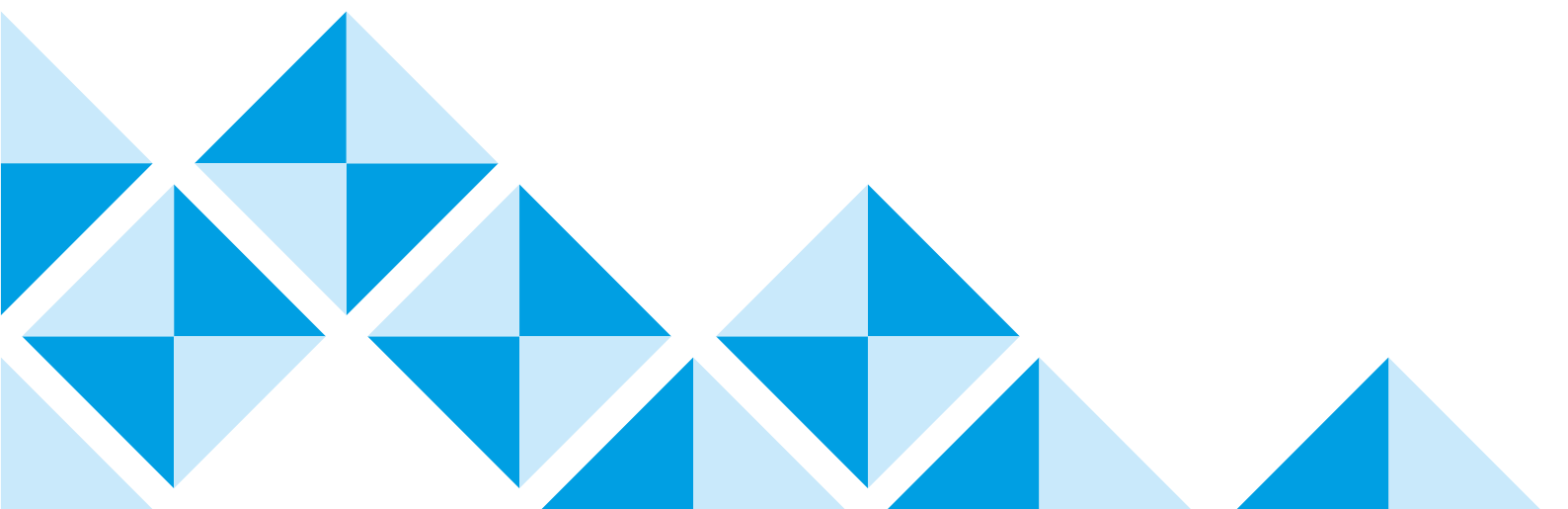


LED | 2018

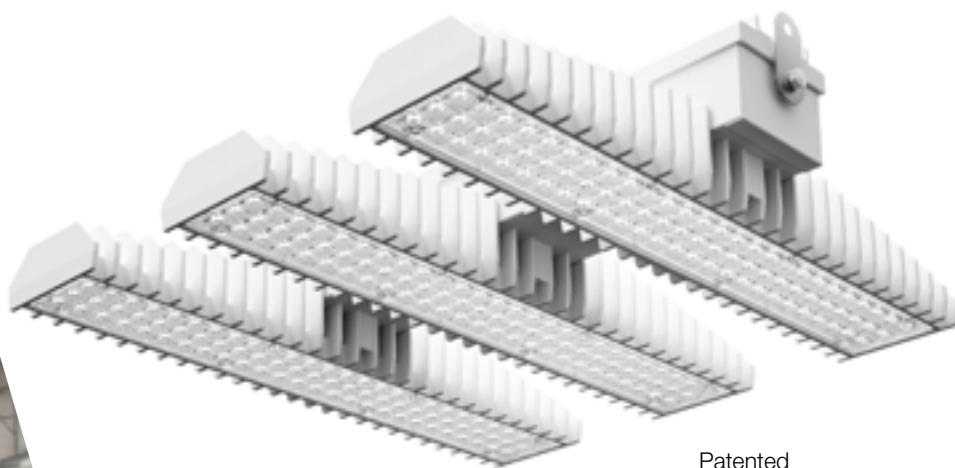
3F LEM



3F LEM



A new way of thinking about light



Patented

3F LEM is a highly specialised product, designed to satisfy customers who need to light large areas evenly.

We have designed and manufactured it with large injection-moulded shielding which permits different photometric distributions and lighting modules in aluminium alloy which are able to optimally dissipate the heat generated by the latest LED sources.

The design of the new 3F LEM is based on simplification and modularity of design: “LEM” means “Light Emitting Modules”, and thanks to common platforms and structures it is possible to obtain advantages for the customer in terms of the use, during installation and even when changing the sources at the end of the product life cycle.

Product range

3F LEM is available in the following versions:

3F LEM - Standard version for environments with temperatures from -30°C to $+55^{\circ}\text{C}$

3F LEM HO - High luminous flux version for environments with temperatures from -30°C a $+45^{\circ}\text{C}$

3F LEM DALI Sensor - Version with light level sensor, suitable for environments with temperatures from -25°C to $+50^{\circ}\text{C}$

3F LEM - Version for environments with temperatures from -30°C to $+70^{\circ}\text{C}$

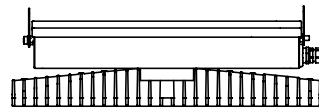
3F LEM SPORT - Version for sports environments with temperatures from -20°C to $+55^{\circ}\text{C}$

3F LEM is available with different module configurations:

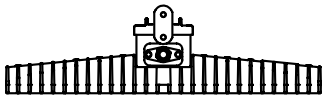
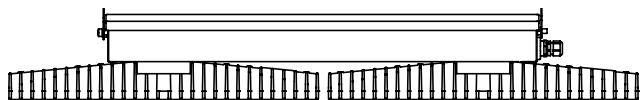


front view

3F LEM 1

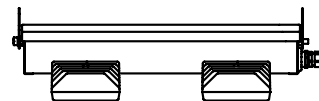


3F LEM 1+1

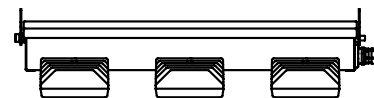


front view

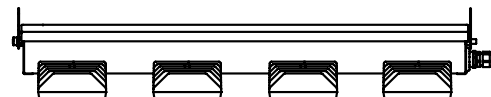
3F LEM 2



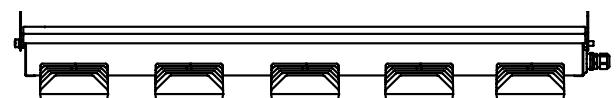
3F LEM 3



3F LEM 4



3F LEM 5



Passion, experience and expertise

3F Filippi is an Emilia-Romagna-based company, and a passion for mechanical engineering is part of our culture and expertise. It is for precisely this reason that when creating the 3F LEM heatsink module we consulted the foremost authority in the field, the mechanical engineering department at the University of Bologna.

Their precious support and expertise led to the creation of the heart of the 3F LEM, the heatsink, or dissipator, module. This is the common denominator across all modules in the product family, and the performance of LEDs depends in large part on their ability to dissipate the heat they generate. Our goal was to create a product which could be installed in high-temperature environments and which would be able to make the sources work correctly.

The result is a body made from an innovative pressure die-cast body, which can be installed in environments with temperatures up to 70°C.

