

FE-LCXXEXBP8XX190

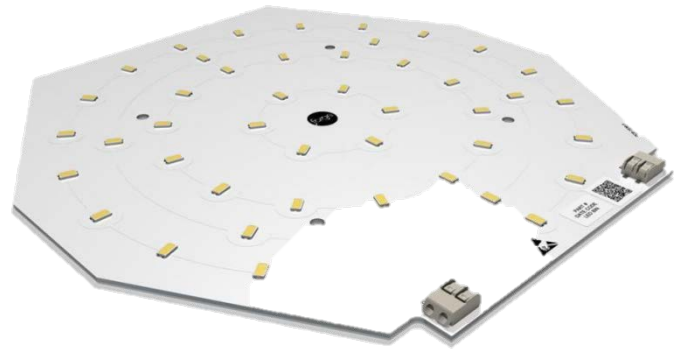
Octagonal LED light engine



exclusive

CRI > 80 193.5mm x 191mm octagonal LED light engine

- Designed for use in ceiling-mounted and wall-mounted luminaires
- Ideal cost-effective solution with uniform illumination
- Suitable for office, corridor and industrial applications
- Ideal for bulkhead fixtures
- 193.5mm x 191mm FR4 PCB populated with 40 LEDs
- 3 step MacAdam binning
- Emergency circuit option available
- Colour temperatures 3000K and 4000K
- Luminous flux range from:
1270 – 1846 lm
- Up to 169lm/W
- Long life-time – up to 60,000 hours
- Simple connection with poke-in connectors for ease of assembly



Technical data page 2

Mechanical dimensions page 4

Photometric characteristics page 5

FE-LCXXEXBP8XX190

Octagonal LED light engine



exclusive

CRI > 80 193.5mm x 191mm octagonal LED light engine

Part Numbering

FE - LC XX E X BP 8XX 190

No. Main LEDs

No. EM LEDs

LED Variant

Photometric Code
830 - 3000K
840 - 4000K

PCB Size

Technical Data

Part Number – No Emergency LEDs	CCT	No. of LEDs	Typ. Luminous Flux	Typ. Forward Voltage	Test Current	Test T _{SP}	Typ. Power Consumption	Typ. Efficacy
FE-LC40E0BP830190	3000	40	1270	22.56	350	65°C	7.89	161
			1762	23.19	500		11.60	152
FE-LC40E0BP840190	4000		1330	22.56	350		7.89	169
			1846	23.19	500		11.60	159
Units	K	-	lm	V	mA	°C	W	lm/W

For Emergency LED variants replace E0 with appropriate number of LEDs. See Overleaf for details.

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-LC40E0BP8XX190	700mA	27.11V

Colour Temperature Range

3000K – (3045 ± 175K)

4000K – (3985 ± 275K)

Binned in accordance to ANSI C78.377A

Standard Driver Options – AcTEC

	350mA	500mA
Q8H-350mA-12W	1S	-
Q7H-500mA-20W	-	1S

Where: 1S = 1 PCB connected in series

FE-LCXXEXBP8XX190

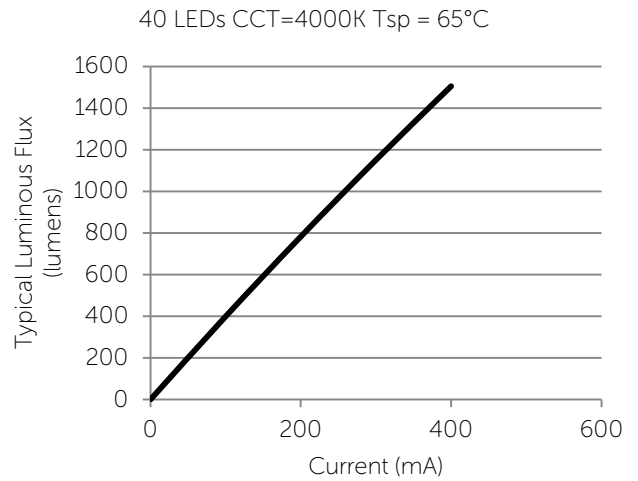
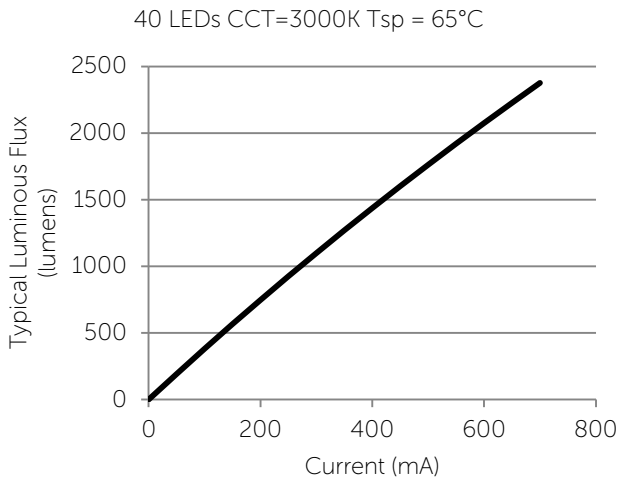
Octagonal LED light engine



