

TECHNICAL INFORMATION

| Code        | Rated Voltage | LED type | LED pcs | Power | I      | PF   | Emergency Duration | Battery              | Lumens with no diffuser | Lumens with diffuser |
|-------------|---------------|----------|---------|-------|--------|------|--------------------|----------------------|-------------------------|----------------------|
| LBH154K     | 220-240V-50Hz | SMD2835  | 96      | 16.6W | ≤77mA  | 0.94 | N/A                | N/A                  | 1700 Lm                 | 1050Lm               |
| LBH154KMW   | 220-240V-50Hz | SMD2835  | 96      | 18W   | ≤109mA | 0.76 | N/A                | N/A                  | 1700 Lm                 | 1050Lm               |
| LBH154K3M   | 220-240V-50Hz | SMD2835  | 96      | 19W   | ≤100mA | 0.9  | 3 hour             | Ni-Cd SC1600mAh 3.6V | 1700 Lm                 | 1050Lm               |
| LBH154KMW3M | 220-240V-50Hz | SMD2835  | 96      | 19.5W | ≤113mA | 0.75 | 3 hour             | Ni-Cd SC1600mAh 3.6V | 1700 Lm                 | 1050Lm               |

ADDITIONAL INFORMATION - COMPONENT REPLACEMENT

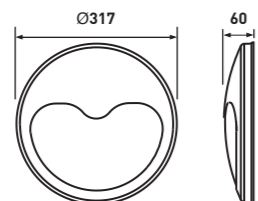
- The luminaire contains no user replaceable components other than the battery pack contained in Emergency versions
- The battery has a 4year service life provided it is operated and maintained by regular testing, as detailed in this document. Failure to maintain or change the battery may result in reduced duration in Emergency mode
- Battery specification - Ni-Cd SC1600mAh 3.6V

Environmental Protection W.E.E.E

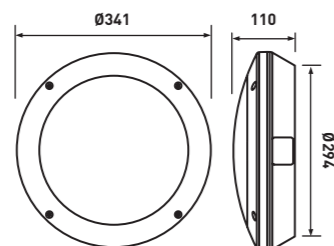
This symbol is known as the "crossed-out wheelee Bin Symbol". When this symbol is marked on a product or battery, It means that it should not be disposed of with your general household waste. Some chemicals contained within electrical/electronic products or batteries can be harmful to health and the environment. Only dispose of electrical/electronic/battery items in separate collection schemes, which cater for the recovery and recycling of materials contained within. Your co-operation is vital to ensure the success of these schemes and for the protection of the environment

ACCESSORIES AVAILABLE

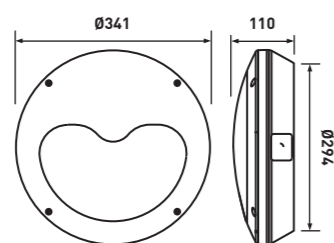
LBH154APE - Plastic eyelid cover



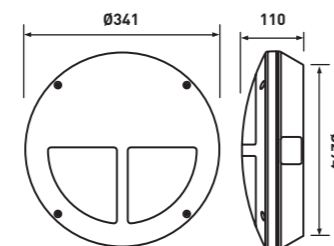
LBH154AMP - Metal standard



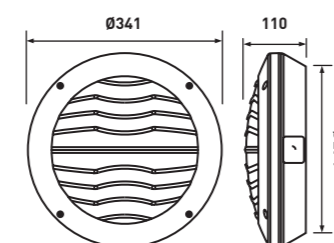
LBH154AME - Metal eyelid



LBH154AMS - Metal split eyelid



LBH154AMG - Metal grille



EMERGENCY LIGHTING TESTING

Months 1 to 11 inclusive - Function Test, interrupt the permanent/UnSwitched supply and check the luminaire operates in Emergency mode at reduced output

Month 12 (Annual) - As months 1 to 11 but for a full 3 hour duration

| Luminaire Ref / Location: | In Case of difficulty, contact the Installation Engineers:- Tel: |
|---------------------------|--|
| LBH154K                   | Duration 3 Hours Lamp Type - LED                                 |

INITIAL USE AND ROUTINE TESTING

From initial install the downlight will require up to 24 hours for the batteries to be fully charged and provide the rated 3HR duration in Emergency mode. Then following subsequent Emergency use, from full discharge will take approx. 14hrs to fully recharge batteries.

It is important that the luminaire is routinely tested to ensure the batteries are conditioned and also to fully comply with BS5266. A function test should be conducted every month with an annual test of the full 3hr duration. Records can be kept on the adjacent table.

