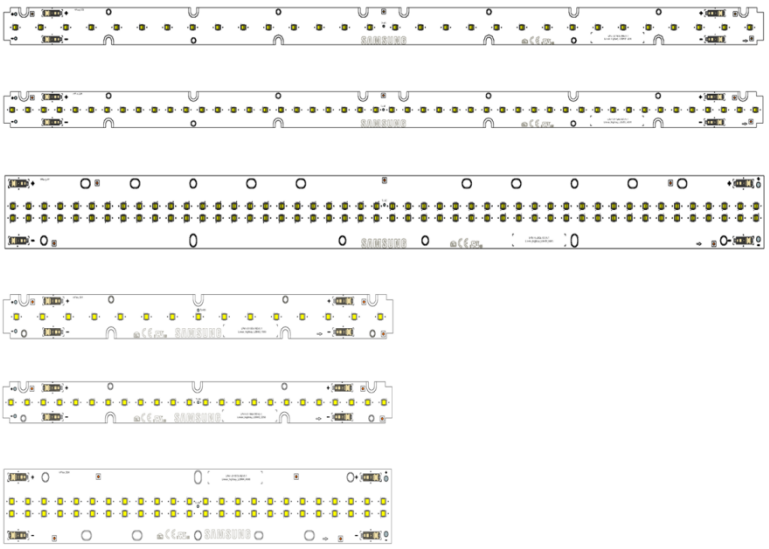
THE DATASHEET OF

SL-B8R3N80L1WW

LED Module

inFlux Linear



Features & Benefits

- Excellent for High Bay, Low Bay, and High Mount Fixtures
- Wide lumen flux coverage (up to 40,000lm)
- Replace T8 / T5HO tubes
- Easy thermal management by flip-chip MPL
- Simple mounting – Screw mounted on module edges
- Continuous LED spacing for even lumen distribution
- Input and Output Poke-In connectors for easy wiring
- End to End mounting for long linear applications

Applications

Industrial Lighting:

- Warehouse , Plant, Parking lot, Etc

SAMSUNG

Table of Contents

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1. Product Code Information

1) inFlux_L03

Nominal CCT (K)	Product Code
3000	SL-B8V2N60L1WW
3500	SL-B8U2N60L1WW
4000	SL-B8T2N60L1WW
5000	SL-B8R2N60L1WW

2) inFlux_L04

Nominal CCT (K)	Product Code
3000	SL-B8V3N80L1WW
3500	SL-B8U3N80L1WW
4000	SL-B8T3N80L1WW
5000	SL-B8R3N80L1WW

3) inFlux_L09

Nominal CCT (K)	Product Code
3000	SL-B8V7N90L1WW
3500	SL-B8U7N90L1WW
4000	SL-B8T7N90L1WW
5000	SL-B8R7N90L1WW

4) inFlux_S01

Nominal CCT (K)	Product Code
3000	SL-B8V1N00L1WW
3500	SL-B8U1N00L1WW
4000	SL-B8T1N00L1WW
5000	SL-B8R1N00L1WW

5) inFlux_S02

Nominal CCT (K)	Product Code
3000	SL-B8V1N40L1WW
3500	SL-B8U1N40L1WW
4000	SL-B8T1N40L1WW
5000	SL-B8R1N0L1WW

6) inFlux_S04

Nominal CCT (K)	Product Code
3000	SL-B8V4N80L1WW
3500	SL-B8U4N80L1WW
4000	SL-B8T4N80L1WW
5000	SL-B8R4N80L1WW

2. Characteristics

Item	Rating	Unit	Remark
Rated Lifetime	50,000	hour	L70B50
Ingress Protection (IP)	no rating	-	
Ambient / Operating Temperature (t_{amb})	-20 ~ +50	℃	
Storage Temperature	-30 ~ +80	℃	

1) inFlux_L03

Item	Nom. CCT (K)	Rating			Unit	Remark
		Min	Typ.	Max		
Luminous Flux (Φ_v)	3000	2390	2620	2860	lm	I_f = 1150 mA t_p = 65 ℃
	3500	2430	2670	2910		
	4000	2600	2840	3105		
	5000	2675	2930	3200		
Luminous Efficacy	3000	98	126	151	lm/W	
	3500	100	128	154		
	4000	107	137	164		
	5000	110	141	169		
CCT	3000	2817	2915	3018	K	
	3500	3287	3401	3521		
	4000	3756	3887	4024		
	5000	4695	4859	5030		
Color Rendering Index (Ra)		80	-	-	-	
Operating Current (I_f)		-	1150	1150	mA	-
Operating Voltage (V_f)		16.4	18.1	21.1	Vdc	If = 1150 mA tp = 65 ℃
Power Consumption		-	20.8	-	W	

Notes:

1) t_p: temperature at which performance is specified; measured at “Tc point”.

