

## Install Guide





### Install Guide for PDL3 MODUS



**Tools and supplies required:** Cordless drill, channel lock pliers, tape measure, Phillips-head screwdriver, and twist-on or push-in UL Listed wire connectors for 14/18 AWG.



**Optional tools:** Sheet metal scissors/nibbler, 2 in (50 mm) diameter metal hole saw, and SloanLED Installation Template (P/N 401398, shown below).

NOTE: California Title 24

photocell and timer control on

installations require a

the primary circuit.

WARNING: Risk of electrical shock. Locate main circuit breaker panel for respective fixture(s) to be replaced, deenergize, and perform lockout/tagout prior to starting work. All primary wiring must be done by a licensed electrician.

#### **Replacement Installation**



1. Disconnect wiring from old fixture and remove fixture from canopy.



2. Clean installation area: Clean surface with a cloth and cleaning agent.



*New* refers to mounting to a new canopy skin.

**Replacement** refers to complete removal and replacement of an existing fixture.

**Retrofit** refers to partial disassembly of external components and installation to remaining fixture shell (may be prohibited in EU).

**Definition:** Luminaire is a complete lighting unit; i.e., no replaceable lamp or bulb.

**NOTE:** The light source of this luminaire is not replaceable; when light source reaches end of life, the whole luminaire shall be replaced.



CAUTION, risk of electric shock



 Some installations will have openings larger than 14.5" (368 mm) square. Install interface plate 401397 or 401568-700 if required.
Continue with Step 1 of New Installation.

#### **New Installation**



1. As required, drill a hole in canopy at desired center of luminaire with 2 in (50 mm) diameter metal hole saw.



 Mark drill holes: Hold clear SloanLED Installation Template up to mounting area. Line up opening with circle on template. Use edges as guides to square template along canopy joint lines. Mark holes for mounting screws using small circles in template. Per IEC TR 62778, luminaire should be positioned so that prolonged staring into luminaire at a distance of 8.89 ft (2.71 m) is not expected.



3. Securing luminaire: Attach the ring tongue terminal and ground wire to the M3×0.5 stud in the threaded hub protruding from the backplane using the M3×0.5 hex nut. Position luminaire on canopy or shoebox interface plate surface. Secure luminaire with four self-drilling sheet metal screws at previously marked locations.



### Install Guide for PDL3 MODUS

#### **Retrofit Installation for Shoebox**

**NOTE:** Luminaire may not be compatible to retrofit to all variations and styles of existing fixtures. Replacement may be required. **NOTE:** Retrofit installations are not included in the ATEX certification.

NOTE: For installations within EU, local requirements may prohibit retrofit installations. Check local requirements before proceeding with retrofit.



- 1. Remove lens from fixture and disconnect wiring inside fixture, ensuring enough wire to make a new connection.
- Mechanically mount power supply to fixture with self-drilling sheet metal screws or with supplied cable ties. Connect power supply to primary wiring with twist-on or push-in UL Listed wire connectors. A licensed Electrician must be used to connect all wiring.
- Attach Shoebox interface plate (P/N 401397) to shoebox by drilling holes through interface plate into shoebox as necessary. Self-drilling sheet metal screws are provided and will be suitable for many applications.





 Securing luminaire: Secure luminaire to interface plate with four self-drilling sheet metal screws. Per IEC TR 62778, luminaire should be positioned so that prolonged staring into luminaire at a distance of 8.89 ft (2.71 m) is not expected.

5. **Turn on system:** Energize main circuit breaker. Confirm proper luminaire operation.



#### **NOTE:** A licensed electrician must be used to make all primary and secondary connections between luminaire and power supply.

### Install Guide for PDL3 MODUS

#### ATEX Installation Information (Retrofit Installations are not Covered for ATEX)

- 701948-5WTWT3-M Luminaire certified to ATEX Hazardous Location Zone 2 Gc
- ATEX Designation: DEMKO 18 ATEX 2033X II 3 G Ex ec IIC T4 Gc
- 1"-11.5 NPSM external threads x 0.67" long (17 mm) available for mechanical attachment
- 1/2"-14 NPSM internal threads x 0.58" (14.7 mm) depth available for conduit fitting attachment.
- Secondary input to luminaire:
  - o 48VDC nominal, 46VDC typical
  - o 2.35A max input current
- Temperature Class: T4
- · Luminaire is factory sealed, and not intended to be opened
- Specific conditions of use:
  - o This product has been evaluated based on installations of a low risk of impact and is required to be installed in locations where the risk of impact is low.
  - o The luminaire is provided with a permanently connected cable as connection means which shall be routed through the canopy. All electrical connections must be made and terminated in accordance with the local regulations.

• Luminaire evaluated to EN 60079-0:2012+A11:2013 and EN 60079-7:2015

#### **ATEX Installation Instructions**

- Follow replacement or new installation instructions on page 1 of this document.
- Connect the secondary cable connector to the power module in 601072, following steps 3 through 9 of the 601072 installation instructions. Power module is not to be located in the hazardous location.
- Please note that the 601072 power supply kit is not included in the hazardous locations ATEX certification
- Luminaire evaluated to EN 60079-0:2012+A11:2013 and EN 60079-7:2015



US patents and foreign patents pending



## Install Guide for Canopy Applications (Global)

IMPORTANT: PDL3 MODUS must only be used with 601071 (75 W) or 601072/601113 (150 W) power supplies. PDL3 MODUS HO (High Output) must only be used with 601073/601114 (200 W) power supply. PDL3 MODUS CANNOT be used with 601073/601114 (200 W) power supply.



NOTE: A LICENSED ELECTRICIAN SHALL MAKE ALL PRIMARY AND SECONDARY CONNECTIONS.



Tools and supplies required:

Cordless drill, adjustable end wrench (1.25 in / 32 mm minimum opening), putty knife, tape measure, Phillips-head screwdriver, and twist-on or push-in UL Listed wire connectors for 14/18 AWG.





1. Turn off power.

 Install PDL3 MODUS: See PDL3 MODUS installation instructions.