It is recommended that batteries are replaced every 4 years to ensure the optimum charging cycle is maintained.

| Month | Test     | First Year |      | Second Year |      | Third Year |      | Fourth Year |      | Fifth Year |      |
|-------|----------|------------|------|-------------|------|------------|------|-------------|------|------------|------|
|       |          | Signed     | Date | Signed      | Date | Signed     | Date | Signed      | Date | Signed     | Date |
| 1     | Function |            |      |             |      |            |      |             |      |            |      |
| 2     | Function |            |      |             |      |            |      |             |      |            |      |
| 3     | Function |            |      |             |      |            |      |             |      |            |      |
| 4     | Function |            |      |             |      |            |      |             |      |            |      |
| 5     | Function |            |      |             |      |            |      |             |      |            |      |
| 6     | Function |            |      |             |      |            |      |             |      |            |      |
| 7     | Function |            |      |             |      |            |      |             |      |            |      |
| 8     | Function |            |      |             |      |            |      |             |      |            |      |
| 9     | Function |            |      |             |      |            |      |             |      |            |      |
| 10    | Function |            |      |             |      |            |      |             |      |            |      |
| 11    | Function |            |      |             |      |            |      |             |      |            |      |
| 12    | Function |            |      |             |      |            |      |             |      |            |      |

WARRANTY

Products are protected by warranty for a period of 3 year warranty from date of purchase against defects in material and workmanship (unless otherwise stated). Should a product fail to perform as described within the warranty period it will be repaired or replaced with the same or equivalent product by Luceco, free of charge provided that you: (1) return the product to us with shipping charge prepaid, (2) provide us with proof of the original date of purchase and (3) quote our return authorization number

Repaired or replaced products will be returned to you with shipping charges prepaid. Replacement products may be refurbished or contain refurbished materials. If in our sole discretion, we are unable to repair or replace a defective product, we will refund the purchase price of the product

This warranty will not apply if in our judgment, the product fails due to damage in shipment, handling, storage, accident, abuse or misuse, or if it has been used in a manner not conforming to our product instructions, has been modified in any way, or has any serial number removed or defaced. Repair or attempted repair will void this warranty. Our maximum liability under the terms of this warranty is limited to the purchase price of the product covered by the warranty

The warranty is given under English Law. If any part of this warranty is deemed unenforceable (including any provision in which we exclude our liability to you) the enforceability of any other parts of the warranty will not be affected. These terms do not reduce your statutory rights

THESE TERMS AND CONDITIONS ARE SUBJECT TO CHANGE WITHOUT PRIOR NOTICE

For further details, terms and conditions and online registration please see [www.luceco.co](http://www.luceco.co)

LED IP65 Bulkhead

PART CODE: LBH154K / LBH154K3M  
 LBH154KMW / LBH154KMW3M

NOTE - To comply with regulations, installation must be carried out by qualified electrician and in accordance with the current IEE Wiring Regulations (BS7671) and Building Regulations.

**ENSURE ELECTRICAL SUPPLY IS DISCONNECTED/ISOLATED BEFORE COMMENCING INSTALLATION**

SPECIFICATIONS

- Suitable for use with Mains voltage of 220-240V AC
- This product must be disconnected before insulation resistance testing of the lighting circuit
- Check for electrical cables and Pipes before installation
- To maintain the IP65 rating of the bulkhead, a suitable 20mm cable gland should be used in conjunction with rubber insulated cable to ensure the supply cable is sealed in the gland. Failure to use a gland and/or rubber insulated cable may result in water ingress



