

# FRAXION® 4 DEEP REGRESS LVS FIXED

Versatile, high-performance, and retrofittable downlights, in a precise, 4-inch profile, the most diminutive in the industry.

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

Quick Ship Product. All rough in components ship within 10 days up to quantities of 100.

SHAPE	TRIM	RATING	FLANGE FINISH	BAFFLE FINISH	CRI / WATTAGE PACKAGE	CCT	OPTIC (UGR)	INSTALL TYPE	CEILING THICKNESS	DRIVER	MEDIA
										<b>LVS</b>	
F4R Round	FFD Standard Flange	1 IP20 Dry/Damp 2 IP64 Wet* *Suction cup provided for Aim & Focus)	WH White	WH White	<b>STATIC WHITE</b> <b>80S11A</b> 80+ CRI, 11W, Lumens Divd. - 1105 <b>80S15A</b> 80+ CRI, 15W, Lumens Divd. - 1479 <b>80S21A</b> 80+ CRI, 21W, Lumens Divd. - 2032 <b>80S30B</b> 80+ CRI, 30W, Lumens Divd. - 2607* *(Not available for IC housing applications) <b>90S11A</b> 90+ CRI, 11W, Lumens Divd. - 949 <b>90S15A</b> 90+ CRI, 15W, Lumens Divd. - 1271 <b>90S21A</b> 90+ CRI, 21W, Lumens Divd. - 1746 <b>90S30B</b> 90+ CRI, 30W, Lumens Divd. - 2240* *(Not available for IC housing applications) <b>97S11A</b> 97+ CRI, 11W, Lumens Divd. - 833 <b>97S15A</b> 97+ CRI, 15W, Lumens Divd. - 1116 <b>97S21A</b> 97+ CRI, 21W, Lumens Divd. - 1533 <b>97S30B</b> 97+ CRI, 30W, Lumens Divd. - 1967* *(Not available for IC housing applications)	<b>24</b> 2400K* *190+ CRI only. Not available for 30W package) <b>27</b> 2700K <b>30</b> 3000K <b>35</b> 3500K <b>40</b> 4000K	<b>10</b> 10° (<13) *(15W package only) <b>15</b> 15° (<16) <b>20</b> 20° (<13) <b>25</b> 25° (<13) <b>40</b> 40° (<16) <b>60</b> 60° (<13) <b>85</b> 85° (>19) *(Requires -14 WDL effects device)	<b>REMOTE</b> IR IC, Remote NR NIC, Remote AR IC, Airtight, Remote* *(ICCEA & Airtight compliant housing) <b>REMODEL</b> RR Remote, Remodel	<b>2</b> 0.125" - 2.50" *(Housing) 0.25" - 2.50" *(Remodel) 0.50" - 2.50" *(All Trimless) T 0.125" - 2.50" *(Includes adjustable housing height bracket)	LVS Low Voltage System	<b>STANDARD EFFECTS DEVICE</b> <b>04</b> Soft Focus Lens <b>NL</b> No Lens* *(Standard with 10° optic. Not available for Wet Location, or Airtight Housings)
	MFD Microflange		AG Satin Silver	AG Satin Silver							
F4S Square	FFD Standard Flange	1 IP20 Dry/Damp 2 IP64 Wet* *Suction cup provided for Aim & Focus)	WH White	WH White	<b>WARM DIM</b> <b>90W15A</b> 90+ CRI, 15W Incandescent Profile: 2700K - 1800K Lumens Divd. - 924 Halogen Profile: 3000K - 1800K Lumens Divd. - 936 SEE PAGE 4 FOR DETAILED WARM DIM PROFILE COMPARISON.  LUMENS DELIVERED REFLECT 3000K PAIRED WITH 20° OPTIC AND SOFT FOCUS LENS.	<b>20</b> 20° (<10) <b>25</b> 25° (<10) <b>40</b> 40° (<10) <b>60</b> 60° (<10) <b>85</b> 85° (>19) *(Requires -14 WDL effects device)	<b>20</b> 20° (<13) <b>25</b> 25° (<13) <b>40</b> 40° (<16) <b>60</b> 60° (<13) <b>85</b> 85° (>19) *(Requires -14 WDL effects device)	<b>REMOTE</b> IR IC, Remote NR NIC, Remote AR IC, Airtight, Remote* *(ICCEA & Airtight compliant housing) <b>REMODEL</b> RR Remote, Remodel	<b>2</b> 0.125" - 2.50" *(Housing) 0.25" - 2.50" *(Remodel) 0.50" - 2.50" *(All Trimless) T 0.125" - 2.50" *(Includes adjustable housing height bracket)	LVS Low Voltage System	<b>STANDARD EFFECTS DEVICE</b> <b>04</b> Soft Focus Lens <b>NL</b> No Lens* *(Standard with 10° optic. Not available for Wet Location, or Airtight Housings)
	MFD Microflange		AG Satin Silver	AG Satin Silver							
	TFD Trimless										



