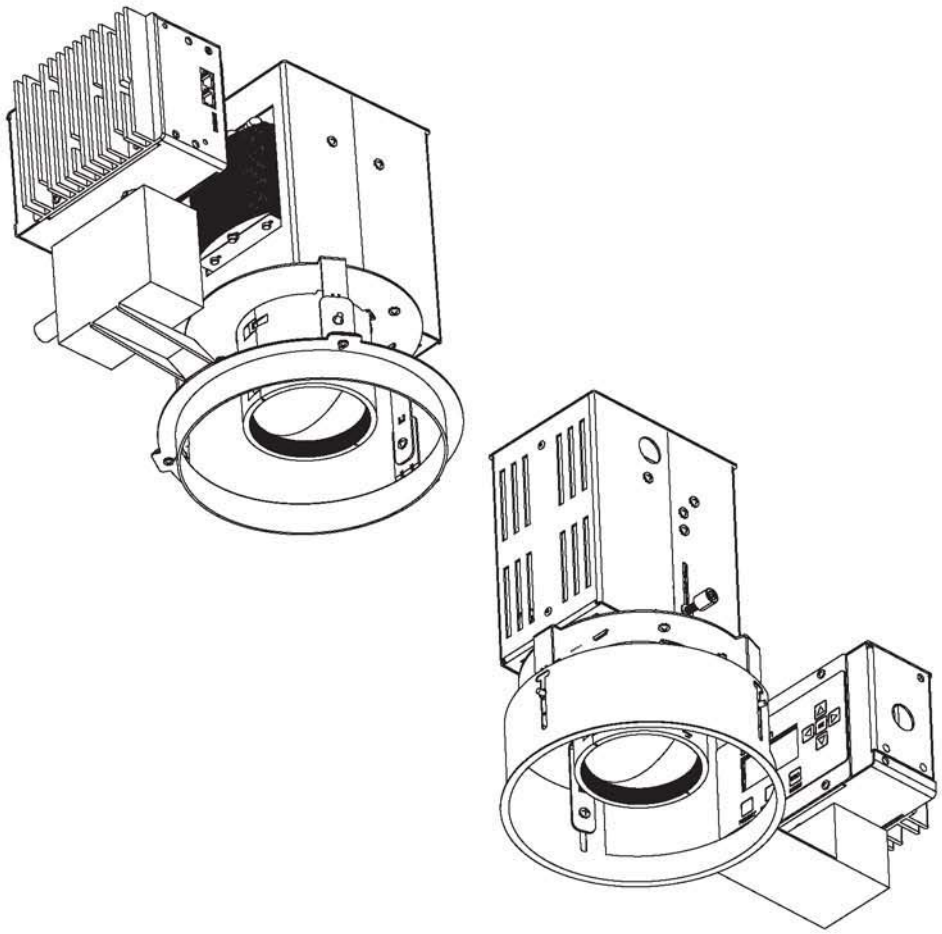
INSTALLATION & USER'S MANUAL

PHILIPS

Selecon

PL House LED Luminaires



New Construction & Retrofit Models

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PL House Light LED Luminaire Installation & User's Manual

IMPORTANT INFORMATION

Warnings and Notices

When using electrical equipment, basic safety precautions should always be followed including the following:

a. **READ AND FOLLOW ALL SAFETY INSTRUCTIONS**.

b. Do not use outdoors.

c. Do not mount near gas or electric heaters.

d. Equipment should be mounted in locations and at heights where it will not readily be subjected to tampering by unauthorized personnel.

e. The use of accessory equipment not recommended by the manufacturer may cause an unsafe condition.

f. Do not use this equipment for other than intended use.

g. Refer service to qualified personnel.

SAVE THESE INSTRUCTIONS.

WARNING: You must have access to a main circuit breaker or other power disconnect device before installing any wiring. Be sure that power is disconnected by removing fuses or turning the main circuit breaker off before installation. Installing the device with power on may expose you to dangerous voltages and damage the device. A qualified electrician must perform this installation.

WARNING: Refer to National Electrical Code® and local codes for cable specifications. Failure to use proper cable can result in damage to equipment or danger to personnel.

WARNING: This equipment is intended for installation in accordance with the National Electric Code® and local regulations. It is also intended for installation in indoor applications only. Before any electrical work is performed, disconnect power at the circuit breaker or remove the fuse to avoid shock or damage to the control. It is recommended that a qualified electrician perform this installation.

WARNING: The PL House Light LED Luminaire is a NON-IC Rated Lighting Fixture

If the space that a light fixture is to be installed does not contain insulation, a NON-IC rated fixture should be used (NON-IC stands for NON Insulated Contact). If insulation is present in an application where a NON-IC rated fixture is used, a minimum 3-inch (76 mm) clearance should exist on all sides of the fixture, and no insulation may be present across the top of the installed fixture. By maintaining these clearance requirements, overheating should not be an issue according to testing conducted on the fixture.

NON-IC rated fixtures are occasionally used in residential applications, but much more often they can be found in commercial applications. This is because most residential, single-family dwellings will use insulation in the attic space for energy conservation - but it is less likely that commercial spaces (such as office building, commercial properties, warehouses, hotels, etc.) will use insulation as part of their construction. There will always be exceptions to this, of course, but this is a general rule when determining what fixture to use in what application

IMPORTANT!

THIS PRODUCT MUST BE INSTALLED IN ACCORDANCE WITH THE APPLICABLE INSTALLATION CODE BY A PERSON FAMILIAR WITH THE CONSTRUCTION AND OPERATION OF THE PRODUCT AND THE HAZARDS INVOLVED.

CE PRODUIT DOIT ÊTRE INSTALLÉ SELON LE CODE D'INSTALLATION PERTINENT, PAR UNE PERSONNE QUI CONNAÎT BIEN LE PRODUIT ET SON FONCTIONNEMENT AINSI QUE LES RISQUES INHÉRENTS.

FCC Notice

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications.

Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

Additional Resources for DMX512

For more information on installing DMX512 control systems, the following publication is available for purchase from the United States Institute for Theatre Technology (USITT), "Recommended Practice for DMX512: A Guide for Users and Installers, 2nd edition" (ISBN: 9780955703522). USITT Contact Information:

USITT
315 South Crouse Avenue, Suite 200
Syracuse, NY 13210-1844
Phone: 1.800.938.7488 or 1.315.463.6463
www.usitt.org

Philips Selecon Limited Three-Year Warranty

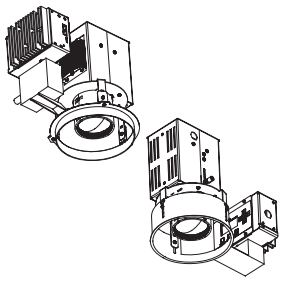
Philips Selecon offers a three-year limited warranty of its luminaires against defects in materials or workmanship from the date of delivery. A copy of Philips Selecon three-year limited warranty containing specific terms and conditions can be obtained from the Philips Selecon web site at www.seleconlight.com or by contacting your local Philips Selecon office.

PL House Light LED Luminaire powerful LED engine offers exceptional performance and life. Under normal operating conditions, our LED engine has a life expectancy in excess of 50,000 hours, however under worst case operating conditions with the luminaire set to continuous full output it is possible that a small percentage of LED's may require replacement sooner. The Philips Selecon three-year limited warranty includes our guarantee against premature failure of the LED engine.

TABLE OF CONTENTS

PREFACE

1. About this Manual



The document provides installation and operation instructions for the following products:

- PL House Light LED Luminaires (refer to "Product Descriptions" for individual product models).

Please read all instructions before installing or using this product. *Retain this manual for future reference*. Additional product information and descriptions may be downloaded at www.seleconlight.com

2. Product Descriptions

This manual covers the following PL House Light LED Luminaire models:

PL House Light LED Luminaires - New Construction

Part Number	Description
PLHLIC	PL House Light LED Luminaire, New Construction Model, Clear/Polished Reflector with White Flange
PLHLIB	PL House Light LED Luminaire, New Construction Model, Black Reflector with Black Flange

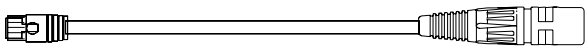
PL House Light LED Luminaires - Retrofit / Remodel Construction

Part Number	Description
PLHLRC	PL House Light LED Luminaire, Retrofit Construction Model, Clear/Polished Reflector with White Flange
PLHLRB	PL House Light LED Luminaire, Retrofit Construction Model, Black Reflector with Black Flange

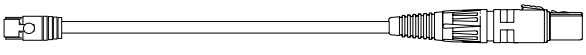
Note: All PL House Light LED Luminaires are for 120VAC applications only.

PL House Light LED Luminaires - Accessories

Part Number	Description
PL1DMXFRJ45	PL House Light LED Luminaire DMX512 cable XLR5 Female to RJ45 12 in. / 305 mm White
PL1DMXFRJ46	PL House Light LED Luminaire DMX512 cable XLR5 Female to RJ45 12 in. / 305 mm Black
PL1DMXMRJ47	PL House Light LED Luminaire DMX512 cable XLR5 Male to RJ45 12 in. / 305 mm White
PL1DMXMRJ48	PL House Light LED Luminaire DMX512 cable XLR5 Male to RJ45 12 in. / 305 mm Black



To Luminaire (RJ45) *DMX512 (XLR) Male*



To Luminaire (RJ45) *DMX512 (XLR) Female*

PHILIPS Selecon

PL House Light LED Luminaires - Accessories

Part Number	Description
PL1WDMX03	Wireless Solutions Wireless DMX512 Receiver, Black**
PL1LDMX03	Lumen Radio Wireless DMX512 Receiver, Black**
PL1SDMX03	City Theatrical DMX512 Receiver, Black**
PLHLWL	PL House Light LED Luminaire Wireless DMX Receiver Adapter Plate

**A PLHLWL adapter plate is required for all wireless DMX512 receivers (sold separately)

3. Additional Mounting Accessories

Additional mounting accessories (other than the components included with the fixture as described in "PL House Light LED Luminaire Components" on page 6) are sold separately and by others. Below is a list of compatible mounting components for other types of mounting options.

Note: Catalog and descriptions are for reference only. The catalog numbers and descriptions are current as of time of creation of this manual. Check with authorized suppliers for additional product information and descriptions.

