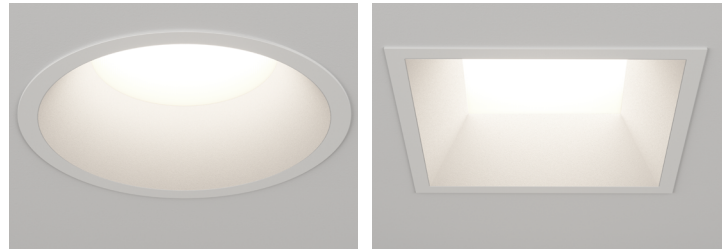


# FRAXION® 4 SLIM LVS

## FIXED

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	FFS Standard Flange MFS Microflange TFS Trimless	1 Dry/Damp 2 Wet*	WH White BK Black PR Primer AU Cashmere Gold AG Satin Silver BB Burnt Bronze 00 Trimless* CF Custom Finish*	WH White BK Black PR Primer AU Cashmere Gold AG Satin Silver BB Burnt Bronze CF Custom Finish*	<p><b>LOW FLUX STATIC WHITE</b></p> <p>22 2200K* * (Only available with 90+ CRI)</p> <p>80C12A 80+ CRI, Delivered Lumens - 872 80C16A 80+ CRI, Delivered Lumens - 1191 80C23A 80+ CRI, Delivered Lumens - 1642</p> <p>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</p> <p><b>HIGH FLUX STATIC WHITE</b></p> <p>27 2700K 30 3000K 35 3500K 40 4000K</p> <p>80C30A 80+ CRI, Delivered Lumens - 2507* * (Not available for IC housing applications) 80C36A 80+ CRI, Delivered Lumens - 2950* * (Not available for IC housing applications) 80C58B 80+ CRI, Delivered Lumens - 3723* * (Not available for IC housing applications, Requires 4.38" tall housing) 90C26A 90+ CRI, Delivered Lumens - 2071* * (Not available for IC housing applications) 90C30A 90+ CRI, Delivered Lumens - 2438* * (Not available for IC housing applications) 90C50B 90+ CRI, Delivered Lumens - 3188* * (Not available for IC housing applications, Requires 4.38" tall housing) 97C23A 97+ CRI, Delivered Lumens - 1889* * (Not available for IC housing applications) 97C27A 97+ CRI, Delivered Lumens - 2223* * (Not available for IC housing applications)</p> <p><b>WARM DIM</b></p> <p>90W11A 90+ CRI, Delivered Lumens - 795 Incandescent Profile 90W13A 90+ CRI, Delivered Lumens - 837 Halogen Profile</p> <p>*SEE PAGE 4 FOR DETAILED WARM DIM PROFILE COMPARISON.</p> <p>*ALL DELIVERED LUMEN OUTPUTS REFLECT 3000K PAIRED WITH 40° OPTIC AND SOFT FOCUS LENS.</p>	<p>10 10°** * (Only available with 80C12A, 90C10A and 97C10A. Not available with 2200K)</p> <p>15 15° 25 25° 40 40° 60 60° 85 85°* * (Requires -14 WDL effects device)</p> <p>15 15° 25 25° 40 40° 60 60° 85 85°* * (Requires -14 WDL effects device)</p> <p>25 25° 40 40° 60 60° 85 85°* * (Requires -14 WDL effects device)</p>	<p>REMOTE IC, Remote NIC, Remote IC, Airtight, Chicago Plenum, Remote</p>	<p>1 0.50" - 1.00" T 0.50" - 1.00"* * (Includes adjustable housing height bracket)</p>	LVS Low Voltage System	<p><b>STANDARD EFFECTS DEVICE</b></p> <p>04 Soft Focus Lens NL No Lens* * (Standard with 10° optic. Not available for Wet Location, or Airtight Housing)</p> <p><b>ALTERNATE EFFECTS DEVICE</b></p> <p>02 Honeycomb Lower w/ Diffusion Film* * (Not available for Wet location, Warm Dim, or Airtight Housing) 03 Clear Glass Lens* * (Not available for Warm Dim) 05 Frosted Glass Lens 08 Frosted Soft Focus Lens 14 Wide Distribution Lens* * (Required and only available for 85° beam spread) 26 Frosted Linear Spread Lens</p>



