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MINUS THREE Minimal Semi-Recessed

Quick Facts
• Class 2 Fixture, Remote Powered up to 45m (150ft) max
• Reflector size - 60mm (2 - 3/8")
• 23.6mm (15/16") recess depth required
• 12W Cree LED
• Up to 1000lm from source (IES files available upon request)
• Available in Soft White (3000K)
• Color Rendering Index ≥90
• 2-step SDCM ellipse for accurate color consistency between fixtures
• Full dimming range via remote power supply
• Suitable for installation in drywall, wood, and stone ceilings
• Suitable for dry and damp locations
• Type IC Rated, Plenum Rated, Airtight Rated
• Patented Product
• Engineered and made in Germany

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Description
Designed to flawlessly illuminate walls and works of art, without carving any light scallops into the architectural structure, the MINUS THREE embraces a spoon-reflector that sits invisibly in a semi-recessed square. Curated for discreet, yet impressive projection, the shape of the miniature Louver follows any given architectural line and becomes an integral part of the overall design aesthetic.

Construction
• Extruded aluminum fixture body, featuring Apure's signature louver designed by Studio F·A·Porsche
• 50,000 hours LED lifetime
• Approximate fixture weight: 720g (1.58lbs)
• Operating Temperature: 10ºC to 50ºC

Fixture Size
• Reflector Size 60mm x 50mm (2 - 3/8" x 2")
• Recess Depth: 23.6mm (15/16")
• 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
• 45º beam angle with longitudinal glare control (optimized cut-off)
• 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, Type IC Rated, Plenum Rated, Airtight Rated
• Suitable for dry locations

Resources / Installation Videos
Scan QR Code or visit at apurelighting.com/resources/

Resources   Videos

ORDERING INFORMATION

SERIES	MODEL	TYPE	ORIENTATION
☐ **AM -** Minus Series	☐ **3 -** Minus Three	☐ **1 -** LED	☐ **F -** Fixed

TEMPERATURE (CCT)	COLOR RENDERING INDEX
☐ **30 -** Soft White (3000K)	☐ **90 -** ≥90

LENS COVER	DIMMING PROTOCOL
☐ **BA -** Black	☐ **A -** Magnetic Low Voltage (MLV) (24V)*
☐ **WH -** White	☐ **L -** Lutron 3-Wire Hi-Lume 0.1% (24V)*
*remote power supply required	☐ **CC** - 0-10V / DALI / Phase Dim (1000mA Constant Current, 12VDC)*
**Also cataloged as "EU"	

ORDERING EXAMPLE   AM31F3090WHCC

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LED Photometrics

Wall Wash Reflector Polar Candela Distribution

0.00	90°
483	80°
967	70°
1450	60°
1933	50°
2417	
2900	40°

0° 10° 20° 30°
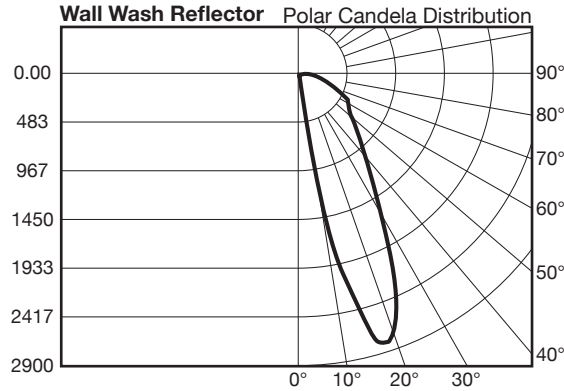
Drywall Accessories	Part Number	Thickness	Requirement
Universal Drywall Bracket	AM3BRKU10	10mm	Drywall Installations
Universal Drywall Bracket	AM3BRKU12	12.5mm	Drywall Installations
Universal Drywall Bracket	AM3BRKU15	15mm	Drywall Installations
Universal Drywall Bracket - *(US Standard)*	AM3BRKU18	18mm	Drywall Installations

Remote Power Supply for MLV Variant - [A]	Part Number	Input Voltage	Listings
Magnitude Power Supply (96W 24VDC)	AA3096M	120Vac	ETL

Remote Power Supply for Lutron Variant - [L]	Part Number	Input Voltage	Listings
Lutron 3-wire Hi-Lume Premier Eco Driver	L3D0-96W24V-U	120-277V	UL
Lutron 3-wire HomeWorks Digital Control	LHD0-96W24V-U	120-277V	UL

| Remote Power Supply for CC or EU Variant - [CC]	Part Number	Input Voltage	Listings
Magnitude AFLEX Power Supply (1000mA 60W)*	AA3010M	120-277Vac	UL Listed
Magnitude AFLEX JBZN Series (1000mA 60W)**	AA3010MJB**XX**	120-277Vac	UL Listed
Apure Phase Dimmable (1000mA 29W)	AA32202DEU	220-240Vac	CE
Apure Phase Dimmable (1000mA 30-65W)	AA32205DEU	220-240Vac	CE
Apure DALI, Push, 1-10V (1000mA 30-65W)*	AA3DALIDEU	110-240Vac	CE

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

Custom Installation Types
- The universal bracket (AM3BRKU**XX**) 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!

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Wiring Diagram for Constant Current Minus products - [CC]
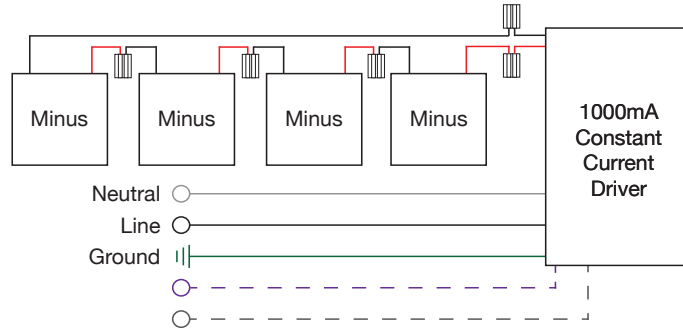
Fixture Leads
Red (+)
Black (-)

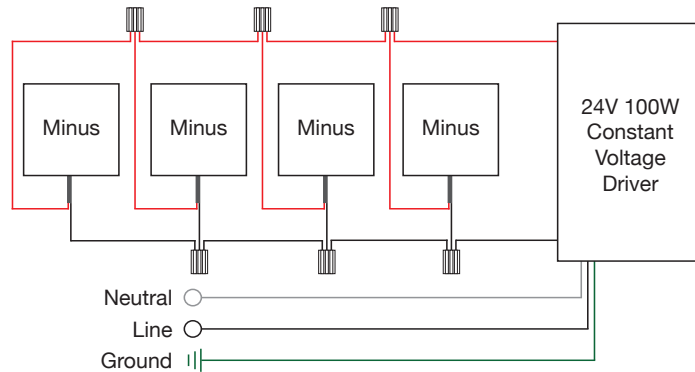*Warning: failure to wire correctly may cause fixture to fail.*

Additional Considerations

The above wiring diagram applies only to Constant Current Minus products with product ordering codes ending with "CC" or "EU". 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 29W)	1-2 Minus	16AWG - 82ft (25m)
•	Apure Phase Dimmable (1000mA 30-65W)	3-5 Minus	16AWG - 82ft (25m)
•	Apure DALI, Push, 1-10V (1000mA 30-65W)	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

Fixture Leads
Red (+)
Black (-)

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.