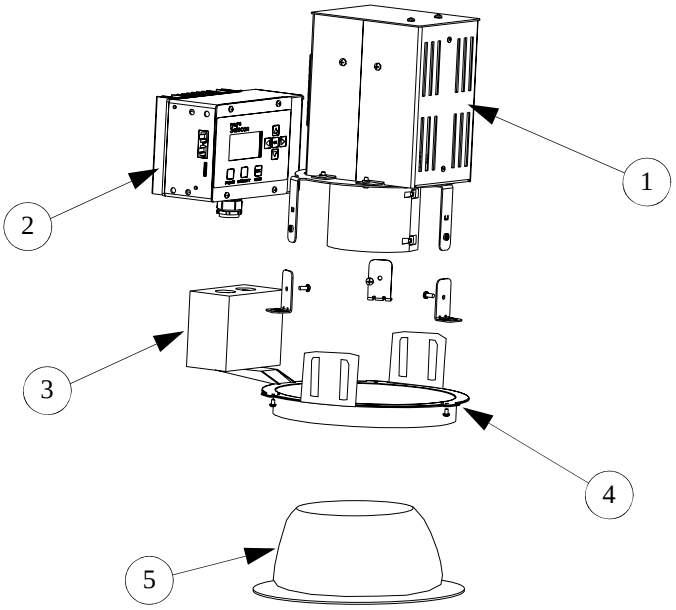
- 18-inch Mounting Bars, Philips Lightolier Catalog Number 1950 (set of 2)
- 27-inch Mounting Bars, Philips Lightolier Catalog Number 1951 (set of 2)
- Telescoping Wood Joist Mounting Bars, Philips Lightolier Catalog Number 7994 (set of 2)
- T-Bar Anchor Clips, Philips Lightolier Catalog Number 1956 (set of 4, for use with 1950 & 1951 bars)
- 3/4-inch Channel
- 1-1/2-inch Channel

WARNING! Supporting mechanism and structure must be capable of supporting the weight of the PL House Light LED Luminaire. For product technical information (including weight), refer to "TECHNICAL SPECIFICATIONS" on page 35. DO NOT mount the PL House Light LED Luminaire into suspended ceiling tiles unless properly supported. Check applicable codes in your area for specific requirements.

PL HOUSE LIGHT LED LUMINAIRE OVERVIEW

1. PL House Light LED Luminaire Components

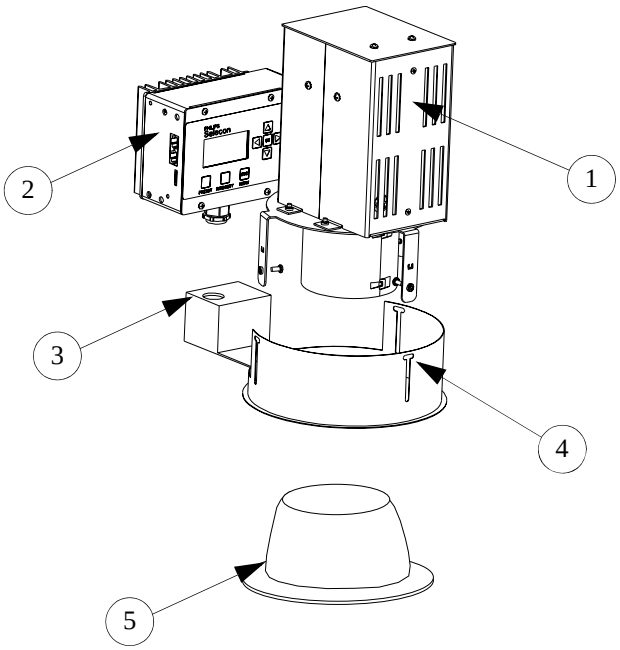
Major Luminaire Components - New Construction Models



1) 120W LED Engine
2) LCD Display Menu System (see "LCD Display / Menu System" on page 7 for more information)
3) J-Box (for electrical connections)
4) Trim Ring Mounting Assembly
5) Trim Ring / Reflector

Figure 1: PL House Light LED Luminaire (New Construction Models)

Major Luminaire Components - Retrofit Construction Models



1) 120W LED Engine
2) LCD Display Menu System (see "LCD Display / Menu System" on page 7 for more information)
3) J-Box (for electrical connections)
4) Trim Ring Mounting Assembly
5) Trim Ring / Reflector

Figure 2: PL House LED Downlight (Retrofit Models)

Luminaire Connections (Power and Control)

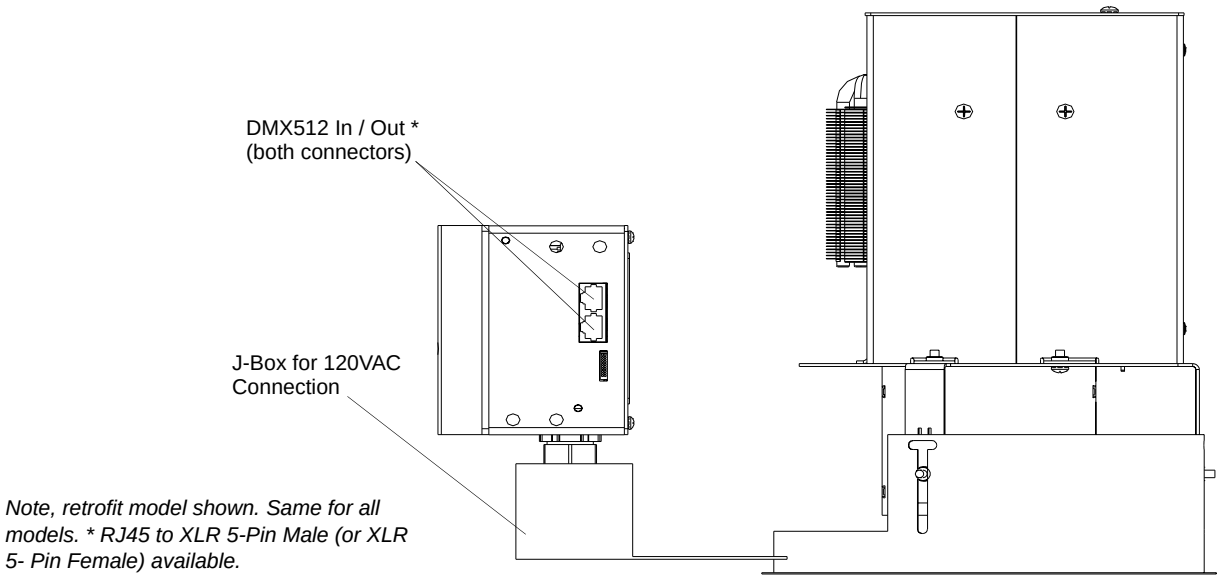
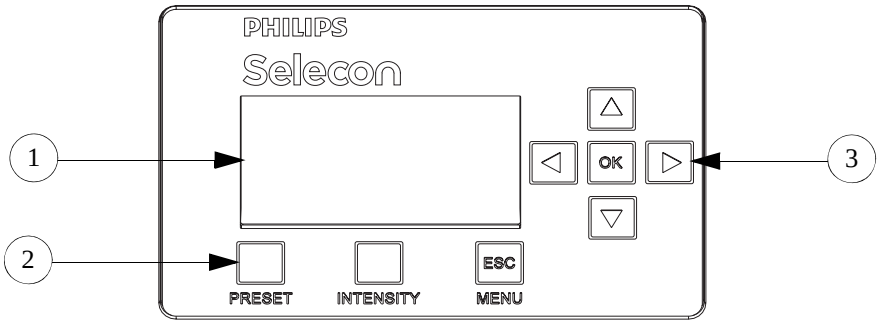


Figure 3: PL House Light LED Luminaire Connections

LCD Display / Menu System



1) LCD Display (Menu System)
2) Preset / Intensity / Menu Access Buttons
3) Function (Menu System) Select Push Buttons

Note: For Menu operation and programming details, refer to "LCD Menu Operation" on page 13.

Figure 4: LCD Display & Menu System

INSTALLATION AND SET UP

1. Power Requirements

The PL House Light LED Luminaire operates on 120 Volts AC only. Each luminaire can draw up to 150 Watts.

Table 1: PL House Light LED Luminaire Voltage vs. Current

Voltage (AC)	Total Current (A)
120	1.25

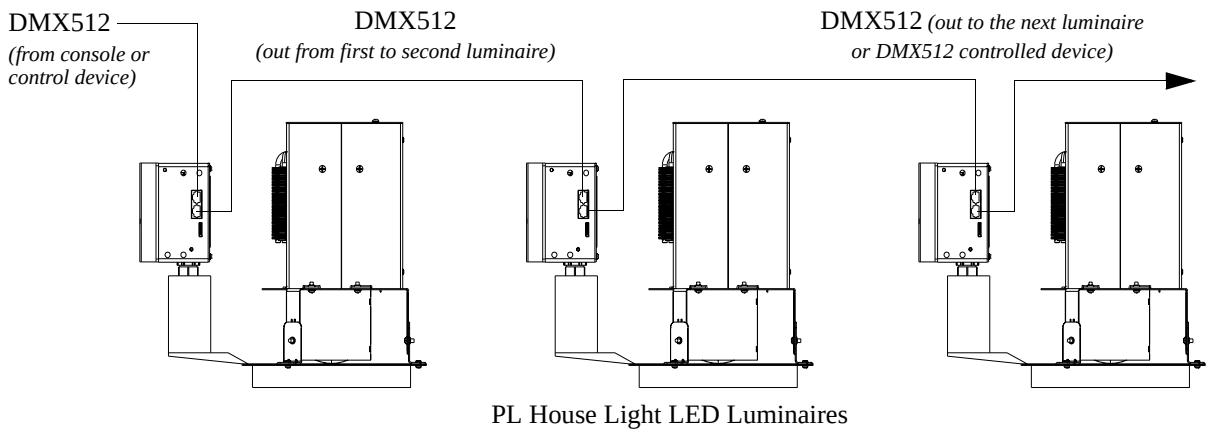
2. Connecting Power

Refer to "Mounting - New Construction Models" on page 9 or "Mounting - Retrofit Models" on page 11 for installation and power connections.

3. Connecting to the DMX512 Network

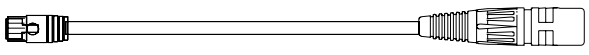
Basic DMX512 installation consists of connecting multiple PL House Light LED Luminaires together (up to 30 luminaires) in "daisy-chain" fashion. A cable runs from the control console (or DMX512 control source) to the DMX connector on the first PL House Light LED Luminaire. Another cable runs from the other DMX connector on the first unit to a DMX connector on the next PL House Light LED Luminaire (or DMX512 device to be controlled).

Note: For more information on DMX512 networking and systems, refer to "Additional Resources for DMX512" on page 2. For PL House Light LED Luminaire DMX Mapping, refer to "DMX CONTROL" on page 21.

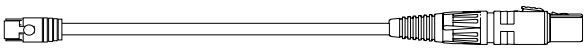


DMX512 Cable Options

DMX Cables (DMX to RJ45)
Sold Separately



To Luminaire (RJ45) *DMX512 (XLR) Male*



To Luminaire (RJ45) *DMX512 (XLR) Female*

DMX512 Connections

DMX512 Signal	XLR Pin	RJ45 Pin
Common (Drain)	1	7
DMX512 -	2	2
DMX512 +	3	1

Note: Remaining pins on each connector are not used.

Note: For cables required to operate and control PL House Light LED Luminaires via DMX512, see "Additional Mounting Accessories" on page

Figure 5: PL House Light LED Luminaires - DMX512 Connections

4. Mounting - New Construction Models

For installation procedure for retrofit models, refer to "Mounting - Retrofit Models" on page 11.

Note: The PL House Light LED Luminaire is intended for installation in accordance with the National Electric Code and local regulations. To assure full compliance with local codes and regulations, check with your local electrical inspector before installation.

