

New■

Modified□

RoHS■

Specification Of 36.120035

Customer: T.B.D

Product type: 36.120035

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Confidential: Customer Use

Revision history

Version	Date	Change Description	Author	Reviewer
1.0	22/06/06	Initial Version	Yu.GONG; Qi.ZHU	Yu.GONG

Document approval

Prepared by:		Checked by:		Approved by:	
Signature		Signature		Signature	
Date		Date		Date	

Prepared by(Customer):		Checked by(Customer):		Approved by(Customer):	
Signature		Signature		Signature	
Date		Date		Date	

Introduction

Purpose

This document is to define the requirements of the 36.120035 for commercial LED light application. All items defined in this file should be discussed and confirmed with the customer to make sure the final products can meet the customer requirements. In this application, the CC control of output is employed.

Scope

The 36.120035 is a LED light system including Integrated Lamp holder, LED driver, LED, PC tube diffuse, mechanical structure and will drive 144 LEDs of 2835 series.

Application

The 36.120035 Module will be used at corridor, garage, workshop, tunnel, shopping malls, hotels, office buildings, and restaurants,.

Definitions and abbreviations

Item	Description
SPEC	Specification
ID	Identification
N.A.	Not Available
36.120035	35W 1200 mm integrate luminaire
lm	Lumen
T.B.D	To be defined
Max	Maximum
Min	Minimum
CC	Constant current
OVP	Over voltage protection
CCT	Correlated color temperature

General description

System diagram



[Figure 1](#) System diagram

Material requirements

1. All components should meet RoHS and Lead-free.
2. The manufacturing process should be Pb-free.
3. The Tg of PCB should higher than 130°C. FR4 is preferred. The thickness of PCB should not lower than 1.2mm.
4. X7R/C0G or better material for ceramic capacitor is preferred; Y5V or less is not permitted.
5. The lifetime of the Al-Cap should be taken into account.

Operational environment

Temperature range

Storage temperature range : -20°C ~ +85°C

Operating temperature range : -10°C ~ +40°C

Humidity range

Storage humidity : +5% ~ +90%

Operating humidity : +10% ~ +80%

Housing dimension



[Figure 2](#)_Housing dimension

I/O connection type

Input : press terminal

Output : male-female connector

Colour

Lamp shade : Silver

Lamp holder : Silver

Material

Housing : Aluminium alloy

Power case : ABS/PC

Tube diffuse : PC

Weight

The weight of the 36.120035 should be less than 1100 gram.

Electrical requirements

Input requirements

Rated voltage : 220~240Vac

Nominal frequency : 50/60Hz

Input current (Max at rated output power) : 0.23A

Input power (Max at rated output power) : 35W

Power factor : >0.9

Output requirements

Rated output current : 0.08A

Rated output voltage : 405~435VDC

Output current precision(without ripple) : $\pm 5\%$

Total efficiency : >90%

Start-up time

Start-up time of 36.120035 module should be less than 500ms.

The time to reach 95% of stable output luminous should be less than 2s.

Surge voltage

Pass surge test: 2kV surge pulses applied to the L/N line of input voltage, 5 positive and 5 negative polarity pulses at the 0°/90°/180°/270° phase angle. The interval between each polarity pulses is 30 seconds.

Over load

If output voltage exceeds 450V, the output will be shut down and restart when the over load condition removed.

Open load

If the open load occurred, the output should be shut down and restart when the open load condition removed.

Short circuit

The output of 36.120035 should be short circuit proof when LED_Anode short to LED_Cathode. The output should be shut down and restart when the short circuit condition removed.

Switch times

The switch times before failure should be not less than 100000.

Optical requirements

LED components : 2835 series

Number of LED components : 144

Light source life : 50000 hours

Light output : typical 4500 lm @ 3000K

typical 4800lm @ 4000K

typical 4800lm @ 5000K

Color temperature : 3000~5000K

Beam angle : 120°

Color rendering index Ra : >80

Distribution Diagram :

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM

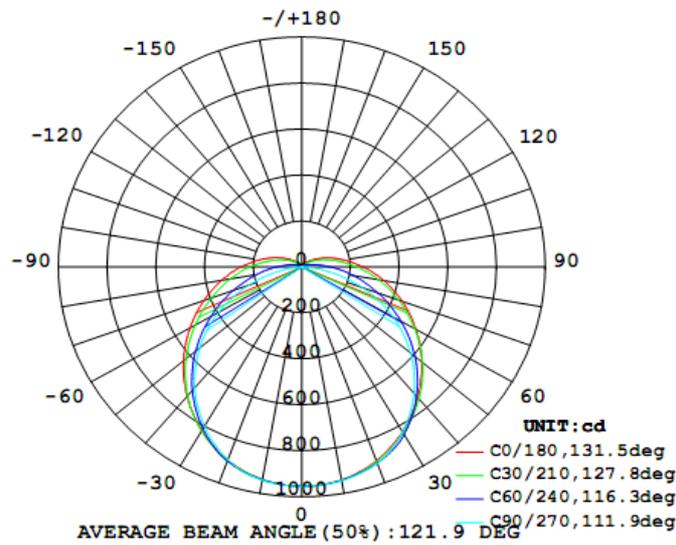


Figure3 Housing dimension

Performance Requirements

General qualification requirements

The 36.120035 should meet the Class protection class and meet the CE qualification.

1. EN60598-1
2. EN60598-2-2
3. EN62471
4. EN62493
5. EN61347-1
6. EN61347-2-13

EMC requirements

RFI : EN55015

Immunity : EN61547

Input current harmonic factor : According EN61000-3-2

Input flicker and voltage fluctuation : According EN61000-3-3

Dust/Water proof : IP20

Lifetime

The lifetime of the 36.120035 should be >60000hours under normal operating condition, according to the <80% luminous decay and no damage occurred.

Survival rate

The survival rate of the 36.120035 should be not less than 90% in 6000 hours under normal operating condition.

Luminous decay

The Luminous decay of the 36.120035 should be not less than 80% in 60000 hours under normal operating condition.

Failure rate

The failure rate of the 36.120035 should be less than 5% in 1000 hours under normal operating condition.
