# 4.5" Square Wall Wash



### Field Convertible from Trimless or Millwork to Trimmed

### Trimmed - B4SWF-FC1



Trimless - B4SWL-FC1



Millwork - B4SWM-FC1





usailighting.com/infinitecolor

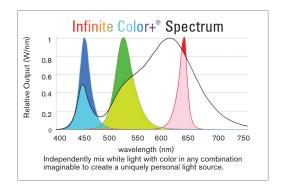
**BeveLED 2.2 Infinite Color+** - Access to a wide variety of perfect architectural whites, saturated colors, neutrals, and pastels are possible with DMX controls. Infinite opportunities abound for residential, hospitality and retail lighting applications, and any project requiring full color and white 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	Infinite Color +					
PERFORMANCE:	White Light Channel Only	Multi Channel Output				
Wattage	23W	32W				
Source Lumens:	1675	2100				
Lumens Per Watt:	57	50				
Delivered Lumens:	1275	1600				



# 4.5" Square Wall Wash with Integral Driver



### Specify fixture part number

B4SW_	32FC1	W1	D1				UNV	D23X1		
BeveLED Trim Style	Wattage Options	Beam Spread	Lens	Bevel Trim Finish Options	*Flange/ Millwork Collar Finish	Housing Options	Universal Voltage Option	Dimming Driver Options	Cabling Options Select one	Acessories (Optional)
F Trimmed	<b>32FC1</b> 32W LED	W1 Tilted	D1 WH Wall Wash Lens SC Cool GR Gree BL Bla BZ Brc PR	<b>WH</b> White	WH White	NC New Construction All-in-One NCCP Chicago Plenum NCIC Insulation Contact Rated / Airtight	UNV 120V-277V	D23X1 EldoLED DMX 0.1% dimming, manual addressing using RDM protocol, 8 bit	RJ RJ45 Jacks WR Manual Wire	CB27 27" C-Channel Bar
with Flange (use with all materials)	0211 223	Wall Wash Optic		SC Conduit Silver	SC Conduit Silver					CB52 52" C-Channel Bar
				<b>GR</b> Grey	<b>GR</b> Grey				Splice Connection	EM Emergency battery
Trimless Spackle-in (use with				BL Black	BL Black					(available with NC housing only)
sheetrock and plaster				<b>BZ</b> Bronze	<b>BZ</b> Bronze					
only) <b>M</b> Millwork				<b>PR</b> Primer Finish	PR Primer Finish					
Knife-Edge use with vood and			AC Clear Matte Anodized	AC Clear Matte Anodized						
stone)	one)				<b>WH</b> White					
					<b>GR</b> Grey					
					<b>BL</b> Black					
				AB Piano Gloss Black	AB Piano Gloss Black					
TRIM FII	NISH OP	TIONS			<b>WH</b> White					
					<b>GR</b> Grey					
) A // :		PI			<b>BL</b> Black					
White	Grey	Blac	CK	RAL Custom Color Specify RAL #	RAL Custom Color Specify RAL #					
		AL Cu	stom RAL							1

**USAI LIGHTING HEADQUARTERS** 

# 4.5" Square Wall Wash with Remote Driver



### 1. Specify fixture part number

B4SW_	32FC1	W1	D1				RM		USAI	
BeveLED Trim Style	Wattage Options	Beam Spread	Lens	Bevel Trim Finish Options	*Flange/ Millwork Collar Finish	Housing Options	Remote Dimming Driver	Acessories (Optional)	Power Supply Must Be Specified	
<b>F</b> Trimmed	<b>32FC1 W1</b> ed 32W LED Tilted	W1 Tilted Wall Wash Optic	D1 Wall Wash Lens	<b>WH</b> White	<b>WH</b> White	NC New Construction All-in-One NCCP Chicago Plenum NCIC Insulation Contact Rated /	RM Remote Dimming Driver, specify remote power supply in table below	CB27 27" C-Channel Bars CB52 52" C-Channel Bars	Supply	
with Flange (use with all materials)				SC Conduit Silver	SC Conduit Silver				Must Be	
L Trimless				<b>GR</b> Grey	<b>GR</b> Grey				Specified	
Spackle-in (use with				<b>BL</b> Black	<b>BL</b> Black				opecined	
sheetrock and plaster only)				<b>BZ</b> Bronze	<b>BZ</b> Bronze					
M Millwork	Edge vith				PR Primer Finish	PR Primer Finish	Airtight	rtight		
Knife-Edge (use with wood and				AC Clear Matte Anodized	AC Clear Matte Anodized					
stone)					<b>WH</b> White					
					<b>GR</b> Grey					
					<b>BL</b> Black					
				AB Piano Gloss Black	AB Piano Gloss Black					
TRIM FINISH OPTIONS				<b>WH</b> White						
			<b>GR</b> Grey	1 -						
White	Vhite Grev Black							<b>BL</b> Black		
vville	Grey	Blace		RAL Custom Color Specify RAL #	RAL Custom Color Specify RAL #					
Bronze	Custom R. (example)		stom RAL ample)		*Leave blank for Trimless					
Custom colo	rs and primer	finish also a	vailable							

