

## Instruction Manual for Resin Filled LED Underwater Light

**Model No.:** HT001C-P-T, HT002C-P-T  
HT003C-P-T, HT005C-P-T, HT006C-P-T



**IMPORTANT:** This manual includes essential information on the safety measures to be implemented for installation and start-up. Therefore, the installer, as well as the user, must read these instructions before beginning installation and start-up.

### Technical Specification

Standard input voltage: 12V AC/DC (Range: 12~18VAC or DC)

Standard input watt:

Normal LED (RGB / White)					
18W/21W	23W/26W	30W/33W	33W/36W	40W/45W	55W/60W

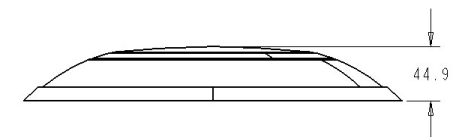
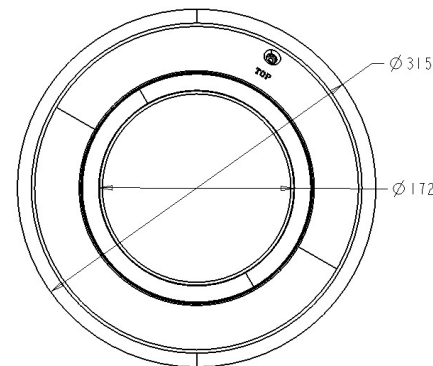
High Power LED (RGB / White)	
20W/22W	29W/33W

Use life: 60,000 hours

16 programs with Synchronization capability

### Dimensions

Model HT001C



**Manufacturer:** Hentech Technology Development Co., LTD

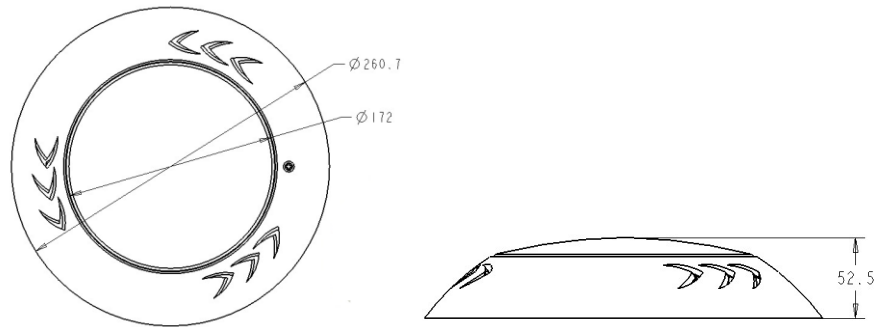
**Add:** No. 58 Tianren Industrial Estate, Liandu Village, Leliu Town, Shunde District,  
Foshan City, Guangdong, China 528322