2) Samsung maintains a measurement tolerance of: Luminous flux: ±7 %, CRI: ±3.0, Voltage: ±0.3 V, Power Consumption: ±0.3W

2) inFlux_L04

Item	Nom. CCT (K)	Rating				Remark
		Min	Typ.	Max	Unit	
Luminous Flux (Φ_v)	3000	3825	4190	4565	lm	I_f = 1380 mA t_p = 65 ℃
	3500	3885	4260	4645		
	4000	4145	4540	4955		
	5000	4275	4690	5105		
Luminous Efficacy	3000	105	126	152	lm/W	
	3500	107	128	154		
	4000	114	137	165		
	5000	118	141	170		
CCT	3000	2821	2918	3022	K	
	3500	3291	3405	3525		
	4000	3761	3891	4029		
	5000	4701	4864	5036		
Color Rendering Index (Ra)		80	-	-	-	
Operating Current (I_f)		-	1380	1380	mA	-
Operating Voltage (V_f)		21.8	24.1	26.3	Vdc	If = 1380 mA tp = 65 ℃
Power Consumption		-	33.3	-	W	

Notes:

1) t_p: temperature at which performance is specified; measured at “Tc point”.

2) Samsung maintains a measurement tolerance of: Luminous flux: ±7 %, CRI: ±3.0, Voltage: ±0.3 V, Power Consumption: ±0.3W

3) inFlux_L09

Item	Nom. CCT (K)	Rating				Remark
		Min	Typ.	Max	Unit	
Luminous Flux (Φ_v)	3000	7600	8390	9165	lm	I_f = 1380 mA t_p = 65 ℃
	3500	7725	8530	9320		
	4000	8245	9100	9940		
	5000	8495	9380	10250		
Luminous Efficacy	3000	106	126	152	lm/W	
	3500	107	128	155		
	4000	115	137	165		
	5000	118	141	170		
CCT	3000	2817	2915	3020	K	
	3500	3287	3400	3524		
	4000	3756	3886	4027		
	5000	4695	4858	5034		
Color Rendering Index (Ra)		80	-	-	-	
Operating Current (I_f)		-	1380	1380	mA	-
Operating Voltage (V_f)		43.7	48.2	52.1	Vdc	If = 1380 mA tp = 65 ℃
Power Consumption		-	66.6	-	W	

Notes:

1) t_p: temperature at which performance is specified; measured at “Tc point”.

2) Samsung maintains a measurement tolerance of: Luminous flux: ±7 %, CRI: ±3.0, Voltage: ±0.3 V, Power Consumption: ±0.3W

4) inFlux_S01

Item	Nom. CCT (K)	Rating				Remark
		Min	Typ.	Max	Unit	
Luminous Flux (Φ_v)	3000	1195	1310	1430	lm	I_f = 1150 mA t_p = 65 ℃
	3500	1210	1335	1450		
	4000	1295	1420	1550		
	5000	1335	1465	1600		
Luminous Efficacy	3000	103	126	151	lm/W	
	3500	104	128	153		
	4000	112	137	163		
	5000	115	141	168		
CCT	3000	2813	2914	3016	K	
	3500	3282	3399	3518		
	4000	3751	3885	4021		
	5000	4689	4856	5026		
Color Rendering Index (Ra)		80	-	-	-	
Operating Current (I_f)		-	1150	1150	mA	-
Operating Voltage (V_f)		8.3	9.1	10.1	Vdc	If = 1150 mA t_p = 65 ℃
Power Consumption		-	10.4	-	W	

Notes:

1) t_p: temperature at which performance is specified; measured at “Tc point”.

2) Samsung maintains a measurement tolerance of: Luminous flux: ±7 %, CRI: ±3.0, Voltage: ±0.3 V, Power Consumption: ±0.3W

5) inFlux_S02

Item	Nom. CCT (K)	Rating				Remark
		Min	Typ.	Max	Unit	
Luminous Flux (Φ_v)	3000	1910	2095	2285	lm	I_f = 1380 mA t_p = 65 ℃
	3500	1940	2130	2325		
	4000	2065	2270	2475		
	5000	2135	2345	2560		
Luminous Efficacy	3000	105	126	150	lm/W	
	3500	107	128	153		
	4000	113	137	163		
	5000	117	141	168		
CCT	3000	2817	2916	3020	K	
	3500	3287	3402	3523		
	4000	3756	3888	4026		
	5000	4695	4860	5033		
Color Rendering Index (Ra)		80	-	-	-	
Operating Current (I_f)		-	1380	1380	mA	-
Operating Voltage (V_f)		11.0	12.1	13.2	Vdc	If = 1380 mA t_p = 65 ℃
Power Consumption		-	16.6	-	W	

Notes:

1) t_p: temperature at which performance is specified; measured at “Tc point”.