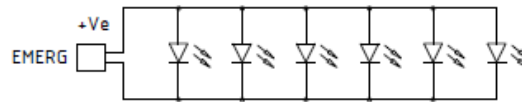
exclusive

CRI > 80 193.5mm x 191mm octagonal LED light engine

Typical Flux vs. Current



Emergency Circuit Configuration



E6 – 6 Emergency LEDs

Part Number – For Emergency LEDs	CCT	No. of LEDs	Typ. Luminous Flux	Typ. Forward Voltage	Test Current	Test T _{SP}	Typ. Power Consumption	Typ. Efficacy
FE-LC40E6BP830190	3000	6	160.5	2.78	350	65	0.97	165
FE-LC40E6BP840190	4000	6	168.1	2.78			0.97	173
Units	K	-	lm	V	mA	°C	W	lm/W

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

FE-LCXXEXBP8XX190

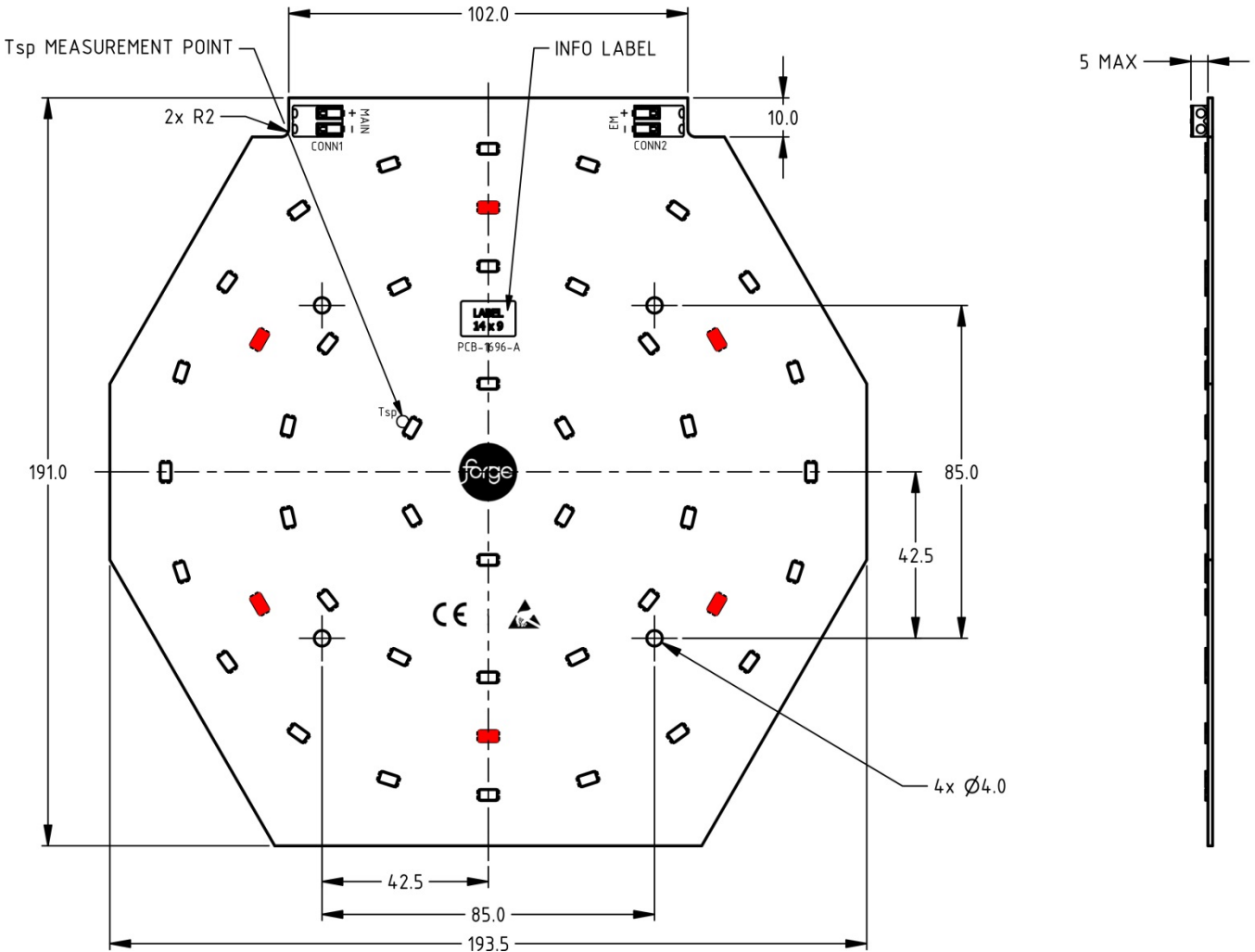
Octagonal LED light engine



exclusive

CRI > 80 193.5mm x 191mm octagonal LED light engine

Mechanical Dimensions



Emergency LEDs shown in **RED**
All dimensions in mm

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-LC40E0BP8XX190	350mA	70mA	65°C	>60,000 hours
	500mA	100mA		>60,000 hours