 Loosen gland nut on PDL3 MODUS side of Power Module tube. Do not remove or loosen the gland fitting from the tube.



**4.** Remove gland fitting from Power Module tube on power supply side.



 Insert power cable from PDL3 MODUS into gland nut of Power Module tube. Slide Power Module tube over power cable, to expose the Power Module and PDL3 MODUS connector.



## Install Guide for Canopy Applications (Global)







7. Set Power Module.



8. Attach power supply side gland nut and fitting to Power Module tube.



- OFF
- 9. Attach PDL3 MODUS side gland nut to Power Module tube.
- 10. Turn on system.



No insulation permitted over luminaire or power supply.

#### Connecting power supplies:

Connection to LED luminaire shall be installed by professional person. At least one pole of conductive parts in SELV circuit shall be insulated, capable of withstanding at least 500 V rms for one minute. Connection of input and output terminals should be enclosed far away from water source. User may insert the AS/NZS 3 pin plug into any grounded outlet available.

NOTE: When installing directly to an insulated surface, allowable operating temperature should be reduced by 5° C.

#### INFORMATION SPECIFIC TO AUSTRALIA AND NEW ZEALAND

WARNING - RISK OF OVERHEATING OR FIRE IF THE CLEARANCE DISTANCES ARE COMPROMISED.

WARNING — THIS LUMINAIRE IS NOT SUITABLE FOR INSTALLATION IN LOCATIONS WHERE THERMAL INSULATION IS PRESENT, OR MAY REASONABLY BE EXPECTED TO BE INSTALLED IN THE FUTURE, OR WHERE THERE IS A LIKELIHOOD OF OTHER COMBUSTIBLE MATERIAL, E.G. LEAVES OR VERMIN DEBRIS, ETC. COLLECTING ON OR AROUND THE LUMINAIRE. IT IS NOT SUITABLE FOR DOMESTIC INSTALLATIONS OR INSTALLATION IN RESIDENTIAL AREAS OF NON-DOMESTIC INSTALLATIONS (RESIDENTIAL INSTITUTIONS, HOTELS, BOARDING HOUSES, HOSPITALS, ACCOMMODATION HOUSES, MOTELS, HOSTELS AND THE LIKE).



### Install Guide for Canopy Applications (Global)

**NOTE:** Use of the correct Power Module is required to maintain warranty consideration. When using 601071, 601072, or 601073 Power Supplies, customer must provide waterproof junction box for primary power connections. 601113 and 601114 installations are exempt from this requirement.

### PDL3 MODUS

#### 75 Watt power supply capacity chart for PDL3 MODUS (White connectors on power supply)

601071	Input		Output		
Power Module Setting	Nominal input voltage	Input current	Power output limit	Output current limit	Luminaire per power supply
No Jumper = High power	90-307 VAC, 47-63 Hz	2.0 A at 110/220 VAC	66 W	1.3 A	1
#1 Jumper = Mid power	90-307 VAC, 47-63 Hz	2.0 A at 110/220 VAC	51 W	1.1 A	1
#2 Jumper = Low power	90-307 VAC, 47-63 Hz	2.0 A at 110/220 VAC	36 W	0.9 A	1
410181 and 410168*	90-307 VAC, 47-63 Hz	2.0 A at 110/220 VAC	User setting 65 W max	User setting 1.3 A max	1

#### 150 Watt power supply capacity chart for PDL3 MODUS (White connectors on power supply)

601072/601113	Input		Output		
Power Module Setting	Nominal input voltage	Input current	Power output limit	Output current limit	Luminaire per power supply
No Jumper = High power	90-307 VAC, 47-63 Hz	2.0 A at 110/220 VAC	125 W	2.3 A	1
#1 Jumper = Mid power	90-307 VAC, 47-63 Hz	2.0 A at 110/220 VAC	105 W	2.0 A	1
#2 Jumper = Low power	90-307 VAC, 47-63 Hz	2.0 A at 110/220 VAC	86 W	1.5 A	1
701932 and 410168*	90-307 VAC, 47-63 Hz	2.0 A at 110/220 VAC	User setting 125 W max	User setting 2.3 A max	1

### PDL3 MODUS HO (High Output)

#### 200 Watt power supply capacity chart for PDL3 MODUS High Output (Black connectors on power supplies)

601073/601114	Input		Output		
Power Module Setting	Nominal input voltage	Input current	Power output limit	Output current limit	Luminaire per power supply
No Jumper = High power	90-307 VAC, 47-63 Hz	2.0 A at 110/220 VAC	157 W	0.75 A	1
#1 Jumper = Mid power	90-307 VAC, 47-63 Hz	2.0 A at 110/220 VAC	133 W	0.65 A	1
#2 Jumper = Low power	90-307 VAC, 47-63 Hz	2.0 A at 110/220 VAC	116 W	0.57 A	1
410180 and 410168*	90-307 VAC, 47-63 Hz	2.0 A at 110/220 VAC	User setting 165 W max	Consult factory	1

\*When using 410180 power supply, use of Jumper Select Control Module P/N 601063-200 or 410168 is required to maintain warranty consideration. When using 410168, customer must provide waterproof junction box. Consult factory for control voltage settings. Failure to obtain control voltage settings from factory voids warranty.

#### Troubleshooting

Luminaire does not light after complete installation.	Check connection from power supply lead to luminaire. Verify all pins in connectors are properly seated.
Still does not light.	Disconnect luminaire from power supply. Check output voltage of power supply using a voltmeter. The output voltage should be within ± 3 V of the voltage shown in the table above. If there is no output voltage, have a licensed electrician check input voltage. Make sure power supply is connected correctly and getting primary power. If power supply is connected properly and getting primary power and there is still no output voltage, replace power supply.
Still does not light.	If power supply is getting primary power, has the correct output, and luminaire does not light, there may be a short in the secondary wiring. Check all connections and the condition of the wires. Measure luminaire input resistance across the red and black leads. This should be an open circuit on typical handheld multimeters.

