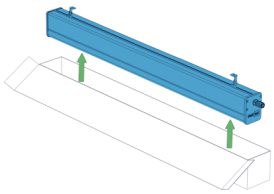
FULMAR 4.5 INDUSTRIAL LUMINAIRES

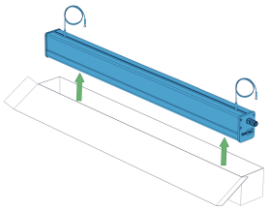
INSTALLATION GUIDE

READ THE INSTRUCTIONS CAREFULLY BEFORE STARTING

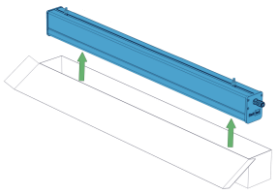
INSIDE THE BOX



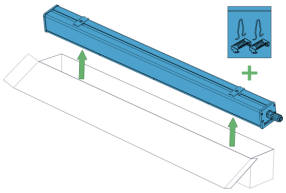
Luminaire with **BWL-WKIT**
kit for surface mounting (p. 2)



Luminaire with **BWL-HKIT**
kit for suspended mounting (p. 3)

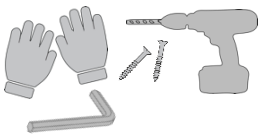


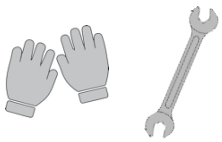
Luminaire with **BWL-SKIT**
kit for cable-tray mounting (p. 4)

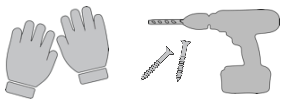


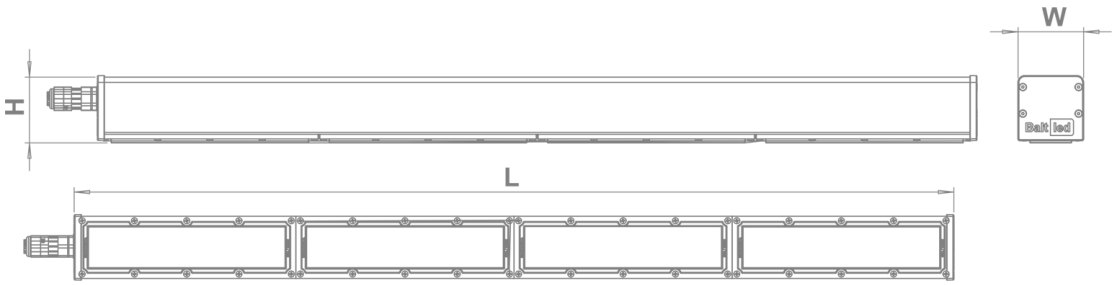
Luminaire with **BWL-SRKIT**
kit for surface/rope mounting (p.5)

NEEDED FOR MOUNTING









L, *mm*	W, *mm*	H, *mm*
317 / 346 / 387 / 416 / 567 / 586 / 637 / 656 / 1068 / 1076 / 1138 / 1146 / 1567 / 1568 / 1637 / 1638 / 2068 / 2138	75	77*

*Fulmar luminaires are the same height except for Fulmar 4.5 120, which H = 100 mm

WARNING

! Turn power off before inspection, installation or removal.

- Properly ground electrical enclosure.
- Perform installation in dry location only.
- Luminaire may fall down if not installed properly.
- Avoid direct eye exposure to the light source while it is on.
- For indoor use only.
- Do not operate luminaire with damaged parts.
- To prevent wiring damage or abrasion, do not expose wiring to edges of sheet metal or other sharp objects.
- The manufacturer shall not be liable for any damage resulting from inappropriate modifications to the luminaire or faulty installation.

If you have any questions, contact the manufacturer.

