

# FRAXION® 4 HIGH FLUX ADJUSTABLE

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



JA8-2019 INDICATED BY SHADING

SHAPE	TRIM	RATING	FLANGE FINISH	BAFFLE FINISH	LUMEN PACKAGE	CCT	OPTIC	INSTALL TYPE	CEILING THICKNESS	DRIVER	EFFECTS DEVICE
F4R Round	FAS Standard Flange	1 Dry/Damp 2 Wet* *(Requires provided suction cup to service or aim & focus)	WH White	WH White	<b>HIGH FLUX STATIC WHITE 8.75" TALL HOUSING</b> 27 2700K 30 3000K 35 3500K* *(Not available for IC housing applications) for 97+ CRI		15 15° 25 25° 40 40° 60 60° 85 85°* *(Requires -14 WDL effects device)	<b>INTEGRAL DRIVER</b> X IC Y NIC C IC, Airtight* *(CCEA, Airtight & Title 24 compliant housing)	1 0.50" - 1.00" T Butterfly 0.50" - 1.00"* *(Includes adjustable housing height bracket, REQUIRES CUSTOMER SUPPLIED 1/2" CONDUIT, CHANNEL, OR FURRING CHANNEL FOR MOUNTING)	<b>DOMESTIC (120V)</b> L23 Lutron, Hi-Lume 1% 2-Wire* *(Not available for 80C58B, 90C50B or 97C41B)	<b>STANDARD EFFECTS DEVICE</b> 04 Soft Focus Lens NL No Lens* *(Not available for Wet Location, or Airtight Housings)
	MAS Microflange		AG Satin Silver	AG Satin Silver							
F4S Square	TAS Trimless		AU Cashmere Gold	AU Cashmere Gold	80C30B 80+ CRI, Delivered Lumens - 2612			<b>REMOTE DRIVER</b> V IC, Remote W NIC, Remote D IC, Airtight, Remote* *(CCEA, Airtight & Title 24 compliant housing)		<b>UNIVERSAL (120-277V)</b> LH1 Lutron, Hi-Lume 1% Ecosystem* *(Not available for 80C58B, 90C50B or 97C41B) AN4 Philips Xitanium 1% 0-10V, LOG* *(Not available for 80C58B, 90C50B or 97C41B) LN2 Philips Xitanium 1% 0-10V, LIN* *(Not available for 80C58B, 90C50B or 97C41B) 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	<b>ALTERNATE EFFECTS DEVICE</b> 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 28 Adjustable Honeycomb Louver and Soft Focus Lens* *(Not available with 60° optic, Wet location, or Airtight Housings)
	FAS Standard Flange		BB Burnt Bronze	BB Burnt Bronze	80C36B 80+ CRI, Delivered Lumens - 3073*						
	MAS Microflange		BK Black	BK Black	80C58B 80+ CRI, Delivered Lumens - 3878*						
	TAS Trimless		PR Primer	PR Primer	90C26B 90+ CRI, Delivered Lumens - 2158						
	FAT Standard Flange Transitional Baffle		00 Trimless* *(Required for trimless)	CF Custom Finish* *(Consult Factory)	90C30B 90+ CRI, Delivered Lumens - 2540*						
	MAT Microflange Transitional Baffle		CF Custom Finish* *(Consult Factory)		90C50B 90+ CRI, Delivered Lumens - 3320*						
	TAT Trimless Transitional Baffle				97C23B 97+ CRI, Delivered Lumens - 1969						
					97C27B 97+ CRI, Delivered Lumens - 2316*						
					97C41B 97+ CRI, Delivered Lumens - 2744*						
					<b>HIGH FLUX WARM DIM 8.75" TALL HOUSING</b> 90W19E 90+ CRI, Delivered Lumens - 1129 Incandescent Profile 90W31F 90+ CRI, Delivered Lumens - 1830 Incandescent Profile* *(Not available for IC housing applications) *SEE PAGE 3 FOR DETAILED WARM DIM PROFILE COMPARISON. *ALL DELIVERED LUMEN OUTPUTS AND T24 COMPLIANCE REFLECT 3000K PAIRED WITH 60° OPTIC AND SOFT FOCUS LENS.						

