

PROJECT: _____ FIRM: _____ ORDER #: _____ TYPE: _____ QTY: _____



Cylinder One Spectrum™ downlights are self-contained high performance fixtures for medium- to long-throw applications. Maintaining a common overall sleek design, Cylinder One Spectrum fixtures offer four distinct mounting options to elegantly satisfy multiple architectural constraints.

At the heart of each Cylinder One Spectrum fixture sits our celebrated **Spectrum Five** light engine. This calibrated source can produce saturated RGBAL color mixes or any temperature of white from 1800K to 8000K. Alternatively, a special single channel Ai Dim mode can be used to accurately emulate the red-shift dimming of a traditional incandescent source (see page 9).

Configuration is handled via RDM across the wired DMX interface, while Aria X2™ wireless DMX is fitted as standard to simplify deployment in legacy locations that lack cabled control infrastructure.

The self-contained power supply accepts mains feeds from 100 to 277VAC and the fixture draws a maximum power of just 120W.

At a glance

| | | | | |
|--|--|--|--|---|
| <p>Optics</p> | <p>Emitters</p> | <p>Control</p> | | |
| <p>Power</p> <p>100 to 277VAC 50/60Hz</p> | <p>Temperature</p> <p>-4° F to 113° F -20° C to 45° C</p> | <p>Protection</p> <p>Ingress: IP40 Impact: IK08</p> | <p>Output</p> <p>Up to 8,610 lumens 113,610 candela</p> | <p>Core technologies</p> <p>SpectrumFive technology AcclaimModular systems aria X2 MULTI-BAND WIRELESS CONTROL Ai Dim technology</p> |

Configure your product

COS

Z-CHM

-RFH

Example final code: **COS4Z-CHMA4-RFHM**

Housing finish:

- 1 = Black (RAL 9005)
- 2 = White (RAL 9003)
- 4 = Gray (RAL 7047)
- 7 = Custom* (RAL #)

Mount type:

- A = Surface mount
- B = 3/4" NPS pendant thread¹
- C = Aircraft cable mount, 10' cable
- D = Wall mount

Mount finish:

- 1 = Black (RAL 9005)
- 2 = White (RAL 9003)
- 4 = Gray (RAL 7047)
- 7 = Custom* (RAL #)

Optics:

- S = 20° x 20°
- M = 40° x 40°
- W = 65° x 65°



* indicates special order items, which may require longer lead times

¹ specify pipe length (see page 4)



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Specifications

| | |
|-----------------------------------|---|
| Emitters | Spectrum Five light engine: Red, Green, Blue, Amber, Lime plus CCT select: 1800K to 8000K |
| Optics | 20° x 20°, 40°x 40°, 65° x 65° via quick change reflectors |
| Output | Up to 8,610 lumens, 113,610 max candela |
| Lumen maintenance | L ₇₀ 150,000 hours (@ 25° C) |
| Control | 0-100% dimming via wired DMX (with RDM configuration) plus built-in Aria™ X2 Wireless System |
| Maximum fixtures in series | 32 via DMX input/output, power local to each fixture |
| Operating voltage | 100 to 277VAC, 50/60Hz |
| Power consumption | 120W |
| Connection | Attached 20' (6.09m) AC power cable (18 AWG x 3) plus DMX/RDM cable (22 AWG x 5) |
| Maximum noise level | -23.9dB(A) |
| Mounting | Surface mount bracket standard, ¾" NPS pendant mount, aircraft cable, or wall mount |
| Material | Aluminum, acrylic lens |
| Finish | Gray standard (RAL 7047), black (RAL 9005), white (RAL 9003) or custom colors (provide RAL #) |
| Trim options | Full aluminum cutoff or illuminated acrylic ring |
| Ambient temperature range | -4° F to 113° F (-20° C to 45° C) |
| Ingress protection | IP40, dry location |
| Impact protection | IK08, protection against 5 joule impact (30cm distance) |
| Emergency use | Compatible with centralized backup systems as a directly controlled emergency luminaire (NEC 2023 700.24) |
| Warranty | 5 years, limited |
| Weight | 12.9 lbs (5.85kg) |

