

Beghelli

General Lighting

CATALOGUE 2014

UMDL
LED-LUMINAIRES

Light is safety - Since more than 3 decades the Gruppo Beghelli is a competent partner of lighting designers, qualified electrical contractors, industry, trade and wholesale in accordance with this motto. Our business is the development, production and the sale of emergency lightings, general lightings and lamps.

Regarding emergency lighting we deliver central supply systems with exit sign and emergency luminaires as well as self-contained exit sign and emergency luminaires, emergency supply modules and emergency supply devices.

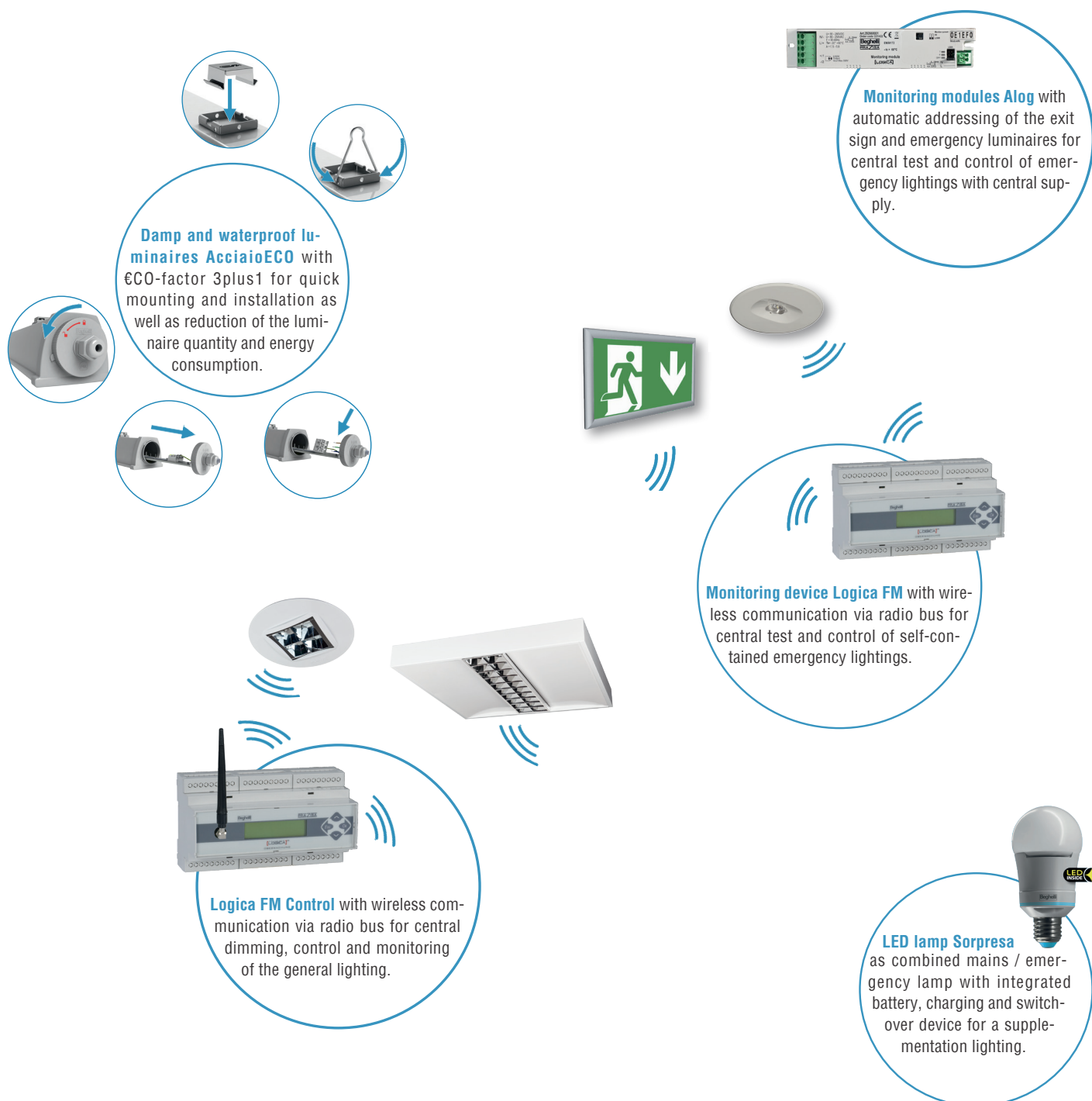
Regarding general lighting the activities are focused on damp and waterproof luminaires and LED luminaires, partly with automatic dimming or central control and monitoring.

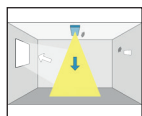
The Gruppo Beghelli, where Beghelli S.p.A. in Montevoglio (Italy) and further companies in Europe, America and Asia belong to, is

worldwide active. Beghelli S.p.A. has been founded almost 30 years ago by Gian Pietro Beghelli. In the meanwhile 92.9 % of the Italian population is familiar with the Beghelli brand and is using their products.

An important criterion for the conception of new products is the conservation of resources and protection of the environment. This is carried out by products with high efficiency and easy handling. As a result the costs for mounting, installation and operation are reduced, the latter by lower energy consumption and increased service life.

The Gruppo Beghelli has frequently characterized the development of the market with special innovations. At the same time these are an essential feature of the current portfolio:





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Logica FM
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P236LED
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T8LED
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Pluraluce
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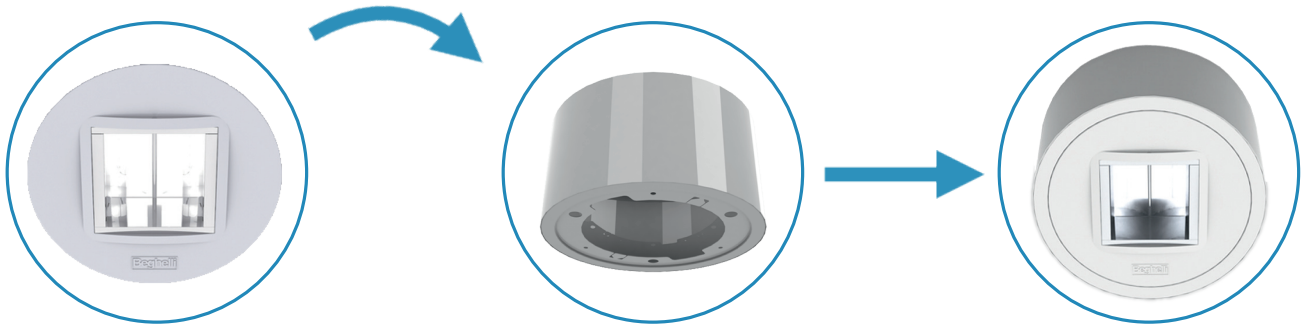
UMDL – Advantages

UMDL – Universal Monitored and Dimmed LED Lighting – is a 3-way universal concept for construction or renewal of lightings in public, business and industrial projects. Through this an economic lighting can be implemented in a lot of building types and building areas.

The 3-way universal concept of UMDL is based on:

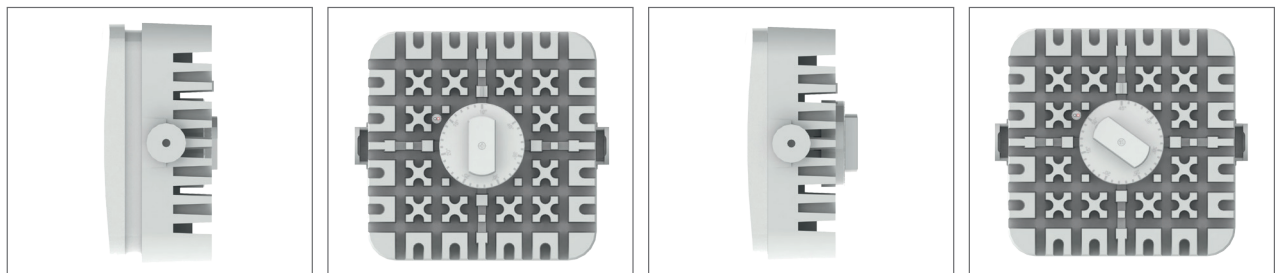
- universal luminaire models

f. i. the downlight D226LED can be used with accessories for recessed ceiling mounting and surface ceiling mounting



- universal luminaire functions

f. i. one spotlight ZoomLED substitutes four conventional spotlights through variable focusable lens optics with different light distributions



- universal solutions for optimisation of the energy consumption and the energy costs

the latter including:

- Improvement of the luminance efficiency and the luminaire efficiency
- decentralised regulation of the luminaires through daylight
- centralised switching and dimming of the luminaires through presence and light sensors

The luminaires of UMDL are available as basic luminaires and as luminaires with decentralised automatic dimming Logica Auto-Dimm and if applicable, with optional centralised automatic monitoring and control Logica FM Control.

UMDL basic luminaires

IAII basic luminaires are designed with single LED and special lens optics or LED modules as well as parabolic shaped, high-gloss reflectors, partly segmented. With the basic luminaires the energy consumption and the energy costs can be reduced between 25 % and 80 % (fig. 1) in comparison to luminaires with conventional lamps.

