

# FRAXION® 4 SLIM LVS

## ADJUSTABLE

Very versatile, highly configurable, and featuring extremely shallow housings, these 4-inch downlights are the widest aperture we offer, ideal for overall illumination in residential and commercial spaces.

PROJECT NAME:	TYPE:
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### ORDERING INFORMATION - DOWNLIGHT / HOUSING

SHAPE	TRIM	RATING	FLANGE FINISH	BAFFLE FINISH	LUMEN PACKAGE	CCT	OPTIC	INSTALL TYPE	CEILING THICKNESS	POWER SUPPLY	EFFECTS DEVICE
F4R Round	FAS Standard Flange MAS Microflange TAS Trimless	1 Dry/Damp 2 Wet* <i>*Requires provided suction cup to service or aim &amp; focus)</i>	WH White BK Black PR Primer AU Cashmere Gold AG Satin Silver BB Burnt Bronze 00 Trimless* <i>* (Required for trimless)</i> CF Custom Finish* <i>* (Consult Factory)</i>	WH White BK Black PR Primer AU Cashmere Gold AG Satin Silver BB Burnt Bronze CF Custom Finish* <i>* (Consult Factory)</i>	<b>STATIC WHITE</b> 80C12A 80+ CRI, Delivered Lumens - 872 80C16A 80+ CRI, Delivered Lumens - 1191 80C23A 80+ CRI, Delivered Lumens - 1642 90C10A 90+ CRI, Delivered Lumens - 721 90C14A 90+ CRI, Delivered Lumens - 984 90C19A 90+ CRI, Delivered Lumens - 1357 97C10A 97+ CRI, Delivered Lumens - 657 97C12A 97+ CRI, Delivered Lumens - 897 97C17A 97+ CRI, Delivered Lumens - 1238	22 2200K* <i>* (Only available with 90+ CRI)</i> 27 2700K 30 3000K 35 3500K 40 4000K	10 10°* <i>* (Only available with 80C12A, 90C10A and 97C10A. Not available with 2200K)</i> 15 15° 25 25° 40 40° 60 60° 85 85°* <i>* (Uses 60° optic and optional configuration 14 (WDL) to achieve 85° beam spread)</i>	REMOTE IC, Remote NIC, Remote IC, Airtight, Chicago Plenum, Remote W D	1 0.50" - 1.00" T 0.50" - 1.00"* <i>* (Includes adjustable housing height bracket)</i>	LVS Low Voltage System	<b>STANDARD EFFECTS DEVICE</b> 04 Soft Focus Lens NL No Lens* <i>* (Standard with 10° optic. Not available for Wet Location, or Airtight Housing)</i> <b>ALTERNATE EFFECTS DEVICE</b> 03 Clear Glass Lens* <i>* (Not available for Warm Dim)</i> 05 Frosted Glass Lens 08 Frosted Soft Focus Lens 14 Wide Distribution Lens* <i>* (Required and only available for 85° beam spread)</i> 26 Frosted Linear Spread Lens 28 Adjustable Honeycomb Louver and Soft Focus Lens* <i>* (Not available with 60° optic, Wet location, or Airtight housing)</i>
F4S Square	FAS Standard Flange MAS Microflange TAS Trimless FAT Standard Flange Transitional Baffle MAT Microflange Transitional Baffle TAT Trimless Transitional Baffle				<b>WARM DIM</b> 90W11A 90+ CRI, Delivered Lumens - 795 Incandescent Profile 90W13A 90+ CRI, Delivered Lumens - 837 Halogen Profile  <b>*SEE PAGE 4 FOR DETAILED WARM DIM PROFILE COMPARISON.</b>  <b>*ALL DELIVERED LUMEN OUTPUTS REFLECT 3000K PAIRED WITH 40° OPTIC AND SOFT FOCUS LENS.</b>	WL 2700K - 1800K WD 3200K - 1800K	25 25° 40 40° 60 60° 85 85°* <i>* (Uses 60° optic and optional configuration 14 (WDL) to achieve 85° beam spread)</i>				



