

FRAXION® 4 HIGH FLUX LVS FIXED

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

| | |
|---------------|-------|
| PROJECT NAME: | TYPE: |
|---------------|-------|



ORDERING INFORMATION - DOWNLIGHT / HOUSING

| SHAPE | TRIM | RATING | FLANGE FINISH | BAFFLE FINISH | CRI/WATTAGE PACKAGE | CCT | OPTIC (UGR) | INSTALL TYPE | CEILING THICKNESS | DRIVER | MEDIA |
|-------------------------------------|---|---|--|---|--|---|--|------------------------------------|--|---|--|
| | | | | | | | | W | | LVS | |
| F4R Round | FFS Standard Flange | 1 Dry/Damp 2 Wet* *(Suction cup provided for aim and focus) | WH White | WH White | STATIC WHITE 4.38" TALL HOUSING 80S53E 80+ CRI, 53W, Lumens Dlv. - 5043 90S53E 90+ CRI, 53W, Lumens Dlv. - 4493 97S53E 97+ CRI, 53W, Lumens Dlv. - 4034 | 27 2700K 30 3000K 35 3500K* *(Not available for 97+ CRI) | 15 15° (<19) 20 20° (<16) 25 25° (<16) 40 40° (<19) 60 60° (<19) 85 85° (>19) *(Requires -14 WDL effects device) | REMOTE POWER SUPPLY NIC, Remote | 1 0.50" - 1.00" T TG 0.50" - 1.00"* *(Includes adjustable housing height bracket) | LVS Low Voltage System | STANDARD MEDIA 04 Soft Focus Lens NL No Lens* *(Not available for Wet Location) |
| | MFS Microflange | | AG Satin Silver | AG Satin Silver | | | | | | | |
| F4S Square | TFS Trimless | | AU Cashmere Gold | AU Cashmere Gold | | | | | | | |
| | FFS Standard Flange | | BB Burnt Bronze | BB Burnt Bronze | | | | | | | |
| | MFS Microflange | | BK Black | BK Black | | | | | | | |
| | TFS Trimless | | PR Primer | PR Primer | | | | | | | |
| | FFT Standard Flange Transitional Baffle | | 00 Trimless* *(Required for trimless) | CF Custom Finish* *(Consult Factory) | | | | | | | |
| MFT Microflange Transitional Baffle | | | | | WARM DIM 4.38" TALL HOUSING 90W26B 90+ CRI, 26W, Lumens Dlv. - 1779 Incandescent Profile 90W42E 90+ CRI, 42W, Lumens Dlv. - 2813 Incandescent Profile SEE PAGE 4 FOR DETAILED WARM DIM PROFILE | WL 2700K - 1800K | 20 20° (<16) 25 25° (<16) 40 40° (<16) 60 60° (<16) 85 85° (>19) *(Requires -14 WDL effects device) | | | ALTERNATE MEDIA 02 Honeycomb Louver w/ Diffusion Film* *(Not available for Wet location or Warm Dim) 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 | |
| TFT Trimless Transitional Baffle | | CF Custom Finish* *(Consult Factory) | | | | | | | | | |
| | | | | | LUMEN DELIVERED OUTPUTS REFLECT 3000K PAIRED WITH 20° OPTIC AND SOFT FOCUS LENS. | | SEE PAGE 4 FOR UGR RATINGS | | | | |



PART NUMBER NOTES




- Housing and trim ship as e.g., F4RMFS1-WHWH-90S53E-3W1-LVS

FRAXION4 HIGH FLUX LVS FIXED

APPLICATION NOTES

- Customers must ensure voltage range of the proposed POE node encompasses the fixtures complete Vf range, both maximum and minimum, and can be set to the required mA drive current. If assistance is required contact LLC rep or factory.
- Customers are responsible for ensuring POE node drive current is set to correct values shown below.
- 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 using customer supplied connectors, ex. wire nuts, push-in connectors, or terminal blocks.
- Confirm node compatibility with factory if it is not listed.