UMDL basic luminaires in comparison to standard luminaires

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		H(m)	Standard T8 4 x 18 W		I418LED LED 28 W	
			E (lx)	P (kW)	E (lx)	P (kW)
Illuminance E _{Nem}	300lx	3,0	351	540	354	296
		3,5	426	720	371	333
		4,0	395	720	349	333
		4,5	370	720	432	444
		5,0	337	720	407	444
	500lx	3,0	568	900	627	555
		3,5	568	960	602	555
		4,0	655	1.200	571	555
		4,5	612	1.200	573	592
		5,0	558	1.200	673	740

Comparison between louvre luminaires with T8-Lp 4 x 18W and LED 28 W using the example of a room with 10 m x 5 m. The reduction of the energy consumption is between 24.0 % and 49.7 %.

		Standard TC-DEL 2 x 26 W		D226LED LED 16 W		
		H(m)	E (lx)	P (kW)	E (lx)	P (kW)
Illuminance E _{Nem}	100lx	3,0	103	476	96	198
		3,5	101	544	99	234
		4,0	100	612	94	252
		4,5	98	680	89	270
		5,0	96	748	89	306

Comparison between downlight luminaires with TC-DEL-Lp 2 x 26 W and LED 16 W using the example of a room with 30 m x 2 m. The reduction of the energy consumption is between 57.0 % and 60.3 %..

		H(m)	Standard T5 1 x 80 W		AcciaioECO LED LED 52 W	
			E (lx)	P (kW)	E (lx)	P (kW)
Illuminance E _{Nem}	100lx	2,5	122	4.128	114	1.650
		5,0	108	4.214	120	1.925
		7,5	109	4.816	109	1.925
		10,0	110	5.418	120	2.310
		12,5	113	6.192	111	2.310
	200lx	2,5	225	7.740	237	3.465
		5,0	216	8.514	217	3.520
		7,5	214	9.460	224	3.960
		10,0	209	10.320	228	4.400
		12,5	207	11.352	212	4.455
	300lx	2,5	328	11.352	332	4.950
		5,0	339	13.416	333	5.445
		7,5	326	14.448	341	6.050
		10,0	317	15.652	342	6.600
		12,5	329	18.060	317	6.655
	500lx	2,5	554	19.264	575	8.635
		5,0	555	21.930	563	9.240
		7,5	528	23.392	563	10.010
		10,0	533	26.316	555	10.727
		12,5	536	29.412	549	11.550

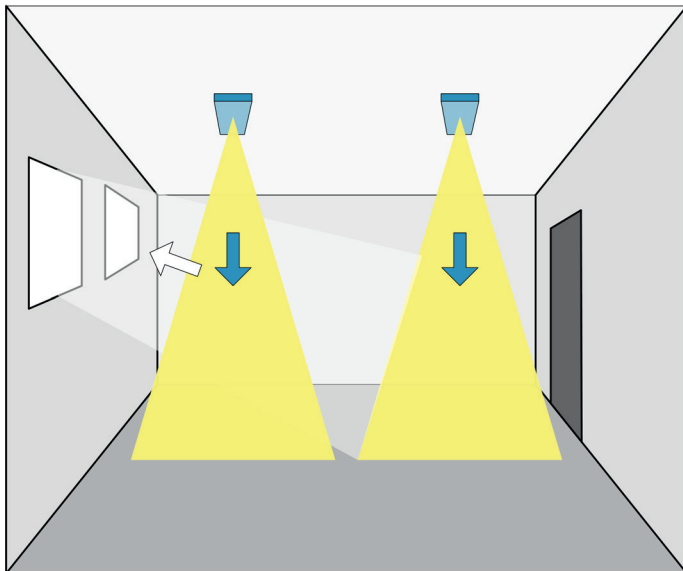
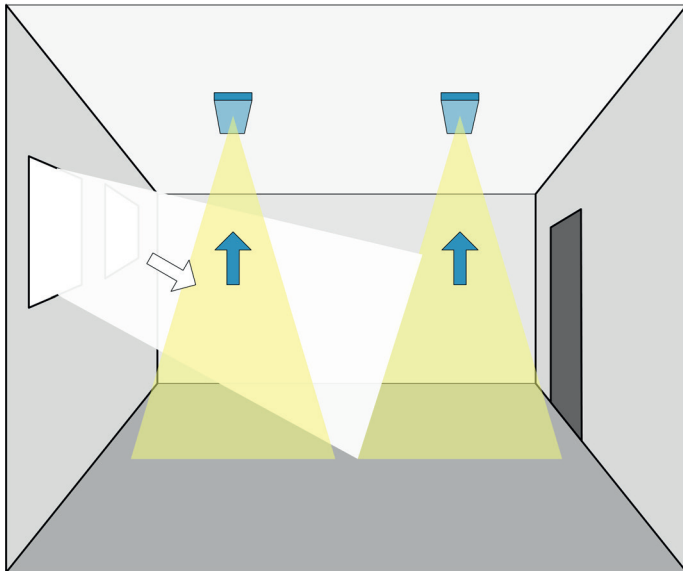
Comparison between damp and waterproof luminaires with T5-Lp 1 x 80 W and LED 52 W using the example of a room with 50 m x 25 m. The reduction of the energy consumption is between 54.3 % and 63.2 %.

		Standard HIE 400 W		MF736LED ELLIP LED 194 W		
		H(m)	E (lx)	P (kW)	E (lx)	P (kW)
Illuminance E _{Nem}	100lx	5,0	122	2.800	116	1.840
		7,5	111	2.800	110	1.840
		10,0	110	3.150	114	2.070
		12,5	132	4.200	107	2.070
		15,0	121	4.200	132	2.760
	200lx	5,0	223	5.250	224	3.680
		7,5	262	7.000	263	4.600
		10,0	239	7.000	236	4.600
		12,5	218	7.000	231	4.600
		15,0	239	8.400	216	4.600
	300lx	5,0	346	8.400	335	5.520
		7,5	327	8.750	327	5.750
		10,0	357	10.500	364	6.900
		12,5	326	10500	342	6.900
		15,0	348	12.250	322	6.900
	500lx	5,0	595	14.700	578	9.660
		7,5	544	14.700	541	9.660
		10,0	569	16.800	577	11.040
		12,5	520	16.800	543	11.040
		15,0	555	19.600	522	11.270

Comparison between Hallen-Strahler luminaires with HIE-Lp 400 W, focused beaming and LED 194 W, elliptic beaming, using the example of a room with 80 m x 4 m. The reduction of the energy consumption is between 34.2 % and 50.7 %.

8 UMDL luminaires Logica AutoDimm

In the luminaires with decentralised automatic dimming Logica AutoDimm a light sensor and a regulation of the luminous flux, for implementation of a constant lighting level, are integrated additionally. An intelligent routine determines periodically and automatically the necessary nominal lighting level from the amounts of the natural and artificial light reflected by the working plane. Based on this the luminous flux of the luminaire is regulated in a range from 50 % to 100 % depending on the amount of the natural light.



Controller Logica FM Control

All luminaires with Logica AutoDimm have a FM module as well. A communication over a radio bus with a Controller Logica FM Control is possible with the FM module. Its purpose is centralised automatic monitoring and control of the lighting.

The controller Logica FM Control can communicate wireless via radio bus with up to 999 luminaires with Logica AutoDimm resp. switches, pushbuttons or light and presence sensors over interfaces with FM module. Basic functions are:

Monitoring:

- automatic evaluation of the energy consumption of the luminaires based on before / after scenes
- automatic recording of the duration of the luminaires

Control:

- manual or automatic dimming of the luminaires over internal time control resp. external light and presence sensors or switches / pushbuttons based on dimming scenes
- manual or automatic switching of the luminaires over internal time control resp. external light and presence sensors or switches / pushbuttons

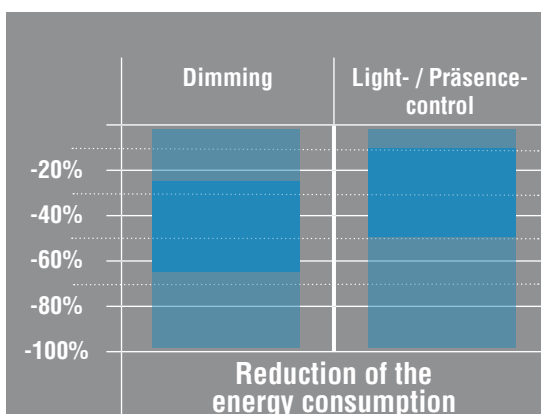
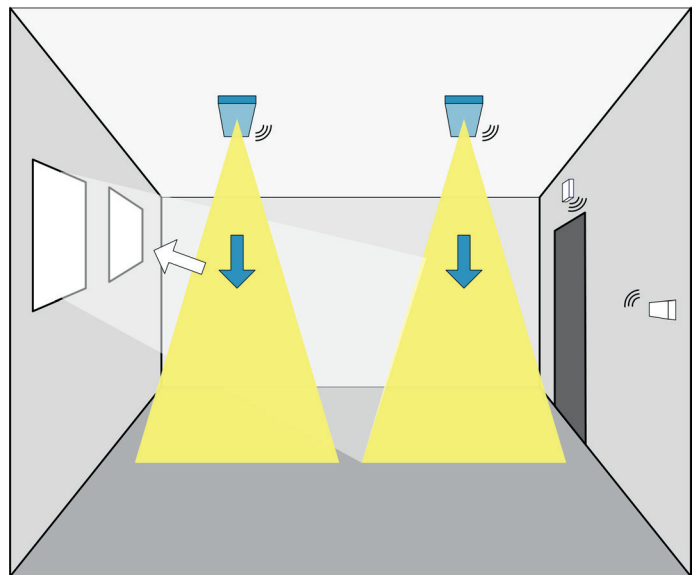
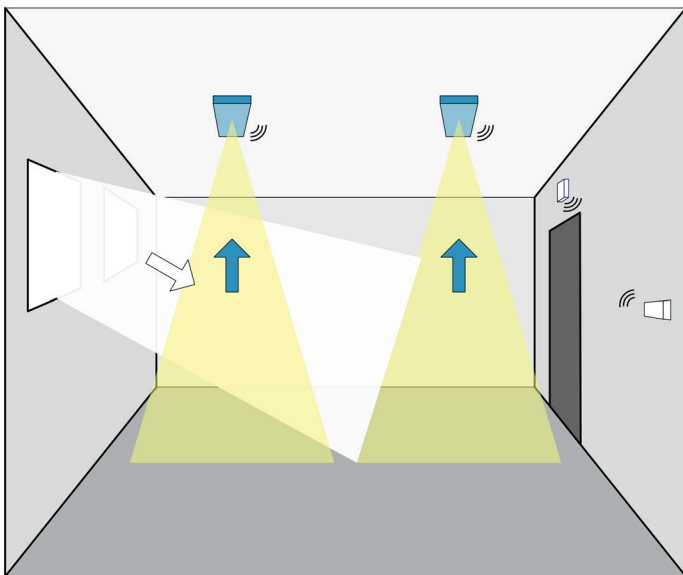
Programming:

- free programming of:
 - 16 main- and 240 sub-dimming scenes in 13 steps from 10 % to 100 % per controller
 - 16 main- and 2 sub-dimming scenes in 13 steps from 10 % to 100 % per luminaire
- free assignment of each luminaire to 16 main- and 2 sub-dimming scenes
- free assignment of each interface to the 16 main- and 240 sub-dimming scenes

The in- or output of parameters and data is done by an external computer with the software UMDL-Visual or Beghelli PRÄZISA services over the GSM net.

Through the communication via radio bus UMDL is also an optimal solution for the renewal of lightings in existing buildings.

The energy consumption can be reduced with Logica Auto-Dimm between 10 % to 60 % and with Logica FM Control between 10 % to 50 % (fig. 1)



Further cost reduction: the energy consumption can be reduced additionally through dimming by 10 % to 60 % and through presence control by 10 % to 50 %



Fig. 1



Technical data

Mounting:	in distribution (DIN rail)
Body:	plastic
Dimensions (HxWxD):	90 x 160 x 75 mm
Degree of protection:	IP 20
Protection class:	II

Logica FM Control

Central FM controller for automatic monitoring and control of up to 999 luminaires with Logica AutoDimm resp. FM interface module with wireless communication via radio bus.

Monitoring functions:

- automatic monitoring of the energy consumption of all luminaires
- additionally via remote monitoring by Beghelli PRÄZISA services
 - automatic monitoring of the energy consumption per luminaire
 - automatic monitoring of the duration per luminaire

Control functions:

- 16 main- and 240 sub-dimming scenes in 13 steps from 10 % to 100 % per controller
- 16 main- and 2 sub-dimming scenes per luminaire
- manual or automatic activation of the dimming scenes over internal time control resp. external light and presence sensors or switches

Connection of the sensors or switches to:

- internal control inputs (3)
- external FM interface module (option) with control inputs
- free programming of the dimming scenes
- free assignment of each luminaire to 16 main- and 2 sub-dimming scenes
- free assignment of each internal or external control input to the 16 main- and 240 sub-dimming scenes

Operation:

Integrated GSM module for remote control of a computer with the software UMDL-Visual.

Interfaces:

1 x RS485 interface for connection of:

- USB interface module
- ethernet interface module

1 x RS232 interface for connection of:

- GSM interface module

Type: Logica FM Control
Order code: 20202



GSM interface

Module for communication between Logica FM Control and a computer with the software UMDL-Visual over the GSM net.

Technical data

Mounting:	in distribution (DIN rail)
Body:	plastic
Dimensions (HxWxD):	90 x 160 x 75 mm
Degree of protection:	IP 20
Protection class:	II

Type: GSM interface
Order code: 16306

USB interface

Module for direct connection of a Logica FM Control to a computer with the software UMDL-Visual.

Technical data

Body: metal
 Dimensions (HxWxD): 26 x 150 x 75 mm
 Degree of protection: IP 20
 Protection class: III

Type: USB interface
Order code: 16319

Ethernet-Interface

Module for indirect connection of a Logica FM Control to a computer with the software UMDL-Visual over a local network.

Technical data

Body: plastic
 Dimensions (HxWxD): 30 x 87 x 56 mm
 Degree of protection: IP 20
 Protection class: III

Type: ethernet interface
Order code: 12135

FM interface module I / O

Interface module with 2 digital control inputs (contact) and 1 analog control input (1-10V signal) with the following functions:

- Activation of main- or sub-dimming scenes through switch contact
- Switching of single luminaires or luminaire groups (ON/OFF) through switch contact
- Dimming of single luminaires or luminaire groups (10 % to 100 %) through push contact
- Dimming of single luminaires or luminaire groups through 1-10V signal
- free programming of the functions
- free assignment of each control input to the 16 main- and 240 sub-dimming scenes
- 2 LED for status indication of the digital control inputs

Wireless communication via radio bus between the FM interface module and Logica FM Control.

Type: FM interface module I / O
Order code: 20103

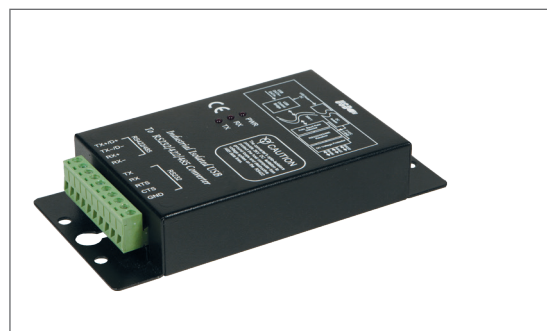
FM I/O interface K

Interface module with 1 digital control input (contact) with the following functions:

- Activation of main- or sub-dimming scenes through switch contact
- Switching of single luminaires or luminaire groups (ON/OFF) through switch contact
- Dimming of single luminaires or luminaire groups (10 % to 100 %) through push contact
- free programming of the functions
- free assignment of each control input to the 16 main- and 240 sub-dimming scenes
- 1 LED for status indication of the digital control inputs

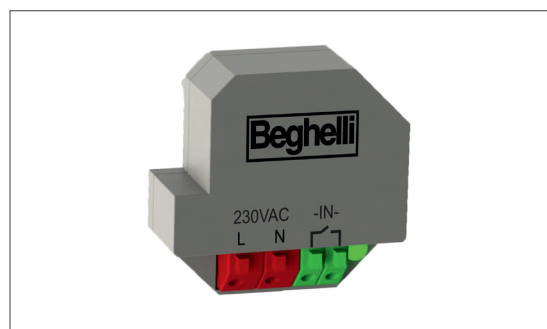
Wireless communication via radio bus between the FM interface module and Logica FM Control.

