GLARE FREE LED WORK LAMP

DarkLicht S



Shown: DarkLicht S75, 12,825 lm, cut off set to 69°.

CE · IP69K · IK08 · Class II · C5 ISO 9223 · Ta −45 … +50 °C · 9–32 VDC · ULOR 0 % · DarkSky DS-1 · cut off 63–75° · Crane Light Director · 5-year warranty

12,825 lumens with a full cut off beyond the set angle. The strongest cut off work lamp in the range: floodlight output on a machine bracket, without the spill that makes a floodlight unusable on mobile plant.

LUMINOUS FLUX	POWER	EFFICACY
12,825 lm	75 W	171 lm/W
ULOR	**CUT OFF**	**WEIGHT**
0 %	63–75°	3.3 kg

Values apply to the standard version at 4000 K, Ta 25 °C, including reflector losses and driver consumption, with the cut off set to the standard position.

WHY IT IS SPECIFIED

The strongest cut off work lamp in the range. 12,825 lm at 171 lumens per watt with the reflector in place. That is floodlight output from a machine bracket.

The cut off angle is chosen for the machine. Between 63 and 75 degrees, set at the factory to the shield position S1 to S5 given on the order, matched to the mounting height and the work zone.

One of the five luminaires the Crane Light Director carries. On a mobile crane it is tilted and switched from the cabin, so the boom is lit without anyone climbing it and without the beam swinging into the operator as the boom comes down.

WHERE IT IS USED

- Mining and extraction equipment
- Asphalt machines and paving trains
- Service and maintenance vehicles
- Mobile crane booms, on the Crane Light Director
- Excavators and loaders working at night
- Drilling and foundation rigs
- Rail maintenance and tamping machines
- Harbour and terminal vehicles
- Work zones alongside live traffic
- Sites bordering housing or protected nature
- Machine positions where an operator faces the lamp
- Mobile plant on 24 V DC

VERSIONS

	DarkLicht S75	DarkLicht S60
Article base code	DRKS02	DRKS01
Luminous flux	12,825 lm	10,260 lm
Power	75 W	60 W
Efficacy	171 lm/W	171 lm/W
Supply	20–32 VDC	9–32 VDC, 12 or 24 V
Dimensions	260 × 200 × 130 mm	260 × 200 × 130 mm
Weight	3.3 kg	3.3 kg

Both versions are DC. For a fixed installation on a mast or a light tower with the same cut off, see the **DarkLicht M** at 25,700 and 51,300 lm.

Light output and optics

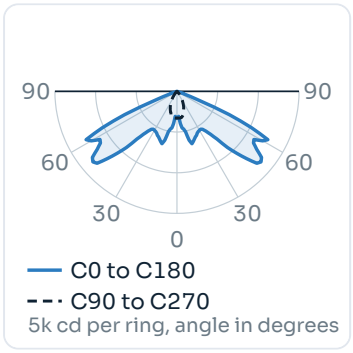
Values apply to the S75 at Ta 25 °C with the cut off in the standard position. The whole DarkLicht line shares one light distribution, so the diagrams below apply to every type at its own luminous flux.

BEAM CHARACTERISTICS

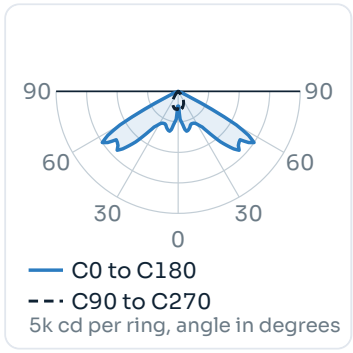
Setting	Distribution	Cut off	Beam angle 50 % of peak	Typical use
63°	Full cut off, asymmetric	63°	–	Tight boundaries, a site directly against housing or a carriageway
66° and 69°	Full cut off, asymmetric	66° and 69°	–	The usual settings for a yard or a car park
72°	Full cut off, asymmetric	72°	123°	Wider cover where the boundary allows it
75°	Full cut off, asymmetric	75°	132°	Maximum reach, sites without a sensitive boundary

The DarkLicht does not use lenses. A patented parabolic reflector throws the light forward and down and cuts it off completely above the set angle, which is set at the factory to the shield position given on the order, between 63 and 75 degrees. The two diagrams show the two shielding positions of the reflector. The whole DarkLicht line shares one light distribution, so one measured set covers every type in the range and a lighting designer works with one photometric behaviour at every mounting height.

