PROJECT NAME: TYPE:





Versatile, high-performance, and retrofittable downlights, in a precise, 4-inch profile, the most diminutive in the industry.

ORDERING INFORMATION - DOWNLIGHT / HOUSING

4

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

TIT	LE
9	7
4	-
	2

JA8-2019 INDICATED BY SHADING

			1		ap to quan	111165 01 100.			1	
SHAPE	TRIM	RATING	FLANGE FINISH	BAFFLE FINISH	LUMEN PACKAGE	CCT	OPTIC	INSTALL TYPE	CEILING THICKNESS	DRIVER
	FWW Standard Flang MWW Microflange TWW Trimless FWW Standard Flang	2 Wet* * (Requires provided suction cup	WH White BK Black PR Primer AU Cashmere Gold AG Satin Silver	WH White BK Black PR Primer AU Cashmere Gold AG Satin Silver	LOW FLUX STATIC WHITE 80C12A 80+ CRI, Delivered Lumens - 599 80C16A 80+ CRI, Delivered Lumens - 819 80C23A 80+ CRI, Delivered Lumens - 1129	22 2200K* *(Only available with 90+ CRI) 27 2700K 30 3000K	- WW WW Wallwash Optic	HOUSING INTEGRAL DRIVER IC IC ① NC NIC ① AT IC,	1 0.125" - 1.25"* *(Housing) 0.25" - 1.25"* *(Remodel) 0.50" - 1.25"* *(All Trinless)	DOMESTIC (120V) TR2 Philips, 2% Leading/Trac* *(Not available for 80°C12 90°C10A, or 9°C10A unless
	MWW Microflange TWW Trimless		BB Burnt Bronze O Trimless* * (Required for trimless) CF Custom Finish* * (Consult Factory)	BB Burnt Bronze CF Custom Finish* * (Consult Factory)	90C10A 90+ CRI, Delivered Lumens - 495 90C14A 90+ CRI, Delivered Lumens - 677 90C19A 90+ CRI, Delivered Lumens - 933 97C10A 97+ CRI, Delivered Lumens - 452 97C12A 97+ CRI, Delivered Lumens - 617 97C17A 97+ CRI, Delivered Lumens - 851	35 3500K 40 4000K		Airtight* ① *(Chicago Plenum, Airtight & Title 24 compliant housing) HOUSING REMOTE DRIVER	T 0.125" - 1.25"* *(Includes adjustable housing height bracket)	10° degree optic is specified. N available for 800308, 90238, or 970238) L23 Lutron, Hi-Lume 1% 2-Wire UNIVERSAL (120-277 LH1 Lutron, Hi-Lume
					HIGH FLUX STATIC WHITE 80C30B 80+ CRI, Delivered Lumens - 1724* *[Not available for IC housing applications] 90C26B 90+ CRI, Delivered Lumens - 1424* *[Not available for IC housing applications] 97C23B 97+ CRI, Delivered Lumens - 1298* *[Not available for IC housing applications]	27 2700K 30 3000K 35 3500K *INOT available for 97+ CRI 40 4000K		IR IC, Remote ① NR NIC, Remote ① AR IC, Airlight, Remote*① *[Chicago Plenum, Airlight & Title 24 compliant housing]		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
					WARM DIM 90W11A 90+ CRI, Delivered Lumens -625 Incandescent Profile 90W13A 90+ CRI, Delivered Lumens - 658	WL 2700K - 1800K		REMODEL RM Remodel RR Remote, Remodel		0.1% 0-10V, LIN ED1 eldoLED, SOLOdrive 0.1% DALI, LOG LD1 eldoLED, SOLOdrive 0.1% DALI, LIN
					Halogen Profile *SEE PAGE 3 FOR DETAILED WARM DIM PROFILE COMPARISON.	1800K				,
					TUNABLE WHITE 90T10B 90+ CRI, Delivered Lumens - 590* *(Not available for Remodel applications) 90T14B 90+ CRI, Delivered Lumens - 807* *(Not available for Remodel applications)	2700K				TUNABLE WHITE POWER SUPPLIES (120-277V) DD1 eldoLED, DUALdrive 0.1% DALI, LOG
					*ALL DELIVERED LUMEN OUTPUTS AND T24 COMPLIANCE REFLECT 3000K PAIRED WITH SOFT FOCUS LENS. REFERENCE PAGE 3 FOR ADDITIONAL T24 COMPLIANT CONFIGURATIONS.					DG1 eldoLED, DUALdrive 0.1% 0-10V, LOG DL1 eldoLED, DUALdrive 0.1% 0-10V, LIN

