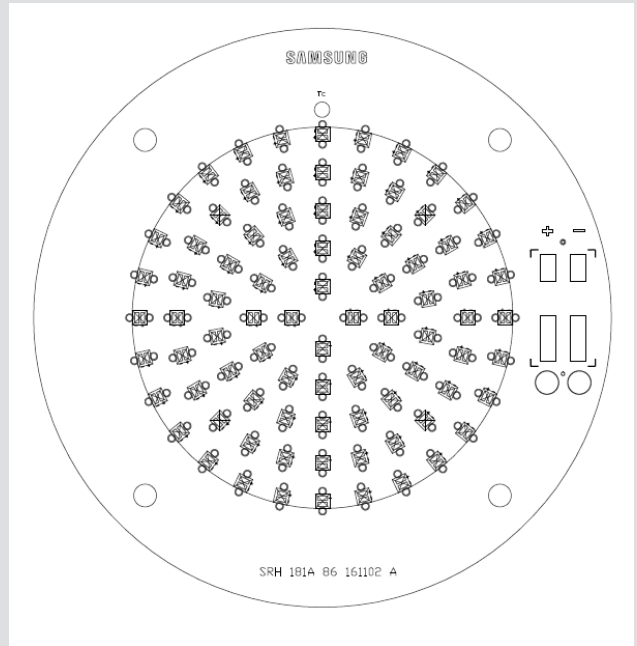


LED Module
High-bay Series

Round High-bay

10,000/20,000/30,000lm



Samsung High Lumen Round Module
providing better solution for applications

Features & Benefits

- Wide lumen choice available in the same fixture
- Good thermal management by flip-chip technology



Applications

Indoor Lighting:

- Low Bay
- High Bay

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1. Product Code Information

Size (mm)	Nominal CCT (K)	Product Code	Remark
Φ76	4000	SL-B8TBNC0L1WW	30,000 lm
	5000	SL-B8RBNC0L1WW	
	4000	SL-B8TANB0L1WW	20,000 lm
	5000	SL-B8RANB0L1WW	
	4000	SL-B8T8NA0L1WW	10,000 lm
	5000	SL-B8R8NA0L1WW	

2. Characteristics

a) Maximum Rating

Item	Rating	Unit	Remark
Operating Temperature (T_c)	10 ~ 70	°C	
Storage Temperature (T_a)	-30 ~ +70	°C	Without Operation

※ T_a : Ambient Temperature

b) Electro-optical Characteristics of 30,000 lm module ($I_F = 2100$ mA, $t_p = 50$ °C)

Item	Unit	Nom. CCT (K)	Min.	Typ.	Max.	Remark
Luminous Flux (Φ_v)	lm	4000	T.B.D	30,000	-	
		5000	T.B.D	30,000	-	
Luminous Efficacy	lm/W	4000	-	120	-	
		5000	-	120	-	
CCT	K	4000	T.B.D	4000	T.B.D	
		5000	T.B.D	5000	T.B.D	
Color Rendering Index (Ra)		-	80	-	-	
Operating Current (I_F)	mA	-	-	2100	T.B.D	per module
Operating Voltage (V_F)	Vdc	-	T.B.D	121	T.B.D	
Power Consumption (P)	W	-	-	255	T.B.D	

※ t_p : Temperature at which performance is specified : measured at "Tc point"

c) Electro-optical Characteristics of 20,000 lm module ($I_F = 2100 \text{ mA}$, $t_p = 50 \text{ }^\circ\text{C}$)

Item	Unit	Nom. CCT (K)	Min.	Typ.	Max.	Remark
Luminous Flux (Φ_v)	lm	4000	T.B.D	20,000	T.B.D	
		5000	T.B.D	20,000	T.B.D	
Luminous Efficacy	lm/W	4000	-	120	-	
		5000	-	120	-	
CCT	K	4000	T.B.D	4000	T.B.D	
		5000	T.B.D	5000	T.B.D	
Color Rendering Index (Ra)		-	80			
Operating Current (I_F)	mA	-	-	2100	T.B.D	per module
Operating Voltage (V_F)	Vdc	-	T.B.D	79	T.B.D	
Power Consumption (P)	W	-	-	165	T.B.D	

