

# FRAXION® 4 HIGH FLUX 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	CRI / WATTAGE PACKAGE	CCT	OPTIC (UGR)	INSTALL TYPE	CEILING THICKNESS	DRIVER	MEDIA
F4R Round	FFS Standard Flange	1 Dry/Damp 2 Wet * (Suction cup provided for aim and focus)	WH White	WH White	<b>STATIC WHITE</b> <b>4.38" TALL HOUSING</b> 80S53E 80+ CRI, 53W, Lumens Divd. - 5043 90S53E 90+ CRI, 53W, Lumens Divd. - 4493 97S53E 97+ CRI, 53W, Lumens Divd. - 4034	27 2700K	15 15° (<19)	INTEGRAL DRIVER	1 0.50" - 1.00" T TG 0.50" - 1.00"* * (Includes adjustable housing height bracket)	UNIVERSAL (120-277V)	STANDARD MEDIA
	MFS Microflange		AG Satin Silver	AG Satin Silver		30 3000K	20 20° (<16)				
F4S Square	TFS Trimless		AU Cashmere Gold	AU Cashmere Gold	<b>WARM DIM</b> <b>4.38" TALL HOUSING</b> 90W26B 90+ CRI, 26W, Lumens Divd. - 1779 Incandescent Profile 90W42E 90+ CRI, 42W, Lumens Divd. - 2813 Incandescent Profile *SEE PAGE 3 FOR DETAILED WARM DIM PROFILE	35 3500K*	25 25° (<16)	Y REMOTE DRIVER NIC, Remote		L1 Lutron, Hi-Lume 1% Ecosystem* AN4 Philips Xitanium 1% 0-10V, LOG* LN2 Philips Xitanium 1% 0-10V, LIN* EA2 eldoLED, SOLOdrive 0.1% 0-10V, LOG LA2 eldoLED, SOLOdrive 0.1% 0-10V, LIN ED1 eldoLED, SOLOdrive 0.1% DALI, LOG LD1 eldoLED, SOLOdrive 0.1% DALI, LIN AS1 / Athena Control ASR eldoLED, SOLOdrive 0.1%* * (Includes Athena Node. Extended lead time, consult factory. ASR includes shunt) CS1 / Casambi Control CSR eldoLED, SOLOdrive 0.1%* * (Includes Casambi Node. Extended lead time, consult factory. CSR includes shunt)	04 Soft Focus Lens NL No Lens* * (Not available for Wet Location) ALTERNATE MEDIA 02 Honeycomb Louver w/ Diffusion Film* * (Not available for Wet location, 53W, 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
	FFS Standard Flange		BB Burnt Bronze	BB Burnt Bronze		40 40° (<19)	40 40° (<16)				
	MFS Microflange		BK Black	BK Black		60 60° (<19)	25 25° (<16)				
	TFS Trimless		PR Primer	PR Primer		85 85° (>19)	40 40° (<16)				
	FFT Standard Flange Transitional Baffle		CF Custom Finish* * (Consult Factory)	CF Custom Finish* * (Consult Factory)		85 85° (>19)	60 60° (<16)				
	MFT Microflange Transitional Baffle		00 Trimless* * (Required for trimless)	00 Trimless* * (Required for trimless)		85 85° (>19)	85 85° (>19)				
TFT Trimless Transitional Baffle			<b>TUNABLE WHITE</b> <b>4.38" TALL HOUSING</b> 90T30B 90+ CRI, 30W Cool Profile: 5000K - 2700K Lumens Divd. - 2377 Warm Profile: 4000K - 1800K Lumens Divd. - 2220	TH 5000K - 2700K	15 15° (<19)	TR 4000K - 1800K			DD1 eldoLED, DUALdrive 0.1% DALI-2, LOG DG1 eldoLED, DUALdrive 0.1% 0-10V, LOG DL1 eldoLED, DUALdrive 0.1% 0-10V, LIN AD1 / Athena Control ADR eldoLED, DUALdrive 0.1%* * (Includes Athena Node. Extended lead time, consult factory. ADR includes shunt) CD1 / Casambi Control CDR eldoLED, DUALdrive 0.1%* * (Includes Casambi Node. Extended lead time, consult factory. CDR includes shunt)		
				20 20° (<16)							



LUMEN DELIVERED OUTPUTS REFLECT 3000K PAIRED WITH 20° OPTIC AND SOFT FOCUS LENS.

