



A 224lm/w
high light efficiency module designed for line lights

HUL-280SA-072024

LED Module Datasheet

The HIGNTEK HUL-280SA-072024 product is a uniquely wide portfolio which can be used in all kind of linear indoor luminaire types. The product uses a high light efficiency UHE-2835 led chip to make the module with ultra-high efficiency and brightness. Its size makes it easy to design and manufacture, and there are multiple sizes available to meet the needs of a wide range of applications, available lengths:70mm/140mm/280mm/560mm.

FEATURES AND BENEFITS

Efficacy and luminous flux of up to 224lm/W typical and 2031lm available

Available CCT/CRI options: 2700K-6500K(80 & 90 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

Linear Light

Wall lamp

Panel light



Performance Characteristics

Product Selection Guide

Table 1. Product performance of HIGNTEK HUL-280SA-072024 (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
3000K	80	40	63.6	2.54	528	517	208	203
	80	70	64.8	4.54	915	897	202	198
	80	150	67.6	10.14	1889	1851	186	183
4000K	80	40	63.6	2.54	568	557	224	219
	80	70	64.8	4.54	984	964	217	212
	80	150	67.6	10.14	2031	1990	200	196
6500K	80	40	63.6	2.54	562	551	221	217
	80	70	64.8	4.54	974	955	215	210
	80	150	67.6	10.14	2011	1971	198	194
3000K	90	40	63.6	2.54	465	456	183	180
	90	70	64.8	4.54	805	789	177	174
	90	150	67.6	10.14	1662	1629	164	161
4000K	90	40	63.6	2.54	500	490	197	193
	90	70	64.8	4.54	866	849	191	187
	90	150	67.6	10.14	1787	1751	176	173
6500K	90	40	63.6	2.54	495	485	195	191
	90	70	64.8	4.54	857	840	189	185
	90	150	67.6	10.14	1770	1735	175	171

Notes for Table1:

1. T_c: 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. HUL-280SA-072024 Color temperature (2700K-6500K) is optional.

Product Code Information

Table 2. Product Code-HUL-280SA-072024-XXX

CRI [RA]	NOMINAL CCT	PRODUCT CODE
80	2700K	HUL-280SA-072024-278
	3000K	HUL-280SA-072024-308
	3500K	HUL-280SA-072024-358
	4000K	HUL-280SA-072024-408
	5000K	HUL-280SA-072024-508
	5700K	HUL-280SA-072024-578
	6500K	HUL-280SA-072024-658
90	2700K	HUL-280SA-072024-279
	3000K	HUL-280SA-072024-309
	3500K	HUL-280SA-072024-359
	4000K	HUL-280SA-072024-409
	5000K	HUL-280SA-072024-509
	5700K	HUL-280SA-072024-579
	6500K	HUL-280SA-072024-659

Electrical Characteristics

Table 3. Electrical characteristics for HIGNTEK HUL-280SA-072024

PARAMETER	SYMBOL	VALUE			UNIT	REMARK
		MIN.	TYP.	MAX.		
Operating Current	I_F	-	70	350	mA	-
Operating Voltage	V_F	62.4	64.8	67.2	Vdc	$I_F = 70 \text{ mA}$
Power Consumption	P	4.37	4.54	4.70	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 ($T_p=25^{\circ}\text{C}$)

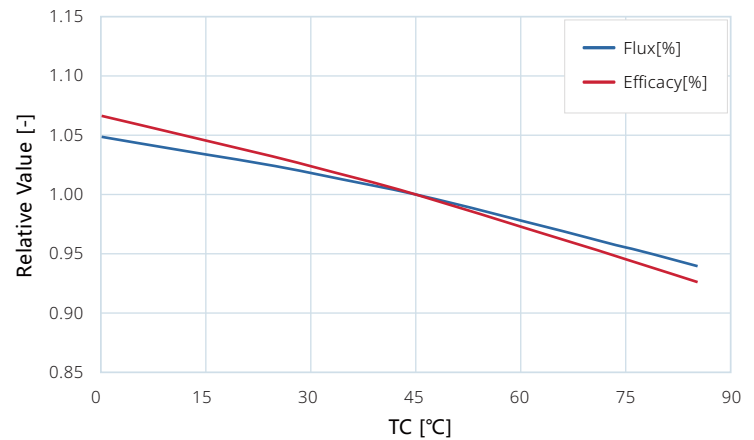
PART NUMBER	PARAMETER	SYMBOL	UNIT	RATING
HUL-280SA-072024-XXX	Power Consumption	P	W	24
	DC Forward Current	I_F	mA	350
	Operating Temperature	-	$^{\circ}\text{C}$	-40 to 65
	Storage Temperature	T_{Ctg}	$^{\circ}\text{C}$	-40 to 105
	ESD Sensitivity	-	KV	3
	Beam Angle	$\angle$	$^{\circ}$	120
	IP Grade	-	-	IP20
	Maximum Reverse Voltage	V_{BRM}	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".