NODE COMPATIBILITY

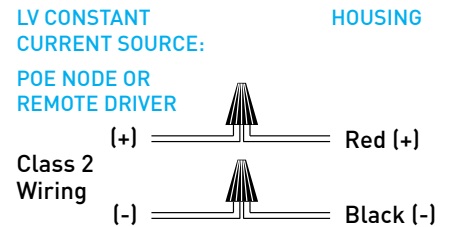
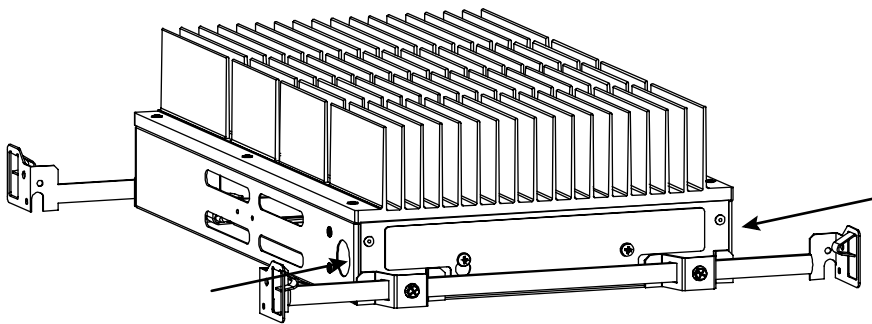
| Manufacturer | Model Number |
|--|--|
|  Igor Enabling Smart Buildings™ | NP50-60-C-F-5 |
|  molex | 180996-5103* 180996-5106* 180996-5104* |
|  PLATFORMATICS | 1 Channel Node, POE-LN2-1U-E 2 Channel Node, POE-LN2-2U-E 4 Channel Node, POE-LN2-4U-E |

*SEE APPLICATION NOTE 1

DRIVE CURRENT SPECIFICS

| | 80S | 90S | 97S | 90W | |
|------------|------|------|------|------|------|
| | 53E | 53E | 53E | 26B | 42E |
| Minimum Vf | 30.5 | 30.5 | 30.5 | 30.5 | 30.5 |
| Maximum Vf | 39 | 39 | 39 | 39 | 39 |
| Current mA | 1250 | 1250 | 1250 | 600 | 1000 |
| Wattage W | 43.6 | 43.6 | 43.6 | 20.1 | 34 |

WIRING DIAGRAM AND HOUSING ENTRY/ EXIT POINTS



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ACCESSORIES

ROUND ALTERNATE MEDIA

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

- HCL-F4R** Honeycomb Louver w/ Diffusion Film*
*(Not available for Warm Dim)
- 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 MEDIA

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

- HCL-F4S** Honeycomb Louver w/ Diffusion Film*
*(Not available for Warm Dim)
- 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 MEDIA)

| ASSEMBLY | SHAPE | TRIM | RATING | FLANGE FINISH | MEDIA |
|-----------------------------------|-------------------|--|--------------------------|--|--|
| RBA | | | | 1 | |
| REPLACEMENT BAFFLE ASSEMBLY | 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 CF Custom Finish* *(Consult Factory) | <p style="text-align: center;">Leave blank for standard Soft Focus Lens</p> HCL Honeycomb Louver w/ Diffusion Film* *(Not available for Wet location, or Warm Dim) 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 | FFS Standard Flange MFS Microflange TFS Trimless FFT Standard Flange Transitional Baffle MFT Microflange Transitional Baffle TFT Trimless Transitional Baffle | | | |

REPLACEMENT OPTICS

Interchangeable optics accessible through fixture aperture.

STATIC WHITE

- RO-70-15-S** 15° optic
- RO-70-20-S** 20° optic
- RO-70-25-S** 25° optic
- RO-70-40-S** 40° optic
- RO-70-60-S** 60° optic

WARM DIM

- RO-70-15-W** 15° optic
- RO-70-20-W** 20° optic
- RO-70-25-W** 25° optic
- RO-70-40-W** 40° optic
- RO-70-60-W** 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

BUTTERFLY BRACKET ASSEMBLY

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". Requires customer supplied 1/2" conduit, channel, or furring channel for mounting.

- DHA-BFLY-KIT**

HANGER BAR EXTENDER KIT

Extends hanger bars from 24.0" to 46.0" maximum.