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8 YEARS WARRANTY

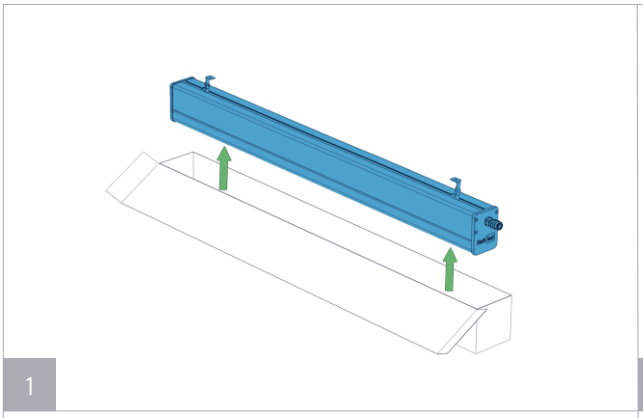
IP 65

RoHS Compliant

FULMAR 4.5 INDUSTRIAL LUMINAIRES

INSTALLATION GUIDE

1. SURFACE MOUNTING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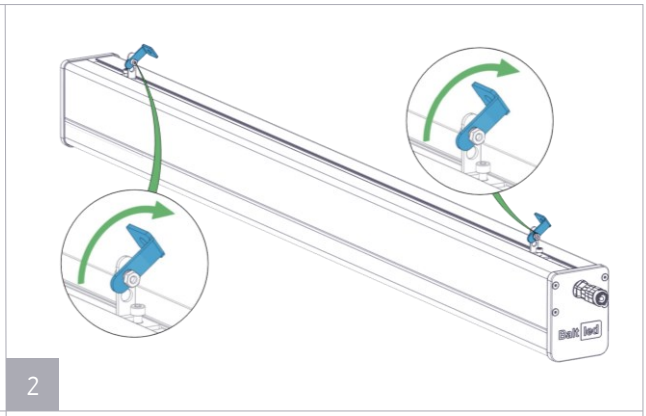
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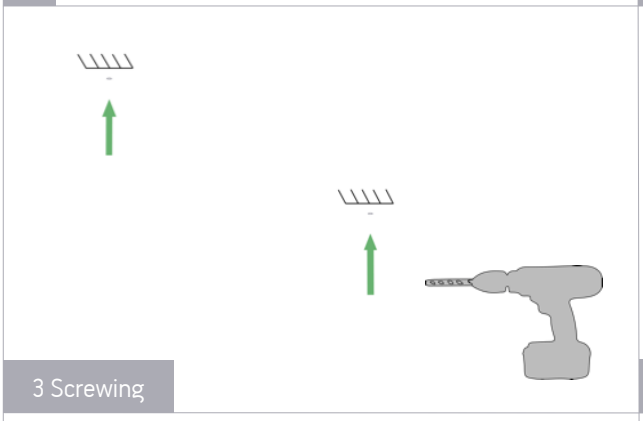
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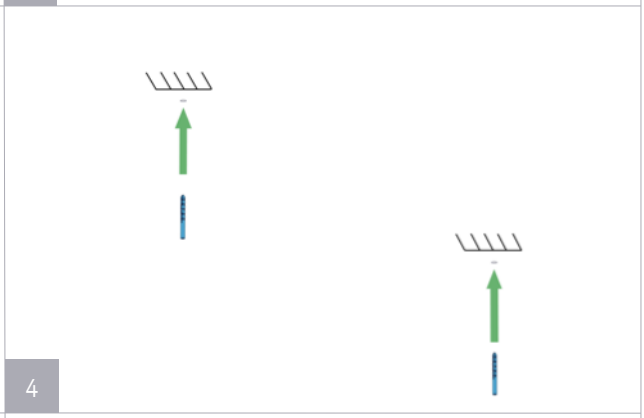
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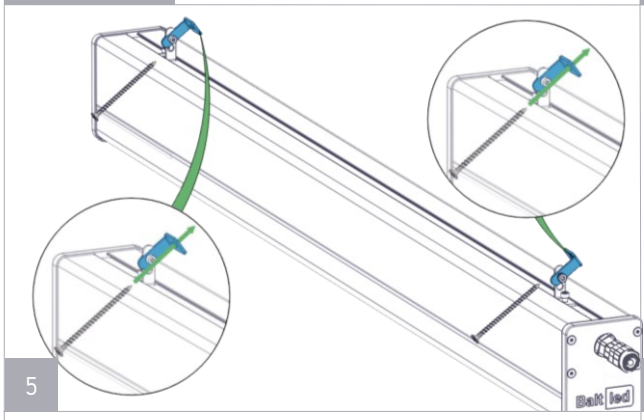
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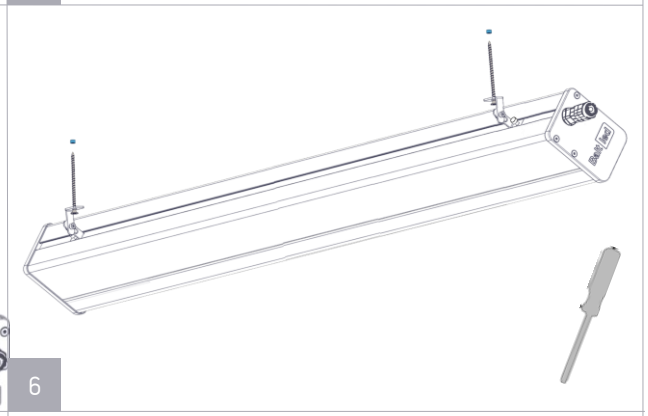
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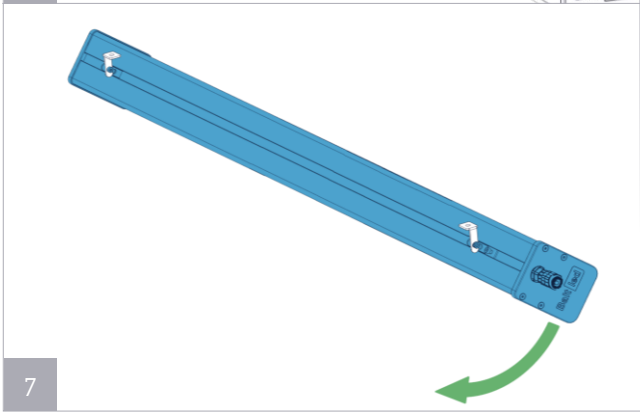
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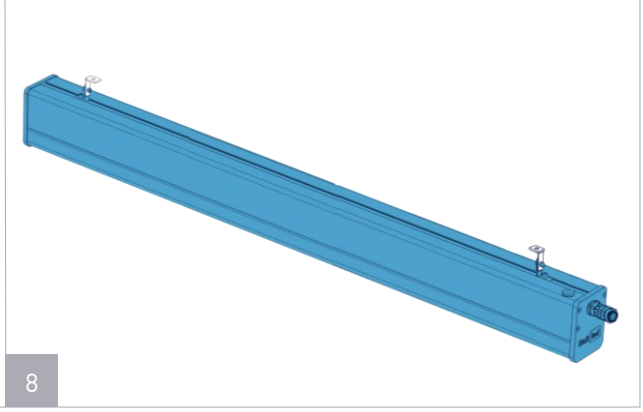
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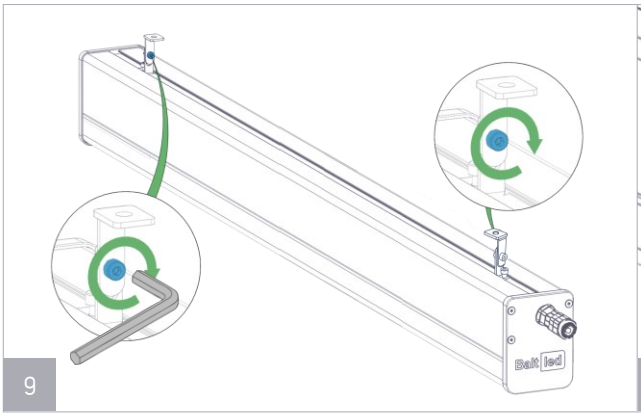
FULMAR 4.5 INDUSTRIAL LUMINAIRES