(WH) White Powder Coat	(AG) Satin Silver Powder Coat	(AU) Cashmere Gold Powder Coat	(BB) Burnt Bronze Powder Coat	(BK) Black Powder Coat

## PART NUMBER NOTES

- Housing and trim ship as e.g., F4RMAS1-WHWH-90C30B-3Y1-AN4
- Remote driver ships with fixture as e.g., PSF4-RMT-90C-30B-1L23

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## ACCESSORIES

### ROUND ALTERNATE EFFECTS DEVICES

Dry/Damp location only.

Wet location requires alternate baffle.

- 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.

- 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

### ADJUSTABLE HCL ASSEMBLY

Dry / Damp location only.

- OLR-F4RS1-SFL-HCL** Adjustable Honeycomb Louver and Soft Focus Lens\*  
\*(Not available for 60° optic, or Airtight housings)

### REPLACEMENT BAFFLE ASSEMBLY (INCLUDES EFFECTS DEVICE)

ASSEMBLY	SHAPE	TRIM	RATING	FLANGE FINISH	EFFECTS DEVICE
<b>RBA</b>				<b>1</b>	
REPLACEMENT BAFFLE ASSEMBLY	F4R Round	FAS Standard Flange MAS Microflange TAS 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
	F4S Square	FAS Standard Flange MAS Microflange TAS Trimless FAT Standard Flange Transitional Baffle MAT Microflange Transitional Baffle TAT Trimless Transitional Baffle			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

### 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

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

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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
80C30B	30	2472	82	2280	76	2507	84	2612	87	2041	68
80C36B	35	2909	83	2684	77	2950	84	3073	88	2401	69
80C58B	53	3670	69	3386	64	3723	70	3878	73	3029	57
90C26B	30	2043	68	1884	63	2071	69	2158	72	1686	56
90C30B	35	2404	69	2218	63	2438	70	2540	73	1985	57
90C50B	53	3142	59	2900	55	3188	60	3320	63	2594	49
97C23B	30	1863	62	1719	57	1889	63	1969	66	1538	51
97C27B	35	2192	63	2022	58	2223	64	2316	66	1809	52
97C41B	53	2596	49	2395	45	2634	50	2744	52	1923	36
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	1.00
SFL	1.00
FGL	0.90
FSFL	0.87
FLSL	0.83
WDL	0.78

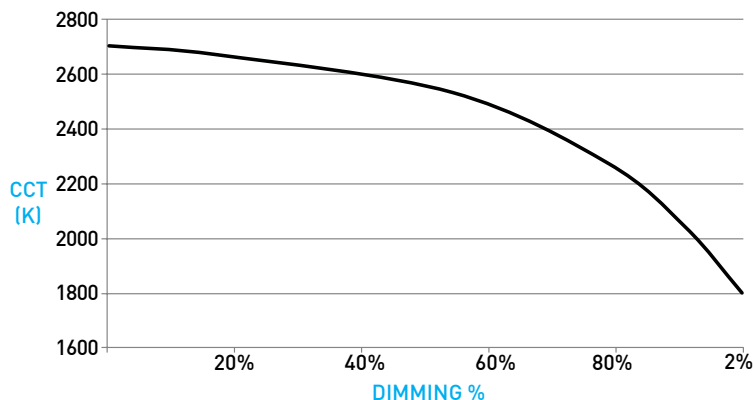


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## WARM DIM PERFORMANCE - 60° OPTIC - SOFT FOCUS LENS

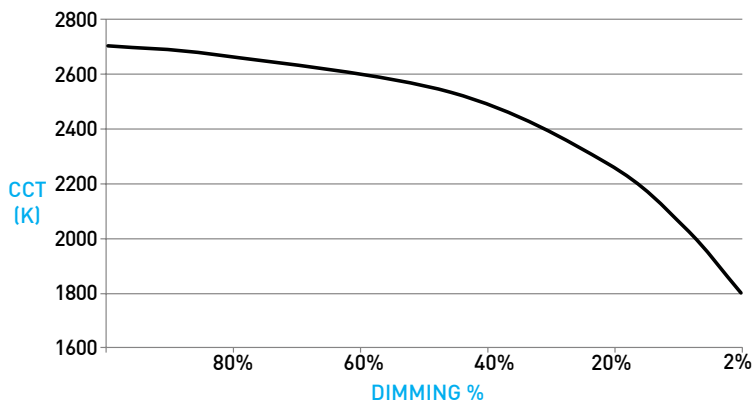
WARM DIM TO MIRROR INCANDESCENT DIMMING PROFILE

