

BeveLED® 2.2 Infinite Color+® - B4SD-FC1

4.5" Square Downlight



Field Convertible from Trimless or Millwork to Trimmed

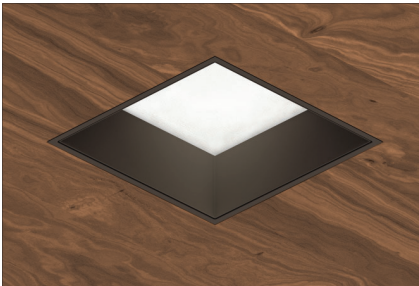
Trimmed - B4SDF-FC1



Trimless - B4SDL-FC1



Millwork - B4SDM-FC1



usailighting.com/infinitecolor

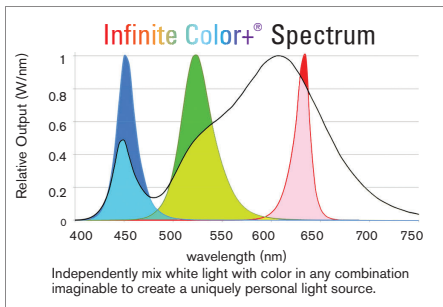
BeveLED 2.2 Infinite Color+® - Access to a wide variety of perfect architectural whites, saturated colors, neutrals, and pastels are possible with DMX controls. Infinite opportunities abound for residential, hospitality and retail lighting applications, and any project requiring full color and white light flexibility.

FEATURES

- Full color and white light flexibility
- Dry/damp/wet location rated for showers
- Field convertible from trimless or millwork to trimmed

DOWNLIGHT PERFORMANCE DATA

DELIVERED PERFORMANCE:	Infinite Color +	
	White Light Channel Only	Multi Channel Output
Wattage	23W	32W
Source Lumens:	1675	2100
Lumens Per Watt:	64	57
Delivered Lumens:	1450	1825



HOW TO SPECIFY

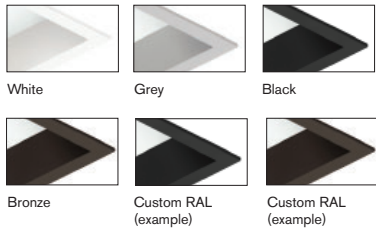
BeveLED® 2.2 Infinite Color+® - B4SD-FC1
4.5" Square Downlight with Integral Driver



Specify fixture part number

B4SD	32FC1		SF				UNV			
BeveLED Trim Style	Wattage Options	Beam Options	Lens Options	Bevel Trim Finish Options	*Flange/Millwork Collar Finish	Housing Options	Universal Voltage Option	Dimming Driver Options	Cabling Options	Accessories (Optional)
F Trimmed with Flange (use with all materials) L Trimless Spackle-in (use with sheetrock and plaster only) M Millwork Knife-Edge (use with wood and stone)	32FC1 32W LED	70 70° beam 90 90° beam	SF Solite Frosted	WH White SC Conduit Silver GR Grey BL Black BZ Bronze PR Primer Finish AC Clear Matte Anodized	WH White SC Conduit Silver GR Grey BL Black BZ Bronze PR Primer Finish AC Clear Matte Anodized WH White GR Grey BL Black	NC New Construction All-in-One NCSM New Construction Narrow Width NCCP Chicago Plenum NCIC Insulation Contact Rated / Airtight	UNV 120V-277V	D23X1 EldoLED DMX 0.1% dimming, manual addressing using RDM protocol, 8 bit D23X2 EldoLED DMX 0.1% dimming, manual addressing using RDM protocol, 16 bit	RJ RJ45 Jacks WR Manual Wire Splice Connection	CB27 27" C-Channel Bars CB52 52" C-Channel Bars EM Emergency battery (available with NC housing only)

