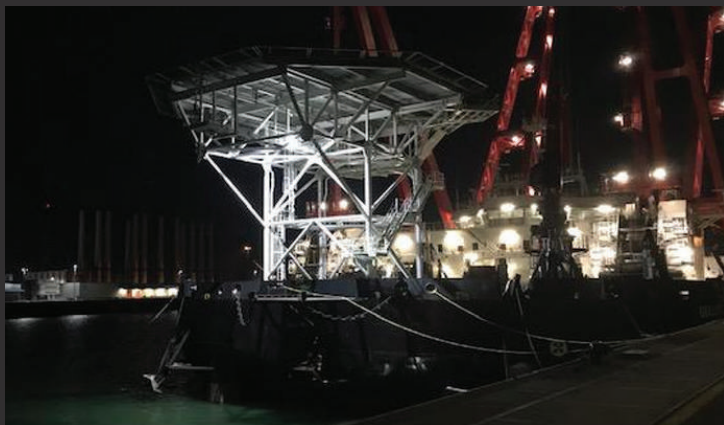
IP-rating : IP69K
 Expected life span : 145 000 hours, L80B10
 Light angle adjustment : +/- 240° in 30° steps
 Cable type : PUR or silicone
 Cable length : 2m (HT version: 15m)

Weight and packaging

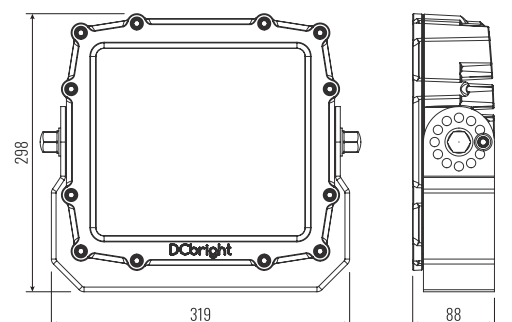
Lamp weight : 7.2 kg
 Bracket weight : 1.7 kg
 Gross weight : 10.1 kg
 Product dimension : 320 x 290 x 90 mm
 Packaging dimension : 380 x 350 x 150 mm

Available options

Light angles : 14° - 38° - 70° - 14x46°
 Light beam colour : 6500K (different light colour on request)



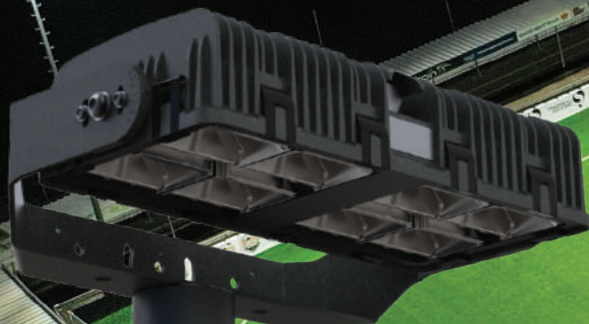
Barracuda on helicopter platform on a lifting vessel



GLARE FREE LIGHTING BY DARK LIGHT

The Dark Licht series of light fittings were developed to meet the increasing market demand for optimum flexibility and efficiency in glare free cut-off flood lighting applications.

The two body types of Dark Licht light fittings share the base marine grade high pressure cast aluminum body. The wedge shape aesthetic Dark Licht is for Architectural and Commercial projects. Industrial applications use the standard Dark Licht model which has slightly higher ambient thermal performance and can have a marine application kit fitted, if required. This dynamic modular transformation is the most economical solution for industrial, commercial, and architectural lighting applications.



Unique Highly Efficient Reflector System®

The Patent innovative high performance reflector design maximizes luminaire efficiency, providing 160 lumen per watt fixture light output.

Unique Adjustable full Cut-Off® from 63° to 75°

Unique patented adjustable forward asymmetric light distribution from 63° to 75°. Adjustments of the forward beam can be made by the installation contractor, before installation to meet the requirements of the lighting application.

Unique Modular Rotating Reflectors®

The square unique parabolic internal high performance reflector modules in the fitting can rotate in both directions by 90° to completely alter the light distribution of the fitting.

Unique Glare Free Optic®

The powerful LED light sources are concealed inside the patented highly efficient deep parabolic reflector system. Outside the full cut-off there is no light visible.

