USER MANUAL

Product	**Luminaire Control Wireless Module**
Model Name	BTLEM4
Manufacture	SAMJIN LND Co.,Ltd
Ver.	V0.1

1. Specification

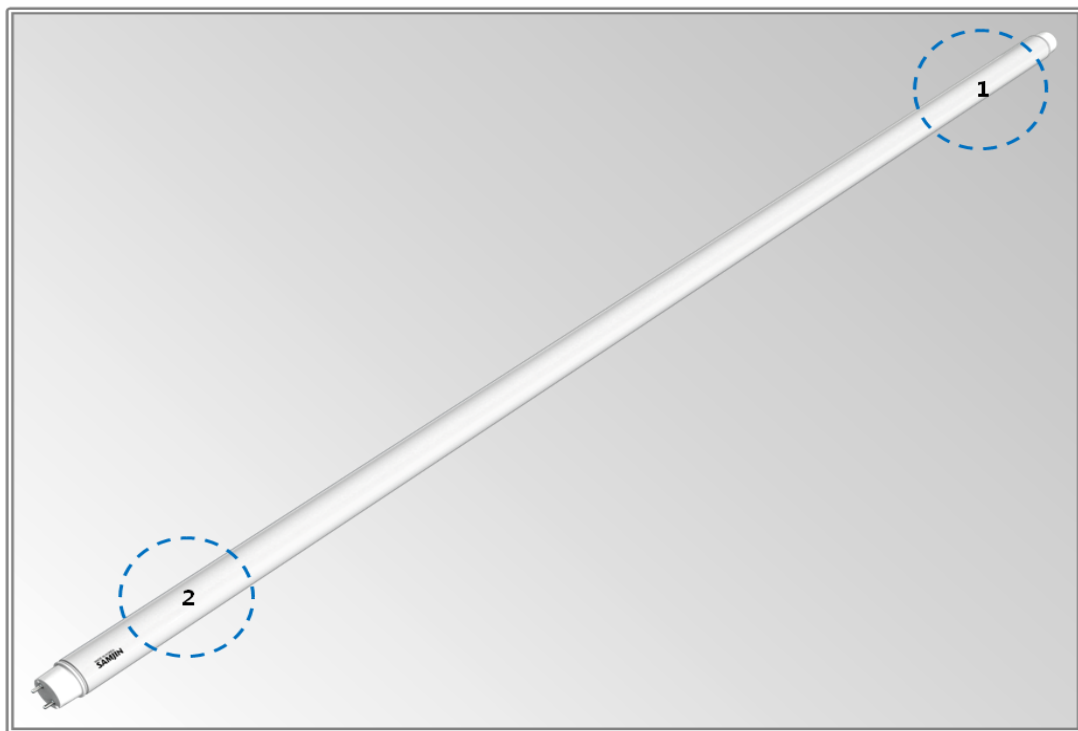| Item	Contents
Model Name	BTLEM4
Modulation	GFSK
Frequency Bandwidth	2.402GHz ~ 2.480GHz
Number of Channel	40 channels
Receiver Sensitivity	-92.5dBm
RF Sensing	Radius 25 m
Enclosure	None
Operating Voltage	d.c. 5 V ± 5%
Temperature Environment	Operating : -30 ~ 85 ℃ Storage: -30 ~ 85 ℃
Operating Humidity (%)	10 (min) ~ 90 (max)
Size/Weight	60 x 17x 6.2 mm/5 g
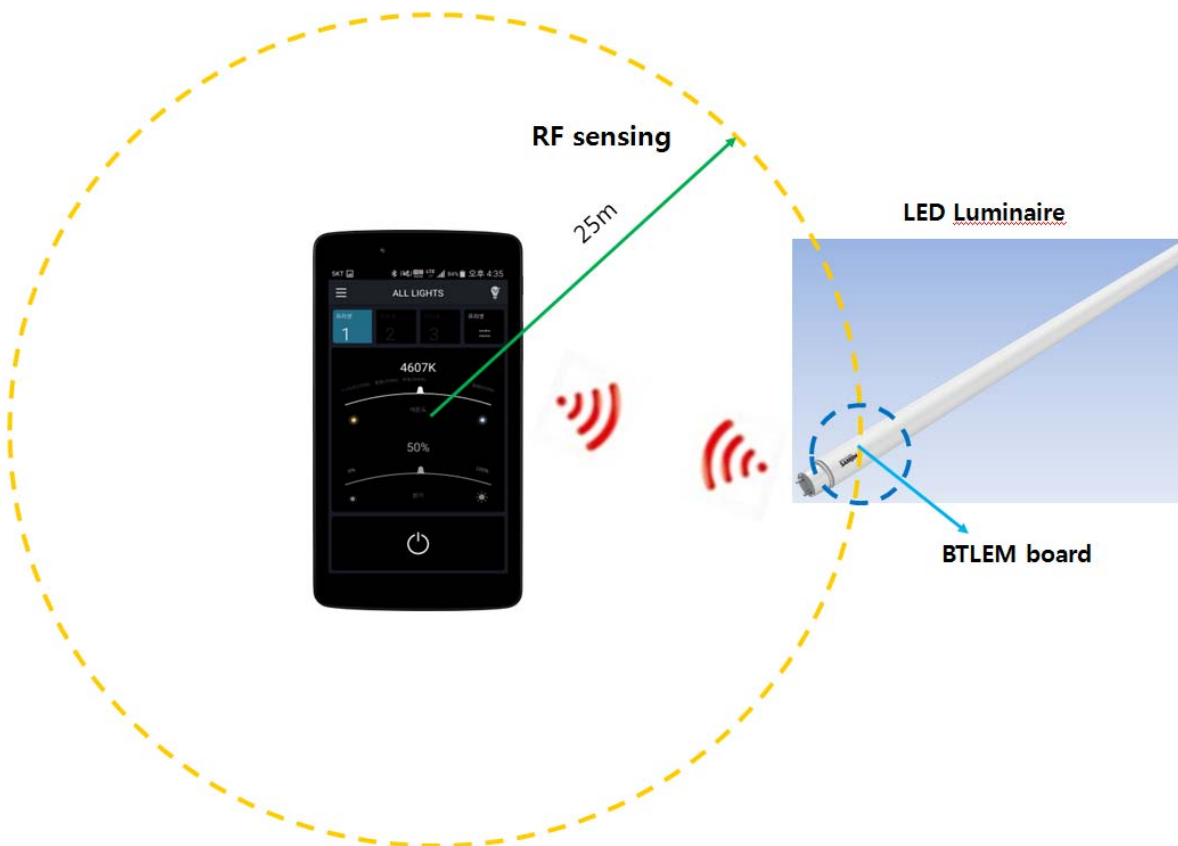
2. Operation

