

# 20 Watt (12/24Volt) Led floodlights

2 Year Replacement Warranty

Locally assembled



N  
L  
INPUT

**LED  
DRIVER**

MODEL: LZ12V-24V 20W (10串2并)

INPUT AC/DC:12-24V  
AC/DC:3A

OUTPUT DC:30V-36V  
I:600mA±5%

EFFICIENCY  $\eta > 85\%$

ORIGIN 中国·深圳  
SHENZHEN·CHINA

CE

IP67

+ OUTPUT I

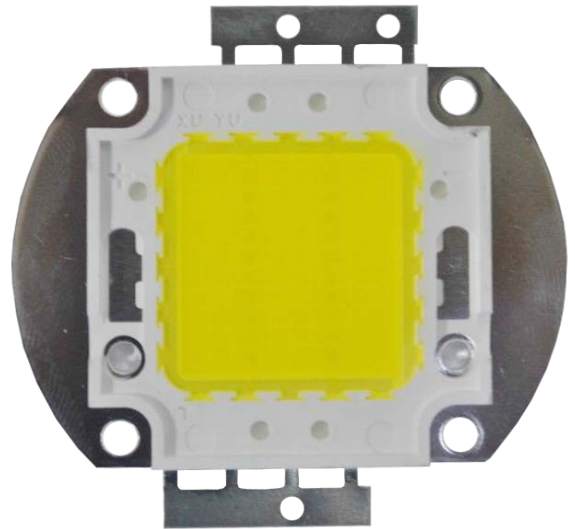
# 20W High Power LED (Pure White)



**ATTENTION**  
OBSERVE PRECAUTIONS  
FOR HANDLING  
ELECTROSTATIC  
DISCHARGE-  
SENSITIVE  
DEVICES

## ◆ Features

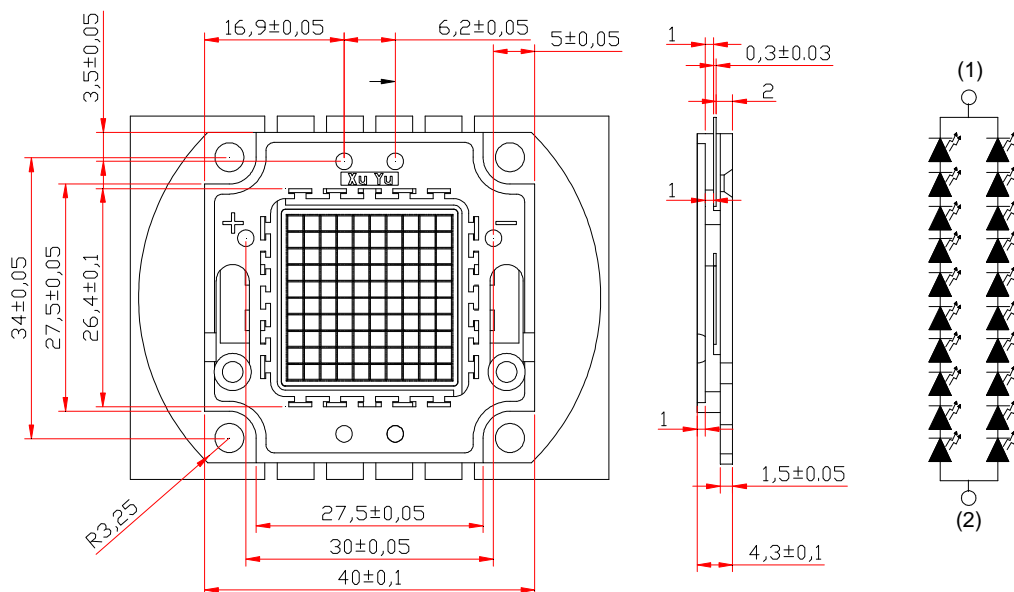
- \* 20W High Power LED
- \* High Luminous Flux
- \* Wide Viewing Angle: 120° ,
- \* Colloid Color: Water Clear



