



# SMD SPECIFICATION

型号: PLCC6MW3C-3C



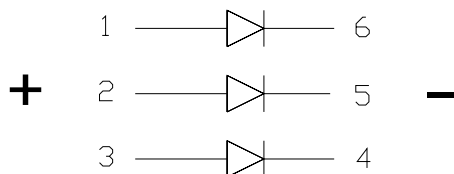
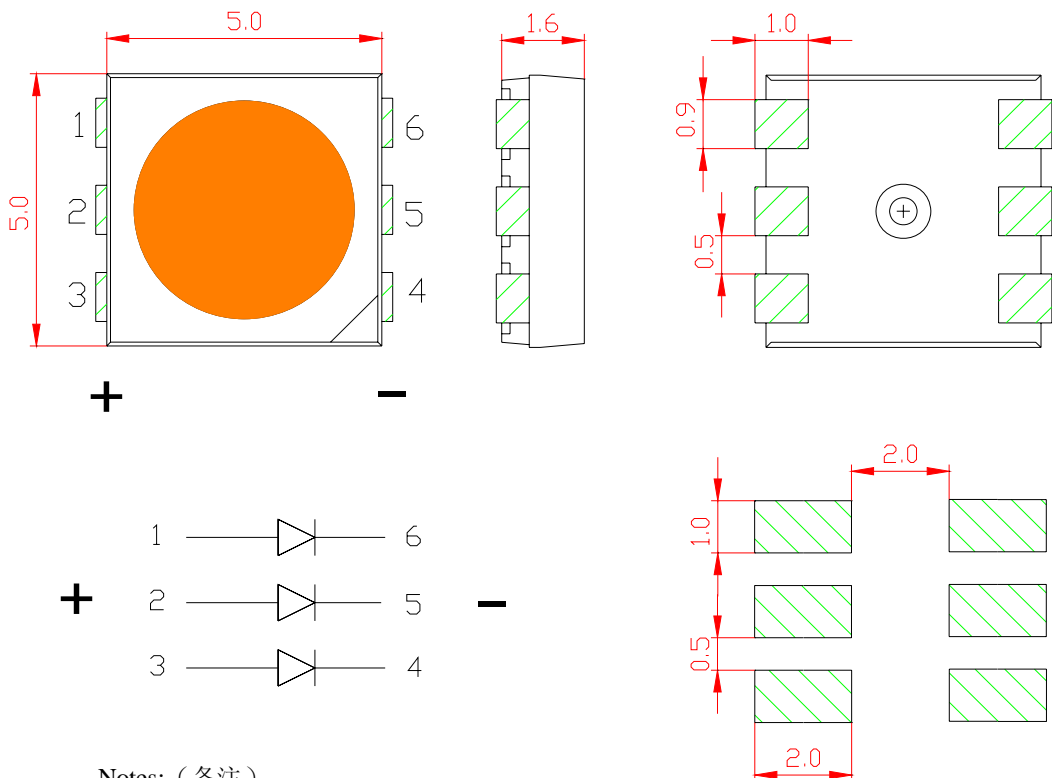
## 1、Features/特征:

- Emitting Color/发光颜色: White /白色
- Lens Type/封装特性: Yellow Diffused/黄色散射
- Device Outline/外形特征: 5.5×5.0×1.6 (unit:mm)
- RoHS compliant/符合 RoHS 标准

## 2、Applications/应用:

- Backlight for Mobile, Machine Vision, LCD Display/手机、电话、显示屏背光源
- Backlight in Dashboard and switch of Automive/汽车仪表盘、记程器背光源

## 3、Outline Dimensions/产品外形尺寸 (units:mm) :



Notes: (备注)  
Tolerance is ± 0.1mm(公差± 0.1mm)

Recommended Pad Size



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**4、Absolute maximum ratings/极限参数 (Ta = 25℃):**