※ t_p : Temperature at which performance is specified : measured at "Tc point"

d) Electro-optical Characteristics of 10,000 lm module ($I_F = 2100 \text{ mA}$, $t_p = 50 \text{ }^\circ\text{C}$)

Item	Unit	Nom. CCT (K)	Min.	Typ.	Max.	Remark
Luminous Flux (Φ_v)	lm	4000	T.B.D	10,000	-	
		5000	T.B.D	10,000	-	
Luminous Efficacy	lm/W	4000	-	120	-	
		5000	-	120	-	
CCT	K	4000	T.B.D	4000	T.B.D	
		5000	T.B.D	5000	T.B.D	
Color Rendering Index (Ra)		-	80			
Operating Current (I_F)	mA	-	-	2100	T.B.D	per module
Operating Voltage (V_F)	Vdc	-	T.B.D	39	T.B.D	
Power Consumption (P)	W	-	-	82	T.B.D	

※ t_p : Temperature at which performance is specified : measured at "Tc point"

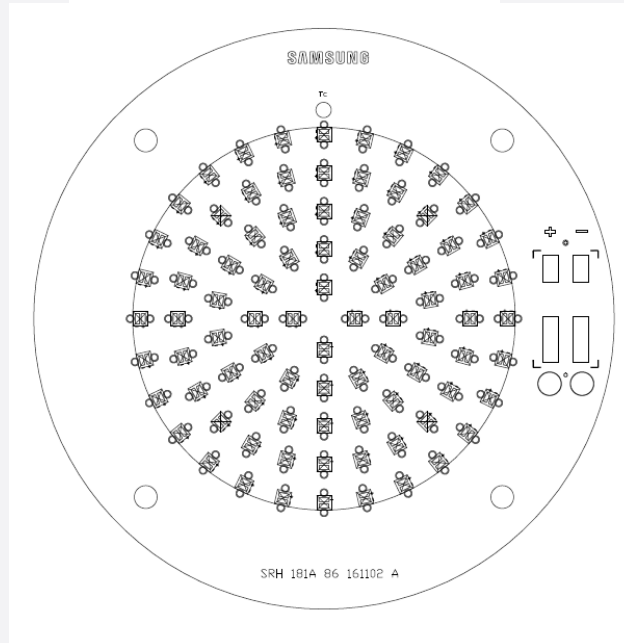
Notes:

- 1) T_C : Case temperature, measured at “**Tc point**” and at the rated typical DC current
- 2) Samsung maintains measurement tolerance of
: luminous flux = $\pm 7\%$, CRI = ± 1 , voltage = $\pm 5\%$, CCT = $\pm 5\%$, Current = $\pm 5\%$
- 3) The maximum operating current means the highest limit in any operating condition
- 4) Voltage difference between modules is tightly controlled to be less than 1.0 V so that the maximum current of any module can be limited close to the value stated on above table (voltage bin of the module is printed at the labels on each module and on outer box)
- 5) The power consumption for a specific module is dependent on the operating voltage distribution across the modules in parallel connection

3. Structure & Assembly

a) Appearance

※ Case of 30,000lm module



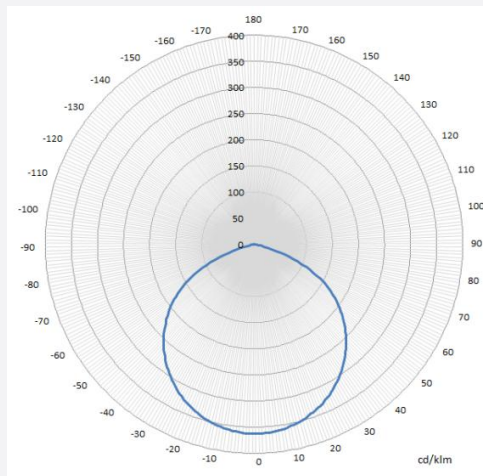
b) Dimension

Number	Item	Dimension	Tolerance	Unit	
1	Module Diameter	30,000 lm	Φ76	±0.2	mm
		20,000 lm			
		10,000 lm			
2	Module Height	Ref. 2.2	-	mm	
3	Screw Hole Size (M3 screw)	3.0	±0.2	mm	
4	Module Weight	30,000 lm	T.B.D	±0.5	g
		20,000 lm	T.B.D	±0.5	g
		10,000 lm	T.B.D	±0.5	g

