ETLIN-DANIELS

INSTALLATION FOR HBRA7 SERIES ROUND HIGH BAY

SAVE THESE INSTRUCTIONS - READ ALL INSTRUCTIONS CAREFULLY

⚠ WARNING

c ℮ US LISTED

PLEASE READ ALL INSTRUCTIONS BEFORE ATTEMPTING INSTALLATION.
• To prevent personal injury or product damage only licensed electricians/personnel should install fixture.
• To avoid electric shock or component damage disconnect power before attempting installation
  or servicing.
• This product must be installed in accordance with the National Electric Code (NEC)/Canadian
  Electrical Code (CEC) and all applicable Federal, State/Provincial and Local Electric Codes and
  Safety Standards.
• Disconnect fixture and allow cooling prior to servicing.
• Any alteration or modification of this product is expressly forbidden as it may cause serious
  personal injury, death, property damage and/or product malfunction.
• To prevent product malfunction and/or electrical shock this product must be properly grounded.

⚠ WARNING
• This Round High bay will operate within the following voltage ranges: 120-277V or 347-480V, 50/60Hz.
• If input voltage exceeds this range, it may cause premature LED diode failure. Please ensure operation is within the
  specified voltage ranges.
• Ensure ambient operating temperature between -45°C through +45°C.
• Installing the Round High bay in temperatures outside the operating temperature range will reduce the life of the Round High bay.
• Make sure to turn off power during all installation or maintenance processes.

⚠ ATTENTION
IP65 Wet Location rated.
• Please keep the Round High bay away from all corrosive substances.
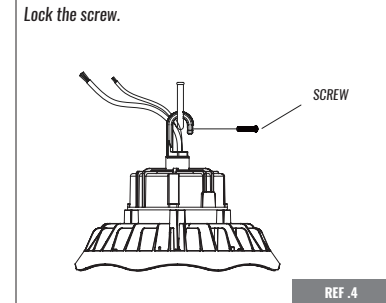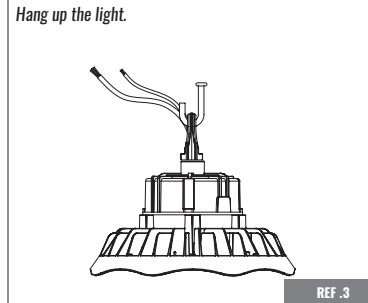• To clean, please use either a damp or dry cloth.
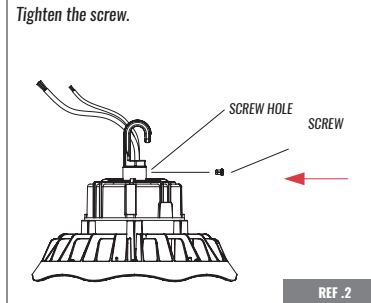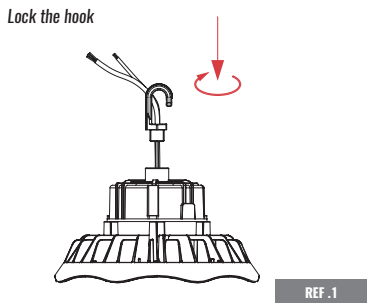
WIRING CONNECTION
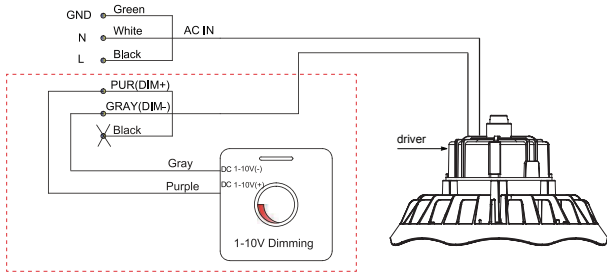
Turn off the power, connect AC wires. Black wire to L, white wire to N,
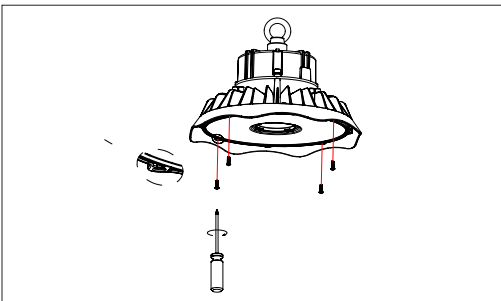and green wire to GND.

