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:

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	1 Dry/Damp	WH	White	WH	White	**HIGH FLUX STATIC WHITE 4.38" TALL HOUSING**		22	2200K*	15	15°	**INTEGRAL DRIVER**	1	0.50" - 1.00"	L23	Lutron, Hi-Lume 1% 2-Wire*	**STANDARD EFFECTS DEVICE**	
		MFS	Microflange	2 Wet*	AG	Satin Silver	AG	Satin Silver	80C58B	80+ CRI, Delivered Lumens - 3878	*(Only available with 90+ CRI)		25	25°	Y NIC	T	TG		*(Not available for 80C58B, or 90C50B)	04	Soft Focus Lens
		TFS	Trimless	*(Requires provided suction cup to service or aim & focus)	AU	Cashmere Gold	AU	Cashmere Gold	90C50B	90+ CRI, Delivered Lumens - 3320	27	2700K	40	40°			0.50" - 1.00"*			NL	No Lens *
F4S	Square	FFS	Standard Flange		BB	Burnt Bronze	BB	Burnt Bronze				30	3000K	60	60°	**REMOTE DRIVER**	*(Includes adjustable housing height bracket)		**UNIVERSAL (120-277V)**	*(Not available for Wet Location)
		MFS	Microflange		BK	Black	BK	Black				35	3500K	85	85°*	W NIC, Remote			LH1	Lutron, Hi-Lume 1% Ecosystem*	**ALTERNATE EFFECTS DEVICE**
		TFS	Trimless		PR	Primer	PR	Primer				40	4000K	*(Requires -14 WDL effects device)					*(Not available for 80C58B, or 90C50B)	02	Honeycomb Louver w/ Diffusion Film*
		FFT	Standard Flange Transitional Baffle		00	Trimless*	CF	Custom Finish*	**HIGH FLUX WARM DIM 4.38" TALL HOUSING**		WL	2700K - 1800K	25	25°				AN4	Philips Xitanium 1% 0-10V, LOG*	*(Not available for Wet location or Warm Dim)
		MFT	Microflange Transitional Baffle			*(Required for trimless)		*(Consult Factory)	90W19E	90+ CRI, Delivered Lumens -1129 Incandescent Profile			40	40°				*(Not available for 80C58B, or 90C50B)	03	Clear Glass Lens*
		TFT	Trimless Transitional Baffle		CF	Custom Finish*			90W31F	90+ CRI, Delivered Lumens -1830 Incandescent Profile			60	60°				LN2	Philips Xitanium 1% 0-10V, LIN*	*(Not available for Warm Dim)
						*(Consult Factory)			***SEE PAGE 3 FOR DETAILED WARM DIM PROFILE COMPARISON.**			85	85°*				*(Not available for 80C58B, or 90C50B)	05	Frosted Glass Lens
													*(Requires -14 WDL effects device)				EA2	eldoLED, SOLOdrive 0.1% 0-10V, LOG	08	Frosted Soft Focus Lens
																	LA2	eldoLED, SOLOdrive 0.1% 0-10V, LIN	14	Wide Distribution Lens*
																	ED1	eldoLED, SOLOdrive 0.1% DALI, LOG	*(Required and only available for 85° beam spread)
									*ALL DELIVERED LUMEN OUTPUTS REFLECT 3000K PAIRED WITH 60° OPTIC AND SOFT FOCUS LENS.									LD1	eldoLED, SOLOdrive 0.1% DALI, LIN	26	Frosted Linear Spread 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., F4RMFS1-WHWH-90C50B-3Y1-EA2
- Remote driver ships with fixture as e.g., PSF4-RMT-90C-50B-1EA2

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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 -			-		**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)		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

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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FRAXION4 HIGH FLUX FIXED

◎ 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	1.05
CGL	1.00
SFL	1.00
FGL	0.90
FSFL	0.87
FLSL	0.83
WDL	0.78
HCL	0.65

☀ 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
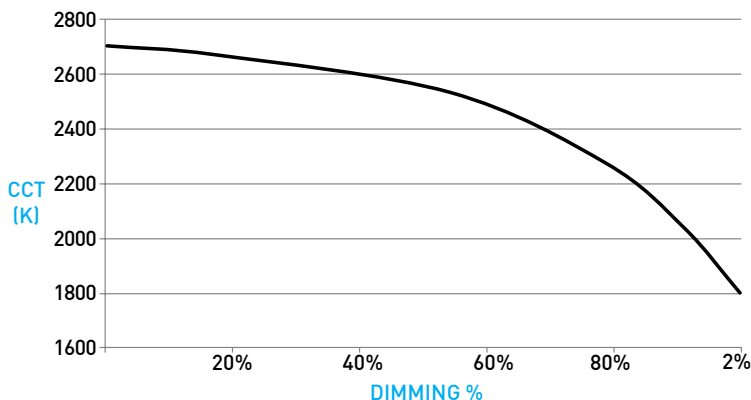
WARM DIM TO MIRROR INCANDESCENT DIMMING PROFILE

