



## OpenView Luminous Virtual Window Surface Mount Installation Packet



### Installation Packet Includes:

OpenView Luminous Virtual Window Surface Mount Installation Instructions  
Sample Wiring Diagrams EL001580, EL001581, EL001583, EL001630 and EL001631  
Custom OpenView Installation Drawing packet (where applicable)

OpenView Luminous Virtual Window Technical Specifications

Wall Image Layout

OpenView Luminous Virtual Window Maintenance

For technical support at any time during the installation, please call us **toll free at 866-759-3228**.  
We want your installation to go as smoothly as possible. Thank you for choosing Sky Factory.

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## Provided Components:

OpenView Light Box: extruded aluminum case with back lit LEDs, integrated multi-inlet junction box, angle mounting bars, and trim mounting hardware with safety cords.

Image Tile: High resolution reproduction mounted on a .25" (6.4mm) polycarbonate panel pre-mounted to light box.

Trim: Wood or anodized aluminum frame which attaches to the light box/image tile with button-fix type 2 fasteners and safety cords.

Electrical: External V AC to V DC power supply

Installation Hardware: single luminaire installations ~ 2 aluminum angle mounting bars and bar-to-light box hardware

## Client Supplied Components:

Electrical circuit, V AC switch, conduit (if required) and wiring appropriate to local code provided and run to the appropriate locations.

Power consumption: Approx. 6.6W, 0.275A per square foot

Determining how to run the V DC supply conductors to the OpenView junction box

Means to attach the mounting bars to the finished wall (fasteners and fastener holes in bars)

Miscellaneous hand tools

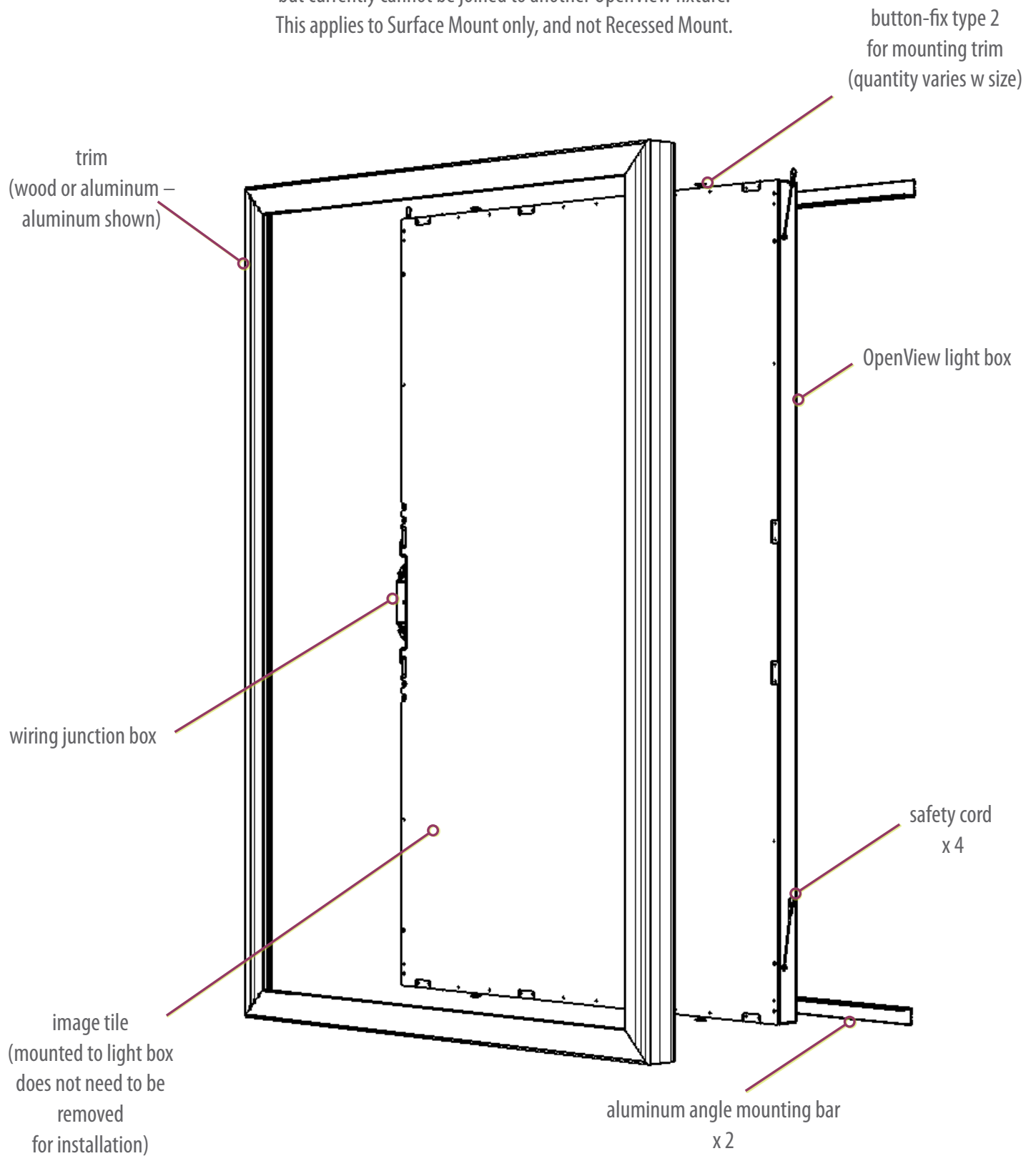
For larger OpenView's, two installers will be needed.

*Electrical work must be performed by a qualified electrician and must conform to all local and national codes.*

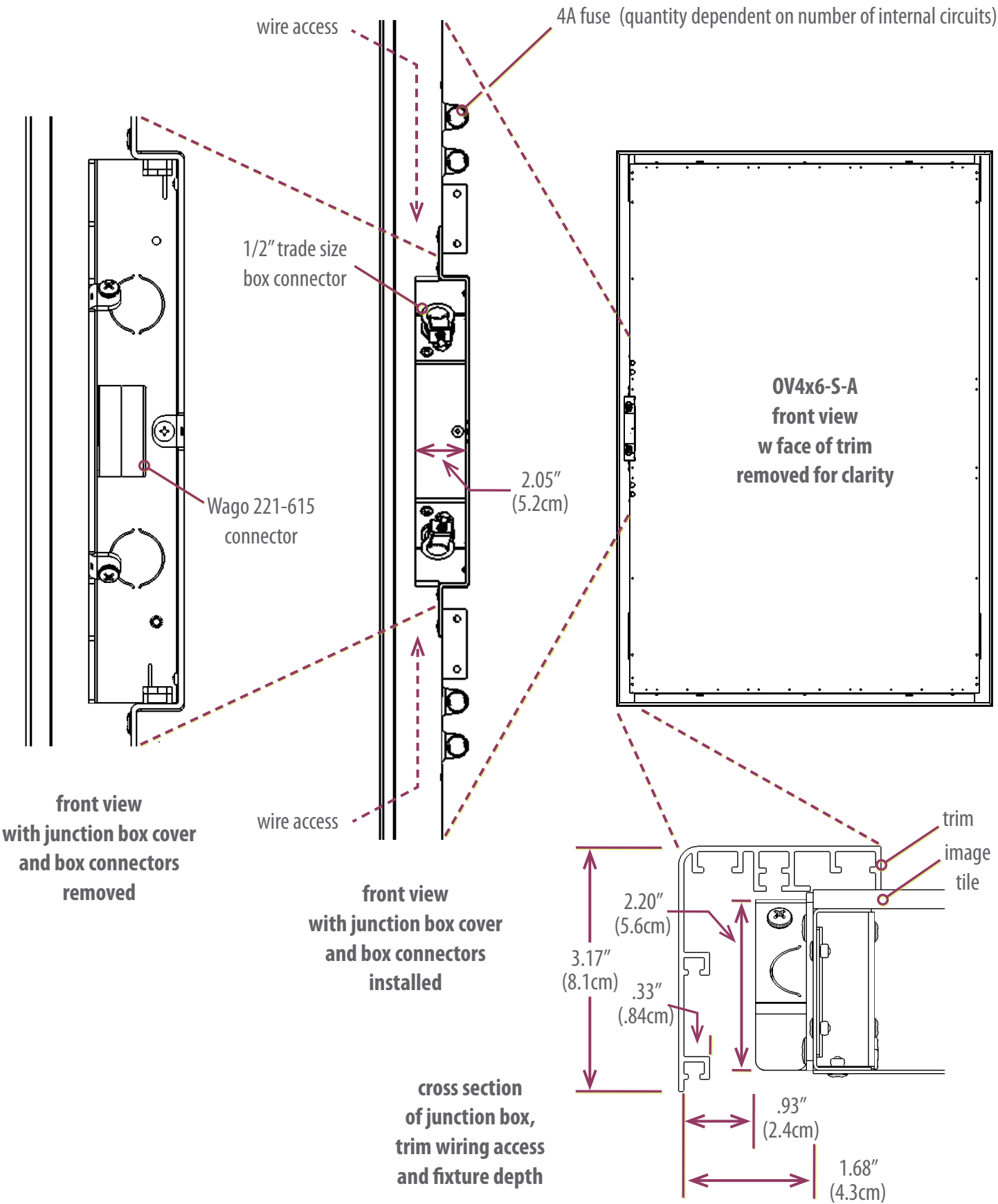
## OpenView Surface Mount Component Details:

### Major components:

OpenView Surface Mount fixtures can be mounted singly and in arrays, but currently cannot be joined to another OpenView fixture. This applies to Surface Mount only, and not Recessed Mount.