Dimmer connection.
1. Compatible with 1-10V dimming.
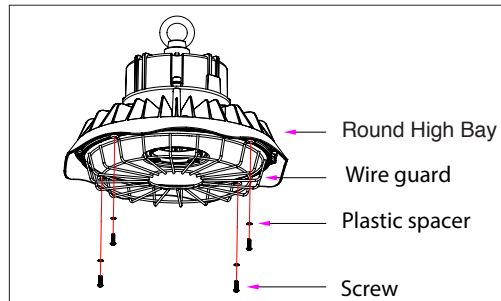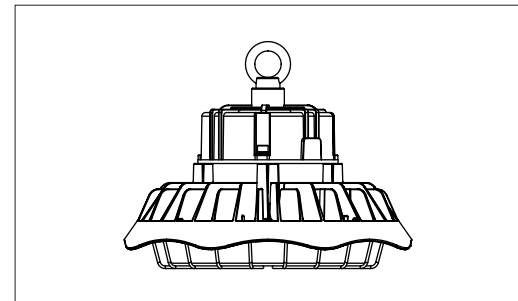2. Connect wires as below, purple wire is D+, gray wire is D-, cap black wire.

HOOK MOUNT

Lock the hook

REF .1

Tighten the screw.

SCREW HOLE SCREW

REF .2

Hang up the light.

REF .3

Lock the screw.

SCREW

REF .4

WIRE GUARD

1. Take down the 4 screws which show on the picture.

Round High Bay
Wire guard
Plastic spacer
Screw

2. Lock the screws according to the picture.

3. Installation complete.

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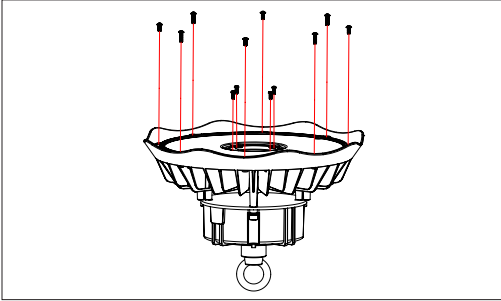
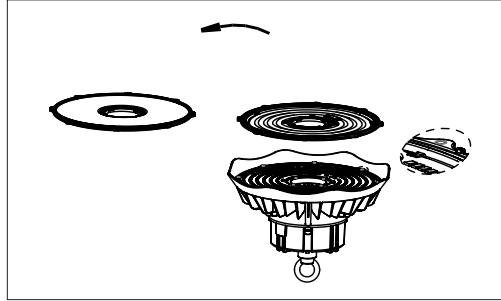## INSTALLATION FOR HBRA7 SERIES ROUND HIGH BAY

