

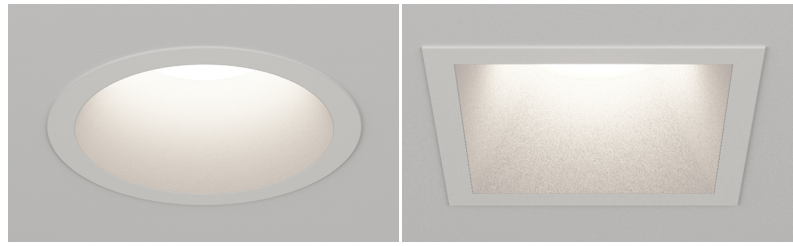
# FRAXION<sup>®</sup>3

## INTERNATIONAL

### SHALLOW REGRESS

Lots of light in a shallow profile featuring high performance adjustability and a range of finish and installation options.

PROJECT NAME:	TYPE:
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#### ORDERING INFORMATION - DOWNLIGHT FITTING

PRELIMINARY - SUBJECT TO CHANGE

SHAPE	RATING	TYPE	FINISH	BAFFLE FINISH	CRI	WATTAGE	CCT	OPTIC (UGR)	MEDIA	INSTALL TYPE	CEILING THICKNESS	DRIVER
										EX	1	
F3RS Round Shallow Regress	1 IP20 Dry/Damp	A Adjustable	POWDERCOAT MICROFLANGE	POWDERCOAT	STATIC WHITE	STATIC WHITE 24 2400K* *190+ CRI/11W and 15W only 27 2700K 30 3000K 35 3500K 40 4000K	10 10° (<13) * (15C package only) 15 15° (<16) 20 20° (<13) 25 25° (<13) 40 40° (<13) 60 60° (<13) 85 85° (<19) * (Requires -7WDL media) WW Wallwash* * (Required for wallwash)	STANDARD MEDIA	EX Export	1 0.125" - 1.00"	IG eldoLED, ECOdrive 1.0% 0-10V, LOG IN eldoLED, ECOdrive 1.0% 0-10V, LIN EG eldoLED, SOLdrive 0.1% 0-10V, LOG EN eldoLED, SOLdrive 0.1% 0-10V, LIN ED eldoLED, SOLdrive 0.1% DALI-2, LOG EX eldoLED, POWERdrive 0.1% DMX, LOG	
F3SS Square Shallow Regress	2 IP64 Wet* * (Suction cup provided for aim and focus)	F Fixed	WH White	WH White	80S 80+	06A 06W - 774 Lm		20 20° (<10) 25 25° (<10) 40 40° (<10) 60 60° (<10) 85 85° (>19) * (Requires -7WDL media)	04 Soft Focus Lens WW Wallwash Lens* * (Required for wallwash)			
F3TS Square Transitional Shallow Regress		W Wall-wash	AG Satin Silver	AG Satin Silver	90S 90+	11A 11W - 1259 Lm		20 20° (<10) 25 25° (<10) 40 40° (<10) 60 60° (<10) 85 85° (>19) * (Requires -7WDL media)	ALTERNATE MEDIA			
			AU Cashmere Gold	AU Cashmere Gold	97S 97+	15A 15W - 1696 Lm		20 20° (<10) 25 25° (<10) 40 40° (<10) 60 60° (<10) 85 85° (>19) * (Requires -7WDL media)	01 Honeycomb Louver* * (Not available for IP64 Wet Location, adjustable fittings, or Warm Dim)			
			BB Burnt Bronze	BB Burnt Bronze		15C 15W - 1022 Lm* * (For use with 10° optic only)		20 20° (<10) 25 25° (<10) 40 40° (<10) 60 60° (<10) 85 85° (>19) * (Requires -7WDL media)	02 Clear Glass Lens* * (Not available for Warm Dim)			
			BK Black	BK Black		21A 21W - 2304 Lm		20 20° (<10) 25 25° (<10) 40 40° (<10) 60 60° (<10) 85 85° (>19) * (Requires -7WDL media)	03 Frosted Glass Lens 05 Frosted Soft Focus Lens 06 Frosted Linear Spread Lens 07 Wide Distribution Lens*			
