### Installation Instructions for Bi-level Sensor SF/BLS/LN/12V





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Power Supply	10-14V DC, >50mA
HF System	8.5GHz <u>+75MHz</u>
Dim Control Output	0-10V, max. 25mA sinking current
Detection Radius/Angle	Max 12ft. (4m)/360°
Mounting Height	Max 12ft. (4m)
Remote Range	50ft. (15m) indoor, no backlight
Humidity	Max 95% RH
Temperature	-40°F - 158°F (-40°C - 70°C)

#### **SENSOR DEFAULT SETTINGS \* :**

**BRIGHTNESS:** SENSITIVITY: HOLD TIME: DAYLIGHT SENSORS: STAND-BY DIM: STAND-BY TIME:

100% 75% 10s Disable 10%  $\infty$ 

\*user can change the settings from the factory default setting by remote Catalog# SF/BLS/LN/RMT

#### Note:

The high frequency output of this sensor is <0.2mW - That is just 1/5000 for the transmission power of a mobile phone or the output of a microwave oven.

#### **Sensor Coverage**



### Installation Instructions for Bi-level Sensor SF/BLS/LN/12V

#### Overview

Sunlite's SF/BLS/LN/12V bi-level motion sensor can detect within a 360° radius and its operating frequency is 5.8GHz. The advantage of this product is a stable working state which utilizes a microwave sensor that is safe and performs better than typical infrared sensors.

#### Daylight Sensor Function (only available by using the optional remote)

Select the daylight sensor function by pressing the () button when the remote is in setting mode.





The light turns on automatically when presence is detected

The light will maintain an adequate lux level to compensate for the ambient light.



The light dims to stand-by level after hold-time



The light switches off after stand-by period

Settings Example: Brightness: 100% Sensitivity: 100% Hold Time: 30min Daylight Sensor: Stand-by Dim: 30% Stand-by Time: 1min

#### Wiring Diagram



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### Operating Instructions for SF/BLS/LN/RMT

Power supply	2 x AAA 1.5V battery, Alkaline preferred
Carrying case	SF/BLS/LN/RMT in carrying case
Upload range	Up to 15m (50 ft. )
Op. temperature	0°C - 50°C (32°F - 122°F)
Dimensions	123 x 70 x 20.3mm (4. 84" x 2.76" x 0. 8")



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### A WARNING

Remove the batteries from compartment if the remote will not be used in 30 days.

The remote control Wireless IR Configuration Tool is a handheld device designed for configuring IA-enabled fixture integrated sensors from a distance. This tool allows users to modify device settings with the simple push of a button, eliminating the need for ladders or additional tools. It can also store up to four sensor parameter modes, making it convenient for swiftly configuring multiple sensors.

This remote control can transmit sensor settings for fixtures installed at heights of up to 50 feet. Furthermore, it has the capability to display previously configured sensor parameters, copy existing settings, send new configurations, or save parameter profiles. This functionality is particularly valuable for projects where consistent settings are required across numerous areas or spaces. It simplifies the configuration process by allowing settings to be replicated within a single site or across different sites.

LED	DESCRIPTION LED		DESCRIPTION	
BRIGHTNESS	Advanced trimming function (for adjust- ing the output level of connected lighting when occupancy is detected)	۲	Select the current ambient lux value as the daylight threshold. This enables the fixture to perform effectively in diverse real-world scenarios.	
SENSITIVITY	Adjust the sensitivity of the sensor for occupancy detection.	Ô	Disables the daylight sensor and allows all motion detection to activate the fixture, regardless of ambient brightness	
HOLD TIME	The duration for which the sensor will either turn off (if standby level is set to 0) or dim the light to a low level after the area becomes unoccupied.	STAND-BY DIM	Configure the output level when the area is unoccupied. If the STAND-BY DIM level is set to 0, the light will be completely turned off during vacancy.	
DAYLIGHT SENSOR	This represents different natural light level thresholds for the sensor.	STAND-BY TIME	Configure duration of STAND-BY DIM time after HOLD TIME has passed.	

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### Operating Instructions for SF/BLS/LN/RMT (continued)

BUTTON	DESCRIPTION	LED	DESCRIPTION		
ON	Press the 🛞 button, the light goes to permanent on or permanent off mode, and the sensor is disabled. (MUST press 🖛 button to quit this mode for Setting.	AUTO	Revert to last sensor settings if ON/OFF was previously selected.		
DISP	Display the current/latest setting parame- ters (the LED buttons will light up showing the setting parameters).	(TEST)	After selecting sensitivity setting, press to test sensitivity mode (test mode will have a 2 second HOLD TIME. STAND-BY and DAYLIGHT SENSOR will be disabled . Press AUTO button to quit from this mode.		
RESET	Reset to default settings.	25			
	Navigate UP and DOWN the settings on the remote. Current selection will light up.		Navigate LEFT and RIGHT the settings on the remote. Current selection will light up.		
ОК	Press to confirm selection		Open and close smart davlight Sensor.		
SEND	Press to upload the settings to the sensor. The fixture will go on and off once to confirm.		Press or v to enter in the setting condition, current selection will light up on remote. Press () to open or close smart daylight		
(MODE1) (MODE2) (MODE3) (MODE4)	Select to choose from four preset settings.		Sensor setting.		

