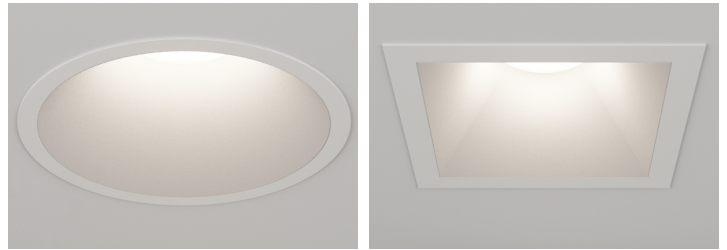


# FRAXION® 4 SLIM LVS DEEP REGRESS FIXED

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	FFD Standard Flange MFD Microflange TFD 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 00 Trimless* *(Required for trimless) CF Custom Finish* *(Consult Factory)	WH White BK Black PR Primer AU Cashmere Gold AG Satin Silver BB Burnt Bronze CF Custom Finish* *(Consult Factory)	<p><b>LOW FLUX STATIC WHITE</b></p> <p>80C12A 80+ CRI, Delivered Lumens - 796</p> <p>80C16A 80+ CRI, Delivered Lumens - 1096</p> <p>80C23A 80+ CRI, Delivered Lumens - 1508</p> <p>90C10A 90+ CRI, Delivered Lumens - 684</p> <p>90C14A 90+ CRI, Delivered Lumens - 937</p> <p>90C19A 90+ CRI, Delivered Lumens - 1283</p> <p>97C10A 97+ CRI, Delivered Lumens - 609</p> <p>97C12A 97+ CRI, Delivered Lumens - 834</p> <p>97C17A 97+ CRI, Delivered Lumens - 1152</p>	22 2200K* *(Only available with 90+ CRI)	10 10°* *(Only available with 80C12A, 90C10A and 97C10A. Not available with 2200K)	V IC, Remote W NIC, Remote D IC, Airtight, Chicago Plenum, Remote	1 0.50" - 1.00" T 0.50" - 1.00"* *(Includes adjustable housing height bracket)	LVS Low Voltage System	<p><b>STANDARD EFFECTS DEVICE</b></p> <p>04 Soft Focus Lens</p> <p>NL No Lens* *(Standard with 10° optic. Not available for Wet Location, or Airtight Housings)</p> <p><b>ALTERNATE EFFECTS DEVICE</b></p> <p>02 Honeycomb Louver w/ Diffusion Film* *(Not available for Wet location, Warm Dim, or Airtight Housings)</p> <p>03 Clear Glass Lens* *(Not available for Warm Dim)</p> <p>05 Frosted Glass Lens</p> <p>08 Frosted Soft Focus Lens</p> <p>14 Wide Distribution Lens* *(Required and only available for 85° beam spread)</p> <p>26 Frosted Linear Spread Lens</p>
F4S Square	FFD Standard Flange MFD Microflange TFD 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 00 Trimless* *(Required for trimless) CF Custom Finish* *(Consult Factory)	WH White BK Black PR Primer AU Cashmere Gold AG Satin Silver BB Burnt Bronze CF Custom Finish* *(Consult Factory)	<p><b>HIGH FLUX STATIC WHITE</b></p> <p>80C30A 80+ CRI, Delivered Lumens - 2074* *(Not available for IC housing applications)</p> <p>80C36A 80+ CRI, Delivered Lumens - 2450* *(Not available for IC housing applications)</p> <p>90C26A 90+ CRI, Delivered Lumens - 1594* *(Not available for IC housing applications)</p> <p>90C30A 90+ CRI, Delivered Lumens - 1870* *(Not available for IC housing applications)</p> <p>97C23A 97+ CRI, Delivered Lumens - 1376* *(Not available for IC housing applications)</p> <p>97C27A 97+ CRI, Delivered Lumens - 1617* *(Not available for IC housing applications)</p>	27 2700K 30 3000K 35 3500K* *(Not available for 97+ CRI) 40 4000K	28 28° 40 40° 60 60° 85 85°* *(Requires -14 WDL effects device)				
					<p><b>WARM DIM</b></p> <p>90W11A 90+ CRI, Delivered Lumens - 719 Incandescent Profile</p> <p>90W13A 90+ CRI, Delivered Lumens - 757 Halogen Profile</p> <p>*SEE PAGE 3 FOR DETAILED WARM DIM PROFILE COMPARISON.</p> <p>*ALL DELIVERED LUMEN OUTPUTS REFLECT 3000K PAIRED WITH 40° OPTIC AND SOFT FOCUS LENS.</p>	WL 2700K - 1800K WD 3200K - 1800K	15 15° 22 22° 40 40° 60 60° 85 85°* *(Requires -14 WDL effects device)				



