

TX-2016W8VSA1-NP3CD-01H80 PRODUCT SPECIFICATION

Features:

- ◆ Excellent transiting heat from LED chip operating under 2000mA.
- ◆ High luminous output.
- ◆ No UV.
- ◆ Encapsulated materials are environmentally certified and meet environmental requirements.

Chip Material:

- ◆ GaN

Emitting Color:

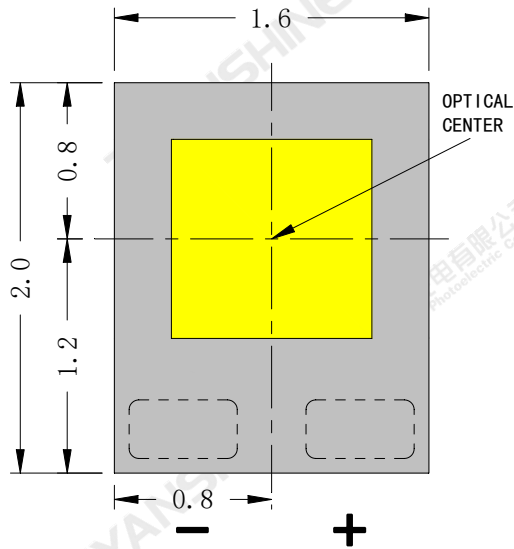
- ◆ White(W)/Warm White(S)

Applications:

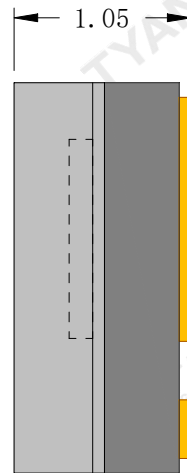
- ◆ Portable Flashlight
- ◆ Garden lighting
- ◆ General Lighting

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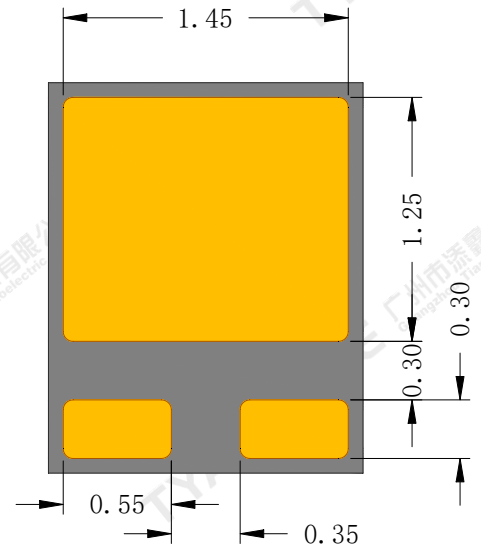
Package Dimensions:



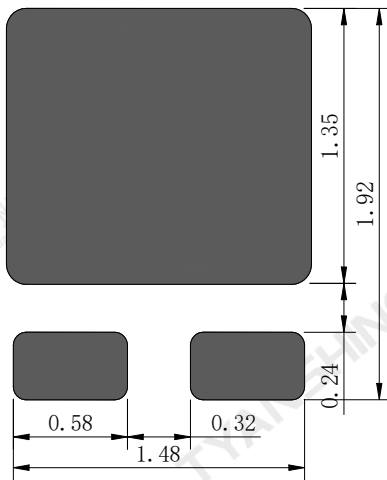
Top view



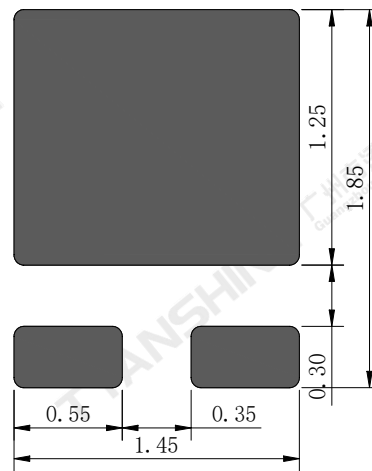
Side view



Bottom view



Recommended solder pad



Recommended stencil pattern

Notes:

- 1.All dimensions are in millimeters .
- 2.Tolerances unless otherwise mentioned are $\pm 0.1\text{mm}$.

