ColourLine Lazer Micro

Part of our **LAZER series**

ColourLine Lazer Micro (CLZMF) is the newest part of our Lazer Series, featuring high-performance Zero Lumens Compromised, superior optics with long-casting grazer, wall wash, flood and spot flood capabilities in a compact form factor. It's based on our ColourLine RGBW technology that utilizes advanced RDM-DMX protocols combined with a unique optical system to offer one of the most impressive long-throw RGBW lighting solutions in the market. Lazer is equipped with an integrated yoke mount and 180° incremental adjustment setting to direct luminaire lighting. Typical applications include large buildings, arenas, towers, monuments, bridges, tunnels, and more.

SPECIFICATIONS

color temperature	RGBW / RGBA

PHYSICAL

beam spread	9°, 10° x 30°, 10° x 60°, 15° x 25°, 30°, 30° x 60°, 50° x 80°, 80°
LEDs	12 LEDs per module
dimensions	7.3"W x 7.3"H x 6.6"D
weight	11 lbs
housing	marine grade, corrosion resistant, low copper, solid die-cast aluminum, extruded 6061 body with captive stainless steel fasteners
lens	anti-reflective-clear, tempered glass w/RTV silicone gasketing
mounting	3G Vibration rated, standard mounting is an integrated steel yoke system, optional accessories available
ingress protection	IP66 rated for dry, damp or wet locations
impact resistance	IK08 lens impact rating, IK10 w/ Rock Guard (RG)
luminaire connections	daisy chain luminaires with male/female twist & lock, 6-pin, IP68 rated connector cables

PERFORMANCE

lumen output [all on]	2500 lm (RGBW - full on)
maximum delivered intensity	52,000 cd @ 8 degrees* (RGBW Full On) *native optical beam
lumen maintenance	L70 > 70,000 hours
operating temperature	-40°F to 122°F (-40°C to 50°C)
protocols	DMX 512, RDM (ANSI E1.20)
ColourFull (CF)	Custom Tooled Native Optic with a collimating color mixing chamber that mixes at the phosphor level enabling unique color combinations
ColourQuick (CQ)	provides uniform beam saturation, instantaneously without scalloping
ColourClone (CC)	manufacturing process uses robotic systems to provide 1 SDCM like consistency between luminaires by calibrating every luminaire to the same exact X, Y, chromaticity coordinates
ColourSoft (CS)	embedded firmware enables 16-bit resolution using only 8-bits of data to enhance the low trim curve for no-flicker at the slowest transition speeds
warranty	5-year limited warranty

ELECTRICAL

input voltage	Universal 120 - 277 VAC
power supply	integral Class II, electronic high-power factor 99% @ 120V
controls	SSL ColourSelect Controller, 3rd party DMX 512, RDM standard based control system (ANSI E1.20)
certification	ETL / cETL, FCC Part 15
standards	UL-Class I
power consumption	85W @ 120V (per module)

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ColourLine Lazer Micro

PART NUMBER

CLZMF	UNV		BK		
MODEL	**VOLTAGE**	**MODE**	**FINISH**	**OPTICS typical**	**ACCESSORIES**
CLZMF ColourLine Lazer Micro	**UNV** 120 - 277 VAC	**RGBW** RGBW* **RGBA** RGBA (Amber) *W = 3K	**BK** Black	**9** 9° x 9° Beam† (native optic) **1030** 10° x 30° Beam† **1060** 10° x 60° Beam **1525** 15° x 25° Beam† **30** 30° x 30° Beam† **3060** 30° x 60° Beam **5080** 50° x 80° Beam **80** 80° x 80° Beam	**MFV** Full Visor **MHV** Half Visor **MRG** Rock Guard† †MRG recommended only with narrow beam optics: 9°, 30°, 1030°, 1525°

Cable Accessories (order separately)