Certifications



Photometrics

For all available IES files, please visit acclaimlighting.com/products/cylinder-one-spectrum

| Optics | 3000K lumens | 4000K lumens | Red lumens | Green lumens | Blue lumens | Amber lumens | Lime lumens | Max Candela |
|-----------|--------------|--------------|------------|--------------|-------------|--------------|-------------|-------------|
| 20° x 20° | 8,610 | 7,507 | 2,581 | 4,836 | 1,667 | 5,936 | 8,234 | 113,610 |
| 40° x 40° | 5,267 | 5,275 | 1,807 | 3,385 | 1,167 | 4,155 | 6,898 | 38,242 |
| 65° x 65° | 3,978 | 3,877 | 1,342 | 2,515 | 867 | 3,087 | 5,052 | 13,599 |

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Model types



Type A
Surface mount



Type B
3/4" NPS pendant
thread
(12", 24" or 36"
pipe lengths)

*Note: above image
shown with optional
vaulted ceiling mount*



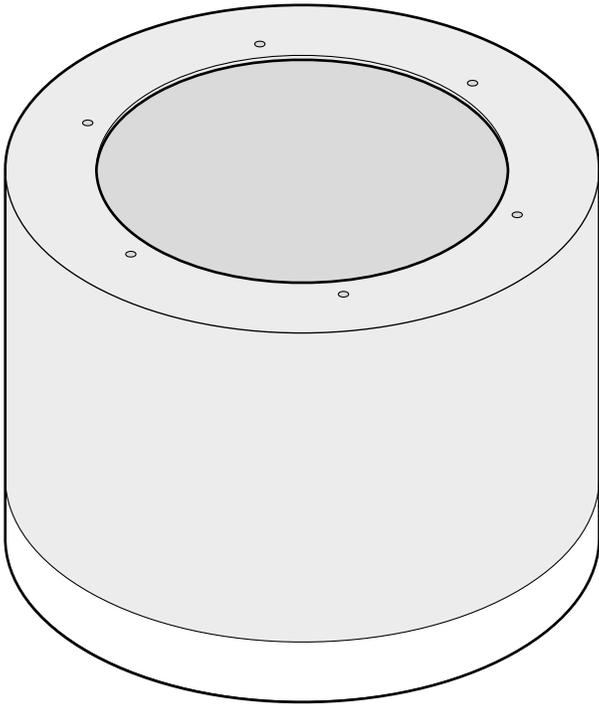
Type C
Aircraft cable mount
(with 10'
cable)



Type D
Wall mount

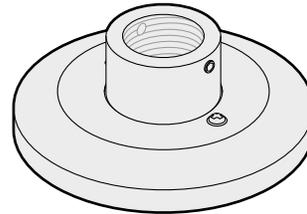
PROJECT FIRM ORDER # TYPE QTY

Accessories



Illuminated trim ring

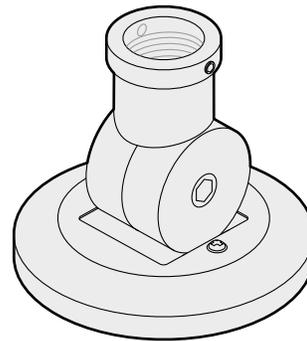
COHTR#



Flat ceiling mount

A flat pendant mount is supplied as standard with the 3/4" NPS mounting option...

CHMB#



Vaulted ceiling mount

...the optional vaulted ceiling mount allows the angle between the mount surface and pole to be rotated up to 60°.

COHVCM#

Where # = color:

- 1 = black
- 2 = white
- 4 = gray
- 7 = custom



NPS pipe

(3/4" NPS, O/D=1.050")

- 12" gray **[NPS34-12G]**
- 24" gray **[NPS34-24G]**
- 36" gray **[NPS34-36G]**

(For other colors, substitute G suffix for:

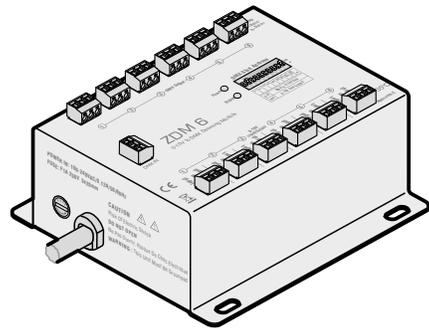
- B = black*
- W = white*
- C = custom)*



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Related components

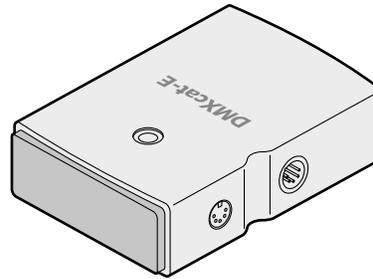
Signal converters (see page 10)