## PART NUMBER NOTES




- Trim ships as e.g., F4RFFD1-WHWH-90C10A2-3S2-LVS
- Housing ships as e.g., ICT-F4R-01-LVS

# FRACTION4 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

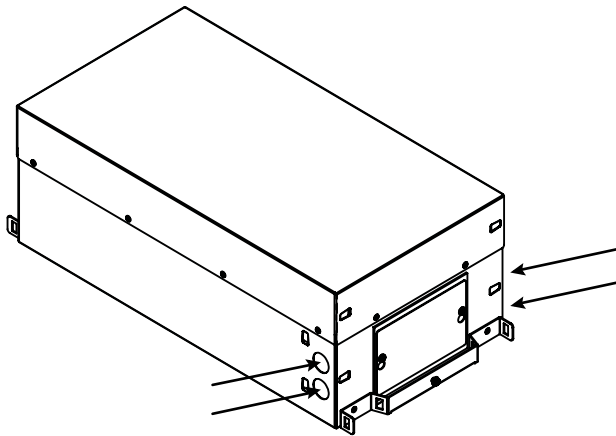
Manufacturer	Model Number
 Igor Enabling Smart Buildings™	NP50-60-C-F-5
 molex	180996-1001 180996-1002 180996-2001 180996-2002
 PLATFORMATICS	1 Channel Node, POE-LN2-1U-E 2 Channel Node, POE-LN2-2U-E 4 Channel Node, POE-LN2-4U-E

## DRIVE CURRENT SPECIFICS

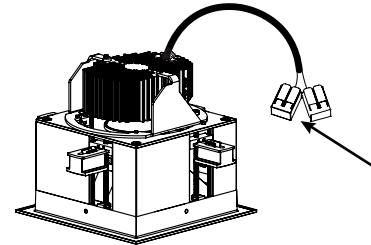
	80S				90S				97S				90W
	11A	15A	21A	30B	11A	15A	21A	30B	11A	15A	21A	30B	15A
Minimum Vf	30.5	30.5	30.5	30.5	30.5	30.5	30.5	30.5	30.5	30.5	30.5	30.5	30.5
Maximum Vf	39	39	39	39	39	39	39	39	39	39	39	39	39
Current mA	250	350	500	700	250	350	500	700	250	350	500	700	350
Wattage W	8.2	11.8	17.4	25.4	8.2	11.8	17.4	25.4	8.2	11.8	17.4	25.4	11.8

## WIRING DIAGRAM AND HOUSING/REMODEL ENTRY/ EXIT POINTS

HOUSING

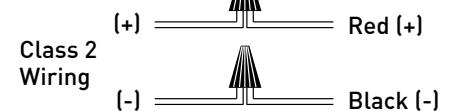


REMODEL



LV CONSTANT  
CURRENT SOURCE:  
POE NODE OR  
REMOTE DRIVER

HOUSING OR  
REMODEL  
FIXTURE



# FRAZION4 DEEP REGRESS LVS FIXED

## ACCESSORIES

### ALTERNATE MEDIA

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 MEDIA)

ASSEMBLY	SHAPE	TRIM	RATING	FLANGE FINISH	MEDIA
<b>RBA</b>				<b>1</b>	
REPLACEMENT BAFFLE ASSEMBLY	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 CF Custom Finish* *(Consult Factory)	Leave blank for standard Soft Focus Lens  HCL Honeycomb Louver w/ Diffusion Film* *(Not available for Wet Location, Warm Dim, or Airtight Housings) 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	FFD Standard Flange Transitional Baffle MFD Microflange Transitional Baffle TFD Trimless Transitional Baffle			

### REPLACEMENT OPTICS

Interchangeable optics accessible through fixture aperture.

