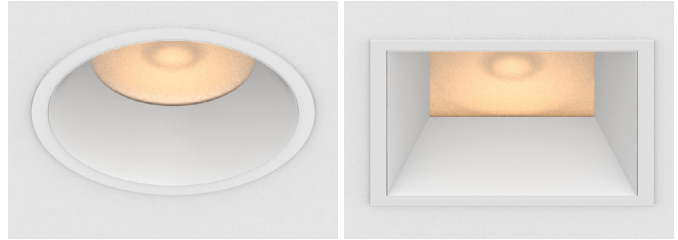


FRAXION® 4 SLIM

FIXED

Very versatile, highly configurable, and featuring extremely shallow housings, 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



Quick Ship Product. All rough in components ship within 10 days up to quantities of 100.



JA8-2019 INDICATED BY SHADING

SHAPE	TRIM	RATING	FLANGE FINISH	BAFFLE FINISH	LUMEN PACKAGE	CCT	OPTIC	INSTALL TYPE	CEILING THICKNESS	POWER SUPPLY	OPTIONAL CONFIGURATION
F4R Round	FFS Standard Flange	1 Dry/Damp 2 Wet* *(Requires provided suction cup to service or aim & focus)	WH White	WH White	STATIC WHITE 80C12A 80+ CRI, Delivered Lumens - 872 80C16A 80+ CRI, Delivered Lumens - 1191 80C23A 80+ CRI, Delivered Lumens - 1642 80C30A 80+ CRI, Delivered Lumens - 2199* *(Not available for IC housing applications) 80C36A 80+ CRI, Delivered Lumens - 2588* *(Not available for IC housing applications) 80C58B 80+ CRI, Delivered Lumens - 3723* *(Not available for IC housing applications)	27 2700K 30 3000K 35 3500K 40 4000K	15 15° *(Not available for Warm Dim) 25 25° 40 40° 60 60° 85 85° *(Uses 60° optic and optional configuration 14 (WDL) to achieve 85° beam spread)	INTEGRAL DRIVER X IC Y NIC C IC, Airtight* *(Chicago Plenum, Airtight & Title 24 compliant housing)	1 0.50" - 1.00" T 0.50" - 1.00"* *(Includes adjustable housing height bracket)	DOMESTIC (120V) TR2 Philips, 2% Leading/Trailing/Triac* *(Not available for 80C12A, 80C30A, 80C36A, 80C58B, 90C10A, 90C26A, 90C30A, 90C50B, 97C10A, 97C23A, or 97C27A) L23 Lutron, Hi-Lume 1% 2-Wire* *(Not available for 80C58B or 90C50B)	Leave blank for standard Soft Focus Lens 02 Honeycomb Louver w/ Diffusion Film* *(Not available for Warm Dim or Wet locations) 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
	BK Black PR Primer AU Cashmere Gold AG Satin Silver BB Burnt Bronze 00 Trimless* CF Custom Finish* *(Consult Factory)		BK Black PR Primer AU Cashmere Gold AG Satin Silver BB Burnt Bronze CF Custom Finish* *(Consult Factory)								
F4S Square	FFS Standard Flange	1 Dry/Damp 2 Wet* *(Requires provided suction cup to service or aim & focus)	WH White	WH White	WARM DIM 90W13A 90+ CRI, Delivered Lumens - 837	WD 3200K - 1800K		REMOTE DRIVER V IC, Remote NIC, Remote W IC, Remote D IC, Airtight, Remote* *(Chicago Plenum, Airtight & Title 24 compliant housing)		UNIVERSAL (120-277V) LH1 Lutron, Hi-Lume 1% Ecosystem* *(Not available for 80C58B or 90C50B) AN4 Philips Xitanium 1% 0-10V, LOG* *(Not available for 80C58B or 90C50B) LN2 Philips Xitanium 1% 0-10V, LIN* *(Not available for 80C58B or 90C50B) EA2 eldoLED, SOL0drive 0.1% 0-10V, LOG LA2 eldoLED, SOL0drive 0.1% 0-10V, LIN ED1 eldoLED, SOL0drive 0.1% DALI, LOG LD1 eldoLED, SOL0drive 0.1% DALI, LIN	*(Required and only available for 85° beam spread)
	AG Satin Silver BB Burnt Bronze 00 Trimless* CF Custom Finish* *(Consult Factory)		AG Satin Silver BB Burnt Bronze CF Custom Finish* *(Consult Factory)								
	MFS Microflange				TUNABLE WHITE 90T10B 90+ CRI, Delivered Lumens - 672 90T14B 90+ CRI, Delivered Lumens - 917 90T20B 90+ CRI, Delivered Lumens - 1219* *(Not available for IC housing applications)	TW 5000K - 2700K			TUNABLE WHITE POWER SUPPLIES (120-277V) DD1 eldoLED, DUAL drive 0.1% DALI, LOG DG1 eldoLED, DUAL drive 0.1% 0-10V, LOG DL1 eldoLED, DUAL drive 0.1% 0-10V, LIN		
	TFS Trimless										
	FFT Standard Flange Transitional Baffle										
	MFT Microflange Transitional Baffle										
	TFT Trimless Transitional Baffle										



