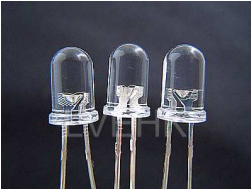


# Caratteristiche tecniche dei LED utilizzati per la realizzazione delle lampade del progetto "ECO-LAMP" wutel.net

<http://www.wutel.net/ecolamp>

MODELLO	DATI TECNICI																																																						
	<b>5mm White LED Light with 27.000mcd</b>																																																						
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<http://www.wutel.net/schede>



## 5mm Round Head White Piranha FLUX LED Lamp with 25.000mcd

### Electrical-Optical Characteristic (Ta=25°C)

Item		Conditions	Min.	Typ.	Max..	Unit
Forward Voltage	VF	If=20mA	3.0	3.2	3.4	V
Reverse Current	IR	VR=5V	/	/	2	uA
Dominant Wavelength	$\lambda_p$	IF=20mA	/	/	/	/
Luminous Intensity	IV	IF=20mA	/	25,000	27,000	mcd
Recommend Forward Current	IF(rec)	--	--	20	--	mA
50% Power Angle	2 $\theta$ 1/2	IF=20mA	/	120	/	degree

### Absolute Maximum Ratings (Ta = 25°C)

Item	Symbol	Absolute Max. Rating	Unit
<b>Power Dissipation</b>	<b>PD</b>	<b>100</b>	<b>mW</b>
<b>Forward Current (DC)</b>	<b>IF</b>	<b>20</b>	<b>mA</b>
<b>Peak Forward Current</b>	<b>IFP</b>	<b>30</b>	<b>mA</b>
<b>Reverse Voltage</b>	<b>VR</b>	<b>5</b>	<b>V</b>
<b>Operation Temperature</b>	<b>Topr</b>	<b>-25~80°C</b>	<b>/</b>
<b>Storage Temperature</b>	<b>Tstg</b>	<b>-40~80°C</b>	<b>/</b>
<b>Lead Soldering Temperature</b>	<b>Tsol</b>	<b>Max. 230°C for 5 sec.</b>	



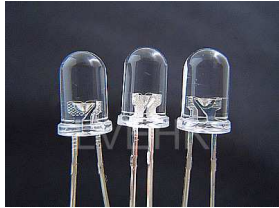
## 8mm White LED Light with 75.000mcd

### Electrical-Optical Characteristic (Ta=25°C)

Item		Conditions	Min.	Typ.	Max..	Unit
Forward Voltage	VF	If=20mA	3.0	3.2	3.6	V
Reverse Current	IR	VR=5V	/	/	10	uA
Dominant Wavelength	$\lambda_p$	IF=20mA	/	/	/	K
Luminous Intensity	IV	IF=20mA	/	75,000	/	mcd
Recommend Forward Current	IF(rec)	--	--	20	--	mA
50% Power Angle	2 $\theta$ 1/2	IF=20mA	/	45	/	degree

### Absolute Maximum Ratings (Ta = 25°C)

Item	Symbol	Absolute Max. Rating	Unit
Power Dissipation	PD	100	mW
Forward Current (DC)	IF	20	mA
Peak Forward Current	IFP	30	mA
Reverse Voltage	VR	5	V
Operation Temperature	Topr	-25~80°C	/
Storage Temperature	Tstg	-40~80°C	/
Lead Soldering Temperature	Tsol	Max. 230°C for 5 sec.	



### 5mm White LED Light with 55.000mcd

#### Electrical-Optical Characteristic (Ta=25°C)

Item		Conditions	Min.	Typ.	Max..	Unit
Forward Voltage	VF	If=20mA	3.0	3.2	3.6	V
Reverse Current	IR	VR=5V	/	/	10	uA
Dominant Wavelength	$\lambda_p$	IF=20mA	/	/	/	K
Luminous Intensity	IV	IF=20mA	/	55,000	/	mcd
Recommend Forward Current	IF(rec)	--	--	20	--	mA
50% Power Angle	2 $\theta$ 1/2	IF=20mA	/	25	/	degree

#### Absolute Maximum Ratings (Ta = 25°C)

Item	Symbol	Absolute Max. Rating	Unit
Power Dissipation	PD	100	mW
Forward Current (DC)	IF	20	mA
Peak Forward Current	IFP	30	mA
Reverse Voltage	VR	5	V
Operation Temperature	Topr	-25~80°C	/
Storage Temperature	Tstg	-40~80°C	/
Lead Soldering Temperature	Tsol	Max. 230°C for 5 sec.	