US patents and foreign patents pending





### Install Guide for Canopy Applications (Americas)

### **IMPORTANT:** PDL3 MODUS must only be used with 601074 (75 W) or 601075 (150 W) power supplies. PDL3 MODUS HO (High Output) must only be used with 601076 (200 W) power supply. **PDL3 MODUS CANNOT be used with 601076 (200 W) power supply.** QUICK REFERENCE PARTS GUIDE Enclosure cover Power Module Ground tube wire Power ∿⊚ supply 00 S\_0 1 6 Enclosure Large hex nut С 0 ( $\cap$ Orange foam gasket $\bigcirc$





## Install Guide for Canopy Applications (Americas)

NOTE: A LICENSED ELECTRICIAN SHALL MAKE ALL PRIMARY AND SECONDARY CONNECTIONS.



**Tools and supplies required:** Cordless drill, adjustable end wrench (1.25" / 32 mm minimum opening), putty knife, tape measure, Phillips-head screwdriver, and twist-on or push-in UL Listed wire connectors for 14/18 AWG.



1. Turn off power.



2. Install PDL3 MODUS: See PDL3 MODUS installation instructions.



3. Remove any loose debris from around hole on top of canopy. Remove as much roof tar as possible in a 7" (178mm) diameter circle around canopy hole, if present.



 Assemble enclosure over top of installed fixture, making sure to tighten hex nut enough to compress gasket slightly. Loosen gland fitting on power supply side of power module tube.



 Unscrew power module tube from power supply-side gland fitting. Insert power cable from PDL3 MODUS into gland nut of Power Module tube. Slide Power Module tube over power cable, to expose the Power Module and PDL3 MODUS connector.



 Connect PDL3 MODUS connector (female) to Power Module connector (male) until it clicks. WARNING: Do not mix connector colors. White connectors are used for PDL3 MODUS 75W/150W fixtures. Black connectors are used for PDL3 MODUS High Output 200 W fixtures. Do not mix connector colors.

**Connecting power supplies:** Connection to LED luminaire shall be installed by professional person. At least one pole of conductive parts in SELV circuit shall be insulated, capable of withstanding at least 500 V rms for one minute. Connection of input and output terminals should be enclosed far away from water source.



7. Set Power Module (Images apply only to 601075. No user serviceable items if using 601075-105 or 601075-088).

**NOTE:** When installing directly to an insulated surface, allowable operating temperature should be reduced by 5° C.



No insulation permitted over luminaire or power supply.



## Install Guide for Canopy Applications (Americas)



8. Attach power supply side gland nut and fitting to Power Module tube.



9. Attach PDL3 MODUS side gland nut to Power Module tube.



**10.** Place driver saddle on enclosure base rails, drop power supply into saddle, and attach enclosure lid with four (4) screws.



11. Turn on system.

#### INFORMATION SPECIFIC TO AUSTRALIA AND NEW ZEALAND

 $\ensuremath{\textbf{Warning}}\xspace -$  Risk of overheating or fire if the clearance distances are compromised.

WARNING — THIS LUMINAIRE IS NOT SUITABLE FOR INSTALLATION IN LOCATIONS WHERE THERMAL INSULATION IS PRESENT, OR MAY



REASONABLY BE EXPECTED TO BE INSTALLED IN THE FUTURE, OR WHERE THERE IS A LIKELIHOOD OF OTHER COMBUSTIBLE MATERIAL, E.G. LEAVES OR VERMIN DEBRIS, ETC. COLLECTING ON OR AROUND THE LUMINAIRE. IT IS NOT SUITABLE FOR DOMESTIC INSTALLATIONS OR INSTALLATION IN RESIDENTIAL AREAS OF NON-DOMESTIC INSTALLATIONS (RESIDENTIAL INSTITUTIONS, HOTELS, BOARDING HOUSES, HOSPITALS, ACCOMMODATION HOUSES, MOTELS, HOSTELS AND THE LIKE).



## Install Guide for Canopy Applications (Americas)

## PDL3 MODUS

### 75 Watt power supply capacity chart for PDL3 MODUS (White connectors on power supply)

601074	Input		Output		
Power Module Setting	Nominal input voltage	Input current	Power output limit	Output current limit	Luminaire per power supply
No Jumper = High power	90-307 VAC, 47-63 Hz	2.0 A at 110/220 VAC	66 W	1.3 A	1
#1 Jumper = Mid power	90-307 VAC, 47-63 Hz	2.0 A at 110/220 VAC	51 W	1.1 A	1
#2 Jumper = Low power**	90-307 VAC, 47-63 Hz	2.0 A at 110/220 VAC	36 W	0.9 A	1
410181 and 410168*	90-307 VAC, 47-63 Hz	2.0 A at 110/220 VAC	User setting 65 W max	User setting 1.3 A max	1

### 150 Watt power supply capacity chart for PDL3 MODUS (White connectors on power supply)

601075	Input		Output		
Power Module Setting	Nominal input voltage	Input current	Power output limit	Output current limit	Luminaire per power supply
No Jumper = High power	90-307 VAC, 47-63 Hz	2.0 A at 110/220 VAC	125 W	2.3 A	1
#1 Jumper = Mid power**	90-307 VAC, 47-63 Hz	2.0 A at 110/220 VAC	105 W	2.0 A	1
#2 Jumper = Low power**	90-307 VAC, 47-63 Hz	2.0 A at 110/220 VAC	88 W	1.6 A	1
701932 and 410168*	90-307 VAC, 47-63 Hz	2.0 A at 110/220 VAC	User setting 125 W max	User setting 2.3 A max	1

\*\*For 601074-L, 601075-088, and 601075-105, power output is fixed at 36W, 88W, and 105W and is not jumper selectable.

