

## **SPECIFICATION**

**MODEL: GL-5730WEA-2**



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■ **1. Features**

- 1.1 Package: 5.7\*3.0\*0.9mm
- 1.2 Emitted Color: White
- 1.3 Mono-color type
- 1.4 Soldering methods: All SMT assembly methods
- 1.5 Comply RoHS standard

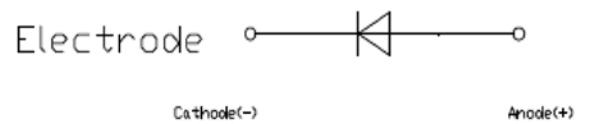
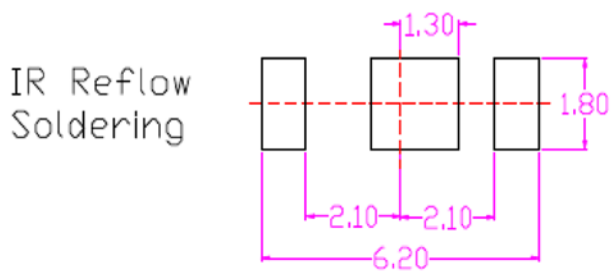
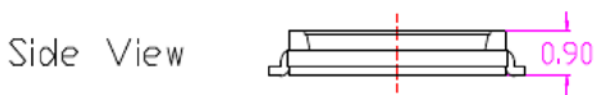
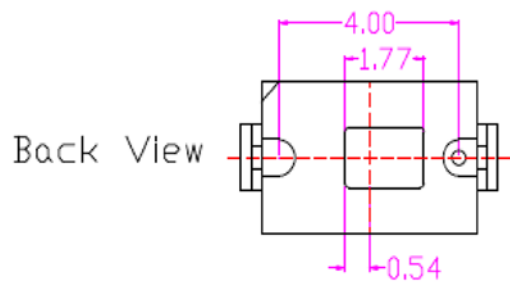
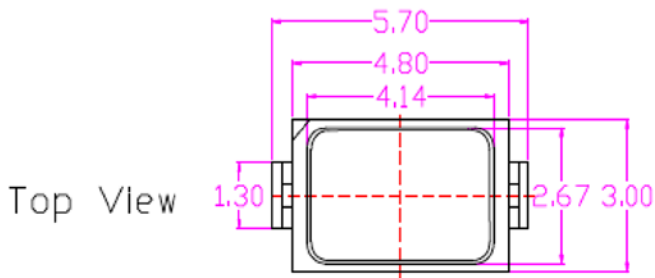
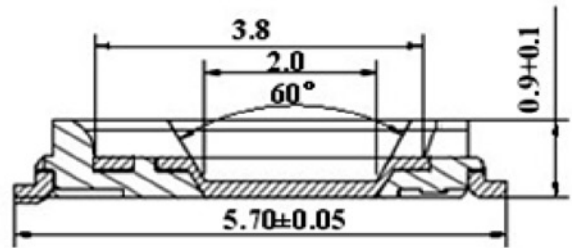
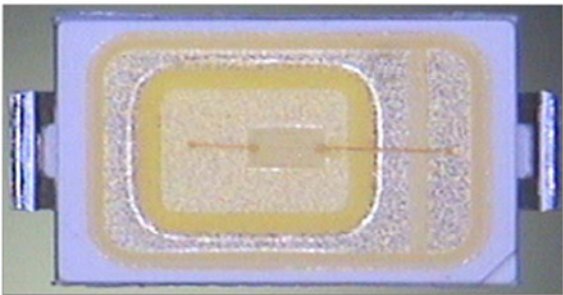
■ **2. Applications**

Apply to indoor lighting, outdoor lighting field

■ **3. Product Naming**

<b>GL</b>	<b>5730</b>	<b>W</b>	<b>X</b>	<b>X</b>	<b>—</b>	<b>X</b>
Company Name: Good Led	products model: 5730	LED Color Products: White	Chip manufacturers E-EPISTAR	Chip code: A+:(20*40) A:(20*38) B:(17*34)		Angle: 1:(140°C) 2:(120°C)

