

CrystalLed™



Installation and maintenance manual

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LedlightGroup

www.ledlightgroup.com

Content

1.	Introduction	3
2.	Installation	4
2.1	Wire Connections between driver and lamp.....	5
2.2	Brackets	6
1.1.1	Installation of Tilt bracket	6
1.1.2	Installation of Tower Bracket.....	7
1.1.3	Installation of CL Ceiling mounted Bracket (Pair)	8
1.1.4	Installation of Industrial Bracket	9
2.3	Dimming.....	11
2.4	Photocell and other sensors	11
2.5	Driver installation.....	12
3.	Maintenance	13
4.	Specifications	14
4.1	Specifications for luminaire	14
4.2	Outdoor Tower use	14
5.	Disclaimer	15

1. Introduction

Thank you for buying CrystalLed™. The CrystalLed™ luminaire is produced to give optimal lighting performance, reduce maintenance cost and save energy. CrystalLed™ is based on a modular system that can easily be fitted into an existing fixture or a custom made fixture. It is designed to be environmentally friendly and without the use of mercury or lead. All parts can be recycled.

The purpose of this manual is to give guidance about the installation and maintenance of the CrystalLed™ luminaire. Please read this manual carefully before installation and maintenance of the product. Reference is also made to the Ledlight Group standard terms & conditions, published on www.ledlightgroup.com. Should you have questions to the product, please contact your reseller or Ledlight Group for support.



WARNING



- Installation and assembly of electrical devices should only be done by a licensed electrician.
- Be sure to follow all applicable national regulations and safety guidelines.
- Do not tamper with the device.
- Any attempt to modify or alter the device will void the warranty.
- Do not install the product during rain or thunder storms



WARNING



- To avoid electric shock or potential injuries be sure that the electric power is OFF before installation.




WARNING



- Always connect luminaire before powering the driver otherwise luminaire will be damaged.

2. Installation

Use minimum 0.75 mm² (AWG 18) cable on the primary side of the driver.

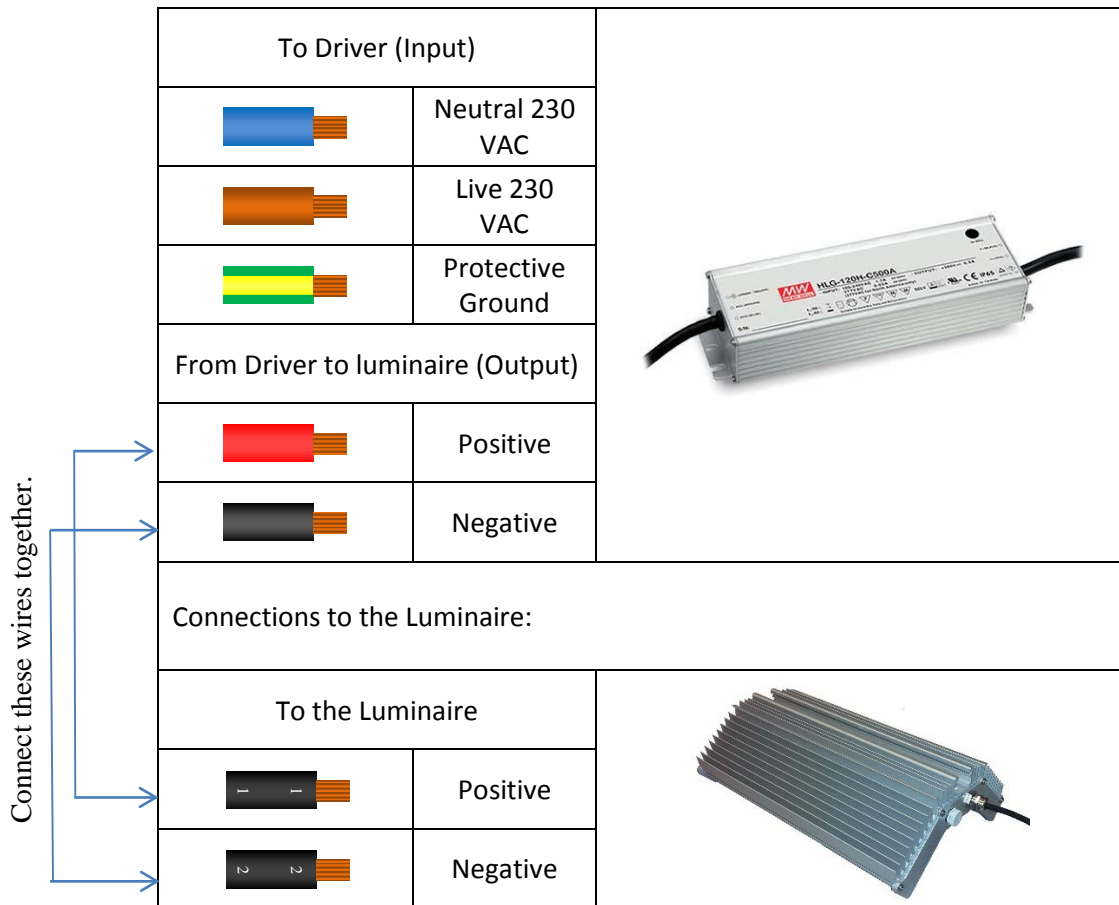
Overview of the connection	
Luminare	Driver
	
