

ANTARIO

Installation Manual

ENGLISH



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1. Product Description



- Recessed LED Lighting for CNC machine tools, automation applications.
- Anodized aluminum housing
- Tempered glass IK06.
- Non-glare diffuser
- highly efficient LED, 5000 K CRI85
- Integrated 24 Vdc drivers
- Four models and sizes.
- Use only with a Class 2 power supply.
- Suitable for wet locations.
- Under-Cabinet and surface mounting use

Atex only Antario Cable Version

- Installation on Atex Zone 2/22: where an explosive atmosphere is unlikely to occur during normal operation and only for a very short duration.



I13G Ex nA IIC T5 Gc
I13D Ex t IIIC T90°C Dc

- Suitable for High-pressure Washing applications

2. Safety instruction

The **ANTARIO** series has been designed and is manufactured with state-of-the-art technology to control the entire production Cycle.

Antario is made of selected high-quality materials that are carefully tested during the production process, from the raw materials to packaging, to guarantee that the product is safe reliable, and long-lasting.

However, the use of Antario may cause damages and/or personal injury if not properly installed.



- These instructions are part of the device and must always be kept with it.
- Read the instructions and information described in this manual carefully.
- Procedures for installation and proper use of ANTARIO must be performed by the instructions given in this manual and printed on the product.
- The user must read all safety instructions before using the ANTARIO.

- CCEA is not responsible for handling or improper use of the product that may cause damage and/or injury.

2.1 Correct use of Antario luminaires

Antario Luminaires have been designed to be installed inside CNC machines with a high demand for protection, even in wet environments.

2.2 Product Safety

2.2.1 Electrical Risks

Improper use may cause injuries and damages.

- All electrical connection procedures must be performed by a licensed electrician.
- Turn off the power supply before any installation, maintenance, or repair.
- Pay attention to the Reverse polarity of the conductors when plugging into the power supply
- Make sure that the rated voltage and frequency of the power supply meet the requirements on the product label.
- Maintenance and repairs may only be performed by qualified electricians.

2.2.2 Risk of explosion

The risk of the explosion might occur installing and using Antario luminaires on applications with a high risk of

explosion. It might cause severe body injuries.



DANGER

- **Do not** install and use this product in hazardous environments and high risk of explosion.

2.2.3 Installation safety

- Handle with care, falling or being hit even it is still packed, might cause body injuries, as well as material damages.
- The equipment must be correctly fastened using the proper screws according to the application, place, and surface where the product is being mounted.
- Ensure that the mounting screws are regularly checked.

2.2.4 Danger of dazzling glare due to a white light source

Avoid staring directly at the light source, as it may cause a temporary reduction of vision. Irritation, aches, damages, or accidents may as well occur.

- Avoid staring directly at the light source.
- The device must be adjusted so that the light beam is not directly pointed towards the eyes.

2.2.5 Damage caused by the presence of laser beams

Power laser beams may damage the LED circuits.

NOTICE

Don't Install ANTARIO luminaires in high-power laser areas.

2.2.6 Damage caused by installation in high-temperature areas

Installing and using ANTARIO in environments where the living temperature exceeds the operating temperature indicated by this manual, will considerably reduce the Led lifetime, as well as damage the built-in electronic.

- **Operating temperature -30° C (-22 F) /+55° C (131 F)**
- **Do not** use ANTARIO in environments where the living temperature fall behind – 30° C (-22 F) and exceeds +55° C (131 F)
- Avoid direct solar radiation.

2.2.7 Danger due to repairs

Disassemble or repair ANTARIO without technical and electrical skill may cause damages to persons and objects.

- **DO not** try to repair or disassemble ANTARIO Fixture. Please apply to qualified technicians.
- Any tampering or change from the original product that is not approved by the manufacturer will invalidate the warranty.

2.3 Damage risk levels



DANGER

Dangers for non-compliance with this manual may cause severe injuries or lead to death.



WARNING

Dangers where failure to satisfy requirements **may** lead to severe injuries and even to death.



CAUTION

Dangers where failure to satisfy requirements **may** lead to injuries.

NOTICE

Dangers where failure to satisfy requirements **may** cause damages to objects.

3. Available versions

Please refer to the table hereunder to find the purchased model number and features to install the luminaire correctly and for efficient use.

NOTE: the model number and features are found on the backside of the luminaire by a stuck label or printed laser marking.