INSTALLATION GUIDE

1. SURFACE MOUNTING



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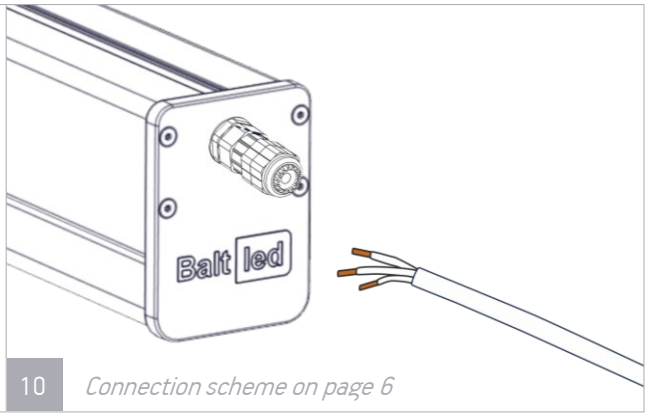
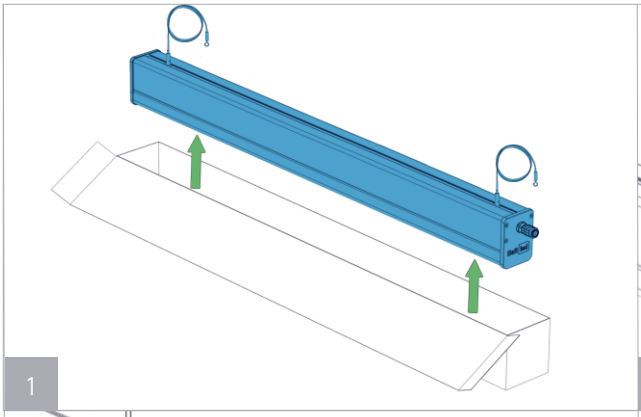


10 *Connection scheme on page 6*

2. SUSPENDED MOUNTING



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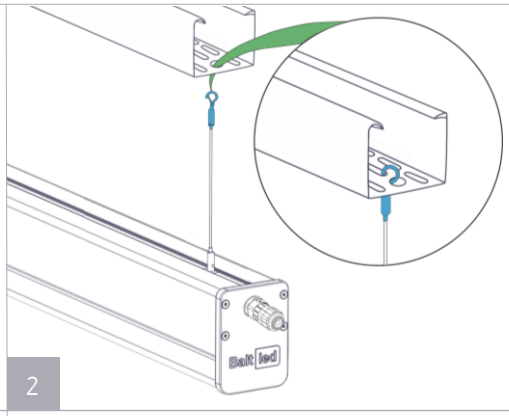

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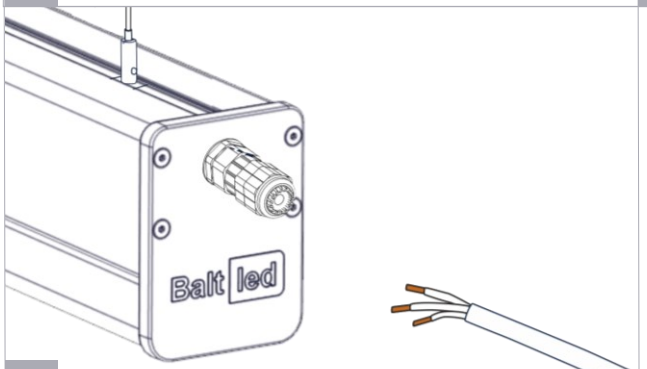

3 *Connection scheme on page 6*

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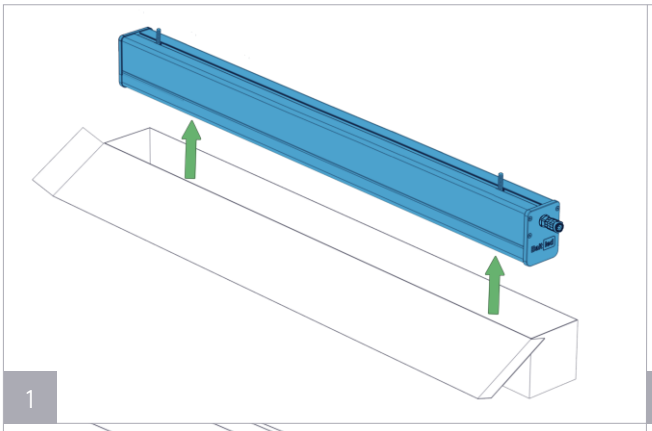
FULMAR 4.5 INDUSTRIAL LUMINAIRES

INSTALLATION GUIDE

3. CABLE TRAY MOUNTING



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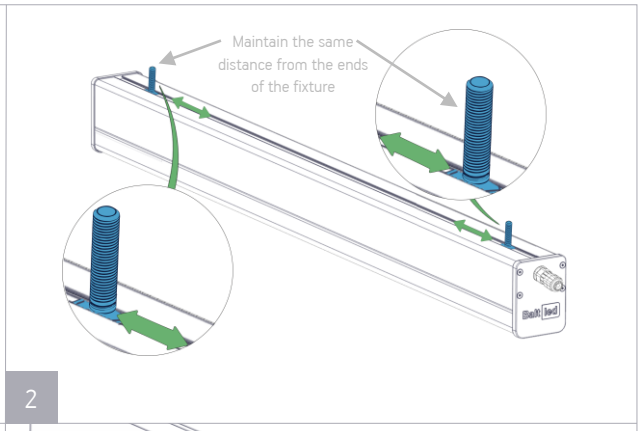

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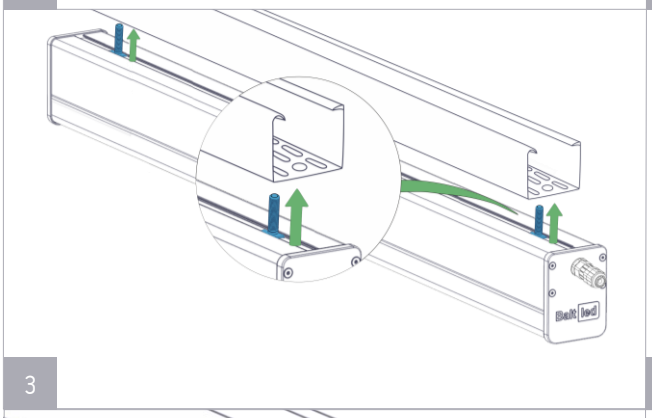

