





Drawing No.	Rev.	Date	Page
EL-N02-LT104F-DSC	A	2018/06/22	1/11

APPROVAL SHEET

Part No: **EL-N02-LT104F-DSC**

NOTE :
WIDE-BAND

MAKER			CUSTOMER	
				
R&D	QA	Sales	Checked	Approved
				

Prepared	Checked	Approved
Rachel Lee	Evan Chang	Kenneth Wu

Drawing No.	Rev.	Date	Page
EL-N02-LT104F-DSC	A	2018/06/22	2/11

Description of P/N No.

EL - N02-LT10 4F - DSC



Code

4 Feet

White Series


Generation of labor model

Description of Lot.



NO.

Month

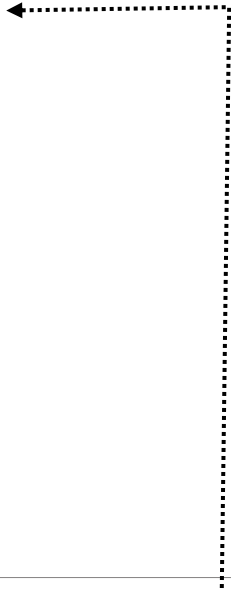
Solidlite Corp. 

P/N : _____

Lot : _____

Date: _____ . Rank: _____

Q'ty : _____ . QA : _____



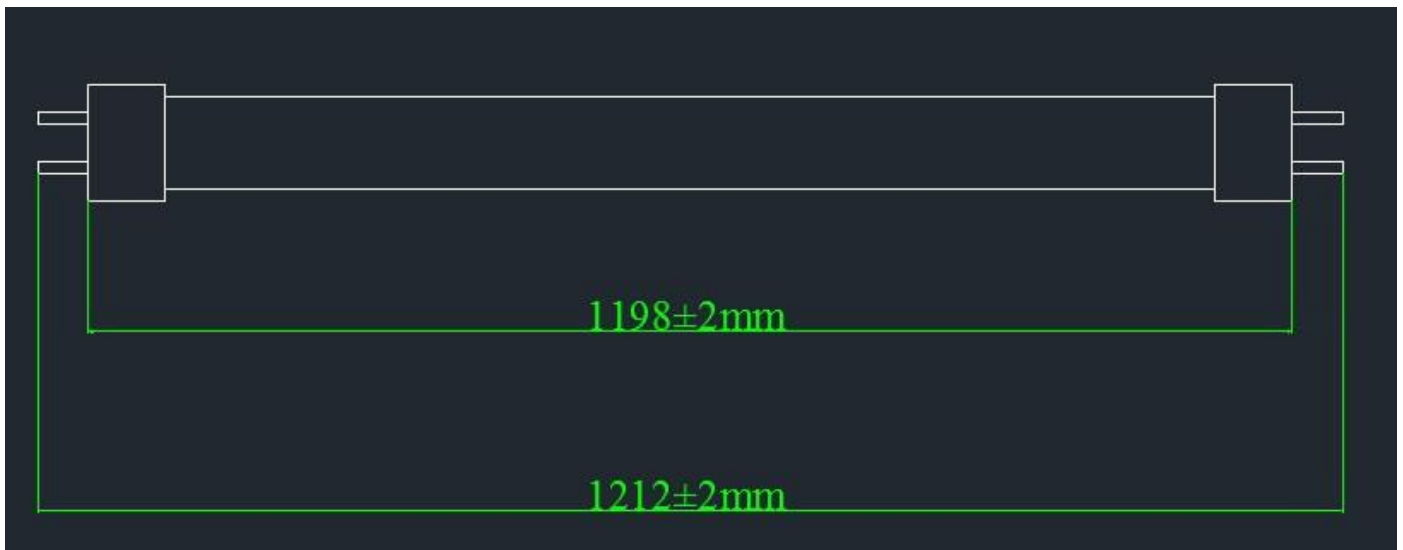
Specification for Approval

Product : LED TUBE

Part Number : EL-N02-LT104F-DSC



Product size



Applications

Area: Indoor use only

Purpose:

Plant Growing Lighting , Office Lighting , Meeting Room Lighting , Shop Lighting ,
Classroom Lighting , Factory Lighting ,.....