WARNING! To prevent injury or death, you must have access to a main circuit breaker or other power disconnect device before installing any wiring. Be sure that power is disconnected by removing fuses or turning the main circuit breaker off before installation. Installing the device with power on may expose you to dangerous voltages and damage the device. A qualified electrician must perform this installation.

WARNING! The PL House Light LED Luminaire is a NON-IC Rated Lighting Fixture. If the space that a light fixture is to be installed does not contain insulation, a NON-IC rated fixture should be used (NON-IC stands for NON Insulated Contact). If insulation is present in an application where a NON-IC rated fixture is used, a minimum 3-inch (76 mm) clearance should exist on all sides of the fixture, and no insulation may be present across the top of the installed fixture. By maintaining these clearance requirements, overheating should not be an issue according to testing conducted on the fixture.

To mount PL House Light LED Luminaire (New Construction Models):

Step 1. Cut 7-7/8 inch hole in ceiling as desired.

CAUTION: PL House Light LED Luminaires must be installed with mounting bars (by others). Mounting bars must always be secured to structural ceiling members. Refer to "Additional Mounting Accessories" on page 5 for more information. Check applicable codes in your area for specific requirements.

Step 2. If not already installed, attach Control / Menu Assembly to J-Box.

Step 3. Mount luminaire assembly into ceiling.

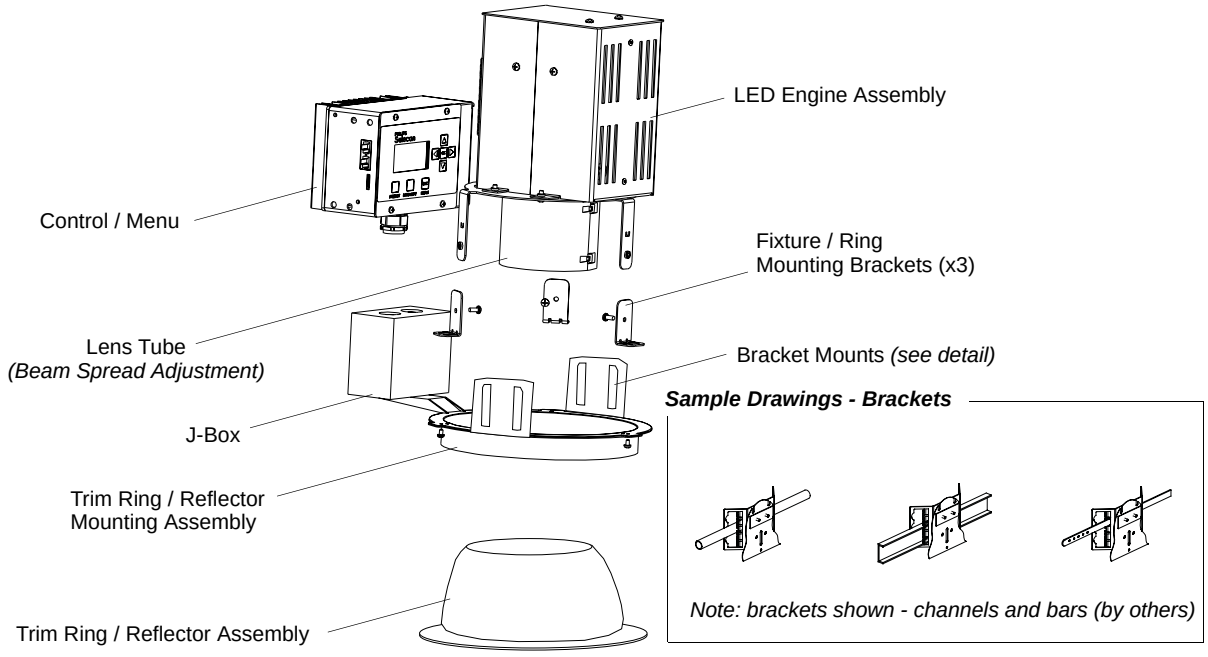


Figure 6: PL House LED Luminaire

Step 4. Make electrical connections from power source at J-Box as follows:

a. Remove cover from Junction (J) Box.

b. At J-Box, connect AC input wiring as illustrated in **Figure 7**.

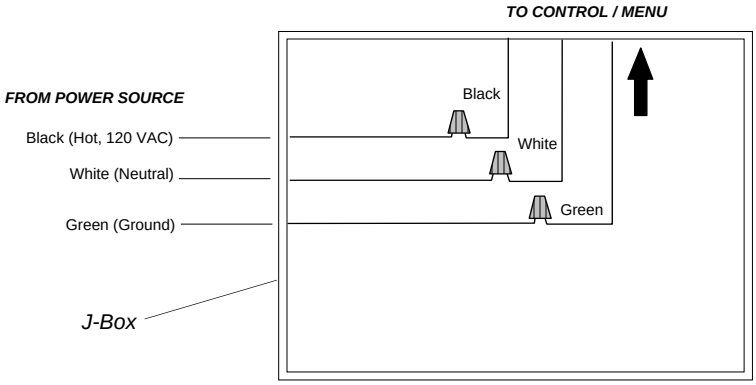


Figure 7: J-Box Electrical Connections

c. Make any DMX512 control wiring connections as desired. Refer to "Connecting to the DMX512 Network" on page 8 for more information.

Note: When using luminaire on a DMX512 network, the unit must be addressed via the on-board menu system. Refer to "LCD Menu System" on page 14 for DMX addressing. The menu system may be accessed anytime the trim ring / reflector assembly is removed.

Step 5. As shown in **Figure 8**, adjust luminaire beam spread as desired by loosening the lens tube / zoom adjustment knob and moving lens tube in or out. Once adjustment is complete, retighten lens tube / zoom adjustment knob. Note, beam spread can be adjusted at anytime throughout the installation process and after-installation as desired.

Table 2: Beam Spread Chart

Lens Tube Marking	*Beam Spread (in Degrees)*
5	**45**
6	**40**
7	**35**
8	**33**
9	**26**
10	**20**

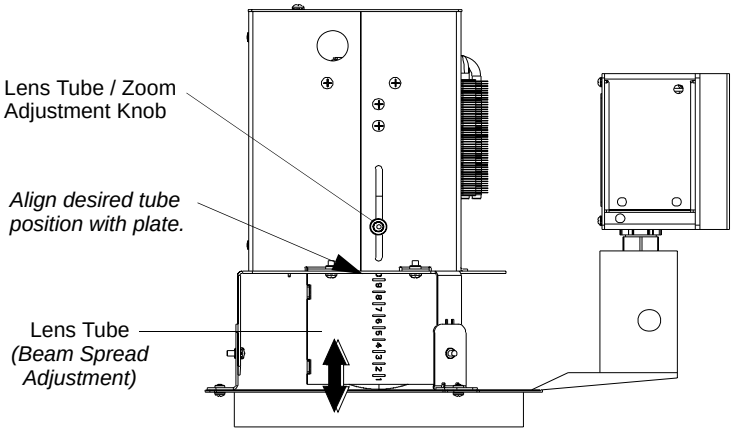


Figure 8: Lens Tube (Beam Spread Adjustment) Setting

CAUTION: If installation is performed prior to the ceiling being painted DO NOT install the trim ring / reflector assembly and insert the included paint splatter shield to ensure that the lens and the interior of the unit is protected from overspray and debris.

Step 6. To finish installation, fit trim ring/reflector assembly up and through hole where luminaire assembly is installed. Firmly press trim ring/reflector assembly into place. Note, retaining clips on sides of trim mounting ring assembly will "capture" the trim ring / reflector assembly.

5. Mounting - Retrofit Models

Note: The PL House Light LED Luminaire is intended for installation in accordance with the National Electric Code and local regulations. To assure full compliance with local codes and regulations, check with your local electrical inspector before installation.

WARNING! To prevent injury or death, you must have access to a main circuit breaker or other power disconnect device before installing any wiring. Be sure that power is disconnected by removing fuses or turning the main circuit breaker off before installation. Installing the device with power on may expose you to dangerous voltages and damage the device. A qualified electrician must perform this installation.

WARNING! The PL House Light LED Luminaire is a NON-IC Rated Lighting Fixture. If the space that a light fixture is to be installed does not contain insulation, a NON-IC rated fixture should be used (NON-IC stands for NON Insulated Contact). If insulation is present in an application where a NON-IC rated fixture is used, a minimum 3-inch (76 mm) clearance should exist on all sides of the fixture, and no insulation may be present across the top of the installed fixture. By maintaining these clearance requirements, overheating should not be an issue according to testing conducted on the fixture.

To mount PL House Light LED Luminaire (Retrofit Construction Models):

Step 1. Insure that mounting hole, in ceiling, is 7-7/8 inch is diameter.

Step 2. If not already installed, attach Control / Menu Assembly to J-Box.

Step 3. Mount and secure luminaire assembly into ceiling using nail clips shown in **Figure 9**. Adjust luminaire assembly depth/height by setting trim ring / reflector mounting assembly in relation to fixture / ring mounting brackets.

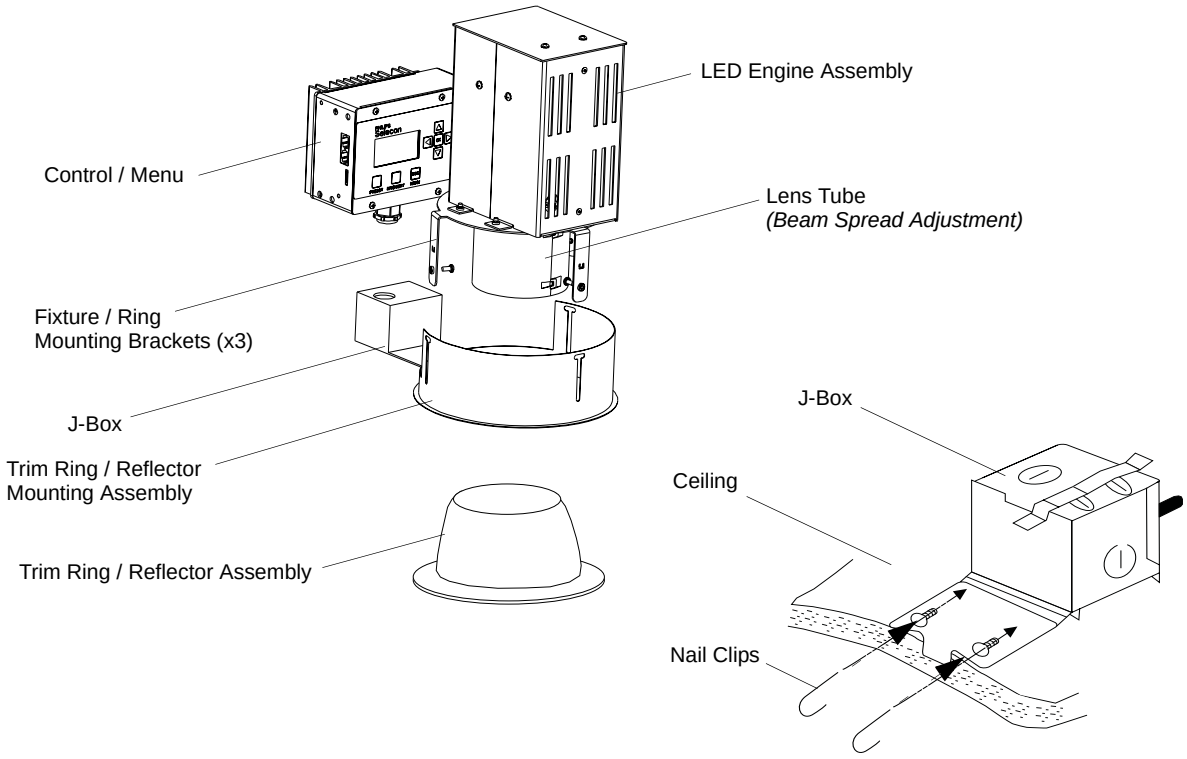


Figure 9: PL House LED Luminaire

Step 4. Make electrical connections from power source at J-Box as follows:

a. Remove cover from Junction (J) Box.

b. At J-Box, connect AC input wiring as illustrated in **Figure 7**.