## ◆ Applications:

- \* Portable (flashlight bicycle)
- \* Reading Lights (car, bus, aircraft)
- \* Orientative
- \* Fiber optic alternative
- \* Appliance
- \* Sign and channel letter
- \* Architectural detail
- \* Cove lighting
- \* Automotive exterior (Stop-Tail-turn, HMSL, Mirror side repeat)
- \* Edge-lit signs (Exit, point of sale)

## ◆ Package Dimensions



## Notes:

1. All dimensions are in mm,
2. Tolerance is  $\pm 0.3$ mm unless otherwise noted.

## ◆ Absolute Maximum Ratings ( $T_A=25^\circ\text{C}$ )

Parameter	Symbol	Rating	Unit
Power Dissipation	$P_D$	20	W
Forward Current	$I_F$	700	mA
Peak Forward Current*	$I_{FP}$	1000	mA
Junction temperature	$T_j$	120	$^\circ\text{C}$
Operation Temperature Range	$T_{opr}$	-40 to +80	$^\circ\text{C}$
Storage Temperature Range	$T_{stg}$	-40 to +80	$^\circ\text{C}$
Thermal resistance	$R_{J-B}$	2.5	$^\circ\text{C/W}$
ESD Sensitivity (HBM)	--	2000	V
Hand Soldering Temperature	$350 \pm 20^\circ\text{C}/3 \sim 5\text{sec}$		