### PART NUMBER NOTES




- Housing and trim ship as e.g., F4RMAS1-WHWH-90C14A2-3V1-LVS

# FRAXION4SLIM LVS ADJUSTABLE

## APPLICATION NOTES

- Lucifer Lighting will not supply a fixture with a POE node or power supply inside the fixture. This allows for easier site install with nodes of 2 or more outputs.
- Consult node manufacturer for maximum remote wiring distances.
- Housing and Fixture feature 18 Gauge wiring.
- Wiring connections are made in the splicing compartment or on the fixture using customer supplied connectors, ex. wire nuts, push-in connectors, or terminal blocks.
- Confirm node compatibility with factory if it is not listed.
- Customers are responsible for ensuring POE node drive current is set to correct values shown below.
- Customers must ensure voltage range of the proposed POE node encompasses the fixtures complete Vf range, both maximum and minimum. If assistance is required contact LLC rep or factory.

## NODE COMPATIBILITY

Manufacturer	Model Number
 Igor® Enabling Smart Buildings™	NP50-60-C-F-5
 molex	180996-1001 180996-1002 180996-2001 180996-2002
 PLATFORMATICS	1 Channel Node, POE-LN2-1U-E 2 Channel Node, POE-LN2-2U-E 4 Channel Node, POE-LN2-4U-E

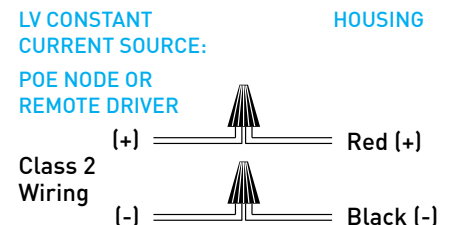
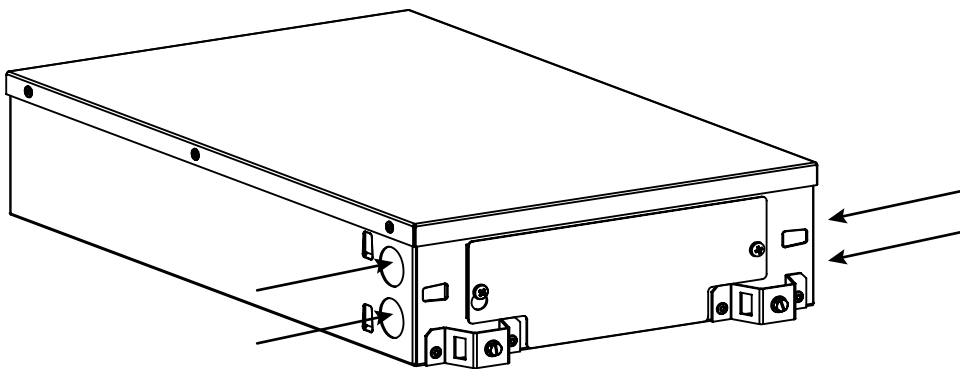
## DRIVE CURRENT SPECIFICS

	80C			90C			97C			90W	
	12A	16A	23A	10A	14A	19A	10A	12A	17A	11A	13A
Minimum Vf	30.5	30.5	30.5	30.5	30.5	30.5	30.5	30.5	30.5	30.5	30.5
Maximum Vf	39	39	39	39	39	39	39	39	39	39	39
Current mA	250	350	500	250	350	500	250	350	500	350	350
Wattage W	8.2	11.8	17.4	8.2	11.8	17.4	8.2	11.8	17.4	11.8	11.8

	10 DEGREE OPTIC		
	80C12A	90C10A	97C10A
Minimum Vf	30.5	30.5	30.5
Maximum Vf	39	39	39
Current mA	350	350	350
Wattage W	11.8	11.8	11.8

## WIRING DIAGRAM AND HOUSING ENTRY/ EXIT POINTS

### ADJUSTABLE HOUSING



# FRAXION4 SLIM LVS ADJUSTABLE

## ACCESSORIES

### ROUND ALTERNATE EFFECTS DEVICES

Dry/Damp location only.  
Wet location requires alternate baffle.