   1) A device which is connected to an SMPS and modulates color temperature and brightness of luminaires by receiving the signal from Smart-phone or Tablet App.

3. Installation

   1) Located inside the luminaire, and connects the SMPS for integrated installation.

No	Description	Detail(Function)
1	BTLEM4	BTLEM4 Board Construct
2	SMPS	SMPS to BTLEM4 Connect

3. Application Guide

| STEP 1	STEP 2	STEP 3	STEP 4
Download "Breeze" app from "Google Play" Store	Register password ※ To prevent unauthorized manipulation of lights	Search and register lights In My Lights	Start controlling lights using the APP

Search for "Breeze" in "Google Play" store and install on NEXUS tablet.
※ This application is compatible with only "NEXUS 7" at this time..(Android 4.4.4 or later, Bluetooth 4.0 or later).

3.1 Setting Password

1.1. Intro Screen

1.2. Creating Password
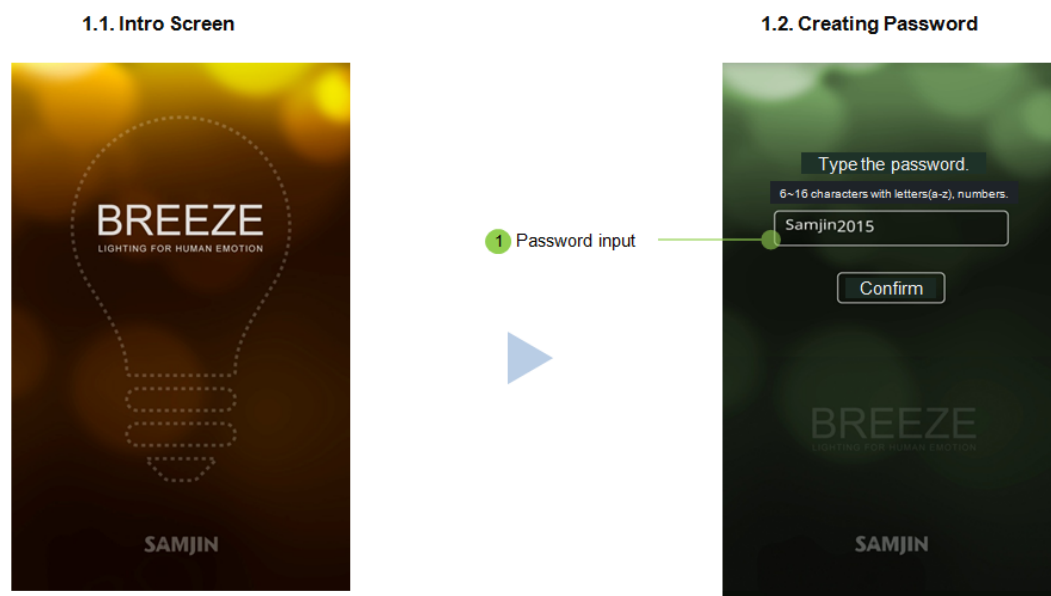
1 Password input

1) Password Input: Upon initial launch of the app, input your chosen password and press [Confirm].
※ You must set a password in order to use the app.
