

INSTRUCTION MANUAL

DarkLicht WP

Full cut off LED wall pack with the driver and the control inside:
the DarkLicht WP Wallpack 100 and Wallpack 60 on their facade plate.

DOCUMENT

MAN-DLW-EN

REVISION

1

DATE

07 / 09 / 2026

LANGUAGE

EN



Read before installation

Keep for future use

Qualified personnel only

DRKW01 · DRKW02

Contents

This manual covers the DarkLicht WP wall pack in both power levels, the Wallpack 100 and the Wallpack 60. They share one housing, one facade plate, one reflector and one light distribution; the output level is a driver setting. Where a section applies to one version only, the version is named in the row.

BEFORE YOU START

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WHICH VERSION DO YOU HAVE

Code on the label	Version
DRKW01	DarkLicht WP Wallpack 100, 16,000lm, 100 W settable from 10 W
DRKW02	DarkLicht WP Wallpack 60, 9,600lm, 60 W settable from 10 W

The label is on the rear of the housing, against the plate. Section 2.5 explains the second code on it, which is not an article number. Both versions are the same housing on the same plate; only the label and the driver setting tell them apart.

PRODUCT PAGE



Photometric files, drawings, the datasheet and the current version of this manual.

jelproducts.nl/en/products/darklicht-wp-wallpack

KEEP THIS MANUAL

Store it with the building documentation and pass it on to every person who works on the luminaire.

1 About this document

Read this manual and understand its safety instructions before you install, operate or maintain the luminaire. Failure to do so can result in serious injury or death.

1.1 Who this document is for

This manual is written for the buyer, the installer, the facility manager, the maintenance technician and the end user. Assembly, installation, commissioning and maintenance may only be carried out by a qualified person: someone with electrical training who can recognise the risks described here and avoid the hazards that arise during the work.

Every person who works on the luminaire must have read these warnings and must follow them. Keep the manual for the service life of the installation.

1.2 Hazard classes

Safety information in this manual is graded. The class tells you how serious the consequence is if the instruction is ignored.

DANGER

A hazard with a high level of risk which, if not avoided, will result in death or serious injury.

WARNING

A hazard with a medium level of risk which, if not avoided, could result in death or serious injury.

CAUTION

A hazard with a low level of risk which, if not avoided, could result in minor or moderate injury.

NOTE

Information that matters for a correct result but that is not related to a hazard.

1.3 Symbols



Electrical hazard

Live parts. Isolate the supply before working on the luminaire.



General hazard

Described in the text beside the symbol.



Optical radiation

Do not look into the operating light source.



Hot surface

The housing runs warm in service.



Crush hazard

A 4 kg housing held at arm's length above a door.



Two persons

This step must be carried out by two people.



Read the manual

Read and understand it before use.



Protective earth

Terminal for the protective earth conductor, in the box.



CE marking

Complies with the applicable European legislation.



Separate collection

Not unsorted municipal waste.

1.4 Feedback

The latest version is on the product page. If you find an error, write to info@jelproducts.nl. We would rather correct a sentence than have an installer guess.

1.5 Revision history and what this edition replaces

The WP has been supplied with the DCbright Operating Instruction WP-Series of 25 March 2026, twelve pages. **This edition supersedes it.** Where they disagree, this manual applies. The M300, the M150 and the Mini have a manual of their own, MAN-DLM-EN.

Date	Revision	Change
25 March 2026	-	DCbright Operating Instruction WP-Series, twelve pages. Superseded
7 September 2026	1	First edition of the JEL Products manual for the WP as a document of its own, to the JEL Products manual standard. Corrected against the DCbright instruction: the ambient range is minus 45 to plus 50 degrees Celsius, the service life is TM-21 L90B05 above 103,500 h and not the LM70 figure printed there, the warranty is 5 years and not 3, the WP is IK08 and not IK07, the article codes are DRKW01 and DRKW02, and the cut off is a factory setting

2 The product

The wall pack is where obtrusive light usually starts. A conventional wall pack throws light up the facade, into the windows above it and across the boundary. The DarkLicht WP mounts on the building and lights the ground in front of it with a deep parabolic reflector that cuts the light off completely above an angle between 63 and 75 degrees, set at the factory to the ordered position. Driver and control sit inside the housing; the power is settable from 10 W.

2.1 The two versions



Wallpack 100. 16,000 lm at 100 W, settable from 10 W. DRKW01



Wallpack 60. 9,600 lm at 60 W, settable from 10 W. DRKW02. The same housing and the same plate



The facade plate. Supplied as standard. The wall is drilled from the plate; the housing is never drilled

	Wallpack 100, DRKW01	Wallpack 60, 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	
Supply	90 to 305 VAC, 50 or 60 Hz, mains on the tail	
Driver	BLD120 inside the housing, no external box	
Control	0 to 10 V, PWM, DALI-2, or set over NFC. Sensor integration available	
Cut off	63 to 75 degrees in five positions, set at the factory to order. ULOR 0 per cent at every position	
Housing and front	Cast aluminium, e-coated Titanium Black, Titanium Grey or Neutral White. Impact resistant glass, IK08	
Termination	H07BQ-F tail, 2 × 1.5 mm ² mains, green and yellow protective earth, plus 2 × 0.5 mm ² control, 0.3 m, free ends, through the plate	
Ingress	IP66, IP67, IP68 and IP69K	
Ambient	minus 45 to plus 50 °C	
Weight	4.0 kg with the plate	
Warranty	5 years, extendable to 10 under a maintenance agreement	

The whole DarkLicht line shares one light distribution, so one measured set covers the WP at its own flux and a lighting designer works with one photometric behaviour at every mounting height. Both versions share one housing and one plate: the output level is a setting, not a different fitting on the wall.

2.2 Intended use

The DarkLicht WP is intended for permanent professional installation as perimeter, entrance and route lighting on a vertical facade, outdoors or under a canopy, within the ambient temperature range and the supply range in chapter 3, wherever the light has to reach the ground in front of the building and not the windows above it, the neighbour or the sky. It hangs on its facade plate on a wall and is aimed by the cut off position, ordered from a lighting design, and by the mounting height. Typical applications:

Where	Applications
Buildings	Building perimeters and service routes, loading docks and goods entrances, business park and commercial facades, external stairs and emergency exit doors, fire escape routes and muster points, under canopy and overhang positions, camera support lighting on buildings
Plant and yards	Substation and plant room exteriors, waste and recycling compounds, yard walls and boundary structures, workshops and depots bordering housing, sites under an NSVV obtrusive light condition
Retrofit	Replacement of a conventional wall pack on the existing position, where the complaint about the old luminaire was the light on the facade, in the windows or across the boundary

2.3 What the luminaire is not for

The following uses are outside the intended use. They are not covered by the warranty and, in several cases, they are unsafe.

- **Explosive atmospheres.** The WP is not ATEX or IECEx certified and may not be installed in a zoned hazardous area.
- **A DC supply.** The WP is an AC luminaire with its driver inside. There is no DC version; for a 24 V system on a vehicle or a machine take the DarkLicht Mini or the DarkLicht S.
- **Ambient above plus 50 degrees Celsius.** There is no high temperature DarkLicht.
- **Permanent immersion.** IP68 is verified as a test class, not as a continuous operating condition. IP69K covers washdown, not submersion.
- **Permanent salt exposure beyond C5.** There is no 316L DarkLicht.
- **Anything but a vertical face.** The facade plate and the reflector assume a wall with the plate vertical and the top edge level. For a ceiling or a canopy take the Manta; for a column or a mast in the yard take the DarkLicht D.
- **Uplighting, facade washing or lighting a wall above the luminaire.** Nothing leaves the reflector above the cut off, by design.
- **Consumer, decorative or domestic lighting.**
- **Emergency or escape route lighting from an internal battery.** The WP has no battery back up and no self test. It lights an escape route; the emergency function is in the circuit that feeds it.
- **Operation with a damaged glass, housing, plate or tail, or with the housing opened.**

2.4 Order codes

DRKW01-40K-BIC

DRKW01	Wallpack 100, 16,000 lm, 10 to 100 W
DRKW02	Wallpack 60, 9,600 lm, 10 to 60 W
57K to 27K	5700, 5000, 4000, 3000, 2700 K
22K · 18K · 17K	Amber 2200, 1800 and 1700 K, the DarkSky DS-1 range
BIC	Bi-colour, tuneable white 4000 K with 2200 K and 1700 K, switched in operation, section 9.3

The cut off position is specified at order and set at the factory; it is not adjustable on site. The power level is a driver setting, made on site over NFC or DALI-2 and changeable afterwards. The control protocol, the sensor, the housing colour and the Ra 80 or Ra 90 option are confirmed at quotation and are not part of the code.

NOTE, THE CODES ON OLDER DOCUMENTS

The DCbright instruction and older JEL documents carry WALL01 and WALL02 for the WP. Those codes are withdrawn. The article codes are **DRKW01** for the Wallpack 100 and **DRKW02** for the Wallpack 60, as on the datasheet of August 2026.

2.5 The type label, and the second code on it

The type label on the rear of the housing carries the article code, the electrical data, the protection class, the ingress rating, the cut off position and the serial number. It also shows a **second code that is not an article number and that will not match what you ordered**. That is correct and it is deliberate.

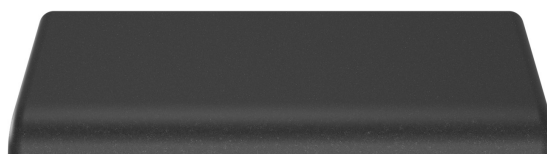
NOTE

The second code is a JEL Products internal production code, such as DL-WP-100-S2. It records the specific printed circuit board fitted, the production batch and the production date. We use it for traceability, for warranty and for service. It carries no information you need in order to specify, order or reorder a luminaire.

When you contact us about a luminaire, quote both. The article code tells us what it is. The internal code tells us exactly which one it is, which board is in it and when it was built. **Photograph the label before you hang the housing on the plate:** once it is on the wall the label faces the wall.

WARNING, THE 100 AND THE 60 LOOK IDENTICAL

The Wallpack 100 and the Wallpack 60 are the same housing on the same plate. From the front nothing tells them apart. **Read the label** and check the power setting against the lighting design at commissioning, section 8.2.



The WP from the top: the closed top, the fin field and, against the wall, the plate that carries the label side

3 Technical data

All values apply to the standard configuration at 4000 K and 25 degrees Celsius ambient, including reflector losses and driver consumption, at the full power setting and with the cut off in the ordered position. The two versions share every optical and mechanical value; only the electrical rows differ.

