



A 196lm/w
dedicated light box lamp strip module (12V)

HUB-480SA-012008

LED Module Datasheet

HIGNTEK HUB-480SA-012008 product is lighting optimized strip module specifically designed for light box. The products are divided into 12V and 24V, and the use of high light efficiency UHE-3030 led chip makes the module have ultra-high efficiency and brightness, and is matched with an optical lens uniform luminous Angle. With this common building lock approach, it simplifies system integration and accelerates time to market.

FEATURES AND BENEFITS

Efficacy and luminous flux of up to 196lm/W typical and 784lm available

Available CCT/CRI options: 2700K-6500K(70 & 80 CRI)

Designed to be compatible with standard third party optics

MCPCB for efficient heat dissipation and mechanical robustness

CE, ROHS, ERP compliance

5-year limited guarantee

PRIMARY APPLICATIONS

Light box

Soft membrane smallpox



Performance Characteristics

Product Selection Guide

Table 1. Product performance of HIGNTEK HUB-480SA-012008 (IF=333mA, T_p=25°C)

NOMINAL CCT	CRI [RA]	CURRENT [mA]	FORWARD VOLTAGE [V]	POWER [W]	LUMINOUS FLUX [lm]		EFFICACY [lm/W]	
					T _c = 25° C	T _c = 45° C	T _c = 25° C	T _c = 45° C
2700K	70	333	12	4	721	707	180	177
3000K	70	333	12	4	729	714	182	179
3500K	70	333	12	4	729	714	182	179
4000K	70	333	12	4	784	768	196	192
5000K	70	333	12	4	784	768	196	192
5700K	70	333	12	4	784	768	196	192
6500K	70	333	12	4	776	760	194	190
2700K	80	333	12	4	671	658	168	165
3000K	80	333	12	4	678	664	170	166
3500K	80	333	12	4	678	664	170	166
4000K	80	333	12	4	729	714	182	179
5000K	80	333	12	4	729	714	182	179
5700K	80	333	12	4	729	714	182	179
6500K	80	333	12	4	722	708	181	177

Notes for Table1:

1. T_p: temperature at which performance is specified measured at "T_c point".
2. HIGNTEK maintains a measurement tolerance of : Luminous flux: ±7 %, CRI: ±3.0.
3. Measurement tolerance of CCT is ±5%.
4. HUB-480SA-012008 Color temperature (2700K-6500K) is optional.

Product Code Information

Table 2. Product Code-HUB-480SA-012008-XXX

CRI [RA]	NOMINAL CCT	PRODUCT CODE
70	2700K	HUB-480SA-012008-277
	3000K	HUB-480SA-012008-307
	3500K	HUB-480SA-012008-357
	4000K	HUB-480SA-012008-407
	5000K	HUB-480SA-012008-507
	5700K	HUB-480SA-012008-577
	6500K	HUB-480SA-012008-657
80	2700K	HUB-480SA-012008-278
	3000K	HUB-480SA-012008-308
	3500K	HUB-480SA-012008-358
	4000K	HUB-480SA-012008-408
	5000K	HUB-480SA-012008-508
	5700K	HUB-480SA-012008-578
	6500K	HUB-480SA-012008-658

Electrical Characteristics

Table 3. Electrical characteristics for HIGNTEK HUB-480SA-012008

PARAMETER	SYMBOL	VALUE			UNIT	REMARK
		MIN.	TYP.	MAX.		
Operating Current	I_F	-	333	-	mA	-
Operating Voltage	V_F	-	12.0	-	Vdc	$I_F = 333 \text{ mA}$
Power Consumption	P	-	4.0	-	W	$T_P = 25 \text{ }^\circ\text{C}$

Notes for Table3:

1. T_P : temperature at which performance is specified measured at "Tc point".
2. HIGNTEK maintains a tolerance of $\pm 0.1\text{V}$ on forward voltage measurements.

Absolute Maximum Ratings

Table 4. Maximum Operating Specification ($T_p=25^{\circ}\text{C}$)

PART NUMBER	PARAMETER	SYMBOL	UNIT	RATING
HUB-480SA-012008-XXX	Power Consumption	P	W	8
	DC Forward Current	I_F	mA	450
	Operating Temperature	-	$^{\circ}\text{C}$	-40 to 65
	Storage Temperature	T_{Ctg}	$^{\circ}\text{C}$	-40 to 105
	ESD Sensitivity	-	KV	3
	Beam Angle	$\angle$	$^{\circ}$	170
	IP Grade	-	-	IP20
	Maximum Reverse Voltage	V_{RRM}	V	Module are not designed to be driven in reverse bias

Notes for Table4:

1. T_p : temperature at which performance is specified measured at " T_c point".

Temperature Characteristics (DC12V)

T_c [$^{\circ}\text{C}$]	Flux [%]	Efficacy [%]
85	94	93
65	97	96
45	100	100
25	102	103
0	105	107

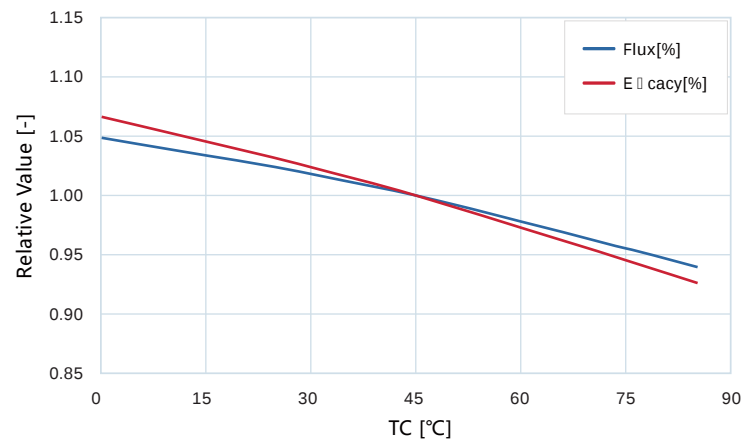


Figure 1. Typical normalized light output vs. T_c temperature for HIGNTEK HUB-480SA-012008 at DC12V.