HIGHLY EFFICIENT REFLECTOR SYSTEM[®]

The Dark Light Series uses the highest quality LED's, reflector material, electronics, and glass available worldwide. This patented break-through technology produces 160 fixture lumen per watt.


The patented unique optical / reflector system controls the light so precisely there is no light lost outside of the area of illumination. This increases the efficiency of the fitting and in many cases a lower wattage Dark Light fitting can be used in an application.

The use of a flat glass lens seals the fitting providing a static free optical system. The much lower dust and dirt build up on the glass lens greatly improves light output of the fitting over the life of the product.

63° TO 75° ADJUSTABLE LIGHT CUT-OFF[®]

The Dark Light series has an adjustable 5 step forward throw reflector system. This simultaneously adjusts the light cut-off. The Dark Light light sources are not visible outside the cut-off for both forward and side light distribution. There is no light emitted past the cut-off.

At the maximum forward throw setting of 54°, the full cut-off is 75°. The low brightness of the fitting and light cut-off is so precise past 75° that the fitting can be tilted if required a further 15° and there will be no light above 90° horizontal.



THE DARK LIGHT IS ABLE TO ADJUST
IT'S CUT-OFF BASED ON THE PROJECT

DARK LIGHT SPECIFICATIONS

Brand	Dark Licht
Limited warranty	7 Years

ELECTRICAL

Voltage range	180-528Vac / 250-740Vdc
Voltage range (320W, D200)	90-305Vac / 127-420Vdc
Frequency	50 / 60 Hz
Power factor	> 0.9

PERFORMANCE

Fixture lumen efficiency	160 lm/W
Dimming input	0 - 10V
Temperature control	Yes
Light distribution	Asymmetrical - adjustable cut-off
Light adjustment range	63° - 75° Full cut-off
CRI	Standard: >70 Optional: >80, >90
LED chip binning	3 Step MacAdam Ellipse LED's
Light color:	Standard: 5000k Optional: 2200k, 2700k, 4000k
Operation temp range	-40°C ~ +50°C
Waterproof rating	Standard = IP67 DL-S60 = IP69K
Impact rating	IK07 (IK08 on request)
Wireless control system	Available

MATERIALS

Lamp body	Aluminum alloy (low copper)
Lamp body finish	13 stage pretreatment + dual layers titanium based e-coating (Grey)
Mounting arm	High tensile steel
Mounting arm finish	Zinc plated + dual layers titanium based e-coating (Grey)
Hardware	304 Stainless steel



UNIQUE GLARE-FREE OPTIC®

LED light sources are hidden in the back of the reflector system. Inside the field of view the actual light source is hidden back inside the parabolic reflector system. Outside the field of view the light source becomes invisible. This single feature provides lighting designers with confidence to install the Dark Licht and know the light fitting will not be visible by neighboring properties near the lighting installation. This means there will be no complaints that the lights and LED light sources are visible from the general public.



DARK LIGHT ONE



DARK LIGHT TWO



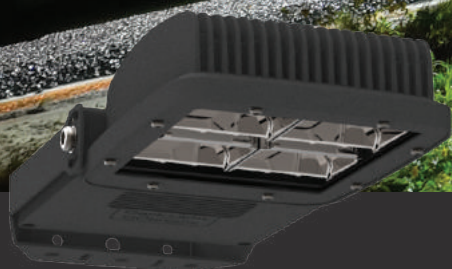
DARK LIGHT THREE

Model:	Power:	Lumen output:	Life Span	Lamp Weight	Lamp Dimensions	Driver / Voltage
DL1-AC-320W-51	320W	51.000 lm	82.250 hrs - L80B10	14.9 kg	365 x 550 x 160 mm	Internal
DL1-AC-400W-64	400W	64.000 lm	196.000 hrs - L80B10	15.0 kg	365 x 550 x 160 mm	Remote - Back
DL1-AC-600W-96	600W	96.000 lm	196.000 hrs - L80B10	14.0 kg	365 x 550 x 160 mm	Remote - Back
DL1-DC-600W-90	600W	90.000 lm	196.000 hrs - L80B10	14.0 kg	365 x 550 x 160 mm	24V (20-32V)
DL2-AC-800W-128	800W	128.000 lm	196.000 hrs - L80B10	24.5 kg	635 x 550 x 160 mm	Remote - Back
DL2-AC-1200W-192	1200W	192.000 lm	196.000 hrs - L80B10	25.4 kg	635 x 550 x 160 mm	Remote - Back
DL3-AC-1800W-288	1800W	288.000 lm	196.000 hrs - L80B10	33.5 kg	905 x 550 x 160 mm	Remote - Back

100% GLARE FREE



THE DARK LIGHT LED SOURCE IS ONLY VISIBLE FROM THE ILLUMINATED AREA.



