



**INSTALLATION AND MAINTENANCE MANUAL  
DUROSITE® STW SERIES**

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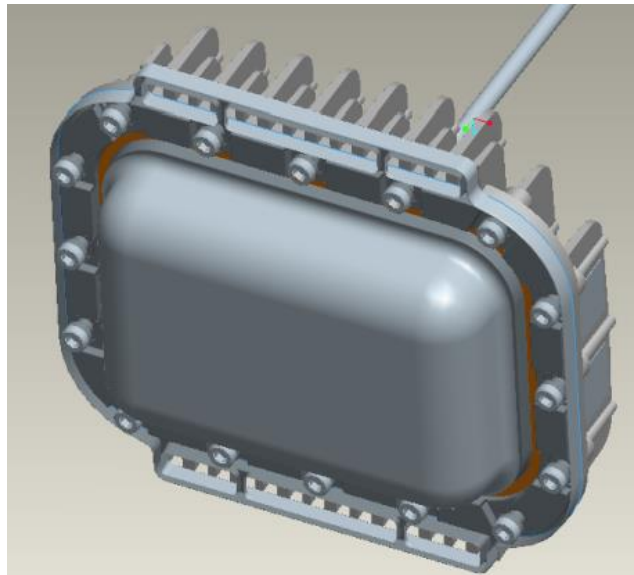
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FOR USE WITH ALL DUROSITE STW MODELS  
(WHERE "X" IS A PLACE HOLDER FOR ANY CHARACTER)

# STWXX9N



These instructions contain important safety information, read and follow them carefully. Dialight will not accept any responsibility for injury, damage or loss which may occur due to incorrect installation, operation or maintenance.



## 1: Introduction

This STW Series light is designed for illumination of industrial and commercial locations. It uses the latest in solid state lighting technology for long life, low maintenance, and high efficiency.

The unique optical design focuses light downward to where it is needed, giving improved efficiency over a conventional HID luminaire.

An internal power-factor-corrected supply allows it to be used from any nominal 347V-480V, 60/50Hz AC supply without any variation in light output.

Series STW is suitable for use in the following locations:

- **SUITABLE FOR WET LOCATIONS**

**Note:** Save these instructions for future reference.

## 2: Installation:

**⚠ Warning:**

To avoid the risk of fire, explosion, or electric shock, this product should be installed, inspected, and maintained by a qualified electrician only, in accordance with all applicable electrical codes.

**⚠ Warning:**

To avoid electric shock:

- Be certain electrical power is OFF before and during installation and maintenance.
- Luminaire must be connected to a wiring system with an equipment-grounding conductor.
- NEVER open or attempt to open LED luminaire. NO user serviceable parts inside

**⚠ Warning:**

To avoid explosion:

- Make sure the supply voltage is within the luminaries' voltage rating.
- Do not operate in ambient temperatures above those indicated on the Luminaire nameplate.
- Do not operate if the lens is cracked or damaged. All fasteners should be properly seated.

**⚠ Warning:**

- DO NOT let power cord touch hot surfaces
- DO NOT mount near gas or electric heaters
- Equipment should be mounted in locations and at heights where it will not be subjected to tampering by unauthorized personnel.
- The use of accessory equipment not recommend by the manufacture may cause an unsafe condition
- DO NOT use this equipment for other than intended use



**⚠ Warning:**

- The technical data indicated on the Luminaire are to be observed.
- Changes to the design and modifications of the Luminaire are not permitted
- Only genuine Dialight replacement parts are to be used when unforeseen maintenance is required
- Must install using NEMA 4x rated components to maintain rating.

**⚠ Warning: POLYCARBONATE LENS SUSCEPTIBLE TO CHEMICAL ATTACK AVOID USE WITH:**

- Strong Bases
  - Ammonium Hydroxide
  - Sodium Hydroxide
  - Potassium Hydroxide
- Halogenated solvents
  - Methylene Chloride
  - Chloroform
  - Carbon Tetra Chloride
- The Ketones
  - Acetone
  - Acetonitrile
  - Ethyl Acetate
  - Methyl Ethyl Ketone – (MEK)
- Also Avoid Use With
  - Benzene
  - Benzyl Alcohol
  - Lacquer Thinner
  - Mineral Spirits
  - Jet Fuel
  - Dimethyl Sulfoxide
  - Diethyl Ether
  - Carbon Disulfide
  - Eylene
  - Urea

\*\*\*NOTE: This list is not comprehensive and is not meant to be so. It is up to the end user to test and verify the product is suitable for use in a given location\*\*\*

**For supply connections use wire rated for at least 90°C**

Models STW are factory supplied with 10feet (3m) of cable. If longer lengths of cables are required a minimum of 18awg (1.5mm diameter) is required. It is recommended that to ensure moisture does not flow through the cable a loop in the cord should be implemented where possible during installation. If this is not practical for the install than necessary precautions should be taken to prevent moisture entering the conduit thus entering the fixture.

