

Showline

SL ePAR 180 LED Luminaire





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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 mains circuit breaker or other power disconnect device before installing any wiring. Be sure that power is disconnected by removing fuses or turning the mains 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.

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

Showline Limited Two-Year Warranty

Showline offers a two-year limited warranty of its luminaires against defects in materials or workmanship from the date of delivery. A copy of the Showline two-year limited warranty containing specific terms and conditions can be obtained by contacting your local Showline office.

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SL ePAR 180 LED Luminaire

PREFACE

1. About this Manual

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

• SL ePAR 180 LED Luminaire

Please read all instructions before installing or using this product. *Retain this manual for future reference*. Additional product information and descriptions may be found on the product specification sheet.

Note: The SL ePAR 180 LED Luminaire is universal voltage 100 to 240 VAC (auto-ranging).

2. Included Items



Each SL ePAR 180 LED Luminaire includes the following items:

- SL ePAR 180 LED Luminaire
- PC1BE AC Power Input Cable (39 inches / 1 metre)
- Installation and User's Manual (this document)

3. Accessories

Contact your Authorized Showline Dealer for prices and availability of all accessories for SL ePAR 180 LED Luminaires.

SL ePAR 180 LED Luminaire Overview

SL ePAR 180 LED Luminaire Components 1.

Common Luminaire Components

Front of Luminaire



Figure 1: SL ePAR 180 LED Luminaire Components



SL ePAR 180 LED Luminaire

LCD Display / Menu System



Figure 2: LCD Display & Menu System

Note: For Menu operation and programming details, refer to the "LCD Display and Menu System" on page 9.

INSTALLATION AND SET UP

1. Power Requirements

The SL ePAR 180 LED Luminaire operates on AC input voltages from 100 to 240 VAC.

WARNING! This luminaire does not contain an ON/OFF switch. Always disconnect the power input cable to completely remove power from the luminaire when not in use.

AC Power Operation

When connected to an AC source, the luminaire operates on 100 to 240 volts AC (+/- 10%, auto-ranging). The luminaire contains an auto-ranging power supply. Each luminaire can draw up to 180 Watts.

Voltage (AC)	Total Current (A)	
100	1.80	
110	1.63	
120	1.50	

130

140

150

160

170

Voltage (AC)	Total Current (A)
180	1.0
190	0.95
200	0.90
210	0.86
220	0.82
230	0.78
240	0.75

Table 1: SL ePAR 180Voltage (VAC) vs. Current*

1.38

1.29

1.20

1.13

1.06





5

Warning!

Do not overload circuits! To reduce the risk of electrical shock or fire, do not expose this luminaire to rain or moisture. Don not stare at the light of this luminaire, the bright light can damage the eyes.

2. Connecting Power

Direct connection to a AC power source using an AC input cable. A total of 3 wires/conductors need to be brought to the luminaire. The following wiring scheme is required:

Table 2: SL ePAR 180 LED Luminaire AC Input Connections

Wire Colour	Purpose
Brown	Main / Line(100 to 240VAC)
Blue	Neutral
Green/Yellow	Ground(Earth)

Note: It is recommended that all the wiring works must be conducted by a qualified person.

3. Connecting to the DMX 512 Network

Basic DMX512 installation consists of connecting multiple SL ePAR 180 LED Luminaires together (up to 32 luminaires) in a "daisy-chain" fashion. A cable runs from the control console (or DMX512 control source) to the DMX connector on the first SL ePAR 180 LED Luminaire. Another cable runs from the other DMX connector on the first luminaire to a DMX connector on the next SL ePAR 180 LED Luminaire (or DMX512 device to be controlled).



Figure 3: SL ePAR 180 LED Luminaire DMX512 Input / THRU Connections

Note: For more information on DMX512 networking and systems, refer to "Additional Resources for DMX512" on page 1. For SL ePAR 180 LED Luminaire DMX Mapping, refer to "DMX CONTROL" on page 14.



Figure 4: SL ePAR 180 LED Luminaire - DMX512 Connections

4. Mounting Luminaire

Floor Mounting

The SL ePAR 180 LED Luminaire is designed to sit directly on its yoke assembly in a floor installation application. When used in this type of application, loosen the locking handle securing the inner portion of the yoke assembly and separate out (as shown in **Figure 5**). Be sure to leave enough space around the luminaire to allow proper, uninterrupted airflow for cooling.



Figure 5: Floor Mounting

Truss / Hanging Applications

The SL ePAR 180 LED Luminaire is provided with the ability to hang via truss hooks, clamps, etc. (sold separately). Simply attach hook, clamp, etc. to the SL ePAR 180 LED Luminaire enclosure assembly in the provided M10 holes. It is recommended (and may be required by local and national safety codes) to use and install a safety cable (sold separately) as illustrated in **Figure 6**. When hanging the fixture, be sure to leave enough space around the luminaire to allow proper, uninterrupted airflow for cooling and positioning. Refer to "Luminaire Dimensions" on page 35 for spacing (dimensional) requirements.



