Data Sheet

Linear Module, F-series		
Model Name	LT-F562A	
Type	560x18x5.2[mm]	
Parts No.	3000 K	SI-B8V341560WW
	3500 K	SI-B8U341560WW
	4000 K	SI-B8T341560WW
	5000 K	SI-B8R341560WW

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Contents

1. Products and Application

This specification defines general specification and performance for LED Linear module. Samsung Linear Modules target to replace conventional fluorescent lamps as T5, T8 and so on with LED solutions. Due to transferring LED, new luminaire transferred to LED can take more energy saving and longer life-time.

In special, Samsung has competitiveness in middle-power solutions. This module uses LM561B. Middle power solutions provide more homogeneous and higher efficient lights. Linear module has been designed to expand length simply and adopt easy connection way.

This F-series have high lumen performance and it's suitable for high-bay or low-bay applications of industrial site such as warehouse, plant and so on.

2. Specification

No.	Item	Specifications	Unit	Remark
2-1	Dimension	560.0(L) × 18.0(W) × 5.2(h) mm	mm	Tolerance:±0.4mm
2-2	Weight	48.0 (g)	g	Tolerance:±2.4(g)
2-3	Rated lifetime	> 50,000	hour	L70B50 @Tc = 85℃
2-4	Ingress Protection	N/A	-	-
2-5	Operating Temperature	Ta = - 20 ~ 70	℃	-
2-6	Storage Temperature	Ta = - 35 ~ 85	℃	-

No.	Item	Specifications					Unit	Remark
		Sym.	Model	Min.	Nom.	Max.		
2-7	Luminous flux	Φ_v	3000K	3641	4310	4502	lm	@1350mA, Tp = 50℃
			3500K	3701	4370	4577		
			4000K	3826	**4510**	4731		
			5000K	3949	4650	4883		
2-8	Efficiency	LPW	3000K	-	131	-	lm/W	@1350mA, Tp = 50℃
			3500K	-	133	-		
			4000K	-	**137**	-		
			5000K	-	141	-		
2-9	Color consistency	-	-	-	4	-	step	MacAdam @ initial time
2-10	Color Rendering Index	CRI	-	80	-	-	Ra	-
2-11	CCT	-	3000K	2907	2997	3092	K	@1350mA, Tp = 50℃
			3500K	3322	3439	3565		
			4000K	3816	3963	4126		
			5000K	4847	5097	5389		
2-12	Operating Current	Iop	-	-	1350	-	mA	-
2-13	Operating Voltage	Vdc	-	-	24.7	-	V	@1350mA, Tp = 50℃
2-14	Power Consumption	-	-	-	33.0	-	W	@1350mA, Tp = 50℃

※ Measurement tolerance of luminous flux becomes ± 7% in the value, measurement tolerance of Vf becomes ± 0.3V in the value and the measurement tolerance of the color coordinates is ± 0.005.

