

*Paragon Semiconductor Lighting Technology*

*PSLT*

**ParagonLED**

## Specifications

**Product Type : SDHT-168-5050-230V-30**

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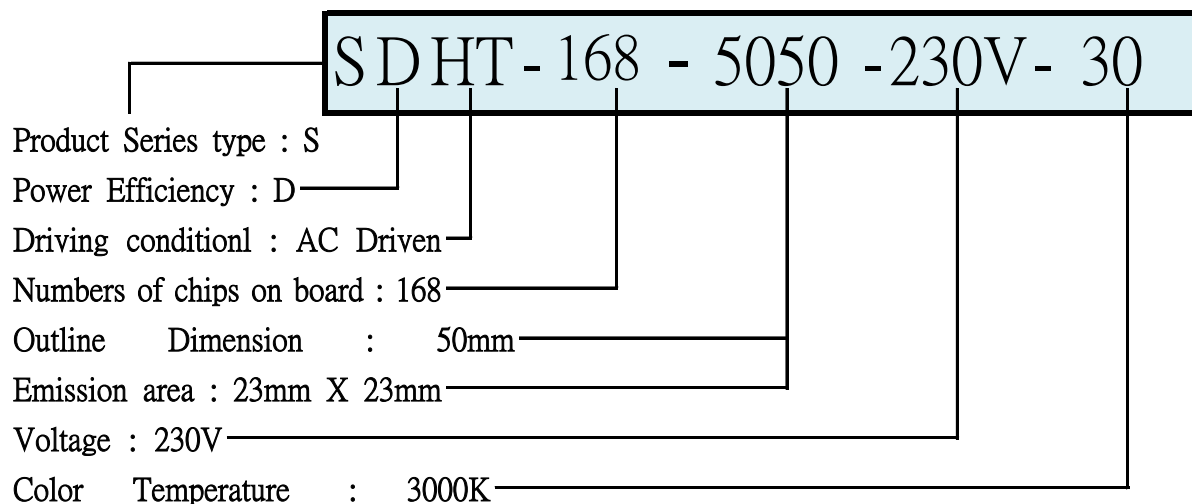
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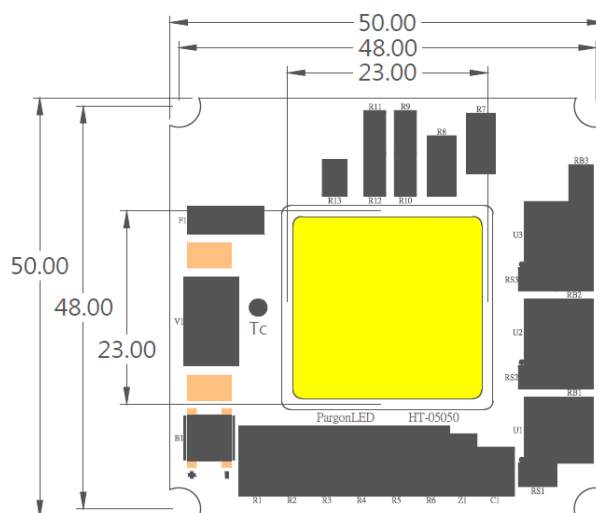
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## 1. General Description

### (1) Naming rule



### (2) Outline Dimensions (Unit : mm / Tolerance: 0.2mm)



Thickness :  $1.0 \pm 0.2$ mm

## 2. Electro-Optical Characteristics

### (1) Absolute Maximum Rating

Parameter	Symbol	Value	Unit
Power Dissipation	PD	54	W
Power Factor	PF	0.95(Min)	
Forward Voltage	VF	220 ~ 250	V
Operating Temperature	Topr	-40 ~ +85	°C
Storage Temperature	Tstg	-40 ~ +100	°C
Assembly process temperature	Tsol	<300°C , 5 secs	

## (2) Electro-Optical Characteristics

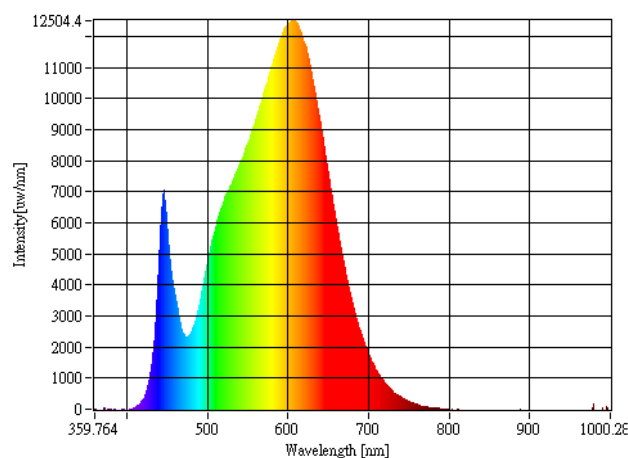
Parameter	Symbol	Condition	Min	Typ	Max	Unit
Forward Voltage	VF	—	220	230	250	V
Reverse Current	IR	—	—	—	—	$\mu A$
Luminous Intensity	$\Phi_v$	VF=230V	—	3890	—	Lm
Color rendering	Ra	VF=230V	—	80	—	
Total Harmonic Distortion	THD	VF=230V	—	15	—	%