Wiring access and fixture depth:



## Step 1: Determining Overall Fixture Dimensions

OpenView sizes range from 4 ft<sup>2</sup> to 40 ft<sup>2</sup> in 1 foot increments, from 2' x 2', 2' x 3'/3' x 2' to 5' x 8'/8' x 5'.

The range of the smaller dimension is 2' - 5', the larger 3' - 8'. That is, a 6' x 6' or 3' x 9' are not options.

See sample sizes in Appendix A, pg 22

When installing multiple fixtures in a single display, recessed can be joined together whereas surface mount must be mounted separately.

Overall trim and light box widths and heights can be determined from the model description (Appendix A, pgs 23-24), from directly measuring the fixture, or from a custom installation drawing packet (where applicable):

## Step 2: Unpacking the OpenView

**IMPORTANT:** OpenView Surface Mount comes with trim and angle mounting bars attached.

Do not try to lift the fixture out of the wrapper by pulling up on the trim or mounting bars.

The trim is held to the light box by button-fix type 2 hardware, which are designed to release when pulled.

The mounting bars are attached to the light box by button-head machine screws in PEM type threaded inserts.

Although durable, the screws and threaded inserts are not designed for excessive torque.

To remove the trim:

1. Remove any shrink wrap holding it to the light box
2. Using both hands, grasp the trim near the top on both sides and pull it directly away from the light box  
**IMPORTANT: DO NOT PULL ON ONE SIDE ONLY!**
3. Then continue towards the bottom of the fixture until the trim is fully released.

Once trim is removed, bars can remain installed. However, lift fixture by the light box/SkyTile. Do not handle solely by lifting up or carrying fixture by the mounting bars.

Miscellaneous installation hardware is shipped above and/or along one side of the OpenView(s).

### Step 3: Locating the OpenView(s) on the Wall

OpenView fixtures come in a wide variety of sizes. For recommended fastener and mounting strategies for your specific installation needs, see:

- For angle mounting bar and fastener recommendations, including appropriate backing – Step 5 on pgs 7-12; Appendix B on pgs 25-26; Appendix C on pgs 27-29; and custom installation drawing packet (where applicable)
- For wiring access and wiring details – “wiring access” on pg 4; Step 6 on pgs 13-15; and Wiring Diagrams on pgs 17-21

We recommend the OpenView is placed at standard window height.

OpenView is qualified for dry or damp locations only, and must therefore be placed on an interior wall.

Where possible, locate fixtures on wall to maximize attachment points.

A location for the external power supply and means to run source power to fixture(s) needs to be established.

### Step 4: Installing the Fixture – Overview

NOTE: Installer discretion is required. On-site conditions vary. Please feel free to contact our engineering team if questions arise.

Fixture is mounted to wall with two 1/8" x 1 1/2" x 1 1/2" angle mounting bars, one mounted to the top of the fixture light box and one mounted to the bottom, both covered by the fixture trim.

Fixture comes with mounting bars attached and they will need to be removed to drill pilot holes for mounting to wall.

See Step 3 for recommended fastener and mounting strategy.

Wall surface should be relatively flat. Unevenness in wall surface can cause mounting bars to not seat firmly and/or trim to either seat too close or too far away from the wall.

Mounting bars must be installed flat, parallel, level and in the same plane. Shim accordingly.

Where possible, mount fixtures on as many framing members as possible. See Step 3 for details.

It might be necessary in certain applications to add blocking behind fixture, either behind or in place of drywall. Especially for smaller fixture widths, OV2xX, OV3xX, and OV4xX, and/or where fixtures do not center on framing members or where framing members are missing or are on centers greater than 16".

NOTE: The window(s) does not have to sit perfectly plumb on the wall to function properly, but must sit in a single plane.

## Step 5: Installing the Fixture

1. Determine exact horizontal and vertical location of fixture.

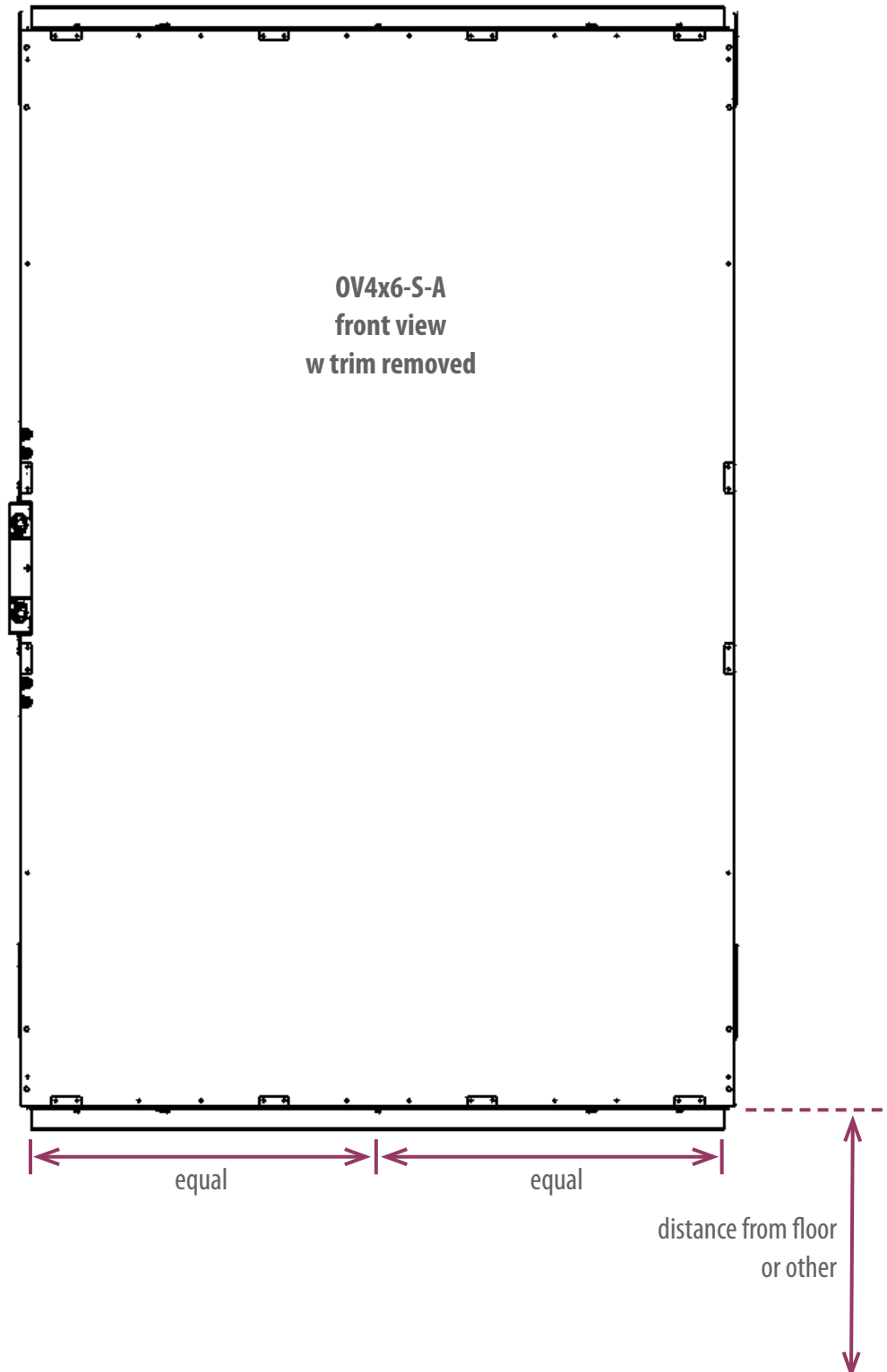
Include wiring access and wall framing. See Step 3 on page 6 for details.

2. Determine exact height and center of bottom mounting bar based on point 1 above.

3. Determine bar-to-wall fastener locations based on points 1 and 2 above.

**IMPORTANT:**

A second pair of hands is needed to hold fixture in place during installation as well as handling larger fixtures in general.