	Wallpack 100, DRKW01	Wallpack 60, DRKW02
PERFORMANCE		
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	
Cut off angle	63 to 75 degrees in five shield positions S1 to S5, set at the factory to the ordered position, section 3.2. Upward light output ratio 0 per cent at every position	
Colour temperature	5700, 5000, 4000, 3000, 2700 K, amber 2200, 1800 and 1700 K, and tuneable white 4000 K with 2200 K and 1700 K	
Colour rendering	Ra above 70 standard, Ra 80 or Ra 90 on request. MacAdam step 3 or better	
ELECTRICAL AND DRIVER		
Supply	90 to 305 VAC, 50 or 60 Hz, on the tail	
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
Driver	Internal BLD120, inside the housing, no external box. Tc minus 40 to plus 90 °C, above 100,000 h at Tc 75 °C	
Inrush current	66.8 A peak, T50 350 µs at 220 V	
Luminaires per MCB, B16 · C16 · C25 · D16	5 · 8 · 13 · 17	
Surge protection	6 kV line to line, 10 kV line to earth, IEC 61000–4–5	
Power factor	Above 0.9 at 70 to 100 per cent load	
Dimming and control	0 to 10 V, PWM, DALI–2, or set over NFC, on the thin pair of the tail. Sensor integration available	
Power setting	10 to 100 W	10 to 60 W
Cable and termination	H07BQ–F 2 × 1.5 mm² plus protective earth, plus 2 × 0.5 mm² control, 0.3 m, free ends, through the plate	
CONSTRUCTION		
Housing	Cast aluminium, less than 0.08 per cent copper. Conversion layer plus two layer titanium–based e–coating, Titanium Black, Titanium Grey or Neutral White	
Optic	Deep patented parabolic reflector, no lens	
Mounting	Facade mounting plate, aluminium, less than 0.08 per cent copper, supplied as standard, section 3.1	
Front	Impact resistant glass, IK08 to IEC 62262	
Protection class	Class I: the driver is inside, so the housing is earthed through the tail	
Ingress protection	IP66, IP67, IP68 and IP69K, each class tested separately, so IP69K does not imply IP68	
Corrosion class	C5 industrial and marine, ISO 9223	
DIMENSIONS, LIFE AND WARRANTY		
Dimensions, from the drawing	345 × 181 × 96 mm on its plate, section 3.1	
Weight	4.0 kg with the plate	
Wind load	Not applicable to a wall mounted luminaire	
Ambient and storage	minus 45 to plus 50 degrees Celsius, stored dry in the original packaging	
LED service life, TM–21 L90B05	above 103,500 h at 50 °C	
Warranty	5 years on the complete luminaire, extendable to 10 under a maintenance agreement	

Luminaires per MCB is the driver manufacturer figure on an ABB S200 at 220 V, a guide for engineering and not a substitute for the installation calculation. Tuneable white and the amber colours change the luminous flux; the quotation states the figure that applies. The flux is the figure at the full power setting.

Where the driver is, and what that means

On the WP the BLD120 and the control sit **inside the housing**. A wall pack with a driver box beside it on the facade would defeat the point of a wall pack, so the installation on a facade is a plate, a tail and a connection in the box behind the plate, with the power level set afterwards over NFC or DALI-2. The trade is that the driver is not a field part: a driver fault is a housing exchange on the same plate, chapter 12.

Because the driver is inside, the WP is the one DarkLicht that takes **mains on its tail**. The tail carries the phase and the neutral on two cores of 1.5 mm², the protective earth in green and yellow, and the control signal on two cores of 0.5 mm². The rule across the range is that the place where the driver sits is earthed, so the WP is a Class I luminaire.

NOTE, THE 103,500 HOURS

The LED life of the DarkLicht range is L90B05 above 103,500 h, lower than the 360,000 h of the JEL floodlight range. That is a property of the reflector platform, not a defect, and it is still twenty years of dusk to dawn operation. The older DCbright documents print an LM70 figure; L90 is the stricter and the correct measure, and this manual uses it.

NOTE, ONE ARTICLE FOR A DOCK AND A QUIET ROUTE

The power setting is a driver setting made over DALI-2 or NFC and can be changed after installation. That is what makes one article cover a dock door at 100 W and a perimeter route at 30 W on the same building, and it is why the setting is recorded at commissioning, section 8.2.

WHAT THIS LUMINAIRE DOES NOT DO

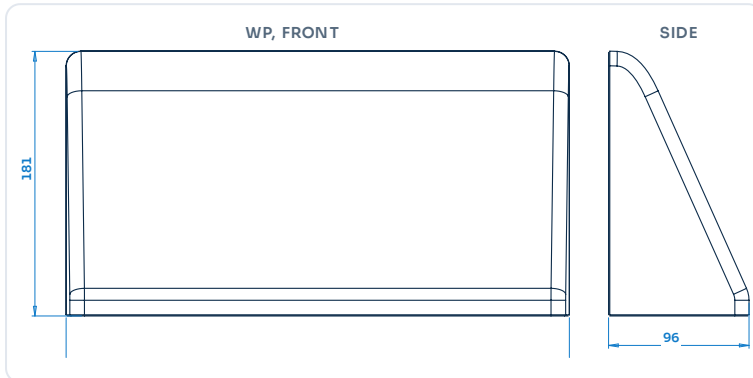
High temperature	No HT version. Above plus 50 degrees Celsius ambient the reflector platform is not offered
316L	No stainless version. The housing is e-coated aluminium to C5
DC supply	The WP is AC only, with its driver inside. For a vehicle or a machine see the DarkLicht Mini
A column or a mast	For the yard in front of the building see the DarkLicht D; for a ceiling or a canopy the Manta
Ordering a cut off	Specified at order and set at the factory. It cannot be changed on site. Where nothing is specified the luminaire leaves at S2, 72 degrees



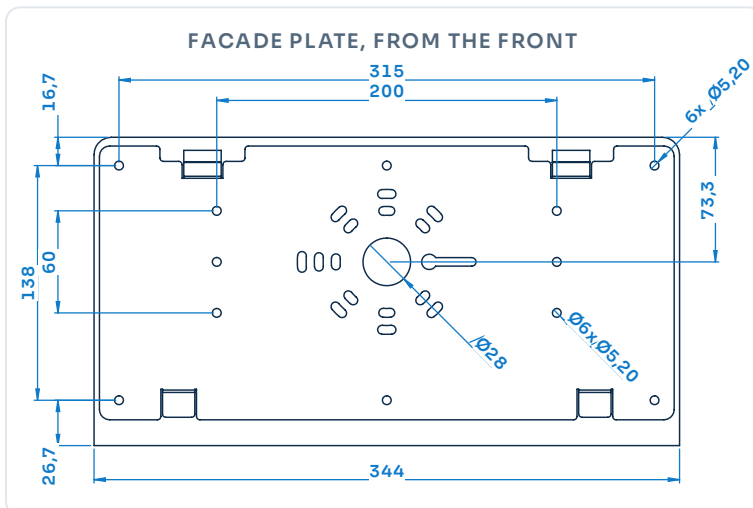
The WP in Titanium Grey. Housing, plate and glass are one sealed unit on the wall

3.1 Dimensions and the facade plate

All drawings are dimensioned in millimetres and are taken from the production drawings of the WP housing and its mounting plate. DXF and STEP models are available on request. The housing is a wedge: the top is closed, the glass is the sloping underside, and the fin field is on the top and the sides. The plate carries every hole, so the wall is drilled from the plate and the housing is never drilled.



WP from the front and from the side. 345 mm wide, 181 mm high, 96 mm deep at the base of the wedge. The glass is the sloping underside



The facade plate, 344 mm wide and 138 mm high: a Ø 28 cable hole in the centre, radial slots for a standard flush box, six Ø 5.2 holes on 315 mm and six on 200 mm centres, 60 mm apart in height, the tabs at the corners 16.7 and 26.7 mm from the edges

DIMENSIONS, FROM THE DRAWING

Envelope	345 × 181 × 96 mm on its plate
Plate	344 mm wide, Ø 28 cable hole in the centre

MOUNTING INTERFACE, THE PLATE

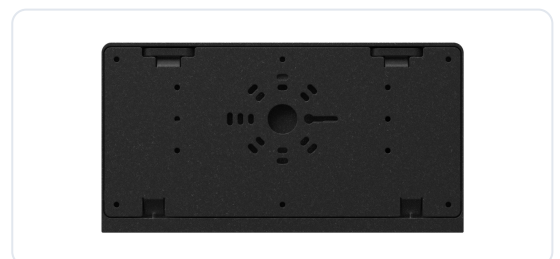
Pattern A	6 × Ø 5.2 mm on 315 mm centres
Pattern B	6 × Ø 5.2 mm on 200 mm centres
Flush box	Radial slots around the cable hole for a standard box behind the plate
Fixings	Six screws and plugs rated for the wall, section 6.1

WEIGHT AND WIND

Luminaire with plate	4.0 kg
Wind	Not applicable on a wall. The plate screws carry 4.0 kg and the suction on a 345 × 181 mm face, section 6.1

NOTE, THE DATASHEET ENVELOPE

The datasheet gives 340 × 180 × 100 mm; the production drawing dimensions the housing at 345 × 181 × 96 mm on its plate, which agrees to within the coating. This manual follows the drawing. The housing hangs on the plate and is secured to it, section 6.2; nothing is drilled in the housing.



The plate as supplied. The tabs at the corners locate the housing

3.2 The cut off, and what it does to the light

A DarkLicht has no lens. A deep parabolic reflector throws the light forward and down and cuts it off completely above the set angle. That angle, measured from the vertical below the luminaire, lies between 63 and 75 degrees in five shield positions on the reflector, and is **set at the factory** to the position specified at order. The upward light output ratio is nil at every position: what changes is how far the light reaches, not how much there is. On a wall pack that reach is the distance from the wall at which the light stops.

Position	Cut off	Beam angle	Typical use
S1	75°	132°	Maximum reach, a yard without a sensitive boundary
S2	72°	123°	Wider cover where the boundary allows it. Supplied where no position is specified
S3	69°	-	The usual position for a dock, a service route or a car park
S4	66°	-	A building with housing across the street
S5	63°	-	Tight boundaries, a facade directly on a carriageway or against housing

The beam angle is the full angle at 50 per cent of the peak intensity in the C0 to C180 plane. At 69 degrees and below the distribution has no 50 per cent point above the cut off, so no beam angle is stated. The photometric files carry the two measured **shield positions** of the reflector, S1 and S2; S3 to S5 are built on the same shield at order. Section 6.6 says what the installer checks.

REACH AGAINST MOUNTING HEIGHT

Mounting height	S5, 63°	S3, 69°	S1, 75°
3 m	6 m	8 m	11 m
4 m	8 m	10 m	15 m
5 m	10 m	13 m	19 m
6 m	12 m	16 m	22 m

The distance from the wall at which the light stops, the tangent of the cut off times the height, at nil tilt. A geometric guide for choosing the position and the height, not a lighting calculation.