**Telephone:** +86-757-22609165/22609168/22609169

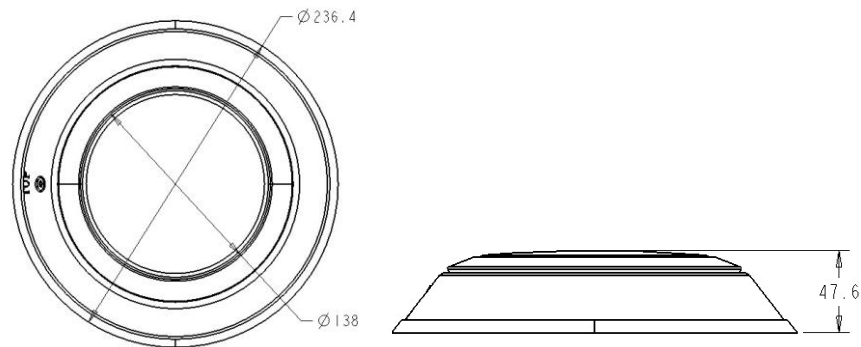
**Fax:** +86-757-22609170

**Website:** <http://www.hentech.cn/en>

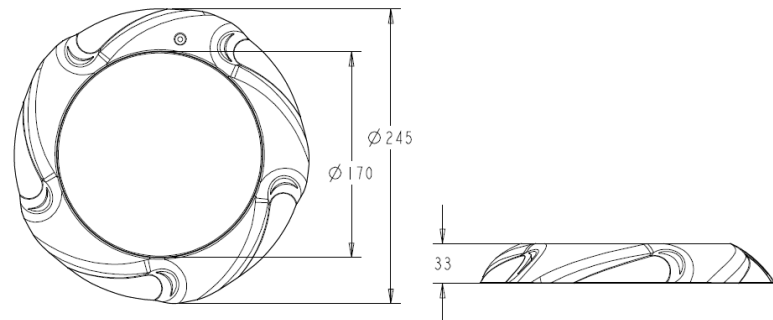
Model HT003C



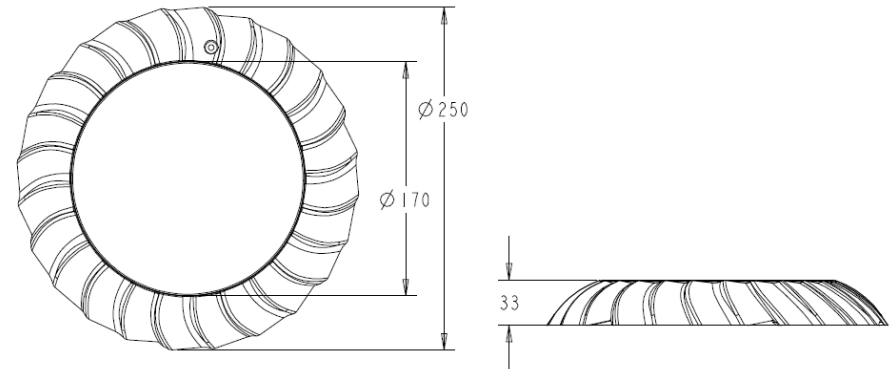
Model HT002C



Model HT005C



Model HT006C



### Packing Contents

The following items are included inside the box:

Models HT003C/HT013C	Models HT001C/HT011C	Models HT002C
Lamp Assembly x 1	Lamp Assembly x 1	Lamp Assembly x 1
Stainless steel screws x 4	Rubber ring x 1	Rubber ring x 1
Roll plug x 4	Stainless steel screws x 3	Stainless steel screws x 2
	Roll plug x 3	Roll plug x 2

### Instruction & Use

This is a high technology electronic controlled light based on LED's in three colors: red, green and blue. These three base colors together can produce many other colors to create the perfect atmosphere in the pool. Any of the 16 pre-programmed effects can be selected with the on/off switch of your pool lights. The LED's can also be warm white only or natural white only. The LED's are driven by constant current. The technology of True PWM is adopted on the lights. High temperature protection makes the LED's be protected while the internal temperature reaches a high level. All these technologies guarantee long working life of the LED lamps. Filled fully with resin, the lights are completely waterproof, and they must be used / operated while fully submerged underwater **only**.

- This lamp is designed to be fixed in new pools and/or pools with existing surface mounted lamps that need replacement.
- This lamp is designed to be used only once. Should it become defective, repair is impossible, and replacement is necessary.
- The manufacturer is not responsible in any circumstances for assembly, installation or start-up of any electric components which have been inserted or handled at locations other than its own premises.

### 16 Programs of RGB LED Bulbs

1. White: sun white
2. Red: one color red
3. Green: one color green
4. Blue: one color blue
5. Green-blue: fixed color green/blue
6. Red-green: fixed color red/green
7. Blue-red: fixed color blue-red
8. Evening sea: slow animation red/blue
9. Evening rivers: slow animation red/green
10. Riviera: slow animation green/blue
11. White: neutral white
12. Rainbow: slow animation blue/red/green
13. River of colors: program 12, followed by program 15
14. Disco: fast animation
15. Four seasons: slow animation in red/blue/green/violet
16. Party: fast animation

### Installation

All lamps should be placed on the wall of the pool at approximately 700mm below the water surface, in areas that are easily accessible from the upper edge of the pool.

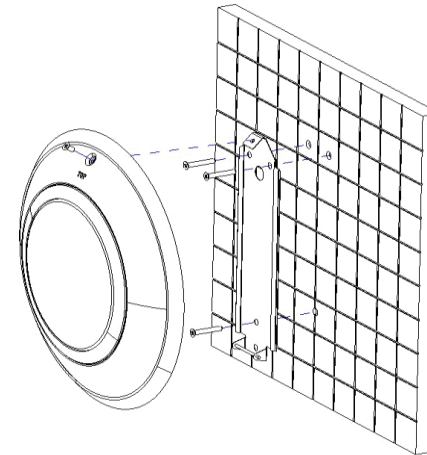
- It is highly recommended to use the underwater cable gland
- All lamps should be installed on the same transformer and switch.