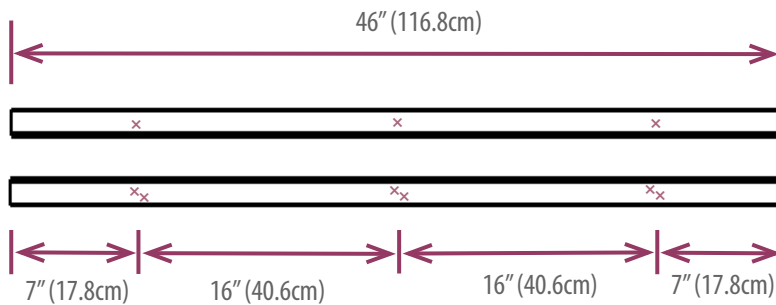


## Step 5: Installing the Fixture (cont'd)

4. Remove mounting bars and pre-drill both bars accordingly.

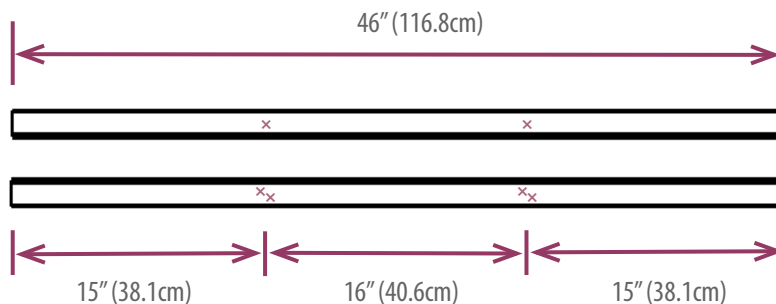
Unscrew bars from ends of lightbox  
using Phillips #2 driver

**OV4x6-S-A**  
**front view**  
**w trim removed**



see recommended fastener schedule  
on next page

**Sample 1:** Where bars are centered on three framing members at 16" centers



see recommended fastener schedule  
on next page

**Sample 2:** Where bars are centered on two framing members at 16" centers

## Step 5: Installing the Fixture (cont'd)

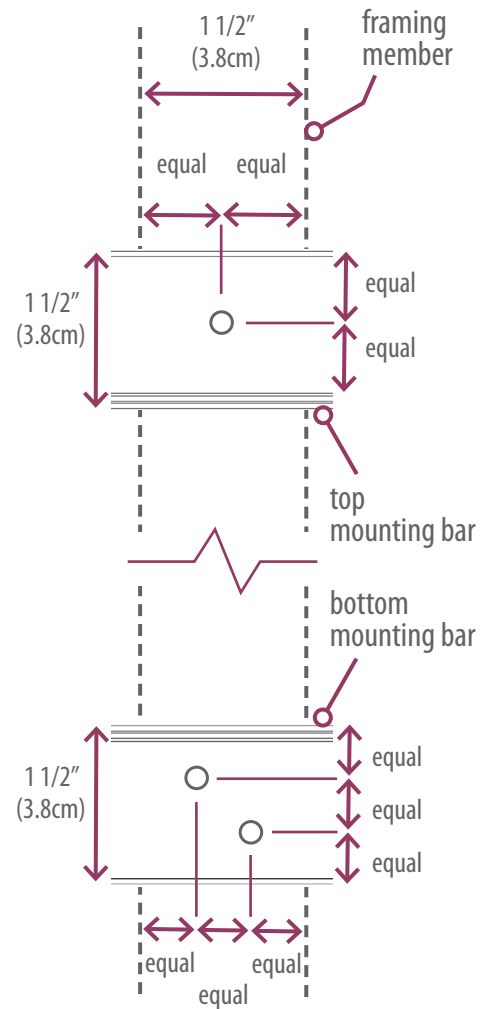
### Top mounting bar fastener schedule:

For standard framing members, one fastener hole per framing member attachment point on top bar.

### Bottom mounting bar fastener schedule:

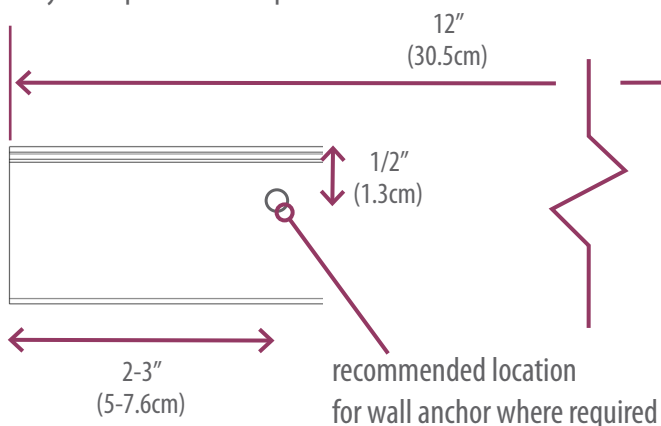
For standard framing members, two fastener holes per framing member attachment point on bottom bar.

Both fasteners per attachment point in bottom bar must be firmly anchored in framing member.



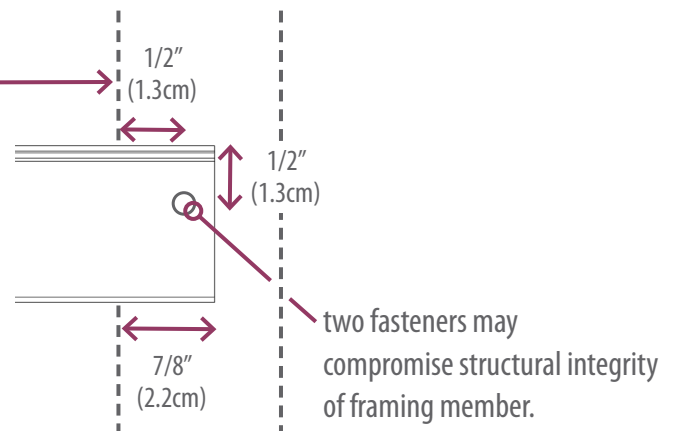
### Where bottom bar extends over 12" past framing member:

Depending on fixture width and reliability of fasteners in framing, a wall anchor or comparable may be required. See Step 3.



### Where bottom bar only extends part way over framing member:

Only a single fastener can be used



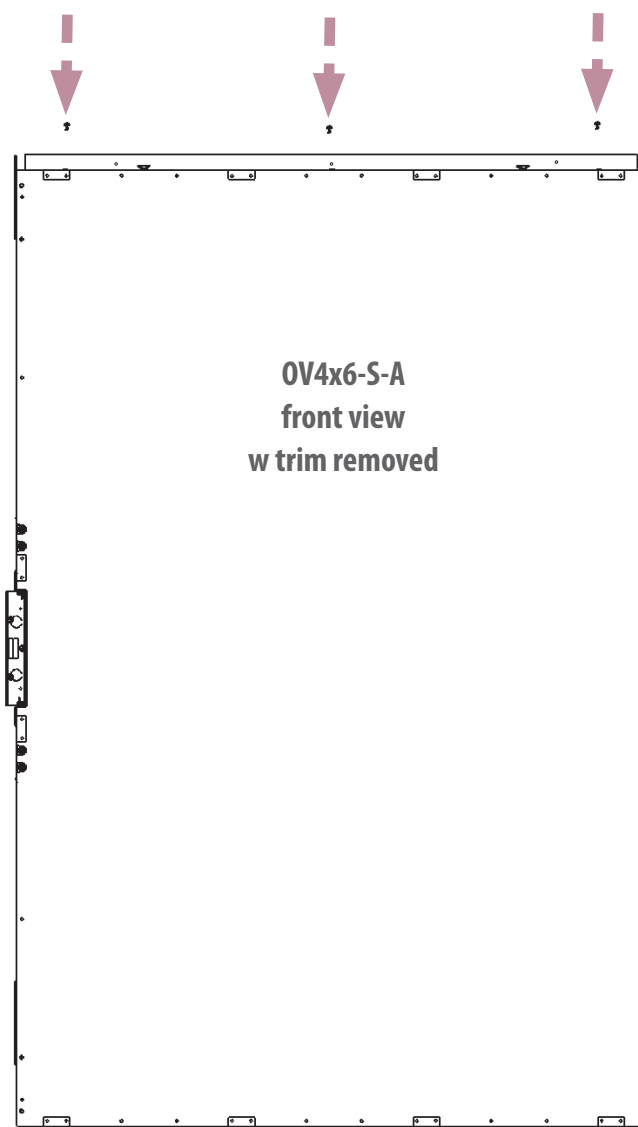
## Step 5: Installing the Fixture (cont'd)

5. Install bottom mounting bar to wall, centered right to left in pre-determined location.
  - a. If bottom bar requires wall anchors, install them as well. (Note: This applies to bottom bar only. See Point 8 for wall anchor treatment of top bar.)



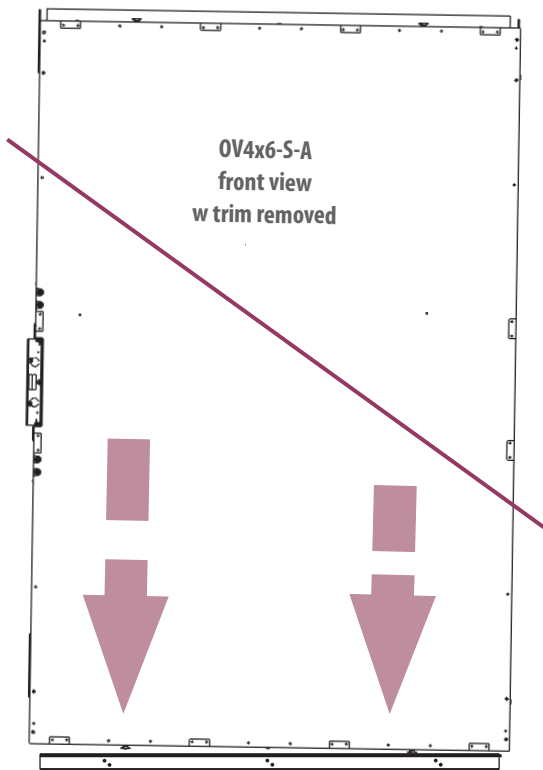
6. Re-mount top mounting bar to top of fixture

NOTE: When reattaching mounting bars to fixture, first thread attachment screws in by hand and then snug them with #2 Phillips screwdriver. Do not strip PEM type threaded inserts