OBTRUSIVE LIGHT

ULOR	0 per cent with the plate vertical, at every cut off position
Above the luminaire	The reflector keeps the facade and the windows above it dark
Guidance	NSVV guideline on obtrusive light, EN 12464-2, EN 12193
DarkSky DS-1	Met at 1700 to 2200 K, third party tested
Colour for DS-1	Amber 2200, 1800 or 1700 K, or tuneable white with 4000 K for the work and 2200 or 1700 K for the night, section 9.3

WARNING, A LEANING WALL UNDOES THE CUT OFF

The cut off is a property of the luminaire with its **plate vertical and its top edge level**. On a wall that leans back, or on a plate packed out at the bottom, the reflector points up and light goes above the horizontal like on any wall pack.

Reach is chosen with the cut off position and the mounting height, never by tilting the plate. A permitting condition written against a DarkLicht assumes a vertical plate.



The WP on the wall. The glass is the sloping underside; the top is closed and the facade above it stays dark

3.3 Standards and verification

Subject	Standard	By
Luminaire safety	IEC/EN 60598-1, -2-5	In house
EMC emission and immunity	EN 55015, EN 61547	TÜV
Marine EMC	IEC 60533, bridge and open deck	TÜV
Ingress	IEC 60529, ISO 20653	In house
Impact	IEC 62262, IK08 glass	In house

Subject	Standard	By
Corrosion	ISO 9223, class C5	In house
Obtrusive light	NSVV guideline, DarkSky DS-1 at 1700 to 2200 K, EN 12464-2, EN 12193	Third party
Photometry	IES LM-79, TM-21 for lifetime	In house
Driver	EN IEC 61347-2-13, EN IEC 62384	Manufacturer
Substances	RoHS, REACH	Self-declaration

This table lists how the product is verified. The harmonised standards named on the declaration of conformity are listed separately in section 14.1. Photobiological safety is covered in section 4.3. The DarkSky DS-1 test is the one a planning condition or a nature permit refers to; ask us for the report when a permit file needs it. To check the authenticity of a test or inspection report and certificate, contact JEL Products on +31 (0)33 785 9809 or at info@jelproducts.nl.

WHAT EACH RATING MEANS HERE

IK08	The glass front, 5 joules, IEC 62262. The glass is the sloping underside of the luminaire and faces the ground; over a dock door that is where a pallet corner or a stone comes from. Where material flies, the Piranha with its IK10 polycarbonate front is the better lamp, but it has no cut off
IP69K	The high pressure steam jet test of ISO 20653. It is why a WP on a dock door survives the weekly wash of the door, within the limits of section 10.5
Class I	The driver sits inside the housing, so the housing is earthed: the green and yellow conductor of the tail is connected to the protective earth of the site cable in the box, always
C5	Industrial and marine, ISO 9223. A port building or a coastal site is within it; permanent salt immersion is not
ULOR 0 percent	Nothing leaves the reflector above the horizontal with the plate vertical. The figure a permit condition on obtrusive light asks for



The WP from the side. The wedge puts the glass at its working angle without a bracket; the wall sets the attitude



The WP in Titanium Grey, one of the three housing colours

4 Safety

This chapter lists the hazards that arise when a DarkLight WP is installed, operated and maintained, and what to do about each of them. It does not replace the national and local electrical, building and working at height regulations that apply on your site.

4.1 Electrical hazard

DANGER, LIVE PARTS

The tail of a WP carries **mains**. Working on the tail, in the box behind the plate or on the site cable while the supply is on can cause death or serious injury. Isolate the supply, secure it, and verify that the circuit is dead before you touch a conductor. Check twice.

DANGER, THE THIN PAIR IS NOT A MAINS PAIR

The two 0.5 mm² cores of the tail carry the control signal. Mains on the thin pair destroys the driver and puts mains on a control circuit that other equipment shares. Brown and blue on mains, the thin pair on the control line or capped, section 7.1.

- The WP is a Class I luminaire: the driver is inside, so the housing is earthed. The green and yellow conductor of the tail is connected to the protective earth of the site cable in the box, and the earth is carried through where the circuit continues.
- Make the connection to the standards and directives that apply in your country. Stay within the supply range in chapter 3. **Read the label before you connect.**
- Keep one metre to a radio receiver.

4.2 Falling objects

WARNING, FALLING LUMINAIRE

A WP over a door is directly above the people using the door. A housing that comes off its plate, or a plate that comes off the wall, falls on them. Verify the wall before mounting, use every screw in the plate and every screw between the housing and the plate, and fit a secondary retention wherever the luminaire is above a door, a walkway or a working area.

The WP weighs 4.0 kg with its plate. Under EN 60598-1 the suspension has to withstand four times the mass. On a cladding panel, a rendered wall or a hollow block the plate screws are the weak point, not the plate: **the fixing goes through to the structure.**

4.3 Optical radiation

WARNING, OPTICAL RADIATION

Never look into the operating light source. Direct exposure at close range can cause permanent eye damage. On a DarkLight that means looking up into the glass from below; from beside the luminaire or from the windows above it there is nothing to see, which is the point of the cut off.

Photobiological safety is classified to **EN 62471**, with the blue light hazard assessed to **IEC/TR 62778**. That gives a **hazard distance**: beyond it the luminaire is Risk Group 1 and no exposure limit is reached in normal viewing. It is set by the peak intensity, so it hardly changes with the cut off position. The figures below come from our own LM-63 photometric files at shielding position S2, the higher of the two.

Version	Peak intensity	Hazard distance
Wallpack 100, DRKW01	20,500 cd	2.4 m
Wallpack 60, DRKW02	12,300 cd	1.9 m

The rule on site. Take **3 m** for either version. Nobody works or stands within that distance looking up into the glass. Over a dock door at 4 m the distance is met by the mounting height alone; on a WP at 2.5 m over a side door, on a stair or on a platform under the luminaire it is not, and work near the glass is done with the supply off.

Method: the square root of the peak intensity divided by the threshold illuminance at the Risk Group 1 boundary, taken as 3,500 lx. Amber and 3000 K builds are a little lower. Calculated from our own photometric files at the full power setting, not a measurement report. At a lower power setting the distance is shorter.

4.4 Hot surfaces



CAUTION, HOT HOUSING

A Wallpack 100 puts 100 W through a fin field on a housing that also holds its driver. In service, on a sunlit south facade in summer, the housing is too hot to hold. Let it cool before handling. The BLD120 inside runs at a case temperature of up to plus 90 degrees Celsius.

- Isolate the supply and let the luminaire cool to hand temperature before any work.
- Do not mount a WP above a flue, an extract grille, a heat pump outlet or a boiler room vent, and not inside a closed recess in insulation. The fins need air.
- Never run cold water onto hot glass. The thermal shock can break it, see section 10.5. On a DarkLicht the glass is the underside and a lance from the ground hits it first.
- The ambient at the fins stays below plus 50 degrees Celsius. Under a dark canopy in summer, measure it.

4.5 Crush and handling

CAUTION, MOVING PARTS

Hanging the housing on the plate is done at height, with 4.0 kg held at arm's length while the tabs engage. Keep fingers clear of the gap between the housing and the plate while the housing seats, and have the ladder or the platform footed before the housing leaves the box.

- Wear gloves, safety boots and a hard hat during assembly and installation.
- Do not work alone at height. Use rated and secured ladders or a platform, and never use the luminaire or its plate as a handhold or a step.

4.6 Heat and surroundings

- Keep at least 75 mm clear above and beside the fin field. Do not cover or wrap the luminaire, do not mount it inside an insulated recess, and do not let a sign, a canopy fascia or a cable tray close the gap above it.
- Keep the fins clear. On a facade they collect dust, on a dock diesel soot and paper fibre, and trapped dirt reduces cooling and shortens the life of the LEDs. The WP has no fan or vent.
- Do not install a WP near a heat source that takes it beyond plus 50 degrees Celsius ambient. There is no high temperature version.
- Do not expose the luminaire to corrosive chemicals outside its corrosion class without checking with your supplier first. There is no 316L DarkLicht.

4.7 Laying the luminaire down

CAUTION

Lay a WP on its **back**, the plate side, the way it was delivered. **Never rest it on its glass.** The glass is the sloping underside and it is what the luminaire lands on if it is put down carelessly; a chipped glass edge becomes a leak path at the first washdown.

The plate is a flat aluminium sheet and carries the weight without complaint, which is why the WP is shipped lying on it. On the wall the plate is behind the housing; on the bench it is under it.

NOTE

Keep the free ends of the tail capped and dry until the connection is made. A tail that has stood in a puddle carries water into the housing by capillary action, and that shows up months later as a driver fault.

4.8 What must never be done

DANGER, DO NOT OPEN THE HOUSING

Do not remove the glass, the glass frame or any part of the housing, do not open the driver compartment, and do not shorten or cut the tail. The seal, the ingress protection and the electrical safety all depend on a housing that has not been opened. Nothing on a WP is designed to be opened in the field. Opening it voids the warranty and the declaration of conformity.

- Do not modify, repair or open the luminaire. Repairs are carried out by JEL Products or by a company it appoints.
- Do not install or switch on a luminaire with a cracked glass or a damaged housing, plate or tail, and do not use it as listed in section 2.3.
- Do not connect the thin pair to mains, do not connect a DC supply, and do not put the luminaire on a supply outside the range on its label.
- Do not hang the housing on fewer than all its screws, do not fix the plate on fewer than six, and do not move or modify the reflector shield: the cut off is a factory setting.
- Do not pack the plate out to tilt the luminaire for reach. Order the cut off position for the site instead, section 3.2.

4.9 Emergency and exceptional situations

- If an electrical fault occurs in a luminaire or in the box behind it, switch off the supply immediately.
- If a luminaire is severely damaged during operation, by a vehicle, a load or a collision, switch off the supply immediately and do not switch it on again until the luminaire has been replaced or released by JEL Products. A cracked glass on a lamp that still works is still a luminaire out of service.
- The WP has no battery back up. It does not provide emergency or escape route lighting, not even over an emergency exit door: that function is in the circuit that feeds it.

4.10 Potential health consequences

If ignored	Consequence
Working on a live tail or box	Severe injury or death by electric shock
Mains connected to the thin pair	Destroyed driver, mains on a control circuit, shock risk
Looking up into the operating glass	Permanent eye damage, at close range
Touching a hot housing	Burns, minor to moderate
Plate on fewer than six screws, or no retention above a door	Injury from a falling luminaire of 4.0 kg
Luminaire used as a handhold or step	Fall from height, bent plate
Fingers between housing and plate	Crushing, minor to moderate injury
Cold water on hot glass	Broken glass, fragments falling, loss of ingress protection
Luminaire rested on its glass	Chipped edge, water ingress, later failure
Plate packed out for reach	Light above the horizontal, glare into the windows and to neighbours, a breached permit condition

NEVER, ON ANY DARKLICHT



Never open the housing or remove the glass



Never rest the luminaire on its glass



Never carry or suspend it by the tail or the connector



Never aim a pressure washer at the cable entry or the connector



Never cover the fin field or box it in



Never fit a driver other than the one supplied

5 Preparation

Everything that has to be right before the first hole goes into the wall.

