

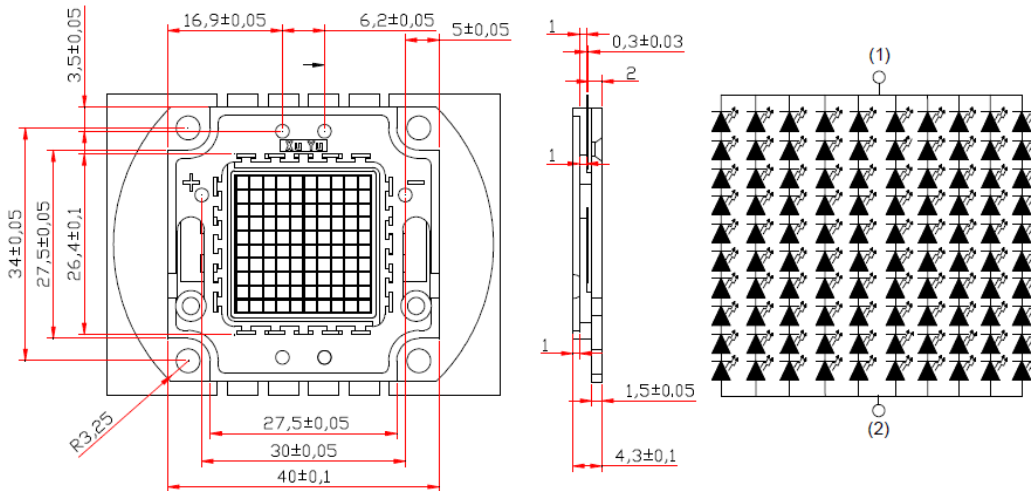


# SHARLIGHT ELECTRONICS CO., LTD.

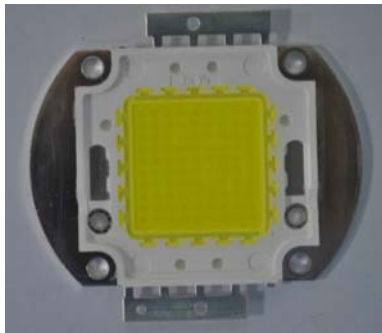
## SPECIFICATION FOR APPROVAL

Part No. : SLE-4040NW40-100W-MU(COOL WHITE)

### Package Dimensions



LED 10串 10並



### Notes:

1. All dimensions are in mm,
2. Tolerance is ±0.3mm unless otherwise noted.

### Features and Applications

Features	Applications
<ul style="list-style-type: none"> <li>* 100W High Power LED</li> <li>* High Luminous Flux</li> <li>* Wide Viewing Angle:120°</li> <li>* Colloid Color Water Clear</li> </ul>	<ul style="list-style-type: none"> <li>* Portable(flashlight bicycle)</li> <li>* Reading Lights(car,bus,aircraft)</li> <li>* Fiber optic alternative</li> <li>* Edge-lit signs(Exit,point of sale)</li> <li>* Appliance</li> <li>* Automotive exterior(Stop-Tail-turn,HMSL,Mirror side repeat)</li> <li>* Sign and channel letter</li> <li>* Architectural letail</li> <li>* Cove lighting</li> <li>* Orientative</li> </ul>

Part NO.	Chip Material	Color Temperature	Emission Color	Lens Color
SLE-4040NW40-100W-MU	InGaN	5000~7000K	White	Water Clear

LISTER : 周素華 04-03-18

EDITOR : 04-03-18

DATE : 04-03-18

REV : A



# SHARLIGHT ELECTRONICS CO., LTD.

## SPECIFICATION FOR APPROVAL

Part No. : SLE-4040NW40-100W-MU(COOL WHITE)

### Absolute Maximum Ratings at TA=25°C

Parameter	Maximum Rating	Unit
Power Dissipation	100	W
Forward Current (DC)	3500	mA
DC Pulse Current(Pulse width $\leq 0.1\text{msec}$ Duty Ratio $\leq 1/10$ )	5000	mA
ESD withstand voltage(HBM)	2000	V
junction temperature	120	°C
Reverse Voltage	5	V
Thermal Resistance	0.5	°C/W
Operating Temperature Range	-30°C to +60°C	
Storage Temperature Range	-30°C to +80°C	
Soldering Condition	Max. 350±20°C for 3ses once	

### Electrical/Optical Characteristics (Ta= 25°C)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Condition
Luminous Flux	$\Phi_V$	10000		12000	lm	IF=3500mA
Viewing Angle	$2\theta_{1/2}$		120		deg	IF=3500mA
Color Temperature	CCT	5000		7000	K	IF=3500mA
Forward Voltage	$V_F$	30		35	V	IF=3500mA
Reverse Current	IR			5	$\mu\text{A}$	IF=3500mA
Color-rendering index	Ra		70			IF=3500mA