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Absolute Maximum Ratings (Tc=25°C)

Parameter	Symbol	Ratings	Unit
Forward Current	IF	2000	mA
Reverse Voltage	VR	5	V
Power Dissipation	PD	9.25	W
Junction Temperature	Tj	150	°C
Electrostatic Discharge Threshold (ESD)	ESD	ESD sensitive device	V
Storage Temperature	Tstg	-40~+70	°C
Operation Temperature	Topr	-30~+85	

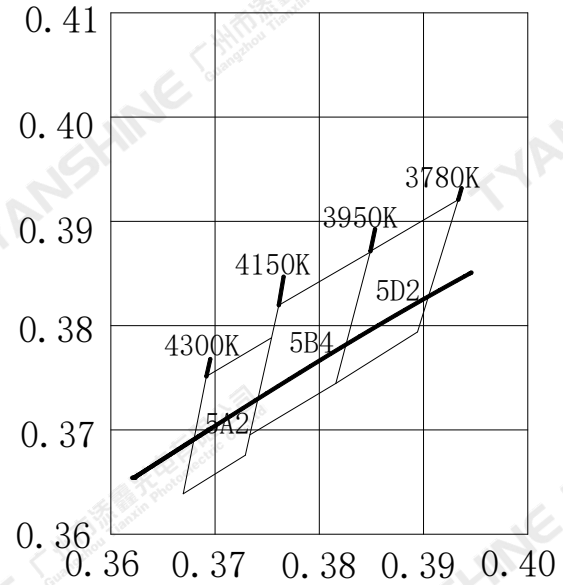
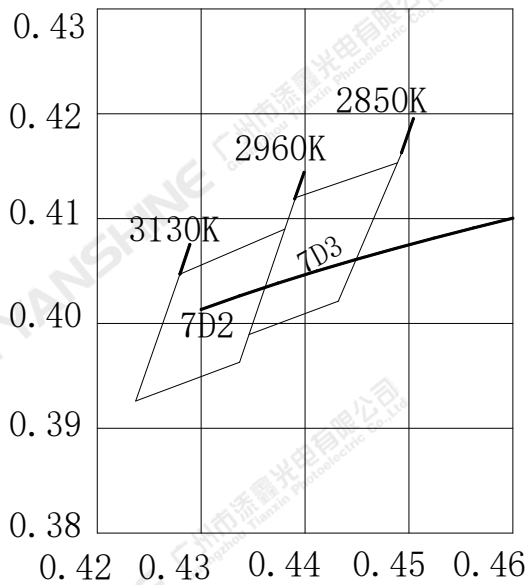
Notes:

- Specifications are subject to change without notice.
- The data on this specification is for reference only and the actual data is in accordance with the acknowledgment.
- Precautions for ESD:
STATIC SHIELD Electricity and surge damages the LED. It is recommended to use a wrist band or anti-electrostatic glove when handling the LED. All devices, equipment and machinery must be properly grounded.

Electrical Optical Characteristics (Tc=25°C, IF=1.0A)

Parameter	Symbol	Emitting Color	Min.	Typ.	Max.	Units
Luminous Flux	Φ_v	W	220	260	—	lm
Forward Voltage	V_f	W	2.8	3.1	3.4	V
Correlated Colour Temperature	CCT	W1	2850	2960	3130	K
		W2	3780	4050	4300	
Color Rendering Index	Ra	W	80	82	—	—
Spectral Line Half-Width	$\Delta\lambda$	W	19	24	29	nm
Viewing Angle at 50% IV	$2\theta_{1/2}$	W	—	120	—	Deg
Reverse Current	I_R	—	—	—	2	μA
Thermal Resistance Junction to Case	$R\theta_{J-C}$	W	—	4.5	—	K/W
Temperature Coefficient of Voltage	$V\Delta F/T$	W	—	-2.8	—	mV/°C

White light Color coordinate filing (IF=1.0A)



Region	CCT Range		X1	Y1	X2	Y2	X3	Y3	X4	Y4
	Min	Max								
7D3	2850K	2960K	0.4346	0.3989	0.4391	0.412	0.4489	0.4153	0.4432	0.4021
7D2	2960K	3130K	0.4237	0.3926	0.428	0.4047	0.4381	0.409	0.4337	0.3963
5D2	3780K	3950K	0.3816	0.3745	0.3849	0.3871	0.3933	0.3921	0.3894	0.3794
5B4	3950K	4150K	0.3733	0.3695	0.3761	0.382	0.3849	0.387	0.3816	0.3745
5A2	4150K	4300K	0.3669	0.3639	0.3692	0.3751	0.3754	0.3788	0.3729	0.3676