## PDL3 MODUS HO (High Output)

### 200 Watt power supply capacity chart for PDL3 MODUS High Output (Black connectors on power supplies)

601076	Input		Output		
Power Module Setting	Nominal input voltage	Input current	Power output limit	Output current limit	Luminaire per power supply
No Jumper = High power	90-307 VAC, 47-63 Hz	2.0 A at 110/220 VAC	157 W	0.75 A	1
#1 Jumper = Mid power	90-307 VAC, 47-63 Hz	2.0 A at 110/220 VAC	133 W	0.65 A	1
#2 Jumper = Low power	90-307 VAC, 47-63 Hz	2.0 A at 110/220 VAC	116 W	0.57 A	1
410180 and 410168*	90-307 VAC, 47-63 Hz	2.0 A at 110/220 VAC	User setting 165 W max	Consult factory	1

\*When using 410180 power supply, use of Jumper Select Control Module P/N 601063-200 or 410168 is required to maintain warranty consideration. When using 410168, customer must provide waterproof junction box. Consult factory for control voltage settings. Failure to obtain control voltage settings from factory voids warranty.

### Troubleshooting

Luminaire does not light after complete installation.	Check connection from power supply lead to luminaire. Verify all pins in connectors are properly seated.
Still does not light.	Disconnect luminaire from power supply. Check output voltage of power supply using a voltmeter. The output voltage should be within ± 3 V of the voltage shown in the table above. If there is no output voltage, have a licensed electrician check input voltage. Make sure power supply is connected correctly and getting primary power. If power supply is connected properly and getting primary power and there is still no output voltage, replace power supply.
Still does not light.	If power supply is getting primary power, has the correct output, and luminaire does not light, there may be a short in the secondary wiring. Check all connections and the condition of the wires. Measure luminaire input resistance across the red and black leads. This should be an open circuit on typical handheld multimeters.







## Install Guide for Walk-in Cooler Applications (Americas)

**IMPORTANT:** PDL3 MODUS must only be used with 601077 (75 W) or 601078 (150 W) power supplies. PDL3 MODUS HO (High Output) must only be used with 601079 (200 W) power supply. **PDL3 MODUS CANNOT be used with 601079 (200 W) power supply.** 







## Install Guide for Walk-in Cooler Applications (Americas)

NOTE: A LICENSED ELECTRICIAN SHALL MAKE ALL PRIMARY AND SECONDARY CONNECTIONS.



**Tools and supplies required:** Cordless drill, adjustable end wrench (1.25 in/32 mm minimum opening), putty knife, tape measure, Phillips-head screwdriver, and twist-on or push-in UL Listed wire connectors for 14/18 AWG.



1. Turn off power.



2. Install PDL3 MODUS: See PDL3 MODUS installation instructions.



 Assemble enclosure over top of installed fixture, making sure to tighten hex nut enough to compress gasket slightly. Loosen gland fitting on power supply side of power module tube.



 Unscrew power module tube from power supply-side gland fitting. Insert power cable from PDL3 MODUS into gland nut of Power Module tube. Slide Power Module tube over power cable, to expose the Power Module and PDL3 MODUS connector.



 Connect PDL3 MODUS connector (female) to Power Module connector (male) until it clicks.
WARNING: Do not mix connector colors. White connectors are used for PDL3 MODUS 75W/150W fixtures. Black connectors are used for PDL3 MODUS High Output 200 W fixtures. Do not mix connector colors.

#### Connecting power supplies:

Connection to LED luminaire shall be installed by professional person. At least one pole of conductive parts in SELV circuit shall be insulated, capable of withstanding at least 500 V rms for one minute. Connection of input and output terminals should be enclosed far away from water source.

**NOTE:** When installing directly to an insulated surface, allowable operating temperature should be reduced by 5° C.



No insulation permitted over luminaire or power supply.



## Install Guide for Walk-in Cooler Applications (Americas)



7. Set Power Module.



9. Attach PDL3 MODUS side gland nut to Power Module tube.



**10.** Place driver saddle on enclosure base rails, drop power supply into saddle, and attach enclosure lid with four (4) screws.



8. Attach power supply side gland nut and fitting to Power Module tube.



11. Turn on system.

#### INFORMATION SPECIFIC TO AUSTRALIA AND NEW ZEALAND WARNING — RISK OF OVERHEATING OR FIRE IF THE CLEARANCE DISTANCES ARE COMPROMISED.

WARNING — THIS LUMINAIRE IS NOT SUITABLE FOR INSTALLATION IN LOCATIONS WHERE THERMAL INSULATION IS PRESENT, OR MAY REASONABLY BE EXPECTED TO BE INSTALLED IN THE FUTURE, OR WHERE THERE IS A LIKELIHOOD OF OTHER COMBUSTIBLE MATERIAL, E.G. LEAVES OR VERMIN DEBRIS, ETC. COLLECTING ON OR AROUND THE LUMINAIRE. IT IS NOT SUITABLE FOR DOMESTIC INSTALLATIONS OR INSTALLATION IN RESIDENTIAL AREAS OF NON-DOMESTIC INSTALLATIONS (RESIDENTIAL INSTITUTIONS, HOTELS, BOARDING HOUSES, HOSPITALS, ACCOMMODATION HOUSES, MOTELS, HOSTELS AND THE LIKE)



### Install Guide for Walk-in Cooler Applications (Americas)

### PDL3 MODUS

#### 75 Watt power supply capacity chart for PDL3 MODUS (White connectors on power supply)

601077	Input		Input Output		
Power Module Setting	Nominal input voltage	Input current	Power output limit	Output current limit	Luminaire per power supply
No Jumper = High power	90-307 VAC, 47-63 Hz	2.0 A at 110/220 VAC	66 W	1.3 A	1
#1 Jumper = Mid power	90-307 VAC, 47-63 Hz	2.0 A at 110/220 VAC	51 W	1.1 A	1
#2 Jumper = Low power	90-307 VAC, 47-63 Hz	2.0 A at 110/220 VAC	36 W	0.9 A	1

#### 150 Watt power supply capacity chart for PDL3 MODUS (White connectors on power supply)

601078	Input		Output		
Power Module Setting	Nominal input voltage	Input current	Power output limit	Output current limit	Luminaire per power supply
No Jumper = High power	90-307 VAC, 47-63 Hz	2.0 A at 110/220 VAC	125 W	2.3 A	1
#1 Jumper = Mid power	90-307 VAC, 47-63 Hz	2.0 A at 110/220 VAC	105 W	2.0 A	1
#2 Jumper = Low power	90-307 VAC, 47-63 Hz	2.0 A at 110/220 VAC	86 W	1.5 A	1

