

# CCC Certification Procude for Lighting Products

China CEPREI Laboratory

# Table of Content

1. The difference between CCC and CQC certification in the China market
2. CCC Implementation rules——Lighting Products
3. Testing introduction
4. Factory inspection introduction

# 1. The difference between CCC and CQC certification in the China market

Lighting Products are Compulsory (CCC certification) in China

There are two types of certification:

- CCC is mean China Compulsory Certification, it is a certification that must be done when products enter the China market。
- CQC (China Quality Certification ) certification, That is voluntary product certification; it is not required certification when products enter the China market. Depending on customer request.

## 2. CCC Implementation rules——Lighting Products

The main contents of the CCC implementation rules are:

- 2.1 Scope of application
- 2.2 According to the standard
- 2.3 Certification mode
- 2.4 Unit division principle
- 2.5 Certification commission
- 2.6 Certification implementation
- 2.7 Supervision after certification
- 2.8 Certificate
- 2.9 Certification mark
- 2.10 Toll

## ***2.1 Scope of application :***

- Recessed luminaires(photo 1), fixed luminaires(Photo 2), portable luminaires(Photo 3), aquarium luminaires(Photo 4), Mains socket- outlet mounted nightlights(Photo 5), ground recessed luminaires(Photo 6), input voltages from 36V to 1000V (AC or DC);
- Ballasts for tubular fluorescent lamps(Photo 7), AC supplied electronic ballasts for tubular fluorescent lamp(Photo 8), Ballasts for discharge lamps(ex. tubular fluorescent lamps)(Photo 9), DC or AC supplied electronic ballasts for discharge lamps(ex. tubular fluorescent lamps)(Photo 10) 、 DC or AC power driver for LED module(Photo 11), input voltages from 36V to 1000V (AC or DC)

## 2.2 According to the standard

No.	Product Type	Safety Standards	EMC Standards
1	Recessed luminaires	GB7000.1; GB7000.201 (IEC 61598-1:2014)	GB/T17743; GB17625.1 (CISPR 15:2005; IEC 61000-3-2:2009)
2	Fixed luminaires	GB7000.1; GB7000.202 (IEC 61598-1:2014)	GB/T17743; GB17625.1 (CISPR 15:2005; IEC 61000-3-2:2009)
3	Portable luminaires	GB7000.1; GB7000.204 (IEC 61598-1:2014)	GB/T17743; GB17625.1 (CISPR 15:2005; IEC 61000-3-2:2009)
4	Aquarium luminaires	GB7000.1; GB7000.211 (IEC 61598-1:2014)	GB/T17743; GB17625.1 (CISPR 15:2005; IEC 61000-3-2:2009)
5	Mains socket-outlet mounted nightlights	GB7000.1; GB7000.212 (IEC 61598-1:2014)	GB/T17743; GB17625.1 (CISPR 15:2005; IEC 61000-3-2:2009)
6	Ground recessed luminaries	GB7000.1; GB7000.213 (IEC 61598-1:2014)	GB/T17743; GB17625.1 (CISPR 15:2005; IEC 61000-3-2:2009)
7	Ballasts for tubular fluorescent lamps	GB19510.1; GB19510.9 (IEC 61347-2-13:2006)	GB/T17743; GB17625.1 (CISPR 15:2005; IEC 61000-3-2:2009)
8	AC supplied electronic ballasts for tubular fluorescent lamps	GB19510.1; GB19510.10 (IEC 61347-2-13:2006)	GB/T17743; GB17625.1 (CISPR 15:2005; IEC 61000-3-2:2009)
9	Ballasts for discharge lamps(excl. tubular fluorescent lamps)	GB19510.1; GB19510.4 (IEC 61347-2-13:2006)	GB/T17743; GB17625.1 (CISPR 15:2005; IEC 61000-3-2:2009)
10	DC or AC supplied electronic ballasts for discharge lamps(excl. tubular fluorescent lamps)	GB19510.1; GB19510.13 (IEC 61347-2-13:2006)	GB/T17743; GB17625.1 (CISPR 15:2005; IEC 61000-3-2:2009)
11	DC or AC power driver for LED module	GB19510.1; GB19510.14 (IEC 61347-2-13:2006)	GB/T17743; GB17625.1 (CISPR 15:2005; IEC 61000-3-2:2009)

Example for lighting products



## 2.3 Certification mode:

- Basic mode:

Testing in China CEPREI laboratory (Safety and EMC) +  
Factory inspection;

- Design identification + partial project type test +  
supervision after certification, only for large luminaires  
(Extremely few and hard to pass, so we will not discuss this  
topic this time.)

### Large luminaire

A luminaire that meets one of the following conditions can be considered a large luminaire

- (1) the weight is greater than 100kg;
- (2) Both length and width are more than 1.8m and the height is greater than 1.0m;
- (3) The diameter exceeds 1.8m and the height is greater than 2m;
- (4) The diameter exceeds 1.0 m and the height is greater than 4 m.