c) Structure

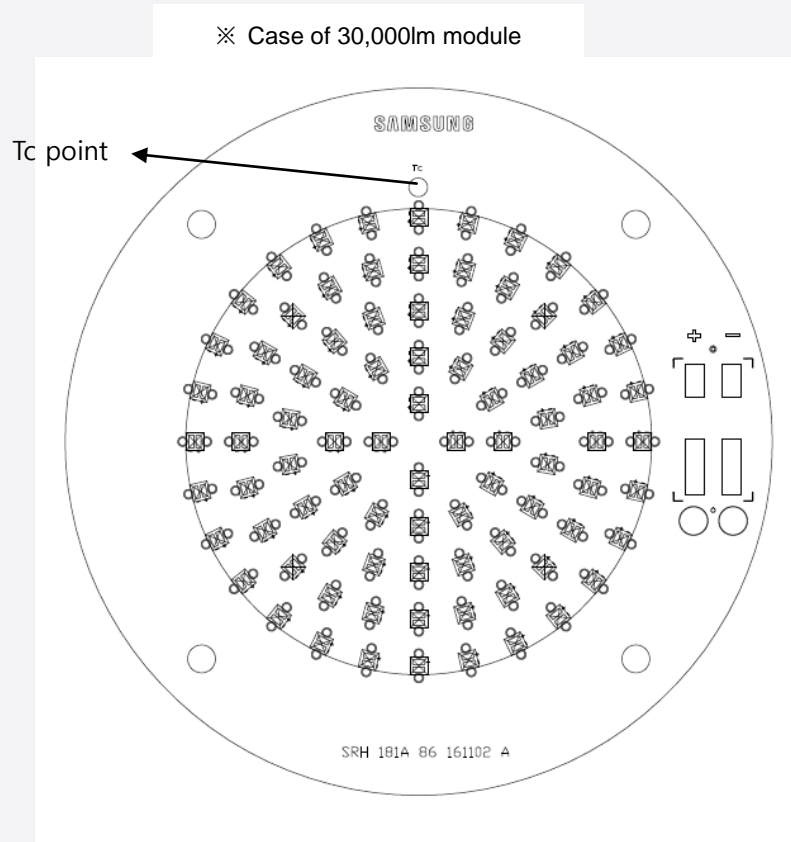
Item	Specification
LED	LH181A
PCB	MCPCB, White PSR, Cu 1oz Single layer
Connector	Reworkable poke-in connector type

d) Light Distribution



e) Thermal Management

Performance temperatures are measured on "Tc point" as indicated on the module.

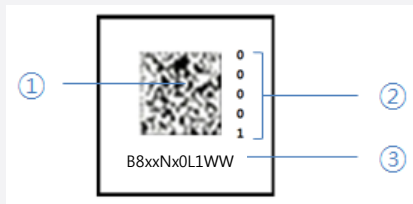


4. Certification & Declaration

Item	Compliant to	Remark
Declaration	RoHS	Hazardous Substance & Material

5. Label Structure

a) Module Label



Number	Item	Remark
①	2D Barcode (QR)	-
②	Serial No.	-
③	Model Number (Print specification)	Refer to page 3


b) Box Labels



Number	Item	Remark
①	Model Number (Product Code)	Refer to page 3
②	Lot No.	-
③	Country of Origin	T.B.D
④	Packing Quantity	T.B.D
⑤	Product Date (year & week)	YYWW
⑥	Product Date (year/month/date)	Year/month/date