5.1 Transport and storage

- Transport and store the luminaire in its original packaging, in a dry place, at **minus 45 to plus 50 degrees Celsius**.
- Do not stack pallets beyond the marking on the packaging.
- Store the box the right way up, so that the WP lies on its plate and the glass does not carry the weight.
- Keep the tail coiled in the box until the luminaire is at its position. A 0.3 m tail is short enough to be pinched between the plate and the box during handling.

5.2 Contents of the delivery

- | | |
|---|--|
| 1 | DarkLicht WP in the ordered configuration, with the |
| x | cut off at the ordered position and the tail of 0.3 m with free ends |
| 1 | Facade mounting plate, aluminium, with the screws |
| x | that secure the housing to the plate |
| 1 | This instruction manual |
| x | |

Wall screws and plugs are not supplied, because they depend on the wall. **The safety cable is not supplied as standard**, see section 6.4. A sensor, where ordered, is fitted inside the housing at the factory; nothing sensor related is in the box as a loose part.

NOTE, OLDER PACKAGE LISTS

The DCbright instruction of March 2026 lists a Manta fixture and Manta accessories in the WP package contents. They do not belong to the WP. The list above is what is delivered.

5.3 Unpacking

- 1 Read the label on the box and check that the article code matches what you ordered and what the lighting design says. A Wallpack 100 and a Wallpack 60 are the same housing; the code and the label decide.
- 2 Cut the tape along the seams. Do not push the knife deeper than the tape.
- 3 Lift the luminaire out by the housing with the plate, never by the tail.
- 4 Check that the article code on the type label matches the code on the box, note the internal production code and the cut off position as well, see section 2.5, and photograph the label: on the wall it faces the wall.
- 5 Inspect the glass, the housing, the plate and the tail for cracks, impact damage or a chipped glass edge.
- 6 Keep the packaging until the luminaire is installed and working. A luminaire that has to be returned travels in its own box.

WARNING, DAMAGED PRODUCT

If you find any damage, do not install the luminaire and do not switch it on. Contact JEL Products.



The WP as delivered: housing on its plate, lying on the plate, glass clear of the bench

5.4 Tools

The list names the screw and not a bit size, because the screw into the wall is your choice: bring the driver bit or the spanner that fits the six wall fixings you have chosen, and the bit for the plate screws supplied.

Tool	Used for
Drill, and a masonry bit or a plug set	Six holes in the wall on the chosen pattern, from the plate, section 6.1
Driver bit or spanner for the wall fixings	The six screws of the plate into the wall
Screwdriver or bit for the plate screws	The screws that secure the housing to the plate, section 6.2
Torque screwdriver, 1 to 10 Nm	Housing to plate screws, section 6.5
Spirit level	The plate vertical and its top edge level, section 6.3
Two open ended spanners for the cable gland	The gland of the box beside the plate, one holds the body, one turns the cap nut
Wire stripper and cutter, end sleeve crimping tool	Preparing the tail and the site cable for the terminals
Voltage tester	Verifying that the circuit is dead before the box is opened
Multimeter	Checking the supply voltage at the box
Insulation resistance tester	Commissioning the installation, chapter 8
Heat gun	Heat shrink tubing over a gland on a washed position, section 7.3
NFC programmer, or a DALI-2 tool	Setting the power level, section 9.2

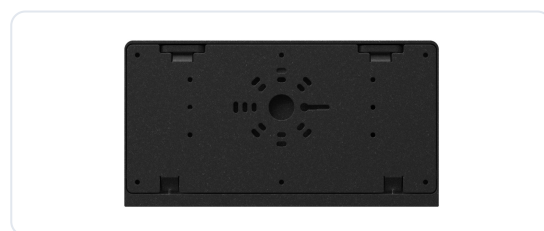
Do not drill the plate to another pattern and never drill the housing. The holes are what the rating was tested with.

NOT SUPPLIED WITH THE LUMINAIRE

Site cable	Mains to the box, H07RN-F 3G1.5 mm ² recommended, section 7.4; and the control cable where a control line is used
Box	A flush box behind the plate, or an IP67 box beside it with M20 glands, where the 0.3 m tail meets the site cable, section 7.1
Wall fixings	Six screws and plugs rated for the wall and for four times 4.0 kg, A4 or 316 stainless steel or hot dip galvanised
Safety cable	Ordered separately, see section 6.4
Heat shrink tubing and self amalgamating tape	For sealing a gland on a washed position, section 7.3
Threadlocker	On a plate that sees vibration, a dock door frame or a machine hall wall

ONE PERSON OR TWO

One person fixes the plate and makes the connection. Hanging the housing on the plate is a one person job at a comfortable height; over a dock door at 4 m it is two people, one on the platform with the housing and one footing the platform and passing the tools. Nobody stands under the housing while it is hung.



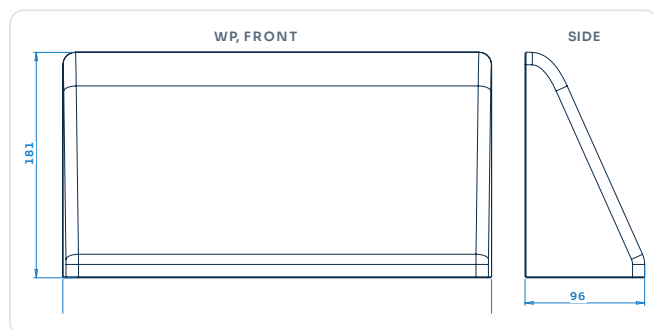
The plate as delivered. Six holes on 315 mm, six on 200 mm, and the cable hole in the centre

6 Mechanical mounting

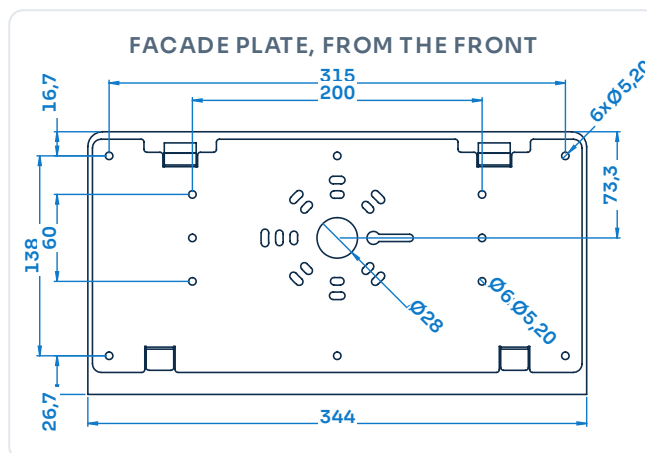
The WP hangs on its facade plate. Fix the plate to the wall first, make the electrical connection in the box behind or beside it, then hang the housing on the plate and secure it. The luminaire is never tilted to aim it: the plate sits vertical and the cut off position and the mounting height decide the reach.

DANGER

Isolate the supply and secure it against being switched on again before you start. Installation may only be carried out by a qualified person, and at height only from a rated platform or a footed ladder.



Mounting principle. The plate on the wall with six screws, the housing hung on the tabs of the plate and secured to it, the glass down and forward



The plate from the front: the Ø 28 cable hole and the radial slots for a flush box in the centre, six holes on 315 mm and six on 200 mm centres

- 1 Load bearing wall: masonry, concrete, a steel frame or a cladding substructure. Verify it for four times the weight, and fix through cladding or render to the structure behind it
- 2 Six screws through the plate, one hole pattern, A4 or 316 stainless steel or hot dip galvanised, in plugs rated for the wall
- 3 The facade plate, 344 mm wide, vertical and level, with the cable hole over the box
- 4 The tail, 0.3 m, through the cable hole into the box behind the plate, or through a gland into a box beside it
- 5 The housing on the tabs of the plate, secured with all its screws to the torque in section 6.5. Fin field on top and at the sides, at least 75 mm clear
- 6 The glass, the sloping underside, facing down and forward. Light leaves here and stops at the cut off angle; nothing goes above the horizontal with the plate vertical

BEFORE YOU GO UP

- The lighting design is on site, with position, ordered cut off position, mounting height and power setting per luminaire.
- The wall behind the plate is flat and vertical: a plate bent onto a corrugated cladding profile without a backing plate is under permanent bending load and works its screws loose.
- The wall carries four times the weight. On a cladding panel, a sandwich panel or a hollow block the fixing goes through to the structure, or a backing plate is fitted.
- The supply is routed to the position, into a flush box behind the plate or a surface box beside it, and can be isolated and secured.

6.1 The plate on the wall

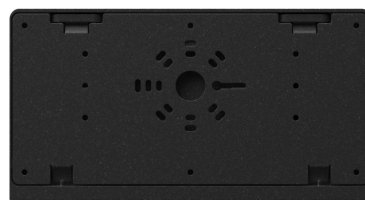
- 1 **Choose the height.** The cut off fixes where the light stops on the ground, so the mounting height and the ordered position go together, section 3.2: at 4 m and 69 degrees the light reaches about 10 m out. Take the height from the lighting design, and keep the glass above head height.
- 2 **Route the supply to the centre of the plate.** A flush box behind the plate is the clean answer; otherwise a surface box beside the plate with the tail led to it through the cable hole and a gland. The 0.3 m tail leaves the housing through the plate.
- 3 **Level the plate on the wall** with the cable hole over the box, plate vertical and the top edge level, and mark the six holes of the pattern that suits the wall.
- 4 **Remove the plate and drill.** Drill for the plug or the anchor you have chosen; never drill through the plate in place.
- 5 **Fix the plate** with six screws and plugs rated for the wall and for four times 4.0 kg, A4 or 316 stainless steel or hot dip galvanised; on a cladding panel through to the substructure. Tighten to the fixing manufacturer's figure and check the level again.

6.2 The housing on the plate

- 1 **Connect the tail** in the box per chapter 7 before the housing goes on: once the housing is on the plate the box behind it is closed off.
- 2 **Hang the housing on the tabs of the plate**, two people over a door, and let it seat. Check that the tail is not pinched between the housing and the plate.
- 3 **Secure the housing to the plate** with its screws, all of them, to the torque in section 6.5, and lock them where the wall sees vibration.
- 4 **Check the cut off position** on the label against the design and record it, section 6.6. It is a factory setting; a luminaire with the wrong position goes back, it is not adjusted.
- 5 **Fit the secondary retention** per section 6.4 wherever the luminaire is above a door or a walkway.

WARNING

A WP over a door is directly above the people using the door. Use every screw in the plate, every screw between the housing and the plate, and never a fixing that relies on the render or the cladding skin alone.