### PDL3 MODUS HO (High Output)

#### 200 Watt power supply capacity chart for PDL3 MODUS High Output (Black connectors on power supplies)

601079	Input		Output		
Power Module Setting	Nominal input voltage	Input current	Power output limit	Output current limit	Luminaire per power supply
No Jumper = High power	90-307 VAC, 47-63 Hz	2.0 A at 110/220 VAC	157 W	0.75 A	1
#1 Jumper = Mid power	90-307 VAC, 47-63 Hz	2.0 A at 110/220 VAC	133 W	0.65 A	1
#2 Jumper = Low power	90-307 VAC, 47-63 Hz	2.0 A at 110/220 VAC	116 W	0.57 A	1

#### Troubleshooting

Luminaire does not light after complete installation.	Check connection from power supply lead to luminaire. Verify all pins in connectors are properly seated.
Still does not light.	Disconnect luminaire from power supply. Check output voltage of power supply using a voltmeter. The output voltage should be within ± 3 V of the voltage shown in the table above. If there is no output voltage, have a licensed electrician check input voltage. Make sure power supply is connected correctly and getting primary power. If power supply is connected properly and getting primary power and there is still no output voltage, replace power supply.
Still does not light.	If power supply is getting primary power, has the correct output, and luminaire does not light, there may be a short in the secondary wiring. Check all connections and the condition of the wires. Measure luminaire input resistance across the red and black leads. This should be an open circuit on typical handheld multimeters.

US patents and foreign patents pending





## Install Guide for Parking Garage/Surface Mounted Applications (Global)

IMPORTANT: PDL3 MODUS must only be used with 601080 (75 W), 601081 (150 W), 601088 (75 W), 601089 (150 W) power supplies. PDL3 MODUS HO (High Output) must only be used with 601082 (200 W), 601090 (200 W) power supplies. PDL3 MODUS CANNOT be used with 601082 (200 W), 601090 (200 W) power supplies.



NOTE: A LICENSED ELECTRICIAN SHALL MAKE ALL PRIMARY AND SECONDARY CONNECTIONS.



**Tools and supplies required:** Cordless drill, adjustable end wrench

(1.25 in/32 mm minimum opening), putty knife, tape measure, Phillips-head screwdriver, and twist-on or push-in UL Listed wire connectors for 14/18 AWG.



1. Turn off power.



2. Loosen gland nut on PDL3 MODUS side of Power Module tube. Do not remove or loosen the gland fitting from the tube. Secure power supply using driver saddle, and secure with M5 hex nuts provided.



**3.** Remove gland fitting from Power Module tube on power supply side.



 Insert power cable from PDL3 MODUS into gland nut of Power Module tube. Slide Power Module tube over power cable, to expose the Power Module and PDL3 MODUS connector.



 Connect PDL3 MODUS connector (female) to Power Module connector (male) until it clicks.
WARNING: Do not mix connector colors. White connectors are used for PDL3 MODUS 75W/150W fixtures. Black connectors are used for PDL3 MODUS High Output 200 W fixtures. Do not mix connector colors.



## Install Guide for Parking Garage/Surface Mounted Applications (Global)





7. Attach power supply side gland nut and fitting to Power Module tube.

Gray seal ring Gland nut

8. Attach PDL3 MODUS side gland nut to Power Module tube.



9. Connect primary power to terminal block, and secure PDL3 MODUS to Surface Mount Box.



10. Install Surface Mount Box to ceiling.



**Connecting power supplies:** Connection to LED luminaire shall be installed by professional person. At least one pole of conductive parts in SELV circuit shall be insulated, capable of withstanding at least 500 V rms for one minute. Connection of input and output terminals should be enclosed far away from water source.

NOTE: When installing directly to an insulated surface, allowable operating temperature should be reduced by 5° C.



No insulation permitted over luminaire or power supply.

11. Turn on system.

6. Set Power Module.

#### INFORMATION SPECIFIC TO AUSTRALIA AND NEW ZEALAND

 $\textbf{WARNING} - \textbf{RISK} \ \textbf{OF} \ \textbf{OVERHEATING} \ \textbf{OR} \ \textbf{FIRE IF} \ \textbf{THE CLEARANCE} \ \textbf{DISTANCES} \ \textbf{ARE COMPROMISED}.$ 

WARNING — THIS LUMINAIRE IS NOT SUITABLE FOR INSTALLATION IN LOCATIONS WHERE THERMAL INSULATION IS PRESENT, OR MAY REASONABLY BE EXPECTED TO BE INSTALLED IN THE FUTURE, OR WHERE THERE IS A LIKELIHOOD OF OTHER COMBUSTIBLE MATERIAL, E.G. LEAVES OR VERMIN DEBRIS, ETC. COLLECTING ON OR AROUND THE LUMINAIRE. IT IS NOT SUITABLE FOR DOMESTIC INSTALLATIONS OR INSTALLATION IN RESIDENTIAL AREAS OF NON-DOMESTIC INSTALLATIONS (RESIDENTIAL INSTITUTIONS, HOTELS, BOARDING HOUSES, HOSPITALS, ACCOMMODATION HOUSES, MOTELS, HOSTELS AND THE LIKE).



### Install Guide for Parking Garage/Surface Mounted Applications (Global)

**NOTE:** Use of the correct Power Module is required to maintain warranty consideration. When using 601071, 601072, or 601073 Power Supplies, customer must provide waterproof junction box for primary power connections.