- CGL-F4R** Clear Glass Lens\*  
\*(Not available for Warm Dim)
- FGL-F4R** Frosted Glass Lens
- SFL-F4R** Soft Focus Lens
- FSFL-F4R** Frosted Soft Focus Lens
- WDL-F4R** Wide Distribution Lens\*  
\*(Required and only available for 85° beam spread)
- FLSL-F4R** Frosted Linear Spread Lens

### SQUARE ALTERNATE EFFECTS DEVICES

Dry/Damp location only.  
Wet location requires alternate baffle.

- CGL-F4S** Clear Glass Lens\*  
\*(Not available for Warm Dim)
- FGL-F4S** Frosted Glass Lens
- SFL-F4S** Soft Focus Lens
- FSFL-F4S** Frosted Soft Focus Lens
- WDL-F4S** Wide Distribution Lens\*  
\*(Required and only available for 85° beam spread)
- FLSL-F4S** Frosted Linear Spread Lens

### ADJUSTABLE HCL ASSEMBLY

Dry / Damp location only.

- OLR-F4RS1-SFL-HCL** Adjustable Honeycomb Louver and Soft Focus Lens\*  
\*(Not available for 60° optic, or Airtight housing)

### REPLACEMENT BAFFLE ASSEMBLY (INCLUDES EFFECTS DEVICE)

ASSEMBLY	SHAPE	TRIM	RATING	FLANGE FINISH	EFFECTS DEVICE
<b>RBA</b>				<b>1</b>	
REPLACEMENT BAFFLE ASSEMBLY	F4R Round	FAS Standard Flange MAS Microflange TAS Trimless	1 Dry / Damp 2 Wet* *(Requires provided suction cup to service or aim & focus)	WH White BK Black PR Primer AU Cashmere Gold AG Satin Silver BB Burnt Bronze CF Custom Finish* *(Consult Factory)	Leave blank for standard Soft Focus Lens  CGL Clear Glass Lens* *(Not available for Warm Dim) FGL Frosted Glass Lens FSFL Frosted Soft Focus Lens WDL Wide Distribution Lens* *(Required and only available for 85° beam spread) FLSL Frosted Linear Spread Lens
	F4S Square	FAS Standard Flange MAS Microflange TAS Trimless FAT Standard Flange Transitional Baffle MAT Microflange Transitional Baffle TAT Trimless Transitional Baffle			

### STATIC WHITE AND WARM DIM REPLACEMENT OPTICS

Interchangeable optics accessible through fixture aperture.

- RO-70-15-1** 15° optic\*  
\*(Not available for Warm Dim)
- RO-70-25-1** 25° optic
- RO-70-40-1** 40° optic
- RO-70-60-1** 60° optic

### REPLACEMENT SUCTION TOOL

One included with every six fixtures designated Wet location.

- F4-TOOL-SUCTION** Allows for removal of baffle with Wet location

### T-GRID ACCESSORY KIT

Supplied with ceiling thickness "T" and recommended for installations in T-Grid and furring channel up to 1.5" tall. Available for ceiling thicknesses from 0.50" - 1.00".

- DHA-TG-KIT**

### HANGER BAR EXTENDER KIT

Extends hanger bars from 24.0" to 46.0" maximum.

