

CESI**CERTIFICATE**

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 Sezione Ordinaria
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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. 20/7/1993
 e D.M. 27/9/2000

[1] **EC-TYPE EXAMINATION CERTIFICATE**

[2] **Equipment or Protective System intended for use
 in potentially explosive atmospheres
 Directive 94/9/EC**

[3] EC-Type Examination Certificate number:

CESI 03 ATEX 199

[4] Equipment: Floodlights series RLEE.

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

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

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

[8] CESI, notified body n. 0722 in accordance with Article 9 of the Council Directive 94/9/EC of 23 March 1994, certifies that this equipment or protective system has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment and protective systems intended for use in potentially explosive atmospheres given in Annex II to the Directive.

The examination and test results are recorded in confidential report n. EX-A3/024576.

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

EN 50014: 1997+A1.. A2 EN 50018:2000+A1 EN 50019:2000 EN50281-1-1:1998+A1

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

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

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

II 2 GD EEx d IIC T4, T3 IP 66 T 135°C, T 200 °C

II 2 GD EEx de IIC T4, T3 IP 66 T 135°C, T 200 °C

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

Date July 29th, 2004 translation issued on July 29th, 2004

Prepared
 Mirko Balaz

Approved
 Ulisse Colombo

CESI

CENTRO ELETTROTECNICO SPERIMENTALE ITALIANO
 Business Unit Certificazione

Il Responsabile

[13]

Schedule

[14] EC-TYPE EXAMINATION CERTIFICATE n. CESI 03 ATEX 199

[15] **Identification and description of equipment**

The floodlights series RLEE-33, RLEE-35, RLEE-53, RLEE-55, RLEE-3 and RLEE-5 are made with the body in aluminium alloy or stainless steel and the transparent part in glass.

On the floodlights different types of lamps can be mounted: incandescent, mercury vapours, high pressure sodium, blended or metal halide lamps. The electrical supply and control apparatus shall be installed in a separate flameproof enclosure, certified according to one of the types of protection mentioned in the EN 50014 standard.

The floodlights with the type of protection EEx d IIC are made in two sizes (size 3x and size 5x) with one single flameproof enclosure including lamp holder, lamp and in alternative terminal block (series RLEE-33, RLEE-35, RLEE-53 and RLEE-55).

The floodlights series RLEE-3 and RLEE-5 with the type of protection EEx de IIC are made with two separate compartments, one flameproof enclosure containing lamp holder and lamp and another one containing the terminal block (terminal box in EEx-e execution). In this case the two enclosures are connected through a bushing.

Electrical characteristics

Rated voltage	110/230 V
Rated frequency	50 ÷ 60 Hz
Rated power	125 ÷ 500 W (the rated power of each type of lamp is indicated in detail in the following table 1)
Degree of protection (EN 60529)	IP 66
Ambient temperature	- 20 ÷ + 45 °C

Temperature class of the floodlights of category II 2 GD: T4 or T3 (see table 1).

Maximum surface temperature T of the floodlights of category II 2 GD: T 135°C or T200°C (see table 1).

Cable entries

The accessories used for cable entries and for closing unused apertures in the units of category II 2GD shall be certified according the following:

- for floodlights in execution EEx d, according to EN 50014, EN 50018 and EN 50281-1-1 standards;
- for floodlights in execution EEx de, according to EN 50014, EN 50019 and EN 50281-1-1 standards;

In both cases a minimum degree of protection IP 66 shall be guaranteed according to EN 60529 standards.

If cylindrical threads are used, the coupling between the cable entry and the enclosure shall be provided with block to prevent loosening, according to the requirements indicated in the documents annexed to this certificate.

Warning label

“Do not open when energised. Wait 15 minutes before opening.”

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

- 110 °C for the models RLEE-33, RLEE-53, RLEE-3 and RLEE-5;
- 145 °C for the models RLEE-35 and RLEE-55.

