LUXdrive™ by LEDdynamics

6007 LuxStrip™ 6 Line

12 in. LED Light Engine with Driver

Product Overview

The LuxStrip 6007 is a powerful, compact light engine built on a metal core PCB and thermally engineered to accommodate high brightness LEDs. Utilizing driver on board technology allows the entire unit to easily be integrated into fixtures where space is at a premium. The LuxStrip 6007 is a perfect solution for applications such as general lighting, fluorescent replacement, sign or channel letters, or architectural lighting. As a standard offering at 12" the LuxStrip 6007 comes with up to six LUXEON* devices. Strips canbe cut to specific lengths, as short as 3". The strips are designed to interconnect to allow for varying lengths, and can be deployed to lengths of up to 12 feet. Optics are available for directional lighting. Standard options are 5º, 15º, and 25º degrees. Other options may be added to suit custom applications.

LuxStrip LEDs can be outfitted with LUXEON I series, LUXEON III, or new LUXEON K2 LEDs. On board, LuxStrip use the popular LuxDrive Puck series power modules, which allow for flexible input voltage while maintaining a true, constant-current regulated output for the LEDs. Although a 24VDC power supply is ideal for use with LuxStrip, LuxStrip can be configured to accept input voltages between 5 and 32 volts. Unlike traditional MCPCBs, the driver for these LEDs is contained conveniently on board, allowing power supplies which deliver a fixed voltage (such as 24VDC) to be used. Power and dimming control voltage is connected via a 7 pin SIP connector at the end of the strip, and utilizes a unique non-polarized connection for goof proof assembly. Using a joiner connector (06007-401), several strips can be stacked/attached together (upto 10 feet typical). "Stub" sections can be shortened at 2" steps to fit any length requirement.

* - Units can be customized for other LEDs or redesigned for OEM applications - Contact LuxDrive for more information

Features

- DC input power up to 32VDC
- On board drivers provide constant current
- 12" x .88"(30.5 x 2.25 cm), cuttable 2" (50.8 cm)
- Fits with L2Optics 20mm optics and holders
- Easily joined for up to 10 feet length (typical)
- 0 to 100% dimming w/signal pass-through
- Non-Polarized connections - No Goofs
- Compatible with LUXEON I, III, and K2
- Optional on-board thermal cutback
- Accepts award-winning LuxDrive Puck Drivers
- Series configuration eliminates current hogging

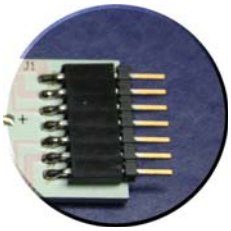

Figure 1
End of strip with "Joiner" connector Inserted (06007-

Typical Applications

- Line lighting and wall wash
- Automotive, RV & Marine Lighting
- Tight space and cove lighting
- Point of Purchase Lighting
- Desk & Reading Lamps
- Fluorescent replacement fixtures
- Cabinet & Display Case Lighting
- Sign & Channel Letters

MADE IN U. S. A.

Pb

RoHS Compliant 2002/95/EC

Figure 2
3021 BuckPuck powering (6) LUXEON LEDs in series (V_{IN} = 24VDC) and end-feeding another strip

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802.728.4533 P
802.728.3800 F
sales@LUXdrive.com
www.LUXdrive.com

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Typical Characteristics

Type of LED	*LED Current (mA)*	*No. of Strips Per Supply (feet)*	*Supply Rating(mA)/(watts)*
LUXEON I	350mA (white)	12 max (12 feet)	4A / 96W
LUXEON III	700mA (white)	8 max (8 feet)	6A / 144W
LUXEON K2 - Low	350mA (white)	12 max (12 feet)	4A / 96W
LUXEON K2 - Low	700mA (white)	8 max (8 feet)	6A / 144W
LUXEON K2 - High	700mA (white)	8 max (8 feet)	6A / 144W
LUXEON K2 - High	1000mA (white)	6 max (6 feet)	6A / 144W

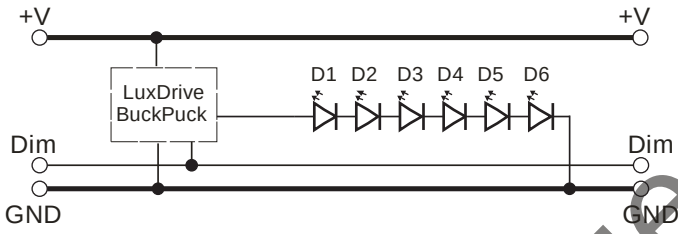
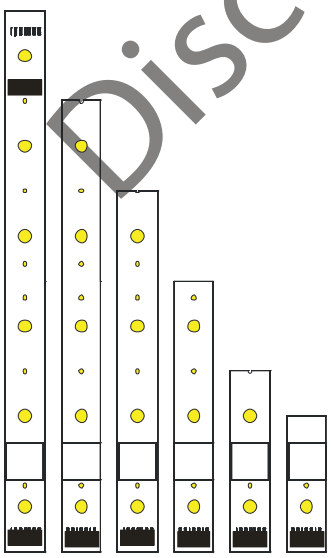


Figure 3
Electrical equivalent of strip

Configuration

To be able to fit lengths of less than 12", the 6007 can be trimmed as necessary. This method is called "stub", where the unpowered end of the strip is cut to fit the fixture or extrusion. A common hacksaw and soldering iron is all that is required to allow for field modification of the strips to accommodate custom installations. Jumper pads are available at each cut point to shorten the electrical length of each string. Simply jump the pad that is located before the cut. The remaining LEDs will get the proper current and voltage since they have their own driver. Screw holes are provided to allow secure connection to the heatsink, or double-sided thermal tape may be used for speedy and easy assembly. Using this approach, here are the possible lengths:



Length	*Number of LEDs*
12” (305mm)	6
10” (254mm)	5
8” (203mm)	4
6” (152mm)	3
4” (102mm)	2
3” (76mm)	1

Figure 4
Typical “stub” strip cut lengths and results

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Optics

The LuxStrip Line can be fitted with any of the wide range of L2 optics, also offered by LuxDrive. There are four different illumination patterns available: spot (5°), medium(15°), wide(25°) and oval (5° x 20°) (Note that LED type and colour will have a slight effect on illumination pattern, e.g., non-white LEDs give a narrower distribution). Holders for these optics are available in clear, black, and white. See the "L2 20mm Series Lenses" data sheet for more information, including typical light distribution patterns.

Figure 5
LuxStrip fitted with 25° optics, using white holders.

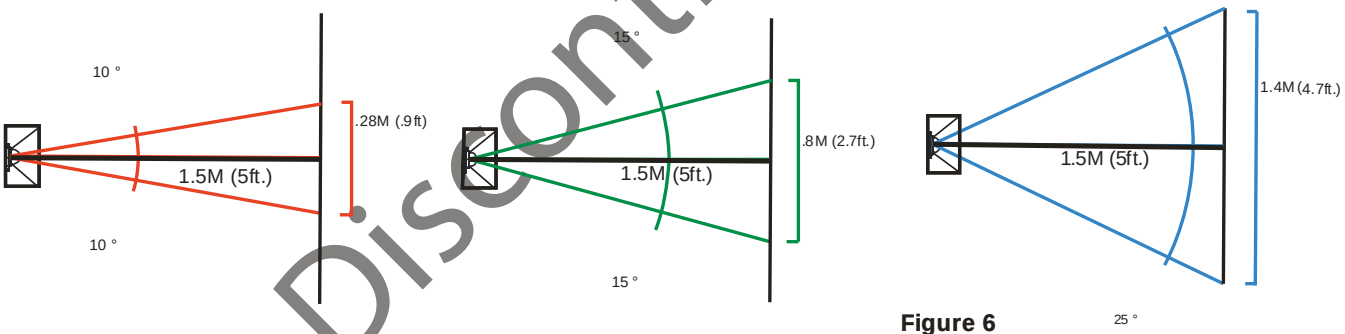
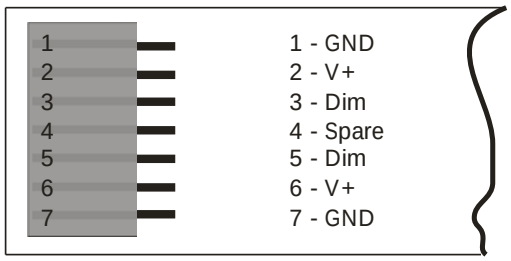


Figure 6
Standard Illumination Patterns Available, and Approximate Diffusion at 1.5M (5ft.)

Connection Diagram



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Physical Dimensions

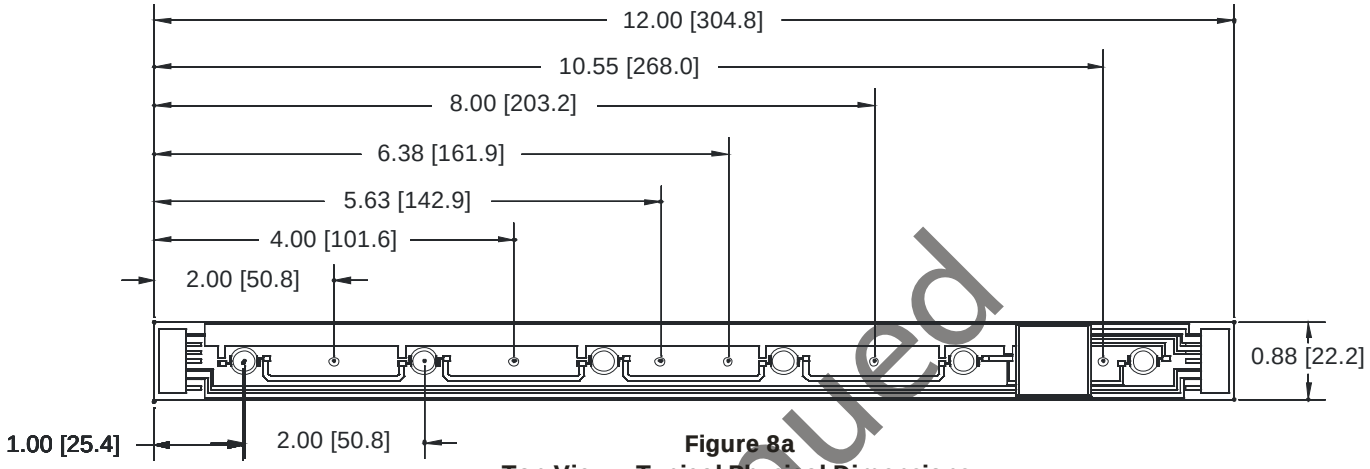

Figure 8a
Top View - Typical Physical Dimensions, Including Stub Lengths

Figure 8b
Typical Height, Including LuxDrive Puck™ Series Driver

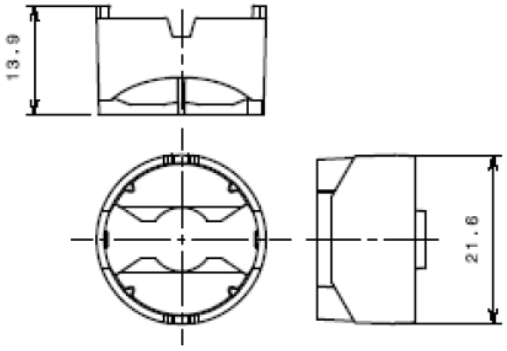

Figure 8c
20mm Lens Holder Dimensions

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Thermal Resistance

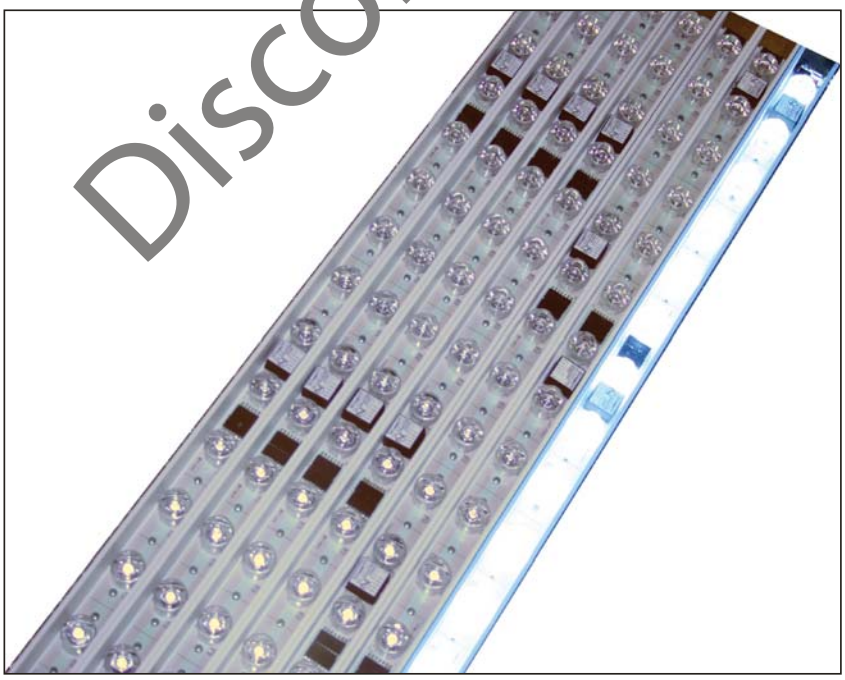
Luxstrip with Lux I or Lux III LEDs in white, green, or blue: 3.4 °C/W
Luxstrip with Lux I or Lux III LEDs in red, orange, or amber: 3.9 °C/W
Luxstrip with K2 in white, green, or blue: 2.4 °C/W
LuxStrip with K2 in red, orange, or amber: 2.9 °C/W

Part Number Identification

06007-XX-YY-ZZ

- ***Optic*** (00=no optic, 05=5 degree, 15=15 degree, 25=25 degree, OV=oval)
- ***Driver*** (35=350ma, 50=500ma, 70=700ma, 00=1000ma)
- ***LED Type*** (1=Luxeon I, 2=K2 Low, 3=Luxeon III, 4=K2 High)
- ***LED Color*** (C=Cool white, W=Warm white, R=Red, G=Green, B=Blue)
- ***LuxDrive Product ID***

Discontinued



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