Figure 6: Mounting the Fixture - Hanging Applications

OPERATION AND PROGRAMMING

1. LCD Display and Menu System

SL PAR 150 RGBW LED Luminaires

The SL ePAR 180 LED Luminaire's LCD Display and Menu System provides local control for accessing the following settings:

- Presets (Standard and User Defined)
- Colour Filters
- Effects (Chases preloaded and user defined)
- Strobe / Timing
- Fixture Settings
- Fixture Lockout (to prevent changes)
- Password Setting
- Current Fixture Operational Status
- Setting the DMX512 Address

Note: If there are multiple luminaires in a system, changes would need to be made at each LCD Menu as desired. For the SL ePAR 180 LED Luminaire menu structure, see "SL ePAR 180 LED Luminaire Menu Tree" on page 11.

Upon power up, the LCD will display the main screen display menu of SL ePAR 180 LED Luminaire. Press " < " or " >" to select the press "OK" to enter the desired function menu.



SL ePAR 180 LED Luminaire



Figure 7: LCD Display and Menu System

2. LCD Display and Menu System Operation

The LCD Display Menu system consists of several categories. Upon power up, the LCD will display the main menu automatically. When the desired menu item is reached, press the OK button to display the menu options and to navigate and configure the menu options as required.

To navigate and access the menu settings/selections:

Step 1. Make sure the luminaire is powered and turned on.

- Step 2. Press the desired button to access the menu categories.
- Step 3. Use the "<" and ">" arrow buttons to navigate through the various options and settings.
- Step 4. Make changes as desired.

Press the "OK" button to accept changes.

Preset

To edit and save a preset:

- Step 1. Press the "OK" button to access the Preset menu.
- Step 2. Use the LEFT and RIGHT arrow buttons to scroll through all presets and select the desired preset number(0 thru 31).
- Step 3. Press the "OK" button to select the desired menu. In RGB mode, the user can select Intensity, Red, Green, B(Blue) and White, and in HSIC mode, user can select menus among Master Intensity, Hue, Saturation, Intensity and CCT.
- Step 4. Once at the desired preset, use LEFT and RIGHT arrow buttons to adjust the parameter value as desired. Once all values are adjusted as desired, press the OK button.
- Step 5. Press the OK button to select Save a Preset, the screen will then display "Current Preset" and "Save to Preset". Use the LEFT and RIGHT arrow buttons to make a selection, then press the OK button.
- Step 5. The preset is now saved. Press the ESC button to exit the current menu.

Color Filter

- Step 1. Press the OK button to access the Colour Filter menu.
- Step 2. Use the LEFT and RIGHT arrow buttons to scroll through all menus.
- Step 3. Select the Colour Filter number(0-43) and press the OK button to access the menu.
- Step 4. Once at the desired menu, use the LEFT and RIGHT arrow buttons to adjust the parameter value of Master Intensity. Once all values are adjusted as desired, press the OK button.
- Step 5. The Colour Filter is now saved. Press the ESC button to exit the current menu.



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Installation & User's Manual

Chase

- Step 1. Select Edit a Chase and press the OK button to access the Chase menu.
- Step 2. Use the LEFT and RIGHT arrow buttons to scroll through all menus.
- Step 3. Select the Built-in Chase X(1-10) or user Chase(1-8), then press the OK button to select the desired menu.
- Step 4. Once at the desired menu, use the LEFT and RIGHT arrow buttons to adjust the parameter value as desired. Once all values are adjusted as desired, press the OK button.
- Step 5. The Chase is now saved. Press the ESC button to exit the current menu.

Strobe/Timing

- Step 1. Press the OK button to access the Strobe/Timing menu.
- Step 2. Use the LEFT and RIGHT arrow buttons to scroll through all menus.
- Step 3. Press the OK button to select the desired menu from Intensity, Strobe X(0-255), Duration(0-85), Intensity Timing (0.2 S-60Min) and Color Timing(0.2 S-60 Min).
- Step 4. Once at the desired menu, use the LEFT and RIGHT arrow buttons to adjust the parameter value as desired. Select Strobe X(0-2) means Open, Strobe X(3-5) means Close, and Strobe X(5-255) means Strobe Mode. Once all the values are adjusted as desired, press the OK button.
- Step 5. The Strobe/Timing is now saved. Press the ESC button to exit the current menu.

Settings

- Step 1. Press the OK button to access the Settings menu.
- Step 2. Use the LEFT and RIGHT arrow buttons to scroll through all menus.
- Step 3. Press CHECK MARK(OK)button to select the desired menu from General, Factory Default, DMX and Display.
- Step 4. Once at the desired menu, use the LEFT and RIGHT arrow buttons to adjust the related fixture information. Once all values are adjusted as desired, press the OK button.
- Step 5. The Setting information is now saved. Press the ESC button to exit the current menu.

Status

10

To check the fixtures' operational status:

LCD Display and Menu System Operation

- Step 1. Press the OK button to access the Status menu.
- Step 2. Use the LEFT and RIGHT arrow buttons to scroll through all the menus.
- Step 3. Press the OK button to select the desired menu from LED Current Level, Temperature, and Other Info.
- Step 4. Once at the desired menu, use the LEFT and RIGHT arrow buttons to check the related fixture information.

Note: For more information about Preset, Colour Filter, Chase, Strobe/Timing, Settings and Status, please refer to "SL ePAR 180 LED Luminaire Menu Tree" on page 11.