1	2
This is the base lamp; Yours might look different depending on the fixture.	The driver. Connect the cable to the driver.

See separate section for the range of different brackets/fixture.

CrystalLed™ is supplied with one of the following drivers:

- Inventronics 200 W, 700 mA for CrystalLed™ 72 and 96
- Inventronics 150 W, 450 mA for CrystalLed™ 72
- Inventronics 150 W, 700 mA for CrystalLed™ 56 and 48
- Inventronics 75 W, 450 mA for CrystalLed™ 48
- Inventronics 75 W, 700 mA for CrystalLed™ 24
- Inventronics 52 W, 450 mA for CrystalLed™ 24
- Phillips 150 W, Class II, 350 - 700 mA for CrystalLed™ 48 and 72
- LedLight Group 107 W ID driver 450 mA for CrystalLed™ 24, 48 and 72
- Harvard Engineering CLH 200, 200W, 700ma, Class II

2.1 Wire Connections between driver and lamp



Note: Protective Ground to lamp may be left unconnected if used with a class II driver or a safety isolated driver.



WARNING






- Connecting the luminaire with wrong polarity will seriously damage the luminaire.

NOTE: All lamps are fitted with a Rectifier bridge to ensure correct polarity.

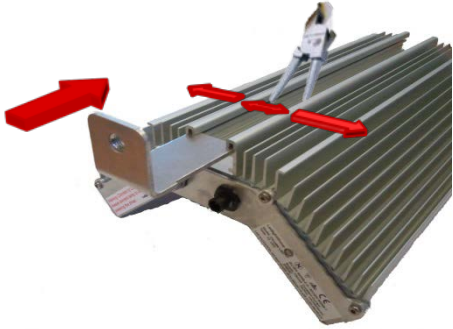
2.2 Brackets

1.1.1 Installation of Tilt bracket

Number (for One Lamp)	Article Nr.	Part Type
2x	106428	
2x		M8x16 (with Hexagonal Head)
2x		 8,4x15x0,8 (External Tooth Lock Washer)
1x	106426 (24-Led) 106368 (48-Led) 106638 (72-Led)	


1.

Use a plier to widen the groove on top of the lamp, while inserting the Mounting Bracket. Push the bracket all the way in until it stops.



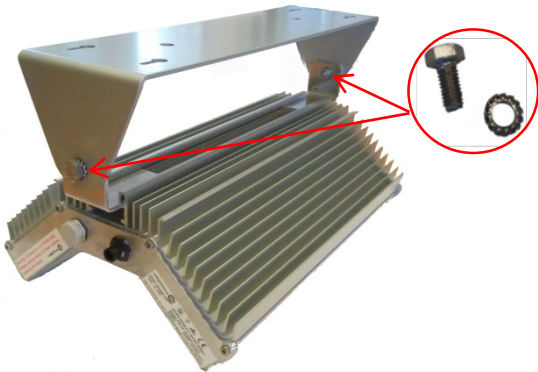
2.

Use the same procedure as described in previous step on both sides.



3.

