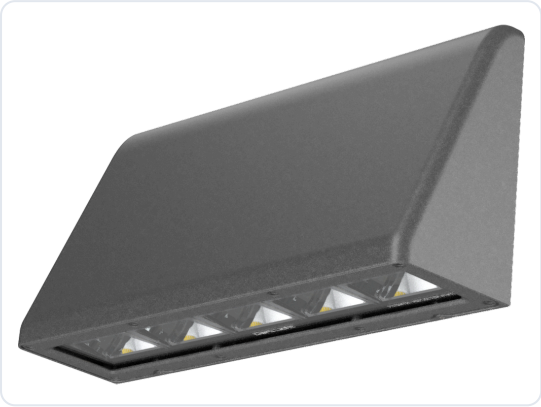
GLARE FREE LED WALL PACK

# DarkLicht WP



Shown: DarkLicht WP Wallpack 100, 16,000 lm, cut off set to 69°.

CE · IP69K · IK08 · Class II · C5 ISO 9223 · Ta −45 … +50 °C · 90–305 VAC · internal driver · DALI-2 · sensor ready · ULOR 0 % · DarkSky DS-1 · 10–100 W settable

The wall pack is where obtrusive light usually starts. The DarkLicht WP mounts on the building and lights the ground in front of it, with a deep parabolic reflector that keeps the light off the facade, out of the windows beside it and out of the sky. Driver and control inside, power settable from 10 W.

| LUMINOUS FLUX | POWER | EFFICACY |
|---|---|---|
| 16,000 lm | 10–100 W | 160 lm/W |
| **ULOR** | **INGRESS** | **DRIVER** |
| 0 % | IP69K | internal |

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 most complained about luminaire type, solved in the optic.** A conventional wall pack throws light up the facade, into the windows above and across the boundary. The reflector removes the cause.

**Power settable from 10 W, with the control inside.** The 100 W version is settable from 10 to 100 W and the 60 W version from 10 to 60 W, over DALI-2, 0-10 V, PWM or NFC, with sensor integration available. One article covers an entrance, a dock and a perimeter route.

**No mast, no foundation, no trench.** Where a building edge is available, wall mounting removes the most expensive part of an exterior lighting project.

## WHERE IT IS USED

- Building perimeters and service routes
- Loading docks and goods entrances
- Business park and commercial facades
- Fire escape routes and muster points
- External stairs and emergency exit doors
- Yard walls and boundary structures
- Under canopy and overhang positions
- Substation and plant room exteriors
- Waste and recycling compounds
- Camera support lighting on buildings
- Retrofit of conventional wall packs

## VERSIONS

| | Wallpack 100 | Wallpack 60 |
|---|---|---|
| Article base code | DRKW01 | DRKW02 |
| Luminous flux | 16,000 lm | 9,600 lm |
| Power | 100 W, settable from 10 W | 60 W, settable from 10 W |
| Efficacy | 160 lm/W | 160 lm/W |
| Supply | 90–305 VAC | 90–305 VAC |
| Driver | Internal BLD120 | Internal BLD120 |
| Dimensions | 345 × 181 × 96 mm | 345 × 181 × 96 mm |
| Weight | 4.0 kg | 4.0 kg |

Both versions share one housing and one wall plate, so the output level is a setting rather than a different fitting on the wall.

# Light output and optics

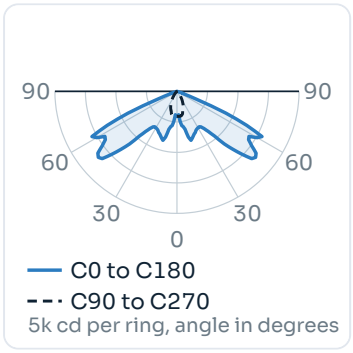
Values apply to the Wallpack 100 at Ta 25 °C with the cut off in the standard position. The whole DarkLicht line shares one light distribution, so the diagrams below apply to every type at its own luminous flux.

## BEAM CHARACTERISTICS

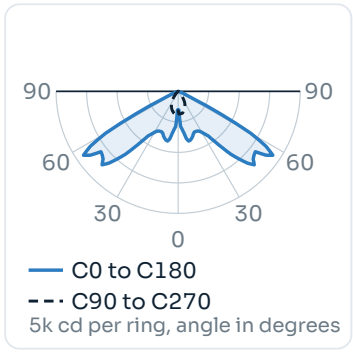
| Setting | Distribution | Cut off | Beam angle 50 % of peak | Typical use |
|---|---|---|---|---|
| 63° | Full cut off, asymmetric | 63° | – | Tight boundaries, a site directly against housing or a carriageway |
| 66° and 69° | Full cut off, asymmetric | 66° and 69° | – | The usual settings for a yard 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.