2) Samsung maintains a measurement tolerance of: Luminous flux: ±7 %, CRI: ±3.0, Voltage: ±0.3 V, Power Consumption: ±0.3W

6) inFlux_S04

Item	Nom. CCT (K)	Rating				Remark
		Min	Typ.	Max	Unit	
Luminous Flux (Φ_v)	3000	3820	4195	4565	lm	I_f = 1380 mA t_p = 65 ℃
	3500	3885	4265	4645		
	4000	4145	4550	4955		
	5000	4275	4690	5105		
Luminous Efficacy	3000	105	126	150	lm/W	
	3500	107	128	153		
	4000	114	137	163		
	5000	118	141	168		
CCT	3000	2813	2912	3014	K	
	3500	3282	3397	3517		
	4000	3751	3882	4019		
	5000	4689	4853	5024		
Color Rendering Index (Ra)		80	-	-	-	
Operating Current (I_f)		-	1380	1380	mA	-
Operating Voltage (V_f)		22.0	24.1	26.3	Vdc	If = 1380 mA tp = 65 ℃
Power Consumption			33.3		W	

Notes:

1) t_p: temperature at which performance is specified; measured at “Tc point”.

2) Samsung maintains a measurement tolerance of: Luminous flux: ±7 %, CRI: ±3.0, Voltage: ±0.3 V, Power Consumption: ±0.3W

Item	Nominal*	Life**	Max***	Unit
Temperature	65	80($t_{p\ 50}$)	85(t_c)	℃

Notes:

* Temperature used to specify performance of the module (t_p).

** Rated maximum performance temperature at which lifetime is specified ($t_{p,\ 25}$).

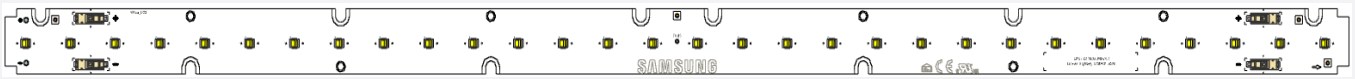
*** Rated maximum temperature, highest permissible temperature to avoid safety risk (t_c).

All temperatures are measured at the designated “Tc point” as indicated on the module.

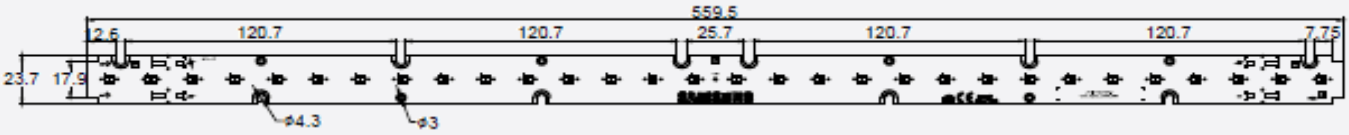
3. Structure and Assembly

1) inFlux_L03

a) Appearance



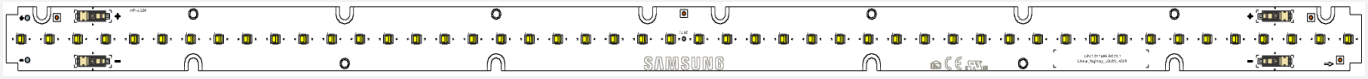
b) Dimension



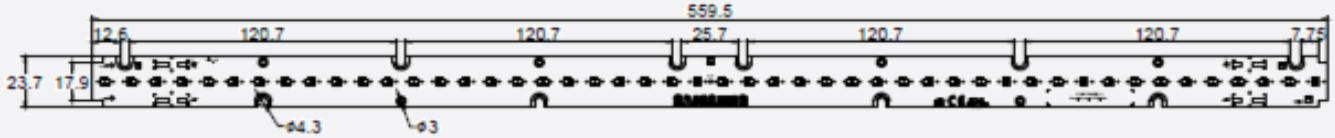
Dimension	Specification	Tolerance	Unit
Module Length	559.5	±0.5	mm
Module Width	23.7	±0.3	mm
Module Height	5.9	±0.2	mm
PCB Thickness	1.6	±0.115	mm
Module Weight	41	±2.05	g

2) inFlux_L04

a) Appearance



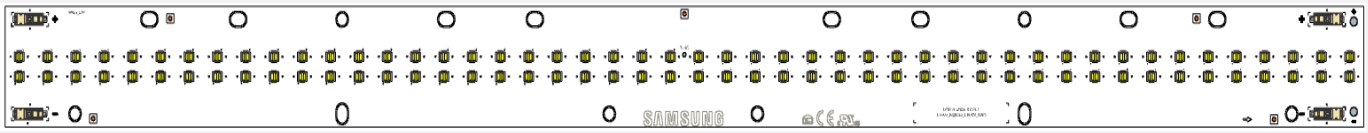
b) Dimension



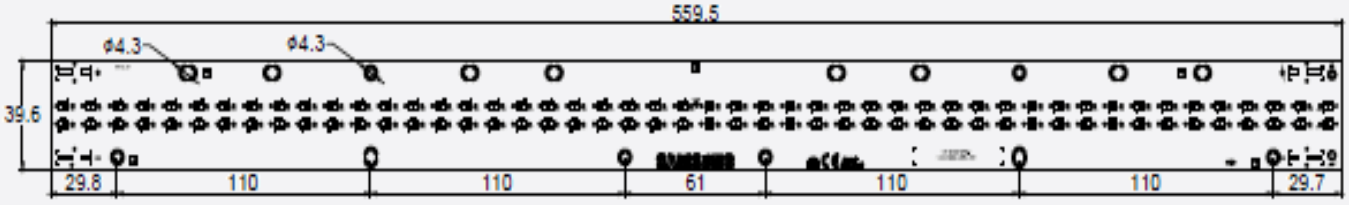
Dimension	Specification	Tolerance	Unit
Module Length	559.5	±0.5	mm
Module Width	23.7	±0.3	mm
Module Height	5.9	±0.2	mm
PCB Thickness	1.6	±0.115	mm
Module Weight	43	±2.15	g