### SAVE THESE INSTRUCTIONS - READ ALL INSTRUCTIONS CAREFULLY

LENS / REFRACTOR INSTALLATION - 60° AND 90°

1. Unscrew the fixed screws which hold the PCB cover in place. Remove the PCB cover.
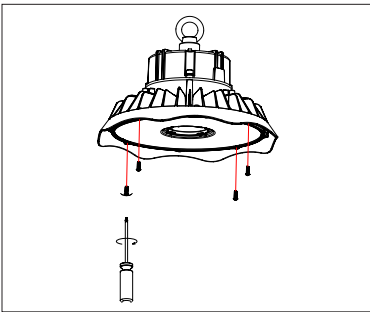
2. Install the Lens / Refractor over the PCB – aim the bump rectangle in the middle of the lens / refractor to sit over the PCB boards wire entry (shaded area). Please dispose of or store PC cover that came with fixture. It is not to be installed over the LENS / REFRACTOR.
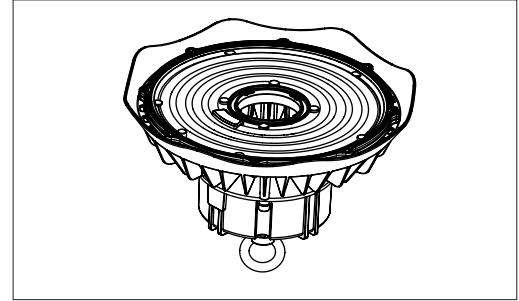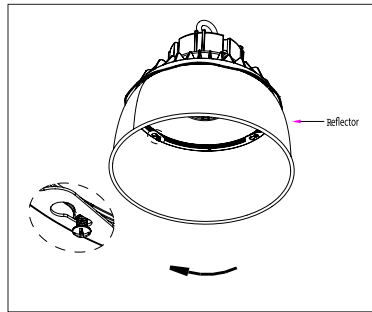
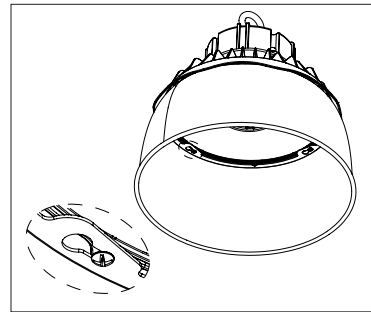3. Tighten all screws. Installation is finished.

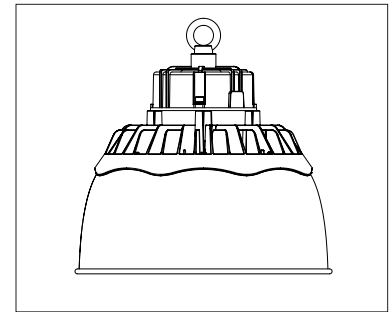## ALUMINUM REFLECTOR / PC REFLECTOR INSTALLATION

1. Unlock the 4 screws from the PCB cover and leave loose about 3mm.

2. Attach the Reflector to the fixture front and turn it clockwise to secure in place, using keyless slots.
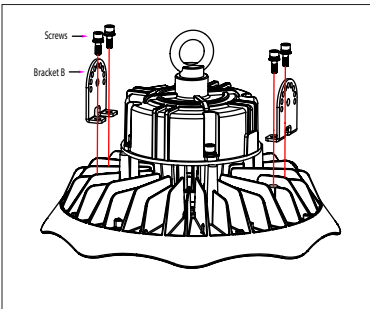
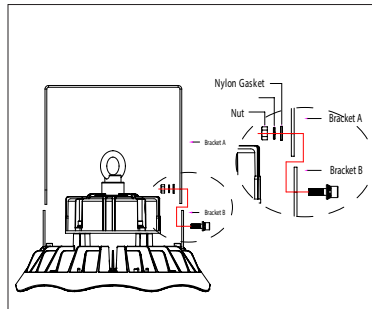3. Tighten all screws ensuring the Reflector holes are locked in place.
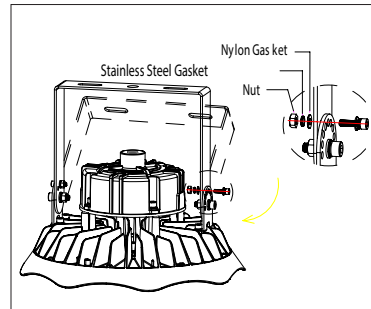
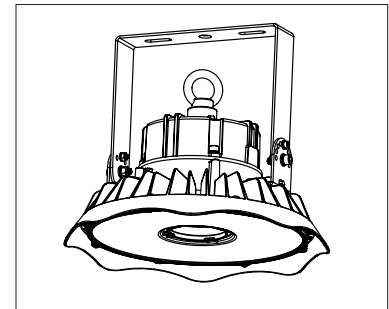4. Installation complete.

YOKE MOUNT INSTALLATION

1. Mount the 2 units of Bracket B to the back of the fixture with screws supplied.

2. Install Bracket A to Bracket B as per above images.

3. Adjust the required angle of the bracket as per above images and tighten screws to lock.
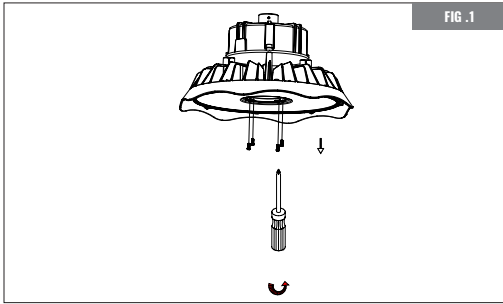
4. Installation complete.

