



YJ-VTC-RB-2835-12V-G01

High CRI LED Flex Strip

PRODUCT:

HIGH CRI LED FLEX STRIP VTC 2835 12V

FEATURES:

- 10 mm width flexible PCB with adhesive backing
- 5-meter length per roll
- 98 CRI, 2700K/3200K/4000K/5000K/5600K/6500K
- 15 W / meter (4.6 W / foot)
- 12V constant voltage compatible
- 50K hour lifetime
- Cutable every 3 LEDs (25 mm)



DESCRIPTION

High CRI LED flexible strips are extremely versatile and can be installed in a variety of linear and curved surfaces alike. Enhanced copper traces with precision SMT resistors provide consistently high power and brightness. 3M® adhesive backing allows for quick installation.

ELECTRICAL-OPTICAL CHARACTERISTICS (T _c = 25 °C)							
PARAMETER	SYMBOL	VALUE			UNIT	TOLERANCE	CONDITION
		MIN.	TYP.	MAX.			
Power per meter*	--	--	15	18	W	--	V _f = 12V
Forward Current per meter	I _f	--	1.25	1.5	A	--	V _f = 12V
		--					
Luminous flux per meter	Φ _{2700K}	--	700	--	lm	--	V _f = 12V
	Φ _{3200K}	--	700	--			
	Φ _{4000K}	--	800	--			
	Φ _{5000K}	--	800	--			
	Φ _{5600K}	--	900	--			
	Φ _{6500K}	--	900	--			
Color temperature	CCT _{2700K}	2625±75		2775±75	K	--	V _f = 12V
	CCT _{3200K}	3125±75		3275±75			
	CCT _{4000K}	3800±100		4100±100			
	CCT _{5000K}	4850±150		5150±150			
	CCT _{5600K}	5450±150		5750±150			
	CCT _{6500K}	6250±250		6750±250			
Color rendering index	Ra**	95	98	--	--	--	V _f = 12V
TCS R9 (CRI Red)	R9	--	90	--	--	--	V _f = 12V
Chromaticity coordinates	(X,Y)	--	--	--	--	±0.005	--
Viewing angle	2θ1/2	--	120	--	Deg	±5	V _f = 12V

*Unless otherwise noted, specifications are based on a 1 meter segment. Due to electrical resistance, power draw per meter decreases approximately by 0.05A for each additional meter increase per segment.

**Ra minimum 95 at 6500K.



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ORDERING INFORMATION		
PART NUMBER	CCT	CHROMATICITY BINS
YJ-VTC-RB-2835-12V-G01-27	2700K ± 150K	VF4-7, VF5-8, VF7-10, VF8-11
YJ-VTC-RB-2835-12V-G01-32	3200K ± 150K	VF4-2, VF7-2, VF5-1, VF8-1
YJ-VTC-RB-2835-12V-G01-40	4000K ± 200K	VD4-1, VD4-2, VD6-1, VD6-2
YJ-VTC-RB-2835-12V-G01-50	5000K ± 250K	VC3-2, VC4-1, VC5-2, VC6-1
YJ-VTC-RB-2835-12V-G01-56	5600K ± 300K	VB8-2, VB10-2, VC3-1, VC5-1
YJ-VTC-RB-2835-12V-G01-65	6500K ± 500K	VB7-1, VB7-2, VB8-1, VB9-1, VB9-2, VB10-1
YJ-VTC-RB-2835-12V-G01-XX		CUSTOM

ABSOLUTE MAXIMUM RATING (T _c = 25 °C)			
PARAMETER	SYMBOL	LIMIT	UNIT
Power Consumption	P _D	18	W/m
Operating Temperature	T _{opr}	-40 ~ +85	°C
Storage Temperature	T _{stg}	-30 ~ +85	°C

