THE DATASHEET OF

SL-IGR5E82SBWW

LED Array Module Series

50W Module

SL-IGR5E82SBWW

Samsung outdoor modules, providing better solution for outdoor application

Features & Benefits

- High lumen Efficacy of 138 lm/W
- Lens-type module, that makes fixtures easily designed
- IP66 for durability and robustness

Applications

Outdoor Lighting:

- Roadway
- Street Light
- Parking Lot
- Flood Light

SAMSUNG

Table of Contents

1. Product Code Information

Light Distribution (Optical Lens Type)	Nominal CCT (K)	Product Code	Remark
IESNA Type II Short	5000	SL-IGR5E82SBWW	

2. Characteristics

a) Maximum Rating

Item	Rating	Unit	Remark
Rated Lifetime	>50,000	hour	L80B50 @ $t_{p,\,50}$ = 105 ºC
Ingress Protection (IP)	IP66	-	For Damp Location (UL marking)
Operating Temperature (T_c)	10 ~ 80	ºC	
Storage Temperature (T_a)	-30 ~ +85	ºC	

※ Ta : Ambient Temperature

b) Electro-optical Characteristics (I_F = 900 mA)

Item	Unit	Nom. CCT (K)	Min.	Typ.	Max.	Remark
Luminous Flux (Φ_v)	lm	5000	5700	6450	-	
Luminous Efficacy	lm/W	5000	-	138	-	
CCT	K	5000	4745	5000	5311	
Color Rendering Index (Ra)		-	75			
Operating Current (I_F)	mA		-	900	1400	per module
Operating Voltage (V_F)	Vdc		47	52.2	56	
Power Consumption (P)	W		-	47	-	@ 52.2 V, 900mA in a module

Notes:

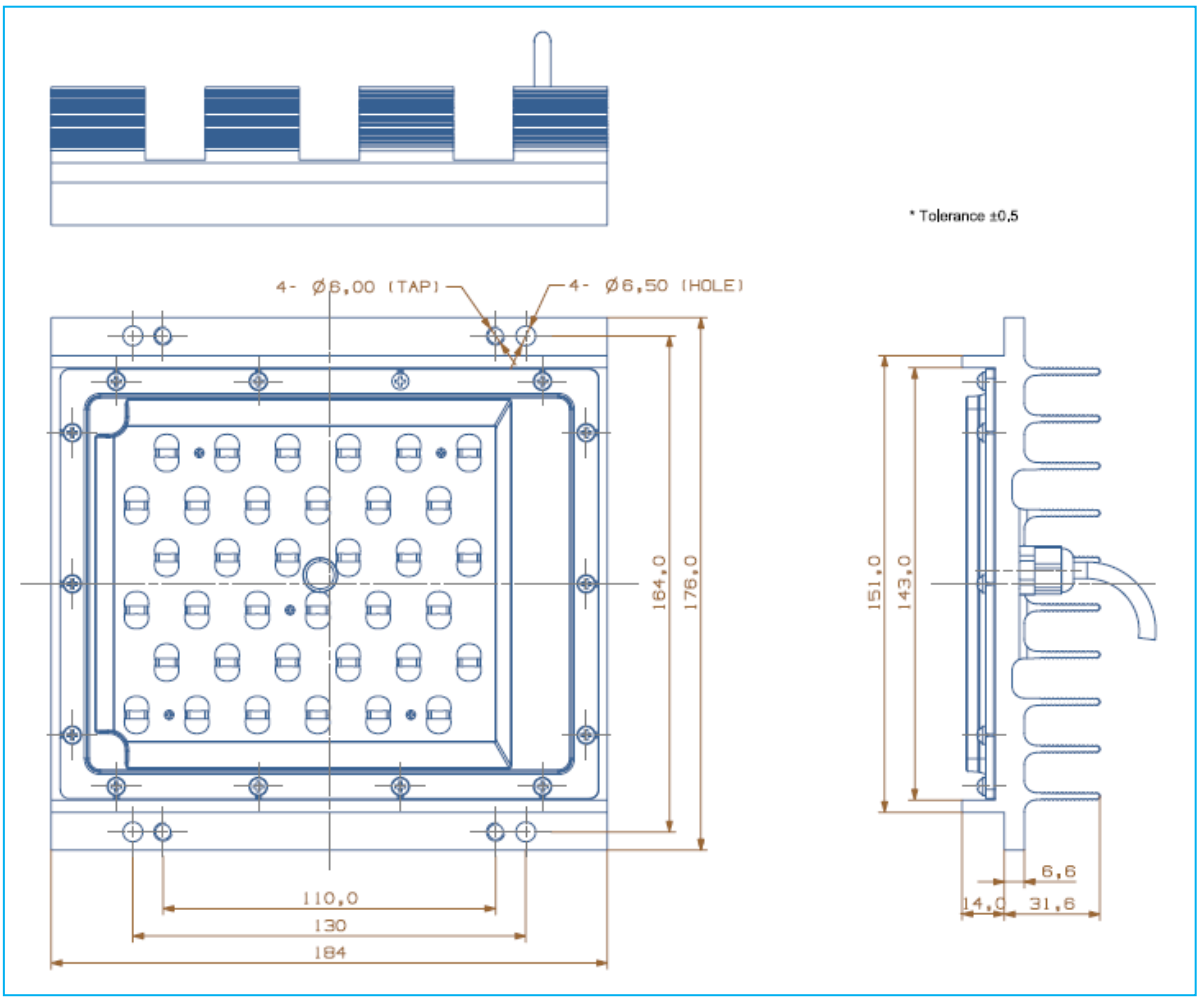
1) T_C: Case temperature, measured at "**Tc point**" and at the rated typical DC current
2) Samsung maintains measurement tolerance of