3) inFlux_L09

a) Appearance



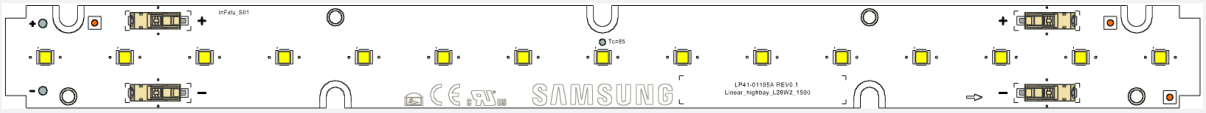
b) Dimension



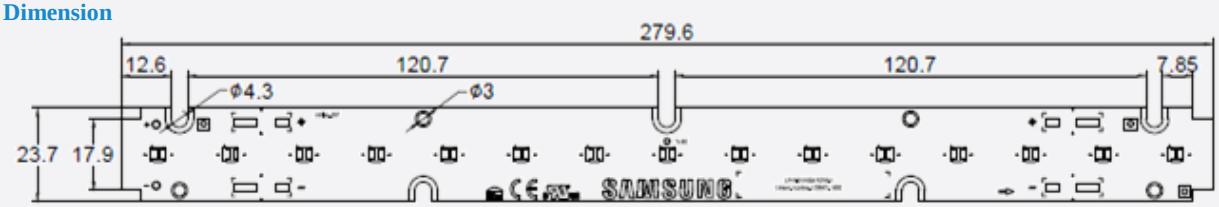
Dimension	Specification	Tolerance	Unit
Module Length	559.5	±0.5	mm
Module Width	39.6	±0.4	mm
Module Height	5.9	±0.2	mm
PCB Thickness	1.6	±0.115	mm
Module Weight	71	±3.55	g

1) inFlux_S01

a) Appearance



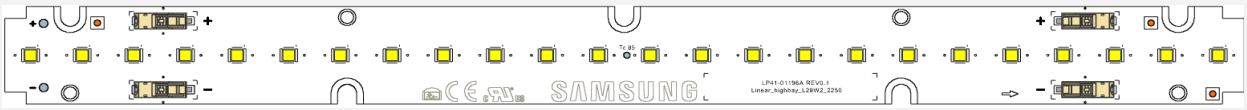
b) Dimension



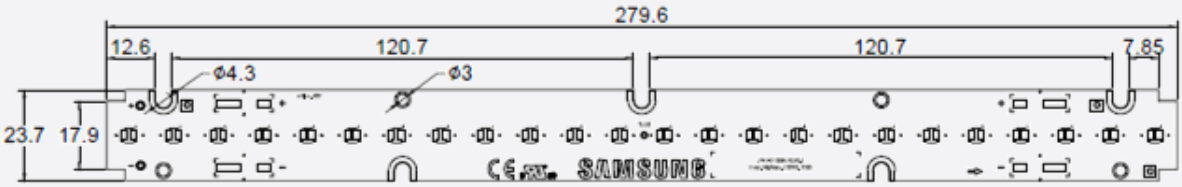
Dimension	Specification	Tolerance	Unit
Module Length	279.6	±0.4	mm
Module Width	23.7	±0.3	mm
Module Height	5.9	±0.2	mm
PCB Thickness	1.6	±0.115	mm
Module Weight	21	±1.05	g