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

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PERFORMANCE - 3000K

| LUMEN PACKAGE | WATTAGE | 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 LENS | |
|---------------|---------|---------------------------|-----|---------------------------|-----|---------------------------|-----|---------------------------|-----|---------------------------|-----|----------------------------------|-----|
| | | DLVD. | LPW | DLVD. | LPW | DLVD. | LPW | DLVD. | LPW | DLVD. | LPW | DLVD. | LPW |
| 80S53E | 53 | 4726 | 89 | 5043 | 95 | 4986 | 94 | 4749 | 90 | 4435 | 84 | 3938 | 74 |
| 90S53E | 53 | 4210 | 79 | 4493 | 85 | 4442 | 84 | 4231 | 80 | 3951 | 75 | 3508 | 66 |
| 97S53E | 53 | 3780 | 71 | 4034 | 76 | 3989 | 75 | 3799 | 72 | 3548 | 67 | 3150 | 59 |
| 90W26B | 26 | 1641 | 63 | 1779 | 68 | 1729 | 67 | 1645 | 63 | 1578 | 61 | 1395 | 54 |
| 90W42E | 42 | 2534 | 60 | 2813 | 67 | 2700 | 64 | 2575 | 61 | 2476 | 59 | 2196 | 52 |

UNIFIED GLARE RATING

| 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 |
|---------------------------|---------------------------|---------------------------|---------------------------|---------------------------|-----------------------------|
| <16 | <13 | <13 | <13 | <13 | >19 |

OUTPUT MULTIPLIER

| CCT | CCT SCALE |
|-------|-----------|
| 2700K | 0.97 |
| 3000K | 1.00 |
| 3500K | 1.03 |
| 4000K | 1.08 |

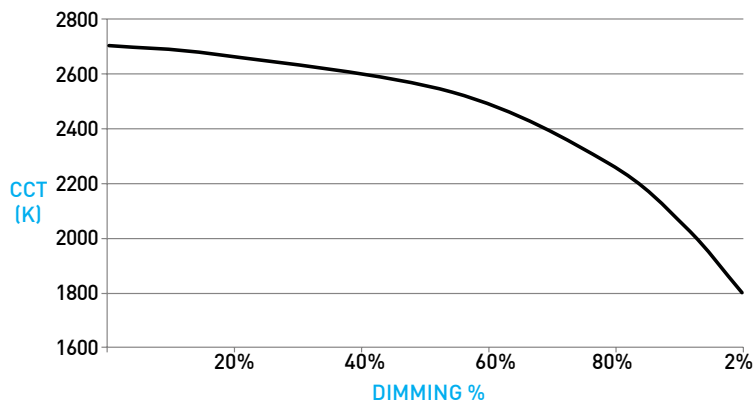
MEDIA LIGHT LOSS FACTOR

| 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 |

WARM DIM PERFORMANCE - 20° OPTIC - SOFT FOCUS LENS

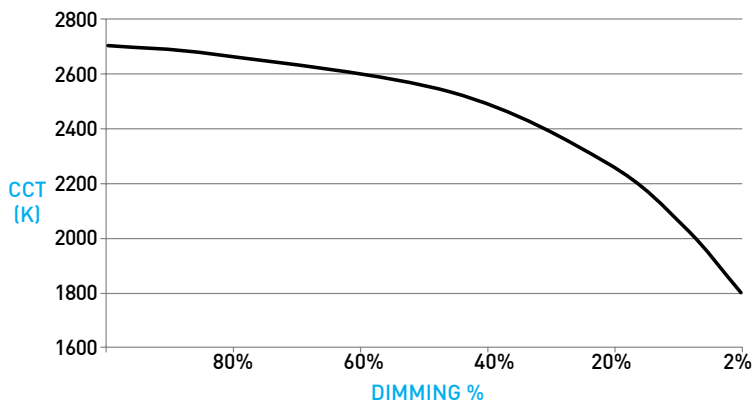
WARM DIM TO MIRROR INCANDESCENT DIMMING PROFILE

| 90W26B 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) | 1779 | 1423 | 1245 | 889 | 355 | 177 | 35 |
| Power (W) | 26 | 21 | 18 | 13 | 5 | 3 | .5 |
| Efficacy (LPW) | 68 | 68 | 68 | 68 | 68 | 68 | 68 |