### PDL3 MODUS

#### 75 Watt power supply capacity chart for PDL3 MODUS (White connectors on power supply)

601080 (NA), 601088 (GB)	Input		Output		
Power Module Setting	Nominal input voltage	Input current	Power output limit	Output current limit	Luminaire per power supply
No Jumper = High power	90-307 VAC, 47-63 Hz	2.0 A at 110/220 VAC	66 W	1.3 A	1
#1 Jumper = Mid power	90-307 VAC, 47-63 Hz	2.0 A at 110/220 VAC	51 W	1.1 A	1
#2 Jumper = Low power	90-307 VAC, 47-63 Hz	2.0 A at 110/220 VAC	36 W	0.9 A	1
410181 and 410168*	90-307 VAC, 47-63 Hz	2.0 A at 110/220 VAC	User setting 65 W max	User setting 1.3 A max	1

#### 150 Watt power supply capacity chart for PDL3 MODUS (White connectors on power supply)

601081 (NA), 601089 (GB)	Input		Output		
Power Module Setting	Nominal input voltage	Input current	Power output limit	Output current limit	Luminaire per power supply
No Jumper = High power	90-307 VAC, 47-63 Hz	2.0 A at 110/220 VAC	125 W	2.3 A	1
#1 Jumper = Mid power	90-307 VAC, 47-63 Hz	2.0 A at 110/220 VAC	105 W	2.0 A	1
#2 Jumper = Low power	90-307 VAC, 47-63 Hz	2.0 A at 110/220 VAC	86 W	1.5 A	1
701932 and 410168*	90-307 VAC, 47-63 Hz	2.0 A at 110/220 VAC	User setting 125 W max	User setting 2.3 A max	1

### PDL3 MODUS HO (High Output)

#### 200 Watt power supply capacity chart for PDL3 MODUS High Output (Black connectors on power supplies)

601082 (NA), 601090 (GB)	Input		Output		
Power Module Setting	Nominal input voltage	Input current	Power output limit	Output current limit	Luminaire per power supply
No Jumper = High power	90-307 VAC, 47-63 Hz	2.0 A at 110/220 VAC	157 W	0.75 A	1
#1 Jumper = Mid power	90-307 VAC, 47-63 Hz	2.0 A at 110/220 VAC	133 W	0.65 A	1
#2 Jumper = Low power	90-307 VAC, 47-63 Hz	2.0 A at 110/220 VAC	116 W	0.57 A	1
410180 and 410168*	90-307 VAC, 47-63 Hz	2.0 A at 110/220 VAC	User setting 165 W max	Consult factory	1

\*When using 410180 power supply, use of Jumper Select Control Module P/N 601063-200 or 410168 is required to maintain warranty consideration. When using 410168, customer must provide waterproof junction box. Consult factory for control voltage settings. Failure to obtain control voltage settings from factory voids warranty.

#### Troubleshooting

Luminaire does not light after complete installation.	Check connection from power supply lead to luminaire. Verify all pins in connectors are properly seated.
Still does not light.	Disconnect luminaire from power supply. Check output voltage of power supply using a voltmeter. The output voltage should be within ± 3 V of the voltage shown in the table above. If there is no output voltage, have a licensed electrician check input voltage. Make sure power supply is connected correctly and getting primary power. If power supply is connected properly and getting primary power and there is still no output voltage, replace power supply.
Still does not light.	If power supply is getting primary power, has the correct output, and luminaire does not light, there may be a short in the secondary wiring. Check all connections and the condition of the wires. Measure luminaire input resistance across the red and black leads. This should be an open circuit on typical handheld multimeters.

US patents and foreign patents pending





### Installation Guide for 701948-5WSWT2



**Tools and supplies required:** Cordless drill, #2 Square drive bit (not shown), adjustable end wrench (1.25 in (32 mm) minimum opening), putty knife, roof tar (not shown), tape measure, Phillips-head screwdriver, and twist-on or push-in UL Listed wire connectors for <sup>14</sup>/<sub>18</sub> AWG.



**Optional tools:** Sheet metal scissors/ nibbler, 2 in (50 mm) metal diameter hole saw, pliers, wire stripper, tubing cutter, and SloanLED Installation Template (P/N 401398, shown below).

#### NOTE:

*New* refers to mounting to a new/replaced canopy skin.

**Replacement** refers to complete removal and replacement of an existing fixture.

**Retrofit** refers to partial disassembly of external components and installation to remaining fixture shell (may be prohibited in EU).

**Definition:** Luminaire is a complete lighting unit; i.e., no replaceable lamp or bulb.

WARNING: Risk of electrical shock. Locate main circuit breaker panel for respective fixture(s) to be replaced, de-energize, and perform lockout/tagout prior to starting work. All primary wiring must be done by a licensed electrician.

#### **Replacement Installation**



1. Disconnect wiring from old fixture and remove fixture from canopy.



2. Clean installation area: Clean surface with a cloth and cleaning agent. Continue with Step 1 of New Installation.

#### **New Installation**



 As required, drill a hole in canopy at desired center of luminaire with 2 in (50 mm) diameter metal hole saw.



2. Mark drill holes:

Hold clear SloanLED Installation Template up to mounting area. Line up opening with circle on template. Use edges as guides to square template along canopy joint lines. Mark holes for mounting screws using small circles in template.



3. Securing luminaire:

Position luminaire on canopy or shoebox interface plate surface. Secure luminaire with four self-drilling sheet metal screws at previously marked locations. Optional interlocking glare bars can be attached to the four holes in the frame with #8 thread forming screws.



### Installation Guide for 701948-5WSWT2



 Mounting junction box: Mount junction box onto panel interlocking supports using mechanical fasteners or metal strapping so that it is elevated off lowest surface of canopy. The junction box can be mounted either on top of a joint or across two joints.

NOTE: Distance from luminaire to junction box should be no more than 18 in (460 mm) to ensure compliance with UL1598.

#### 5. Mounting secondary conduit:

Place secondary cable in flexible conduit and slide flexible conduit onto conduit fitting on luminaire. Thread the locknut loose on the fitting. Do not tighten the locknut yet.

NOTE: Use wrench to prevent the conduit fitting from rotation during attachment of the flexible conduit. Minimize the mechanical strain on the fitting as much as possible by placement of the junction box relative to the luminaire.

Secure other end of flexible conduit to junction box via supplied fitting and lock nut. After the flexible conduit is secured in the junction box, hand tighten the locknut at the luminaire conduit fitting. Tie a knot at the end of the secondary cable inside the junction box.