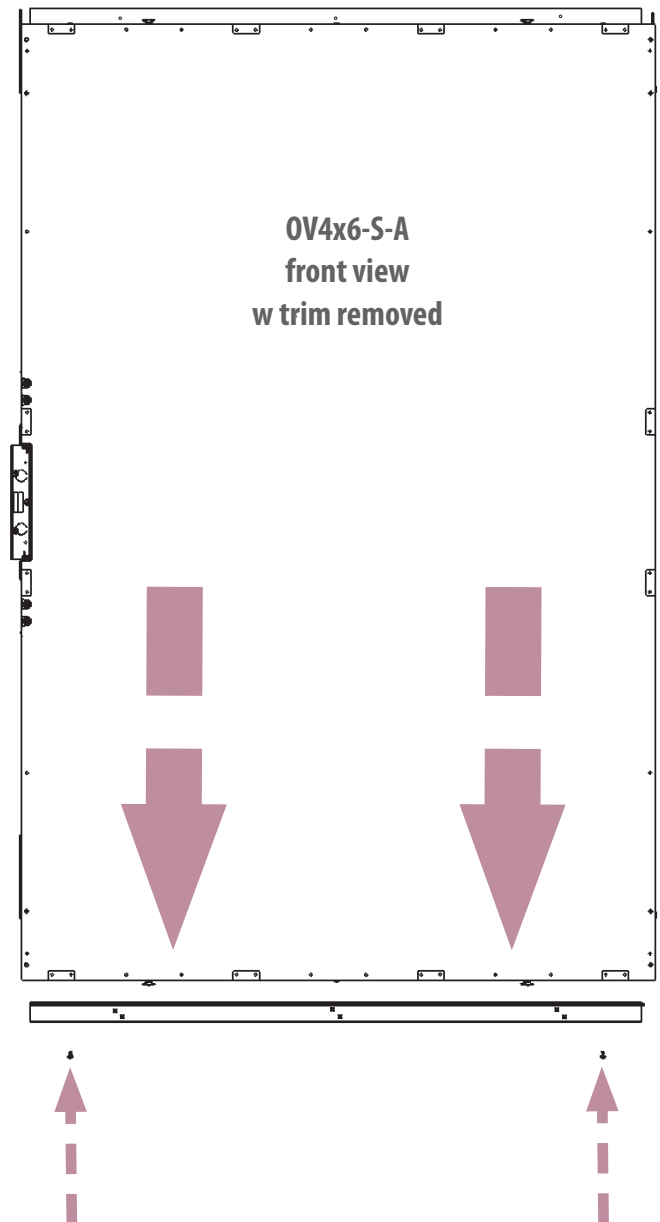
## Step 5: Installing the Fixture (cont'd)

7. Then set fixture on bottom mounting bar and while one installer holds fixture in place, second installer secures it to bar with at least two fasteners.



### IMPORTANT:

Set fixture on bottom bar gently and evenly.  
DO NOT LOAD ONE END OF THE BAR.  
DO NOT OVERSTRESS THE FASTENERS.

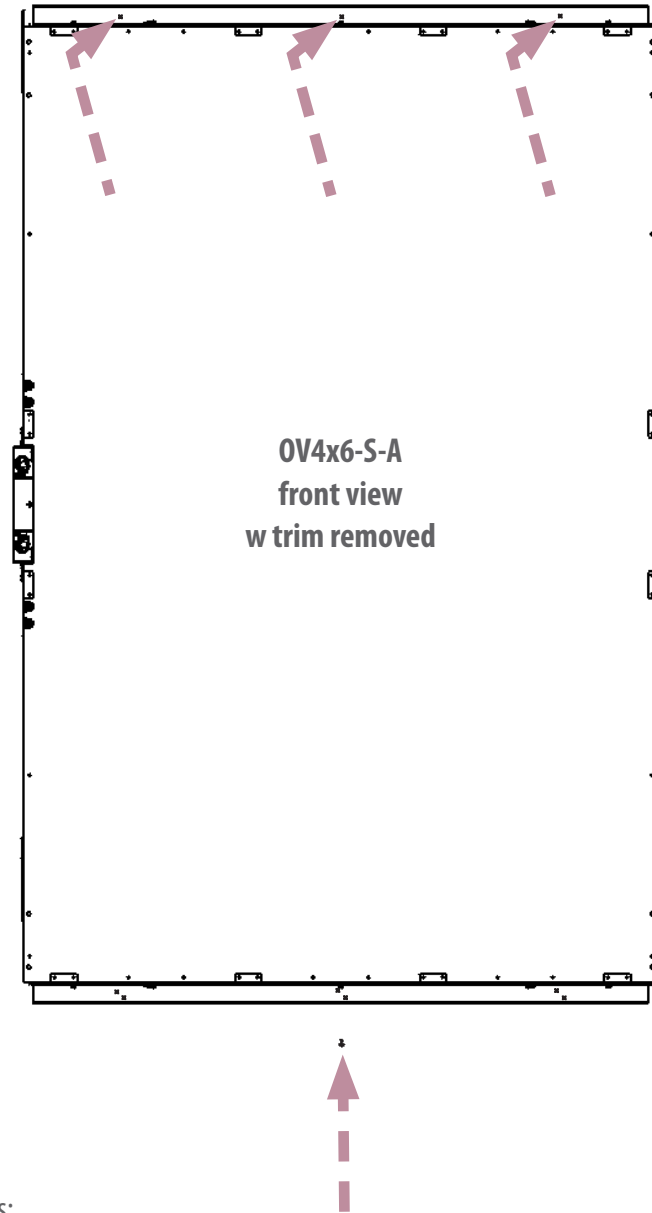


NOTE: Installing fasteners confirms the fixture is properly seated and centered on bottom bar.

## Step 5: Installing the Fixture (cont'd)

8. Second installer then secures top bar to wall framing members and finishes securing bottom bar to fixture if needed.

If top bar requires wall anchors, see NOTE below



NOTE: If top bar requires wall anchors:

- 8a. second installer marks wall anchor locations using top bar,
- 8b. fixture is removed and wall anchors are installed,
- 8c. fixture is then reinstalled on bottom bar and secured to bar with at least two fasteners,
- 8d. second installer then secures top bar to all framing members and wall anchors, and finishes securing bottom bar to fixture if needed.

## Step 6: Wiring the OpenView

- See also “Wiring access and fixture depth” on pg 4 and Wiring Diagrams on pgs 17-21



**Notice:** The LED fixtures are 24DC ONLY.

**AC voltage connected directly to the fixtures  
will destroy the lighting system.**

OpenViews are powered by an external V AC to V DC 30W-600W with 1 or 2-output channels power supply:

Listed for U.S. and Canada

Overload, Short circuit and Thermal protection

Input Voltage: 100-277V AC, 50-60 Hz

NOTE: Standard Sky Factory provided dimmer is 120-277V AC

Output Voltage: 24V DC

Power supply can be switched to either 0/1-10V or PWM dimming (See Wiring Diagrams on pages 20-21)

Suitable for damp locations

Contact Sky Factory for PSU selection

**Power supplies and dimmer/switch must be located outside the room in all MRI, shielded applications.**

For power consumption: OpenView fixtures are approx. 6.6W, 0.275A per square foot. See also fixture label and/or contact Sky Factory for power consumption information.

**In MRI applications, an RF filter is required and will be supplied by others.**

- When used with the provided Listed power supply, the system conforms to NFPA 70 Codes 411.4 (B), 411.5 (A), 411.6 (B), and 411.7.
- For Hazardous (Classified) Locations, this product shall conform with Articles 500 through 517 of NFPA 70.
- Secondary circuits shall not be grounded. NEC 411.6 (A)

*Electrical work must be performed by a qualified electrician and must conform to all local and national codes.*

## Step 6: Wiring the OpenView (cont'd)

### Wiring Source V AC to power supply:

Run power to V AC side of the power supply:

Line to **L (BLACK)**

Neutral to **N (WHITE)**

Ground to **GND (GREEN)**

Wire gauge must conform to local and national codes.

Install the power switch on the V AC input side of the power supply.

### Wiring power supply V DC to OpenView:

Run two continuous wires from the V DC side of the power supply to the OpenView connector, positive (+) to positive (+) and negative (-) to negative (-).

Power supply **V+ (RED)** to OpenView “+”

Power supply **V- (BLACK)** to OpenView “-”

OpenView connector wire range is 20 - 10 AWG (.05 - 6mm<sup>2</sup>) for solid and stranded conductors

0.47 - 0.55" (12 - 14mm) strip length

To minimize voltage drop and maintain desired brightness, use appropriate wire gauge.

Junction box cover must be removed on OpenView to access connector.

Always turn circuit off before removing a wiring cover.

When replacing the cover, make sure all mounting screws are tight.

**IMPORTANT: WHEN REPLACING THE JUNCTION BOX COVERS, SNUG SCREWS ONLY!**

**DO NOT OVERTIGHTEN SCREWS AND STRIP SCREW CHANNEL!**

Four 1/2" trade size knock-outs are available on the junction box: two on the cover and two on the back.

When source power is running to a single fixture, only remove the knock-out on the source side of the fixture.

When source power is running through one fixture to another fixture, remove both knock-outs as needed.

Fasten the provided 1/2" (12.7mm) box connector (or comparable) in the wiring access hole and make the electrical connection inside the junction box.

Power entry hole is limited to 1/2" nominal trade size conduit.

