# CCA-03EX

- Easy installation
- Low energy consumption
- New COB LED technology
- Zone 1, 2, 21, 22



The LED lighting fixtures for safety warnings CCA-03EX series is designed for installation in areas with risk of explosion where lighting may be stopped due to abnormal, unusual or accidental situations.

The CCA-03EX lighting fixture can be installed in indoor and outdoor environments and it can operate both in normal and emergency service, with a maximum duration of about 2 hours. In case of interruption of the supply voltage, electronics automatically turn on the lighting fixture. The optimal placement of the terminal strip allows a simple wiring, with the possibility of installing more equipment thanks to two threaded hubs studied for the through-wiring. CCA-03EX lighting fixture has a compact size and features two directional LED spotlights. The use of LED COB (Chip on Board) as light source, housed in a junction box with IP66 protection, allows high performance in terms of lumens, low maintanance costs and long life. The presence of reflectors specifically designed for this type of source allows to increase the lighting performance and to direct the light in a well-precise areas thanks to the directionality of the system. Battery replacement after a fault in the emergency circuit or due to battery exhaustion, is indicated by the red LED turning off. In case of emergency, the red LED turns off by activating the LED COB power supply through the battery.

#### **Application sectors:**



Oil refineries



Gas Chemical and petrochemical plants



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Fuel tanker loading/ unloading areas



Transit areas



Emergency

exits

Stair handrails



Perimeter lighting

#### **CERTIFICATION DATA**

Classification:	Group II Category 2GD				
Installation: EN 60079.14	zone 1 - zone 2 (Gas) zone 21 - zone 22 (Dust)				
Marking:	C€ 0722 ऒ II 2GD Ex d IIC T6 Gb - Ex tb IIIC T85°C Db IP66				
Certification:	ATEX CML 15 ATEX 1007				
	IEC Ex IECEx CML 15.0002  All IEC Ex certification data can be downloaded at www.cortemgroup.com				
Standards:	CENELEC EN 60079-0: 2012, EN 60079-1: 2007, EN 60079-31: 2014 and EUROPEAN DIRECTIVE 2014/34/UE IEC 60079-0: 2011, IEC 60079-1: 2014-06, IEC 60079-31: 2013 European Directive 2004/108 Electromagnetic compatibility European Directive 2012/19/UE, 2002/96/CE, 2003/108/CE WEEE European Directive 2011/65/UE RoHS				
Class temperature:	85°C (T6)				
Ambient temperature:	Standard -20°C +55°C				
Degree of protection:	IP66				





#### **MECHANICAL FEATURES**

Body and lid: Low copper content aluminium alloy

Internal frames: Stainless steel
External adjustable brackets: Stainless steel

Glass face: Shock and temperature resistant tempered glass Gaskets: Acid and hydrocarbon resistant silicone

**Bolts and screws:** Stainless steel

**Assembly:** See "Dimensional drawing CCA-03EX"

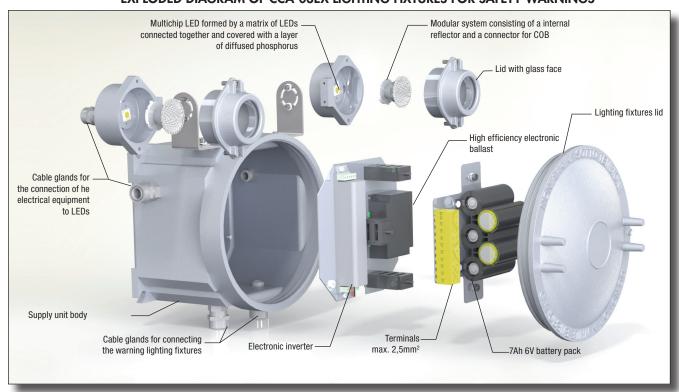
Entries: 2 x 1/2" NPT entries. Fixture kit with n.1 PLG1NB plug and n.2 FB1NBK cable gland

**Coating:** Polyester coating Ral 7035 (Light grey)

Corrosion Resistance: The STANDARD of the aluminium alloy used by Cortem has passed the tests required by

standards EN60068-2-30 (hot/humid cycles) and EN60068-2-11 (salt mist tests)