   : luminous flux = ±7 %, CRI = ±1, voltage = ±5%, CCT = ±5%, Current = ±5%
3) The maximum operating current means the highest limit in any operating condition
4) 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

[SL-IGR5E82SBWW]



Note:

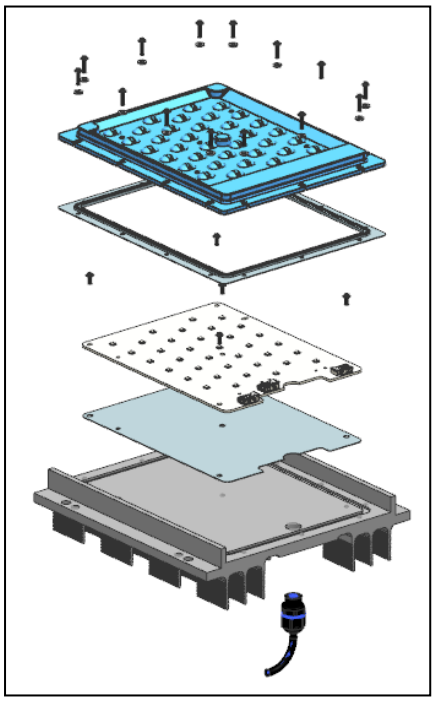
The appearance will be different for various optical solutions depending on the combination of the available core lenses. Critical dimensions are the same for all optical solutions, except for thickness difference at the core lens cross-section.

b) Dimension

Model	Dimension	Specification	Tolerance	Unit	Remark
SL-IGR5E82SBWW	Module Length	184	±1.0	mm	IESNA Type II Short
	Module Width	176	±1.0	mm	
	Module Height	45.6	±0.5	mm	
	PCB Thickness	1.65	±0.12	mm	
	Module Weight	1.1	±0.2	Kg	

c) Structure

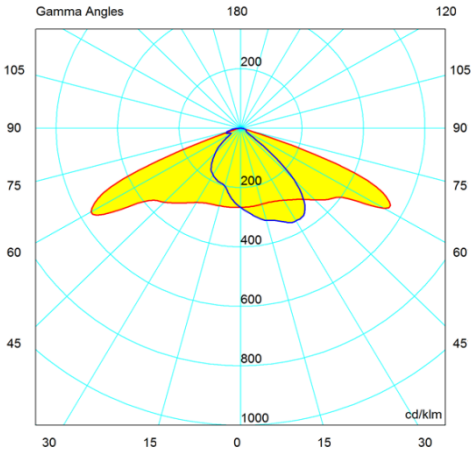
[SL-IGR5E82SBWW]