4. External Dimensions



■ **5. The main optical and electrical properties (Ta=25°C)**

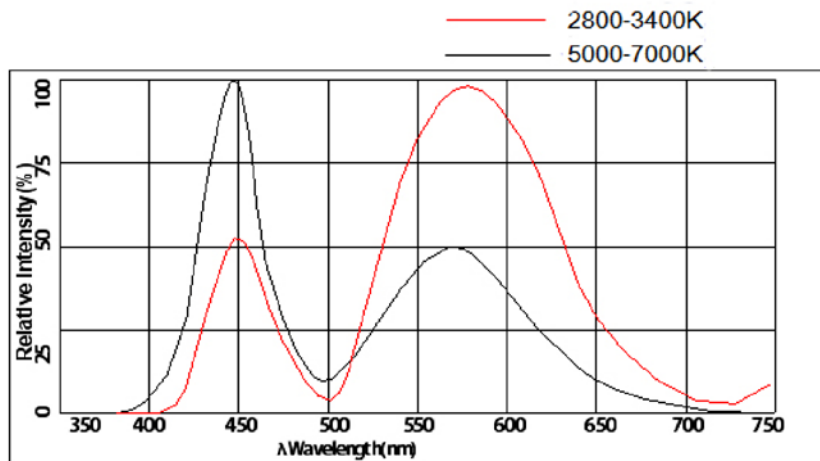
Project	Symbol	Conditions	Minimum	Average	Max.	Units
Forward Voltage	VF	IF=150mA		3,2		V
Reverse current	IR	VR=1.2V			5	μA
Flux	Φ	IF=150mA	55		65	Lm
Color Temperature	CCT	IF=150mA	6500		7000	K
Color Rendering Index	Ra	IF=150mA	60		85	

■ **6. Absolute Maximum Rating (Ta=25°C)**

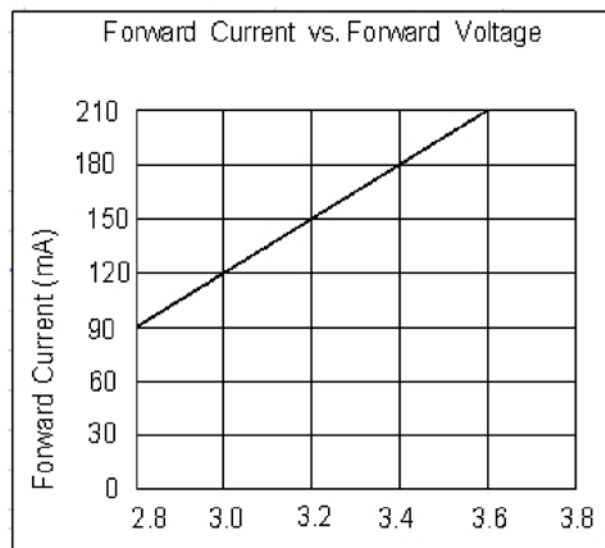
Project	Symbol	Limit parameter	Units
Forward Current	IF	150	mA
Recommended Current	IF	≤120	mA
Pulse peak current	IFP	500	mA
Reverse Voltage	VR	5	V
Power	PD	0,5	W
Operating temperature	Topr	(-30~+85)	°C
Storage Temperature	Tstg	(-40~+100)	°C
Soldering temperature	Tsol	reflow soldering: 250°C/10(Seconds0); Hand soldering: 300°C/3(Seconds)	
ESD Sensitivity	ESD	2000V HBM	