- The lamp is supplied with cable of 2m, 4m, 6m, 10m, 16m or 20m according to the need of the user, making it possible to install multiple lamps connected to a single junction box.

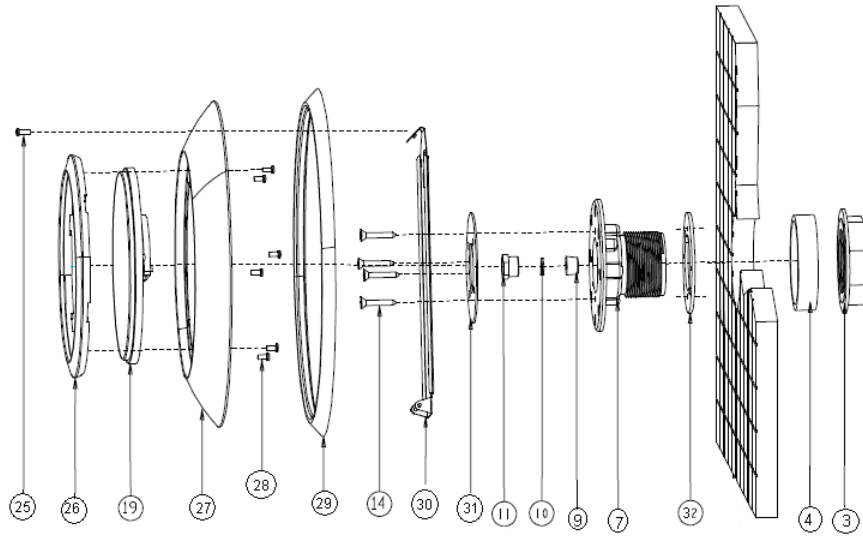
Disassemble the bracket from the back of the lamp. Place the bracket over the desired location, mark the holes, drill the holes, insert the roll plugs, and fasten the bracket on the pool wall using the stainless steel screws provided. Wind the cable behind the lamp, and then fasten the lamp on the bracket.