### 4.8mm STRAW HAT WHITE LED 17.000mcd

#### Electrical-Optical Characteristic (Ta=25°C)

Item		Conditions	Min.	Typ.	Max..	Unit
Forward Voltage	VF	If=20mA	3.0	3.2	3.6	V
Reverse Current	IR	VR=5V	/	/	10	uA
Dominant Wavelength	$\lambda_p$	IF=20mA	/	/	/	K
Luminous Intensity	IV	IF=20mA	/	17,000	20,000	mcd
Recommend Forward Current	IF(rec)	--	--	20	--	mA
50% Power Angle	2 $\theta$ 1/2	IF=20mA	/	100	/	degree

#### Absolute Maximum Ratings (Ta = 25°C)

Item	Symbol	Absolute Max. Rating	Unit
Power Dissipation	PD	100	mW
Forward Current (DC)	IF	20	mA
Peak Forward Current	IFP	30	mA
Reverse Voltage	VR	5	V
Operation Temperature	Topr	-25~80°C	/
Storage Temperature	Tstg	-40~80°C	/
Lead Soldering Temperature	Tsol	Max. 230°C for 5 sec.	



### 4.8mm GOLDEN WARM WHITE LED 14.000mcd

#### Electrical-Optical Characteristic (Ta=25°C)

Item		Conditions	Min.	Typ.	Max..	Unit
Forward Voltage	VF	If=20mA	3.0	3.2	3.6	V
Reverse Current	IR	VR=5V	/	/	10	uA
Dominant Wavelength	$\lambda_p$	IF=20mA	3000	/	4000	K
Luminous Intensity	IV	IF=20mA	/	14,000	/	mcd
Recommend Forward Current	IF(rec)	--	--	20	--	mA
50% Power Angle	2 $\theta$ 1/2	IF=20mA	/	100	/	degree

#### Absolute Maximum Ratings (Ta = 25°C)

Item	Symbol	Absolute Max. Rating	Unit
Power Dissipation	PD	100	mW
Forward Current (DC)	IF	20	mA
Peak Forward Current	IFP	30	mA
Reverse Voltage	VR	5	V
Operation Temperature	Topr	-25~80°C	/
Storage Temperature	Tstg	-40~80°C	/
Lead Soldering Temperature	Tsol	Max. 230°C for 5 sec.	



### 3mm White LED Light with 22.000mcd

#### Electrical-Optical Characteristic (Ta=25°C)

Item		Conditions	Min.	Typ.	Max..	Unit
Forward Voltage	VF	If=20mA	3.0	3.2	3.6	V
Reverse Current	IR	VR=5V	/	/	10	uA
Dominant Wavelength	$\lambda_p$	IF=20mA	/	/	/	K
Luminous Intensity	IV	IF=20mA	/	20,000	22,000	mcd
Recommend Forward Current	IF(rec)	--	--	20	--	mA
50% Power Angle	2 $\theta$ 1/2	IF=20mA	/	20	/	degree

#### Absolute Maximum Ratings (Ta = 25°C)

Item	Symbol	Absolute Max. Rating	Unit
Power Dissipation	PD	100	mW
Forward Current (DC)	IF	20	mA
Peak Forward Current	IFP	30	mA
Reverse Voltage	VR	5	V
Operation Temperature	Topr	-25~80°C	/
Storage Temperature	Tstg	-40~80°C	/
Lead Soldering Temperature	Tsol	Max. 230°C for 5 sec.	