SEE PAGE 3 FOR UGR RATINGS

- Housing and trim ship as e.g., F4RMFS1-WHWH-90S53E-3Y1-EA2

# FRAXION4 HIGH FLUX FIXED

## ACCESSORIES

### ROUND ALTERNATE MEDIA

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

- HCL-F4R** Honeycomb Louver w/ Diffusion Film\*  
\*(Not available for 53W or 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 53W or 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
<b>RBA</b>					
REPLACEMENT BAFFLE ASSEMBLY	<b>F4R</b> Round	<b>FFS</b> Standard Flange <b>MFS</b> Microflange <b>TFS</b> Trimless	1 Dry / Damp 2 Wet	<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 Wet location, or Warm Dim) <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
	<b>F4S</b> Square	<b>FFS</b> Standard Flange <b>MFS</b> Microflange <b>TFS</b> Trimless <b>FFT</b> Standard Flange Transitional Baffle <b>MFT</b> Microflange Transitional Baffle <b>TFT</b> 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

### EMERGENCY LIGHTING - REMOTE MOUNT ONLY

During disruption of main power, emergency battery inverter provides temporary 120V or 277V to fixture.

- EMB-S-100-120-LEDX** 100 watt max capacity, 120 VAC 60Hz, 0-10V Dimmable
- EMB-S-100-277-LEDX** 100 watt max capacity, 277 VAC 60Hz, 0-10V Dimmable
- EMB-S-250-120/277-LEDX** 250 watt max capacity, 120 or 277 VAC 60Hz, 0-10V Dimmable

**\*SHUNT REQUIRED FOR USE WITH ATHENA AND CASAMBI CONTROLS, CONSULT FACTORY FOR DETAILS.**

# FRAXION4 HIGH FLUX FIXED

## 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
90T30B (40K-18K)	30	2080	69	2220	74	2169	72	2064	69	1972	66	1699	57
90T30B (50K-27K)	30	2227	74	2377	79	2322	77	2210	74	2111	70	1819	61

### 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

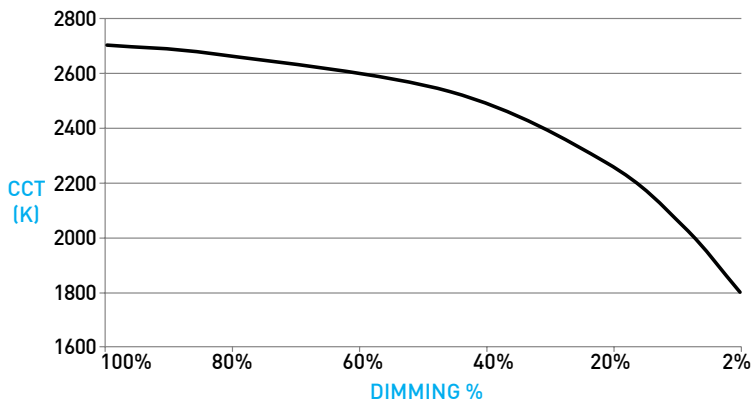
### TUNABLE WHITE MULTIPLIER

CCT	5000K-2700K	4000K-1800K
5000K	1.16	-
4000K	1.08	1.14
3500K	1.04	1.07
3000K	1.00	1.00
2700K	0.96	0.92
2400K	-	0.84
1800K	-	0.69

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

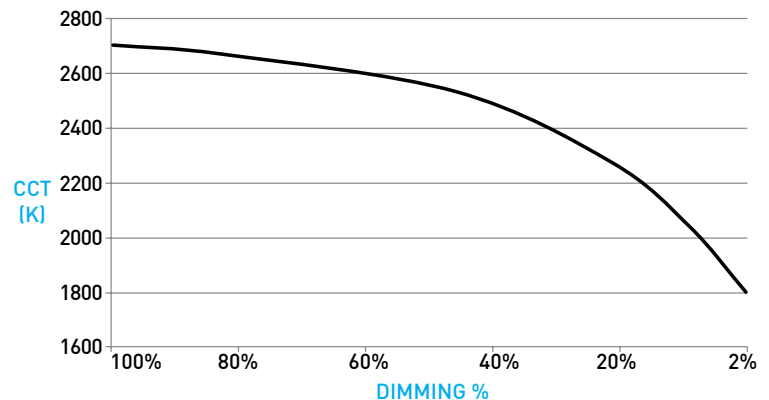
### WARM DIM TO MIRROR INCANDESCENT DIMMING PROFILE