Parameter 参数	Color 颜色	Symbol 符号	Values 数值	Unit 单位
Power Dissipation 损耗功率	White	Pd	85	mW
	White		85	
	White		85	
Reverse Voltage 反向电压	White	VR	5	V
	White		5	
	White		5	
Pulse Current 正向峰值电流 <sup>[1]</sup>	White	Ifp	100	mA
	White		100	
	White		100	
Forward Current 正向工作电流	White	Ifm	25	mA
	White		25	
	White		25	
Operating Temperature 工作温度范围	White	Topr	- 40 ~ +85	℃
Storage Temperature 储存温度范围	White	Tstr	-- 40 ~ +100	℃

**Notes/备注:** [1]. 0.1ms pulse width, 1/10 Duty. [1] 脉冲宽度0.1ms, 占空比1/10。



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### 5、Electrical and optical characteristics/光电参数 (Ta = 25℃):

Parameter 参数	Color 颜色	Symbol 符号	Test Condition 测试条件	Value 参数			Unit 单位
				Min	Typ	Max	
Forward Voltage 正向电压	White	VF	IF = 20mA	—	3.2	3.6	V
	White			—	3.2	3.6	
	White			—	3.2	3.6	
Reverse Current 反向电流	White	IR	VR = 5V	—	—	30	μ A
	White			—	—	30	
	White			—	—	30	
Color Correlated Temperature 色温	White	CCT	IF = 60mA	2580	—	4730	K
Luminous Intensity 发光强度	White	Φ	IF = 60mA	6000	—	8000	mcd
color rendering index 显色指数	White	Ra	IF = 60mA	80	—	—	—
Viewing Angle 发光指向角	White	2 θ 1/2	IF = 60mA	—	120	—	Deg

Notes/备注: Tolerance 误差: VF: ±0.10V, Φ: ±15%, 其它: ±5%

### 6、Product Ranks/产品分档范围:

亮度分档标准		电压分档标准	
发光强度 Φ(mcd)	代表符号	正向电压VF值(V)	代表符号
IF=60mA		IF=60mA	
6000-8000	Y	2.8-3.0	V1
		3.0-3.2	V2
		3.2-3.4	V3
		3.4-3.6	V4

Notes/备注: Rank error/分档误差: VF: ±0.10V, Φ: ±15%



**SMD SPECIFICATION**

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色坐标分档:

色坐标误差:  $\pm 0.01$

代码	轴	参数				代码	轴	参数			
Wf1	X	0.3559	0.3547	0.3642	0.3659	Wf2	X	0.3547	0.3535	0.3625	0.3642
	Y	0.3826	0.3736	0.3805	0.3899		Y	0.3736	0.3646	0.3710	0.3805
Wf3	X	0.3535	0.3523	0.3608	0.3625	Wf4	X	0.3523	0.3512	0.3591	0.3608
	Y	0.3646	0.3555	0.3616	0.3710		Y	0.3555	0.3466	0.3521	0.3616
Wf5	X	0.3512	0.3500	0.3573	0.3591	Wf6	X	0.3659	0.3642	0.3736	0.3757
	Y	0.3466	0.3374	0.3427	0.3521		Y	0.3899	0.3805	0.3874	0.3973
Wf7	X	0.3642	0.3625	0.3714	0.3736	Wf8	X	0.3625	0.3608	0.3692	0.3714
	Y	0.3805	0.3710	0.3775	0.3874		Y	0.3710	0.3616	0.3676	0.3775
Wf9	X	0.3608	0.3591	0.3670	0.3692	Wf10	X	0.3591	0.3573	0.3648	0.3670
	Y	0.3616	0.3521	0.3578	0.3676		Y	0.3521	0.3427	0.3479	0.3578
Wg1	X	0.3757	0.3736	0.3826	0.3852	Wg2	X	0.3736	0.3714	0.3799	0.3826
	Y	0.3973	0.3874	0.3930	0.4033		Y	0.3874	0.3775	0.3828	0.3930
Wg3	X	0.3714	0.3692	0.3772	0.3799	Wg4	X	0.3692	0.3670	0.3746	0.3772
	Y	0.3775	0.3676	0.3726	0.3828		Y	0.3676	0.3578	0.3624	0.3726
Wg5	X	0.3670	0.3648	0.3719	0.3746	Wg6	X	0.3852	0.3826	0.3916	0.3947
	Y	0.3578	0.3479	0.3521	0.3624		Y	0.4033	0.3930	0.3987	0.4093
Wg7	X	0.3826	0.3799	0.3884	0.3916	Wg8	X	0.3799	0.3772	0.3853	0.3884
	Y	0.3930	0.3828	0.3881	0.3987		Y	0.3828	0.3726	0.3775	0.3881
Wg9	X	0.3772	0.3746	0.3822	0.3853	Wg10	X	0.3746	0.3719	0.3790	0.3822
	Y	0.3726	0.3624	0.3670	0.3775		Y	0.3624	0.3521	0.3564	0.3670
Wg11	X	0.3947	0.3916	0.4005	0.4042	Wg12	X	0.3916	0.3884	0.3969	0.4005
	Y	0.4093	0.3987	0.4044	0.4153		Y	0.3987	0.3881	0.3934	0.4044
Wg13	X	0.3884	0.3853	0.3934	0.3969	Wg14	X	0.3853	0.3822	0.3898	0.3934
	Y	0.3881	0.3775	0.3825	0.3934		Y	0.3775	0.3670	0.3716	0.3825
Wg15	X	0.3822	0.3790	0.3862	0.3898	Wh1	X	0.4023	0.4128	0.4097	0.3997
	Y	0.3670	0.3564	0.3606	0.3716		Y	0.4097	0.4148	0.4065	0.4015
Wh2	X	0.3997	0.4097	0.4067	0.3970	Wh3	X	0.3970	0.4067	0.4036	0.3943
	Y	0.4015	0.4065	0.3982	0.3934		Y	0.3934	0.3982	0.3898	0.3853
Wh4	X	0.3943	0.4036	0.4006	0.3916	Wh5	X	0.3916	0.4006	0.3975	0.3890
	Y	0.3853	0.3898	0.3815	0.3772		Y	0.3772	0.3815	0.3731	0.3690
Wh6	X	0.3890	0.3975	0.3945	0.3863	Wh7	X	0.4128	0.4232	0.4198	0.4097
	Y	0.3690	0.3731	0.3648	0.3609		Y	0.4148	0.42	0.4115	0.4065