Connect DC power in conformance to local and national Electrical Codes.

## Step 6: Wiring the OpenView (cont'd)

### Wiring dimmer (where provided):

Contact the Sky Factory if you plan on using a dimming system provided by others.



**Notice:** Dimming using non-approved systems may permanently damage LED's and will void the warranty!

### Wiring a Sky Factory provided dimmer control:

To wire the dimmer control (and external relay where specified), refer to wiring diagram included with dimmer and relay and EL001630 and EL001631 on pages 20-21, and installation specific wiring diagram (where applicable.)

**Replace the junction box cover and test the fixture before installing the trim.**

## Step 7: Installing the trim

### Safety cords:

Safety cords catch the OpenView trim if it is jarred loose of the button-fix catches.

Cords are mounted on the OpenView light box near the top and bottom on each side.

Smaller sizes may have only one set of cords at the top.

Cords attach to clearly marked buttons on trim.

Attaching the safety cords is easiest with two people:

One person holds the trim up while the other person attaches the cords to the clearly marked buttons on the trim.

### Attach the trim:

**IMPORTANT:** Make sure the safety cords are connected.

Using both hands, grasp the trim near the top on both sides, line up the buttons on the trim with the button-fixes on the image panel/light box and push the trim firmly,

then continue towards the bottom of the fixture until the trim is fully secured.

Make sure all the catches latch.

## Step 8: Check installation using Final Inspection list.



Is the image evenly lit??

- If there are shadows, dark spots, or bright lines on the image, clean the SkyTile. See OpenView Maintenance.

Is the trim securely latched?

- If trim pops off easily, and rubs against wall when it is installed:

Wall is not flat and bows out where trim is rubbing. Shim mounting bars accordingly.

- If trim pops off easily, and there is a gap between trim and wall all the way around:

Button catches have not been fully engaged. Re-install trim making sure to firmly press the buttons into the catches.

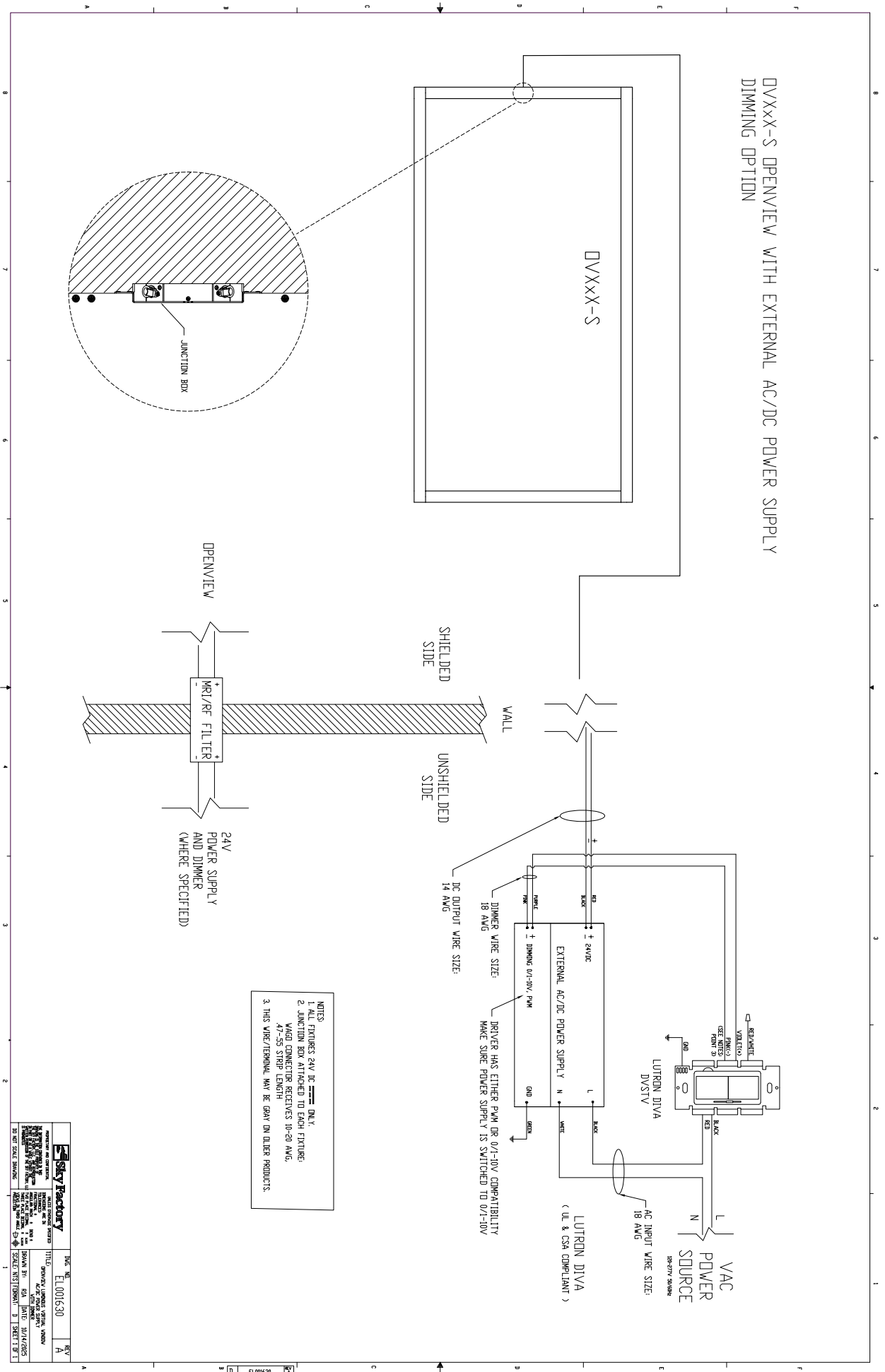
Are the safety cords attached?

- Install cords.

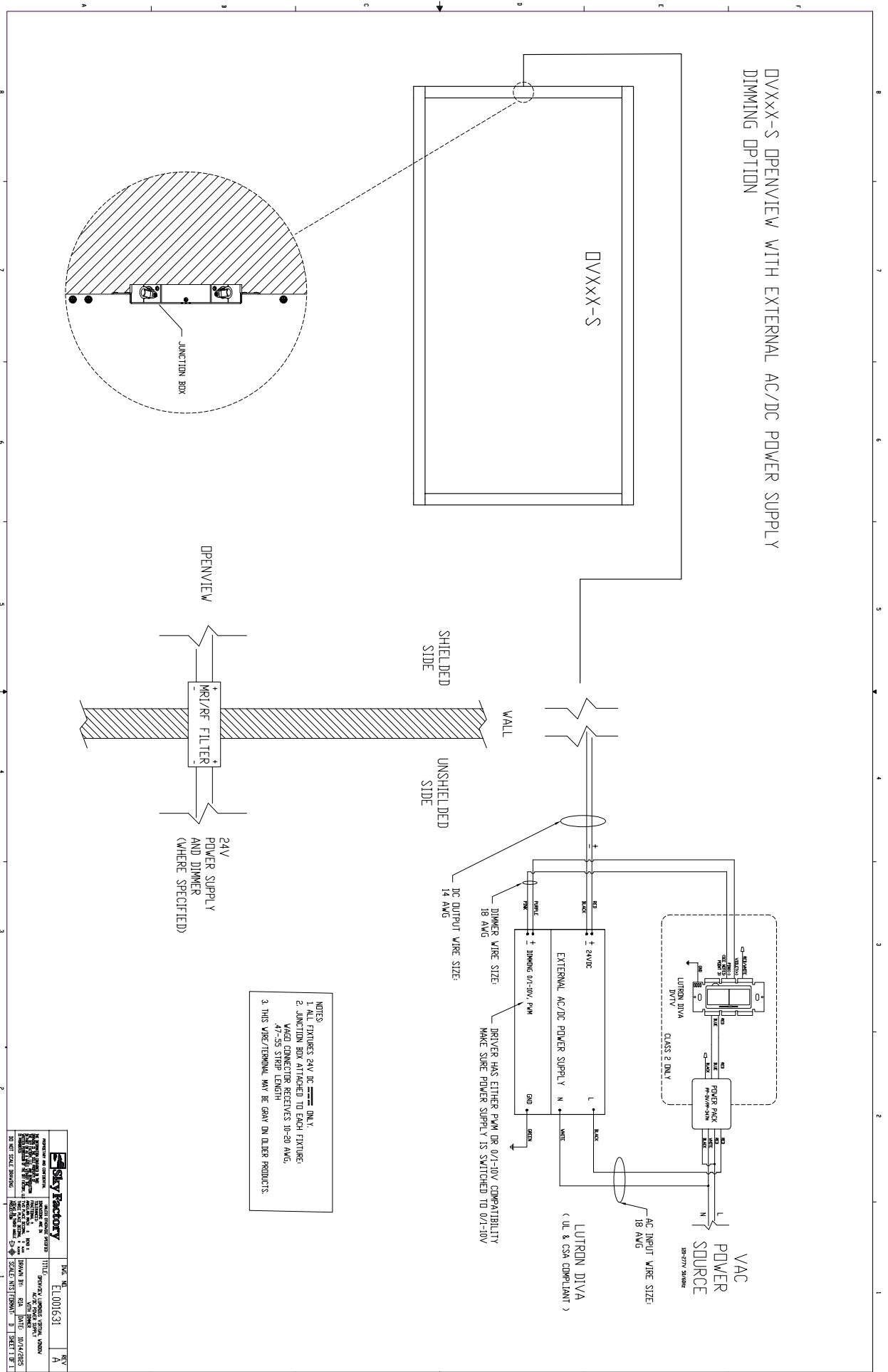









# DVXXX-S OPENVIEW WITH EXTERNAL AC/DC POWER SUPPLY DIMMING OPTION



 Sky Factory		DWG. NO.	EL001631	REV.	A
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## Appendix A: Determining Fixture Dimensions – Using Model Descriptions