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

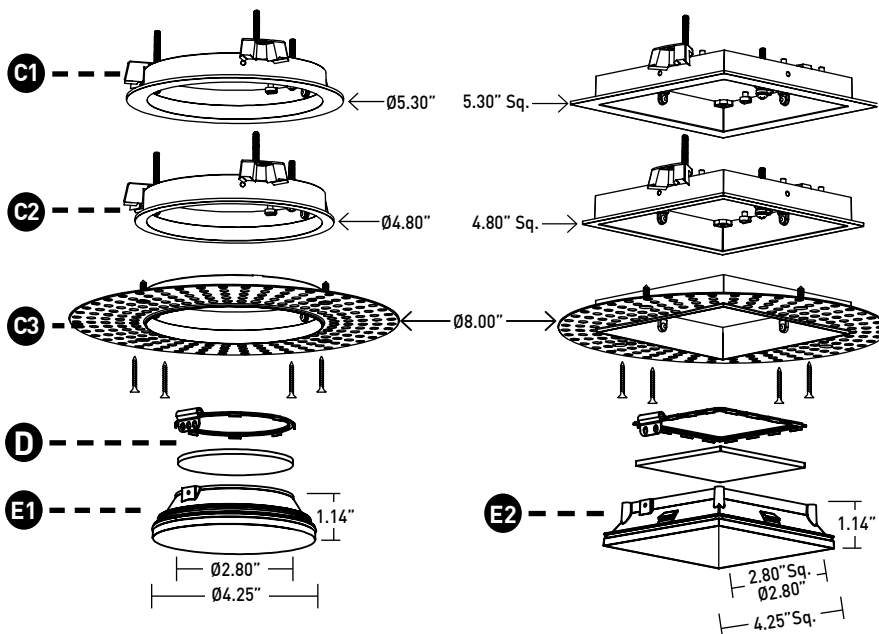
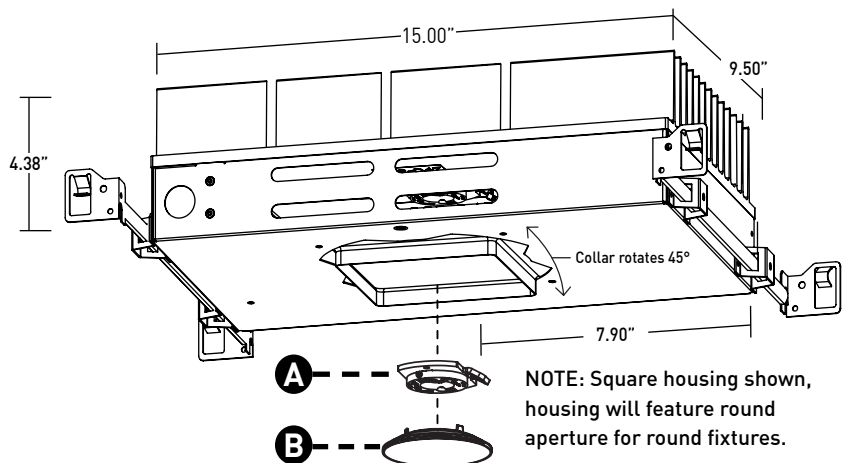