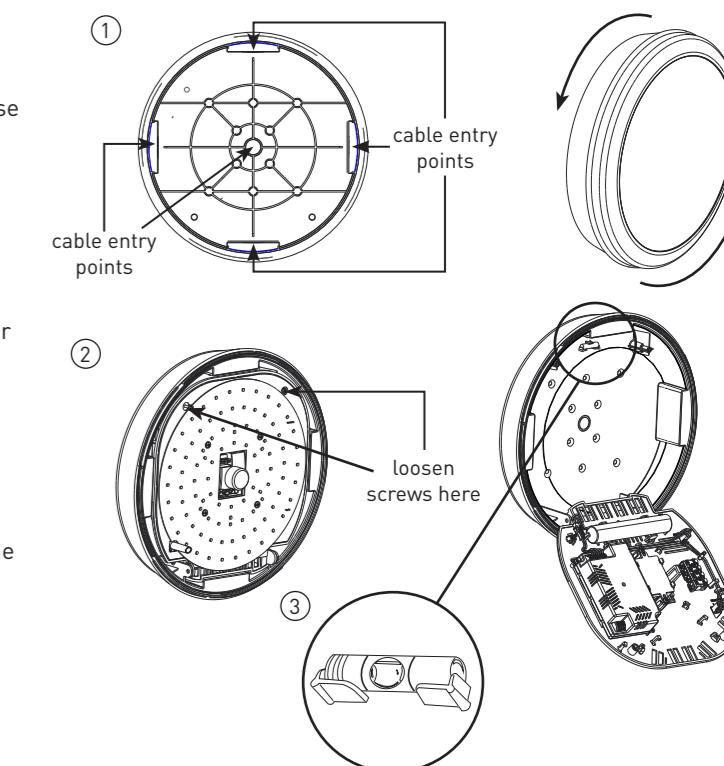
SUGGESTED METHOD OF INSTALLATION

The bulkhead is designed for mounting in any of the following options: -

- Surface Wall Mounting
- Surface Ceiling Mounting
- Semi-recessed Ceiling Mounting

Surface mounted options may use rear cable entry for flush mounting or there is facility for surface Conduit 'besa' box mounting or side conduit entry. Semi-recessed Mounting utilises the metal bracket included but may require access to the ceiling void during installation

- With the method of mounting chosen, remove the front Diffuser and Trim Bezel, by twisting them in a Anti-clockwise direction to the base. (Image 1)
- To drop the Driver tray, loosen two screws shown then lower the gear tray. (Image 2 - Gear tray and drop tray)
- Incorporated within the base is a spirit level to help align the bulkhead for wall mounting, in such applications the level should be at the top. (Image 3)



**SURFACE MOUNTING**

LBH154K can be mounted on ceilings and Vertical walls. Ensure the mounting surface is suitable for installation. Once Mounting points are decided, drill out mounting holes and any cable entry points needed

If using a side cable entry the Lower trim needs to be cut also for a flush finish. (Image 4)

**SEMI-RECESSED MOUNTING**

The LBH154K can also be recessed mounted into ceilings. Recessed mounting uses the supplied metal bracket, but is installed without the lower trim. When recessed, only the 4 side cable entry points can be used

Access to the ceiling space is recommended for installation

The product is installed into a 290mm Cut out, and can be mounting into ceilings upto 30mm thick

Choose wiring entry/exit points and drill out cable entry points prior to installation. Install as shown, with the bracket on the top side of ceiling, Install with supplied bolts until tight. (Image 5)

**ELECTRICAL CONNECTIONS**

- With the bulkhead securely fixed in the desired position, make the electrical connection to the terminal block, observing the correct polarity. (See also additional information)

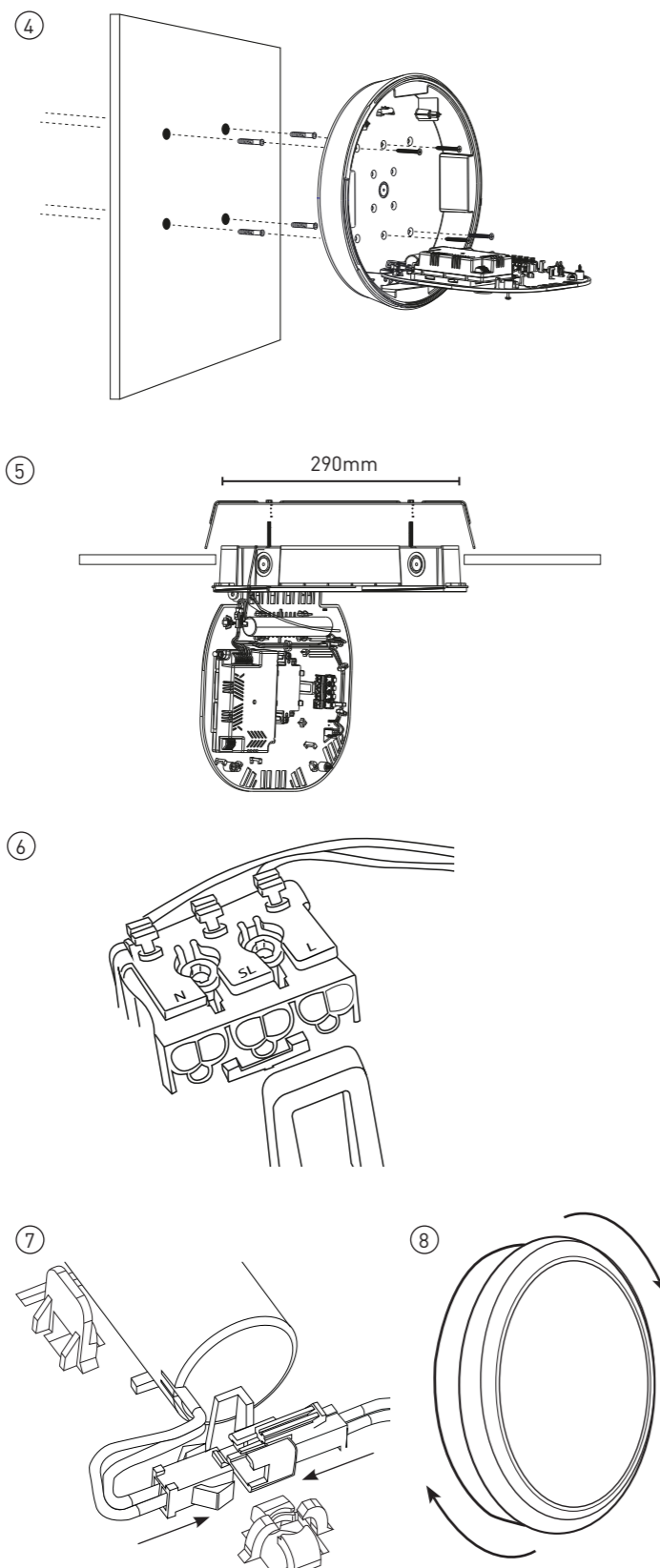
**Note** – the bulkhead is a class II construction and does not require an Earth Connection and for Emergency versions, 2no. Live connections (Switched [SL] and UnSwitched [L] required) (Image 6)