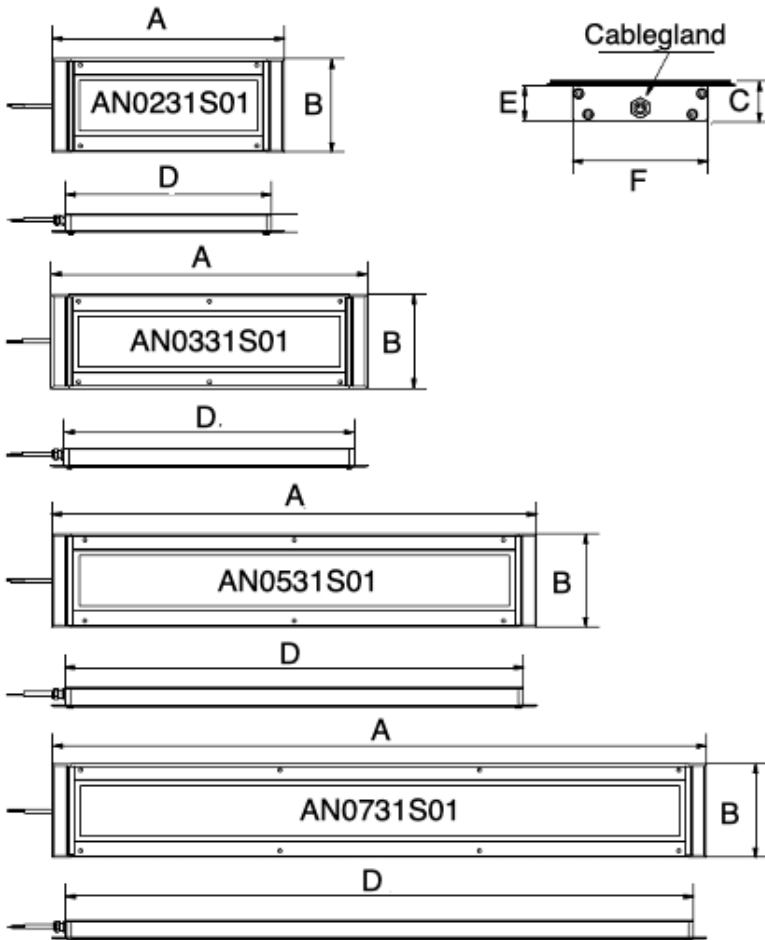
- Check that the purchased Model Number is listed on the table hereunder.
- The label or laser printing on the luminaire shows the week and year of production, which will be requested in case of a complaint

Do not discard the product labeling which may be requested in case of a complaint.

Version with CABLE						
Model	Length	Optics	Power	Power Usage	E Connection	Weight
AN0231S01	14.0"	Diffuser 110°	26,5 W	24 Vdc	Cable 10 ft	3.50 Lb.
AN0331S01	19.0"	Diffuser 110°	40 W	24 Vdc	Cable 10 ft	5.10 Lb.
AN0531S01	29.2"	Diffuser 110°	66,5 W	24 Vdc	Cable 10 ft	7.70 Lb.
AN0731S01	39.4"	Diffuser 110°	93 W	24 Vdc	Cable 10 ft	9.90 Lb.
Version with M12 connector						
Model	Length	Optics	Power	Power Usage	E Connection	Weight
AN0231S02	14.0"	Diffuser 110°	26,5 W	24 Vdc	M12-A 4P M	3.10 Lb.
AN0331S02	19.0"	Diffuser 110°	40 W	24 Vdc	M12-A 4P M	4.60 Lb.
AN0531S02	29.2"	Diffuser 110°	66,5 W	24 Vdc	M12-A 4P M	7.30 Lb.
AN0731S02	39.4"	Diffuser 110°	93 W	24 Vdc	M12-A 4P M	9.50 Lb.

4. Guide to installation

4.1 Product sizes



Model	SIZE inches						SIZE millimetres (mm)					
	A	B	C	D	E	F	A	B	C	D	E	F
AN0231S01	13.98	5.67	1.16	12.40	1.07	4.10	355	144	29.5	315	27	104
AN0231S02				17.48			484			444		
AN0331S01	19.06			27.64			742			702		
AN0331S02				37.80			1000			960		
AN0531S01	29.22											
AN0531S02												
AN0731S01	39.37											
AN0731S02												

4.2 Installation

⚠ CAUTION

The lamp falls may cause injuries to people or damage to materials.

