



INSTALLATION MANUAL

DUAL-HEAD INTEGRATED SOLAR LIGHT POLE ASSEMBLY

Part Numbers: SF-SL-DH20 | SF-SL-DH25 | SF-SL-DH30

PRODUCT	CONFIGURATION	MOUNTING	REVISION
SF-SL-DH20 / DH25 / DH30	20 ft / 25 ft / 30 ft pole; dual-head	Base plate + included pole adapter / dual-head bracket	Rev. 01

1. PRODUCT APPLICATION

The SF Industries Dual-Head Integrated Solar Light Pole Assembly combines a hot-dip galvanized carbon-steel pole with two SFSL-180-50 integrated solar LED luminaires mounted on a shared dual-head mounting arrangement. Available nominal pole heights are 20 ft, 25 ft, and 30 ft. An adapter is included and selected for the specified 4 in. × 4 in. or 5 in. × 5 in. pole. Each luminaire includes its solar panel, battery, LED, and control system.

2. SAFETY & PRE-INSTALLATION REQUIREMENTS

- Read this manual, both product data sheets, approved project drawings, and all applicable site requirements before beginning.
- Installation must be performed by qualified personnel using suitable lifting equipment, inspected rigging, and required fall protection. Establish an exclusion zone during lifting and erection.
- Verify the ordered part number and pole height: SF-SL-DH20 (20 ft), SF-SL-DH25 (25 ft), or SF-SL-DH30 (30 ft). Confirm the supplied adapter matches the specified 4 in. × 4 in. or 5 in. × 5 in. pole.
- Inspect pole, base plate, galvanized finish, cage bolt assembly, adapter, dual-head bracket, both luminaires, solar panels, and hardware. Do not install damaged, incomplete, or deformed components.
- Wind rating up to 150. Obtain project-engineer confirmation for the complete dual-head assembly, foundation, and site conditions.
- Foundation dimensions, concrete/reinforcement requirements, anchor layout, anchor hardware torque, and adapter/bracket-specific fastening details are not fully specified in the supplied product sheets. Follow approved project documents; do not assume values.
- Do not drill, weld, cut, or modify the pole, adapter, bracket, or luminaires unless specifically approved in writing by the responsible engineer/manufacturer.
- Select a location with adequate structural support and unobstructed solar exposure for both panels. Confirm underground/overhead utilities and required clearances.

3. COMPONENTS

COMPONENT	DESCRIPTION
Solar-specific pole	¼ in. carbon steel; hot-dip galvanized; 20 ft, 25 ft, or 30 ft nominal height.
Base plate and cage bolt assembly	Solid welded base plate; custom cage bolt assembly supplied with pole.
Pole adapter	Included; 4 in. or 5 in. adapter selected to match pole specification.
Dual-head mounting assembly	Shared mounting arrangement supporting two fixtures; use approved assembly details.
SFSL-180-50 luminaires (2)	Integrated solar LED lights, each with 50 W monocrystalline panel, battery, and controls.
Luminaire mounting interface	Light data sheet identifies a 1.5 in. NPT mounting connection. Confirm compatible supplied interface and approved assembly method; do not force or cross-thread.

4. INSTALLATION PROCEDURE

- 1. Verify documents and configuration** — Confirm part number, pole height, pole cross-section, adapter size, dual-head bracket, two luminaire models, site location, approved structural drawings, and lighting layout.
- 2. Inspect components** — Check the pole, base plate, cage bolt assembly, adapter, dual-head bracket, both luminaires, solar panels, and supplied hardware for damage. Verify adapter and bracket match the approved configuration.
- 3. Prepare foundation** — Locate the foundation per approved drawings and confirm utilities and clearances. Foundation size, depth, concrete, reinforcement, and anchor geometry must be specified by the project engineer.
- 4. Set cage bolt assembly and foundation** — Position and brace the supplied cage bolt assembly to the approved anchor layout and elevation. Place and cure the foundation per project documents. Do not erect the pole until specified concrete strength/release criteria are met.
- 5. Assemble pole adapter and dual-head bracket** — At a safe working height, attach the included 4 in. or 5 in. adapter and dual-head mounting components using the approved assembly details for that configuration. Fastener sizes and torque are not specified here; obtain them before tightening. Do not improvise hardware.
- 6. Mount both luminaires** — Attach each SFSL-180-50 to the designated side of the dual-head assembly using approved interface details. Engage compatible threads carefully; do not cross-thread, force, or use unapproved sealants/adapters. Stop and contact SF Industries if the interface or method is unclear.



