

**CESI**

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Sezione Ordinaria  
N. R.E.A. 429222  
P.I. IT00793580150

**CESI**

**Schema di certificazione**

# CERTIFICATE



## TYPE EXAMINATION CERTIFICATE

[1] **Category 3 Equipment intended for use  
in potentially explosive atmospheres**  
Directive 94/9/EC

[3] Type Examination Certificate number:

**CESI 06 ATEX 054**

[4] Equipment: Floodlights series TIGER sizes 150, 250, 400

[5] Manufacturer: **COR.TEM S.p.A.**

[6] Address: Via Aquileia 10, Villesse (Gorizia)

[7] This equipment and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

[8] CESI certifies that this equipment has been found to comply with the Essential Health and Safety Requirements relating to the design of category 3 equipment intended for use in potentially explosive atmospheres given in Annex II to the European Union Directive 94/9/EC of 23 March 1994.

The examination and test results are recorded in confidential report n. EX-A6021154

[9] Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

**EN 60079-0:2006 EN 60079-15:2005 EN 61241-0: 2006 EN 61241-1:2004**

[10] If the sign "X" is placed after the certificate number, it indicates that the equipment is subject to special conditions for safe use specified in the schedule to this certificate.

[11] This TYPE EXAMINATION CERTIFICATE relates only to the design, examination and tests of the specified equipment in accordance to the Directive 94/9/EC. Further requirements of the Directive apply to the manufacturing process and supply of this equipment. These are not covered by this certificate.

[12] The marking of the equipment shall include the following:



**II 3 G D Ex nR II T3, T2 ; Ex tD A22 IP 66 T 145 ÷ 210°C**

This certificate may only be reproduced in its entirety and without any change, schedule included.

Date 18/12/2006 - Translation issued the 18/12/2006

**Prepared**  
Sergio Mezzetti

**Verified**  
Mirko Balaz

**Approved**  
Fiorenzo Bregani

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Centro Elettrotecnico Sperimentale Italiano  
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[13]

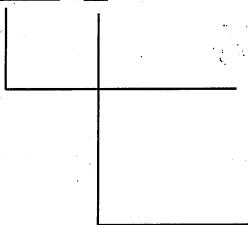
**Schedule**[14] **TYPE EXAMINATION CERTIFICATE n. CESI 06 ATEX 054**[15] **Description of equipment**

Floodlights series TIGER ... are realized by an aluminium alloy body and a transparent glass cover containing the lamp.

Various types of lamps can be assembled: mercury vapours lamps, high pressure sodium vapours lamps or metal halide lamps.

The floodlights are realized in one housing which contains : the lampholder, the lamp, the terminal box and other electric components.

The floodlights are identified by the following codes:

**TIGER ...**

Type of floodlights: TIGER

Size/power: 150, 250, 400

**Electrical characteristics**

Rated voltage	110 ÷ 240, 250, 277 V
Rated frequency	50 ÷ 60 Hz
Rated power	150 ÷ 400 W
Degree of protection	IP 66
Ambient temperature	- 25 ÷ + 45 °C - 25 ÷ + 60 °C - 50 ÷ + 45 °C - 50 ÷ + 60 °C

The temperature class and the maximum surface temperature T of the floodlights are function of the maximum power dissipated in the inside and of the maximum ambient temperature, as specified in the table 1 and in the documents annexed to this certificate.

**cable entries**

The accessories used for cable entries guarantee a minimum degree of protection IP 66 in compliance with the EN 60529 Standard and are certified in compliance with the EN 60079-0, EN 60079-15, EN 61241-0 and EN 61241-1 Standards.

The cable glands are realized for

- $T_a$  min.  $\geq$  - 25°C with EPDM gaskets type and class of temperature T3
- $T_a$  min.  $\geq$  - 50°C with SILICONE SI/50 gaskets type and class of temperature T3 or T2

This certificate may only be reproduced in its entirety and without any change, schedule included.

