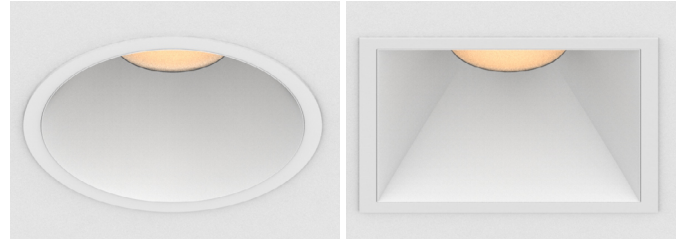


FRAXION® 4 SLIM DEEP REGRESS FIXED

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:
---------------	-------



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	FFD 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 - 796 80C16A 80+ CRI, Delivered Lumens - 1096 80C23A 80+ CRI, Delivered Lumens - 1508 80C30A 80+ CRI, Delivered Lumens - 2014* *(Not available for IC housing applications) 80C36A 80+ CRI, Delivered Lumens - 2379* *(Not available for IC housing applications) 90C10A 90+ CRI, Delivered Lumens - 684 90C14A 90+ CRI, Delivered Lumens - 937 90C19A 90+ CRI, Delivered Lumens - 1283 90C26A 90+ CRI, Delivered Lumens - 1733* *(Not available for IC housing applications) 90C30A 90+ CRI, Delivered Lumens - 2033* *(Not available for IC housing applications) 97C10A 97+ CRI, Delivered Lumens - 609 97C12A 97+ CRI, Delivered Lumens - 834 97C17A 97+ CRI, Delivered Lumens - 1152 97C23A 97+ CRI, Delivered Lumens - 1546* *(Not available for IC housing applications) 97C27A 97+ CRI, Delivered Lumens - 1817* *(Not available for IC housing applications)	27 2700K 30 3000K 35 3500K 40 4000K	15 15°* *(Not available for Tunable White) 22 22° 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, 90C10A, 90C26A, 90C30A, 97C10A, 97C23A, or 97C27A) L23 Lutron, Hi-Lume 1% 2-Wire	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)
	BK Black PR Primer AU Cashmere Gold AG Satin Silver BB Burnt Bronze 00 Trimless* *(Required for trimless) CF Custom Finish* *(Consult Factory)		BK Black PR Primer AU Cashmere Gold AG Satin Silver BB Burnt Bronze CF Custom Finish* *(Consult Factory)	WARM DIM 90W13A 90+ CRI, Delivered Lumens - 757							
F4S Square	FFD Standard Flange		WH White BK Black PR Primer AU Cashmere Gold AG Satin Silver BB Burnt Bronze 00 Trimless* *(Required for trimless) CF Custom Finish* *(Consult Factory)	WH White BK Black PR Primer AU Cashmere Gold AG Satin Silver BB Burnt Bronze CF Custom Finish* *(Consult Factory)	TUNABLE WHITE 90T10A 90+ CRI, Delivered Lumens - 721 90T14A 90+ CRI, Delivered Lumens - 1015	TW Tunable White	REMOTE DRIVER V IC, Remote W NIC, Remote D IC, Airtight, Remote* *(Chicago Plenum, Airtight & Title 24 compliant housing)	TUNABLE WHITE POWER SUPPLIES (120-277V) DD1 eLdoLED, DUALdrive 0.1% DALI, LOG DG1 eLdoLED, DUALdrive 0.1% 0-10V, LOG DL1 eLdoLED, DUALdrive 0.1% 0-10V, LIN			
	MFD Microflange										
	TFD Trimless										



PART NUMBER NOTES

- Housing and trim ship as e.g., F4RMFD1-WHWH-90C14A2-3X1-AN4
- Remote driver ships with fixture as e.g., PSF4-RMT-90C-14A-1L23

FRAXION4 SLIM DEEP REGRESS FIXED

ACCESSORIES

ALTERNATE EFFECTS DEVICES

Dry/Damp location only.

Wet location requires alternate baffle.