CHROMATICITY BINS & COORDINATES									
CCT	BIN	CIE 1931 COORDINATES							
		X0	Y0	X1	Y1	X2	Y2	X3	Y3
6500K	VB7-1	0.3030	0.3300	0.3057	0.3190	0.3118	0.3257	0.3097	0.3375
	VB7-2	0.3097	0.3375	0.3118	0.3257	0.3178	0.3325	0.3165	0.3450
	VB8-1	0.3165	0.3450	0.3178	0.3325	0.3239	0.3392	0.3233	0.3525
	VB9-1	0.3057	0.3190	0.3083	0.3080	0.3137	0.3140	0.3118	0.3257
	VB9-2	0.3118	0.3257	0.3137	0.3140	0.3192	0.3200	0.3178	0.3325
	VB10-1	0.3178	0.3325	0.3192	0.3200	0.3246	0.3260	0.3239	0.3392
5600K	VB8-2	0.3233	0.3525	0.3300	0.3600	0.3300	0.3460	0.3239	0.3392
	VB10-2	0.3239	0.3392	0.3246	0.3260	0.3300	0.3320	0.3300	0.3460
	VC3-1	0.3300	0.3460	0.3300	0.3600	0.3377	0.3662	0.3372	0.3520
	VC5-1	0.3300	0.3320	0.3300	0.3460	0.3372	0.3520	0.3366	0.3379
5000K	VC3-2	0.3372	0.3520	0.3377	0.3662	0.3455	0.3725	0.3443	0.3581
	VC4-1	0.3443	0.3581	0.3455	0.3725	0.3532	0.3788	0.3515	0.3642
	VC5-2	0.3366	0.3379	0.3372	0.3520	0.3443	0.3581	0.3432	0.3439
	VC6-1	0.3432	0.3439	0.3443	0.3581	0.3515	0.3642	0.3499	0.3497