(WH) (BK) White Black

Powder Coat

(AU) Cashmere Gold Powder Coat (AG) Satin Silver

Powder Coat

(BB) Burnt Bronze

Powder Coat

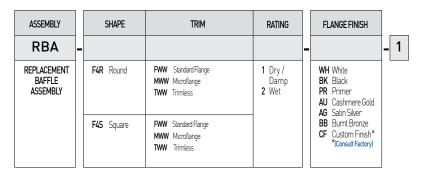
PART NUMBER NOTES

- Trim ships as e.g., F4SMWW1-WHWH-90C10A2-5I1-AN4
- Housing ships as e.g., ICT-F4R-01
- Driver ships with trim
- Remote driver ships with trim as e.g., PSF4-RMT-90C-10A-1L23

Powder Coat

ACCESSORIES

REPLACEMENT BAFFLE ASSEMBLY (INCLUDES EFFECTS DEVICE)



LOW FLUX AND WARM DIM REPLACEMENT OPTIC

Interchangeable optics accessible through fixture aperture.

□ RO-70-WW-1 Wallwash optic

HIGH FLUX AND TUNABLE WHITE REPLACEMENT OPTIC

Interchangeable optics accessible through fixture aperture.

□ R0-70-WW-2 Wallwash optic

T-GRID ACCESSORY KIT

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-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



reserves the right to change or withdraw specifications without prior notice.

pg. 2

O PERFORMANCE - 3000K

PERFORMANCE - 3000K						
LUMEN	WATTAGE	WALLWA	SH OPTIC			
PACKAGE		DELIVERED	LPW			
80C12A	10	599	59			
80C16A	17	819	57			
80C23A	21	1129	53			
80C30B	30	1724	57			
90C10A	10	495	49			
90C14A	17	677	47			
90C19A	21	933	44			
90C26B	30	1424	47			
97C10A	10	452	45			
97C12A	17	617	43			
97C17A	21	851	40			
97C23B	30	1298	43			
	1					
90W11A	14	625	45			
90W13A	14	658	47			
90T10B	14	590	42			
90T14B	22	807	36			

OUTPUT MULTIPLIER						
ССТ	CCT SCALE					
2200K (Consult factory for JA8 details)	0.800					
2700K	0.957					
3000K	1.000					
3500K	1.019					
4000K	1.030					

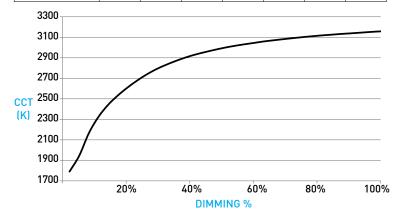
24

JA8-2019 INDICATED BY SHADING

WARM DIM PERFORMANCE

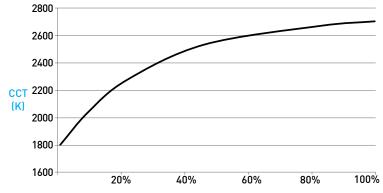
WARM DIM TO MIRROR HALOGEN DIMMING PROFILE

90W13A 3200K - 1800K	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)	658	526	461	329	132	65	13
Power (W)	14	11	10	7	3	1.5	0.3
Efficacy (LPW)	47	47	47	47	47	47	47



WARM DIM TO MIRROR INCANDESCENT DIMMING PROFILE

90W11A 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)	625	500	437	312	125	62	12
Power (W)	14	11	10	7	3	1.5	0.5
Efficacy (LPW)	45	45	45	45	45	45	45



DOWNLIGHT

A BAFFLE

ROUND / SQUARE

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

TRANSITIONAL BAFFLE

Die-cast removable baffle transitions from square aperture at ceiling plane to round aperture at light source. Minimizes aperture glare and conceals view into housing; includes silicone gasket.

