



Features

Emitting Color: White

Lens Type: Yellow Diffused

Device Outline: 3.5x2.8x0.8 mm

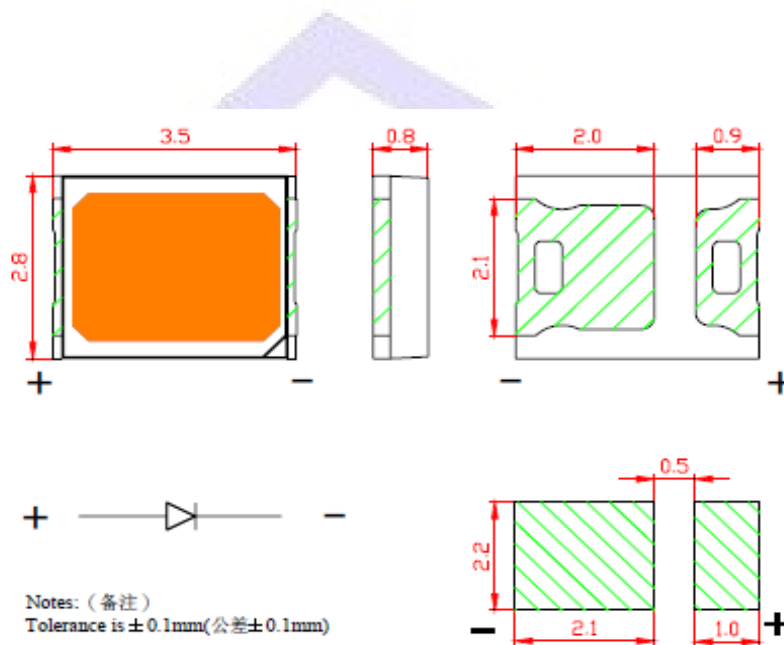
HBM ESD: Class 2

Pb-Free

RoHS compliant: RoHS

Application

Backlight of Mobile, Machine Vision. LCD Display, Indoor Lighting





SPECIFICATION

MODEL				
Absolute Maximum Ratings	Power Dissipation (Pd), mW	500		
	Forward Current (Ifm), mA	150		
	Pulse Forward Current (If), mA	500		
	Reverse Voltage, (VR), IR = 30 mA	>5		
	Operating Temperature (Topr), °C	up -40 to +85		
	Storage Temperature (Tstg), °C	up -40 to +100		
Electro-Optical Characteristics	Forward Voltage (IF=150mA), V	Min.	-	
		Typ.	3.2	
		Max.	3.6	
	Reverse Voltage (Vr=5V), mA	Min.	-	
		Max.	30	
	Half Intensity Angle (IF=150mA), deg.	120		
Color, Luminous flux and CRI	Emitted color	white		
	CCT, K	4000		
	CRI (Typ.)	80		
	Luminous flux (IF=150mA), lm	Min.	-	
		Typ.	48	
		Max.	-	



Product Ranks

发光强度分档标准		电压分档标准	
发光强度 I _v 值(mcd)	代表符号	正向电压 V _F 值(V)	代表符号
IF=150mA		IF=150mA	
12000-16000	ZA	2.80--2.90	N
16000-23500	ZB	2.90--3.00	P
		3.00—3.10	Q
		3.10—3.20	R
		3.20—3.30	S
		3.30—3.40	T
		3.40—3.50	U
		3.50—3.60	V

色坐标误差: ±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
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



代码	轴	参数				代码	轴	参数			
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
Wi18	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