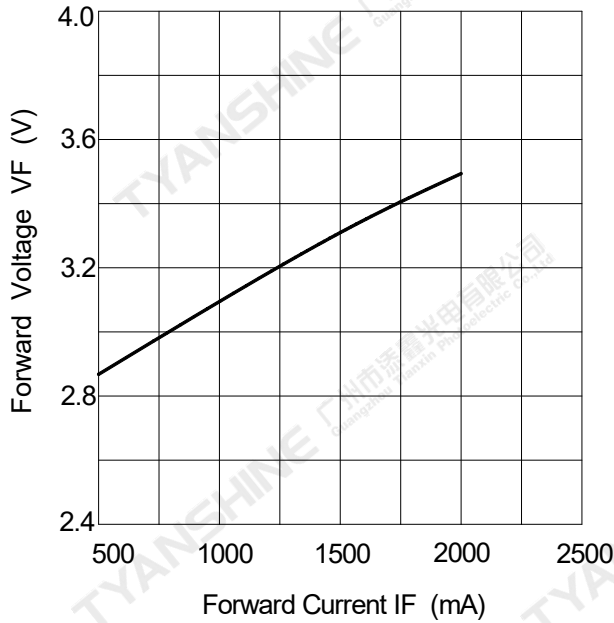
Notes:

- 1.Luminous intensity is measured with a light sensor and filter combination that approximates the CIE eye-response curve.
2. $\theta_{1/2}$ is the off-axis angle at which the luminous intensity is half the axial luminous intensity.
- 3.Luminous flux measurement tolerance: $\pm 10\%$.
- 4.Forward voltage measurement tolerance: $\pm 0.3V$.
- 5.Ra measurement tolerance: ± 2 .

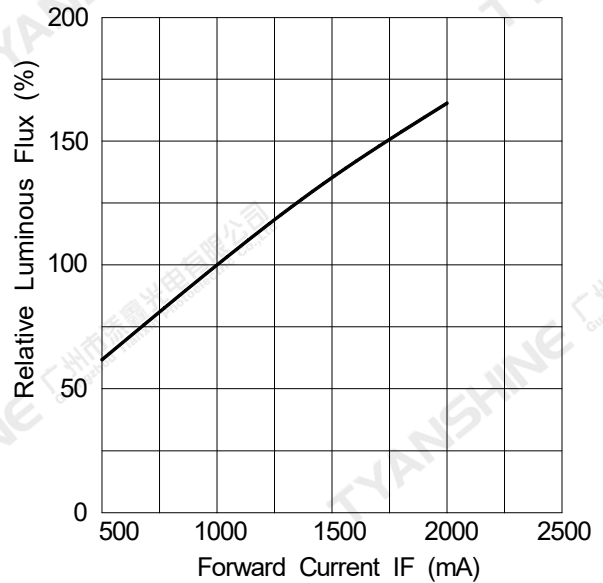
Typical Electrical/Optical Characteristics Curves

(25°C Ambient Temperature Unless Otherwise Noted)

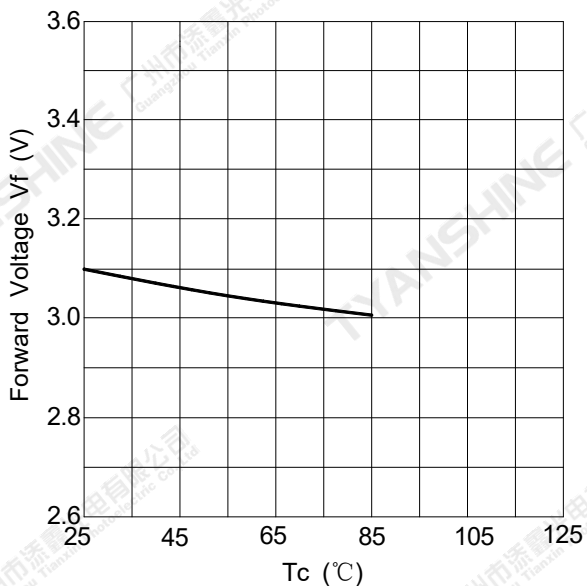
Forward Current VS. Relative Forward Voltage