### PART NUMBER NOTES




- Housing and trim ship as e.g., F4RMFS1-WHWH-90C14A2-3V1-LVS

# FRAXION4SLIM LVS FIXED

## 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

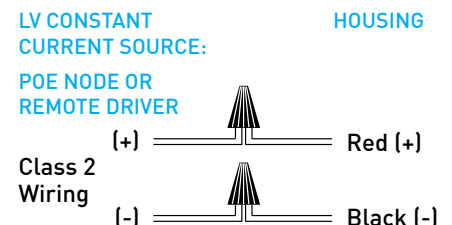
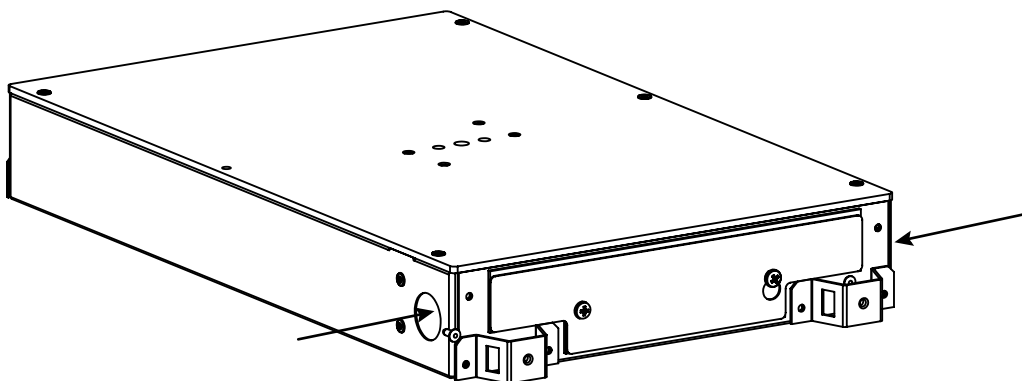
## DRIVE CURRENT SPECIFICS

	80C						90C						97C				90W		
	12A	16A	23A	30A	36A	58B	10A	14A	19A	26A	30A	50B	10A	12A	17A	23A	27A	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	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	39	39	39	39	39	39	39	39
Current mA	250	350	500	700	850	1250	250	350	500	700	850	1250	250	350	500	700	850	350	350
Wattage W	8.2	11.8	17.4	25.4	29.1	43.6	8.2	11.8	17.4	25.4	29.1	43.6	8.2	11.8	17.4	25.4	29.1	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

FIXED HOUSING



# FRAXION4 SLIM LVS FIXED

## ACCESSORIES

### ROUND ALTERNATE EFFECTS DEVICES

Dry/Damp location only.

Wet location requires alternate baffle.

- HCL-F4R** Honeycomb Louver w/ Diffusion Film\*  
\*(Not available for Warm Dim, or Airtight housings)
- 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.

- HCL-F4S** Honeycomb Louver w/ Diffusion Film\*  
\*(Not available for Warm Dim, or Airtight housings)
- 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

### REPLACEMENT BAFFLE ASSEMBLY (INCLUDES EFFECTS DEVICE)

ASSEMBLY	SHAPE	TRIM	RATING	FLANGE FINISH	EFFECTS DEVICE
<b>RBA</b>				<b>1</b>	
REPLACEMENT BAFFLE ASSEMBLY	<b>F4R</b> Round	FFS Standard Flange MFS Microflange TFS 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
	<b>F4S</b> Square	FFS Standard Flange MFS Microflange TFS Trimless FFT Standard Flange Transitional Baffle MFT Microflange Transitional Baffle TFT Trimless Transitional Baffle			HCL Honeycomb Louver w/ Diffusion Film* *(Not available for Warm Dim or Wet locations) 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

### LOW FLUX 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

### HIGH FLUX REPLACEMENT OPTICS

Interchangeable optics accessible through fixture aperture.

