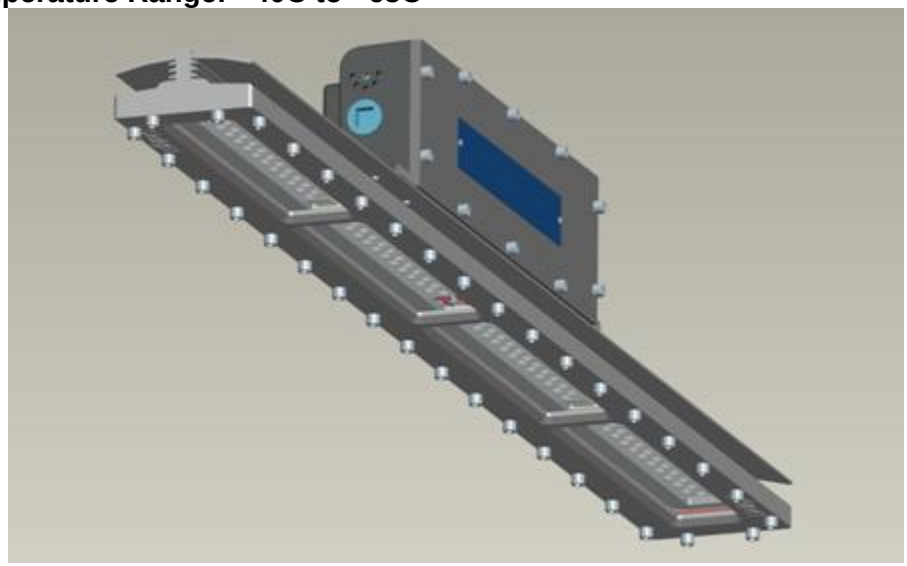
INSTALLATION AND MAINTENANCE MANUAL
SAFESITE® LED LINEAR FIXTURE
Document No: 9100-127-1622-00 Rev E
December, 2016

MODELS

SafeSite LED Linear, Class I Div. 1
347-480V, 2' & 4' Versions

All the above Models are SUITABLE FOR WET LOCATIONS in the following locations or unclassified locations:

For Use In: Class I, Division 1 &2 Groups C, D
Temperature Code: T5 for 2' model, T4A for 4' model
Ambient Temperature Range: -40C to +65C



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 Linear LED light is designed for illumination of industrial 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, universal input, power-factor-corrected switch-mode supply allows it to be used from any nominal 347-480Vac 50/60Hz AC supply without any variation in light output.

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.

⚠ **Warning:**

To avoid explosion:
- Make sure the supply voltage is within the luminaries' voltage rating.
- Ensure the marked T Rating is less than the ignition temperature of the Hazardous Atmosphere.
- 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 - EXPLOSION HAZARD – SUBSTITUTION OF COMPONENTS MAY IMPAIR SUITABILITY FOR CLASS I, DIVISION 2, CLASS II DIVISION 1.
- AVERTISSEMENT - RISQUE D'EXPLOSION - LA SUBSTITUTIOND E COMPOSANTSP EUTR ENDRE CE MATERIEL INACCEPTABLE POUR LES EMPLACEMENTS DE CLASSE I, DIVISION 1, CLASSE II, DIVISION 1.

⚠ **Warning:**

To avoid explosion (Continued):

- EXPLOSION HAZARD- DO NOT DISCONNECT EQUIPMENT UNLESS POWER HAS BEEN SWITCHED OFF OR THE AREA IS KNOWN TO BE NON-HAZARDOUS
- AVERTISSEMENT - RISQUE D'EXPLOSION - AVANT DE DECONNECTER L'EQUIPEMENT, COUPER LE COURANT OU S'ASSURER QUE L'EMPLACEMENT EST DESIGNE NON DANGEREUX

⚠ **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.

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- 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. Consult factory at www.Dialight.com or authorized representative as required.