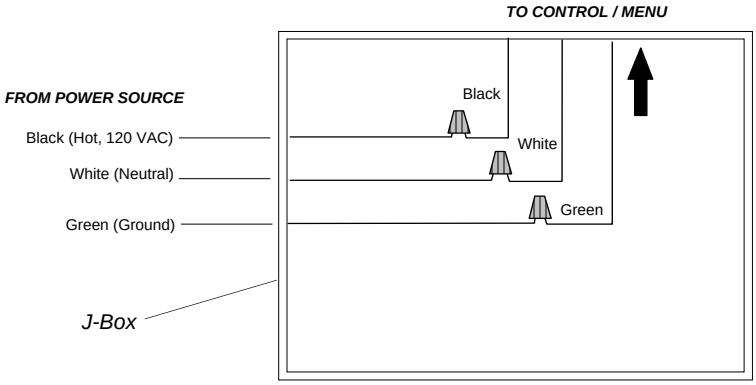


Figure 10: J-Box Electrical Connections

c. Make any DMX512 control wiring connections as desired. Refer to "Connecting to the DMX512 Network" on page 8 for more information.

Note: When using luminaire on a DMX512 network, the unit must be addressed via the on-board menu system. Refer to "LCD Menu System" on page 14 for DMX addressing. The menu system may be accessed anytime the trim ring / reflector assembly is removed.

Step 5. As shown in **Figure 11**, adjust luminaire beam spread as desired by loosening the lens tube / zoom adjustment knob and moving lens tube in or out. Once adjustment is complete, retighten lens tube / zoom adjustment knob. Note, beam spread can be adjusted at anytime throughout the installation process and after-installation as desired.

Table 3: Beam Spread Chart

Lens Tube Marking	*Beam Spread (in Degrees)*
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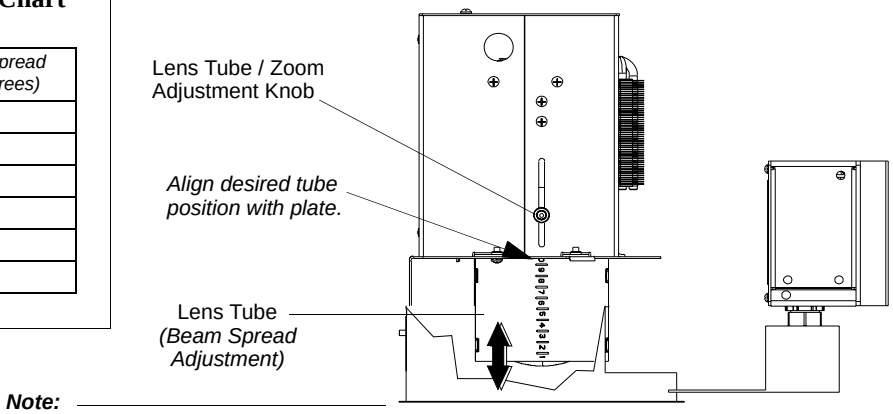


Figure 11: Lens Tube (Beam Spread Adjustment) Setting

CAUTION: If installation is performed prior to the ceiling being painted DO NOT install the trim ring / reflector assembly and insert the included paint splatter shield to ensure that the lens and the interior of the unit is protected from overspray and debris.

Step 6. To finish installation, fit trim ring/reflector assembly up and through hole where luminaire assembly is installed. Firmly press trim ring/reflector assembly into place. Note, retaining clips on sides of trim mounting ring assembly will "capture" the trim ring / reflector assembly.

OPERATION AND PROGRAMMING

1. LCD Menu Operation

The PL House Light LED Luminaire's LCD Display and Menu System provides local control for accessing all the fixture's status information, menu options, and settings.

Note: If there are multiple luminaires in a system, changes would need to be made at each LCD Menu as desired.

Upon power up, the LCD will display the main screen showing the product type/name. If DMX is enabled, the programmed address will appear after power up.

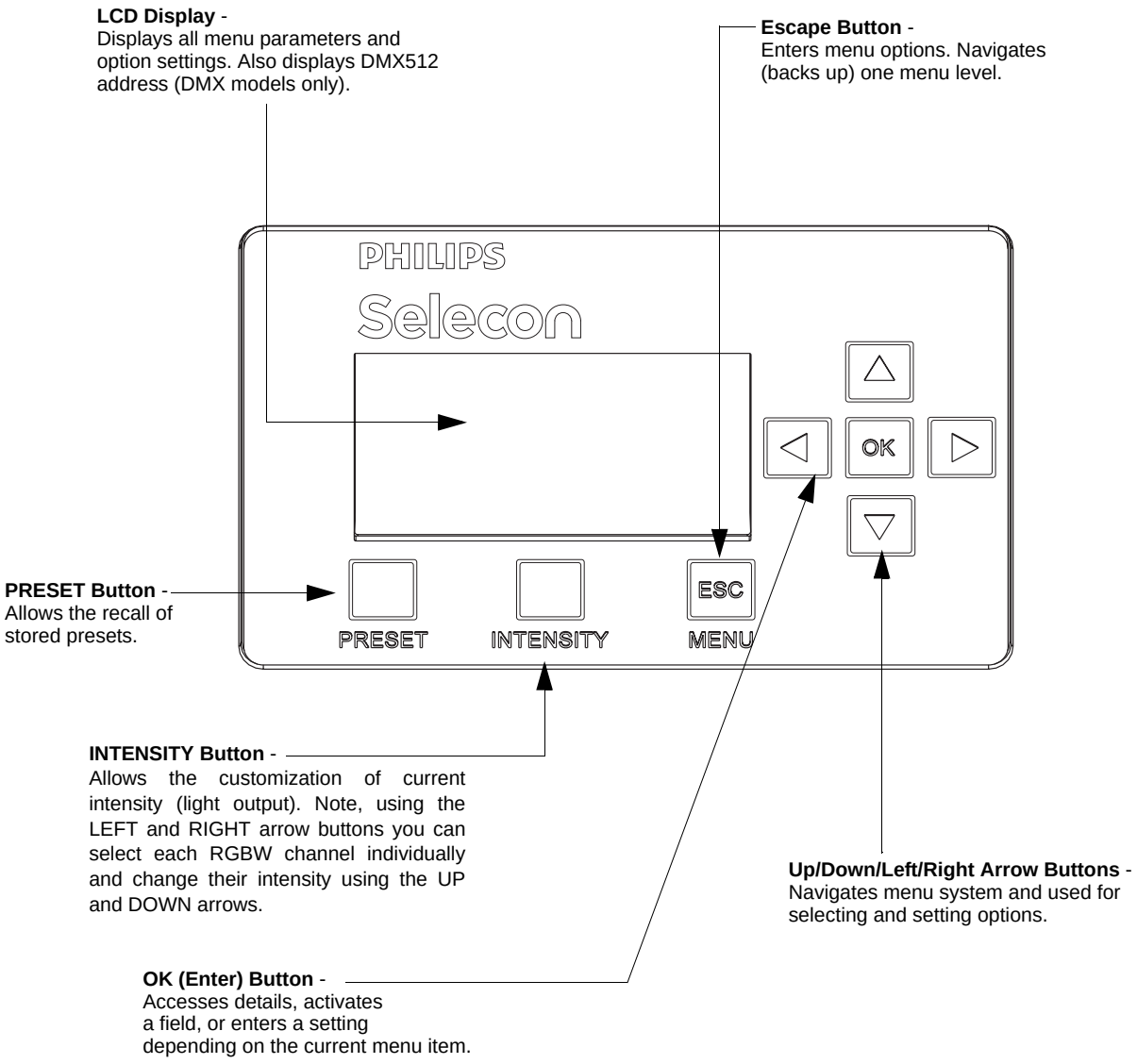


Figure 12: LCD Display and Menu System

2. LCD Menu System

The LCD Display Menu system consists of several categories. Use the four arrow buttons as required (refer to **Figure 12 on page 13**) to access and make changes to the menu items. When the desired menu item is reached, press [OK] to display the menu options. Use navigation and [OK] buttons to view status and configure the LCD Menu as required.

Note: Depending on the security settings, certain menu items may be password protected. You must have the set PassPIN in order to access these items. Locked items will have a "Key" icon displayed next to them.

To navigate and access menu settings/selections:

Step 1. At Main Menu, press [ESC] / [MENU] button once. A small window will appear over Main Menu with sub-menu categories:

a. Save as Preset
b. Edit a Preset
c. Color Mix
d. Fan Control
e. Settings
f. Lock Fixture
g. Enter Password
h. LED Status

Step 2. Press [OK] at desired menu item to access and make changes.

Step 3. Make changes as desired.

Note: For complete menu structure and available options, see "Menu Structure (continued)" on page 16.

Note: When DMX512 signal is present, Edit Preset and Color Mix options will not appear in menu structure.

To navigate fixture status menus:

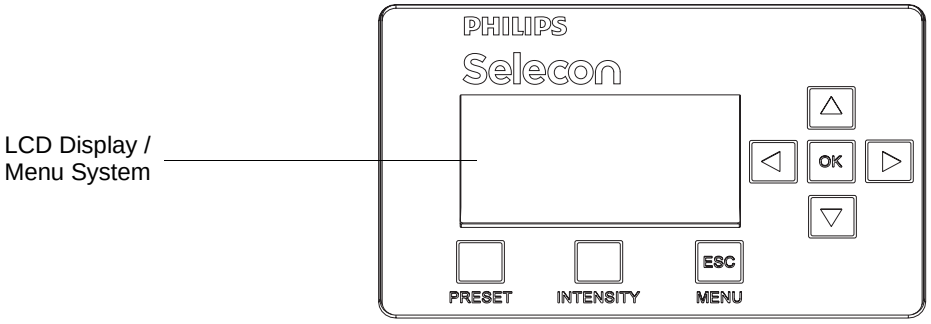
Step 1. At Main Menu, press LEFT or RIGHT arrow button once. Main menu screen will change to fixture status screen will appear as follows (note, depending on which arrow button is pressed, status screens may appear in reverse order):

a. DMX Address (note, if fixture is UNLOCKED, hit [OK] to change DMX address)
b. Fixture Hours (displays fixture operating hours since last reset)
c. Fixture Power (displays Max Power Limit setting (in watts), Present Power consumed by fixture (in watts), and Hours of Use)
d. Fixture Status (displays current operational temperature, LED status, and fan speed setting)

Step 2. Press LEFT or RIGHT arrow buttons to scroll through status screens.

