

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:
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ORDERING INFORMATION - DOWNLIGHT / HOUSING

SHAPE	TRIM	RATING	FLANGE FINISH	BAFFLE FINISH	LUMEN PACKAGE	CCT	OPTIC	INSTALL TYPE	CEILING THICKNESS	DRIVER	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	WH White BK Black PR Primer AU Cashmere Gold	HIGH FLUX STATIC WHITE 4.38" TALL HOUSING 80C58B 80+ CRI, Delivered Lumens - 3723 90C50B 90+ CRI, Delivered Lumens - 3188	22 2200K* * (Only available with 90+ CRI) 27 2700K 30 3000K 35 3500K 40 4000K	15 15° 25 25° 40 40° 60 60° 85 85°*	REMOTE DRIVER W NIC, Remote	1 0.50" - 1.00" T TG 0.50" - 1.00"* * (Includes adjustable housing height bracket)	LVS Low Voltage System	STANDARD EFFECTS DEVICE 04 Soft Focus Lens NL No Lens* * (Not available for Wet Location)
F4S Square	FFS Standard Flange MFS Microflange TFS Trimless FFT Standard Flange Transitional Baffle MFT Microflange Transitional Baffle TFT Trimless Transitional Baffle	1 Dry/Damp 2 Wet*	AG Satin Silver BB Burnt Bronze 00 Trimless* CF Custom Finish*	AG Satin Silver BB Burnt Bronze CF Custom Finish* * (Consult Factory)	HIGH FLUX WARM DIM 4.38" TALL HOUSING 90W19E 90+ CRI, Delivered Lumens - 1085 Incandescent Profile 90W31F 90+ CRI, Delivered Lumens - 1757 Incandescent Profile *SEE PAGE 4 FOR DETAILED WARM DIM PROFILE COMPARISON.	WL 2700K - 1800K	25 25° 40 40° 60 60° 85 85°*				ALTERNATE EFFECTS DEVICE 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
					*ALL DELIVERED LUMEN OUTPUTS REFLECT 3000K PAIRED WITH 40° OPTIC AND SOFT FOCUS LENS.						



PART NUMBER NOTES




- Housing and trim ship as e.g., F4RMFS1-WHWH-90C50B-3W1-LVS

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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

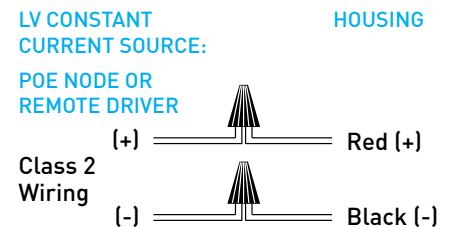
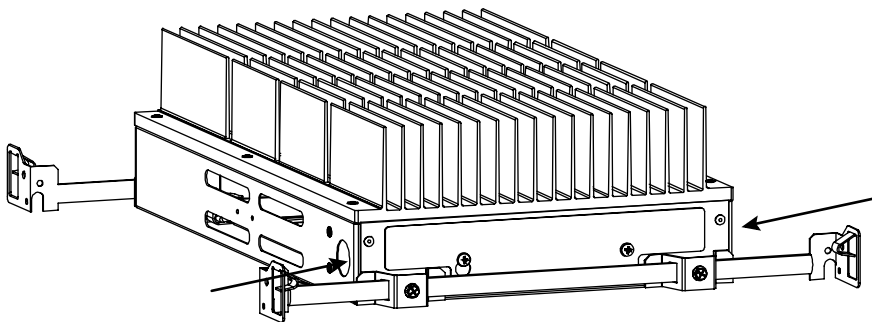
Manufacturer	Model Number
 Igor® Enabling Smart Buildings™	NP50-60-C-F-5
 molex	180996-1001* 180996-1002* 180996-2001* 180996-2002*
 PLATFORMATICS	1 Channel Node, POE-LN2-1U-E 2 Channel Node, POE-LN2-2U-E 4 Channel Node, POE-LN2-4U-E

*SEE APPLICATION NOTE 1

DRIVE CURRENT SPECIFICS

	80C	90C	90W	
	58B	50B	19E	31F
Minimum Vf	30.5	30.5	30.5	30.5
Maximum Vf	39	39	39	39
Current mA	1250	1250	600	950
Wattage W	43.6	43.6	20.1	32.4

WIRING DIAGRAM AND HOUSING ENTRY/ EXIT POINTS



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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)
- 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)
- 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
RBA					
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)	Leave blank for standard Soft Focus Lens 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.

- 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

TG 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".