# FRAXION4 HIGH FLUX FIXED

## 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

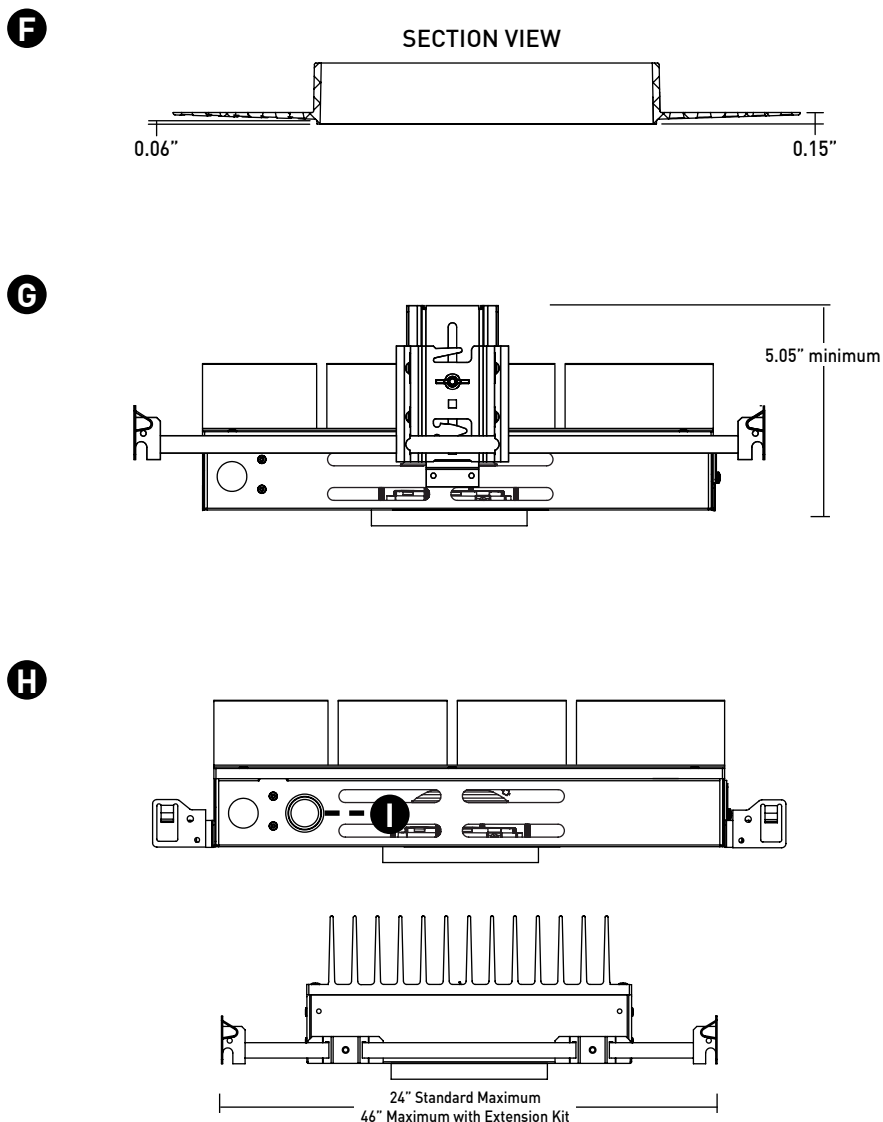


# FRAXION4 HIGH FLUX FIXED

## 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.
- I ATHENA / CASAMBI CONTROL**  
Controls integrated into housing assembly. All equipment is serviceable.  
  
Athena Model Numbers: A-WN-D01-RF-BL & DFC-OEM-DBI  
  
Casambi Model Number: BT-S1E1-5400

## DIMENSIONS / DRAWINGS



## HOUSING NOTES

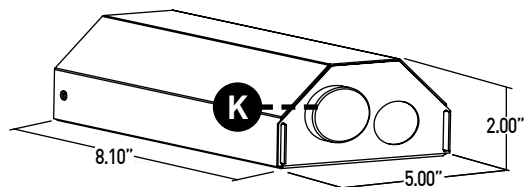
- Do not install in environments where ambient temperatures exceed 40°C (104°F) for 26W configurations.
- Do not install in environments where ambient temperatures exceed 35°C (95°F) for 42W and 53W configurations.
- Power supply compartment and all splice connections may be serviced from room side.
- Consult factory for spacing requirements for any installations exceeding R-Value 60.
- Hanger bars fitted to short side of housing; 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 HIGH FLUX FIXED

## REMOTE POWER SUPPLY

- J REMOTE POWER SUPPLY**
- Provided with install Type "W".
  - Requires plenum rated Class 2 cable between fixture and remote driver. Cable supplied by others.
  - See page 6 for maximum allowable wiring distance.
  - Must be installed in an accessible location
  - Do not install in environments where ambient temperatures exceed 40°C (104°F).