- RO-70-15-2** 15° optic
- RO-70-25-2** 25° optic
- RO-70-40-2** 40° optic
- RO-70-60-2** 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 FIXED

## 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
80C30A	30	-	-	2472	82	2280	76	2507	84	2612	87	2041	68
80C36A	35	-	-	2909	83	2684	77	2950	84	3073	88	2401	69
80C58B	53	-	-	3670	69	3386	64	3723	70	3878	73	3029	57
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
90C26A	30	-	-	2043	68	1884	63	2071	69	2158	72	1686	56
90C30A	35	-	-	2404	69	2218	63	2438	70	2540	73	1985	57
90C50B	53	-	-	3142	59	2900	55	3188	60	3320	63	2594	49
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
97C23A	30	-	-	1863	62	1719	57	1889	63	1969	66	1538	51
97C27A	35	-	-	2192	63	2022	58	2223	64	2316	66	1809	52
90W11A	14	-	-	-	-	804	57	795	57	828	59	646	46
90W13A	14	-	-	-	-	846	60	837	59	872	62	680	48

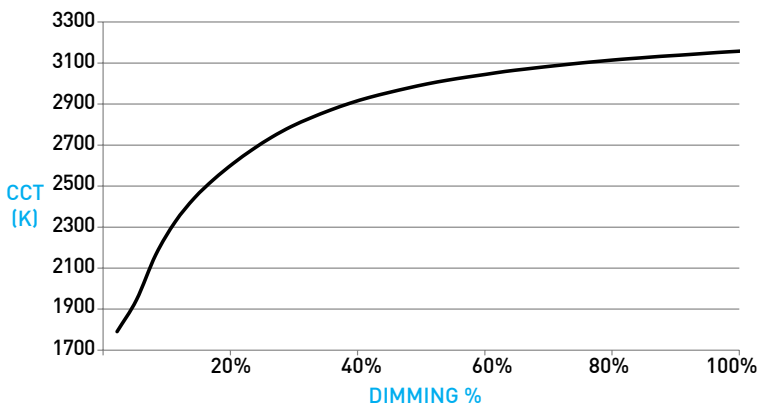
OUTPUT MULTIPLIER	
CCT	CCT SCALE
2200K	0.800
2700K	0.957
3000K	1.000
3500K	1.019
4000K	1.030

LIGHT LOSS FACTOR MULTIPLIER	
NO LENS	1.05
CGL	1.05
SFL	1.00
FGL	0.90
FSFL	0.87
FLSL	0.83
WDL	0.78
HCL	0.65

## WARM DIM PERFORMANCE

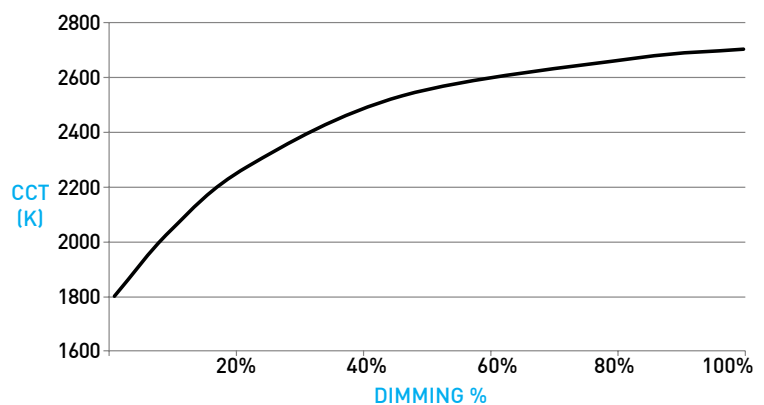
WARM DIM TO MIRROR HALOGEN DIMMING PROFILE