2) inFlux_S02

a) Appearance



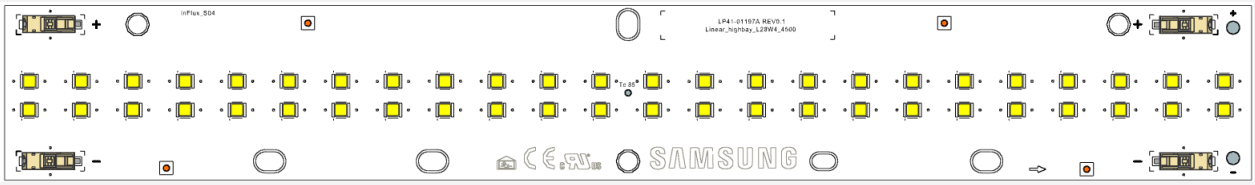
b) Dimension



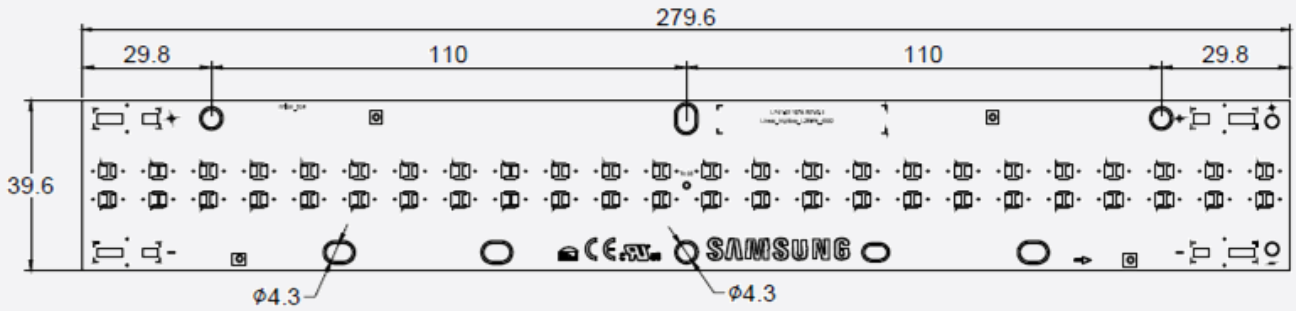
Dimension	Specification	Tolerance	Unit
Module Length	279.6	±0.4	mm
Module Width	23.7	±0.3	mm
Module Height	5.9	±0.2	mm
PCB Thickness	1.6	±0.115	mm
Module Weight	21	±1.05	g

3) inFlux_S04

a) Appearance



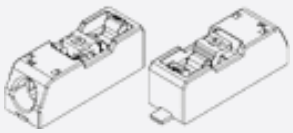
b) Dimension



Dimension	Specification	Tolerance	Unit
Module Length	279.6	±0.4	mm
Module Width	39.6	±0.4	mm
Module Height	5.9	±0.2	mm
PCB Thickness	1.6	±0.115	mm
Module Weight	36	±1.8	g

c) Assembly

Connectors on the board are provided for easy wiring with the LED driver and between modules

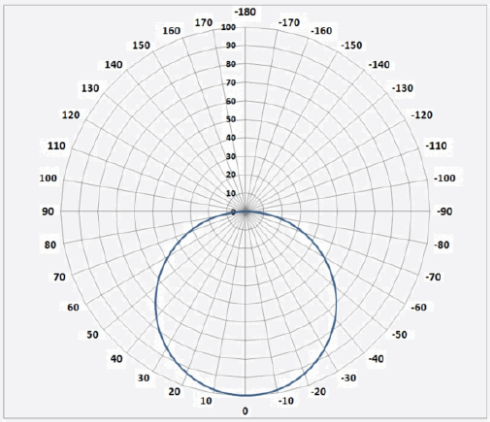


d) Structure

Item	Specification
LED	Middle Power LED
PCB	Material : copper, solder mask, epoxy
Connector	Reworkable poke-in connector type
Wire	24~18 AWG; terminal strip length of 6~7 mm

e) Light Distribution

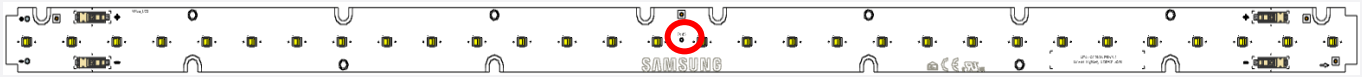
Polar Intensity Diagram: Beam Angle 115 ± 5°



