

Product Specification

Denomination **LED LAMPS**

Manufacturer P/N **304UWC-TR-L**

Customer P/N

Confirmation Column

Ø 3.0mm WHITE LED LAMPS

Release Date:2012/11/12

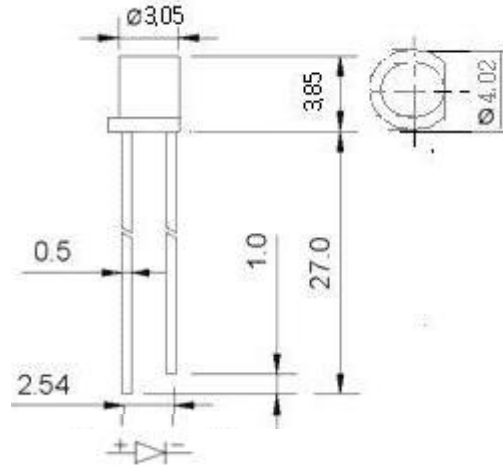
YUAN KE ELECTRONICS COMPANY LTD.

YK 3.0mm WHITE LAMPS

FEATURES

- Standard diameter 3mm package
- Viewing angle:100°
- Water clear
- High radiant power
- Long life and high reliability
- I.C. compatible
- Chip material: CaN

PACKAGE DIMENSIONS



Tolerance: ± 0.2

Unit mm

Absolute Maximum Ratings at Ta=25°C

Parameter	WHITE	Unit
Power Dissipation	120	mW
Peak forward current	150	mA
Continuous forward current	20	mA
Derating lineser from 50°C	0.4	mA/°C
Reverse voltage	5	V
Operating temperature range	-40°C to +80°C	
Storage temperature range	-40°C to +80°C	
Lead soldering temperature	260°C for 5 Seconds	

ELECTRICAL OPTICAL CHARACTERISTICS AT Ta=25°C

PART NO.	EMITTED COLOR	Chromaticity Coordinates		FORWARD VOLTAGE I _f =20mA(V)			REVERSE CURRENT V _r =5v(μ A)	LUMINOUS INTENSITY I _f =20mA(mcd)			VIEWING ANGLE 2θ 1/2(deg)
		X	Y	MIN	TYP	MAX	MAX	MIN	TYP	MAX	
304UWC-TR-L	WHITE	0.2794-0.3279	0.2666-0.3582	2.9	3.1	3.3	2	700	900	1100	100°

YK 3.0mm WHITE LAMPS

1) Results of reliability test

Test Classification	Test Item	Test Conditions	Test Duration	Sample Size	AC/RE
Life Test	Life Test	Ta=25°C±5°C IF=20mA	1,000 hrs	30 pcs	0/1
Environment	Thermal Shock Test	-10°C±5°C ←→ +100°C±5°C 5min 10sec. 5min	50 cycles	30 pcs	0/1
	Temperature cycle Test	-55°C±5°C ←→ +85°C±5°C 30min 5min 30min	50 cycles	30 pcs	0/1
	High Temp. & High Humidity Test	Ta=85°C±5°C RH=85%±0.5%RH	1,000 hrs	30 pcs	0/1
	High Temp. Storage	Ta=100°C±5°C	1,000 hrs	30 pcs	0/1
	Low Temp. Storage	Ta= -55°C±5°C	1,000 hrs	30 pcs	0/1
Mechanical	Resistance to soldering Heat	Ta=260°C±5°C	5 Sec.	30 pcs	0/1
	Lead Integrity	0.5KG 0°C ~ 90°C ~ 0°C	2 Items	30 pcs	0/1

2) CRITERIA FOR JUDGING THE DAMAGE

Item	Symbol	Test Conditions	Criteria for Judgement	
			Min	Max
Forward Voltage	VF	IF=20mA	/	U.S.L*)*1.1
Reverse Current	IR	VR=5V	/	U.S.L*)*2.0
Luminous Intensity	IV	IF=20mA	L.S.L**)*0.7	/

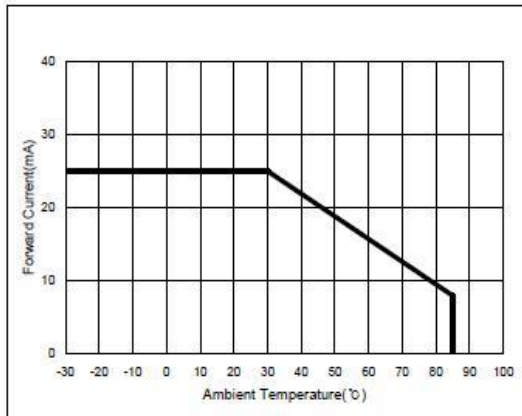
*)U.S.L.:Upper Standard Level

**) L.S.L :Lower Standard Level

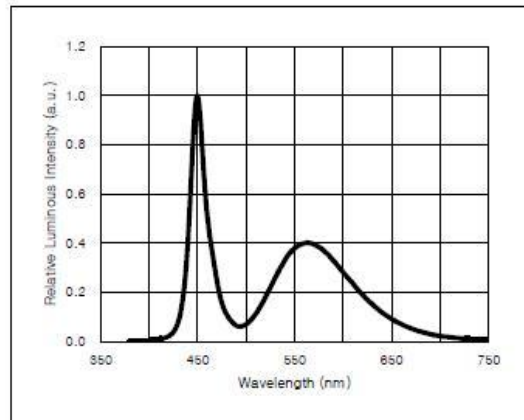
YK 3.0mm WHITE LAMPS

Characteristic Curves:

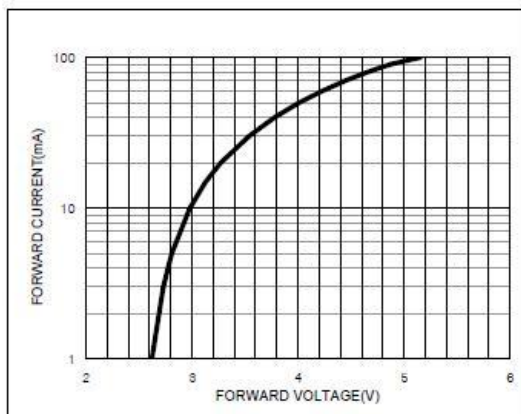
These are representative measurements for the RazerThin products. Actual curves will vary slightly for the various radiant flux and dominant wavelength bins.



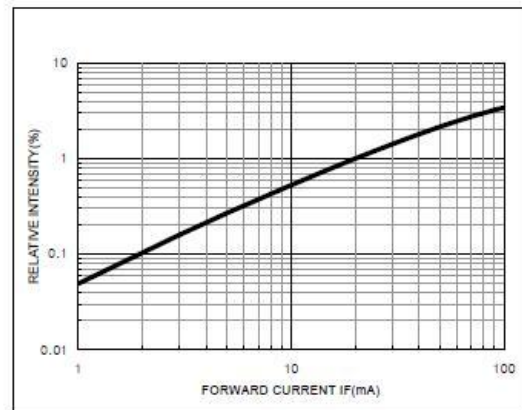
Forward Current vs. Ambient Temperature



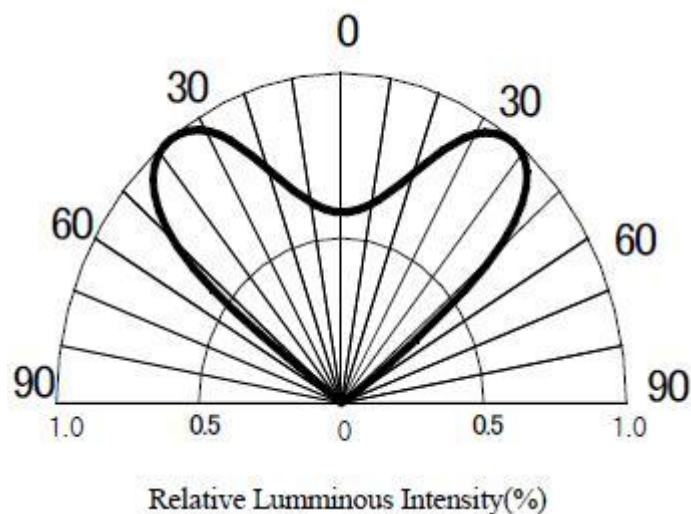
Relative Spectral Emission



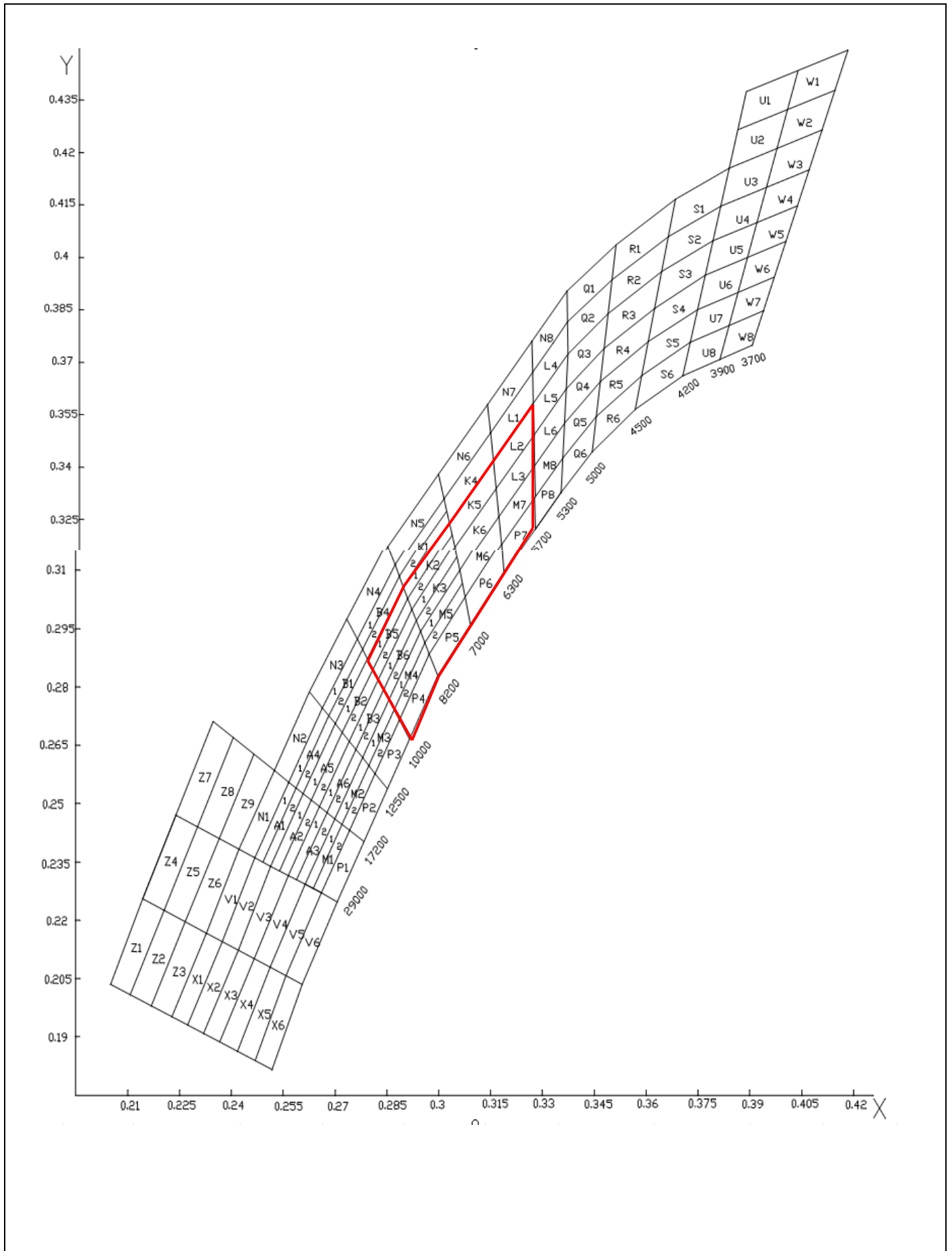
Forward Current vs. Forward Voltage



Relative Luminous Intensity vs. Forward Current



YK 3.0mm WHITE LAMPS (304UWC-TR-L)



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Bin-selection List

Intensity Bin Limits (IF=20mA)

BIN CODE	Min (mcd)	Max (mcd)
1	700	900
2	900	1100

Color Bin Limits (IF=20mA)

BIN CODE	T		R		B		L	
	X	Y	X	Y	X	Y	X	Y
B05	0.2826	0.2819	0.2794	0.2872	0.2898	0.3056	0.2923	0.2999
B06	0.2856	0.2767	0.2826	0.2819	0.2923	0.2999	0.2947	0.2942
K02	0.2923	0.2999	0.2898	0.3056	0.3029	0.3240	0.3045	0.3170
K03	0.2947	0.2942	0.2923	0.2999	0.3045	0.3170	0.3061	0.3101
K05	0.3045	0.3170	0.3029	0.3240	0.3156	0.3418	0.3164	0.3338
K06	0.3061	0.3101	0.3045	0.3170	0.3164	0.3338	0.3173	0.3258
L02	0.3164	0.3338	0.3156	0.3418	0.3273	0.3582	0.3275	0.3492
L03	0.3173	0.3258	0.3164	0.3338	0.3275	0.3493	0.3277	0.3404
M04	0.2886	0.2716	0.2856	0.2767	0.2947	0.2942	0.2972	0.2885
