INSTALLATION INSTRUCTIONS

INDUSTRIAL INTEGRATED SOLAR LIGHT — SFSL-180-50

PRODUCT	APPLICATION	MOUNTING TYPE	REVISION
SFSL-180-50	Outdoor / Area Lighting	1.5 in. NPT	Rev. 01

1. PRODUCT APPLICATION

The SFSL-180-50 Industrial Integrated Solar Light is an integrated solar-powered LED luminaire for outdoor lighting. The supplied data sheet identifies a Type 4, 60-degree semicircular light pattern for illuminating perimeters and for mounting on the sides of buildings, beams, walls and walkways, providing forward lighting with minimal back lighting.

2. SAFETY & PRE-INSTALLATION REQUIREMENTS

- Read these instructions and all applicable project requirements before installation.
- Verify the mounting structure, 1.5 in. NPT connection, luminaire and installation hardware are suitable for the intended application.
- Do not drill, weld, cut, or otherwise modify the luminaire unless specifically approved.
- Select a mounting location with adequate structural support and unobstructed exposure to sunlight.
- Follow applicable fall-protection and job-site safety procedures for elevated installation.
- Use qualified personnel for installation, electrical/mechanical work, and final inspection.
- The supplied product data sheet does not specify installation torque. Use the applicable mounting-hardware or project specification; do not substitute an unverified torque value.

3. PRODUCT COMPONENTS

COMPONENT	DESCRIPTION
SFSL-180-50 Luminaire	Integrated LED luminaire and solar-panel assembly.
1.5 in. NPT Mounting Connection	Female 1.5 in. NPT threaded mounting arm identified in the supplied data sheet.
Solar Panel	Integrated monocrystalline solar panel; 50 W.
Battery / Control System	Integrated LiFePO4 Li-ion battery and optical + intelligent timing control.
Sensors / Remote	Dusk-to-dawn sensor, proximity sensor and remote control identified in the source data sheet.

SFSL-180-50 — INSTALLATION PROCEDURE

4. INSTALLATION PROCEDURE

1. Inspect the luminaire — Confirm the fixture, solar panel, mounting connection and control components are present and free of visible damage.

2. Select the mounting location — Select a structurally suitable location with clear solar exposure. 15-30 ft installation height.

3. Plan fixture spacing — For Type 4 applications, use 30–40 ft spacing intervals as a starting point, subject to the application and actual mounting height.

4. Verify the mounting interface — Confirm the supporting assembly is compatible with the fixture's female 1.5 in. NPT threaded arm.

5. Install the fixture — Thread the fixture onto the compatible 1.5 in. NPT mounting connection. Engage the threads carefully and do not cross-thread or force the connection.

6. Adjust fixture angle — Adjust the fixture angle to achieve the intended light distribution and improved solar capture.

7. Secure the assembly — Secure the mounting connection according to the applicable mounting hardware/project specification.

8. Configure controls — Use the supplied remote/control functions as applicable. Dusk-to-dawn sensing, proximity sensing and remote control. Default work mode is listed as 1/3/6/1H; 100%/70%/50%/30%.

9. Final inspection — Verify the fixture is secure, correctly oriented, unobstructed, and positioned for solar charging before placing the system in service.

5. ORIENTATION, SPACING & LIGHT DISTRIBUTION

- Type 4 distribution is identified as a 60-degree semicircular light pattern.
- The intended applications include perimeters and mounting on building sides, beams, walls and walkways, pathways etc …
- The light pattern is intended to provide forward lighting with minimal back lighting.
- Recommended installation height is 15-30 ft.
- Recommended interval distance is 30–40 ft depending on the application and actual mounting height.
- Adjust the fixture angle to optimize light distribution and solar capture.

SFSL-180-50 — POST-INSTALLATION & TECHNICAL INFORMATION

6. POST-INSTALLATION CHECK

- Fixture is fully seated and securely mounted.
- 1.5 in. NPT connection is properly engaged and free of cross-threading.
- Fixture angle is set for the intended light distribution.
- Solar panel has clear exposure to available sunlight.
- Fixture and mounting structure show no visible damage or deformation.
- Remote control and sensors are unobstructed and accessible as required.
- Installation height and spacing have been checked against the project design.
- Installation has been inspected by the responsible qualified person.

7. INITIAL OPERATION & CHARGING

6–7 hour charging time and working time of 12+ hours/day with a 3–5 day backup. Allow the system to charge in accordance with the product requirements before evaluating normal nighttime operation. The source data sheet does not provide a separate commissioning sequence.

8. MAINTENANCE & INSPECTION

Inspect the installation periodically and after significant weather, vibration, impact, or maintenance activity. Check the mounting connection, fixture body, solar panel, and exposed hardware for looseness, corrosion, damage, or movement. Keep the solar panel reasonably clear of dirt and obstructions. Replace damaged components before returning the installation to service.

9. TECHNICAL REFERENCE

This installation manual is intended for SF Industries USA product documentation and shall be used together with the applicable product data sheet, mounting assembly instructions, project specifications, and governing codes.

10. PRODUCT DATA REFERENCE

PARAMETER	SUPPLIED DATA
Part Number	SFSL-180-50
Solar Panel	50 W; monocrystalline
LED Chips / Output	Bridgelux SMD3030; 5,000 lm
Battery	LiFePO4 Li-ion; DOD >2000; 35 Ah
Beam Angle	145° × 70°
Mounting	1.5 in. NPT
Enclosure	NEMA 4X / IP65
Operating Temperature	13–150°F (-25 to +65°C)
Lifespan	50,000 hours
Dimensions	26.5 × 12.75 × 7.5 in.
Weight	15 lb (7.1 kg)

MANUFACTURER: SF Industries USA | PRODUCT: SFSL-180-50 Industrial Integrated Solar Light