**FOR EMERGENCY VERSIONS**

The battery requires connecting before use, Connect the two push connectors between Driver and battery. (Image 7)

Once the electrical connections have been made, the gear tray can be hinged back into position and secured using the 2no. Fixing screws. If the Bulkhead has a Microwave Sensor, the sensor settings can be adjusted by the installer/user, please see additional information below

Re-fit the front diffuser and bezel assembly by placing against the base and twisting clock-wise. To aid ease of re-fitment, the diffuser/bezel can be aligned at 90degree intervals. Turn on power and operate. (Image 8)

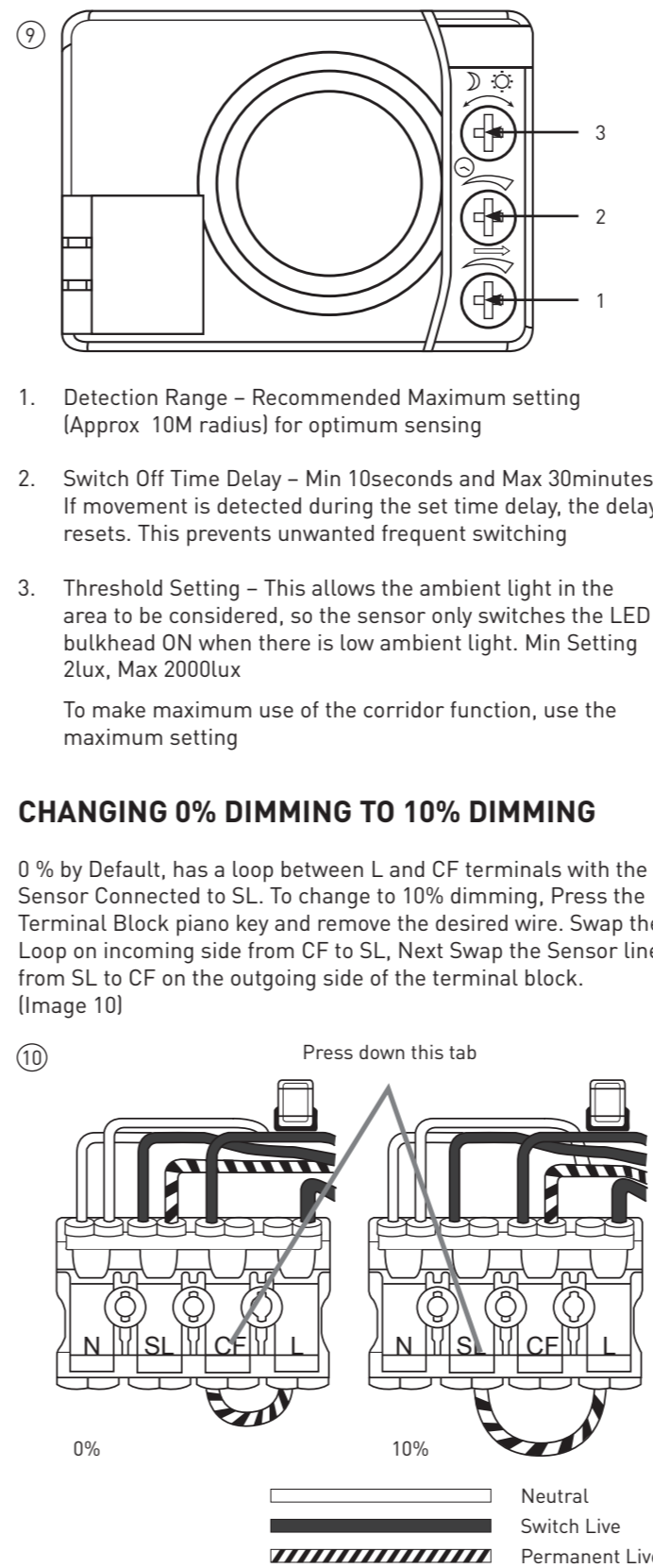


**ADDITIONAL INFORMATION - MICROWAVE SENSOR**

- Versions fitted with a MicroWave sensor allow the bulkhead to be automatically switched ON where movement is detected
- MicroWave sensors are significantly more sensitive than Passive Infra Red (PIR) sensors, which only detect changes in heat against the background. Therefore MicroWave sensors can be prone to 'nuisance switching' in an exterior application

**MICROWAVE SENSOR SETTINGS**

- The MicroWave sensor is supplied, pre-set to its optimum settings and also configured to 'corridor function' facility. This provides a standby mode, where the sensor will switch the bulkhead off
- By Default the Sensor is set to dim the product to 0% light output when no presence detected. This can be changed to 10% by changing the wiring layout on the terminal block
- The Bulkhead can be adjusted to switch/dim to 10%, (see below). Due to the use of LED, the energy used is minimal in Corridor Function mode and threshold setting prevents the sensor from operating when there is adequate natural light in the area. (Image 9).
- This low illumination provides security for people in areas such as corridors and stairwells, that the area is not totally dark when initially entered. **When Set to 10% dimming, Emergency versions can no longer be switched on/off**
- The Sensor Has a LED that will flash to show how the sensor is set
- Range** – The sensor has a maximum range of upto 10M, this is based on being ceiling mounted at around 2.5M. The range is based on detecting a person of around 1.6M tall, 1 Flash =1M, 5 Flashes =5M, 10 Flashes = 10M
- Time** -the light can be set to stay ON for any period of time between approx. 10sec (dial turned fully anti-clockwise) and a maximum of 30min(dial turned fully clockwise). Any movement detected during the "on" time will reset the timer. The number of flashes means the following:  
