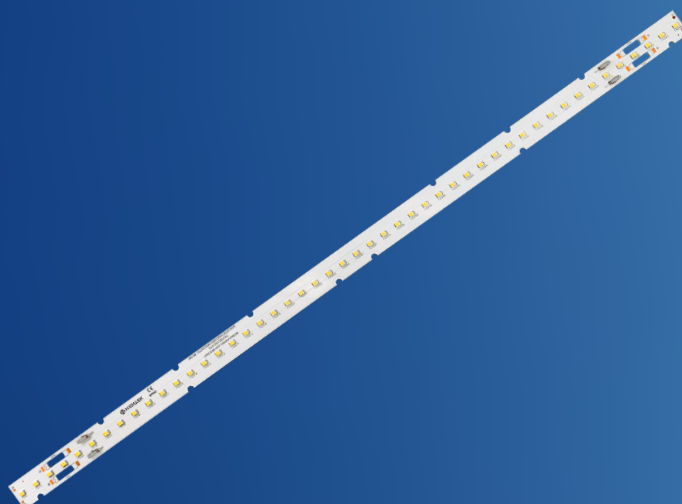




A 223lm/w
high light efficiency module designed for line lights

HUL-560SA-048048

LED Moudle Datasheet

The HIGNTEK HUL-560SA-048048 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 223lm/W typical and 4058lm 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-560SA-048048 (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	42.4	5.09	1056	1035	207	203
	80	210	43.3	9.09	1834	1797	202	198
	80	450	45.1	20.30	3774	3699	186	182
4000K	80	120	42.4	5.09	1136	1113	223	219
	80	210	43.3	9.09	1972	1933	217	213
	80	450	45.1	20.30	4058	3977	200	196
6500K	80	120	42.4	5.09	1125	1103	221	217
	80	210	43.3	9.09	1952	1913	215	210
	80	450	45.1	20.30	4018	3938	198	194
3000K	90	120	42.4	5.09	929	910	183	179
	90	210	43.3	9.09	1614	1582	178	174
	90	450	45.1	20.30	3321	3255	164	160
4000K	90	120	42.4	5.09	1000	980	196	193
	90	210	43.3	9.09	1735	1700	191	187
	90	450	45.1	20.30	3571	3500	176	172
6500K	90	120	42.4	5.09	990	970	194	191
	90	210	43.3	9.09	1718	1684	189	185
	90	450	45.1	20.30	3536	3465	174	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-560SA-048048 Color temperature (2700K-6500K) is optional.

Product Code Information

Table 2. Product Code-HUL-560SA-048048-XXX

CRI [RA]	NOMINAL CCT	PRODUCT CODE
80	2700K	HUL-560SA-048048-278
	3000K	HUL-560SA-048048-308
	3500K	HUL-560SA-048048-358
	4000K	HUL-560SA-048048-408
	5000K	HUL-560SA-048048-508
	5700K	HUL-560SA-048048-578
	6500K	HUL-560SA-048048-658
90	2700K	HUL-560SA-048048-279
	3000K	HUL-560SA-048048-309
	3500K	HUL-560SA-048048-359
	4000K	HUL-560SA-048048-409
	5000K	HUL-560SA-048048-509
	5700K	HUL-560SA-048048-579
	6500K	HUL-560SA-048048-659

Electrical Characteristics

Table 3. Electrical characteristics for HIGNTEK HUL-560SA-048048

PARAMETER	SYMBOL	VALUE			UNIT	REMARK
		MIN.	TYP.	MAX.		
Operating Current	I_F	-	210	1050	mA	-
Operating Voltage	V_F	41.6	43.3	44.8	Vdc	$I_F = 210 \text{ mA}$
Power Consumption	P	8.74	9.09	9.41	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-560SA-048048-XXX	Power Consumption	P	W	48
	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

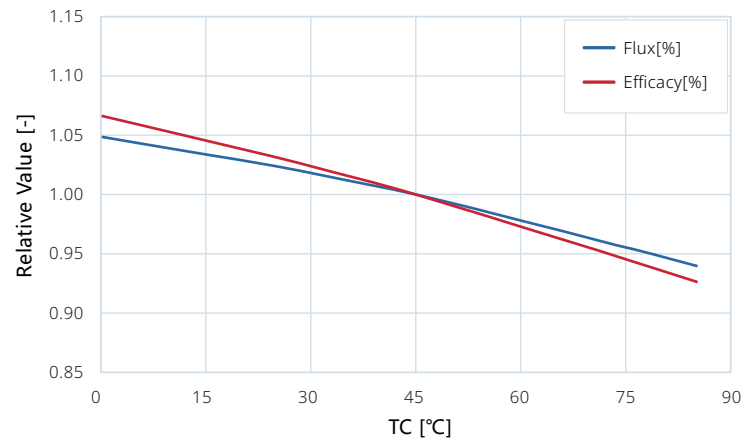


Figure 1. Typical normalized Flux and Efficacy vs. T_c temperature for HIGNTEK HUL-560SA-048048.