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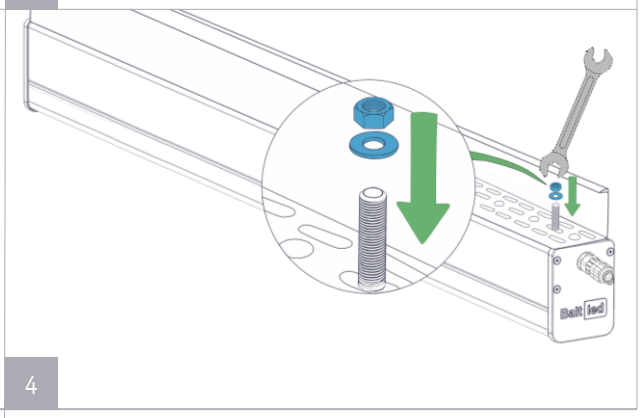

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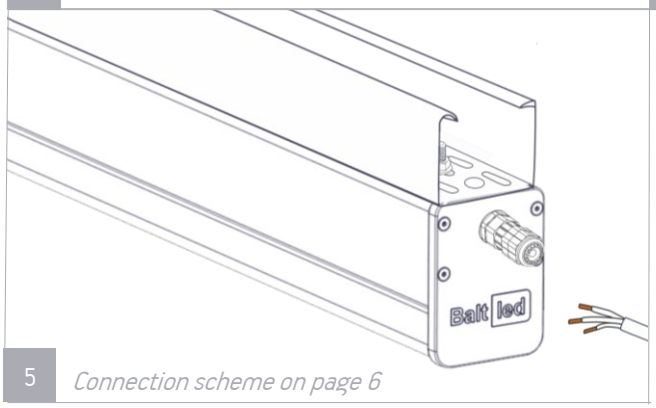

5

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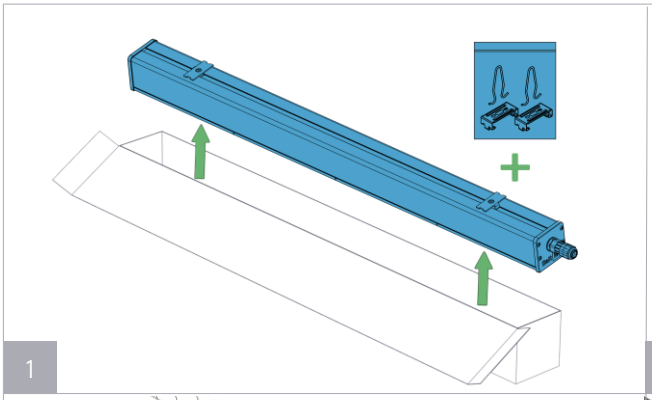
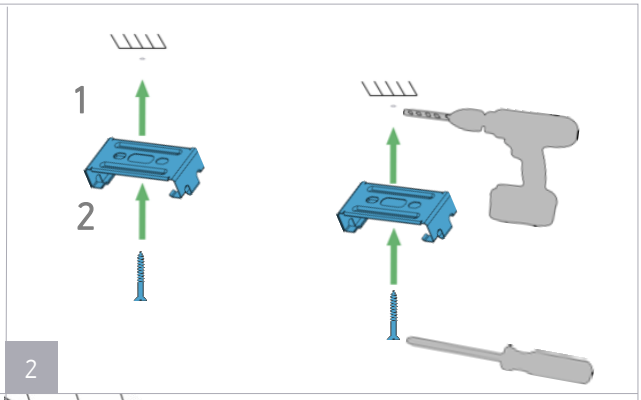
FULMAR 4.5 INDUSTRIAL LUMINAIRES