#### STATIC WHITE

- RO-50-15-S** 15° optic
- RO-50-20-S** 20° optic
- RO-50-25-S** 25° optic
- RO-50-40-S** 40° optic
- RO-50-60-S** 60° optic

#### WARM DIM

- RO-50-20-W2** 20° optic
- RO-50-25-W2** 25° optic
- RO-50-40-W2** 40° optic
- RO-50-60-W2** 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 up to 1.5" tall. Available for ceiling thicknesses from 0.125" - 2.50".

- DHA-TG-KIT**

### FURRING CHANNEL ACCESSORY KIT

Recommended for installations in furring channel. Available for ceiling thicknesses from 0.125" - 2.50".

- DHA-FC-KIT**

### HANGER BAR EXTENDER KIT

Extends hanger bars from 24.0" to 46.0" maximum.

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

# FRACTION4 DEEP REGRESS LVS FIXED

## PERFORMANCE - 3000K

LUMEN PACKAGE	WATTS	10° OPTIC NO LENS		15° OPTIC SOFT FOCUS LENS		20° OPTIC SOFT FOCUS LENS		25° OPTIC SOFT FOCUS LENS		40° OPTIC SOFT FOCUS LENS		60° OPTIC SOFT FOCUS LENS		85° OPTIC WIDE DISTRIBUTION	
		DLVD.	LPW	DLVD.	LPW	DLVD.	LPW	DLVD.	LPW	DLVD.	LPW	DLVD.	LPW	DLVD.	LPW
80S11A	11	-	-	899	82	1105	100	1063	97	942	86	1022	93	853	78
80S15A	15	1079	98	1226	82	1479	99	1429	95	1273	85	1376	92	1133	76
80S21A	21	-	-	1664	79	2032	97	1897	90	1731	82	1860	89	1545	74
80S30B	30	-	-	2217	74	2607	87	2474	82	2204	73	2408	80	1984	66
90S11A	11	-	-	772	70	949	86	913	83	809	74	878	80	733	67
90S15A	15	930	85	1053	70	1271	85	1228	82	1094	73	1182	79	973	65
90S21A	21	-	-	1429	68	1746	83	1629	78	1487	71	1598	76	1328	63
90S30B	30	-	-	1905	64	2240	75	2125	71	1893	63	2069	69	1704	57
97S11A	11	-	-	678	62	833	76	802	73	711	65	771	70	643	58
97S15A	15	802	73	925	62	1116	74	1078	72	961	64	1038	69	854	57
97S21A	21	-	-	1255	60	1533	73	1431	68	1306	62	1403	67	1166	56
97S30B	30	-	-	1673	56	1967	66	1866	62	1662	55	1817	61	1496	50
90W15A (WL 27K-18K)	15	-	-	-	-	924	62	881	59	795	53	860	57	702	47
90W15A (WD 30K-18K)	15	-	-	-	-	936	62	897	60	803	54	867	58	730	49

### OUTPUT MULTIPLIER

CCT	CCT SCALE
2400K	0.85
2700K	0.97
3000K	1.00
3500K	1.03
4000K	1.08

### MEDIA LIGHT LOSS FACTOR

MEDIA	LIGHT LOSS FACTOR
NO LENS	1.06
CGL	1.00
SFL	1.00
FGL	0.89
FSFL	0.81
FLSL	0.82
HCL	0.73

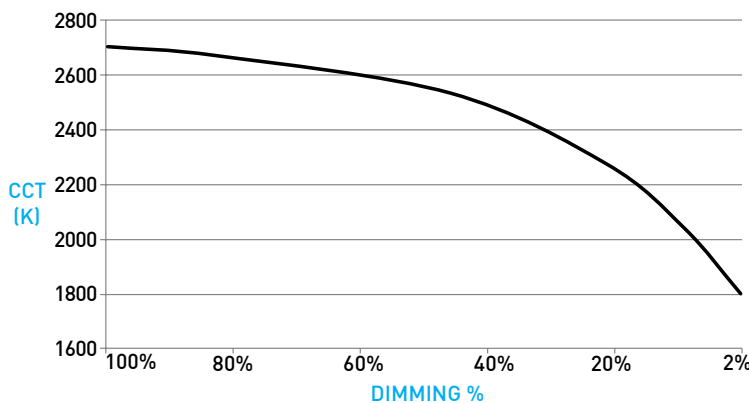
### UNIFIED GLARE RATING

10° OPTIC NO LENS	15° OPTIC SOFT FOCUS LENS	20° OPTIC SOFT FOCUS LENS	25° OPTIC SOFT FOCUS LENS	40° OPTIC SOFT FOCUS LENS	60° OPTIC SOFT FOCUS LENS	85° OPTIC WIDE DISTRIBUTION
<13	<16	<13	<13	<16	<13	>19