Strobe/Timing

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1. Intensity

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SL ePAR 180 LED Luminaire

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ESC

3. SL ePAR 180 LED Luminaire Menu Tree



Figure 8: SL ePAR 180 LED Luminaire Menu Tree

Installation & User's Manual

4. Dimming Curve Selection

Through the menu, you are able to select one of four dimming curves:

- Linear Curve
- PL_Curve
- S_Curve
- Square Curve

S Curve

Lumen Output

0



DMX Value



*PL Curve follows the dimming curve of Philips Selecon PL series LED luminaries.



DMX Value Lumen Output



5. Master / Slave Operational Mode

The Master / Slave Operational Mode allows one SL ePAR 180 LED Luminaire to act as the "Master" luminiare and all other connected luminaires are controlled by this luminaire. When a luminaire is set to "Slave" mode, it will only listen to and follow any commands send from a "Master" luminaire. Only one "Master" luminaire is allowed in this type of operation.

To setup a master / slave network:

- Step 1. Set the first device in the DMX512 chain to Master Mode through the luminaires' menu system.
- Step 2. Set all other connected luminaires to Slave Mode.
- Step 3. The master luminaires can be controlled via DMX512, RDM or through standalone operation (self-contained network utilizing on-board effects). The slave luminaires will mimic the master luminaires' operation in all cases.

Note: For more information on DMX512 networking and systems, refer to "Additional Resources for DMX512" on page 1. For SL ePAR 180 LED Luminaire DMX Mapping, refer to "DMX CONTROL" on page 14.





DMX CONTROL

This section contains information for operating the luminaire using DMX control in 16-bit, 8-Bit, or HSIC (Hue, Saturation, Intensity and Colour Correction) modes. For Menu options and detailed information, see "LCD Display and Menu System" on page 8.

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. SL ePAR 180 LED LuminaireDMX Mapping

16-Bit Mode

Table 3 provides DMX channel mapping of all DMX512 control values when the SL ePAR 180 LED Luminaire is in 16-bit DMX512 mode (as set by the luminaires' menu system).

DMX Channel	Parameter	Range DMX	Range%	Default - recom- mended console default values	Description	
1	Master Intensity - High	0 65535	0 100%	0	16 hit control for Intensity	of LED settings
2	Master Intensity - Low	0 - 05555	0 - 100/0	0	10 off control for intensity	of LLD settings.
3	Colour Presets	0 - 255	0 - 100%	0	Select presets, variable colo as follows: Channel OFF (disabled) Preset 0 (OFF) Preset 1 Preset 2 Preset 3 Preset 4 Preset 5 Preset 6 Preset 7 Preset 8 Preset 9 Preset 10 Preset 11 Preset 12 Preset 13 Preset 14 Preset 15 Preset 14 Preset 15 Preset 16 Preset 17 Preset 18 Preset 19 Preset 20 Preset 21 Preset 21 Preset 22 Preset 23 Preset 24 Preset 25 Preset 26 Preset 27 Preset 28 Preset 29 Preset 28 Preset 29 Preset 29 Preset 20 Preset 21 Preset 22 Preset 23 Preset 24 Preset 25 Preset 26 Preset 27 Preset 28 Preset 30 Preset 31 CF_0_Color OFF CF_1_White 10000K CF_2_White 8000K CF_3_White 6500K	DMX 0 - 4 DMX 5 - 6 DMX 7 - 8 DMX 9 - 10 DMX 11 - 12 DMX 13 - 14 DMX 15 - 16 DMX 17 - 18 DMX 19 - 20 DMX 21 - 22 DMX 23 - 24 DMX 25 - 26 DMX 27 - 28 DMX 29 - 30 DMX 31 - 32 DMX 33 - 34 DMX 35 - 36 DMX 37 - 38 DMX 39 - 40 DMX 31 - 32 DMX 33 - 34 DMX 35 - 36 DMX 37 - 38 DMX 41 - 42 DMX 43 - 44 DMX 45 - 46 DMX 47 - 48 DMX 49 - 50 DMX 51 - 52 DMX 53 - 54 DMX 55 - 56 DMX 57 - 58 DMX 59 - 60 DMX 61 - 62 DMX 63 - 64 DMX 65 - 66 DMX 67 - 68 DMX 67 - 70 DMX 71 - 72 DMX 73 - 74 DMX 75 - 76 DMX 77 - 78

Table 3: SL ePAR 180 LED Luminaire DMX Channel Mapping (16-Bit Mode)