代码	轴	参数				代码	轴	参数			
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						

Diagram

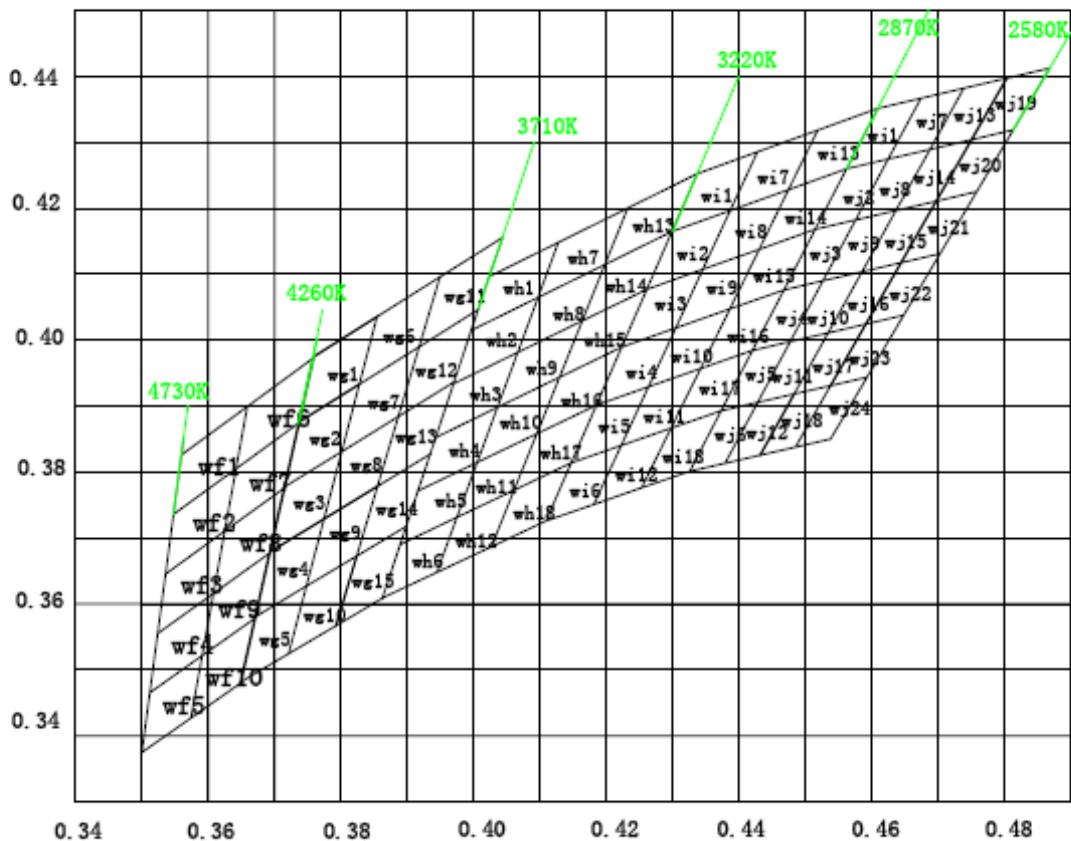




Fig.1 正向电流 Vs. 正向电压

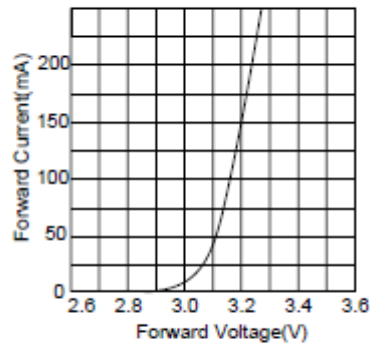


Fig.2 相对亮度 Vs. 正向电流

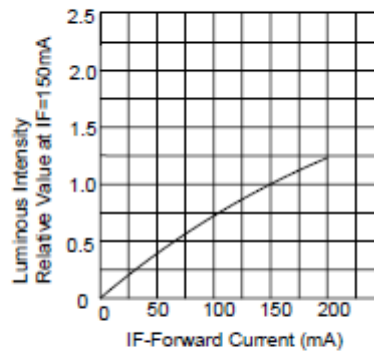


Fig.3 正向电流 Vs. 环境温度

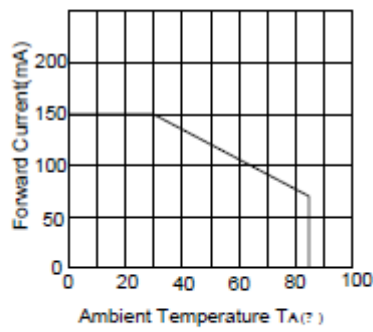
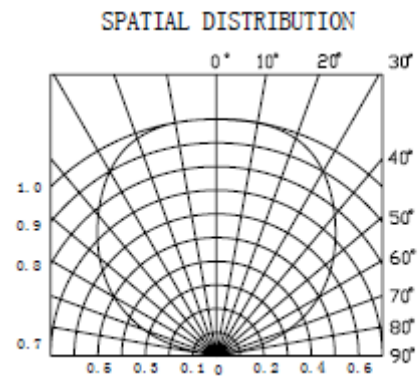
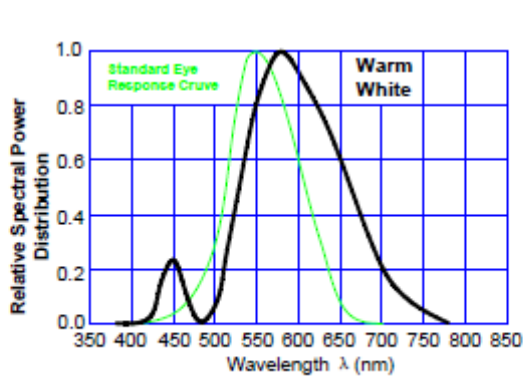
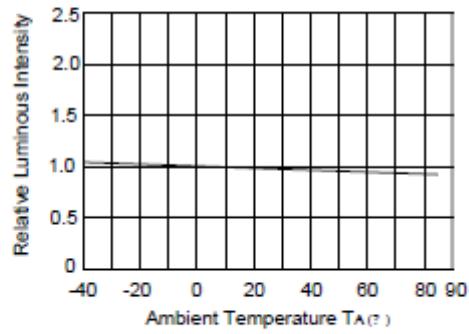