RETENTION

Integrated metal arm clamps located within fixture body allow discreet flange design, while accommodating varying ceiling thicknesses from 0.125" to 1.25". Snap-on spacer clips (3X) supplied for ceiling thickness below 0.50" only.

61 STANDARD FLANGE PROFILE

Provides 0.86" total contractor (goof) allowance with 0.50" flange. Thickness measures 0.06". Wet location features integral silicone gasket.

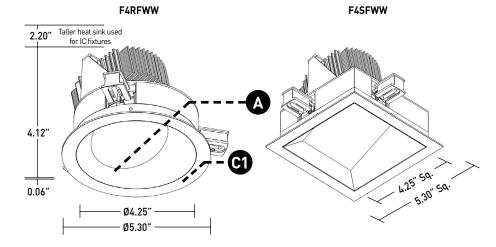
MICROFLANGE PROFILE

Provides industry standard 0.42" total contractor (goof) allowance with 0.28" flange. Thickness measures 0.06". Wet location features integral silicone gasket.

TRIMLESS PROFILE

Installs totally flush with the ceiling with no visible trim. Features integrated appliqué for plaster floating directly to the baffle, thickness measures 0.15" including 0.06" plaster stop. Not recommended for stucco applications.

DIMENSIONS / DRAWINGS



F4RMWW Taller heat sink used 2.20" 4.12" 0.06 4.80° 50. Ø4.25' Ø4.80"

F4SMWW

F4SWW

Taller heat sink used 2.20" for IC fixtures 4.20" 4.25" Sq. Ø4.25 Ø8.00' Ø8.00"

F4RTWW

DOWNLIGHT / HOUSING

OPTIC

Proprietary wallwash optic design integrates Reflection, Refraction and TIR principles.

EFFECTS DEVICES

Asymmetrical spread lens, included and sealed in place, combined with angled optic and wide aperture enhance uniformity.

HOUSING / MOUNTING

F ICT (IC) HOUSING - TALL

- For IC ceilings.
- Chicago Plenum, Airtight and Title 24 (JA8) listed.
- Accommodates max 1711 delivered lumens.
- No setback from polycell spray foam insulation having max R-Value of 60 on all sides and top of housing.

NCM (NIC) HOUSING - MEDIUM

- 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.

HOUSING COLLAR

- Requires 4.625" cutout.
- Fixed round aperture or square aperture with 45 degree rotation that locks from below providing easy alignment of square aperture housings.
- Accommodates varying ceiling thicknesses.

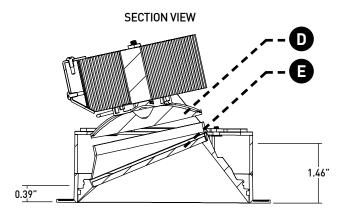
ADJUSTABLE HANGER BAR HEIGHT ACCESSORY Provided with ceiling thickness "T" and recommender

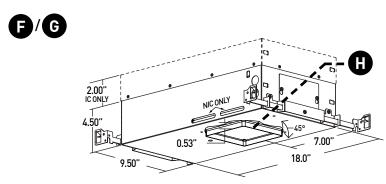
Provided with ceiling thickness "T" and recommended for installations in T-Grid and with furring channel. Hanger bars are installed to adjustable bracket. Allows housing to be raised and lowered; ceiling thickness remains 0.5" to 1.0" max.

HOUSING / MOUNTING 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, and long side of Low Flux housings; 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.
- Driver assembly ships with trim, not housing.
 Housing and trim feature mating quick-connect plugs for ease of installation.