The facade plate from the front: cable hole, radial slots and the two hole patterns. The tabs at the corners locate the housing



The WP on the wall. The glass is the sloping underside, the top is closed, and the facade above it stays dark

AFTER MOUNTING, BEFORE SWITCHING ON

- ☐ Six plate screws in, tight, in plugs rated for the wall.
- ☐ Plate vertical and top edge level, checked with a spirit level.
- ☐ Every housing screw in and at torque, the housing seated on the tabs.
- ☐ Cut off position on the label checked against the design and recorded.
- ☐ Secondary retention fitted above a door or a walkway.
- ☐ Tail not pinched, the box closed and reachable.
- ☐ Nothing within 75 mm above or beside the fin field.

6.3 Mounting attitude and position

Attitude	Plate vertical, top edge level, glass down and forward. That is the attitude the photometry and the ULOR of nil assume. The WP has no bracket and no tilt
Not permitted	Packing the plate out at the bottom for reach, mounting on a leaning or sloping wall without allowing for it in the design, mounting glass up, on a ceiling or on a canopy soffit. The cut off only works with the reflector the way up it was measured
Cable exit	The tail leaves the housing through the plate into the box behind it. Where the box is beside the plate, the tail runs through the cable hole and a gland with a drip loop below the entry
Clearance	At least 75 mm above and beside the fin field. The gap between the fins and a fascia, a sign or a cable tray stays open; do not pack it
Mounting height	Glass above head height at least; 3 to 6 m is the usual range, section 3.2. Over a dock door, above the door frame and clear of the door in every position
Wash down zones	The WP is IP69K and may sit in the wash down zone within the limits of section 10.5. The box beside it must be rated for the zone too
Salt and chemistry	C5. Beyond that, permanent salt immersion or process chemistry, there is no DarkLicht
Heat	The ambient at the fins must stay below plus 50 degrees Celsius. Above a flue, an extract or under a dark canopy in summer, measure it
Cold	The WP runs to minus 45 degrees Celsius and starts at full output, a cold store door included

6.4 Secondary retention

WARNING

Fit a secondary retention wherever the luminaire is mounted above a door, a walkway, a stair or a working area, and always on a wall that sees vibration: a dock door frame, a machine hall, a crusher building. A WP over a goods entrance is above people all day.

NOTE, THE SAFETY CABLE IS AN ORDERED ITEM

The safety cable is **not supplied as standard**. It is supplied with the luminaire when it is ordered, and it is rated for the 4.0 kg of the WP. State the type when you order.

Length	1 m
Rating	Matched to the weight of the luminaire it is supplied for
Anchor	To the wall or the structure, independent of the plate screws, not to the tail
Supply	Ordered separately, never as standard

- 1 Choose an anchor point independent of the plate screws that carries four times the mass of the luminaire: a separate plug in the structure beside the plate. At 1 m the cable is short, so the anchor has to be close. Pick it before you drill.
- 2 Loop the cable around that anchor and attach the other end to a lug on the housing or through the plate to the wall, not to the tail.
- 3 Leave a little slack, enough to lower the housing for service but not so much that the luminaire can gather speed if the fixings fail.
- 4 Record the safety cable in the building documentation, so that it is inspected at every maintenance visit.

DANGER

Do not substitute a cable, chain or strap of your own without having it rated. A longer cable turns a drop into a swing, and a 4.0 kg housing swinging over a door at head height hits whoever is in the doorway.

6.5 Tightening torques

Use a torque screwdriver on the plate screws. Overtightening a stainless screw in an aluminium thread strips it; undertightening lets the housing work on its tabs.

Connection	Size	Torque
Plate screws into the wall	Per the fixing	The fixing manufacturer's figure
Housing to plate screws	M5 · M6	4.9 Nm · 8 Nm
Cable gland cap nut, box	M20	2.5 Nm, and dimension L in section 7.3
Box cover screws	Per the box	The box manufacturer's figure

Torques apply to clean, dry, undamaged threads. For an A4 or 316 screw in an aluminium thread use an anti-seize compound and reduce the torque by about a third, never beyond the figure for the screw size. Where the hardware comes from another supplier, that supplier's torque takes precedence. A plug into masonry or an anchor into concrete follows its own manufacturer's figure.



The WP from the side. There is no pivot and no tilt: the wall sets the attitude and the plate screws hold it

6.6 The cut off, a factory setting

The cut off is a position of the **reflector shield** inside the sealed housing. The shield has five positions, **S1 to S5**, 75 to 63 degrees, and the luminaire is built at the factory to the position specified at order. **Nothing about it is adjustable on site**: not the shield, not the reflector, and not the plate, which stays vertical.

- 1 Specify the position at order from the lighting design. Where none exists: **S3, 69 degrees**, for a dock, a service route or a car park; **S5**, 63 degrees, where housing or a carriageway lies directly on the boundary; **S1**, 75 degrees, only where nothing beyond the reach is sensitive.
- 2 On delivery, check the cut off position on the label and the packing list against the design, luminaire by luminaire, before anything goes on the wall.
- 3 Mount the plate vertical and switch on from a safe distance. Check from the boundary, not from under the luminaire, that the light stops where the design says. Record the position on the site drawing.
- 4 Where the boundary is wrong for the site, do not pack the plate out and do not touch the shield. Contact JEL Products: a different position is a factory job, or a different mounting height.

WARNING, THE PLATE IS NOT AN AIMING ADJUSTMENT

A housing packed out at the bottom for a few metres more reach is a wall pack with light above the horizontal and a reflector at an angle it was never measured at. If the design needs more reach than **S1** gives at that height, the answer is a higher mounting point or a second luminaire.

NOTE, S1 AND S2 IN THE PHOTOMETRIC FILES

The IES files on the product page carry the two shielding positions of the reflector, **S1** and **S2**. A lighting designer working in DIALux uses the file that matches the position that will be ordered, and the order states that position. If the delivered luminaire and the design disagree, the luminaire is exchanged, not adjusted.

7 Electrical installation

DANGER, LIVE PARTS

Isolate the supply, secure it against being switched on again, and verify that the circuit is dead before the box is opened. Only a qualified person may make the electrical connection.

7.1 Architecture, and the tail

The WP takes **mains on its tail**. The BLD120 and the control sit inside the housing, and a tail of 0.3 m leaves through the facade plate: two cores of 1.5 mm² for mains, the green and yellow protective earth, and two cores of 0.5 mm² for the control signal. The tail is connected in the flush box behind the plate or in an IP67 box beside it. There is no driver box, no external driver and no low voltage link.

No	Core	To	Function
1	Brown, 1.5 mm ²	Phase	90 to 305 VAC, 50 or 60 Hz
2	Blue, 1.5 mm ²	Neutral	Neutral, or the second phase on a two phase supply
PE	Green and yellow	Protective earth	Earths the housing. The WP is Class I because the driver is inside. Always connected
3	Grey or yellow, 0.5 mm ²	Control, plus	DALI-2 line, 0 to 10 V plus, or PWM plus
4	Grey or blue, 0.5 mm ²	Control, minus	DALI-2 line, or 0 to 10 V and PWM minus

The protective earth of the site cable and the green and yellow conductor of the tail share the earth terminal in the box, carried through where the circuit continues. A WP ordered with NFC setting only, without a control line, leaves the thin pair capped in the box; do not connect them to mains. Colours of the thin pair are confirmed on the label inside the box lid of the delivery.

WARNING, DALI-2 AND 0 TO 10 V ARE NOT INTERCHANGEABLE

The driver is ordered for one protocol, or set over NFC. A DALI-2 bus on a 0 to 10 V driver does nothing; a 0 to 10 V signal on a DALI-2 driver is out of range. Check the quotation against the control system before you connect the thin pair, section 9.2.

NOTE, THE SENSOR

Sensor integration is specified at order. A WP with a sensor has the sensor connected inside and the DALI-2 line carries the result; nothing is fitted to the housing on site.

7.2 Circuit breakers

Maximum number of luminaires on one miniature circuit breaker, the driver manufacturer figure for the BLD120 on an ABB S200 at 220 V. It is the same for both versions, because the driver is the same.

Driver	B16	C16	C25	D16
BLD120, Wallpack 100 and 60	5	8	13	17

It is the **inrush** that limits the count, not the running current: the BLD120 peaks at 66.8 A with a T50 of 350 microseconds, while a Wallpack 100 draws 0.45 A at 220 V. Five on a B16 is the figure a site electrician does not expect from a 100 W luminaire; a C characteristic is the normal choice on a lighting circuit with drivers. A guide for the engineering phase, not a substitute for the installation calculation.

NOTE

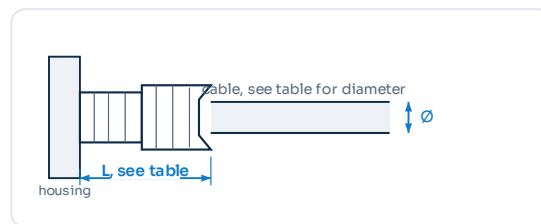
Where a residual current device is fitted, the combined leakage current of the circuit decides the count. One WP draws at most 0.7 mA.

PERIMETER CIRCUITS

Every WP on a circuit is its own mains load. Linking through the box passes the **mains** and, where used, the control line to the next luminaire. Twelve Wallpack 100 on a perimeter route are 5.4 A at 230 V, well inside a C16; the inrush count in the table is what limits the circuit.

7.3 Cable glands

The WP has no gland to tighten on the luminaire: the tail is moulded in at the factory. The glands you meet are those of the box beside the plate, where the tail and the site cable enter. A flush box behind the plate has none. Tighten a cap nut to 2.5 Nm and to the dimension in the table, measured over the gland. That is a more reliable instruction on a ladder than a torque figure alone. Then apply heat shrink tubing and self amalgamating tape over the gland on any position that is washed. Dimension L runs from the face of the box to the end of the cap nut, with the cable fitted; it is not the thread length.



Where dimension L is measured

Cable	M12×1.5 -D-SI 4 to 8	M20×1.5 -2H 4 to 8	M20×1.5 -H 5 to 10	M20×1.5 6 to 12	M20×1.5 -D 8 to 14
H07BQ-F 4G0.5 mm ² , Ø 6.7 mm	17.7 mm	19.8 mm	n/a	n/a	n/a
H07BQ-F 2G2 mm ² , Ø 7.3 mm	18.4 mm	19.9 mm	n/a	n/a	n/a
H07BQ-F 2G1.5 + 2G0.5 mm², Ø 8 mm	18.9 mm	20.0 mm	20.4 mm	n/a	n/a
H07BQ-F 4G1.5 + 2G0.5 mm ² , Ø 10.4 mm	n/a	n/a	21.3 mm	22.2 mm	n/a
H07BQ-F 2G2.5 + 2G0.5 mm ² , Ø 9.5 mm	n/a	n/a	21.1 mm	n/a	n/a
H07BQ-F 4G2.5 + 2G0.5 mm ² , Ø 12.3 mm	n/a	n/a	n/a	n/a	21.0 mm
SiHF-08 2×1 mm ² , Ø 7.9 mm	18.9 mm	20.0 mm	n/a	n/a	n/a
SiHF-08 2×2.5 + 2×0.5 mm ² , Ø 10.7 mm	n/a	n/a	21.3 mm	n/a	n/a
EPDM H07RN-F 3G1.5 mm², Ø 10 mm	n/a	n/a	21.3 mm	n/a	n/a

This table is identical across the JEL range, so a site with DarkLights, Sharks and Barracudas on it works to one set of figures. The rows in bold are the ones that apply here: the tail of the WP, 2 × 1.5 mm² plus earth plus 2 × 0.5 mm², where it enters a box beside the plate; and the H07RN-F 3G1.5 recommended for the mains side of the box. Here n/a means the combination is outside the clamping range of that gland and must not be used. Where a cable and a gland do not appear together in this table, ask JEL Products before you fit them.