- HCL-F4R-2** Honeycomb Louver w/ Diffusion Film *
*(Not available for Warm Dim or Wet locations)
- CGL-F4R-2** Clear Glass Lens *
*(Not available for Warm Dim)
- FGL-F4R-2** Frosted Glass Lens
- SFL-F4R-2** Soft Focus Lens
- FSFL-F4R-2** Frosted Soft Focus Lens
- WDL-F4R-2** Wide Distribution Lens *
*(Required and only available for 85° beam spread)
- FLSL-F4R-2** Frosted Linear Spread Lens

REPLACEMENT BAFFLE ASSEMBLY (INCLUDES EFFECTS DEVICE)

ASSEMBLY	SHAPE	TRIM	RATING	FLANGE FINISH	EFFECTS DEVICE
RBA					
REPLACEMENT BAFFLE ASSEMBLY	F4R Round	FFD Standard Flange MFD Microflange TFD 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)	<p>Leave blank for standard Soft Focus Lens</p> <p>HCL Honeycomb Louver w/ Diffusion Film* *(Not available for Warm Dim or Wet locations)</p> <p>CGL Clear Glass Lens * *(Not available for Warm Dim)</p> <p>FGL Frosted Glass Lens</p> <p>FSFL Frosted Soft Focus Lens</p> <p>WDL Wide Distribution Lens * *(Required and only available for 85° beam spread)</p> <p>FLSL Frosted Linear Spread Lens</p>
	F4S Square	FFD Standard Flange Transitional Baffle MFD Microflange Transitional Baffle TFD Trimless Transitional Baffle			

REPLACEMENT OPTICS

Interchangeable optics accessible through fixture aperture.

- RO-50-15-2** 15° optic
- RO-50-22-2** 22° optic
- RO-50-40-2** 40° optic
- RO-50-60-2** 60° optic

TUNABLE WHITE REPLACEMENT OPTICS

Interchangeable optics accessible through fixture aperture.

- RO-50-22-3** 22° optic
- RO-50-40-3** 40° optic
- RO-50-60-3** 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

FRACTION4SLIM DEEP REGRESS FIXED

PERFORMANCE - 3000K - SOFT FOCUS LENS

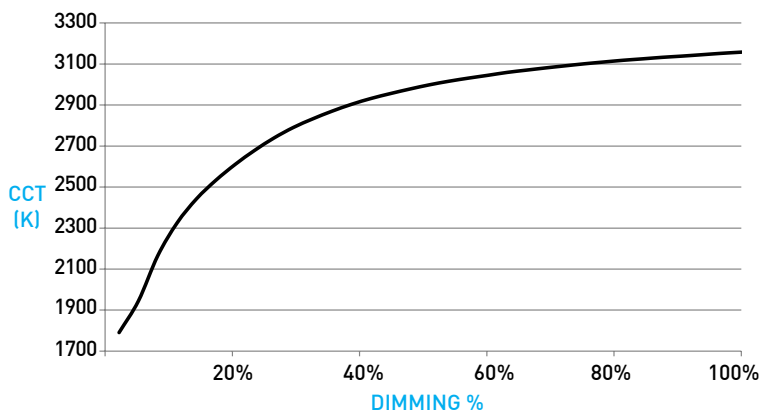
LUMEN PACKAGE	WATTAGE	15° OPTIC		22° OPTIC		40° OPTIC		60° OPTIC		85° BEAM	
		DELIVERED	LPW	DELIVERED	LPW	DELIVERED	LPW	DELIVERED	LPW	DELIVERED	LPW
80C12A	10	848	84	590	59	796	79	821	82	640	64
80C16A	17	1158	82	812	58	1096	78	1130	80	882	63
80C23A	21	1597	76	1118	53	1508	71	1555	74	1213	57
80C30A	31	2138	69	1493	48	2014	65	2077	67	1620	52
80C36A	39	2516	64	1764	45	2379	61	2454	62	1914	49
90C10A	10	701	70	507	50	684	68	705	70	550	55
90C14A	17	957	68	694	49	937	66	966	69	753	53
90C19A	21	1320	62	951	45	1283	61	1323	63	1032	49
90C26A	31	1767	57	1284	41	1733	55	1787	57	1394	45
90C30A	39	2080	53	1507	38	2033	52	2096	53	1635	41
97C10A	10	639	63	451	45	609	60	628	62	490	49
97C12A	17	872	62	618	44	834	59	860	61	671	47
97C17A	21	1203	57	854	40	1152	54	1188	56	927	44
97C23A	31	1611	52	1146	37	1546	49	1594	51	1243	40
97C27A	39	1896	48	1347	34	1817	46	1874	48	1462	37
90W13A	14	890	63	609	43	757	54	758	54	591	42
90T10A	16	-	-	547	34	721	45	785	49	612	38
90T14A	24	-	-	763	32	1015	42	1105	46	862	36

