

# LUMINO

## V36I OPTIC

### INSTALLATION MANUAL

IMV36L\_OPTIC\_R2204

### TECHNICAL SUPPORT

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Installers must read this document and any other referenced documents in full before commencing installation work. Failure to observe all installation guidance in this document may result in unsafe installation, cause permanent product damage and void product warranty.

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### HANDLING PRECAUTIONS

#### GLASS

Take extra care with glass when handling the product. Glass can be chipped, if hit on the edge against hard objects. Do not apply pressure with small or sharp objects to the glass. Glass is rated for walk over use.

#### POWER CABLES

The product end caps, power cables and connectors must not be pulled or twisted. Never pull the product by its power cables or hang it from its power cables or connectors.

#### IMPACT PROTECTION AND STATIC LOAD

This product has a maximum IK rating of IK09, and can resist a maximum 5kN/min static load. The product is not vandal resistant.

#### CUTTING AND SAWING

The product must not be cut, sawn, drilled or otherwise modified in any way.

#### DAMAGES

Inspect the product and if you see any damage upon unpacking report to LUMINO immediately and do not install the product.

#### CLEANING

Avoid harsh chemicals and aggressive cleaning devices, such as pressure washers. See page 3 for further cleaning information.

#### LOCATION

Suitable for wet and damp locations. IP68 rated for temporary submersion. Max depth. 1.2M / Max duration. 30mins. Ensure there is adequate drainage made available for the product. Protect product from dust, paint and harmful substances during installation and use. Ensure product is not exposed to VOC gases. Do not obstruct the product and its light output.

### SAFETY GUIDANCE

#### WIRING GUIDE

Follow the guidance shown in the provided wiring guide, including maximum cable lengths, cable sizes and other wiring instructions. When running cables through an enclosure, ensure cables are protected from damage, separated from mains voltage cables and anchored against being pulled. Make connections appropriate for the IP rating of the product.

#### QUALIFIED INSTALLER

Installation must be carried out by a qualified person and conducted in accordance with local regulations and applicable standards.

#### THERMAL MANAGEMENT

Ensure ambient temperature (Ta) does not exceed 40°C (104°F) and case temperature (Tc) does not exceed 70°C (158°F). Exceeding maximum Tc will cause permanent damage and void the product warranty.

Allow sufficient clear air space for the LED drivers, as well as suitable access to the drivers as specified on installation instructions.

#### REPAIR AND REPLACEMENT

If the product is not functioning, contact LUMINO to register a Service Call for factory repair or replacement. Light source is not user replaceable. See page 4 for Ecodesign and end of life information.



### DRIVERS

#### POWER OFF

Product and driver must not be live wired. Switch off power before work begins. Follow instructions and guidance for the make and model of driver being used.

#### CONSTANT CURRENT DC

Ensure supply current does not exceed 350mA or 500mA (see product label). Drivers must be constant current type with both overload and short-circuit protection. Exceeding the stated voltage or current will cause permanent damage and void the product warranty.

#### DIMMERS

Check dimmer is compatible with the driver and certified to local regulations.

#### INRUSH CURRENT

Many LED drivers can have high inrush current at power-on. Driver inrush current can be many times the normal operating current. Use a suitable MCB. Type C MCBs are normally suitable but if inrush current is a persistent problem an inrush suppressor may be required.

#### PROTECTION

Use only with constant current Class 2 power unit to UL1310 standard with overload and short-circuit protection. Rate drivers for at least 10% above load. Driver protection circuitry must not be relied upon to protect secondary electrical circuits from damage caused by over-voltage or short circuit. DC fuses or DC electronic circuit breakers are recommended for full protection. Allow for access to drivers for maintenance and sufficient clear air space for ventilation.

#### CABLING

Do not overload the driver. Damage will be caused by incorrect input voltage, reverse polarity or short circuit. Plan for loads, driver locations, dimming and cabling prior to start of work. Ensure basic insulation is maintained between mains and dimming control wires.

