

J-Series (T8) and K-Series (T5) G3 — Retrofit LED tubes



Description:

Ecopoint retrofit LED tubes have been distributed in their thousands across New Zealand, Australia and Worldwide since the first models were introduced to the market in the late 2000's. This upgrade embeds further developments in electrical and thermal design to produce a more efficient, higher performing, and more reliable third-generation product. Tighter tolerances on colour appearance and reduced flicker are the key improvements which anchor these new models. Variants are available which are compatible with either T8 or T5 fluorescent hardware, two flux packages (Standard Output and High Output), and with a range of colour specifications.

Mounting:

Retrofit installation — G13 base (J-Series), or G5 base (K-Series)

IMPORTANT NOTE: The K-Series product is slightly larger in diameter than a T5 lamp, so confirm adequate clearance is available prior to retrofitting into luminaires with limited space.

Standard Inclusions:

Tube, 'Starter' Fuse (J-Series T8 retrofits only)

Options / Accessories :

Dimming, via remote-mount external driver (refer next page)

GENERAL LUMINAIRE SPECIFICATIONS:

Flux Maintenance	L90 @ 52,000 hrs (40° C)
Colour Specifications	840 / 850 / SOLUS 4000K / Others on project request
Colour Consistency	3 SDCM
Construction	Extruded aluminium body, Polycarbonate lens/cover
Luminaire Colour Options	N/A
Operating Conditions	-20° to 40° C
Protection Rating/s	IP20
Cable Entry	N/A

DRIVER SPECIFICATIONS:

Standard Driver Type	Non-dim, integral
Electrical Supply	220-240 V AC / 50-60 Hz
Power Specifications	PF > 0.93, THD(I) < 10% (ratings at 100% load)
Flicker (TLM/TLA)	< 0.5% mod. @ 100Hz / SVM ≤ 0.2 / P _{st} ^{LM} ≤ 0.1
Electrical Protection	Open circuit protection, Short circuit protection
Environmental Protection	IP20 (integrated)
Rated Life	100,000 hours (ambient temp < 40° C)
Dimming Options	DALI, 1-10V (requires remote-mount driver; specs may vary)

STANDARD Ra>80 MODELS

Type	Dimensions	CCT	Colour Rendering	Optic	Power	Flux*	Flux Maintenance**
J-Series T8 LED Tube G3 600mm	Ø26 x 588 mm 0.16 kg	4000K / 5000K	R _a ≥ 80, R _f ≥ 80, R _g ≥ 95	Frosted lens / Clear lens	9 W	1,500 lm (SO) 1,650 lm (HO)	L90 @ 52,000 hrs L80 > 100,000 hrs
J-Series T8 LED Tube G3 1200mm	Ø26 x 1198 mm 0.27 kg	4000K / 5000K	R _a ≥ 80, R _f ≥ 80, R _g ≥ 95	Frosted lens / Clear lens	18 W	3,050 lm (SO) 3,300 lm (HO)	L90 @ 52,000 hrs L80 > 100,000 hrs
J-Series T8 LED Tube G3 1500mm	Ø26 x 1498 mm 0.34 kg	4000K / 5000K	R _a ≥ 80, R _f ≥ 80, R _g ≥ 95	Frosted lens / Clear lens	24 W	4,150 lm (SO) 4,500 lm (HO)	L90 @ 52,000 hrs L80 > 100,000 hrs
K-Series T5 LED Tube G3 600mm	Ø22 x 549 mm 0.12 kg	4000K / 5000K	R _a ≥ 80, R _f ≥ 80, R _g ≥ 95	Frosted lens / Clear lens	9 W	1,700 lm (SO) 1,850 lm (HO)	L90 @ 52,000 hrs L80 > 100,000 hrs
K-Series T5 LED Tube G3 1200mm	Ø22 x 1149 mm 0.22 kg	4000K / 5000K	R _a ≥ 80, R _f ≥ 80, R _g ≥ 95	Frosted lens / Clear lens	18 W	3,200 lm (SO) 3,450 lm (HO)	L90 @ 52,000 hrs L80 > 100,000 hrs
K-Series T5 LED Tube G3 1500mm	Ø22 x 1449 mm 0.26 kg	4000K / 5000K	R _a ≥ 80, R _f ≥ 80, R _g ≥ 95	Frosted lens / Clear lens	24 W	4,050 lm (SO) 4,400 lm (HO)	L90 @ 52,000 hrs L80 > 100,000 hrs