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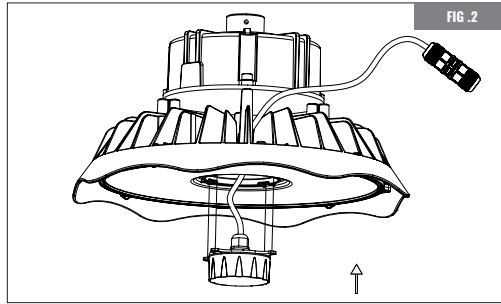## INSTALLATION FOR HBRA7 SERIES ROUND HIGH BAY

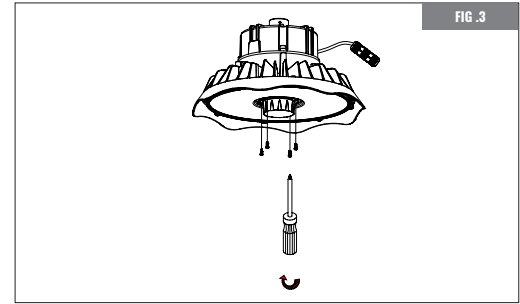### SAVE THESE INSTRUCTIONS - READ ALL INSTRUCTIONS CAREFULLY
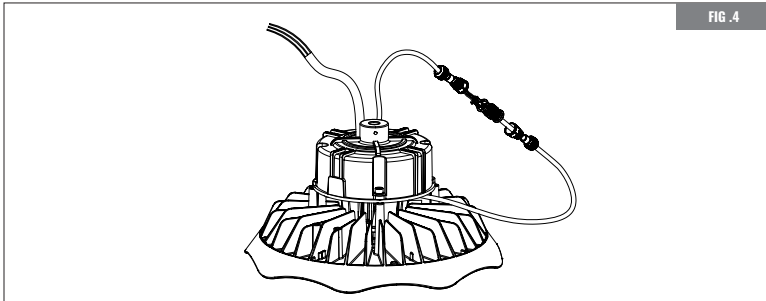
SENSOR INSTALLATION

FIG .1

1. Remove the four screws from the middle of the PCB cover.


FIG .2

2. Pass the waterproof connector through the middle of the heat sync and place on the back of the fixture.

FIG .3

3. Screw the sensor securely to the front of the fixture by tightening the 4 screws that were removed in Figure 1. Improper tightening may cause IP65 failure.

FIG .4

4. Connect the Low Voltage wires from the back of the fixture to the sensor wires using the watertight connector. Ensure the connector is properly sealed to maintain the IP65 rating.

FIG.5
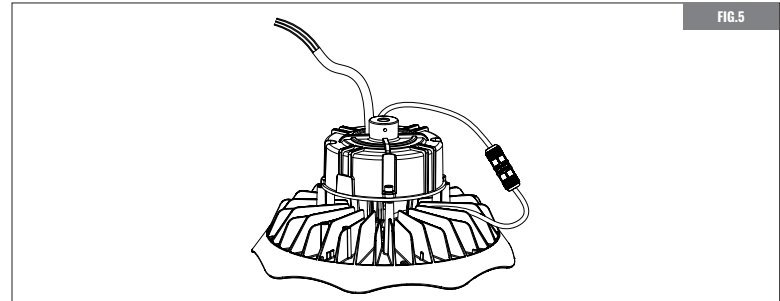
5. The Sensor installation is complete.

HBRA7 – INSTALLATION GUIDE MICROWAVE SENSOR

OVERVIEW
• Automatic On / Off control with Daylight Sensor
• Optional detection range, holdtime, daylight threshold, Standby period and standby dimming level.
• Remote control settings available.

INSTALLATION PRECAUTIONS.
1. The areas of detection cannot be shielded by metal objects.
2. Ensure the Microwave Sensor is properly secured to ensure Watertight seal.