Take the top bracket and bend it slightly over the mounting brackets. Take the screw (M8x16) with a washer (8,4x15x0,8) and secure it in place. Mount the lamp and tilt the lamp in position before tighten the screws.



1.1.2 Installation of Tower Bracket

1.

The Tower Bracket with the mounting plate assembled.



2.

Hold the bracket with the mounting plate facing down.
Slide the mounting plate in to the top slot on the lamp.




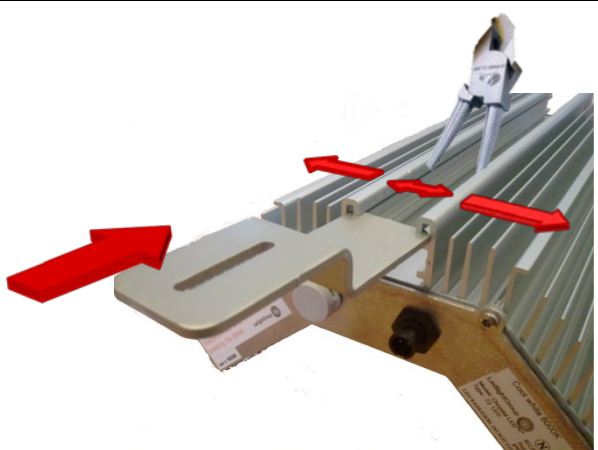
3.


Position the bracket on top of the lamp. Tighten the three screws to secure the bracket in place.





1.1.3 Installation of CL Ceiling mounted Bracket (Pair)

Number	Article Nr.	Bracket Type
2x	106036	

<p>1.</p> <p>Use a plier to widen the groove on top of the lamp, while inserting the Ceiling Mounted Bracket. With the mounting holes pointing up. Push the bracket all the way in until it stops against the edge of the lamp.</p>	
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<p>2.</p> <p>Use the same procedure as described in previous step on both sides.</p>	
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1.1.4 Installation of Industrial Bracket

Number	Article Number	Bracket Type
3x	106319	 M10x12 (Set screw with Hexagonal hole)
1x (Not included as standard)	106637	 Reducer

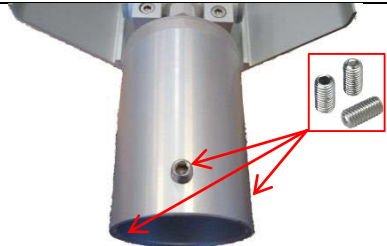
1.

Put the cable thru the cable gland and tighten the nut on the cable gland well.




2.

The three setscrews are for fixing the lamp to the pole.



3.

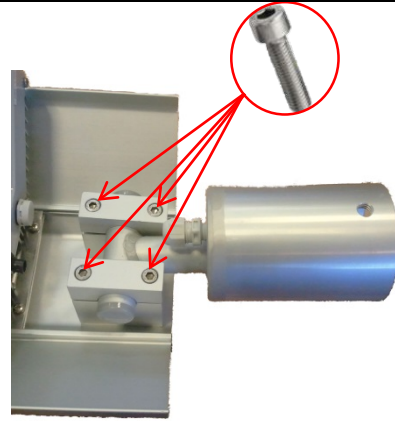
If a reducer is necessary, this needs to be placed in the tube. Insert the reducer tube half way in and tighten the three setscrews really well.



M10 x 12

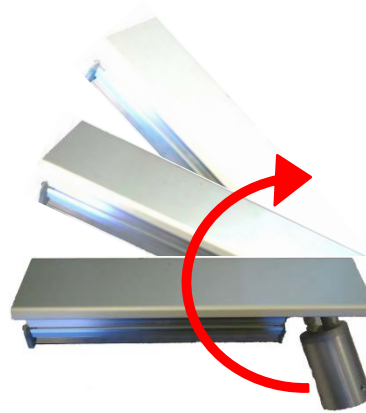
4.

Unlock the screws to adjust the tilt of the lamp.



5.

Tilt the lamp to the desired position and tighten the screws again.