SOLUS Ra>95 MODELS

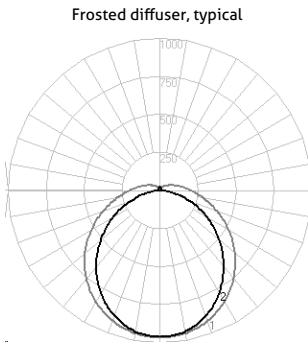
Type	Dimensions	CCT	Colour Rendering	Optic	Power	Flux*	Flux Maintenance**
J-Series T8 LED Tube G3 600mm	Ø26 x 588 mm 0.16 kg	4000K / 5000K	R _a ≥ 95, R _g ≥ 75 R _f ≥ 90, R _g ≥ 97	Frosted lens / Clear lens	9 W	1,200 lm (SO) 1,300 lm (HO)	L90 @ 52,000 hrs L80 > 100,000 hrs
J-Series T8 LED Tube G3 1200mm	Ø26 x 1198 mm 0.27 kg	4000K / 5000K	R _a ≥ 95, R _g ≥ 75 R _f ≥ 90, R _g ≥ 97	Frosted lens / Clear lens	18 W	2,400 lm (SO) 2,600 lm (HO)	L90 @ 52,000 hrs L80 > 100,000 hrs
J-Series T8 LED Tube G3 1500mm	Ø26 x 1498 mm 0.34 kg	4000K / 5000K	R _a ≥ 95, R _g ≥ 75 R _f ≥ 90, R _g ≥ 97	Frosted lens / Clear lens	24 W	3,300 lm (SO) 3,600 lm (HO)	L90 @ 52,000 hrs L80 > 100,000 hrs
K-Series T5 LED Tube G3 600mm	Ø22 x 549 mm 0.12 kg	4000K / 5000K	R _a ≥ 95, R _g ≥ 75 R _f ≥ 90, R _g ≥ 97	Frosted lens / Clear lens	9 W	1,350 lm (SO) 1,450 lm (HO)	L90 @ 52,000 hrs L80 > 100,000 hrs
K-Series T5 LED Tube G3 1200mm	Ø22 x 1149 mm 0.22 kg	4000K / 5000K	R _a ≥ 95, R _g ≥ 75 R _f ≥ 90, R _g ≥ 97	Frosted lens / Clear lens	18 W	2,550 lm (SO) 2,800 lm (HO)	L90 @ 52,000 hrs L80 > 100,000 hrs
K-Series T5 LED Tube G3 1500mm	Ø22 x 1449 mm 0.26 kg	4000K / 5000K	R _a ≥ 95, R _g ≥ 75 R _f ≥ 90, R _g ≥ 97	Frosted lens / Clear lens	24 W	3,200 lm (SO) 3,500 lm (HO)	L90 @ 52,000 hrs L80 > 100,000 hrs

Notes:

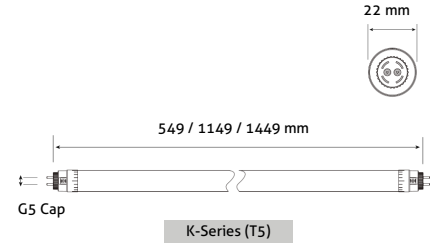
* Flux ratings are based on 4000K colour temperature and the standard 'Frosted' lens. 'Clear' lens variants produce approximately 10 lm/W greater flux.

** Flux maintenance per TM-21, t₈₀ 25° C (10,000 hrs LM-80 data; predictions >60,000 hrs are outside of TM-21 reporting guidelines and indicative only). Data reflects B50 'median useful life'.