REQUIRED: Each run requires a Starter Cable and Terminator Cap. **Max Run Length** = 9 Modules (120V), 18 Mods (277V)
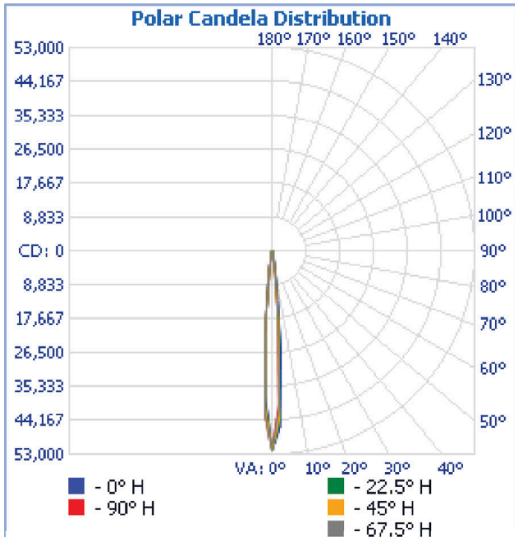
_____ **SC10CLZ** 10 ft. Starter Connection Cord   _____ **TCAPDCLZ** Data Terminator Cap   _____ **EC120CLZ** 120 in. Extension Cord

_____ **SC25CLZ** 25 ft. Starter Connection Cord   _____ **EC24CLZ** 24 in. Extension Cord   _____ **EC240CLZ** 240 in. Extension Cord

_____ **SC50CLZ** 50 ft. Starter Connection Cord   _____ **EC60CLZ** 60 in. Extension Cord

Control Components (Indicate the quantity needed for each item.)

Controller Data Cables/DMX listed are exterior rated.
(Belden 3105A or equivalent) CD cables have male XLR at one end.