FE-LCXXEXBP8XX190

Octagonal LED light engine



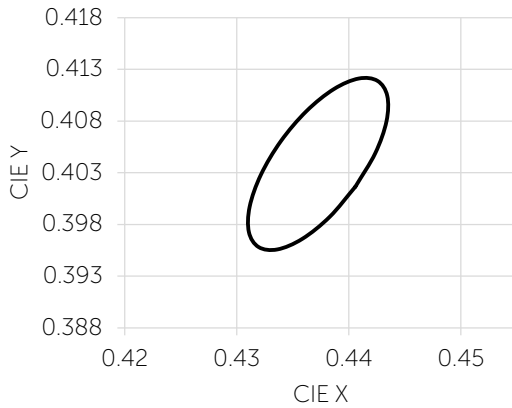
exclusive

CRI > 80 193.5mm x 191mm octagonal LED light engine

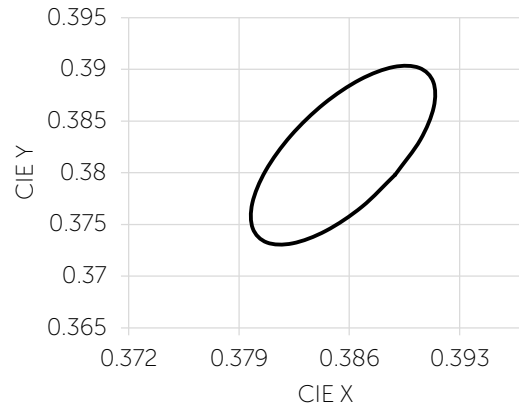
Photometric Characteristics

Colour Tolerances

3000K – 3-Step MacAdam

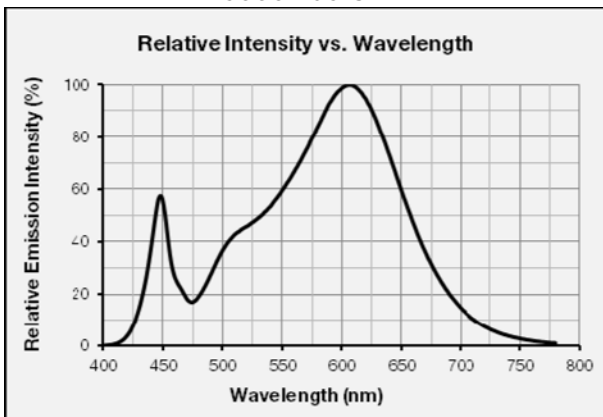


4000K – 3-Step MacAdam

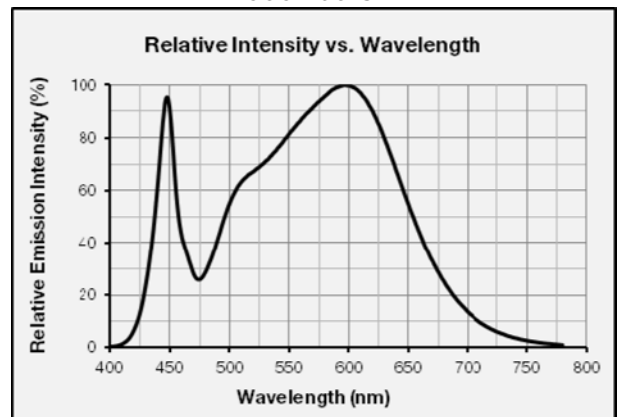


Spectral Power Distribution

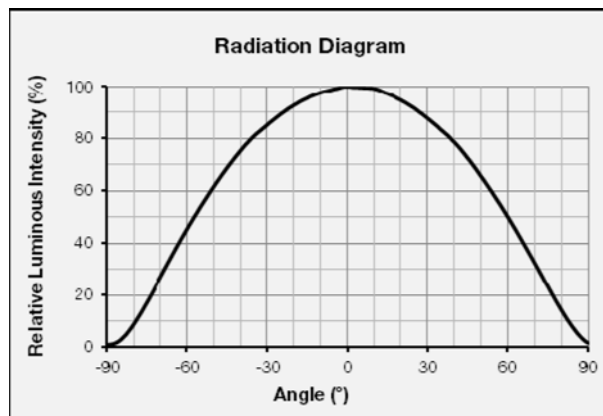
3000K 80 CRI



4000K 80 CRI



