SW077 Product Function Specification

(Revised Dec. 09, 2025)

1. Functional Requirements

1. Waterproof Type-C charging port
2. Single control button: short press & long press operation
3. Battery capacity: 9000 mAh; 5 V / 2 A wired charging, compatible with solar charging (max. input voltage ≤ 9 V); rated power 4.5 W / 600 lm
4. Dual color temperature light source: 2700 K warm white + 5000 K cool white; 3 adjustable brightness levels and 3 color temperature options
5. Working Modes:
    - ON: Constant light on
    - Auto: Light off in daytime, light on at night
    - Motion Sensor 40s: Light turns on for 40 seconds when human motion detected, turns off after people leave
    - Motion Sensor 90s: Light turns on for 90 seconds when human motion detected, turns off after people leave
6. Motion sensor parameters: detection angle ≥ 120°, detection distance 3–5 m; maximize sensing range while avoiding false triggering caused by wind swaying plants
7. Built-in light sensor: light will not activate in bright ambient, only triggers under dim/dark conditions
8. Compatible with 433 MHz remote control, supports remote operation indoors
9. Designed for outdoor cooking lighting; low brightness output is not acceptable

2. Button Operation Rules

1. Short press to cycle through modes in sequence: ON (constant on, no light sensor) → Auto (off by day, on at night) → 40s motion mode → 90s motion mode → Power Off

- Brightness defaults to 100% when switching modes; mode indicator light illuminates while the lamp is on, extinguishes 5 seconds after lamp turns off; indicator turns off immediately upon power-off.
- Auto mode defaults to stay lit for 5 seconds after activation via button.
- If the lamp is fully powered off, remote control inputs are invalid.
- Note: Temporary standby (lamp off via button/remote) draws ~1.6 mA average operating current; full power-off cuts most circuits with static current ~100 μA, recommended for long-term storage or transportation to reduce power drain.

1. Long press to cycle 3 color temperatures: 2700 K warm white → 50% warm + 50% neutral white → 5000 K cool white

3. Remote Control Functions

1. Remote pairing procedure: With the main unit powered off, short press the button to power on. Within 15 seconds after the light turns on, long press the remote ON key for 1 second to complete pairing; the lamp flashes 3 times to confirm successful pairing.

2. Remote button definitions:

- ON: Turn on constant light mode (no light sensor, memorizes last brightness setting)
- OFF: Power off (any mode switches to constant light state then shuts down)
- Brightness + / Brightness –: Adjust brightness across 3 fixed levels (100% → 80% → 60%)
- WW: 2700 K warm white
- NW: 50% warm + 50% neutral white
- CW: 5000 K cool white
- 40S: 40-second motion sensor mode
- 90S: 90-second motion sensor mode
- Auto: Automatic mode (remains off in daylight, auto-on at night; defaults to 5-second light-up after remote activation)
- 2H / 4H: Timing function; lamp flashes once to confirm timing set

4. Human Body Induction Function

1. All motion modes trigger fixed-duration auto-off after detection. Repeated human detection within the timed period resets the countdown timer. Brightness and color temperature can be adjusted via button or remote during active lighting. Two timing options available: 40 seconds / 90 seconds.
2. Motion sensor is disabled in bright daylight; only activates at night when human movement is detected.

5. Charging, Battery Life & Indicator Lights

1. Battery specification: 9000 mAh, rated output 4.15 V / 4.5 W; no power derating during long-time continuous operation, linear power output from battery.
2. Charging indicator: Steady red light during charging, steady green light when fully charged. The lamp can be switched on while charging; wired charging input: 5 V / 2 A.
3. Low battery alert: At ~3.2 V, mode indicator flashes red every 0.5 seconds. At critical low voltage (~2.8 V), the lamp powers off automatically into ultra-low power mode; button and remote control functions become disabled at this stage.

Production Test Procedure

1. Sampling inspection of static current
2. Sampling inspection of full-power operating current
3. Full assembly function test: button operation, remote control, light color output, indicator light status
4. Human body induction & light sensor function test
5. Charging performance test: verify charging current and charging indicator behavior
6. Power off via main button before packaging; confirm all lights extinguish after shutdown

FCC Warning

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:
(1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

NOTE 1: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:
- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
-Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
-Consult the dealer or an experienced radio/TV technician for help.

NOTE 2: Any changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

The device has been evaluated to meet general RF exposure requirement. The device can be used in portable exposure condition without restriction.