## ACCESSORIES

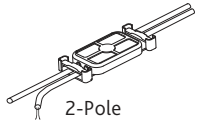
### Cable

VECA-CA010-R1  
2 Core 0.75mm<sup>2</sup> cable  
10m cable length



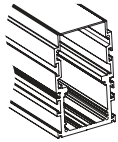
### Connector

VECA-CA003-R1  
2 Pole connector  
Up to 4 cables



### Ground Channel

V36G-B2050-R1  
2050mm Profile  
Site cuttable



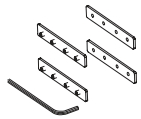
### Ground Channel End Caps

V36G-MB202-R1  
2pcs end caps



### Ground Channel Joining Kit

V36G-JB203-R1  
Joining kit



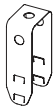
### Clips

V36G-MB201-R1  
10pcs clips  
4 pairs per metre

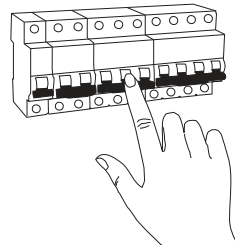


### Removal Tool

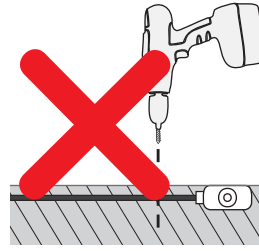
V36I-MA204-R1  
1pcs tool



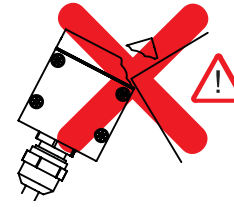
## CHECK FIRST!



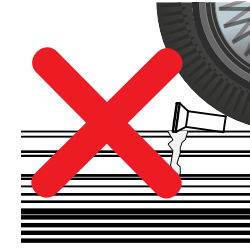
TURN POWER OFF!



CHECK SURFACE!



GLASS PRODUCT!  
HANDLE WITH CARE!



DO NOT DRIVER  
OVER!

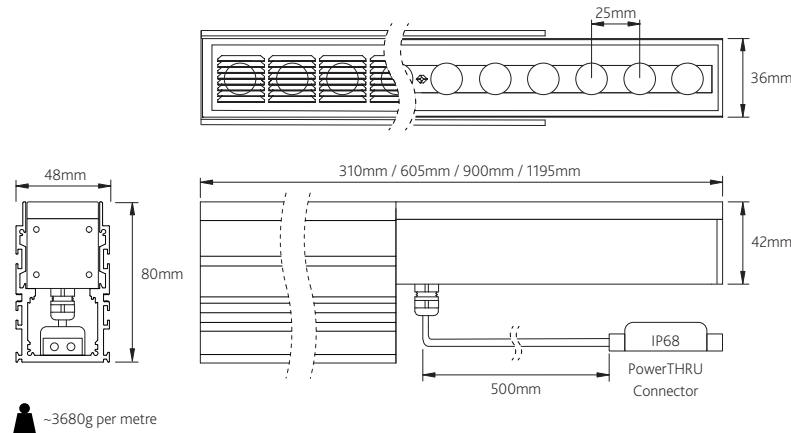


MAX. 5kN/min  
BSEN 60598-2-13

## INSTALLATION

### 1. Plan Installation

Check product and its dimensions against the planned installation. Runs of LEDs may have to be installed in a particular sequence.



~3680g per metre

### Installation note!

The final product of a LED run should only have a single cable attached. Do not finish a LED run with a product that has two cables attached (leaving one unused).  
Never expose bare cables to water, or risk water ingress into LED. Causing irreparable damage.

### 2. Prepare Power Supply

This product requires a 350mA or 500mA (see product label) constant current power supply. Please refer to the provided wiring guide document. Failure to follow guide may result in damage to the product and voiding of warranty.