3. Structure and Assembly

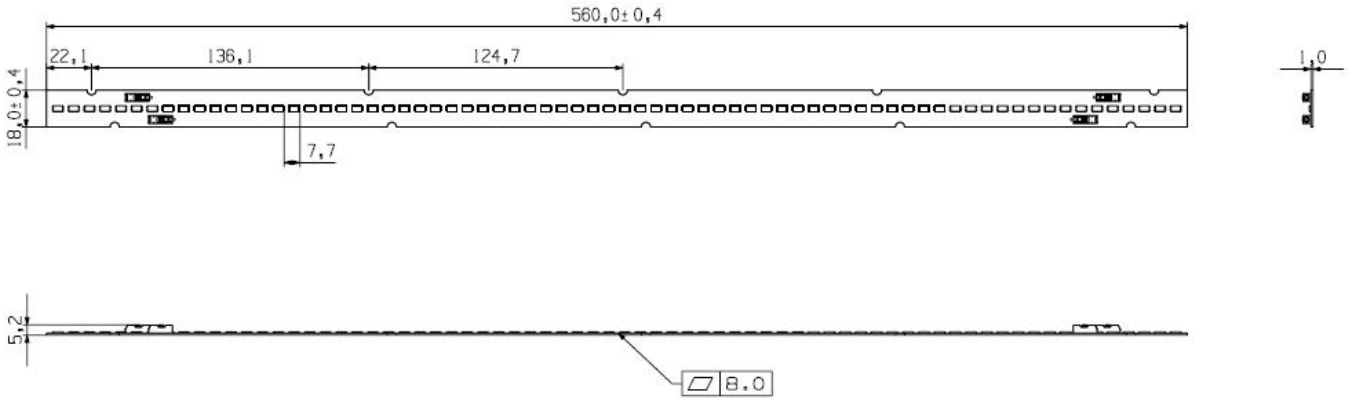
3-1. Appearance

(1) F562A

<Top View>

3-2. Dimension

(1) F562A

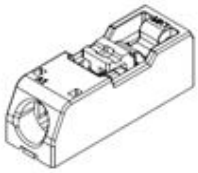


<Top View>

Item		Specifications
L	Length of PCB	560.0 ± 0.4 mm
W	Width of PCB	18.0 ± 0.4 mm
H1	Thickness of PCB	1.0 ± 0.1 mm
H2	Height of PCBA	5.2 ± 0.2 mm

3-3. Assembly

This module adapts terminal strip connection method to connect between LED modules like as below.



<Terminal strip Type>

AWG 24-18

(1) Insert solid conductors via push-in termination.

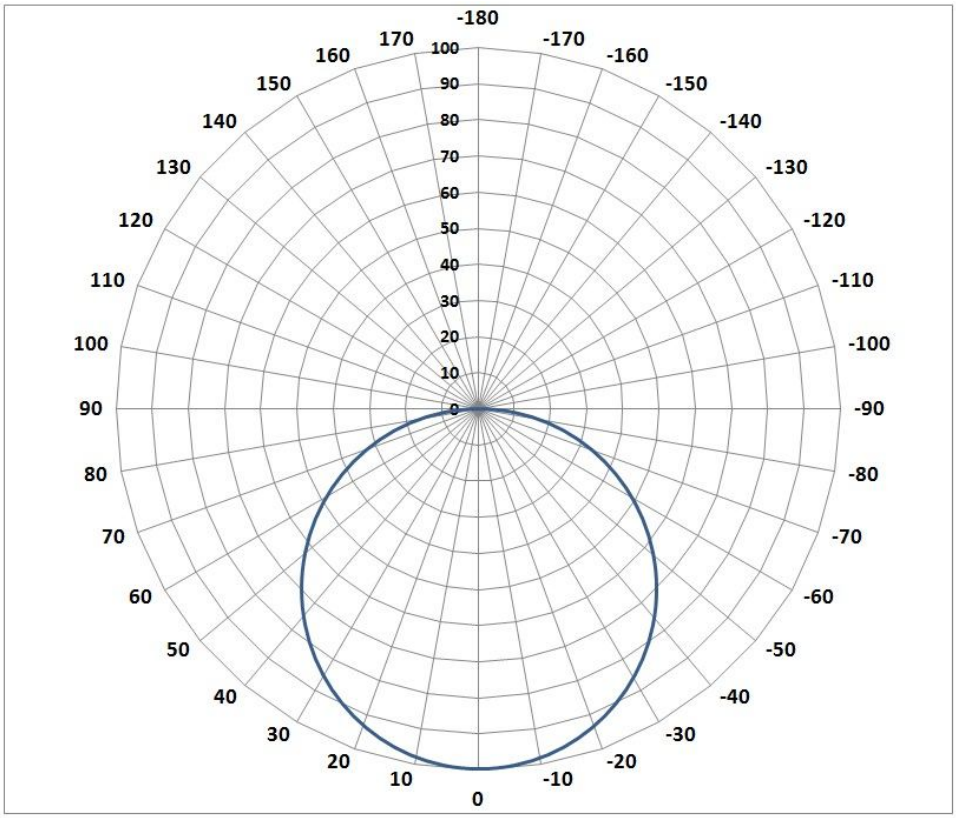
(2) Insert or remove fine-standard conductors by lightly pressing on push-button