For supply connections use wire rated for at least 90˚C

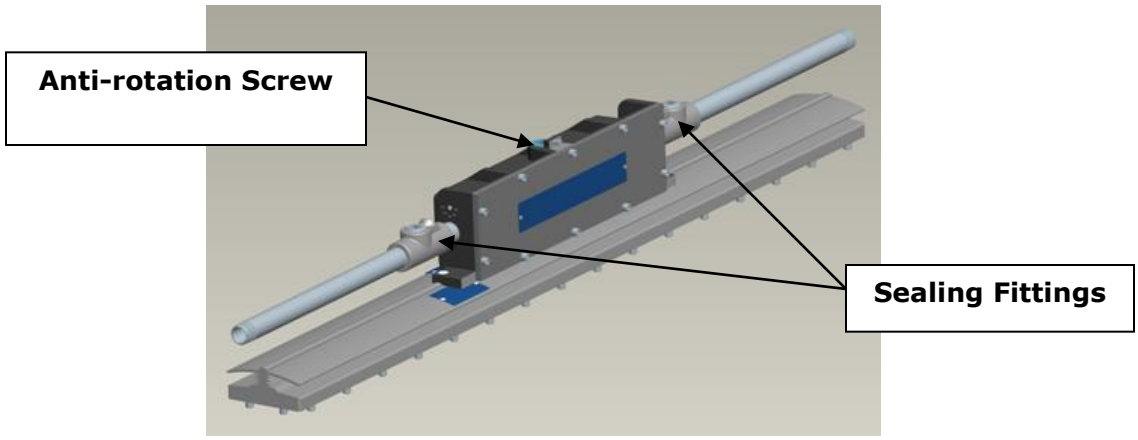
Conduit thru Mount (Figure 2) Installation Steps:

- For maximum long term reliability and light output, the light must be installed in free air.
  - The Linear fixture design incorporates an over-temperature control circuit that reduces input power should internal temperatures reach a maximum level. In this event, light output may be reduced.
- The Linear fixture is threaded for 3/4" NPT, at the center and each end of the Power Supply Housing, in order to be assembled to conduit.
  - Attach conduit as shown in figure 2. Use conductive pipe sealant for all fittings and conduit.
  - **Warning:** If there is moisture present or chance of it in the conduit system than necessary precautions should be taken by the installer to prevent the moisture from entering thru the cable or conduit and entering the fixture. Failure to comply with the above could void factory warranties.
  - Fixture is factory wired for both Pendant and Through wiring. Remove the Power Supply Covers to attach incoming power.

For Single Phase (347 VAC):	For TWO phase (480 VAC):
Green wire connects to Safety Ground.	**Green** wire connects to Safety Ground
BLUE wire connects to Neutral	**BLUE** wire connects to LINE 2
RED wire connects to LIVE	**RED** wire connects to LINE1

  - **WARNING:** CAN NOT BE USED WITH SINGLE PHASE 480Vac Circuits
- Repeat this procedure for the opposite end. Ensure that the o-rings are properly seated in the grooves; reattach the Cover using the screws previously removed. Tighten all screws to 15 in/lbs (1.75NewtonM's)
  - Connect incoming power as follows:
  - Green to Safety Ground using green ground screw supplied at the center of the fixture.
  - Neutral to blue
  - Line to red
  - Restore power and verify operation.

FIGURE 2



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<u>Conduit Pendant Mount</u> (Figure 3) Installation Steps:

- For maximum long term reliability and light output, the light must be installed in free air.
  - The Linear fixture design incorporates an over-temperature control circuit that reduces input power should internal temperatures reach a maximum level. In this event, light output may be reduced.
  - The Linear fixture is threaded for 3/4" NPT, at the center and each end of the Power Supply Housing, in order to be assembled to conduit.
  - Attach conduit as shown in figure 3. Use conductive pipe sealant for all fittings and conduit.
  - **<u>WARNING</u>**: If there is moisture present or chance of it in the conduit system than necessary precautions should be taken by the installer to prevent the moisture from entering thru the cable or conduit and entering the fixture. Failure to comply with the above could void factory warranties.
  - Fixture is factory wired for both Pendant and Through wiring.
- Remove the Power Supply Covers to attach incoming power
- Connect power cable conductors as follows:

<u>For Single Phase (347 VAC):</u>	**<u>For TWO phase (480 VAC):</u>**
Green wire connects to Safety Ground.	**Green** wire connects to Safety Ground
BLUE wire connects to Neutral	**BLUE** wire connects to LINE 2
RED wire connects to LIVE	**RED** wire connects to LINE1

  - **<u>WARNING:</u>** CAN NOT BE USED WITH SINGLE PHASE 480Vac Circuits

- Ensure that the o-ring is properly seated in the groove, reattach the Cover using the screws previously removed. Tighten all screws to 15 in/lbs (1.75NewtonM's).
- Restore power and verify operation.

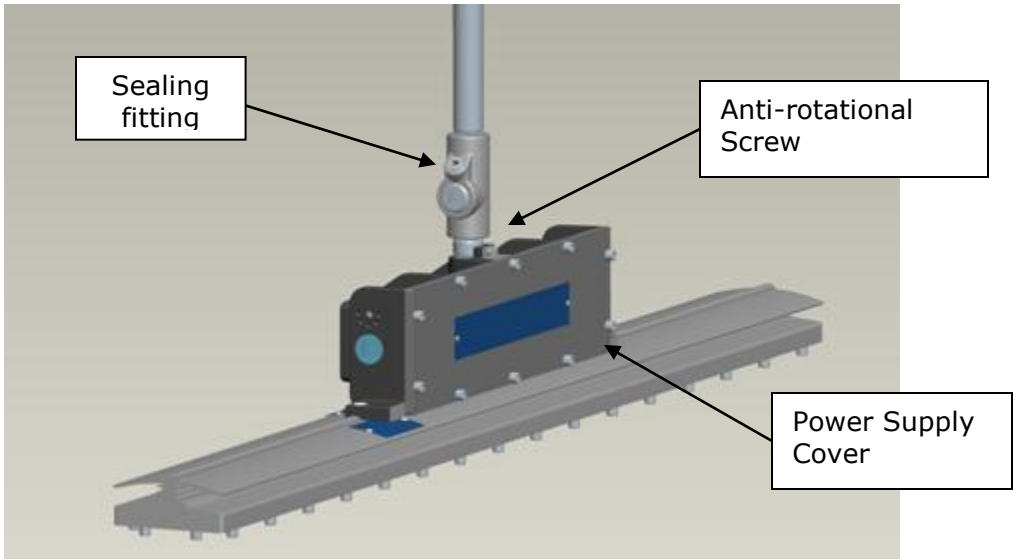

Figure3

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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 performing visual, mechanical and electrical inspections on a regular basis. We suggest routine checks to be made on a yearly basis. Frequency of use and environment should determine this. It is recommended to follow an Electrical Preventive Maintenance Program as described in NFPA 70B: Recommended Practice for Electrical Equipment.

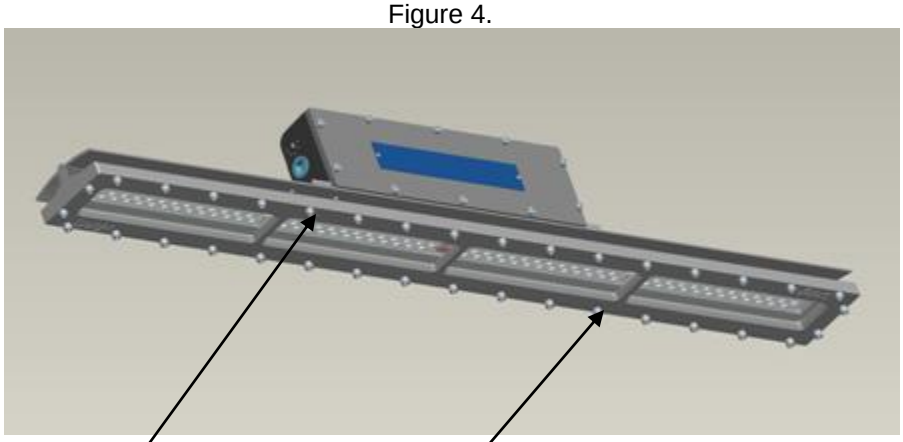
2) If the lens (Figure 4 below) requires periodical cleaning to ensure continued photometric performance. Clean the lens with a damp, non-abrasive, lint-free cloth. If not sufficient, use mild soap and water.