3. The detection surface of the sensor shall be installed facing the detection area.
4. Wiring must be in accordance with the wiring diagram to avoid short circuit.

APPLICATION ENVIRONMENT.
1. Suitable only for indoor applications.
2. Not suitable for spaces where all walls are metal or with metal roofing.
3. Not to be installed in close proximity to large machinery like ventilators, ceiling fans, to avoid false triggering due to machine vibrations.

USER NOTES.
1. The Microwave Sensor can penetrate walls or glass thinner than 20cm, and will be weaker if the surface is thicker than 20cm.
2. The detection area will be affected by speed of motion, mounting height, and movement volume

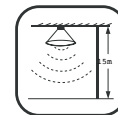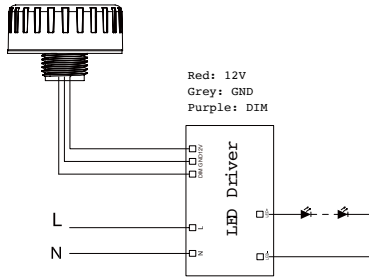| On / Off Control | Detection Area | Hold Time | Daylight Threshold | Stand-by Period | Stand-by Dimming Level | Remote Control Setting | 10-15M High Bay Altitude | warranty 5 years |

INSTALLATION FOR HBRA7 SERIES ROUND HIGH BAY

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SENSOR WIRING DIAGRAM

Red: 12V
Grey: GND
Purple: DIM

LED Driver

L
N

DIMENSIONS (UNIT: MM)

ø50

50
24
12
22.5
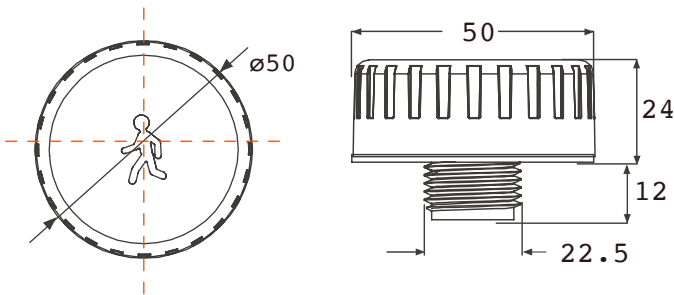
TECHNICAL INFROMATION

Operating Voltage	10-15VDC
Operating Current	30mA± 5%
Output	DIM 0-10V.
Standby Power	≤0.5W.
Detection Area	25% / 50% / 75% / 100%
Hold Time	5s/30s/1 min/3 min/5 min/10 min/30 min
Daylight Threshold	2Lux / 10Lux / 30Lux / 50Lux / 80Lux / 120Lux / Disable
Standby Period	0s/10s/30s/1 min/5 min/10 min/30 min/+∞
Standby Dimming Level	10%/20%/30%/50%
Microwave Power	5.8GHz±75MHz
Mounting Height	<0.3mW
Detection Range	15m / 49.2 ft (ceiling mounted)
Operating Temperature	-20°C~+60°C
Motion Detection	0.5~1.5m/s
IP Rating	IP65
Warranty	5 Years

DETECTION RANGE

Typical installation height 15m
The figure indicates the maximum distance at the highest mounting height with 100% sensitivity.

Ceiling Mounted

### Wall Mounted

Well covered   Covered
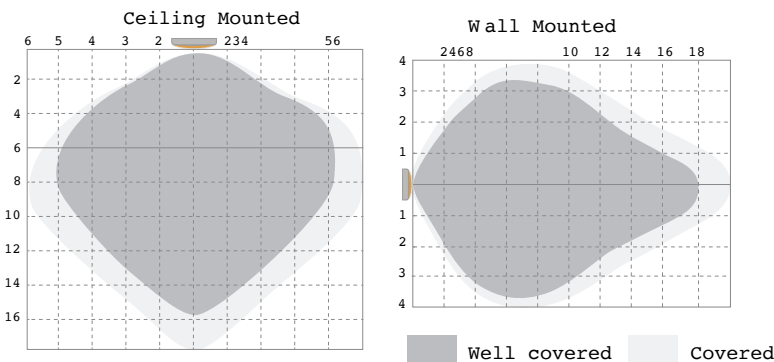
DAYLIGHT PRIORITY

The Dusk / Dawn Sensor: Dual PD technology brings an automatic dusk / dawn sensor that can tell the difference between natural light and LED light. This is necessary to ensure the fixture will be off when not required. With the Daylight Priority function, it enables differentiating between artificial light brightness, from natural light brightness, after in-fixture installation. It will automatically turn off the fixture when ambient natural brightness exceeds the preset lux level.

