

FE-LSXXN8XX28024

Linear LED light engine



select

CRI > 80 280mm x 24mm LED light engine

- Ideal for luminaires currently using T8/T5 fluorescent tube technology
- Enables the modular construction of gear tray solutions
- Suitable for office, retail and industrial applications
- Ideal for linear and panel lights
- 280mm x 24mm FR4 PCB populated with 18 or 36 LEDs
- 3-step MacAdam binning
- Colour temperatures 3000K and 4000K
- Luminous flux range from:
772 – 1627 lm
- Up to 129lm/W
- Long life-time – up to 50,000 hours
- Simple connection with poke-in connectors for ease of assembly



Technical data page 2

Mechanical dimensions page 3

Photometric characteristics page 5

FE-LSXXN8XX28024

Linear LED light engine



select

CRI > 80 280mm x 24mm LED light engine

Part Numbering

FE - LS XX N 8XX 28024

No. LEDs Photometric Code PCB Size

830 – 3000K
840 – 4000K

Technical Data

Part Number	CCT	No. of LEDs	Typ. Luminous Flux	Typ. Forward Voltage	Test Current	Test T _{SP}	Typ. Power Consumption	Typ. Efficacy
FE-LS18N83028024	3000	18	772	17.96	350	65	6.29	123
FE-LS36N83028024		36	1544	35.92			12.57	123
FE-LS18N84028024	4000	18	813	17.96			6.29	129
FE-LS36N84028024		36	1627	35.92			12.57	123
Units	K	-	lm	V	mA	°C	W	lm/W

Key Characteristics

Beam Angle	120°
Storage Temperature, T _{STG}	-40 ~ +120°C
Operating Temperature, T _{OP}	-40 ~ +85°C
Max. Solder Point Temp., T _{SP}	90°C
Type of Protection	IP00

Maximum Rated Values

Part Number	Forward Current	Forward Voltage
FE-LS18N8XX28024	390mA	19.45 V
FE-LS36N8XX28024	390mA	38.90 V

Colour Temperature Range

3000K – (3045 ± 175K)
4000K – (3985 ± 275K)