- 7. Typical electro-optical characteristics curves

**Spectrum Distribution TA=25°C**

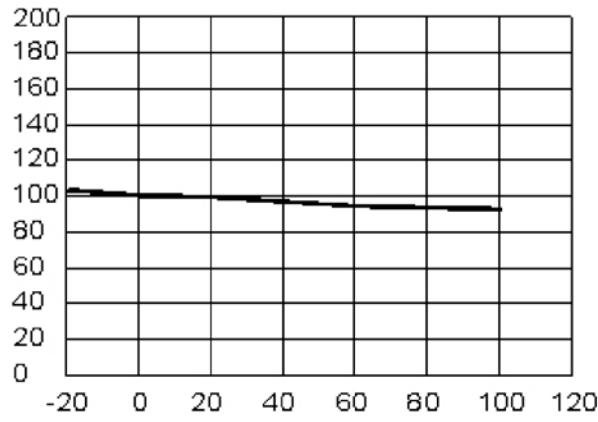


**Forward voltage and forward current curves TA=25°C**



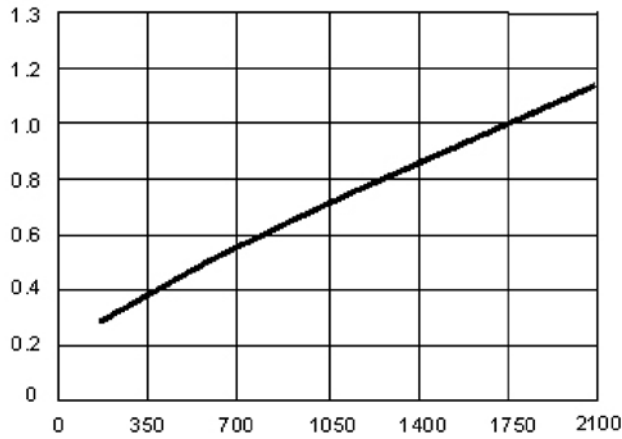


Relative Luminous Intensity (%)

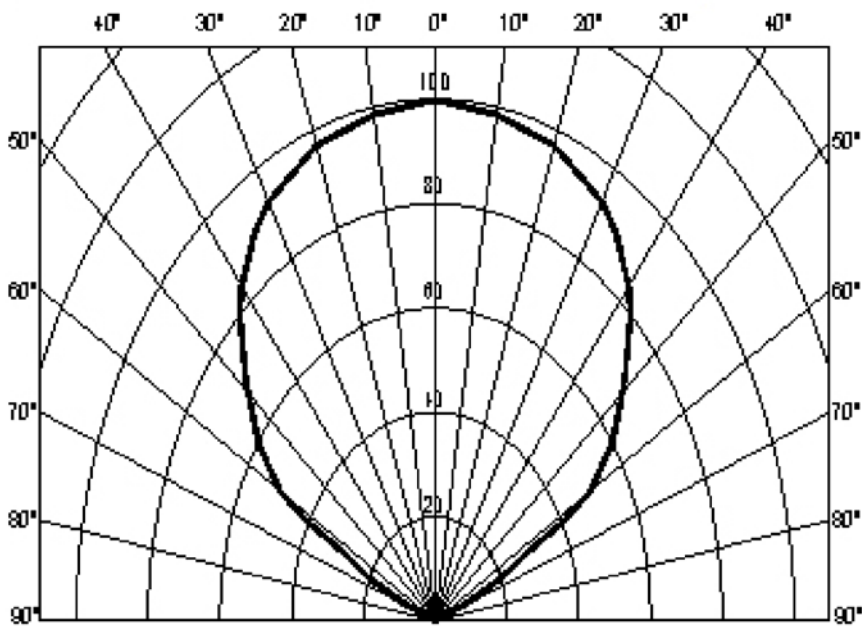


Ambient Temperature Ta (°C)

Normalized Relative Luminous Flux



Forward Current (mA)

