



A 225lm/w
high light efficiency module designed for line lights

HUL-280SA-024024

LED Module Datasheet

The HIGNTEK HUL-280SA-024024 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 225lm/W typical and 2037lm 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-024024 (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	120	21.1	2.53	529	518	209	205
	80	210	21.6	4.54	916	898	202	198
	80	450	22.6	10.17	1894	1856	186	182
4000K	80	120	21.1	2.53	569	558	225	221
	80	210	21.6	4.54	985	965	217	213
	80	450	22.6	10.17	2037	1996	200	196
6500K	80	120	21.1	2.53	563	552	223	218
	80	210	21.6	4.54	975	956	215	211
	80	450	22.6	10.17	2017	1977	198	194
3000K	90	120	21.1	2.53	466	457	184	180
	90	210	21.6	4.54	806	790	178	174
	90	450	22.6	10.17	1667	1634	164	161
4000K	90	120	21.1	2.53	501	491	198	194
	90	210	21.6	4.54	867	850	191	187
	90	450	22.6	10.17	1793	1757	176	173
6500K	90	120	21.1	2.53	495	485	196	192
	90	210	21.6	4.54	858	841	189	185
	90	450	22.6	10.17	1775	1740	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-024024 Color temperature (2700K-6500K) is optional.

Product Code Information

Table 2. Product Code-HUL-280SA-024024-XXX

CRI [RA]	NOMINAL CCT	PRODUCT CODE
80	2700K	HUL-280SA-024024-278
	3000K	HUL-280SA-024024-308
	3500K	HUL-280SA-024024-358
	4000K	HUL-280SA-024024-408
	5000K	HUL-280SA-024024-508
	5700K	HUL-280SA-024024-578
	6500K	HUL-280SA-024024-658
90	2700K	HUL-280SA-024024-279
	3000K	HUL-280SA-024024-309
	3500K	HUL-280SA-024024-359
	4000K	HUL-280SA-024024-409
	5000K	HUL-280SA-024024-509
	5700K	HUL-280SA-024024-579
	6500K	HUL-280SA-024024-659

Electrical Characteristics

Table 3. Electrical characteristics for HIGNTEK HUL-280SA-024024

PARAMETER	SYMBOL	VALUE			UNIT	REMARK
		MIN.	TYP.	MAX.		
Operating Current	I_F	-	210	1050	mA	-
Operating Voltage	V_F	20.8	21.6	22.4	Vdc	$I_F = 210 \text{ mA}$
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-024024-XXX	Power Consumption	P	W	24
	DC Forward Current	I_F	mA	1050
	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

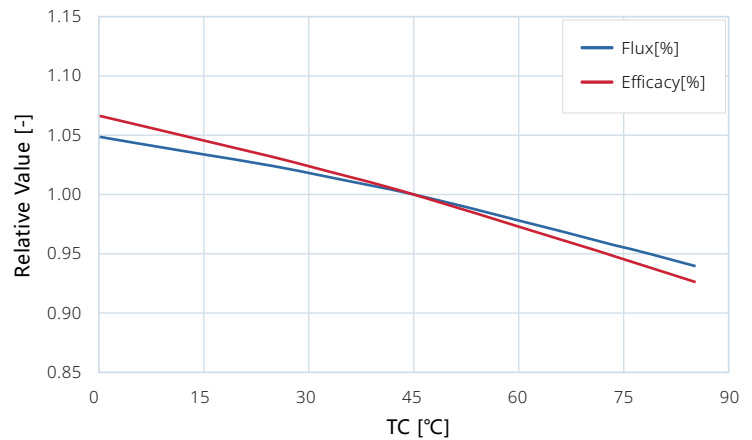


Figure 1. Typical normalized Flux and Efficacy vs. T_c temperature for HIGNTEK HUL-280SA-024024.

I [mA]	Flux [%]	Efficacy [%]
450	208	92
325	150	96
210	100	100
120	57	103

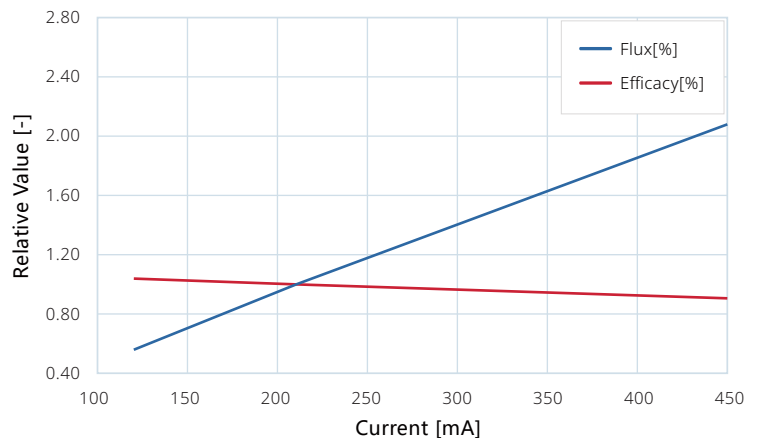


Figure 2. Typical normalized Flux and Efficacy vs. Current for HIGNTEK HUL-280SA-024024.

Mechanical Dimensions

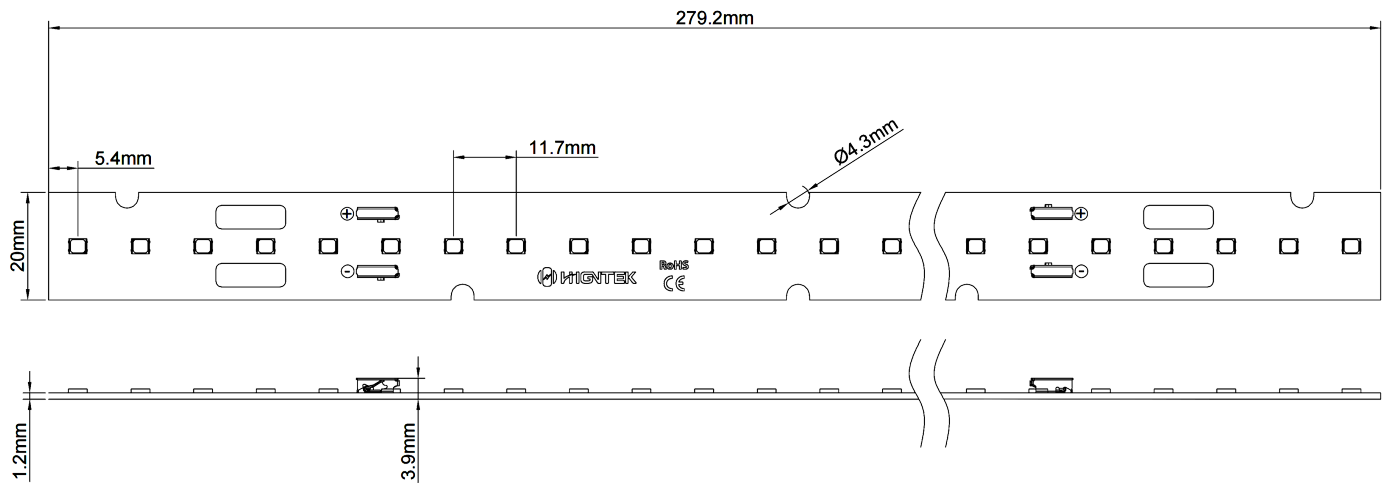


Figure 3. Mechanical Dimensions for HIGNTEK HUL-280SA-024024.

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-024024.

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.