※ If you forget your password, you can request your password to be sent to your email in "6. Setting".

3.2 Adding New Lights

※ If adding more than 100 lights, please only add maximum of 100 lights at a time.
   e.g.) For adding 1,000 lights, add 100 lights at a time, ten separate times. If adding 145 lights, add first 100, then add the remaining 45.
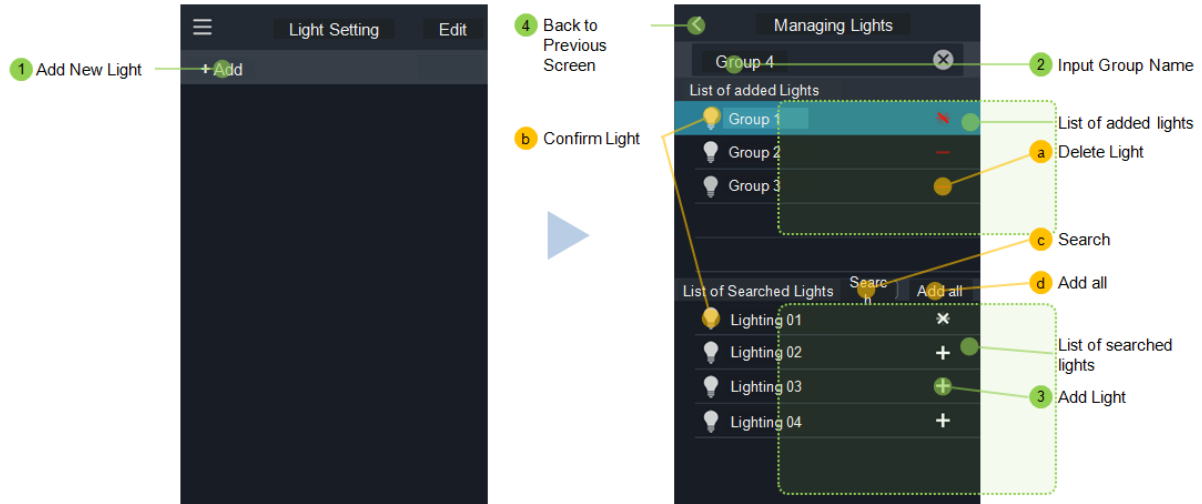
1 Touch [Add New Light] to move into Edit New Lights screen
2 Input New Group Name,   3 Touch [+] icon in the list of searched lights to add to the group.
      ※ Newly searched lights will blink until added to the lighting group in the upper half of the screen
4 When finished adding lights, touch [<] icon to go back to previous screen
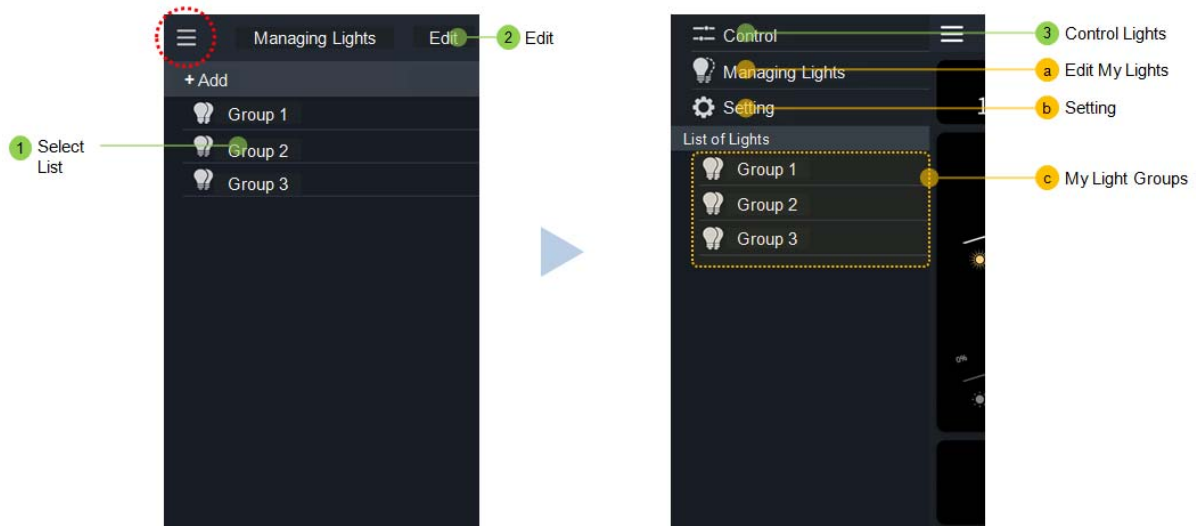
a To Delete lights: Touch [−] icon to remove light from the list of added lights
b Confirm lights: Touching the light ID's in the list will cause the actual light to blink, so you can confirm which lights are being added
c Redo Search: You can press [Search] button anytime to redo search for lights
d Add All: Add all searched lights from the bottom list.