OUTPUT MULTIPLIER			
CCT	80+ CRI	90+ CRI	97+ CRI
2700K	1.158	0.957	0.873
3000K	1.211	1.000	0.912
3500K	1.234	1.019	0.927
4000K	1.249	1.030	0.940

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

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

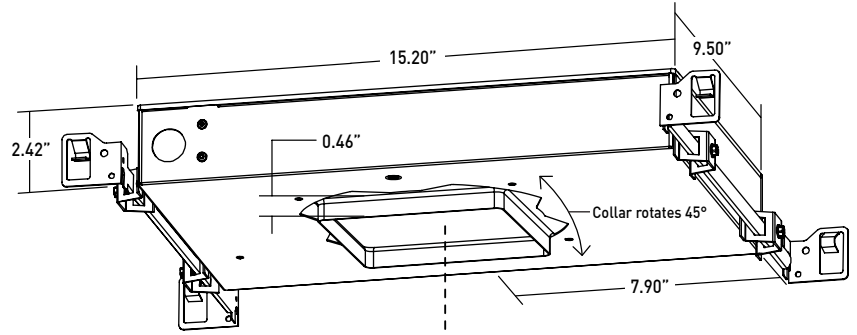


FRACTION4 SLIM DEEP REGRESS FIXED

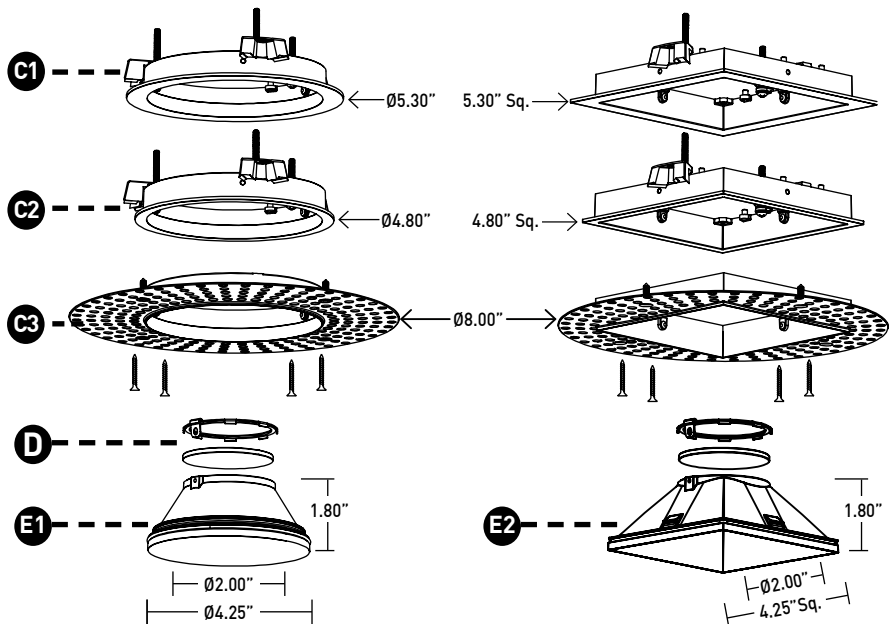
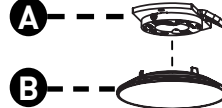
DOWNLIGHT / HOUSING

- 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°, 22°, 40° & 60° beams.
- C1 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.
- C2 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.
- C3 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.
- 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 deep removable baffle features 60° glare cutoff. Minimizes aperture glare and conceals view into housing; includes silicone gasket.
- E2 TRANSITIONAL BAFFLE**
Die-cast deep removable baffle features 60° glare cutoff. Transitions from square aperture at ceiling plane to round aperture at light source. Minimizes aperture glare and conceals view into housing; includes silicone gasket.