Precondtion of daylight priority:

1. Standby period is +∞
2. Standby dimming level is on 10%, 20% or 30%:
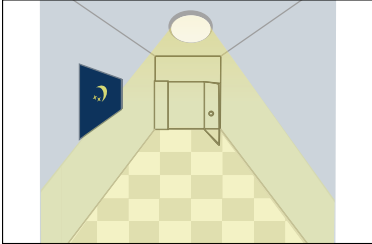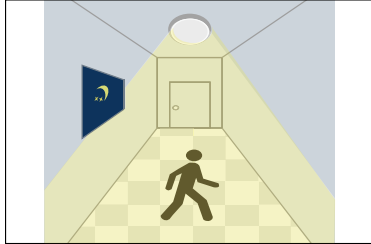3. Daylight threshold is on 30Lux, 50Lux, 80Lux or 120Lux
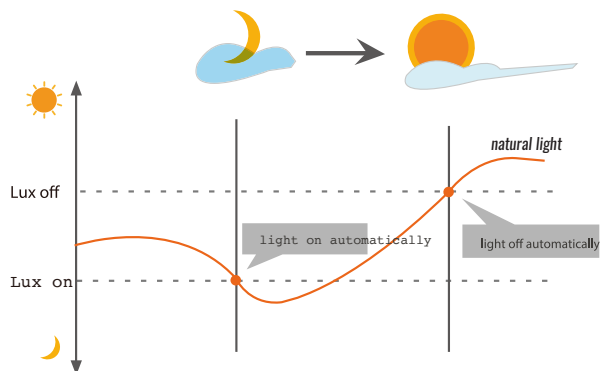
natural light

Lux off

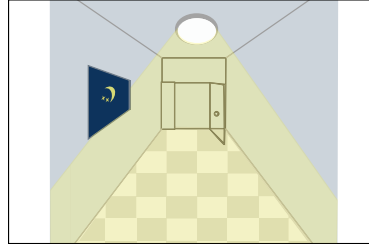light on automatically   light off automatically
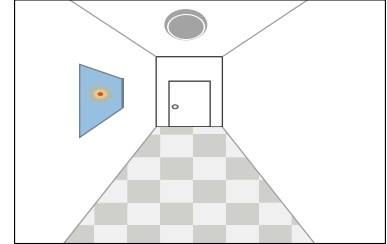
Lux on

DAYLIGHT PRIORITY

Fixture is automatically on when ambient light is lower than the preset lux level.

With insufficient ambient brightness, the fixture illuminates to 100% when motion is detected.
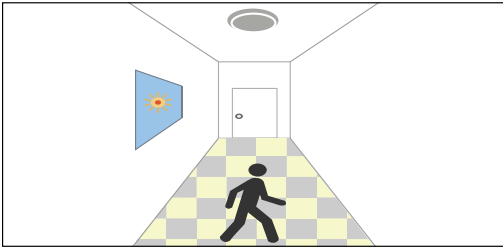
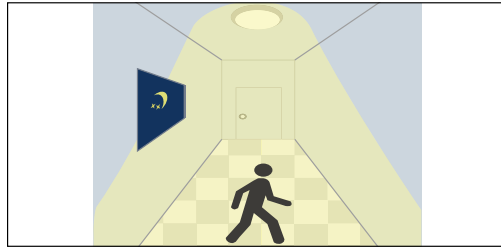The fixture dims to standby level when no motion is detected, after hold time.