LIGHT DISTRIBUTION



Shielding position 1



Shielding position 2

OBTRUSIVE LIGHT

ULOR at 0° tilt	**0 %**
Cut off angle	Factory set, shield position S1 to S5, 63° to 75°
Standards	NSVV guideline · DarkSky DS-1 · EN 12464-2 · EN 12193

A conventional floodlight lights everything in front of it, including the sky, the neighbour and the driver approaching the site. The DarkLicht range is built the other way around: a patented parabolic reflector, not a lens, cuts the light off completely above an angle that is set at the factory between 63 and 75 degrees and specified with the order. Upward light output ratio is 0 %, and the luminaires have been third party tested against the DarkSky DS-1 requirements at colour temperatures between 1700 and 2200 K.

COLOUR AND CONSISTENCY

Colour temperatures	5700 K, 5000 K, 4000 K, 3000 K, 2700 K, amber 2200 K, 1800 K, 1700 K
Tuneable white	4000 K with 2200 K and 1700 K, switchable in operation
DarkSky DS-1	Met at 1700 to 2200 K, third party tested
Colour rendering	Ra > 70 standard, optionally 80 or 90
Colour consistency	MacAdam step 3 or better
LED service life	TM-21 L90B05 > 103,500 h

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.

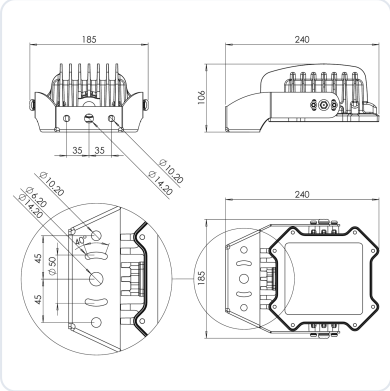
	DarkLicht S75	DarkLicht S60
PERFORMANCE		
Luminous flux	12,825 lm	10,260 lm
Power consumption	75 W	60 W
Efficacy	171 lm/W	171 lm/W
Upward light output ratio	0 % at 0° tilt	
Cut off angle	63°, 66°, 69°, 72° or 75°, factory set, shield position S1 to S5	
ELECTRICAL		
Supply voltage range	20–32 VDC	9–32 VDC
Nominal voltage	24 V	12 or 24 V
Current draw	3.1 A at 24 V	2.5 A at 24 V · 5.0 A at 12 V
Driver	DC drivers on board, no external box	
Dimming	On request	
CONSTRUCTION		
Housing	Cast aluminium, less than 0.08 % copper	
Optic	Patented parabolic reflector, no lens	
Bracket	High tensile 316L stainless steel, unlimited rotation from -20° to +20°	
Front	Impact resistant glass, IK08	
Protection class	Class II	
Ingress protection	IP66, IP67, IP68 and IP69K, each class tested separately	
Impact resistance	IK08 (IEC 62262)	
Corrosion class	C5 industrial and marine (ISO 9223)	
DURABILITY AND DIMENSIONS		
Ambient temperature	−45 to +50 °C	
LED service life	TM-21 L90B05 > 103,500 h	
Cable and termination	H07BQ-F, 2 cores (2 × 1.5 mm²), 0.3 m	
Dimensions	260 × 200 × 130 mm	
Weight	3.3 kg incl. bracket	
Wind load, frontal	18,750 mm² at 0° tilt to 44,500 mm² at 20°. Side 26,800 to 33,000 mm². Cd 1.18	
Warranty	5 years on the complete luminaire	

Wind load data is from the DarkLicht wind rating report and applies to the S60. The cut off angle is a mechanical setting on the luminaire and changes where the light lands, not how much of it there is.