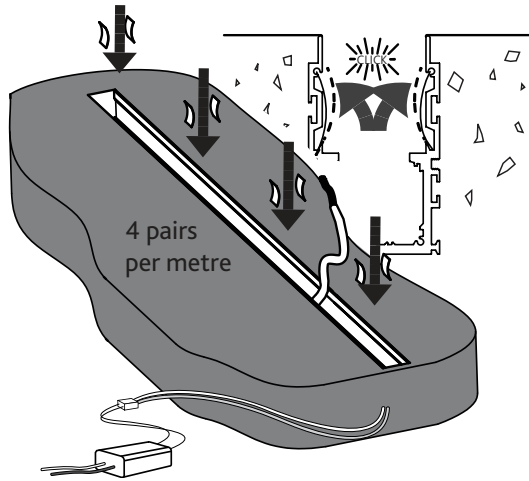


LED driver must be located somewhere suitable for its IP rating. All connections made to and from the LED driver must be IP rated.

**IMPORTANT!** All electrical work such as connections or wiring adjustments must be done with the power off.  
**DO NOT HOT-WIRE THE PRODUCT!**

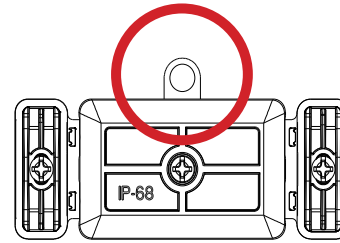
### 3. Install Clips

See V36G installation manual for instructions for ground channel installation. Insert and equally space the retaining clips into the channel. 4 pairs per metre for a secure hold.



### 4. Trim Tab Off From Gel Box

If the VECA-CA003-R1 gel box is to be installed within the V36G ground channel, trim off the circled fixing tab.



This gel-block connector is **IP68 rated for wet locations** when installed correctly. It is not suitable for continuous submersion. **Do not use underwater.**

### 5. Cables

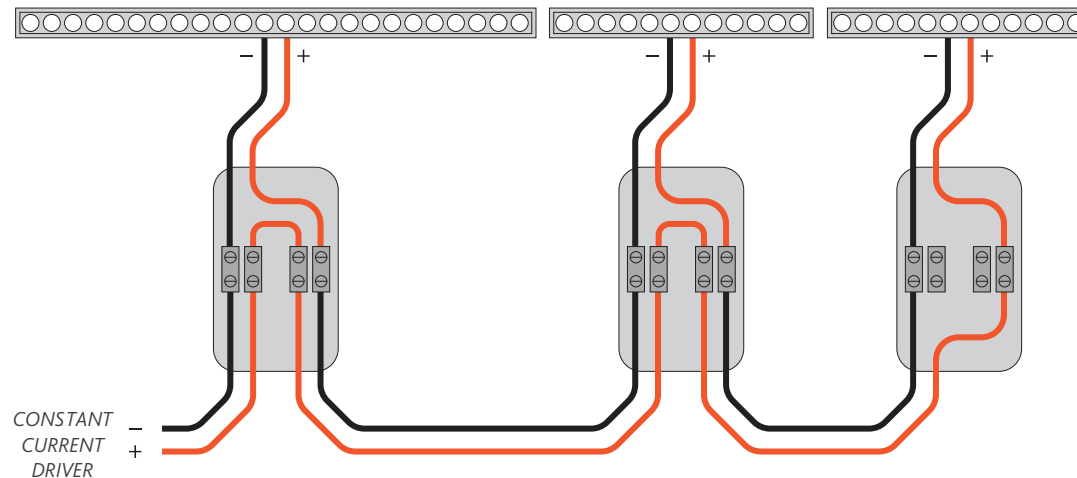
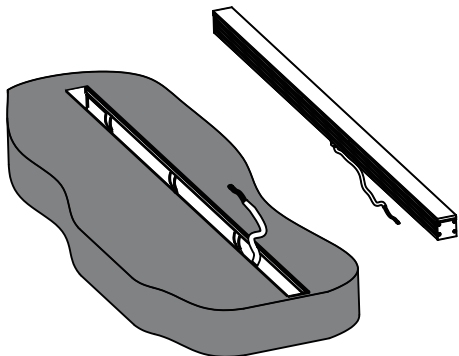
Prepare cabling for the V36I. Use cables suitable for in-ground lighting use with a diameter between Ø4.5mm min. to Ø8.5mm max.

When running cables through an enclosure, ensure cables are protected from damage, separated from mains voltage cables and anchored against being pulled.