- FRX-HBE-46** Extender, Hanger Bar

# FRACTION4SLIM LVS ADJUSTABLE

## PERFORMANCE - 3000K

LUMEN PACKAGE	WATTAGE	10° OPTIC NO SOFT FOCUS LENS		15° OPTIC SOFT FOCUS LENS		25° OPTIC SOFT FOCUS LENS		40° OPTIC SOFT FOCUS LENS		60° OPTIC SOFT FOCUS LENS		85° OPTIC WIDE DISTRIBUTION LENS	
		DELIVERED	LPW	DELIVERED	LPW	DELIVERED	LPW	DELIVERED	LPW	DELIVERED	LPW	DELIVERED	LPW
80C12A	10	946	66 (14W)	860	85	793	78	872	86	908	90	710	70
80C16A	14	-	-	1174	81	1083	77	1191	82	1241	86	969	67
80C23A	21	-	-	1620	76	1494	70	1642	77	1711	80	1337	62
90C10A	10	801	56 (14W)	711	70	656	65	721	71	751	74	587	58
90C14A	14	-	-	971	67	895	62	984	68	1025	71	801	55
90C19A	21	-	-	1338	62	1235	58	1357	63	1414	66	1105	52
97C10A	10	739	51 (14W)	648	78	598	59	657	65	685	68	535	53
97C12A	14	-	-	885	75	816	56	897	62	935	65	730	51
97C17A	21	-	-	1220	70	1126	53	1238	58	1289	60	1007	47
90W11A	14	-	-	-	-	804	57	795	57	828	59	646	46
90W13A	14	-	-	-	-	846	60	837	59	872	62	680	48

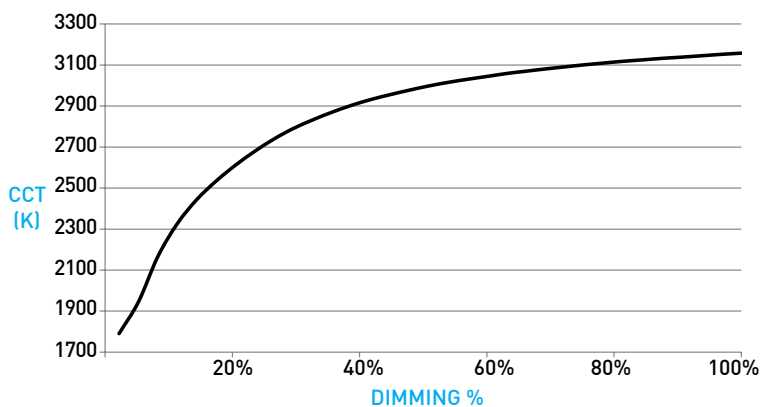
OUTPUT MULTIPLIER	
CCT	CCT SCALE
2200K	0.800
2700K	0.957
3000K	1.000
3500K	1.019
4000K	1.030

LIGHT LOSS FACTOR MULTIPLIER	
NO LENS	
CGL	1.05
SFL	1.00
FGL	0.90
FSFL	0.87
FLSL	0.83
WDL	0.78

## WARM DIM PERFORMANCE

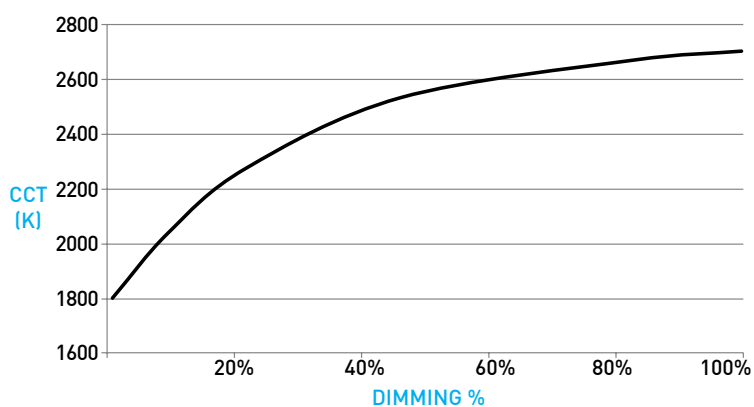
WARM DIM TO MIRROR HALOGEN DIMMING PROFILE

90W13A 3200K - 1800K	Full on 100%	Dimmed to 80%	Dimmed to 70%	Dimmed to 50%	Dimmed to 20%	Dimmed to 10%	Dimmed to 2%
CCT (K)	3200	3150	3100	3000	2700	2200	1800
Light Output (Lm)	837	670	586	418	167	84	17
Power (W)	14	11	10	7	3	1.5	0.3
Efficacy (LPW)	59	59	59	59	59	59	59