3.3 Manage Lights

1 Select a Group
2 Delete selected Group
3 Touch [Control Lights] to goto Control Screen
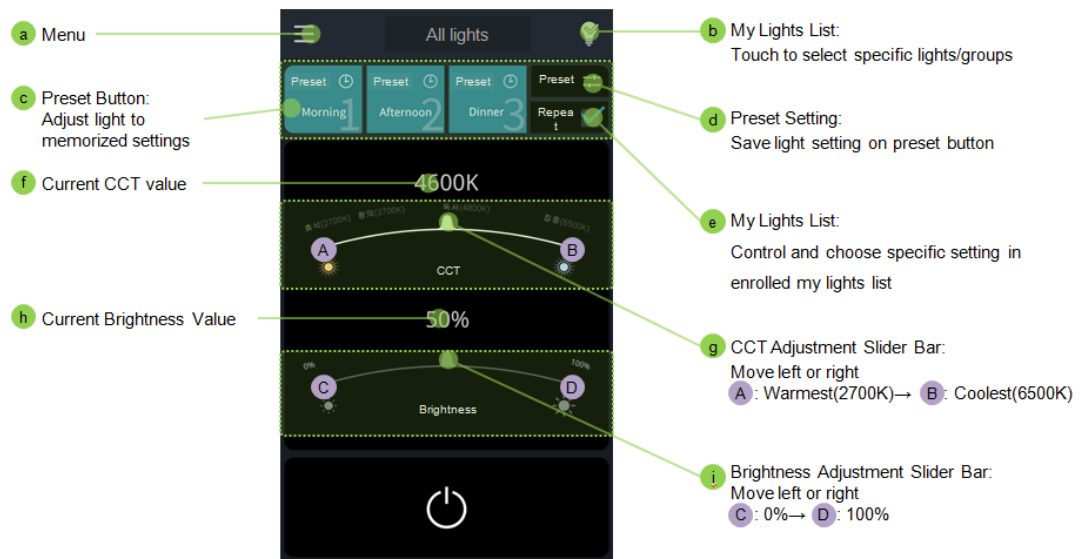a Edit My Lights: Add or Delete lights
b Setting: Reset to factory default, request password email, import lights list, etc.
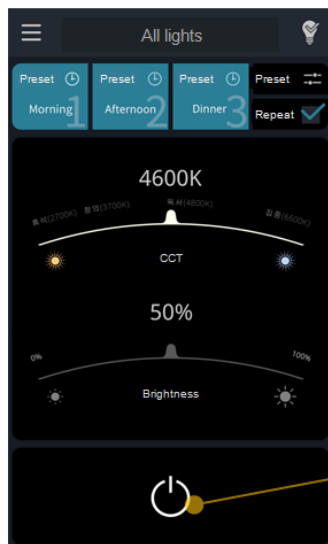c My Light Groups: List of created light groups