PART NUMBER NOTES

- Housing and trim ship as e.g., F4RMFS1-WHWH-90C14A2-3X1-AN4
- Remote driver ships with fixture as e.g., PSF4-RMT-90C-14A-1L23

FRAXION4SLIM FIXED

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 or Wet locations)
- 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 or Wet locations)
- 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
	F4S Square	FFS Standard Flange MFS Microflange TFS Trimless FFT Standard Flange Transitional Baffle MFT Microflange Transitional Baffle TFT Trimless Transitional Baffle			HCL Honeycomb Louver w/ Diffusion Film* *(Not available for Warm Dim or Wet locations) 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-70-15-1** 15° optic*
*(Not available for Warm Dim)
- RO-70-25-1** 25° optic
- RO-70-40-1** 40° optic
- RO-70-60-1** 60° optic

TUNABLE WHITE 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

EMERGENCY LIGHTING - REMOTE MOUNT ONLY

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

- EMB-S-20/25-120/277-LEDX** 20/25 watt max capacity, 120 or 277 VAC 60Hz, Non-Dimmable
- 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

FRAXION4SLIM FIXED

PERFORMANCE - 3000K - SOFT FOCUS LENS

LUMEN PACKAGE	WATTAGE	15° OPTIC		25° OPTIC		40° OPTIC		60° OPTIC		85° BEAM	
		DELIVERED	LPW	DELIVERED	LPW	DELIVERED	LPW	DELIVERED	LPW	DELIVERED	LPW
80C12A	10	860	85	793	78	872	86	908	90	710	70
80C16A	14	1174	81	1083	77	1191	82	1241	86	969	67
80C23A	21	1620	76	1494	70	1642	77	1711	80	1337	62
80C30A	31	2168	69	2000	64	2199	70	2291	73	1790	57
80C36A	39	2552	66	2354	61	2588	67	2696	69	2106	54
80C58B	53	3670	69	3386	64	3723	70	3878	73	3029	57
90C10A	10	711	70	656	65	721	71	751	74	587	58
90C14A	14	971	67	895	62	984	68	1025	71	801	55
90C19A	21	1338	62	1235	58	1357	63	1414	66	1105	52
90C26A	31	1792	57	1653	53	1817	58	1893	61	1479	47
90C30A	39	2109	54	1946	50	2139	55	2228	57	1741	45
90C50B	53	3142	59	2900	55	3188	60	3320	63	2594	49
97C10A	10	648	78	598	59	657	65	685	68	535	53
97C12A	14	885	75	816	56	897	62	935	65	730	51
97C17A	21	1220	70	1126	53	1238	58	1289	60	1007	47
97C23A	31	1634	52	1508	48	1657	53	1727	55	1349	43
97C27A	39	1923	50	1774	46	1950	50	2032	52	1587	41
90W13A	14	-	-	846	60	837	59	872	62	680	48
90T10B	14	697	49	661	47	672	48	670	47	523	37
90T14B	22	924	42	917	41	917	41	904	41	706	32
90T20B	31	1240	40	1215	39	1219	39	1237	39	966	31

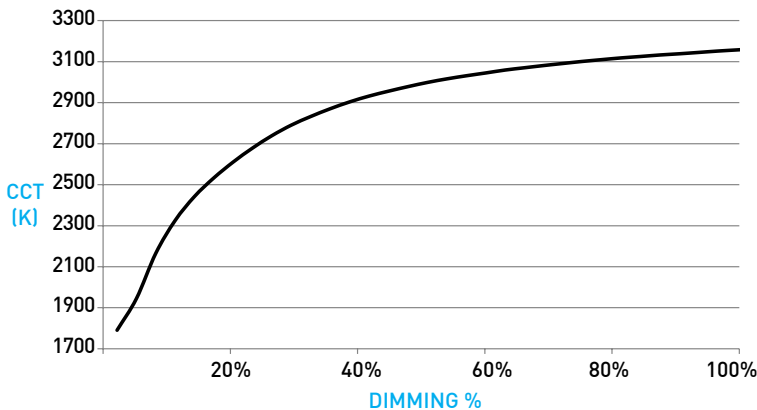
OUTPUT MULTIPLIER	
CCT	CCT SCALE
2700K	0.957
3000K	1.000
3500K	1.019
4000K	1.030