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Wh8	X	0.4097	0.4198	0.4164	0.4067	Wh9	X	0.4067	0.4164	0.4129	0.4036
	Y	0.4065	0.4115	0.4029	0.3982		Y	0.3982	0.4029	0.3944	0.3898
Wh10	X	0.4036	0.4129	0.4095	0.4006	Wh11	X	0.4006	0.4095	0.4061	0.3975
	Y	0.3898	0.3944	0.3858	0.3815		Y	0.3815	0.3858	0.3773	0.3731
Wh12	X	0.3975	0.4061	0.4027	0.3945	Wh13	X	0.4232	0.4337	0.4299	0.4198
	Y	0.3731	0.3773	0.3687	0.3648		Y	0.42	0.4253	0.4165	0.4115
Wh14	X	0.4198	0.4299	0.4261	0.4164	Wh15	X	0.4164	0.4261	0.4230	0.4129
	Y	0.4115	0.4165	0.4077	0.4029		Y	0.4029	0.4077	0.3989	0.3944
Wh16	X	0.4129	0.4230	0.4185	0.4095	Wh17	X	0.4095	0.4185	0.4147	0.4061
	Y	0.3944	0.3989	0.3902	0.3858		Y	0.3858	0.3902	0.3814	0.3773
Wh18	X	0.4061	0.4147	0.4109	0.4027	Wi1	X	0.4337	0.4428	0.4387	0.4299
	Y	0.3773	0.3814	0.3726	0.3687		Y	0.4253	0.4286	0.4197	0.4165
Wi2	X	0.4299	0.4387	0.4346	0.4261	Wi3	X	0.4261	0.4346	0.4304	0.4230
	Y	0.4165	0.4197	0.4108	0.4077		Y	0.4077	0.4108	0.4018	0.3989
Wi4	X	0.4230	0.4304	0.4263	0.4185	Wi5	X	0.4185	0.4263	0.4222	0.4147
	Y	0.3989	0.4018	0.3929	0.3902		Y	0.3902	0.3929	0.3840	0.3814
Wi6	X	0.4147	0.4222	0.4181	0.4109	Wi7	X	0.4428	0.4519	0.4474	0.4387
	Y	0.3814	0.3840	0.3751	0.3726		Y	0.4286	0.4319	0.4238	0.4197
Wi8	X	0.4387	0.4474	0.4430	0.4346	Wi9	X	0.4346	0.4430	0.4386	0.4304
	Y	0.4197	0.4238	0.4138	0.4108		Y	0.4108	0.4138	0.4047	0.4018
Wi10	X	0.4304	0.4386	0.4342	0.4263	Wi11	X	0.4263	0.4342	0.4298	0.4222
	Y	0.4018	0.4047	0.3957	0.3929		Y	0.3929	0.3957	0.3867	0.3840
Wi12	X	0.4222	0.4298	0.4253	0.4181	Wi13	X	0.4519	0.4609	0.4562	0.4474
	Y	0.3840	0.3867	0.3776	0.3751		Y	0.4319	0.4352	0.4260	0.4238
Wi14	X	0.4474	0.4562	0.4515	0.4430	Wi15	X	0.4430	0.4515	0.4467	0.4386
	Y	0.4238	0.4260	0.4168	0.4138		Y	0.4138	0.4168	0.4076	0.4047
Wi16	X	0.4386	0.4467	0.4420	0.4342	Wi17	X	0.4342	0.4420	0.4373	0.4298
	Y	0.4047	0.4076	0.3983	0.3957		Y	0.3957	0.3983	0.3893	0.3867



