

## **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

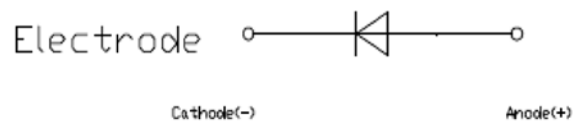
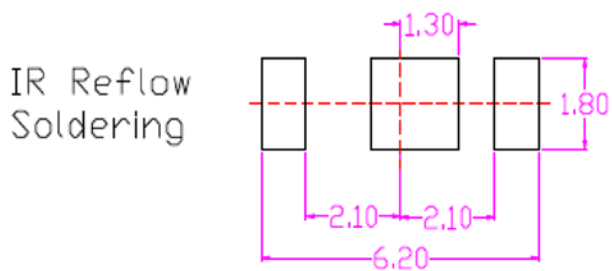
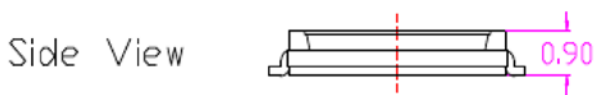
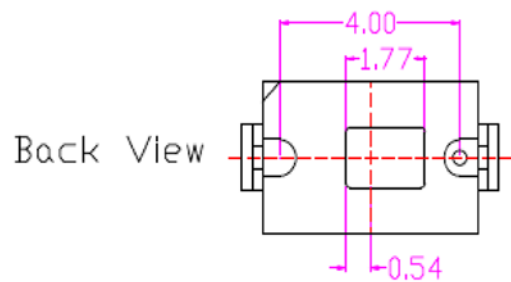
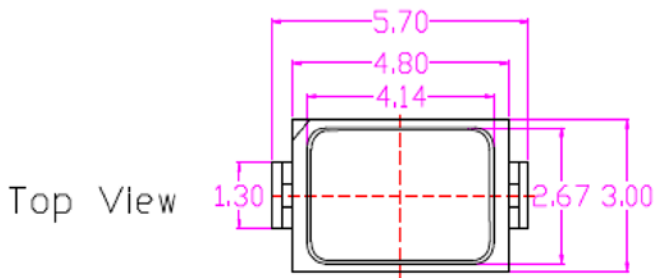
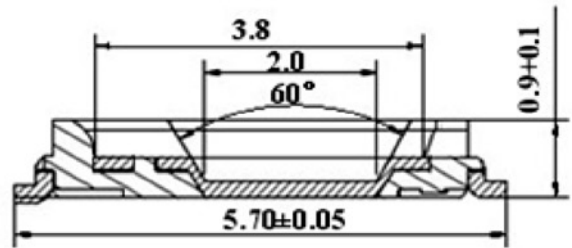
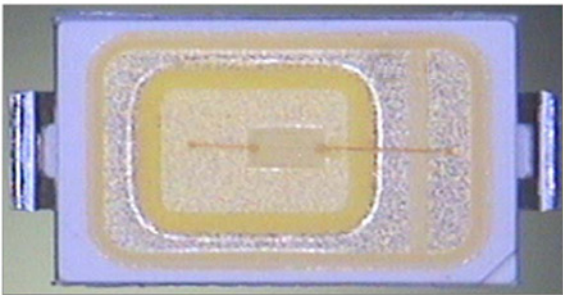
■ **2. Applications**