[13]

**Schedule**[14] **TYPE EXAMINATION CERTIFICATE n. CESI 06 ATEX 054**[15] **Description of equipment (follows)**

Table 1 - TEMPERATURE CLASSES AND MAX. SURFACE TEMPERATURE OF THE FLOODLIGHTS WITH MAX. AMBIENT TEMPERATURE UP TO +45°C; AND +60°C

Floodlight model	Power in W and type of lamp	Class of temperature		Max surface temperature T in °C	
Max. ambiente temperature		Ta +45 °C	Ta +60 °C	Ta +45 °C	Ta +60 °C
TIGER-150	150W HG	T3	T3	145 °C	154 °C
	150W NA	T3	T3	145 °C	154 °C
TIGER-250	250W HG	T3	T3	145 °C	154 °C
	250W NA	T3	T3	145 °C	154 °C
	250W HA	T3	T3	145 °C	154 °C
TIGER-400	400W HG	T3	T3	T2	195 °C
	400W NA	T3	T3	T2	195 °C
	400W HA	T3	T3	T2	195 °C
HG: mercury vapours lamp NA: high pressure sodium vapours lamp HA: metal halide lamp					

# NOTES: For the max. ambient temperature Ta + 60 °C, the class of temperature and the max. surface temperature of the floodlights model 400, are function of the installation conditions:

- floodlights installed on vertical position: Class of temperature T3 and max. surface temperature T 189 °C
- floodlights installed on horizontal position and light directed to down: Class of temperature T2 and max. surface temperature T 210 °C

**Warning label**

“Do not open when energized. Wait 20 minutes before opening.”

“Use cables suitable for a minimum temperature of Tc °C.” where Tc has the value of:

90 °C for the models with temperature class T3 ( with T.amb. Max. + 45 °C)

100 °C for the models with temperature class T3 ( with T.amb. Max. + 60 °C)

150 °C for the models with temperature class T2

[13]

**Schedule**[14] **TYPE EXAMINATION CERTIFICATE n. CESI 06 ATEX 054**[16] **Report n. EX- A6021154****Routine tests**

The manufacturer shall carry out the routine tests prescribed at par. 27 of the EN 60079-0, at par. 27 of the EN 60079-15 and at par.24 of the EN 61241-0 Standards.

The routine dielectric test with applied voltage shall be carried out at 1500 V.

The restricted breathing routine test shall be carried out, by the manufacturer, in compliance with par. 27.2.3 of the EN 60079-15 standard

**Descriptive documents (prot. EX-A6021161)**

- Technical Note n° A4-4888 (3 pg.)	Rev. 0	dated	12/12/2006
- Drawing n° A1-4886 (3 sheets)	Rev. 0	dated	12/12/2006
- Drawing n° A3-4887	Rev. 0	dated	12/12/2006
- Safety Instruction F-299 (8 pg.)	Rev. 0	dated	12/12/2006
- CE Declaration of Conformity n° CE-0053		dated	12/12/2006
- Gaskets data sheets (3 pg.)		dated	04/07/2006

One copy of all documents is kept in CESI files.

[17] **Special conditions for safe use**

None.

[18] **Essential Health and Safety Requirements**

The Health and Safety Requirements are assured by compliance with the following Standards:

- EN 60079-0 : 2004 Electrical apparatus for explosive gas atmospheres. General requirements
- EN 60079-15: 2005 Type of protection "n"
- EN 61241-0 : 2006 Electrical apparatus for use in the presence of combustible dust.
- EN 61241-1 : 2004 Protection by enclosures "tD"

**EXTENSION n. 01/10****to EC-Type Examination Certificate CESI 06ATEX054**

Equipment: Floodlights series TIGER sizes 150, 250, 400

Manufacturer: **COR.TEM S.p.A.**

Address: Via Aquileia 10, Villesse (GO)