					Select presets, variable color	ur filters or chases
					as follows:	DMY 70 80
					CF_6 White 4500K	DMX 81 82
					CE_7 White 4000K	DMX 83 - 84
					CF = 8 White 3200K	DMX 85 - 86
					CF 9 White 3000K	DMX 87 - 88
					CF 10 White 2700K	DMX 89 - 90
					CF 11 Moroccan Pink	DMX 91 - 92
					CF_12_Pink	DMX 93 - 94
					CF_13_Flesh Pink	DMX 95 - 96
					CF_14_Bright Rose	DMX 97 - 98
					CF_15_Follies Pink	DMX 99 - 100
					CF_16_Fuchsia Pink	DMX 101 - 102
					CF_17_Surprise Pink	DMX 103 - 104
					CF_18_Congo Blue	DMX 103 - 100
					CF_19_Ditte CF_20_Virgin Blue	DMX 107 - 108
					CF 21 Midnight Maya	DMX 111 - 112
					CF 22 Dluble C.T Blue	DMX 113 - 114
					CF 23 Slate Blue	DMX 115 - 116
					CF 24 Regal Blue	DMX 117 - 118
					CF_25_Fullt C.T Blue	DMX 119 - 120
					CF_26_Steel Blue	DMX 121 - 122
					CF_27_Lighter Blue	DMX 123 - 124
					CF_28_Cyan	DMX 125 - 126
					CF_29_Marine Blue	DMX 127 - 128
					CF_30_Soft Green	DMX 129 - 130
3	Colour Presets	0 - 255	0 - 100%	0	CF_31_Moss Green	DMX 131 - 132
					CF_32_Green	DIVIA 155 - 154
					CF_55_Fem Green	DMX 135 - 130
					CF_35_Pale Green	DMX 137 - 130
					CF 36 Spring Vellow	DMX 137 140
					CF 37 Yellow	DMX 143 - 144
					CF 38 Deep Amber	DMX 145 - 146
					CF 39 Chrome Orange	DMX 147 - 148
					CF_40_Orange	DMX 149 - 150
					CF_41_Magenta	DMX 151 - 152
					CF_42_Flame Red	DMX 153 - 154
					CF_{43} Purple Rotate CW East \rightarrow Slow	DMX 155 - 156
					Rotate ACW Slow \rightarrow Fast	DMX 172 - 186
					Random Color Fast \rightarrow Slov	vDMX 187 - 201
					Chase1	DMX 202 - 204
					Chase3	DMX 203 - 207
					Chase4	DMX 211 - 213
					Chase5	DMX 214 - 216
					Chase7	DIVIA 217 - 219 DMX 220 - 222
					Chase8	DMX 223 - 225
					Chase9	DMX 226 - 228
					User Chase1	DMX 229 - 231 DMX 232 - 234
					User Chase2	DMX 235 - 237
					User Chase3	DMX 238 - 240
					User Chase4 User Chase5	DMX 241 - 243 DMX 244 - 246
					User Chase6	DMX 247 - 249
					User Chase7	DMX 250 - 252
	1	1		1	User Unased	LANTE 772 - 772

Table 3: SL ePAR 180 LED Luminaire DMX Channel Mapping (16-Bit Mode)

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Strobe

0 - 255

0 - 100%

4

0

Open= DMX 0 - 2Open= DMX 0 - 2Closed= DMX 3 - 5Slow Rand= DMX 6 - 7Med Rand= DMX 8 - 10Fast Rand= DMX 11 - 12Strobe Range= DMX 13 - 127 (fastest)

Table 3: SL ePAR 1	80 LED Luminaire DMX	Channel Mapping (16-Bit Mode)
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4	Strobe	0 - 255	0 - 100%	0	Pulse + Slow Rand = DMX 128 - 129 Pulse + Med Rand = DMX 130 - 131 Pulse + Fast Rand = DMX 132 - 133 Pulse + Range = DMX 134 - 191 Pulse - Slow Rand = DMX 192 - 193 Pulse - Med Rand = DMX 194 - 195 Pulse - Fast Rand = DMX 196 - 197 Pulse - Range = DMX 198 - 255
5	Duration	0 - 255	0 - 100%	0	Strobe's duration,Range is 0-85 0 = DMX 0 1 = DMX 1 - 3 x = (DMX Value-1)/3+1 85 = DMX 253-255
6	Intensity Timing	0 - 255	0 - 100%	255	Allows for timing control of intensity. Channel should default to 255 for smoothest actions using console and/or manual fades.
7	Colour Timing	0 - 255	0 - 100%	255	Allows for timing control of colours Channel should default to 255 for smoothest actions using console and/or manual fades.
8	Control	0 - 255	0 - 100%	0	Functions of the SL Series products. Set control channel value to desired action,Hold value for at least 5 seconds then turn to 0.Set control channel value to 0 without any scaling. Default Setting on Console = DMX 0-4DIM Response_Normal = DMX 5 - 9DIM Response_Incandescent = DMX 10 - 14Dimming Curve_linear = DMX 30 - 34Dimming Curve_Square = DMX 40 - 44Dimming Curve_PL-Curve = DMX 40 - 44Dimming Curve_PL-Curve = DMX 75 - 79Fan_Auto = DMX 75 - 79Fan_Auto = DMX 80 - 84Fan_Off = DMX 85 - 89Reserves(Future use) = DMX 90 - 250
9	Red - High Byte	0 - 65535	0 - 100%	DMX 0	16 bit control of Red I EDs from 0 to full
10	Red - Low Byte	0 00000	0 10070	DIVIZEO	To the control of field ELEbs from 0 to full.
11 12	Green - High Byte Green - Low Byte	0 - 65535	0 - 100%	DMX 0	16 bit control of Green LEDs from 0 to full.
13 14	Blue - High Byte Blue - Low Byte	0 - 65535	0 - 100%	DMX 0	16 bit control of Blue LEDS from 0 to full.
15 16	White - High Byte White - Low Byte	0 - 65535	0 - 100%	DMX 0	16 bit control of White LEDs from 0 to full.

8-Bit Mode

Table 4 provides DMX channel mapping of all DMX512 control values when the SL ePAR 180 LED Luminaire is in 8-bit DMX512 mode (as set by the luminaires menu system).