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

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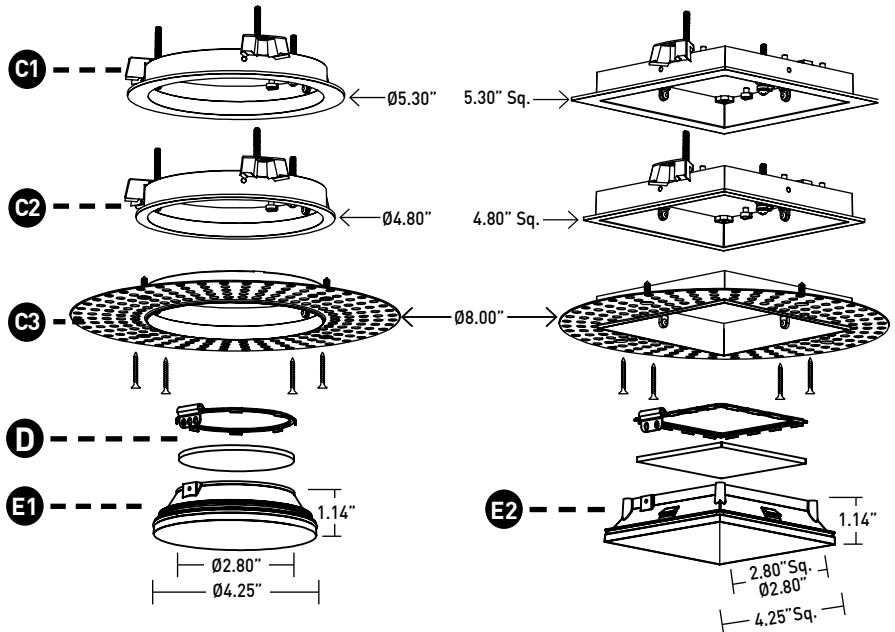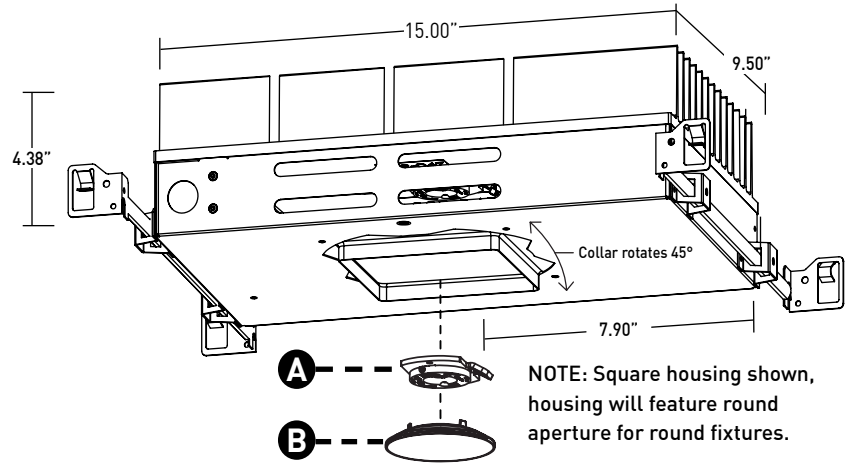[FAX] +1-210-227-4967

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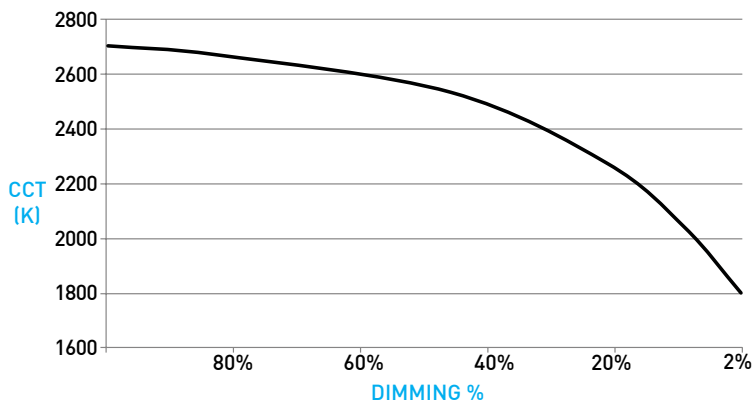
FRAXION4 HIGH FLUX FIXED