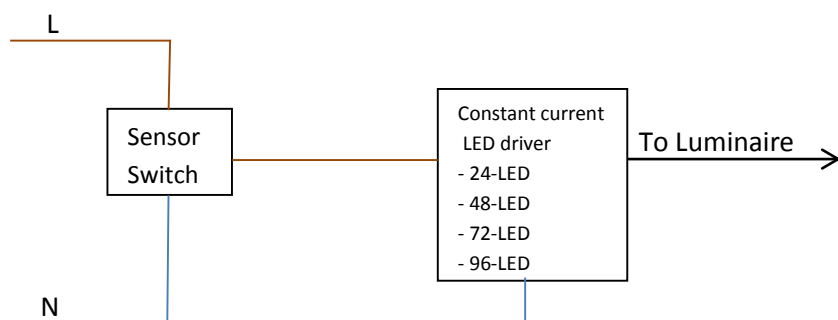


2.3 Dimming

The lamps can be delivered with either 1-10 V or Dali dimming control.

2.4 Photocell and other sensors

General installation of sensors:



NOTE: See the installation manual for the sensor for additional information.

2.5 Driver installation

The driver must be installed in secure place. The drivers have an IP rating of 65 or 67 but the cable connections must be protected accordingly.

If in need of a junction box with an appropriate protection (IP65 or IP 67), we recommend to put the entire driver in the junction box to simplify installation, added protection and to reduce the number of cable glands. Verify that the cable glands have a gasket appropriate for the box to keep the IP rating intact.

There are supplied two different cable clamps with the drivers:

- For indoor (dry) environment: Wago Spring Lever Cable Clamp
- For outdoor (harsh/wet) environment: 3M Scotchlok Cable Clamp with Silicone



Note! See the document ‘Correct use of 3M Scotchlok 314’ for appropriate use of the cable clamp.

3. Maintenance



WARNING



- No user serviceable part inside luminaire.
- Risk of electric shock.
- Opening luminaire will void warranty.

CrystalLed™ series of luminaries need very little maintenance, but it is recommended to clean the luminaire regularly. This will extend the operational lifetime and increase light output. The cleaning interval depends on the environment at the installation site.

In general, cleaning of the luminary every 5th year in open air applications is recommended.

For cleaning the glass use a damp, non-abrasive, lint-free cloth.

DO NOT USE ANY ABRASIVE, ALKALINE OR ANY CORROSIVE CLEANER OR SHARP OBJECTS.

4. Specifications

4.1 Specifications for luminaire

	CrystalLed™ 24		CrystalLed™ 48		CrystalLed™ 72		CrystalLed™ 96
Supply Current	450 mA	700 mA	450 mA	700 mA	450 mA	700 mA	700 mA
Rated Power	40 W	60 W	71 W	109 W	104 W	160 W	208 W
Number of LEDs	24		48		72		96
Color Temperature	3000K, 4500K, 6000K						
Ingress Protection	65/67						
L x W x H in mm ¹	127 x 215 x 105		227 x 215 x 105		327 x 215 x 105		427 x 215 x 105
Luminaire Weight in kg ¹	1.1		1.9		2.7		3.4
System Weight in kg (Universal T-Bar Bracket with roof) ²	2,5 (3.5 with driver)		3.5 (4.5 with driver)		4.5 (5.5 with driver)		5.4 (6.4 with driver)
System Weight in kg (Multi tilt Bracket) ²	1.9 (2.9 with driver)		2.7 (3.7 with driver)		3.5 (4.5 with driver)		4.2 (5.2 with driver)
System Weight in kg (Tilt Bracket) ²	1.8 (2.8 with driver)		2.6 (3.6 with driver)		2.4 (4.4 with driver)		4.1 (5.1 with driver)
System Weight in kg (Roof Bracket) ²	1.1 (2.1 with driver)		1.9 (2.9 with driver)		2.7 (3.7 with driver)		3.4 (4.4 with driver)

¹Measurements for the luminaire only.

²Measurements for luminaire, fixture and total including driver.

(Specifications are subject to change without notice.)

4.2 Outdoor Tower use

CrystalLed™ is designed to be used in towers up to 45 meters. The T-bar mounting is recommended for high towers.

5. Disclaimer

All statements, technical information and recommendations contained herein are believed to be reliable, but no guarantee is given as to their accuracy and/or completeness. Whilst every attempt has been made to ensure accuracy in the content of this manual, no guarantee is provided. Reference is made to the company's standard terms&conditions at

www.ledlightgroup.com

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