Table 4: SL ePAF	R 180 LED Lumina	ire DMX Channe	el Mapping (8-Bit Mode)
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DMX Channel	Parameter	Range DMX	Range%	Default - recom- mended console default values	Description
1	Master Intensity	0 - 255	0 - 100%	0	8 bit control for Intensity of LED settings.
2	Colour Presets	0 - 255	0 - 100%	0	Select presets, variable colour filters or chases as follows:Channel OFF (disabled)DMX 0 - 4Preset 0 (OFF)DMX 5 - 6Preset 1DMX 7 - 8Preset 2DMX 9 - 10Preset 3DMX 11 - 12Preset 4DMX 13 - 14Preset 5DMX 15 - 16Preset 6DMX 17 - 18Preset 7DMX 19 - 20



SL	ePAR	180	LED	Luminaire

Table 4: SL ePAR 180 LED Luminaire DMX Channel Mapping	(8-Bit Mode)
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					Select presets, variable cc	olour filters or chases
					as follows:	
					Preset 8	DMX 21 - 22
					Preset 10	DIVIX 25 - 24 DMX 25 - 26
					Preset 11	DMX 27 - 28
					Preset 12	DMX 29 - 30
					Preset 13	DMX 31 - 32
					Preset 15	DIVIA 55 - 54 DMX 35 - 36
					Preset 16	DMX 37 - 38
					Preset 17	DMX 39 - 40
					Preset 18 Preset 19	DIVIX 41 - 42 DMX 43 - 44
					Preset 20	DMX 45 - 46
					Preset 21	DMX 47 - 48
					Preset 22	DMX 49 - 50
					Preset 23	DMX 51 - 52 DMX 53 - 54
					Preset 25	DMX 55 - 56
					Preset 26	DMX 57 - 58
					Preset 27	DMX 59 - 60
					Preset 29	DMX 63 - 64
					Preset 30	DMX 65 - 66
					Preset 31	DMX 67 - 68
					CF = 0 Color OFF	DMX 69 - 70
					CF_1 white 10000K	DIVIX / 1 - 72
					CF_2 white 8000K	DIVIX 73 - 74
					CF_3 white 6500K	DMX 75 - 76
					CF_{4} white 5600K	DMX 77 - 78
					CF_{-5} white $3000K$	DIVIA 79 - 80 DMX 81 82
					CE_7 White 4000K	DMX 81 - 82 DMX 83 - 84
					CF = 8 White 3200K	DMX 85 - 86
					CF = 9 White 3000K	DMX 87 - 88
2	Colour Presets	0 255	0 100%	0	CF_{10} White 2700K	DMX 89 - 90
2	Colour Fresers	0 - 255	0 - 10070	0	CF_11_Moroccan Pink	DMX 91 - 92
					CF 12 Pink	DMX 93 - 94
					CF 13 Flesh Pink	DMX 95 - 96
					CF 14 Bright Rose	DMX 97 - 98
					CF 15 Follies Pink	DMX 99 - 100
					CF_16_Fuchsia_Pink	DMX 101 - 102
					CF 17 Surprise Pink	DMX 103 - 104
					CF 18 Congo Blue	DMX 105 - 106
					CF 19 Blue	DMX 107 - 108
					CF 20 Virgin Blue	DMX 109 - 110
					CF 21 Midnight Maya	DMX 111 - 112
					CF 22 Dluble C T Blue	DMX 113 - 114
					CF 23 Slate Blue	DMX 115 - 116
					CF 24 Regal Blue	DMX 117 - 118
					CF 25 Fullt C T Blue	DMX 119 - 120
					CF 26 Steel Blue	DMX 121 - 122
					CF 27 Lighter Blue	DMX 123 - 124
					CF 28 Cyan	DMX 125 - 126
					CF 29 Marine Blue	DMX 127 - 128
					CF 30 Soft Green	DMX 129 - 130
					CF 31 Moss Green	DMX 131 - 132
					CF 32 Green	DMX 133 - 134
					CF 33 Fem Green	DMX 135 - 136
					CF 34 JAS Green	DMX 137 - 138
					CF 35 Pale Green	DMX 139 - 140
					CF 36 Spring Yellow	DMX 141 - 142
					CF 37 Yellow	DMX 143 - 144
					CF 38 Deen Amber	DMX 145 - 146
					CF 30 Chrome Orongo	DMX 147 148
					CE 40 Orenze	DWIX 147 = 140 DMV 140 150
					CF_40_Orange	DIVIA 149 - 150
					CF_41_Magenta	DMX 151 - 152
					CF_42_Flame Red	DMX 153 - 154
					CF_45_Purple	DMX 155 - 156
					Rotate CW Fast \rightarrow Slow	DIVIX 15/ - 1/1
					$101atc AC \le 510W \rightarrow \Gamma c$	ast DIVIZY 1/2 - 100

Table 4: SL ePAR 180 LED Luminaire DMX Channel Mapping (8-Bit Mode)