TRIM FINISH OPTIONS



Custom colors and primer finish also available

HOW TO SPECIFY

BeveLED® 2.2 Infinite Color+® - B4SD-FC1

4.5" Square Downlight with Remote Driver



1. Specify fixture part number

B4SD	32FC1		SF				RM	
BeveLED Trim Style	Wattage Options	Beam Options	Lens Options	Bevel Trim Finish Options	*Flange/Millwork Collar Finish	Housing Options	Remote Dimming Driver	Accessories (Optional)
F Trimmed with Flange (use with all materials) L Trimless Spackle-in (use with sheetrock and plaster only) M Millwork Knife-Edge (use with wood and stone)	32FC1 32W LED	70 70° beam 90 90° beam	SF Solite Frosted	WH White SC Conduit Silver GR Grey BL Black BZ Bronze PR Primer Finish AC Clear Matte Anodized AB Piano Gloss Black	WH White SC Conduit Silver GR Grey BL Black BZ Bronze PR Primer Finish AC Clear Matte Anodized WH White GR Grey BL Black AB Piano Gloss Black WH White GR Grey BL Black RAL Custom Color Specify RAL #	NC New Construction All-in-One NCSM New Construction Narrow Width NCCP Chicago Plenum NCIC Insulation Contact Rated / Airtight	RM Remote Dimming Driver, specify remote power supply in table below	CB27 27" C-Channel Bars CB52 52" C-Channel Bars

**USAI
Power
Supply
Must Be
Specified**

TRIM FINISH OPTIONS



Custom colors and primer finish also available

2. Specify Remote Power Supply

RPC-01	32FC1	UNV		
Remote Power Supply	Fixture Wattage	Voltage	Remote Dimming Driver Type*	Cabling Options <i>Select one</i>
RPC-01 BeveLED 2.2 Infinite Color+ Remote Power Supply	32FC1 32W LED	UNV 120V - 277V	D23X1 EldoLED DMX 0.1% dimming, manual addressing using RDM protocol, 8 bit D23X2 EldoLED DMX 0.1% dimming, manual addressing using RDM protocol, 16 bit	RJ RJ45 Jacks WR Manual Wire Splice Connection

*Requires remote enclosure by others, minimum size 9"L x 4"W x 2"H

NOTE:
 Remote Power Supplies Require Enclosures by Others.
 See Page 7 for Details.

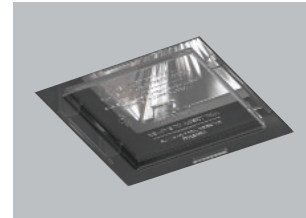
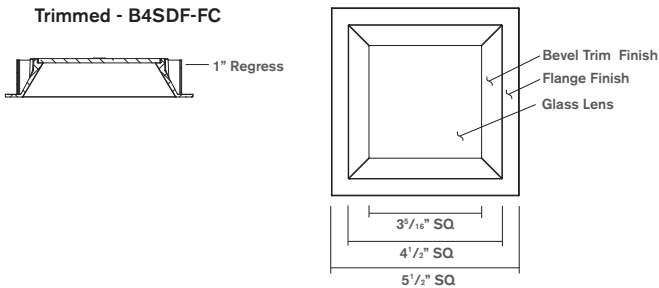
BeveLED® 2.2 Infinite Color+® - B4SD-FC1

4.5" Square Downlight



Trimmed - B4SDF-FC

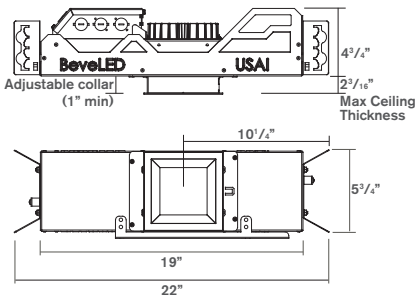
TRIM DETAILS



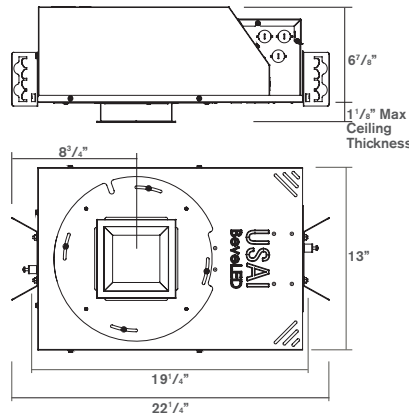
Clear acrylic overspray protector provided standard with every housing to keep out dust and contaminants during construction. Allows for use as work light.