NOTE: \* Pulse width  $\leq 0.1\text{msec}$  Duty Ratio  $\leq 1/10$

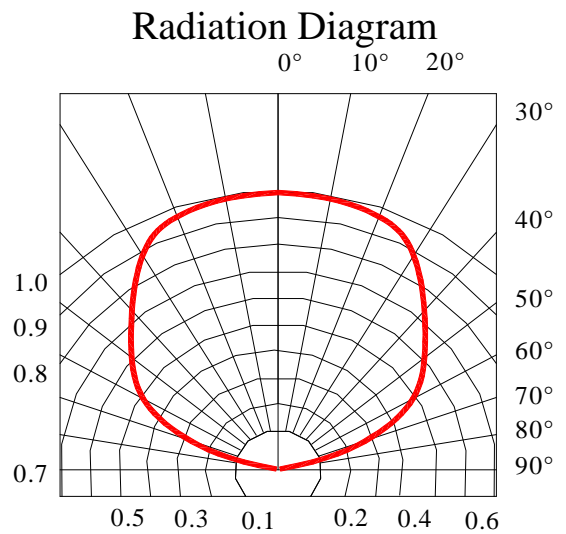
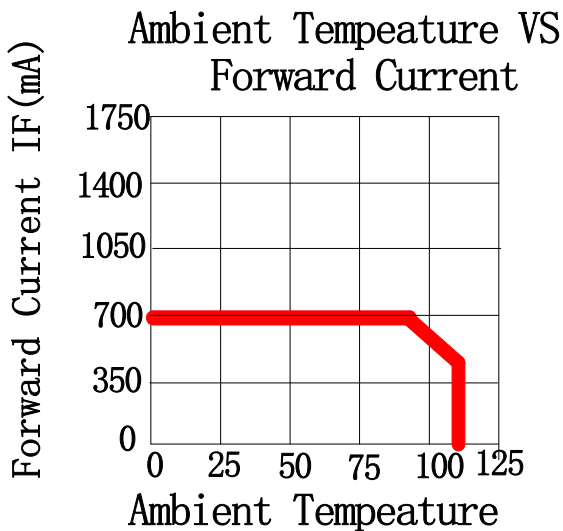
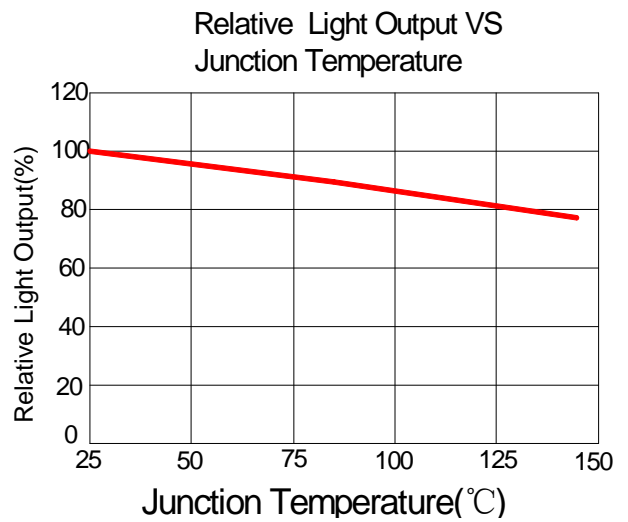
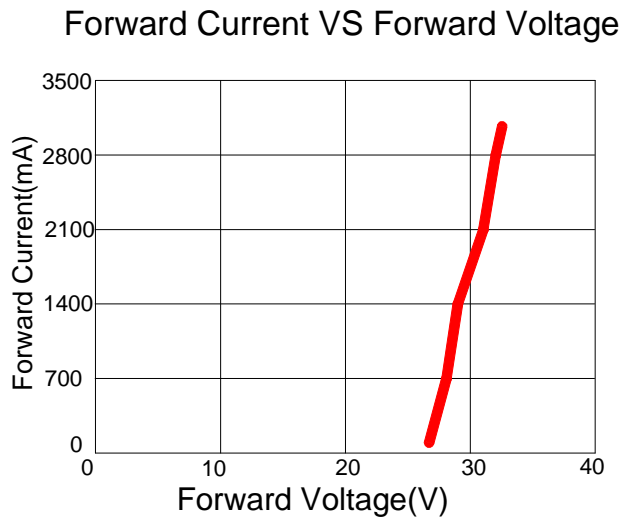
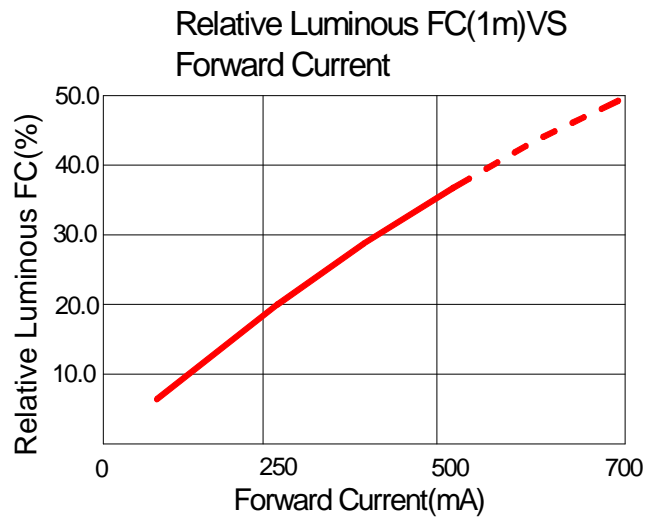
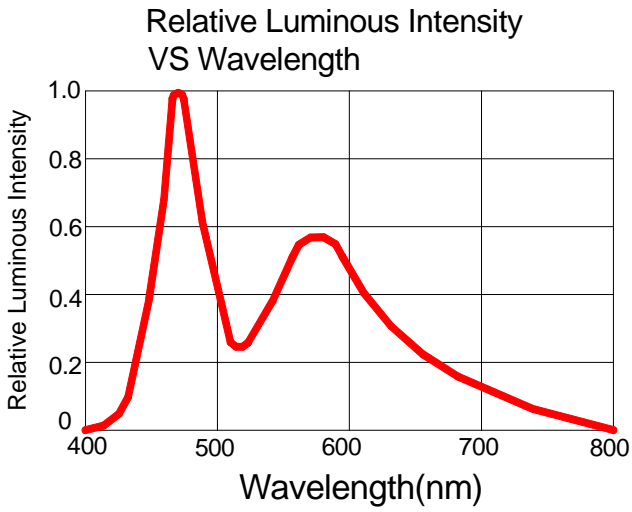
## ◆ Electrical-Optical Characteristics ( $T_A=25^\circ\text{C}$ )