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)**

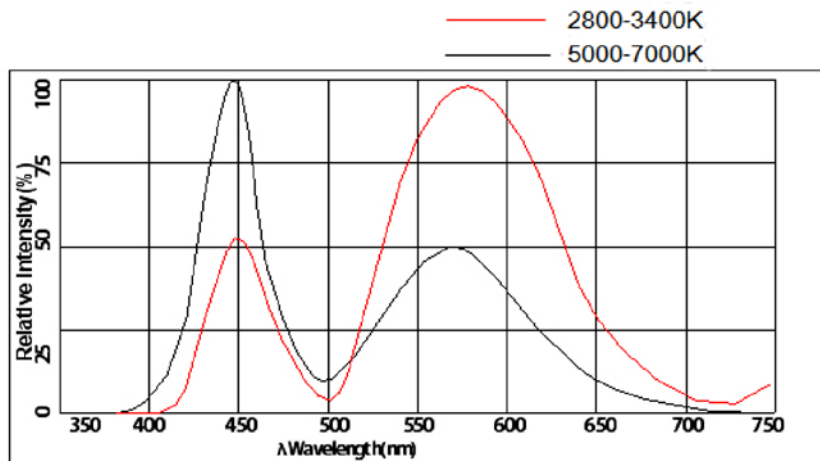
Project	Symbol	Conditions	Minimum	Average	Max.	Units
Forward Voltage	VF	IF=150mA		3,2		V
Reverse current	IR	VR=1.2V			5	μA
Flux	Φ	IF=150mA	55		65	Lm
Color Temperature	CCT	IF=150mA	4500		5000	K
Color Rendering Index	Ra	IF=150mA	60		85	

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

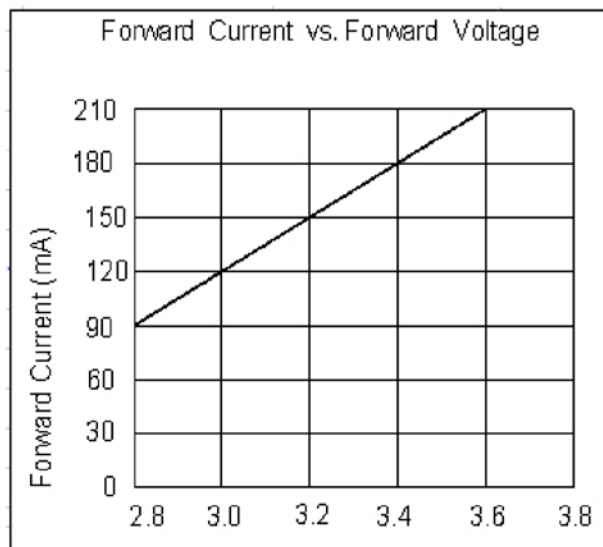
Project	Symbol	Limit parameter	Units
Forward Current	IF	150	mA
Recommended Current	IF	≤120	mA
Pulse peak current	IFP	500	mA
Reverse Voltage	VR	5	V
Power	PD	0,5	W
Operating temperature	Topr	(-30~+85)	°C
Storage Temperature	Tstg	(-40~+100)	°C
Soldering temperature	Tsol	reflow soldering: 250°C/10(Seconds0);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

- 7. Typical electro-optical characteristics curves

**Spectrum Distribution TA=25°C**

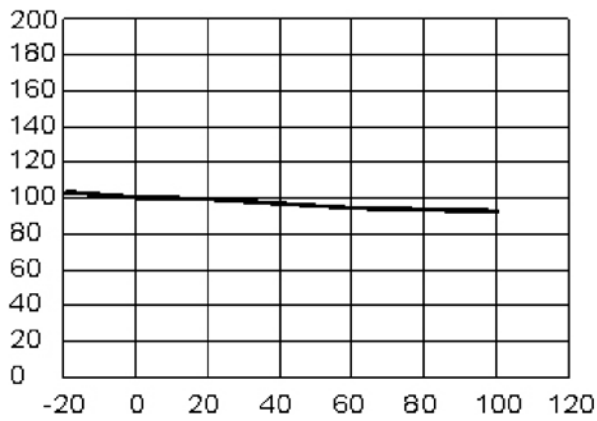


**Forward voltage and forward current curves TA=25°C**



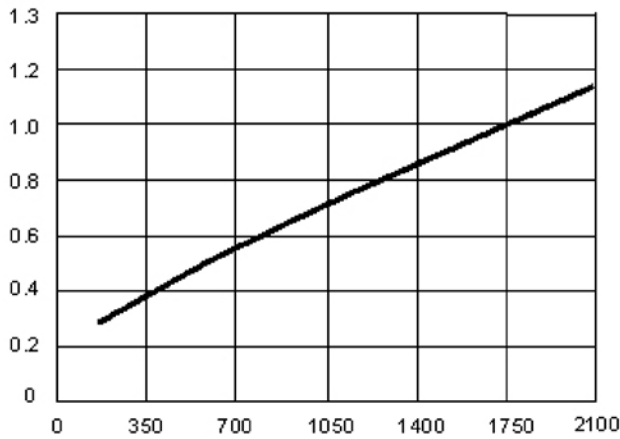


Relative Luminous Intensity (%)