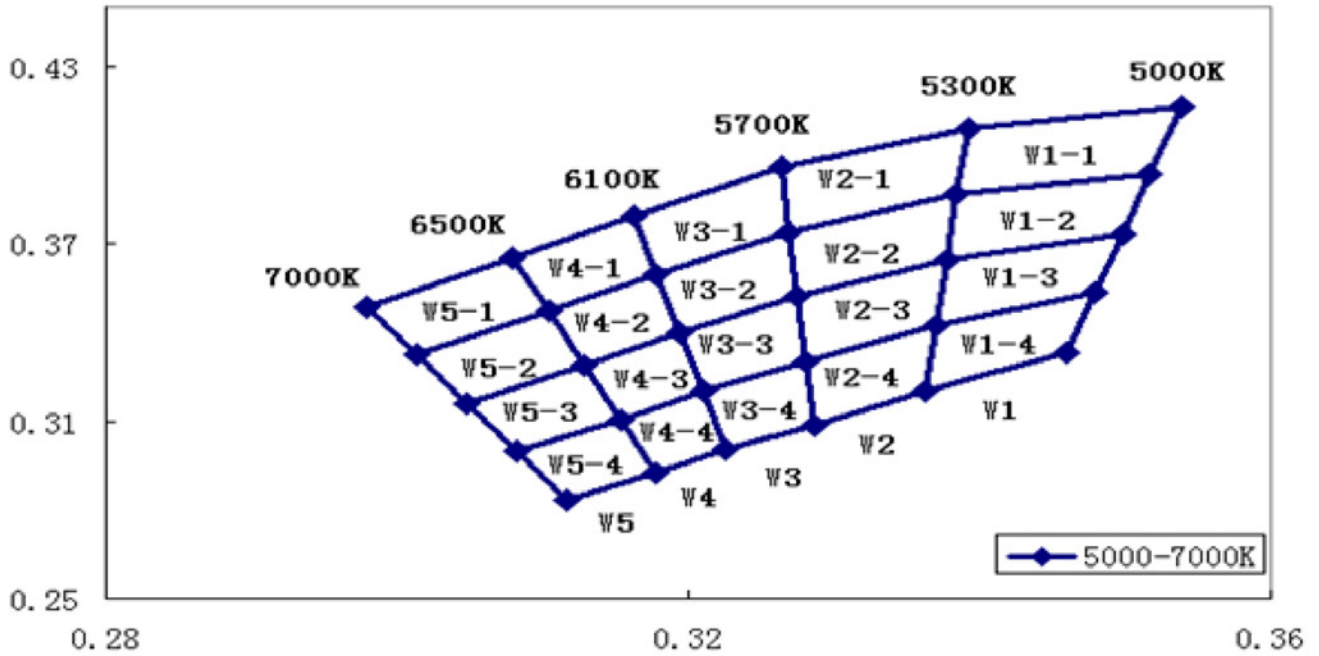


## 8. Reliability Test Standards

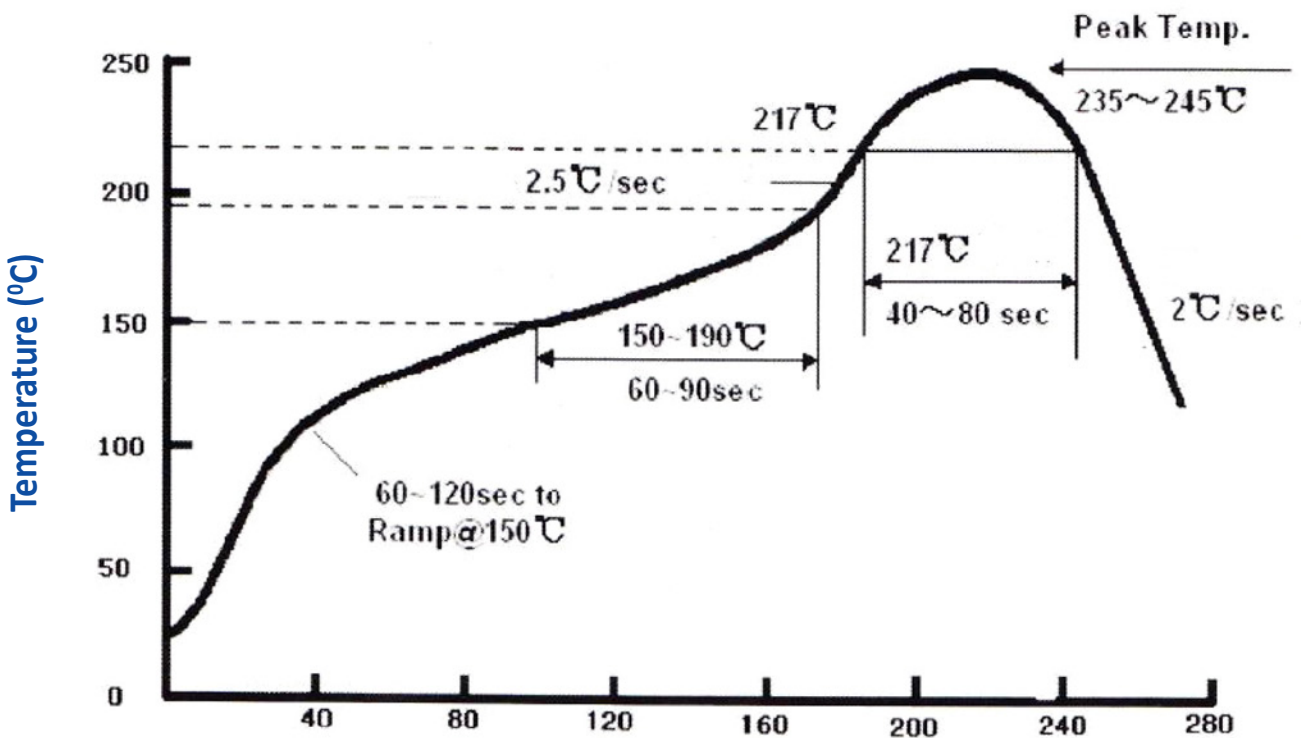
Type	Pilot project	Test conditions	Duration	The number of samples	Charge level
Environmental testing	Temperature cycling	45°C(30Min)~25°C(5Min) ~100°C(30Min)~25°C(5Min)	Cycle 100 Round	30	0/30
	Thermal Shock	-40°C(15Min) ~100°C(15Min)	Cycle 300 Round	30	0/30
	Humidity cycle	30°C~65°C RH=90% 24H/1Round	Cycle 50 Round	30	0/30
	High Temperature Storage	T <sub>a</sub> =100°C	1000H	30	0/30
	Cryogenic storage	T <sub>a</sub> =-40°C	1000H	30	0/30
	High temperature and humidity storage	T <sub>a</sub> =60°C RH=90%	1000H	30	0/30
Life test	Life test at room temperature	T <sub>a</sub> =25°C IF=150mA	1000H	30	0/30
	High temperature and humidity life test	T <sub>a</sub> =60°C RH=90% IF=150mA	1000H	30	0/30
	Low-temperature life test	T <sub>a</sub> =-30°C IF=150mA	1000H	30	0/30
Destructive test	Resistance to soldering heat	T <sub>sol</sub> =360°C±5°C,10S	Welding time	5	0/5
	Solderability	T <sub>sol</sub> =350°C±5°C,5S Using flux	Welding time	5	0/5
Mechanical test	Vibration test	20G 20-2000HZ 4Min X, Y, Z	Loop 4 times in each direction	5	0/5
	Drop test	75mm	Cycle 3 Round	5	0/5