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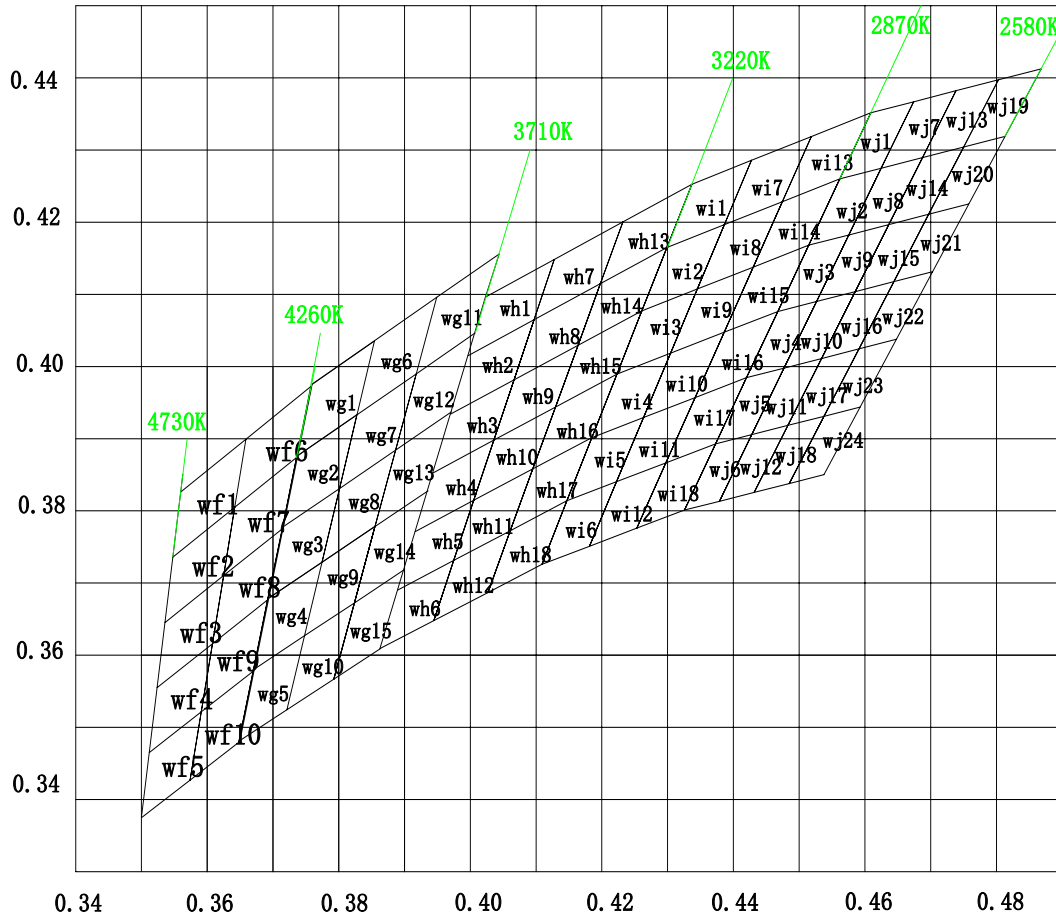
代码	轴	参数				代码	轴	参数			
Wj18	X	0.4298	0.4373	0.4326	0.4253	Wj1	X	0.4609	0.4673	0.4625	0.4562
	Y	0.3867	0.3893	0.3801	0.3776		Y	0.4352	0.4365	0.4275	0.426
Wj2	X	0.4562	0.4625	0.4576	0.4515	Wj3	X	0.4515	0.4576	0.4526	0.4467
	Y	0.426	0.4275	0.4182	0.4168		Y	0.4168	0.4182	0.4090	0.4076
Wj4	X	0.4467	0.4526	0.4477	0.4420	Wj5	X	0.4420	0.4477	0.4423	0.4373
	Y	0.4076	0.4090	0.3998	0.3983		Y	0.3983	0.3998	0.3905	0.3893
Wj6	X	0.4373	0.4423	0.4379	0.4326	Wj7	X	0.4673	0.4739	0.4688	0.4625
	Y	0.3893	0.3905	0.3813	0.3801		Y	0.4365	0.4382	0.4290	0.4275
Wj8	X	0.4625	0.4688	0.4636	0.4576	Wj9	X	0.4576	0.4636	0.4585	0.4526
	Y	0.4275	0.4290	0.4197	0.4182		Y	0.4182	0.4197	0.4104	0.4090
Wj10	X	0.4526	0.4585	0.4534	0.4477	Wj11	X	0.4477	0.4534	0.4483	0.4423
	Y	0.4090	0.4104	0.4011	0.3998		Y	0.3998	0.4011	0.3918	0.3905
Wj12	X	0.4423	0.4483	0.4432	0.4379	Wj13	X	0.4739	0.4803	0.4750	0.4688
	Y	0.3905	0.3918	0.3826	0.3813		Y	0.4382	0.4398	0.4304	0.4290
Wj14	X	0.4688	0.4750	0.4697	0.4636	Wj15	X	0.4636	0.4697	0.4644	0.4585
	Y	0.4290	0.4304	0.4210	0.4197		Y	0.4197	0.4210	0.4118	0.4104
Wj16	X	0.4585	0.4644	0.4591	0.4534	Wj17	X	0.4534	0.4591	0.4538	0.4483
	Y	0.4104	0.4118	0.4024	0.4011		Y	0.4011	0.4024	0.3931	0.3918
Wj18	X	0.4483	0.4538	0.4485	0.4432	Wj19	X	0.4803	0.4868	0.4813	0.4750
	Y	0.3918	0.3931	0.3838	0.3826		Y	0.4398	0.4413	0.4319	0.4304
Wj20	X	0.4750	0.4813	0.4758	0.4697	Wj21	X	0.4697	0.4758	0.4703	0.4644
	Y	0.4304	0.4319	0.4225	0.4210		Y	0.4210	0.4225	0.4132	0.4118
Wj22	X	0.4644	0.4703	0.4648	0.4591	Wj23	X	0.4591	0.4648	0.4593	0.4538
	Y	0.4118	0.4132	0.4038	0.4024		Y	0.4024	0.4038	0.3944	0.3931
Wj24	X	0.4538	0.4593	0.4538	0.4485						
	Y	0.3931	0.3944	0.3850	0.3838						