### 2. Specify Remote Power Supply -

RPC-01	32FC1	UNV	D23X1	
Remote Power Supply	Fixture Wattage	Voltage	Remote Dimming Driver Type*	Cabling Options Select one
RPC-01 BeveLED 2.2	<b>32FC1</b> 32W LED	<b>UNV</b> 120V - 277V	D23X1 EldoLED DMX 0.1% dimming, manual addressing using RDM protocol, 8 bit	<b>RJ</b> RJ45 Jacks
Infinite Color+ Remote Power Supply			*Requires remote enclosure by others, minimum size 9 "L x 4"W x 2"H $$	WR Manual Wire Splice Connection

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

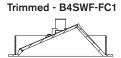
Page 3

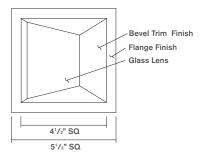
# 4.5" Square Wall Wash

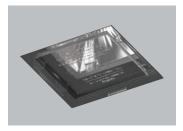


### Trimmed - B4SWF-FC1

### TRIM DETAILS



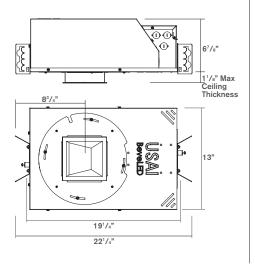




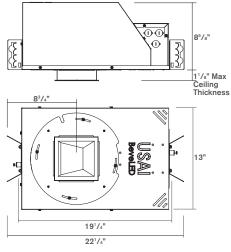
Clear acrylic overspray protector provided standard with every housing to keep out dust and contaminants during construction. Allows for use as work light.

### **HOUSING OPTIONS**





# Insulation-Contact Rated - NCIC Chicago Plenum Rated - NCCP



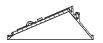
# 4.5" Square Wall Wash

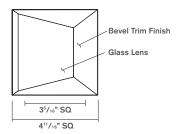


### Trimless - B4SWL-FC1

### TRIM DETAILS

### Trimless - B4SWL-FC1



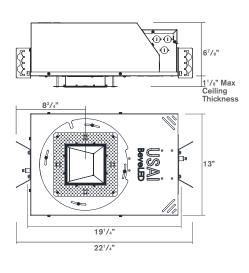




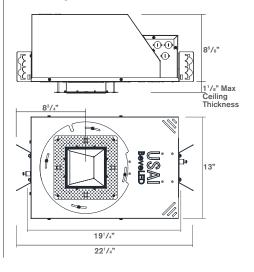
Clear acrylic overspray protector provided standard with every housing to keep out dust and contaminants during construction. Allows for use as work light.

### **HOUSING OPTIONS**

### New Construction - NC



# Insulation-Contact Rated - NCIC Chicago Plenum Rated - NCCP

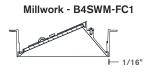


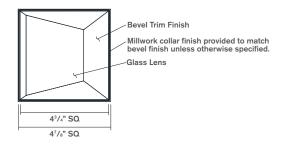
# 4.5" Square Wall Wash



### Millwork - B4SWM-FC1

### TRIM DETAILS

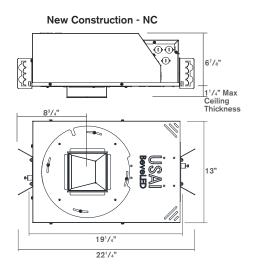


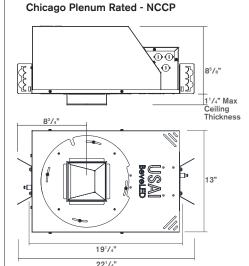




Clear acrylic overspray protector provided standard with every housing to keep out dust and contaminants during construction. Allows for use as work light.

### **HOUSING OPTIONS**





Insulation-Contact Rated - NCIC

# 4.5" Square Wall Wash



### **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 and requires 8-bit communication controls; contact USAI factory for 16 bit driver options. 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 remote test switch which comes with a 24" lead length for location of the test switch. EM battery is located inside NC housing 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.