Design identification: means that the product is conformed by reviewing and calculating design drawings.

A non- test verification method that certification is based on standards.



## 2.4 Unit division principle

- In principle, the application unit is divided according to different product types, construction, installation methods and materials.
- The same manufacturer, the same product produced by different factory, or the same product produced by different manufacturers and the same factory, can only be type tested on the sample of one unit, and the products of other manufacturers/production plants need to provide the same document for verification.
- There are detailed unit division methods in the lighting appliance implementation rules.
- [Please link : http://www.cqc.com.cn/www/english/c/2014-09-05/511122.shtml](http://www.cqc.com.cn/www/english/c/2014-09-05/511122.shtml)

## 2.5 Certification Commission:

- **1) Proposal and acceptance of certification entrustment:**

The applicant shall submit a certification entrustment to the certification body, and the certification body shall feedback the information received or rejected according to the time limit required by the certification implementation rules;

- **2) Application information:**

The specific requirements refer to the certification implementation rules, but at least include the certification application, the applicant/manufacturer/manufacture's registration certificate, etc.;

- **3) Implementation arrangement:**

The certification body and the applicant agree on the responsibilities and arrangements of both parties, and determine the specific plan for the implementation of the certification and inform the applicant.

## **2.6 Certification implementation:**

### (1) Type test

1-1) Test plan: The certification body informs the applicant of the sample requirements and quantity required for the test, test standard items, laboratory information, etc.;

1-2) Test items: safety inspection items + electromagnetic compatibility inspection items (when applicable);

1-3) Implementation of the type test: The type test is completed in the laboratory designated by the CNCA.

1-4) Type test report: After the test is over, the laboratory will submit a test report to the certification body and the applicant in a timely manner.

(2) Design identification: applicable only in large lamps;

(3) Certification evaluation and decision: The certification body shall conduct a comprehensive evaluation based on the conclusions of the type test and related materials, and make a certification decision. If the requirements are met, the certificate shall be issued; if it is not met, the certification shall be terminated;

(4) Time limit for certification: Under normal circumstances, a certificate will be issued within 90 days from the acceptance of the entrustment.

## 2.7 Supervision after certification :

- (1) Follow- up inspection after certification: Refer the CCC certification implementation rules. The main purpose is to verify that the quality assurance capabilities of the manufacturer continue to meet the certification requirements, to ensure that the certified products continue to meet the standards and maintain consistency with the type test samples. ;
- (2) Sample inspection at the production site: the sample taken is sent to the laboratory for testing;
- (3) Market surveying

Evaluation of the results of supervision after certification : The certification body combines the conclusions of the follow- up inspection, the sample test conclusions and relevant data for comprehensive evaluation. If the evaluation is passed, the certificate and the certification mark may be maintained; if the evaluation fails, the certificate may be suspended or revoked according to the corresponding situation.

## 2.8 Certificate:

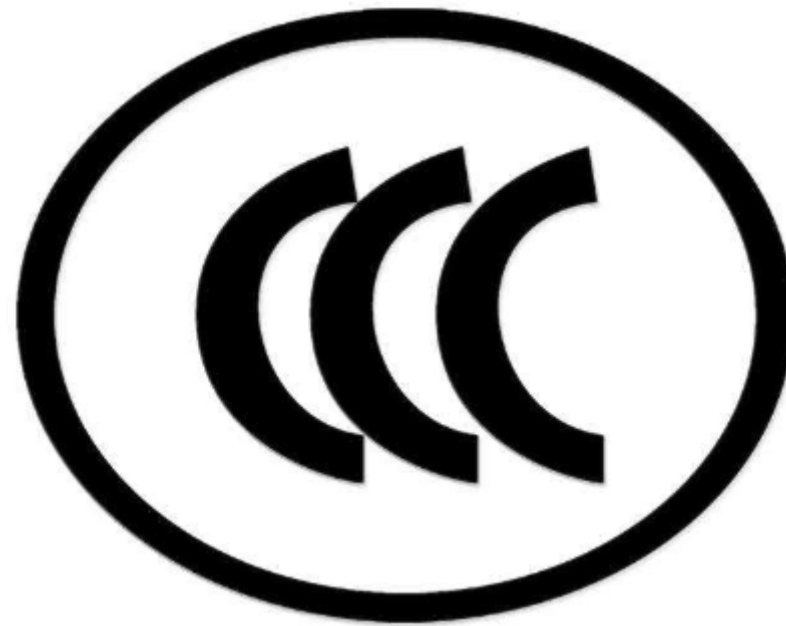
### (1) Valid Certificate :

- Valid for 5 years
- During the validity period, the validity of the certificate depends on the certification body's post-certification supervision.
- If the certificate needs to be continued, the applicant shall apply for certification within 90 days before the expiration of the validity period.