7.4 Cable length and voltage drop

Beyond the tail the cable is supplied by the installer, so the cross section is a decision and not a given. The rule is that the voltage drop between the distribution and the luminaire must not exceed **2 V**. On a mains luminaire with a driver that accepts 90 to 305 V that is a normal mains calculation and the cable is almost never the limit; the figures below are the distance at which it would be, for one luminaire at the end of the run.

ONE LUMINAIRE AT 230 V, 2 V DROP

Cross section	Wallpack 100 0.45 A	Wallpack 60 0.27 A
1.5 mm ²	190 m	317 m
2.5 mm ²	317 m	529 m
4 mm ²	508 m	846 m

A PERIMETER ROUTE, TWELVE WALLPACK 100 ON ONE CIRCUIT

Load	5.4 A at 230 V, at the full power setting
2.5 mm ²	About 26 m to the first luminaire with the whole load, longer as the load drops along the route; a 100 m route on 2.5 mm ² with the luminaires spread along it stays inside 2 V
Rule	Calculate the route as a distributed load, or take the total current over the distance to the middle of the route as a first estimate

All lengths are the maximum at the stated drop, copper, two conductors, one way, rho 0.0175. The driver runs from 90 V, so the 2 V limit is an installation rule, not a driver limit. Where the installation calls for a tighter limit, size the cross section on that.

NOTE, THE CONTROL LINE

A 0 to 10 V or PWM control line is a signal, not a load; its length is set by the controller, and it is kept out of the same duct as the mains where interference is a risk. A DALI-2 bus is limited to 300 m total and 2 V drop on the bus by the DALI standard.

7.5 Making the connection

DANGER, READ THE LABEL FIRST

The WP takes mains on the brown and blue cores of its tail, and **only there**. Mains on the thin pair destroys the driver. There is no DC version; a WP on a 24 V system does not light and is not damaged, but a WP on 400 V between two phases is destroyed.

- 1 Confirm the circuit is dead and secured.
- 2 Fix the box, flush behind the plate or IP67 beside it, within reach of the 0.3 m tail and reachable for service.
- 3 Strip the site cable and the tail to suit the glands and the terminals, fit end sleeves, and feed both through their glands where a surface box is used.
- 4 Land the conductors, one per terminal: brown to L, blue to N, and green and yellow to the earth terminal together with the earth of the site cable, carried through where the circuit continues to the next luminaire. The housing is earthed through that conductor.
- 5 Land the thin pair on the control line, or cap it. Keep it away from the mains terminals in the box.
- 6 Tighten every gland to 2.5 Nm and to dimension L in section 7.3, pull on both cables to confirm, and close the box. On a washed position, seal the glands with heat shrink tubing and self amalgamating tape.
- 7 Support the tail with a drip loop below the entry where the box is beside the plate, so that no load reaches the gland.
- 8 Check that no conductor is pinched under the box cover or between the housing and the plate, and that every gasket sits in its groove all the way round.

INSTALLER'S NOTES

Isolation	A lockable isolator per circuit, so a WP over a door can be worked on without darkening the building
Switching	On the supply, or over the control line. A relay that chatters toggles a tuneable white luminaire, section 9.3
Surge	The driver carries 6 kV and 10 kV protection. On a long exposed perimeter route in open country add a type 2 arrester at the distribution

8 Commissioning

Do not switch on until every item below has been checked. Most warranty cases that turn out not to be a product fault trace back to a step skipped here.

8.1 Checks before switching on

- ☐ Conditions within the range in chapter 3, and no broken mechanical part: glass, housing, plate, tail.
- ☐ Supply type and voltage checked against the label: 90 to 305 VAC on brown and blue, measured at the box.
- ☐ The thin pair on the control line of the right protocol, or capped. Not on mains.
- ☐ Earth of the site cable terminated in the box and carried through, not on the luminaire.
- ☐ Insulation resistance of the circuit measured and recorded, with the luminaire connected.
- ☐ Plate: six screws in, vertical and level. Housing: every screw in and at torque, seated on the tabs.
- ☐ Cut off position on the label checked against the design on every luminaire, and recorded.
- ☐ Secondary retention fitted where section 6.4 requires it.
- ☐ Every gland at dimension L and sealed where washed, the box closed and reachable.
- ☐ Nothing within 75 mm of the fin field, and nobody within the hazard distance of section 4.3 looking up into the glass.

8.2 First power up

- 1 Restore the supply.
- 2 Confirm that it illuminates. **Do not look up into the glass**, see section 4.3.
- 3 **Set the power level** per section 9.2, over NFC with the supply off or over DALI-2 in service, and check it against the design. A Wallpack 100 leaves the factory at 100 W.
- 4 Walk to the boundary and check that the light stops where the design says. Look back at the luminaire from the boundary and from the windows above it: **from outside the cut off you should not see the reflector lit**. If you do, the plate is not vertical or the wrong position was delivered.
- 5 Correct if required: switch off, level the plate, torque, switch on and check again. A wrong cut off position is not corrected on site, section 6.6.
- 6 Record the installation: both label codes, the serial number, the position, the cut off position, the colour temperature, the power setting, the control protocol, the mounting height, the date and the installer.

8.3 Handover

Leave this manual with the building documentation, together with the record from step 6 of section 8.2.

WARNING

Never adjust, open or work on the luminaire while it is energised. Isolate first, every time.

NOTE, THE CUT OFF CHECK IS THE COMMISSIONING

On a floodlight, commissioning is aiming. On a DarkLicht it is the walk to the boundary. A permit condition, a neighbour across the street or a highway authority will judge the installation from there, so that is where the installer judges it too. Photograph the view from the boundary and the view of the facade above the luminaire at handover; it is the evidence if a complaint comes.

NOTE, THE POWER SETTING IS PART OF THE DESIGN

A dock door at 100 W and a quiet service route at 30 W can be the same article. If the design relies on a setting, the setting is made at commissioning, recorded, and demonstrated to the facility manager, who will otherwise find a luminaire that seems too bright or too dim and has no way of knowing why.

NOTE, TUNEABLE WHITE ON FIRST POWER UP

A tuneable white build comes up in its default colour, normally 4000 K. Section 9.3 explains how it is switched, and it is worth demonstrating that at handover, because the night colour is the reason it was bought.



The WP fitted and running. The light is on the ground in front of the wall and the facade above the housing is dark

9 Operation and dimming

9.1 Normal operation

A DarkLight WP needs no operator action in normal service. It switches with the circuit, reaches full output at once with no warm up, and may be switched as often as the building requires, by a photocell, a timer or a sensor. At minus 45 degrees Celsius it starts at full output. There is no lamp to change, and the cut off does not drift.

9.2 The power setting and the control protocols

Item	What it does
Power setting	10 to 100 W on the Wallpack 100, 10 to 60 W on the Wallpack 60. Made over NFC through the housing with the supply off, or over DALI-2 in service, and changeable after installation
0 to 10 V	On the thin pair, 10 V is full output at the set power level, 1 V is the minimum, 0 V is off where the driver is ordered with dim to off
PWM	On the thin pair, duty cycle proportional to output
DALI-2	On the thin pair, addressable. Dimming, the power setting and, on a tuneable white build, the colour, over the bus. The sensor, where fitted, reports over the same bus
NFC	A fixed level and the power setting, written to the driver without power. No control line needed; the thin pair stays capped
Sensor	Specified at order and fitted inside. Presence or daylight switching and dimming per the ordered profile, stand alone or reported over DALI-2
Tuneable white, BIC	4000 K with 2200 K and 1700 K, switched in operation. See section 9.3

9.3 Tuneable white and the DarkSky colours

A tuneable white WP carries the working white and the DarkSky colours in one housing and switches between them **on the supply itself**, using how long the luminaire has been off. There is no second control line and no switch on the luminaire: 4000 K while the dock is working, amber when the site is quiet and the permit says so.

What you do	What happens
Switch on after more than 5 seconds off	The luminaire comes up in its default colour , 4000 K, whatever colour it was showing before
Switch off and back on within 5 seconds	The luminaire steps to the next colour : 2200 K, and on the next short cycle 1700 K
Repeat the short cycle	It steps round the colours, as often as you like
Several luminaires out of step	Switch the whole group off, wait 30 seconds , and switch on. All of them reset to the default colour and are back in step

A luminaire fed from a relay that chatters, or from a circuit that dips, can change colour on its own; feed it from a clean switched circuit. On a DALI-2 build the colour can also be selected over the bus.

NOTE, THE DARKSKY DS-1 COLOURS

Amber 2200, 1800 and 1700 K are the colours at which the DarkLight has been third party tested against DarkSky DS-1. A permit that names DS-1 is met by ordering one of those colours, or tuneable white and running the amber at night. It is not met by dimming 4000 K down: the spectrum is the condition, not the level.

NOTE, DIMMING AND THE FLUX FIGURES

Every luminous flux figure in chapter 3 is the figure at the full power setting and at 4000 K. A dimmed luminaire, a WP set below its maximum, and the amber colours all deliver less light. If the design relies on a setting, the lighting calculation states it.

9.4 What the luminaire does by itself

- **Thermal foldback.** The luminaire measures its internal temperature and reduces the current as it rises. On overheating it switches off and comes back when it has cooled, all inside the housing.
- **Surge protection.** 6 kV line to line and 10 kV line to earth on the driver.
- **Undervoltage.** Below 90 V the driver stops and restarts by itself when the supply returns.
- **Soft start.** The BLD120 starts at a rising current, so a bank of WP on one relay does not flash on.

9.5 What the luminaire does not do

- It does not carry an emergency function. See section 4.9.
- It does not accept a control protocol that is not in its build. Sending DALI to a 0 to 10 V driver has no effect.
- It does not change its cut off electrically. The cut off is mechanical and factory set, section 6.6.
- It does not exceed its version: a Wallpack 60 set over NFC does not become a Wallpack 100.

10 Maintenance

DANGER

Isolate the supply and secure it before any maintenance work. Let the luminaire cool to hand temperature before touching it. Work at height only from a rated platform or a footed ladder, with the area below the door clear.