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

#### REMOTE LOCATION DRIVER

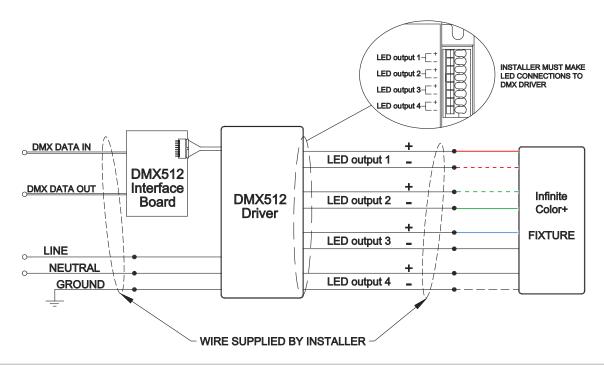
BeveLED 2.2 Infinite Color+ is available for use with remotely located driver and requires 8-bit communication controls; contact USAI factory for 16 bit driver options. Driver is provided separately for remote location on site, enclosure to be provided by others. Remote dimming driver power supply option 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.

		Wire Gauge	auge Minimum Enclosure		
Remote Power Suppl	y Dimming Option	Required*	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		

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

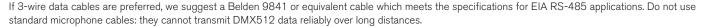


### 4.5" Square Wall Wash



**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/ftnormal impedance: 100-140 ohms
  - conductive core: 24 AWG is recommended



#### 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

B4SWF overlap flange fixtures are designed for use in sheetrock, acoustical ceiling tile, and many other ceiling materials. B4SWL trimless fixtures are provided with a spackle collar and are designed for use in sheetrock/mud-in ceiling applications. B4SWM 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**

B4SWF Trimmed with Overlap Flange: 5-1/16" x 5-1/16" B4SWL Trimless Spackle-in: 5-1/2" x 5-1/2" B4SWM 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.

Page

**USAI LIGHTING COLLABORATORY** 

# **USAI**\* Lighting Infinite Color+°

# DIMMING DRIVER COMPATIBILITY SELECTION GUIDE D23X1 AND D23X2

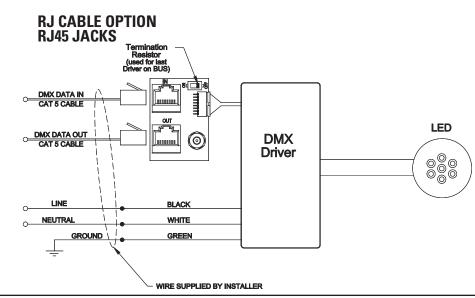
### **IMPORTANT SAFETY INSTRUCTIONS**

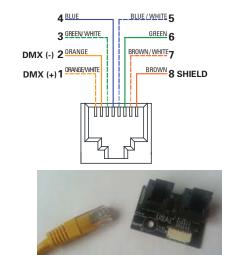
### **SAVE THESE INSTRUCTIONS**

- 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.

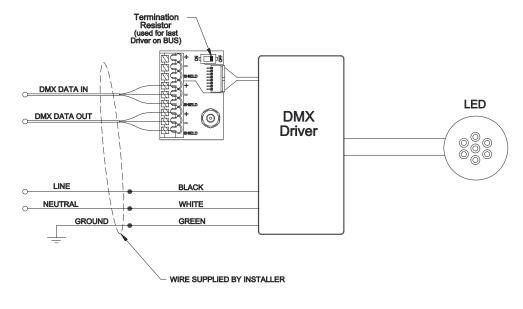
<u>D23X1</u>: EldoLED DMX dimming with manual addressing, 8-bit (Dims down to 0%)

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





# 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+

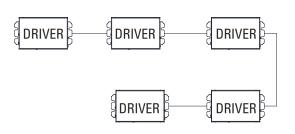
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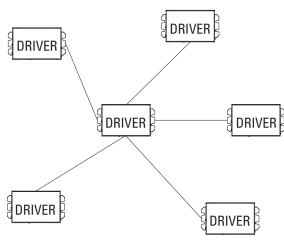
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- 4. Make sure all connections are in accordance with the National Electrical Code and any local regulations.

### DMX MUST BE DAISY CHAINED IN SINGLE LINE

CORRECT! INCORRECT!





DIMMING DRIVER COMPATIBILITY

**SELECTION GUIDE** 

**D23X1 AND D23X2** 

### **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.