9. White color coordinates map

5000-7000K



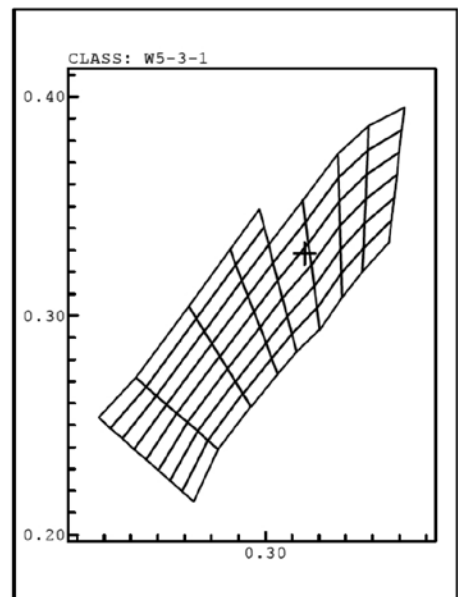
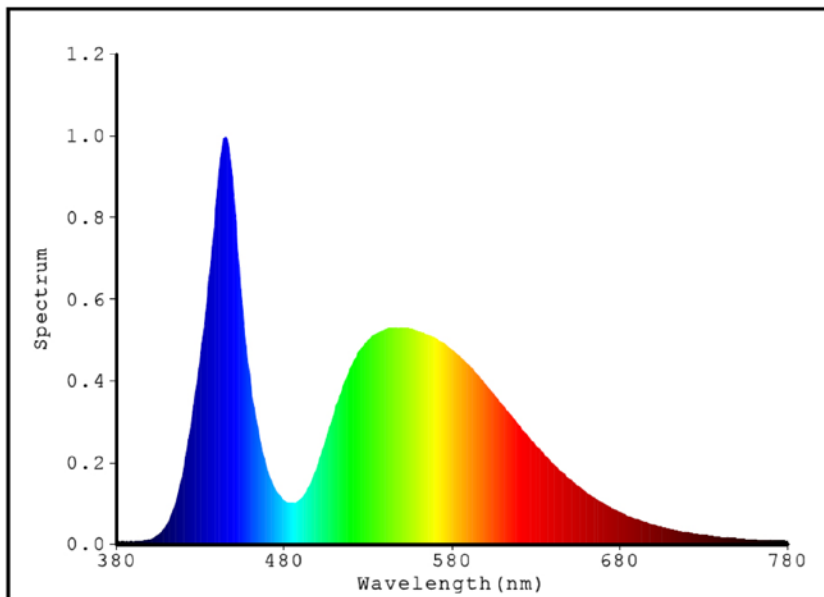
10. Solder conditions