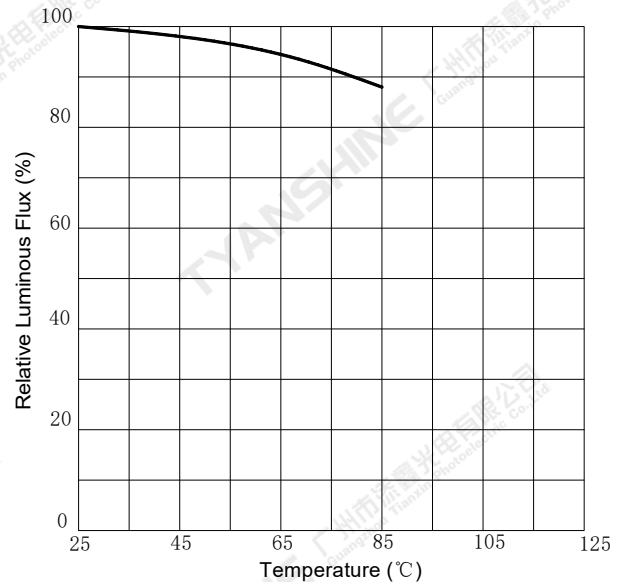
Forward Current VS. Relative Luminous Flux

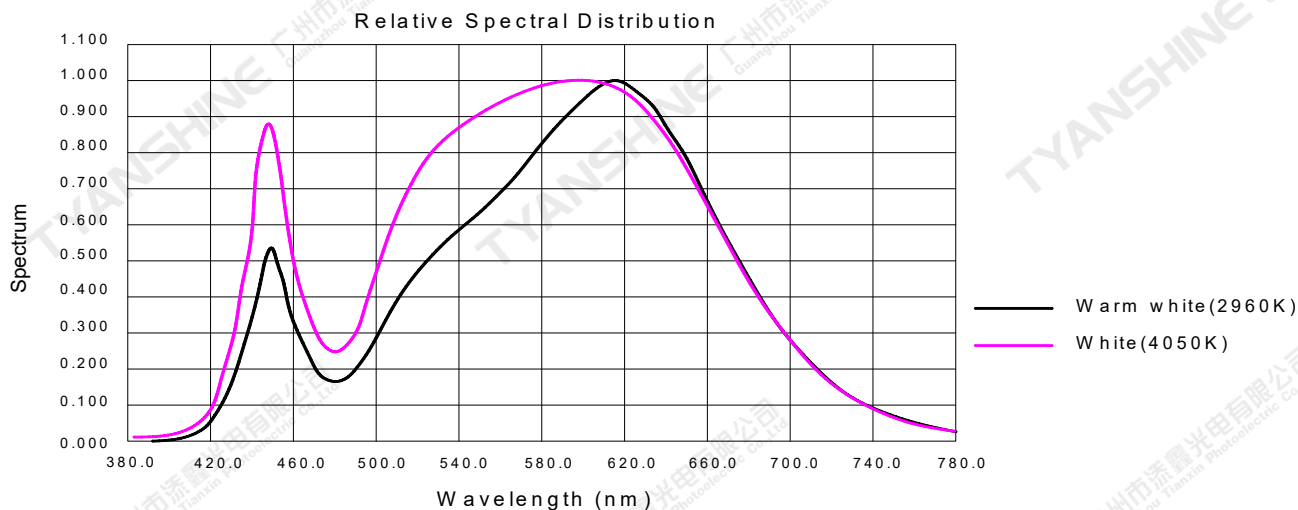
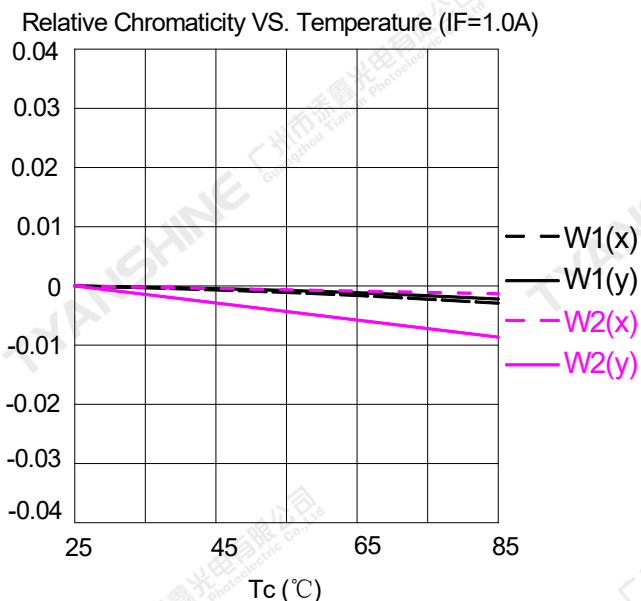
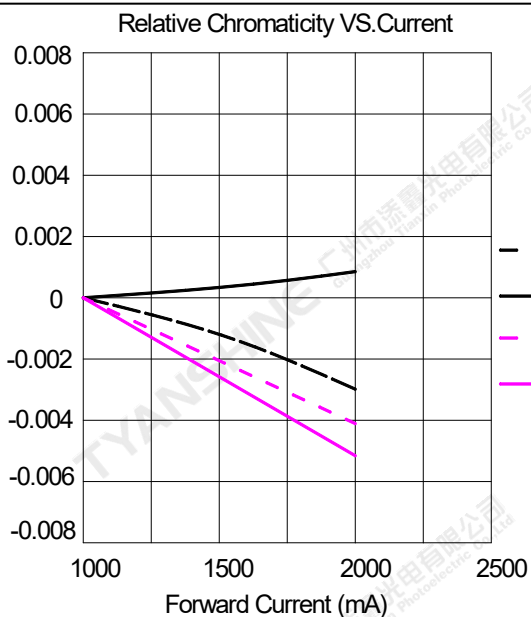