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)	1129	903	790	564	225	112	22
Power (W)	23	18	16	11	4	2	.5
Efficacy (LPW)	49	49	49	49	49	49	49



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)	1830	1464	1281	915	366	183	36
Power (W)	27	21	19	13	5	3	.5
Efficacy (LPW)	68	68	68	68	68	68	68



# FRAXION4 HIGH FLUX ADJUSTABLE

## DOWNLIGHT / HOUSING

### A ADJUSTABILITY

Aiming mechanism is integral to the housing, providing hot-aim tilt up to 40° and 365° rotation. Sliding pivot point optimizes center beam, ensuring unclipped beam of 15° at 40° tilt and 25° at 30° tilt. 1° tilt increments with 5° indicators, tilt guide included (see **A1** for section view).

### B LED

Integral LED module design enables field service / replacement through housing aperture.

### C OPTIC

Proprietary optic integrates Reflection, Refraction and TIR offering 10°, 15°, 25°, 40° & 60° beams.

### D1 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.

### D2 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.

### D3 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.

### 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.

### E1 ADJUSTABLE HCL ASSEMBLY

Honeycomb Louver and Soft Focus Lens attach directly to optic with clip-on lens retainer and adjusts with fixture. Only compatible with no lens baffle. Dry/Damp locations only.

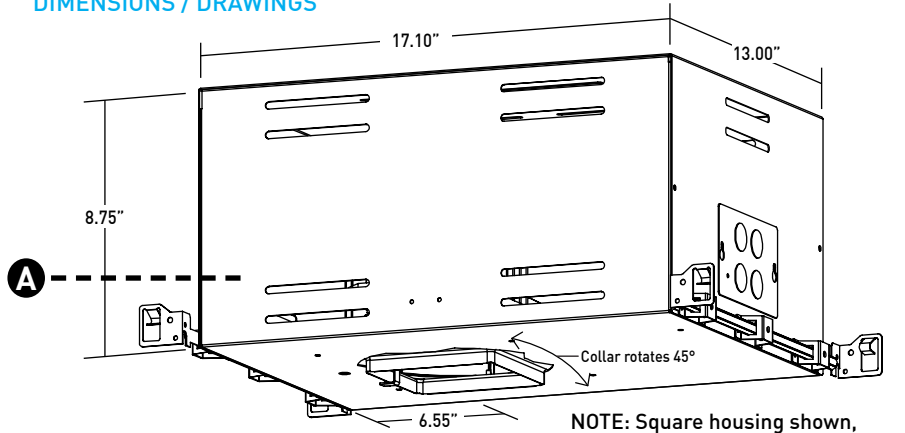
### F1 ROUND BAFFLE

Die-cast removable baffle provides easy access to tilting mechanism and features 72° glare cutoff. Minimizes aperture glare and conceals view into housing; includes silicone gasket.