Binned in accordance to ANSI C78.377A

Standard Driver Options – AcTEC

FE-LS18NXXX28024

	350mA
LCS-350mA-40W	4S

Where: 4S = 4 PCBs connected in series

FE-LS36NXXX28024

	350mA
LCS-350mA-40W	2S

Where: 2S = 2 PCBs connected in series

FE-LSXXN8XX28024

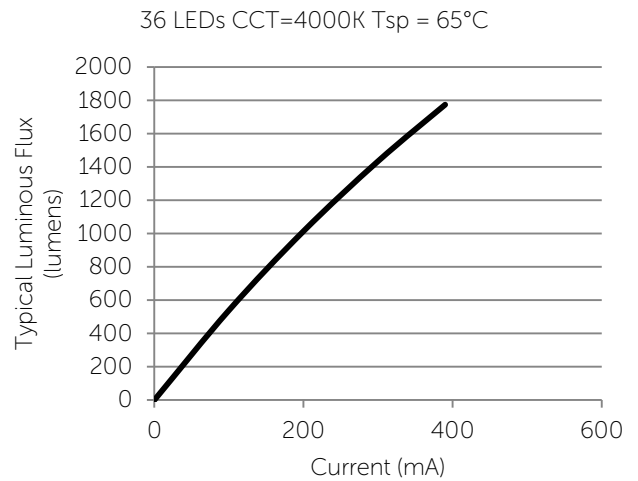
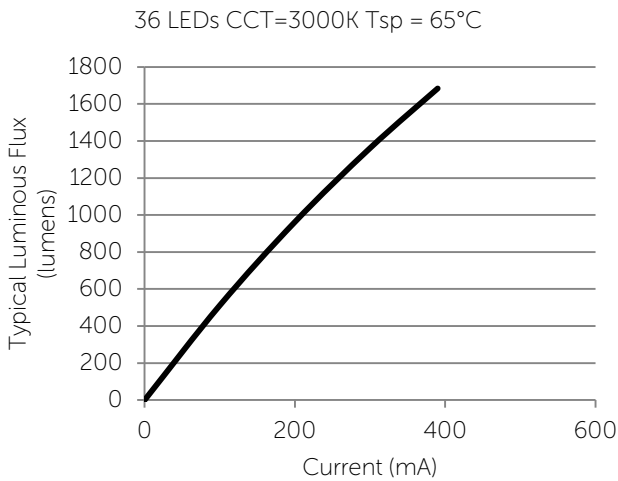
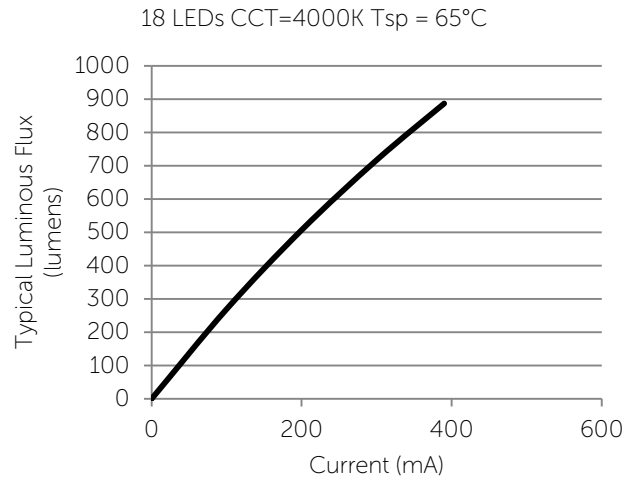
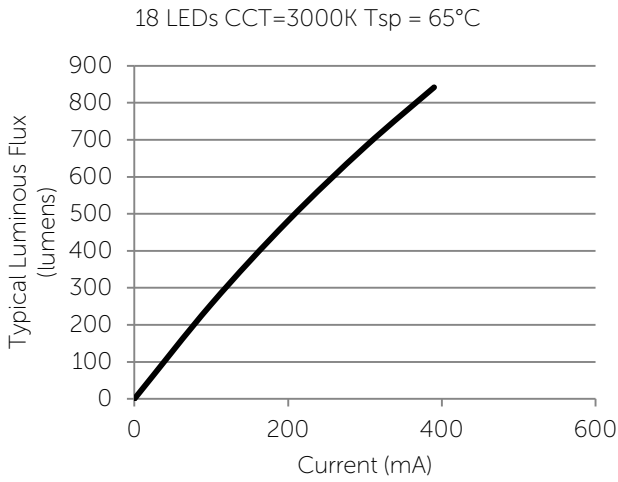
Linear LED light engine