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Diagram





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## 7、Typical electrical/optical characteristic curves/光电特性曲线:

Fig1 正向电流VS正向电压

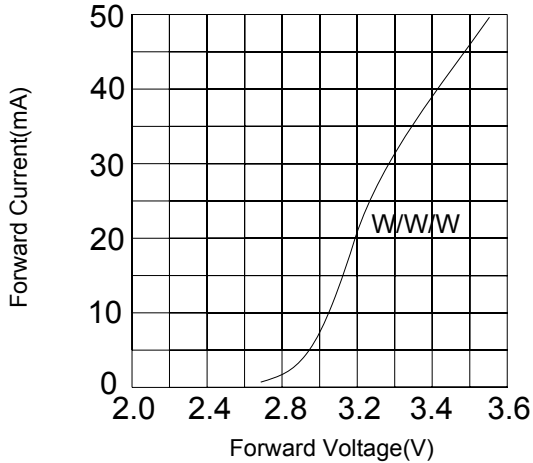


Fig2 相对亮度VS正向电流

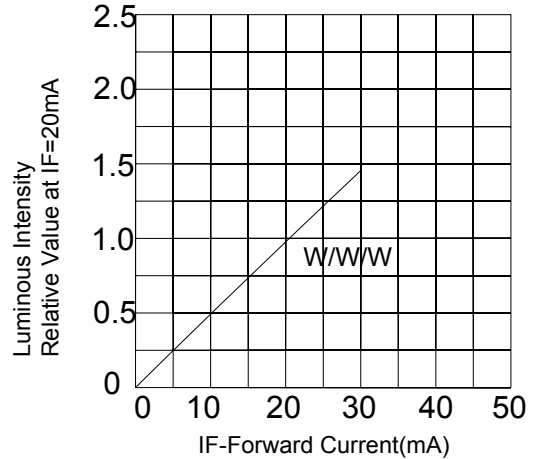


Fig3 正向电流VS环境温度

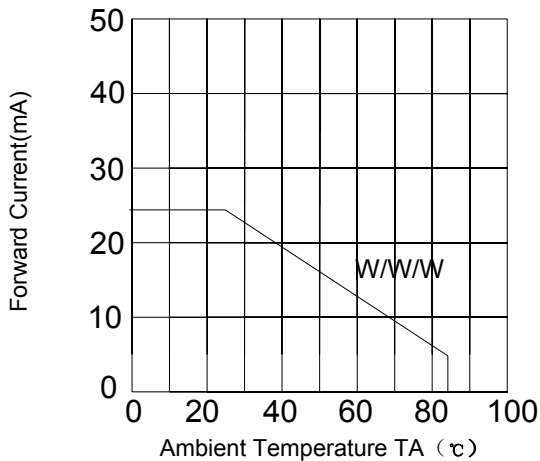
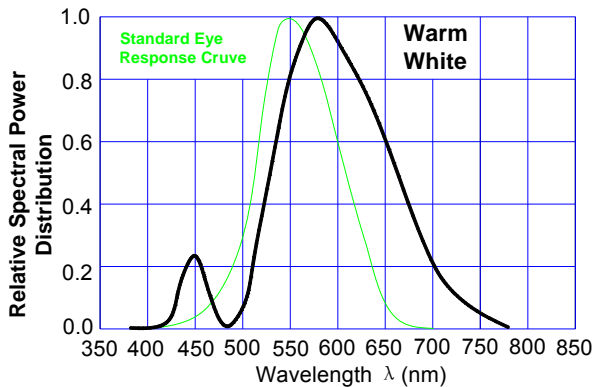
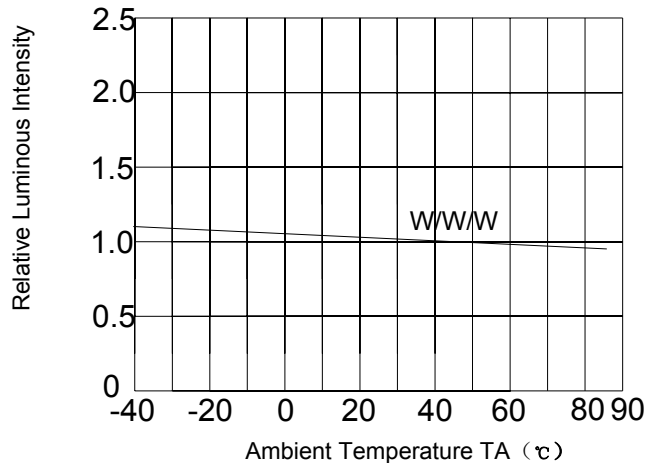
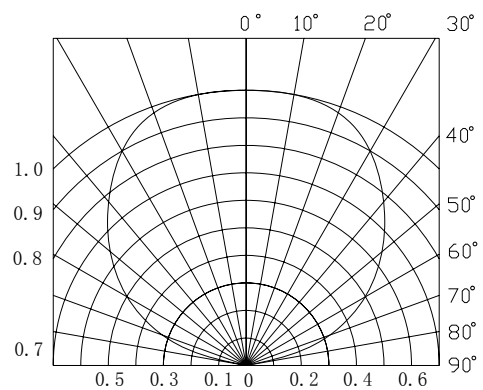


Fig4 相对亮度VS环境温度



SPATIAL DISTRIBUTION







**8、Reliability Analysis/可靠性试验**

8.1 Test Items And Results/测试项目和判据

No.	Item/项目	Test Condition/测试条件	Spec. / 引用标准	Q'ty/ 数量	Time/ 时间	Standard/判定
1	IR Reflow (Reflow Soldering) /回流焊接	Tsld=220°C, 10sec	GB/T 4937, II, 2.2	20	2times	ALL PASS
2	Solder ability/可焊性	Tsld=235±5°C, 3sec	GB/T 4937, II, 2.1	20	1times Over 95%	ALL PASS