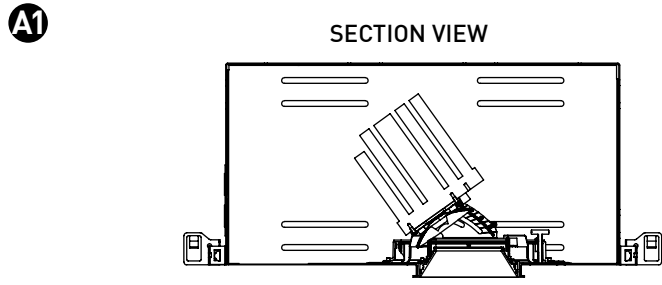
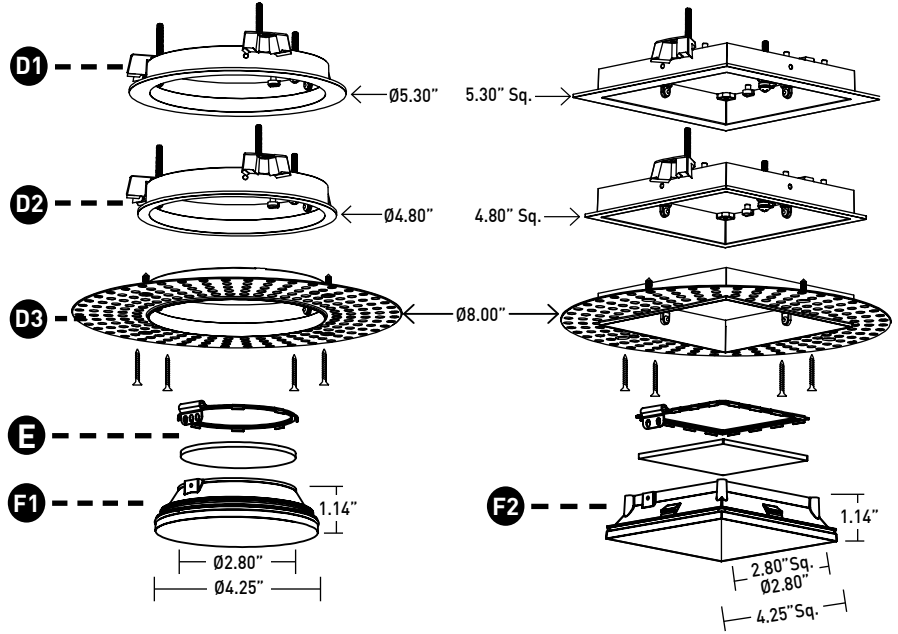
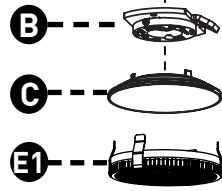
### F2 SQUARE / TRANSITIONAL BAFFLE

Die-cast removable baffle provides easy access to tilting mechanism and features 72° glare 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.

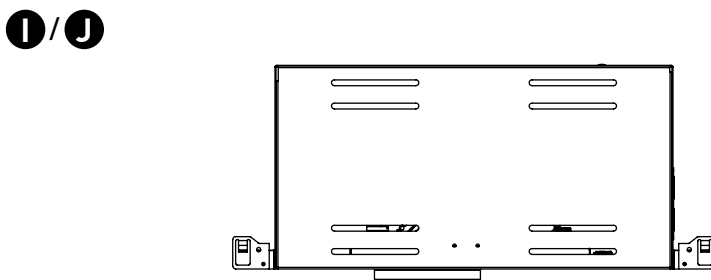
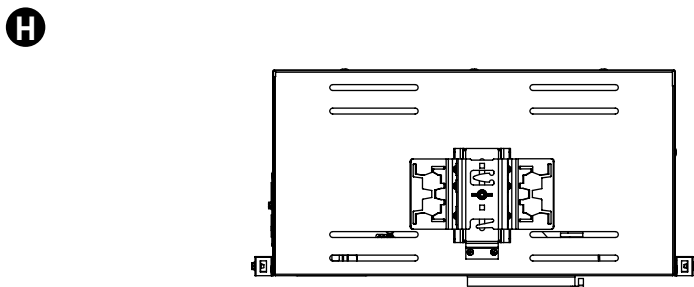
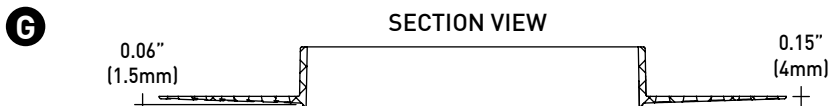


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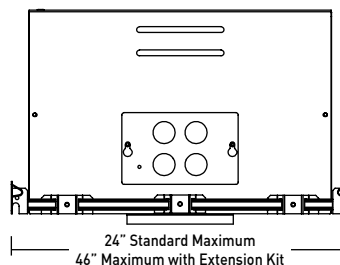
## DOWNLIGHT / HOUSING

- G TRIMLESS APPLIQUÉ DETAIL**  
Integrated appliqué for plaster floating directly to baffle.
- H BUTTERFLY BRACKET ASSEMBLY**  
Adjustable height bracket assembly provided with ceiling thickness "T" and recommended for installations in T-Grid and with furring channel. Requires customer supplied 1/2" conduit, channel or furring channel for mounting. Allows housing to be raised and lowered; ceiling thickness remains 0.5" to 1.0" max.
- I IC HOUSING**
  - For IC ceilings.
  - CCEA, Airtight and Title 24 (JA8) listed.
  - Accommodates max 2612 delivered lumens.
  - No setback from polycell spray foam insulation having max R-Value of 60 on all sides and top of housing.
- J 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.
- K REMOTE POWER SUPPLY**  
Provided with install Types "V", "W" and "D". Remote power supply provides additional driver options. See page 6 for maximum allowable secondary run lengths between PSF4-RMT and fixture. Must be installed in an accessible location.