## 10mm White LED Light with 140.000mcd

### Electrical-Optical Characteristic (Ta=25°C)

Item		Conditions	Min.	Typ.	Max..	Unit
Forward Voltage	VF	If=20mA	3.0	3.2	3.6	V
Reverse Current	IR	VR=5V	/	/	10	uA
Dominant Wavelength	$\lambda_p$	IF=20mA	/	/	/	nm
Luminous Intensity	IV	IF=20mA	110,000	120,000	140,000	mcd
Recommend Forward Current	IF(rec)	--	--	20	--	mA
50% Power Angle	2 $\theta$ 1/2	IF=20mA	/	15	/	degree

### Absolute Maximum Ratings (Ta = 25°C)

Item	Symbol	Absolute Max. Rating	Unit
Power Dissipation	PD	100	mW
Forward Current (DC)	IF	20	mA
Peak Forward Current	IFP	30	mA
Reverse Voltage	VR	5	V
Operation Temperature	Topr	-25~80°C	/
Storage Temperature	Tstg	-40~80°C	/
Lead Soldering Temperature	Tsol	Max. 230°C for 5 sec.	





## 0.5W 10mm White LED Lamp Light 280.000mcd

### Electrical-Optical Characteristic (Ta=25°C)

Item		Conditions	Min.	Typ.	Max..	Unit
Forward Voltage	VF	If=100mA	3.00	3.20	3.40	V
Reverse Current	IR	VR=5V	/	/	2	uA
Dominant Wavelength	$\lambda_p$	IF=100mA	5500	6000	6500	K
Luminous Intensity	IV	IF=100mA	/	280,000	300,000	mcd
Recommend Forward Current	IF(rec)	--	--	100	--	mA
50% Power Angle	2 $\theta$ 1/2	IF=100mA	40	/	45	degree

### Absolute Maximum Ratings (Ta = 25°C)

Item	Symbol	Absolute Max. Rating	Unit
Power Dissipation	PD	350	mW
Forward Current (DC)	IF	100	mA
Peak Forward Current	IFP	150	mA
Reverse Voltage	VR	5	V
Operation Temperature	Topr	-25~80°C	/
Storage Temperature	Tstg	-40~80°C	/
Lead Soldering Temperature	Tsol	Max. 230°C for 5 sec.	



## 5mm Flat-Top White LED Light 20.000mcd

Electrical-Optical Characteristic (Ta=25°C)

Item		Conditions	Min.	Typ.	Max..	Unit
Forward Voltage	VF	If=20mA	3.0	3.2	3.6	V
Reverse Current	IR	VR=5V	/	/	10	uA
Dominant Wavelength	$\lambda_p$	IF=20mA	/	/	/	nm
Luminous Intensity	IV	IF=20mA	/	20,000	23,000	mcd
Recommend Forward Current	IF(rec)	--	--	20	--	mA
50% Power Angle	2 $\theta$ 1/2	IF=20mA	/	140	/	degree

Item	Symbol	Absolute Max. Rating	Unit
Power Dissipation	PD	100	mW
Forward Current (DC)	IF	20	mA
Peak Forward Current	IFP	30	mA
Reverse Voltage	VR	5	V
Operation Temperature	Topr	-25~80°C	/
Storage Temperature	Tstg	-40~80°C	/
Lead Soldering Temperature	Tsol	Max. 230°C for 5 sec.	



## 0.5W StrawHat 8mm White LED Lamp 120.000mcd

### Electrical-Optical Characteristic (Ta=25°C)

Item		Conditions	Min.	Typ.	Max..	Unit
Forward Voltage	VF	If=100mA	/	3.2	3.4	V
Reverse Current	IR	VR=5V	/	/	2	uA
Dominant Wavelength	$\lambda_p$	IF=100mA	5500	6000	6500	K
Luminous Intensity	IV	IF=100mA	/	120,000	140,000	mcd
Recommend Forward Current	IF(rec)	--	--	100	--	mA
50% Power Angle	2 $\theta$ 1/2	IF=100mA	/	140	/	degree

### Absolute Maximum Ratings (Ta = 25°C)

Item	Symbol	Absolute Max. Rating	Unit
Power Dissipation	PD	350	mW
Forward Current (DC)	IF	100	mA
Peak Forward Current	IFP	150	mA
Reverse Voltage	VR	5	V
Operation Temperature	Topr	-25~80°C	/
Storage Temperature	Tstg	-40~80°C	/
Lead Soldering Temperature	Tsol	Max. 230°C for 5 sec.	