**J**



- K ATHENA / CASAMBI CONTROL**
- Controls integrated into remote driver assembly. All equipment is serviceable.

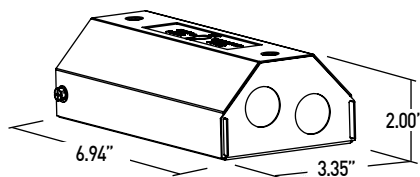
Athena Model Numbers: A-WN-D01-RF-BL & DFC-OEM-DBI

Casambi Model Number: BT-S1E1-5400

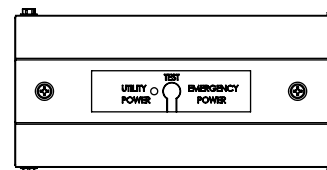
- L ATHENA / CASAMBI EM SHUNT**
- Included with drivers specified as ASR, ATR, CSR, or CTR. One required for each wireless EM fixture, requires class 2 control wiring between fixture and shunt. Features integrated test switch.

Model Number: PS-RMT-SHUNT

**L**



**ATHENA / CASAMBI  
EM SHUNT**



# FRAXION4 HIGH FLUX 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.

**Remote Power Supply:** 22 Gauge galvanized steel.

**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 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. 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.

### TUNABLE WHITE LED

3-step MacAdam ellipse tunable white LED module available in 90+ CRI configuration. Features tuning ranges of 1800K to 4000K and 2700K to 5000K. Average rated lamp life of 50,000 hours. LED and driver assemblies are field-replaceable.

### POWER SUPPLY PERFORMANCE AND DIMMING INFORMATION

	ECO		0-10V				DALI-2		ATHENA	CASAMBI
Power Supply	LH1	LP1	AN4	LN2	EA2	LA2	ED1	LD1	AS	CS
Minimum °C	0 °C	0 °C	-20 °C	-20 °C	-20 °C	-20 °C	-20 °C	-20 °C	0 °C	-20 °C
Maximum °C	40 °C	40 °C	40 °C	40 °C	40 °C	40 °C	40 °C	40 °C	40 °C	40 °C
Dimming %	1.0%	0.1%	1.0%	1.0%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%

Note: For LH1, AN4, EA2 and LA2 drivers consult chart on page 8 to confirm appropriate dimming curve for compatibility with selected control.

### MAXIMUM ALLOWABLE REMOTE DRIVER WIRING DISTANCES

DRIVER	WIRE AWG				
	12	14	16	18	20
AN4, LN2	285'	180'	113'	71'	45'
LH1	60'	40'	25'	15'	-
EA2, LA2, ED1, LD1, AS, CS	-	-	118'	72'	46'

### LISTING

cTUVus listed to UL1598 standard for Dry / Damp and Wet locations.

NEMA 410 Compliant.

U.S. Patent: 10,317,066

### BUY AMERICAN ACT

All Fraxion4 High Flux fixed configurations are Buy American Act compliant.

### WEIGHT

Fixture - 11lbs max

Remote Driver - 1.4 lbs

### LIMITED WARRANTY

Manufacturer's Limited Warranty guarantees product(s) listed to be free from defects in material and workmanship under normal use and service for 1-year. LED and power supplies are warranted to operate with 70% of original flux and remain within a range of 3 duv for a period of 5-years.

10-year Lutron Advantage limited warranty available on Lutron equipped systems. 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.

2. 02/08/2024: ADDED ATHENA AND CASAMBI CONTROL OFFERING, 2400K, AND WARM PROFILE TUNABLE WHITE.

3. 07/24/2024: DISCONTINUED L23 LUTRON HI-LUME 1% 2-WIRE DRIVER OFFERING.