_____ **PHAROS XPT-5-W** Expert Touch Panel; 5" Display in White

_____ **PHAROS XPC1** Expert Controller; 512 channels of eDMX/DMX

_____ **PHAROS XPC2** Expert Controller; 1024 channels of eDMX/DMX

_____ **PHAROS XPR** Expert Repeat (DMX Splitter with 1 in 4 out, 24V DC)

_____ **PHAROS TPS-5-B** 5" Designer Touch Panel Station

_____ **PHAROS TPC-BB** Touch Panel Controller - Black on Black *(512 Channels EDMX)*

_____ **PHAROS TPC-FBB** Flush Mount Back Box for drywall installation

_____ **PHAROS TPC-SBB** Surface Mount Back Box for drywall installation

_____ **PHAROS EXT** Extension for TPC Connectivity

_____ **PHAROS LPC1** Lighting Playback Controller 1 (512 channels DMX/eDMX)

_____ **PHAROS LPC2** Lighting Playback Controller 2 (1,024 channels DMX/eDMX)

_____ **EDN 10** 10 Ethernet Data Node (1+1 Ethernet, 10 DMX/RDM)

_____ **EDN 20** 20 Ethernet Data Node (1+1 Ethernet, 20 DMX/RDM)

_____ **DMXCat** DMX/RDM configuration tool

_____ **PDX2** Power Data Wiring Box *(exterior rated)*

_____ **PDX-RDS2** Power Data Wiring Box w/2-port splitter

_____ **PDX-RDS4** Power Data Wiring Box w/4-port splitter

_____ **SCSC-2WH** White or Black Slim ColourSelect Wall Controller *(2 universe)*

_____ **PS-SCSC** Power Supply for SCSC *(Slim ColourSelect)*

_____ **CSC-E** ColourSelect Controller *(2 universe)*

_____ **PS-CSC** Power Supply AC Adapter for CSC-E *(replacement)*

_____ **DE3BK(WH)** Nicolaudie STICK DE-3 Black or White Wall Mount Controller w/color dial

_____ **CW4-WH** Nicolaudie STICK White Touch Screen with Internal WiFi

_____ **GA2WH(BK)** Nicolaudie STICK-GA2 White or Black Wall Mount Controller

_____ **DINA-DR1** 3072 Channel (DMX, eDMX), DIN Rail

_____ **DINA-DR1 LITE** 1024 Channel (DMX), DIN Rail - upgradeable to DR-1

_____ **DINA-DR2** 1024 Channel (DMX), DIN Rail

_____ **DINA-DR2-LITE** 512 Channel (DMX), DIN Rail - upgradeable to DR-2

_____ **DINA PS** DINA Power Supply (by Nicolaudie)

_____ **NATOUCH-1** Wall mounted touch screen for remote control

_____ **DXC-25** 25 foot Exterior rated DMX cable

_____ **DXC-50** 50 foot Exterior rated DMX cable

_____ **DXC-100** 100 foot Exterior rated DMX cable

_____ **CD-10** 10 foot controller data cable (for CSC only)

_____ **CD-25** 25 foot controller data cable (for CSC only)

_____ **CD-50** 50 foot controller data cable (for CSC only)

_____ **CD-100** 100 foot controller data cable (for CSC only)

_____ **MV 5900** Multiverse Show Baby DMX Wireless Bridge (Indoor)

_____ **7400-5707M** Show DMX Vero DMX Wireless Bridge (Exterior)

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RF-DM-041525

PHOTOMTERIC DATA

Polar Candela Distribution

- ■ - 0° H
- ■ - 90° H
- ■ - 22.5° H
- ■ - 45° H
- ■ - 67.5° H

Flood Summary

	Efficiency	Lumens	Horizontal Spread	Vertical Spread
Field (10%):	52.5%	1,292.7	16.3	17.7
Beam (50%):	26.8%	660.5	8.5	9.2
Total:	100.8%	2,482.0		

Illuminance at a Distance

	Center Beam fc	Beam Width	
1.7ft	18,007 fc	0.3 ft	0.3 ft
3.3ft	4,779 fc	0.5 ft	0.5 ft
5.0ft	2,082 fc	0.8 ft	0.7 ft
6.7ft	1,159 fc	1.1 ft	1.0 ft
8.3ft	755 fc	1.3 ft	1.2 ft
10.0ft	520 fc	1.6 ft	1.5 ft

- ■ Vert. Spread: 9.2°
- ■ Horiz. Spread: 8.5°

Zonal Lumen Summary

Zone	Lumens	% Luminaire
0-30	2,063.6	83.8%
0-40	2,245.9	91.2%
0-60	2,398.0	97.4%
60-90	51.7	2.1%
70-100	19.2	0.8%
90-120	3.1	0.1%
0-90	2,449.7	99.5%
90-180	12.0	0.5%
0-180	2,461.7	100%

RGBW

CLZMF
RGBW

RGBW supports up to 4.6 billion colors available to use with ColourLine Lazer Micro.

Like all ColourLine products any controllers that support the latest ESTA RDM and ACN standards will allow optimal control of the huge RGBW color spectrum. Regardless of the surface color you're casting light across, you'll be able to adjust color to capture your specific brand colors or add unique settings for subtle or intense color-changing hues.

RGBA

with Amber

CLZMF
RGBA

Amber is used in place of white in the RGBA color gamut. Adjusting to the lighter color spectrum adds warm tones of amber.

As subjective as color selection is, using amber for a more chromatically warmer color palette allows for a broader yellow color spectrum. The warm rich colors create a more inviting setting for night lighting applications. RGB alone will produce white and yellow but in a smaller color spectrum.

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All These Features In A Single Luminaire

ColourFull

FULL LUMEN COLOR CHANGING

- Full Power LED with any color transition
- Consistent rich color acoss the light spectrum
- Full output power with any color

ColourFull luminaires provide maximum output at all times – with all colors, so your application receives the maximum color saturation. Using a Custom Tooled Native Optic with a collimating color mixing chamber that mixes at the phosphor level enabling unique color combinations.

ColourQuick

RAPID-MIX COLOR

- Instantaneous Color Mixing – Within 1 inch
- Shortest Distance in Industry for Blending Colors
- 4-in-1 RGBW LED designed to SSL Specifications

ColourLine RGBW luminaires provide the quickest color mixing in the industry. The SSL ColourQuick technology enables our ColourLine Linear Indoor Cove and Graze, as well as, our Outdoor Floods to color-mix almost instantly, within one inch.