## PART NUMBER NOTES




- Housing and trim ship as e.g., F4RMFD1-WHWH-90C14A2-3V1-LVS

# FRACTION4 SLIM DEEP REGRESS 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

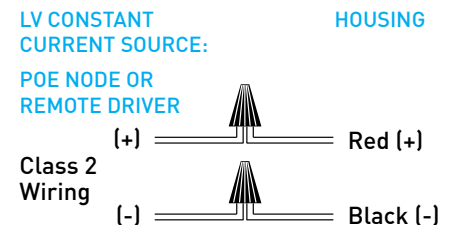
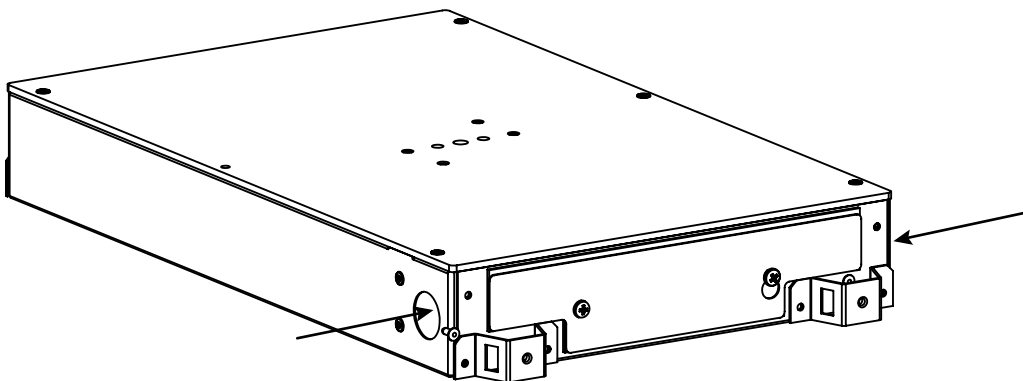
## DRIVE CURRENT SPECIFICS

	80C					90C					97C					90W	
	12A	16A	23A	30A	36A	10A	14A	19A	26A	30A	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
Maximum Vf	39	39	39	39	39	39	39	39	39	39	39	39	39	39	39	39	39
Current mA	250	350	500	700	850	250	350	500	700	850	250	350	500	700	850	350	350
Wattage W	8.2	11.8	17.4	25.4	29.1	8.2	11.8	17.4	25.4	29.1	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 DEEP REGRESS LVS FIXED

## ACCESSORIES

### ALTERNATE EFFECTS DEVICES

Dry/Damp location only.

Wet location requires alternate baffle.

- HCL-F4R-2** Honeycomb Louver w/ Diffusion Film\*  
\*(Not available for Warm Dim, or Airtight housings)
- CGL-F4R-2** Clear Glass Lens\*  
\*(Not available for Warm Dim)
- FGL-F4R-2** Frosted Glass Lens
- SFL-F4R-2** Soft Focus Lens
- FSFL-F4R-2** Frosted Soft Focus Lens
- WDL-F4R-2** Wide Distribution Lens\*  
\*(Required and only available for 85° beam spread)
- FLSL-F4R-2** Frosted Linear Spread Lens

### REPLACEMENT BAFFLE ASSEMBLY (INCLUDES EFFECTS DEVICE)

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

### LOW FLUX AND WARM DIM REPLACEMENT OPTICS

Interchangeable optics accessible through fixture aperture.

