YJ-BC-MOD-5730L-24

High CRI LED Module

PRODUCT:
1-FT 5730L 24V LED MODULE

FEATURES:
280 mm × 20 mm × 2.0 mm MCPCB Linear Module
Integrated SMD connector
Zhaga compliant
120° emission angle
95 min CRI
Compatible with 24V DC sources

DESCRIPTION
Yuji LED's high CRI 5730 LED module provides a convenient PCB solution for high CRI LED applications, compatible with 24V constant voltage power sources. Providing 95 CRI (typical) at 90 lm/W, this versatile LED module can be used in a variety of applications demanding high color quality and performance.

ELECTRICAL-OPTICAL CHARACTERISTICS (T_C = 25 °C)							
PARAMETER	SYMBOL	VALUE			UNIT	TOLERANCE	CONDITION
		MIN.	TYP.	MAX.			
Forward Current	I_f	340	--	380	mA	±0.05	V_f = 24 V
Luminous flux	Φ_{2700K}	700	--	780	lm	--	V_f = 24 V
	Φ_{3200K}	700		780			
	Φ_{4000K}	750		840			
	Φ_{5600K}	750		840			
Color temperature	CCT_{2700K}	2625	2700	2775	K	--	V_f = 24 V
	CCT_{3200K}	3125	3200	3275			
	CCT_{4000K}	3900	4000	4100			
	CCT_{5600K}	5450	5600	5750			
Color rendering index	Ra*	95	--	--	--	--	V_f = 24 V
TCS R9 (CRI Red)	R9	--	70	--	--	--	V_f = 24 V
Chromaticity coordinates	(X,Y)	--	--	--	--	±0.005	
Viewing angle	2θ1/2		120		Deg	±5	V_f = 24 V

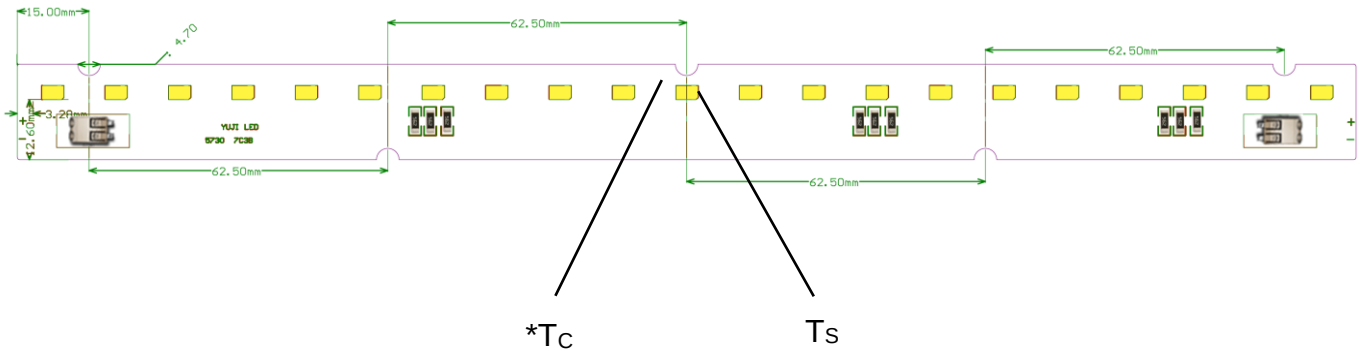
*Ra minimum 93 at 6500K.

ORDERING INFORMATION	
PART NUMBER	**CCT**
YJ-BC-MOD-5730L-24-G01-27	2700K ± 75K
YJ-BC-MOD-5730L-24-G01-32	3200K ± 75K
YJ-BC-MOD-5730L-24-G01-50	4000K ± 100K
YJ-BC-MOD-5730L-24-G01-56	5600K ± 150K
YJ-BC-MOD-5730L-24-G01-XX	CUSTOM

ABSOLUTE MAXIMUM RATING (T_C = 25 °C)			
PARAMETER	**SYMBOL**	**LIMIT**	**UNIT**
Power Consumption	P_D	9.5	W
DC Forward Voltage	V_F	25	V
Junction Temperature	T_j	125	°C
Case Temperature*	T_s	PENDING	°C
Solder Point Temperature*	T_C	105	°C
Operating Temperature	T_{opr}	-45 ~ +85	°C
Storage Temperature	T_{stg}	-45 ~ +85	°C