LIGHT LOSS FACTOR MULTIPLIER	
CGL	1.05
SFL	1.00
FGL	0.90
FSFL	0.87
FLSL	0.83
WDL	0.78
HCL	0.65

TABLE 24 JA8-2019 INDICATED BY SHADING

WARM DIM PERFORMANCE

DETAILED PERFORMANCE	Full on 100%	Dimmed to 80%	Dimmed to 70%	Dimmed to 50%	Dimmed to 20%	Dimmed to 10%	Dimmed to 2%
CCT (K)	3200	3150	3100	3000	2700	2200	1800
Light Output (Lm)	1300	1050	900	630	250	115	25
Power (W)	14	11	10	7	3	1.5	0.3
Efficacy (LPW)	92	93	90	90	83	76	74

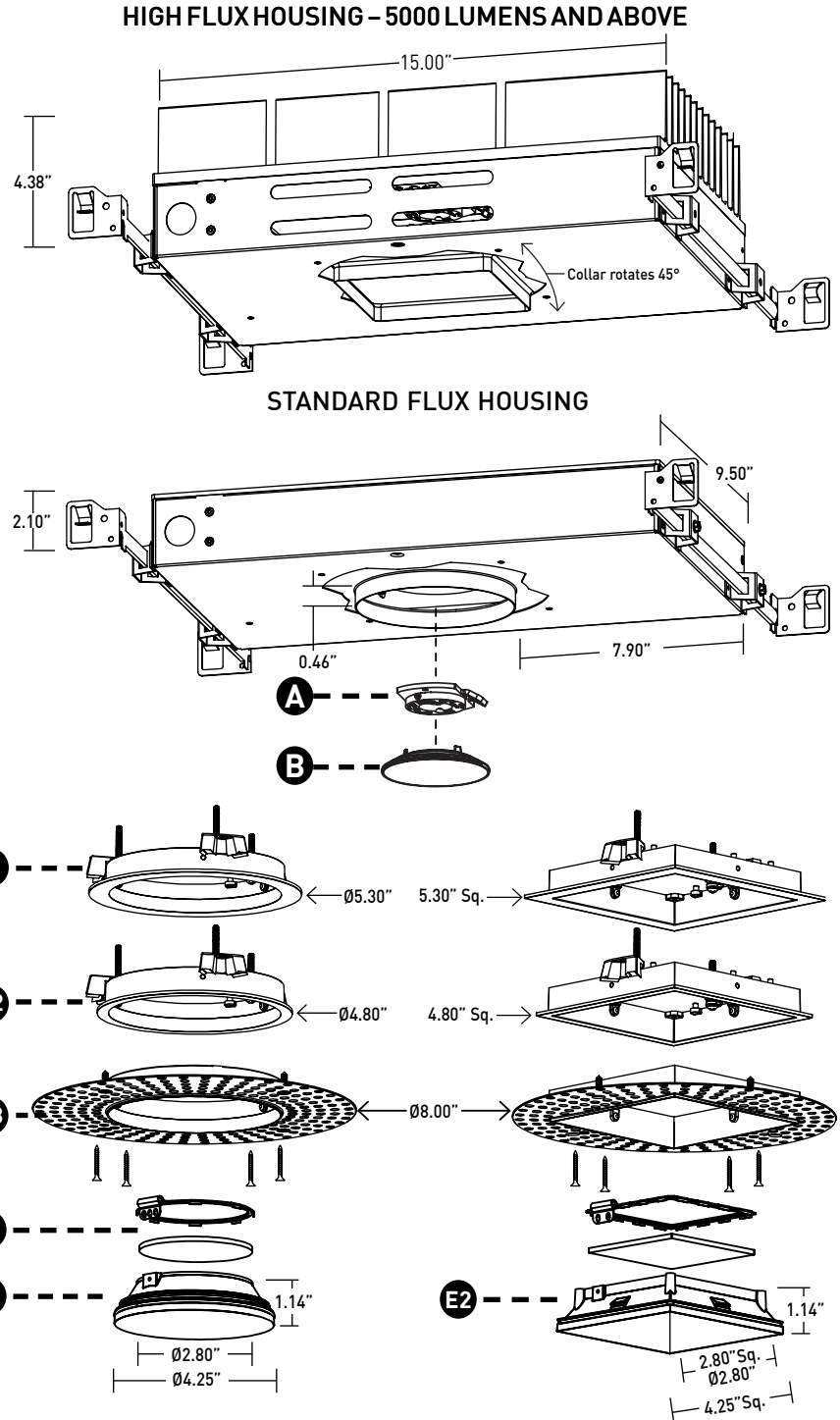


FRAXION4SLIM FIXED

DOWNLIGHT / HOUSING

- A LED**
Integral LED module design enables field service / replacement through housing aperture.
- B OPTIC**
Proprietary field-changeable optic integrates Reflection, Refraction and TIR offering 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