Product Overview

- ※ Aluminum heat-sink base can dissipate more heat and lead to a longer life span.
- ※ This unit is ready for "Green Product" and meet "Pb-free lead plating" & "RoHS Compliant" requirement.

Specification ※For Plant Factory use only.

Outline Dimension: (L) 1198 (±2mm)mm

Input Voltage /Frequency : AC90~264V 50/60Hz

Operating Temperature / Relative Humidity: 0°C ~ 35°C / 20% ~ 80 %RH
(Warranty Conditions)

Storage Temp Range / Relative Humidity: -20°C ~ 60°C / 20% ~ 80 %RH

Heat-Sink Surface Temp: <60 °C

IP (Ingress Protection): No

Life Expectancy of Driver : 40000hrs

Life Expectancy of LEDs :40000hrs

Safety warning

Cautions:

Don't drop the luminaire on the ground since the luminaire will be damaged

Warnings:

Don't expose this product at the high temperature and high humidity environment

Warranty

Warranty 1years.

Should not have an adverse early.

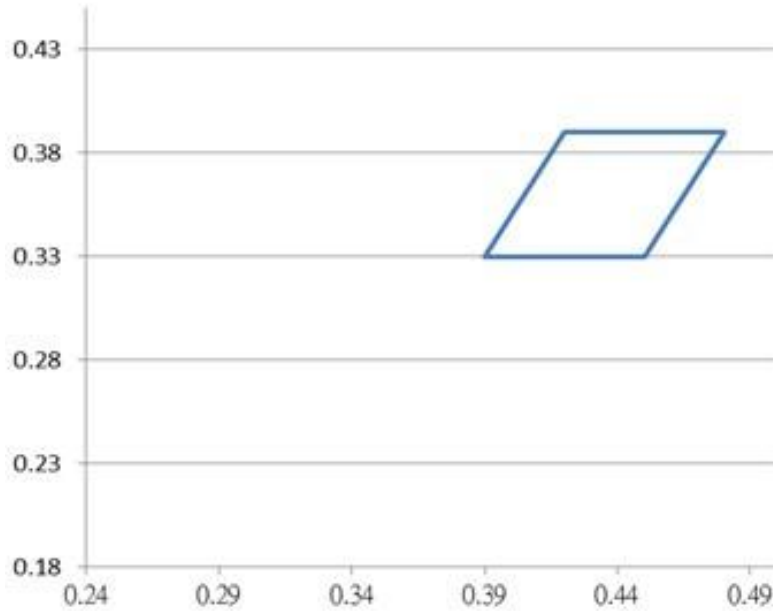
Within one years, must be greater than the original brightness light efficiency of 70%.

Electronic & Exterior Charateristic

Absolute Maximum Ratings at T_a=25°C

Item	EL-N02-LT104F-DSC
LED Quantity	126pcs
AC V input	90(min)~264V(MAX)
LineFrequency Range	50Hz/60Hz
AC I input	1A(MAX)
Power Factor	0.9(min)
Efficiency	85%
Inrush Current	30A (MAX)
LEDBOARD If(T)	0.36A(Typ.) 0.345(min)~0.375 A(MAX)
Power Dissipation	23W±10% (20.7W~25.3W)
Heat-Sink Spec.	Aluminum
Mask Spec.	PC
PCB Spec.	FR4
Tube Length	1198 (±2mm)mm
Body diameter	32±1mm
Net weight	370g±50g
PROTECTION REQUIREMENTS	Short Circuit Protection (Shut down and Automatically recovery)
GENERAL REQUIREMENTS	Turn-On Delay 2sec@115VAC to 230VAC