WARM DIM TO MIRROR INCANDESCENT DIMMING PROFILE

90W11A 2700K - 1800K	Full on 100%	Dimmed to 80%	Dimmed to 70%	Dimmed to 50%	Dimmed to 20%	Dimmed to 10%	Dimmed to 2%
CCT (K)	2700	2650	2620	2520	2180	1950	1800
Light Output (Lm)	795	636	556	397	159	79	16
Power (W)	14	11	10	7	3	1.5	0.5
Efficacy (LPW)	57	57	57	57	57	57	57



# FRAXION4 SLIM LVS ADJUSTABLE

## DOWNLIGHT / HOUSING

### A ADJUSTABILITY

Aiming mechanism is integral to the housing, providing hot-aim tilt up to 40° and 365° rotation. Sliding pivot point optimizes center beam, ensuring unclipped beam of 15° at 40° tilt and 25° at 30° tilt. 1° tilt increments with 5° indicators, tilt guide included (see **A1** for section view).

### B LED

Integral LED module design enables field service / replacement through housing aperture.

### C OPTIC

Proprietary optic integrates Reflection, Refraction and TIR offering 10°, 15°, 25°, 40° & 60° beams.

### D1 STANDARD FLANGE PROFILE

Installed after ceiling is complete. Requires 4.625" diameter cutout. Provides 0.86" total contractor (goof) allowance with 0.50" flange. Thickness measures 0.06". Wet location features integral silicone gasket.

### D2 MICROFLANGE PROFILE

Installed after ceiling is complete. Requires 4.625" diameter cutout. Provides 0.42" total contractor (goof) allowance with 0.28" flange. Thickness measures 0.06". Wet location features integral silicone gasket.

### D3 TRIMLESS PROFILE

Installs totally flush with the ceiling with no visible trim. Appliqué includes screws for mounting and has 0.06" plaster stop. Not recommended for stucco applications.

### E EFFECTS DEVICES

Soft focus lens included and sealed in Wet location option. Fixture is limited to 1 lens. Suction tool provided for removal of wet location baffles.

### E1 ADJUSTABLE HCL ASSEMBLY

Honeycomb Louver and Soft Focus Lens attach directly to optic with clip-on lens retainer and adjusts with fixture. Only compatible with no lens baffle. Dry/Damp locations only.

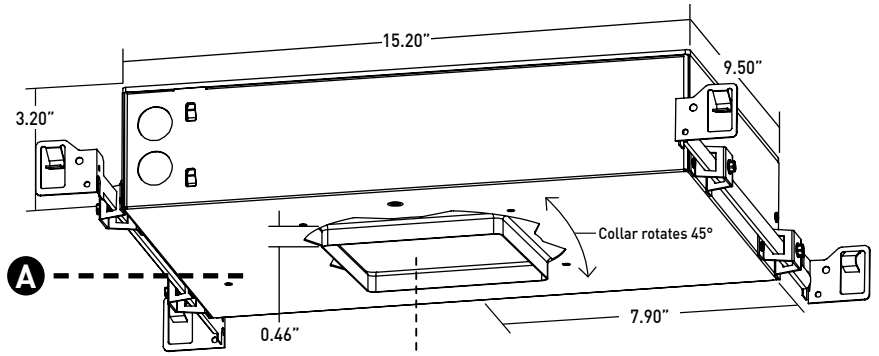
### F1 ROUND BAFFLE

Die-cast removable baffle provides easy access to tilting mechanism. Minimizes aperture glare and conceals view into housing; includes silicone gasket.