Multi-channel (0-10V) converter

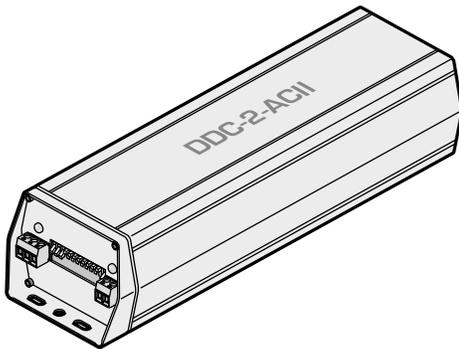
ZDM6

Test and configuration tool kit



DMXcat-E

DMX/RDM, ArtNet, sACN, SMPTE LTC and Midi test/configuration tool



DALI 2 multiple channel converter

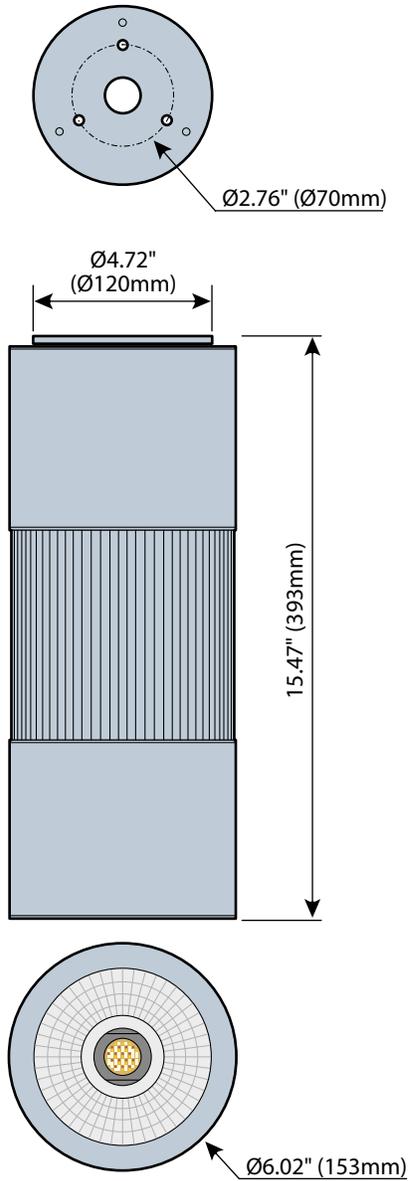
DDC 2 AC



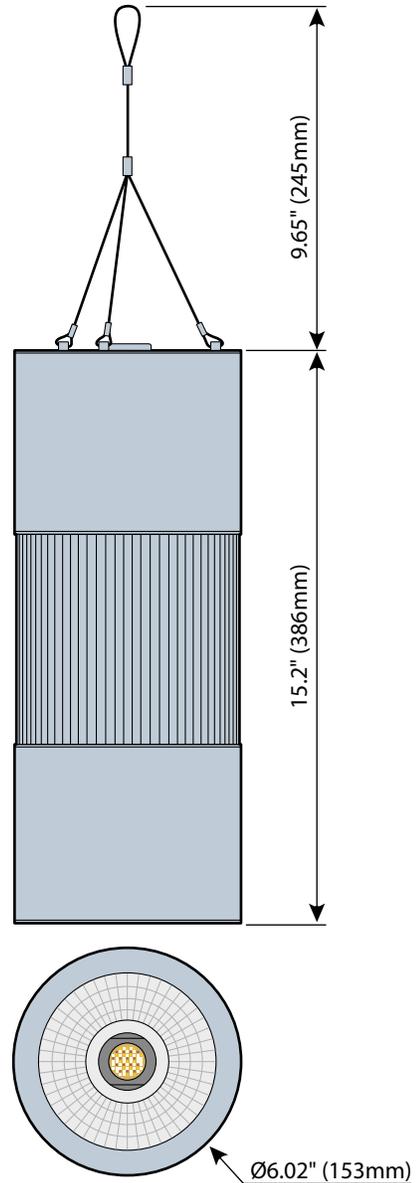
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Dimensions

Surface mount (type A)