⚠ WARNING

Always switch off the electricity Before proceeding to the installation

- Use “table 2” to drill the holes on the installation surface and “table 1” to cut the window reveals according to the chosen model of Antario.
- The installation surface must have a minimum of 0.06” (1.5 mm) in thickness.
- Inset the rear body of the fixture (heatsink) into the previously cut-out window and make sure that the holes on the fixture and those on the installation surface are perfectly lined up.
- Use 8-32 or M5 screws.
- Choose the length of the screw according to the application, and the thickness of the installation surface.
- Screws must firmly be tightening using a torque wrench; the frame must adhere to the installation surface

Table 1 (window reveal measurements)

Code	Holes	window reveal	
		W	H
AN0231S01- AN0231S02	4	12.50”x	4.18”
AN0331S01- AN0331S02	6	17.56”x	4.18”
AN0531S01- AN0531S02	6	27.72”x	4.18”
AN0731S01- AN0731S02	8	37.88”x	4.18”

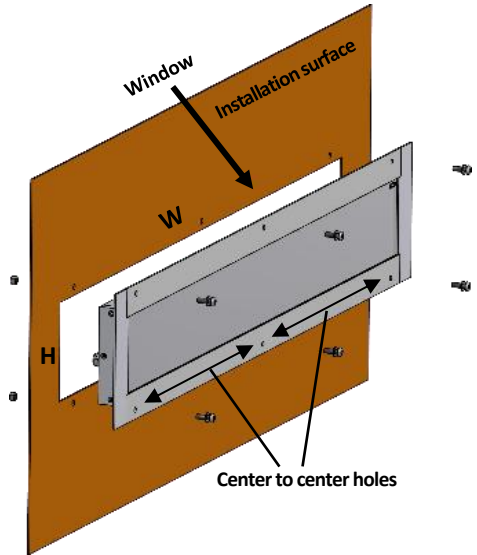


Table 2

Model	Holes	Center to center holes
AN0231S01- AN0231S02	4	10.63”
AN0331S01- AN0331S02	6	7.87” – 7.87”
AN0531S01- AN0531S02	6	12.60” – 12.60”
AN0731S01- AN0731S02	8	12.0” +12.0” * 12.0”

Tolerance +/- 0.1

NOTICE

Check the proper condition and tightness of the screws holding the luminaire. Screws tightness must be inspected frequently on vibrating applications.

5. Electrical connection



WARNING

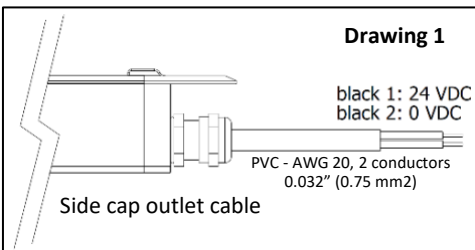
Always Turn off the power before the installation and wiring of Antario

24VDC connection with cable

NOTICE

Incorrect electrical Wiring causes damages to the Circuits

- The electrical connection must be carried out by qualified technicians.
- follow the wiring diagram (**Drawing 1**) to ensure that the polarity of conductors is correct.
- Use the cable, two conductors AWG 20, the cross-section of 0.032" (0.75 mm²) max length 33.3 ft. (10 m).
- Choose the cable with bigger and proper Cross-section conductors to avoid Voltage drop when it is longer than 33.3 ft. (10 m).



24VDC connection with M12-A 4P male connector

Pin	Polarity
1	(+) 24 V dc
2	Not connected
3	(-) 0 V dc
4	Not connected



NOTICE

Integrated Drivers

Voltage range: min. 22 Vdc / max. 36 Vdc

- Power supply exceeding the max voltage rates may damage the integrated LED drivers
- Use only Vdc power supply unit suitable for LED from 100 to 240 Vac connection.

NOTICE

IMPORTANCE OF REVERSE POLARITY PROTECTION

Accidents and mistakes can happen when connecting a power supply to a Vdc luminaire. If the scenario occurs that the polarity of the DC supply voltage is reversed, it's critically important that the connected Luminaire is protected. **Antario luminaires** are equipped with built-in Reverse Polarity Protection that cut off power to the sensitive electronic circuits in the transmitter or transducer to ensure that it is not damaged if the power supply polarity is accidentally reversed. It's an important feature because significant power can be available in DC power supply systems in many industrial installations and besides permanent damage to the connected luminaire, **there can be a risk of fire if the device is not protected against reverse polarity.**

6. Switching on and off

- The fixture is not equipped with an independent on/off switch.
- The fixture turns automatically on when the power is on and turns off when the power cuts off.

7. Troubleshooting

Luminaire does not turn on:

- Check whether the power supply is on
- Check that the polarity is correctly wired.

NOTICE

- Prolonged incorrect polarity connection will irreparably damage PCB.

Contact CCEA technical service in case the luminaire is faulty or damage

CCEA technical support
 Tel. 1 623-526-9599
 techsupport@ccealights-usa.com
 www.ccealights-usa.com



WARNING

Improper use, Dismantling or opening of the fixture, may cause electric shock or seal damage.