 1 flash=10sec, 2 flashes=1 min, 3 flashes=2 min, 4 flashes= 5 min, 5 flashes=8 min, 6 flashes=10 min, 7 flashes=15 min, 8 flashes=20 min, 9 flashes=25 min, 10 flashes=30 min
- Ambient Light** - The ambient Light level can be set between 2-2000lux. Turn it fully anti-clockwise to select dusk- to-dawn operation at about 2 Lux. Turn it fully clockwise to select daylight operation at about 2000lux. The knob must be turned fully clockwise when adjusting the detection zone and performing the walk test in daylight



**ADDITIONAL INFORMATION - CORRIDOR FUNCTION**

The LBH154KMW can be connected for master switching function, in this mode a sensor at the start and/or end of a corridor can switch all the lights on together. This Uses the Sensor on one product as Switched live on the others. For master/slave function, all luminaires must be run on a single Live/ Neutral chain. For emergency Installations, a separate Single Emergency Live line is required

Sensors can be added at both ends to allow Switching when presence at either end of the Installation

**Master/slave Function can operate on 0% Dimming or 10% dimming. Only 0% Dimming can be switched on/off for emergency when used in master/slave function. (Image 11)**

**ADDITIONAL INFORMATION - EMERGENCY FUNCTION**

- Versions fitted with Emergency control gear provide a reduced light output in the event of a mains power failure to aid the safe evacuation of the area
- By having a second Live (unswitched/permanent, marked L) power feed to the bulkhead, it can be switched ON/OFF as required and also will sense a power failure in the lighting circuit, regardless of the bulkhead being ON or OFF
- Where a second live is not provided, when the bulkhead is switched off, the batteries will power the LED array, this will vastly reduce the life of the batteries and their ability to charge

**EMERGENCY OPERATION**

- From initial installation the integral batteries will require 24hours to reach full charge status
- Following a full discharge, 12-14hours should be allowed for the batteries to re-charge
- The Green LED charge indicator signifies that the batteries are charging and will remain illuminated when the bulkhead is switched off
- The batteries have a rated service life of 4years and should be checked and considered for replacement at that point
- A record of routine testing should be kept to ensure Emergency luminaires are maintained and operated correctly