Step 3. Press [ESC] at anytime to access menu settings. See "To navigate and access menu settings/selections:".

Menu Structure



MAIN MENU

Save as Preset

Sub Menu	*Options*	*Comments*
Select Preset to Save - *(Option)* *Scrolls and sets current user-defined color mix to various recallable presets in the fixture using arrow buttons.* *Note: To edit a current (set) preset, see Edit Presets.*	Off	Users can: • Save the current settings (look) to a specific recallable Preset in the fixture's memory. • Edit the levels (values) for Red, Green, Blue, White, and Intensity values (in percent%) by using the arrow buttons. Once the values are adjusted, the preset is saved as desired. *Only intensities may be stored on White Color Temperature presets. RGBW in these presets cannot be edited or changed.
	Scratch Pad	
	Warm White*	
	Cool White*	
	Day Light*	
	Preset X (5 through 31)	

Continued next page

Note: See "To navigate and access menu settings/selections:" on page 14 to learn how to access menus. To save changes, hit [OK]. Press [ESC] to cancel any changes you made.

Menu Structure (continued)

Continued from previous page

Edit a Preset

Sub Menu	*Options*	*Comments*
Select Preset to Edit - *(Option)* *Selects a current preset and outputs the preset, so preset can be edited.* *Note: To save a specific look of the fixture, see Save Presets.*	Off	Users can: • Edit the current settings (look) to a specific recallable Preset in the fixture's memory. • Edit the values for Red, Green, Blue, White, and Intensity values (in percent%) by using the arrow buttons. • Once the values are adjusted, the "Save Preset" menu option appears to save the edits. NOTES: *Only intensities may be stored on White Color Temperature presets. RGBW in these presets cannot be edited or changed. **If a Calibrated Preset's Color Mix is changed (5 thru 25), an asterisk '*' is appended to the end of the name to indicate that it has been modified. This only happens if the name matches the original calibrated name, stored in EEPROM. This does not happen if the Intensity is changed, only the color mix.
	Scratch Pad	
	Warm White*	
	Cool White*	
	Day Light*	
	Preset X (5 through 31)**	
Note: When DMX512 signal is present, Edit a Preset option will not appear in menu structure.		

Color Mix

Sub Menu	*Options*	*Comments*
Select Color or Intensity to Adjust - *(Option)*	Red	Users can: • Edit Red, Green, Blue, White, and Intensity values (in percent%) by using the arrow buttons. • Once the values are adjusted, press [OK] to save the edits.
	Green	
	Blue	
	White	
	Intensity	
Note: When DMX512 signal is present, Color Mix option will not appear in menu structure.		

Fan Control

Sub Menu	*Options*	*Comments*
Select and Set Fan Speed - *(Option)* *Note, hit Cancel to cancel any changes you made.*	Max	Highlight "Max" button and hit [OK] button on menu. Sets the maximum speed of the fan.
	Level	Level sets the fan to a constant speed (will not vary). Adjust level (on fan speed level bar) using Left and Right arrow buttons, highlight "Level" button in menu, and hit [OK] on menu to use user-defined level.

Continued next page

Menu Structure (continued)

Continued from previous page

Settings

Sub Menu	*Options*	*Comments*
SETTINGS - *(Option)* *Scrolls and sets the various fixture settings using arrow buttons.*	See "Settings" on page 19 for details.	

Lock Fixture

Sub Menu	*Options*	*Comments*
LOCK - Are you sure?	Yes (to Lock Fixture) / No	Use arrow buttons to make selection. Press [OK] to accept. Note, a password must be established (set) in order to lock a fixture. Locking the fixture will disable access to changing menu settings.

Enter Password

Sub Menu	*Options*	*Comments*
Enter Pass PIN	Enter four-digit password	For details, refer to "Security" on page 17.

LED Status

Sub Menu	*Options*	*Comments*
LED Status Information *Scrolls through the various levels using arrow buttons as indicated on menu screen. Depending on the arrow button pressed, the screens may appear in a different order that shown in "Options".*	LED 1	Displays LED's current status (in percentage%) of Intensity, Red, Green, Blue, and White elements of the LED). Also displays current color temperature (i.e., WARM WHITE), Fan Speed, operational LED junction temperature, power settings.
	Levels	Displays DMX levels for each LED element (Red, Green, Blue, and White) and total power.

3. Security

Unwanted changes to the Fixture's Configuration or Setting can be controlled by setting a security level, or Locking the Fixture. Three levels of security are available in addition to completely Locking the Fixture.

PL House Light LED Luminaires are shipped with default passwords. Users may set their own password (four-digit number). When setting a password, write it down and keep it in a secure location. Note, Philips Selecon does not have records of passwords established by users or owners.

Note: Contact Philips Selecon technical support if a unit is locked and the password is lost for instructions on how to reset luminaire.

Note: If the Fixture is locked when it is powered down the fixture will remain in the locked state when powered up.

Passwords

Establishing or Changing Passwords

Step 1. At a Status Screen, press [MENU] and scroll to "Settings", press [OK].

Step 2. Go to the Security section.

Step 3. Select a Level to change (Level 1 PIN / Level 2 PIN / Level 3 PIN).

Step 4. Press [OK] to edit using the [UP ARROW], [DOWN ARROW], [LEFT ARROW] or [RIGHT ARROW] keys to enter a four-digit password (using 0 to 9).

Step 5. Press [OK] to save changes. If you hit [ESC] (Escape) password will not be stored and process must be repeated.

Step 6. Password is set.

Note: The current security level is displayed next to the Security heading. Only Passwords at, or below, that level will be displayed for modification. The level can be changed by entering a higher level Password on the "Enter PassPIN line directly below the Security heading, like Step 4 above.

Security Levels

Security Level	*Description*	*Default PassPIN*
0	System is locked; the only key that is active is the Menu/ESC Key. When this key is pressed a PassPIN is requested.	Not Applicable
1	All keys are Active. You can select any Preset, and change Intensity, set DMX Address.	1111
2	Editing and Saving of Presets is added to Level 1 functionality.	2222
3	Operationally the same as level 2, however all settings are available on the Settings screen.	3333

Locking Fixture

To lock the fixture:

Step 1. At a Status Screen, press [MENU] and scroll to "Lock Fixture".

Step 2. Press [OK].

Step 3. Use [LEFT ARROW] or [RIGHT ARROW] keys to highlight "YES" ", press [OK].

Step 4. Fixture is now locked.

Note: When the Fixture is Locked only the [ESC]/[MENU] key is functional. Pressing this key will display a request for a password. When a valid password is entered the fixture is unlocked to the security level of the entered password.

4. Presets

Presets are Color Mixes that are stored in the Fixture, they can be recalled to reproduce a specific output from the fixture. Presets are made up of a Color Mix; Red, Green, Blue, and White. They also have Intensity associated with them.

Presets can be recalled via the User interface or by a DMX channel, when under DMX control. The Preset's Intensity is applied if the User Interface is used; if DMX, the DMX Intensity channel is used for Intensity.

Presets Types

Presets are classified as Locked, Protected, or User. The type of preset determines what aspects of the Preset can be modified.

Locked

Locked Presets are factory Calibrated, and their Color Mix cannot be changed by the user. Their Intensity can be changed. Three Presets (2-4), "Warm White', "Cool White", and "Day Light", are Locked.

Preset 0, the "off" preset is also Locked to the OFF value.

Protected

Protected Presets are also factory set, and by default are protected from changes to their Color Mix. Their Intensity can be changed. Protected Presets are Presets 5-25. They can be Un-Protected by setting "Protected" to "No"; see section on Settings. If Un-Protected these presets function like User Presets.

The factory set values for the protected presets can be re-loaded to the original factory settings by setting "Load Factory" to "Yes" "; see section on Settings.

User

User Presets can have their Color Mix and Intensity changed without restriction.

Note: If the Color Mix of a factory setting preset is changed, by turning protection Off, an '*' is appended to the end of the Preset's Name to indicate that the preset values have been changed.

Editing Preset Names

On the Edit Preset screen, the option is available to edit the name of a preset, via Screen button. However, the names of Presets 0-4 cannot be edited.

Use the [LEFT ARROW] and [RIGHT ARROW] keys to select the character to be changed and use the [UP ARROW] and [DOWN ARROW] keys to change that character. The Character Scroll order is A-Z, space, 0-9. If you are scrolling up the Alpha character displays as Upper Case; if you are scrolling down the Alpha character displays as Lower Case. Stop on the character you want, ignoring case, then press the opposite [UP ARROW] or [DOWN ARROW] key if you want to change the case. [OK] to save changes, [ESC] to cancel changes.

5. Settings

The following Parameters can be changed on the Settings Screen.

The first column "Security Level" is the minimum security level you have to be at before the line is displayed for editing in the Settings screen.

To edit a value on the Setting Screen, use the [UP ARROW] or [DOWN ARROW] keys to move the highlight to the settings value you wish to change. Press [OK] to begin editing that value. Use the [UP ARROW], [DOWN ARROW], [LEFT ARROW] or [RIGHT ARROW] keys to make changes to the value. Press [OK] when complete to save changes, or [ESC] to cancel changes to that value.

When done making changes on the Settings Screen press [ESC] to re-boot fixture and implement changes. Fixture will not re-boot if nothing was changed.

Table 4: PL House Light LED Luminaire Settings

Security Level	*Parameter*	*Values*	*Default*	*Description*
Security				
1	Enter PassPIN	4-Digits (0 to 9)	****	There are 4 levels of security, this allows you to change the level while in the Settings Screen.
3	Level 1 PIN	4-Digits (0 to 9)	1111	Sets Level 1 PassPIN
3	Level 2 PIN	4-Digits (0 to 9)	2222	Sets Level 2 PassPIN
3	Level 3 PIN	4-Digits (0 to 9)	3333	Sets Level 3 PassPIN
3	Power-Up	1 - 3 or Locked	3	Security Level after Power-Up, if not Locked (Level 0)

General				
1	Power Limit	30W, 40W, 50W, 70W, 90W, 100W, 120W	120W	Sets the maximum power setting of the LED engine.
1	Power-Up	Off, Scratch Pad, Warm White, Cool White, Day Light, Preset30, Preset31, Last Set	Cool White	When the Fixture Powers-Up what does it output. Scratch Pad is an automatically saved Preset. Last Set is the last thing coming out of the fixture, this could be Warm White with the intensity changed from that of the Preset.
3	Reset Hours	No, Yes	No	Resets luminaire's operational hours.
Presets				
3	Protected	No, 5 - 25	Yes	Determines if the factory Calibrated Presets' Color Mix is protected from changes.
3	Load Factory	No, Yes	No	Reload Factory Calibrated Presets, Intensity changes will also be reloaded.
DMX				
3	DMX Enabled	No, Yes, or Wireless (if equipped)	Yes	Enables or disabled DMX communication through the luminaires DMX512 ports. Sets the DMX feature to Wireless DMX (if wireless DMX option is installed - sold separately).
1	Address	001 to 512	001	DMX512 address. Note, it can be set if displayed.
2	Map	8-bit, 16-bit, or 3-Chan	16-bit	Defines size/precision of DMX map. Color Mixing/Intensity in 16-bit provides higher resolution for precision control. 3-Chan provides minimal channel usage.
2	When no DMX	Off, Hold, Hold 8hr *(8 hours)*, or Power-Up	Hold	If DMX is detected and then goes away, this defines what will happen to the output. At end of 8Hr hold Fixture goes to Power-Up setting.
Fan				
3	Normal / Quiet	Normal or Quiet	Quiet	Normal - Normal Mode Provides higher cooling margin for thermally challenging applications. Recommended for full power (RGBW @ 100%) applications with large and numerous changes in power. Quiet - (Quiet Mode) Quite Mode is similar to Normal mode, but it controls fan tightly to reduce fan noise.
3	Max%	0 to 100%	100	Sets the maximum fan speed
3	Min%	0 to 100%	1	Sets the minimum fan speed
Display				
3	Flip Display	No, Yes	No	Flips (inverts) Display and Keypad Arrows.