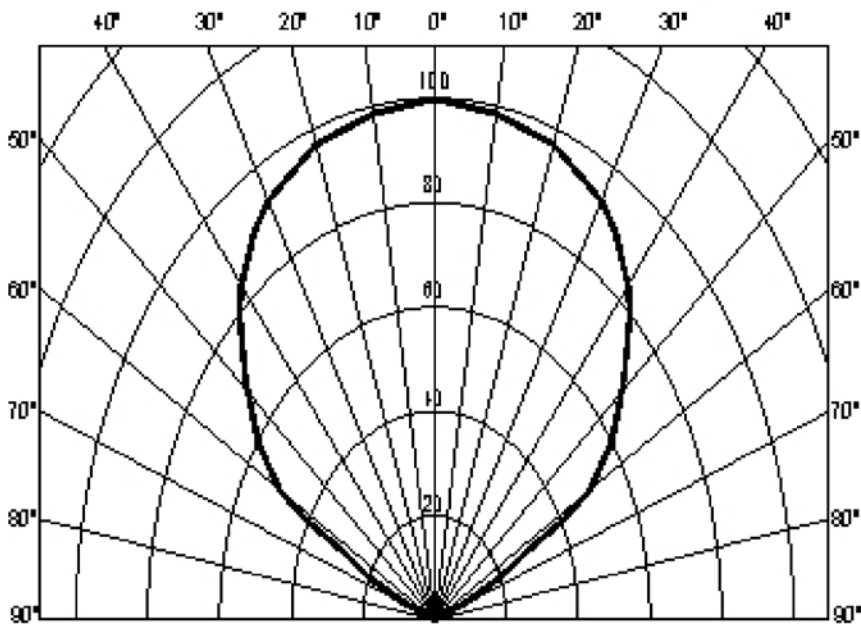


Ambient Temperature Ta (°C)

Normalized Relative Luminous Flux



Forward Current (mA)