Heat dissipation is not the only innovation on 3F LEM:

Air passage

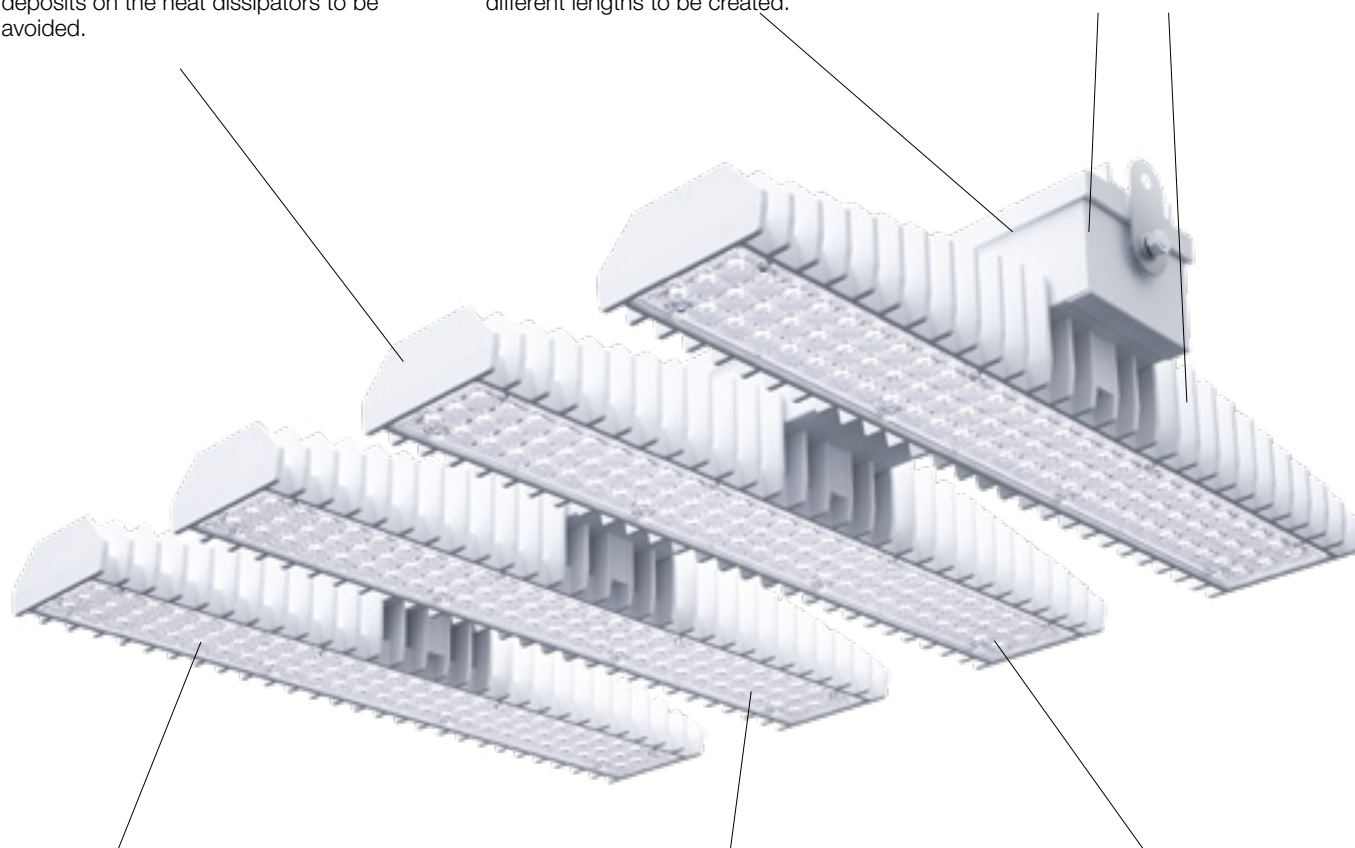
3F LEM has been designed to have the best possible air passage in all installation conditions, including ceiling mounted. Aerodynamic analysis has allowed dust deposits on the heat dissipators to be avoided.

Wiring compartment separate from heat dissipators

Thanks to this design, the power supplies are not affected by the heat emitted by the modules. This solution also allows wiring compartments of different lengths to be created.

Upgradability

Shielding, sources and power supplies can be replaced at the end of their life cycle, or upgraded to next-generation sources.



Mid-Power LED

Use of these LEDs offers improved efficiency (compared to High Power LEDs), less glare and optimised heat distribution (less thermal stress on the sources).

LED photobiological safety: RG0

The LEDs used are RG0 class (photobiological risk absent), that is they do not emit any radiation harmful to human organs.

3F Lens lenticular lens

Available with Wide or Concentrated controlled output (UGR < 22).

Light which fills space



When we began thinking about 3F LEM, we wanted to place renewed focus on the way large spaces have been illuminated up to now: we perceive the world through our senses, and light is a tool which lets us do so.

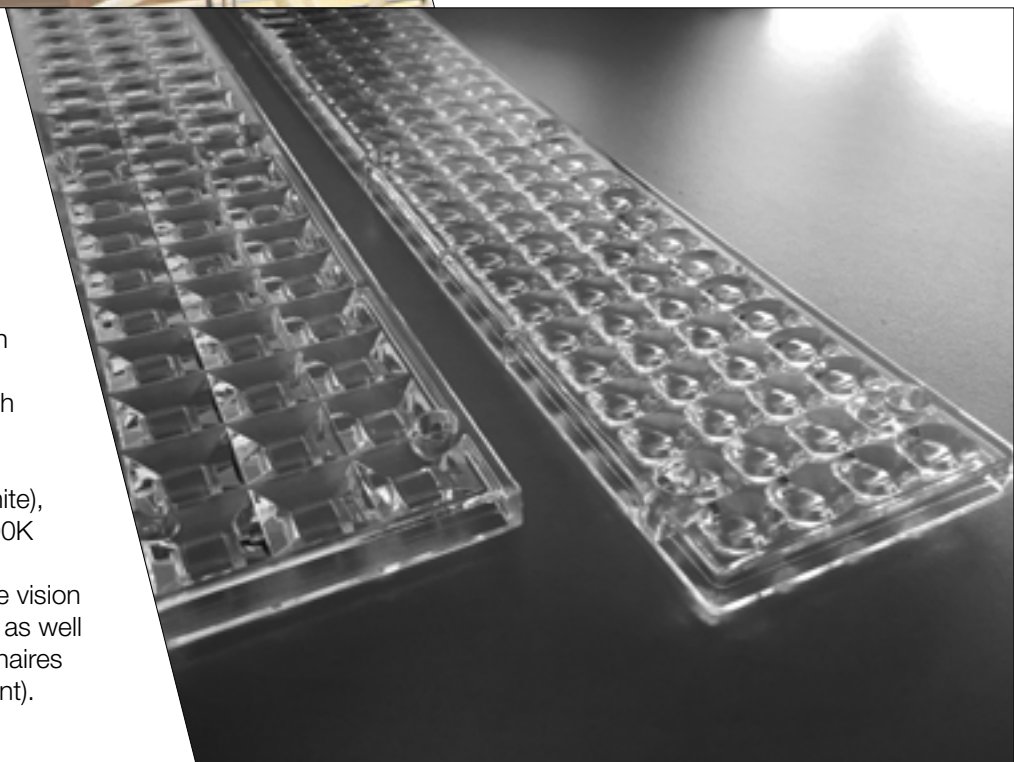
Objects and other people only exist for us if we can see them, and as a result it is precisely thanks to light that we are able to correctly perceive shapes, colours and the messages we receive from the world every minute of the day.

Working in conditions with low or poor-quality lighting has direct and indirect negative effects which influence the way we work.

For this reason, 3F LEM is equipped with the highest quality LED sources with a CRI>80, but on request can be fitted with sources with CRI>90.

It is also possible to obtain light with a colour temperature of 4000K (neutral white), 6500K (cold white) and, on request, 3000K (warm white).

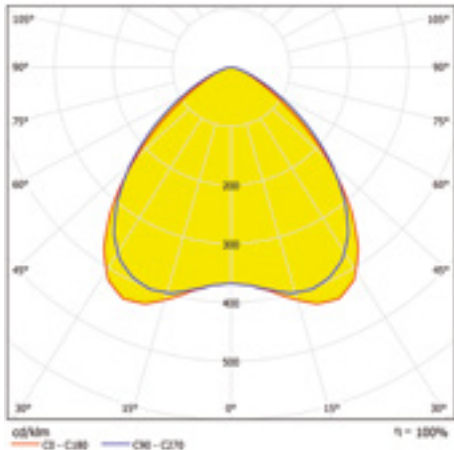
With a UGR value of <22, we respect the vision of those who work under 3F LEM lights, as well as respecting health by ensuring all luminaires are RG0 class (photobiological risk absent).



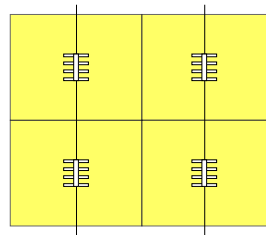
Photometric distributions

3F LEM fully complies with all applicable illuminotechnical standards and legislation: its lighting distribution comes from careful analysis of BS EN 12464-1 which covers lighting of indoor work environments. We have paid great attention to the requirements of the market and believe that the two different distributions are capable of satisfying even the most demanding customers:

WIDE DISTRIBUTION Recommended for industry



Rectangular ground projection



DL

As there is no photometric overlap, the energy used and number of luminaires is optimised.