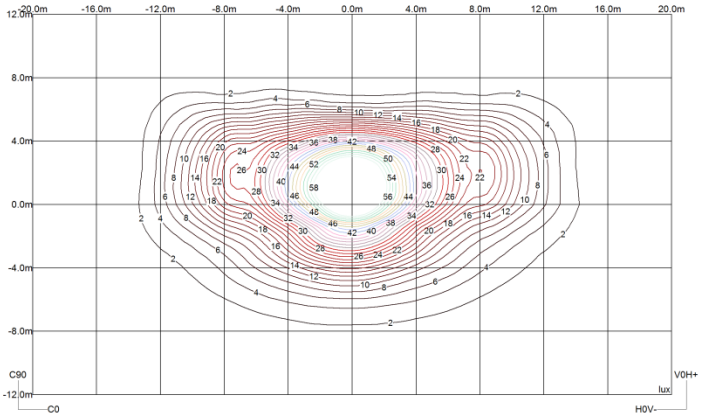


No.	Parts	Specifications
1.	Lens cover screws (14 pcs)	Material: Stainless steel with teflon washer Location: Between array lens cover and base plate heat sink
.	Array lens cover	Lens type: IESNA Type II Short Material: Polycarbonate Thickness: 2.0 mm UL-94 Flammability: V-2
3.	Rubber seal	Material: Molded silicone
4.	LED board	LED: LH351B Ceramic high flux rank (36 pcs) Material: MC-PCB, aluminum Thickness: 1.65 mm Screws: Stainless steel (5 pcs)
5.	Side inlet harness	Material: Molded PVC coated with silicone sealant Wires: 22 AWG, with end connector Length (wires): 300 mm
6.	Thermal pad	Between PCB and base plate heat sink
7.	Base plate heat sink	Material: Extrusion aluminum

d) Light Distribution

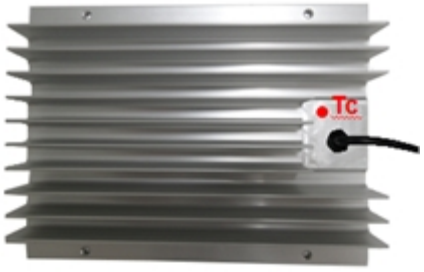
IESNA Type II Short Lens Type





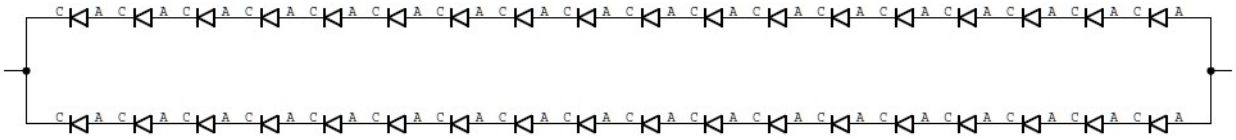
e) Thermal Management

Performance temperatures are measured on "**Tc point**" as indicated below (located at long side-center of the Module):



※Tc : case temperature

g) Schematic Circuit

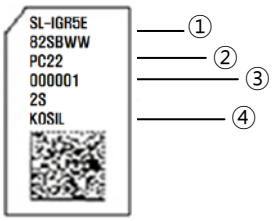


4. Certification & Declaration

Item	Compliant to	Remark
Declaration	RoHS	Hazardous Substance & Material

5. Label Structure

a) Module Label



Number	Item	Description
①	Model Number (Product Code)	Refer to page 3
②	Production Date Code	-
③	Serial Number	00001 ~ 99999
④	Manufacturing Location	KO (Country / Korea) + SIL (Factory)

b) Outer Box Label

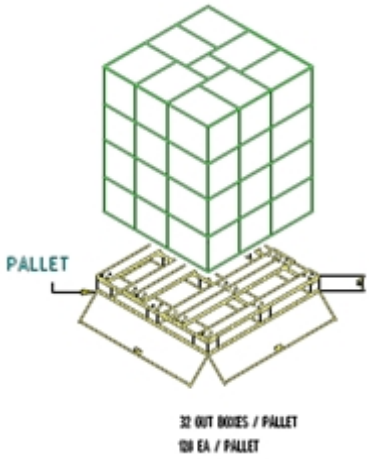
Number	Item	Description
①	Model Number (Product Code)	Refer to page 3
②	Lot No.	Factory Code (2) + Production Date (4) + Serial No. (4)
③	Country of Origin	KOREA
④	Packing Quantity	4 pc
⑤	Production Date (year/week)	yyww
⑥	Label Printing Date (year/month/date)	yy/mm/dd

6. Packing Structure

Packing Process

Step 1: 4 Modules in one box:

Step 2: 32 boxes (128 modules) are placed on one pallet:



Packing	Quantity (modules)	Dimension (mm)			
		Length			Length
Outer Box	4 (1 Inner Box)	330	Outer Box	4 (1 Inner Box)	330
Pallet	128 (32 outer boxes)	1000	1000	130	±10

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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