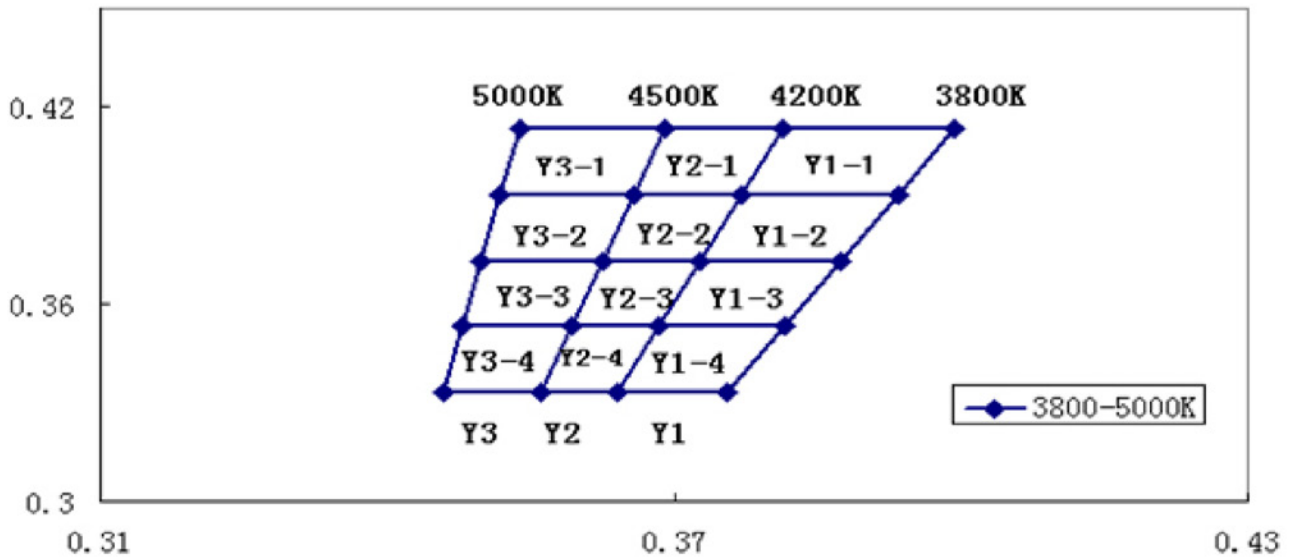


## 8. Reliability Test Standards

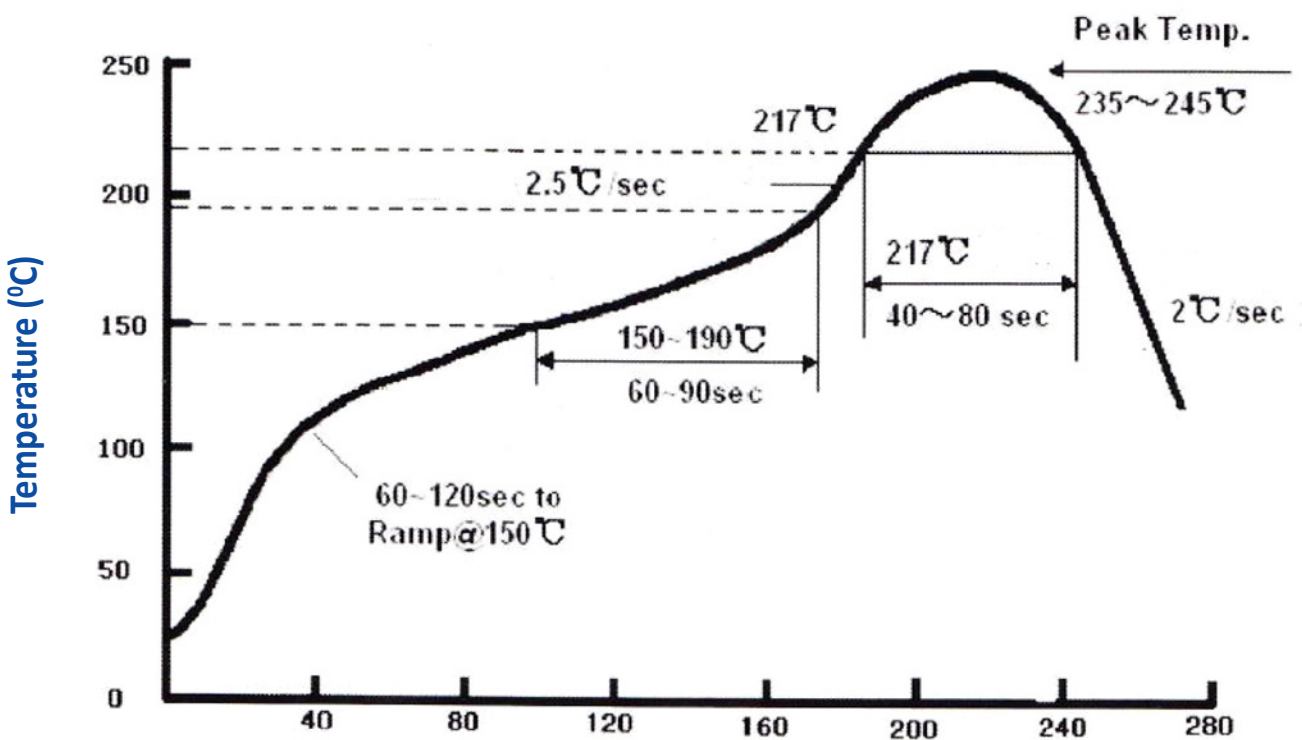
Type	Pilot project	Test conditions	Duration	The number of samples	Charge level
Environmental testing	Temperature cycling	45°C(30Min)~25°C(5Min) ~100°C(30Min)~25°C(5Min)	Cycle 100 Round	30	0/30
	Thermal Shock	-40°C(15Min) ~100°C(15Min)	Cycle 300 Round	30	0/30
	Humidity cycle	30°C~65°C RH=90% 24H/1Round	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