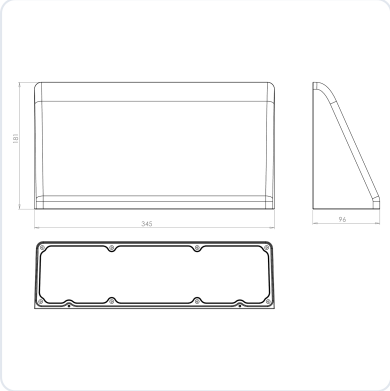
| | Wallpack 100 | Wallpack 60 |
|---|---|---|
| **PERFORMANCE** | | |
| Article base code | DRKW01 | DRKW02 |
| Luminous flux | 16,000 lm | 9,600 lm |
| Power consumption | 100 W, settable from 10 W | 60 W, settable from 10 W |
| Efficacy | 160 lm/W | 160 lm/W |
| Upward light output ratio | 0 % at 0° tilt | |
| Cut off angle | 63°, 66°, 69°, 72° or 75°, factory set, shield position S1 to S5 | |
| **ELECTRICAL AND DRIVER** | | |
| Supply voltage range | 90–305 VAC, 50/60 Hz | |
| Current draw | 0.83 A at 120 V · 0.45 to 0.36 A at 220 to 277 V | 0.5 A at 120 V · 0.27 to 0.22 A at 220 to 277 V |
| Power factor at full load | > 0.9 at 70 to 100 % load | |
| Surge protection | 6 kV line to line, 10 kV line to earth (IEC 61000-4-5) | |
| Dimming and control | 0–10 V, PWM, DALI-2, or over NFC. Sensor integration available | |
| Power setting | 10 to 100 W | 10 to 60 W |
| Driver | Internal BLD120, no external box | |
| **CONSTRUCTION** | | |
| Housing | Cast aluminium, less than 0.08 % copper | |
| Optic | Deep patented parabolic reflector, no lens | |
| Mounting | Facade mounting plate, aluminium, less than 0.08 % copper. Plate 344 mm wide, one Ø28 cable hole, six Ø5.2 holes on 315 mm and six on 200 mm | |
| 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, 4 cores (2 × 1.5 mm² + 2 × 0.5 mm²), 0.3 m | |
| Dimensions | 345 × 181 × 96 mm | |
| Weight | 4.0 kg | |
| Wind load | Not applicable to a wall mounted luminaire | |
| Warranty | 5 years, extendable to 10 years under a maintenance agreement | |

The power setting is a driver setting made over DALI-2 or NFC and can be changed after installation, which is what makes one article cover a dock door and a quiet perimeter route on the same building.

# Mechanics, mounting and driver

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

## HOUSING AND WALL PLATE




| | |
|---|---|
| Dimensions | 345 × 181 × 96 mm |
| Weight | 4.0 kg |
| Mounting | Facade plate, aluminium |
| Front | Impact resistant glass, IK08 |
| Optic | Deep patented parabolic reflector |
| Cable | 0.3 m tail through the plate |

## CONTROL AND SETTING

| | |
|---|---|
| Protocols | DALI-2, 0–10 V, PWM, NFC |
| Power setting | 10 to 100 W, or 10 to 60 W |
| Sensor | Integration available |
| Set when | On site, and changeable afterwards |
| Cut off | 63° to 75°, set mechanically |

## MOUNTING AND ACCESSORIES

| | |
|---|---|
| Facade mounting plate | Aluminium, supplied as standard |
| Sensor | Integration available, specified at order |
| Ten year warranty | Under a maintenance agreement with JEL or an appointed party |
| Column version | DarkLicht D, for the yard in front of the building |
| Canopy version | Manta canopy, for a roof or a canopy |
| Machine version | DarkLicht S and DarkLicht Mini |

## INTERNAL DRIVER

| | |
|---|---|
| Type | BLD120, inside the housing |
| External box | None |
| Case temperature | Tc −40 to +90 °C |
| Lifetime | ≥ 100,000 h at Tc 75 °C |
| Control | 0–10 V, PWM, DALI-2, or over NFC |
| Sensor | Integration available |

**One fitting, one cable, one setting.** Driver and control inside the housing means the installation on a facade is a plate, a tail and a connection, with the power level set afterwards over NFC.

## MOUNTING HEIGHT

| | |
|---|---|
| Typical | Building perimeter, dock and escape route lighting |
| Cut off | Set so the light stops at the boundary, not at the wall |
| Above windows | The reflector keeps the facade above the luminaire dark |
| Retrofit | Replaces a conventional wall pack on the existing position |

# Ordering, standards and documents

## ORDER CODE

Example **DRKW01-40K**

DarkLicht WP Wallpack 100, 4000 K

| | |
|---|---|
| **DRKW01 · DRKW02** | Wallpack 100 at 16,000 lm · Wallpack 60 at 9,600 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 |
| **Sensor** | Specified at order, not part of the code |

The cut off angle is a factory setting: give the shield position S1 to S5 with the order. The power level and sensor integration are specified at order as well.

## COMBINATIONS

| | |
|---|---|
| Tuneable white with DS-1 colours | Possible |
| Sensor with DALI-2 | Possible |
| Power setting after installation | Over NFC |
| Ten year warranty | Under a maintenance agreement |
| DC supply | Not available |
| High temperature | 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-wp-wallpack

## WHERE IT EARNS ITS PLACE

The DarkLicht WP earns its place along the building line. Perimeter routes, dock doors and escape routes are lit every night, they are the closest lighting on the site to the people who live next to it, and they are almost always the part of the project with the smallest budget. The WP is what lets that part be done properly without a mast, a foundation and a trench.

**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.