7. Orient fixtures and panels — Set each fixture for the intended light distribution and solar capture according to the approved lighting layout. Ensure both solar panels have unobstructed exposure to sunlight. Confirm the fixture directions match the plan.

8. Lift and erect pole assembly — Use a qualified lifting crew, suitable inspected rigging, and an approved lift plan. Account for the two fixtures and wider mounting arrangement. Protect the galvanized finish, fixtures, and panels. Keep personnel clear of suspended loads and fall zones.

9. Set base plate — Lower the base plate over the foundation anchor bolts without damaging threads or forcing misaligned anchors. Install washers and nuts per approved project/hardware instructions.

10. Plumb and secure — Align and plumb the pole. Tighten foundation anchor hardware to approved engineering/hardware requirements. No numerical anchor torque is provided in the product data sheets.

11. Final mechanical and lighting check — Verify pole stability, adapter/bracket and both luminaires are secure, fixture orientations are correct, both panels are unobstructed, and all clearances are maintained.

5. TORQUE, FASTENERS & FOUNDATION

Use the approved project engineering documents, adapter and dual-head bracket assembly instructions, and applicable hardware manufacturer specifications. Do not substitute torque values from another product. If required details are unavailable, stop work and obtain written direction from the responsible engineer or SF Industries.

6. ORIENTATION, HEIGHT & LIGHTING NOTES

- Pole height options: 20 ft, 25 ft, and 30 ft. Verify the selected configuration against the project lighting design.
- 30–40 ft as a starting point for spacing; actual spacing and coverage for the dual-head configuration require project-specific photometric review.
- The light is identified as Type 4 distribution with a 60-degree semicircular pattern intended for forward lighting with minimal backlighting. Aim both heads per the approved layout.
- Pole wind rating is stated as up to 150 mph; engineering basis and site-specific applicability must be verified for the complete installed dual-head assembly.
- Allow the solar system to charge in accordance with product requirements before assessing normal nighttime operation. Supplied data states approximately 6–7 hours charging, 12+ hours/day operation, and 3–5 days backup; actual performance depends on conditions.

7. POST-INSTALLATION CHECKLIST

- Correct assembly part number and pole height installed.
- Correct 4 in. or 5 in. adapter supplied and installed for the specified pole.
- Dual-head bracket and both luminaires installed per approved assembly details.
- Foundation, cage bolt assembly, and anchor hardware match approved project documents.
- Pole is plumb, stable, and free of visible damage or deformation.
- Both fixture mounting interfaces are fully engaged and secured per approved instructions.
- Both luminaires are oriented for the intended light distribution; both solar panels receive unobstructed sunlight.
- No visible slippage, loose hardware, interference, or coating damage requiring correction.
- Installation inspected and accepted by the responsible qualified person/project representative.

8. INITIAL OPERATION, MAINTENANCE & INSPECTION

Use the supplied remote/control functions as applicable. Confirm operating modes against the current luminaire documentation. Inspect the pole, foundation, visible anchors, adapter, dual-head bracket, both mounting connections, fixtures, and solar panels periodically and after significant weather, vibration, impact, or maintenance. Check for looseness, movement, corrosion, coating damage, cracking, deformation, or panel obstruction. Restrict access and obtain qualified evaluation if movement or damage is observed.

9. TECHNICAL REFERENCE

Use this manual together with the Solar Specific Light Pole data sheet, SFSL-180-50 Integrated Solar Light data sheet/manual, adapter- and dual-head-bracket-specific assembly details, approved structural/foundation drawings, lighting design, project specifications, and governing codes. Where a dimension, fastener, torque, or connection detail is not specified, obtain direction from the responsible engineer or SF Industries before installation.



10. PRODUCT DATA REFERENCE

PARAMETER	SUPPLIED DATA
Assembly part numbers	SF-SL-DH20 (20 ft); SF-SL-DH25 (25 ft); SF-SL-DH30 (30 ft)
Luminaire quantity / model	2 × SFSL-180-50
Pole material / finish	¼ in. carbon steel; hot-dip galvanized; ASTM A123 referenced
Mounting adapter	Included; 4 in. or 5 in. to match pole specification
Luminaire output	5,000 lm per light; 50 W solar panel per light
Battery / enclosure	LiFePO4, 35 Ah per light; NEMA 4X / IP65
Luminaire weight	15 lb per light; complete assembly weight not specified
Manufacturer	SF Industries USA