### 6. Connect Cable

Connect cables using VECA-CA003-R1 IP68 connector.

- Local regulations must be observed.
- Do not exceed current rating on product label.
- Do not hot-wire the luminaire.



### 7. Wiring

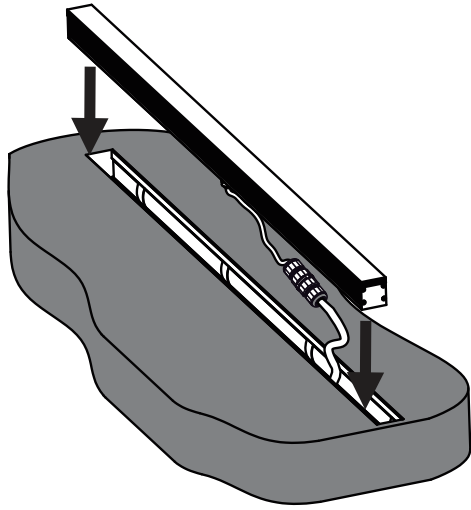
When using multiple lengths together, wire product using the in-series wiring method as shown.

Please refer to provided wiring guide document. Failure to follow the provided guide may result in damage to the product and voiding of warranty.

## 8. Test V36I

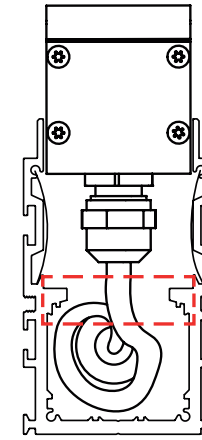
Verify that the circuit is working. Then gently lower the V36I into the V36G channel.

If the product does not function as expected, turn power off immediately and check all connections.



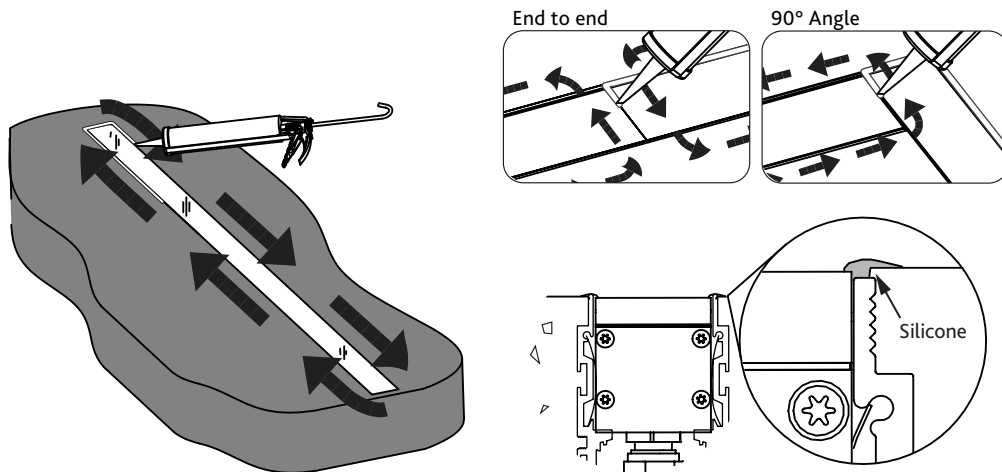
## 9. Cables

Make sure not to pinch any cables within the channel. Take care to tuck the cables beneath the V36G's internal lip (see diagram).



## 10. Silicone

Silicone around the glass edge and the V36G creating a good watertight seal and allow to dry for 6 hours.



## 11. Clean

Clean V36I with a glass cleaning cloth and glass cleaning solution. Avoid any harsh chemicals or abrasive cleaners, which may cause permanent damage to the product.

Product is not to be cleaned using a high pressure washer or floor cleaning machine.

The profile must be checked every 12 months and regularly cleaned to maintain warranty.



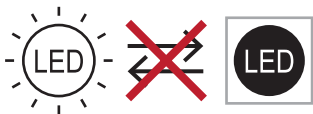
# LUMINO

## ECODESIGN REGULATION

This product is considered to be a “containing product” in the sense of Regulations (EU) 2019/2020 and (EU) 2019/2015.