Characteristics Curves

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

Figure 1. Typical normalized Flux and Efficacy vs. T_c temperature for HIGNTEK HUL-280SA-072024.

I [mA]	Flux [%]	Efficacy [%]
150	208	92
108	150	96
70	100	100
40	57	103

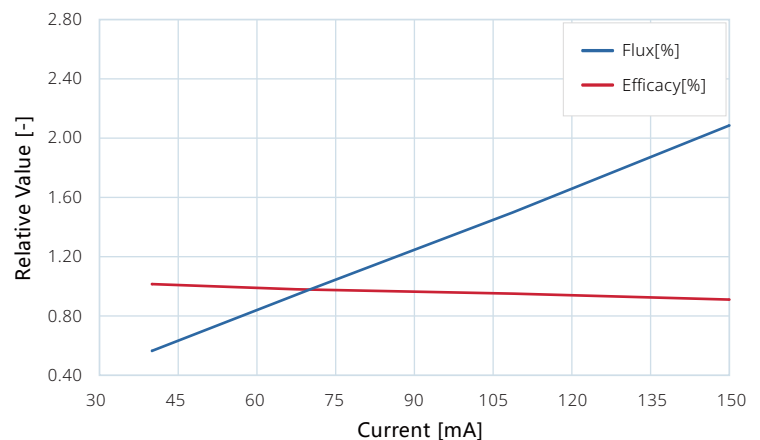


Figure 2. Typical normalized Flux and Efficacy vs. Current for HIGNTEK HUL-280SA-072024.

Mechanical Dimensions

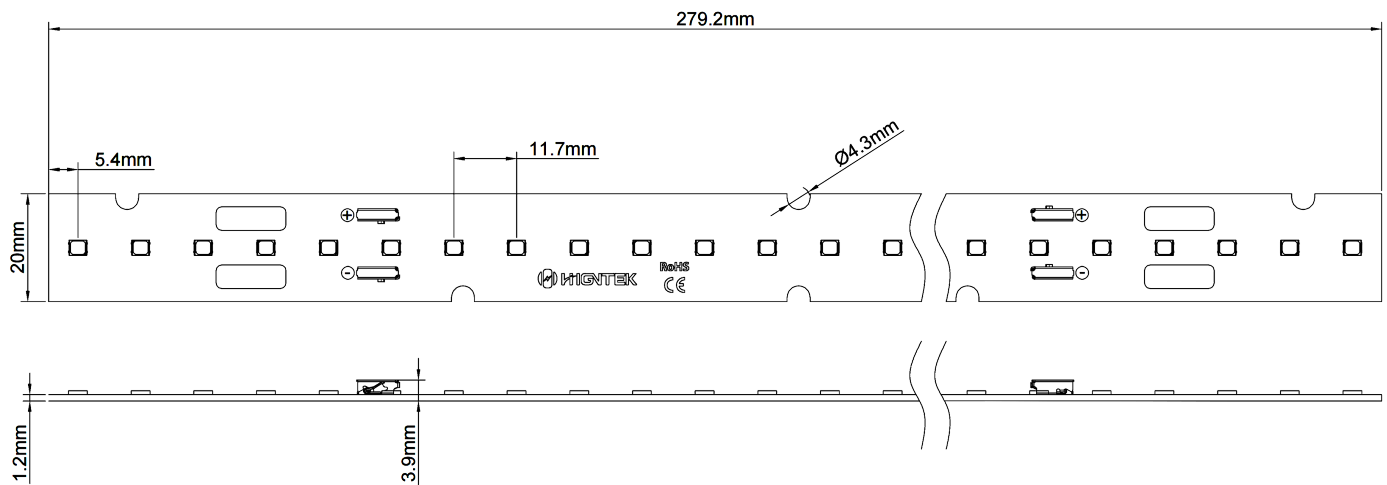


Figure 3. Mechanical Dimensions for HIGNTEK HUL-280SA-072024.

Notes for Figure 3:

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

Table 5. Bill of Materials for HIGNTEK HUL-280SA-072024.

COMPONENT	SPECIFICATION PARAMETERS	QUANTITY
LED:2835	UHE-2835 3V	24
PCB: MCPCB	279.2*20mm	1
SMD PCB terminal block	WAGO-2065 0.2-0.75mm ²	4

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.