## WARM DIM PERFORMANCE - 20° OPTIC - SOFT FOCUS LENS

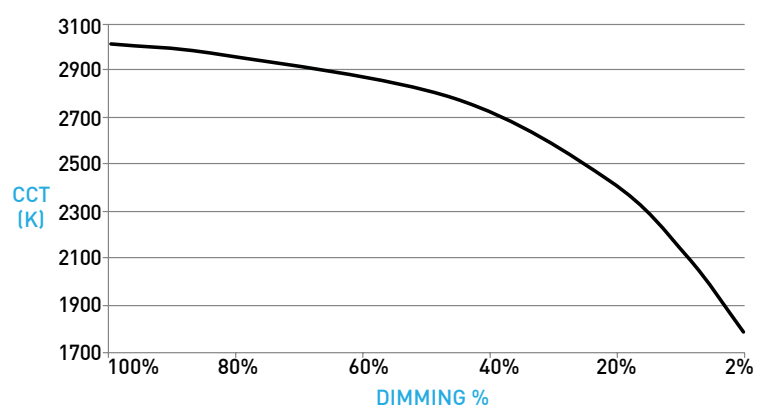
### WARM DIM TO MIRROR INCANDESCENT DIMMING PROFILE

WL 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)	924	739	646	462	184	92	18
Power (W)	15	12	10.5	7.5	3	1.5	.3
Efficacy (LPW)	62	62	62	62	62	62	62



### HALOGEN WARM DIM PROFILE

WD 3000K - 1800K	Full on 100%	Dimmed to 80%	Dimmed to 70%	Dimmed to 50%	Dimmed to 20%	Dimmed to 10%	Dimmed to 2%
CCT (K)	3000	2950	2920	2775	2375	2000	1800
Light Output (Lm)	936	748	655	468	187	93	18
Power (W)	15	12	10.5	7.5	3	1.5	.3
Efficacy (LPW)	62	62	62	62	62	62	62



# FRAZION4 DEEP REGRESS LVS FIXED

## DOWNLIGHT

### A BAFFLE

**ROUND**  
Die-cast deep baffle features 60° glare cutoff. Minimizes aperture glare and conceals view into housing; includes silicone gasket.

**TRANSITIONAL**  
Die-cast deep baffle transitions from square aperture at ceiling plane to round aperture at light source and features 60° glare cutoff. Minimizes aperture glare and conceals view into housing; includes silicone gasket.

### B RETENTION

Integrated metal arm clamps located within fixture body allow discreet flange design, while accommodating varying ceiling thicknesses from 0.125" to 2.50". Snap-on spacer clips (3X) supplied for ceiling thickness below 0.50" only.

### C1 STANDARD FLANGE PROFILE

Provides 0.86" total contractor (goof) allowance with 0.50" flange. Thickness measures 0.06". Wet location features integral silicone gasket.

