LED LinearSource®

Operation and Wiring Instructions

emerge®
DDP LED LIGHTING

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TABLE OF CONTENTS

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LED LinearSource

The Emerge LED LinearSource is a high performance architectural linear lighting system for interior coves, wall washing and low level illumination applications both direct and indirect. The LED light engine is encapsulated in a .75" diameter clear acrylic housing with unique variable angle mounting brackets allowing up to 180 degree rotation. It is the ideal solid state light source for versatile illumination possibilities in tight architectural locations such as niches, coves, and casework.

Available in 1 foot or 2 foot lengths, the LinearSource features translucent end caps and wide angle light distribution allowing seamless linear light with tandem spacing up to 20 feet per driver. Consuming only 2.5 watts per foot while providing upwards of 120 lumens per foot, the LinearSource exceeds efficacy standards established by the U.S. Department of Energy under its Energy Star program. The Emerge LinearSource is designed to ensure each fixture provides over 50,000 hours of useful life with 70% lumen maintenance.

The Emerge LinearSource's reliable performance and simple design makes it an ideal indoor LED lighting solution for both commercial and residential use. It can be powered by any UL Listed 24VDC Class 2 power supply.

The Generic Part Numbers (P/N) have the following format:

LS-XX-XX

LS - LED LinearSource Product Line
XX - 12 or 24 feet long units
XX - LED Color Temperature 2700, 3000, 3500, 4200, 5300 and 6300 Degrees K
("XX" are first 2 digits of the Color Temperature, e.g. "27" for 2700K)

WARNING: For eye safety, do not stare into the light beam of any LED at close range. This may cause permanent vision damage.

WARNING: The LED LinearSource was designed for indoor dry location only. Please do not attempt to install the fixture in wet/ damp or outdoor locations.

"Class 2" Power Supply Requirements

DDP LED CoveWash Total Length	Min. 24VDC Power Supply Wattage
1 Foot	5 Watts
2 Feet	10 Watts
3 Feet	15 Watts
4 Feet	20 Watts
5 Feet	25 Watts
6 Feet	30 Watts
7 Feet	35 Watts
8 Feet	40 Watts
9 Feet	45 Watts
10 Feet	50 Watts
11 Feet	55 Watts
12 Feet	60 Watts
13 Feet	65 Watts
14 Feet	70 Watts
15 Feet	75Watts
16 Feet	80 Watts
17 Feet	85 Watts
18 Feet	90 Watts
19 Feet	95 Watts
20 Feet	100 Watts

Table 1 LED LinearSource 24 Volts DC Power Supply Requirement

LED LinearSource Product Line complies with the Underwriters Laboratories Inc. (UL) standards for Low Voltage Lighting System (UL 2108). The use of a UL approved Class 2 Power Supply unit is required for safe operation of the fixture.

LED LinearSource requires 24 Volts DC power source. Total power supply wattage requirement per foot is summarized on Table 1.

Please contact DDP for a list of recommented Class 2 power supplies or for assistance in purchasing power supply units for your application.

The maximum Class 2 Power Supply Wattage is 100W per unit or per Channel in a "Multiple Output Channel" device. Multi-Output Channel Power Supplies with UL Class 2 rating may be used with the LED LinearSource fixture.

Wet dry enclosure is required for power supply units that will be installed outdoors.

WARNING: The use of non-Class 2 Power Supplies is not recommended. This will void LED LinearSource's product warranty. DDP will not be held liable for any damages or injuries due to improper installation or operation of fixture.

Operating LED LinearSource Units in Cascade Mode

Fig. 1 Example of LED LinearSource units in Cascade Mode powered by a 36-Watts 24 VDC Class 2 Power Supply

LED LinearSource units can be operated in Cascade Mode. Figure 1 on left shows a 1-foot unit and a 2-feet unit connected together in Cascade Mode.

To calculate power supply requirements, get the total number of feet of cascaded fixtures and refer to Table 1 on page 2 to get the required power supply wattage. The total allowable cascade length is 20 feet.

Jumper cables are needed to connect LED LinearSource fixtures together. The jumper cables are available in 3 different sizes 3", 8" and 12" (504523-XX). The letters XX corresponds to the length of the jumpers.

Power cable assemblies with lengths 6 feet or 10 feet max are required to hook-up units to a power supply. Consult factory for custom jumper and power cable lengths.

Fig. 2 Example of an LED LinearSource unit with a Jumper Cable

The total combination length of Power and Jumper Cables should be less than 20 feet to avoid excessive noise and voltage drop on the cables. The LED LinearSource's connectors are symmetrical and bi-directional which allows the user to connect extension and power cable assemblies on either side of the unit.

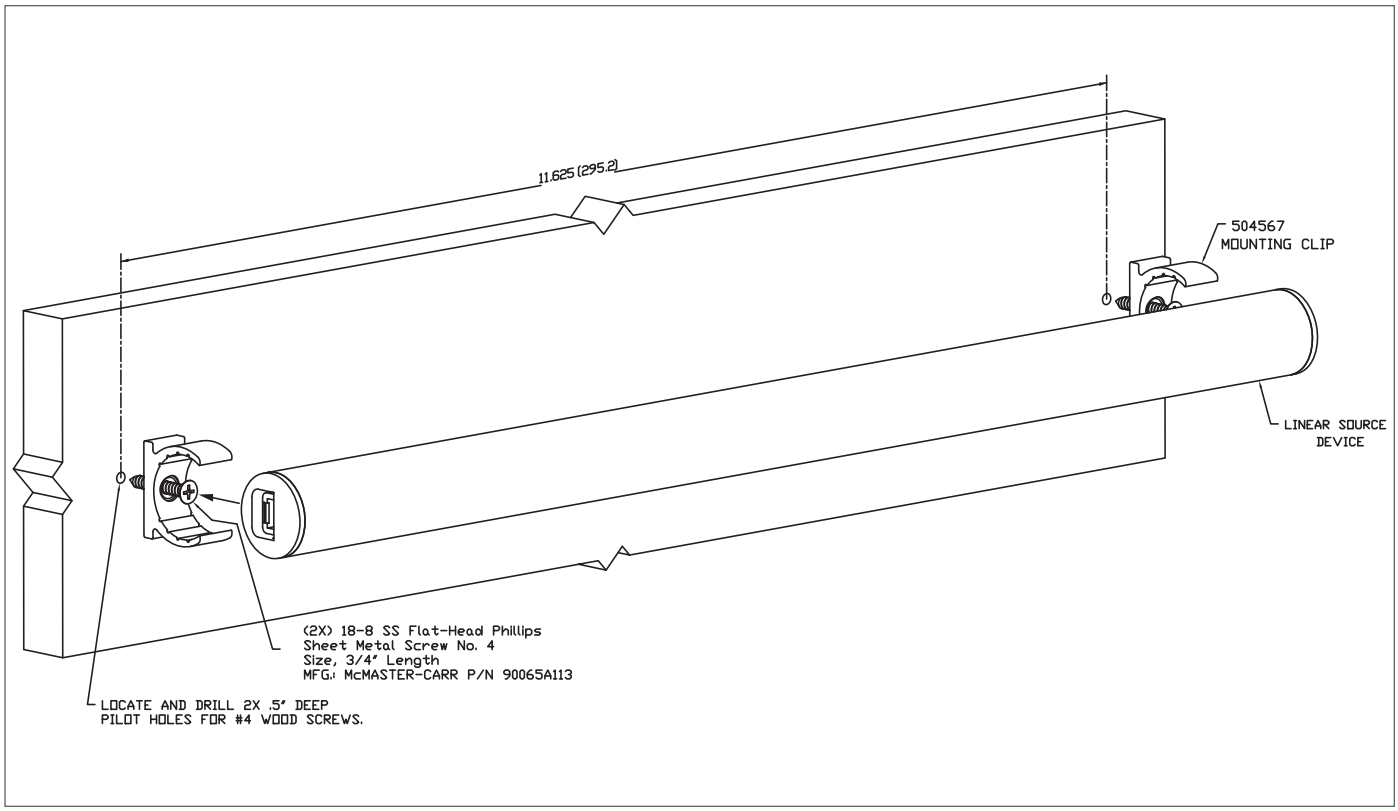
Mounting Clip

Fig. 3 LED LinearSource Clip

Each LED LinearSource includes a variable angle mounting clip allowing up to 180 degree rotation. Mounting screws are also provided in the package.

WARNING: The use of unqualified brackets is dangerous and will void LED LinearSource's product warranty. DDP will not be held liable for any damages or injuries due to improper installation and operation of fixtures.

Installation Instructions for “Dry Location Only”