Recommended mounting height: 8 feet to 24 feet (2.4 m to 7.3 m)



**Pendent Mount Installation Steps: RECOMMENDED FOR USE WITH 360° AND WALKWAY OPTICS.**

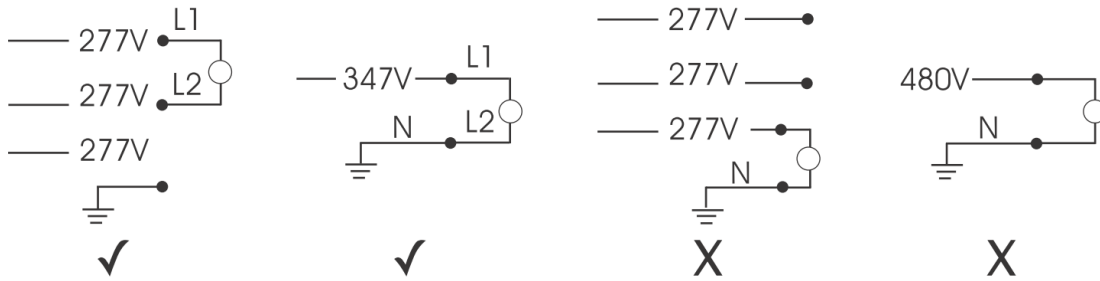
- For best optical performance Dialight Corporation recommends mounting a unit with 360° and Walkway Optics parallel to the floor.
- For maximum long term reliability and light output, the light must be installed in free air.
  - The STW Series fixture design incorporates an over-temperature control circuit that reduces input power should internal temperatures reach a maximum level. As a result, light output may be reduced.
- The STW series fixture is threaded for 3/4" NPT in order to be assembled to conduit.
  - Calculate and measure required conduit length.
  - Feed the power cable through the conduit and into the junction box.
  - Attach the fixture to the conduit (**using pipe sealant**).
  - **NOTE:** If there is moisture present or chance of it in the conduit system then necessary precautions should be taken by the installer to prevent the moisture from entering thru the cable or conduit and entering the fixture.
  - Insert 1/4-20 set screw in order to secure the fixture to the conduit.
- Connect power cable conductors as follows:
  - For Single phase (347 VAC):
    - Green wire connects to Safety Ground.
    - Black wire connects to Neutral
    - Red wire connects to Live
  - For TWO phase (480 VAC):
    - Green wire connects to Safety Ground.
    - Red wire connects to LINE1
    - Black wire connects to LINE 2
    - **WARNING: Cannot be used with single phase 480VAC**
- Restore power and verify operation.