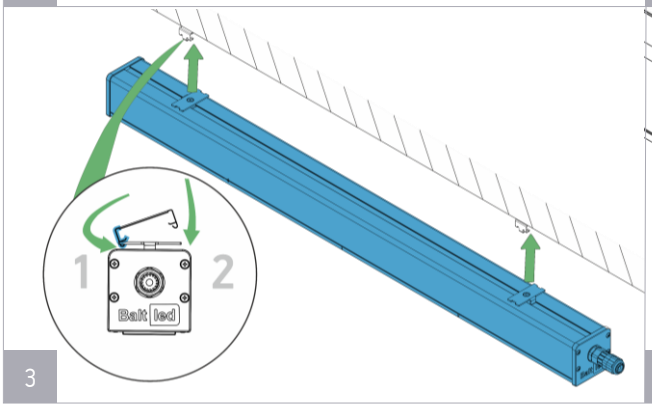
INSTALLATION GUIDE

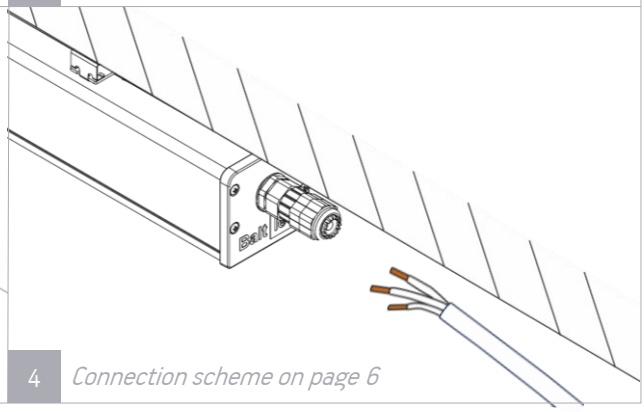
4. SURFACE/ROPE MOUNTING

4.1. SURFACE MOUNTING



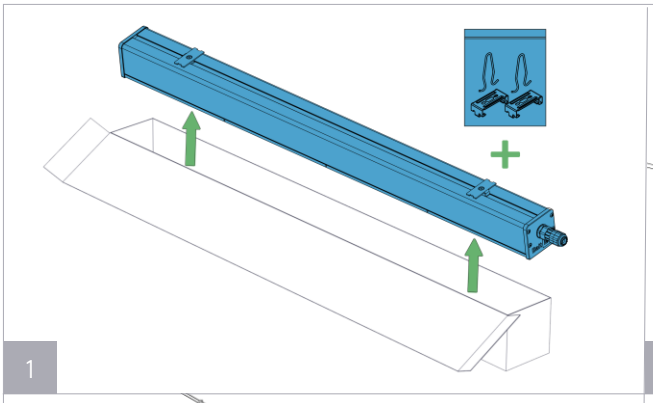


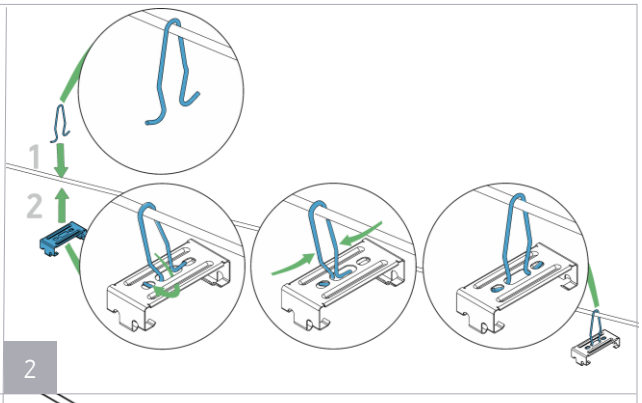


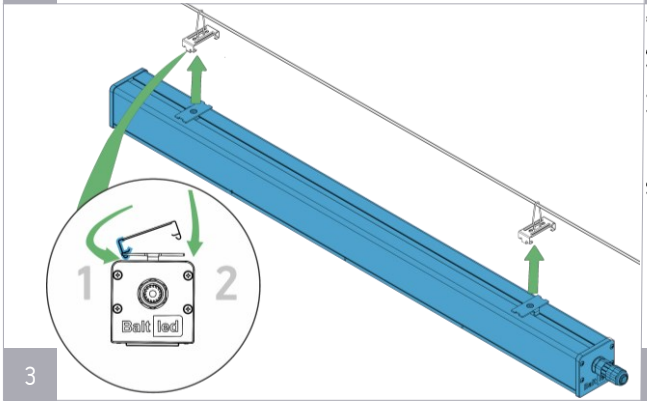


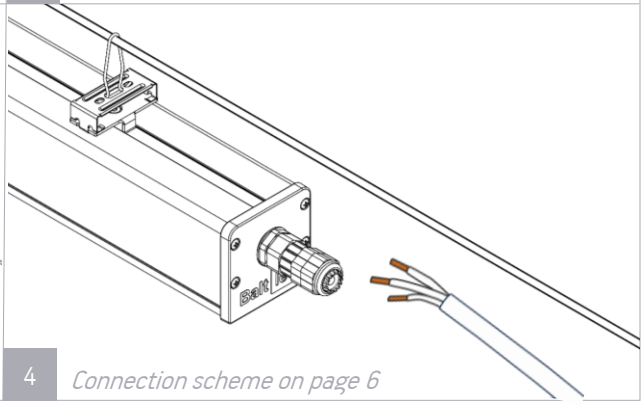
Connection scheme on page 6

4.2. ROPE MOUNTING









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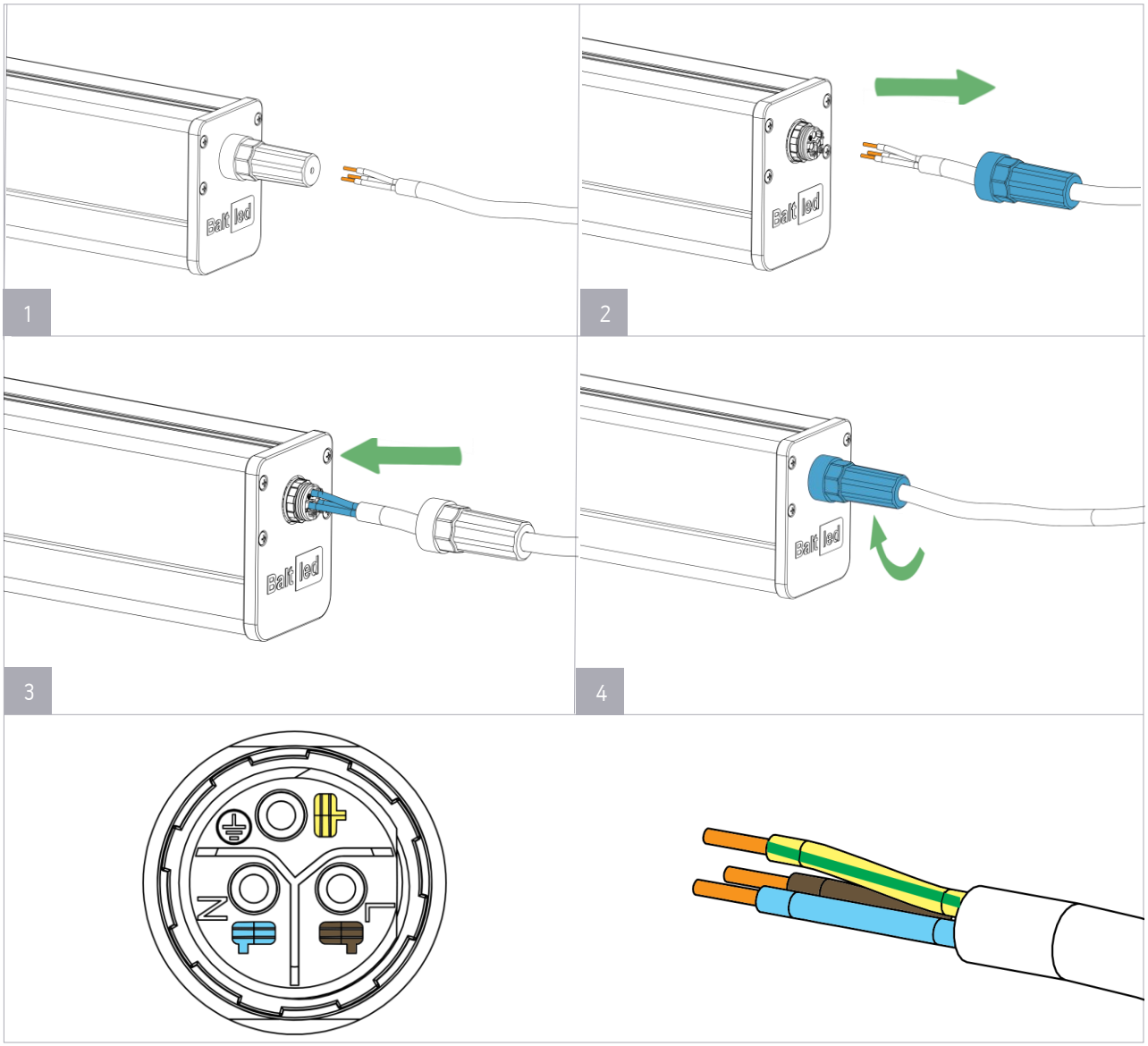
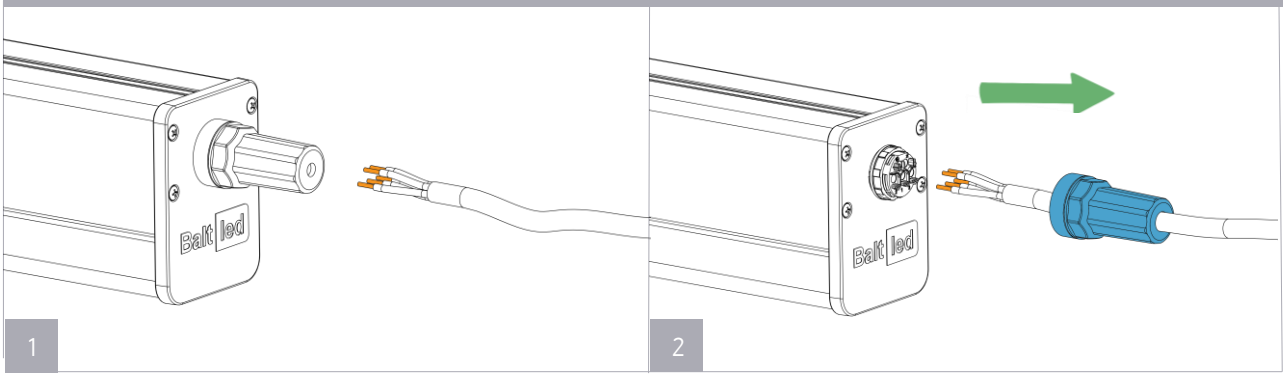
FULMAR 4.5 INDUSTRIAL LUMINAIRES

INSTALLATION GUIDE

CONNECTION



FIVE-WIRE CABLE CONECCTION