■ 11. Test Report (EVERFINE LEDspec)

**Spectrum Test Report**



**Color Parameters:**

Chromaticity Coordinate:  $x=0.3147$   $y=0.3284$   $u'=0.1994$   $v'=0.4683$   $duv=2.924e-003$

Tc=6403K Dominant WL:Ld=488.3nm Purity=6.7%

Ratio:R=13.0% G=83.7% B=3.3% Peak WL:Lp=444.8nm HWL:25.4nm

Render Index:Ra=69.8 [None]

R1 =69 R2 =72 R3 =73 R4 =72 R5 =71 R6 =64 R7 =78

R8 =61 R9 =-29 R10=32 R11=71 R12=43 R13=68 R14=84 R15=64

**Photo Parameters:**

Flux = 61.13 lm Eff. : 123.04 lm/W Fe = 158.1 mW

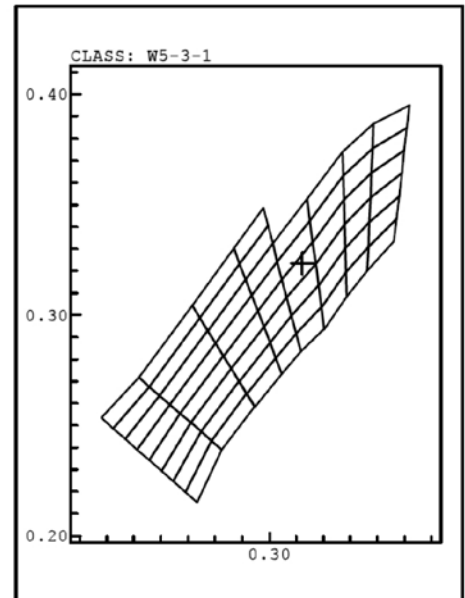
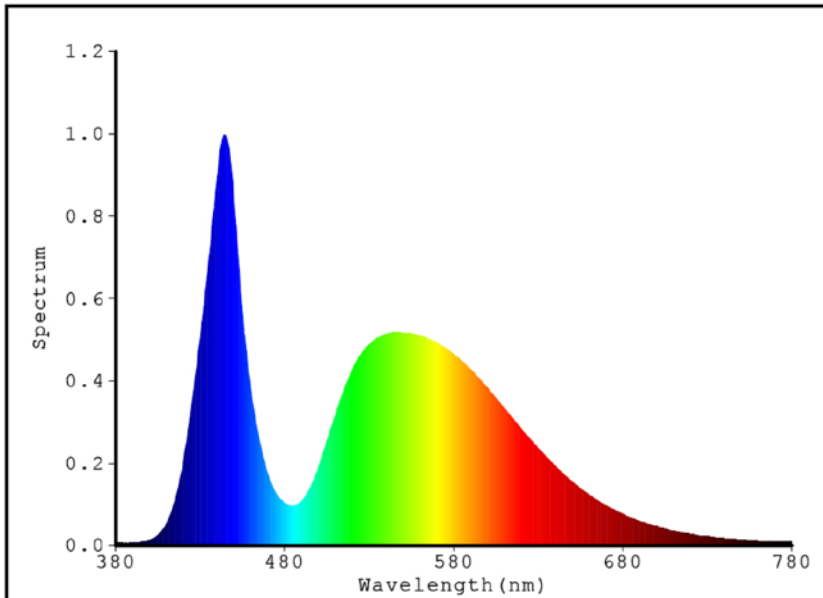
**Electrical parameters:**

VF = 3.312 V IF = 149.9 mA P = 496.8 mW

LEVEL:519 WHITE:W5-3-1

Status: T=1806.00ms Ip=51535 (79%) [ HAAS2000\_V1\_USB ] V2.00.167

## Spectrum Test Report



### Color Parameters:

Chromaticity Coordinate:  $x=0.3122$   $y=0.3235$   $u'=0.1996$   $v'=0.4653$   $duv=1.618e-003$

$T_c=6574K$  Dominant WL:  $L_d=485.5nm$  Purity=7.9%

Ratio: R=13.0% G=83.7% B=3.3% Peak WL:  $L_p=444.7nm$  HWL: 26.5nm

Render Index:  $R_a=69.8$  [None]