Scalable

- Full DMX, RDM control capability with latest industry standards
- A wide variety of DMX protocol controls and system accessories
- SSL has many RGBW products utilizing the ColourLine Technology
- Control 1000's of DMX channels with multiple universes & zones
- Powerful luminaires with super optics for long-throw applications
- SSL provides turnkey design and technical integration support

ColourSoft

SMOOTH LOW-TRIM DIMMING

- Flicker-Free Color Transitions and Dimming
- 16-bit performance (65,536 steps) using *only 8-bit addressing*
- SSL Engineered Custom Software and Firmware

Standard dimming technology uses 8-bit resolution for 256 individual steps. Our 32-bit on-board MCU uses SSL developed software to provide 16-bit resolution that allows 65,536 steps of resolution and only use 8-bits of addressing space! We also use a logarithmic delineation of the resolution to concentrate in the lower third of the dimming curve so the low-end dimming and color transitions have zero flicker.

ColourClone

TRU-COLOR RGBW MATCHING

- Robotic Calibration of every luminaire provides 1-Step consistency
- Every luminaire has same X, Y color coordinates
- Perfect match for add-ons and replacements

As part of our manufacturing process, SSL Automated Manufacturing Robots calibrate every luminaire to the exact same X,Y color coordinates to provide Step-1 like consistency. This process enables every luminaire to be an exact clone. At the end of the process, a bar code is generated for every board. This allows for exact matching for job add-ons or warranty replacements.

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RF-DM-041525

Dimensions

SINGLE MODULE FIXTURE (1M)	
overall length	7.3" L
overall height	7.3" H
overall depth (1M)	6.6" D

6.6"

8.9"

5.2"

8.4"

7.3"

7.3"

1.5"

(2.8" ⌀)

R0.22"

0.45" ⌀
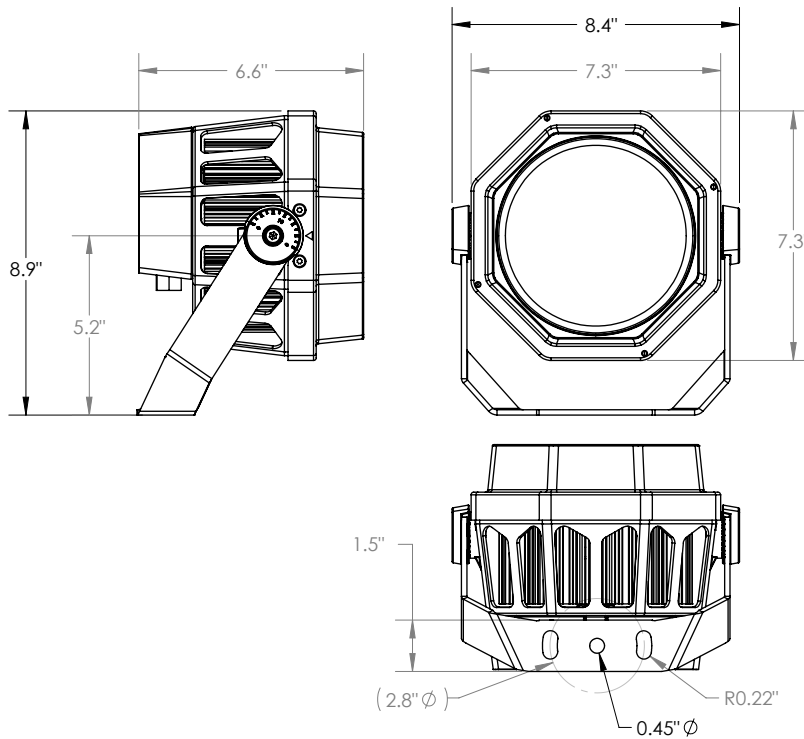
Accessories
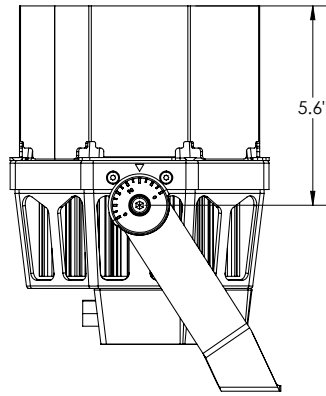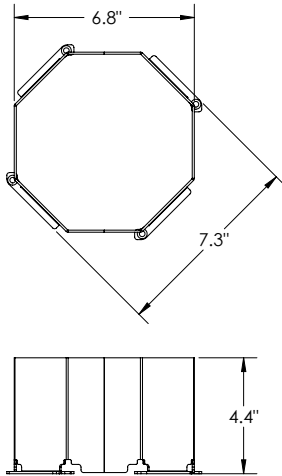
ROCK GUARD[†]	
Part #	MRG