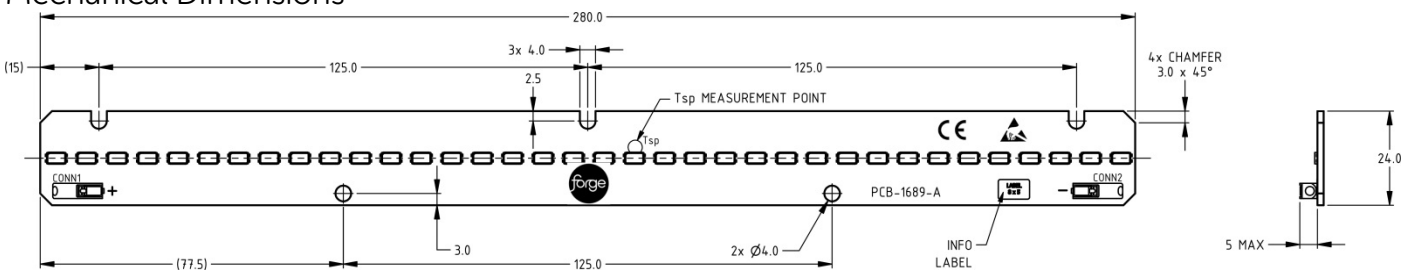
select

CRI > 80 280mm x 24mm LED light engine

Typical Flux vs. Current



Mechanical Dimensions



All dimensions in mm

FE-LSXXN8XX28024

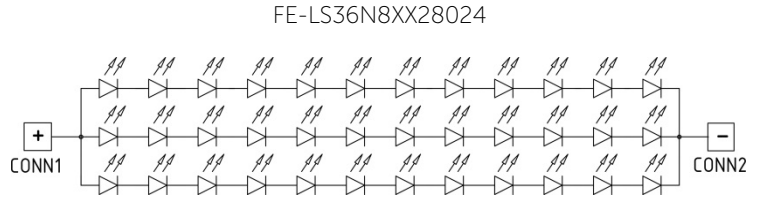
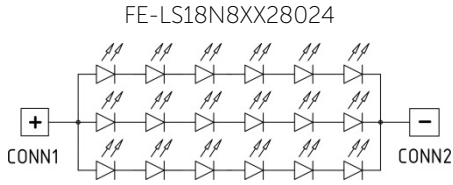
Linear LED light engine



select

CRI > 80 280mm x 24mm LED light engine

Circuit Schematics



Lumen Maintenance

Lifetime statements are for information only and represent no warranty claim.

Part Number	PCB Input Current	LED I_F	T_{sp} Temp.	Reported L70 (10k)
FE-LS18N8XX28024	350mA	117mA	65°C	50,000 hours
FE-LS36N8XX28024	350mA	117mA		50,000 hours

FE-LSXXN8XX28024

Linear LED light engine

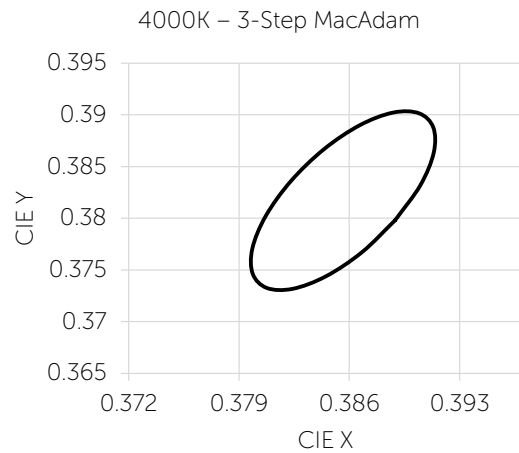
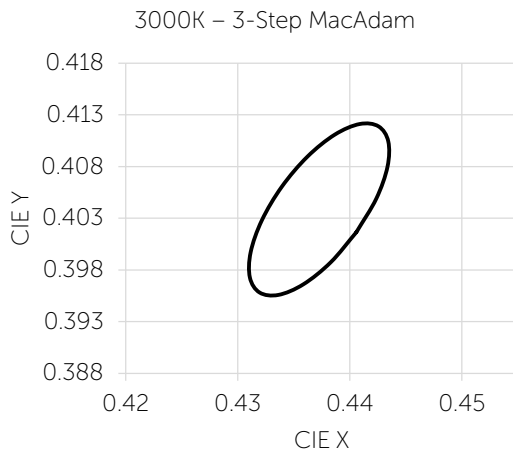


select

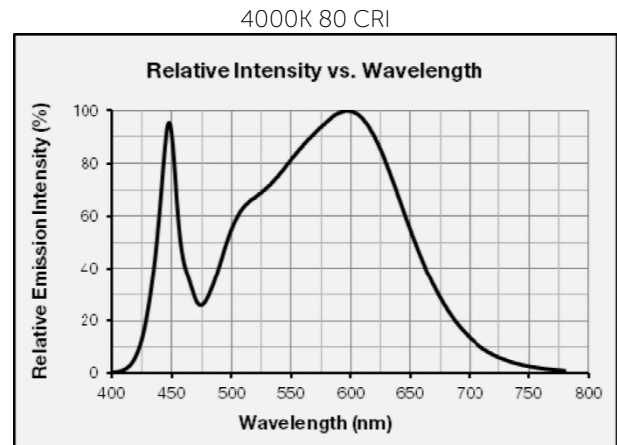
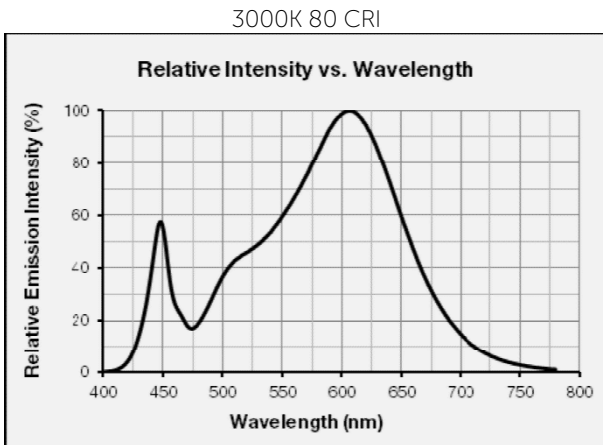
CRI > 80 280mm x 24mm LED light engine