CHROMATICITY BINS & COORDINATES								
CCT	CIE 1931 COORDINATES							
	X0	Y0	X1	Y1	X2	Y2	X3	Y3
2700K	0.4516	0.4170	0.4410	0.3970	0.4524	0.3999	0.4637	0.4202
3200K	0.4252	0.4091	0.4170	0.3898	0.4281	0.3937	0.4373	0.4133
4000K	0.3792	0.3842	0.3750	0.3676	0.3837	0.3733	0.3887	0.3907
5600K	0.3272	0.3428	0.3275	0.3292	0.3335	0.3350	0.3338	0.3491

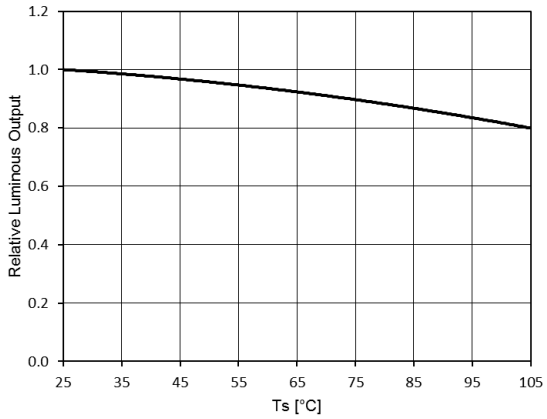
PACKAGE LAYOUT



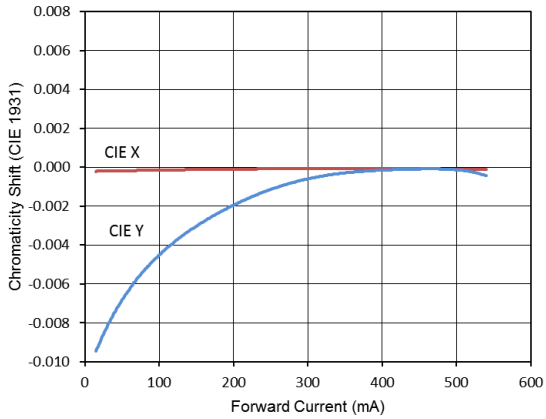
CHARACTERISTIC CURVES

ALL CHARACTERISTIC CURVES ARE FOR REFERENCE ONLY AND NOT GUARANTEED

SOLDER POINT TEMPERATURE
VS RELATIVE LUMINOUS OUTPUT (V_F = 24 V)



FORWARD CURRENT VS CHROMATICITY SHIFT
(3200K,T_A=25°C)



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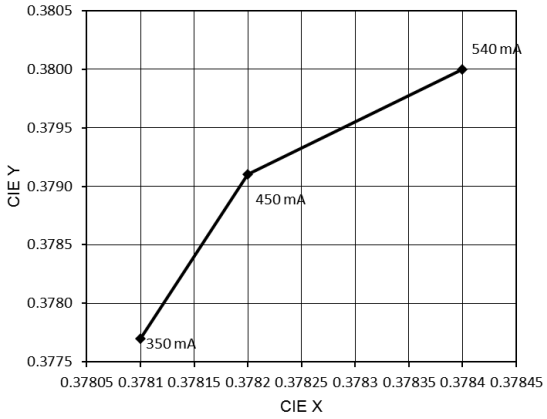
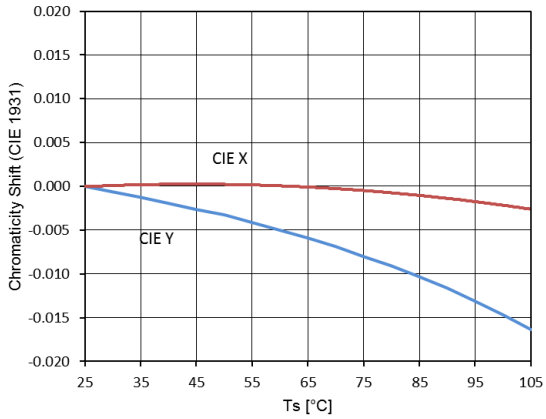
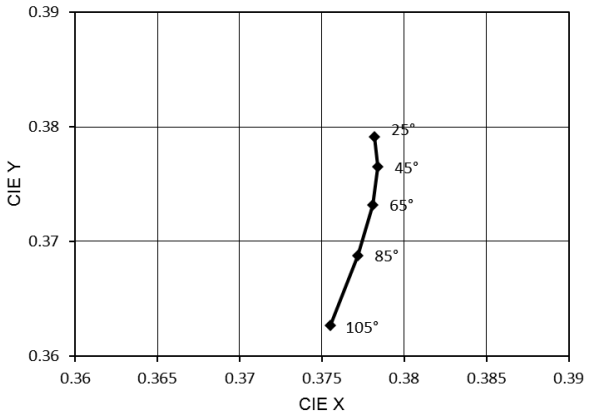