Note: To Exit the Settings screen, use the [ESC] key. [ESC] and [OK] can be used to cancel or save changes to an individual parameter. However, once a parameter has been accepted, by pressing [OK] that change cannot be undone/ canceled by pressing the [ESC] key.

DMX CONTROL

This section contains information for operating the luminaire using DMX control in 16-Bit, 8-Bit, or 3-Channel (3-Chan) modes. For Menu options and detailed information, see "Settings" on page 19.

Note: These tables assume a DMX start address of 1. When a different starting address is used, this address becomes channel 1 function and other functions follow in sequence.

1. 16-Bit Mode

Table 5 provides DMX channel mapping of all DMX512 control values when the PL House Light LED Luminaire is in 16-bit DMX512 mode (as set by the luminaire's menu system).

Table 5: PL House Light LED Luminaire DMX Channel Mapping (16-Bit Mode)

DMX Channel	Parameter	Range DMX	Range%	**Default** - *recommended console default values*	Description
1	Intensity - High	0 - 65535	0 - 100%	0	16-bit control for Intensity of LED settings.
2	Intensity - Low				
3	Red - High Byte	0 - 65535	0 - 100%	0	16-bit control of Red LEDs from 0 to full.
4	Red - Low Byte				
5	Green - High Byte	0 - 65535	0 - 100%	0	16-bit control of Green LEDs from 0 to full.
6	Green - Low Byte				
7	Blue - High Byte	0 - 65535	0 - 100%	0	16-bit control of Blue LEDs from 0 to full.
8	Blue - Low Byte				
9	White - High Byte	0 - 65535	0 - 100%	0	16-bit control of White LEDs from 0 to full.
10	White - Low Byte				
11	Preset Color Selection	0 - 255	0 - 100%	0	Used to access presets stored in fixture firmware, such as CCT presets, defined gel presets, etc. No Preset Activated = DMX 0-3 (DEFAULT) Color Preset 0 (Off) = DMX 4 - 7 Color Preset 1 (Scratch Pad) = DMX 8 - 11 Color Preset 2 (Warm White) = DMX 12 - 15 Color Preset 3 (Cool White) = DMX 16 - 19 Color Preset 4 (Daylight) = DMX 20 - 23 Color Preset 5 (Arc White) = DMX 24 - 27 Color Preset 6 (Red) = DMX 28 - 31 Color Preset 7 (Yellow) = DMX 32 - 35 Color Preset 8 (Daylight Blue) = DMX 36 - 39 Color Preset 9 (Magenta) = DMX 40 - 43 Color Preset 10 (Aqua) = DMX 44 - 47 Color Preset 11 (Medium Amber) = DMX 48 - 51 Color Preset 12 (Lavender) = DMX 52 - 55 Color Preset 13 (Blue) = DMX 56 - 59 Color Preset 14 (Light Pink) = DMX 60 - 63 Color Preset 15 (Green) = DMX 64 -67 Color Preset 16 (Pink) = DMX 68 - 71 Color Preset 17 (Amber White) = DMX 72 - 75 Color Preset 18 (Dark Fuchsia) = DMX 76 - 79 Color Preset 19 (Light Amber) = DMX 80 - 83 Color Preset 20 (Steel Blue) = DMX 84 - 87 Color Preset 21 (Lt. Green/Blue) = DMX 88 - 91 Color Preset 22 (Orange) = DMX 92 - 95 Color Preset 23 (Medium Pink) = DMX 96 - 99 Color Preset 24 (Cyan) = DMX 100 - 103 Color Preset 25 (Purple) = DMX 104 - 107 Color Preset 26 (Custom) = DMX 108 - 111 Color Preset 27 (Custom) = DMX 112 - 115 Color Preset 28 (Custom) = DMX 116 - 119 Color Preset 29 (Custom) = DMX 120 - 123 Color Preset 30 (Custom) = DMX 124 - 127 Color Preset 31 (Custom) = DMX 128 - 131
12	*Not used (for future use)*				

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Table 5: PL House Light LED Luminaire DMX Channel Mapping (16-Bit Mode)

13	Intensity Time	0 - 255	0 - 100%	255	Allows for luminaire timing of intensity. Profile should default to DMX 255 for smoothest console fade times. Refer to "PL House Light LED Luminaire DMX Timing Channel Detail" on page 26 for more information on timing values.
14	Color Time	0 - 255	0 - 100%	255	Allows for luminaire timing of LEDs. Profile should default to DMX 255 for smoothest console fade times.Refer to "PL House Light LED Luminaire DMX Timing Channel Detail" on page 26 for more information on timing values.
15	Control	0 - 255	0 - 100%	0	Used to set different modes, parameters, and functions of the luminaire. Set control channel value for desired action. Hold value for at least 3 seconds. Set control channel value to 0 without any scaling. Default Setting on Console = DMX 0 Display On/Off = DMX 3 - 4 Reset All to Defaults = DMX 5 - 7 Quiet Mode = DMX 11 - 13 Normal Mode = DMX 14 - 15 Preset 1 Store = DMX 20 - 21 Preset 2 Store (Intensity Only) = DMX 22 - 23 Preset 3 Store (Intensity Only) = DMX 24 - 25 Preset 4 Store (Intensity Only) = DMX 26 - 27 Preset 5 Store = DMX 28 - 29 Preset 6 Store = DMX 30 - 31 Preset 7 Store = DMX 32 - 33 Preset 8 Store = DMX 34 - 35 Preset 9 Store = DMX 36 - 37 Preset 10 Store = DMX 38 - 39 Preset 11 Store = DMX 40 - 41 Preset 12 Store = DMX 42 - 43 Preset 13 Store = DMX 44 - 45 Preset 14 Store = DMX 46 - 47 Preset 15 Store = DMX 48 - 49 Preset 16 Store = DMX 50 - 51 Preset 17 Store = DMX 52 - 53 Preset 18 Store = DMX 54 - 55 Preset 19 Store = DMX 56 - 57 Preset 20 Store = DMX 58 - 59 Preset 21 Store = DMX 60 - 61 Preset 22 Store = DMX 62 - 63 Preset 23 Store = DMX 64 - 65 Preset 24 Store = DMX 66 - 67 Preset 25 Store = DMX 68 - 69 Preset 26 Store = DMX 70 - 71 Preset 27 Store = DMX 72 - 73 Preset 28 Store = DMX 74 - 75 Preset 29 Store = DMX 76 - 77 Preset 30 Store = DMX 78 - 79 Preset 31 Store = DMX 80 - 81 Fixture Reset* = DMX 250 - 255

2. 8-Bit Mode

Table 6 provides DMX channel mapping of all DMX512 control values when the PL House Light LED Luminaire is in 8-bit DMX512 mode (as set by the luminaire's menu system).

Table 6: PL House Light LED Luminaire DMX Channel Mapping (8-Bit Mode)

DMX Channel	Parameter	Range DMX	Range%	**Default** - *recommended console default values*	Description
1	Intensity	0 - 255	0 - 100%	0	8-bit control for Intensity of LED settings.
2	Red	0 - 255	0 - 100%	0	8-bit control of Red LEDs from 0 to full.
3	Green	0 - 255	0 - 100%	0	8-bit control of Green LEDs from 0 to full.
4	Blue	0 - 255	0 - 100%	0	8-bit control of Blue LEDs from 0 to full.
5	White	0 - 255	0 - 100%	0	8-bit control of White LEDs from 0 to full.
6	Preset Color Selection	0 - 255	0 - 100%	0	Used to access presets stored in fixture firmware, such as CCT presets, defined gel presets, etc. No Preset Activated = DMX 0-3 Color Preset 0 (Off) = DMX 4 - 7 Color Preset 1 (Scratch Pad) = DMX 8 - 11 Color Preset 2 (Warm White) = DMX 12 - 15 Color Preset 3 (Cool White) = DMX 16 - 19 Color Preset 4 (Daylight) = DMX 20 - 23 Color Preset 5 (Arc White) = DMX 24 - 27 Color Preset 6 (Red) = DMX 28 - 31 Color Preset 7 (Yellow) = DMX 32 - 35 Color Preset 8 (Daylight Blue) = DMX 36 - 39 Color Preset 9 (Magenta) = DMX 40 - 43 Color Preset 10 (Aqua) = DMX 44 - 47 Color Preset 11 (Medium Amber) = DMX 48 - 51 Color Preset 12 (Lavender) = DMX 52 - 55 Color Preset 13 (Blue) = DMX 56 - 59 Color Preset 14 (Light Pink) = DMX 60 - 63 Color Preset 15 (Green) = DMX 64 -67 Color Preset 16 (Pink) = DMX 68 - 71 Color Preset 17 (Amber White) = DMX 72 - 75 Color Preset 18 (Dark Fuchsia) = DMX 76 - 79 Color Preset 19 (Light Amber) = DMX 80 - 83 Color Preset 20 (Steel Blue) = DMX 84 - 87 Color Preset 21 (Lt. Green/Blue) = DMX 88 - 91 Color Preset 22 (Orange) = DMX 92 - 95 Color Preset 23 (Medium Pink) = DMX 96 - 99 Color Preset 24 (Cyan) = DMX 100 - 103 Color Preset 25 (Purple) = DMX 104 - 107 Color Preset 26 (Custom) = DMX 108 - 111 Color Preset 27 (Custom) = DMX 112 - 115 Color Preset 28 (Custom) = DMX 116 - 119 Color Preset 29 (Custom) = DMX 120 - 123 Color Preset 30 (Custom) = DMX 124 - 127 Color Preset 31 (Custom) = DMX 128 - 131
7	*Not used (for future use)*				
8	Timing	0 - 255	0 - 100%	255	Allows for timing control of both the intensity and color parameters. Channel should default to 255 for smoothest actions using console and/or manual fades. Refer to "PL House Light LED Luminaire DMX Timing Channel Detail" on page 26 for more information.

