

CESI

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iscrizione CCIAA 00793580150

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

Schema di certificazione

CESI-ATEX

Il CESI è stato autorizzato dal governo italiano ad operare quale organismo di certificazione di apparecchi e sistemi destinati a essere utilizzati in atmosfera potenzialmente esplosiva con D.M. 1/3/1983, D.M. 19/6/1990, D.M. 20/7/1998, D.M. 27/9/2000 e D.M. 02/02/2006

ATEX E C3-02 - 1

CERTIFICATE



TYPE EXAMINATION CERTIFICATE

- [1] **Category 3 Equipment intended for use in potentially explosive atmospheres Directive 94/9/EC**
- [2] Type Examination Certificate number:
CESI 06 ATEX 054
- [3] Equipment: Floodlights series TIGER sizes 150, 250, 400
- [4] Manufacturer: **COR.TEM S.p.A.**
- [5] Address: Via Aquileia 10, Villesse (Gorizia)
- [6] This equipment and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.
- [7] 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
- [8] 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
- [9] 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.
- [10] 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.
- [11] 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
Giacinto Motta SpA

[13]

Schedule

[14] **TYPE EXAMINATION CERTIFICATE n. CESI 06 ATEX 054**

[15] **Description of equipment**

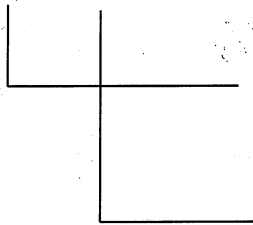
Floodlights series TIGER ... are realized by an aluminium alloy body and a transparent glass cover containing the lamp.

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 witch 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

- Ta min. ≥ - 25°C with EPDM gaskets type and class of temperature T3
- Ta min. ≥ - 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		
		Ta +45 °C	Ta +60 °C		Ta +45 °C	Ta +60 °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	189 °C	210 °C
	400W NA	T3	T3	T2	195 °C	189 °C	210 °C
	400W HA	T3	T3	T2	195 °C	189 °C	210 °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

pagina 1/4

EXTENSION n. 01/10

to EC-Type Examination Certificate CESI 06ATEX054

Equipment identification and description (follows)

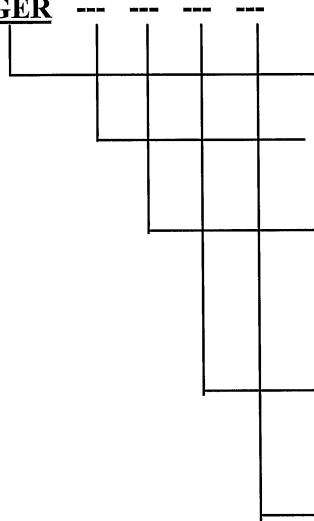
Floodlights series TIGER... are assembled on one housing composed by an aluminium body with glass cover containing the lamp.

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 witch contains : the lampholder, the lamp, the terminal box and other electric components.

The floodlights are identified by the following codes:

TIGER



Code of series

Wattage of lamp:

150, 250, 400 W

Type of lamp

HG = mercury vapours

NA = high pressure sodium vapours

HA = metal halide

Type of reflector:

Blank = standard reflector

AS = asymmetric reflector

Nominal Voltage:

Blank = 230 V – 50 Hz

/60 = 230 V – 50 Hz

/240 = 240 V – 50 Hz

/24060 = 240 V – 60 Hz

/480 = 480 V – 50 Hz

/48060 = 480 V – 60 Hz

Etc..(other suffix cab be used for other configurations)

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

- Ta min. \geq - 25°C

with EPDM gaskets type and class of temperature T3

- Ta min. \geq - 50°C

with SILICONE SI/50 gaskets type and class of temperature T3 or T2

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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°C and +60°C

Max. Ambient Temperature	Ta +45 °C	Ta +60 °C	Ta +45 °C	Ta +60 °C	
Model	lamp	Temperature Class	Maximum surface temperature (T...°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# 210
	400 W NA	T3	T2	195	189# 210
	400 W HA	T3	T2	195	189# 210

NOTE: 1) 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

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

The manufacturer shall carry out the routine tests prescribed at par. 27 of the EN 60079-0, at par. 34 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. 34.2.3 of the EN 60079-15 standard

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”

EXTENSION n. 02/14

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 (Gorizia - Italia)**Admitted variation**


- Updating to the new reference standard editions: EN 60079-0: 2012, EN 60079-15:2010, EN 60079-31:2009
- Updating of nameplate

Description of equipment

Floodlights series TIGER ... are realized in one housing witch contains : the lampholder, the lamp, the terminal box and other electric components. Various types of lamps can be assembled: mercury vapours lamps, high pressure sodium vapours lamps or metal halide lamps.