Mechanics, mounting and driver

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

HOUSING AND BRACKET



Dimensions	260 × 200 × 130 mm
Weight	3.3 kg incl. bracket
Bracket	High tensile 316L, unlimited from -20° to +20°
Front	Impact resistant glass, IK08
Optic	Patented parabolic reflector
Smaller version	DarkLicht Mini, 179 × 120 × 95 mm, 1.0 kg

WIND LOAD, S60

Frontal at 0°	18,750 mm²
Frontal at 10°	30,500 mm²
Frontal at 20°	44,500 mm²
Side, 0° to 20°	26,800 to 33,000 mm²
Drag coefficient	Cd 1.18
Source	DarkLicht wind rating report

MOUNTING AND ACCESSORIES

Standard bracket	High tensile 316L, supplied as standard
Crane Light Director	Steerable boom system for mobile cranes. Separate datasheet
Smaller version	DarkLicht Mini at 4,800 lm
Fixed installation	DarkLicht M at 25,700 and 51,300 lm
Maximum spread instead	Goby, without cut off
Rugged alternative	Piranha, where the position is mechanically punished

DRIVERS ON BOARD

Type	DC drivers on the board inside the housing
External box	None
Supply range	20 to 32 V on the S75, 9 to 32 V on the S60
Nominal	24 V, and 12 V on the S60
AC version	Not available, see the DarkLicht M
Dimming	On request

Nothing external on the machine. Drivers on board means one component, one cable and no driver box to find a place for on a machine that is already full.

CRANE LIGHT DIRECTOR



What it is	Steerable boom lighting for mobile cranes, fitted as a retrofit
DarkLicht S on the system	12,900 lm per tilting module, the glare free option
Other luminaires	Goby Mini, Goby, Piranha and Marlin
Control	From the cabin, over a LoRa controller or a cabin switch

Ordering, standards and documents

ORDER CODE

Example **DRKS02-40K**

DarkLicht S75, 4000 K

DRKS02 · DRKS01	S75 at 12,825 lm · S60 at 10,260 lm
57K · 50K · 40K · 30K · 27K	5700 K · 5000 K · 4000 K · 3000 K · 2700 K
22K · 18K · 17K	Amber 2200 K · 1800 K · 1700 K, DarkSky DS-1 range
TW	Tuneable white, 4000 K with 2200 K and 1700 K
Cut off	Shield position S1 to S5, specified with the order

The cut off angle is a factory setting: give the shield position S1 to S5 with the order. Cable length beyond 0.3 m is confirmed at order.

COMBINATIONS

Tuneable white with DS-1 colours	Possible
Cut off at any setting	Standard
Crane Light Director	Standard
AC supply	Not available, see the DarkLicht M
High temperature	Not available
316L housing	Not available

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, IP69K	In-house test
Impact	IEC 62262 IK08	In-house test
Corrosion	ISO 9223 class C5, industrial and marine	In-house test
Obtrusive light	NSVV guideline · DarkSky DS-1 at 1700 to 2200 K · EN 12464-2 · EN 12193	Third party 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/darklicht-s

WHERE IT EARNS ITS PLACE

The DarkLicht S earns its place on machines that work all night in places where somebody is watching. Asphalt work on a live carriageway, mining at the face and crane work on a construction site all need real light output, and all of them put an operator, a driver or a neighbour directly in front of the lamp.

Notes. Values are for the standard configuration. The cut off angle is a factory setting and does not change the luminous flux, only where the light lands. The stated LED service life of L90B05 > 103,500 hours is the figure for the DarkLicht range and is lower than the 360,000 hours of the floodlight range; that is a property of this reflector platform. The JEL range is not ATEX or Ex certified.