2	Colour Presets	0 - 255	0 - 100%	0	$\begin{array}{llllllllllllllllllllllllllllllllllll$
3	Strobe	0 - 255	0 - 100%	0	Controls strobe operations as followsOpen= DMX 0 - 2Closed= DMX 3 - 5Slow Rand= DMX 6 - 7Med Rand= DMX 8 - 10Fast Rand= DMX 11 - 12Strobe Range= DMX 13 - 127 (fastest)Pulse + Slow Rand=DMX 128 - 129Pulse + Med Rand= DMX 130 - 131Pulse + Fast Rand= DMX 132 - 133Pulse + Range= DMX 134 - 191Pulse - Slow Rand=DMX 192 - 193Pulse - Med Rand= DMX 194 - 195Pulse - Fast Rand= DMX 196 - 197Pulse - Range= DMX 198 - 255
4	Duration	0 - 255	0 - 100%	0	Strobe's duration, Range is 0-85 0 = DMX 0 1 = DMX 1 - 3 x = (DMX Value-1)/3+1 85 = DMX 253-255
5	Timing	0 - 255	0 - 100%	255	Allows for timing control of intensity, color, and zoom parameters. Channel should default to 255 for smoothest actions using console and /or manual fades.
6	Control	0 - 255	0 - 100%	0	Functions of the SL Series products. Set control channel value to desired action, Hold value for at least 5 seconds ,then turn to 0. Set control channel value to 0 without any scaling. Default Setting on Console = DMX 0-4 DIM Response_Incandescent = DMX 10 - 14 Dimming Curve_linear = DMX 30 - 34 Dimming Curve_Square = DMX 40 - 44 Dimming Curve_PL-Curve = DMX 40 - 44 Dimming Curve_PL-Curve = DMX 70 - 74
7	Red	0 - 255	0 - 100%	0	8 bit control of Red LEDs from 0 to full.
8	Green	0 - 255	0 - 100%	0	8 bit control of Green LEDs from 0 to full.
9	Blue	0 - 255	0 - 100%	0	8 bit control of Blue LEDs from 0 to full.
10	White	0 - 255	0 - 100%	0	8 bit control of White LEDs from 0 to full.

HSIC Mode

Table 5 provides DMX channel mapping of all DMX512 control values when the SL ePAR 180 LED Luminaire is in HSIC (Hue, Saturation, Intensity, and Colour Correction) DMX512 mode (as set by the luminaires' menu system).

DMX Channel	Parameter	Range DMX	Range%	Default - recom- mended console default values	Description
1	Master Intensity	0 - 255	0 - 100%	0	8 bit control for Intensity of LED settings.
2	Strobe	0 - 255	0 - 100%	0	Controls strobe operations as followsOpen= DMX 0 - 2Closed= DMX 3 - 5Slow Rand= DMX 6 - 7Med Rand= DMX 8 - 10Fast Rand= DMX 11 - 12Strobe Range= DMX 13 - 127 (fastest)Pulse + Slow Rand = DMX 130 - 131Pulse + Slow Rand = DMX 130 - 131Pulse + Fast Rand= DMX 132 - 133Pulse + Fange= DMX 134 - 191Pulse - Slow Rand = DMX 192 - 193Pulse - Fast Rand= DMX 194 - 195Pulse - Fast Rand= DMX 196 - 197Pulse - Range= DMX 198 - 255
3	Duration	0 - 255	0 - 100%	0	Strobe's duration,Range is 0-85 0 = DMX 0 1 = DMX 1 - 3 x = (DMX Value-1)/3+1 85 = DMX 253-255
4	Timing	0 - 255	0 - 100%	255	Allows for timing control of intensity, color, and zoom parameters. Channel should default to 255 for smoothest actions using console and /or manualfades.
5	Control	0 - 255	0 - 100%	0	Functions of the SL Series products. Set control channel value to desired action,Hold value for at least 5 seconds, then turn to 0.Set control channel value to 0 without any scaling. Default Setting on Console= DMX 0-4DIM Response_Normal= DMX 5 - 9DIM Response_Incandescent= DMX 10 - 14Dimming Curve_linear= DMX 30 - 34Dimming Curve_Square= DMX 40 - 44Dimming Curve_PL-Curve= DMX 40 - 44Dimming Curve_PL-Curve= DMX 70 - 74Calibration_OFF= DMX 70 - 74Calibration_ON= DMX 80 - 84Fan_Off= DMX 80 - 84Fan_Off= DMX 85 - 89Reserves(Future use)= DMX 90 - 250
6	Hue - High Byte	0 65535	0 100%	0	16 bit control of Hue $0^{-350^{\circ}}$
7	Hue - Low Byte	0 00000	0 100/0	· · · ·	
8	Saturation	0 - 255	0 - 100%	0	8 bit control of Saturation.
9	Intensity	0 - 255	0 - 100%	0	8 bit control of Intensity.
10	ССТ	0 - 255	0 - 100%	0	Variable control of correlated colour temperature from Channel OFF (disabled) DMX 0 - 5 2700K - 6500K. DMX 6 - 255

 Table 5: SL ePAR 180 LED Luminaire DMX Channel Mapping (HSIC Mode)

2. DMX Timing Channel Detail

Timing channel control improves the timed moves of certain groups of parameters. The SL ePAR 180 LED Luminaire provides timing channels in 16-bit mode (one for intensity time and one for color time) and one timing channel in 8-bit (colour 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 60 minutes.
- 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 "DMX Timing Channel Detail" for more information.