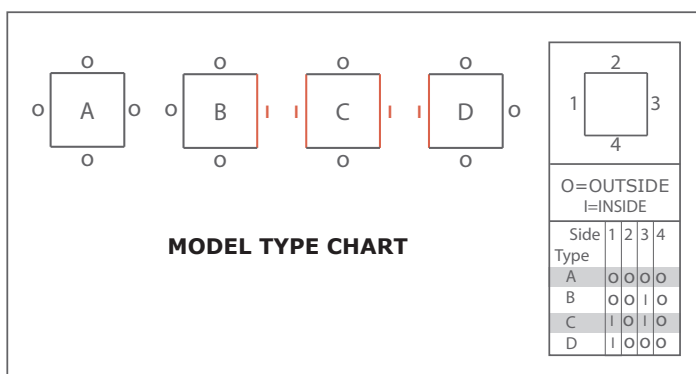
### Standard model description:

OVXxX-X-X

Model Series – Width/Height – Mounting Means – Type  
(OpenView) (Feet) (R=Recessed S=Surface) (Surface provided in Type A only)

Example: OV4x4-S-A

LV6 - 4'W x 4'H - Surface - A (40S)



Sample OpenView Surface Mount Sizes and Combinations					
Model	Amps [A]	Power [W]	Average Weight* lbs (kg)	Dimensions (WxH)	
				Light box and SkyTile inches (cm)	Trim** inches (cm)
OV2x4-S-A	2.2	52.8	27.9 (12.7)	23 3/8 x 47 3/8 (59.4 x 120.3)	26 3/8 x 50 3/8 (67.0 x 128.0)
OV5x3-S-A	4.2	99	45.5 (20.6)	59 3/8 x 35 3/8 (150.8 x 89.9)	62 3/8 x 38 3/8 (158.4 x 97.5)
OV4x6-S-A	6.6	158.4	68.0 (30.8)	47 3/8 x 71 3/8 (120.3 x 181.3)	50 3/8 x 74 3/8 (128.0 x 188.9)
OV7x5-S-A	9.62	231	96.2 (43.6)	83 3/8 x 59 3/8 (211.8 x 150.8)	86 3/8 x 62 3/8 (219.4 x 158.4)
OV5x8-S-A	11	264	105.0 (47.6)	59 3/8 x 95 3/8 (150.8 x 242.3)	62 3/8 x 98 3/8 (158.4 x 249.9)
OV2x7-S-A OV5x7-S-A OV2x7-S-A	17.32	415.7	27.9 (12.7)	23 3/8 x 83 3/8 (59.4 x 211.8)	26 3/8 x 86 3/8 (67.0 x 219.4)
			96.2 (43.6)	59 3/8 x 83 3/8 (150.8 x 211.8)	62 3/8 x 86 3/8 (148.4 x 219.4)
			27.9 (12.7)	23 3/8 x 83 3/8 (59.4 x 211.8)	26 3/8 x 86 3/8 (67.0 x 219.4)
			96.2 (43.6)	59 3/8 x 83 3/8 (150.8 x 211.8)	62 3/8 x 86 3/8 (148.4 x 219.4)

\*with wood trim

\*\*3 1/4" (8.3cm) deep from front to back of trim/mounting bar

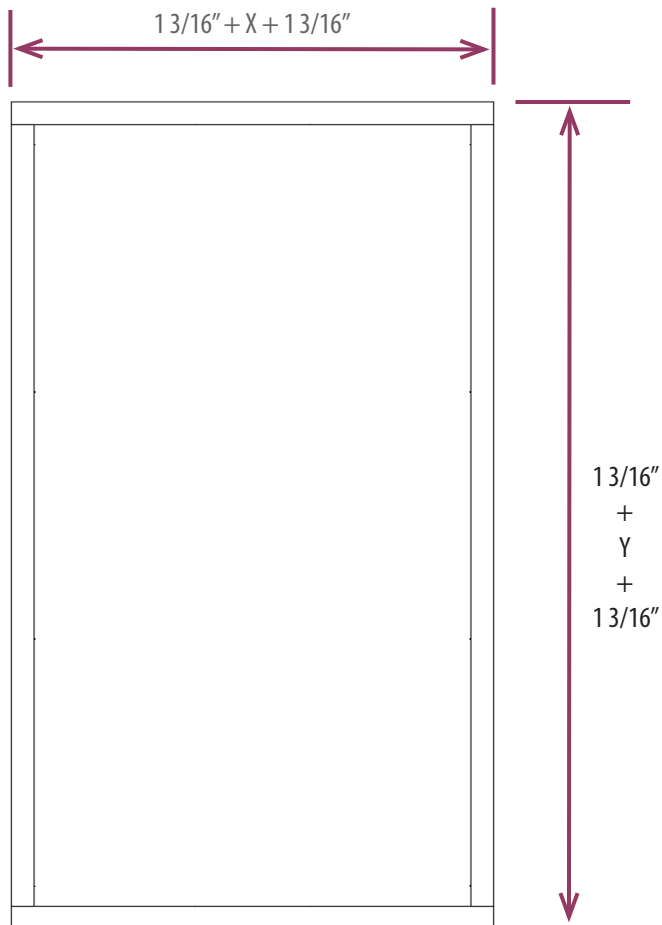
### Trim Dimensions of Singles (Type A):

#### Singles:

Where "X" = width of OpenView model description  
 "Y" = height of OpenView model description

Overall trim width and height:

$$\begin{aligned}\text{width} &= 1\frac{3}{16}'' + X + 1\frac{3}{16}'' \\ \text{height} &= 1\frac{3}{16}'' + Y + 1\frac{3}{16}''\end{aligned}$$



#### Example:

##### OV3x7-R-A:

$$\begin{aligned}\text{width} &= 1\frac{3}{16}'' + X + 1\frac{3}{16}'' \\ &= 1\frac{3}{16}'' + 36'' + 1\frac{3}{16}'' \\ &= 38\frac{3}{8}'' (97.5\text{cm})\end{aligned}$$

$$\begin{aligned}\text{height} &= 1\frac{3}{16}'' + Y + 1\frac{3}{16}'' \\ &= 1\frac{3}{16}'' + 84'' + 1\frac{3}{16}'' \\ &= 86\frac{3}{8}'' (219.4\text{cm})\end{aligned}$$

##### OV4x6-R-A:

$$\begin{aligned}\text{width} &= 1\frac{3}{16}'' + X + 1\frac{3}{16}'' \\ &= 1\frac{3}{16}'' + X + 1\frac{3}{16}'' \\ &= 50\frac{3}{8}'' (128\text{cm})\end{aligned}$$

$$\begin{aligned}\text{height} &= 1\frac{3}{16}'' + Y + 1\frac{3}{16}'' \\ &= 1\frac{3}{16}'' + 72'' + 1\frac{3}{16}'' \\ &= 74\frac{3}{8}'' (188.9\text{cm})\end{aligned}$$

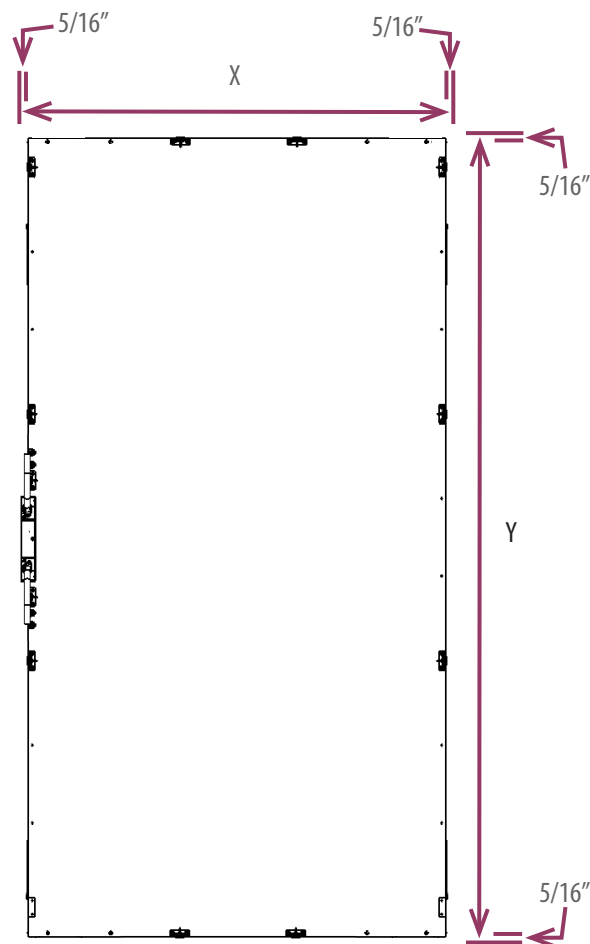
### Light Box Dimensions of Singles (Type A):