Type: FM interface module
Order code: 20104



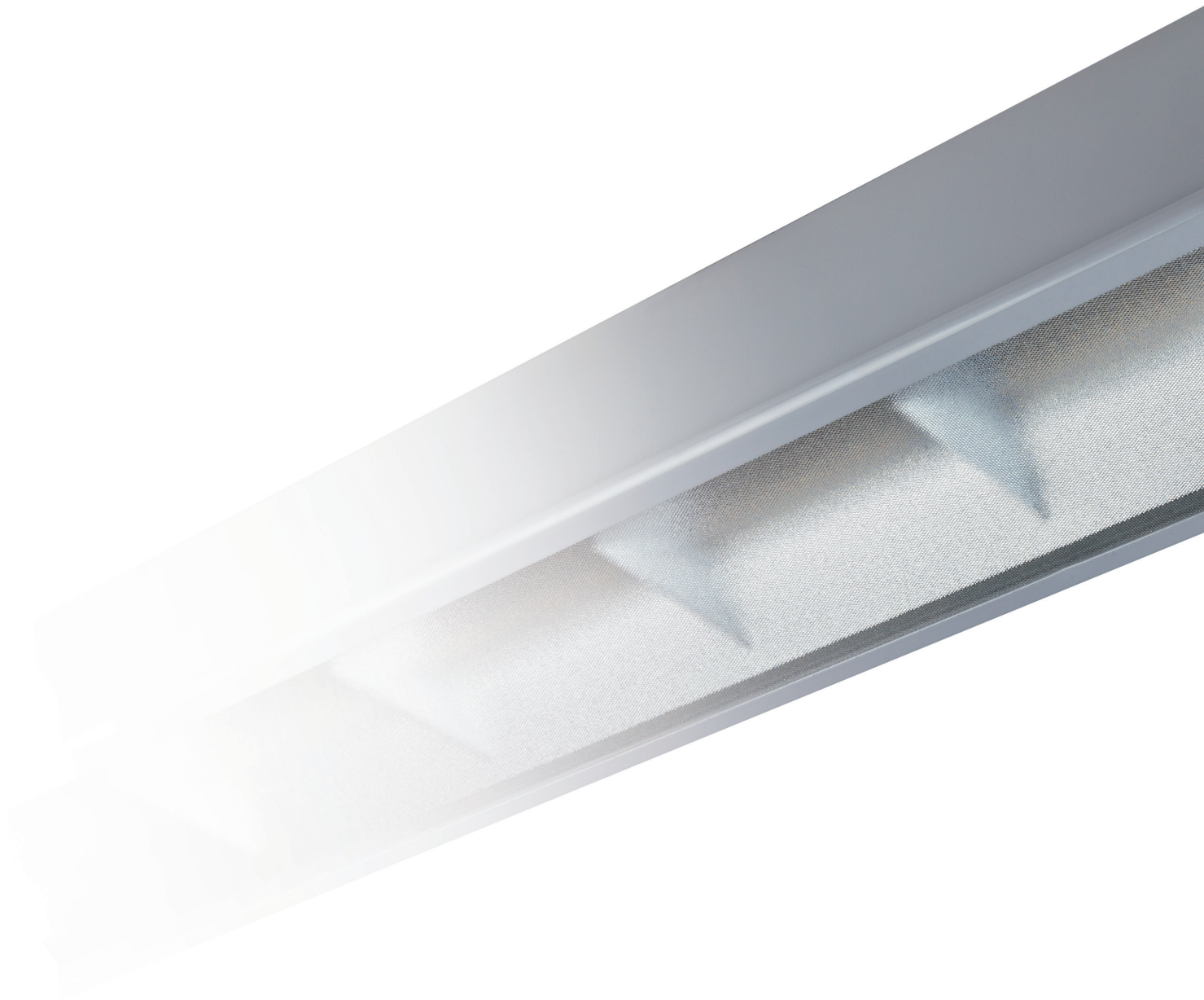
Technical data

Control input 1: contact (potential-free)
 Control input 2: contact (potential-free)
 Control input 3: analog signal (1-10 V)
 Mains supply: 24 V / 0.05 A DC
 Mounting: in distribution (DIN rail)
 Body: plastic
 Dimensions (HxWxD): 90 x 35 x 57 mm
 Degree of protection: IP 20
 Protection class: II



Technical data

Control input: contact (potential-free)
 Mains supply: 230 V / 0.01 A / 50 Hz
 Mounting: installation box (recessed)
 Body: plastic
 Dimensions (HxWxD): 47 x 47 x 22 mm
 Degree of protection: IP 20
 Protection class: II



AcciaioECO LED

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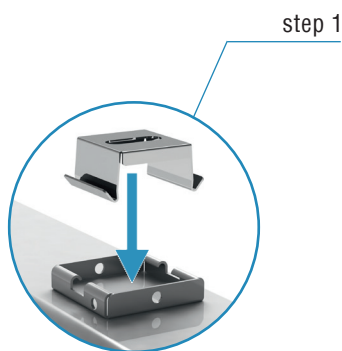
**Damp and waterproof luminaires of high impact resistance
with top performance**



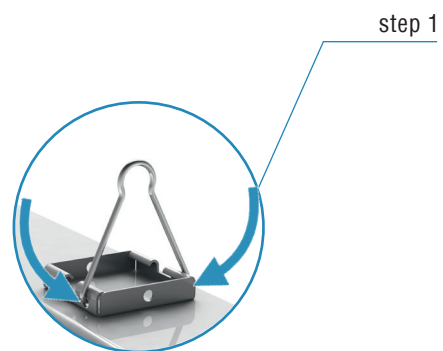
- ✦ high efficiency (max. 111 lm/W)
- ✦ up to 42.4 % lower luminaire quantity
- ✦ up to 63.2 % lower energy consumption
- ✦ up to 4 times faster monted and installed
- ✦ Options:
integrated emergency luminaire
SicuroLED inverter

Easy handling

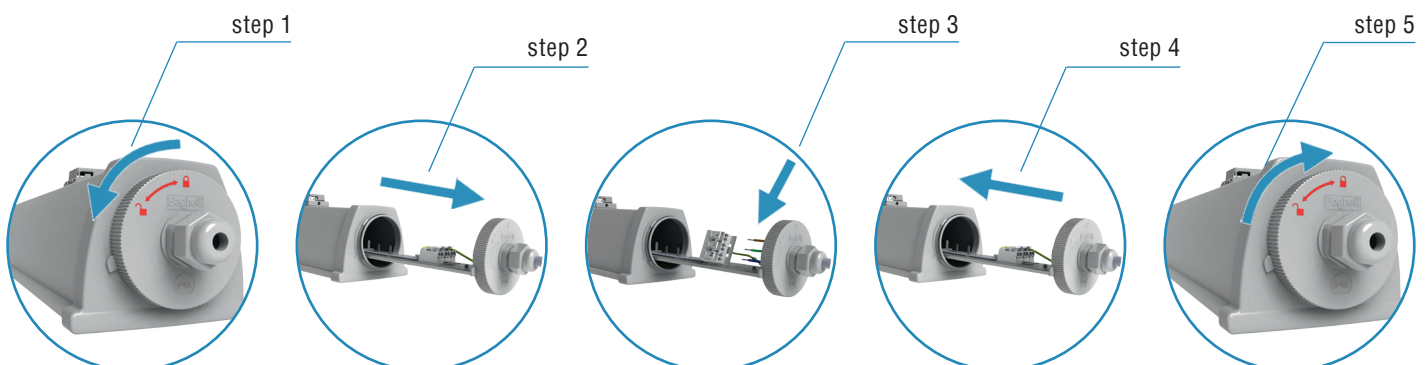
In 1 step mounted

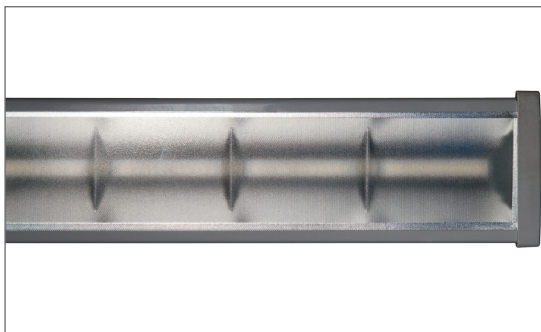


or



In 5 steps installed





AcciaioECO LED

Damp and waterproof luminaire with high impact resistance and top performance: Linear LED module with parabolic shaped aluminium reflector, specular, for high luminaire efficiency factor, narrow-wide beam. Body made of galvanized sheet steel, powder-coated, with caps made of polycarbonate / polybutylene terephthalate. Diffuser made of tempered glass, structured. Assembly for surface wall mounting, surface ceiling mounting or pendulum.

Advantages:

- high efficiency (max. 111 lm/W)
- up to 42,4% less luminaires and 63,2% less connected load¹
- easy handling through quick system
- up to 4 times faster mounted and installed
- extremely resistant against mechanical and chemical stress
- optional through wiring
- optional emergency lighting cap
- optional version with SicuroLED inverter as combined general lighting and emergency luminaire
- exchangeable LED module and LED control gear

¹ In comparison to standard luminaires with T5 lamp 80W



Technical data

Mounting: surface wall or ceiling mounting, chain / wire suspension

Body: sheet steel, galvanized, powder-coated, grey (RAL 7040)

Caps: polycarbonate / polybutylene terephthalate, grey (RAL 7040)

Diffuser: tempered glass, structured

Reflector: aluminium, specular

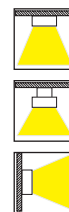
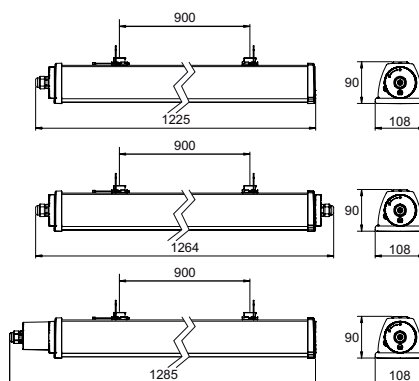
Control gear: electronic ($\cos \phi \geq 0,9$)

Mains supply: 198 V - 254 V / 50 Hz

Degradation: L80 / mortality: B20

Lifetime: > 60000 h

Ambient temperature: -20 to +40 °C



Accessories to be ordered separately

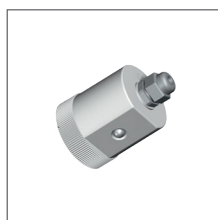
Emergency lighting cap to upgrade a self-contained emergency luminaire with power LED, special lens and integrated automatic test device Autotest, Logica or Logica FM through exchange of one of the caps of the luminaire.