7. Turn on system: Energize main circuit breaker. Confirm proper luminaire operation.



 Connecting power supply: Connect two pin polarized connectors from power supply to mating connector from luminaire when using the 701950-100Y1 or 701950-75Y1 power supply. When using the 701932 power supply, connect either the 410164-2-100 or 410164-2-075 between the luminaire and the power supply, depending on desired luminaire wattage. Using twist-on or push-in UL Listed wire connectors, connect power supply to primary wiring.

Color code: Line – Brown Neutral – Blue Ground – Green/Yellow



EU ONLY: Connect primary wiring with a suitable strain relief or terminal block. Incoming primary conductors should be between 1.5 mm<sup>2</sup> and 2.5 mm<sup>2</sup> copper area. Incoming primary cord should be suitable for application.

**NOTE:** A licensed electrician shall make all primary and secondary connections.



No insulation permitted over luminaire or power supply.





Not intended for mounting in or on flammable surfaces. Minimum metal plate thickness for luminaire installation is 0.75 mm.



 Sealing luminaire: Install speed nuts (supplied) to all mounting screws. Using roof tar (or appropriate sealant), seal all holes, screws, and protrusions. For sealing larger areas, use roof tar fabric to prevent cracking.



#### Installation Guide for 701948-5WSWT2

#### Retrofit Installation for 2 × 2 Fixture

NOTE: Luminaire may not be compatible to retrofit to all variations and styles of existing fixtures. Replacement may be required.

NOTE: For installations within EU, local requirements may prohibit retrofit installations. Check local requirements before proceeding with retrofit.



- 1. Remove lens from fixture and disconnect wiring inside fixture, ensuring enough wire to make a new connection.
- 2. Mechanically mount power supply to fixture with self-drilling sheet metal screws or with supplied cable ties. Connect power supply to primary wiring with twist-on or push-in UL Listed wire connectors. A licensed Electrician must be used to connect all wiring.
- Attach Shoebox interface plate (P/N 401397) to shoebox by drilling holes through interface plate into shoebox as necessary. Self-drilling sheet metal screws are provided and will be suitable for many applications.



- 4. Securing luminaire:

Secure luminaire to interface plate with four self-drilling sheet metal screws. Optional interlocking glare bars can be attached to the four holes in the frame with #8 thread forming screws.



 Turn on system: Energize main circuit breaker. Confirm proper luminaire operation.



### Installation Guide for 701948-5WSWT2

#### 150 Watt 48 VDC power supply capacity chart for Progressive Down Light 2

	In	Output			
Part number	Nominal input voltage	Input current	Power output limit	Output current limit	Luminaire per power supply
701950-100Y1	90-307 VAC, 47-63 Hz	1.5%.75 A at 11%220 VAC	100 W	2.0 A	1
701950-75Y1	90-307 VAC, 47-63 Hz	1.5%.75 A at 11%220 VAC	75 W	1.55 A	1
701932 and 410164-2-100	90-307 VAC, 47-63 Hz	1.%.75 A at 11%220 VAC	100 W	2.0 A	1
701932 and 410164-2-075	90-307 VAC, 47-63 Hz	1.%.75 A at <sup>11</sup> %20 VAC	75 W	1.6 A	1

NOTE: When using 701932 power supply, use of 410164-2-100 or 410164-2-75 is required to maintain warranty consideration.

#### Troubleshooting

Luminaire does not light after complete installation.	Check connection from power supply lead to luminaire. Verify all pins in connectors are properly seated.
Still does not light.	Disconnect luminaire from power supply. Check output voltage of power supply using a voltmeter. The output voltage should be 48 VDC+/-0.5 VDC. If there is no output voltage, have a licensed electrician check input voltage. Make sure power supply is connected correctly and getting primary power. If power supply is connected properly and getting primary power and there is still no output voltage, replace power supply.
Still does not light.	If power supply is getting primary power, has the correct output, and luminaire does not light, there may be a short in the secondary wiring. Check all connections and the condition of the wires. Measure luminaire input resistance across the red and black leads. This should be an open circuit on typical handheld multimeters.



**Tools and supplies required:** Cordless drill, adjustable end wrench (1.25 in (32 mm) minimum opening), putty knife, roof tar (not shown), tape measure, Phillips-head screwdriver, and twist-on or push-in UL Listed wire connectors for 14/18 AWG.



**Optional tools:** Sheet metal scissors/nibbler, 2 in (50 mm) metal diameter hole saw, pliers, wire stripper, tubing cutter, and SloanLED Installation Template (P/N 401398, shown below).

WARNING: Risk of electrical shock. Locate main circuit breaker panel for respective fixture(s) to be replaced, de-energize, and perform lockout/tagout prior to starting work. All primary wiring must be done by a licensed electrician.

#### **Replacement Installation**



1. Disconnect wiring from old fixture and remove fixture from canopy.



2. Clean installation area: Clean surface with a cloth and cleaning agent. Continue with Step 1 of New Installation.

#### **New Installation**



 As required, drill a hole in canopy at desired center of luminaire with 2 in (50 mm) diameter metal hole saw.



#### 2. Mark drill holes:

Hold clear SloanLED Installation Template up to mounting area. Line up opening with circle on template. Use edges as guides to square template along canopy joint lines. Mark holes for mounting screws using small circles in template. Per IEC TR 62778, luminaire should be positioned so that prolonged staring into luminaire at a distance of 8.89 ft (2.71 m) is not expected.



3. Securing luminaire: Position luminaire on canopy or shoebox interface plate surface. Secure luminaire with four self-drilling sheet metal screws at previously marked locations. Optional

interlocking glare bars can be attached to four holes in frame with #8 thread forming screws.

Leaders in LED Technologu



#### NOTE:

*New* refers to mounting to a new/replaced canopy skin.

**Replacement** refers to complete removal and replacement of an existing fixture.

**Retrofit** refers to partial disassembly of external components and installation to remaining fixture shell (may be prohibited in EU).

**Definition:** Luminaire is a complete lighting unit; i.e., no replaceable lamp or bulb.

**NOTE:** The light source of this luminaire is not replaceable; when light source reaches end of life, the whole luminaire shall be replaced.