3800-5000K



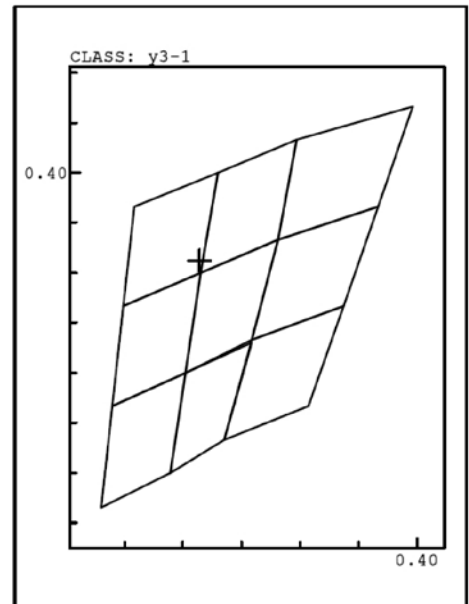
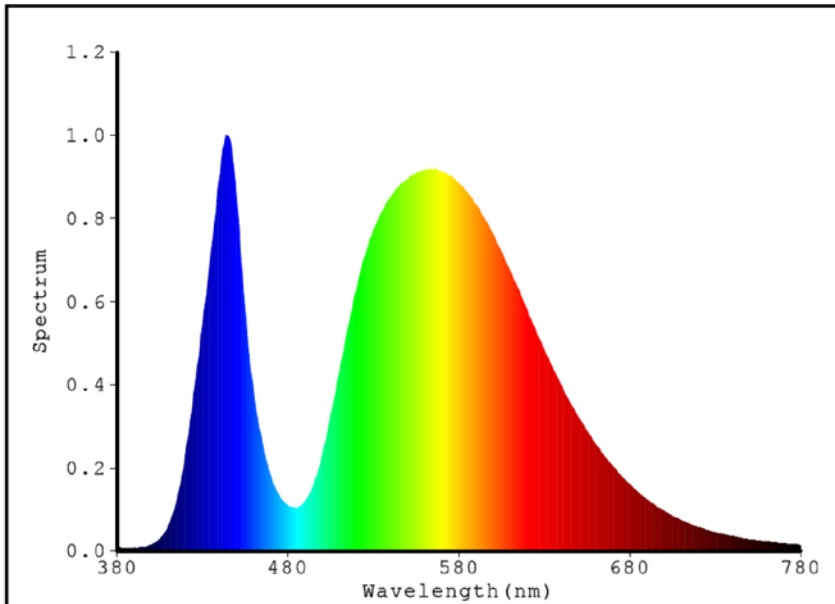
10. Solder conditions





■ 11. Test Report (EVERFINE LEDspec)

Spectrum Test Report



**Color Parameters:**

Chromaticity Coordinate:  $x=0.3628$   $y=0.3825$  /  $u'=0.2114$   $v'=0.5015$   $duv=8.861e-003$

Tc=4541K Dominant WL:Ld=572.0nm Purity=23.7%

Ratio:R=15.1% G=82.9% B=2.0% Peak WL:Lp=444.0nm HWL:27.6nm

Render Index:Ra=65.5 [None]