7.3"

1.8"

3.1"

† Recommended only with narrow
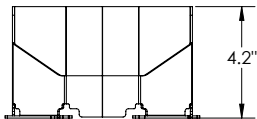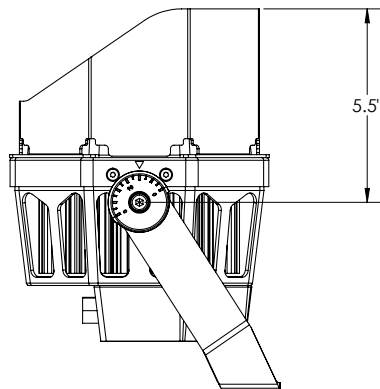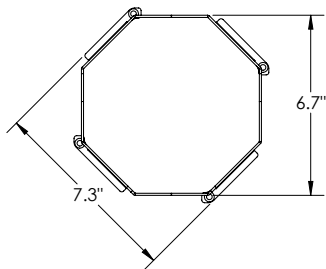 beam optics: 9°, 30°, 1030°, 1525°

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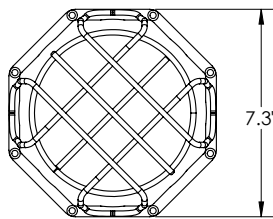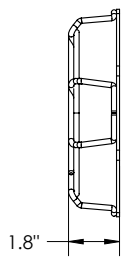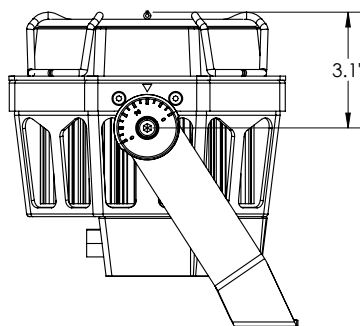
FULL VISOR

Part #	MFV

HALF VISOR

Part #	MHV

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RF-DM-041525
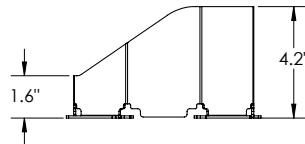
CONNECTIONS & CABLES

6-PIN CONNECTORS

STARTER CABLE (**SCxxCLZ**)

2.4" (62 mm)

N
3 Data (–)
G
1 G
2 Data (+)
L

TERMINATOR CAP (**TCAPDCLZ**)

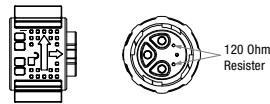120 Ohm Resister
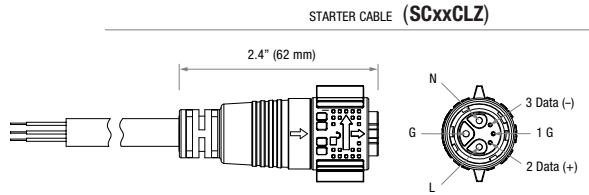
STARTER CORD (SCxxCLZ)
Required Starter Cord comes in multiple lengths with a luminaire connector at one end and lead wires at the other end for connecting power & data.
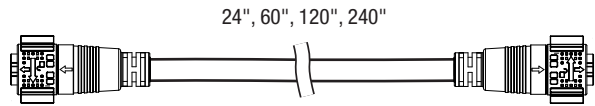
10', 25', 50'
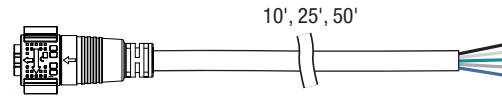
EXTENSION CORD (ECxxCLZ)
The Extension Cord comes in multiple lengths with a luminaire connection at each end for power & data and adding space between luminaires in a linear run.
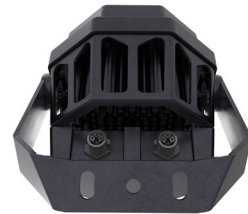
24", 60", 120", 240"