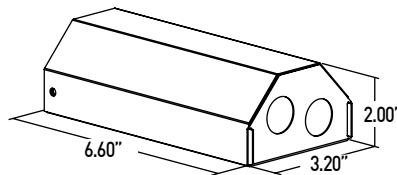
## DIMENSIONS / DRAWINGS



IC / NIC HAVE SAME DIMENSIONS AND NIC FEATURES VENTS



**K**



## HOUSING NOTES

- 80C30B, 80C36B, 90C26B, 90C30B, 97C23B, 97C27B, and 90W19E: Do not install in environments where ambient temperatures exceed 40°C (104°F).
- 80C58B, 90C50B, 97C41B, and 90W31F: Do not install in environments where ambient temperatures exceed 35°C (95°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; 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".

# FRAXION4 HIGH FLUX ADJUSTABLE

## 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+, 90+ and 97+ 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.

### POWER SUPPLY PERFORMANCE AND DIMMING INFORMATION

	ELV	ECO	0-10V				DALI	
Power Supply	L23	LH1	AN4	LN2	EA2	LA2	ED1	LD1
Minimum °C	0 °C	0 °C	-20 °C	-20 °C	-20 °C	-20 °C	-20 °C	-20 °C
Maximum °C	40 °C	40 °C	40 °C	40 °C	40 °C	40 °C	40 °C	40 °C
Dimming %	1.0%	1.0%	1.0%	1.0%	0.1%	0.1%	0.1%	0.1%

Note: For L23, LH1, AN4, EA2 and LA2 drivers consult chart on page 7 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'
L23, LH1	60'	40'	25'	15'	-
EA2, LA2, ED1, LD1	-	-	118'	72'	46'

### LISTING

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

CCEA, Airtight and Title 24 JA8-2019 Listed.

U.S. Patent: 10,317,066

### BUY AMERICAN ACT

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

### WEIGHT

Fixture - 15lbs 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 and conditional upon the use of manufacturer-supplied power supply. [Consult website for full warranty terms and conditions.](#)

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## 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>L23</b> Lutron Product Family	Part No.
Maestro WirelessR 600 W dimmer	MRF2-6ND-120-
Maestro WirelessR 1000 W dimmer	MRF2-10ND-120-
Caséta® Wireless Pro 1000 W dimmer	PD-10NXD-
GRAFIK T™ CL® dimmer	GT-250M- GTJ-250M-
HomeWorks® QS adaptive dimmer	HQRD-6NA-
HomeWorks® QS 600 W dimmer	HQRD-6ND-
HomeWorks® QS 1000 W dimmer	HQRD-10ND-
RadioRA® 2 adaptive dimmer	RRD-6NA-
RadioRA® 2 1000 W dimmer	RRD-10ND
myRoom™ DIN power module	MQSE-4A1-D
HomeWorks® QS DIN power module	LQSE-4A1-D
HomeWorks® QS wallbox power module	HQRJ-WPM-6D-120
HomeWorks® wallbox power module	HWI-WPM-6D-120
GRAFIK Eye® QS control unit	QSGR-, QSGRJ-
GRAFIK Eye® 3000 control unit	GRX-3100- GRX-3500-
RPM-4U module (LCP, HomeWorks® QS, GRAFIK Systems™, Quantum®)	HW-RPM-4U-120 LP-RPM-4U-120
RPM-4A module (LCP, HomeWorks® QS, GRAFIK Systems™, Quantum®)	HW-RPM-4A-120, LP-RPM-4A-120
GP dimming panels	Various
Ariadni CL 250W dimmer	AYCL-253P-
Diva CL 250W dimmer	DVCL-253P- DCSCCL-253P-
Nova T CL 250W dimmer	NTCL-250-
Power supply <b>LH1</b> Lutron Product Family	Part No.
PowPak Dimming Modules	RMJ-ECO32-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-__ 4C
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	GrafixEye® GRX-TVI w GRX3503
Lutron Electronics	Energy Savr Node™ - QSN-4T16-S
Lutron Electronics	TVM2 Module
Sensor Switch	nI0 EZ
ABB	SD/S 2.16.1