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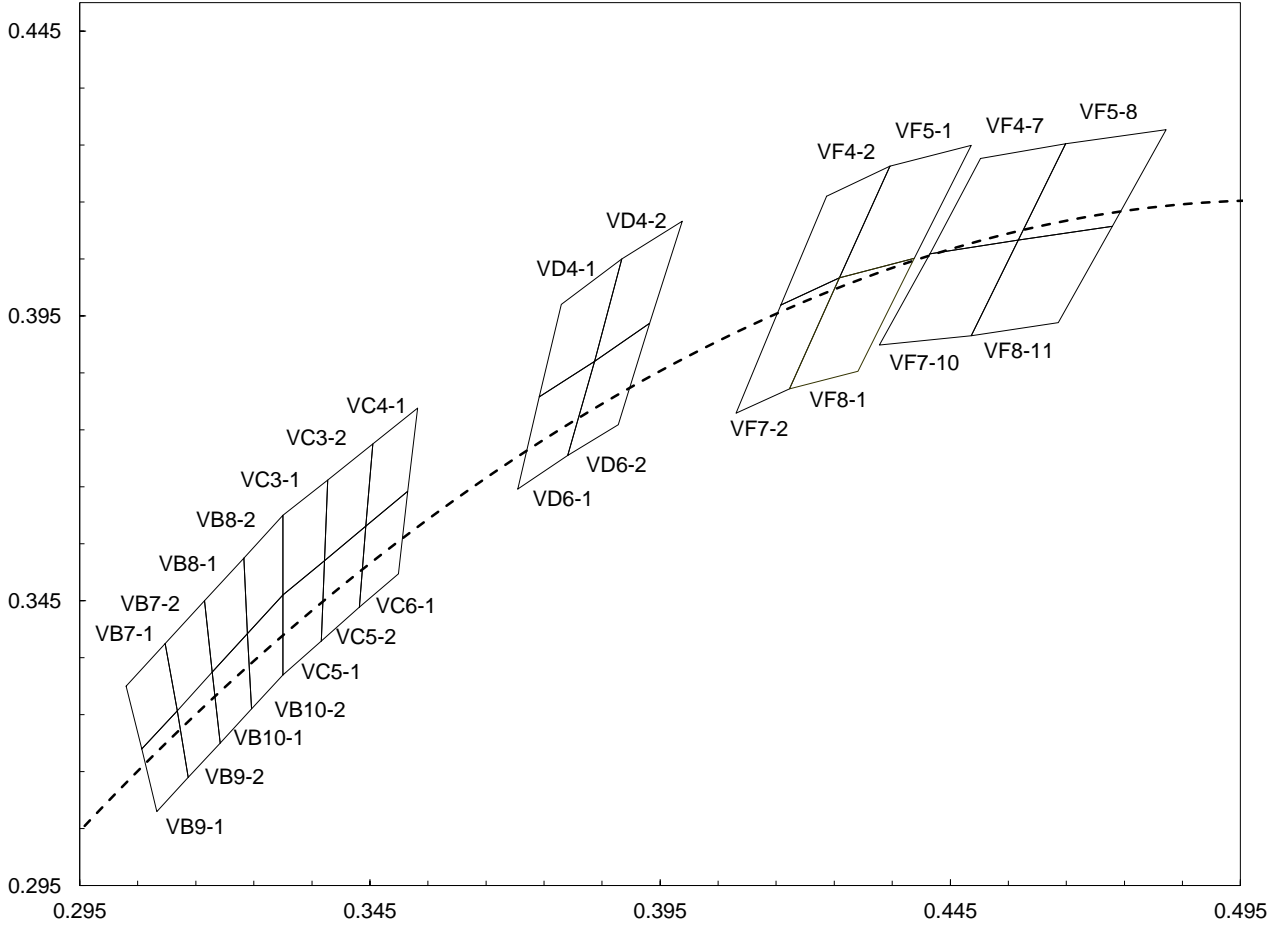
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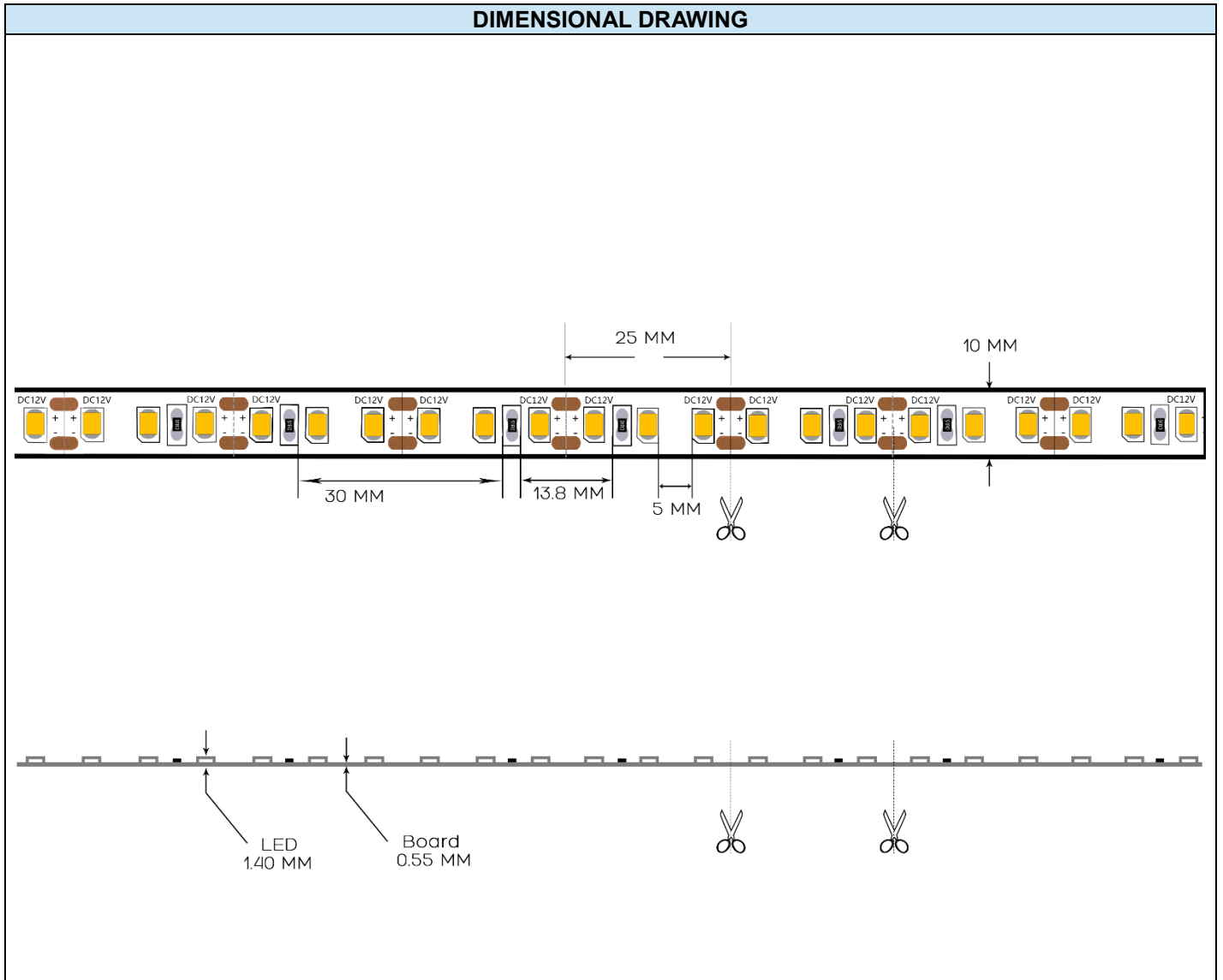
4000K	VD4-1	0.3742	0.3808	0.3780	0.3970	0.3884	0.4050	0.3837	0.3870
	VD4-2	0.3837	0.3870	0.3884	0.4050	0.3988	0.4116	0.3932	0.3937
	VD6-1	0.3705	0.3646	0.3742	0.3808	0.3837	0.3870	0.3791	0.3705
	VD6-2	0.3791	0.3705	0.3837	0.3870	0.3932	0.3937	0.3878	0.3759
3200K	VF4-2	0.4237	0.4160	0.4158	0.3969	0.4259	0.4017	0.4346	0.4213
	VF7-2	0.4158	0.3969	0.4081	0.3779	0.4173	0.3822	0.4259	0.4017
	VF5-1	0.4346	0.4213	0.4259	0.4017	0.4388	0.4051	0.4486	0.4249
	VF8-1	0.4259	0.4017	0.4173	0.3822	0.4291	0.3853	0.4388	0.4051
2700K	VF4-7	0.4502	0.4226	0.4649	0.4252	0.4567	0.4083	0.4415	0.4059
	VF5-8	0.4649	0.4252	0.4822	0.4277	0.4729	0.4107	0.4567	0.4083
	VF7-10	0.4415	0.4059	0.4567	0.4083	0.4486	0.3915	0.4328	0.3899
	VF8-11	0.4567	0.4083	0.4729	0.4107	0.4636	0.3938	0.4486	0.3915