### I. Models HT001C-P-T, HT011C-P, HT002C-P-T– Various types of installation

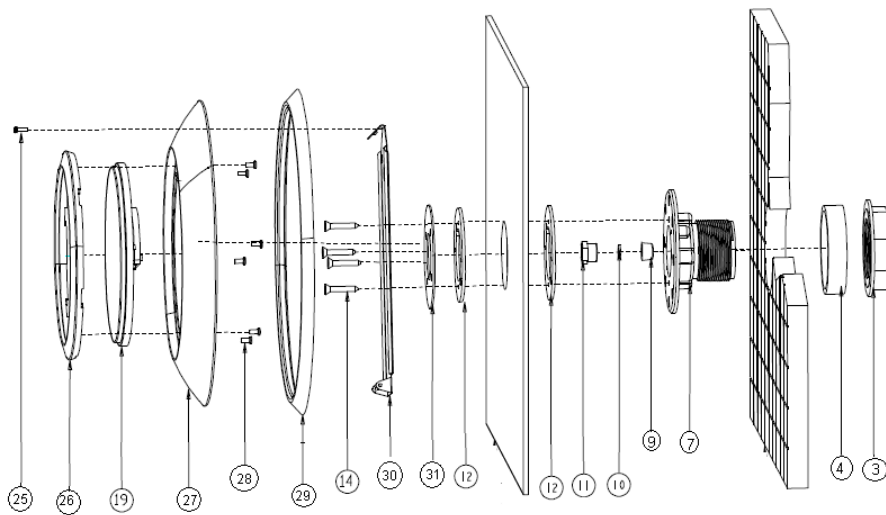
#### 1 Wall-mounted



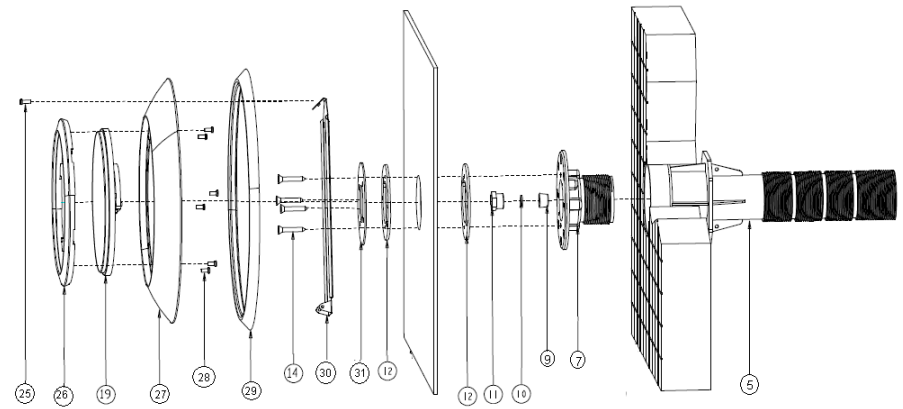
## 2 Fiber glass



### 2.1 Panel & Liner

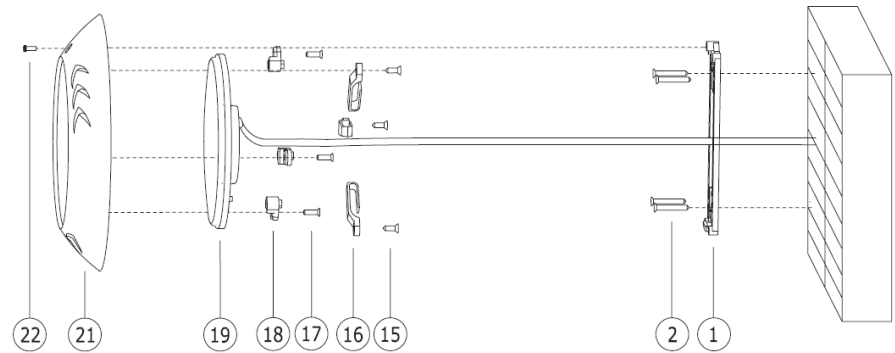


## 3 Concrete & Liner

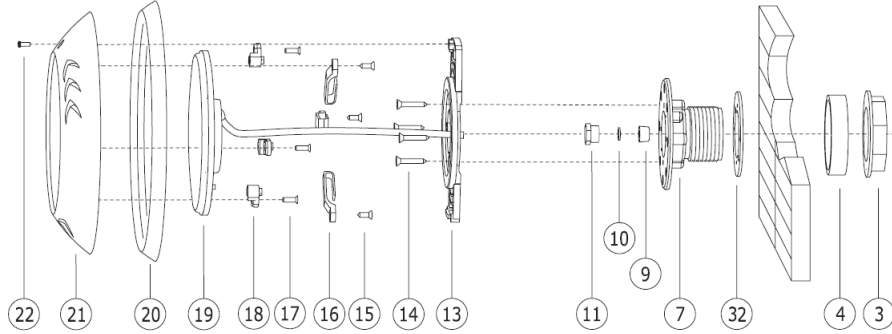


## II. Models HT003C-P-T, HT013C-P – Various types of installation

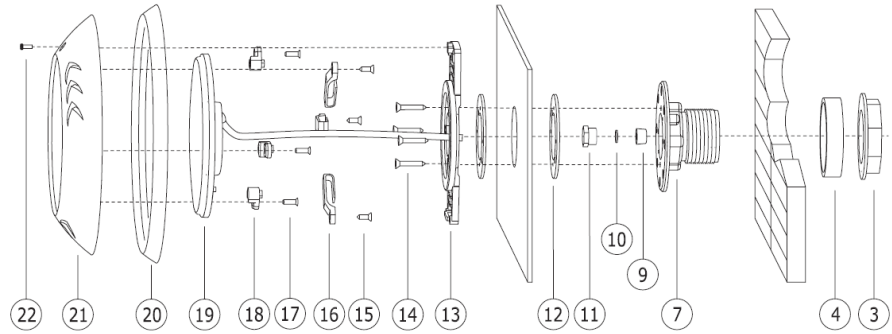
### 1 Wall-mounted



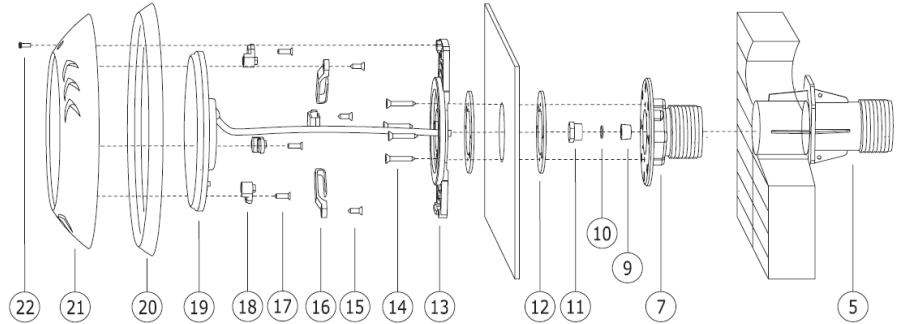
**2 Fiber glass**



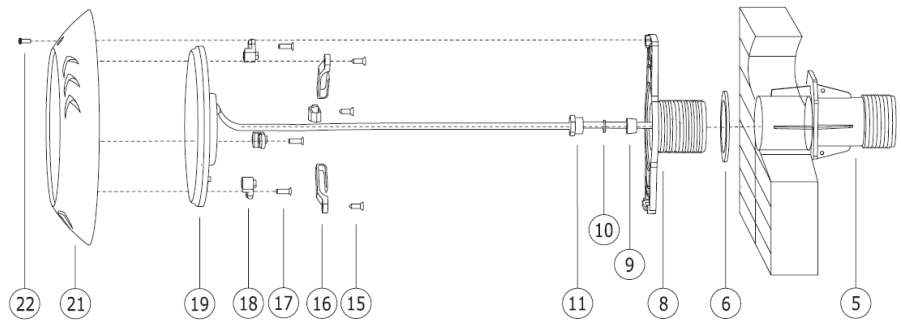
**2.1 Panel & Liner**



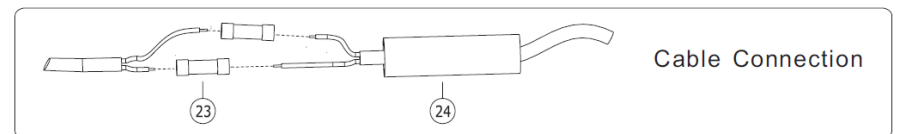
**3 Concrete & Liner**



**4 Concrete**



**Cable Connection**

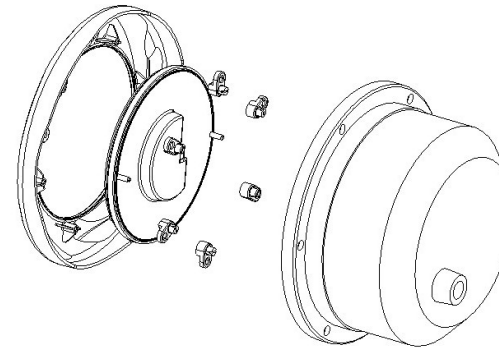


No.	Part Description	Quantity					
		1	2	2.1	3	4	
01	Wall-mounted bracket	1					
02	M4*30 stainless steel self-tapping screw	4					
03	Fixing nut		1	1			*
04	Plastic pad ring		1	1			*
05	2" wall conduit				1	1	**
06	Silicon gasket A		1			1	*
07	Threading bracket A-I		1	1	1		*
08	Threading bracke B					1	*