### (2) Certificate coverage product alternate :

- After the product is certified, if the key components and materials used in the product, the design and electrical structure involved in product safety are changed, the applicant shall submit the change request to the certification body and obtain approval/recording before the change can be implemented. ◦

## 2.9 Certification mark:

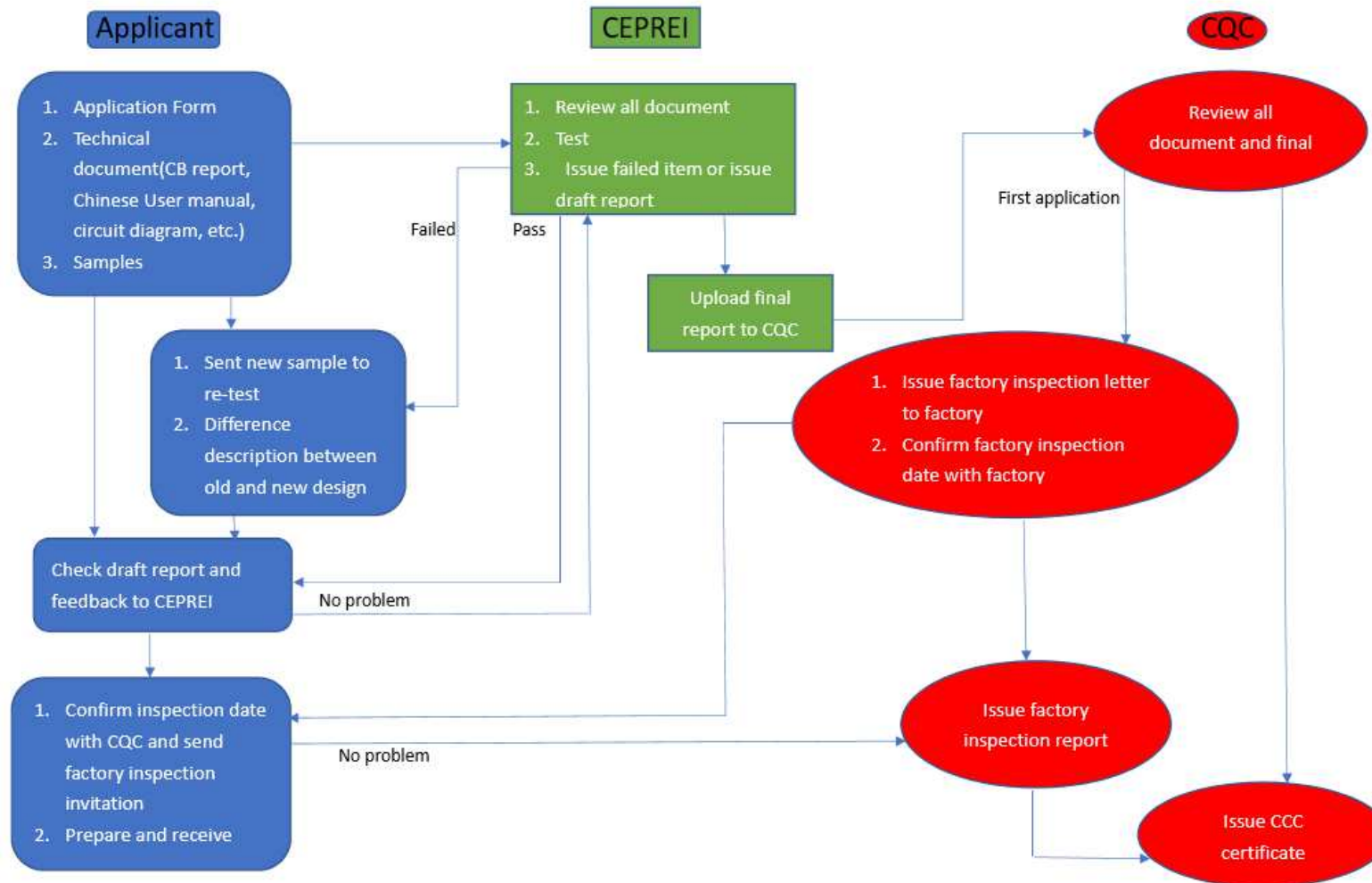


- **Certification process**

**Product certification is divided into six phases:**

- a. Product certification application;**
- b. product type test;**
- c. Factory quality assurance capability inspection;**
- d. Certification results assessment and approval of certification;**
- e. Supervision after certification.**