DARK LIGHT D200



DARK LIGHT S60

Model:	Power:	Lumen output:	Life Span	Lamp Weight	Lamp Dimensions	Driver / Voltage
DL-S60-DC-60W-10	60W	9.600 lm	196.000 hrs - L80B10	2.3 kg	260 x 200 x 130 mm	24V (20-32V)
DL-D200-AC-200W-32	200W	32.000 lm	196.000 hrs - L80B10	8.0 kg	540 x 270 x 110 mm	Internal
DL-D120-AC-120W-19	120W	NEW PRODUCT - contact for final details			440 x 270 x 110 mm	Internal
DL-D60-AC-60W-10	60W	NEW PRODUCT - contact for final details			440 x 270 x 110 mm	Internal



DCBRIGHT LIGHT OPERATING SYSTEM

DCbright light operation system makes it possible to control the lighting remotely, using a LoRa Mesh. The lighting can be switched on/off individually, but also dimmed.

- Reliable operation system with a long range to control the lighting
- All regions of the world are supported by dip-switch selectable operating frequencies

GATEWAY SPECIFICATIONS

Part number : DCB-FLCS-GW01

Input power : 9V DC - 2.2 A

LAN : 10/100 Mbit

RF output power : 22 dBm (max)

Network protocol : LoRa Mesh

Installation location : Indoor

TRANSCEIVER SPECIFICATIONS

Part number : DCB-FL-TR-01

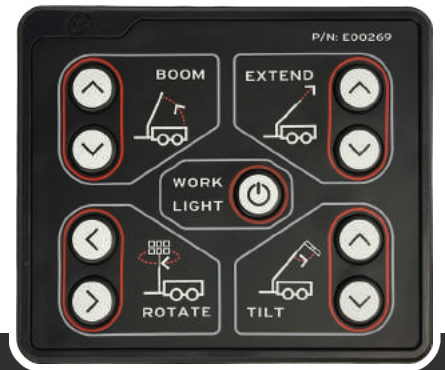
Input voltage : 12V DC

RF output power : 22 dBm (max)

Output : 2x 0-10V DC

Output current : 2x 40mA (max)

IP-rating : IP67



SWITCH BOX

DCbright switch box is designed to replace relays in 12V and 24V systems. This DCbright switch box simplifies the standard systems dramatically.

- There are no wire connections between relays and fuse boxes.
- There are no switching contacts.
- The DCbright switch box switches are solid state which increase the reliability of the system.
- Debugging of the system is easy since the inputs, outputs and fuses have LED indicators.

SWITCH BOX SPECIFICATIONS

Working voltage : 12-24V

Available versions : 8 and 12 channel

Max current : 14A per channel

Input voltage/current : 12V at 1.0mA
24V at 3.5mA

PROTECTIONS

Short circuit proof : Yes

Over voltage protection : 12V = 17V
24V-L = 31V
24V-H = 39V
48V = 66V



OEM HYDRAULIC CONTROLLER

With the DCbright hydraulic controller you can easily control your hydraulic machines. The product has long-term proven performance on hydraulic light towers in Australian mines.

- Single control box for all hydraulics
- Easy to integrate into the current system
- Sturdy housing against the extreme situations.
- Compact design that keeps the control unit clear and orderly.
- OEM product. Please contact JEL Products to discuss options.

OEM HYDRAULIC CONTROLLER SPECIFICATIONS

Working voltage : 12-24V

Connectors : Max 10 (request)

Available versions : This is an OEM product. All available options on request.

REPRESENTED BY
JEL PRODUCTS

NOTES



INTERNATIONAL SALES INQUIRIES

DCbright & Dark Licht

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Website: www.jelproducts.nl