# FRAXION4 HIGH FLUX FIXED

## DIMMING COMPATIBILITY

### PHILIPS DRIVER COMPATIBILITY

Power supply <b>AN4</b> Manufacturer	Family/Model #
Lutron Electronics	DVTV plus PP-DV
Lutron Electronics	DVSCTV plus PP-DV
Lutron Electronics	DVSTV
Lutron Electronics	DVSCSTV
Lutron Electronics	QSGRJ-XP plus GRX-TVI
Lutron Electronics	QSGRJ-XE plus GRX-TVI
Lutron Electronics	QSGR-XE plus GRX-TVI
Lutron Electronics	NFTV plus PP-DV
Lutron Electronics	NTSTV
Lutron Electronics	RMJ-5T
Lutron Electronics	RMJS-8T
Lutron Electronics	FCJS-010
Leviton	IllumaTch IP7 series
Philips	Sunrise - SR1200ZTUNV

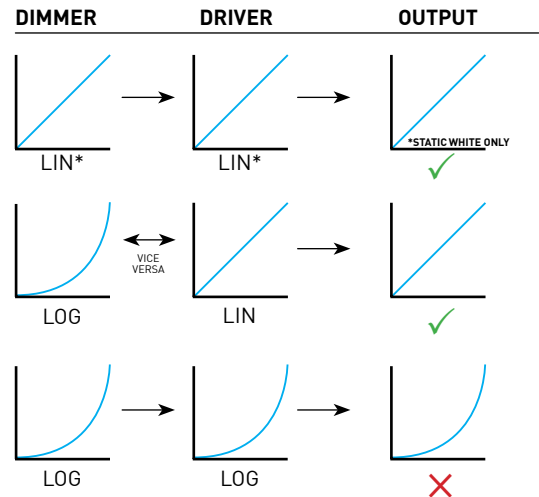
### LUTRON DRIVER COMPATIBILITY

Power supply <b>LH1</b> Lutron Product Family	Part No.
PowPak Dimming Modules	RMJ-EC032-DV-B
PowPak Dimming Modules	FCJ/FCJS-ECO
Energi Savr Nodes	QSN-1ECO-S
GRAFIK Eye QS control unit Homeworks QS control unit	QSN-2ECO-S
GRAFIK Eye QS control unit Homeworks QS control unit	QSGRJ-_E (wireless) QSGR-_E
Quantum Hub	QP2-__2C
Quantum Hub	QP2-__6C
Quantum Hub	QP2-__8C
Homeworks QS power module myRoom Plus power module	LQSE-2ECO-D

### eldoLED DRIVER COMPATIBILITY

Power supply <b>EA2</b> Manufacturer	Family/Model #
Busch-Jaeger	2112U-101
Jung	240-10
Leviton Lighting Controls	IP710-DLX
Lightolier Controls	ZP600FAM120
Merten	5729
Pass & Seymour	CD4FB-W
The Watt Stopper	DCLV1
Synergy	ISD BC
Crestron®	GLX-DIMFLV8
Crestron®	GLXP-DIMFLV8
Crestron®	GLPAC-DIMFLV4-*
Crestron®	GLPAC-DIMFLV8-*
Crestron®	GLPP-DIMFLVEX-PM
Crestron®	GLPP-1DIMFLV2EX-PM
Crestron®	GLPP-1DIMFLV3EX-PM
Crestron®	DIN-A08
Crestron®	DIN-4DIMFLV4
Crestron®	CLS-EXP-DIMFLV
Crestron®	CLCI-1DIMFLV2EX
Power supply <b>LA2</b> Manufacturer	Family/Model #
Lutron Electronics	Nova T® - NTFTV
Lutron Electronics	Diva® - DVTV
Lutron Electronics	Nova® - NFTV
Lutron Electronics	GraxEye® GRX-TVI w GRX3503
Lutron Electronics	Energy Savr Node™ - QSN-4T16-S
Lutron Electronics	TVM2 Module
Sensor Switch	nIO EZ
ABB	SD/S 2.16.1

## ANALOG DRIVERS AND DIMMERS



LIN = LINEAR  
 LOG = LOGARITHMIC  
 \*LIN-TO-LIN NOT COMPATIBLE FOR WARM-DIM OR TUNABLE WHITE