DT

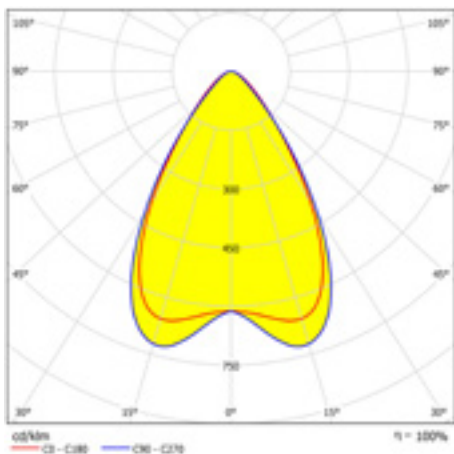
Uniformity

To obtain uniform lighting, the installation pitch is equal to:

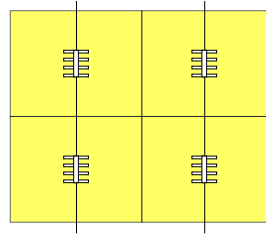
$$DT = 1.5 \times hu \quad DL = 1.4 \times hu$$

hu = Effective installation height

WIDE DISTRIBUTION Recommended for industry



Rectangular ground projection



DL

As there is no photometric overlap, the energy used and number of luminaires is optimised.

DT

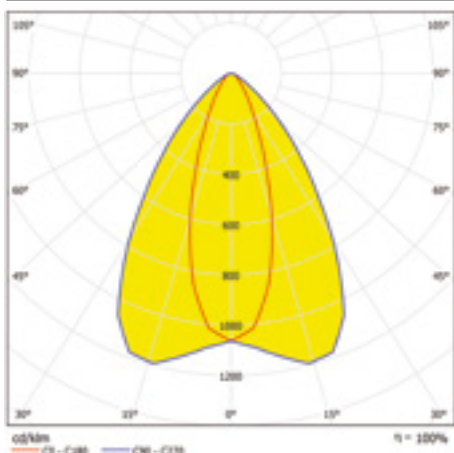
Uniformity

To obtain uniform lighting, the installation pitch is equal to:

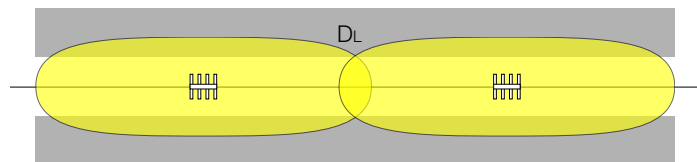
$$DT = 1.2 \times hu \quad DL = 1.2 \times hu$$

hu = Effective installation height

CONCENTRATED DISTRIBUTION Recommended for warehouses with large installation heights



Elliptical ground projection



DL

Allows large longitudinal pitch to obtain uniformity over the aisles and shelving.

Uniformity

To obtain uniform lighting, the installation pitch is equal to:

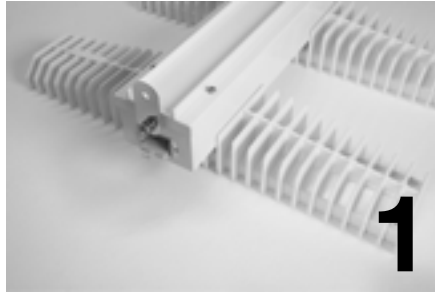
$$DL = 1.30 \times hu$$

hu = Effective installation height



New quick connection.

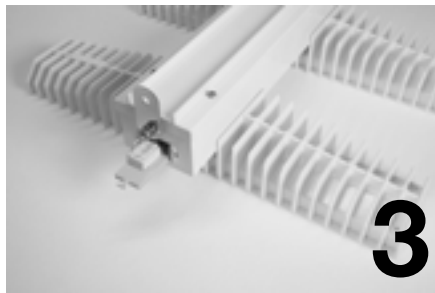
Thanks to the FastWiring system, the installation time for 3f lem is significantly reduced:



3F LEM is supplied with our new “FastWiring” quick connector. Here is what it looks like when removed from the packaging.



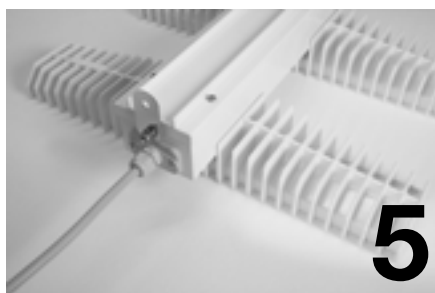
Remove the support by grasping the tab.



At this point the quick connection closing cap and the cable gland are inserted onto the cable and the electrical cables can be connected to the quick connect terminal board. No tools are required.



Push the sliding support into the luminaire and screw down the two phillips head screws on the closing cap.



Done!
3F LEM is now ready for installation.

3F LEM



Construction characteristics

Illuminotechnical characteristics

Wide, medium, concentrated symmetric elliptical distribution.

Lifetime (L95/B10): 30000 h. (tq+25°C)

Lifetime (L90/B10): 50000 h. (tq+25°C)

Lifetime (L80/B10): 80000 h. (tq+25°C)

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

Mechanical characteristics

Passive modular heatsinks in die-casted aluminum, painted in white color.

To optimize the thermal management of the LED module, the heatsinks are oversized and provided with self-cleaning of cooling fins.

Wiring body in aluminum and steel anchored solidly to the sinks and thermally separated.

3F Lens lenses with high luminous efficiency, transparent PMMA, fixed to the LED modules.

Fixing brackets in stainless steel.

Electrical characteristics

Electronic wiring 230V-50/60Hz.

DALI electronic wiring 230V-50/60Hz.

Quick connection in polycarbonate with M20x1,5 cable gland, to access the terminal block positioned on a removable runner.

Power unit positioned on a separate compartment by the LED module to ensure optimum temperatures of cabling components, to be inspectable and maintainable.

When using luminaires with a DC power supply from a centralised safety source, contact our sales or technical department.

Source characteristics

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

On request

- double quick connection
- polycarbonate lenses (IK08)
- wiring: twin-circuit
- linear LED modules, with special protection against aggressive chemically-volatile substances, for standard LED technology

Accessories

Accessories on page 30.

Applications

Ambient temperature from -30°C to +55°C. Dry, dusty indoor environments, subject to occasional water splashes.

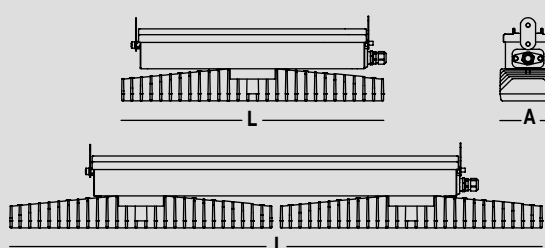
Commercial, industrial and sporting environments (with no high-flying balls), as well as warehouses.

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 polycarbonate lenses.

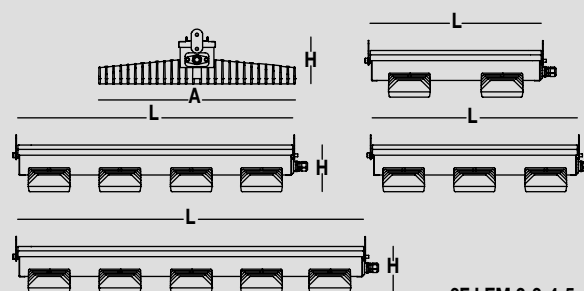
Light Management

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



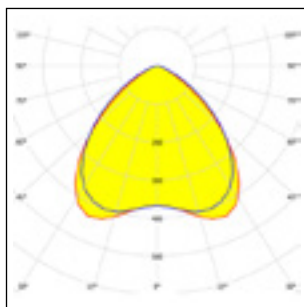
3F LEM 1 - 1+1



3F LEM 2-3-4-5

3F LEM Wide

Code 58883

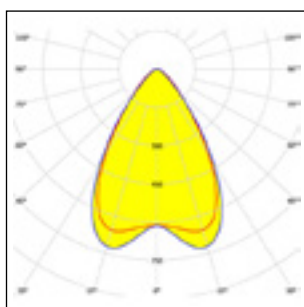


Wide distribution with rectangular shape.

Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
Electronic						
58881	3F LEM 1 LED 50 CR AMPIO	58	7971	4000	>80	542x115x150
58885	3F LEM 1+1 LED 100 CR AMPIO	113	15942	4000	>80	1099x115x150
58882	3F LEM 2 LED 100 CR AMPIO	113	15942	4000	>80	470x542x129
58883	3F LEM 3 LED 150 CR AMPIO	174	23914	4000	>80	657x542x129
58884	3F LEM 4 LED 200 CR AMPIO	226	31885	4000	>80	757x542x129
58886 ^{NEW}	3F LEM 5 LED 250 CR AMPIO	292	39856	4000	>80	952x542x129

3F LEM Medium

Code 58893

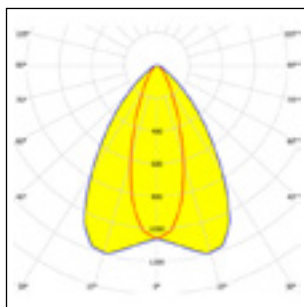


Medium distribution with square shape.

Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
Electronic						
58896 ^{NEW}	3F LEM 1+1 LED 100 CR MEDIO	113	16285	4000	>80	1099x115x150
58893 ^{NEW}	3F LEM 2 LED 100 CR MEDIO	113	16285	4000	>80	470x542x129
58894 ^{NEW}	3F LEM 3 LED 150 CR MEDIO	174	24427	4000	>80	657x542x129
58895 ^{NEW}	3F LEM 4 LED 200 CR MEDIO	226	32570	4000	>80	757x542x129
58897 ^{NEW}	3F LEM 5 LED 250 CR MEDIO	292	40712	4000	>80	952x542x129

3F LEM Concentrated

Code 58889

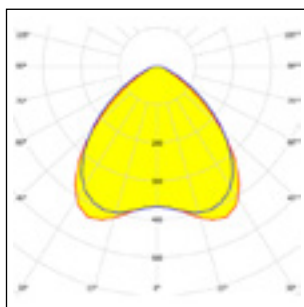


Distribution concentrated elliptical.

Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
Electronic						
58887 ^{NEW}	3F LEM 1 LED 50 CR CONC	58	8160	4000	>80	542x115x150
58888	3F LEM 2 LED 100 CR CONC	113	16319	4000	>80	470x542x129
58889	3F LEM 3 LED 150 CR CONC	174	24479	4000	>80	657x542x129
58890	3F LEM 4 LED 200 CR CONC	226	32638	4000	>80	757x542x129

3F LEM Wide /865

Code 59159

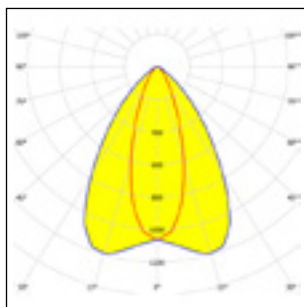


Wide distribution with rectangular shape.

Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
Electronic						
59157	3F LEM 1 LED 50/865 CR AMPIO	58	8051	6500	>80	542x115x150
59161	3F LEM 1+1 LED 100/865 CR AMPIO	113	16102	6500	>80	1099x115x150
59158	3F LEM 2 LED 100/865 CR AMPIO	113	16102	6500	>80	470x542x129
59159	3F LEM 3 LED 150/865 CR AMPIO	174	24153	6500	>80	657x542x129
59160	3F LEM 4 LED 200/865 CR AMPIO	226	32204	6500	>80	757x542x129

3F LEM Concentrated /865

Code 59165

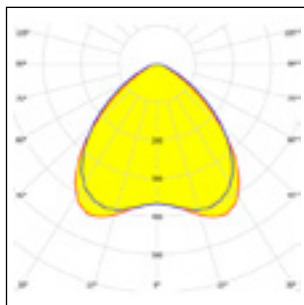


Distribution concentrated elliptical.

Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
Electronic						
59164	3F LEM 2 LED 100/865 CR CONC	113	16482	6500	>80	470x542x129
59165	3F LEM 3 LED 150/865 CR CONC	174	24724	6500	>80	657x542x129
59166	3F LEM 4 LED 200/865 CR CONC	226	32965	6500	>80	757x542x129

3F LEM DALI Wide

Code 58901

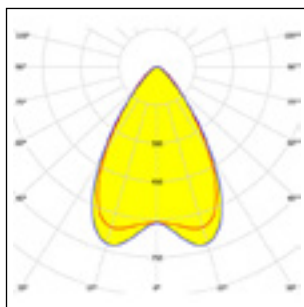


Wide distribution with rectangular shape.
DALI electronic wiring 230V-50/60Hz.

Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
DALI electronic						
58899	3F LEM 1 LED 50 DALI CR AMPIO	58	7971	4000	>80	542x115x150
58903	3F LEM 1+1 LED 100 DALI CR AMPIO	113	15942	4000	>80	1099x115x150
58900	3F LEM 2 LED 100 DALI CR AMPIO	113	15942	4000	>80	470x542x129
58901	3F LEM 3 LED 150 DALI CR AMPIO	174	23914	4000	>80	657x542x129
58902	3F LEM 4 LED 200 DALI CR AMPIO	226	31885	4000	>80	757x542x129
58904 ^{NEW}	3F LEM 5 LED 250 DALI CR AMPIO	292	39856	4000	>80	952x542x129

3F LEM DALI Medium

Code 58911

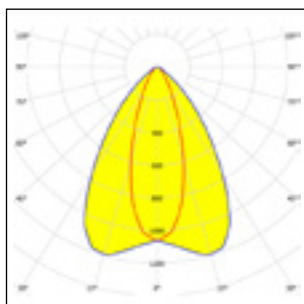


Medium distribution with square shape.
DALI electronic wiring 230V-50/60Hz.

Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
DALI electronic						
58914 ^{NEW}	3F LEM 1+1 LED 100 DALI CR MEDIO	113	16285	4000	>80	1099x115x150
58911 ^{NEW}	3F LEM 2 LED 100 DALI CR MEDIO	113	16285	4000	>80	470x542x129
58912 ^{NEW}	3F LEM 3 LED 150 DALI CR MEDIO	174	24427	4000	>80	657x542x129
58913 ^{NEW}	3F LEM 4 LED 200 DALI CR MEDIO	226	32570	4000	>80	757x542x129
58915 ^{NEW}	3F LEM 5 LED 250 DALI CR MEDIO	292	40712	4000	>80	952x542x129