3) Inspect the outside of the Luminaire housing 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 should be properly seated.

5) **NOTE**: Screws other wiring compartments are factory torqued and should not be tampered with during installation or maintenance.

Figure 4.



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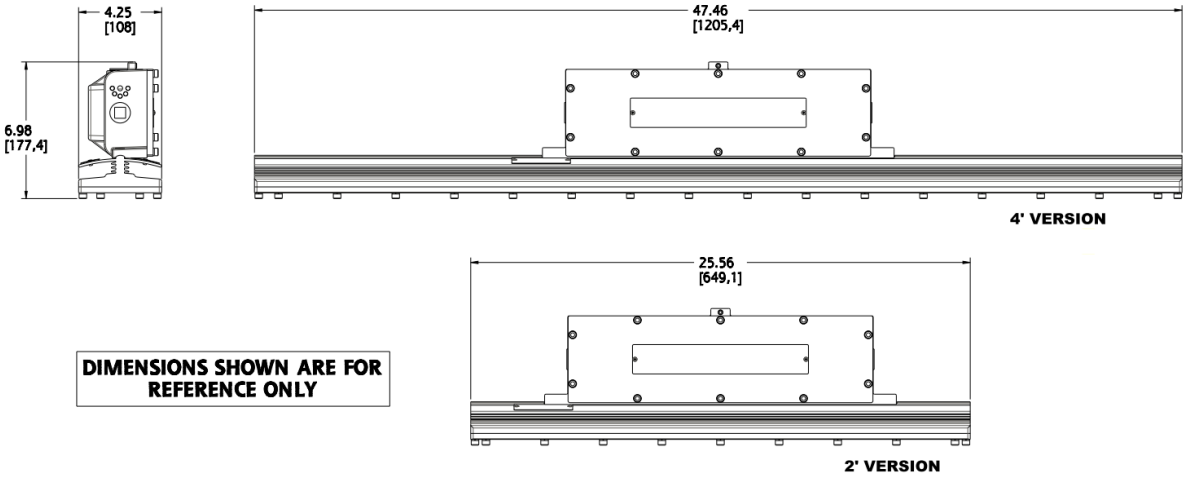
Specifications

Nominal AC Supply Voltage	347-480VAC, 50/60Hz
Absolute Minimum/Maximum:	312- 528VAC, 50/60hz
Power consumption:	
2' version	50W nominal
4' version	100W nominal
Input Current: (Nominal)	140mAmps @347Vac (2 foot) 290mAmps @347Vac (4 foot) 100mAmps @480Vac (2 foot) 205mAmps @480Vac (4 foot)
Operating temperature range	-40°F to +149°F [-40°C to +65°C]
T Ratings 2 foot Models	T5 @ 149°F [65°C]
T Ratings 4 foot Models	T4A @ 149°F [65°C]
Power factor	>0.9
ATHD	<20%
Dimensions (L x W x H)	See Figure 5.
Weight	17.5 lbs [7.94 kg] (2') 26 lbs [12.02 kg] (4'),
Intertek Certified to	UL-844 and C22.2 No. 137



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4: Chemical Compatibility Guide

Footnote on Chemical Compatibility Guide:
The chemical compatibility data referenced in this manual was supplied by the raw material manufacturers and is intended as a general guide. The data represents the basic material properties and does not necessarily represent the performance of the final product due to manufacturing process and design variations for each final product. Chemical compatibility is highly dependent on concentration, temperature, humidity, and other environmental conditions and therefore the customer assumes responsibility for evaluation of gaseous or direct contact chemical compatibility at their site prior to product installation.

For general guidelines describing chemical compatibility, visit us at:
www.dialight.com/pubs/MDTFCHEMRFLX001.pdf

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