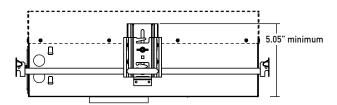
DIMENSIONS / DRAWINGS





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





REMOTE POWER SUPPLY

Provided with install types "IR", "NR" and "AR". 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.

REMODEL POWER SUPPLY

- REMODEL WITH NON-IC TETHERED POWER SUPPLY
- Requires 4.42" cutout.
- Installs without conventional housing using integral mounting clamps.
- Tethered power supply / junction box with metal conduit protected wiring and quick-connect plug between fixture and power supply.
- Minimum 0.75" clearance from top of trim.
- Minimum setback from combustible and noncombustible materials of 6.63" radius from fixture centerline; minimum 3.00" from surfaces of power supply / junction box if not situated within above noted radius from fixture centerline.
- Minimum additional 3.00" setback from insulation material with max R-Value 30 from any surface of downlight fixture assembly.
- Minimum additional 6.00" setback from polycell spray foam insulation with max R-Value 60 from any surface of downlight fixture assembly.

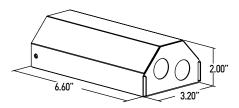


Remote power supply and PSF4-RMT-AK accessory kit provided with install type "RR".

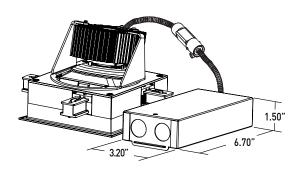
REMODEL NOTES

- Do not install in environments where ambient temperatures exceed 40°C (104°F).
- Power supply compartment and all splice connections serviceable from room side.
- Consult factory for spacing requirements for any installations exceeding R-Value 60.

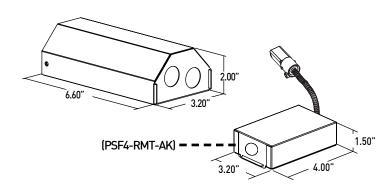












TECHNICAL

CONSTRUCTION

Downlight: Aluminum and steel. Extruded aluminum heat-sink. Painted finishes are granulated powder coat.

Housing: 22 Gauge galvanized steel.

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 2200K, 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. 3200K or 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 🕕



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

POWER SUPPLY PERFORMANCE AND DIMMING INFORMATION

	ELV ECO			ELV ECO 0-10V						DALI		
Power Supply	TR2	L23	LH1	AN4	LN2	EA2	LA2	DL1	DG1	ED1	LD1	DD1
Minimum °C	-20 °C	0°C	0°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 8 to confirm appropriate dimming curve for compatibility with selected control.

MAXIMUM ALLOWABLE REMOTE DRIVER WIRING DISTANCES

	WIRE AWG						
DRIVER	12	14	16	18	20		
TR2, AN4, LN2	285'	180'	113'	71'	45'		
L23, LH1	60'	40'	25'	15'	-		
EA2, LA2, ED1, LD1, DG1, DL1, DD1	-	-	118'	72	46'		

SPACING

Recommended fixture spacing is 36" (914mm) on center with 36" (914mm) setback from wall plane.

cTUVus listed to UL1598 standard for Dry / Damp and Wet locations. Chicago Plenum, Airtight and Title 24 JA8-2019 Listed.

U.S. Patent: 10,344,958

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

1.01/12/2021: ADDED 2200K, 2700K-1800K WARM DIM AND 10 DEGREE OPTIC OFFERINGS.

2.03/15/2021: UPDATED HIGH FLUX STATIC WHITE PHOTOMETRICS. 3.03/15/2021: REMOVED HIGH FLUX 97+ CRI 3500K OFFERING.



reserves the right to change or withdraw specifications without prior notice.

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-EC032-DV-B		
PowPak Dimming Modules	FCJ/FCJS-EC0		
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	QSGRJE (wireless) QSGRE		
Quantum Hub	QP22C		
Quantum Hub	QP24C		
Quantum Hub	QP26C		
Quantum Hub	QP28C		
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-A08				
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-				
Lutron Electronics	TVM2 Module				
Sensor Switch	nIO EZ				
ABB	SD/S 2.16.1				