CLZMF - LAZER CONFIGURATION EXAMPLE

Component Identification
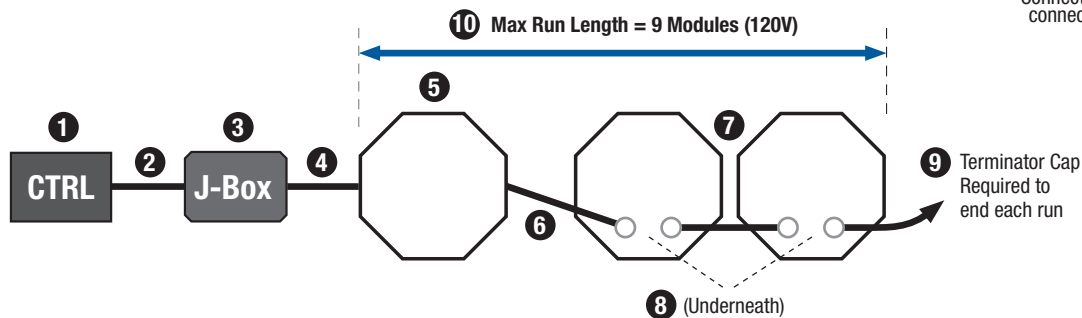1) DMX Color Controller (see last page)
2) DMX Data Cable **DXC-xx** or **CD-xx** (CSC only)
3) PDX Power Data Wiring Box
4) Starter Cord **SCxxCLZ**
5) ColourLine Lazer (**CLZMF**)

6) Extension Cord **ECxxCLZ** (connect at back of luminaire)
7) Connected ColourLine Lazer Micro (**CLZMF**)
8) Extension Cords connect luminaires **ECxxCLZ**
9) Terminator Cap **TCAPDCLZ** (required at end of run)
10) Max Run Length (before adding more power):
   9 Modules (120V), **18** Modules (277V)

Back of Luminaire Connections

Connect to either side, both connectors are the same.

Back of Luminaire Connections

❿ Max Run Length = 9 Modules (120V)

❶
❸
❺
❼
❾ Terminator Cap Required to end each run

❷
CTRL
J-Box
❹
❻

❽ (Underneath)

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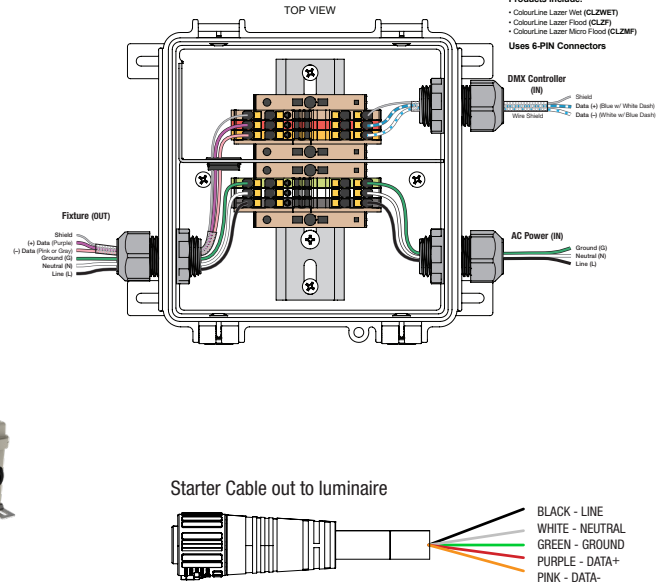US Commercial Lighting Manufacturer Since 1982

RF-DM-041525

PDX2 - POWER DATA WIRING BOX (ONE PDX2 REQUIRED PER RUN)