			PR Primer	PR Primer				20 20° (<10) 25 25° (<10) 40 40° (<10) 60 60° (<10) 85 85° (>19) * (Requires -7WDL media)	04 Soft Focus Lens 05 Frosted Soft Focus Lens 06 Frosted Linear Spread Lens 07 Wide Distribution Lens*			
			CF Custom Finish* * (Consult Factory)	CF Custom Finish* * (Consult Factory)				20 20° (<10) 25 25° (<10) 40 40° (<10) 60 60° (<10) 85 85° (>19) * (Requires -7WDL media)	05 Frosted Soft Focus Lens 06 Frosted Linear Spread Lens 07 Wide Distribution Lens*			
			TRIMLESS					20 20° (<10) 25 25° (<10) 40 40° (<10) 60 60° (<10) 85 85° (>19) * (Requires -7WDL media)	05 Frosted Soft Focus Lens 06 Frosted Linear Spread Lens 07 Wide Distribution Lens*			
			TG Trimless Gypsum 1/16"					20 20° (<10) 25 25° (<10) 40 40° (<10) 60 60° (<10) 85 85° (>19) * (Requires -7WDL media)	05 Frosted Soft Focus Lens 06 Frosted Linear Spread Lens 07 Wide Distribution Lens*			
			TM Trimless Millwork					20 20° (<10) 25 25° (<10) 40 40° (<10) 60 60° (<10) 85 85° (>19) * (Requires -7WDL media)	05 Frosted Soft Focus Lens 06 Frosted Linear Spread Lens 07 Wide Distribution Lens*			
						WARM DIM	90W 90+	WARM DIM 90W10A 90+ CRI, 10 Watts 90W15A 90+ CRI, 15 Watts Incandescent Profile 11W Lumens Dlv. - 737 15W Lumens Dlv. - 1031 Halogen Profile 11W Lumens Dlv. - 736 15W Lumens Dlv. - 1031 SEE PAGE 4 FOR DETAILED WARM DIM PROFILE COMPARISON.	WL 2600K (10W) 2700K (15W) - 1800K WD 2900K (10W) 3000K (15W) - 1800K			
						TUNABLE WHITE	90T 90+	TUNABLE WHITE 17A 17W Cool Profile: 5000K - 2700K 1213 Lm Warm Profile: 4000K - 1800K 1219 Lm	TH 5000K - 2700K TR 4000K - 1800K	* (Required and only available for 85° optic) HS Adjustable Honeycomb Louver and Soft Focus Lens* * (Not available for IP64 Wet Location, fixed fittings, or Warm Dim) NL No Lens* * (Standard with 10° optic. Not available for IP64 Wet Location, or Warm Dim)		
								* (Requires -7WDL media) WW Wallwash* * (Required for wallwash)				TUNABLE WHITE POWER SUPPLIES (120-277V) DD eldoLED, DUALdrive 0.1% DALI-2, LOG NO DRIVER NOD No Driver, Supplied by Others. Confirm drive current information on page 4, for selected CRI / Wattage package.
								SEE PAGE 3 FOR UGR RATINGS				

#### PART NUMBER NOTES

- Fixture as e.g., F3RS1AWHBK90S21A30404EX1IG1



## ACCESSORIES

### ROUND / TRANSITIONAL ALTERNATE MEDIA

IP20 Dry / Damp location only.  
IP64 Wet location requires alternate baffle.