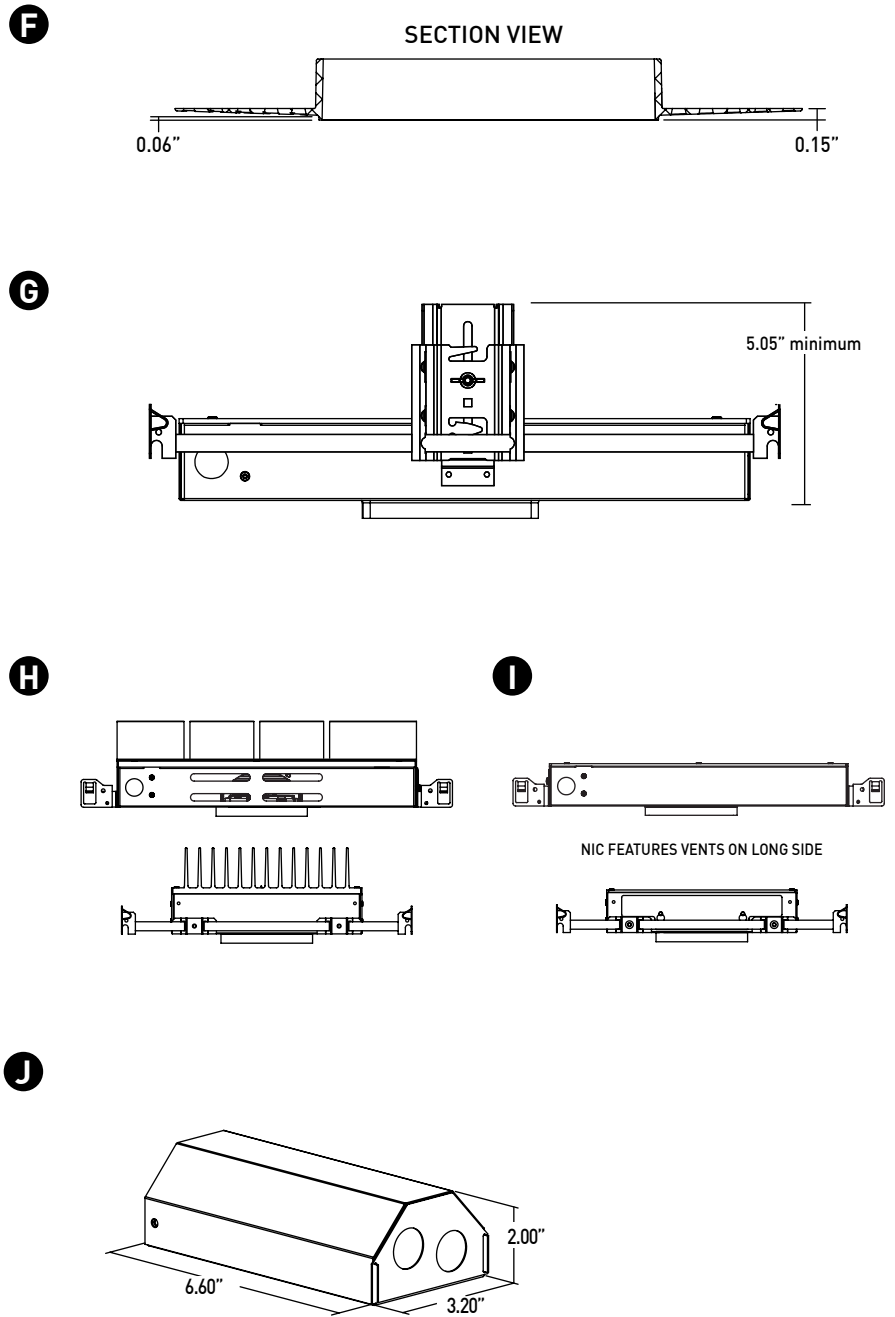


FRAXION4SLIM FIXED

DOWNLIGHT / HOUSING

- F TRIMLESS APPLIQUÉ DETAIL**
Integrated appliqué for plaster floating directly to baffle.
- G ADJUSTABLE HANGER BAR HEIGHT ACCESSORY**
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 HIGH FLUX NIC HOUSING**
 - For 80C58B and 90C50B lumen packages only.
 - 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 STANDARD FLUX IC/NIC HOUSING**
 - IC HOUSING**
 - For IC ceilings.
 - Chicago Plenum, Airtight and Title 24 (JA8) listed.
 - Accommodates max 1642 delivered lumens.
 - No setback from polycell spray foam insulation having max R-Value of 60 on all sides and top of housing.
 - 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.
- J REMOTE POWER SUPPLY**
Provided with install Types "V", "W" and "D". Remote power supply provides additional driver options. Consult installation guide for maximum allowable secondary run lengths between PSF4-RMT and fixture. Must be installed in an accessible location.

DIMENSIONS / DRAWINGS



HOUSING NOTES

- Do not install in environments where ambient temperatures exceed 40°C (104°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.
- 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".

FRAXION4SLIM 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

LED

Proprietary Citizen 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: 50,000 hours. LED and driver assemblies are field-replaceable.

WARM DIM LED

Proprietary 3-step MacAdam ellipse warm dim LED module available in 90+ CRI configuration. 3200K 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

Proprietary 5-step MacAdam ellipse tunable white LED module available in 90+ CRI configuration. Features tuning range of 2700K to 5000K. Average rated lamp life: 50,000 hours. LED and driver assemblies are field-replaceable.

POWER SUPPLY PERFORMANCE AND DIMMING INFORMATION

	ELV		ECO		0-10V						DALI		
Power Supply	TR2	L23	LH1	AN4	LN2	EA2	LA2	DG1	DL1	ED1	LD1	DD1	
Minimum °C	-20 °C	0 °C	0 °C	-20 °C	-20 °C	-20 °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	40 °C	40 °C	40 °C	40 °C	