- Continued next page -

Table 6: PL House Light LED Luminaire DMX Channel Mapping (8-Bit Mode)

9	Control	0 - 255	0 - 100%	0	Used to set different modes, parameters, and functions of the luminaire. Set control channel value for desired action. Hold value for at least 3 seconds. Set control channel value to 0 without any scaling. Default Setting on Console = DMX 0 Display On/Off = DMX 3 - 4 Reset All to Defaults = DMX 5 - 7 Quiet Mode = DMX 11 - 13 Normal Mode = DMX 14 - 15 Preset 1 Store = DMX 20 - 21 Preset 2 Store (Intensity Only) = DMX 22 - 23 Preset 3 Store (Intensity Only) = DMX 24 - 25 Preset 4 Store (Intensity Only) = DMX 26 - 27 Preset 5 Store = DMX 28 - 29 Preset 6 Store = DMX 30 - 31 Preset 7 Store = DMX 32 - 33 Preset 8 Store = DMX 34 - 35 Preset 9 Store = DMX 36 - 37 Preset 10 Store = DMX 38 - 39 Preset 11 Store = DMX 40 - 41 Preset 12 Store = DMX 42 - 43 Preset 13 Store = DMX 44 - 45 Preset 14 Store = DMX 46 - 47 Preset 15 Store = DMX 48 - 49 Preset 16 Store = DMX 50 - 51 Preset 17 Store = DMX 52 - 53 Preset 18 Store = DMX 54 - 55 Preset 19 Store = DMX 56 - 57 Preset 20 Store = DMX 58 - 59 Preset 21 Store = DMX 60 - 61 Preset 22 Store = DMX 62 - 63 Preset 23 Store = DMX 64 - 65 Preset 24 Store = DMX 66 - 67 Preset 25 Store = DMX 68 - 69 Preset 26 Store = DMX 70 - 71 Preset 27 Store = DMX 72 - 73 Preset 28 Store = DMX 74 - 75 Preset 29 Store = DMX 76 - 77 Preset 30 Store = DMX 78 - 79 Preset 31 Store = DMX 80 - 81 Fixture Reset* = DMX 250 - 255

3. DMX 3-Channel (3-Channel) Mode

Table 7 provides DMX channel mapping of all DMX512 control values when the PL House Light LED Luminaire is in 3-Channel (3-Chan) DMX512 mode (as set by the luminaire's menu system).

Table 7: PL House Light LED Luminaire DMX Channel Mapping (3-Channel Mode)

DMX Channel	Parameter	Range DMX	Range%	**Default** - *recommended console default values*	Description
1	Intensity	0 - 255	0 - 100%	0	8-bit control for Intensity of LED settings.
2	Preset Color Selection *Notes:* • Color Presets 5 through 25 are calibrated factory colors and can be reloaded if needed through the fixture's menu system. • These colors have been matched to precise X and Y coordinates at the center of the beam at wide angle, we have given you the ability to adjust these colors as your personal perception may vary.	0 - 255	0 - 100%	0	Used to access presets stored in fixture firmware, such as CCT presets, defined gel presets, and more. No Preset Activated = DMX 0 - 3 Color Preset 0 (Off) = DMX 4 - 7 Color Preset 1 (Scratch Pad) = DMX 8 - 11 Color Preset 2 (Warm White) = DMX 12 - 15 Color Preset 3 (Cool White) = DMX 16 - 19 Color Preset 4 (Daylight) = DMX 20 - 23 Color Preset 5 (Arc White) = DMX 24 - 27 Color Preset 6 (Red) = DMX 28 - 31 Color Preset 7 (Yellow) = DMX 32 - 35 Color Preset 8 (Daylight Blue) = DMX 36 - 39 Color Preset 9 (Magenta) = DMX 40 - 43 Color Preset 10 (Kelly Green) = DMX 44 - 47 Color Preset 11 (Medium Amber) = DMX 48 - 51 Color Preset 12 (Lavender) = DMX 52 - 55 Color Preset 13 (Blue) = DMX 56 - 59 Color Preset 14 (Light Pink) = DMX 60 - 63 Color Preset 15 (Green) = DMX 64 - 67 Color Preset 16 (Pink) = DMX 68 - 71 Color Preset 17 (Amber White) = DMX 72 - 75 Color Preset 18 (Dark Fuchsia) = DMX 76 - 79 Color Preset 19 (Light Amber) = DMX 80 - 83 Color Preset 20 (Steel Blue) = DMX 84 - 87 Color Preset 21 (Lt. Green/Blue) = DMX 88 - 91 Color Preset 22 (Orange) = DMX 92 - 95 Color Preset 23 (Medium Pink) = DMX 96 - 99 Color Preset 24 (Cyan) = DMX 100 - 103 Color Preset 25 (Purple) = DMX 104 - 107 Color Preset 26 (Custom) = DMX 108 - 111 Color Preset 27 (Custom) = DMX 112 -115 Color Preset 28 (Custom) = DMX 116 - 119 Color Preset 29 (Custom) = DMX 120 - 123 Color Preset 30 (Custom) = DMX 124 - 127 Color Preset 31 (Custom) = DMX 128 - 131
3	Timing	0 - 255	0 - 100%	255	Allows for timing control of both the intensity and color parameters. Channel should default to 255 for smoothest actions using console and/or manual fades. Refer to "PL House Light LED Luminaire DMX Timing Channel Detail" on page 26 for more information.

4. Lighting Console Settings for Preset White

16-Bit Mode

Below are the DMX512 console values and levels* for Warm White, Cool White, and Day Light presets in 16-bit mode.

White Preset	Red Channel		Green Channel		Blue Channel		White Channel	
	DMX Value	DMX%	DMX Value	DMX%	DMX Value	DMX%	DMX Value	DMX%
Warm White	65535	100	36700	56	0	0	47185	72
Cool White	65535	100	41287	63	8520	13	61603	94
Day Light	65535	100	53739	82	26214	40	58982	90

8-Bit Mode

Below are the DMX512 console values and levels* for Warm White, Cool White, and Day Light presets in 8-bit mode.

White Preset	Red Channel		Green Channel		Blue Channel		White Channel	
	DMX Value	DMX%	DMX Value	DMX%	DMX Value	DMX%	DMX Value	DMX%
Warm White (3200K)	255	100	163	64	0	0	217	85
Cool White (4000K)	255	100	194	76	46	18	255	100
Day Light (5600K)	255	100	237	93	130	51	255	100

Note: *Values and levels shown for Preset White (in both 16 and 8-bit modes) are approximate. Due to the characteristics of LED technology, actual values may vary slightly between fixtures.

5. PL House Light LED Luminaire DMX Timing Channel Detail

Timing channel control improves the timed moves of certain groups of parameters. The PL House Light LED Luminaire provides two timing channels in 16-bit mode (one for intensity time and one for color time) and one timing channel in 8-bit (color and intensity timing combined). The luminaire uses its timing channel value to calculate a smooth continuous operation for a given time and transition.

Guidelines:

- Timing channels support time values from zero to 169 seconds.
- To use a timing channel instead of console timing, it is recommended to set the timing channel to the desired value and set cue and/or console cue fade time to zero. A combination of time controls can produce unexpected results.
- The default value setting in the profile should be 255 (proportional control) to allow smooth operation when using console timing.
- The timing channel data should change as a snap. A zero value will give the fastest operation, however, without any smoothing this can appear "steppy" in console timed moves.

Refer to "PL House Light LED Luminaire DMX Timing Channel Detail" on page 26 for more information.

Table 8: PL House Light LED Luminaire Timing Channel Detail

% Value	DMX	= Seconds
	0	0 (Full Speed)
	1	0.2
	2	0.4
1	3	0.6
	4	0.8
2	5	1
	6	1.2
	7	1.4
3	8	1.6
	9	1.8
4	10	2
	11	2.2
	12	2.4
5	13	2.6
	14	2.8
6	15	3
	16	3.2
	17	3.4
7	18	3.6
	19	3.8
8	20	4
	21	4.2
	22	4.4
9	23	4.6
	24	4.8
10	25	5
	26	5.2
	27	5.4
11	28	5.6
	29	5.8
	30	6
12	31	6.2
	32	6.4
13	33	6.6
	34	6.8
	35	7.0
14	36	7.2
	37	7.4
15	38	7.6
	39	7.8
	40	8
16	41	8.2
	42	8.4
17	43	8.6
	44	8.8
	45	9
18	46	9.2
	47	9.4
19	48	9.6
	49	9.8
	50	10
20	51	10.2

% Value	DMX	= Seconds
	52	10.4
	53	10.6
21	54	10.8
	55	11
22	56	11.2
	57	11.4
	58	11.6
23	59	11.8
	60	12
24	61	12.2
	62	12.4
	63	12.6
25	64	12.8
	65	13
26	66	13.2
	67	13.4
	68	13.6
27	69	13.8
	70	14
28	71	14.2
	72	14.4
	73	14.6
29	74	14.8
	75	15
30	76	15.2
	77	15.4
	78	15.6
31	79	15.8
	80	16
	81	16.2
32	82	16.4
	83	16.6
33	84	16.8
	85	17
	86	17.2
34	87	17.4
	88	17.6
35	89	17.8
	90	18
	91	18.2
36	92	18.4
	93	18.6
37	94	18.8
	95	19
	96	19.2
38	97	19.4
	98	19.6
39	99	19.8
	100	20
	101	21
40	102	22
	103	23
	104	24
41	105	25

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% Value	DMX	= Seconds
	106	26
42	107	27
	108	28
	109	29
43	110	30
	111	31
44	112	32
	113	33
	114	34
45	115	35
	116	36
46	117	37
	118	38
	119	39
47	120	40
	121	41
48	122	42
	123	43
	124	44
49	125	45
	126	46
	127	47
50	128	48
	129	49
51	130	50
	131	51
	132	52
52	133	53
	134	54
53	135	55
	136	56
	137	57
54	138	58
	139	59
55	140	60
	141	61
	142	62
56	143	63
	144	64
57	145	65
	146	66
	147	67
58	148	68
	149	69
59	150	70
	151	71
	152	72
60	153	73
	154	74
	155	75
61	156	76
	157	77
62	158	78
	159	79

% Value	DMX	= Seconds
	160	80
63	161	81
	162	82
64	163	83
	164	84
	165	85
65	166	86
	167	87
66	168	88
	169	89
	170	90
67	171	91
	172	92
68	173	93
	174	94
	175	95
69	176	96
	177	97
	178	98
70	179	99
	180	100
71	181	101
	182	102
	183	103
72	184	104
	185	105
73	186	106
	187	107
	188	108
74	189	109
	190	110
75	191	111
	192	112
	193	113
76	194	114
	195	115
77	196	116
	197	117
	198	118
78	199	119
	200	120
79	201	121
	202	122
	203	123
80	204	124
	205	125
81	206	126
	207	127
	208	128
82	209	129
	210	130
	211	131
83	212	132
	213	133

% Value	DMX	= Seconds
84	214	134
	215	135
	216	136
85	217	137
	218	138
86	219	139
	220	140
	221	141
87	222	142
	223	143
88	224	144
	225	145
	226	146
89	227	147
	228	148
	229	149
90	230	150
	231	151
91	232	152
	233	153
	234	154
92	235	155
	236	156
93	237	157
	238	158
	239	159
94	240	160
	241	161
95	242	162
	243	163
	244	164
96	245	165
	246	166
97	247	167
	248	168
	249	169
98	250*	60mS
	251*	80mS
99	252*	100mS
	253*	120mS
	254*	140mS
100	255* (default)	160mS

Note: * DMX values 250 to 255 provide smoothing when using console fade timing. DMX value 255 (recommended default) will provide the smoothest timing.