3.4 Light Control Screen

Light Control: Adjust Correlated Color Temperature (CCT) and Brightness through simple touch controls.

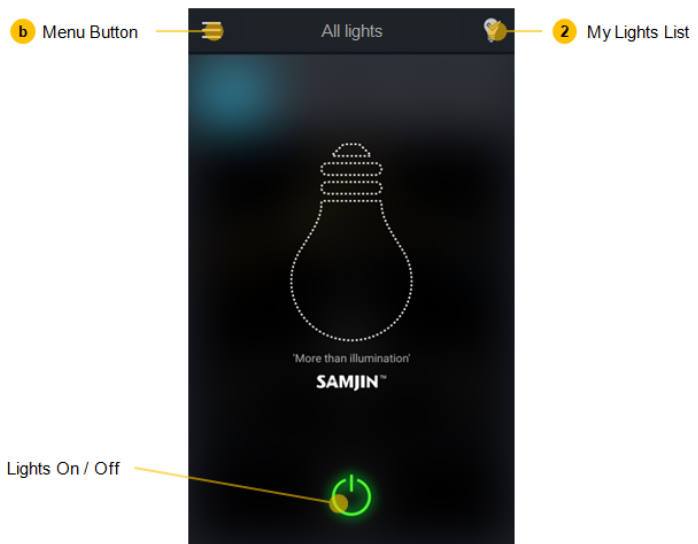## 3.5 Turning Lights On/Off

Light Power On/Off:
Touch On/Off icon "⏻" from the Control Screen

FCC Statement

NOTICE;

1. The RF module limited to OEM installation ONLY.

   The OEM integrator is responsible for the compliance to all the rules that apply to the product into which this certified RF module is integrated.

2. This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

3. This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.

FCC Class B

This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

FCC Caution (Part 15.21)

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

Radiation Exposure Statement

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20 cm between the radiator & your body.

The module in limited to installation in mobile or fixed applications according to Part 2.11091(b).

The module is not possible to apply for portable products.

This device is intended only for OEM integrators under the following conditions:
The antenna must be installed such that 20 cm is maintained between the antenna and users, and The transmitter module may not be co-located with any other transmitter or antenna. As long as 2 conditions above are met, further transmitter test will not be required. However, the OEM integrator is still responsible for testing their end-product for any additional compliance requirements required with this module installed.

IMPORTANT NOTE:
In the event that these conditions cannot be met (for example certain laptop configurations or co-location with another transmitter), then the FCC authorization is no longer considered valid and the FCC ID cannot be used on the final product. In these circumstances, the OEM integrator will be responsible for re-evaluating the end product (including the transmitter) and obtaining a separate FCC authorization.

End Product Labeling
This transmitter module is authorized only for use in device where the antenna may be installed such that 20 cm may be maintained between the antenna and users. The final end product must be labeled in a visible area with the following:
"Contains FCC ID: TSW-BTLEM4".
The grantee's FCC ID can be used only when all FCC compliance requirements are met.

Manual Information To the End User
The OEM integrator has to be aware not to provide information to the end user regarding how to install or remove this RF module in the user's manual of the end product which integrates this module.
The end user manual shall include all required regulatory information/warning as show in this manual.

Antenna List

No.	Model	Type	Gain[dbi]	Impedance
1	NP-PA-BTLEM	Pattern Antenna	1.0	50