Order code

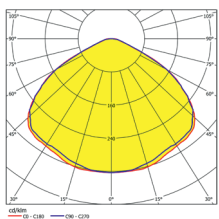
Description

20082	Emergency lighting cap LED 1 W (180 lm), NMO, 1 h, NiMH battery 7,2 V / 0,6 Ah, Autotest
20086	Emergency lighting cap LED 1 W (180 lm), NMO, 1 h, NiMH battery 7,2 V / 0,6 Ah, Logica-FM



Lighting data

Light distribution diagram



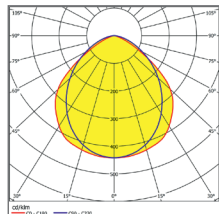
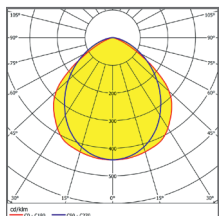
Order code

Mounting height (m)

Spacing (m)
for escape route lighting (1.0 lx) and anti-panic area lighting (0.5 lx)

			1.0 lx	0.5 lx	1.0 lx	0.5 lx	1.0 lx	0.5 lx	1.0 lx	0.5 lx
20082	2.5	3.4	3.6	8.5	8.4	8.5	8.4	3.4	3.6	
20086	3.0	3.6	3.8	9.2	9.4	9.2	9.4	3.6	3.8	
	3.5	3.8	4.1	9.8	10.2	9.8	10.2	3.8	4.1	
	4.0	3.7	4.3	10.2	10.8	10.2	10.8	3.7	4.3	
	4.5	3.6	4.5	10.5	11.4	10.5	11.4	3.6	4.5	
	5.0	3.3	4.5	10.7	11.8	10.6	11.8	3.3	4.5	
	6.0	2.5	4.4	10.6	12.5	10.5	12.5	2.4	4.4	
	7.0	-	4.2	-	12.9	-	12.9	-	4.2	
	7.5	-	3.8	-	13.0	-	13.0	-	3.8	

Light distribution diagram



Order code Type

Lamp

Luminous
flux

Light color

Color
renderingPower
consumption

Weight

PU

Versions without through wiring

A136E	Acciaio E LED 1 x 36 W D 4 K	LED 17 W	2100 lm	4000 K	>80	19 W	3.2 kg	1
A236E	Acciaio E LED 2 x 36 W D 4 K	LED 32 W	4000 lm	4000 K	>80	36 W	3.2 kg	1
A158E	Acciaio E LED 1 x 58 W D 4 K	LED 25 W	3100 lm	4000 K	>80	28 W	3.2 kg	1
A258E	Acciaio E LED 2 x 58 W D 4 K	LED 52 W	6000 lm	4000 K	>80	55 W	3.2 kg	1

Versions with through wiring 5 x 1.5 mm

A136EP	Acciaio E LED P 1 x 36 W D 4 K	LED 17 W	2100 lm	4000 K	>80	19 W	3.5 kg	1
A236EP	Acciaio E LED P 2 x 36 W D 4 K	LED 32 W	4000 lm	4000 K	>80	36 W	3.5 kg	1
A158EP	Acciaio E LED P 1 x 58 W D 4 K	LED 25 W	3100 lm	4000 K	>80	28 W	3.5 kg	1
A258EP	Acciaio E LED P 2 x 58 W D 4 K	LED 52 W	6000 lm	4000 K	>80	55 W	3.5 kg	1



Version with automatic dimming Logica AutoDimm with integrated light sensor and daylight dependent control of the light flux for implementation of a constant level of lighting as well as optional with centralised monitoring and control through Logica FM Control.

Versions without through wiring

AD136E	Acciaio E DIM 1 x 36 D 4 K	LED 17 W	2100 lm	4000 K	>80	19 W	3.2 kg	1
AD236E	Acciaio E DIM 2 x 36 D 4 K	LED 32 W	4000 lm	4000 K	>80	36 W	3.2 kg	1
AD158E	Acciaio E LED DIM 1 x 58 D 4 K	LED 25 W	3100 lm	4000 K	>80	28 W	3.2 kg	1
AD258E	Acciaio E LED DIM 2 x 58 D 4 K	LED 52 W	6000 lm	4000 K	>80	55 W	3.2 kg	1

Versions with through wiring 5 x 1.5 mm

AD136EP	Acciaio E LED DIM P 1 x 36W D 4K	LED 17 W	2100 lm	4000 K	>80	19 W	3.5 kg	1
AD236EP	Acciaio E LED DIM P 2 x 36W D 4K	LED 32 W	4000 lm	4000 K	>80	36 W	3.5 kg	1
AD158EP	Acciaio E LED DIM P 1 x 58W D 4K	LED 25 W	3100 lm	4000 K	>80	28 W	3.5 kg	1
AD258EP	Acciaio E LED DIM P 2 x 58W D 4K	LED 52 W	6000 lm	4000 K	>80	55 W	3.5 kg	1



With integrated SicuroLED inverter for operation on the decentralised supply system SicuroLED.

Order code

Type

Lamp

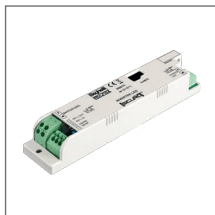
Luminous
flux

Light color

Color
renderingPower
consumption

Weight

PU



A136E-S24	Acciaio E LED 1 x 36 W D 4 K	LED 17 W	2100 lm	4000 K	>80	19 W	3.2 kg	1
A236E-S24	Acciaio E LED 2 x 36 W D 4 K	LED 32 W	4000 lm	4000 K	>80	36 W	3.2 kg	1
A158E-S24	Acciaio E LED 1 x 58 W D 4 K	LED 25 W	3100 lm	4000 K	>80	28 W	3.2 kg	1
A258E-S24	Acciaio E LED 2 x 58 W D 4 K	LED 52 W	6000 lm	4000 K	>80	55 W	3.2 kg	1

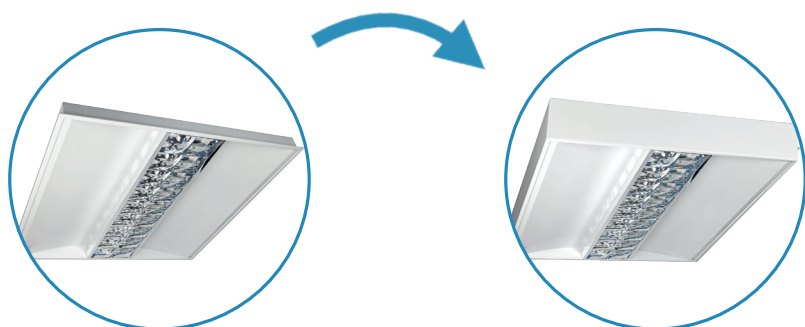


Recessed-mounted / surface-mounted louvre luminaire

- ✦ high efficiency (max. 102 lm/W)
- ✦ up to 49.2 % lower energy consumption
- ✦ optimised light distribution through 18 reflector segments
- ✦ optimised luminance efficiency through lens optics
- ✦ Options:
 - Logica FM emergency supply module
 - SicuroLED inverter

Universal version

Through additional housing from the recessed-mounted to the surface-mounted ceiling version.





I418LED

Recessed-mounted luminaire / surface-mounted luminaire as louvre luminaire in universal version: LED module with special lens optics. Primary reflector as segmented, parabolic shaped louvre made of specular pure aluminium (99.99 %) and secondary reflector made of sheet steel, white. Luminance density $L > 200 \text{ cd/m}^2$ for a beam angle above 65° roundly ($\text{UGR} < 19$). Body made of sheet steel, powder-coated. Assembly for recessed ceiling mounting (module dimensions M600 and M625) with hidden or visible support rails resp. cut out openings or surface ceiling mounting.

Advantages:

- high efficiency (max. 102 lm/W)
- up to 49.3 % less connected load ¹
- universal version for recessed mounting or surface mounting through additional housing
- optional version with integrated self-contained emergency supply module as combined general lighting and emergency luminaire
- optional version with SicuroLED inverter as combined general lighting and emergency luminaire

¹ In comparison to standard luminaires with T8-Lp 4 x 18 W



Technical data

Mounting: recessed ceiling mounting (Modulmaß 625) or surface ceiling mounting

Body: sheet steel, powder-coated, white (RAL 9003)

Louvre: pure aluminium (99.9 %), specular

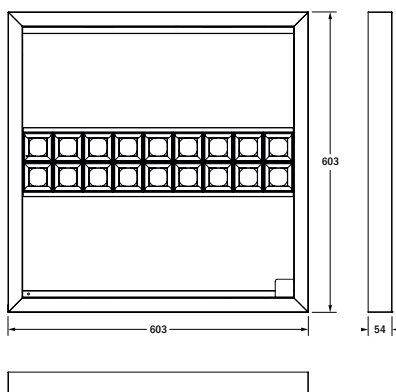
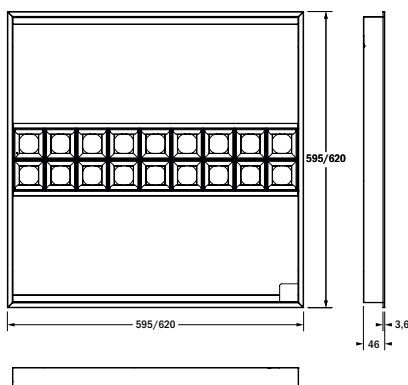
Control gear: electronic ($\cos \varphi \geq 0,9$)

Mains supply: 198 V - 254 V/50 Hz

Degradation: L80 / mortality: B20

Lifetime: 60000 h

Ambient temperature: -20 to $+40^\circ\text{C}$



Accessories to be ordered separately

Order code

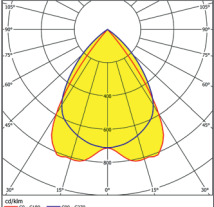
Description

10403

Mounting bracket for recessed ceiling mounting with hidden support rail or cut out opening


20093

Additional housing for surface ceiling mounting (version for M600)

Light distribution diagram	Order code	Type	Lamp	Luminous flux	Light color	Color rendering	Power consumption	Weight	PU
	I418LED600	I LED 4 x 18 W B 4 K	LED 28 W	4000 lm	4000 K	>80	31.0 W	3.2 kg	1
	I418LED625	I LED 4 x 18 W B 4 K	LED 28 W	4000 lm	4000 K	>80	31.0 W	3.2 kg	1




Version with automatic dimming Logica AutoDimm with integrated light sensor and daylight dependent control of the light flux for implementation of a constant level of lighting as well as optional with centralised monitoring and control through Logica FM Control.