- RO-50-15-2** 15° optic
- RO-50-22-2** 22° optic
- RO-50-40-2** 40° optic
- RO-50-60-2** 60° optic

### HIGH FLUX REPLACEMENT OPTICS

Interchangeable optics accessible through fixture aperture.

- RO-50-28-3** 28° optic
- RO-50-40-3** 40° optic
- RO-50-60-3** 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 DEEP REGRESS LVS FIXED

## PERFORMANCE - 3000K

LUMEN PACKAGE	WATTAGE	10° OPTIC NO SOFT FOCUS LENS		15° OPTIC SOFT FOCUS LENS		22° or 28° 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	698	48 (14W)	848	84	590	59	796	79	821	82	640	64
80C16A	14	-	-	1158	82	812	58	1096	78	1130	80	882	63
80C23A	21	-	-	1597	76	1118	53	1508	71	1555	74	1213	57
80C30A	30	-	-	-	-	1538	51	2074	69	2139	71	1669	56
80C36A	35	-	-	-	-	1817	52	2450	70	2528	72	1971	56
90C10A	10	592	41 (14W)	701	70	507	50	684	68	705	70	550	55
90C14A	14	-	-	957	68	694	49	937	66	966	69	753	53
90C19A	21	-	-	1320	62	951	45	1283	61	1323	63	1032	49
90C26A	30	-	-	-	-	1181	39	1594	53	1644	55	1282	43
90C30A	35	-	-	-	-	1386	40	1870	53	1928	55	1504	43
97C10A	10	546	38 (14W)	639	63	451	45	609	60	628	62	490	49
97C12A	14	-	-	872	62	618	44	834	59	860	61	671	47
97C17A	21	-	-	1203	57	854	40	1152	54	1188	56	927	44
97C23A	30	-	-	-	-	1020	34	1376	46	1419	47	1106	37
97C27A	35	-	-	-	-	1199	34	1617	46	1668	48	1301	37
90W11A	14	-	-	845	60	579	41	719	51	720	51	561	40
90W13A	14	-	-	890	63	609	43	757	54	758	54	591	42

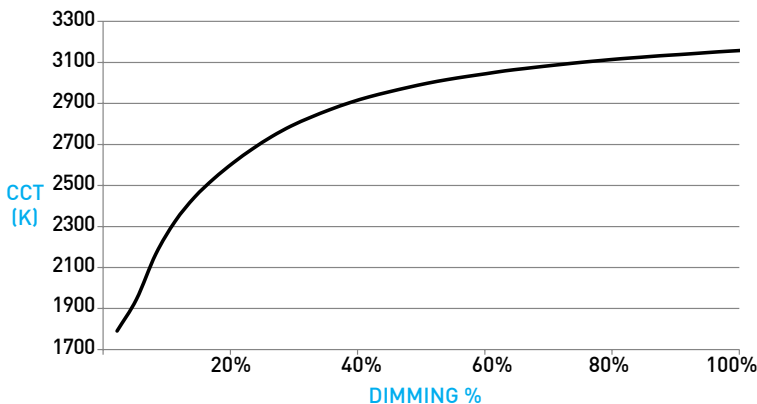
OUTPUT MULTIPLIER	
CCT	CCT SCALE
2200K	0.800
2700K	0.957
3000K	1.000
3500K	1.019
4000K	1.030

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

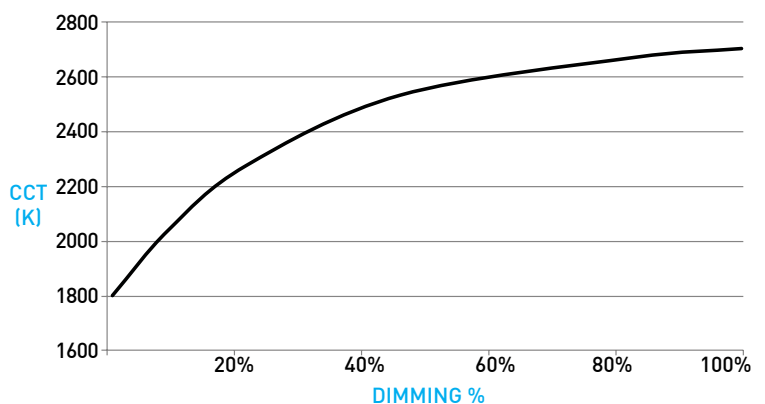
WARM DIM TO MIRROR HALOGEN DIMMING PROFILE