**Notes:**

1. Tolerance of Luminous Flux is  $\pm 10\%$ .
2. Tolerance of Forward Voltage is  $\pm 0.1V$ .
3. Tolerance of CCT is  $\pm 5\%$

### Criteria For Judging Damage

Item	Symbol	Test Conditions	Criteria for Judgment
Forward Voltage	$V_F$	IF=3500mA	Max. Initial Data*1.1
Reverse Current	Ir	$V_r=5V$	$I_r \leq 5\mu A$
Luminous Flux	$\Phi_v$	IF=3500mA	Min. Initial Data*0.9

LISTER : 周素華 04-03-18

EDITOR : 04-03-18

DATE : 04-03-18

REV : A

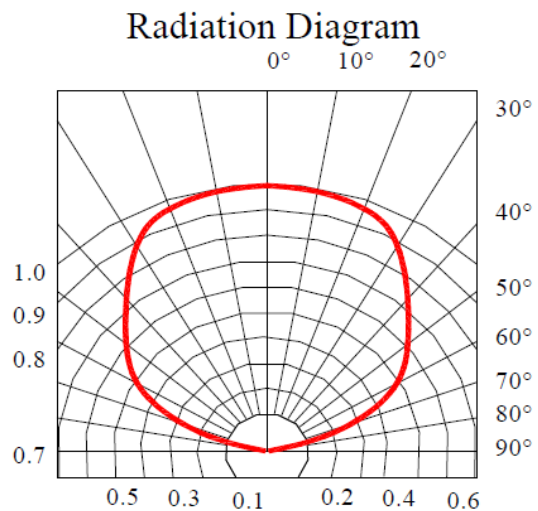
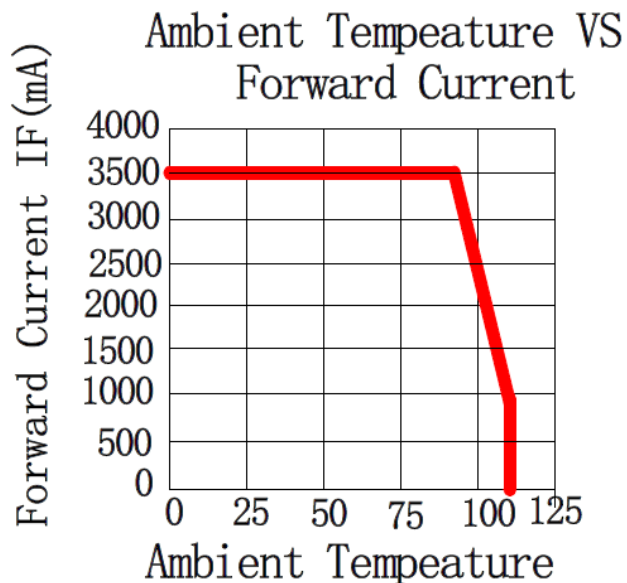
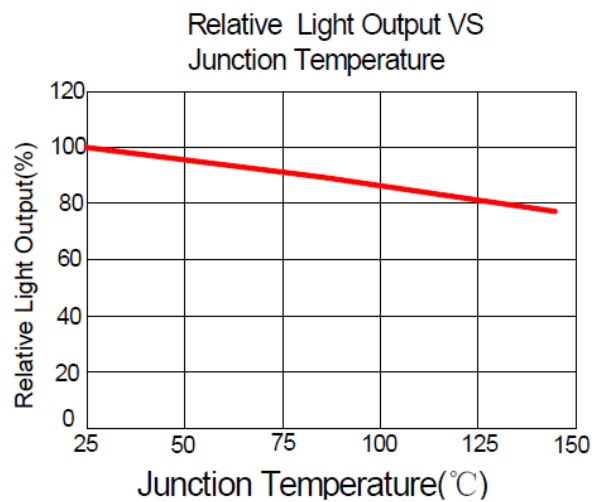
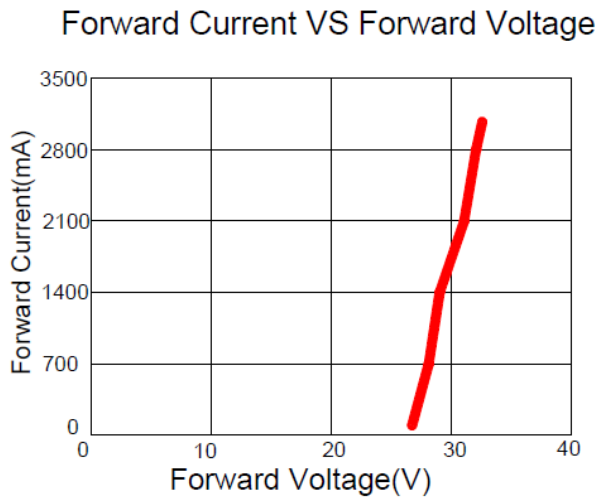
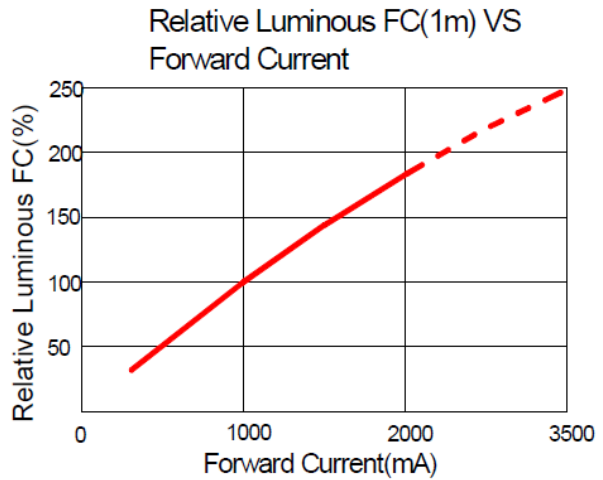
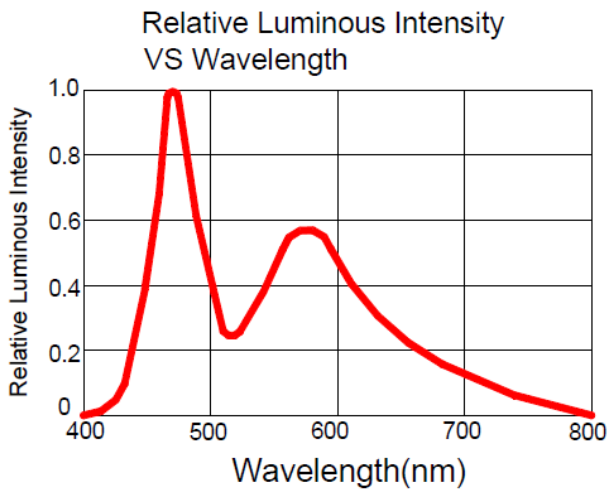