#### Singles:

Where "X" = width of OpenView model description  
 "Y" = height of OpenView model description

Overall light box width and height:

$$\begin{aligned}\text{width} &= X - 5/16'' - 5/16'' \\ \text{height} &= Y - 5/16'' - 5/16''\end{aligned}$$



#### Example:

##### OV3x7-R-A:

$$\begin{aligned}\text{width} &= X - 5/16'' - 5/16'' \\ &= 36'' - 5/8'' \\ &= 35 \frac{3}{8}'' (89.9\text{cm})\end{aligned}$$

$$\begin{aligned}\text{height} &= Y - 5/16'' - 5/16'' \\ &= 84'' - 5/8'' \\ &= 83 \frac{3}{8}'' (211.8\text{cm})\end{aligned}$$

##### OV4x6-R-A:

$$\begin{aligned}\text{width} &= X - 5/16'' - 5/16'' \\ &= 5/16'' - 48'' - 5/16'' \\ &= 47 \frac{3}{8}'' (120.\text{cm})\end{aligned}$$

$$\begin{aligned}\text{height} &= Y - 5/16'' - 5/16'' \\ &= 72'' - 5/8'' \\ &= 71 \frac{3}{8}'' (181.3\text{cm})\end{aligned}$$

## Appendix B: Requirements for Securing Mounting Bars to Wall Surface

**Depending on fixture width, wall placement and suitable backing, wall anchors may be required.**

See Appendix B, page 26 for wall anchor recommendations.

### Fastener recommendations for standard framing members

Structural grade fasteners recommended: #10 for steel framing and #9 -#12 for wood framing. Do not use sheetrock screws.

Fasteners must meet the sheer load with a safety factor of 3. (Maximum fixture weight per foot on the bottom bar is 25#.)

Fastener length should not compromise any potential wiring (or other) in wall space.

For typical steel framing (metal studs), use either self-drilling or self-tapping fully threaded screws with typically 14-16 threads per inch. NOTE: Self-tapping screws will need a pilot hole.

For all fasteners, final torque by hand – do not strip threads.

### Field-added holes per wall framing members

For standard framing members, two fastener holes per framing member attachment point on bottom bar;  
one fastener hole per framing member attachment point on top bar.

(See page 10 for OV4xX samples and page 11 for fastener schedule details)

Both fasteners per attachment point in bottom bar must be firmly anchored in framing member.

### Field-added holes per standard width bars to match wall framing members

**OV2xX:** Mounting bar length 22"

see Appendix C: page 27 for model mounting options, requirements and recommendations

**OV3xX and OV4xX:** Mounting bar lengths 34" and 46" respectively

a minimum of 2 framing attachment points with at least 1 on each side of centerline,  
with attachment points typically no more than 16" apart;

see Appendix C: page 28 for model mounting options, requirements and recommendations

**OV5xX:** Mounting bar length 58"

a minimum of 3 framing attachment points with at least 1 on each side of centerline,  
with attachment points typically no more than 16" apart;

see Appendix C: page 29 for model mounting options, requirements and recommendations

**OV6xX and 7xX:** Mounting bar lengths 70" and 82" respectively

a minimum of 4 framing attachment points with at least 2 on each side of centerline,  
with attachment points typically no more than 16" apart;

see Appendix C: page 29 for model mounting options, requirements and recommendations

**OV8xX:** Mounting bar length 94"

a minimum of 5 framing attachment points with at least 2 on each side of centerline,  
with attachment points typically no more than 16" apart;

see Appendix C: page 29 for model mounting options, requirements and recommendations

## Appendix B: Requirements for Securing Mounting Bars to Wall Surface

### Wall anchor recommendations for applications with insufficient backing

Quality wall anchors (or comparable) will need to be used where appropriate backing is not available:

Each anchor must have certified holding strength of 75+ pounds.

### Field-added holes per bar for wall anchors

One fastener hole per wall anchor for bottom bar and one fastener hole per wall anchor for top bar

Fastener hole centered 1/2" down from top of bottom bar and 1/2" up from bottom of top bar

When placed at the end of a mounting bar, centered 2-3" in from that end

For all applications which have standard framing members 16" on center, or other adequate backing is provided:

**For OV2xX models**, see Appendix C, page 27

**For OV3xX and OV4xX models**, see Appendix C, page 28

**For all other models**, see Appendix C, page 29

For all applications in which standard framing members and/or adequate backing is not provided, a wall anchor will be required:

1. no more than 3" in from both ends of bars
2. no more than 8" from another wall anchor

## Appendix C: Mounting Options and Recommendations

NOTE: Make sure all fasteners per attachment point are firmly anchored in framing member.

### Some Mounting Options and Recommendations for OV2xX Models (Where blocking behind fixture is not an option)

NOTE: OV2xX bottom bar shown

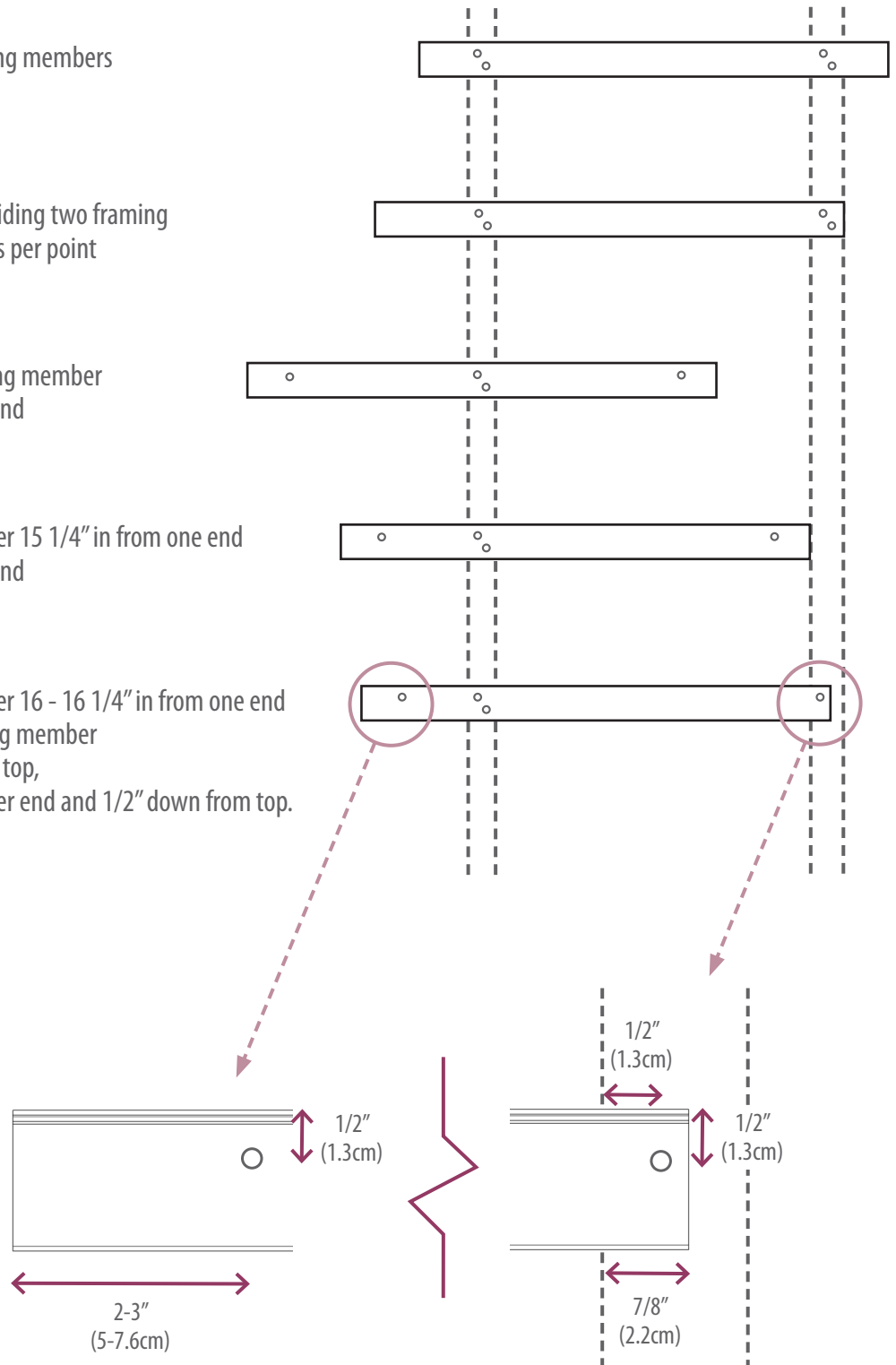
Mounting bar centered on two framing members

Mounting bar off center but still providing two framing attachment points with two fasteners per point

Mounting bar centered on one framing member with wall anchors 2-3" in from each end and 1/2" down from top

Mounting bar on one framing member 15 1/4" in from one end with wall anchors 2-3" in from each end and 1/2" down from top

Mounting bar on one framing member 16 - 16 1/4" in from one end with single fastener in second framing member 1/2" in from end and 1/2" down from top, and one wall anchor 2-3" in from other end and 1/2" down from top.