- CGL-F3R** Clear Glass Lens\*  
\*(Not available for Warm Dim)
- FGL-F3R** Frosted Glass Lens
- SFL-F3R** Soft Focus Lens
- FSFL-F3R** Frosted Soft Focus Lens
- WDL-F3R** Wide Distribution Lens\*  
\*(Required and only available for 85° beam spread)
- FLSL-F3R** Frosted Linear Spread Lens

### SQUARE ALTERNATE MEDIA

IP20 Dry / Damp location only.  
IP64 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

### REPLACEMENT BAFFLE ASSEMBLY (INCLUDES MEDIA)

ASSEMBLY	SHAPE	TYPE	RATING	FINISH	MEDIA
<b>RBA</b>					
REPLACEMENT BAFFLE ASSEMBLY	F3RS Round Shallow Regress F3SS Square Shallow Regress F3TS Square Transitional Shallow Regress	A Adjustable F Fixed W Wallwash	1 IP20 Dry/Damp 2 IP64 Wet* *(Requires provided suction cup to service or aim & focus)	WH White AG Satin Silver AU Cashmere Gold BB Burnt Bronze BK Black PR Primer CF Custom Finish * *(Consult Factory)	04 Soft Focus Lens WW Wallwash Lens* *(Required for wallwash) 01 Honeycomb Louver* *(Not available for IP64 Wet Location, adjustable fittings, or Warm Dim) 02 Clear Glass Lens* *(Not available for Warm Dim) 03 Frosted Glass Lens 05 Frosted Soft Focus Lens 06 Frosted Linear Spread Lens 07 Wide Distribution Lens* *(Required and only available for 85° optic) NL No Lens* *(Standard with 10° optic. Not available for IP64 Wet Location, or Warm Dim)

### SHALLOW REGRESS / WALLWASH REPLACEMENT OPTICS

Interchangeable optics accessible through fixture aperture.

#### STATIC WHITE

- RO-70-15-S** 15° optic
- RO-70-20-S** 20° optic
- RO-70-25-S** 25° optic
- RO-70-40-S** 40° optic
- RO-70-60-S** 60° optic
- RO-70-WW-S** Wallwash optic

#### WARM DIM

- RO-70-20-W2** 20° optic
- RO-70-25-W2** 25° optic
- RO-70-40-W2** 40° optic
- RO-70-60-W2** 60° optic
- RO-70-WW-W2** Wallwash optic

#### TUNABLE WHITE

- RO-70-15-T** 15° optic
- RO-70-20-T** 20° optic
- RO-70-25-T** 25° optic
- RO-70-40-T** 40° optic
- RO-70-WW-T** Wallwash optic

### REPLACEMENT SUCTION TOOL

One included with every six fixtures designated Wet location.

- F4-TOOL-SUCTION** Allows for removal of baffle with Wet location



LUMEN PACKAGE	WATT-AGE	10° OPTIC NO SOFT FOCUS LENS		15° OPTIC SOFT FOCUS LENS		20° OPTIC SOFT FOCUS LENS		25° OPTIC SOFT FOCUS LENS		40° OPTIC SOFT FOCUS LENS		60° OPTIC SOFT FOCUS LENS		85° OPTIC WIDE DISTRIBUTION		WW OPTIC WALLWASH LENS	
		DLVD	LPW	DLVD	LPW	DLVD	LPW	DLVD	LPW	DLVD	LPW	DLVD	LPW	DLVD	LPW	DLVD	LPW
80S06A	06	-	-	727	121	774	129	745	124	673	112	722	120	585	98	629	105
80S11A	11	-	-	1179	107	1259	114	1211	110	1098	100	1172	107	949	86	1012	92
80S15A / C	15	1022	93	1594	106	1696	113	1634	109	1476	98	1583	106	1283	86	1378	92
80S21A	21	-	-	2158	103	2304	110	2216	106	2006	96	2153	103	1731	82	1850	88
90S06A	06	-	-	624	104	665	111	640	107	578	96	620	103	503	84	540	90
90S11A	11	-	-	1013	92	1082	98	1040	95	943	86	1007	92	815	74	869	79
90S15A / C	15	881	80	1369	91	1457	97	1404	94	1268	85	1360	91	1102	73	1184	79
90S21A	21	-	-	1854	88	1979	94	1904	91	1723	82	1850	88	1487	71	1589	76
97S06A	06	-	-	548	91	583	97	562	94	508	85	545	91	441	74	474	79
97S11A	11	-	-	889	81	950	86	913	83	828	75	884	80	716	65	763	69
97S15A / C	15	760	69	1202	80	1279	85	1233	82	1113	74	1194	80	968	65	1040	69
97S21A	21	-	-	1628	78	1738	83	1672	80	1513	72	1624	77	1306	62	1395	66
90W10A (27K-18K)	10	-	-	-	-	737	73	726	72	664	66	709	70	582	58	592	59
90W10A (30K-18K)	10	-	-	-	-	736	73	720	72	667	66	714	71	588	58	600	60
90W15A (27K-18K)	15	-	-	-	-	1031	69	1001	67	928	62	992	66	814	54	828	56
90W15A (30K-18K)	15	-	-	-	-	1031	69	1009	67	934	62	1000	67	823	55	840	56
90T17A (50K-27K)	17	-	-	1065	63	1213	71	1204	71	1219	72	1226	72	997	59	960	56
90T17A (40K-18K)	17	-	-	1070	63	1219	71	1218	71	1118	65	1231	72	992	59	966	56