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



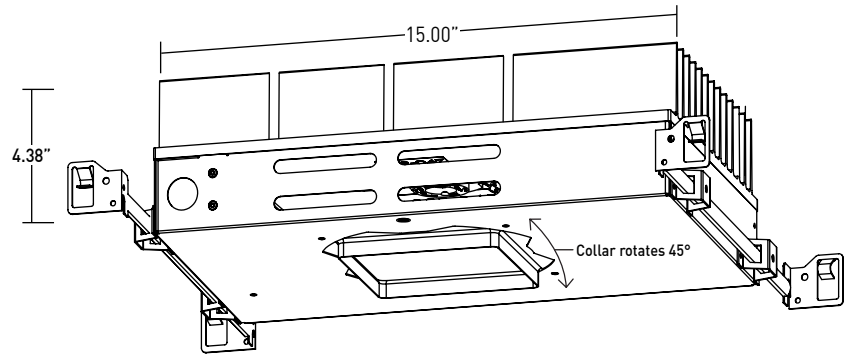
# FRAXION4SLIM LVS FIXED

## DOWNLIGHT / HOUSING

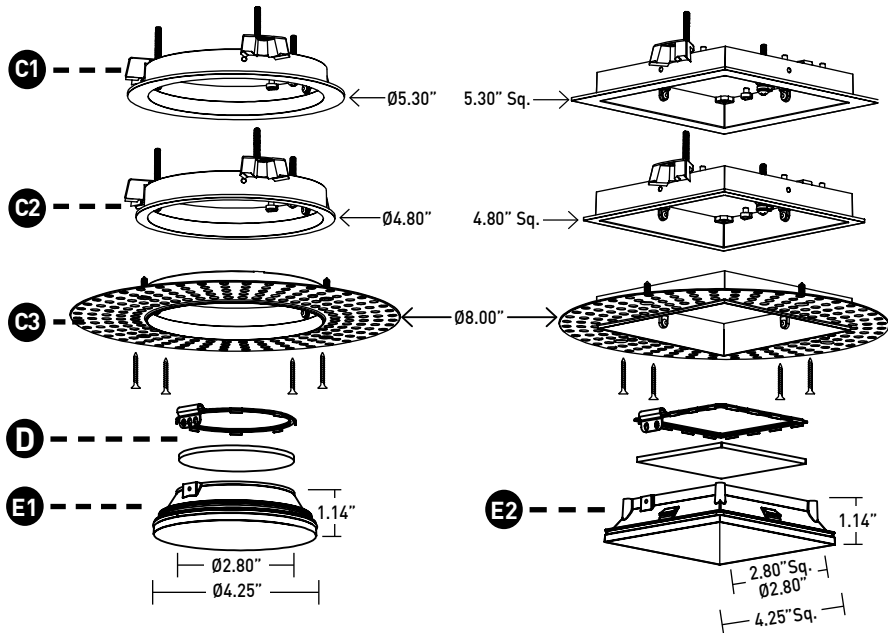
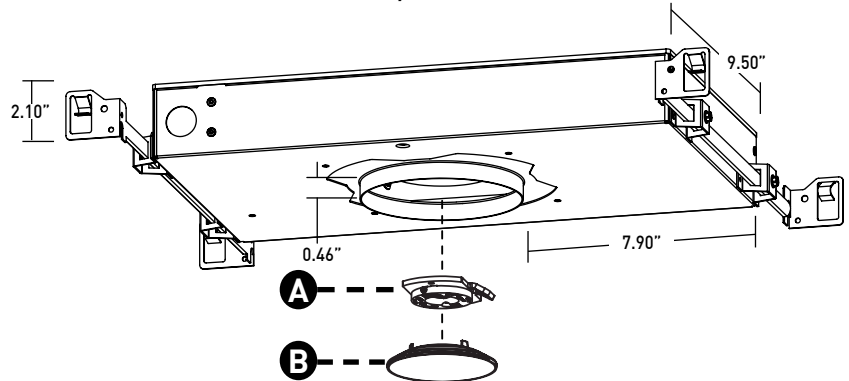
- A LED**  
Integral LED module design enables field service / replacement through housing aperture.
- B OPTIC**  
Proprietary optic integrates Reflection, Refraction and TIR offering 10°, 15°, 25°, 40° & 60° beams.
- C1 STANDARD FLANGE PROFILE**  
Installed after ceiling is complete. Requires 4.625" (117mm) diameter cutout. Provides 0.86" (22mm) total contractor (goof) allowance with 0.50" (13mm) flange. Thickness measures 0.06" (1.5mm). Wet location features integral silicone gasket.
- C2 MICROFLANGE PROFILE**  
Installed after ceiling is complete. Requires 4.625" (117mm) diameter cutout. Provides 0.42" (11mm) total contractor (goof) allowance with 0.28" (7mm) flange. Thickness measures 0.06" (1.5mm). Wet location features integral silicone gasket.
- C3 TRIMLESS PROFILE**  
Installs totally flush with the ceiling with no visible trim. Appliqué includes screws for mounting and has 0.06" (1.5mm) plaster stop. Not recommended for stucco applications.
- D 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 ROUND BAFFLE**  
Die-cast removable baffle minimizes aperture glare and conceals view into housing; includes silicone gasket.
- E2 SQUARE / TRANSITIONAL BAFFLE**  
Die-cast removable baffle minimizes aperture glare and conceals view into housing; includes silicone gasket. Transitional baffle transitions from square aperture at ceiling plane to round aperture at light source.