The fixture is off when the ambient lux level is higher than the preset lux level.
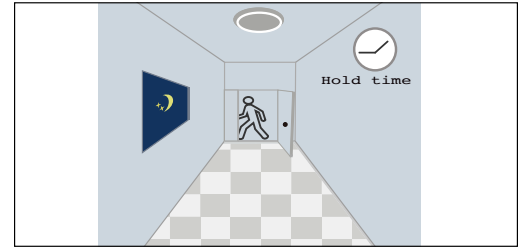
AUTOMATICALLY ON / OFF FUNCTION:
Fixture is on when motion is detected and off when space is vacated.

With sufficient Daylight, even when motion is detected, the fixture remains off.

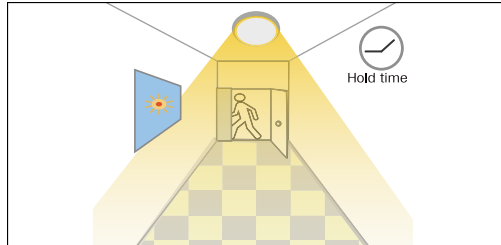With insufficient Daylight, when motion is detected, the fixture will turn on.

After the space is vacated, and the preset hold time has elapsed, the fixture will turn off.
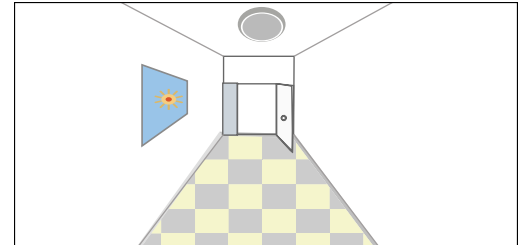
NO DAYLIGHT FUNCTION
The Daylight Threshold is set to "Disable". The fixture will be on when motion is detected. When the space is vacated, the fixture will turn off after the standby period.

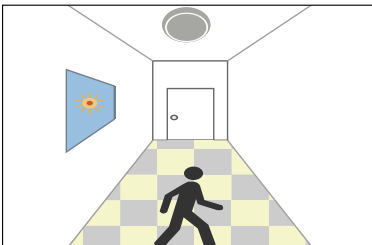When motion is detected, the sensor will turn the fixture to 100% brightness.

After the space is vacated, the fixture will remain at 100% brightness for the hold time

After the last detection and the preset hold time has elapsed, the fixture turns off.
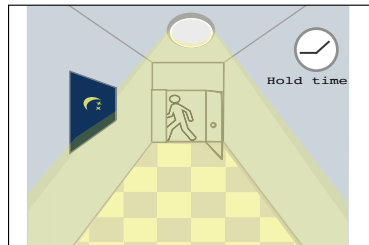
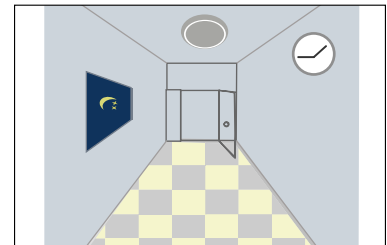## DIMMABLE CONTROL / CORRIDOR FUNCTION

With sufficient Daylight. Even when motion is detected, the fixture remains off.
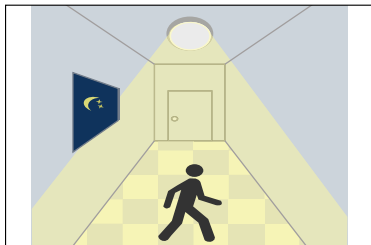
With insufficient Daylight, when motion is detected, the fixture turns on.