UNIFIED GLARE RATING

10° OPTIC NO LENS	15° OPTIC SOFT FOCUS LENS	20° OPTIC SOFT FOCUS LENS	25° OPTIC SOFT FOCUS LENS	40° OPTIC SOFT FOCUS LENS	60° OPTIC SOFT FOCUS LENS	85° OPTIC WIDE DISTRIBUTION	WW OPTIC WALLWASH LENS
<13	<16	<13	<13	<16	<13	>19	>19

OUTPUT MULTIPLIER

CCT	CCT SCALE
2400K	0.85
2700K	0.97
3000K	1.00
3500K	1.03
4000K	1.08

TUNABLE WHITE MULTIPLIER

CCT	5000K-2700K	4000K-1800K
5000K	1.16	-
4000K	1.08	1.14
3500K	1.04	1.07
3000K	1.00	1.00
2700K	0.96	0.92
2400K	-	0.84
1800K	-	0.69

MEDIA LIGHT LOSS FACTOR

MEDIA	LIGHT LOSS FACTOR
NO LENS	1.06
CGL	1.00
SFL	1.00
FGL	0.89
FSFL	0.81
FLSL	0.82

## WARM DIM PERFORMANCE - 20° OPTIC - SOFT FOCUS LENS

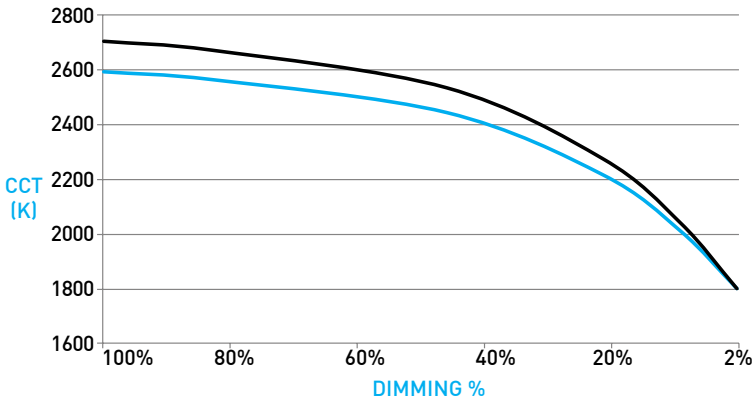
INCANDESCENT PROFILE

90W10AL 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)	2600	2550	2520	2450	2200	1925	1800
Light Output (Lm)	737	589	515	368	147	73	14
Power (W)	10	8	7	5	2	1	.2
Efficacy (LPW)	73	73	73	73	73	73	73
90W15AL 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)	1031	824	721	515	206	103	20
Power (W)	15	12	10.5	7.5	3	1.5	0.3
Efficacy (LPW)	69	69	69	69	69	69	69