# SHARLIGHT ELECTRONICS CO., LTD.

SPECIFICATION FOR APPROVAL

Part No. : SLE-4040NW40-100W-MU(COOL WHITE)

## ◆ Typical Electrical/Optical Characteristic Curves ( $I_f=3500\text{mA}; T_A=25^\circ\text{C}$ )



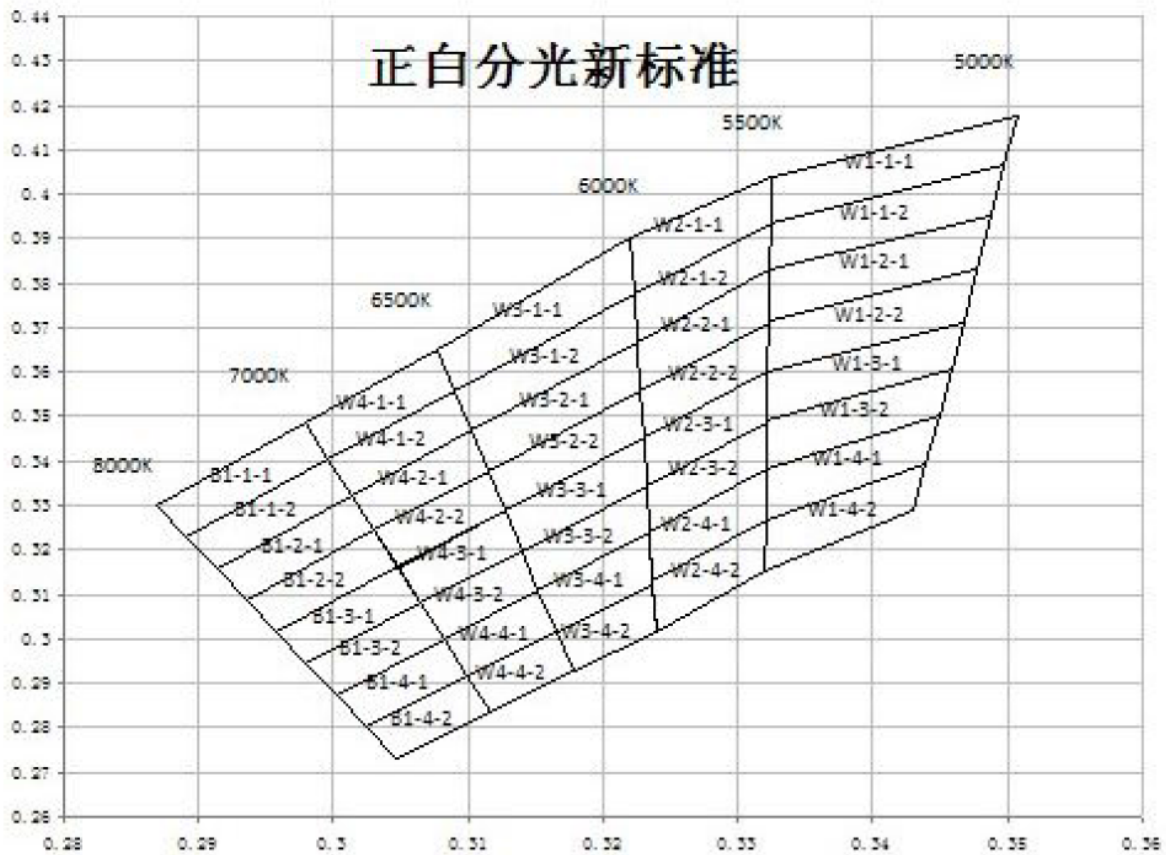


# SHARLIGHT ELECTRONICS CO., LTD.

## SPECIFICATION FOR APPROVAL

Part No. : SLE-4040NW40-100W-MU(COOL WHITE)

### ◆CIE Chromaticity Diagram:(If=3500mA;TA=25°C)



### Color RANK:(If=3500mA;TA=25°C)

Rank	Chromaticity Coordinate Rank					Rank	Chromaticity Coordinate Rank				
	<b>W1</b>	X	0.3392	0.3363	0.346		0.3539	<b>W4</b>	X	0.3079	0.3177
Y		0.4088	0.32	0.3333	0.4133	Y	0.3649		0.2924	0.3002	0.3794
<b>W2</b>	X	0.3264	0.3287	0.3363	0.3392						
	Y	0.3959	0.3085	0.32	0.4088						
<b>W3</b>	X	0.3162	0.3226	0.3287	0.3264						
	Y	0.3794	0.3002	0.3085	0.3959						



# SHARLIGHT ELECTRONICS CO., LTD.

## SPECIFICATION FOR APPROVAL

Part No. : SLE-4040NW40-100W-MU(COOL WHITE)

### ◆ 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	$T_{SLD}: 260^{\circ}\text{C} \pm 5^{\circ}\text{C}$ 10sec	1 time	0/30
Solder ability	JEITA ED-4701 300 303	$TSLD=235 \pm 5^{\circ}\text{C}$ , 5Sec	1time	0/30
Thermal Shock	JEITA ED-4701 300 307	$-40-100^{\circ}\text{C}$ 10min, 10min	100cycles	0/30
Temperature Cycle	JEITA ED-4701 100 105	$-40^{\circ}\text{C} \sim 25^{\circ}\text{C} \sim 100^{\circ}\text{C} \sim 25^{\circ}\text{C}$ 30min. 5min. 30min. 5min	160cycles	0/30
Terminal Strength (Pull test)	JEITA ED-4701 400 401	Load 10N(1kgf) $10 \pm 1\text{sec}$	None Damage	0/30
Terminal Strength (bending test)	JEITA ED-4701 400 401	Load 5N(0.5kgf) $0^{\circ} \sim 90^{\circ} \sim 0^{\circ}$ bend 2 times	None Damage	0/30
Temperature Humidity Storage	JEITA ED-4701 100 103	$T_a=60^{\circ}\text{C}$ , RH=90%	1000hrs	0/30
Steady State Operating life	--	$T_a=25^{\circ}\text{C}$ , IF=3500mA	1000hrs	0/30
Steady State Operating life of High Humidity Heat	--	$T_a=60^{\circ}\text{C}$ RH=90%, IF=3500mA	1000hrs	0/30
High Temperature Storage	JEITA ED-4701 200 201	$T_a=100^{\circ}\text{C}$	1000HRS	0/30
Low Temperature Storage	JEITA ED-4701 200 202	$T_a=-40^{\circ}\text{C}$	1000HRS	0/30

LISTER : 周素華 04-03-18

EDITOR : 04-03-18

DATE : 04-03-18

REV : A