Dimming %	2.0%	1.0%	1.0%	1.0%	1.0%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	

Note: For TR2, L23, LH1, LP1, AN4, EA2 and LA2 drivers consult chart on page 7 to confirm appropriate dimming curve for compatibility with selected control.

LISTING

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

Chicago Plenum, Airtight and Title 24 JA8-2019 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 and power supply to operate with 70% of the original flux and remain within a range of 3 duv. 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.

CHANGE LOG

1.07/01/2020: ADDED WARM DIM TO T24 LISTING.

2.03/09/2020: ADDED TRIMLESS TO FLANGE FINISH OPTIONS.

FRAXION4SLIM FIXED

DIMMING COMPATIBILITY

PHILIPS DRIVER COMPATIBILITY

Power supply TR2 Manufacturer	Family/Model #
Lutron Electronics	DV-600P
Lutron Electronics	DVELV-303P
Lutron Electronics	NTELV-600
Lutron Electronics	MAELV-600
Lutron Electronics	SELV-300P
Lutron Electronics	DVLV-600P
Lutron Electronics	NFTU-5A
Lutron Electronics	CTCL-153P
Lutron Electronics	GL-600H
Lutron Electronics	S-600P
Lutron Electronics	PHPM
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 / LP1 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	QSN-2ECO-S
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	LQSE-2ECO-D
myRoom Plus power module	

eldoLED DRIVER COMPATIBILITY

Power supply EA2 / LA2 Dimmer / Switch Control Manufacturer	Family/Model #
Busch-Jaeger	2112U-101
Jung	240-10
Leviton Lighting Controls	IP710-DLX
Lightolier Controls	ZP600FAM120
Lutron Electronics	Nova T® - NTFTV
Lutron Electronics	Div@® - DDTV
Lutron Electronics	Nova@® - NFTV
Merten	5729
Pass & Seymour	CD4FB-W
The Watt Stopper	DCLV1
Sensor Switch	nI0 EZ
Synergy	ISD BC
Power supply EA2 / LA2 Lighting Control System Manufacturer	Family/Model #
Lutron Electronics	GrafixEye® GRX-TVI w GRX3503
Lutron Electronics	Energy Savr Node™ - QSN-4T16-S
Lutron Electronics	TVM2 Module
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
ABB	SD/S 2.16.1