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Schedule

[14] **EC-TYPE EXAMINATION CERTIFICATE n. CESI 03 ATEX 199**

[15] **Identification and description of equipment (follows)**

Table 1 – Temperature class and maximum surface temperature T of the enclosure for the different types of floodlights and for the different types of lamps used

Modello	Type of lamp And power in W	Temperature class (floodlights II 2GD)	Max. surface temperature T in °C (floodlights II 2GD)
RLEE-33	125W Hg	T4	135
	150W Na	T4	135
	125W Ha	T4	135
	150W Mix	T4	135
	200W INC	T4	135
RLEE-35	250W Hg	T3	200
	250W Na	T3	200
	250W Ha	T3	200
	300W Mix	T3	200
	300W INC	T3	200
RLEE-53 RLEE-3	250W Hg	T4	135
	250W Na	T4	135
	250W Ha	T4	135
	300W Mix	T4	135
	300W INC	T4	135
RLEE-55 RLEE-5	400W Hg	T3	200
	400W Na	T3	200
	400W Ha	T3	200
	500W Mix	T3	200
	500W INC	T3	200

NOTES:

- a) The different types of lamps are indicated by the following codes:
 Hg: mercury vapour lamp
 Na: high pressure sodium lamp
 Ha: metal halide lamp
 Mix: blended lamp
 INC: incandescent lamp

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Schedule

[14] **EC-TYPE EXAMINATION CERTIFICATE n. CESI 03 ATEX 199**

[16] **Report n. EX-A3/024576**

Routine tests

The manufacturer shall carry out the routine tests prescribed at paragraph 24 of the EN 50014 standard, at paragraph 16 of the EN 50018 standard and at paragraph 7 of the EN 50019 standard.

The routine overpressure test shall be carried out with the static method (clause 15.1.3.1 of EN 50018 standard) at the pressure of 14,7 bar on the flameproof enclosure.

The routine dielectric test on the EEx-de floodlights with applied voltage shall be performed at $2U + 1000V$ with a minimum value of 1500V ($U =$ rated voltage of the lamp)

Descriptive documents (prot. EX-A3/024579)

- n. A4-4328 Rev. 0 (3 p.)	dated 15.03.2003
- n. A1-4315 Rev. 1	dated 15.03.2003
- n. A1-4316 Rev. 1	dated 15.03.2003
- n. A1-4317 Rev. 1	dated 15.03.2003
- Safety instructions F-280 Rev. 0 (9 p.)	dated 15.03.2003
- EC declaration of conformity n. CE/0041	dated 15.03.2003

One copy of all documents is kept in CESI files.

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

None.

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

Covered by standards.

EXTENSION n. 01/07



to EC-Type Examination Certificate CESI 03ATEX 199

Equipment: Floodlights series RLEE

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

Address: Via Aquileia 10, Villesse (GO)

Admitted variation

- Updating to new standards EN 60079-0 (2006), EN 60079-1 (2004), EN 61241-0 (2006), EN 61241-1 (2004)
- Updating of nameplate
- New range of ambient temperature: $T_a - 20 \div + 55 \text{ }^\circ\text{C}$

Equipment identification

The equipment series tipo RLEE-33, RLEE-35, RLEE-53, RLEE-3, RLEE-55, RLEE-5, shall include the following markings. For type of protection "d":

II 2GD Ex d IIC T4 o T3 Ex tD A21 IP66 T 105÷191 °C

For type of protection "de":

II 2GD Ex de IIC T4 o T3 Ex tD A21 IP66 T 121÷191 °C

The accessories used for cable entries and for unused holes in category II 2 GD equipment shall be subject to separate certification:

- for floodlights of execution Ex d, in compliance to the following Standards: EN 60079-0 (2006); EN 60079-1 (2004); EN 61241-0 (2006); EN 61241-1 (2004);
- for floodlights of execution Ex de, in compliance to the following Standards: EN 60079-0 (2006); EN 60079-7 (2003); EN 61241-0 (2006); EN 61241-1 (2004);

In both cases they shall guarantee a minimum degree of protection IP 66 according to EN 60529 (1991) Standard.