CAUTION, risk of electric shock

**NOTE:** SloanLED requires this fixture be installed on a Daylight Sensor or Timer Circuit that switches off during daylight hours to maximize energy savings and extend product life. Required for California Title 24 Compliance.

### Installation Guide for 701948-5WTWT3, 701948-5WCWT3



 Mounting junction box: Mount junction box onto panel interlocking supports using mechanical fasteners or metal strapping so that it is elevated off lowest surface of canopy. Junction box can be mounted either on top of a joint or across two joints.

NOTE: Distance from luminaire to junction box should be no more than 18 in (460 mm) to ensure compliance with UL1598.

#### 5. Mounting secondary conduit:

Place secondary cable in flexible conduit and slide flexible conduit onto conduit fitting on luminaire. Thread locknut loose on fitting. Do not tighten locknut yet.

NOTE: Use wrench to prevent conduit fitting from rotation during attachment of flexible conduit. Minimize mechanical strain on fitting as much as possible by placement of junction box relative to luminaire.

Secure other end of flexible conduit to junction box via supplied fitting and lock nut. After flexible conduit is secured in junction box, hand tighten locknut at luminaire conduit fitting. Tie a knot at end of secondary cable inside junction box.



6. **Connecting power supply:** Connect 701932 power supply using Power Setting Module (410164-2-125, 410164-2-100, or 410164-2-075) between luminaire and power supply, depending on desired luminaire wattage. When connecting 701932 power supply to customer provided 0-10VDC control, connect flying lead control module 410168 to 701932. Connect white flying lead to positive voltage control wire and green flying lead to negative (or return) control wire. Using twist-on or push-in UL Listed wire connectors, connect power supply to primary wiring.

NOTE: A Power Setting Module must be used when installing power supply or fixture will be damaged.

Color code: Line – Brown Neutral – Blue Ground – Green/Yellow



Ground

Symbol

EU ONLY: Connect primary wiring with suitable strain relief or terminal block. Incoming primary conductors should be between 1.5 mm<sup>2</sup> and 2.5 mm<sup>2</sup> copper area. Incoming primary cord should be suitable for application. **NOTE:** A licensed electrician shall make all primary and secondary connections.

**Connecting 701932-150HC1 power supply:** Connection to LED luminaire shall be installed by professional person. At least one pole of conductive parts in SELV circuit shall be insulated, capable of withstanding at least 500 V rms for 1 minute.

Connection of input and output terminals should be enclosed far away from water source.



No insulation permitted over luminaire or power supply.





Not intended for mounting in or on flammable surfaces. Minimum metal plate thickness for luminaire installation is 0.75 mm.



7. Turn on system:

Energize main circuit breaker. Confirm proper luminaire operation.



 Sealing luminaire: Install speed nuts (supplied) to all mounting screws. Using roof tar (or appropriate sealant), seal all holes, screws, and protrusions. For sealing larger areas, use roof tar fabric to prevent cracking.



### Installation Guide for 701948-5WTWT3, 701948-5WCWT3

#### Retrofit Installation for 2 × 2 Fixture

NOTE: Luminaire may not be compatible to retrofit to all variations and styles of existing fixtures. Replacement may be required.

NOTE: For installations within EU, local requirements may prohibit retrofit installations. Check local requirements before proceeding with retrofit.



- 1. Remove lens from fixture and disconnect wiring inside fixture, ensuring enough wire to make a new connection.
- Mechanically mount power supply to fixture with self-drilling sheet metal screws or with supplied cable ties. Connect power supply to primary wiring with twist-on or push-in UL Listed wire connectors. A licensed Electrician must be used to connect all wiring.
- Attach Shoebox interface plate (P/N 401397) to shoebox by drilling holes through interface plate into shoebox as necessary. Self-drilling sheet metal screws are provided and will be suitable for many applications.

**NOTE:** A licensed electrician must be used to make all primary and secondary connections between luminaire and power supply.

- 4. Securing luminaire:

Secure luminaire to interface plate with four self-drilling sheet metal screws. Optional interlocking glare bars can be attached to four holes in frame with #8 thread forming screws. Per IEC TR 62778, luminaire should be positioned so that prolonged staring into luminaire at a distance of 8.89 ft (2.71 m) is not expected.



5. **Turn on system:** Energize main circuit breaker. Confirm proper luminaire operation.



### Installation Guide for 701948-5WTWT3, 701948-5WCWT3

#### 150 Watt 48 VDC power supply capacity chart for Progressive Down Light 3

	Input		Output		
Part number	Nominal input voltage	Input current	Power output limit	Output current limit	Luminaire per power supply
701932 and 410164-2-125	100-277 VAC, 50-60 Hz	2.0 A at 110/220 VAC	125 W	2.6 A	1
701932 and 410164-2-100	100-277 VAC, 50-60 Hz	2.0 A at 110/220 VAC	100 W	2.0 A	1
701932 and 410164-2-075	100-277 VAC, 50-60 Hz	2.0 A at 110/220 VAC	75 W	1.6 A	1
701932 and 410168	100-277 VAC, 50-60 Hz	2.0 A at 110/220 VAC	User setting 125 W max	User setting 2.6 A max	1

NOTE: When using 701932 power supply, use of Power Setting Module P/N 410164-2-125, 410164-2-100, 410164-2-075 or 410168 is required to maintain warranty consideration. Consult factory for control voltage settings. Failure to obtain control voltage settings from factory voids warranty.

#### Troubleshooting

Luminaire does not light after complete installation.	Check connection from power supply lead to luminaire. Verify all pins in connectors are properly seated.
Still does not light.	Disconnect luminaire from power supply. Check output voltage of power supply using a voltmeter. Output voltage should be 50 VDC+/-0.5 VDC. If there is no output voltage, have a licensed electrician check input voltage. Ensure power supply is connected correctly and getting primary power. If power supply is connected properly and getting primary power and there is still no output voltage, replace power supply.
Still does not light.	If power supply is getting primary power, has correct output, and luminaire does not light, there may be a short in secondary wiring. Check all connections and condition of wires. Measure luminaire input resistance across red and black leads. This should be an open circuit on typical handheld multimeters.