09	Silicon O'ring		1	1	1	1	*
10	Plastic O'ring		1	1	1	1	*
11	Cable gland		1	1	1	1	*
12	Silicon gasket B (with screw holes)			2	2		*
13	Threading bracket A-II		1	1	1		*
14	M5.5*32 stainless steel self-tapping screw		4	4	4		*
15	M5*12 stainless steel self-tapping screw	3	3	3	3	3	
16	Cable rolling clip	3	3	3	3	3	
17	M5*15 stainless steel self-tapping screw	3	3	3	3	3	
18	Plastic fixing clip	3	3	3	3	3	
19	LED bulb	1	1	1	1	1	
20	Silicon ring		1	1	1		*
21	Shelf ring	1	1	1	1	1	
22	M4*10 stainless steel self-tapping screw	1	1	1	1	1	
23	Wire connector	2	2	2	2	2	*
24	Rubber coating protector	1	1	1	1	1	*
25	Bracket screw for HT001C/HT002C	1	1	1	1		▲
26	Bulb fitting for HT001C/HT002C	1	1	1	1		▲
27	Stainless steel frame for HT001C/HT002C	1	1	1	1		▲
28	Bulb screw for HT001C/HT002C	6	6	6	6		▲
29	Silicon ring for HT001C/HT002C	1	1	1	1		▲
30	Wall bracket for HT001C/HT002C	1	1	1	1		▲
31	Bracket A-II for HT001C/HT002C	1	1	1	1		▲
32	Silicon gasket C		1				*

The part with \* is not included and needs to buy separately. The part with \*\* is not included.