Parameter	Test Condition	Symbol	Min	Typ	Max	Unit
Forward Voltage	$I_F=700\text{mA}$	<b><math>V_F</math></b>	30		33	V
Reverse Current	$V_R=-5\text{V}$	<b><math>I_R</math></b>			5	$\mu\text{A}$
View Angle	--	$2\Theta$	1/2	120		deg.
Luminous flux	$I_F=700\text{mA}$	<b><math>\Phi_v</math></b>	2600		2800	lm
Color Temperature	$I_F=700\text{mA}$	<b>CCT</b>	6000		6500	K
Color-rendering index	$I_F=700\text{mA}$	<b>Ra</b>		70		

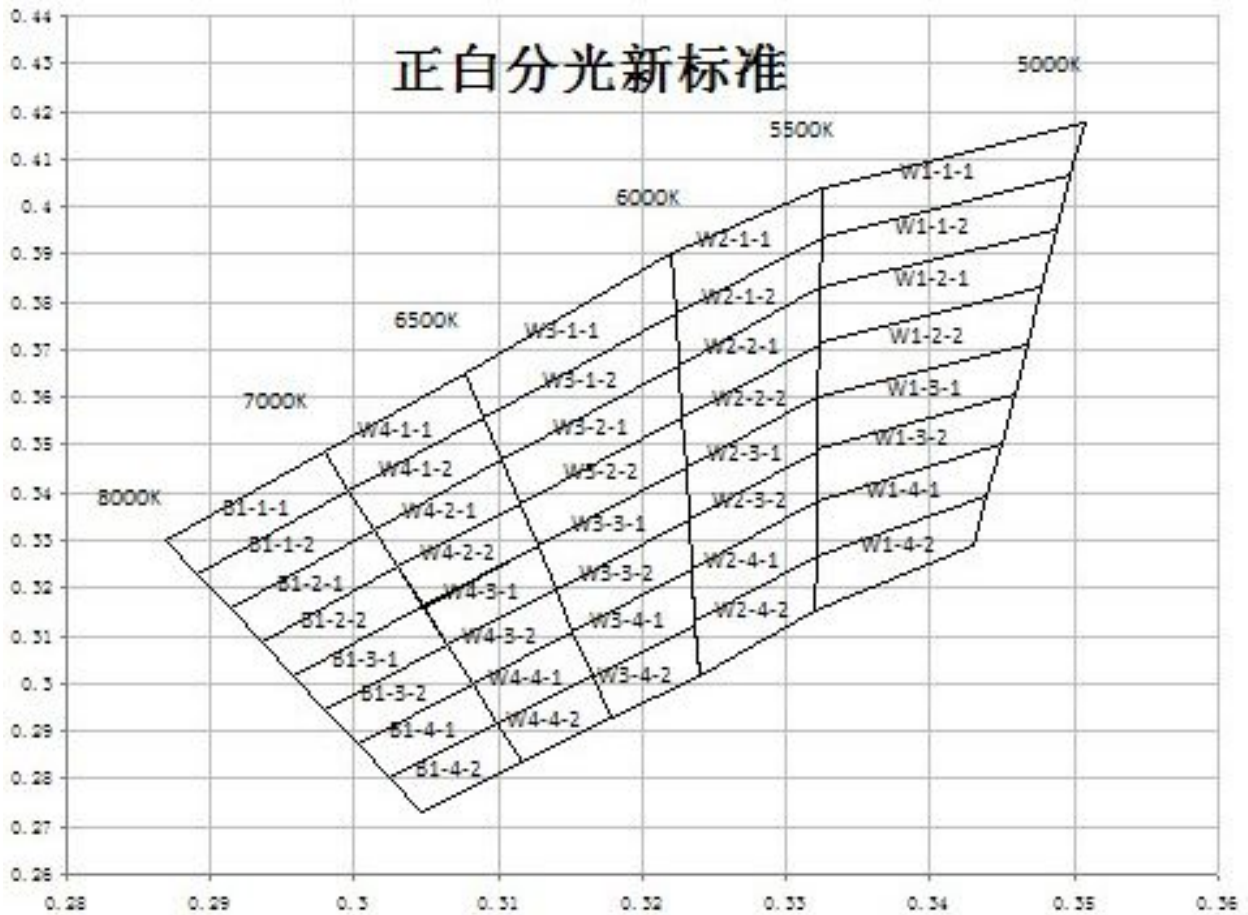
### Note:

1. Tolerance of measurement of luminous flux  $\pm 10\%$
2. Tolerance of measurement of CCT  $\pm 5\%$
3. Tolerance of measurement of chromatic coordinates  $\pm 0.005$
4. Tolerance of measurement of forward voltage  $\pm 0.05\text{V}$

◆ Typical Electrical/Optical Characteristic Curves (If=700mA; TA=25°C)



◆CIE Chromaticity Diagram:(If=700mA;TA=25°C)



Color RANK:(If=700mA;TA=25°C)

Rank	Chromaticity Coordinate Rank					Rank	Chromaticity Coordinate Rank				
	X	Y	Z	u'	v'		X	Y	Z	u'	v'
W1	X	0.3392	0.3363	0.346	0.3539	W4	X	0.3079	0.3177	0.3226	0.3162
	Y	0.4088	0.32	0.3333	0.4133		Y	0.3649	0.2924	0.3002	0.3794
W2	X	0.3264	0.3287	0.3363	0.3392						
	Y	0.3959	0.3085	0.32	0.4088						
W3	X	0.3162	0.3226	0.3287	0.3264						
	Y	0.3794	0.3002	0.3085	0.3959						

## ◆ Reliability

### 1. Test Items And Results

Item	Standard Test Method	Test conditions	Note	Number of Damaged
Resistance to Soldering Heat	JEITA ED-4701 300 302	T <sub>SLD</sub> :260°C±5°C 10sec	1 time	0/30
Solder ability	JEITA ED-4701 300 303	TSLD=235±5°C,5Sec	1time	0/30
Thermal Shock	JEITA ED-4701 300 307	-40-100°C 10min, 10min	100cycles	0/30
Temperature Cycle	JEITA ED-4701 100 105	-40°C~25°C~100°C~25°C 30min. 5min. 30min.5min	160cycles	0/30
Terminal Strength (Pull test)	JEITA ED-4701 400 401	Load 10N(1kgf) 10±1sec	None Damage	0/30
Terminal Strength (bending test)	JEITA ED-4701 400 401	Load 5N(0.5kgf) 0° ~90° ~0° bend 2 times	None Damage	0/30
Temperature Humidity Storage	JEITA ED-4701 100 103	Ta=60°C,RH=90%	1000hrs	0/30
Steady State Operating life	--	Ta=25°C,IF=700mA	1000hrs	0/30
Steady State Operating life of High Humidity Heat	--	Ta=60°C RH=90%,IF=700mA	1000hrs	0/30
High Temperature Storage	JEITA ED-4701 200 201	Ta=100°C	1000HRS	0/30
Low Temperature Storage	JEITA ED-4701 200 202	Ta=-40°C	1000HRS	0/30

### 2. Criteria for Judging The Damage

Item	Symbol	Test Conditions	Criteria for Judgment	
			Min.	Max.
Forward Voltage	V <sub>F</sub>	I <sub>F</sub> =700 mA	---	Initial Data x1.1
Luminous Intensity	I <sub>V</sub>	I <sub>F</sub> =700 mA	Initial Data x 0.9	---
Reverse Current	I <sub>R</sub>	V <sub>R</sub> = 5V	---	≦5μA