**Stanchion Mount Installation Steps: RECOMMENDED FOR USE WITH 180° AND WALKWAY OPTICS.**

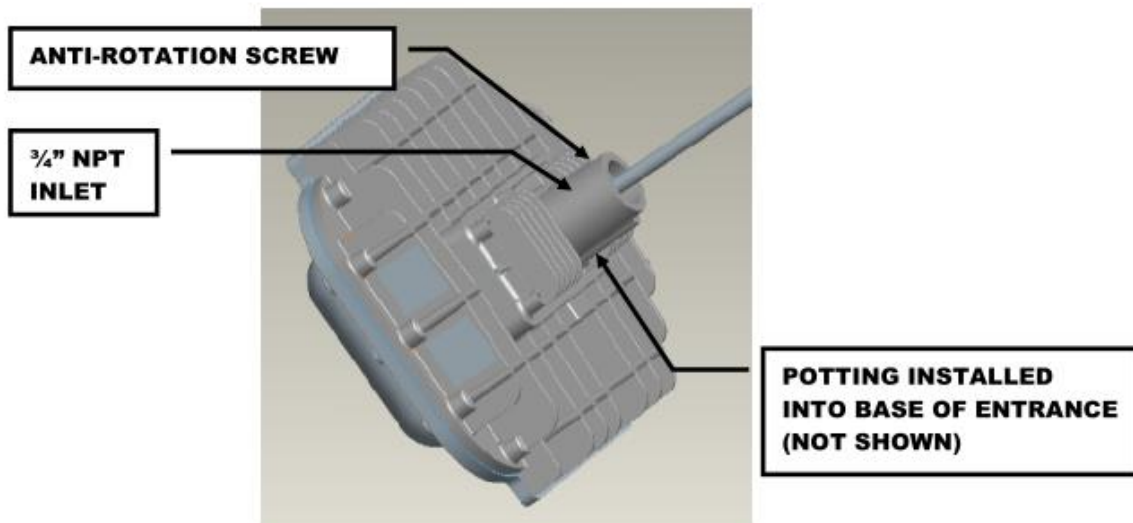
- For best optical performance Dialight Corporation recommends mounting a unit with 180° optics at a 45° angle with respect to the vertical mounting pole or wall.
- For best optical performance Dialight Corporation recommends mounting a unit with Walkway Optics parallel to the floor.
- Refer to [www.dialight.com](http://www.dialight.com) for the most up to date information on available mounting brackets, hardware and accessories.
- For maximum long term reliability and light output, the light must be installed in free air.
  - The STW Series fixture design incorporates an over-temperature control circuit that reduces input power should internal temperatures reach a maximum level. As a result, light output may be reduced.
- The STW series fixture is threaded for 3/4" NPT in order to be assembled to conduit.
  - Calculate and measure required conduit length.
  - Feed the power cable through the conduit and into the junction box.
  - Attach the fixture to the conduit (**using pipe sealant**).
  - **NOTE:** If there is moisture present or chance of it in the conduit system then necessary precautions should be taken by the installer to prevent the moisture from entering thru the cable or conduit and entering the fixture.
  - Insert 1/4-20 set screw in order to secure the fixture to the conduit.
- Connect power cable conductors as follows:
  - For Single phase (347 VAC):
    - Green wire connects to Safety Ground.
    - Black connects to Neutral
    - Red wire connects to Live
  - For TWO phase (480 VAC):
    - Green wire connects to Safety Ground.



- Red wire connects to LINE1
- Black wire connects to LINE 2
- **WARNING: Cannot be used with single phase 480VAC**
- Restore power and verify operation.