The contained light source is an integrated part of the containing product. Its removal can only be done by causing permanent damage to the containing product. However, it is possible for the purposes of verification by market surveillance authorities.

Therefore, replacement of the light source with the use of commonly available tools is not justified due to its restricted mechanical, electrical, optical, thermal and/or environmental protection requirements.



## DISMANTLING

Dismantling of light source from the containing product at end of life:

The containing product shall be cut to the length of the contained light source and the light source mechanically detached from the containing product. Containing product component parts shall then be disassembled.

Containing products shall be separated from building material and/or from other additional mounting accessories by means of a professional installer.

Separate control gear and light sources must be disposed of at certified disposal companies in accordance with Directive 2012/19/EU (WEEE) in the EU and with Waste Electrical and Electronic Equipment (WEEE) Regulations 2013 in the UK.

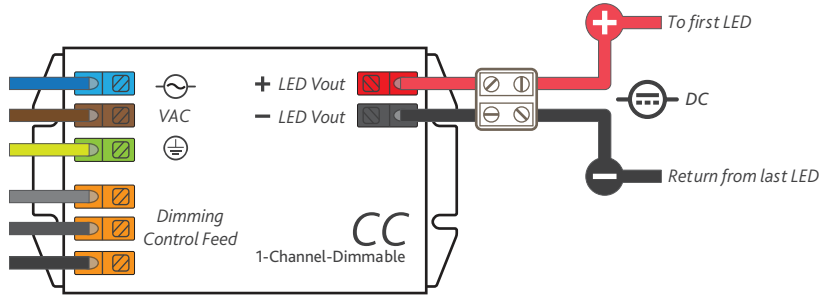
LUMINO is a member of the WEEE producer compliance scheme.  
Registration number: WEE/MM8138AA

## ENERGY RATING

This product contains light sources of energy efficiency classes as shown:

| LED                | CCT   | EPREL   | 60W/m |
|--------------------|-------|---------|-------|
| ColorCORE<br>OPTIC | 4000K | 1283502 | E     |
|                    | 3000K | 1283501 | E     |
|                    | 2700K | 1283500 | E     |
|                    | 2200K | 1283499 | F     |