Mechanical Dimensions

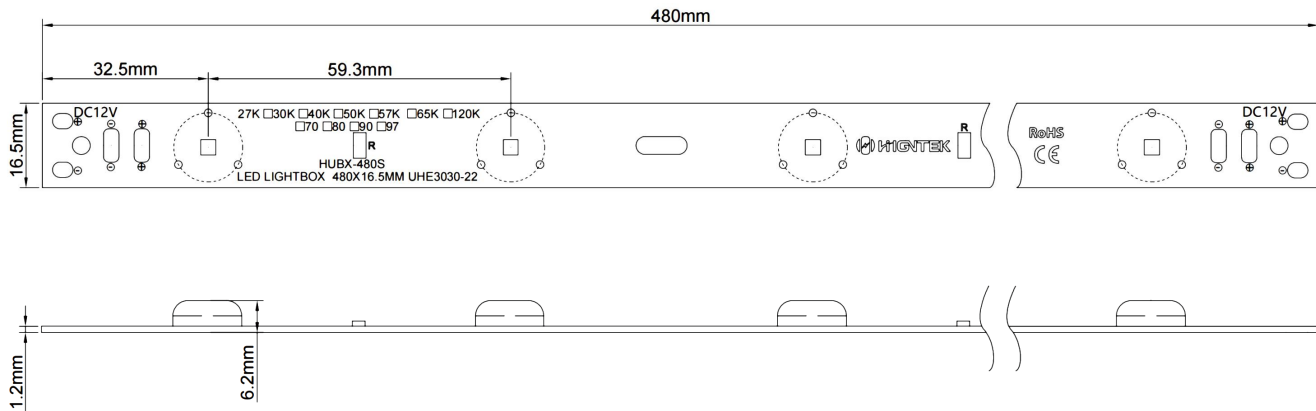


Figure 2. Mechanical Dimensions for HIGNTEK HUB-480SA-012008.

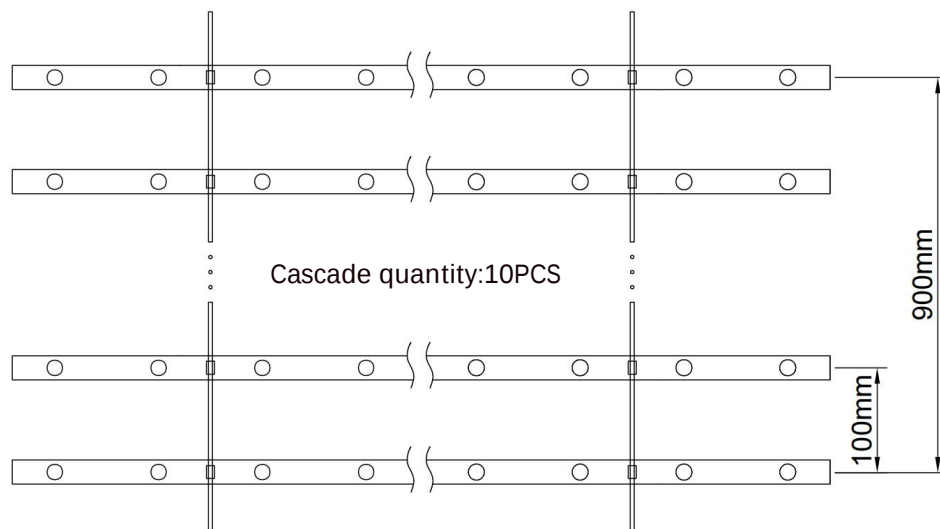


Figure 3. Assembly drawing for HIGNTEK HUB-480SA-012008.

Notes for Figure 3:

1. Drawings are not to scale.
2. All dimensions are in millimeters.

Table 5. Bill of Materials for HIGNTEK HUB-480SA-012008.

COMPONENT	SPECIFICATION PARAMETERS	QUANTITY
LED:3030	UHE-3030 6V	8
PCB: MCPCB	-	1
SMD Resistance	R:13Ω	4
Diffuse lens	-	8

Notes for Table5:

1. Resistance specifications are adjusted according to different power.

Optional Branding (LED)



About HengXinYuan

Hengxinyuan is a professional lighting solutions company that helps customers deliver differentiated solutions to gain and maintain a competitive edge. The company's broad product portfolio includes a wide array of package and device choices such as CREE led, SAMSUNG led, LUMILEDS led, UHE led, Indoor lighting module and Outdoor lighting module. Hengxinyuan's LED products pursue high efficiency, high quality, and high reliability, and aim to meet the needs of customers to the greatest extent. With the supply of high-standard supply chain services as the driving force, they contribute to the development of global LED green and healthy lighting power.