The SETTING content contains all available settings and parameters for remote sensors. It allows you to change the available control, parameters, and operation of the sensor from factory default or current parameters.

#### Change multiple settings of sensor(s)

1. Press DISP button, the remote control leds will show the latest parameters you set.

NOTE: if you push the ON/OFF button, you must push AUTO button to activate the sensor settings.

2. Press  $\bigcirc$  or  $\bigcirc$  to enter into setting state. The selected settings will light up on the remote control. Navigate to the desired setting by pressing.  $\bigcirc$   $\bigcirc$   $\bigcirc$   $\bigcirc$ 

- 3. Press OK to confirm the settings .
- 4. Aim at the fixture and press SEND to upload the settings. The led light will blink on and off once to confirm.

# Operating Instructions for SF/BLS/LN/RMT (continued)

#### Change setting of Daylight Sensor

- 1. Press DISP button, the remote control leds will show the latest parameters you set.
- 2. Press ( $\blacktriangle$ ) or ( $\nabla$ ) to enter into setting state. The selected settings will light up on the remote control.
- 3. Press (I) two led indicators will flash in daylight sensor settings. ,select daylight 10, 30 or 50 for lux value which the light turns on and select 100, 300, or 500 for lux value for light to turn off.
- 4. Press OK to confirm the settings.
- 5. Aim at the fixture and press SEND to upload the settings. The led light will blink on and off once to confirm.

NOTE: DAYLIGHT SENSOR setting is disabled by default. When DAYLIGHT SENSOR is enabled, the STAND-BY TIME will not be able to be changed from the "always on" setting.

#### **Corridor Function**

This function within the motion sensor enables tri-level control in areas where a light adjustment is needed before turning off. The sensor provides three light levels: 100%, dimmed (when natural light is insufficient), and off. It also offers the flexibility of selecting two waiting times: motion hold-time and stand-by period, along with customizable daylight thresholds and detection area coverage.



With sufficient natural light the fixture does not switch on when presence is detected



With insufficient natural light the sensor switches on the fixture automatically when presence is detected



After set HOLD TIME the light dims to STAND-BY level if the ambient light is below DAYLIGHT SENSOR threshold



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Light switches off automatically after the stand-by period has elapsed

#### **Daylight Sensor Function**



The light switches on at 100% when motion is detected



The light dims to stand-by level after hold-time



The light remains at dimmed level at night

Settings Example: Hold-Time: 30min Set daylight sensor on: 50lux Set daylight sensor off: 300lux stand-by dim: 10% Stand-by period: +∞ When DAYLIGHT SENSOR is enabled, the STAND-BY TIME will not be able to be changed from the "always on" setting.

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# Operating Instructions for SF/BLS/LN/RMT (continued)

1 = 3 goes in cycle at night ····

100% on when movement detected, and dims to 10% in long absence.



When the ambient light level exceeds daylight sensor off setpoint, the light will go off even if there is motion.

The light automatically turns on at 10% when ambient light is low regardless of motion



#### **Corridor Function VS. Daylight Sensor**

- 1. In corridor function, the light turns on when ambient light is lower that lux setting and with motion. With daylight sensor setting the light turns on when ambient light is lower than lux setting regardless of motion.
- 2. In corridor function, the light turns after stand-by time when motion isn't detected. With smart daylight sensor setting the light turns off when ambient light exceeds the lux setting regardless of motion.

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3. In smart daylight sensor, ambient light must be lower than the "on" lux setting or exceed the "off" lux setting for at least one minute for the sensor to activate.

#### Reset and Modes Settings

The remote control comes with 4 preset scene Modes.

Option	Brightness	Detection Area	Hold Time	Stand-by Time	Stand-by Dim Level	Daylight Sensor
Mode 1	100%	75%	5min	30min	30%	
Mode 2	100%	75%	1min	+∞	30%	
Mode 3	100%	75%	5min	30min	30%	30lux
Mode 4	100%	75%	1min	+∞	30%	() 30lux/300lux

To Change the Modes

- 1. Press the MODE button you wish to change. Current settings will light up on the remote.
- 2. Use (A) (V) e(A) (b) settings.
- 3. Press OK to save.

Settings need to be sent to fixture to operate. Press the DISP or any of the MODE buttons to choose the settings you want to enable. Point the remote at the fixture and press SEND. Fixture will blink On and Off once to confirm setting.

To reset motion sensor to default settings, press the RESET button on the remote.

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