3F LEM DALI Concentrated

Code 58907

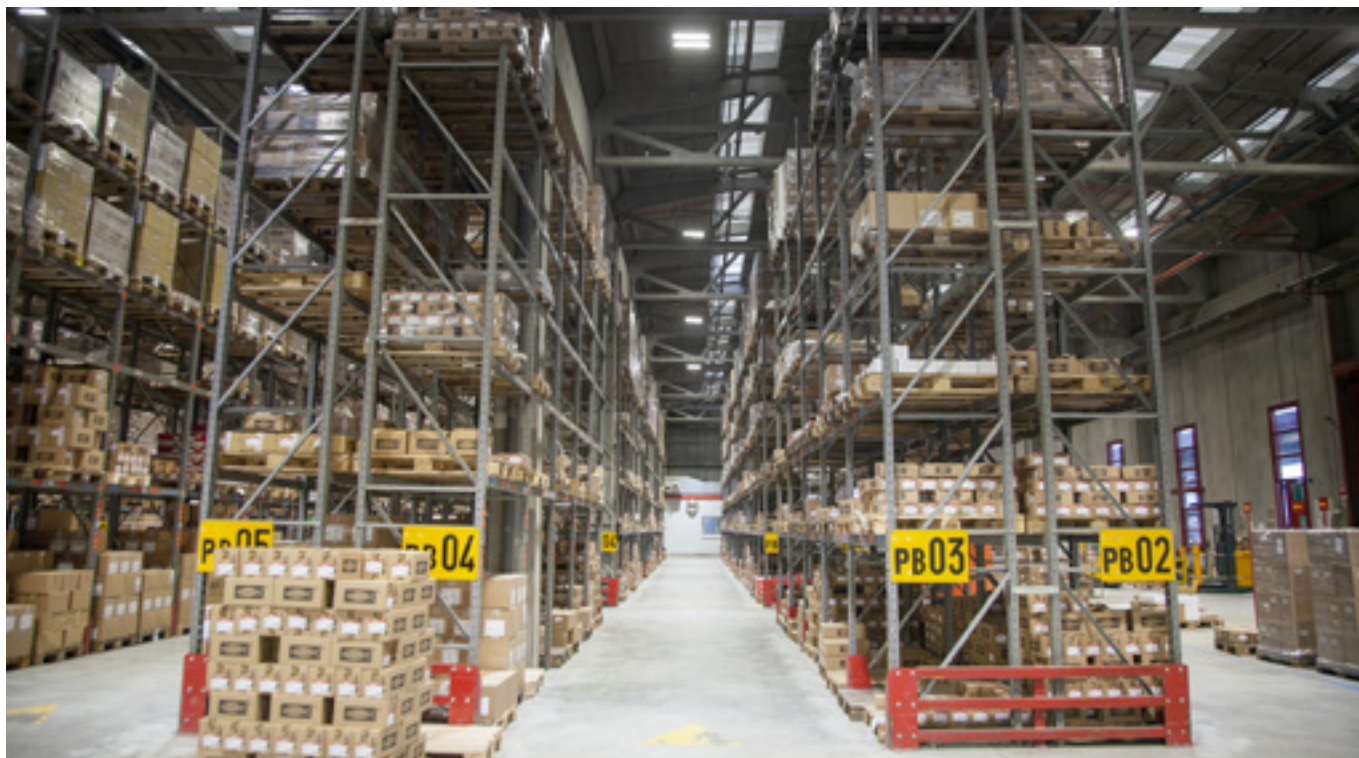


Distribution concentrated elliptical.
DALI electronic wiring 230V-50/60Hz.

Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
DALI electronic						
58905 ^{NEW}	3F LEM 1 LED 50 DALI CR CONC	58	8160	4000	>80	542x115x150
58906	3F LEM 2 LED 100 DALI CR CONC	113	16319	4000	>80	470x542x129
58907	3F LEM 3 LED 150 DALI CR CONC	174	24479	4000	>80	657x542x129
58908	3F LEM 4 LED 200 DALI CR CONC	226	32638	4000	>80	757x542x129



3F LEM HO



Construction characteristics

Illuminotechnical characteristics

Wide, medium, concentrated symmetric elliptical 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

Passive modular heatsinks in die-casted aluminum, painted in white color.

To optimize the thermal management of the LED module, the heatsinks are oversized and provided with self-cleaning of cooling fins.

Wiring body in aluminum and steel anchored solidly to the sinks and thermally separated.

3F Lens lenses with high luminous efficiency, transparent PMMA, fixed to the LED modules.

Fixing brackets in stainless steel.

Electrical characteristics

Electronic wiring 230V-50/60Hz.

DALI electronic wiring 230V-50/60Hz.

Quick connection.

Power unit positioned on a separate compartment by the LED module to ensure optimum temperatures of cabling components, to be inspectable and maintainable.

When using luminaires with a DC power supply from a centralised safety source, contact our sales or technical department.

Source characteristics

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

On request

- double quick connection
- LED modules, CCT nominal color temperature 6500 K
- polycarbonate lenses (IK08)
- wiring: twin-circuit
- linear LED modules, with special protection against aggressive chemically-volatile substances, for standard LED technology

Accessories

Accessories on page 30.

Applications

Ambient temperature from -30°C to +45°C. Dry, dusty indoor environments, subject to occasional water splashes.

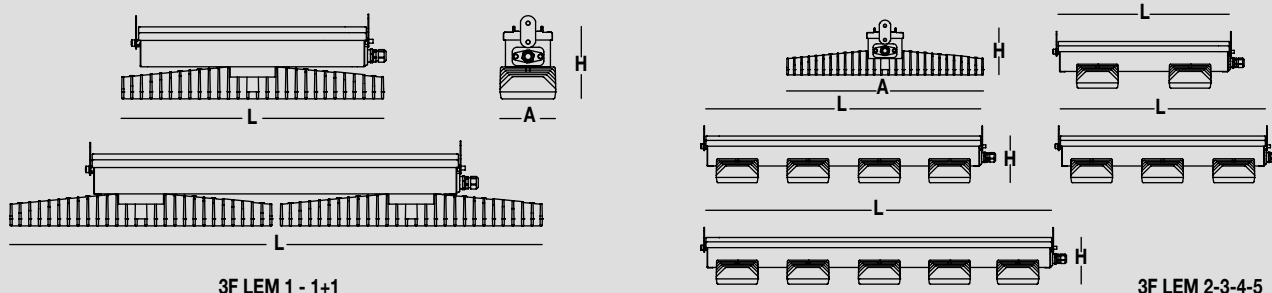
Commercial, industrial and sporting environments and warehouses and spaces where sports which involve high-flying balls etc. are not practised.

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 polycarbonate lenses.

Light Management

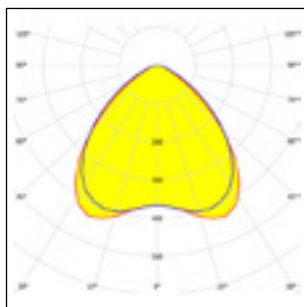
The DALI products of this family can be controlled manually with the technology "3F Easy" or even automatically and manually using the "3F Smart Dimming" technology.

Dimensions



3F LEM HO Wide

Code 58955

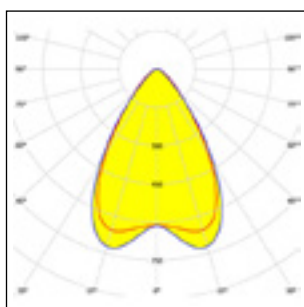


Wide distribution with rectangular shape.

Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
Electronic						
58953	3F LEM 1 HO LED 70 CR AMPIO	75	9957	4000	>80	542x115x150
58957	3F LEM 1+1 HO LED 140 CR AMPIO	151	19914	4000	>80	1099x115x150
58954	3F LEM 2 HO LED 140 CR AMPIO	151	19914	4000	>80	470x542x129
58955	3F LEM 3 HO LED 210 CR AMPIO	228	29871	4000	>80	657x542x129
58956	3F LEM 4 HO LED 280 CR AMPIO	302	39828	4000	>80	757x542x129
58958 ^{NEW}	3F LEM 5 HO LED 350 CR AMPIO	380	49785	4000	>80	952x542x129

3F LEM HO Medium

Code 58965

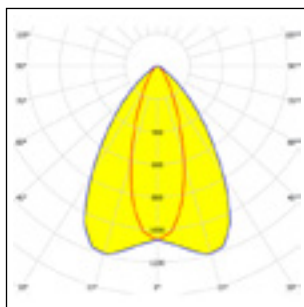


Medium distribution with square shape.

Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
Electronic						
58968 ^{NEW}	3F LEM 1+1 HO LED 140 CR MEDIO	151	20342	4000	>80	1099x115x150
58965 ^{NEW}	3F LEM 2 HO LED 140 CR MEDIO	151	20342	4000	>80	470x542x129
58966 ^{NEW}	3F LEM 3 HO LED 210 CR MEDIO	228	30513	4000	>80	657x542x129
58967 ^{NEW}	3F LEM 4 HO LED 280 CR MEDIO	302	40684	4000	>80	757x542x129
58969 ^{NEW}	3F LEM 5 HO LED 350 CR MEDIO	380	50855	4000	>80	952x542x129

E=100%

Code 58961

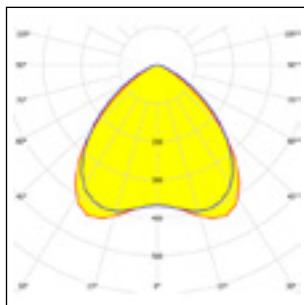


Distribution concentrated elliptical.

Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
Electronic						
58959 ^{NEW}	3F LEM 1 HO LED 70 CR CONC	75	10192	4000	>80	542x115x150
58960	3F LEM 2 HO LED 140 CR CONC	151	20385	4000	>80	470x542x129
58961	3F LEM 3 HO LED 210 CR CONC	228	30577	4000	>80	657x542x129

3F LEM HO DALI Wide

Code 58973

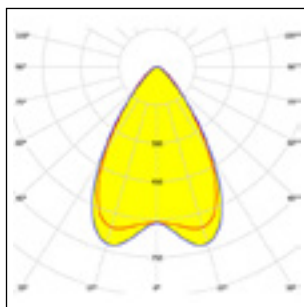


Wide distribution with rectangular shape.
DALI electronic wiring 230V-50/60Hz.

Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
DALI electronic						
58971	3F LEM 1 HO LED 70 DALI CR AMPIO	75	9957	4000	>80	542x115x150
58975	3F LEM 1+1 HO LED 140 DALI CR AMPIO	151	19914	4000	>80	1099x115x150
58972	3F LEM 2 HO LED 140 DALI CR AMPIO	151	19914	4000	>80	470x542x129
58973	3F LEM 3 HO LED 210 DALI CR AMPIO	228	29871	4000	>80	657x542x129
58974	3F LEM 4 HO LED 280 DALI CR AMPIO	302	39828	4000	>80	757x542x129
58976 ^{NEW}	3F LEM 5 HO LED 350 DALI CR AMPIO	380	49785	4000	>80	952x542x129

3F LEM HO DALI Medium

Code 58983

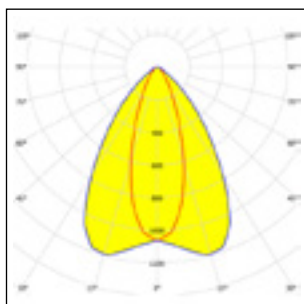


Medium distribution with square shape.
DALI electronic wiring 230V-50/60Hz.

Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
DALI electronic						
58986 ^{NEW}	3F LEM 1+1 HO LED 140 DALI CR MEDIO	151	20342	4000	>80	1099x115x150
58983 ^{NEW}	3F LEM 2 HO LED 140 DALI CR MEDIO	151	20342	4000	>80	470x542x129
58984 ^{NEW}	3F LEM 3 HO LED 210 DALI CR MEDIO	228	30513	4000	>80	657x542x129
58985 ^{NEW}	3F LEM 4 HO LED 280 DALI CR MEDIO	302	40684	4000	>80	757x542x129
58987 ^{NEW}	3F LEM 5 HO LED 350 DALI CR MEDIO	380	50855	4000	>80	952x542x129

3F LEM HO DALI Concentrated

Code 58979



Distribution concentrated elliptical.
DALI electronic wiring 230V-50/60Hz.

Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
DALI electronic						
58977 ^{NEW}	3F LEM 1 HO LED 70 DALI CR CONC	75	10192	4000	>80	542x115x150
58978	3F LEM 2 HO LED 140 DALI CR CONC	151	20385	4000	>80	470x542x129
58979	3F LEM 3 HO LED 210 DALI CR CONC	228	30577	4000	>80	657x542x129

3F LEM DALI Sensor



Construction characteristics

Illuminotechnical characteristics

Wide, medium, concentrated symmetric elliptical distribution.

Lifetime (L95/B10): 30000 h. (tq+25°C)

Lifetime (L90/B10): 50000 h. (tq+25°C)

Lifetime (L80/B10): 80000 h. (tq+25°C)

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

Mechanical characteristics

Passive modular heatsinks in die-casted aluminum, painted in white color.

To optimize the thermal management of the LED module, the heatsinks are oversized and provided with self-cleaning of cooling fins.

Wiring body in aluminum and steel anchored solidly to the sinks and thermally separated.

3F Lens lenses with high luminous efficiency, transparent PMMA, fixed to the LED modules.

Fixing brackets in stainless steel.

Electrical characteristics

DALI electronic wiring 230V-50/60Hz.

In compliance with EN 60598-1.

Quick connection.

Power unit positioned on a separate compartment by the LED module to ensure optimum temperatures of cabling components, to be inspectable and maintainable.

Integrated DALI light sensor on the luminaire, able to maintain a constant level of illumination as a function of the natural light.

When using luminaires with a DC power supply from a centralised safety source, contact our sales or technical department.

Source characteristics

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

On request

- presence function
- manual light intensity adjustment
- double quick connection
- LED modules, CCT nominal color temperature 6500 K
- polycarbonate lenses (IK08)
- wiring: twin-circuit
- linear LED modules, with special protection against aggressive chemically-volatile substances, for standard LED technology

Accessories

Accessories on page 30.

Applications

Ambient temperature from -25°C to +50°C.

Recommended in environments with strong amount of natural light (or areas

with staff present discontinuously).

Dry, dusty indoor environments, subject to occasional water splashes.

Commercial, industrial and sporting environments and warehouses and spaces where sports which involve high-flying balls etc. are not practised.

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 polycarbonate lenses.

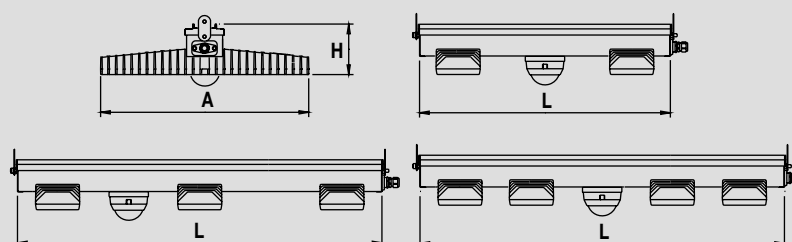
Installation

Recommended maximum height 13 m.

Light Management

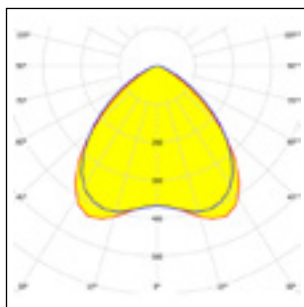
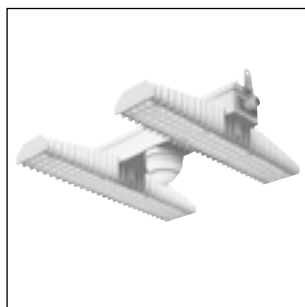
The DALI SENSOR products from this product family are all fitted with DALI light sensors integrated into the luminaire (see chapter on "Light Management").

Dimensions



3F LEM DALI Sensor Wide

Code 59254

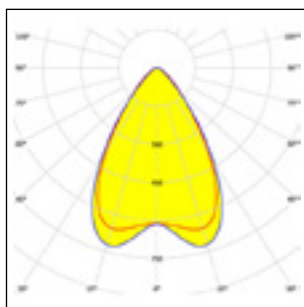
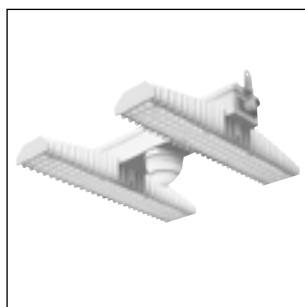


Wide distribution with rectangular shape.
Integrated DALI light sensor on the luminaire, able to maintain a constant level of illumination as a function of the natural light.

Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
DALI electronic						
59253 ^{NEW}	3F LEM 2 LED 100 DALI Sensor CR AMPIO	113	15942	4000	>80	657x542x129
59254 ^{NEW}	3F LEM 3 LED 150 DALI Sensor CR AMPIO	174	23914	4000	>80	952x542x129
59255 ^{NEW}	3F LEM 4 LED 200 DALI Sensor CR AMPIO	226	31885	4000	>80	952x542x129

3F LEM DALI Sensor Medium

Code 59266

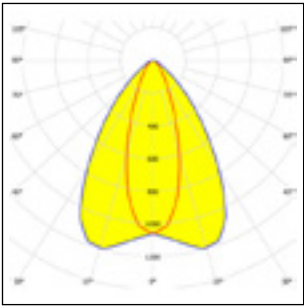
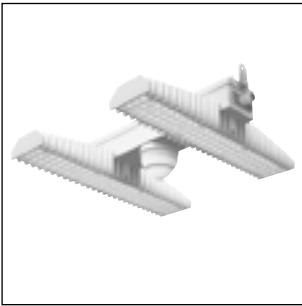


Medium distribution with square shape.
Integrated DALI light sensor on the luminaire, able to maintain a constant level of illumination as a function of the natural light.

Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
DALI electronic						
59265 ^{NEW}	3F LEM 2 LED 100 DALI Sensor CR MEDIO	113	14984	4000	>80	657x542x129
59266 ^{NEW}	3F LEM 3 LED 150 DALI Sensor CR MEDIO	174	22475	4000	>80	952x542x129
59267 ^{NEW}	3F LEM 4 LED 200 DALI Sensor CR MEDIO	226	29967	4000	>80	952x542x129

3F LEM DALI Sensor Concentrated

Code 59260



Distribution concentrated elliptical.
Integrated DALI light sensor on the luminaire, able to maintain a constant level of illumination as a function of the natural light.

Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
DALI electronic						
59259 <small>NEW</small>	3F LEM 2 LED 100 DALI Sensor CR CONC	113	16319	4000	>80	657x542x129
59260 <small>NEW</small>	3F LEM 3 LED 150 DALI Sensor CR CONC	174	24479	4000	>80	952x542x129
59261 <small>NEW</small>	3F LEM 4 LED 200 DALI Sensor CR CONC	226	32638	4000	>80	952x542x129



3F LEM HT



Construction characteristics

Illuminotechnical characteristics

Wide, medium, concentrated symmetric elliptical distribution.

Lifetime (L95/B10): 30000 h. (tq+25°C)

Lifetime (L90/B10): 50000 h. (tq+25°C)

Lifetime (L80/B10): 80000 h. (tq+25°C)

Luminous flux at +70°C: -13.5%.

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

Mechanical characteristics

Passive modular heatsinks in die-casted aluminum, painted in white color.

To optimize the thermal management of the LED module, the heatsinks are oversized and provided with self-cleaning of cooling fins.

Wiring body in aluminum and steel anchored solidly to the sinks and thermally separated.

3F Lens lenses with high luminous efficiency, transparent polycarbonate, fixed to the LED modules.

Fixing brackets in stainless steel.

Electrical characteristics

Electronic wiring 230V-50/60Hz.

In compliance with EN 60598-1.

Quick connection.

Power unit positioned on a separate compartment by the LED module to ensure optimum temperatures of cabling components, to be inspectable and maintainable.

When using luminaires with a DC power supply from a centralised safety source, contact our sales or technical department.

Source characteristics

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

On request

- double quick connection
- LED modules, CCT nominal color temperature 6500 K
- wiring: twin-circuit, dimmable
- linear LED modules, with special protection against aggressive chemically-volatile substances, for standard LED technology

Accessories

Accessories on page 30.

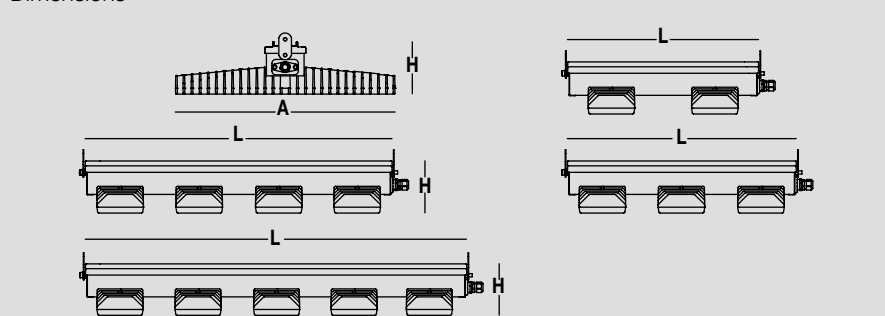
Applications

Ambient temperature from -30°C to +70°C. Dry, dusty indoor environments, subject to occasional water splashes.

Commercial, industrial and sporting environments and warehouses and spaces where sports which involve high-flying balls etc. are not practised.

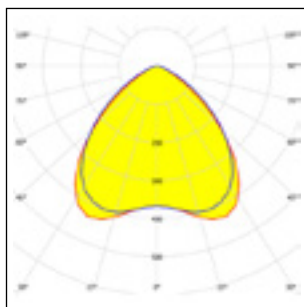
Environments in which it is necessary a total protection against falling fragments (eg environments with foodstuffs or machines with moving parts or with extreme temperature changes), use luminaires with polycarbonate lenses.

Dimensions



3F LEM HT Wide

Code 59027

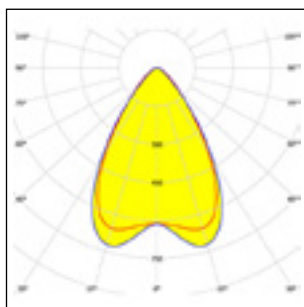


Wide distribution with rectangular shape.

Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
Electronic						
59026	3F LEM 2 HT LED 60 CR AMPIO	70	10113	4000	>80	470x542x129
59027	3F LEM 3 HT LED 90 CR AMPIO	105	15169	4000	>80	657x542x129
59028	3F LEM 4 HT LED 120 CR AMPIO	140	20225	4000	>80	757x542x129
59030 ^{NEW}	3F LEM 5 HT LED 150 CR AMPIO	175	25282	4000	>80	952x542x129

3F LEM HT Medium

Code 59039

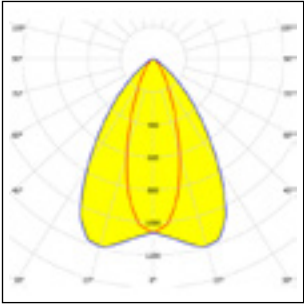


Medium distribution with square shape.

Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
Electronic						
59039 ^{NEW}	3F LEM 4 HT LED 120 CR MEDIO	140	20650	4000	>80	757x542x129
59041 ^{NEW}	3F LEM 5 HT LED 150 CR MEDIO	175	25813	4000	>80	952x542x129

3F LEM HT Concentrated

Code 59033



CE

850°C

IP65

IK08

Assil
Quality

Distribution concentrated elliptical.

Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
Electronic						
59032	3F LEM 2 HT LED 60 CR CONC	70	10349	4000	>80	470x542x129
59033	3F LEM 3 HT LED 90 CR CONC	105	15523	4000	>80	657x542x129
59034	3F LEM 4 HT LED 120 CR CONC	140	20697	4000	>80	757x542x129



3F LEM SPORT



Construction characteristics

Illuminotechnical characteristics

Wide symmetric distribution.

Lifetime (L95/B10): 30000 h. (tq+25°C)

Lifetime (L90/B10): 50000 h. (tq+25°C)

Lifetime (L80/B10): 80000 h. (tq+25°C)

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

Mechanical characteristics

Passive modular heatsinks in die-casted aluminum, painted in white color.

To optimize the thermal management of the LED module, the heatsinks are oversized and provided with self-cleaning of cooling fins.

Wiring body in aluminum and steel in white colour, specially strengthened, anchored solidly to the sinks and thermally separated.

3F Lens lenses with high luminous efficiency, transparent PMMA, fixed to the LED modules.

Fixing brackets in stainless steel.

Electrical characteristics

Electronic wiring 230V-50/60Hz.

Quick connection in polycarbonate with M20x1,5 cable gland, to access the terminal block positioned on a removable runner.

Power unit positioned on a separate compartment by the LED module to ensure optimum temperatures of cabling components, to be inspectable and maintainable.

When using luminaires with a DC power supply from a centralised safety source, contact our sales or technical department.

Source characteristics

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

On request

- double quick connection
- polycarbonate lenses (IK08)
- wiring: twin-circuit
- linear LED modules, with special protection against aggressive chemically-volatile substances, for standard LED technology

Accessories

Accessories on page 30.

Applications

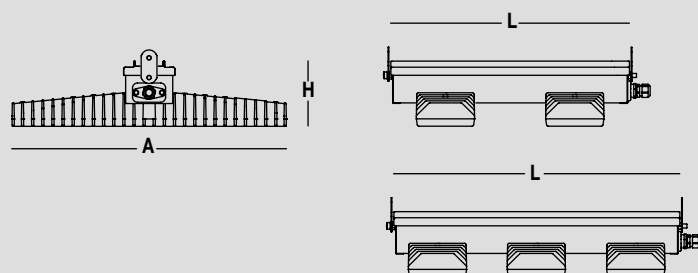
Ambient temperature from -20°C to +55°C.

Luminaire suitable for gyms as well as sports, commercial, exhibition and industrial environments.

Resistance against ball impacts in accordance with DIN 18032-3, CSI certification (IMQ group).

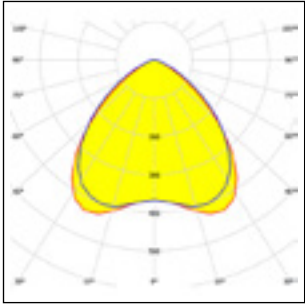
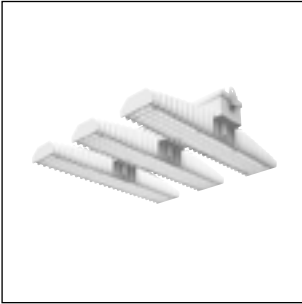
Dry, dusty indoor environments, subject to occasional water splashes.