### ※ support TRIAC DIMMING

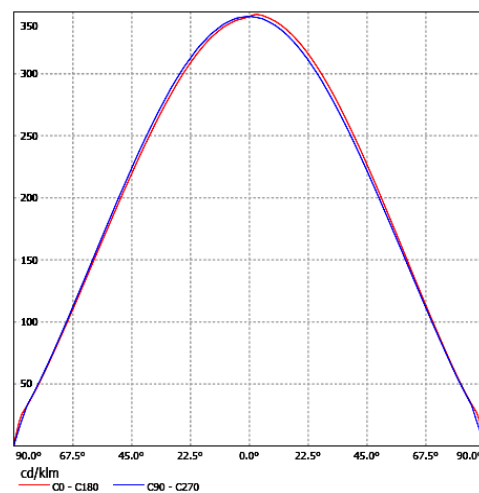
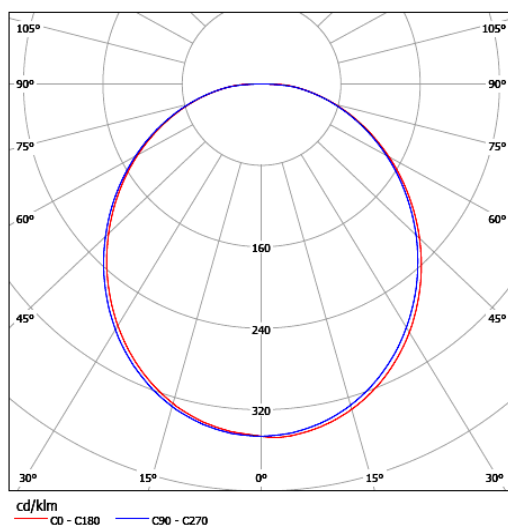
**Notice:** Operating voltage of SDHT-168 product varies from 120V~250V · users must keep the temperature of solder joint point under 85°C (with suitable heat sink), or may cause Serious luminous decay. We DO NOT guarantee of improper use.

## (3) Characteristics

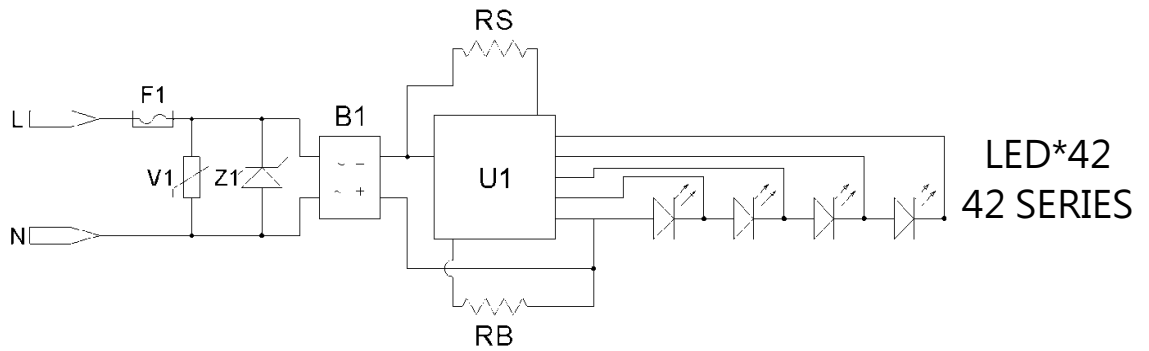
### Spectrum



### Candle Power Distribution & Cartesian Coordinate



#### (4) Layout



### 3. Junction Temperature Measurement



- ① Thermal resistance of Junction to Case without heat sink :  $10(^{\circ}\text{C}/\text{W})$  [ Reference Value ]
- ② Thermal resistance of Case to Ambient Air: Depending on what kind of heat sink users choose. In ideal thermal dissipation situation, the thermal resistance is about  $1\sim 2^{\circ}\text{C}/\text{W}$ .

## 4. Reliability Test

Test Item	Test Conditions	Number of failed
High Temperature Storage Test	Tstg= +80°C , x1,000 hrs	0/20
Low Temperature Storage Test	Tstg=-60°C , x1,000 hrs	0/20
Continous Light-on Test	Ta= 25°C , RH=65% , x1,00 hrs	0/20
Boiling Test	Ta=100°C , RH=100% , X180mins	0/20
Thermal Cycle Test	- 40°Cx30mins , 80°Cx30mins , 100cycles	0/20

Measuring Item	Measuring Condition	Judging Criteria of Failure
Forward Voltage	VF=230V	> 0 x 1.1
Total Luminous Flux	VF=230V	< L x 0.85

***Dielectric Breakdown Voltage (Vac) of Thremal Pad must >4 KV***

***WARNING : Please ground lighting fixtures while designing lamps.  
If any damage or defect of LED caused without grounding, we do not guarantee of improper use.***