Chromaticity Coordinate

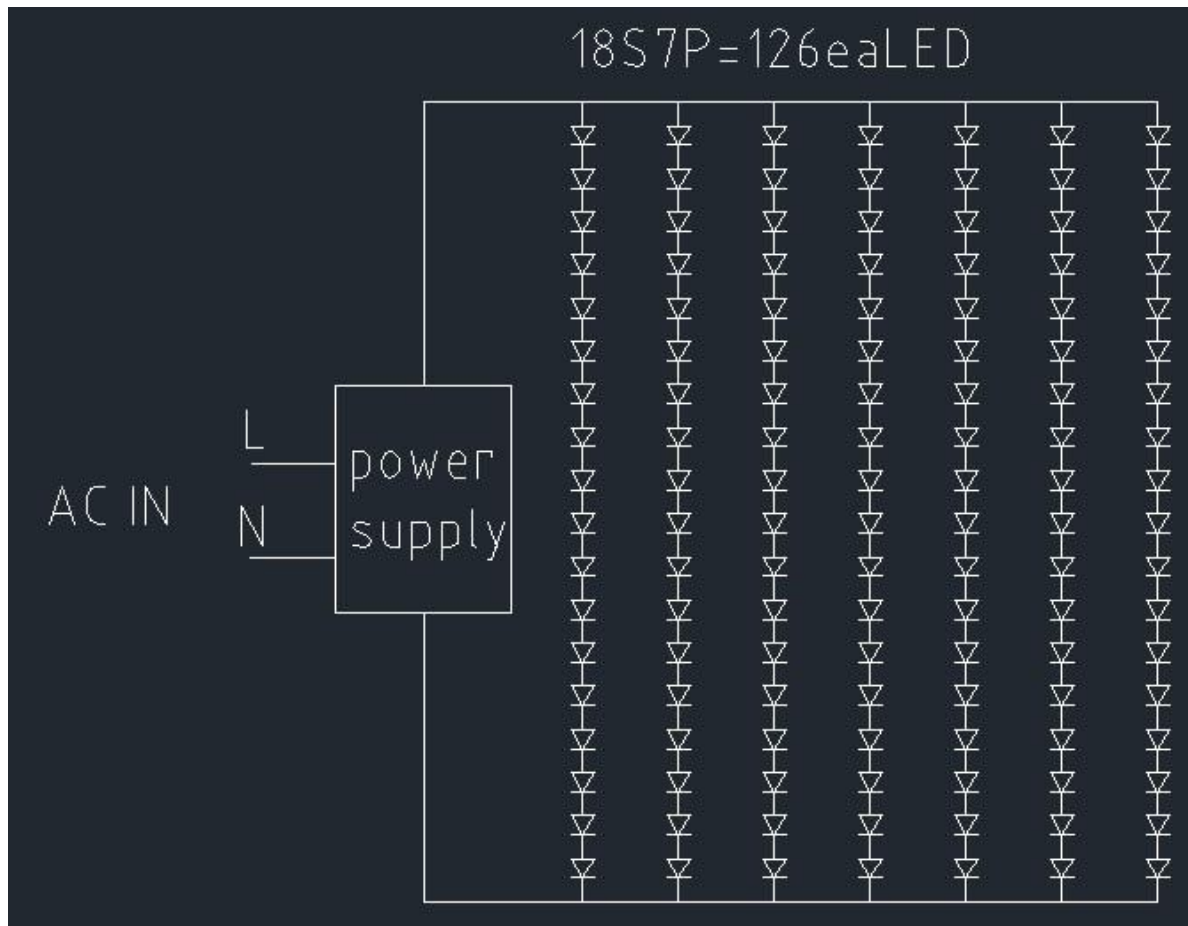


CIE X/Y : DSC --- (0.39, 0.33) (0.42, 0.39) (0.48, 0.39) (0.45, 0.33)

Optical Characteristic

Item	EL-N02-LT104F-DSC
Quantum (The center of the amount of survey)	50~70 umol m-2s-1 @30cm reference value with Delta HD2102.2
COLOR	DSC