HOUSING OPTIONS

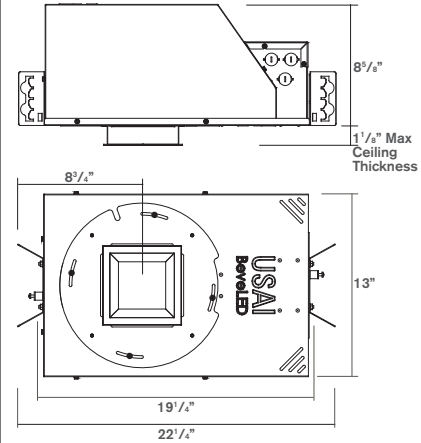
New Construction Narrow Width - NCSM



New Construction - NC



Insulation-Contact Rated - NCIC Chicago Plenum Rated - NCCP



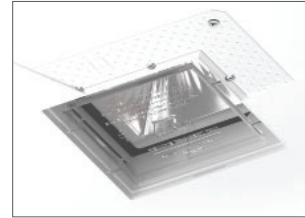
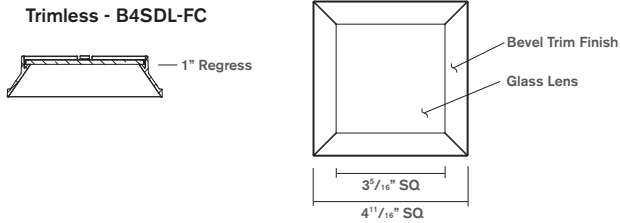
BeveLED® 2.2 Infinite Color+® - B4SD-FC1

4.5" Square Downlight



Trimless - B4SDL-FC

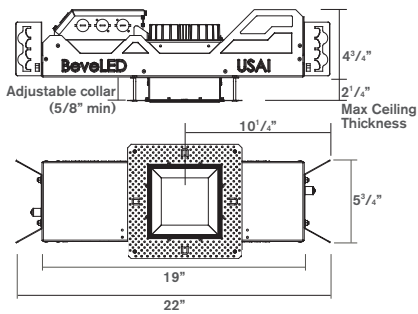
TRIM DETAILS



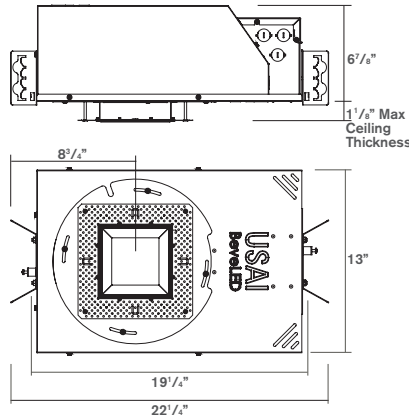
Clear acrylic overspray protector provided standard with every housing to keep out dust and contaminants during construction. Allows for use as work light.

HOUSING OPTIONS

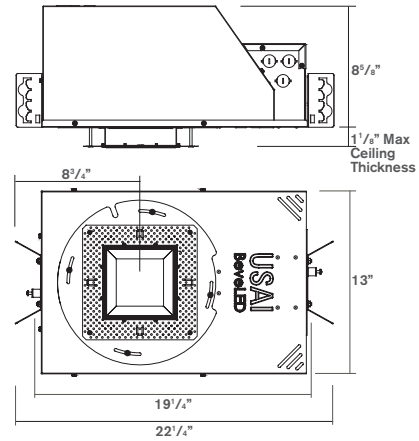
New Construction Narrow Width - NCSM



New Construction - NC



Insulation-Contact Rated - NCIC Chicago Plenum Rated - NCCP



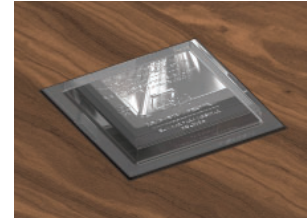
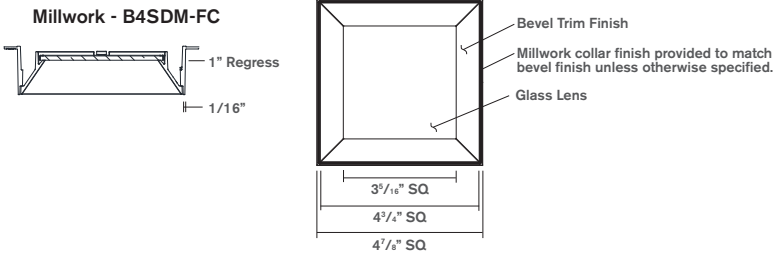
BeveLED® 2.2 Infinite Color+® - B4SD-FC1