% Value	DMX	= Seconds (unless noted)
0	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

Table 6: SL ePAR 180 LED Luminaire Timing Channel Detail



% Value	DMX	= Seconds (unless noted)
	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
	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

% Value	DMX	= Seconds (unless noted)
	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	23
41	105	25
11	106	25
12	107	20
42	107	27
	100	20
	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



% Value	DMX	= Seconds (unless noted)
	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	73
	157	77
60	152	72
00	155	73
	154	74
	155	75
61	156	/6
	157	77
62	158	78
	159	79
	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	90
10	180	100
71	100	101
11	101	101
	102	102
70	183	103
12	184	104
	185	105
73	186	106
	187	107
	188	108
74	189	109
	190	110
75	191	111

% Value	DMX	= Seconds
		(unless noted)
	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
	213	131
83	211	137
	212	132
94	213	135
04	214	134
	215	135
05	210	107
60	217	137
00	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



% Value	DMX	= Seconds (unless noted)
	243	163
	244	164
96	245	165
	246	5 Minutes
97	247	15 Minutes
	248	30 Minutes
	249	60 Minutes
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.

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RDM PARAMETER IDS

1. SL ePAR 180 LED Luminaire RDM Parameter IDs

The following tables outline and describe all the RDM parameters IDs associated with SL ePAR 180 LED Luminaires.

- Table 7, "SL ePAR 180 LED Luminaire RDM Product Parameters IDs"
- Table 8, "SL ePAR 180 LED Luminaire RDM UID"
- Table 9, "SL ePAR 180 LED Luminaire RDM Parameters IDs"
- Table 10, "SL ePAR 180 LED Luminaire RDM Manufacturer Status IDs", on page 28
- Table 11, "SL ePAR 180 LED Luminaire RDM Manufacturer Specific PIDs", on page 28

Table 7: SL ePAR 180 LED Luminaire RDM Product Parameters IDs

Model ID	Manufacturer	Model Description	Product Category
Unique Seq.	Philips Entertainment. Lighting Asia	SL ePAR 180	0x0509

Table 8: SL ePAR 180 LED Luminaire RDM UID

UID					
MSB of ESTA	LSB of ESTA	MSB of	LSB of	MSB of	LSBof
50H	41H	Unique Seq.	Unique Seq.	Unique Seq.	Unique Seq.

Table 9: SL ePAR 180 LED Luminaire RDM Parameters IDs

Get Allowed	Set Allowed	RDM Parameter IDs	Value	Comment	Implemented
		Category - Network I	Management		
		DISC_UNIQUE_BRANCH	0x0001		
		DISC_MUTE	0x0002		
		DISC_UN_MUTE	0x0003		
		PROXIED_DEVICES	0x0010		
		PROXIED_DEVICES_COUNT	0x0011		
		COMMS_STATUS	0x0015		
Category - Status Collection					
		QUEUED_MESSAGE	0x0020		
		STATUS_MESSAGES	0x0030		
		STATUS_ID_DESCRIPTION	0x0031		
		CLEAR_STATUS_ID	0x0032		
		SUB_DEVICE_STATUS_REPORT_THRESHOLD	0x0033		
		Category - RDM In	formation		•
		SUPPORTED_PARAMETERS	0x0050	Support required only if supporting Parameters beyond the minimum required set.	
		PARAMETER_DESCRIPTION	0x0051	Support required for Manufacturer-Specific PIDs exposed in SUPPORTED_ PARAMETERS message.	



Table 9: SL ePAR 180 LED Luminaire RDM Parameters IDs

Get Allowed	Set Allowed	RDM Parameter IDs	Value	Comment	Implemented
Category - Product Information					
		DEVICE_INFO	0x0060		
		PRODUCT_DETAIL_ID_LIST	0x0070		
		DEVICE_MODEL_DESCRIPTION	0x0080		
		MANUFACTURER_LABEL	0x0081		
		DEVICE_LABEL	0x0082		
		FACTORY_DEFAULTS	0x0090		
		LANGUAGE_CAPABILITIES	0x00A0		
		LANGUAGE	0x00B0		
		SOFTWARE_VERSION_LABEL	0x00C0		
		BOOT_SOFTWARE_VERSION_ID	0x00C1		
		BOOT_SOFTWARE_VERSION_LABEL	0x00C2		
		Category - DMX5	12 Setup		
		DMX_PERSONALITY	0x00E0		
		DMX_PERSONALITY_DESCRIPTION	0x00E1		
		DMX_START_ADDRESS	0x00F0	Required if device uses a DMX Slot	
		SLOT_INFO	0x0120		
		SLOT_DESCRIPTION	0x0121		
		DEFAULT_SLOT_VALUE	0x0122		
		Category - Sensol	rs 0x02xx		
		SENSOR_DEFINITION	0x0200		
		SENSOR_VALUE	0x0201		
		RECORD_SENSORS	0x0202		
		Category - Dimmer Settings 0	x03xx - FUTURE USE		
		Category - Power / Lamp	Settings 0x04xx		
		DEVICE_HOURS	0x0400		
		LAMP_HOURS	0x0401		
		LAMP_STRIKES	0x0402		
		LAMP_STATE	0x0403		
		LAMP_ON_MODE	0x0404		
		DEVICE_POWER_CYCLES	0x0405		
		Category - Display Se	ttings 0x05xx		
		DISPLAY_INVERT	0x0500		
		DISPLAY_LEVEL	0x0501		
		Category - Configura	ntion 0x06xx	[[
			UXU601		
		PAN_TILT_SWAP	0x0602		
		REAL_TIME_CLOCK	0x0603		
			0.1000		
			0x1000		
		RESEI_DEVICE	0x1001		1