Light Distribution



FE-LCXXEXBP8XX190

Octagonal LED light engine

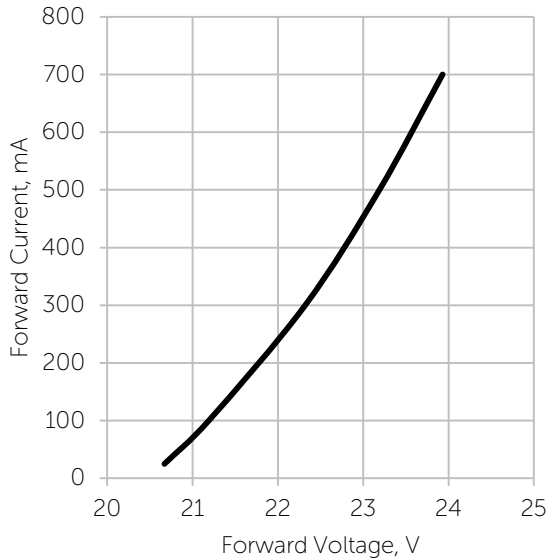


exclusive

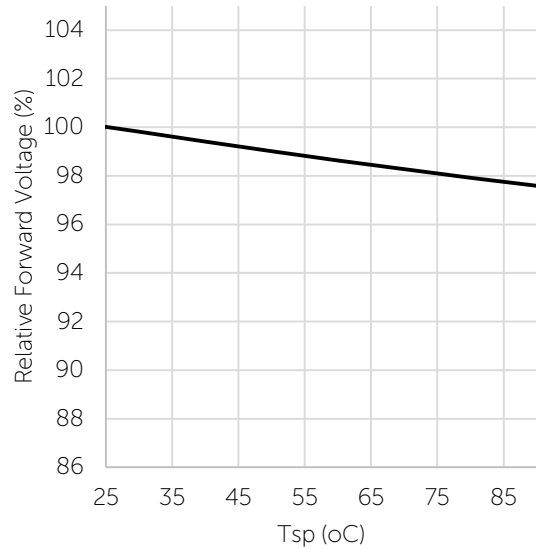
CRI > 80 193.5mm x 191mm octagonal LED light engine

Electrical Values

Typical Forward Voltage vs. forward current

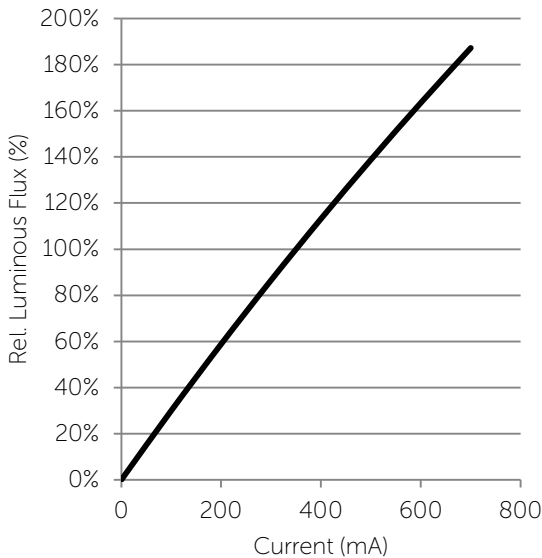


Relative Forward voltage vs. Tsp temperature



Relative luminous flux vs. operating current

40-LED



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