4.5" Square Downlight



Millwork - B4SDM-FC

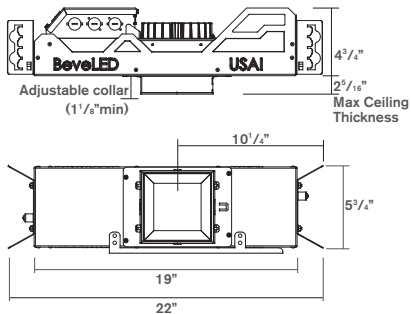
TRIM DETAILS



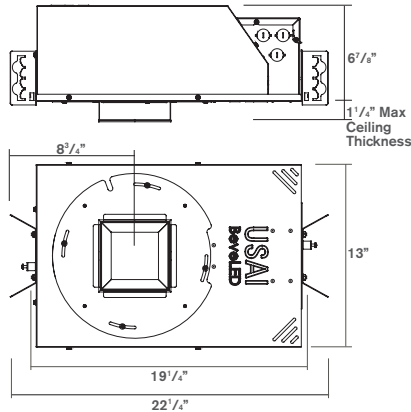
Clear acrylic overspray protector provided standard with every housing to keep out dust and contaminants during construction. Allows for use as work light.

HOUSING OPTIONS

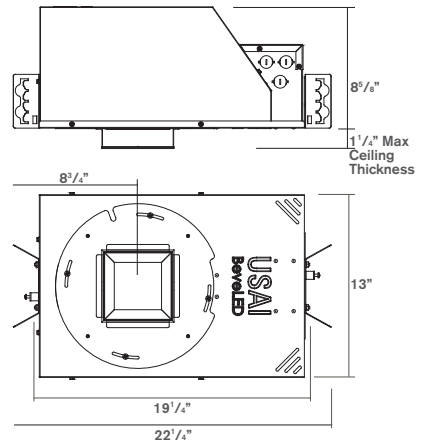
New Construction Narrow Width - NCSM



New Construction - NC



Insulation-Contact Rated - NCIC Chicago Plenum Rated - NCCP



sixteen5hundred	Project 21-12877-3 Date 6/25/2021 RGB/W Saturated Color	Catalog Number B4RCF 32FC1 50 SF WH WH NC UNV D23X2 RJ CB27	Type
	Submitted By 16500, INC	Notes	

BeveLED® 2.2 Infinite Color+® - B4SD-FC1

4.5" Square Downlight



BEVELED 2.2 INFINITE COLOR+ SPECIFICATIONS

FIELD REPLACEABLE LED LIGHT ENGINE

is serviceable through the aperture without tools or with a Philips screwdriver. All USAI Lighting light engines feature industry-leading color consistency.

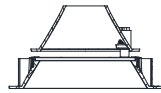
FIELD REPLACEABLE INTEGRAL DRIVER

Solid state electronic constant current DMX512 driver with a high power factor provided standard. Works with universal voltages 120V-277V.

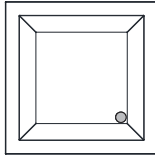
All integral dimming drivers are located within the fixture housing and are serviceable from below the ceiling through the aperture. Driver complies with IEEE C62.41 surge protection. Specify D23X1 for 8-bit communication controls; specify D23X2 for 16-bit communication controls. All driver options require remote device management (RDM) communication protocol for addressing.

INTEGRAL EMERGENCY BATTERY

An integral emergency battery pack is available as an option with the NC housing and integral driver/power supply only. IOTA emergency battery provides backup power for 90 minutes. NC EM fixtures are provided with an integral emergency battery with integral test switch and can be serviced through the aperture from below the ceiling plane. In emergency mode Infinite Color+ uses the white channel only at ~25% power.



Integral Emergency Test Switch included with NC housing and integral driver only.