- DHA-TG-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		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
80C58B	53	3670	69	3386	64	3723	70	3878	73	3029	57
90C50B	53	3142	59	2900	55	3188	60	3320	63	2594	49
90W19E	23	-	-	987	43	1085	47	1129	49	883	38
90W31F	27	-	-	1598	59	1757	65	1830	68	1429	53

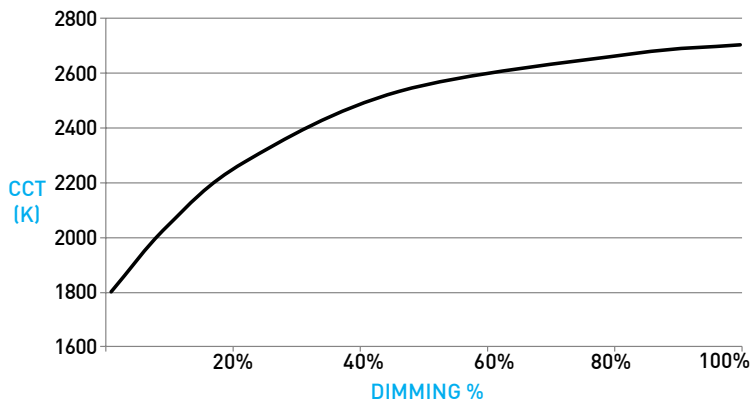
OUTPUT MULTIPLIER	
CCT	CCT SCALE
2700K	0.957
3000K	1.000
3500K	1.019
4000K	1.030

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

WARM DIM PERFORMANCE

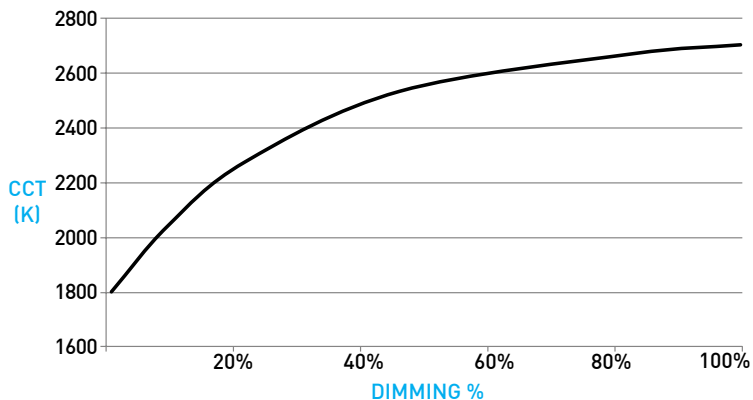
WARM DIM TO MIRROR INCANDESCENT DIMMING PROFILE

90W19E 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)	1085	868	760	543	436	109	22
Power (W)	23	18	16	11	4	2	.5
Efficacy (LPW)	47	47	47	47	47	47	47



WARM DIM TO MIRROR INCANDESCENT DIMMING PROFILE

90W31F 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)	1757	1406	1230	879	351	176	35
Power (W)	27	21	19	13	5	3	.5
Efficacy (LPW)	65	65	65	65	65	65	65