Table 9: SL ePAR 180 LED Luminaire RDM Parameters IDs

Get Allowed	Set Allowed	RDM Parameter IDs	Value	Comment	Implemented
		POWER_STATE	0x1010		
		PERFORM_SELFTEST	0x1020		
		SELF_TEST_DESCRIPTION	0x1021		
		CAPTURE_PRESET	0x1030		
		PRESET_PLAYBACK	0x1031		

Table 10: SL ePAR 180 LED Luminaire RDM Manufacturer Status IDs

Manufacturer Specific messages are in the range of 0x8000 - 0xFFDF. Each Manufacturer-specific Status ID shall have a unique meaning, which shall be consistent across all products having a given Manufacturer ID. See Table B-2, ANSI E1.20-2010.

Status ID Message	Value	Data Value 1	Data Value 2	Status ID Description
8100H		00H	00H	ALL OK

Get Allowed	Set Allowed	RDM Parameter IDs	Туре	Length	Unit	Prefix	Min	Мах	Default	Description
	Category - Manufacturer Defined PIDs - Range is 0x8000-0xffdf (See ANSI E1.20-2010 Standard, Table A-3)									
		8A00H	U8	1	None	None	0	100	100	DIMMER
		8AB2H	U8	1	None	None	1	18	1	Chase
		8AB1H	U8	1	None	None	0	31	0	Preset
		8A92H	U8	1	None	None	0	255	0	Strobe
		8A94H	U8	1	None	None	0	85	0	Duration
		8A40H	U8	1	None	None	1	1	0	Link Mode
		8AA1H	U8	1	None	None	0	3	0	Dimming Curve
		8A0CH	U8	1	None	None	0	3	0	DMX FAIL MODE
		8AA0H	U8	1	None	None	0	4	0	Backlight Off Time
		8AA2H	U8	1	None	None	0	94	0	Power Up Setup
		8A97H	U8	1	None	None	0	1	0	Fan AUTO / OFF Setup
		8A04H	U8	1	None	None	0	100	100	Dimmer RED
		8A05H	U8	1	None	None	0	100	100	Dimmer GREEN
		8A06H	U8	1	None	None	0	100	100	Dimmer BLUE
		8A07H	U8	1	None	None	0	100	100	Dimmer WHITE
		8AB0H	U8	1	None	None	0	43	0	Colour Filter
		8AC0H	U8	1	None	None	0	255	255	Intensity Timing
		8AC2H	U8	1	None	None	0	255	255	Colour Timing
		8A42H	U8	1	None	None	0	1	0	Incandescent Setup
		8A44H	U8	1	None	None	0	1	0	Calibration ON/OFF Setup

Table 11: SL ePAR 180 LED Luminaire RDM ManufacturerSpecific PIDs

CLEANING AND CARE



WARNING! All cleaning should be performed with power completely removed from the luminaire. Never remove protective covers when the 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 SL ePAR 180 LED Luminaire requires very little routine maintenance by the user. This section covers portions of the luminaire that can be removed for cleaning.

The SL ePAR 180 LED Luminaire requires special care when it comes to cleaning the front lens assembly. Additional care needs to be taken with the plastic components because they are much easier to scratch or damage than the glass lenses used in traditional luminaires.

The following is a list of cleaning materials required to care for your SL ePAR 180 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 SL ePAR 180 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 SL ePAR 180 LED Luminaire. These types of cleaners or solvents can permanently damage the optics or housing of the fixture.

If you have any questions regarding the use or care of your SL ePAR 180 LED Luminaire, please contact Showline technical support or your local Authorized Dealer.

2. Front Lens Cleaning

To clean the front lens:

Step 1. Turn off the 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.

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 Showline 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 Showline office or an Authorized Service Center for technical support and service.

4. Accessories

Only Showline approved accessories should be used with your SL ePAR 180 LED Luminaire. For a list of available accessories from Showline, please see "Accessories" on page 3. For questions regarding accessories, please contact your local Authorized Showline Dealer or Showline office.



TECHNICAL SPECIFICATIONS

1. Operational Specifications

Source:	Colour RGB+Cool White Array (x19 High Power LEDs)
Beam Angle:	21 Degrees
Light Output:	> 4,400 lumens
Color Temperature:	2700 - 10,000K (user adjustable)
Input Voltage (AC):	100V to 240V (+/- 10%, auto-ranging)
Current (AC):	1.80 Amps (100V) / 0.75Amps (240V)
Power Consumption:	180 Watts (max.)
Frequency:	50/60Hz
Control Protocols:	DMX512 (1990) / DMX512A (RDM) / On-Board Menu
Ambient Temperature:	1 to 40 Degrees C (33 to 104 Degrees F)
Humidity:	35~85RH%
Cooling:	Forced Air
Housing:	Die Cast Aluminium with Powder Coating
Weight:	9.9 lbs(4.5 kg) - Luminaire only (no accessories)
Compliance:	CE Marked (International models)
IP Rating:	IP20

Note: Common model specifications shown. For specific model specifications, features, and accessories, refer to the product specification sheet for more details.

CE

Installation & User's Manual

Luminaire Dimensions(mm) 2.

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NOTE

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