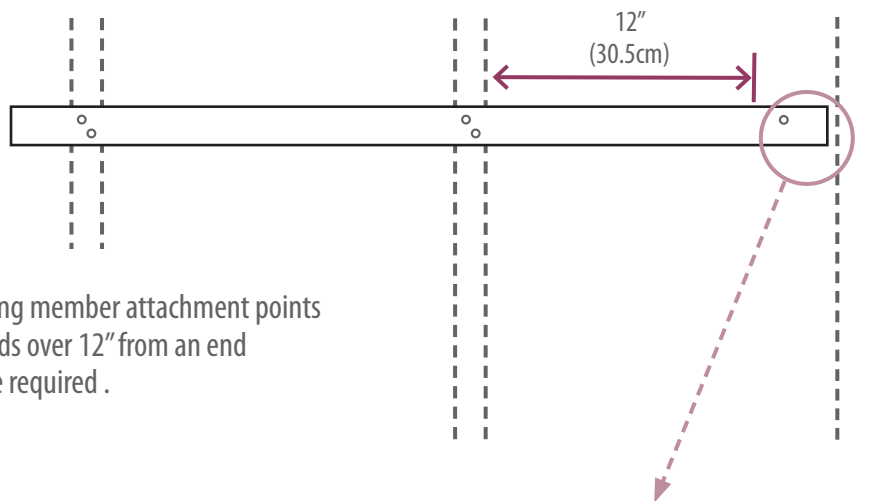


See next two pages for recommendations on wider models

## Appendix C: Mounting Options and Recommendations (cont'd)

### Some Mounting Options and Recommendations for OV3xX and OV4xX models (Where blocking behind fixture is not an option)

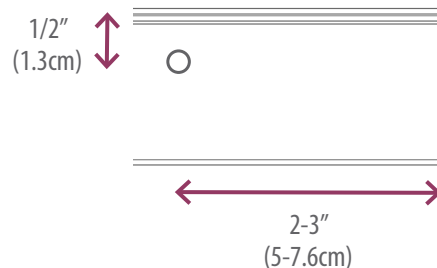
NOTE: OV3xX bottom bar shown here



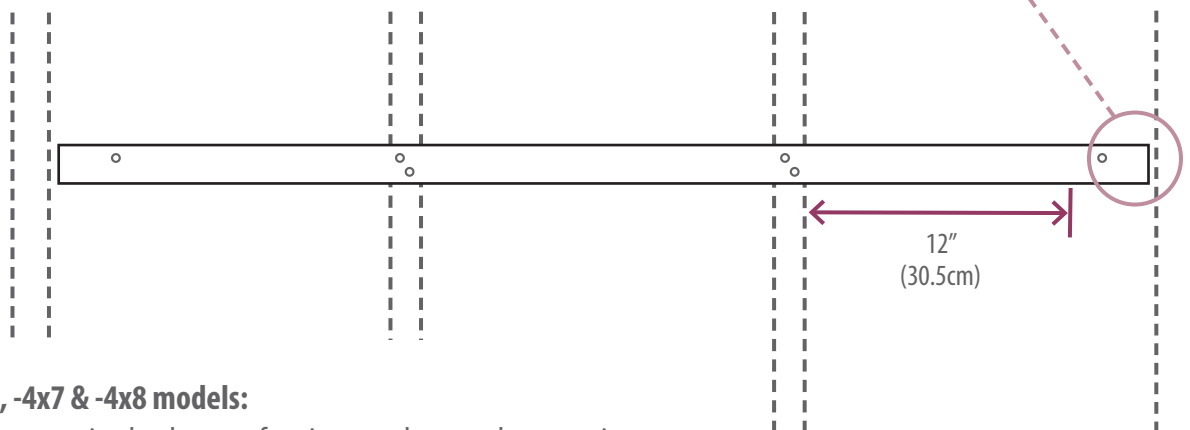
#### OV3x5, -3x6, -3x7 & -3x8 models:

Where bottom mounting bar has two framing member attachment points with two fasteners per point, and bar extends over 12" from an end framing member, then a wall anchor will be required.

For detail of a mounting bar partially overlapping a framing member and only allowing for one fastener, see previous page.



NOTE: OV4xX bottom bar shown here



#### OV4x5, -4x6, -4x7 & -4x8 models:

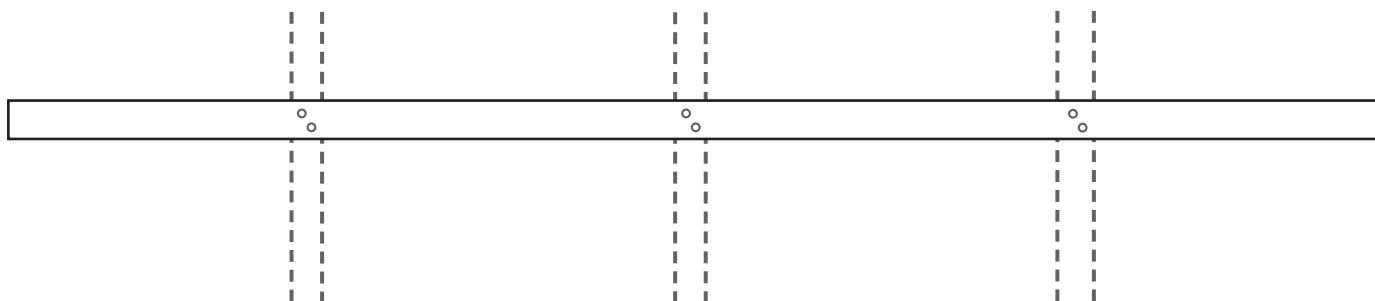
Where bottom mounting bar has two framing member attachment points with two fasteners per point, and bar extends over 12" from an end framing member, then a wall anchor will be required.

See next page for recommendations on wider models

## Appendix C: Mounting Options and Recommendations (cont'd)

### Some Mounting Options and Recommendations for OV5xX and larger models (Where blocking behind fixture is not an option)

NOTE: OV5xX bottom bar shown here



#### OV5xX models:

Where mounting bars have at least three framing member attachment points with two fasteners per point, and bars do not extend beyond 12" from any point, then depending on reliability of fasteners in framing, wall anchors may not be required.

If bars extend over 12" from an attachment point, and/or reliability of fasteners in framing is questionable, wall anchors are strongly recommended.

#### OV6xX and OV7xX models:

Where mounting bars have at least four framing member attachment points with two fasteners per point, and bars do not extend beyond 15" from any point, then depending on reliability of fasteners in framing, wall anchors may not be required.

If bars extend over 12" from an attachment point and reliability of fasteners in framing is questionable, wall anchors are strongly recommended.

#### OV8xX models:

Where mounting bars have at least five framing member attachment points with two fasteners per point, and bars do not extend beyond 15" from any point, then depending on reliability of fasteners in framing, wall anchors may not be required.

If bars extend over 12" from an attachment point and reliability of fasteners in framing is questionable, wall anchors are strongly recommended.

**For recommended fastener schedule details, see also page 11**

## Appendix D: Wire Sizing Chart

Wire Sizing Chart is calculated for a recommended voltage drop of no more than 3%.

For amps per luminaire at 24V DC, see below. For custom sizes, see custom wiring diagram included (where applicable).

NOTE: Some larger installations have multiple branches. See installation specific wiring diagrams included and/or custom wiring diagram (where applicable).

NOTE: Largest power system has two sets of leads. See installation specific wiring diagrams included and/or custom wiring diagram (where applicable).

We recommend dividing the load as evenly as possible to minimize voltage drop and maximize placement options.

Length (ft)	5	10	15	20	25	30	35	40	45	50
Amperage (24V DC)										
1	18	18	18	18	18	18	18	18	18	18
2	18	18	18	18	18	16	16	16	16	14
3	18	18	18	16	16	16	14	14	14	12
4	18	18	18	16	14	14	14	12	12	12
5	18	18	16	14	14	12	12	12	12	10
6	18	16	16	14	12	12	12	10	10	10
7	18	16	14	14	12	12	10	10	10	10
8	18	16	14	12	12	10	10	10	10	-
9	18	16	14	12	12	10	10	10	-	-
10	16	14	12	12	10	10	10	-	-	-
11	16	14	12	12	10	10	-	-	-	-
12	16	14	12	10	10	-	-	-	-	-
13	16	14	12	10	10	-	-	-	-	-
14	16	14	12	10	10	-	-	-	-	-
15	16	14	12	10	-	-	-	-	-	-
16	16	12	10	10	-	-	-	-	-	-
17	16	12	10	10	-	-	-	-	-	-
18	16	12	10	10	-	-	-	-	-	-
19	16	12	10	-	-	-	-	-	-	-
20	14	12	10	-	-	-	-	-	-	-

### Amps per Luminaire at 24V DC

OpenView sizes range from 8 ft<sup>2</sup> to 40 ft<sup>2</sup> in 1 foot increments, from 2' x 4' to 5' x 8' (vertical or horizontal).

OpenView fixtures are approx. 6.6W, 0.275A per square foot.

To determine approx. amperage per fixture from model description:

#### OV3x7-R-A

$$\begin{aligned}
 \text{Amperage} &= (3' \times 7') \times .275 \\
 &= 21 \times .275 \\
 &= 5.78A @ 24V DC
 \end{aligned}$$

#### OV4x6-S-A

$$\begin{aligned}
 \text{Amperage} &= (4' \times 6') \times .275 \\
 &= 24 \times .275 \\
 &= 6.6A @ 24V DC
 \end{aligned}$$