	Order code	Type	Lamp	Luminous flux	Light color	Color rendering	Power consumption	Weight	PU
	I418LED600	I LED DIM 4 x 18 W B 4 K	LED 28 W	4000 lm	4000 K	>80	31.0 W	3.2 kg	1
	I418LED625	I LED DIM 4 x 18 W B 4 K	LED 28 W	4000 lm	4000 K	>80	31.0 W	3.2 kg	1



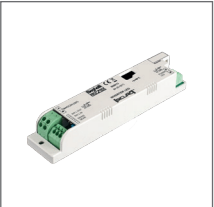
With optional self-contained emergency supply module for a nominal duration of 1 h or 3 h with automatic test device Autotest or Logica FM.

	Order code	Type	Lamp	Luminous flux	Light color	Color rendering	Power consumption	Weight	PU
	I418LED600-__¹	I LED 4 x 18 W B 4 K	LED 28 W	4000 lm	4000 K	>80	31.0 W	3.2 kg	1
	I418LED625-__¹	I LED 4 x 18 W B 4 K	LED 28 W	4000 lm	4000 K	>80	31.0 W	3.2 kg	1

¹ Order code with suffix AT = Autotest / with suffix FM = Logica FM



With integrated SicuroLED inverter for operation on the decentralised supply system SicuroLED.


	Order code	Type	Lamp	Luminous flux	Light color	Color rendering	Power consumption	Weight	PU
	I418LED600-S24	I LED 4 x 18 W B 4 K	LED 28 W	3150 lm	4000 K	>80	31.0 W	3.2 kg	1
	I418LED625-S24	I LED 4 x 18 W B 4 K	LED 28 W	4000 lm	4000 K	>80	31.0 W	3.2 kg	1



P236LED /P258LED

21

Surface-mounted / pendulum louvre luminaire

- 
- ✦ high efficiency (max. 142 lm/W)
 - ✦ up to 49.3 % lower luminaire quantity
 - ✦ optimised light distribution through 18 reflector segments
 - ✦ optimised luminance efficiency through lens optics
 - ✦ Options:
 - Logica FM emergency supply module
 - SicuroLED-Inverter

Single or strip assembly

Single or row assembly through connection element.



NEU



P236LED / P258LED

Surface-mounted / pendulum luminaire as louvre luminaire in universal version: LED module with special lens optics. Primary reflector as segmented, parabolic shaped louvre made of specular pure aluminium (99.99 %). Luminance density $L > 200 \text{ cd/m}^2$ for a beam angle above 65° roundly ($\text{UGR} < 19$). Body made of sheet steel, powder-coated. Assembly for surface ceiling mounting or pendulum for single or strip assembly.

Advantages:

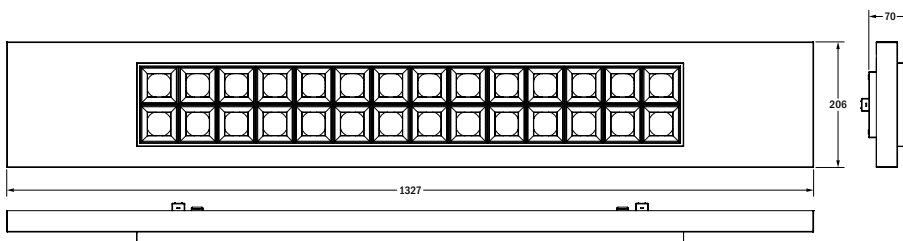
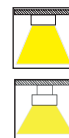
- high efficiency (max. 142 lm/W)
- up to 57.9 % less connected load ¹
- universal version for single or or strip assembly through connection element
- optional version with integrated self-contained emergency supply module as combined general lighting and emergency luminaire
- optional version with SicuroLED inverter as combined general lighting and emergency luminaire

¹ In comparison to standard luminaires with T8-Lp 2 x 58 W



Technical data

Mounting: surface ceiling mounting or pendulum
 Body: sheet steel, powder-coated, white (RAL 9003)
 Louvre: pure aluminium (99.9 %), specular
 Control gear: electronic ($\cos \phi \geq 0,9$)
 Mains supply: 198 V - 254 V/50 Hz
 Degradation: L80/ mortality: B20
 Lifetime: > 60000 h
 Ambient temperature: -20 to +40 °C



Accessories to be ordered separately

Order code

Description



20080

Wire suspension, max. 1200 m, without supply cable

20081

Wire suspension, max. 1200 m, with supply cable



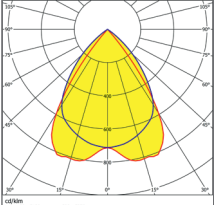
20088

Connection element for lighting strip assembly with surface ceiling mounting



20087

Connection element for lighting strip assembly with pendulum

Light distribution diagram	Order code	Type	Lamp	Luminous flux	Light color	Color rendering	Power consumption	Weight	PU
	P236LED	P LED 2 x 36 W B 4 K	LED 32 W	4000 lm	4000 K	>80	36.0 W	4.6 kg	1
	P258LED	P LED 2 x 58 W B 4 K	LED 43 W	5100 lm	4000 K	>80	47.5 W	4.6 kg	1



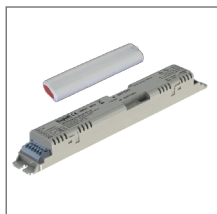
Version with automatic dimming Logica AutoDimm with integrated light sensor and daylight dependent control of the light flux for implementation of a constant level of lighting as well as optional with centralised monitoring and control through Logica FM Control.

Order code	Type	Lamp	Luminous flux	Light color	Color rendering	Power consumption	Weight	PU
PD236LED	P LED DIM 2 x 36 W B 4 K	LED 32 W	4000 lm	4000 K	>80	36.0 W	4,6 kg	1
PD258LED	P LED DIM 2 x 58 W B 4 K	LED 43 W	5100 lm	4000 K	>80	47.5 W	4,6 kg	1



With optional self-contained emergency supply module for a nominal duration of 1 h or 3 h with automatic test device Autotest or Logica FM.

Order code	Type	Lamp	Luminous flux	Light color	Color rendering	Power consumption	Weight	PU
P236LED-__¹	P LED 2 x 36 W B 4 K	LED 32 W	4000 lm	4000 K	>80	36.0 W	4.6 kg	1
P258LED-__¹	P LED 2 x 58 W B 4 K	LED 43 W	5100 lm	4000 K	>80	47.5 W	4.6 kg	1



¹ Order code with suffix AT= Autotest/with suffix FM = Logica FM



With integrated SicuroLED inverter for operation on the decentralised supply system SicuroLED.

Order code	Type	Lamp	Luminous flux	Light color	Color rendering	Power consumption	Weight	PU
P236LED-S24	P LED 2 x 36 W B 4 K	LED 32 W	4000 lm	4000 K	>80	36.0 W	4.6 kg	1
P258LED-S24	P LED 2 x 58 W B 4 K	LED 43 W	5100 lm	4000 K	>80	47.5 W	4.6 kg	1





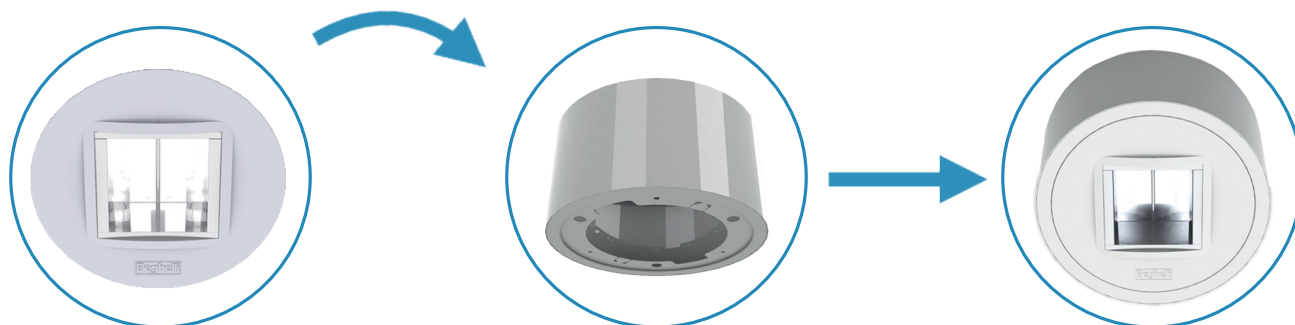
D226LED

Recessed-mounted / surface-mounted downlight

- ✦ high efficiency (max. 100 lm/W)
- ✦ up to 60.3 % lower energy consumption
- ✦ beam angle 120 °
- ✦ up to 4 times faster mounted and installed
- ✦ Options:
 - Logica FM emergency supply module
 - SicuroLED inverter

Universal version

Through additional housing from the recessed-mounted to the surface-mounted ceiling version.





D226LED

Surface-mounted / recessed-mounted luminaire as downlight: body made of aluminium with parabolic shaped reflector made of specular pure aluminium (99.99 %). Beam angle 120 °. Assembly for surface ceiling mounting or recessed ceiling mounting.