R1 =61 R2 =70 R3 =77 R4 =66 R5 =62 R6 =59 R7 =78

R8 =50 R9 =-50 R10=30 R11=61 R12=32 R13=62 R14=87 R15=55

**Photo Parameters:**

Flux = 66.43 lm Eff. : 133.49 lm/W Fe = 154.3 mW

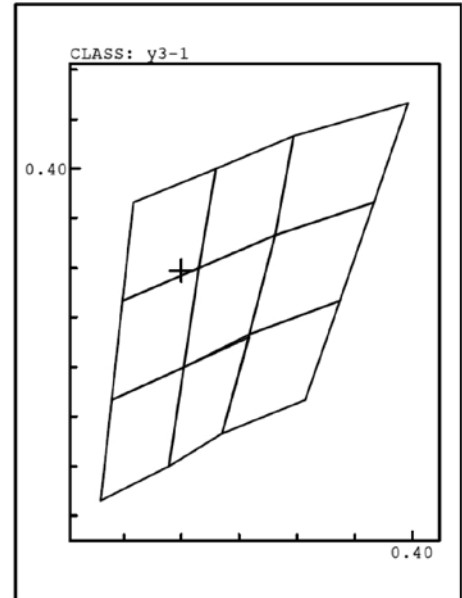
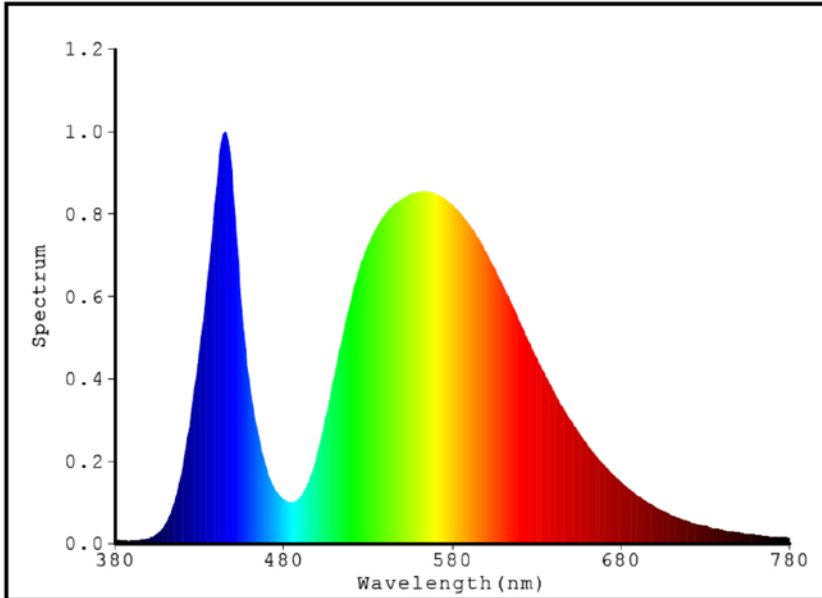
**Electrical parameters:**

VF = 3.318 V IF = 149.9 mA P = 497.6 mW

LEVEL:519 WHITE:y3-1

Status: T=1556.00ms Ip=50948 (78%) [ HAAS2000\_V1\_USB ] V2.00.167

## Spectrum Test Report



### Color Parameters:

Chromaticity Coordinate:  $x=0.3600$   $y=0.3795$   $u'=0.2107$   $v'=0.4998$   $duv=8.453e-003$

$T_c=4607K$  Dominant WL:  $L_d=571.6nm$  Purity=21.9%

Ratio: R=15.0% G=82.9% B=2.1% Peak WL:  $L_p=444.9nm$  HWL: 25.5nm

Render Index:  $R_a=66.0$  [None]