The part with ▲ is only for stainless steel models HT001C/HT011C/HT002C.

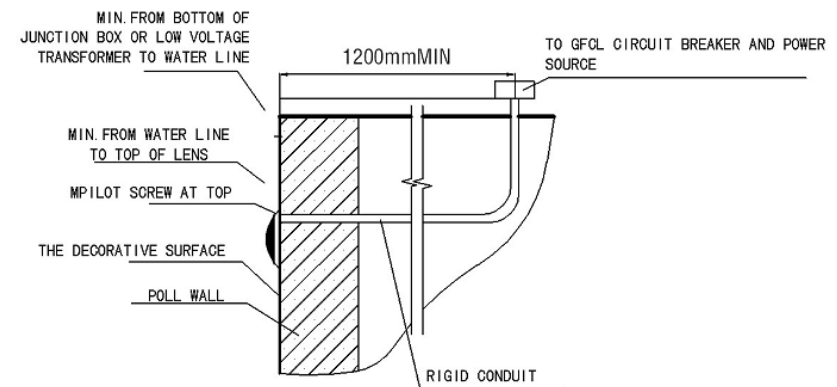
Tips: The LED bulb is fitting to PAR56 niches and can be used to replace the PAR56. Refer to the below picture.



### III. Connect the cable from the lamp to the power source

The below drawing shows how to connect the cable from the lamp to the power source.

**Note: Don't use electronic transformers which may damage the light. You should use industrial frequency transformer, such as toroidal transformer and square transformer.**



Installation Diagram

### Maintenance & Replacement

There is no maintenance required for this lamp – it is designed to be used only once, meaning that replacement is necessary if it becomes defective (repairing is impossible). Before any handling, ensure that there is NO voltage supplied to the lamp. To replace, unfasten the lamp from the bracket. Ensure the new lamp is of the same model and characteristics as the one being replaced.

If the cable pipes you use has inner diameter 26mm or more, you can use the retrofit connector to connect the cable easily. Simply crimp both connections with the splice connectors, slide the cable sleeve over the connection and hand tighten the gland nuts. Then hide the retrofit connector in the pipe. The retrofit connector is ordered separately.



### Start-up

- The lamp should only operate underwater while secured to the vertical walls of the pool. **Never switch on the lamp if it is not underwater.**
- In case of colored lamps, 16 pre-programmed effects and combinations may be selected using the on/off switch of your pool lights. Just switch off and switch on within 2 seconds.
- If the light is powered off for more than 20 seconds, it will keep the latest program when it is turned on again.
- To achieve synchronization, confirm all lamps are installed correctly on the same switch, after they are powered off for more than 20 seconds, switch on and switch off continuously three times, and then finally turn them on again. They will all go to program 5. Now you can select a program for them by switch off and on within 8 seconds.
- Alternatively, we recommend using our optional controller (with in-built safety transformer) which comes with (a) remote control for easy operation and (b) auxiliary connection of 24V for operation of any other electrical item.

### Safety Warnings

The persons who are in charge of installation should have the required qualifications for this type of work.

- Avoid making contact with the electric voltage.
- Comply with the current standards regarding accident prevention.
- IEC 364-7-702 standards must be observed: WIRING IN BUILDINGS, SPECIAL WIRING, SWIMMING POOLS.
- Replacement must be performed with the lamp disconnected from the electric power system.
- Do not handle any electrical components with wet feet.

### Warranty

The manufacturer warrants this resin filled LED underwater lights against defects in materials and workmanship for a period of three years from the date of purchase. This warranty does not cover the fixture becoming damaged due to misuse, accidental damaged, improper handling and/or installation and specifically excludes liability for direct, incidental or consequential damages. Defects in materials and workmanship are exclusive of the following:

- The light with normal LED less than 30W has 3 dead LED or less.
- The light with normal LED more than 30W (included) has 6 dead LED or less.
- The light has small air bulbs inside the resin on the front side with a size of 9 mm<sup>2</sup> or less, and the number of the air bulbs is 3 or less.
- The light has small air bulbs inside the resin on the back side.