Advantages:

- high efficiency (max. 100 lm/W)
- up to 60.3 % less connected load¹
- universal version for recessed mounting or surface mounting through additional housing
- optional version with integrated self-contained emergency supply module as combined general lighting and emergency luminaire
- optional version with SicuroLED inverter as combined general lighting and emergency luminaire

¹ In comparison to standard luminaires with TC-DEL-Lp 2 x 26 W



Technical data

Mounting: surface ceiling mounting or recessed ceiling mounting

Body: aluminium, powder-coated, white (RAL 9003)

Louvre: pure aluminium (99.9 %), specular

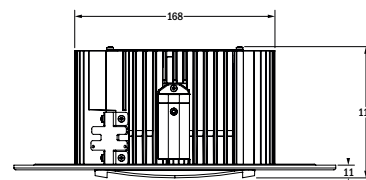
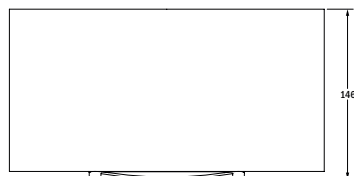
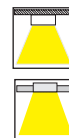
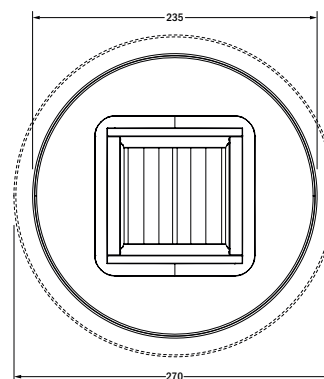
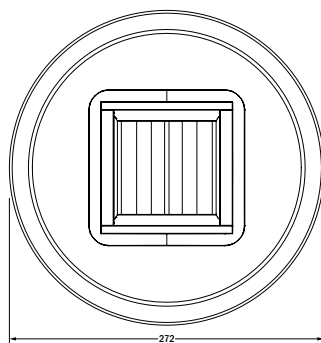
Control gear: electronic ($\cos \varphi \geq 0,9$)

Mains supply: 198 V - 254 V / 50 Hz

Degradation: L80 / mortality: B20

Lifetime: 60000 h

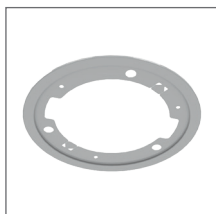
Ambient temperature: -20 to +40 °C



Accessories to be ordered separately

Order code

Description



20090

Adapter frame for recessed ceiling mounting in openings with a diameter from 200 mm to 240 mm

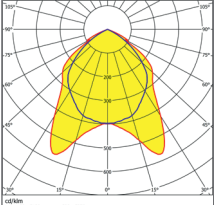


20091

Additional housing for surface ceiling mounting

20098

Diffuser pane, satined

Light distribution diagram	Order code	Type	Lamp	Luminous flux	Light color	Color rendering	Power consumption	Weight	PU
	D226LED	D LED 2 x 26 W 3 K	LED 16 W	1700 lm	3000 K	>80	18.0 W	1.9 kg	1
	D226LED4	D LED 2 x 26 W 4 K	LED 16 W	1800 lm	4000 K	>80	18.0 W	1.9 kg	1



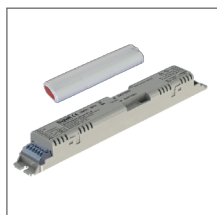
Version with automatic dimming Logica AutoDimm with integrated light sensor and daylight dependent control of the light flux for implementation of a constant level of lighting as well as optional with centralised monitoring and control through Logica FM Control.

Order code	Type	Lamp	Luminous flux	Light color	Color rendering	Power consumption	Weight	PU
DD226LED	D LED DIM 2 x 26 W 3 K	LED 16 W	1700 lm	3000 K	>80	18.0 W	1.9 kg	1
DD226LED4	D LED DIM 2 x 26 W 4 K	LED 16 W	1800 lm	4000 K	>80	18.0 W	1.9 kg	1



With optional self-contained emergency supply module for a nominal duration of 1 h or 3 h with automatic test device Autotest or Logica FM.

Order code	Type	Lamp	Luminous flux	Light color	Color rendering	Power consumption	Weight	PU
D226LED__¹	D LED 2 x 26 W 3 K	LED 16 W	1700 lm	3000 K	>80	18.0 W	1.9 kg	1
D226LED4__¹	D LED 2 x 26 W 4 K	LED 16 W	1800 lm	4000 K	>80	18.0 W	1.9 kg	1

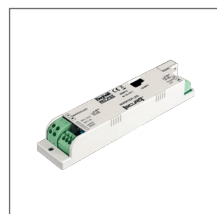


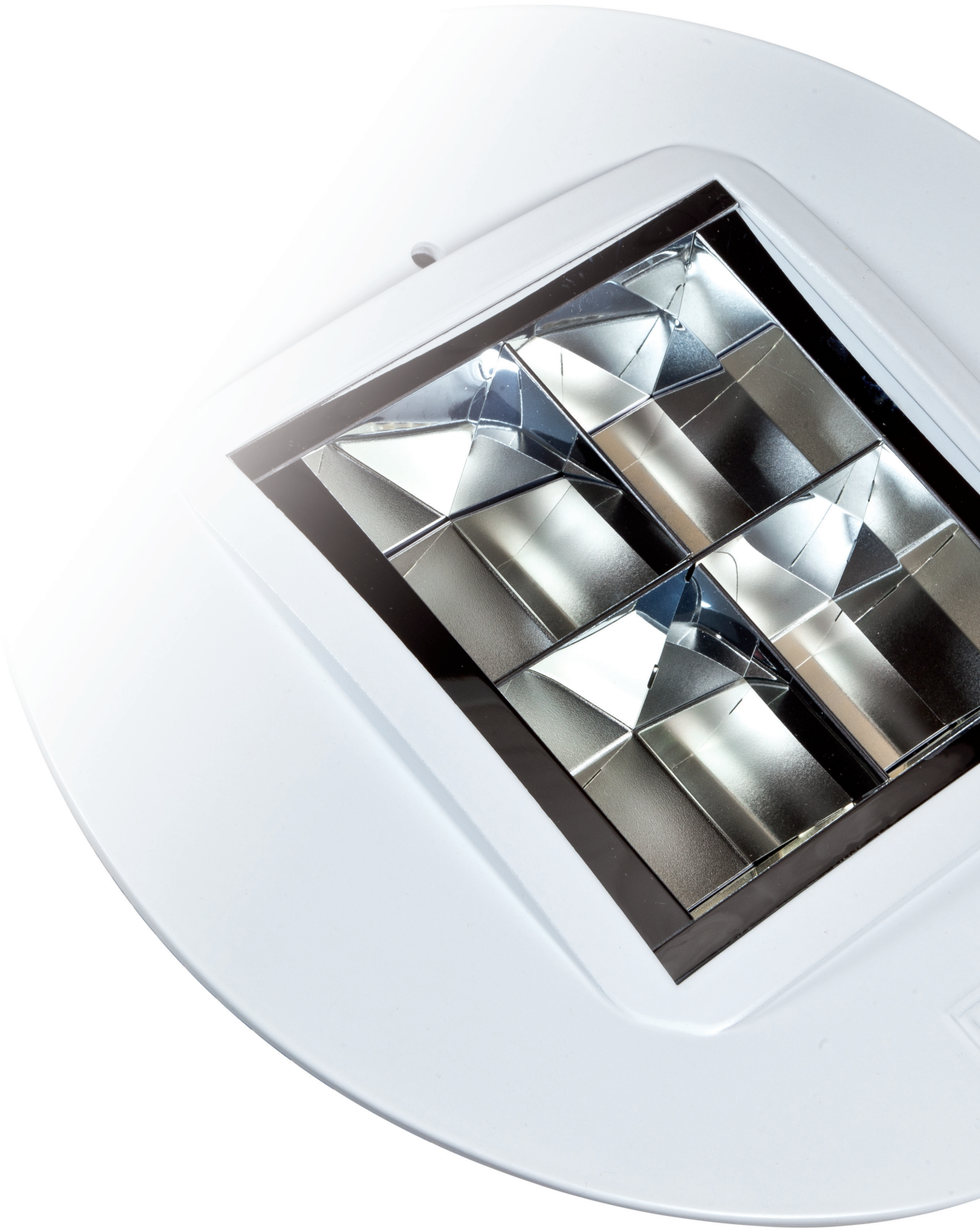
¹ Order code with suffix AT= Autotest / with suffix FM = Logica FM



With integrated SicuroLED inverter for operation on the decentralised supply system SicuroLED.

Order code	Type	Lamp	Luminous flux	Light color	Color rendering	Power consumption	Weight	PU
D226LED-S24	D LED 2 x 26 W 3 K	LED 16 W	1700 lm	3000 K	>80	18.0 W	1.9 kg	1
D226LED4-S24	D LED 2 x 26 W 4 K	LED 16 W	1800 lm	4000 K	>80	18.0 W	1.9 kg	1





D170LED / D1150LED

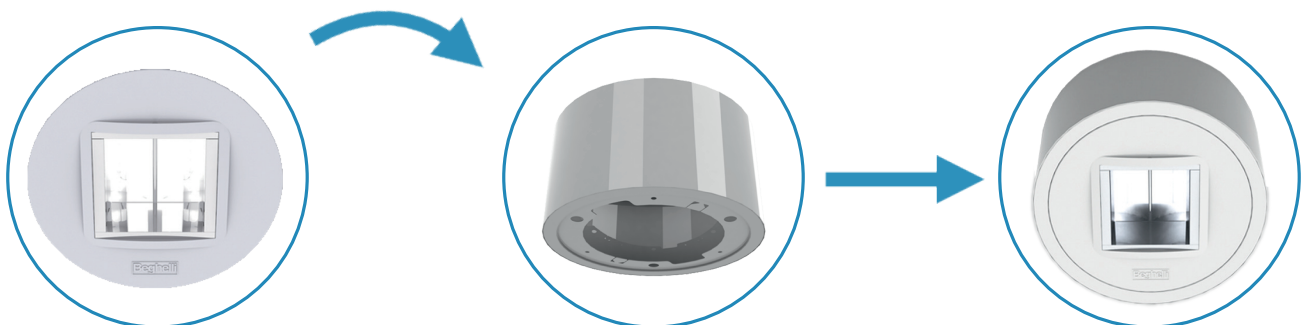
29

Recessed-mounted / surface-mounted downlight

- ✦ high efficiency (max. 90 lm/W)
- ✦ beam angle 60 °
- ✦ Options:
 - Logica FM emergency supply module
 - SicuroLED inverter

Universal version

Through additional housing from the recessed-mounted to the surface-mounted ceiling version.