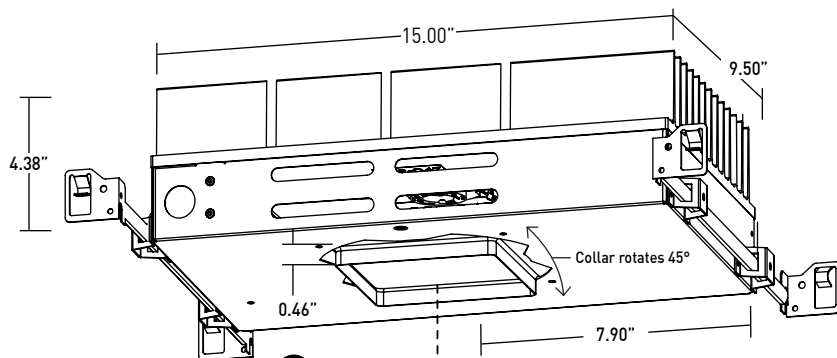


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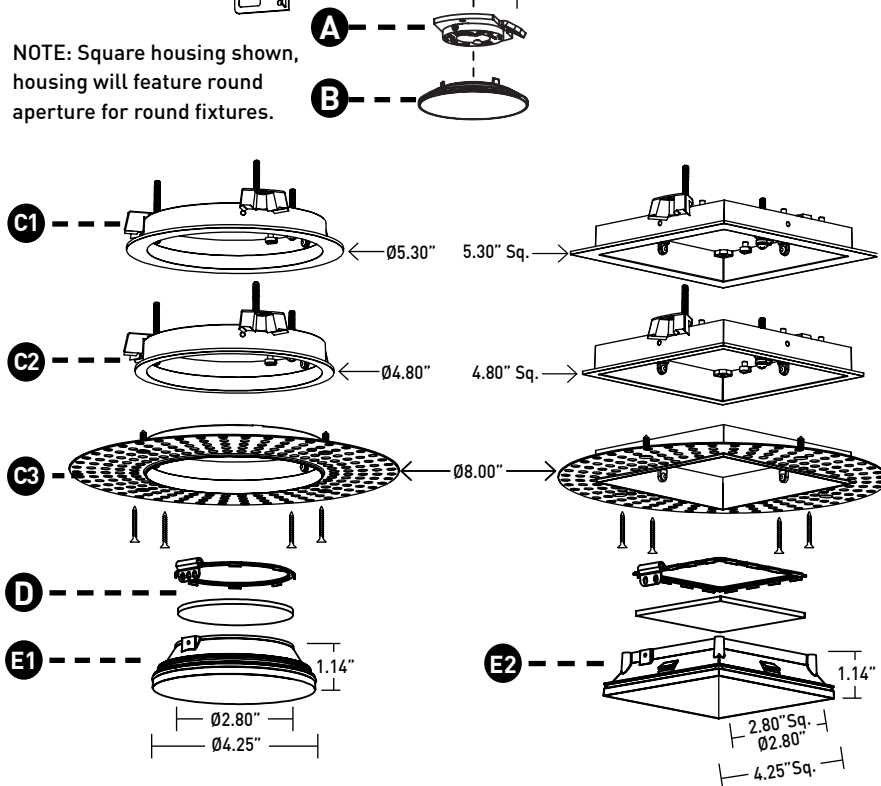
DOWNLIGHT / HOUSING

- 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 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.



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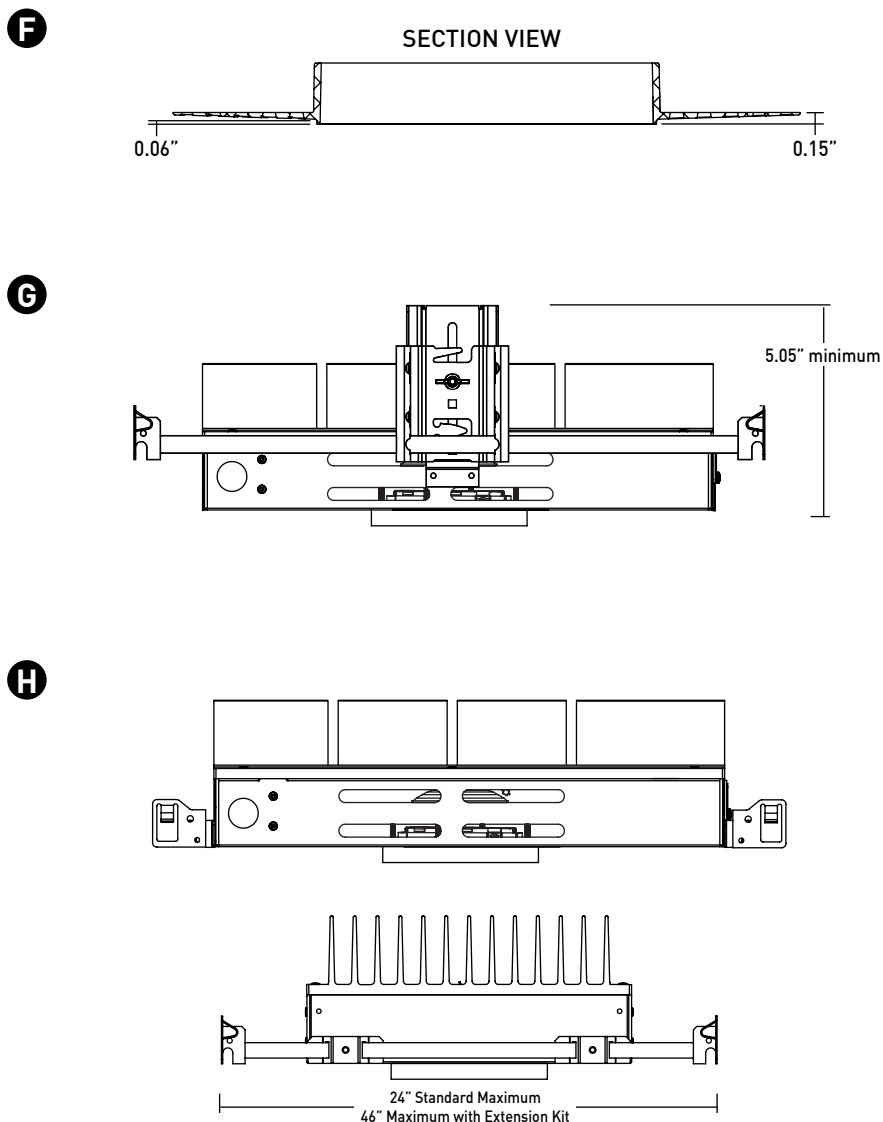
DOWNLIGHT / HOUSING

- 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 2200K, 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.

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.](#)