

**3F** **Filippi**  
illuminazione

LED | 2018

**3F CUB**

# 3F Cub

Lighter. Brighter. More energy savings.  
With quick connection.

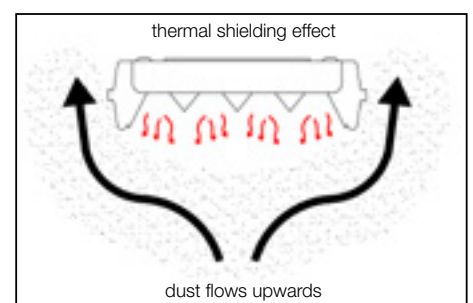
The best Cub ever.

3F Cub  
is a luminaire  
for industry, sales  
areas and large spaces  
based on dedicated  
technologies allowing  
long lamp life and  
low maintenance, even in  
particularly tough conditions.

Patented

Thanks to Quick Connection (standard on all versions), minimal time is required to install the luminaires: as it is no longer necessary to open them, the terminal block can be extracted quickly and simply from the upper opening for connection.

- Easy and quick installation
- Energy savings
- Light quality
- High efficiency
- High dependability
- Economical management



## 3F Cub LED



### Light quality

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- Turning on and turning back on always immediate.
- Excellent colour rendering  $R_a > 80$  (in line with European standard EN 12464 on workplace lighting).
- Reduced glare.
- No strobe effect.
- Wide tolerance on mains voltage ( $\pm 10\%$ ).
- No UV emissions.
- Brightness of light.
- Adjustable luminous flux and/or lamp automatic switch-off thanks to sensors and photocells.

### High efficiency

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- Efficiency greater than 102 lm/W thanks to the oversized aluminium flow recuperator with titanium-magnesium treatment, with linear LED modules.

### High dependability

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- 3F Cub Led is suitable for ambient temperatures up to  $+45^\circ\text{C}$  thanks to its oversized aluminium body which guarantees components optimum thermal balance.
- LED modules compliant with Zhaga specifications for changing LED strips.
- Photobiological risk absent (IEC/EN 62471:2010).

### Economical Management

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- Very high source lifetime, 80,000 hrs.
- Standard twin-circuit wiring.
- Less decrease of the source's light flow over time thanks to heat dissipation.
- Increased safety: the electronic wiring ensures automatic disconnection of the power supply in case of defective LED module.
- Highly efficient luminaire: over 102 lm/W.
- Mercury-free source.
- Less heat lost to the environment.
- No non-scheduled maintenance operations: faulty or burned-out strips do not compromise work.
- Easy and quick installation and power-supply connection also thanks to quick connection.
- 3F Cub LED has glass or diffuser for total protection, for environments with large quantities of dust to maintain lighting efficiency over time and minimise cleaning of reflecting surfaces.
- Very long lamp average life.

### Energy savings

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- Fast return on investment.
- Standard or dimmable electronic drivers.

# 3F Cub LED



## Construction characteristics

### Illuminotechnical characteristics

Wide symmetric distribution.

Lifetime (L90/B10): 30000 h. (tq+25°C)

Lifetime (L85/B10): 50000 h. (tq+25°C)

Lifetime (L75/B10): 80000 h. (tq+25°C)

Photobiological safety RG0 unlimited, risk absent, in compliance with IEC 62471, IEC/ TR 62778.

### Mechanical characteristics

Housing with double casing in pressed aluminium, powder-coated in white epoxy-polyester, hinged opening.

Quick connection in polycarbonate

M20x1.5 cable gland for access to the terminal block.

Ecologic anti-aging injected sealing gaskets.

Stainless steel clips.

Total flow recuperator in specular aluminium, with superficial titanium-magnesium treatment, non-iridescent.

VT transparent or VS moulded anti glare glass, noncombustible, tempered.

SP transparent PMMA flat diffuser, multilenticular, anti-glare, prismatic exterior. Fixing bracket.