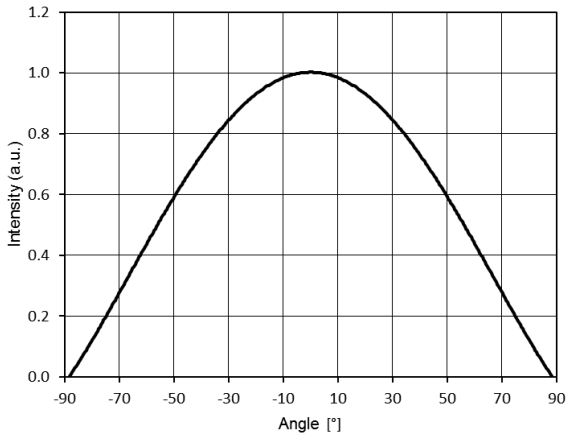
SOLDER POINT TEMPERATURE
VS CHROMATICITY (4000K, I_F = 450 mA)



SOLDER POINT TEMPERATURE
VS CHROMATICITY (4000K, I_F = 450 mA)

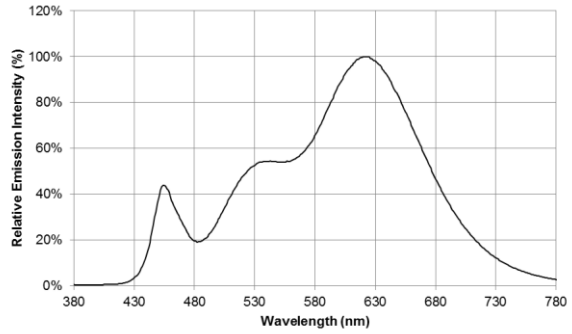


TYPICAL SPATIAL DISTRIBUTION
(TA=25°C, I_F = 450 mA)

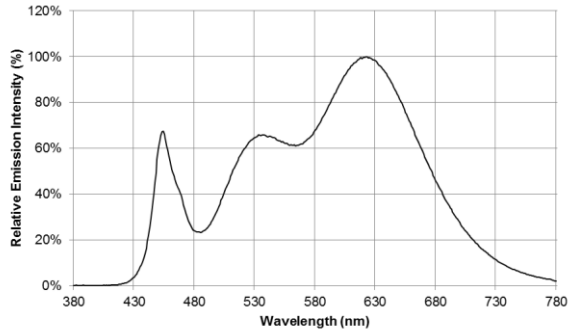


TYPICAL SPECTRAL DISTRIBUTION GRAPHS

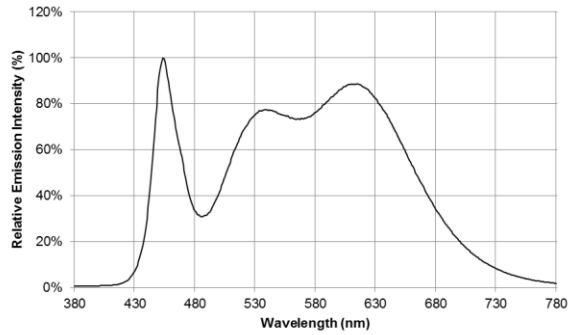
2700K



3200K



4000K



5600K