$R_1=62$   $R_2=71$   $R_3=77$   $R_4=67$   $R_5=62$   $R_6=60$   $R_7=78$

$R_8=51$   $R_9=-48$   $R_{10}=30$   $R_{11}=61$   $R_{12}=32$   $R_{13}=62$   $R_{14}=87$   $R_{15}=56$

### Photo Parameters:

Flux = 64.80 lm Eff. : 129.63 lm/W Fe = 151.1 mW

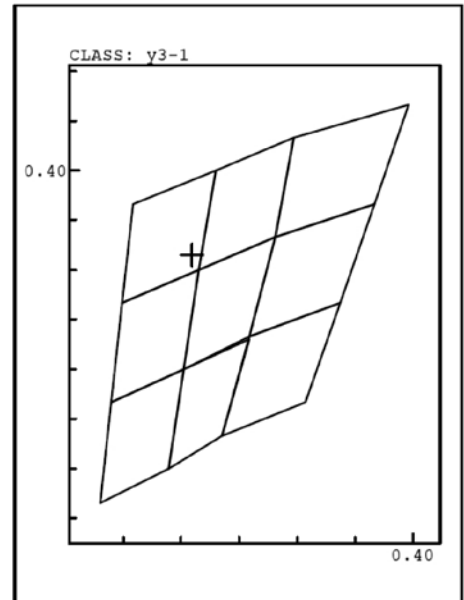
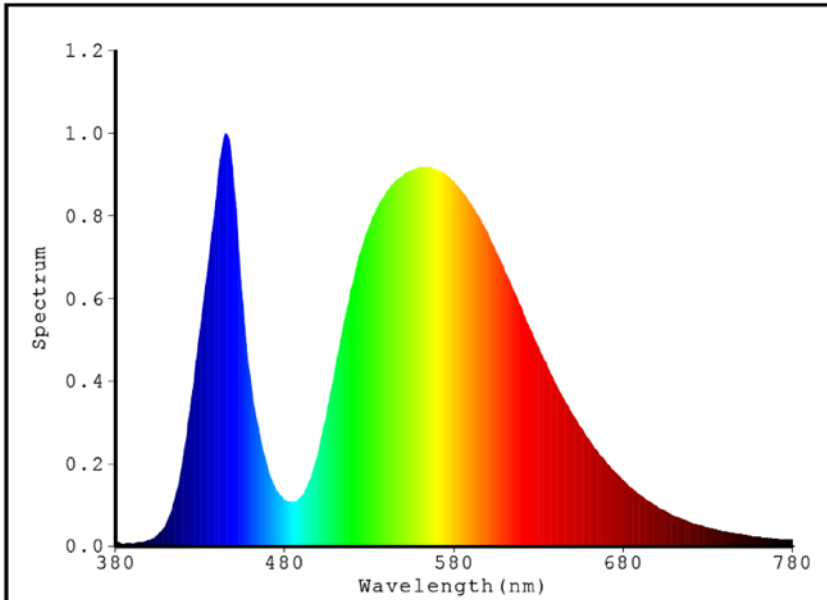
### Electrical parameters:

$V_f=3.332V$   $I_f=150.0mA$   $P=499.9mW$

LEVEL: 519 WHITE: y3-1

Status:  $T=1556.00ms$   $I_p=49455(75\%)$  [ HAAS2000\_V1\_USB ] V2.00.167

## Spectrum Test Report



### Color Parameters:

Chromaticity Coordinate:  $x=0.3618$   $y=0.3830$   $u'=0.2106$   $v'=0.5016$   $duv=9.473e-003$

$T_c=4570K$  Dominant WL:  $L_d=571.5nm$  Purity=23.5%

Ratio: R=15.0% G=83.0% B=2.0% Peak WL:  $L_p=445.1nm$  HWL: 27.6nm

Render Index:  $R_a=65.6$  [None]

R1 =61 R2 =70 R3 =77 R4 =66 R5 =62 R6 =59 R7 =78

R8 =50 R9 =-50 R10=30 R11=61 R12=32 R13=62 R14=87 R15=55

### Photo Parameters:

Flux = 67.19 lm Eff. : 128.82 lm/W  $F_e = 155.8$  mW

### Electrical parameters:

$V_F = 3.477$  V  $I_F = 149.9$  mA  $P = 521.6$  mW

LEVEL:519 WHITE:y3-1

Status:  $T=1556.00ms$   $I_p=51342$  (78%) [ HAAS2000\_V1\_USB ] V2.00.167