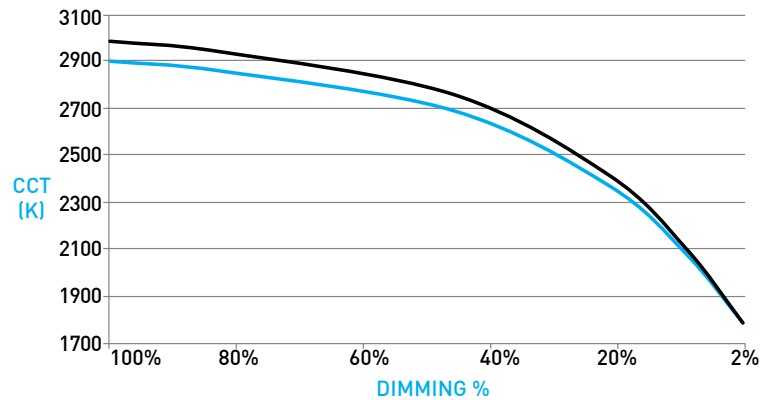
HALOGEN PROFILE

90W10AD 3000K - 1800K	Full on 100%	Dimmed to 80%	Dimmed to 70%	Dimmed to 50%	Dimmed to 20%	Dimmed to 10%	Dimmed to 2%
CCT (K)	2900	2850	2800	2720	2350	1975	1800
Light Output (Lm)	736	589	515	368	147	73	14
Power (W)	10	8	7	5	2	1	.2
Efficacy (LPW)	73	73	73	73	73	73	73
90W15AD 3000K - 1800K	Full on 100%	Dimmed to 80%	Dimmed to 70%	Dimmed to 50%	Dimmed to 20%	Dimmed to 10%	Dimmed to 2%
CCT (K)	3000	2950	2920	2775	2375	2000	1800
Light Output (Lm)	1031	824	721	515	206	103	20
Power (W)	15	12	10.5	7.5	3	1.5	0.3
Efficacy (LPW)	69	69	69	69	69	69	69