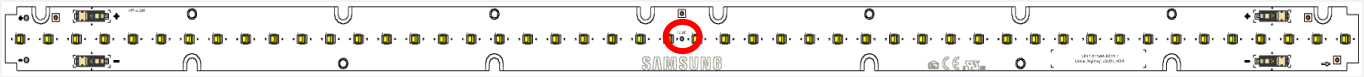
f) Thermal Management

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

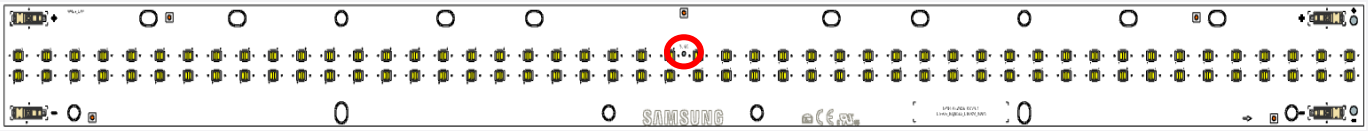
- **inFlux_L03**



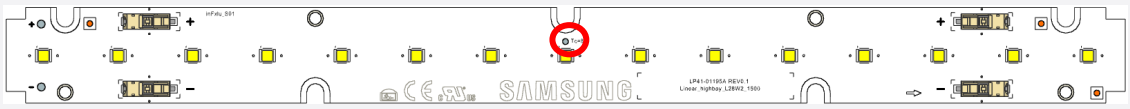
inFlux_L04



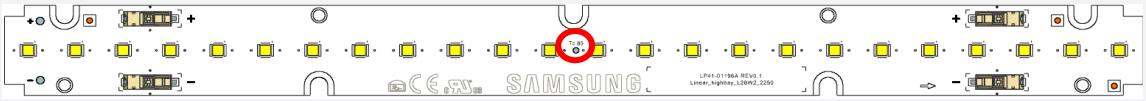
- **inFlux_L09**



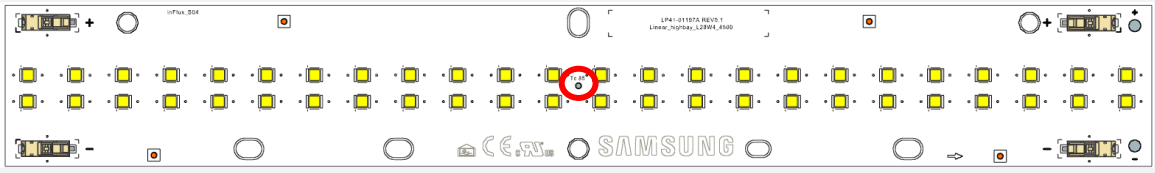
- **inFlux_S01**



- **inFlux_S02**



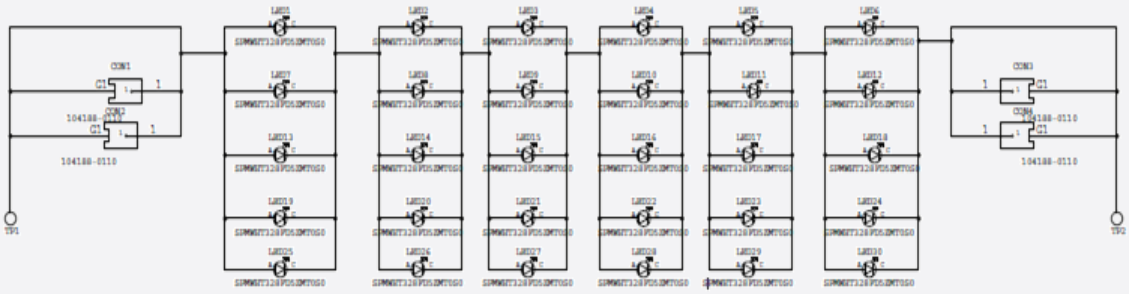
- **inFlux_S04**



g) Schematic Circuit

- **inFlux_L03**

  6S X 5P

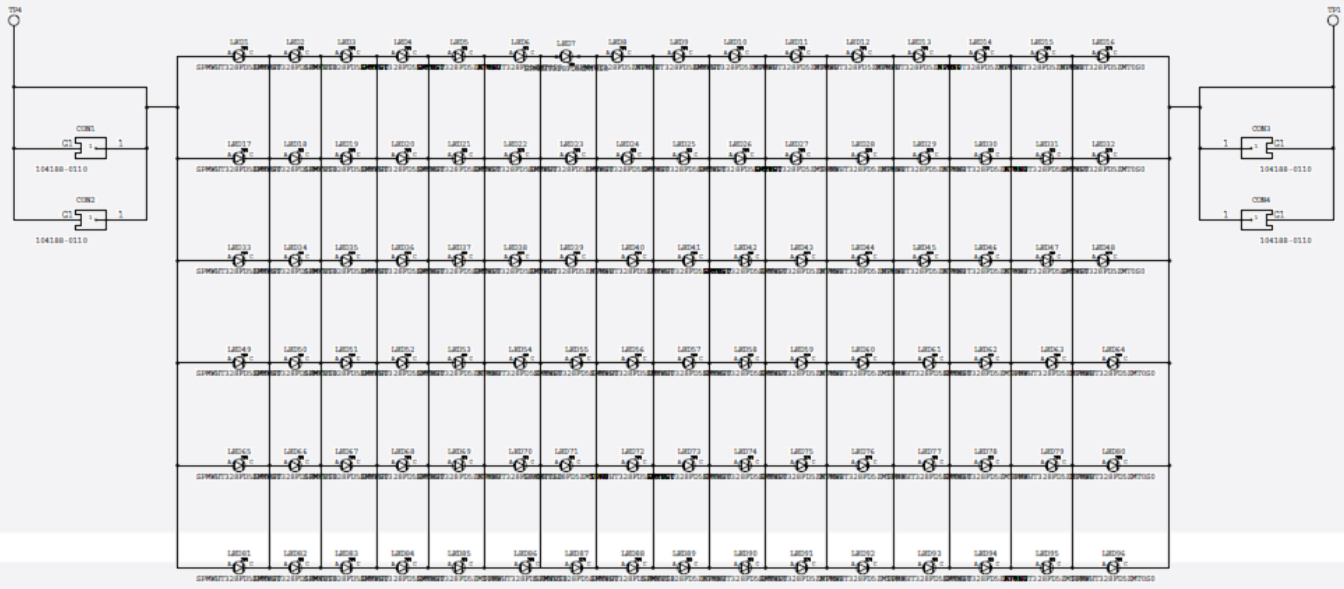


- **inFlux_L04**

  8S X 6P

- **inFlux_L09**

  18S X 6P



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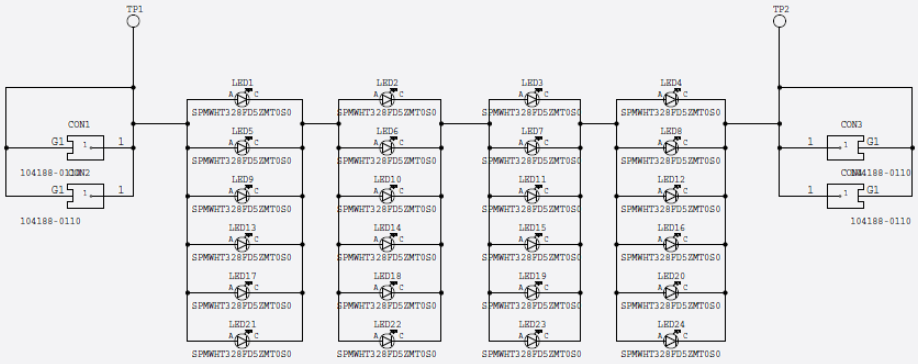
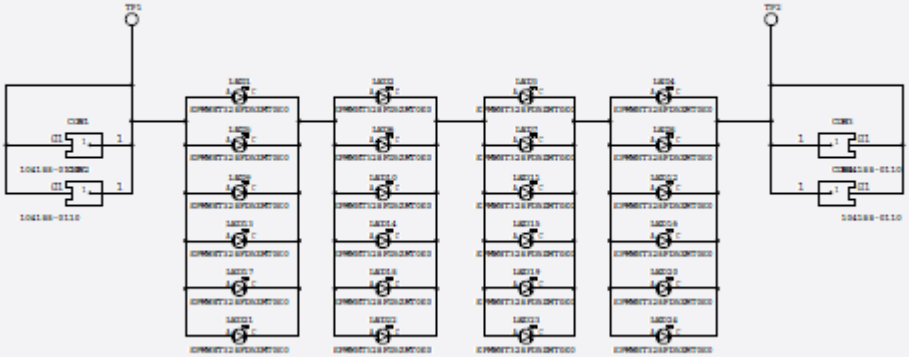
- **inFlux_S01**

  3S X 5P



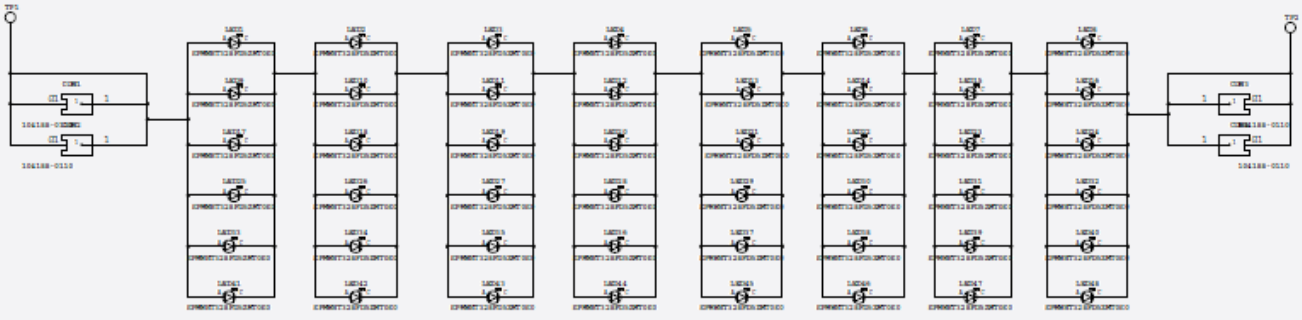
- **inFlux_S02**

  4S X 6P



- **inFlux_S04**

  8S X 6P



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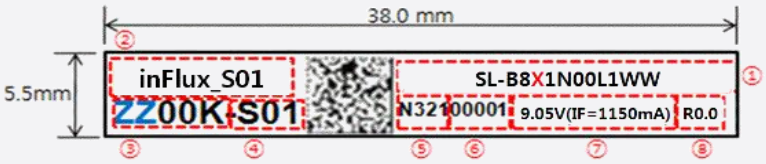
4. Certification and Declaration

Item	Compliant to	Remark
Test & Certification	CE	IEC / EN62031, IEC / EN62471
	ENEC	-
	VDE	-
	UL	E344519
	cUL	E344519
	Photo biological Safety	IEC / EN 62471
Declaration	RoHS	Hazardous Substance & Material
	REACH	Hazardous Substance & Material

5. Label Structure

a) Module Label

A. Printing Label



B. Information of Barcode

① Model code: SL-B8X1N00L1WW

X: V(3000K), U(3500K), T(4000K), R(5000K)

② Product name : inFlux_S01
③ Color temperature: **ZZ**00K
ZZ: 30, 35, 40, 50
④ LED Maker: -S (Samsung)
Group No. : 01 (Binning group)
⑤ SMT date: N321 (2012-March-21th)
A(2000), B(2001) · · · · · · J(2009), K(2010), L(2011), · · · · · · (year)
1(January), · · · · · · 9(September), A(October), B(November), C(December)(month)
01, 02, · · · · · · 31th (date)
⑥ Serial No: 00001~99999, (Setting "00001" every working day)
⑦ 9.05V (IF=1150mA)
⑧ Module Revision: R0.0