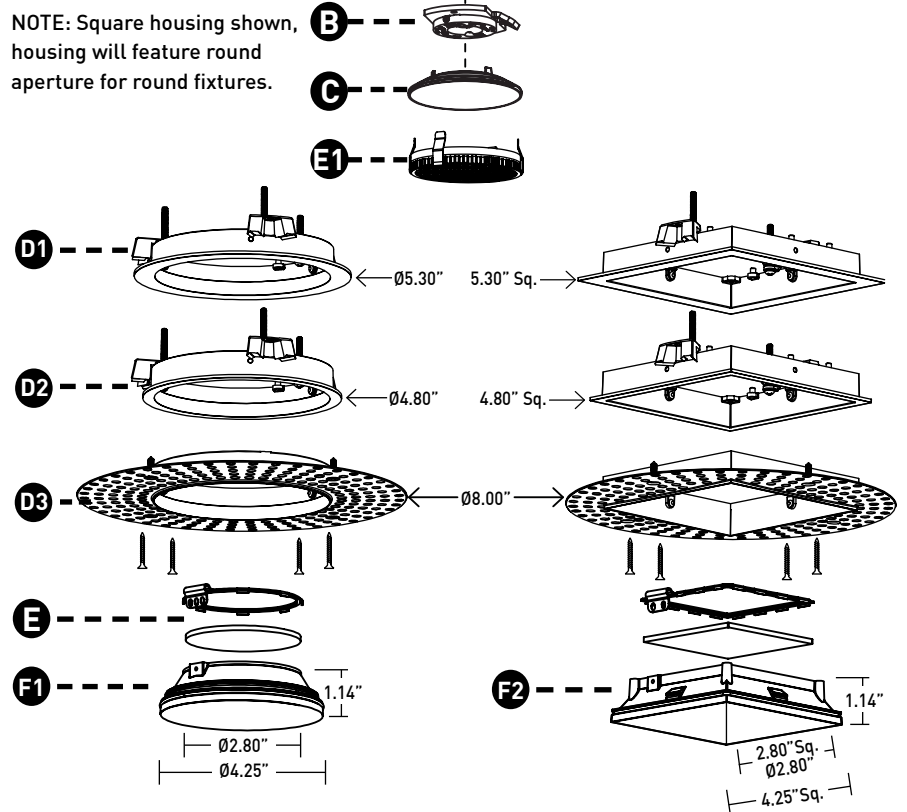
### F2 SQUARE / TRANSITIONAL BAFFLE

Die-cast removable baffle provides easy access to tilting mechanism. Transitional baffle transitions from square aperture at ceiling plane to round aperture at light source. Minimizes aperture glare and conceals view into housing; includes silicone gasket.

## DIMENSIONS / DRAWINGS

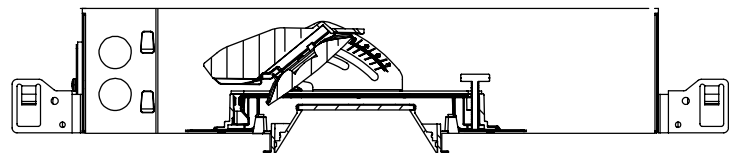


NOTE: Square housing shown, housing will feature round aperture for round fixtures.