**Admitted variation**

- New rated voltage up to 480 V
- New type of multi-range ballast from 120 to 480 V
- 

**Equipment identification and description**

The equipment shall include the following markings:

**II 3 G D Ex nR II T3, T2 ; Ex tD A22 IP 66 T 145 ÷ 210 °C****Electrical characteristics**

Nominal voltage:

- Floodlight 110÷240, 250, 277, 480 Vac
- Ballast: 120, 208, 240, 277, 480 Vac

Nominal wattage: from 125/150 W up to 400 W HG/NA/HA

Unchanged the other characteristics

This extension and annexed descriptive documents must be annexed to the EC-Type Examination Certificate CESI 06ATEX054

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date 22/11/2010

prepared Sergio Mezzetti

verified Mirko Balaz

approved Fiorenzo Bregani

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Giacinto Motta SpA

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## EXTENSION n. 01/10

to EC-Type Examination Certificate CESI 06ATEX054

## Equipment identification and description (follows)

*Temperature class and maximum surface temperature*

The temperature class and the maximum surface temperature  $T$  of the floodlights are function of the maximum power dissipated in the inside and of the maximum ambient temperature, as specified in the table 1 and in the documents annexed to this extension of certificate.

Table 1 – Temperature classes and maximum surface temperature of the floodlights with maximum ambient temperature of  $+45^{\circ}\text{C}$  and  $+60^{\circ}\text{C}$

Max. Ambient Temperature		Ta $+45^{\circ}\text{C}$	Ta $+60^{\circ}\text{C}$	Ta $+45^{\circ}\text{C}$	Ta $+60^{\circ}\text{C}$
Model	lamp	Temperature Class		Maximum surface temperature (T... $^{\circ}\text{C}$ )	
TIGER 150	125 W HG	T3	T3	145	160
	150 W NA	T3	T3	145	160
	150 W HA	T3	T3	145	160
TIGER 250	250 W HG	T3	T3	145	160
	250 W NA	T3	T3	145	160
	250 W HA	T3	T3	145	160
TIGER 400	400 W HG	T3	T2	195	189#
	400 W NA	T3	T2	195	189#
	400 W HA	T3	T2	195	189#
					210

# NOTE: 1) For the max. ambient temperature  $Ta + 60^{\circ}\text{C}$ , the class of temperature and the max. surface

# NOTE: 1) For the max. ambient temperature  $Ta + 60^{\circ}\text{C}$ , the class of temperature and the max. surface temperature

of the floodlights model 400, are function of the installation conditions:

- floodlights installed on vertical position: Class of temperature T3 and max. surface temperature T 189  $^{\circ}\text{C}$
- floodlights installed on horizontal position and light directed to down: Class of temperature T2 and max. surface temperature T 210  $^{\circ}\text{C}$

2) For floodlights with nominal power lower than 150 W, the temperature class and the maximum surface temperature to be considered are the same for the model 150

Report n° EX- B0032551

## Routine tests

**EXTENSION n. 01/10****to EC-Type Examination Certificate CESI 06ATEX054****Descriptive documents (prot. EX- B0032553)**

- Technical Note A4-5446 (7 pg.)	Rev. 00	dated	07/05/2010
- Drawing n° A3-5448	Rev. 00	dated	07/05/2010
- Safety Instruction F-345 (8 pg.)	Rev. 02	dated	07/05/2010
- Declaration of Conformity n° 0053		dated	07/05/2010

One copy of all documents is kept in CESI files.

**Essential Health and Safety Requirements**

The Health and Safety Requirements are assured by compliance with the following Standards:

- EN 60079-0 : 2006 Electrical apparatus for explosive gas atmospheres. General requirements
- EN 60079-15: 2005 Type of protection “n”
- EN 61241-0 : 2006 Electrical apparatus for use in the presence of combustible dust.
- EN 61241-1 : 2004 Protection by enclosures “tD”