Temperature VS. Relative Luminous FLux ($I_F=1.0A$)



Temperature VS. Relative Luminous Flux ($I_F=1.0A$)





Notes: — Warm white (W1) — White (W2) ;

Notes:

1. $2\theta_{1/2}$ is the off axis angle from lamp centerline where the luminous intensity is 1/2 of the peak value.
2. View angle tolerance is $\pm 5^\circ$.

Usage Precautions

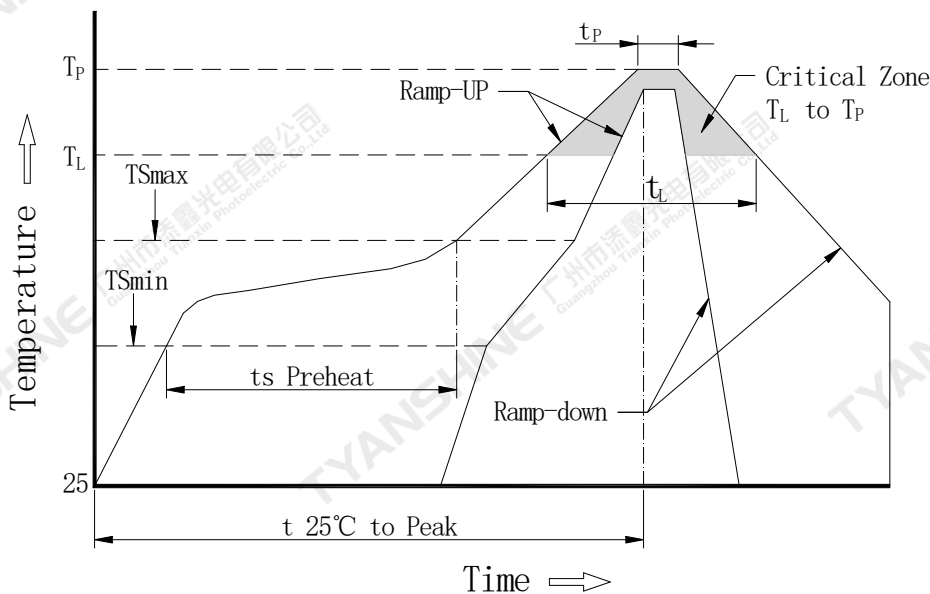
Storage Environment Condition

Temperature: 5°C ~ 30°C (41°F ~ 86°F)

Humidity: 60% RH Max.