Fig.4 相对亮度 Vs. 环境温度





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℃, 10sec	GB/T 4937, II, 2.2	20	2times	ALL PASS
2	Solder ability/可焊性	Tsld=235±5℃, 3sec	GB/T 4937, II, 2.1	20	1times Over 95%	ALL PASS
3	Temperature Cycle/ 高低温循环	-40℃—— 100℃ 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℃/12hr~ 55℃/12hr 95%RH	GB/T 4937, III, 4	20	6cycles	ALL PASS
5	High Temperature Storage /高温储存	Ta=100℃	GB/T 4937, III, 2	20	1000hrs	ALL PASS
6	Low Temperature Storage /低温储存	Ta=-40℃	GB/T 4937, III, 2	20	1000hrs	ALL PASS
7	Steady State perating Life /电耐久性 ^[1]	IF=150mA Ta=25℃	GB/T 18904.3 Part A	20	1000hrs	Lm decay <3%

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=150mA	L.S.L *0.7	/
Forward Voltage/正向电压	VF	IF=150mA	/	U.S.L*1.1
Reverse current/反向电流	IR	VR=5v	/	U.S.L*2

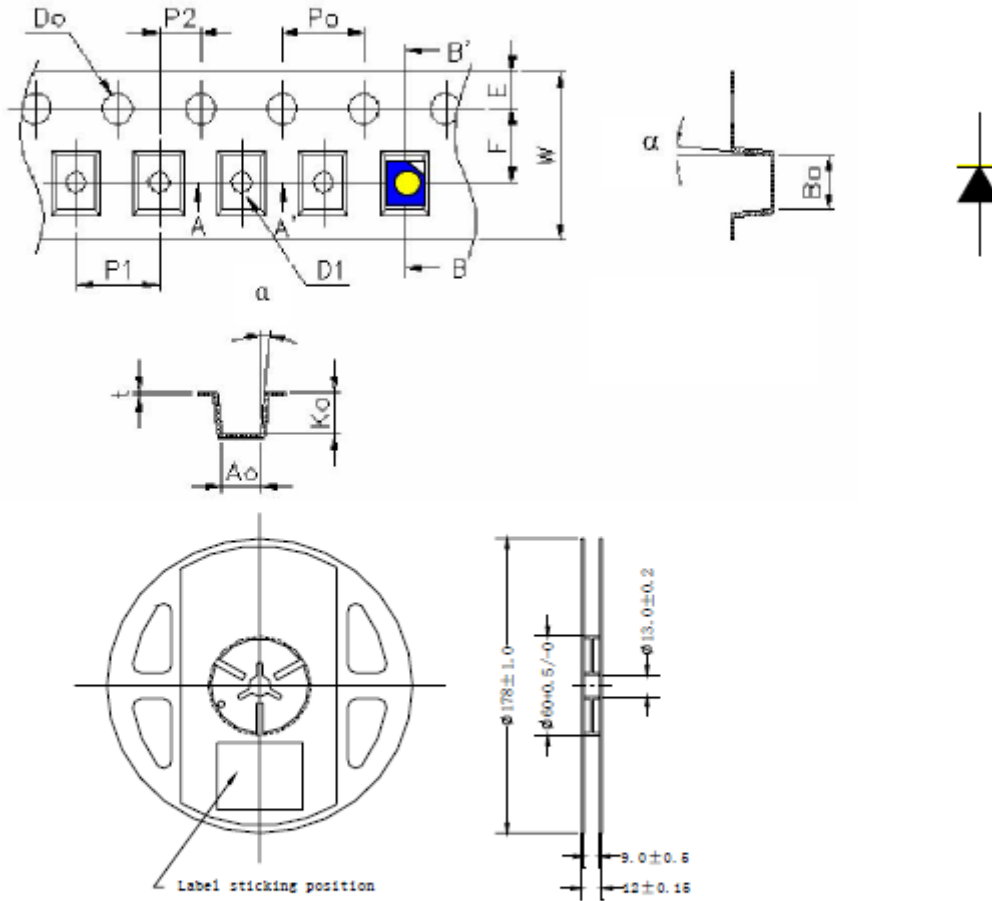
*U.S.L.: Upper Standard Level / 上限

*L.S.L.: Lower Standard Level / 下限



Quantity/数量: 2000units/reel

Diameter/直径: 178 mm



Item/项目	Spec/数值	Tol.(+/-)/误差	Item/项目	Spec/数值	Tol.(+/-)/误差
W	8.00	± 0.10	P2	2.00	± 0.05
E	1.75	± 0.10	T	0.20	± 0.02
F	3.50	± 0.010	A0	3.00	± 0.10
D0	1.55	± 0.05	B0	3.75	± 0.10
D1	1.10	± 0.1	K0	1.25	± 0.10
P0	4.00	± 0.1	α	Max 5°	