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)	757	605	530	378	151	76	15
Power (W)	14	11	10	7	3	1.5	0.3
Efficacy (LPW)	54	54	54	54	54	54	54



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)	719	575	503	359	143	72	14
Power (W)	14	11	10	7	3	1.5	0.5
Efficacy (LPW)	51	51	51	51	51	51	51

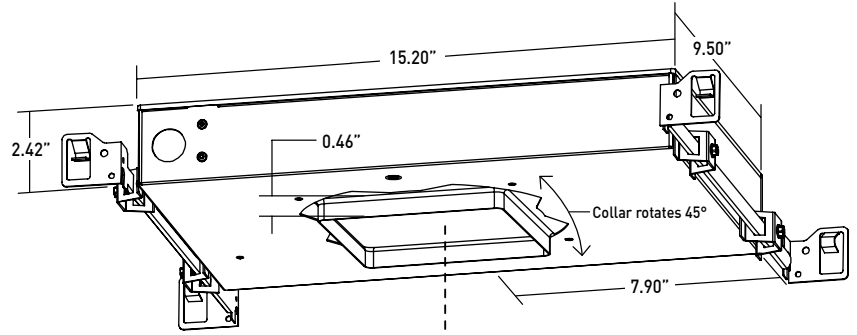


# FRACTION4 SLIM DEEP REGRESS LVS FIXED

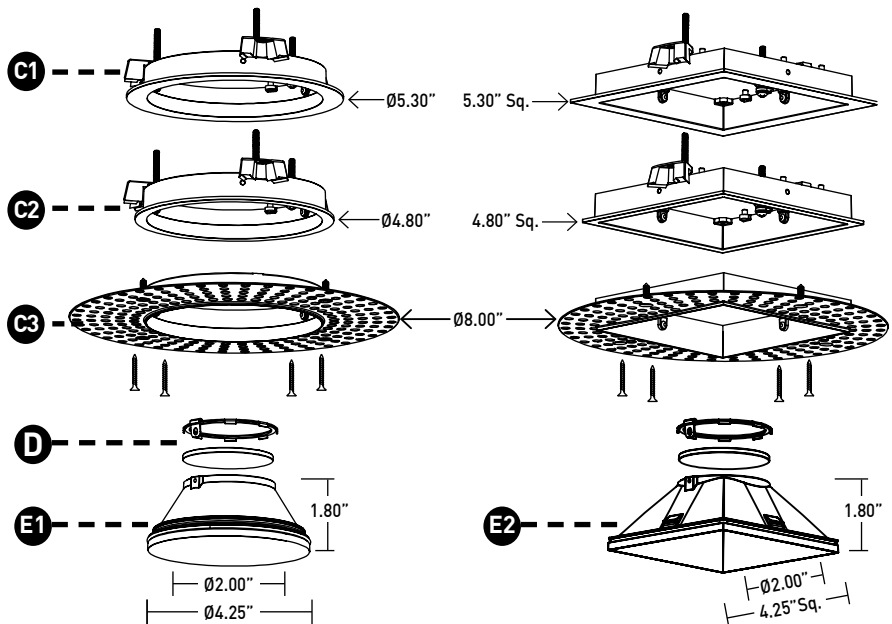
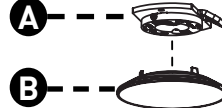
## DOWNLIGHT / HOUSING

- 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°, 22°, 28°, 40° & 60° beams.
- C1 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.
- C2 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.
- C3 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.
- 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 deep removable baffle features 60° glare cutoff. Minimizes aperture glare and conceals view into housing; includes silicone gasket.
- E2 TRANSITIONAL BAFFLE**  
Die-cast deep removable baffle features 60° glare cutoff. 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.