Typical Internal Equivalent Circuits

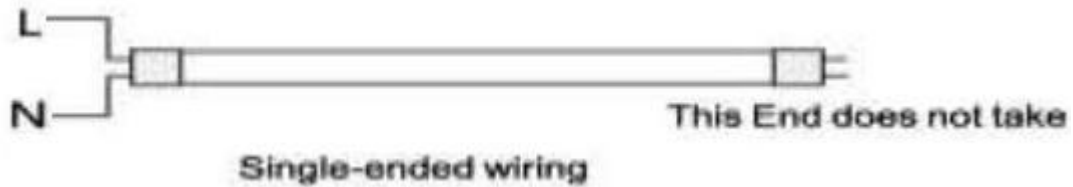


Label Format

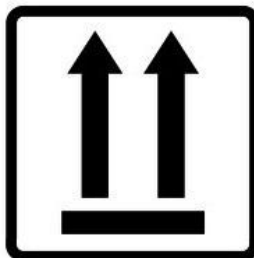
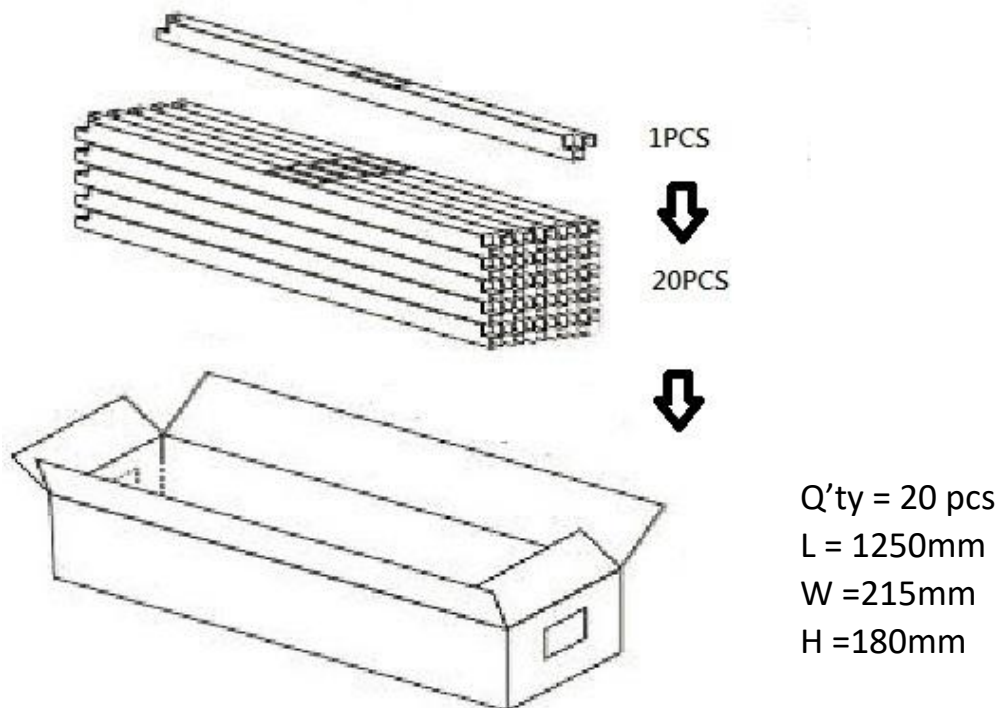
Size:20*50mm