10W / 15W



10W / 15W



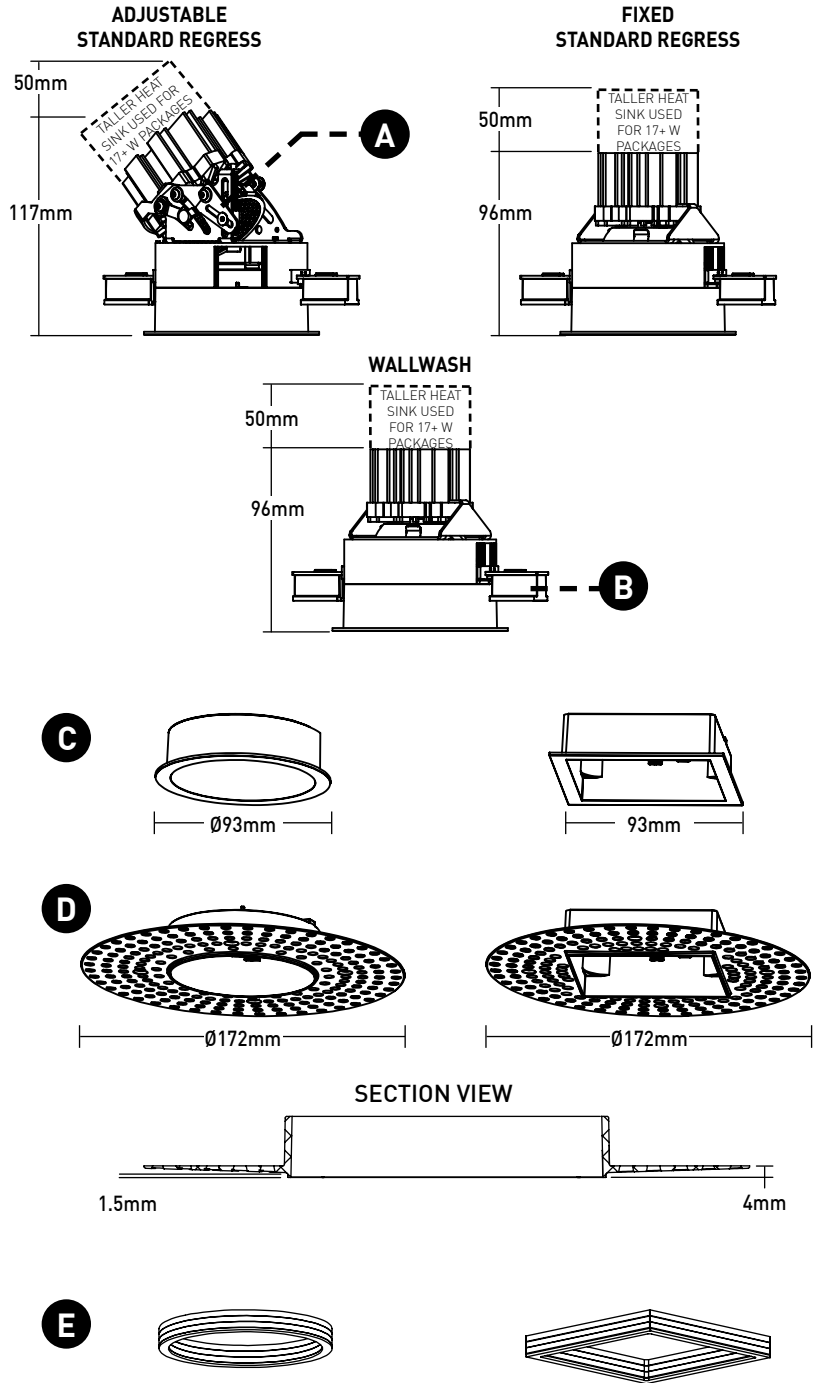
## DRIVE CURRENT SPECIFICS

	80S					90S					97S					90W		90T
	06A	11A	15A / C	21A	30B	06A	11A	15A / C	21A	30B	06A	11A	15A / C	21A	30B	10A	15A	17A
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	30.5	30.5	30.5	30.5	30.5	30.5
Maximum Vf	37	37	37	37	37	37	37	37	37	37	37	37	37	37	37	37	37	37
Current mA	150	250	350	500	700	150	250	350	500	700	150	250	350	500	700	250	350	400
Wattage W	8.2	8.2	11.8	17.4	25.4	8.2	8.2	11.8	17.4	25.4	8.2	8.2	11.8	17.4	25.4	8.2	11.8	13.6

## DOWNLIGHT FITTING

- A ADJUSTABILITY**  
Hot-aim tilt up to 40° and 361° rotation with 5° tilt increment indicators. Sliding pivot point optimizes center beam, ensuring unclipped beam of 15° at 40° tilt and 25° at 30° tilt.
- B RETENTION**  
Integrated metal arm clamps located within fixture body allow discreet flange design, while accommodating varying ceiling thicknesses from 7mm to 32mm. Snap-on spacer clips (2X) supplied for ceiling thickness below 13mm only.
- C MICROFLANGE PROFILE**  
Provides industry standard 11mm total contractor (goof) allowance with 7mm flange. Thickness measures 1.5mm. IP64 Wet location features integral silicone gasket.
- D TRIMLESS GYPSUM PROFILE**  
Installs totally flush with the ceiling with no visible trim. Features integrated appliqué for plaster floating directly to the baffle. Not recommended for stucco applications.
- E TRIMLESS MILLWORK PROFILE / SPACERS**  
Provided for Trimless Millwork installations; includes (1) 1/16" spacer and (5) 1/8" spacers.