REMOTE LOCATION DRIVER

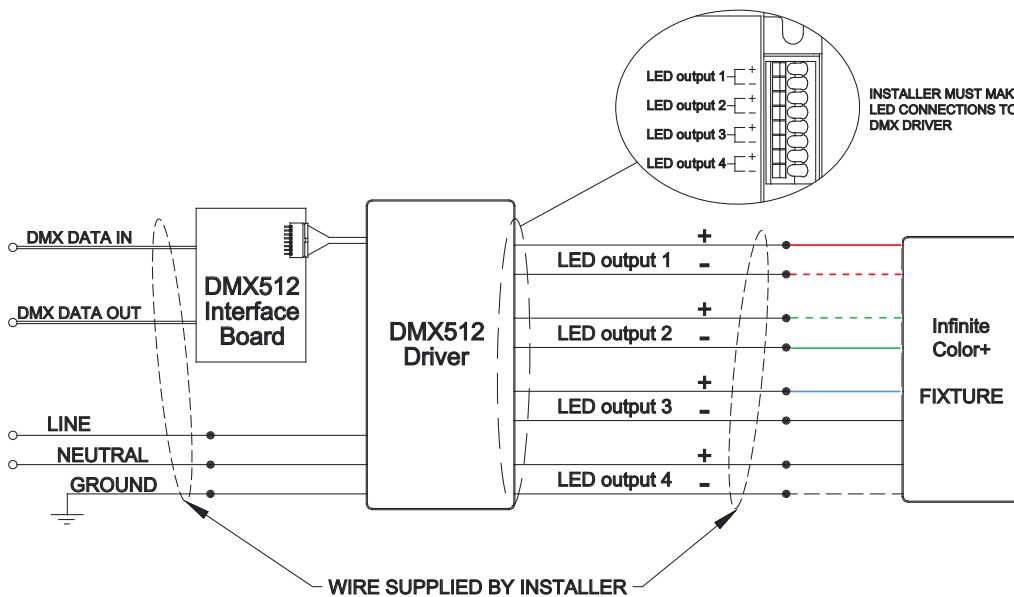
BeveLED 2.2 Infinite Color+ is available for use with remotely located driver. Driver is provided separately for remote location on site, enclosure to be provided by others. Remote dimming driver power supply option must be clearly specified in the "RP" table. below Remote power supplies require enclosures by others that meet local codes and must be located in an accessible service panel within 100ft of the light fixture; see remote driver table below for coordination of enclosure sizes and wire gauges required. All dimming drivers comply with IEEE C62.41 surge protection.


Remote Power Supply Requirements and Wiring Diagrams Note: Must be wired in homeruns per wiring diagram below.

1 Fixture Maximum Per Power Supply.

Remote Power Supply	Dimming Option	Wire Gauge Required*	Minimum Enclosure Size Required (by others)
RPC-01-32FC1	UNV-D23X1 EldoLED, 8 bit, DMX, 0.1%	18/16	9" W x 4" L x 2" H
	UNV-D23X2 EldoLED, 16 bit DMX, 0.1%		

* Wire gauge 18/16 = Maximum distance from light fixture to remote power supply is 100' using 16 gauge wire, 50' using 18 gauge wire.



	Project 21-12877-3 Date 6/25/2021 RGB/W Saturated Color	Catalog Number B4RCF 32FC1 50 SF WH WH NC UNV D23X2 RJ CB27	Type
	Submitted By 16500, INC	Notes	

BeveLED® 2.2 Infinite Color+® - B4SD-FC1

4.5" Square Downlight



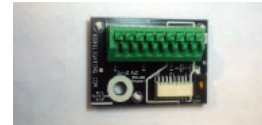
CABLING: Data cables must be run in series between fixtures. Choose your preferred method of connection when specifying. To avoid signal transmission problems, the DMX link terminator dip switch should be used in the last fixture in a series on a given DMX bus. NOTE: Data communication cables and AC power lines must not be run in the same conduit.

• **RJ Cabling Option:** If the RJ cabling option is specified, the remote power supply is provided with a DMX interface board that has RJ45 jacks for data connection with CAT5 cable terminated with RJ45 connectors. A link termination dip switch is provided at the connector board; no separate link termination device is required.



• **WR Cabling Option:** If the WR cabling option is specified, the remote power supply is provided with a DMX interface board with terminal blocks for wires to be manually spliced for data connection. A link termination dip switch is provided at the connector board; no separate link termination device is required. The data cable used must meet the following requirements:

- type: shielded, 2-conductor twisted pair
- maximum capacitance between conductors: 30 pF/ft
- maximum capacitance between conductor and shield: 55 pF/ft
- maximum resistance: 0.02 ohms/ft
- normal impedance: 100-140 ohms
- conductive core: 24 AWG is recommended



If 3-wire data cables are preferred, we suggest a Belden 9841 or equivalent cable which meets the specifications for EIA RS-485 applications. Do not use standard microphone cables: they cannot transmit DMX512 data reliably over long distances.