This extension and annexed descriptive documents must be annexed to the EC-Type Examination Certificate CESI 03ATEX199.

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date 14/11/2007 - translation issued 15/11/2007

prepared Giorgio Chinnici

verified Mirko Balaz

approved Fiorenzo Bregani

CESI S.p.A.
Divisione Energia
"Area Tecnica Certificazione"
Il Responsabile

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EXTENSION n. 01/07

to EC-Type Examination Certificate CESI 03ATEX 199

Electrical characteristics

Unchanged.

Class of temperature and max. surface temperature

The temperature class and the max. surface temperature T of the enclosure for different types of floodlights and lamps are listed in the following table.

Model	Type of lamp and power in W	Temperature class (for II 2GD floodlights)		Max surface temperature T in °C (for II 2GD floodlights)	
		Ta = +45 °C	Ta = +55 °C	Ta = +45 °C	Ta = +55 °C
RLEE-33	125W HG	T4	T4	105	115
	150W NA	T4	T4	125	135
	125W HA	T4	T4	105	115
	150W MIX	T4	T4	125	135
	200W INC	T4	T3	135	150
RLEE-35	250W HG	T3	T3	150	160
	250W NA	T3	T3	150	160
	250W HA	T3	T3	150	160
	300W MIX	T3	T3	180	190
	300W INC	T3	T3	180	190
RLEE-53	250W HG	T4	T4	121	131
RLEE-3	250W NA	T4	T4	121	131
RL	250W HA	T4	T4	121	131
	300W MIX	T4	T3	135	150
	300W INC	T4	T3	135	150
RLEE-55	400W HG	T3	T3	148	158
RLEE-5	400W NA	T3	T3	148	158
RL	400W HA	T3	T3	148	158
	500W MIX	T3	T3	181	191
	500W INC	T3	T3	181	191

Report n. EX-A7030181

Routine tests

The manufacturer shall carry out the routine tests prescribed at par. 27 of the EN 60079-0 and at par. 24 of the EN 61241-0 (2006) Standards.

The routine overpressure test shall be carried out, with the static method (par. 15.1.3.1 of EN 60079-1 Standard), at the pressure of 14.7 bar.

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EXTENSION n. 01/07

to EC-Type Examination Certificate CESI 03ATEX 199

Warning label

“Do not open when energised. Wait 15 minutes before opening.”

“Use cables suitable for a minimum temperature of T_c °C.” where T_c has the value indicated in the following table.”

Model	Power	Minimum temperature T_c	
		$T_a = +45$ °C	$T_a = +55$ °C
RLEE-3	any	no limits	85 °C
RLEE-5	any	no limits	85 °C
RLEE-33	125 W	no limits	85 °C
	150 W	95 °C	105 °C
	200 W	110 °C	120 °C
RLEE-35	250 W	110 °C	120 °C
	300 W	140 °C	150 °C
RLEE-53	250 W	95 °C	105 °C
	R	300 W	110 °C
RLEE-55	400 W	110 °C	120 °C
RL	500 W	110 °C	120 °C

Descriptive documents (prot. EX-A7030186)

- Technical Note A4-4988 (2 pg.)	Rev. 00	dated	02/04/2007
- Drawing n°. A4-4951	Rev. 00	dated	02/04/2007
- Drawing n°. A4-4952	Rev. 00	dated	02/04/2007
- EC Declaration of Conformity		dated	02/04/2007
- Safety Instruction mod. F-280 (6 pg.)	Rev. 01	dated	02/04/2007

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 60079-1 : 2004 Flamoproof enclosures "d".
- EN 60079-7 : 2003 Increased safety "e".
- EN 61241-0 : 2006 Electrical apparatus for use in the presence of combustible dust.
General requirements
- EN 61241-1 : 2004 Protection by enclosures "tD"