LED tube		YYWW
ITEM	EL-N02-LT104F- ###	
INPUT POWER	AC100-240V	
COLOR	###	
MADE IN TAIWAN		

Installation instructions



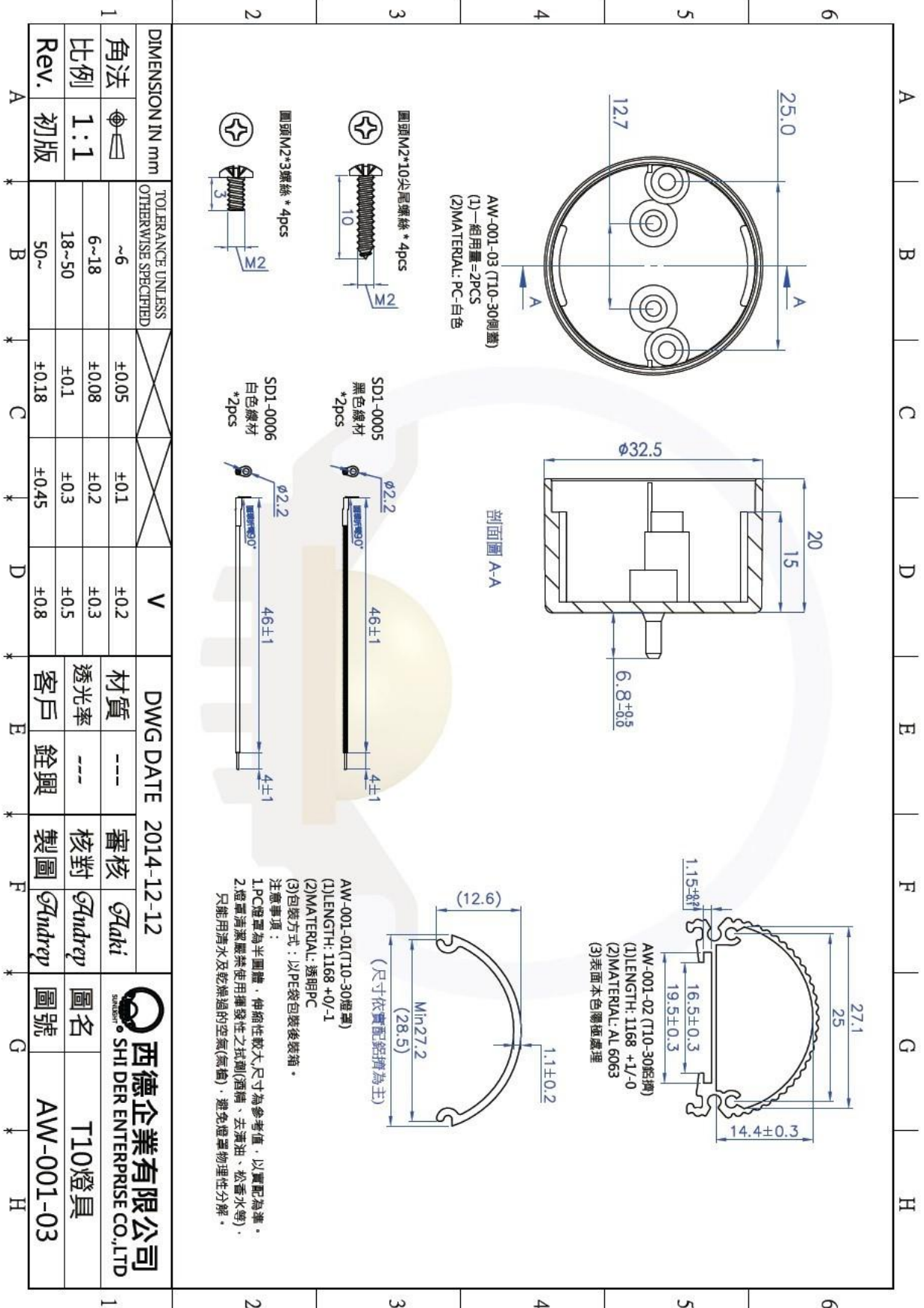
Package information



This product is prohibited material immersed in liquid.

- According to our design, the device is driven by 100~240V of AC power.
- The fluorescent is designed for moisture-proof use only. Don't put it into water.
- It is normal that the device will delay starting 2 seconds due to carrier charging after the turning on.