CLEANING AND CARE

WARNING! All cleaning should be performed with power completely removed from the luminaire. Never remove protective covers when luminaire is powered. Wear appropriate protective eye wear and gloves when cleaning the fixture. All service and maintenance, other than described herein, should be performed by a qualified technician or Authorized Service Center.

1. Special Cleaning and Care Instructions

Being a solid-state fixture, and unlike most fixtures, the PL House Light LED Luminaire requires very little routine maintenance by the user. This section covers portions of the luminaire that can be removed for cleaning.

The PL House Light LED Luminaire special care when it comes to cleaning front lens assembly. Additional care needs to be taken with the plastic components because they are much easier to scratch or damage than glass.

The following is a list of cleaning materials required to care for your PL House Light LED Luminaire:

- Lint free lens tissue
- Lint or powder free gloves
- Reagent grade isopropyl alcohol*
- A mild soap solution.

Note: *Reagent grade isopropyl alcohol is good to use on the PL House Light LED Luminaire plastic optics with anti-reflection coatings.

If the lens is still dirty after using isopropyl alcohol, for instance if fingerprints or oil is just redistributed and not cleaned off the optic, then a mild soap and water solution can be used to gently wash the lens. Repeat the cleaning with isopropyl alcohol to eliminate streaks and soap residue.

WARNING! Under no circumstances should ammonia-based cleaners, acetone, or other harsh solvents be used on or near the PL House Light LED Luminaire. These types of cleaners or solvents can permanently damage the optics or housings of the fixture.

If you have any questions regarding the use or care of your PL House Light LED Luminaire, please contact Philips Selecon technical support or your local Authorized Dealer.

2. Front Lens / Reflector Cleaning

To clean the front lens and reflector:

Step 1. Turn off luminaire and allow to cool completely.

Step 2. Apply a small amount of reagent grade isopropyl alcohol to lint-free lens tissue.

Step 3. Wipe all debris, dirt, fingerprints, etc. from lens and reflector.

Step 4. Using a second lint-free lens tissue, wipe off any alcohol residue.

3. Service and Maintenance

For all other service and maintenance issues, please contact your local Philips Selecon office or an Authorized Service Center.

WARNING! Disassembly (other than as described herein), alterations, unauthorized service, etc. will void the product warranty. Contact your local Philips Selecon office or an Authorized Service Center for technical support and service.

4. Accessories

Only Philips Selecon approved accessories should be used with your PL House Light LED Luminaire. For a list of available accessories from Philips Selecon, please see "Additional Mounting Accessories" on page 5. For questions regarding accessories, please contact your local Authorized Philips Selecon Dealer or Philips Selecon office.

TROUBLESHOOTING

1. Troubleshooting Guide

The chart below provides possible causes and remedies for various error messages and/or symptoms.

WARNING! Any service and maintenance (including troubleshooting), other than described herein should be performed by an Authorized Philips Selecon Dealer or Service Center.

Description	Symptom	Possible Cause/Remedy
No light output.	Fixture will not produce or output light	Unit is set to Preset Off... Make sure unit is set to proper Preset. DMX command to 0 intensity... Adjust intensity to higher level.
No power at luminaire.	Luminaire does not power up	Circuit not energized... verify circuit breaker is turned on. Not plugged in... ensure A/C cable is connected to power source. Power cable wired incorrectly... verify power cable and connector are wired correctly. See "Connecting Power" on page 8 for more information.
DMX Data Control.	Fixture will not respond to DMX commands.	Not detecting DMX data... Disconnect and reconnect DMX input cable. Unit is not set to be controlled by DMX - check menu settings. Check all DMX connections (at control source and luminaire). DMX data cable not wired correctly or has a broken conductor... check DMX data cable for proper wiring. See "Connecting to the DMX512 Network" on page 8 for more information.
LED (light) is getting dimmer.	Fixture appears not to be operating at full brightness.	Luminaire has detected an over temperature condition... The luminaire will reduce power to its LED if it senses that the LED is operating over the specified temperature. LED temperature is read and recorded through a thermistor imbedded in the LED chip. Fan is not operating. Listen for fan operation or adjust settings to increase fan speed. On luminaires with a display check system status menu for status of fans and LED operation.
Local programming.	Unit will not allow local programming or changes.	Password protection is on (locked)... Input proper password to allow local programming and/or adjustments. Unit is controlled by DMX... Disconnect input cables to check issue.

TECHNICAL SPECIFICATIONS

1. PL House Light LED Luminaire Operational Specifications

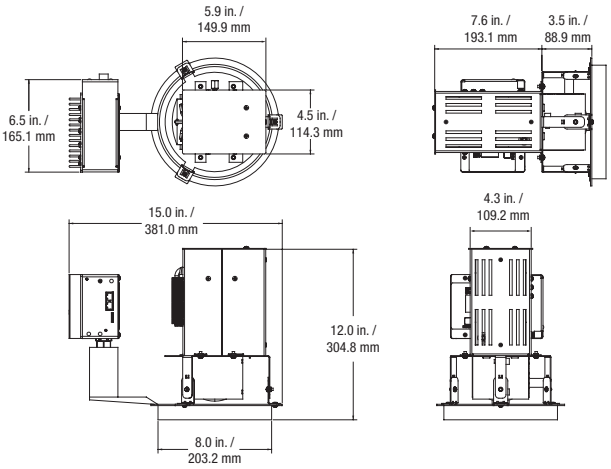
Source:	True RGBW 120 Watt LED chip
Light Output:	> 2,000 lumens
Color Temperature:	2300 - 9970K (user adjustable)
Input Voltage:	120VAC
Current:	1.25 Amps (120VAC)
Quiescent Load:	2.4 Watts
Frequency:	60Hz
Ambient Temperature:	0 to 40 degrees C (32 to 104 degrees F)
Humidity:	5%-95% Non condensing
Cooling:	Forced-Air
Weight:	9.3 lbs (4.21 kg)
Compliance:	ETL / cETL Listed (NON-IC Rated luminaire)

Intertek
2000851

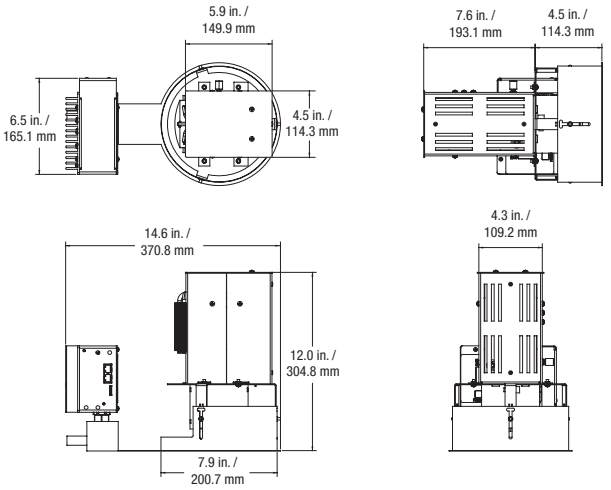
Note: Common model specifications shown. For specific model specifications, features, and accessories, refer to the product specification sheet or visit the Philips Selecon web site at www.seleconlight.com for more details.

2. PL House Light LED Luminaire Dimensions

PL House Light LED Luminaire
(New Construction Models)



PL House Light LED Luminaire
(Retrofit Construction Models)



3. PL House Light LED Luminaire Optical Specifications

Photometrics (Feet / Foot Candles)

Photometrics *(Feet / Foot Candles)*

40º Beam Spread (Lens Tube at #6)

Beam Diameter	7.28	10.92	14.56	18.20	21.84
Throw Distance	10.00	15.00	20.00	25.00	30.00
Central Illumination	Foot Candles				
Warm White (3,200K)	62.23	27.66	15.56	9.96	6.91
Cool White (4,000K)	77.79	34.57	19.45	12.45	8.64
Day Light (5,600K)	84.46	37.54	21.11	13.51	9.38

30º Beam Spread (Lens Tube at #8~#9)

Beam Diameter	5.36	8.04	10.72	13.40	16.08	18.76	21.44
Throw Distance	10.00	15.00	20.00	25.00	30.00	35.00	40.00
Central Illumination	Foot Candles						
Warm White (3,200K)	114.83	51.03	28.71	18.37	12.76	9.37	7.18
Cool White (4,000K)	143.53	63.79	35.88	22.97	15.95	11.72	8.97
Day Light (5,600K)	155.84	69.26	38.96	24.93	17.32	12.72	9.74

20º Beam Spread (Lens Tube at #10)

Beam Diameter	3.53	5.29	7.05	8.82	10.58	12.34	14.11	15.87	17.63
Throw Distance	10.00	15.00	20.00	25.00	30.00	35.00	40.00	45.00	50.00
Central Illumination	Foot Candles								
Warm White (3,200K)	265.16	117.85	66.29	42.43	29.46	21.65	16.57	13.09	10.61
Cool White (4,000K)	331.45	147.31	82.86	53.03	36.83	27.06	20.72	16.37	13.26
Day Light (5,600K)	359.86	159.94	89.97	57.58	39.98	29.38	22.49	17.77	14.39

Photometrics (Meters / Lux)

Photometrics *(Meters / Lux)*

40º Beam Spread (Lens Tube at #6)

Beam Diameter	2.22	3.33	4.44	5.55	6.66
Throw Distance	3.05	4.57	6.10	7.62	9.14
Central Illumination	Lux				
Warm White (3,200K)	669.87	297.72	167.47	107.18	74.43
Cool White (4,000K)	837.33	372.15	209.33	133.97	93.04
Day Light (5,600K)	909.11	404.05	227.28	145.46	101.01

30º Beam Spread (Lens Tube at #8~#9)

Beam Diameter	1.63	2.45	3.27	4.08	4.90	5.72	6.53
Throw Distance	3.05	4.57	6.10	7.62	9.14	10.67	12.19
Central Illumination	Lux						
Warm White (3,200K)	1235.99	549.33	309.00	197.76	137.33	100.90	77.25
Cool White (4,000K)	1544.99	686.66	386.25	247.20	171.67	126.12	96.56
Day Light (5,600K)	1677.42	745.52	419.35	268.39	186.38	136.93	104.84

20º Beam Spread (Lens Tube at #10)

Beam Diameter	1.07	1.61	2.15	2.69	3.22	3.76	4.30	4.84	5.37
Throw Distance	3.05	4.57	6.10	7.62	9.14	10.67	12.19	13.72	15.24
Central Illumination	Lux								
Warm White (3,200K)	2854.19	1268.53	713.55	456.67	317.13	233.00	178.39	140.95	114.17
Cool White (4,000K)	3567.74	1585.66	891.93	570.84	396.42	291.24	222.98	176.18	142.71
Day Light (5,600K)	3873.54	1721.57	968.39	619.77	430.39	316.21	242.10	191.29	154.94

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