DISTRIBUTION:



DIMENSIONS:



IMPORTANT NOTE: The K-Series product is larger in diameter than a T5 lamp (22 mm vs 16 mm), so confirm adequate clearance is available prior to retrofitting into luminaires with limited space.

PHOTOMETRIC & COLOUR PERFORMANCE SUMMARIES:

Standard 840	Metric/s	Typical Values
	Nominal CCT	4000K
	CIE 13.3-1995	R _a 82 / R _g 10
	IES-TM30-18	R _f 84 / R _g 97 / -12% < R _{cs} < 8%
	COI (AS/NZS 1680.2.5)	-
	Melanopic Ratio (IWBI)	0.668

SOLUS S40	Metric/s	Typical Values
	Nominal CCT	4000K
	CIE 13.3-1995	R _a 95 / R _g 76
	IES-TM30-18	R _f 92 / R _g 99 / -4% < R _{cs} < 4%
	COI (AS/NZS 1680.2.5)	2.5
	Melanopic Ratio (IWBI)	0.758

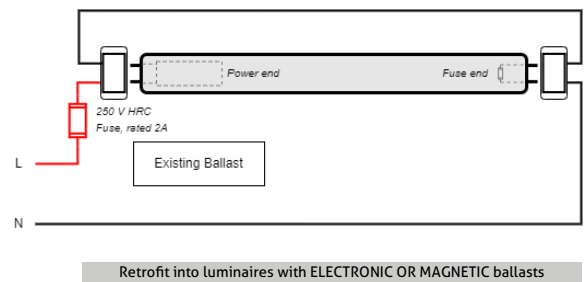
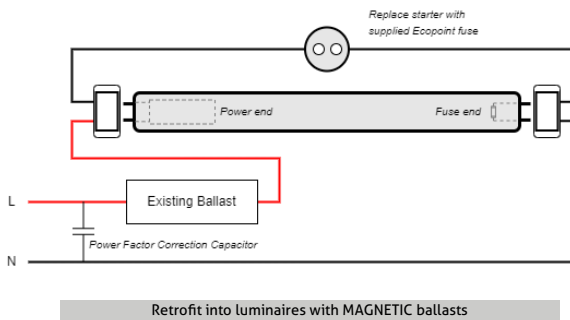
* Detailed colour performance specification sheets are available — request a copy if additional information is required.

LIGHT LOSS FACTOR GUIDE:

Variant	Service Life (hrs)	5,000	10,000	15,000	20,000	25,000	30,000	35,000	40,000	45,000	50,000	55,000	60,000	65,000	70,000	75,000	80,000
Based on...	LLMF	0.99	0.98	0.97	0.96	0.95	0.94	0.93	0.92	0.91	0.90	0.89	0.88	0.87	0.86	0.85	0.84
	LSF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
L80 > 100,000 hrs	LaMF _{combined}	0.99	0.98	0.97	0.96	0.95	0.94	0.93	0.92	0.91	0.90	0.89	0.88	0.87	0.86	0.85	0.84

* Refer ISO/CIE TS 22012:2019 for details of derivation and application of these standardised reference tables. Nearest relevant flux maintenance specifications are presented here — request a customised TM-21 calculation for a more accurate, project-specific, projection of LLMF based on your nominated service life.

STANDARD INSTALLATION DETAILS:



OPTIONS FOR DIMMING:

The standard J-Series and K-Series G3 products operate on mains power supply (230V AC), with an integrated non-dimmable driver.

Where dimming functionality is required, low-voltage DC variants of the J-Series and K-Series tubes are available, which can be paired with a compatible external dimmable driver (i.e. DALI, Casambi, Phase-dim, Switch-dim, 1-10V). Depending on configuration, up to two DC tubes may be operated from a single driver. Drivers can be mounted to existing luminaires internally, or positioned independently (always consult the operating environment constraints for each specific driver).

All light output and distribution specifications for the dimmable tubes are equivalent to the standard non-dimmable tubes, although electrical parameters (including flicker) may vary with driver selection.