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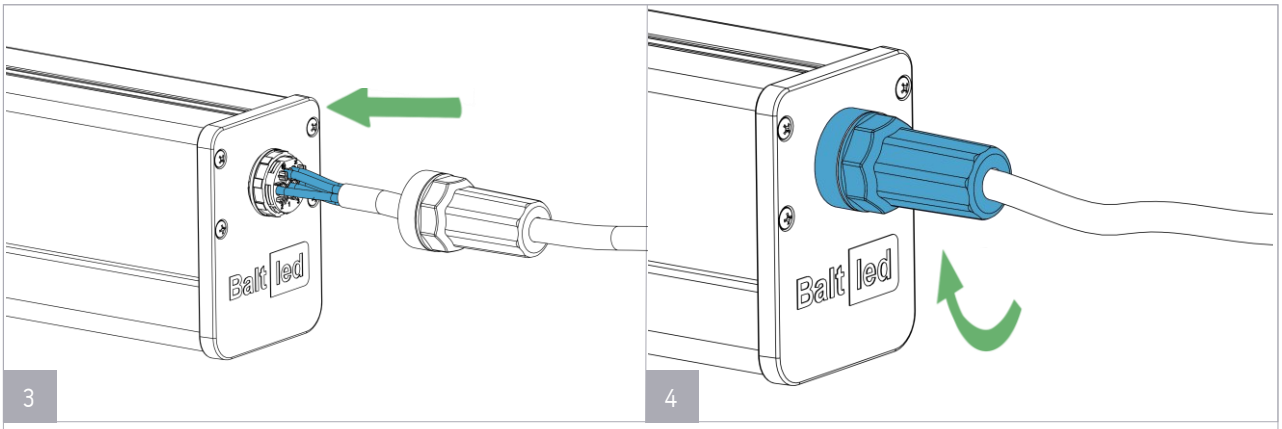
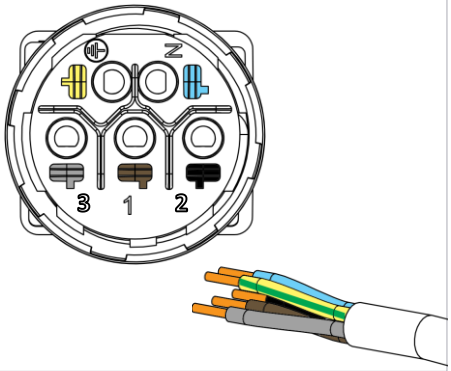
FULMAR 4.5 INDUSTRIAL LUMINAIRES

INSTALLATION GUIDE

CONNECTION



EM	DALI	1-10V
ground wire	ground wire	ground wire
N neutral wire (luminaire power suppply)	**N** neutral wire (luminaire power suppply)	**N** neutral wire (luminaire power suppply)
1 live wire (luminaire power suppply)	**1** live wire (luminaire power suppply)	**1** live wire (luminaire power suppply)
2 EM neutral wire	**2** DALI (-)	**2** 1-10V (-)
3 EM live wire	**3** DALI (+)	**3** 1-10V (+)