M05	0.2972	0.2885	0.2947	0.2942	0.3061	0.3101	0.3076	0.3031
M06	0.3076	0.3031	0.3061	0.3101	0.3173	0.3258	0.3181	0.3178
M07	0.3181	0.3178	0.3173	0.3258	0.3277	0.3404	0.3279	0.3316
P04	0.2915	0.2666	0.2886	0.2716	0.2972	0.2885	0.2997	0.2829
P05	0.2997	0.2829	0.2972	0.2885	0.3076	0.3031	0.3091	0.2960
P06	0.3091	0.2960	0.3076	0.3031	0.3181	0.3178	0.3189	0.3097
P07	0.3189	0.3097	0.3181	0.3178	0.3279	0.3316	0.3279	0.3223

Vf Bin Limits (IF=20mA)

BIN CODE	Min (V)	Max (V)
1	2.9	3.1
2	3.1	3.3

Check:

QC :

Approval :

YK 3.0mm WHITE LAMPS

1. Standard Test Condition: All mentioned parameters if no special provision conform as follow

Temperature: 25~30°C

Humidity: ≤60%RH

2. Storage & Usage Environment

2.1 Averting from being eroded by sulfured hydrogen and preventing static electricity during usage or storage.

2.2 Averting from point-blank daylight during during usage or storage.

2.3 Emitting surface don't touch the chemical, like flux...etc.

2.4 Care must be taken not to be pressed by heavy during product storage.

2.5 Don't force the leads entad or forth during soldering.

3. Modification Items

The content of this specification can be modified according to agreement.

4. Packing

1000pcs per bag

10 kpcs per box

6boxes per carton