### A1

### SECTION VIEW



# FRACTION4SLIM LVS ADJUSTABLE

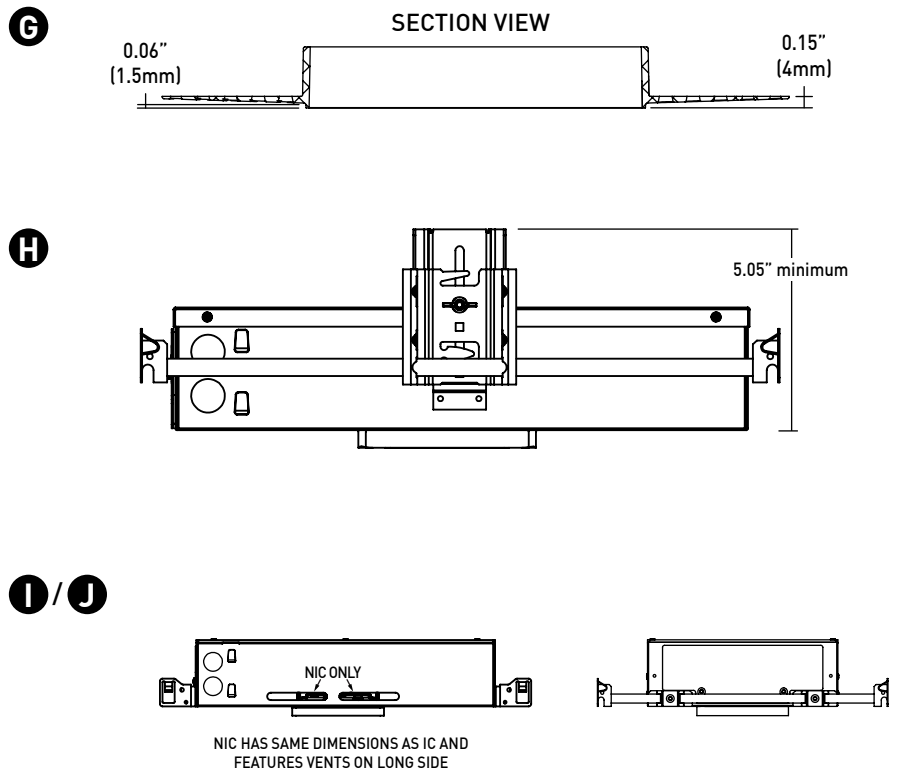
## DOWNLIGHT / HOUSING

- G TRIMLESS APPLIQUÉ DETAIL**  
Integrated appliqué for plaster floating directly to baffle.
- H ADJUSTABLE HANGER BAR HEIGHT ACCESSORY**  
Provided with ceiling thickness "T" and recommended for installations in T-Grid and with furring channel. Hanger bars are installed to adjustable bracket. Allows housing to be raised and lowered; ceiling thickness remains 0.5" to 1.0" max.
- I IC HOUSING**
  - For IC ceilings.
  - Chicago Plenum and Airtight listed.
  - Accommodates max 1642 delivered lumens.
  - No setback from polycell spray foam insulation having max R-Value of 60 on all sides and top of housing.
- J NIC HOUSING**
  - Minimum 0.50" setback from combustible and non-combustible materials on all sides and top of housing.
  - Minimum 3.00" setback from insulation material having max R-Value 30 on all sides and top of housing.
  - Minimum 6.00" setback from polycell spray foam insulation having max R-Value 60.

## HOUSING NOTES

- Do not install in environments where ambient temperatures exceed 40°C (104°F).
- All splice connections may be serviced from room side.
- Consult factory for spacing requirements for any installations exceeding R-Value 60.
- Hanger bars fitted to short side of housing, and long side of Low Flux housings; extend from 14.0" to 24.0", but may be field cut to accommodate narrow stud spacing. Can be extended up to 46" maximum with FRX-HBE-46 kit.
- Hanger bars and brackets add 4.00" to the overall dimension, but are exclusive of the setback requirements.
- Housings for round trims feature a round aperture housing collar, and for square trims, a square housing collar, accommodating ceiling thicknesses between 0.50" and 1.00".

## DIMENSIONS / DRAWINGS



# FRAXION4 SLIM LVS ADJUSTABLE

## TECHNICAL

### CONSTRUCTION

**Downlight:** Painted finishes are granulated powder coat.

**Housing:** Aluminum and 22 Gauge galvanized steel. Extruded aluminum housing panel to act as heat-sink.

**Appliqué:** Zinc Alloy

### STATIC WHITE LED

2-step MacAdam ellipse LED module available in 80+, 90+ and 97+ CRI configurations in color temperatures of 2200K, 2700K, 3000K, 3500K and 4000K. Average rated lamp life: 50,000 hours. LED and driver assemblies are field-replaceable.

### WARM DIM LED

3-step MacAdam ellipse warm dim LED module available in 90+ CRI configuration. 3200K or 2700K at full brightness, warming to 1800K at full dim. Average rated lamp life of 50,000 hours. LED and driver assemblies are field-replaceable.

### LISTING

cTUVus listed to UL2108 standard for Dry / Damp and Wet locations.

Chicago Plenum and Airtight Listed.

U.S. Patent: 10,317,066

### WARRANTY

Manufacturer's 1-year warranty guarantees product(s) listed to be free from defects in material and workmanship under normal use and service. 5-year warranty on LED to operate with 70% of the original flux and remain within a range of 3 duv. Warranty period begins from the date of shipment by Seller. [Consult website for full warranty terms and conditions.](#)

### CHANGE LOG

1.01/12/2021: ADDED 2200K, 2700K-1800K WARM DIM AND 10 DEGREE OPTIC OFFERINGS.