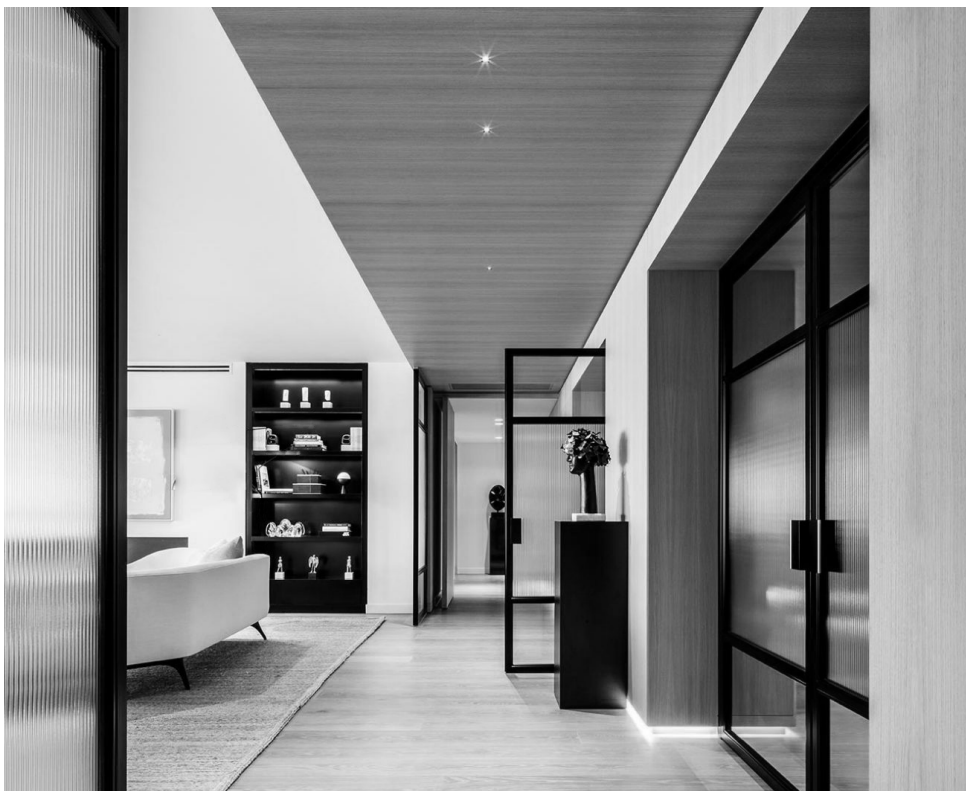




MINUS ONE IP66 Minimal Recessed

Quick Facts

- Class 2 Fixture, Remote Powered up to 45m (150ft) max
- Minimal fixture aperture - 10mm (3/8")
- 19mm (3/4") recess depth required
- 12W Cree LED
- Up to 1000lm from source (IES files available upon request)
- Available in Warm White (2700K) and Soft White (3000K)
- Color Rendering Index ≥ 90
- 2-step SDCM ellipse for accurate color consistency between fixtures
- Full dimming range (0.1% to 100%) via remote power supply
- Suitable for installation in drywall, wood, metal and stone ceilings
- Suitable for dry, damp and wet locations (IP66)
- Type IC Rated, Plenum Rated, Airtight Rated
- Patented Product
- Engineered and made in Germany



Description

The MINUS ONE IP66 downlight brings sophistication to interior spaces with its never-before-seen performance. A single high performance LED is combined with precision-focusing optics to create an unprecedented light fixture. The high-tech design features a perfectly round 10 mm (3/8”) aperture in either a 20 or 40 degree beam spread and includes various dimming protocols, each fully compatible with all major architectural lighting control systems.