HOUSING

All BeveLED 2.2 fixtures are field-flexible which allows for field changes from trimless or millwork to trimmed with a simple components change with parts from USAI. All-Ways Square® (covered by US Pat. No: US 7,832,889) housing allows alignment of square aperture (up to 20° rotation) after housing installation and prior to finish ceiling installation. Integral driver housings are fabricated of 20 ga. steel construction with thru wire J-box, 4 in 4 out at min. 90°C, #12 AWG thru branch circuit wiring. Remote driver housings are supplied with quick connects and wire connections for use with remotely located driver.

MOUNTING

B4SDF overlap flange fixtures are designed for use in sheetrock, acoustical ceiling tile, and many other ceiling materials. B4SDL trimless fixtures are provided with a spackle collar and are designed for use in sheetrock/mud-in ceiling applications. B4SDM millwork fixtures are provided with a millwork collar and are designed for use in wood/millwork and stone construction applications. Butterfly brackets and adjustable nailer bars extendible from 14" to 24" centers with integral nails are provided for attachment to building structure. C-channel bars are optionally available for acoustical ceiling applications.

FIXTURE WEIGHT

NC, NCIC, and NCCP housings weigh 16 lbs. NC housing with EM weighs 24.5 lbs.

WARRANTY

Based on IESNA LM80-2008, BeveLED has a 50,000 hour rated life at 70% lumen maintenance (L70). USAI Lighting Warranty covers replacement parts for 5 years from date of shipment. Ambient temperatures at fixture location should not exceed 40°C during normal operation.

CEILING CUT OUT

B4SDF Trimmed with Overlap Flange: 5-1/16" x 5-1/16"

B4SDL Trimless Spackle-in: 5-1/2" x 5-1/2"

B4SDM Millwork Knife-edge: 4-15/16" x 4-15/16"

LISTINGS

Dry/Damp/Wet location. AC and AB trim finishes are dry/damp only. UL2043 rated for use in air handling plenums. NRTL/CSA-US tested to UL standards. IBEW union made.



NOTES

- Not for use in corrosive environment
- Use of pressure washer voids warranty

PHOTOMETRICS

Consult factory or website for IES files. Tested in accordance with IESNA LM79.

USAI® Lighting Infinite Color+®

IMPORTANT SAFETY INSTRUCTIONS

SAVE THESE INSTRUCTIONS

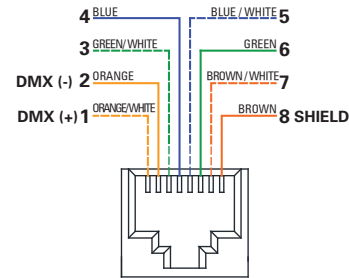
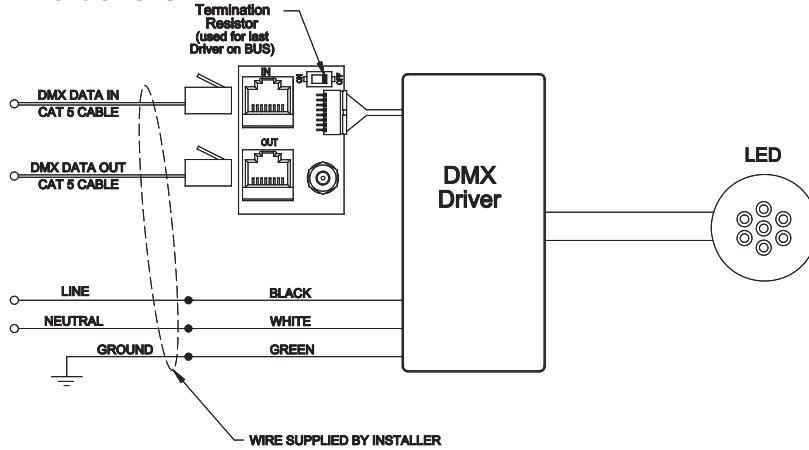
1. Keep these instructions in a safe place for future reference.
2. Only qualified electricians in accordance to local codes should install these fixtures.
3. De-energize the electrical circuit at the circuit breaker prior to installation process or servicing.
4. Make sure all connections are in accordance with the National Electrical Code and any local regulations.