### Electrical characteristics

Electronic wiring 230V-50/60Hz.

DALI electronic wiring 230V-50/60Hz.

Quick connection.

Twin-circuit.

## Source characteristics

- Linear LED modules.
- Color initial tolerance (MacAdam): SDCM 3.

## On request

- concentrated distribution
- laminated glass
- wiring: single-circuit, emergency
- LED modules, CCT nominal color temperature 6500 K
- linear LED modules, with special protection against aggressive chemically-volatile substances, for standard LED technology
- double quick connection

## Accessories

Accessories on page 7.

## Applications

### 100W version

Ambient temperature from -20°C to +45°C.

### 150W version

Ambient temperature from -20°C to +40°C.

Environments: commercial, industrial, sports, stores, sports halls, gymnasiums.

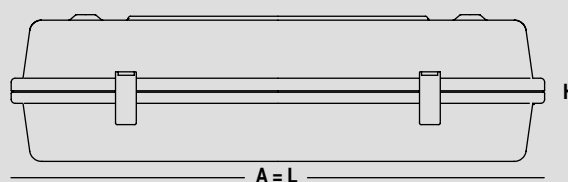
Environments in which it is necessary a total protection against falling fragments (eg environments with foodstuffs or machines with moving parts or with extreme temperature changes), use luminaires with laminated glass.

Tempered glass is not immune to falling fragments from harmless and caused by shocks or exceptionally derived from the tempering process.

## Light Management

The DALI products of this family can be controlled manually with the technology "3F Easy" or even automatically and manually using the "3F Smart Dimming" technology.

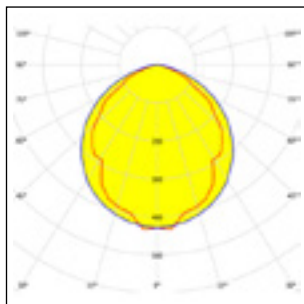
Dimensions



## 3F Cub LED VT

Transparent glass

Code 56333



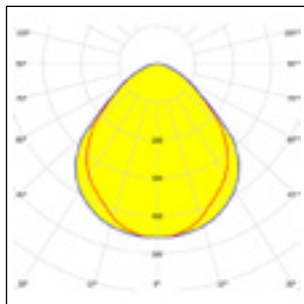
Total flow recuperator in specular aluminium, high efficiency, with superficial titanium-magnesium treatment, non-iridescent. Transparent glass VT tempered, non-combustible.

Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
<b>Electronic</b>						
56330	3F CUB LED 100W CR VT	110	14957	4000	>80	680x680x187
56333	3F CUB LED 150W CR VT	163	22234	4000	>80	680x680x187
<b>DALI electronic</b>						
56332	3F CUB LED 100W DALI CR VT	110	14957	4000	>80	680x680x187
56335	3F CUB LED 150W DALI CR VT	163	22234	4000	>80	680x680x187

## 3F Cub LED SP

Flat diffuser, prismatic in methacrylate

Code 56347



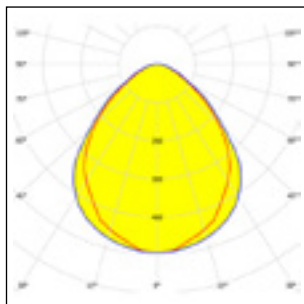
Total flow recuperator in specular aluminium, high efficiency, with superficial titanium-magnesium treatment, non-iridescent. SP transparent methacrylate diffuser, prismatic outside, antiglare.

Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
<b>Electronic</b>						
56344	3F CUB LED 100W CR SP	110	14098	4000	>80	680x680x187
56347	3F CUB LED 150W CR SP	163	20844	4000	>80	680x680x187
<b>DALI electronic</b>						
56346	3F CUB LED 100W DALI CR SP	110	14098	4000	>80	680x680x187
56349	3F CUB LED 150W DALI CR SP	163	20844	4000	>80	680x680x187

## 3F Cub LED VS

Moulded glass

Code 56340

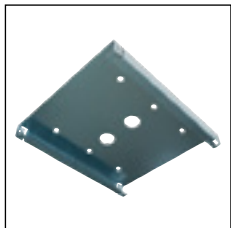


Total flow recuperator in specular aluminium, high efficiency, with superficial titanium-magnesium treatment, non-iridescent. VS moulded glass, anti-glare, tempered, non-combustible.

Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
<b>Electronic</b>						
56337	3F CUB LED 100W CR VS	110	13762	4000	>80	680x680x187
56340	3F CUB LED 150W CR VS	163	20415	4000	>80	680x680x187
<b>DALI electronic</b>						
56339	3F CUB LED 100W DALI CR VS	110	13762	4000	>80	680x680x187
56342	3F CUB LED 150W DALI CR VS	163	20415	4000	>80	680x680x187

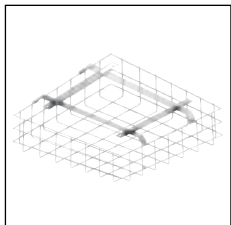
# 3F Cub

## Accessories



Ceiling-mounted bracket in hot-galvanized steel.

Code	Item
A0213	Ceiling-mounted bracket



Wire-guard for indoor dry applications, with double fastening (wire-guard and luminaire), for shocks coming from any directions, not transmitting the shocks to the luminaire but to the ceiling; in galvanized steel rod Ø 5 mm. To install it, ceiling-mounted bracket code A0213 is always necessary.

Code	Item
A0210	Wireguard 3F Cub

# 3F Cub LED

## Examples of design

### Comparison to 400W JM reflector

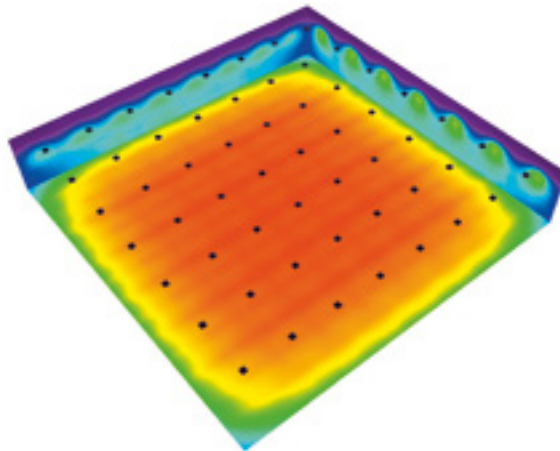
#### Design data:

Room dimensions 50x50 metres  
Room height 9 metres  
Installation height 8 metres  
  
Number of luminaires 56 luminaires  
(6.3x7.1 metre grid)

Like-for-like replacement of light points

Reflection ceiling 30%  
walls 30%  
floor 10%

Work surface height 0.85 metres



	400W JM reflector	3F Cub LED 150W CR VT	Difference
Lighting values	345 lx	381 lx	+ 10%
Luminaire power	440 W	163 W	- 63%
Circuit type	Single circuit (100%)	Twin circuit (50% - 100%)	
Regulation of luminous flux and power?	No	Yes, depending on requirements	
Source life	8,000 hours	>50,000 hours	+42,000 hours

### Comparison to 3F Cub R90 4x55 IP43

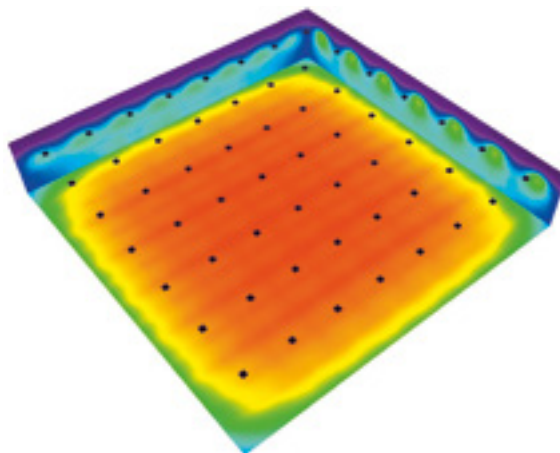
#### Design data:

Room dimensions 50x50 metres  
Room height 9 metres  
Installation height 8 metres  
  
Number of luminaires: 56 luminaires  
(6.3x7.1 metre grid)

Like-for-like replacement of light points

Reflection ceiling 30%  
walls 30%  
floor 10%

Work surface height 0.85 metres

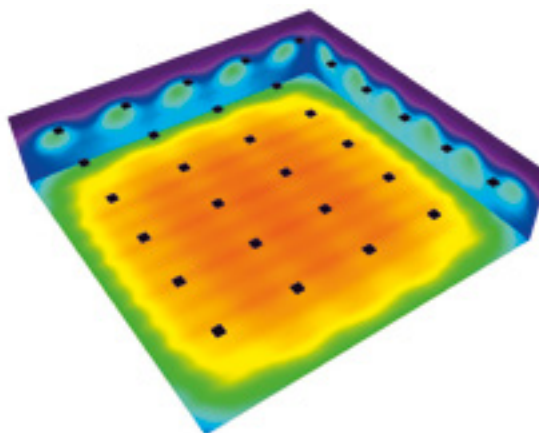


	3F Cub R90 4x55 IP43	3F Cub LED 150W CR VT	Difference
Lighting values	334 lx	381 lx	+ 14%
Luminaire power	240 W	163 W	- 32%
Circuit type	Twin circuit (50% - 100%)	Twin circuit (50% - 100%)	
Regulation of luminous flux and power?	Yes, depending on requirements	Yes, depending on requirements	
Source life	15,000 hours	>50,000 hours	+35,000 hours

## Comparison to 3F Cub 4x55 VT IP64

### Design data:

Room dimensions	30x30 metres
Room height	7 metres
Installation height	6 metres
Number of luminaires:	30 luminaires (6x5 metre grid)
Like-for-like replacement of light points	
Reflection	ceiling 30% walls 30% floor 10%
Work surface height	0.85 metres



	3F Cub 4x55 CR VT IP64	3F Cub LED 100W CR VT	Difference
Lighting values	334 lx	380 lx	<b>+ 14%</b>
Luminaire power	240 W	110 W	<b>- 54%</b>
Circuit type	Twin circuit (50% - 100%)	Twin circuit (50% - 100%)	
Regulation of luminous flux and power?	Yes, depending on requirements	Yes, depending on requirements	
Source life	15,000 hours	>50,000 hours	+35,000 hours

## Why choose 3F Cub LED?



### Never-ending light

3F Cub LED is equipped with new 3F LED technology whose sources specially developed for demanding applications guarantee an operating lifetime of over 50,000 hours, at the end of which at least 50% of the LED will still be providing 80% of their initial light output.



### You won't believe your wallet!

- 3F LED technology allows you to save up to 60% compared to traditional sources.
- Existing luminaires can be replaced while maintaining the same light locations and wiring system, but reducing energy consumption.
- Reduced maintenance significantly lowers running costs.



### Beauty which doesn't blind!

The 3F Cub LED diffuser attenuates or cancels out all glare and creates a truly enviable lighting uniformity (in relation to the installation height). Its clean, elegant lines make 3F Cub LED a luminaire which can fit in perfectly with any environment.



### Eco-logical

- 3F Cub LED has been created according to the principles of Eco Design, and stands out for:
- Manufactured using energy from solar panels and assembled according to our "zero mileage" philosophy.
  - Limited use of different materials, facilitating assembly, installation and recycling.
  - Recyclable green packaging.



### Significant reduction in maintenance costs

Longer life means less maintenance.  
Less maintenance means greater savings.  
Less maintenance means fewer problems.  
Fewer problems means greater peace of mind.



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