## CCC application flow chart





## Documents request for certification

- —— Critical Component List (will follow CB report critical component list) 、 User manual
- —— Model List (if model no. are series) 、 Model difference description
- —— Product description (Such as main parameters, structure)
- —— Applicant、Manufacturer、Factory registration certificate (such as business license, China organization code certificate, etc.)
- —— If you have a trademark, you need to provide a copy of the China trademark registration certificate (ODM must provide trademark authorization document)
- —— Circuit Diagram (Ballast and LED driver must provide)
- —— PCB layout (Ballast and LED driver must provide)
- —— Application Form (must sign and company stamp)
- —— ODM/OEM Agreement letter (Must be signed by both parties and company stamp)

### 3. Testing introduction

#### Testing Standards and Lead time

Detection is divided into two parts – Safety and EMC

- Safety: GB 7000 series(IEC 60598-1:2014) for lighting、GB 19510(IEC 61347-2-13:2006)for ballast and LED driver safety request; can accept CB report
- EMC: GB/T 17743-2007(CISPR 15:2005)、GB 17625.1-2012 (IEC 61000-3-2:2009)。
- Lead time: 4-5weeks (if test no any issue) 。

## For series models application need to do the extra test for model difference item

- Main inspection model full test + series models to do the extra test for model difference. (Depend on Safety and EMC engineer comment)

- Basis and principle for the extra test:

Mainly according to the difference between different models may cause different tests, that is, the test results of the main inspection model can not cover the test results of this model, or the difference between the model and the main inspection model may lead to the test results of some test items may be more bad, then you need to retest or do the extra test.

No.	Product Type	Safety Standards	EMC Standards	Sample quantity
1	Recessed luminaires	GB7000.1; GB7000.201 (IEC 61598-1:2014)	GB/T17743; GB17625.1 (CISPR 15:2005; IEC 61000- 3-2:2009)	2 pcs
2	Fixed luminaires	GB7000.1; GB7000.202 (IEC 61598-1:2014)	GB/T17743; GB17625.1 (CISPR 15:2005; IEC 61000- 3-2:2009)	2 pcs
3	Portable luminaires	GB7000.1; GB7000.204 (IEC 61598-1:2014)	GB/T17743; GB17625.1 (CISPR 15:2005; IEC 61000- 3-2:2009)	2 pcs
4	Auarium luminaires	GB7000.1; GB7000.211 (IEC 61598-1:2014)	GB/T17743; GB17625.1 (CISPR 15:2005; IEC 61000- 3-2:2009)	2 pcs
5	Mains socket-outlet mounted nightlights	GB7000.1; GB7000.212 (IEC 61598-1:2014)	GB/T17743; GB17625.1 (CISPR 15:2005; IEC 61000- 3-2:2009)	2 pcs
6	Ground recessed luminaries	GB7000.1; GB7000.213 (IEC 61598-1:2014)	GB/T17743; GB17625.1 (CISPR 15:2005; IEC 61000- 3-2:2009)	2 pcs
7	Ballasts for tubular fluorescent lamps	GB19510.1; GB19510.9 (IEC 61347-2-13:2006)	GB/T17743; GB17625.1 (CISPR 15:2005; IEC 61000- 3-2:2009)	9 pcs
8	AC supplied electronic ballasts for tubular fluorescent lamps	GB19510.1; GB19510.10 (IEC 61347-2-13:2006)	GB/T17743; GB17625.1 (CISPR 15:2005; IEC 61000- 3-2:2009)	9 pcs
9	Ballasts for discharge lamps(excl. tubular fluorescent lamps)	GB19510.1; GB19510.4 (IEC 61347-2-13:2006)	GB/T17743; GB17625.1 (CISPR 15:2005; IEC 61000- 3-2:2009)	6 pcs and PCB 1pc
10	DC or AC supplied electronic ballasts for discharge lamps(excl. tubular fluorescent lamps)	GB19510.1; GB19510.13 (IEC 61347-2-13:2006)	GB/T17743; GB17625.1 (CISPR 15:2005; IEC 61000- 3-2:2009)	6 pcs and PCB 1pc
11	DC or AC power driver for LED module	GB19510.1; GB19510.14 (IEC 61347-2-13:2006)	GB/T17743; GB17625.1 (CISPR 15:2005; IEC 61000- 3-2:2009)	6 pcs and PCB 1pc

## 4. Factory Inspection introduction

- Factory inspection - factory quality assurance capability inspection
  - (1) For the enterprise that applied for certification for the first time, the certification body(CQC) will issue a factory inspection notice to the enterprise after receiving the report on the qualified test results of the testing organization(China CEPREI Laboratory), and issue a factory inspection task letter to the factory inspection team.
  - (2) The inspectors shall conduct on-site inspections on the enterprise according to the requirements of the Product Certification Factory Quality Assurance Ability, and take certain samples to check the consistency of the test results.
  - (3) After the factory inspection is qualified, the inspection team shall issue a factory inspection report in accordance with the prescribed report format and send it to the certification body for review and evaluation.

*Thanks a lot!*