DIMMING DRIVER COMPATIBILITY SELECTION GUIDE D23X1 AND D23X2

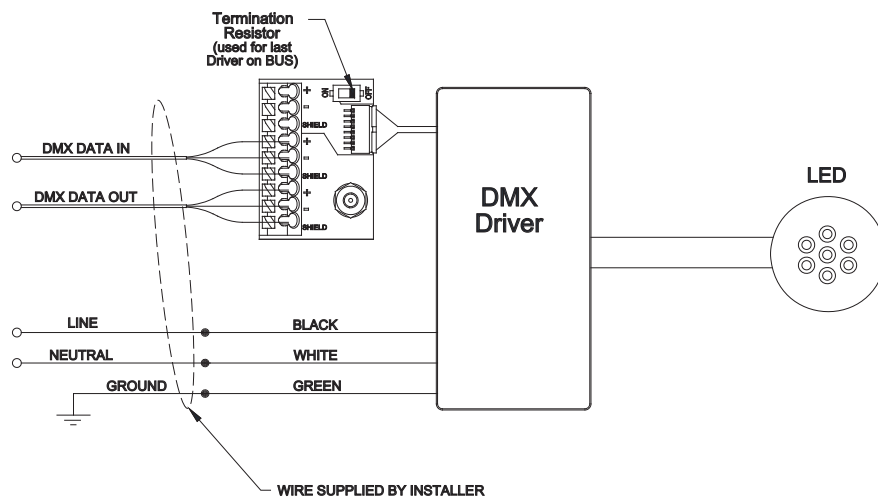
D23X1: EldoLED DMX dimming with manual addressing, 8-bit (Dims down to 0%)

D23X2: EldoLED DMX dimming with manual addressing, 16-bit (Dims down to 0%)

RJ CABLE OPTION RJ45 JACKS



WR CABLE OPTION wire splice connection



• **WR Cabling Option:** cables must be spliced inside the junction box for connection. The data cable used must meet the following requirements:

- type: shielded, 2-conductor twisted pair
- maximum capacitance between conductors: 30 pF/ft
- maximum capacitance between conductor and shield: 55 pF/ft
- maximum resistance: 0.02 ohms/ft
- normal impedance: 100-140 ohms
- conductive core: 24 AWG is recommended

If 3-wire data cables are preferred, we suggest a Belden 9841 or equivalent cable which meets the specifications for EIA RS-485 applications. Do not use standard microphone cables: they cannot transmit DMX512 data reliably over long distances.



USAI® Lighting Infinite Color+®

IMPORTANT SAFETY INSTRUCTIONS

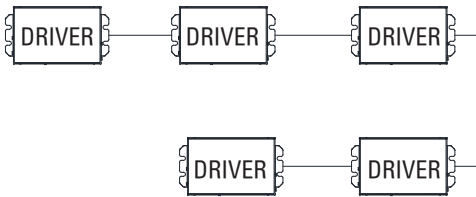
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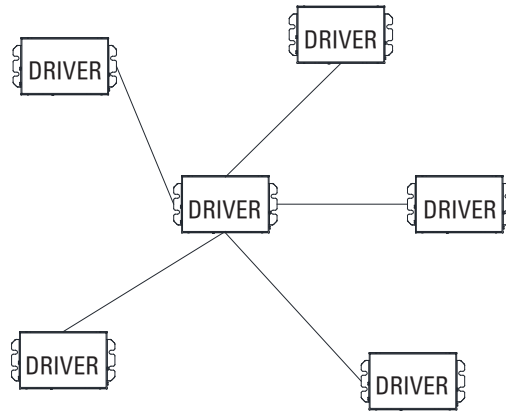
**DIMMING DRIVER COMPATIBILITY
SELECTION GUIDE
D23X1 AND D23X2**

DMX MUST BE DAISY CHAINED IN SINGLE LINE

CORRECT !



INCORRECT !



NOTES:

1. DMX signal cable must NOT be run in same conduit as high voltage AC power lines.
2. Fixtures must be daisy chained in one serial line using Data in and Data out
3. Maximum of 32 DMX devices on single DMX bus
4. Maximum of 1600' serial communication link distance
5. To avoid signal loss, DMX signal terminator should be used on last Fixture in line. This is provided through a dip-switch on the DMX512 interface board.