Construction

- Extruded aluminum fixture body
- 50,000 hours LED lifetime
- Approximate fixture weight: 676g (1.49lbs)
- Operating Temperature: 10°C to 50°C

Fixture Size

- Visible Aperture: ø10mm (3/8”)
- Recess Depth: 19mm (3/4”)
- Heat Sink: 120mm x 120mm (4 - 3/4” x 4 - 3/4”)

Light Output

- High performance Cree LED, available in various color temperatures
- 1000lm source light output
- 2-step SDCM ellipse
- Color rendering index (CRI) min. 90
- Integral microprocessor controlled thermal protection

Electrical Specifications

- 24V DC Constant Voltage Input (Class 2, 12W Power Consumption)
- 96W 24V DC Power Supply Required (powers up to 4 fixtures)
 - Magnetic Low Voltage (MLV) Dimming (or) 3-Wire Lutron Hi-Lume dimming protocols
 - Recommended wire, min. 16 AWG plenum rated (CMP, when required) up to 150ft from remote transformer

Constant Current 1000mA 12V DC Input (Class 2, 12W Power Consumption)

- Remote 1000mA Constant Current Driver Required
- 0-10V 0.1% Dimming (or) 1-10V/Push/DALI (or) Phase Dimming drivers available
- Recommended wire, min. 16 AWG plenum rated (CMP, when required) up to 82ft from remote transformer

Installation Types

- Drywall installation for new construction and retrofit installations possible with the Universal Drywall Bracket, available for various drywall thicknesses.
- Custom installations for wood, metal and stone ceilings. Requires shop drawings available per request by Apure.
- The Minus series is not suitable for installation within steam rooms or saunas!

Listings

- UL Listed, CE Conform
- Suitable for dry, damp and wet locations, standard IP66
- Type IC Rated, Plenum Rated, Airtight Rated

Resources / Installation Videos

Scan QR Code or visit at apurelighting.com/resources/



Resources



Videos



ORDERING INFORMATION

SERIES

☐ AM - Minus Series

MODEL

☐ 1 - Minus One

TYPE

☐ 1 - LED

ORIENTATION

☐ F - Fixed

TEMPERATURE (CCT)

- ☐ 27 - Warm White (2700K)
- ☐ 30 - Soft White (3000K)

COLOR RENDERING INDEX

☐ 90 - ≥90

OPTICS (DEGREE)

- ☐ S - Spot (20°)
- ☐ F - Flood (40°)

DIMMING PROTOCOL

- ☐ A - Magnetic Low Voltage (MLV) (24V)*
- ☐ L - Lutron 3-Wire Hi-Lume 0.1% (24V)*
- ☐ CC - 0-10V/DALI/Phase Dim (1000mA)*