## DIMENSIONS / DRAWINGS

### 4.38" MAX FLUX HOUSING – 5000 LUMENS AND ABOVE



### STANDARD HIGH / LOW FLUX HOUSING

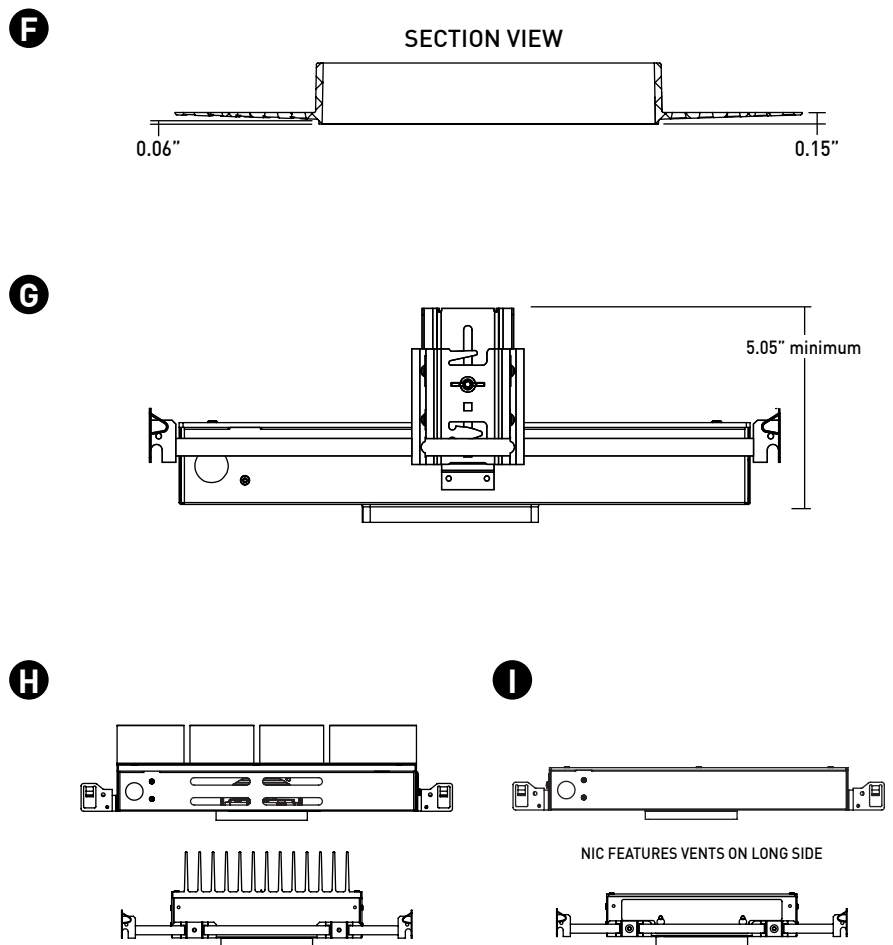


# FRAXION4 SLIM LVS FIXED

## DOWNLIGHT / HOUSING

- F TRIMLESS APPLIQUÉ DETAIL**  
Integrated appliqué for plaster floating directly to baffle.
- G 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.
- H 4.38" MAX FLUX NIC HOUSING**
  - For 80C58B and 90C50B lumen packages only.
  - 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.
- I STANDARD HIGH/LOW FLUX IC/NIC HOUSING**
  - 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.
  - 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.

## DIMENSIONS / DRAWINGS



## 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 excluded from 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".

# FRAXION4 SLIM LVS FIXED

## 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

- 03/15/2021: UPDATED HIGH FLUX STATIC WHITE PHOTOMETRICS.
- 03/15/2021: REMOVED HIGH FLUX 97+ CRI 3500K OFFERING.
- 01/12/2021: ADDED 2200K, 2700K-1800K WARM DIM AND 10 DEGREE OPTIC OFFERINGS.