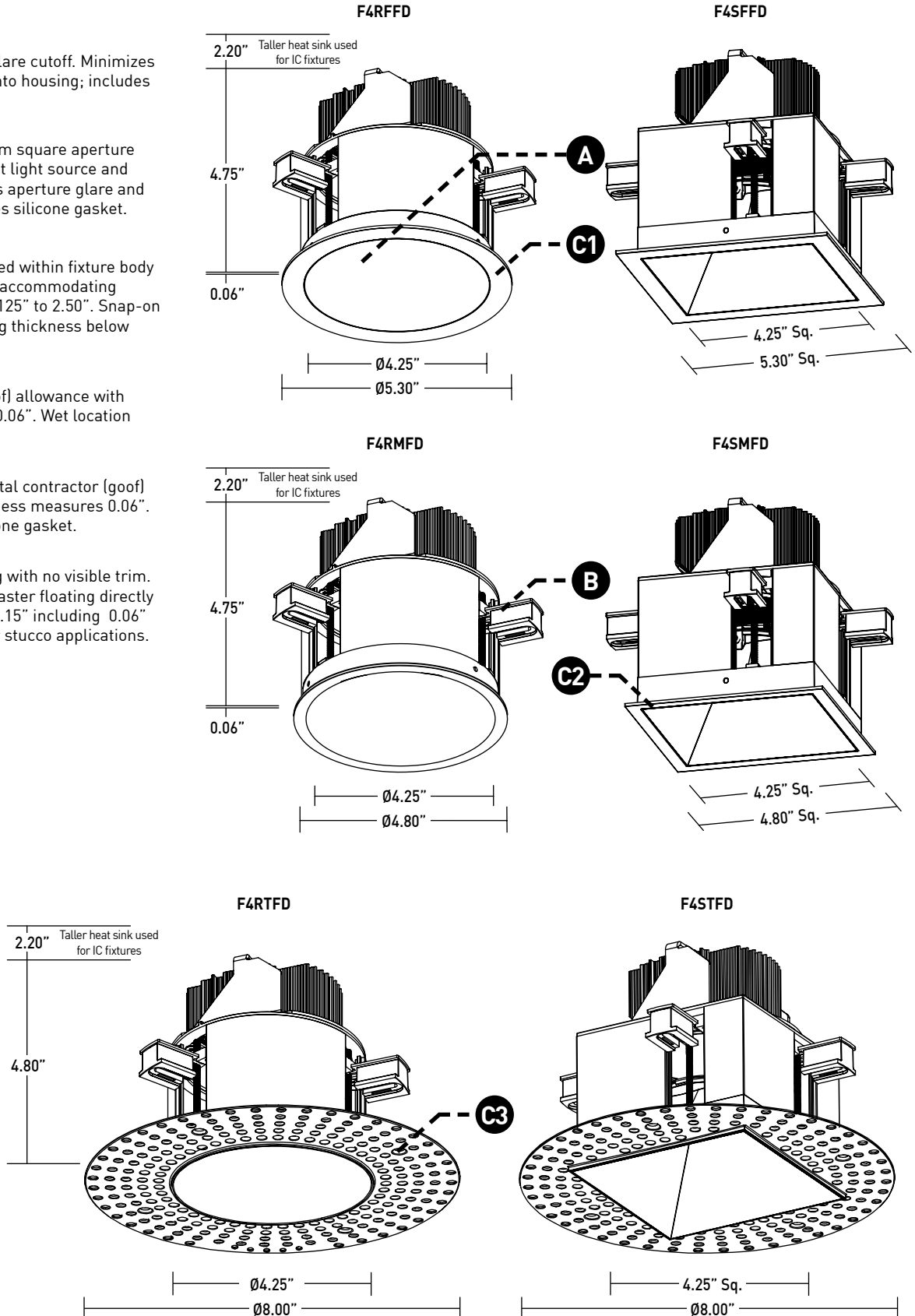
### C2 MICROFLANGE PROFILE

Provides industry standard 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. Features integrated appliqué for plaster floating directly to the baffle, thickness measures 0.15" including 0.06" plaster stop. Not recommended for stucco applications.

## DIMENSIONS / DRAWINGS



# FRAXION4 DEEP REGRESS LVS FIXED

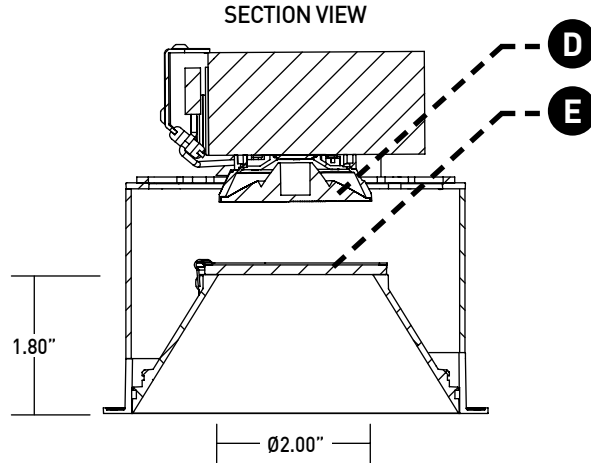
## DOWNLIGHT / HOUSING

- D OPTIC**  
Proprietary optic integrates Reflection, Refraction and TIR offering 10°, 15°, 22°, 28°, 40° & 60° beams.
- 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.