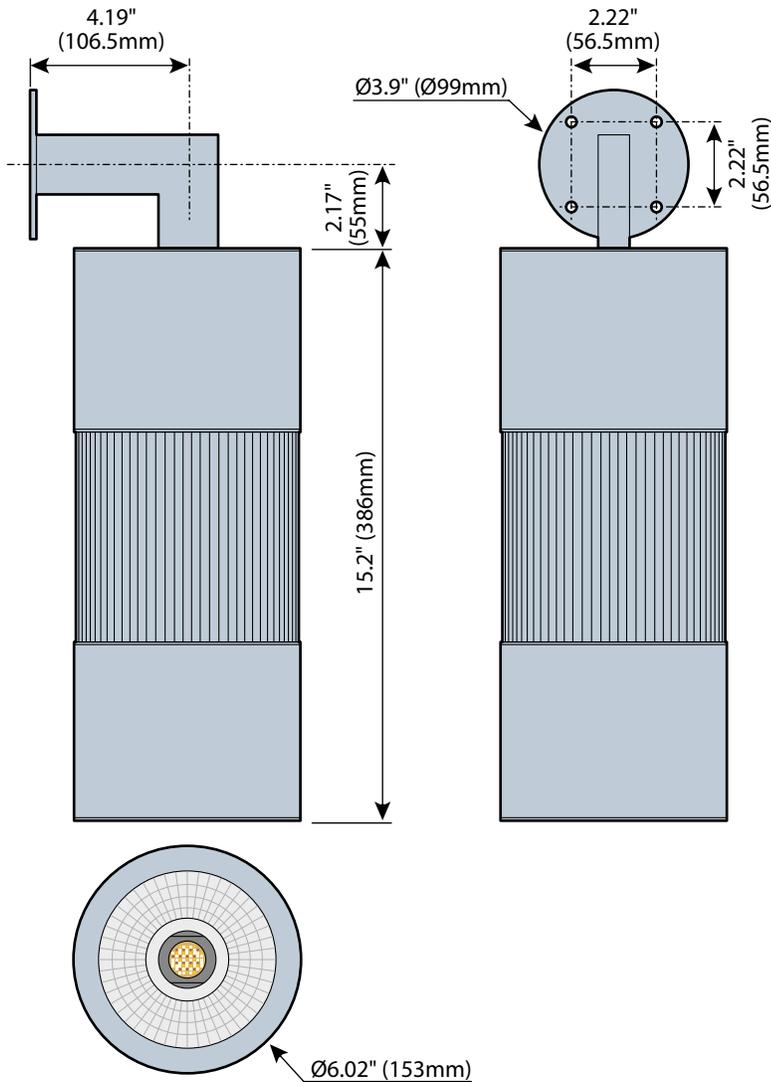
Aircraft cable mount (type C)



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Dimensions

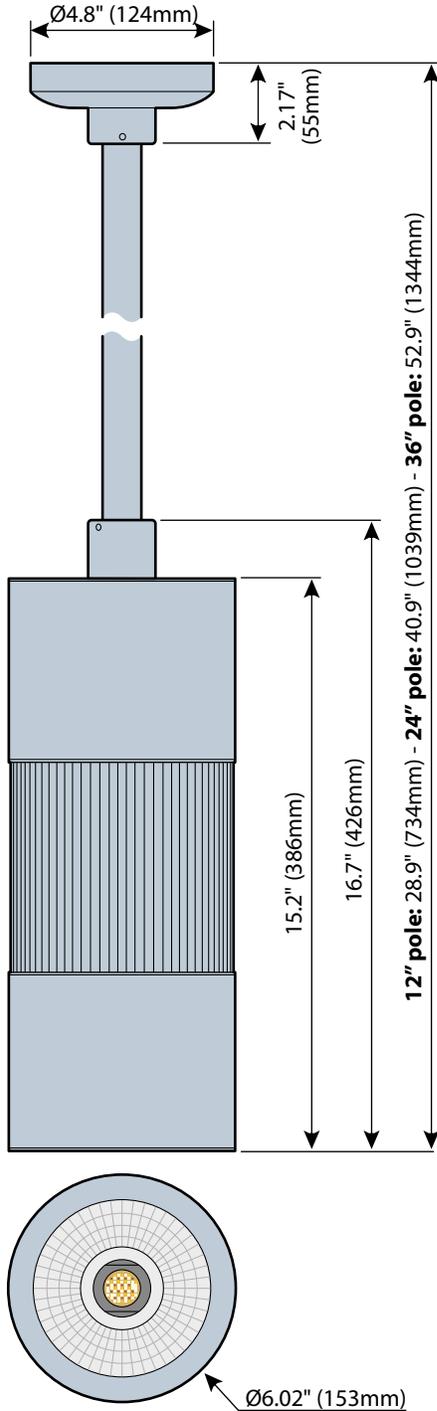
Wall mount (type D)