3	Temperature Cycle/ 高低温循环	-40°C—— 100°C 30min ~ 30min The cut is not more than 1 min	GB/T 4937, III, 1	20	50cycles	ALL PASS
4	Moisture Resistance Cyclic /湿热循环	25°C/12hr~ 55°C/12hr 95%RH	GB/T 4937, III, 4	20	6cycles	ALL PASS
5	High Temperature Storage /高温储存	Ta=100°C	GB/T 4937, III, 2	20	1000hrs	ALL PASS
6	Low Temperature Storage /低温储存	Ta=-40°C	GB/T 4937, III, 2	20	1000hrs	ALL PASS
7	Steady State perating Life /电耐久性	IF=60mA Ta=25°C	GB/T 18904.3 Part A	20	1000hrs	ALL PASS

8.2 Criteria For Judging Damage/判断标准

Item/项目	Symbol/ 符号	Test conditions /测试条件	Criteria for Judgement /判断标准	
			Min./最小值	Max./最大值
Luminous Intensity/亮度	Iv	IF=60mA	L.S.L *0.7	/
Forward Voltage/正向电压	VF	IF=60mA	/	U.S.L*1.1
Reverse current/反向电流	IR	VR=5v	/	U.S.L*2

\*U.S.L.: Upper Standard Level / 上限

\*L.S.L.: Lower Standard Level / 下限