Updating of ATEX marking in compliance to new standard editions

The equipments shall include the following markings:

 II 3GD Ex nR IIC T3, T2 Gc ; Ex tc IIIC T145°C ÷ T210 °C Dc IP66

Ambient temperature: :

- 25 ÷ + 45 °C
- 25 ÷ + 60 °C
- 50 ÷ + 45 °C
- 50 ÷ + 60 °C

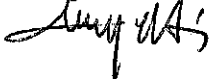
This extension and annexed descriptive documents must be annexed to the EC-Type Examination Certificate CESI 06ATEX054.

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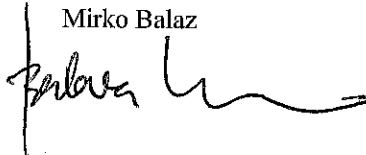
Date 27/01/2014 - Translation issued the 27/01/2014

Prepared

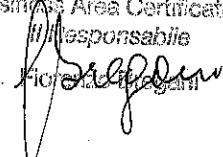
Sergio Mezzetti

**Verified**

Mirko Balaz

**Approved**

Fiorenzo Bregani

CESI S.p.A.
Testing & Certification Division
Business Area Certification
Responsabile


Page 1/2

EXTENSION n. 02/14

to EC-Type Examination Certificate CESI 06ATEX054

Constructive Characteristics

Unchanged

Electrical Characteristics

Unchanged

Cable entries

The accessories used for cable entries and for unused holes shall be suitably certified according to the applicable standards and shall guarantee the degree of protection IP66 according to EN 60529 standard.

For $T_a \text{ min.} \geq -25^\circ\text{C}$ and temperature class T3, gaskets can be made in EPDM and in SI silicone

For $T_a \text{ min.} \geq -25^\circ\text{C}$ and temperature class T2, or for $T_a \text{ min.} \geq -50^\circ\text{C}$ and temperature class T3 or T2, gaskets shall be made in SI silicone only.

Warning label

The equipments shall have the following warning label:

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

“Use cables suitable for a minimum temperature of T_c °C.”

where T_c has the value of:

90 °C for the models with temperature class T3 (with $T_{\text{amb. Max.}} + 45^\circ\text{C}$)

100 °C for the models with temperature class T3 (with $T_{\text{amb. Max.}} + 60^\circ\text{C}$)

150 °C for the models with temperature class T2

Report n. EX-B4002384

Routine tests

- The routine dielectric test with applied voltage shall be carried out at 1500 V. for 60 sec.
- The ignitors for high pressure sodium lamps and metal/mercury halide lamps are to be tested in accordance to the voltage type test given in clause 22.9.3 of the EN 60079-15 standard for a period at least 3 s.
- The restricted breathing routine test shall be carried out, by the manufacturer, in compliance with par. 23.2.3.1 of the EN 60079-15 standard.

Descriptive documents (prot. EX-B4002385)

- | | | | |
|--|--------|-------|------------|
| - Technical Note A4- 6029 (4 pg.) | Rev. 0 | dated | 05/07/2013 |
| - Fac-simile Declaration of Conformity CE 0053 | | dated | 05/07/2013 |
| - Safety Instructions F-345 (8 pg.) | Rev. 3 | dated | 05/07/2013 |

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 : 2012 Explosive atmospheres. Part 0: General Requirements
- EN 60079-15: 2010 Explosive atmospheres. Part 15: Flameproof enclosures with protection mode “n”
- EN 60079-31: 2009 Explosive atmospheres. Part 31: Flameproof enclosures with protection mode “t”

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