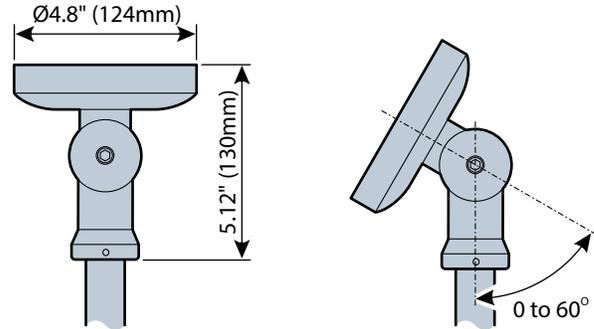
PROJECT _____ FIRM _____ ORDER # _____ TYPE _____ QTY _____

Dimensions

3/4" NPS mount (type B)

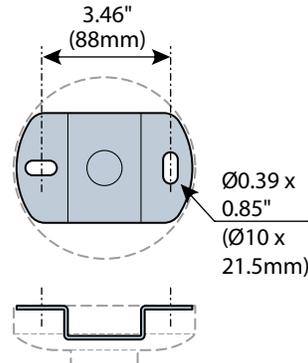


Optional vaulted ceiling mount



Internal bracket

(for standard and vaulted ceiling mounts)



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CCT Select color mixing

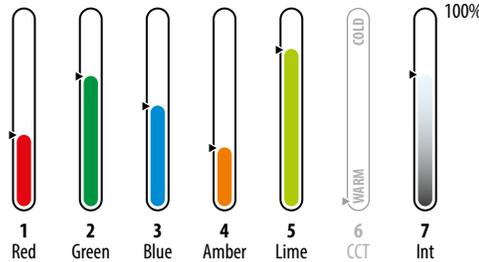
Cylinder One Spectrum fixtures allow you to mix saturated and pastel colors in addition to calling up any color temperature of white (using a dedicated CCT control channel). The special mode uses seven channels to provide full control.

Mixing saturated and pastel colors individually

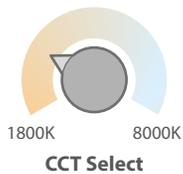
Use DMX channels 1 to 5 to mix the required shade.

Use channel 7 to determine the overall output intensity.

Note: **Channel 6 must be at zero.**



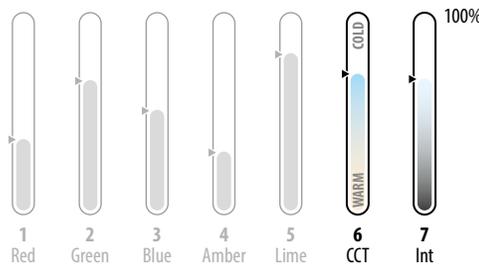
Choosing a temperature of white



Use DMX channel 6 to select the required correlated color temperature (CCT) ranging from 1800K (at 1%) to 8000K (at 100%).

Use channel 7 to control the overall output intensity.

Note: When channel 6 receives any value other than zero, the input values of channels 1 to 5 will be ignored.



| DMX value | Color temp |
|-----------|------------|
| 0 | Off |
| 001-004 | 1800K |
| 005-008 | 1900K |
| 009-012 | 2000K |
| 013-016 | 2100K |
| 017-020 | 2200K |
| - | - |
| - | - |
| 233-236 | 7600K |
| 237-240 | 7700K |
| 241-245 | 7800K |
| 246-250 | 7900K |
| 251-255 | 8000K |

16-bit control

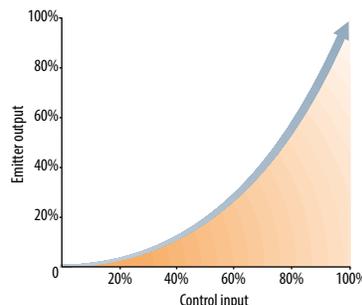
To provide even finer dimming responses, Cylinder One Spectrum fixtures also feature a 16-bit version of the above control mode. Using 13 channels in total, each color (plus the intensity) uses high and low bytes (2 channels each) to enact 65,536 dimming steps rather than the usual 256. The CCT Select channel remains as a single 8-bit word.