c) Certification Labels & Logo



Number	Item	Remark
①	Samsung logo	-
②		
③		
④		
⑤		

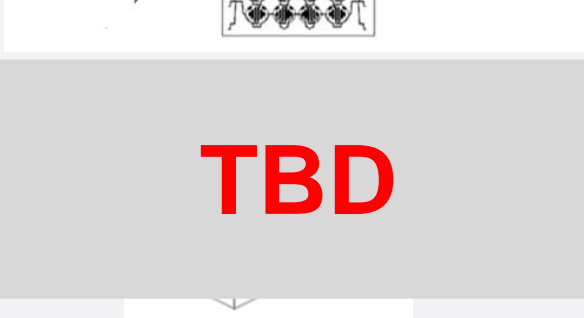
6. Packing Structure

Packing Process

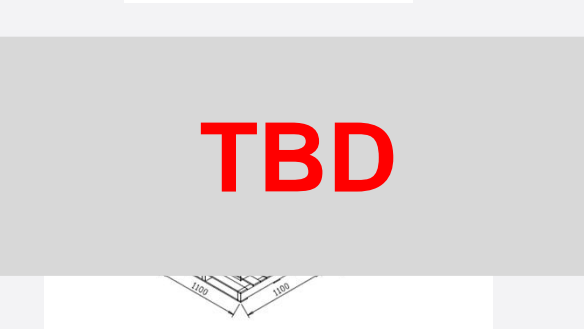
Step 1



Step 2



Step 3



Product	Packing	Quantity (modules)	Dimension (mm)			
			Length	Width	Height	Tolerance
	Tray					
	Outer Box					
	Pallet					

7. Precautions in Handling & Use

7.1. The LED Lighting Modules 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). Also when the LEDs are illuminating, operating current should be decided after considering the ambient maximum temperature.

7.2. Handling

To prevent the LED Lighting Modules from making any defectives, please handle the LED Lighting modules with care as follows.

- (1) Don't drop the unit and don't give the unit any shocks.
- (2) Don't bend the PCB and don't touch the LED Resin.
- (3) Don't storage the Module in a dusty place or room.
- (4) Don't take the product apart.
- (5) Don't touch the LED and also PCB and other circuit parts of Module with your naked fingers or sharpness things.
- (6) Take care so that do not pull wire with hand in case of carries or moves LED Lighting Modules.
- (7) *VOCs can be generated from adhesives, flux, hardener or organic additives used in luminaires. This phenomenon can cause a significant loss of light emitted from the luminaires. In order to prevent these problems, we recommend users to know the physical properties of the materials used in luminaires, and they must be selected carefully.

(*VOCs: Volatile Organic Compounds)

7.3. Cleaning

The LED Lighting Modules should not be used in any type of fluid such as water, oil, organic solvent, etc.

It is recommended that IPA (Isopropyl Alcohol) be used as a solvent for cleaning the LED Lighting Modules.

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 Lighting Modules by the ultrasonic. Before cleaning, a pre-test should be done to confirm whether any damage to the LED Lighting modules will occur.

7.4. Static Electricity

Static electricity or surge voltage damages the LED Lighting Modules. Please keep the working process anti-static electricity condition to prevent the Lighting from destroying, as following.

- (1) Anyone who handles the unit should be well grounded.(earth ring or anti-static glove)
- (2) Anyone who handles the unit should wear anti-electrostatic working clothes.
- (3) All kinds of device and instruments, such as working table, measuring instruments and assembly jigs in your production lines should be well grounded.

7.5. Storage

The LED Lighting Modules must be stored to insert a package of a moisture absorbent material(silica gel) in a box.

7.6. Others

If over voltage which exceeds the absolute maximum rating is applied to LED Lighting Modules.

It will cause damage Circuits(that LED is included) and result in destruction.

Do not directly look into lighted LED with naked eyes.

Please use this product within 5 months, which is kept in its original packaging unopened when stocked.

Legal and additional information.

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