3-4. Structure

No.		Item	Specifications
Module Assembly	3-1	LED	LM561B : Middle Power LED
	3-2	PCB	Material : Copper, Solder mask and Epoxy
	3-3	Connector	AWG 24-18 Strip Length 6-7 mm

3-5. Light Distribution

(1) Polar Intensity Diagram : Beam Angle 115 ± 5 [°]



3-6. Thermal Management

(1) Tc Point : See the below red mark.

(2) Tc_life : Max temperature to reach 50,000 hours

- Tc_life = 85 degree for > 50,000 (L70B50)

(3) Tc_max : Max temperature to operate

- Tc_max = 90 degree

4. Approbation

Item	Compliant to	Result / Remark
General	Eye safety : IEC62471	LM561B LED
Hazardous Substance & Materials	RoHS / Reach	Declared
Certification	UL/cUL	E344519
	CE	IEC 62031:2008 IEC 62471:2008
	ENEC	IEC 62031:2008 IEC 62471:2008

5. Packing

5-1 Module Q'ty

-	1 Tray	1 Box	1 Pallet
Num. of modules	40	280	5600 (20 boxes)

5-2 Pallet : 1100(L) x 1100(W) x 130(h) mm

6. Precautions In Handling

1) LED Lighting for white light are devices which are materialized by combining white LEDs. The color of white light can differ a little unusually to diffuser plate(sign-board panel).

2) Handling
- Don't drop the unit and don't give the unit any shocks.
- Don't storage the Module in a dusty place or room.
- Don't take the unit to pieces.

3) Cleaning
- This LED Module should not be used in any type of fluid such as oil, organic solvent, etc.
- It is recommended that IPA(Isopropyl Alcohol) be used as a solvent for cleaning the LED Module.
- When using other solvents, it should be confirmed beforehand whether the solvents will dissolve the package and the resin or not. Freon solvents should not be used to clean the LEDs because of worldwide regulations. Do not clean the LED Module by the ultrasonic.
- Before cleaning, a pre-test should be done to confirm whether any damage to the LED Lighting will occur.

4) Static Electricity
- Static electricity or surge voltage damages the LED Lighting.

5) Discoloration
- VOCs (volatile organic compounds) may be occurred by adhesives, flux, hardener or organic additives which is used in luminaires (fixture) and LED silicone bags are permeable to it. It may lead a discoloration when LED expose to heat or light.
- This phenomenon can give a significant loss of light emitted(output) from the luminaires(fixtures).
- In order to prevent these problems, we recommend you to know the physical properties for the materials used in luminaires, it requires to select carefully.

6) Risk of Sulfurization (or Tarnishing)
- The lead frame from Samsung Electronics is a plated package and it may change to black (or dark colored) when it is exposed to Ag (a), Sulfur (S), Cchlorine (Cl) or other halogen compound. It requires attention.
- Sulfide (Sulfurization) of the lead frame may cause a change of degradation intensity, chromaticity coordinates and it may cause open circuit in extreme cases. It requires attention.
- Sulfide (Sulfurization) of the lead frame may cause of storage and using with oxidizing substances together. Therefore, LED is not recommend to use and store with the below list.
  : Rubber, Plain paper, lead solder cream etc.

7) Others

- If over voltage which exceeds the absolute maximum rating is applied to LED Lighting, it will cause damage Circuits(that LED is included) and result in destruction.
- Do not directly look into lighted LED with naked eyes for long time.

Samsung-Electronics may make changes to specifications and product descriptions at any time, without notice.

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