CHROMATICITY BINS & COORDINATES

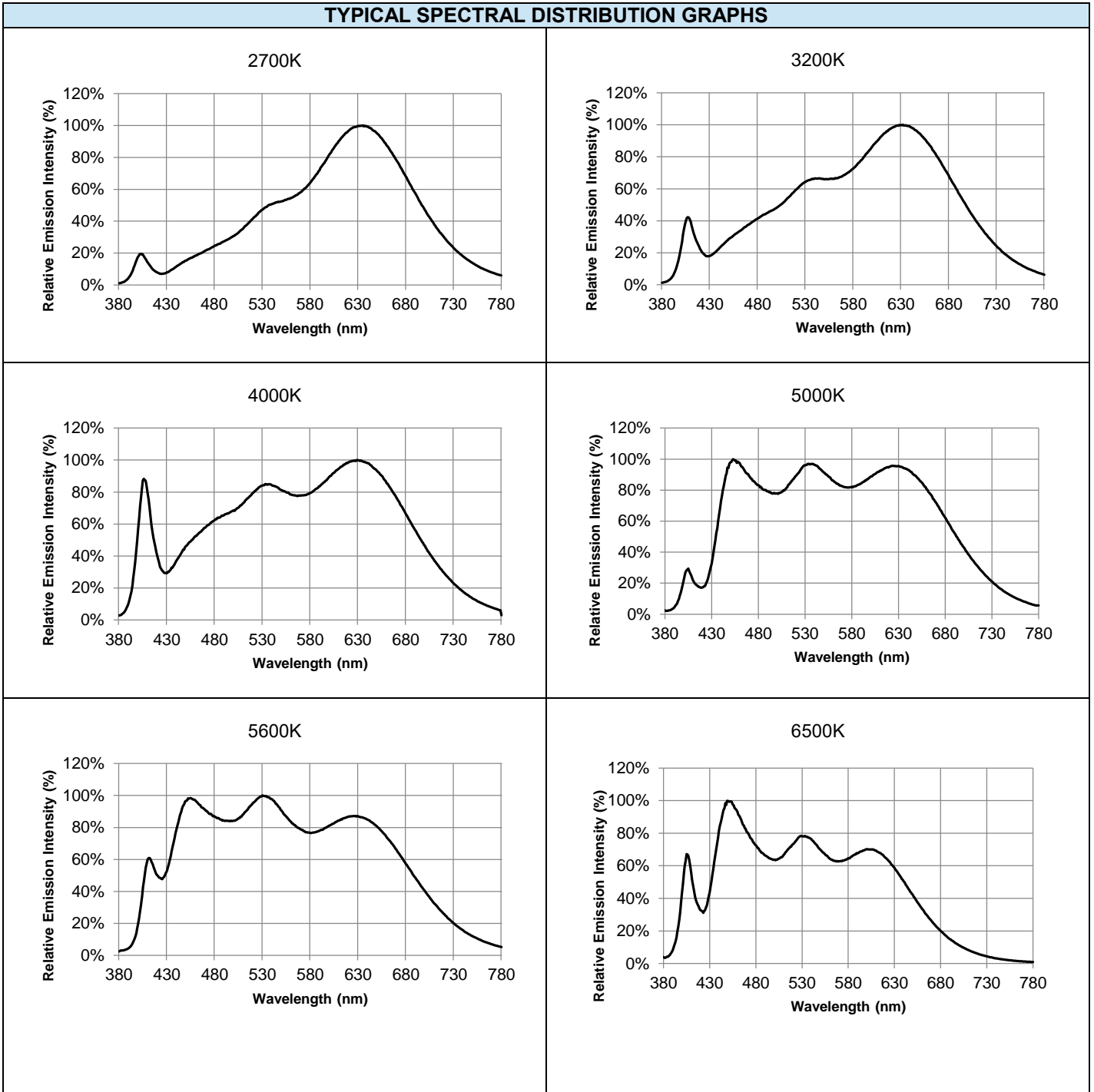
CIE 1931 COORDINATES







TYPICAL SPECTRAL DISTRIBUTION GRAPHS





ADDITIONAL NOTES

SELECTING A POWER SUPPLY

The wattage/amperage requirement is directly proportional to the length of LED flexible strip installed. Calculate the power requirement by multiplying the total length in meters by the maximum wattage or amperage per meter. For additional power supply stability, we recommend specifying 25% additional power capacity above the requirement. For example, a 5 meter length would require 5 meters x 18 W / meter = 90W; for power supply stability, we would recommend a power supply that is capable of supplying at least W (60W + 25% x 60W).

DIMMING

Our LED flex strips are compatible with 1-10V and PWM dimming systems.

HEAT MANAGEMENT

Heatsinking is not necessary if product is used in standard indoor environments where ambient temperatures do not exceed 50°C. Our testing at Ta = 25°C shows LED solder point temperatures stabilizing at 68°C. Maximum allowed LED solder point temperature is 105°C.