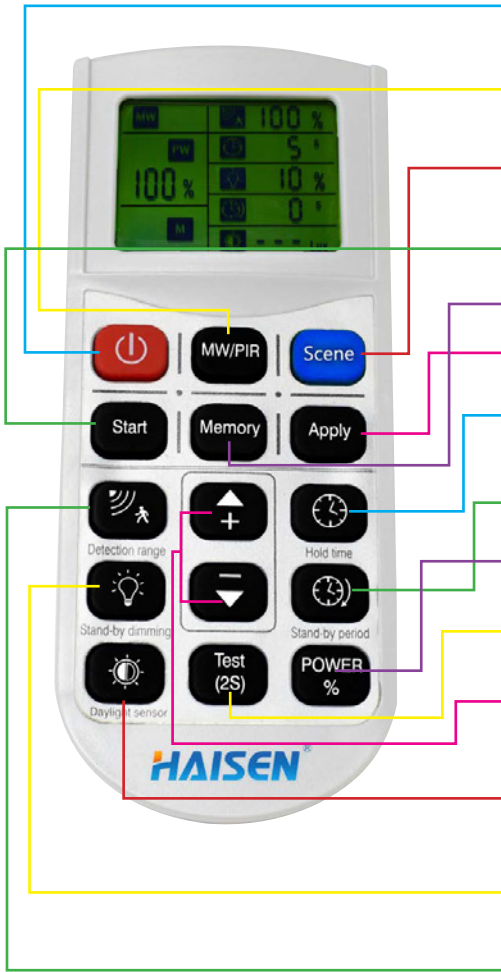After the space is vacated, the fixture will dim down to the preset standby level (10%, 20%, 30% or 50%), after hold time.

After the standby period, the fixture will go off.

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REMOTE CONTROL APPLICATIONS

BUTTON NAME	DESCRIPTION
ON / OFF	1. "ON/OFF" key only functions as a switch of the light. 2. If this button is pressed to turn off the fixture before power is turned off, the fixture will remain off after power is turned on again.
WM / PR	Change from the microwave sensor function to PIR sensor function, and the other around.
Scene	Press "Reset" button, products with DIP switch will be controlled by DIP switches; otherwise all the setting will be just initial, that is 100% detection range, hold time 5S, no standby time and daylight threshold disabled.
Start	Start - Press the button before choosing the parameters.
Memory	Memory - Press the button after choosing all the parameters to save them
Apply	Apply - Press the button to deliver the saved settings to the other sensors directly
Hold Time	The period of light keeping 100% brightness after moving objects leave the detection area.
Standby Period	The period of light keeping low output before it gets completely off. When it's preset as --, the light always keep at low output even no movement in the detection area.
Power %	Press the button to change the output power from 0% to 100% it changes 5% every press.
Test (2s)	The button "Test (2s)" is for testing purpose after comissioning. Pressing this button, the sensor goes to test mode (hold time is only 2s)
⬆ ⬇	Increase or decrease the parameters.
Daylight Threshold	Definition of the ambient brightness; only when the ambient brightness is lower than the preset specific lux amount, the sensor will work,; when it's preset as "disable", the sensor works everytime it detects motion regardless of the ambient lux level.
Standby Dimming Level	The definition of low output during the standby period.
Detection Range	The area in which movement will trigger the sensor, 100% detection area also means strong sensitivity

MEMORY AND APPLY MODE.

1. Press the On/Off Button to turn the fixture on or off.

2. To Reset the parameters, follow steps as below:
   • Press ON to turn on the fixture if it is off.
   • Press START at the fixture being set.
   • Press the buttons of DETECTION RANGE, HOLD TIME, STANDBY DIMMING LEVEL, STANDBY PERIOD, and DAYLIGHT THRESHOLD one after the other in sequence. Press "+/-" to set Parameters.Press MEMORY to memorize the settings.

NOTE: THE INTERVAL OF EACH PARAMETER SETTING SHALL BE CONTROLLED WITHIN 30 SECONDS

3. To program other fixtures in the array that will have the same program.
   • Press ON to the second fixture.
   • Press APPLY.

ISOLATED SETTING MODE.

1. Press the On/Off Button to turn the fixture on or off. Press SCENE – the remote will activate settings that were saved last or remain at factory settings.

2. To reset the parameters, follow the steps below:
   • Press ON to turn the fixture on, if it was off to start.
   • Press any button of SCENE, TEST , APPLY to begin the sensor detection mode.
   • PRESS the buttons of Detection Range, Hold Time, Standby Dimming Level, Standby Period and Daylight Threshold one after the other in sequence.

NOTE:
• Setting will be saved automatically and remain until you press RESET again.
• Fixture will flicker when you are setting each parameter.
• The Icon will flash when setting the corresponding parameter.