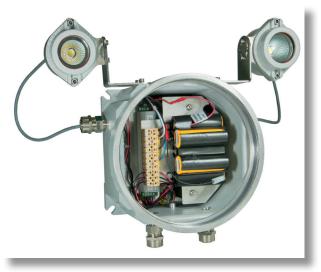
#### **EXPLODED DIAGRAM OF CCA-03EX LIGHTING FIXTURES FOR SAFETY WARNINGS**



Electrical features	CCA-03EX
Power supply:	110-240 Vac ±10%
Rated frequency:	50-60 Hz ±5%
Power consumption:	20 W
Connection:	Direct connection to terminal board L, N, PE. Section 2,5 mm2, suitable for loop-in/loop-out
Power factor:	>0,90
Rated current:	100 mA
EMC (electromagnetic compatibility):	EN 55015, EN 61000-3-2, EN 61000-4, EN 61547
THD (total harmonic distortion):	<20% 100-277 Vac
Over-voltage protection:	2 kV
Driver performances:	Over-Voltage protection, Over-Current protection, Short-Circuit protection
Battery:	7 Ah, 6 V. Discharge time 2 hours
Photometric features	7 Ah, 6 V. Discharge time 2 hours
	7 Ah, 6 V. Discharge time 2 hours  Cree CXA
Photometric features	
Photometric features  LED Multichip:	Cree CXA
Photometric features  LED Multichip:  Viewing angle:	Cree CXA 30°
Photometric features  LED Multichip:  Viewing angle:  Colour temperature:	Cree CXA 30° 3500 K
Photometric features  LED Multichip:  Viewing angle:  Colour temperature:  CRI:	Cree CXA 30° 3500 K 80
Photometric features  LED Multichip:  Viewing angle:  Colour temperature:  CRI:  Instant Restrike:	Cree CXA 30° 3500 K 80 YES



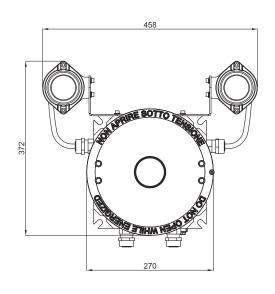
DETAIL OF LED SPOTLIGHTS
LED spotlights adjustable both horizontally
and vertically to allow the directionality
of light.

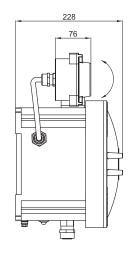


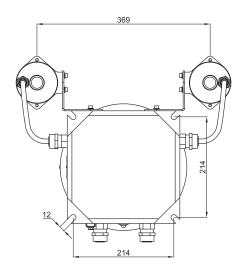
INSIDE VIEW
PInternal electrical part completely wired with silicone rubber cables with protective glass braid for high temperatures.

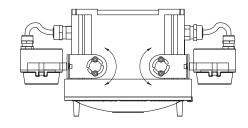
Code	Type Lamp	Watt	Class	Max surface temperature °C	Weight kg	mm
CCA-03EX	LED	20 W	T6	85	14	

### **DIMENSIONAL DRAWING**









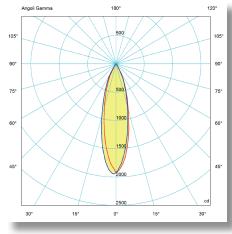
Dimensions in mm

ILLUSTRATION	DESCRIPTION	FEATURES	CODE	KEY
	Driver	110-240 Vac	LEDDCCA-03EX	SPACE PART
	Electronic inverter	90/264 V	INVDCCA-03EX	SPARE PART
	Battery pack	7 Ah 6V NiCd	G-0309	SPARE PART

ILLUSTRATION	DESCRIPTION	FEATURES	CODE	KEY
	Lid with glass face	Material: aluminium lid tempered glass	M-0390	SPARE PART
	Gasket between body and cover	Material: silicone	K27-131S	STARE PART



Example of lighting design made using CCA-03EX lighting fixtures for safety warnings



CCA-03EX Luminous flux: 600 lm

On Cortem Group web site you can download .LDT and .IES lighting data files for the design and simulation of lighting levels in 2D and 3D, rendering and ray tracing.

= plane 90270 = plane 0180