QUANTITY OF LUMINAIRES PER CIRCUIT BREAKER

	LUMINAIRE QTY PER			
	16A	**25A**	**16A**	**25A**
	TYPE C CIRCUIT BREAKER			
	versions without DALI		*versions with DALI*	
BWLP-SE-025A60840E18	70	100	70	100
BWLP-SE-050A60840E34	60	90	60	90
BWLP-SE-100A60840E65	35	42	35	42
BWLP-SE-150A60840E96	25	37	23	34
BWLP-SE-200A60840E115	25	37	23	34
BWLP-SE-200A60840E130	17	26	17	26
BWLP-ST-050A60840E47	39	58	30	45
BWLP-ST-100A60840E90	25	37	23	34
BWLP-ST-150A60840E134	17	26	17	26
BWLP-ST-200A60840E150	17	26	17	26
BWLP-SE-025A100840E18	70	100	70	100
BWLP-SE-050A100840E34	60	90	60	90
BWLP-SE-100A100840E65	35	42	35	42
BWLP-SE-150A100840E96	25	37	23	34

	LUMINAIRE QTY PER			
	16A	**25A**	**16A**	**25A**
	TYPE C CIRCUIT BREAKER			
	versions without DALI		*versions with DALI*	
BWLP-SE-200A100840E115	25	37	23	34
BWLP-SE-200A100840E130	17	26	17	26
BWLP-ST-050A100840E47	39	58	30	45
BWLP-ST-100A100840E90	25	37	23	34
BWLP-ST-150A100840E134	17	26	17	26
BWLP-ST-200A100840E150	17	26	17	26
BWLP-SE-025A120840E20	70	100	70	100
BWLP-SE-050A120840E35	60	90	60	90
BWLP-SE-100A120840E70	35	42	35	42
BWLP-SE-150A120840E100	25	37	23	34
BWLP-ST-050A120840E55	39	58	30	45
BWLP-ST-100A120840E100	25	37	23	34
BWLP-ST-150A120840E128	17	26	17	26

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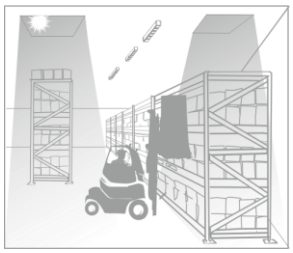
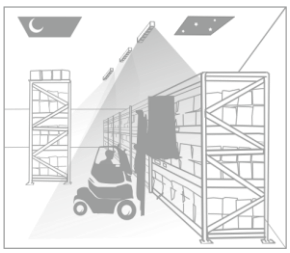
FULMAR 4.5 INDUSTRIAL LUMINAIRES

INSTALLATION GUIDE

MOTION SENSOR

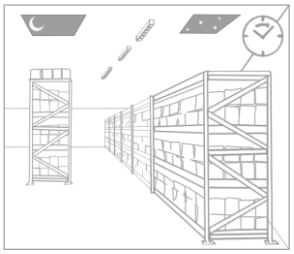


With sufficient ambient lux level , light keeps off even when motion is detected.



Light is on when sensor detects the motion and the ambient lux level is insufficient

When no more motion is detected, the light dims entering standby mode after hold time.



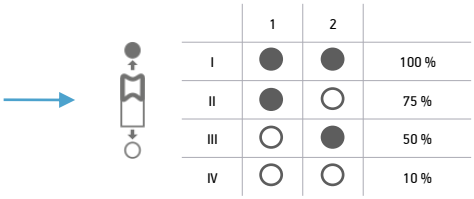
The lights turns off automatically after standby mode.

SET-UP CONFIGURATIONS

1. Detection area

This determines the effective range of the motion detector.

I – 100 %
II – 75 %
III – 50 %
IV – 10%

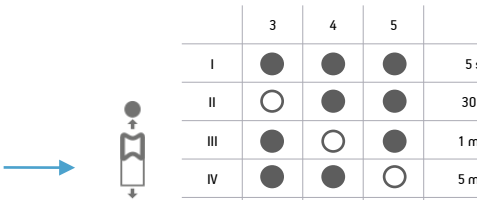


	1	2	
I	●	●	100 %
II	●	○	75 %
III	○	●	50 %
IV	○	○	10 %

2. Hold time

This is the minimum amount of time that the luminaire will remain at 100% light output after no motion is detected.

I – 5 s
II – 30 s
III – 1 min
IV – 5 min
V – 10 min
VI – 20 min
VII – 30 min

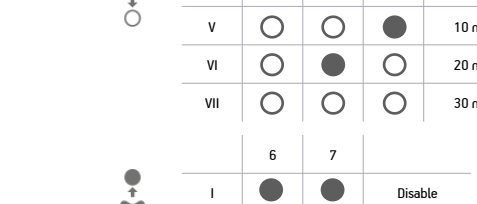


	3	4	5	
I	●	●	●	5 s
II	○	●	●	30 s
III	●	○	●	1 min
IV	●	●	○	5 min
V	○	○	●	10 min
VI	○	●	○	20 min
VII	○	○	○	30 min

3. Daylight sensor

This setting determines when there is insufficient daylight for natural lighting. In disable mode luminaire will always turn on upon movement.

I – Disable
II – 50 lux
III – 10 lux
IV – 2 lux

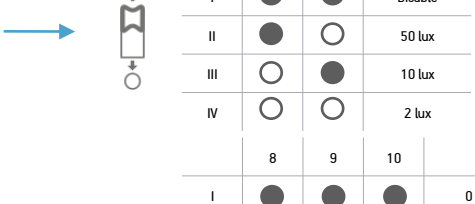


	6	7	
I	●	●	Disable
II	●	○	50 lux
III	○	●	10 lux
IV	○	○	2 lux

4. Corridor function | with 1-10V PSU only

This determines standby time that the light remains dimmed before it is completely turned off.