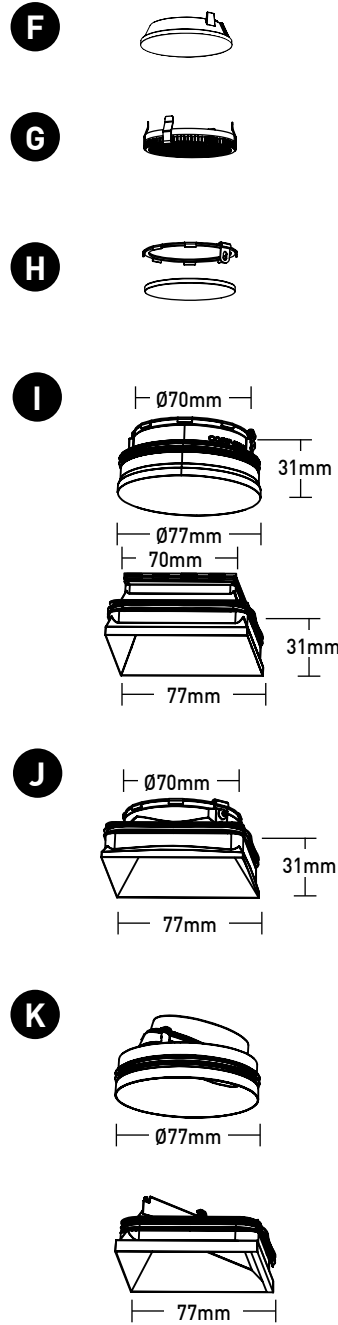
## DIMENSIONS / DRAWINGS



## DOWNLIGHT FITTING

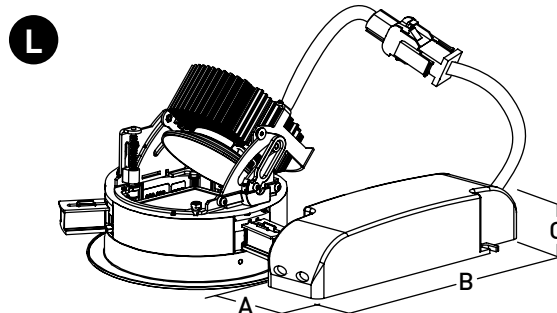
- F OPTIC**  
ADJUSTABLE / FIXED: Robust light engine with optimized optic pairing integrates Reflection, Refraction, and TIR offering 10°, 15°, 20°, 25°, 40° & 60° beams.  
  
WALLWASH: Robust light engine with optimized optic pairing integrates Reflection, Refraction, and TIR principles.
- G ADJUSTABLE 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. IP20 Dry/Damp locations only. Specified as -HS Effects Device
- H MEDIA / LENS RETAINER**  
ADJUSTABLE / FIXED: Fixture is limited to 1 effects device. IP64 Wet location effects device is sealed in place. Suction tool provided for removal of baffle with wet location. Lens retainer allows effects devices to be changed in IP20 Dry /Damp locations.  
  
WALLWASH: Asymmetrical spread lens, included and sealed in place, combined with angled optic and wide aperture enhance uniformity. Suction tool provided for removal of baffle.
- I ROUND / SQUARE BAFFLE**  
Die-cast removable baffle provides easy access to tilting mechanism and features 62° glare cutoff. Minimizes aperture glare and conceals view into housing; includes gasket.
- J TRANSITIONAL BAFFLE**  
Die-cast removable baffle provides easy access to tilting mechanism and features 62° glare cutoff. Transitions from square aperture at ceiling plane to round aperture at light source. Minimizes aperture glare and conceals view into housing; includes gasket.
- K ROUND / SQUARE WALLWASH BAFFLE**  
Die-cast baffle minimizes aperture glare and conceals view into housing; includes gasket.