Part of Mechanism



BOM List

POWER	Product Name / specification	UOM	Qty	供應商1	Part Number
PCB1	PCB 10Z FR-4 2SIDE 94V-0 T:1.2mm 327*17mm(±0.15mm)	PCS	1	翔宇	E303692
替代				耀騰	E210681
替代				连铭	E230582
C4	SMD-CAP 1uF +80/-20% 16V Y5V 0805	PCS	1	1. 华新 2. 国巨	非安規器件, 無UL認證號
C1,C2	SMD-CAP 4.7uF +10% 50V X5R 1206 SMD	PCS	2	1. 华新 2. 国巨	非安規器件, 無UL認證號
C6	SMD-CAP 1nF +10% 1KV X7R 1206	PCS	1	1. 华新 2. 国巨	非安規器件, 無UL認證號
R1,R2,R21	SMD-RES 4.7k Ω +5% 1/4W 1206	PCS	3	1. 华新 2. 国巨	非安規器件, 無UL認證號
R8	SMD-RES 470K Ω +5% 1/4W 1206	PCS	1	1. 华新 2. 国巨	非安規器件, 無UL認證號
R9	SMD-RES 10k Ω +5% 1/4W 1206	PCS	1	1. 华新 2. 国巨	非安規器件, 無UL認證號
R7	SMD-RES 1.5M +5% 1/8W 0805	PCS	1	1. 华新 2. 国巨	非安規器件, 無UL認證號
R17,R17A	SMD-RES 200K Ω +5% 1/4W 1206	PCS	2	1. 华新 2. 国巨	非安規器件, 無UL認證號
R18,R18A	SMD-RES 560 Ω +5% 1/4W 1206	PCS	2	彩源, 2. 国巨	非安規器件, 無UL認證號
R18,R18A	SMD-RES 560 Ω +5% 1/4W 1206	PCS	2	1. 华新 2. 国巨	非安規器件, 無UL認證號
C3	SMD-CAP 403560618 1nF +10% 50V X7R 0805	PCS	1	1. 华新 2. 国巨	非安規器件, 無UL認證號
R11	SMD-RES 10 Ω +5% 1/8W 0805	PCS	1	1. 华新 2. 国巨	非安規器件, 無UL認證號
R16	SMD-RES 2.2 Ω +5% 1/4W 1206	PCS	1	1. 华新 2. 国巨	非安規器件, 無UL認證號
R10	SMD-RES 2.4K Ω +5% 1/8W 0805	PCS	1	1. 华新 2. 国巨	非安規器件, 無UL認證號
R20	SMD-RES 100K Ω +5% 1/4W 1206	PCS	1	1. 华新 2. 国巨	非安規器件, 無UL認證號
R13,R14,R15	SMD-RES 2.26 Ω +1% 1/4W 1206	PCS	3	1. 华新 2. 国巨	非安規器件, 無UL認證號
R12	SMD-RES 1K Ω +5% 1/8W 0805	PCS	1	WALSIN(華新)	非安規器件, 無UL認證號
BD1	BRIDGE-RECT DF1506S 1.5A 600V SMD	PCS	1	LISION(力神)	非安規器件, 無UL認證號
D2,D3	SWITCH-DIODE BA V21WG 0.2A 200V 50nS SOD-123 SMD	PCS	2	CITC(竹懋)	非安規器件, 無UL認證號
C5	SMD-CAP 10pF +5% 50V NPO 0805	PCS	1	1. 华新 2. 国巨	非安規器件, 無UL認證號
D1	SWITCH-DIODE CD4148WSP 0.5A 75V SMD 0805	PCS	1	CROWNPO(冠寶)	
D5	SUPER FAST-DIODE IES IJ 1A 600V SMA SMD	PCS	1	GOOD-ARK	
R3,R4,R5,R6	SMD-RES Ω +5% 1/4W 1206	PCS	4	1. 华新 2. 国巨	
D4	ULTRAFast RECTIFIER IUS1K 1A 800V SMD	PCS	1	PANJIT(強茂)	
U1	IC MP4026GJ SOT23-6 PIN6 Primary-Side-Control, Offline LED	PCS	1	MPS	
CY1	Y1-CAP 2.2nF +20% 250V P:10mm	PCS	1	TDK	E37861