DIMENSIONS / DRAWINGS



NOTE: Square housing shown, housing will feature round aperture for round fixtures.

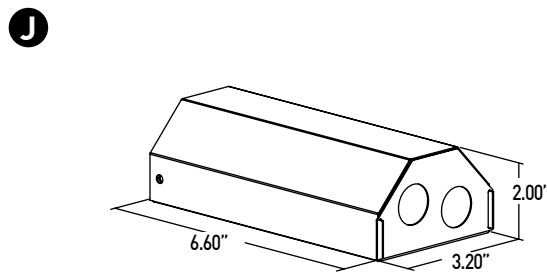
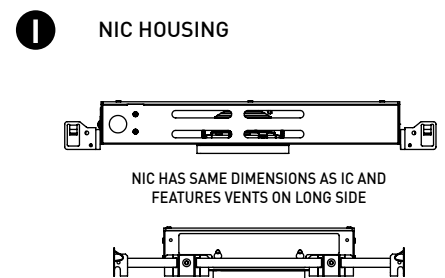
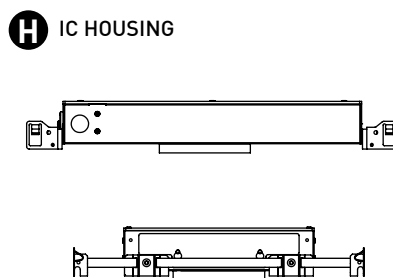
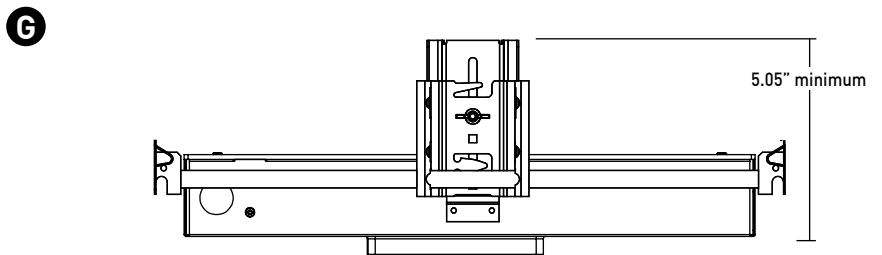
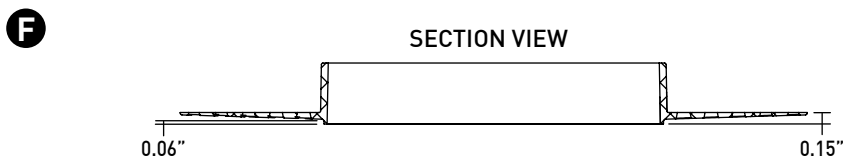


FRACTION4 SLIM DEEP REGRESS FIXED

- 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 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.
- I 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.

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".



FRAZION4 SLIM DEEP REGRESS 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

Power Supply	ELV		ECO		0-10V						DALI		
	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.

3. 10/08/2019: NEW CONSOLIDATED SPEC SHEET WITH SINGLE NOMENCLATURE FOR SPECIFICATION.

4. 10/08/2019: ADDITIONAL PHOTOMETRIC INFORMATION NOW AVAILABLE ON SPEC SHEET.

FRAXION4 SLIM DEEP REGRESS 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	Divia® - DVTV
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



FRAXION4SLIM DEEP REGRESS FIXED

DRIVE CURRENT SPECIFICS

	80C			90C			97C			90W	90T	
	12A	16A	23A	10A	14A	19A	10A	12A	17A	13A	10A	14A
Minimum Vf	30.5	30.5	30.5	30.5	30.5	30.5	30.5	30.5	30.5	30.5	30.5	30.5
Maximum Vf	39	39	39	39	39	39	39	39	39	39	39	39
Current mA	250	350	500	250	350	500	250	350	500	14 - 350	700	1050
Wattage W	8.2	11.8	17.4	8.2	11.8	17.4	8.2	11.8	17.4	14	16	24