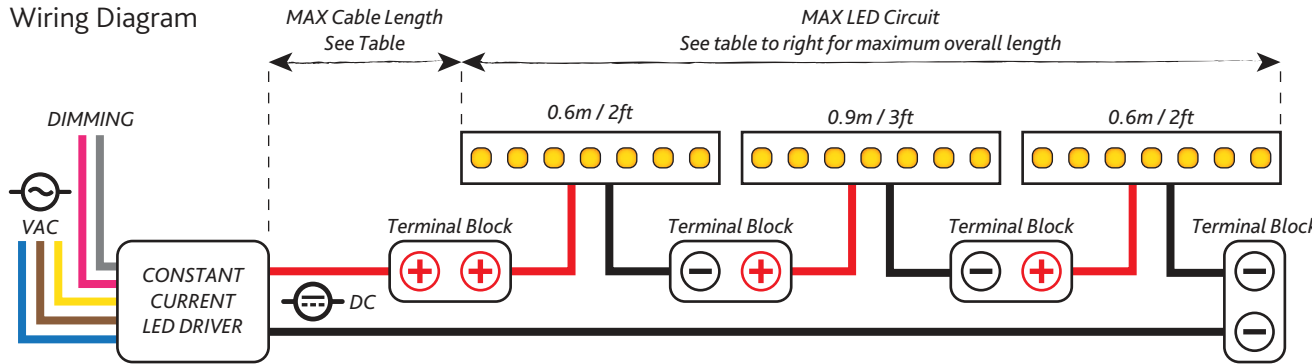
### LED Driver Wiring



| LED LENGTH               | VOLTAGE | WATTAGE | DRIVE CURRENT | MAX CABLE DISTANCE*      |                          |                           |                          |                          |                          |
|--------------------------|---------|---------|---------------|--------------------------|--------------------------|---------------------------|--------------------------|--------------------------|--------------------------|
|                          |         |         |               | 0.3mm <sup>2</sup> 22AWG | 0.5mm <sup>2</sup> 20AWG | 0.75mm <sup>2</sup> 18AWG | 1.0mm <sup>2</sup> 17AWG | 1.5mm <sup>2</sup> 16AWG | 2.5mm <sup>2</sup> 14AWG |
| 0.3m / 1ft to 2.1m / 7ft | 36V     | 12.6W   | 350mA         | 16m                      | 25m                      | 40m                       | 40m                      | 40m                      | 40m                      |
|                          | 252V    | 88.2W   |               | 52ft                     | 82ft                     | 131ft                     | 131ft                    | 131ft                    | 131ft                    |
| 0.3m / 1ft to 2.1m / 7ft | 36V     | 18W     | 500mA         | 11m                      | 18m                      | 29m                       | 36m                      | 40m                      | 40m                      |
|                          | 252V    | 126W    |               | 36ft                     | 59ft                     | 95ft                      | 118ft                    | 131ft                    | 131ft                    |

\*Observe maximum cable lengths - as shown above or as specified by the driver manufacturer, whichever is the shortest. Longer cable lengths increase EMI susceptibility.

### Wiring Diagram



| LED LENGTH | VOLTAGE | MAX WATTAGE |       |
|------------|---------|-------------|-------|
|            |         | 350mA       | 500mA |
| 0.3m / 1ft | 36V     | 12.6W       | 18W   |
| 0.6m / 2ft | 72V     | 25.2W       | 36W   |
| 0.9m / 3ft | 108V    | 37.8W       | 54W   |
| 1.2m / 4ft | 144V    | 50.4W       | 72W   |
| 1.5m / 5ft | 180V    | 63W         | 90W   |
| 1.8m / 6ft | 216V    | 75.6W       | 108W  |
| 2.1m / 7ft | 252V    | 88.2W       | 126W  |

**!** Cable lengths are based on average resistance for typical copper cables. Cable characteristics may vary according to manufacturer, temperature, copper purity, connections etc.

For further help regarding installation visit [lumino.lighting](http://lumino.lighting)

Use appropriate **constant current** LED drivers (350mA or 500mA, see product specification) with overload and short-circuit protection. Use reputable driver manufacturers with appropriate standards for the local requirements.

**USA & Canada:** Use only with Class 2 power unit to UL1310 standard. Use only with maximum output 350mA or 500mA (see product specification) Class 2 power unit.

**!** Maximum cable lengths shown above are calculated for voltage drop and do not consider **EMI**. Long cables can potentially emit **EMI**. Do not exceed the maximum cable length stated by the driver manufacturer. Installers must ensure **EMI** emissions do not exceed local regulated limits.

Shielded cables and ferrite coils can be used where applicable.

Installers must ensure voltage drop does not exceed 2%.

Ensure LED driver is **disconnected from mains before making any connections**.

**Polarity is critical** and must be observed when making connections.

Constant current LED circuits **must be wired in series**. Parallel wiring will not correctly power the LEDs and can potentially cause damage.

Live loading or incorrect polarity connections of LEDs will cause damage and void the warranty.

Constant current LEDs can have high forward voltages at power-on. LED forward voltage can be significantly higher than the normal operating voltage of the circuit. Colder temperatures will also increase the forward voltage required to power up the LEDs.

Constant Current LED drivers can also have high inrush current at power-on. Driver inrush current can be many times the normal operating current. Use a suitable MCB. Type C MCBs are normally suitable but if inrush current is a persistent problem an inrush suppressor may be required.

- Installation must be carried out by qualified electrician.
- Electrical work to be conducted in accordance with local regulations.
- Power must be disconnected prior to installation work.
- Ensure free-moving air space around LEDs and drivers.
- Protect the LEDs from dust and paint during installation and use.
- Plan for loads, driver locations, cables sizes etc prior to installation.
- Shielded control pair required for dimming signal wires.
- Incorrect current/voltage, reverse polarity or short circuit will cause damage.