10.1 Interval

Environment	Interval
Building perimeter, office and commercial facade	Once a year
Loading docks, goods entrances, yards with traffic	Every six months, and check the housing screws and the retention after any impact on the door frame
Dust, soot or paper fibre: recycling, wood, paper, diesel yards	Every three months, clean the fins and the glass at every visit
Ports and coastal sites	Every six months
Food production and washdown	Weekly, daily on heavy soiling, and after every run on a high fat load. Protocol in section 10.5
Under a maintenance agreement	Per the agreement; the ten year warranty depends on it

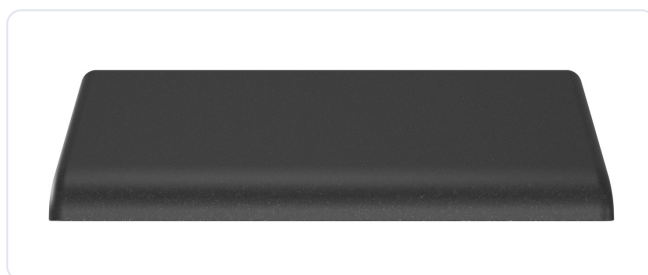
Too little cleaning shortens the life of the product, most of all where the fins fill with dust or the glass, which faces the ground, collects a film that scatters light upward into the windows the luminaire was bought to keep dark.

10.2 Inspection

- ☐ Glass, housing and seals: impact damage, cracks, a chipped glass edge, corrosion, a film on the glass.
- ☐ Every plate screw and housing screw tight. Retighten to the torque in section 6.5.
- ☐ Plate and wall sound: no loose plug, no crack in the render behind the plate, no corrosion between plate and wall.
- ☐ Secondary retention present, intact and correctly attached.
- ☐ Tail and site cable at the box: chafe, damage, intact insulation, drip loop still below the entry.
- ☐ Gland tight and the box cover tight, no moisture trace at a gasket.
- ☐ Fins clear of dust, soot and cobwebs, the 75 mm around them open.
- ☐ Attitude unchanged: plate vertical, and from the boundary and the windows above the reflector still dark.
- ☐ Power setting and colour still as recorded at commissioning.

10.3 Records

Record every inspection, fault, repair and replacement, with both codes from the label. Under warranty, that record is the difference between a fast decision and a long discussion, and it is the condition of the ten year term under a maintenance agreement.



The fin field on the top and the sides of the WP. This is what has to stay clear, and on a facade it collects everything that blows along the wall

WHY THE FINS AND THE GLASS BOTH MATTER

The WP has no fan, no vents and no moving part. Everything the LEDs and the driver produce leaves through the fins, and the housing is sealed precisely so that nothing gets in. Dust on the fins raises the junction temperature and the driver case temperature, and the lifetime figures in chapter 3 assume a clean heat sink. **The glass faces the ground**, so it takes less rain washing than a floodlight and more dust from below; a dirty glass scatters light in every direction, including above the cut off. On a cut off luminaire the glass is part of the optic.

CAUTION

Do not hammer, pry or scrape between the fins. A soft brush, water and compressed air clear them. A screwdriver breaks a fin, and the fin is cast into the housing.

10.4 Cleaning, on a building and in a normal environment

- 1 Switch off the supply and let the luminaire cool.
- 2 Remove loose dust, cobwebs and debris with water and a soft brush.
- 3 Clean the housing and the glass with a soft cloth or sponge, water and a mild detergent. The glass is the underside: clean it from below, with the luminaire cold.
- 4 Clear the fins, then dry the glass with a soft cloth. No grit under the cloth.

CAUTION

Do not use solvents, caustic cleaners or abrasives. Do not aim a high pressure lance at the edge of the glass, at the gap between housing and plate, or at the box beside it. The WP is rated IP69K, but the glass seal and the box are the places where pressure does damage, and the wall and the box around it may not be IP69K at all.

10.5 Cleaning, washdown areas and food production

In a food or washdown area the WP is cleaned to JEL Products protocol B5.17, version 1.0 of 27 May 2026. Written for the food industry, it is the stricter of the two procedures and it is the one a HACCP file asks for. It applies to a WP over a dock door that is washed with the door, and to a WP inside a washed hall.

BEFORE YOU START

- Switch off the supply to the luminaire.
- Let the luminaire cool to hand temperature.
- Inspect the glass, the seals, the gap to the plate, the box and the housing for damage.

PERMITTED

Water	Clean mains water, lukewarm, maximum plus 40 degrees Celsius
Cloth	Soft microfibre cloth
Sponge	Soft sponge

NOT PERMITTED

Cleaning agents	No aggressive or chemical cleaners, no foaming agents, no solvents
Chemistry	No chlorine based, acid based or alkaline cleaners, no alcohols, no degreasers
Mechanical	No wire brushes, no abrasives, no scouring agents
Steam	No steam cleaning
Pressure	No high pressure above 80 bar

IP69K is what makes this possible. The WP carries IP69K, the high pressure steam jet test, and that is what a wash-down regime actually applies. Chlorine on an aluminium housing takes the coating. That is why the chemistry row is there.

PROCEDURE

- 1 **Pre-rinse.** Rinse with clean water to remove loose soiling. Use a broad jet and do not hold it on the glass edge, the gap to the plate or the box.
- 2 **Manual cleaning.** Clean the surface with a soft sponge or microfibre cloth and clean lukewarm water only.
- 3 **High pressure cleaning.** Maximum 80 bar, maximum plus 40 degrees Celsius, minimum distance 50 cm. Do not spray at right angles onto the glass seal for any length of time.
- 4 **Rinse.** Rinse the luminaire with clean water.
- 5 **Inspect.** Check the glass, the seals, the fixings and for any sign of moisture inside.

PREVENTING DAMAGE

WARNING, THERMAL SHOCK

Never clean hot glass with cold water. **Do not apply water at all to a luminaire warmer than plus 60 degrees Celsius.** The glass is the underside: if it breaks, it falls on whoever is holding the lance.

Cleaning outside these limits can damage the glass, cause leakage, attack the seals and void both the ingress classification and the warranty.

FREQUENCY

Normal production environment	Weekly
Heavy soiling	Daily
High fat load	After every production run

Source: JEL Products document B5.17, version 1.0, 27 May 2026. Ask us for the full protocol if you need it for a HACCP file.

11 Fault finding

Work through this table before reporting a fault. Isolate the supply before any action that involves opening the box. Most faults reported to us on the WP turn out to be the control line, the power setting, or a plate that is not vertical.

Symptom	Probable cause	Action
No light at all	Supply off, breaker tripped, photocell or timer holding the circuit off, or a break in the site cable	Check the breaker and the control, then measure the supply in the box
No light, mains present in the box	Internal driver failed, or the control line holding the driver at nil, or a DALI-2 luminaire waiting for a bus that is not there	Disconnect the thin pair and try again. If it lights, the control side is the fault; if not, the luminaire is exchanged, section 12.2
Luminaire destroyed on switch on	Mains connected to the thin pair, or 400 V between two phases on brown and blue	Not a warranty case. Read the label and section 7.1, and replace the luminaire
Breaker trips on switch on	Too many drivers on one breaker for the inrush	Reduce the number per breaker or change the characteristic, section 7.2
Dims back by itself	Thermal foldback: ambient above plus 50, fins packed with dust, mounted above a flue or an extract, or boxed in	Check the ambient, clear the fins, open the gap around the housing, move the luminaire
Flicker or unstable output	A loose terminal in the box, or a 0 to 10 V or PWM line picking up interference from the mains conductors	Retighten the terminals, separate the control conductors from the mains conductors
Luminaire stays at partial output	Dimming input at a low level, a sensor profile, or the power setting: a Wallpack 100 set to 30 W for a previous position	Check the control signal and the driver setting, section 9.2
Too bright for the position	Power setting at the maximum where the design called for less	Set the power level per the design, section 9.2, and record it
Control signal does nothing	That protocol is not in this build: DALI on a 0 to 10 V driver, or an NFC only luminaire with the thin pair capped	Check the quotation against section 9.2
Sensor does not react	No sensor in this build, the sensor masked by a canopy or a sign, or the profile set to daylight only	Check the order and the profile; clear the field of view
Changes colour on its own	Tuneable white: the supply is being interrupted for less than 5 seconds by a chattering relay or a photocell on its threshold	Feed it from a clean switched circuit, section 9.3
Light beyond the boundary, or a neighbour complains	A wider cut off position ordered than the site needs, the plate packed out or on a leaning wall, or a dirty glass scattering light	Level the plate, clean the glass, check the ordered position against the design, section 6.6. A different position is a factory job
Light on the facade or in the windows above	The plate is not vertical, or the luminaire is mounted glass up	Level the plate; a WP is never mounted glass up
Output visibly lower than the design	Dirty glass, blocked fins, or a lower power setting	Clean per section 10.4 or 10.5, check the setting, then measure again
Moisture inside the luminaire	Chipped glass edge, a luminaire rested on its glass, a lance held on the glass seal, or a tail that stood in water before it was connected	Do not open it. Return to JEL Products, section 12.4
Water in the box	Gland not tightened to dimension L, box cover not seated, no drip loop, or a flush box in a wet wall	Dry the box, retighten to dimension L, seal the glands, refit the drip loop
Luminaire came loose	Plate on fewer than six screws, plugs pulled out of render or cladding, housing on fewer than all its screws, or no secondary retention	Refit per chapter 6 on all screws into the structure, with a rated safety cable

If the fault is not in this table, or if the action does not resolve it, contact JEL Products with the article code and the internal production code from the type label, the position on the building, the date of installation and what you have already checked. See section 2.5 for the two codes.

12 Repair and spare parts

The WP is built so that nothing needs to be reached in service, and that cuts both ways. The driver and the control sit inside the sealed housing: a driver fault is a housing exchange, and the plate is what makes that exchange a short job. The plate stays on the wall, the connection stays in the box, and the new housing goes on the same tabs.

12.1 What is replaceable on site

Part	Reference	Note
Complete housing, on the existing plate	DRKW01 · DRKW02	The exchange for any fault inside the housing. Quote the version, the colour, the cut off position and the control protocol. The new housing needs its power setting made again, section 9.2
Facade plate	On request	Aluminium, with the housing screws. Only where the plate itself is damaged; a housing exchange reuses the plate
Housing to plate screws	On request	Supplied as a set per luminaire
Safety cable	On request	1 m, rated to the luminaire weight. Not supplied as standard, see section 6.4
Box, glands and site cable	Installer's supply	Not JEL parts. Replaced per section 7.3 and 7.5

Plates, screws and safety cables are supplied against a specification rather than a shelf article number, because they follow the version and the colour. State both codes from the type label and we issue the right part.

12.2 What is not replaceable on site

DANGER

Do not open the housing, do not remove the glass or the glass frame, do not open the driver compartment, and do not cut the tail. Opening the luminaire ends its ingress protection, its electrical safety, its warranty and its declaration of conformity.

