M-SERIES Integrated — Linear retrofit module

ecoPOINT by FOS Lighting

5 YR WARRANTY | IP20 | IK06 | 3 SDCM | LOW RISK FLICKER

Description:

The M-Series product has particular strengths as an upgrade solution for linear fluorescent fixtures. A fully self-contained module with a direct mains-power connection, two selectable colour temperatures, and two selectable power settings, M-Series unlocks a simple lighting upgrade pathway which minimises waste and extends the useful life of legacy fixtures. Length variants align with T8 and T5 lamp sizes.

Mounting:

Magnetic clips and/or screw-fixed

Options / Accessories :

Remote-powered module variant (powered by an external driver)

Mounting:

Screw fix or magnetic clips into existing fittings

Standard Inclusions:

Screws, magnetic clips

Options/ Accessories:

External dimming drivers: Phase cut, DALI , Casambi or 1-10V

GENERAL LUMINAIRE SPECIFICATIONS:

Flux Maintenance	L90 > 54,000 hrs, L80 > 110,000 hrs (40° C)
Colour Specifications	830+840 (selectable) / Others on request; SOLUS 4000K
Colour Consistency	3 SDCM
Construction	Polycarbonate body, diffuser and end-caps
Luminaire Colour Options	White
Operating Conditions	-20° to 40° C
Protection Rating/s	IP20, IK06
Cable Entry	Driver end, push-fit terminals (2 pole)

DRIVER SPECIFICATIONS:

Standard Driver Type	Non-dim, switch-selectable power
Electrical Supply	220-240 V AC / 50-60 Hz
Power Specifications	PF > 0.90, THD (I) <20% (rating at 100% load)
Flicker (TLM/TLA)	<1% mod. @ 100Hz / SVM ≤ 0.4 / P_{st}^{LM} ≤ 1.0
Electrical Protection	Class II, OCP, SCP
Environmental Protection	IP20
Rated Life	>100,000 hours (ambient temp <40° C)
Dimming Options	Via external driver (specifications may vary)

STANDARD MODELS

Type	Dimensions	CCT	Colour Rendering	Optic	Power	Flux*	Flux Maintenance**
M-Series Integrated, 600 mm	570 x 33 x 27.5 mm (T8) 529 x 33 x 27.5 mm (T5)	3000K & 4000K	$R_a \geq 80$, $R_9 \geq 10$ $R_f \geq 80$, $R_g \geq 95$	Frosted cover (~120°)	9 W & 12 W	1,600 lm & 2,100 lm	L90 > 54,000 hrs L80 > 111,000 hrs
M-Series Integrated, 900 mm	874 x 33 x 27.5 mm (T8) 829 x 33 x 27.5 mm (T5)	3000K & 4000K	$R_a \geq 80$, $R_9 \geq 10$ $R_f \geq 80$, $R_g \geq 95$	Frosted cover (~120°)	12W & 18W	2,100 lm & 3,200 lm	L90 > 53,000 hrs L80 > 110,000 hrs
M-Series Integrated, 1200 mm	1180 x 33 x 27.5 mm (T8) 1129 x 33 x 27.5 mm (T5)	3000K & 4000K	$R_a \geq 80$, $R_9 \geq 10$ $R_f \geq 80$, $R_g \geq 95$	Frosted cover (~120°)	18 W & 24 W	3,200 lm & 4,200 lm	L90 > 54,000 hrs L80 > 111,000 hrs
M-Series Integrated, 1500 mm	1480 x 33 x 27.5 mm (T8) 1429 x 33 x 27.5 mm (T5)	3000K & 4000K	$R_a \geq 80$, $R_9 \geq 10$ $R_f \geq 80$, $R_g \geq 95$	Frosted cover (~120°)	24 W & 30 W	4,300 lm & 5,100 lm	L90 > 53,000 hrs L80 > 110,000 hrs

Notes:

* Flux/power combinations possible via switch selection on module. Flux varies between colour temperatures; figures in this table based on 4000K.

** Flux maintenance per TM-21, t_a 40° 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'.

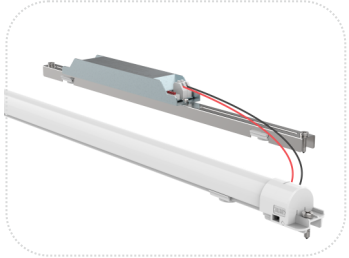
MOUNTING & OPTIONS:

Screw Fix or Magnetic Clips

Module can be directly screw-fixed at each end, or can be held in place by magnetic clips (included).

Independent Module Option

Where specific driver performance or dimming (incl. Phase, 1-10V, DALI or Casambi) is required, an independent variant is available which is powered by a compatible external driver.



FOS lighting

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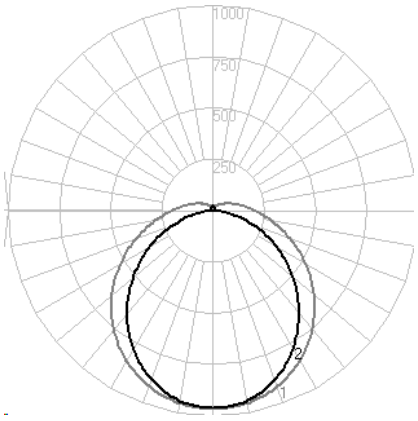
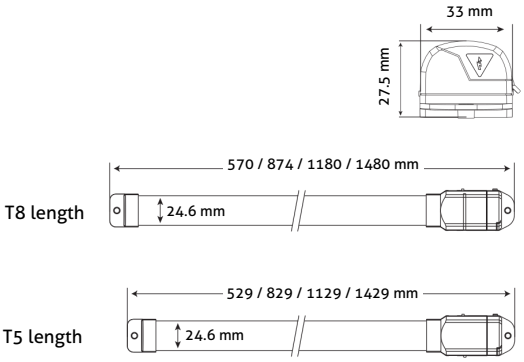
DISTRIBUTION:

1200 mm @ 24W

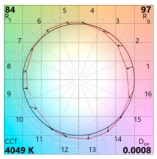


DIMENSIONS:



PHOTOMETRIC & COLOUR PERFORMANCE SUMMARIES:

M-series integrated	Power (W)	Flux (lm)
M-Series Integrated 600 mm	9	1,600
	12	2,100
M-Series Integrated, 900 mm	12	2,100
	18	3,200
M-Series Integrated, 1200 mm	18	3,200
	24	4,200
M-Series Integrated, 1500 mm	24	4,300
	30	5,100

Standard 840	Metric/s	Typical Values
	**Nominal CCT**	4000K
	CIE 13.3-1995	R_a 82 / R_9 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

* 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
1500 mm	LLMF	0.99	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
Based on...	LSF	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
L80 > 111,000 hrs	$LaMF_{Combined}$	0.99	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

* 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.

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