The PDX2 is an exterior-rated enclosure that consolidates multiple input sources into one output to the CLWET luminaires. Data input from the RDM Color controller and AC input combine to provide one output to a Starter Cord. One PDX2 box is required per each luminaire run.
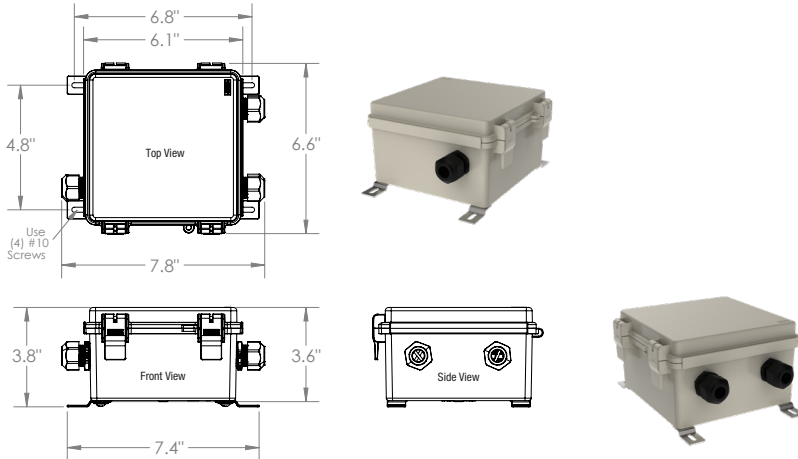
PDX2 Wiring for ColourLine Lazer Series

TOP VIEW

Products include:
• ColourLine Lazer Wet (CLZWET)
• ColourLine Lazer Flood (CLZF)
• ColourLine Lazer Micro Flood (CLZMF)

Uses 6-PIN Connectors

DMX Controller (IN)
Shield
Data (+) (Blue w/ White Dash)
Wire Shield
Data (-) (White w/Blue Dash)

Fixture (OUT)
Shield
(+) Data (Purple)
(–) Data (Pink or Gray)
Ground (G)
Neutral (N)
Line (L)

AC Power (IN)
Ground (G)
Neutral (N)
Line (L)

Top View
6.8"
6.1"
4.8"
6.6"
7.8"
Use (4) #10 Screws

Front View
3.8"
3.6"
7.4"

Side View

Starter Cable out to luminaire

BLACK - LINE
WHITE - NEUTRAL
GREEN - GROUND
PURPLE - DATA+
PINK - DATA-

PDX-RDS2 - POWER DATA WIRING BOX - WITH 2-PORT SPLITTER

The PDX-RDS2 is an exterior-rated enclosure with a transparent, hinged cover that latches and seals using a formed in place PUR gasket and a stainless steel hinge pin. The PDX-RDS2 houses a DMX/RDM 2 port splitter/repeater that takes in one DMX input and provides two regenerated DMX outputs that can be any combination of starter cords or straight DMX outputs. The repeater allows you to daisy-chain PDX2 or PDX-RDS2 boxes by providing two maximum DMX run length outputs.
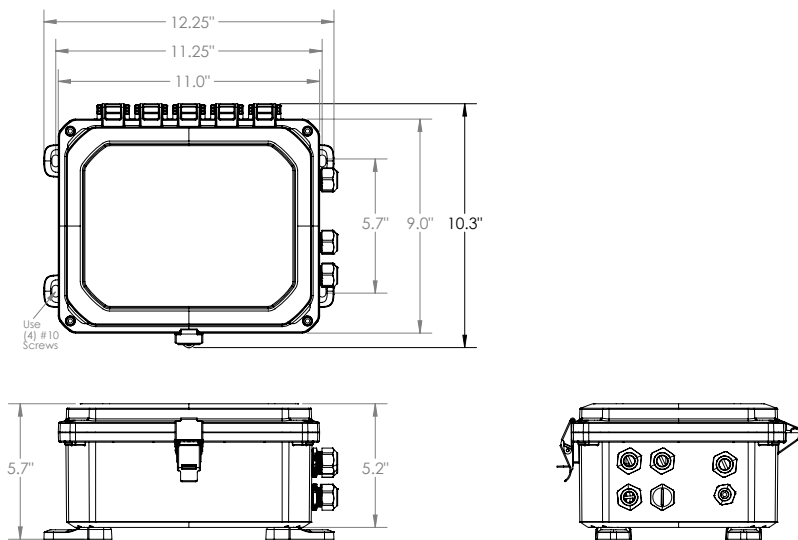
Connector Identification
1) AC Input (Line power)
2) DMX Data Cable **DXC-xx** or **CD-xx** (CSC only)
3) Starter Cord **SCxxLZWET** one
4) Starter Cord **SCxxLZWET** two
5) Auxiliary Ground

12.25"
11.25"
11.0"
5.7" 9.0" 10.3"
Use (4) #10 Screws

5.7"
5.2"

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