Photometric Characteristics

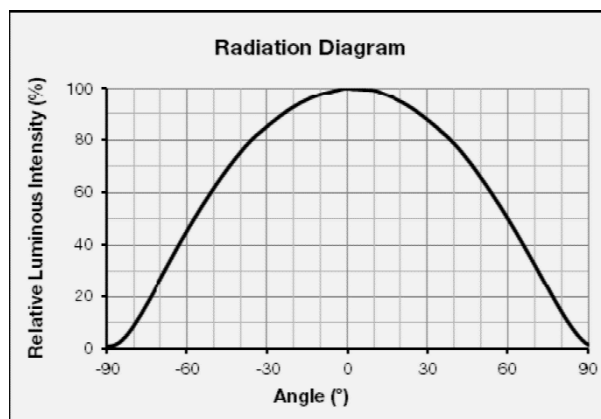
Colour Tolerances



Spectral Power Distribution



Light Distribution



It is the responsibility of the customer to verify the suitability of the product for the application.

FE-LSXXN8XX28024

Linear LED light engine

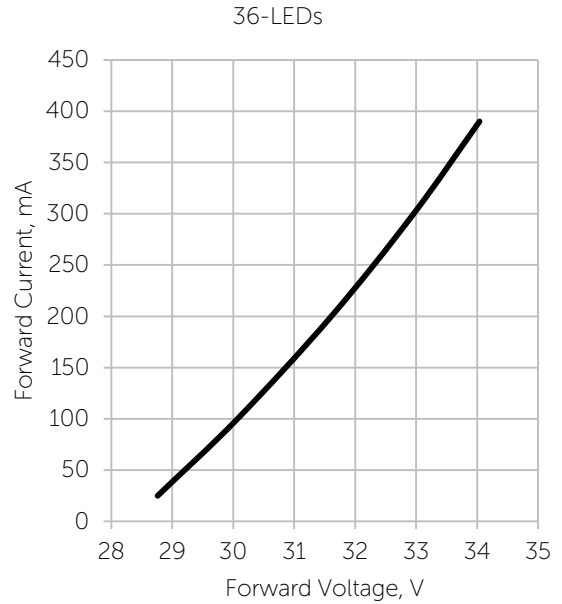
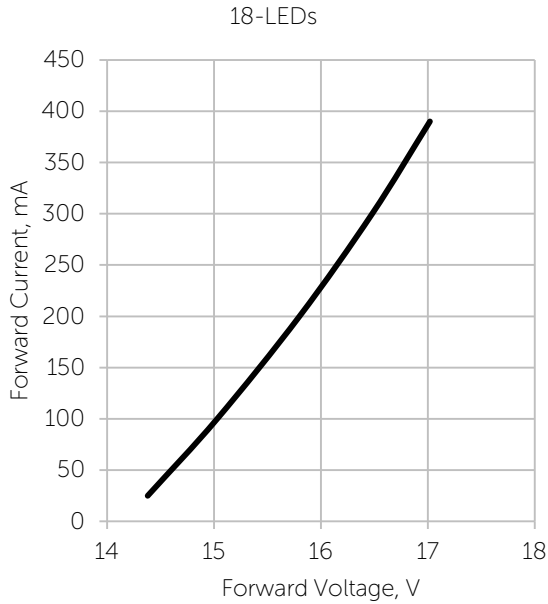