Note: A full list of DMX values for each color temperature are provided in the Cylinder One Spectrum user guide.

Single channel tungsten emulation

(Ai Dim to Warm)

In addition to the multi-channel control modes mentioned above, each Cylinder One Spectrum fixture also offers a simple one channel option. As the single channel is raised from zero to 100% and back to zero, the fixture responds with combined graduations of both intensity and color temperature to skilfully emulate the dimming response of a typical high-output tungsten source.



Ai Dim
technology

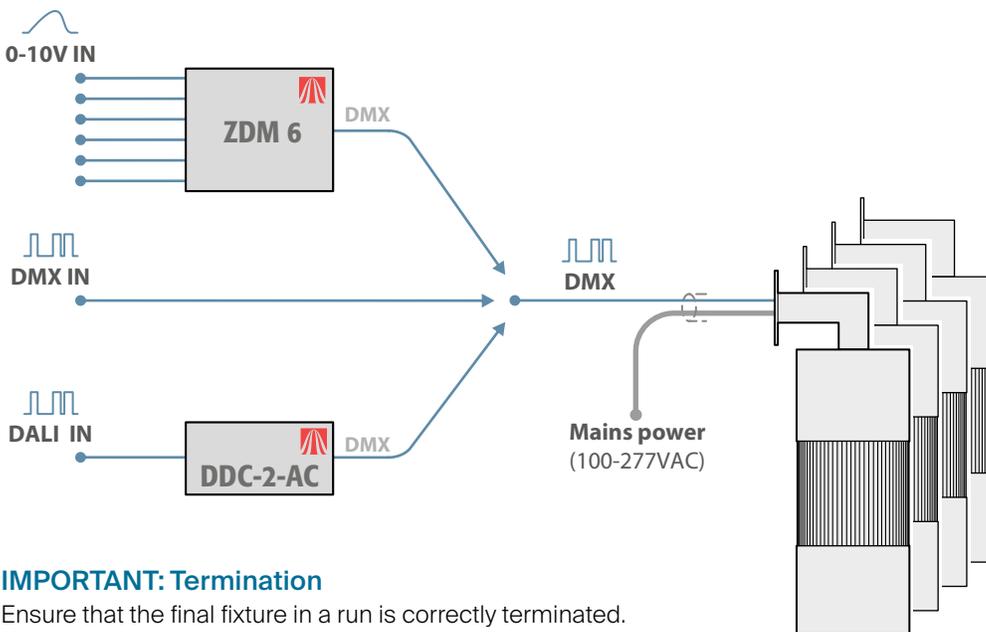
PROJECT FIRM ORDER # TYPE QTY

Alternative control inputs

Cylinder One Spectrum fixtures use DMX as their native control method, however, it is possible to use other common control protocols when required, such as 0-10V (source or sink) or DALI.

Control inputs via converters

- DMX - connect a DMX input directly to the feed cable.
- 0-10V - use an Acclaim Lighting ZDM 6 to convert one or more analog control feeds into a combined DMX feed.
- DALI - use an Acclaim Lighting DDC-2-AC to convert one or more DALI channels into a combined DMX feed.



When using Acclaim Lighting ZDM 6 or DDC-2-AC modules it is possible to convert multiple inputs into separate DMX channels within a consolidated feed - thus allowing multiple Cylinder One Spectrum fixtures to be uniquely addressed. The ZDM 6 can convert up to six 0-10V inputs into DMX channels, whereas the DDC-2-AC can convert a maximum of 64 DALI channels (although large numbers of channels are not recommended due to the timing limitations of the DALI standard).

IMPORTANT: Termination

Ensure that the final fixture in a run is correctly terminated.

Behavior if the control signal is lost or not applied

When the control signal is lost (or not used), each fixture can be configured to produce a specific output until the control signal is restored. If 100% output is required at all times during normal operation, this feature allows the fixtures to be fed with power only, without need for a control input.

Cylinder One Spectrum fixtures are compatible with centralized backup systems as directly controlled emergency luminaires (NEC 2023 700.24) - see the Cylinder One Spectrum user guide for more information.

For full installation details, please refer to the **user guide**, available for free download here:

