

LED Module - Luminus MP-7070

Power of Luminus in standard and custom LED modules

Data Sheet

Version 1.0

Lean & Fast. Made Smarter.

Design Faster – use standard modules to shorten development time

Superior Performance – stay current with the top flux bin LEDs

Maximum Flexibility – use off-the-shelf optics and drivers

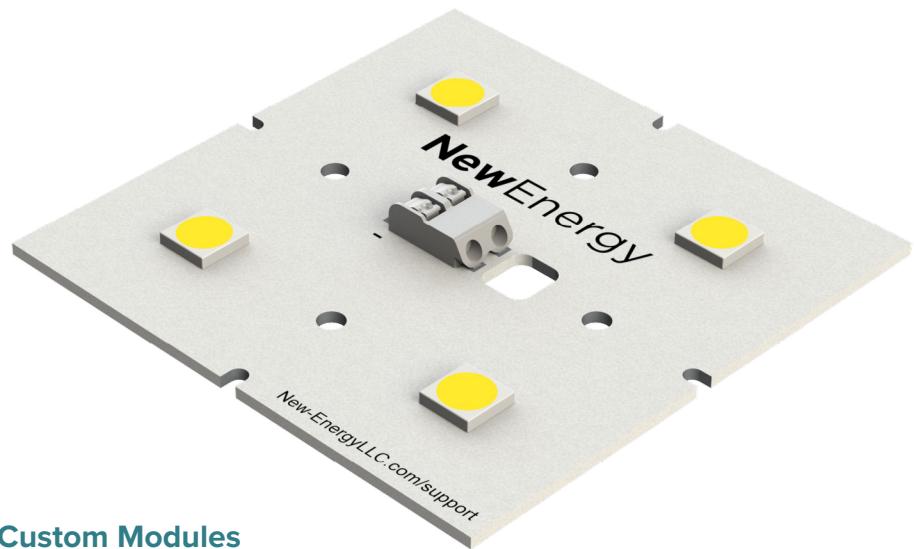
Innovation – work with NewEnergy on your custom solution

Primary Applications



Horticulture
High Mast
Streetlight
Stadium
Architectural

Canopy
Garage
Portable
High bay



Superior Performance in Standard & Custom Modules

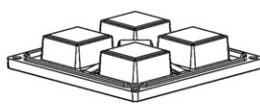
- Metal core PCB for optimal thermal management
- Configurable with off-the-shelf optics
- Custom Thermal Pad available upon request
- Conformal Coating available upon request
- Talk to NewEnergy about your custom or private label designs

Simplify Your Next Design

The Luminus MP-7070 modules are an off-the-shelf platform to rapidly move from prototype to finished LED lighting fixture. These competitively priced modules come in a range of lumen outputs.

Custom Solutions

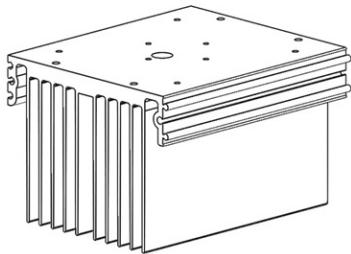
Our North Carolina based office provides quick engineering & sales support with a R&D lab for prototype development and custom solutions. We offer global manufacturing capabilities in the United States as well as overseas at scale.



- Standard Off-The-Shelf Optics Available



- NewEnergy LED Module



- NewEnergy Heat Sink.

About NewEnergy

NewEnergy accelerates the adoption of LED technology through simple, modular products and custom designs. NewEnergy offers leading solid state lighting components, modules and custom solutions. NewEnergy customers get to market faster, with less resources, at lower costs. Visit New-EnergyLLC.com for more information.

MP-7070 Series Specifications

Product Selection Table

| Configuration | LED Layout | Part Number | CCT | CRI | Luminous Flux (lm) | | Efficacy (lm/W) Typ. | Watts (W) Typ. |
|-----------------------|------------|--------------------|-------|-----|--------------------|------|----------------------|----------------|
| | | | | | Min | Typ. | | |
| Square ⁽¹⁾ | 2x2 | LVS1-04G12-2770-00 | 2700K | 70 | 4800 | 5520 | 164 | 33.6 |
| Square ⁽¹⁾ | 2x2 | LVS1-04G12-2780-00 | 2700K | 80 | 4800 | 5280 | 157 | 33.6 |
| Square ⁽¹⁾ | 2x2 | LVS1-04G12-3070-00 | 3000K | 70 | 5200 | 5800 | 173 | 33.6 |
| Square ⁽¹⁾ | 2x2 | LVS1-04G12-3080-00 | 3000K | 80 | 4800 | 5520 | 164 | 33.6 |
| Square ⁽¹⁾ | 2x2 | LVS1-04G12-4070-00 | 4000K | 70 | 5600 | 6040 | 180 | 33.6 |
| Square ⁽¹⁾ | 2x2 | LVS1-04G12-4080-00 | 4000K | 80 | 5200 | 5720 | 170 | 33.6 |
| Square ⁽¹⁾ | 2x2 | LVS1-04G12-5070-00 | 5000K | 70 | 5600 | 6040 | 180 | 33.6 |
| Square ⁽¹⁾ | 2x2 | LVS1-04G12-5080-00 | 5000K | 80 | 5200 | 5720 | 170 | 33.6 |
| Square ⁽¹⁾ | 2x2 | LVS1-04G12-5770-00 | 5700K | 70 | 5600 | 6040 | 180 | 33.6 |
| Square ⁽¹⁾ | 2x2 | LVS1-04G12-5780-00 | 5700K | 80 | 5200 | 5720 | 170 | 33.6 |
| Square ⁽¹⁾ | 2x2 | LVS1-04G12-6570-00 | 6500K | 70 | 5600 | 6040 | 180 | 33.6 |
| Square ⁽¹⁾ | 2x2 | LVS1-04G12-6580-00 | 6500K | 80 | 5200 | 5720 | 170 | 33.6 |

⁽¹⁾Nominal product performance at 700mA Tc = 25°C.

⁽²⁾LED order codes specify only a minimum flux bin and not a maximum. NewEnergy may ship modules in flux bins higher than the minimum specified by the order code without advance notice. Shipments will always adhere to the chromaticity bin restrictions specified by the order code.

Order Code Formatting

| Series | - | LED Count | LED Code | - | Color Temperature | Color Rendering Index | - | Internal Code |
|---|---|-------------|--------------------------|---|-------------------|-----------------------|---|---------------|
| LVS1 - High Power Array LED PCB Assembly, Square | - | 04 - 4 LEDs | G12 - Luminus MP-7070 | - | 27 - 2700K | 70 - 70 CRI | - | XX |
| | | | | - | 30 - 3000K | 80 - 80 CRI | | |
| | | | | - | 40 - 4000K | | | |
| | | | | - | 50 - 5000K | | | |
| | | | | - | 57 - 5700K | | | |
| | | | | - | 65 - 6500K | | | |

MP-7070 Series Specifications

Electrical Characteristics

| Part Number | Typ. Forward Current (mA) | Forward Voltage (v) | | Typical Thermal Resistance - Junction to Solder Point (K/W) R _{Th} J-HS |
|-------------|---------------------------|---------------------|---------|--|
| | | Min | Typical | |
| LVS1-04x | 700 | 44 | 48 | 1.8 |

Intended for connection to a class 2 power source with a maximum operating voltage of 50 Vdc

Maximum Ratings

| Part Number | Forward Voltage (V) | DC Current (mA) | Tsp Temp (°C) | Power (W) |
|-------------|---------------------|-----------------|---------------|-----------|
| LVS1-04x | 56 | 1200 | 105 | 67.2 |

⁽¹⁾ Input power not to exceed 100W for UL Class 2. Suitability for usage in other than Class 2 circuits shall be determined in the end-product investigation.

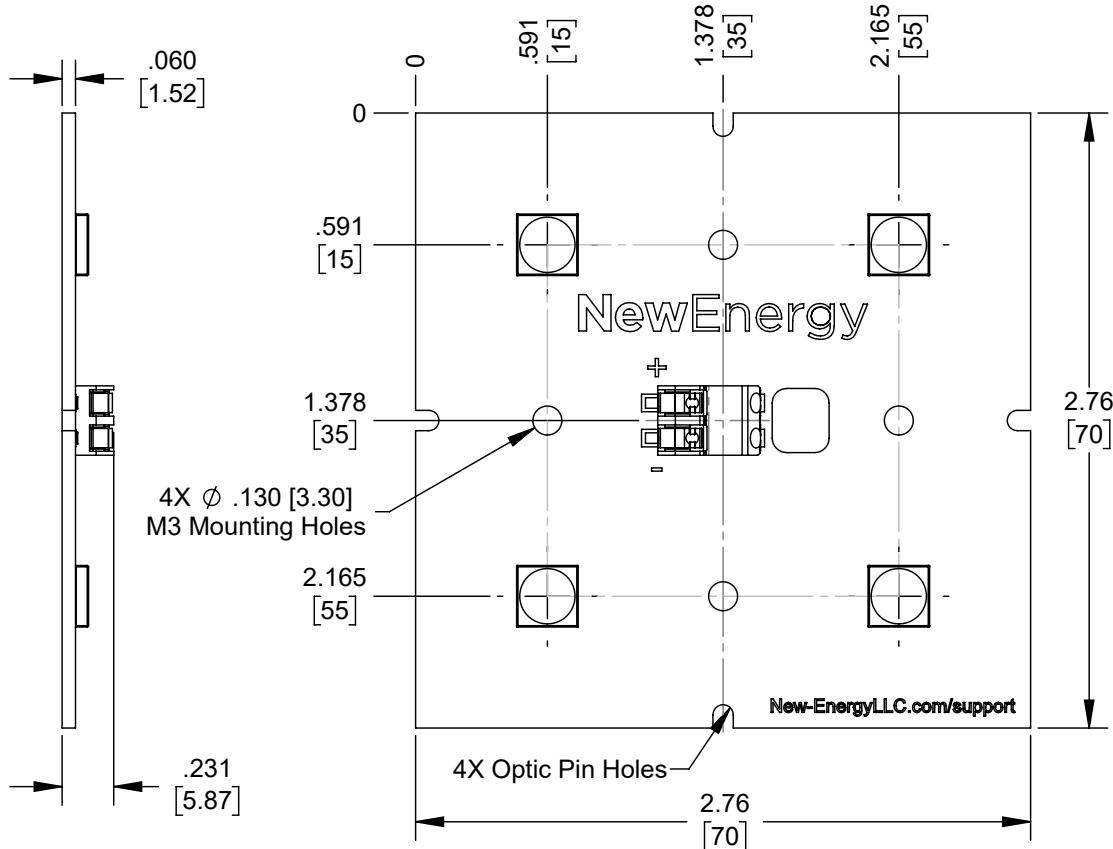
Board Material Properties

| Property | Value | Unit |
|-------------------|-------|------|
| Solder Mask Color | White | - |
| Thickness | .062 | in |
| Construction | AL | - |
| Temperature | 130 | °C |
| Flame Rating | V-0 | - |
| Copper Thickness | 2 | oz |

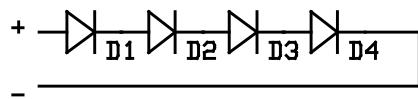
MP-7070 Series Specifications

Mechanical Dimensions

Units: Inches [MM]



Schematic



1. Dual Poke-In Connectors accept 18-24 AWG solid or stranded wire
2. Recommended Mounting Hardware: 4x M3.5 Socket Head Cap Screws