Dimensions



3F LEM SPORT Wide

Code 59080



Wide distribution with rectangular shape.

Code	Item	Absorbed power (W)	Output flux (lm)	CCT (K)	CRI	Dimensions L x A x H
Electronic						
59080 <small>NEW</small>	3F LEM 2 SPORT LED 100 CR AMPIO	113	15942	4000	>80	470x542x129
59081 <small>NEW</small>	3F LEM 3 SPORT LED 150 CR AMPIO	174	23914	4000	>80	657x542x129

3F LEM

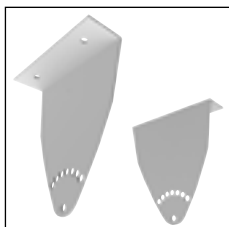
Accessories



Brackets for mounting of luminaire on ceiling or on bus ducts, stainless steel.

Code	Item
A0652	Couple of brackets for ceiling installation - 3F LEM The pack contains 2 pieces.

Please note: these brackets do NOT provide free orientation of the luminaire. To allow free orientation, accessories A0651+A0632 must be installed.



Brackets for ceiling mounting, in white-painted steel.

Code	Item
A0632	Couple of brackets for ceiling installation - 3F LEM The pack contains 2 pieces.

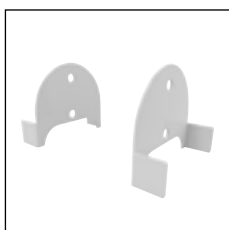
The bracket A0632 allows the luminaire to be ceiling mounted without the possibility to rotate it. To allow free orientation, both accessories (A0651+A0632) must be installed.



Brackets for wall mounting, in white-painted steel.

Code	Item
A0654	Pair of wall brackets - 3F LEM The pack contains 2 pieces.

The bracket A0654 allows the luminaire to be wall mounted without the possibility to rotate it. To allow free orientation, both accessories (A0651+A0654) must be installed.



Additional bracket that, combined with the A0654 or A0632 accessories, makes it possible for the luminaires to be oriented on the ceiling or the wall, in steel with a white coating.

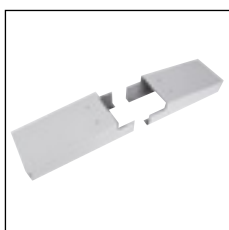
Code	Item
A0651	3F LEM bracket rotation support The pack contains 2 pieces.

This accessory must ALWAYS be used with one of the following codes: A0632 o A0654.



Brackets for rotating luminaires mounted on ceilings or on bus ducts.

Code	Item
A0776	Horizontal rotation bracket 90° 3F LEM 1-2
A0777	Horizontal rotating bracket 90° 3F LEM 3 - 3F LEM 2 Sensor
A0778	Horizontal Rotating Bracket 90° 3F LEM 4



Dust covers for food processing areas in white-painted galvanized steel.

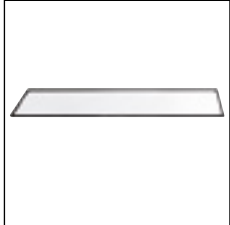
Code	Item
A0728	Cover for food applications - for 3F LEM 1
A0733	Cover for food applications - for 3F LEM 2-3-4-5 (one for each module)

For a LEM 3, for example, 3 pcs of the cod. A0733 must be ordered. Not available for the 1+1 version.



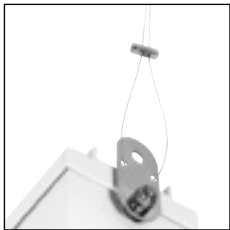
Snap hooks clips for chain suspension, galvanized steel.

Code	Item
A0653	Couple of fixing carabiniers for chain installation The pack contains 2 pieces.



Glass with gasket to protect the louvre compartment from dust and noxious fumes. Recommended for use in very dirty environments or in which aggressive chemical agents are used.

Code	Item
A0811	Transparent glass with gasket (10pcs) The pack contains 10 pieces.
A0812	Printed glass with gasket (10pcs) The pack contains 10 pieces.



Anti-fall safety cable for fastening the body to the building structure.

Code	Item
A0242	100m galvanized steel cable coil The pack contains 100 metres.
A0243	500m galvanized steel cable coil The pack contains 500 metres.

Coupling accessory A0714 to one of the two safety cables (A0242 or A0243) provides an anti-fall kit fixing and adjusting the cable on the load-bearing element of the building structure. The cable passes between the two passage holes on the hanging brackets mounted on the 3F LEM.



Clamp in nickel-plated brass suitable for fixing and adjustment of galvanized steel wire (diameter 1.25 mm - 1.5 mm - 2 mm), complete with locking screws. The clamp with 2 holes allow to fix and adjust the cable on the carrier element (belonging to the building) or with eye screw fixing.

Code	Item
A0714	Clamp 2 holes - 100 pcs The pack contains 100 pieces.



IR remote control for user, compatible with DALI sensors (incompatible with On-Off and Slave sensors).

Accessory compatible with 3F LEM DALI Sensor.

Code	Item
A3021	Remote controller IR DALI





IR remote control for programmer, compatible with DALI sensors (incompatible with On-Off and Slave sensors).

Accessory compatible with 3F LEM DALI Sensor.

Code	Item
A3020	Programmer IR DALI



IR adapter for Smartphones, compatible with all programmable sensors. Free App available for Android and iOS devices.

Accessory compatible with 3F LEM DALI Sensor.

Code	Item
A3022	IR-Adapter for Smartphone





3F LEM

Examples of design

Comparison to 400W JM reflector

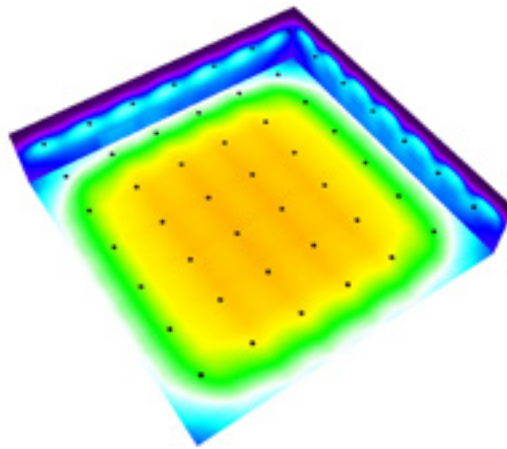
Design data:

Room dimensions 50x50 metres
Room height 11 metres
Installation height 10 metres

Like-for-like replacement of light points

Reflection ceiling 30%
walls 30%
floor 10%

Work surface height 0.85 metres



	Current system 400 JM reflector	Like-for-like replacement of light points 3F LEM 2 HO LED 140 AMPIO	Reduction in light points 3F LEM 4 HO LED 280 AMPIO
Lighting values	290 lx	310 lx	311 lx
Number of light points	49	49	25
Total luminaire	21,560 W	7,546 W	7,700 W
Difference		-65%	-64%
Average source life	8,000 hours	>50,000 hours	>50,000 hours

Comparison to 250W JM reflector

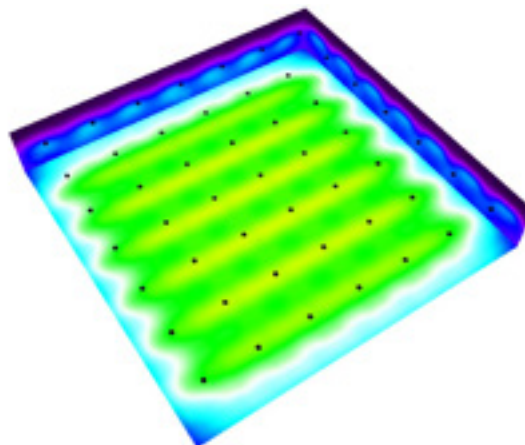
Design data:

Room dimensions 50x50 metres
Room height 8 metres
Installation height 7 metres

Like-for-like replacement of light points

Reflection ceiling 30%
walls 30%
floor 10%

Work surface height 0.85 metres



	Current system 250 JM reflector	Like-for-like replacement of light points 3F LEM 2 LED 100 AMPIO	Reduction in light points 3F LEM 2 LED 100 AMPIO
Lighting values	174 lx	262 lx	226 lx
Number of light points	49	49	42
Total luminaire	14,210 W	5,684 W	4,872 W
Difference		-60%	-66%
Average source life	8,000 hours	>50,000 hours	>50,000 hours





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