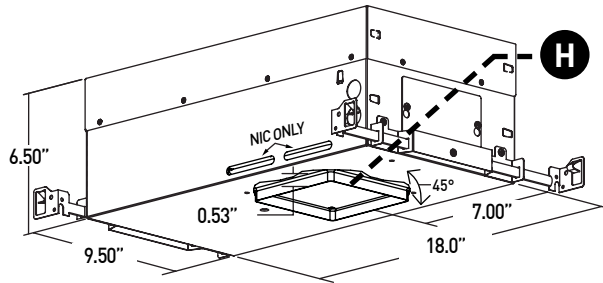
## HOUSING / MOUNTING

- F ICT (IC) HOUSING - TALL**
  - For IC ceilings.
  - CCEA and Airtight listed.
  - Accommodates max 2032 delivered lumens.
  - No setback from polycell spray foam insulation having max R-Value of 60 on all sides and top of housing.
- G NCT (NIC) HOUSING - TALL**
  - 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.
- H HOUSING COLLAR**
  - Requires 4.625" cutout.
  - Fixed round aperture or square aperture with 45 degree rotation that locks from below providing easy alignment of square aperture housings.
  - Accommodates varying ceiling thicknesses.
- I 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.

## DIMENSIONS / DRAWINGS

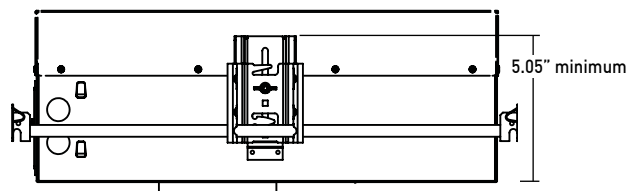


**F / G**



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

**I**



## HOUSING / MOUNTING NOTES

- Do not install in environments where ambient temperatures exceed 40°C (104°F).
- Power supply compartment and 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.
- Driver assembly ships with trim, not housing. Housing and trim feature mating quick-connect plugs for ease of installation.

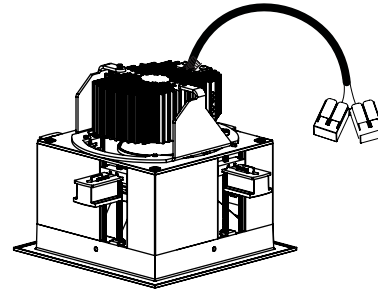
# FRACTION4 DEEP REGRESS LVS FIXED

## REMODEL

### J REMODEL

- Provided with RR install type.
- Requires 4.42" cutout.
- Installs without conventional housing using integral mounting clamps.
- Requires plenum rated Class 2 cable between fixture and remote driver. Cable supplied by others.
- Minimum 0.75" clearance from top of trim.
- Minimum setback from combustible and non-combustible materials of 6.63" radius from fixture centerline.
- Minimum additional 3.00" setback from insulation material with max R-Value 30 from any surface of downlight fixture assembly.
- Minimum additional 6.00" setback from polycell spray foam insulation with max R-Value 60 from any surface of downlight fixture assembly.
- Do not install in environments where ambient temperatures exceed 40°C (104°F).
- All splice connections serviceable from room side.
- Consult factory for spacing requirements for any installations exceeding R-Value 60.

J



# FRAXION4 DEEP REGRESS LVS FIXED

## TECHNICAL

### CONSTRUCTION

**Downlight:** Aluminum and steel. Extruded aluminum heat-sink. Painted finishes are granulated powder coat.

**Housing:** 22 Gauge galvanized steel.

**Appliqué:** Zinc Alloy

### STATIC WHITE LED

2-step MacAdam ellipse LED module available in 80+, 90+ and 97+ CRI configurations in color temperatures of 2700K, 3000K, 3500K and 4000K. 3-step MacAdam ellipse LED module available in 90+ CRI configuration in color temperature of 2400K. Average rated lamp life of 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. 3000K 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.

CCEA and Airtight Listed.

U.S. Patent: 10,344,958

### 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. 04/07/2022: REMOVED REMOTE REMODEL ACCESSORY KIT PSF4-RMT-AK.

2. 10/17/2022: REMOVED 90W12A 3000K-1800K WARM DIM AND ADDED 90W12A 3000K-1800K WARM DIM.

3. 08/08/2023: ADDED NEW LED AND OPTIC SYSTEM.

4. 02/08/2024: ADDED 2400K.