$R_1=70$   $R_2=71$   $R_3=71$   $R_4=72$   $R_5=71$   $R_6=63$   $R_7=77$

$R_8=62$   $R_9=-26$   $R_{10}=31$   $R_{11}=72$   $R_{12}=44$   $R_{13}=68$   $R_{14}=84$   $R_{15}=65$

### Photo Parameters:

Flux = 60.16 lm Eff. : 122.14 lm/W Fe = 157.5 mW

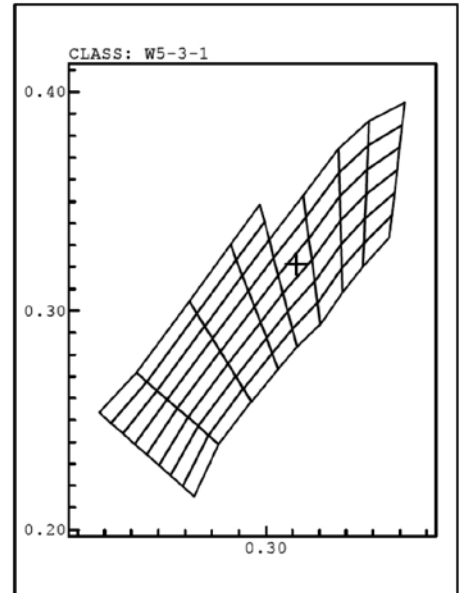
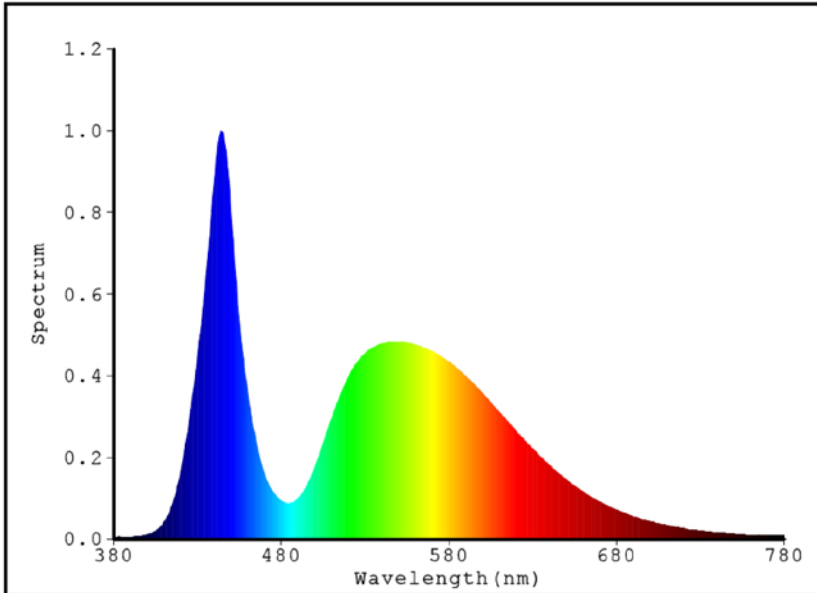
### Electrical parameters:

$V_f=3.283V$   $I_f=149.9mA$   $P=492.5mW$

LEVEL: 519 WHITE: W5-3-1

Status:  $T=1806.00ms$   $I_p=50726(77\%)$  [ HAAS2000\_V1\_USB ] V2.00.167

## Spectrum Test Report



### Color Parameters:

Chromaticity Coordinate:  $x=0.3114$   $y=0.3213$  /  $u'=0.1998$   $v'=0.4639$   $duv=9.103e-004$   
 $Tc=6645K$  Dominant WL:  $Ld=484.3nm$  Purity=8.4%

Ratio: R=13.0% G=83.7% B=3.3% Peak WL:  $Lp=444.0nm$  HWL: 24.1nm

Render Index:  $Ra=70.0$  [None]

R1 =70 R2 =72 R3 =71 R4 =72 R5 =72 R6 =63 R7 =77

R8 =63 R9 =-24 R10=31 R11=72 R12=43 R13=69 R14=83 R15=66

### Photo Parameters:

Flux = 61.14 lm Eff. : 122.75 lm/W  $Fe = 160.4$  mW

### Electrical parameters:

$VF = 3.321$  V  $IF = 149.9$  mA  $P = 498.1$  mW

LEVEL:519 WHITE:W5-3-1

Status:  $T=1806.00ms$   $I_p=51568$  (79%) [ HAAS2000\_V1\_USB ] V2.00.167