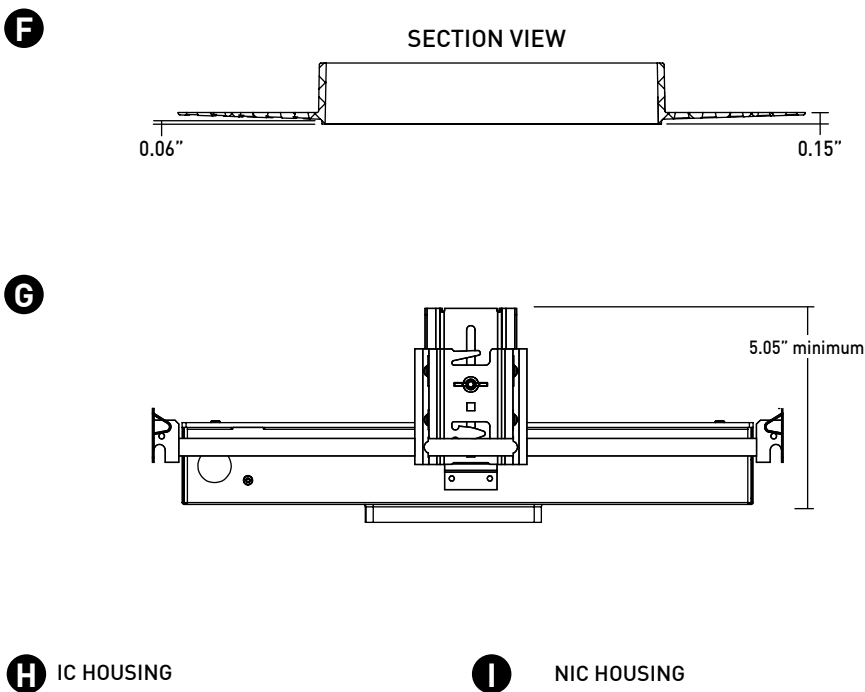


# FRAZION4 SLIM DEEP REGRESS LVS FIXED

## DOWNLIGHT / HOUSING

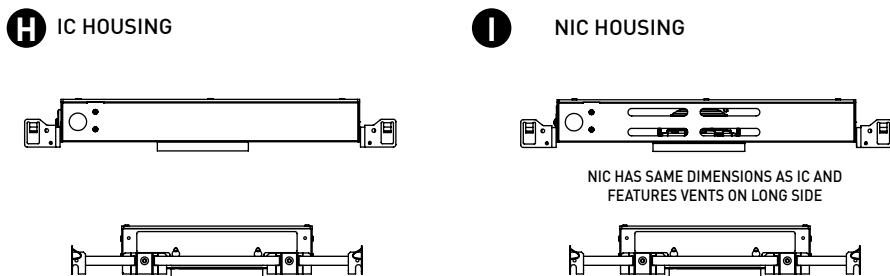
- F TRIMLESS APPLIQUÉ DETAIL**  
Integrated appliqué for plaster floating directly to baffle.
- G ADJUSTABLE HANGER BAR HEIGHT ACCESSORY**  
Provided with ceiling thickness "T" and recommended for installations in T-Grid and with furring channel. Hanger bars are installed to adjustable bracket. Allows housing to be raised and lowered; ceiling thickness remains 0.5" to 1.0" max.
- H 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.
- I 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 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".



# FRAZION4 SLIM DEEP REGRESS 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.
- 03/15/2021: REMOVED 15 AND 22 DEGREE OPTIC OFFERINGS FROM HIGH FLUX AND ADDED 28 DEGREE OPTIC OFFERING.
- 01/12/2021: ADDED 2200K, 2700K-1800K WARM DIM AND 10 DEGREE OPTIC OFFERINGS.