CY1替代	Y1-CAP(Y1電容) 12.2nF +20% 250V P:10mm {JN12E222MY02N}			JNC(嘉耐)	E201384
CY1替代	Y1-CAP(Y1電容) 12.2nF +20% 250V/500V SE P:10mm {SSE222MT402A95E}			SEC(成功)	E114280
C9,C9A	AL-CAP100uF 100V -40/105°C ZLH 10*20 {100ZLH100MEFC10X}	PCS	2	RUBYCON	
C7,CX1	X1-CAP 150nF +20% 310V CTX W*H*T:13*12*6 P:10mm	PCS	2	CT(晟通)	E193049
C7,CX1替代	X2-CAP(X2電容) 1150nF +10% 275V 13*12.5*7mm P:10{PX154K3IC4}			CARLI(凱勵)	E120045
F1	FUSE2A 250V MST TIME-LAG RADIAL LEAD MICROFUSE	PCS	1	CONQUER(功得)	E82636
F1替代	FUSE(保險絲) 12010-TYPE{方型} 2A 250V TIME-LAG 8.5*8.5*4.0mm PIN距 5mm			WALTER(華德)	E56092
F1替代	FUSE(保險絲) 12A 250V RST TIME-LAG RADIAL LEAD 方型			BEL	E20624
MOV1	VARISTORTVR14561KS 560V+10% 14 φ P:7.5 TYPE-S DIP	PCS	1	TKS(興勤)	E314979
MOV1替代	560V 14 φ P:7.5			JOYIN(久尹)	E325508
MOV1替代	560V 14 φ P:7.5			SEC(成功)	E330256
Q1	MOSFET STP7NK80ZFP 5.2A 800V TO-220FP	PCS	1	S.T	
L1,L2,L4	INDUCTOR IGP DR2W8*12 4.0mm 246.5TRef 1.8mH Min	PCS	3		UMEC自制产品
L3	INDUCTOR IGP T10*6*5 2300uH MIN. 0.32mm(2UEW,TEX-E)/20	PCS	1		
T1	TRANSFORMER IGP UP0241F-80T1 ED12, 40:28:5 650-750uH P	PCS	1	UMEC	UMEC自制产品
L5,L6	FERRITE-BEAD 3.5*6*0.8mm	PCS	2	JANTEK(承達)	
CY1 熱縮套管	TUBE HEAT-SHRINK 1 φ 8*0.28mm WOER RSFR-H 黑	M	0.02	WOER(沃爾核材)	E203950
CY1替代熱縮套管	TUBE(套管)HEAT-SHRINK 1 φ 8*0.3mm CB-HFT 黑色			CHANGYUAN(長園新)	E180908

LED LAMP	Product Name / specification	UOM	Qty	MAKER	Part Number
PCB	FR4 1170Mmmx18.8mm	PCS	1	AVL	
LED	HL3528 60mA	PCS	126	SOLIDLITE	
IC	NU501 60mA	PCS	7	数能	
ALUMINNUM	AL6063 1168mm	PCS	1	西德	AW-001-02
CAP	T10	PCS	1	西德	AW-001-03
LAMP SHADE	T10-301	PCS	1	西德	AW-001-01
SCREW	M2*10	PCS	4	AVL	
	M2*3	PCS	4	AVL	
WIRE(AC)	BLACK SD1-0005 φ2.2 46±1mm/4±1mm UL1007 #24 80°C	PCS	1	華德	
WIRE(AC)	WHITE SD1-0006 φ2.2 46±1mm/4±1mm UL1007 #24 80°C	PCS	1	華德	
TUBE for POWER	21.2±0.6mm, L:50mm, t:0.35mm	PCS	1	新洲	
WIRE(DC)	2T/UL1007#24/2TL:400mm RED	PCS	1	連叻(太平洋)	
WIRE(DC)	2T/UL1007#24/2TL:400mm BLACK	PCS	1	連叻(太平洋)	