WARM DIM TO MIRROR INCANDESCENT DIMMING PROFILE

| 90W42E 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) | 2813 | 2250 | 1969 | 1406 | 562 | 281 | 56 |
| Power (W) | 42 | 33 | 29 | 21 | 8 | 4 | .8 |
| Efficacy (LPW) | 67 | 67 | 67 | 67 | 67 | 67 | 67 |

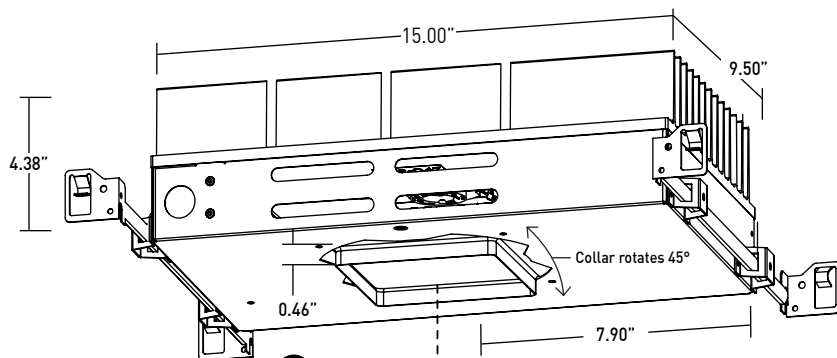


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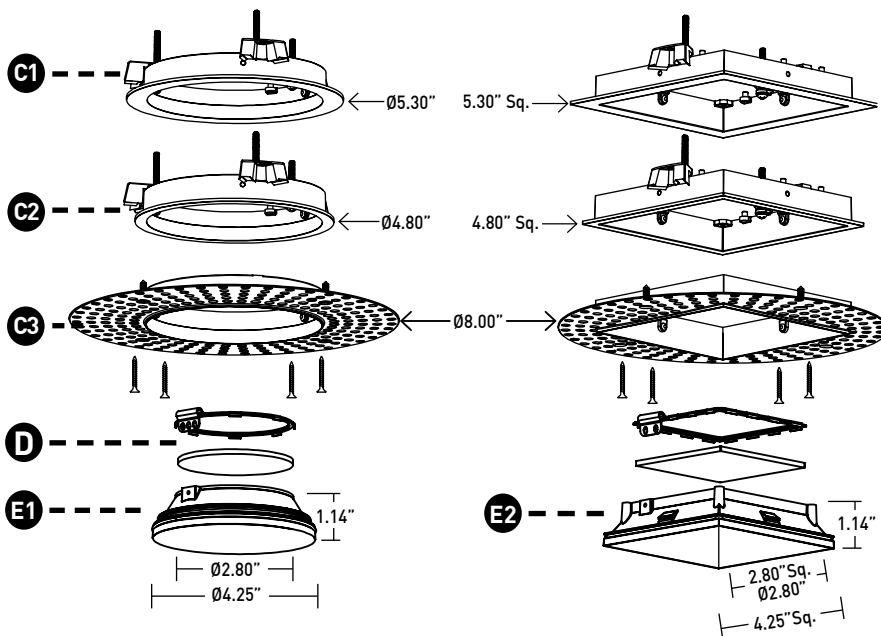
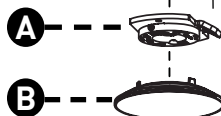
DOWNLIGHT / HOUSING

- A LED**
Integral LED module design enables field service / replacement through housing aperture.
- B OPTIC**
Robust light engine with optimized optic pairing integrates Reflection, Refraction and TIR offering 15°, 20°, 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 MEDIA**
Soft focus lens included and sealed in Wet location option. Fixture is limited to 1 media. Suction tool provided for removal of wet location baffles.
- E1 ROUND BAFFLE**
Die-cast removable baffle features 72° cutoff. Minimizes aperture glare and conceals view into housing; includes silicone gasket.
- E2 SQUARE / TRANSITIONAL BAFFLE**
Die-cast removable baffle features 72° cutoff. 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