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

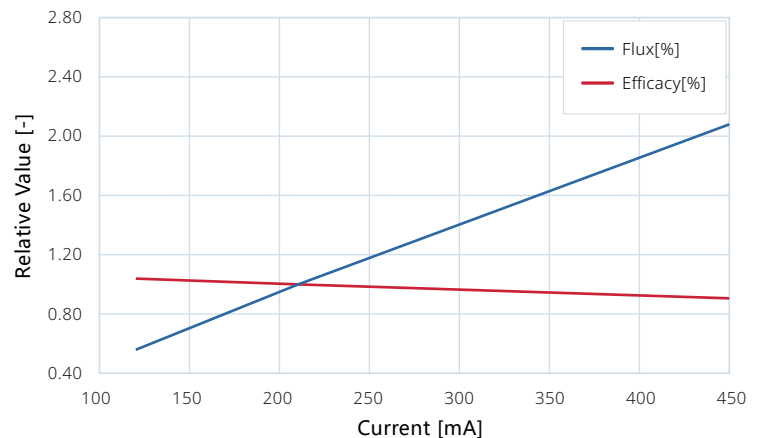


Figure 2. Typical normalized Flux and Efficacy vs. Current for HIGNTEK HUL-560SA-048048.

Mechanical Dimensions

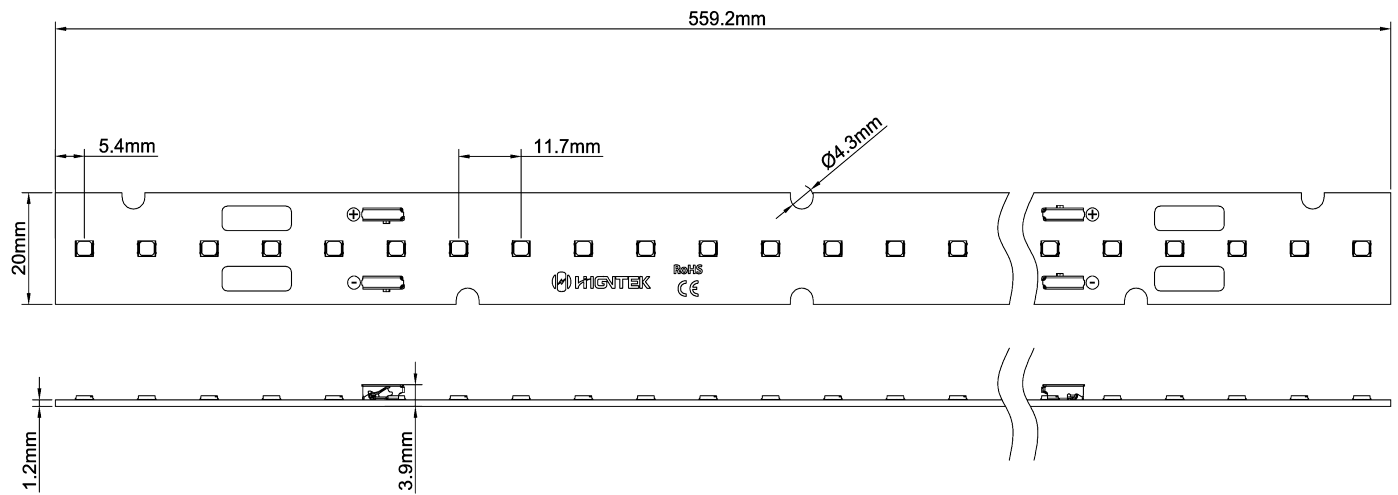


Figure 3. Mechanical Dimensions for HIGNTEK HUL-560SA-048048.

Notes for Figure 3:

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

Table 5. Bill of Materials for HIGNTEK HUL-560SA-048048.

COMPONENT	SPECIFICATION PARAMETERS	QUANTITY
LED:2835	UHE-2835 3V	48
PCB: MCPCB	559.2*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, SUMSUNG 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.