select

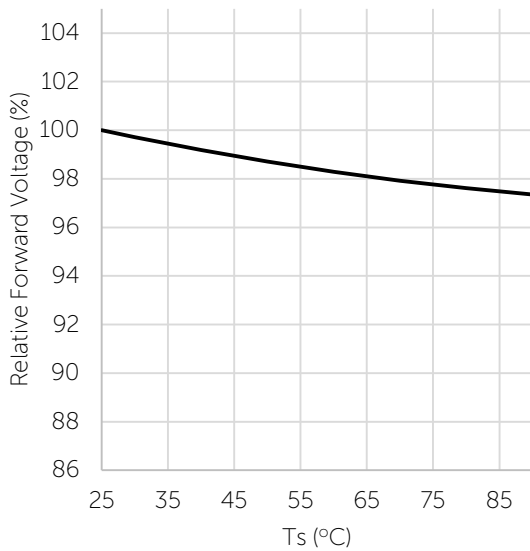
CRI > 80 280mm x 24mm LED light engine

Electrical Values

Typical Forward Voltage vs. forward current



Relative Forward voltage vs. Tsp temperature



FE-LSXXN8XX28024

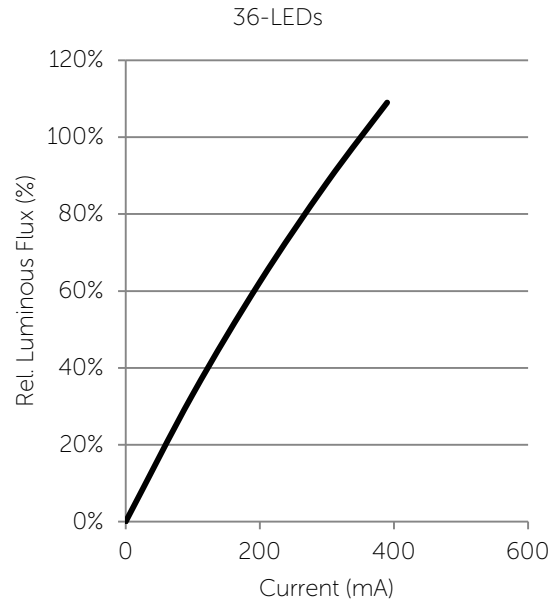
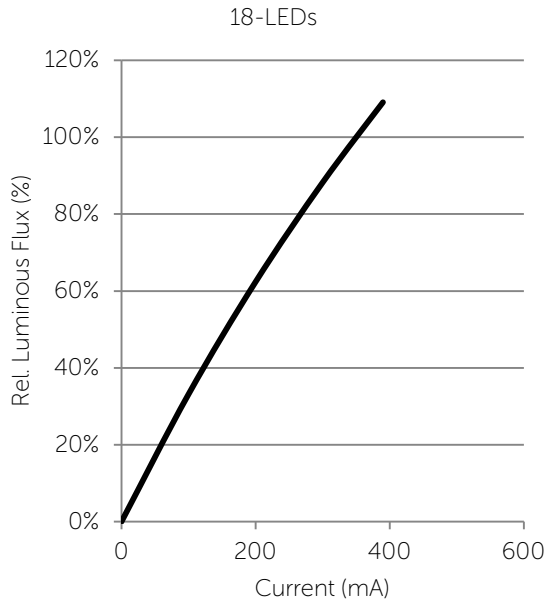
Linear LED light engine



select

CRI > 80 280mm x 24mm LED light engine

Relative luminous flux vs. operating current



Disclaimer

No representation, warranty, responsibility or liability is or will be accepted by Forge Europa Limited in relation to the accuracy or completeness of any information it provides. It is the responsibility of the customer to verify the suitability of the product for its application. All design work supplied by Forge Europa Limited is to be assumed confidential and is the sole property of Forge Europa Limited. It must not be used, copied or disclosed to any third party without the prior written consent of Forge Europa Limited. All contracts are subject to Forge Europa Limited's General Terms and Conditions of Trading which can be found at www.forge-europa.co.uk. E&OE