Power Cable Assemblies

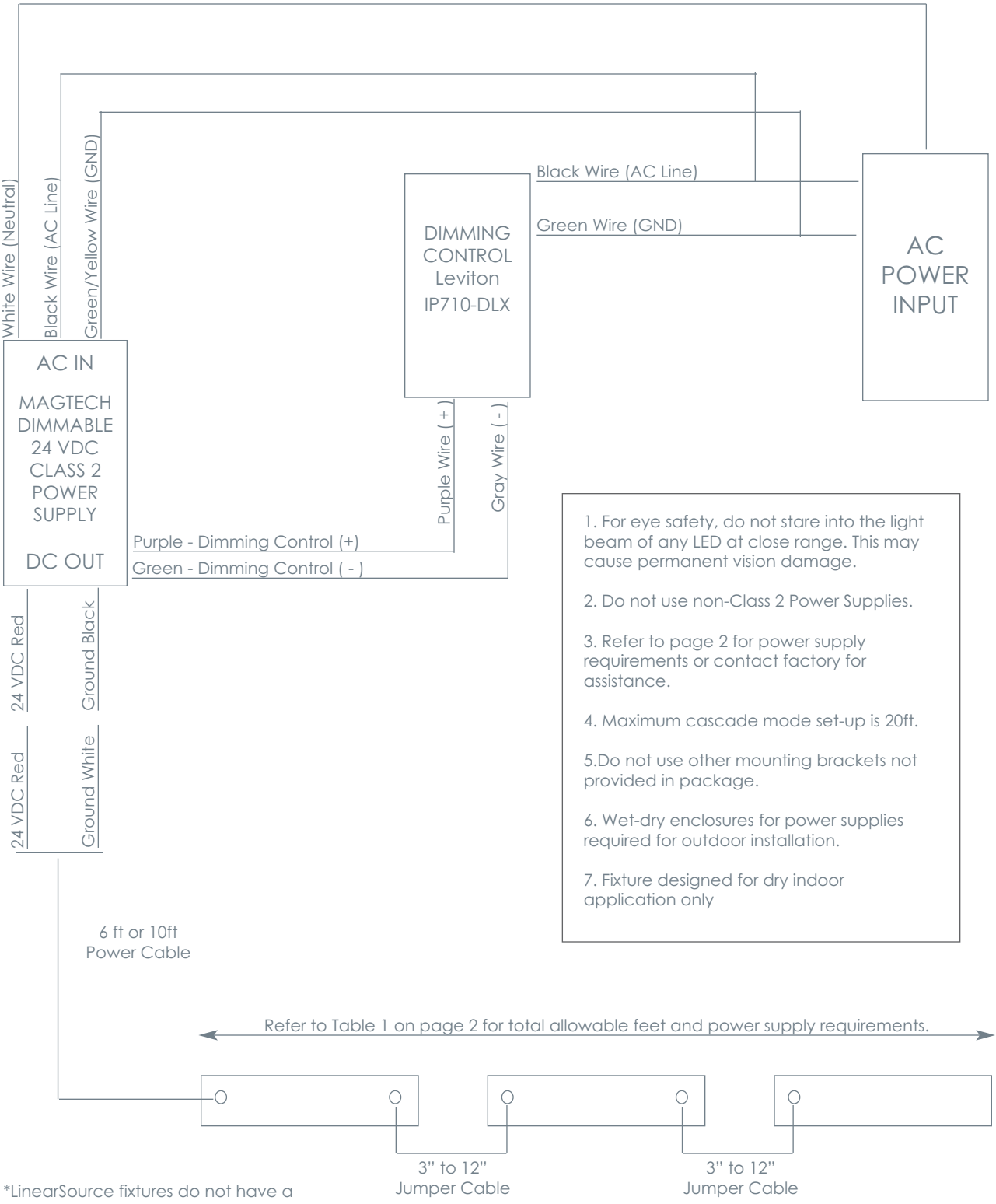
Fig. 4 Example of an LED LinearSource 6 Feet Power Cable 504522-06

Power cable assemblies can be ordered in standard 6 feet or 10 feet length (504522-XX). The 2 digits “XX” represents the cable length in foot. Contact factory for other custom lengths.

The other end of the Power Cable has 2 wires. One wire is for the 24 VDC power terminal and the other for ground install.

Connect the +24 VDC and Ground (0 V) outputs of the 24 VDC Class 2 Power Supply to the +24 VDC (red wire) and Ground terminal (white wire)of the LinearSource fixture.

WIRING DIAGRAM USING DIMMABLE POWER SUPPLY



1. For eye safety, do not stare into the light beam of any LED at close range. This may cause permanent vision damage.

2. Do not use non-Class 2 Power Supplies.

3. Refer to page 2 for power supply requirements or contact factory for assistance.

4. Maximum cascade mode set-up is 20ft.

5.Do not use other mounting brackets not provided in package.

6. Wet-dry enclosures for power supplies required for outdoor installation.

7. Fixture designed for dry indoor application only

*LinearSource fixtures do not have a dedicated dimming circuitry. A power supply with dimming function is required to dim fixtures.

*Illustration based on Magtech LP1090-24D-GG(290)power supply and Leviton IP710-DLX dimmer

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DDP LED LIGHTING

DDP, a pioneer in the design and manufacture of LED products for OEM applications, has branched out to serve the needs of the rapidly-emerging solid-state illumination market. Designated Emerge DDP LED Lighting, DDP is applying decades of LED industry experience to the design and manufacture of state-of-the-art LED fixtures that meet the demands of the architectural lighting community.