C. QR CODE Information

[inFlux_S01]

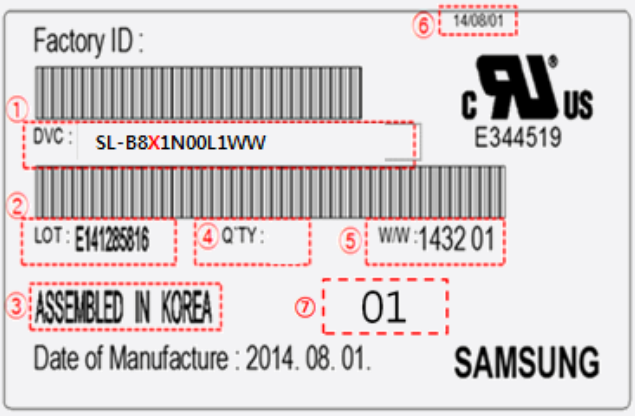
① Example : SL-B8X1N00L1WW _N321100001ZZ00K-S01

② 34 digit : Model code(14) + Space(1) + SMT date(4) + SMT line No.(1) + Serial No.(5) + Color temperature(5) + LED maker(2) + GROUP No.(2)

Model CODE	SL-B8X1N00L1WW
QR CODE Information	SL-B8X1N00L1WW N321100001ZZ00K-S01

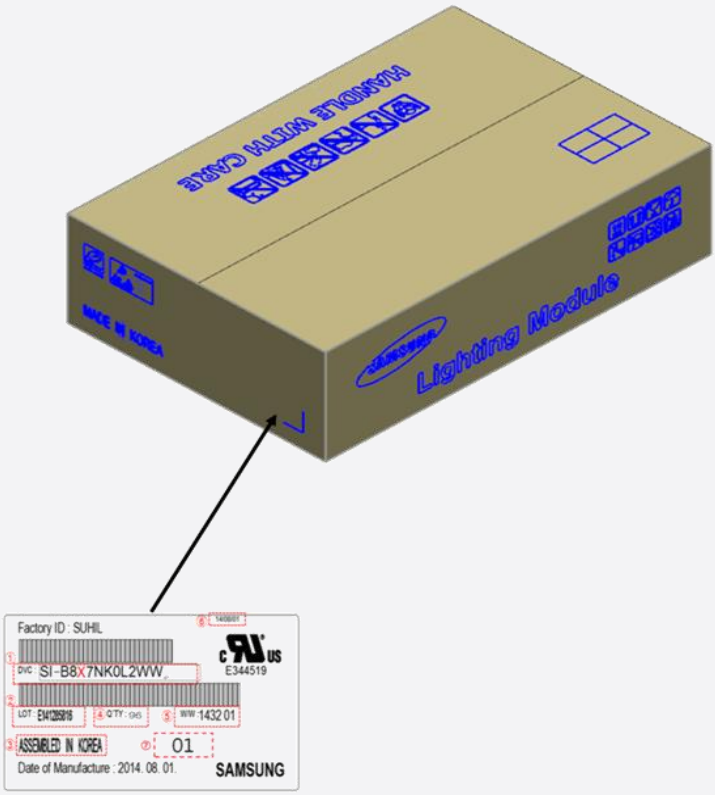
B) Box Label

- 100mm x 50mm



The lot number is composed of the following characters:

① Product code
② Lot ID
③ Place of origin
④ Quantity
⑤ Describe production week
⑥ Date of Issue
⑦ Binning group



6. Packing Structure

1) inFlux_L03 / L04

ARTICLE	TRAY	BOX	PALLET	REMARK
Quantity	28 ea	224 ea	3584 ea	-
Size(mm)	580*380*34	585*385*225	800*1200*130	-
Module Weight	inFlux_L03 : 41g ±2.05g inFlux_L04 : 43g ±2.15g			

2) inFlux_L09

ARTICLE	TRAY	BOX	PALLET	REMARK
Quantity	30 ea	150 ea	2400 ea	-
Size(mm)	580*380*49.5	585*385*225	1200*800*130	
Module Weight	71g ±3.55g			

3) inFlux_S01 / S02

ARTICLE	TRAY	BOX	PALLET	REMARK
Quantity	28 ea	224 ea	5376 ea	-
Size(mm)	355*380*32.3	385*360*225	800*1200*130	-
Module Weight	inFlux_S01 : 21g ±1.05g inFlux_S02 : 21g ±1.05g			

4) inFlux_S04

ARTICLE	TRAY	BOX	PALLET	REMARK
Quantity	32 ea	160 ea	3840 ea	-
Size(mm)	355*380*46.5	385*360*225	1200*800*130	-
Module Weight	36g ±1.8g			

7. Precautions in Handling & Use

A. 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.

B. 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.

C. 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.

D. 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.

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

F. 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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