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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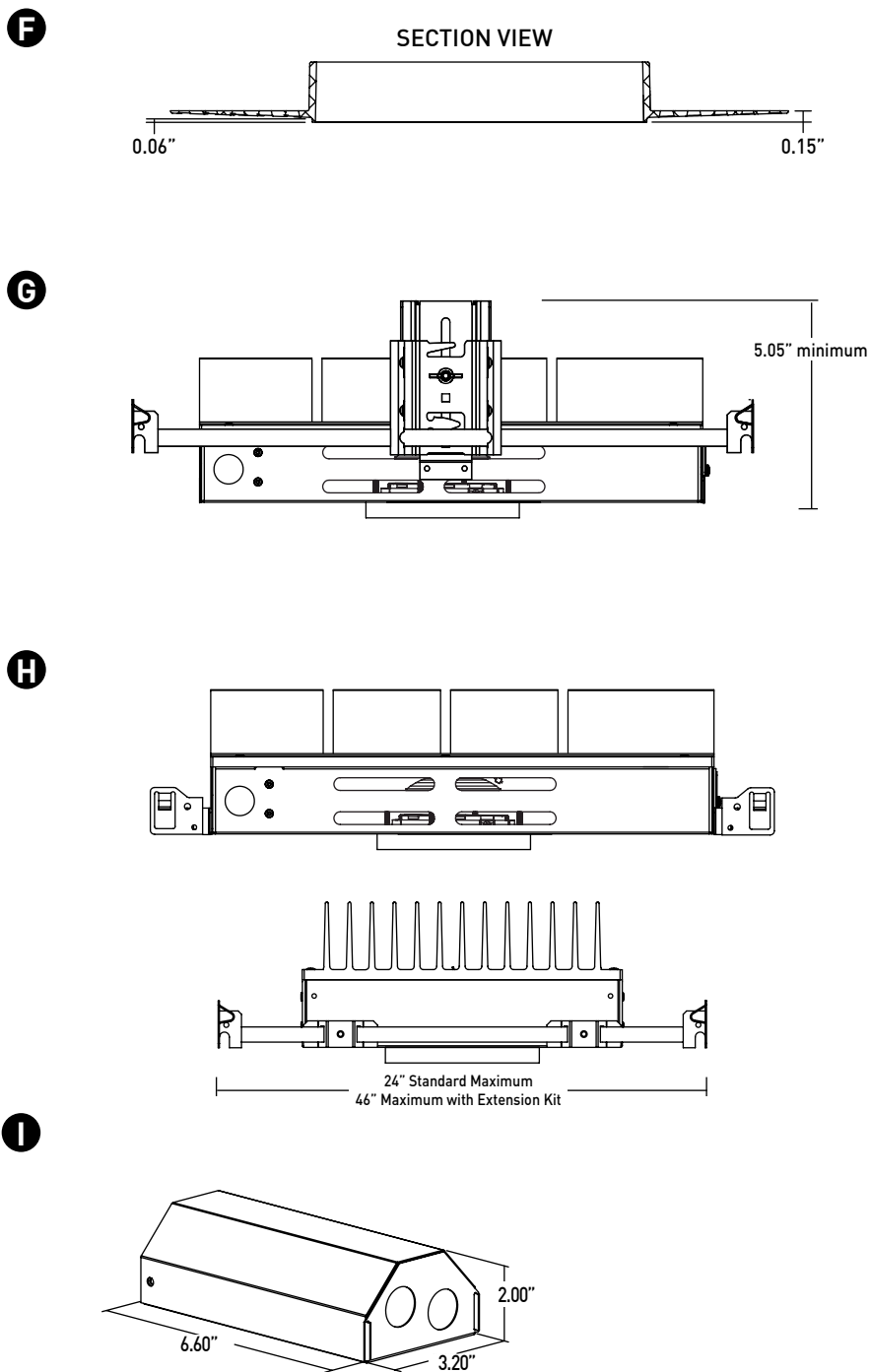
FRAXION4 HIGH FLUX FIXED

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 **REMOTE POWER SUPPLY**
Provided with install Type "W". 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.

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).
- 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".

DIMENSIONS / DRAWINGS

F

SECTION VIEW

0.06"   0.15"

G

5.05" minimum

H

24" Standard Maximum
46" Maximum with Extension Kit

I

2.00"
6.60"
3.20"

TECHNICAL

CONSTRUCTION

<u>Downlight</u>: Painted finishes are granulated powder coat.
<u>Housing</u>: Aluminum and 22 Gauge galvanized steel. Extruded aluminum housing panel to act as heat-sink.
<u>Remote Power Supply</u>: 22 Gauge galvanized steel.
<u>Appliqué</u>: 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.

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

	WIRE AWG				
DRIVER	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.
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 and conditional upon the use of manufacturer-supplied power supply. Consult website for full warranty terms and conditions.

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FRAXION4 HIGH FLUX FIXED

DIMMING COMPATIBILITY

PHILIPS DRIVER COMPATIBILITY

Power supply **AN4** 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 **L23** 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 **LH1** 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 **EA2** 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-AO8
Crestron®	DIN-4DIMFLV4
Crestron®	CLS-EXP-DIMFLV
Crestron®	CLCI-1DIMFLV2EX

Power supply **LA2** 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	nIO EZ
ABB	SD/S 2.16.1

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ACCOUNT

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