## DIMENSIONS / DRAWINGS



## CLEARANCE / POWER SUPPLY

- L FITTING WITH NON-IC TETHERED POWER SUPPLY**
  - Requires 86mm diameter cutout.
  - Tethered power supply protected wiring and quick-connect plug between fitting and power supply.
  - Minimum 19mm clearance from top of fitting.
  - Minimum setback from combustible and non-combustible materials of 168mm radius from fitting centerline; minimum 76mm from surfaces of power supply if not situated within above noted radius from fitting centerline.
  - Minimum additional 76mm setback from insulation material with max R-Value 30 from any surface of downlight fitting assembly.
  - Minimum additional 152mm setback from polycell spray foam insulation with max R-Value 60 from any surface of downlight fitting assembly.
  - Consult factory for spacing requirements for any installations exceeding R-Value 60.
  - Do not install in environments where ambient temperatures exceed 40°C (104°F).



POWER SUPPLY DIMENSIONS			
Model	A	B	C
IG	41mm	210mm	34mm
IN			
EG			
ED			
EX	76mm	152mm	30mm
DD	76mm	130mm	30mm

## TECHNICAL

### CONSTRUCTION

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

**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. 3-step MacAdam ellipse LED module available in 90+ CRI configuration in color temperature of 2400K. 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. 3000K 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

3-step MacAdam ellipse tunable white LED module available in 90+ CRI configuration. Features tuning ranges of 1800K to 4000K and 2700K to 5000K. Average rated lamp life of 50,000 hours. LED and driver assemblies are field-replaceable.

### POWER SUPPLY PERFORMANCE AND DIMMING INFORMATION

Power Supply	0-10V				DALI-2		DMX
	IG	IN	EG	EN	ED	DD	EX
Minimum °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
Dimming %	1.0%	1.0%	0.1%	0.1%	0.1%	0.1%	0.1%

Note: For IG, IN, EG and EN drivers consult chart on page 8 to confirm appropriate dimming curve for compatibility with selected control.

### WALLWASH SPACING

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

### LISTING

To be CE listed for IP20 Dry / Damp and IP64 Wet locations. Patent Pending.

### PART L

Part L compliant for all 75+ LPW residential and 95+ LPW commercial configurations.

### WEIGHT

Fitting - 2.4 lbs max

Driver - 0.4 lbs

### LIMITED WARRANTY

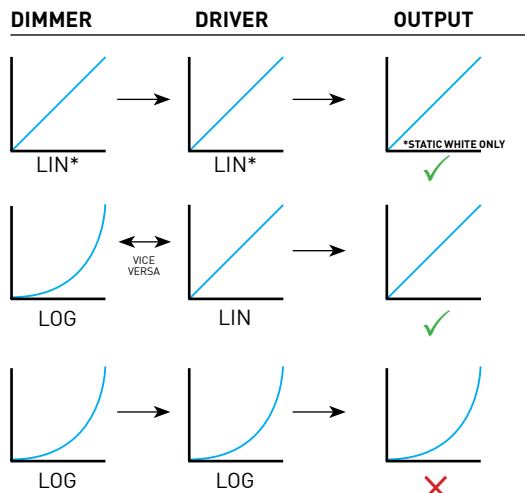
Manufacturer's Limited Warranty guarantees product(s) listed to be free from defects in material and workmanship under normal use and service for 1-year. LED and power supplies are warranted to operate with 70% of original flux and remain within a range of 3 duv for a period of 5-years. 10-year Lutron Advantage limited warranty available on Lutron equipped systems. Warranty period begins from the date of shipment by Seller. [Consult website for full warranty terms and conditions.](#)

## DIMMING COMPATIBILITY

### eldoLED DRIVER COMPATIBILITY

EG / EN / IG / IN Drivers 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	Diva@ - DDTV
Lutron Electronics	Nova@ - NFTV
Merten	5729
Pass & Seymour	CD4FB-W
The Watt Stopper	DCLV1
Sensor Switch	nI0 EZ
Synergy	ISD BC
EG / EN / IG / IN Drivers Dimmer / Switch Control 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

### ANALOG DRIVERS AND DIMMERS



LIN = LINEAR  
 LOG = LOGARITHMIC  
 \*LIN-TO-LIN NOT COMPATIBLE FOR WARM-DIM OR TUNABLE WHITE