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



FRAXION4 HIGH FLUX LVS FIXED

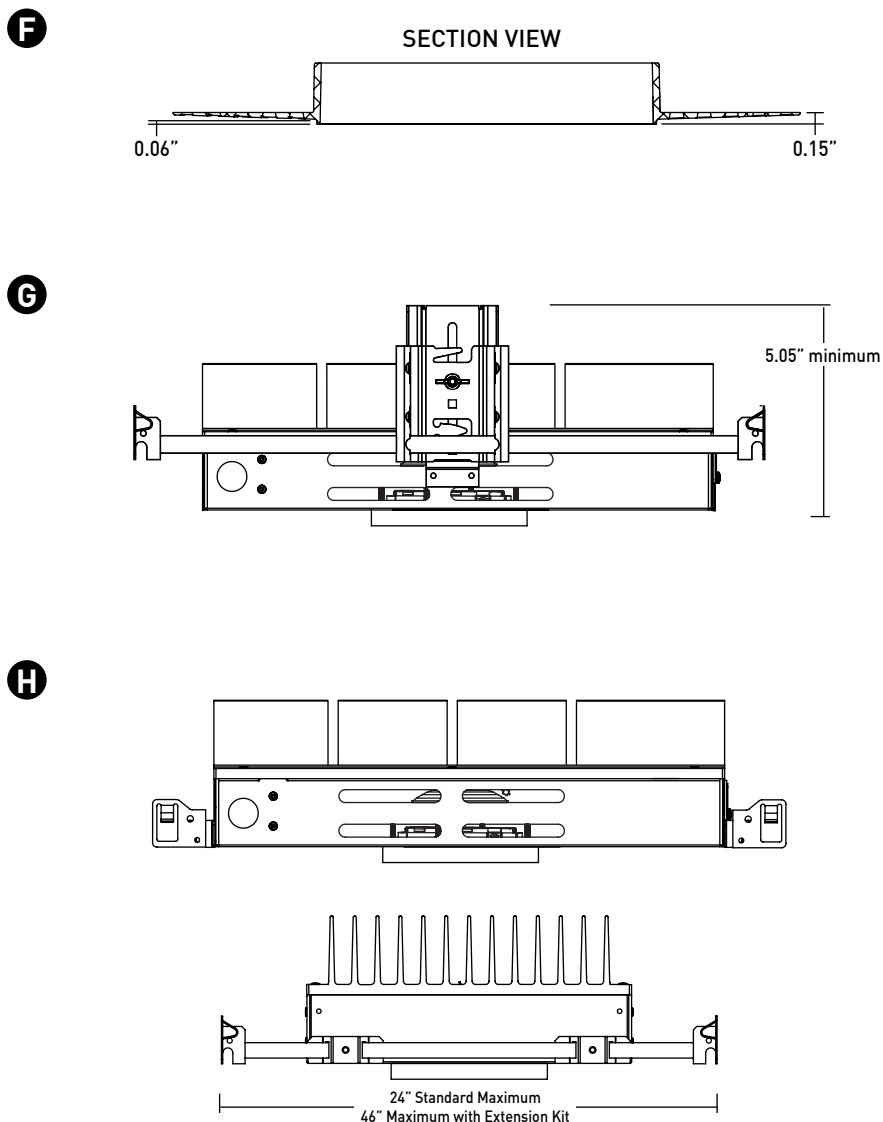
DOWNLIGHT / HOUSING

- F TRIMLESS APPLIQUÉ DETAIL**
Integrated appliqué for plaster floating directly to baffle.
- G TG BRACKET ASSEMBLY**
Adjustable height bracket assembly 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 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

- 90W19E: Do not install in environments where ambient temperatures exceed 40°C (104°F).
- 80C58B, 90C50B, and 90W31F: Do not install in environments where ambient temperatures exceed 35°C (95°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; 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".

DIMENSIONS / DRAWINGS



FRAXION4 HIGH FLUX 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+ and 90+ CRI configurations in color temperatures of 2700K, 3000K, 3500K and 4000K. Average rated lamp life: 50,000 hours. LED assemblies are field-replaceable.

WARM DIM LED

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

LISTING

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

CCEA and Airtight Listed.

U.S. Patent: 10,317,066

WEIGHT

Fixture - 11lbs max

LIMITED WARRANTY

Manufacturer's Limited 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. 08/08/2023: UPDATED WITH NEW LED AND OPTIC SYSTEM.