I – 0 s
II – 10 s
III – 1 min
IV – 5 min
V – 10 min
VI – 30 min
VII – 1 h
VIII - + ∞

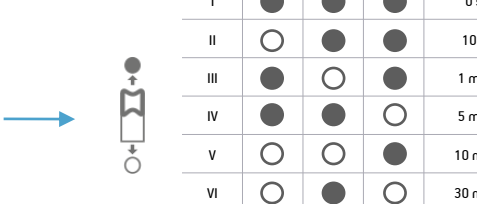


	8	9	10	
I	●	●	●	0 s
II	○	●	●	10 s
III	●	○	●	1 min
IV	●	●	○	5 min
V	○	○	●	10 min
VI	○	●	○	30 min
VII	●	○	○	1 h
VIII	○	○	○	+ ∞

5. Standby dim level | with 1-10 PSU only

Light can be dimmed to different levels after hold time.

I – 10 %
II – 20 %
III – 30 %
IV – 50%



	11	12	
I	●	●	10 %
II	●	○	20 %
III	○	●	30 %
IV	○	○	50 %

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FULMAR 4.5 INDUSTRIAL LUMINAIRES

INSTALLATION GUIDE

MOTION SENSOR (REMOTE CONTROL)

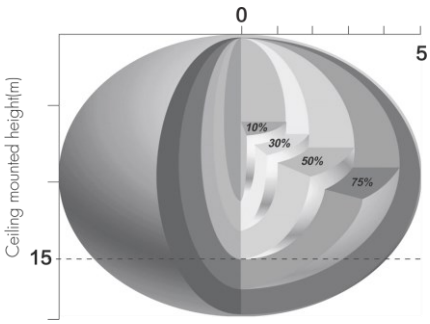
ROTARY SWITCH PRESET

A rotary switch is built inside the sensor for scene selection / fast programming. Total 16 channels are available:

Rotary switch preset

Note: settings can also be changed by remote control HRC-11. The last action controls.

DETECTION PATTERN



Channel	Detection range	Hold-time	Daylight sensor	Stand-by time	Stand-by dim level
0	100%	5s	Disable	10s	10%
1	100%	1min	2Lux	5 min	10%
2	100%	5min	10Lux	10min	10%
3	100%	5min	30Lux	30min	10%
4	100%	5min	10Lux	0s	Disable
5	100%	5min	30Lux	+∞	10%
6	100%	5min	Disable	+∞	30%
7	100%	10min	2Lux	10min	10%
8	100%	10min	10Lux	30min	10%
9	100%	10min	30Lux	+∞	10%
A	100%	10min	Disable	+∞	30%
B	75%	10min	30Lux	+∞	10%
C	50%	10min	10Lux	+∞	10%
D	100%	30min	50Lux	+∞	10%
E	100%	30min	Disable	+∞	30%
F	100%	5s	2Lux	10s	10%

SETTINGS

Permanent ON/OFF function

Press button “ON/OFF” to select permanent ON or permanent OFF mode.

- Press button “AUTO”, “RESET” to quit this mode.
- The mode will change to AUTO Mode after power failure.

Reset Settings

Press button “RESET”, all settings go back to rotary switch settings.

Shift Button

Press button “Shift”, the LED on the top left corner is on to indicate mode selection. All values / settings in RED are valid for 20 seconds.

AUTO mode

Press button “AUTO” to initiate automatic mode. The sensor starts working and all settings remain as before the light is switched ON/OFF.

Note: “Semi-auto” function is disabled.

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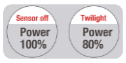
FULMAR 4.5 INDUSTRIAL LUMINAIRES

INSTALLATION GUIDE

MOTION SENSOR (REMOTE CONTROL)



Power output

Press the buttons to select light output at 80% (at initial 10,000 hours) or 100%.

Note: "Sensor off" and "Twilight" functions are disabled.

Brightness +/-

Press the buttons to adjust the light brightness during hold-time.

Scene program - 1-key commissioning

1. Press button "Start" to program.
2. Select the buttons in "Detection range", "Daylight threshold", "Hold-time", "Stand-by time", "Stand-by dimming level" to set all parameters.
3. Press button "Memory" to save all the settings programmed in the remote control.
4. Press button "Apply" to set the settings to each sensor unit(s).

For example, to set detection range 100%, daylight threshold Disable, hold-time 5min, stand-by time +∞, stand-by dimming level 30%, the steps should be: Press button "Start", button "100%", "Disable", "Shift", "5min", "Shift", "+∞", "30%", "Memory". By pointing to the sensor unit(s) and pressing "Apply", all settings are passed on the sensor(s).

Detection range

Press buttons in zone "Detection range" to set detection range at 100% / 75% / 50% / 10%.

Daylight threshold

Press buttons in zone " Daylight threshold" to set daylight sensor at 2Lux/ 10Lux / 50Lux / 100Lux / 300Lux / 500Lux / Disable.

Note: To set daylight sensor at 100Lux / 300Lux / 500Lux, press "Shift" button first.

Ambient daylight threshold

1. Press button "Shift", the red LED starts to flash.
2. Press button "Ambient", the surrounding lux level is sampled and set as the new daylight threshold.

Hold-time

Press buttons in zone "hold-time" to set the hold-time at 2s / 30s / 1min / 5min / 10min / 15min / 20min / 30min.

Note: 1. To set hold-time at 30s / 5min / 15min / 30min, press "Shift" button first.

2. 2s is for testing purpose only, stand-by period and daylight sensor settings are disabled in this mode.

*To exit from Test mode, press button "RESET" or any button in "Hold-time".

Stand-by time (corridor function)

Press buttons in zone "stand-by time" to set the stand-by period at 0s / 10s / 1min / 5min / 10min / 30min / 1h / +∞.

Note: "0s" means on/off control; "+∞" means bi-level control, the fixture is 100% on when there is motion detected, and remains at the stand-by dimming level when no presence after motion hold-time.

Stand-by dimming level

Press the button in zone "stand-by dimming level" to set the stand-by dimming level at 10% / 20% / 30% / 50%.

Auto-configuration function

All buttons in this zone are disabled.

Dual tech & RF mode

All buttons are disabled.

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