IP66 RATING

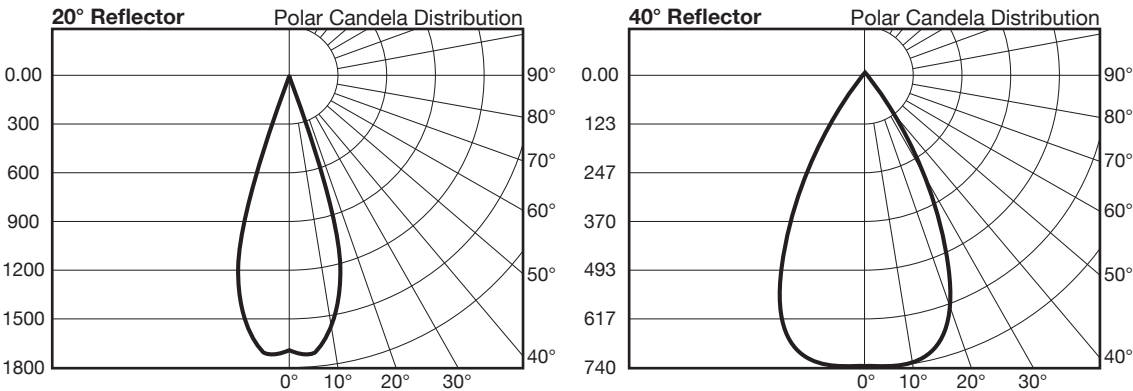
☐ IP - IP66

*remote power supply required

ORDERING EXAMPLE

AM11F3090FCCIP

LED Photometrics

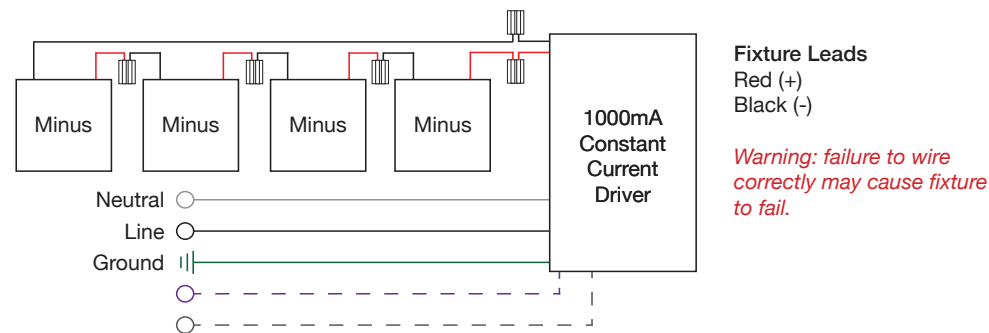


| | | | |
|--|--|--|---|
| Drywall Accessories Universal Drywall Bracket Universal Drywall Bracket Universal Drywall Bracket - <i>(Standard)</i> | Part Number AM1BRKU10IP AM1BRKU12IP AM1BRKU15IP | Thickness 10mm 12.5mm 15mm | Requirement Drywall Installations Drywall Installations Drywall Installations |
| Remote Power Supply for MLV Variant - [A] Magnitude M-Series Power Supply (96W 24VDC) | Part Number AA3096M | Input Voltage 120Vac | Listings ETL |
| Remote Power Supply for Lutron Variant - [L] Lutron 3-wire Hi-Lume Premier Eco Driver (by others) Lutron 3-wire HomeWorks Digital Control (by others) | Part Number L3D0-96W24V-U LHD0-96W24V-U | Input Voltage 120-277V 120-277V | Listings UL UL |
| Remote Power Supply for CC or EU Variant - [CC] Magnitude AFLEX Power Supply (1000mA 60W)* Magnitude AFLEX JBZN Series (1000mA 60W)** Apure Phase Dimmable (1000mA 26W) Apure Phase Dimmable (1000mA 65W) KGP DALI 2 NFC Touch Dim (500-1000mA 53.2W)* | Part Number AA3010M1000 AA3010MJBXX AA32202DEU AA32205DEU AA3DALI2EU | Input Voltage 120-277Vac 120-277Vac 220-240Vac 220-240Vac 220-240Vac | Listings UL Listed UL Listed CE CE CE |

*Driver enclosure required where applicable.
**Refer to reseller for more information.

- Custom Installation Types**
- The universal bracket (AM1BRKUXX) is intended only for drywall installations.
 - System ceilings, stone, wood and metal ceiling integrations are accomplished through custom fabrication by others. Please note, not all materials are suitable for installation. However, Apure will make every effort to accommodate custom integrations. Please contact your authorized Minus reseller for more information regarding custom ceiling integrations.
 - Fixtures must have a minimum clearance of 12 inches (30cm) below or horizontally from the light source at all times!
 - Observe and follow all local and national installation codes for all installation types.
 - Test and make sure that all fixtures are working properly before any mudding, painting or finishing occurs!
 - Read and adhere to all instructions supplied with each power supply and fixture.
 - Follow all instructions supplied by power supply / driver manufacturer!

Wiring Diagram for Constant Current Minus products - [CC]



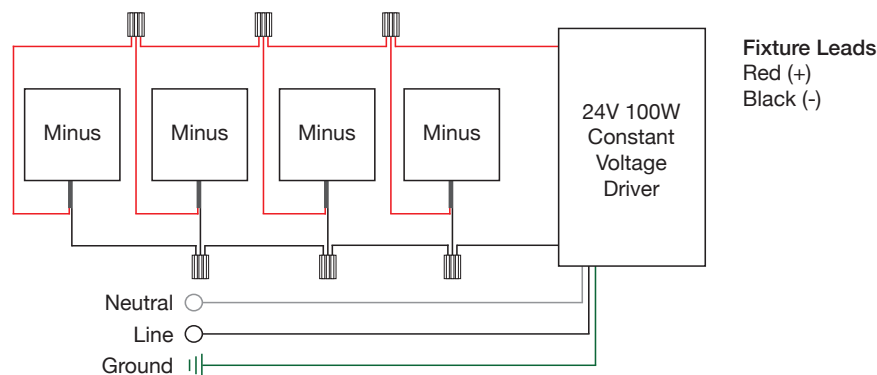
Additional Considerations

The above wiring diagram applies only to Constant Current Minus products with product ordering codes ending with "CC". The diagram above shows the typical wiring schematic, however the total number of fixtures per driver is driver specific.