Soldering Condition

Use the conditions shown to the under figure.



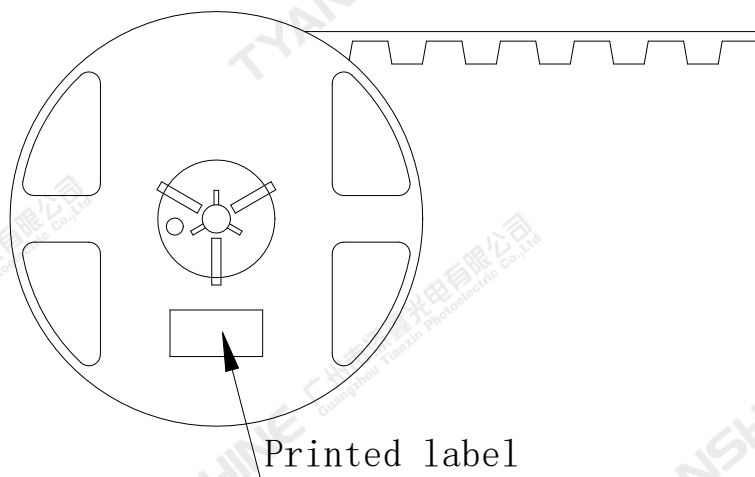
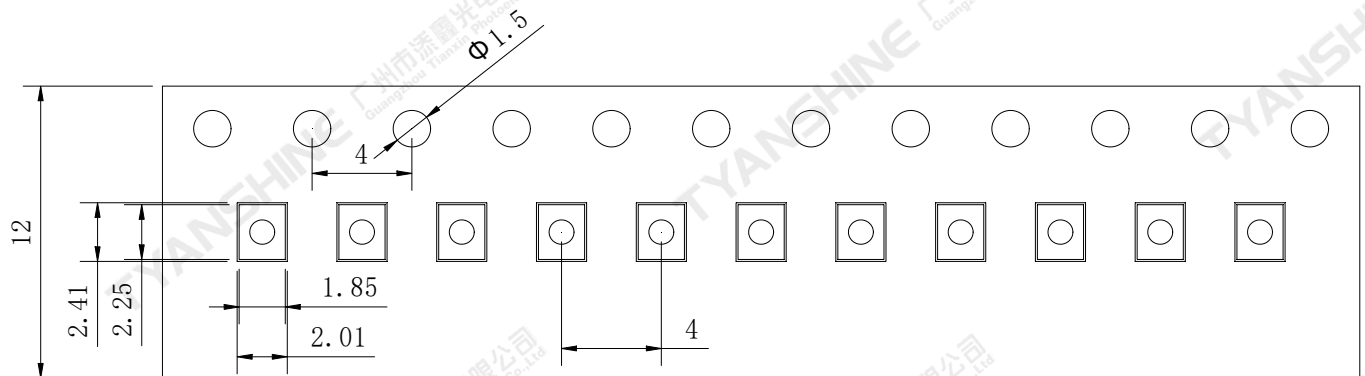
Profile Feature	Pb-Free Solderr(SnBi35Ag0.3)
Average Ramp-Up Rate (TS _{max} to TP)	3°C/second max.
Preheat: Temperature Min (TS _{min})	100°C
Preheat: Temperature Max (TS _{max})	150°C
Preheat: Time (TS _{min} to TS _{max})	60-120 seconds
Time Maintained Above: Temperature (TL)	183°C
Time Maintained Above: Time (TL)	60-150 seconds
Peak/Classification Temperature (TP)	225°C
Time Within 5°C of Actual Peak Temperature (TP)	10-30 seconds
Ramp-Down Rate	6°C/second max.
Time 25°C to Peak Temperature	6 minutes max.

Note:

All temperatures refer to topside of the package, measured on the package body surface.

Dimensions For Cannulation And Packaging

Quantity: 3000PCS



Notes:

1. All dimensions are in millimeters.
2. Tolerances are ± 2.0 mm unless otherwise noted.
3. The products are packaged together with silica gel, Transport, not to the weight of welding LED light-emitting area, As a result of the weight of LED light-emitting zone in the quality of, Irresponsible of the Company.

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