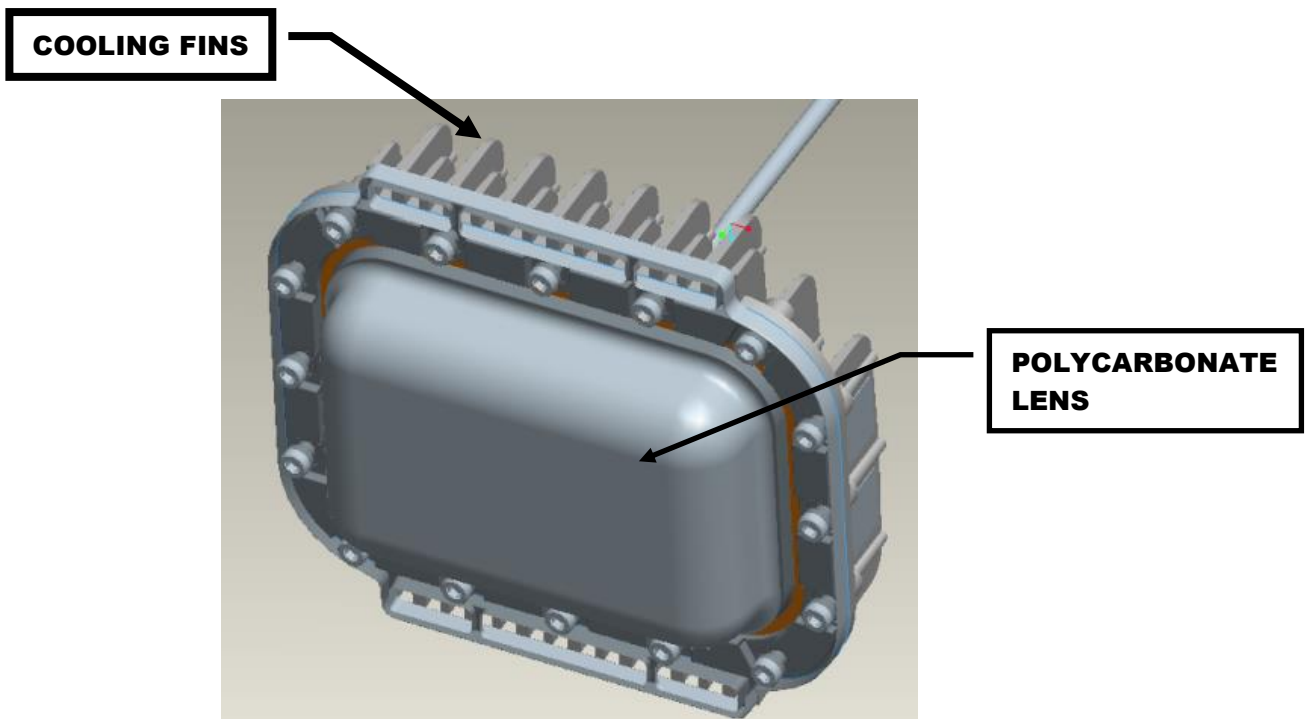


WIRE DIAGRAM FOR USE WITH STW SERIES LUMINAIRE



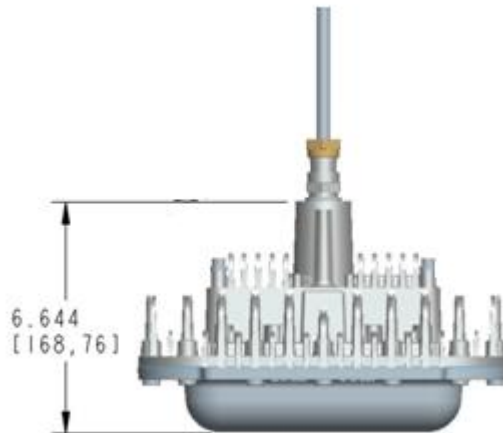
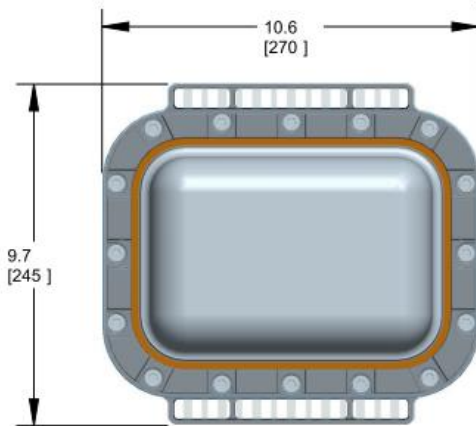
### 3: Maintenance

- To avoid personal injury, disconnect power to the light and allow the unit to cool down before performing maintenance.
- ⚠ Warning:** No user serviceable parts inside of fixture. Risk of electric shock. Removal of the lens will void the warranty.
- 1) We suggest routine checks to be made on a yearly basis. Frequency of use and environment should determine this.
  - 2) The lens should be cleaned periodically as needed to ensure continued photometric performance. Clean the lens with a damp, non-abrasive, lint-free cloth. If not sufficient, use mild soap or a liquid cleaner.
  - 3) Inspect the cooling fins on the luminaire to ensure that they are free of any obstructions or contamination (i.e. excessive dust build-up). Clean with a non-abrasive cloth if needed.
  - 4) Do not operate if the lens is cracked or damaged. All fasteners securing lens are factory installed and do not require additional torquing.



#### 4: Specifications

Nominal AC Supply Voltage	347 VAC single phase 50-60 HZ 480 VAC two phase 50-60 HZ
Power consumption	68W nominal (STWF, STWE SRS) 58W nominal (STW9, STW8 SRS) 55W nominal (STWY, STWW SRS) 47W nominal (STW5, STW4 SRS) 38W nominal (STW3, STW2 SRS)
Operating temperature range	-40°F to +149°F [-40°C to +65°C]
Power factor	>0.90
ATHD	<20%
Dimensions (Height x Diameter)	10.7" x 9.7" x 6.6" [271mm x 246mm x 167mm]
Weight	10.0 lbs [4.5 kg]
Intertek Certified to	UL 1598/ 1598A and CAN/CSA C22.2 No. 250



**DIMENSIONS ARE FOR REFERENCE ONLY.**

All statements, technical information and recommendations contained herein are based on information and tests we believe to be reliable. The accuracy or completeness thereof is not guaranteed. In accordance with Dialight Corporation "Terms and Conditions of Sale", and since conditions of use are outside our control, the purchaser should determine the suitability of the product for his intended use and assumes all risk and liability whatsoever in connection therewith.



<u>REV.</u>	<u>ECO No.</u>	<u>DRN</u>	<u>CHK</u>	<u>APP</u>	<u>QA</u>	<u>CM</u>	<u>DATE</u>
A	7009	CJ	KJ	KL	RL	JB	6/21/12
B	7670	SB	KAL	WSL	RL	JB	9/24/12
C	8143	SB	WSL	KAL	RL	JB	11/16/12
D	24184	SCR	VJD	SB	SV	JN	3/9/15
E	27202	SCR	VJD	SB	SV	JN	7/29/15
F	28899	VJD	SCR	KH	SV	JN	9/22/15