8. Replacing the light source

Thanks to the exceptional duration of the LEDs that last 60,000 hours, there is no need to replace the LED circuits during the entire fixture's lifetime. The replacement of the LED circuits is only required when they are accidentally and irreparably damaged. The Warranty will be invalidated.

9. Product maintenance and cleaning



WARNING

Always turn off the electricity before maintenance and cleaning.

Antario luminaires are maintenance-free

- Turn off and wait until the luminaire is cooled down before maintenance and cleaning.
- Clean up Antario regularly, at least once a year with a soft moist cotton cloth with mild detergent.
- Remove all dust, oil, coolants from the surface of the luminaire.

Benefits of maintenance and cleaning

- Energy-saving.
- Reduce the risk of luminaire damage.
- increase visual comfort of users.
- Avoid light losses due to the inefficiency of the luminaire.

10. Repairs

NOTICE

All material damages caused by liquid leakage may damage the luminaire.

In case the luminaire is working in environments where lubricants or coolers are present, all cleaning operations should be carried out at the end of the working cycle.

NOTICE

Wrong repair may damage the luminaire.

- Repairs must be carried out by the manufacturer or qualified personnel.
- Do not open and/or dismantle the lamp.

parts, and freight if the luminaire is found damaged during the Preliminary check due to improper use, incorrect installation, or product damage due to weak packaging when it is returned for repair.

The warranty does not cover:

- transport, packaging, or shipping costs if the fixture has been damaged by the customer
- Damages or deterioration caused by:
 - incorrect Installation
 - Damage caused by not authorized repair
 - Improper Use under environmental conditions other than those specified in this user manual.
 - Leakages.
 - Transport damage due to poor or weak packaging when the luminaire is shipped back for repair.
 - The luminaire must be packed in its original packaging

11. Warranty

11.1 CCEA recommends that repairs covered by the warranty must be carried out by CCEA Technical service or an authorized official dealer.

11.2 Hold the original label and packaging to return the luminaire for repair or checking.

11.3 Customers will be noticed of the cost of repair, spare

Period of warranty

The warranty coverage lasts for 24 months and starts at the date of the delivery. Although CCEA guarantees that 100% of the manufactured products are fully tested and checked, we are aware that a malfunctioning or defective product may occur. This is what the CCEA's warranty coverage is made for.

12. Product disposal



All the electrical and electronic equipment (WEEE) must be managed with selective waste sorting and cannot be disposed of as municipal waste, as provided for in Directive 2012/19/UE.

Given the above, this equipment, all its components, subsystems, and the consumables which are an integral part of the product must be conveyed to the local collection facilities for them to be disposed of under the current legislation.

Please apply to the council offices of your place of residence to know where the collection facilities are located.

13. Technical data






NOTE: Please refer to the date printed on the label stuck on the lamp.

Power supply	22-36VDC
Power watt	26,5-40 66,5-93W (see label)
IEC Class	III
Degree of protection	IP67
LED driver	IDS system
Light color	5000-6500K
CRI	80

Operating temperature **-20 + 45 °C**

For any further information please refer to the table on page 7

14. Symbol Keys

	CE Conformity marking
IP67	Degree of protection IP67
	LED lamp technology
	Protection class III device
24VDC	24VDC power supply
	Do not open and/or dismantle the lamp
	II3G Ex nA IIC T5 Gc II3D Ex t IIIC T90°C Dc

15. Declaration of Conformity

EC Declaration of Conformity

According to
Low Voltage Directive 2006/95/EC
EMC Directive 89/336/EEC

Series: ANTARIO
Model Numbers: AN0231S01, AN0331S01, AN0531S01, AN0731S01
Applicant: CCEA Technical Lighting Corp.
Address: 2630 N Ogden Rd. Suite 108 - Mesa , AZ, 85215
Manufacturer: CCEA Srl
Address: Via Piave 2, Altavilla (Vicenza) – Italy, 36077

Test Standards

- CEI EN 60598-1 Lighting equipment. Part 1: General requirements and tests
- CEI EN 60598-2-4 Lighting equipment part 2: requirements – part 4 Portable general-purpose luminaries.
- CEI EN 62471 Photobiological safety of lamps and lamp systems.
- CEI EN 62031 LED modules for general lighting - Safety specifications.
- CEI EN 62384 D.C. or A.C. electronic driver for LED modules - Performance requirements.

*The standard relevant for the evaluation of LVD requirements are as follow

Complies with the essential requirements of Low Voltage Directive 2006/95/EC and CE-Marking accordingly. This declaration applies to all specimens manufactured in accordance with manufacturer's technical manufacturing drawings.

Assessment of compliance of the product with the requirements relating electronics safety was based on the harmonized standards.

Date of Issue: 12/01/2021

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 (Name and signature of Authorized Person)

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