- **The driver and the control are inside the housing** and are not field parts. A driver fault means the housing is exchanged on its plate. That is the trade for having nothing outside the housing on the facade.
- The light source is not replaceable in the field. At the end of its life the complete luminaire is returned or replaced.
- The reflector and its shield are part of the sealed housing. Their shape and position are the optic; nothing about them is changed on site, section 6.6.
- The glass and its seal are not replaceable in the field. A cracked or chipped glass returns to JEL Products.
- The tail is moulded into the housing. A damaged tail is a return, not a splice.
- Repair, overhaul and modification are carried out by JEL Products or by a company it appoints. In case of doubt, return the luminaire for inspection.



The WP from the top. Nothing on the housing is opened in service; a fault inside is a housing exchange on the same plate



The plate stays on the wall. A replacement housing goes on the same tabs and the same screws

Quote the article code and the internal production code from the type label in any spare part or exchange order, see section 2.5. A replacement housing is built to the cut off position on the order; check it against the label of the housing it replaces.

12.3 Housing exchange on the plate

- 1 Isolate the supply and secure it. Verify the circuit is dead at the box. Let the housing cool.
- 2 Photograph the label of the old housing and the wiring in the box before you disconnect anything. Note the power setting and the colour that were recorded at commissioning.
- 3 Release the secondary retention last, not first: undo the housing screws with the housing held, two people over a door, then lift the housing off the tabs and release the retention.
- 4 Disconnect the tail in the box, one conductor at a time, and cap the site cable.
- 5 Check the new housing against the old one: version, colour, cut off position and control protocol on the label. A different cut off position is not accepted; a different version changes the design.
- 6 Connect the new tail per section 7.5, hang the new housing per section 6.2, secure it with all its screws to the torque in section 6.5, and refit the retention.
- 7 Restore the supply, make the power setting per section 9.2, run the checks in section 8.1 and the boundary check in section 8.2, and record the exchange with the date and both codes from both labels in the building documentation.

NOTE

The internal production code tells us which board and which driver were in the luminaire that failed. Quote both codes of the old housing when you order the exchange, and both codes of the new one in the record.

12.4 Returning a luminaire

- 1 Contact JEL Products before you send anything. We will tell you whether the fault is a field matter, a housing exchange or a return.
- 2 Have both codes from the type label ready, plus the position on the building, the date of installation, the power setting, and what you have already checked from chapter 11.
- 3 Pack the luminaire in its original box, lying on its plate or on its back if the plate stays on the wall, glass protected, never resting on the glass. Cap the tail.
- 4 State what the luminaire was doing when it failed: the supply voltage measured at the box, the control protocol, the power setting, the cut off position, and whether it was washed that day.

NOTE

Do not open a luminaire before returning it, not even to look. An opened housing changes a warranty assessment into a discussion, and the evidence we need is usually inside the seal you would break.

WHAT WE LOOK AT ON A RETURN

The internal code	Which board, which driver, which batch, which production date
The glass seal and the tail entry	Whether water got in, and from where
The driver	Case temperature history and failure mode; mains on the control input leaves a signature
The glass	Impact, thermal shock or a chipped edge
The plate and the screws	Whether all screws were used, and whether a retention was fitted
The setting	The power setting and the protocol the driver was left with



A WP returns on its plate or on its back, with the tail capped, never on its glass

13 Removal and disposal

13.1 Taking the luminaire out of service

- 1 Isolate the supply and secure it. Verify the circuit is dead, then open the box and disconnect the tail, one conductor at a time. Cap the site cable.
- 2 Cap the free ends of the tail, so they stay clean in storage.
- 3 Release the secondary retention last, not first.
- 4 Undo the housing screws with the housing held, two people over a door, then lift it off the tabs. The plate may stay on the wall for the replacement, or comes off on its six screws.
- 5 Label the luminaire with its position, its cut off position, its power setting and its article code before it leaves the site. If it is to be reinstalled, pack it in its original box, lying on its plate or its back and never resting on its glass.

WARNING, WORKING AT HEIGHT

Removal is the moment a luminaire falls. Over a door have the second person in place and the doorway closed off before you loosen anything. A 4.0 kg housing that comes off two of its screws swings before it drops.

13.2 Disposal



Electrical equipment does not belong in household or unsorted municipal waste. Under European Directive 2012/19/EU it must be collected separately and processed by an approved recycling facility. Observe the national and regional rules at the place of disposal.

The cast aluminium housing and the plate are recyclable materials; the LED board, the driver, the glass and the cable go to electronic waste, glass or plastics. Separate the housing from the electronics at the recycler rather than in the field. The DarkLicht contains no mercury and no lead above the RoHS limits.

Glossary

Beam angle	Full angle between the directions where the intensity has fallen to 50 per cent of the peak
BLD120	The driver inside the WP, 90 to 305 VAC
C5	Corrosivity category per ISO 9223, industrial and marine
CRI, Ra	Colour rendering index
Cut off	The angle from the vertical above which the reflector emits no light, 63 to 75 degrees
DALI-2	Addressable digital lighting control protocol, on the thin pair of the tail
DarkSky DS-1	The DarkSky approved luminaire standard, met at 1700 to 2200 K
Facade plate	The aluminium mounting plate that carries every hole and the tabs the housing hangs on
Hazard distance	The distance beyond which the luminaire is Risk Group 1 per IEC/TR 62778
IK	Impact rating per IEC 62262
Shield position, S1 to S5	The five factory positions of the reflector shield, 75 to 63 degrees of cut off
L90B05	90 per cent of initial output retained by 95 per cent of the units
MCB	Miniature circuit breaker
NFC	Near field communication, used to set the driver through the housing without power
NSVV	The Dutch lighting society, whose guideline on obtrusive light a permit condition usually cites
Power setting	The output level of the driver, 10 to 100 or 10 to 60 W, set over NFC or DALI-2
Tail	The factory fitted cable on the luminaire, 0.3 m: mains, earth and the thin pair
Thin pair	The two 0.5 mm ² control conductors in the tail
BIC	Bi-colour, the tuneable white build, 4000 K with 2200 K and 1700 K, switched from the supply
ULOR	Upward light output ratio
WEEE	Waste electrical and electronic equipment

Specifications are subject to change. This manual describes the standard configurations. Where a project specification differs, the project documentation takes precedence.

14 Appendix

14.1 Declaration of conformity

EU Declaration of Conformity, 9 December 2025

JEL Products B.V., Ampèrestraat 19e, 3861 NC Nijkerk, The Netherlands, declares under its sole responsibility that the products it covers are in conformity with the essential requirements of the directives below. The DarkLicht range is named in its product scope as **DarkLicht Series, including the WP wall pack**, with all electrical, optical and mechanical variants within the defined type codes, wattages, voltages and colour temperatures.

DIRECTIVES

Low Voltage	2014/35/EU
EMC	2014/30/EU
RoHS	2011/65/EU and (EU) 2015/863
WEEE	2012/19/EU

DECLARATION

Date	9 December 2025
Place of issue	Nijkerk
Signed by	L. de Graaf, Technical Director
Serial number	See product marking
Year of manufacture	2024 to 2026

APPLIED HARMONISED STANDARDS

EN IEC 60598-1 luminaires, general requirements. EN IEC 60598-2-5 floodlights. EN IEC 61347-1 lamp controlgear, general. EN IEC 61347-2-13 LED controlgear. EN IEC 62384 LED driver performance. EN IEC 60529 IP classification. EN IEC 61000-6-2 EMC immunity, industrial. EN IEC 61000-6-4 EMC emission, industrial. EN ISO 12100 risk assessment, where applicable.

The technical file is compiled and maintained by JEL Products B.V. at the address above. The **signed declaration** is available on request and is supplied with the project documentation. Document: EU DECLARATION OF CONFORMITY_DCbright_EU_09122025.

14.2 Warranty

Part	Term
Wallpack 100 and Wallpack 60	5 years on the complete luminaire, driver included, extendable to 10 years under a maintenance agreement with JEL Products or a party it appoints
Facade plate and screws	5 years, with the luminaire

Warranty runs from the date of delivery under the JEL Products warranty terms and covers material and manufacturing defects.

It does not apply where the luminaire has been installed, operated or maintained contrary to this manual, where the housing has been opened or the tail cut, where mains has been connected to the thin pair, where the supply was outside the range on the type label, where the luminaire has been mounted on fewer than six plate screws or fewer than all housing screws, where the plate has been packed out or mounted other than vertical, where the reflector shield has been moved or modified, where it has been cleaned outside the limits in section 10.5, or where it has been used outside the intended use in section 2.2.

NOTE

Improper installation, operation or maintenance may also invalidate the certificate and the declaration of conformity, not only the warranty.

14.3 Related documents

Document	Where
DarkLicht WP datasheet, Rev. 1, 20 August 2026	Product page
Photometric files, shielding positions S1 and S2, EULUMDAT and IES	Product page
Dimensioned drawings of the housing and the plate, DXF and STEP	On request
DarkSky DS-1 third party test report	On request
Upowertek BLD120 driver datasheet	On request
Washdown protocol B5.17	On request
DarkLicht M Series manual, MAN-DLM-EN, for the M300, M150 and Mini	Product page of that family
Signed declaration of conformity	On request, and with the project documentation
Test and inspection reports, see section 3.3	On request

14.4 What this manual replaces

This edition supersedes the DCbright Operating Instruction WP-Series of 25 March 2026, and it stands beside the JEL DarkLicht M Series manual, MAN-DLM-EN, which covers the M300, the M150 and the Mini. Where an older document and this manual disagree, this manual applies.

Seven points are corrected against the DCbright instruction: the ambient range is **minus 45 to plus 50 degrees Celsius**, not minus 40; the expected life is stated as **TM-21 L90B05 above 103,500 h**, not as the LM70 figure printed there; the warranty is **5 years**, not 3; the WP is **IK08**, not IK07; the article codes are **DRKW01 and DRKW02**, not WALL01 and WALL02; and the five cut off positions S1 to S5 are **factory settings specified at order**, not adjustments made on site; and the WP is **Class I**, earthed through its tail because the driver is inside, where the datasheet prints Class II. The Manta fixture and accessories in the instruction's package list do not belong to the WP, and the connection is made on the tail in a box, not in a driver compartment with a gland, which the instruction copied from the Manta.

NOTE

If you hold a printed copy, check the revision on the cover against the version on the product page before you rely on a figure. A manual in a building file can be several years old.

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To verify the authenticity of a test or inspection report and certificate, contact us on the number above. Quote both codes from the type label.



Product page

Photometric files, drawings, the datasheet and the current version of this manual.

jelproducts.nl/en/products/darklicht-wp-wallpack

DOCUMENT

Number	MAN-DLW-EN
Revision	1
Date	7 September 2026
Language	English
Applies to	DRKW01 and DRKW02, in Titanium Black, Titanium Grey and Neutral White, all colour temperatures and tuneable white
Pages	See the footer