- Magnitude AFLEX Power Supply (1000mA 60W) 1-4 Minus 16AWG - 82ft (25m)
- Apure Phase Dimmable (1000mA 26W) 1-2 Minus 16AWG - 82ft (25m)
- Apure Phase Dimmable (1000mA 65W) 3-5 Minus 16AWG - 82ft (25m)
- KGP DALI 2 NFC Touch Dim (500-1000mA 53.2W) 1-4 Minus 16AWG - 82ft (25m)

WARNING: The power supply must operate within the range of minimum to maximum fixtures. Operation with less or more fixtures from the specified amount will result in damage to the power supply and/or lighting fixture. Incorrectly wiring the Constant Current lighting fixture may cause luminaire to fail.

Wiring Diagram for 24V Minus Products - [A] MLV or [L] Lutron



Additional Considerations

The above wiring diagram applies only to 24V Minus products with product ordering codes ending with "A" or "L". The diagram above shows the typical wiring schematic, however the total number of fixtures per driver is driver specific.

- Magnitude Constant Voltage Driver (96W 24VDC) 1-4 Minus ≤16AWG - 150ft (45m)
- Lutron Hi-Lume Constant Voltage Driver (96W 24VDC) 1-4 Minus ≤16AWG - 150ft (45m)
- Lutron HomeWorks Constant Voltage Driver (96W 24VDC) 1-4 Minus ≤16AWG - 150ft (45m)

WARNING: The power supply must operate within the range of minimum to maximum fixtures. Operation with less or more fixtures from the specified amount will result in damage to the power supply and/or lighting fixture.



MINUS CUSTOM MATERIALS

The Minus Series fixtures are intended for drywall installation, but are designed to allow installation in a variety of different materials. As with any custom installation, there are limitations. To determine if an installation within your desired material is possible, please fill out the questionnaire below and return it to your authorized Minus reseller for consideration and direct to: info@apurelighting.com. Custom drawings may take 7-10 business days from the date of submission to Apure.

All fields are required to be completed in detail. Supporting documents are encouraged, but do not substitute as answers.

Project ID: _____

Fixture | Location

1. What fixture are you planning on installing? (circle one)
- Minus 1
2. Where are you planning on installing this fixture? (circle one)
- Interior | Exterior
3. If you selected exterior for question 2, is the structure open or closed? (circle one)
- Open | Closed
4. Is the ceiling a plenum/air return ceiling? (circle one)
- Yes | No

Material

5. What material are you planning to install the fixture in?
- _____
6. Does the desired material have any certifications/listings? (circle one)
- Yes | No
7. What is the total thickness of the desired material? (complete in detail)
- Thickness: _____ Inches (_____ cm)
8. Does the ceiling or wall material have additional backing material? (circle one)
- Yes | No

Installation | Safety

9. Can your installer route and/or cut the material according to shop drawings? (circle one)
- Yes | No
10. Will the fixture have a one foot clearance below the fixture aperture? (circle one)
- Yes | No
11. I understand Minus Series fixtures are **not** suitable for installation within steam rooms or saunas.
- Initials: _____
12. Does this installation require an IP66 rating? (available only for the Minus 1)
- Yes | No
13. What is the target installation date?
- _____
14. How many fixture's require this special installation?
- Quantity: _____

Acknowledgment

I understand that the Minus is a certified low voltage class 2 fixture and that I am fully responsible to conform to all NEC codes and all local codes when installing in the desired special material. I have completed the questionnaire to the best of my ability and understand that installation within the special material may not be possible. I acknowledge that the Minus series fixture is intended for drywall installation and Apure Distribution, LLC and its authorized resellers are not responsible for improper installation, undesired outcome(s), code violations, or any damages resulting from special material installations both structural or monetary.

Signature: _____ Printed Name: _____ Date: _____