D170LED / D1150LED

Surface-mounted / recessed-mounted luminaire as downlight: body made of aluminium with reflector as segmented, parabolic shaped louvre made of specular pure aluminium (99.99 %). Beam angle 60 °. Luminance density $L > 200 \text{ cd/m}^2$ for a beam angle above 65 ° roundly ($\text{UGR} < 22$). Assembly for surface ceiling mounting or recessed ceiling mounting.

Advantages:

- high efficiency (max. 90 lm/W)
- universal version for recessed mounting or surface mounting through additional housing
- optional version with integrated self-contained emergency supply module as combined general lighting and emergency luminaire
- optional version with SicuroLED inverter as combined general lighting and emergency luminaire



Technical data

Mounting: surface ceiling mounting or recessed ceiling mounting

Body: aluminium, powder-coated, white (RAL 9003)

Louvre: pure aluminium (99.9 %), specular

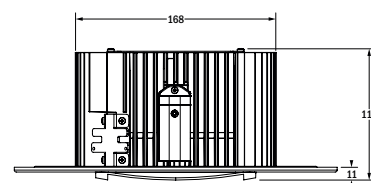
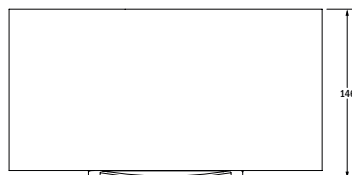
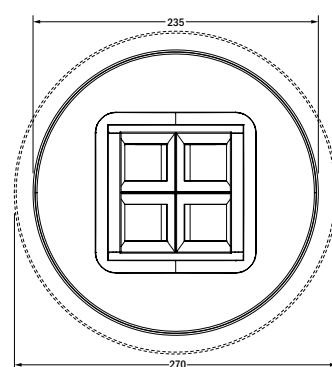
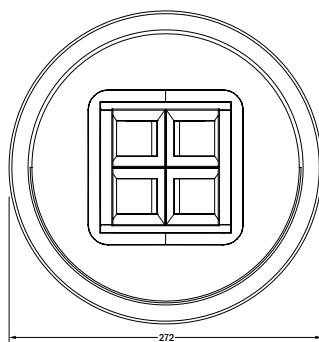
Control gear: electronic ($\cos \phi \geq 0,9$)

Mains supply: 198 V - 254 V / 50 Hz

Degradation: L80 / mortality: B20

Lifetime: 60000 h (D170LED) 50000 h (D1150LED)

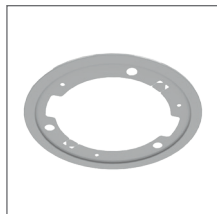
Ambient temperature: -20 to +40 °C



Accessories to be ordered separately

Order code

Description



20090

Adapter frame for recessed ceiling mounting in openings with a diameter from 200 mm to 240 mm

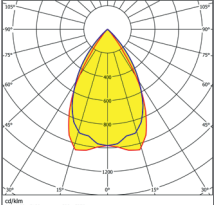


20091

Additional housing for surface ceiling mounting

20098

Diffuser pane, satined

Light distribution diagram	Order code	Type	Lamp	Luminous flux	Light color	Color rendering	Power consumption	Weight	PU
	D170LED	D LED 1 x 70 W 3 K	LED 36 W	3300 lm	3000 K	>80	40.0 W	1.9 kg	1
	D170LED4	D LED 1 x 70 W 4 K	LED 36 W	3400 lm	4000 K	>80	40.0 W	1.9 kg	1
	D1150LED	D LED 1 x 150 W 3 K	LED 58 W	5500 lm	3000 K	>80	64.5 W	1.9 kg	1
	D1150LED4	D LED 1 x 150 W 4 K	LED 58 W	5800 lm	4000 K	>80	64.5 W	1.9 kg	1



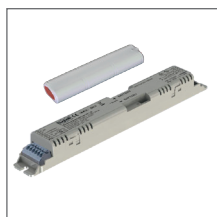
Version with automatic dimming Logica AutoDimm with integrated light sensor and daylight dependent control of the light flux for implementation of a constant level of lighting as well as optional with centralised monitoring and control through Logica FM Control.

Order code	Type	Lamp	Luminous flux	Light color	Color rendering	Power consumption	Weight	PU
DD170LED	D LED DIM 1 x 70 W 3 K	LED 36 W	3300 lm	3000 K	>80	40.0 W	1.9 kg	1
DD170LED4	D LED DIM 1 x 70 W 4 K	LED 36 W	3400 lm	4000 K	>80	40.0 W	1.9 kg	1
DD1150LED	D LED DIM 1 x 150 W 3 K	LED 58 W	5500 lm	3000 K	>80	64.5 W	1.9 kg	1
DD1150LED4	D LED DIM 1 x 150 W 4 K	LED 58 W	5800 lm	4000 K	>80	64.5 W	1.9 kg	1



With optional self-contained emergency supply module for a nominal duration of 1 h or 3 h with automatic test device Autotest or Logica FM.

Order code	Type	Lamp	Luminous flux	Light color	Color rendering	Power consumption	Weight	PU
D170LED__¹	D LED 1 x 70 W 3 K	LED 36 W	3300 lm	3000 K	>80	40.0 W	1.9 kg	1
D170LED4__¹	D LED 1 x 70 W 4 K	LED 36 W	3400 lm	4000 K	>80	40.0 W	1.9 kg	1
D1150LED__¹	D LED 1 x 150 W 3 K	LED 58 W	5500 lm	3000 K	>80	64.5 W	1.9 kg	1
D1150LED4__¹	D LED 1 x 150 W 4 K	LED 58 W	5800 lm	4000 K	>80	64.5 W	1.9 kg	1

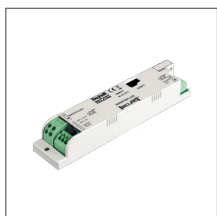


¹ Order code with suffix AT= Autotest / with suffix FM = Logica FM



With integrated SicuroLED inverter for operation on the decentralised supply system SicuroLED.

Order code	Type	Lamp	Luminous flux	Light color	Color rendering	Power consumption	Weight	PU
D170LED-S24	D LED 1 x 70 W 3 K	LED 36 W	3300 lm	3000 K	>80	40.0 W	1.9 kg	1
D170LED4-S24	D LED 1 x 70 W 4 K	LED 36 W	3400 lm	4000 K	>80	40.0 W	1.9 kg	1
D1150LED-S24	D LED 1 x 150 W 3 K	LED 58 W	5500 lm	3000 K	>80	64.5 W	1.9 kg	1
D1150LED4-S24	D LED 1 x 150 W 4 K	LED 58 W	5800 lm	4000 K	>80	64.5 W	1.9 kg	1





D170LED V / D1150LED V

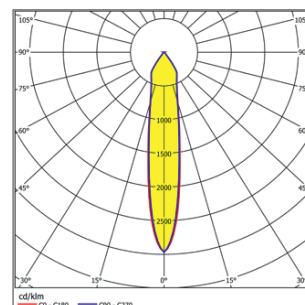
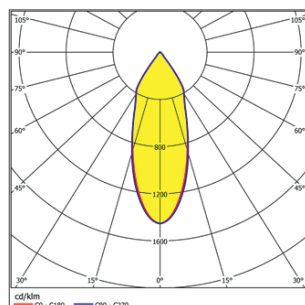
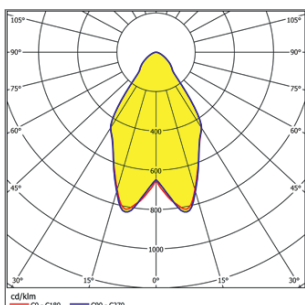
33

Recessed-mounted spotlight

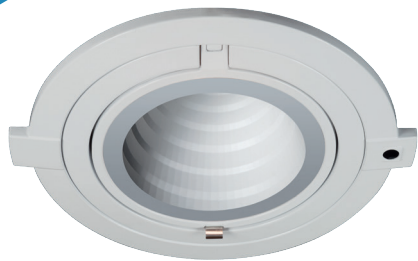
- ✦ high efficiency (max. 95 lm/W)
- ✦ variable positioning through rotatable and slewable reflector
- ✦ Options:
LED orientation lamp

Universal version

Variable beam angle through exchangeable reflectors.



NEU



D170LED V / D1150LED V

Recessed-mounted luminaire as spotlight: body made of aluminium with reflector made of polycarbonate, white resp. aluminised, specular. Cover made of PMMA, rotatable around 345 ° and slewable around 60 °. Beam angle 45 °, 38 ° or 19 °. Assembly for recessed ceiling mounting.

Advantages:

- high efficiency (max. 95 lm/W)
- rotatable reflector
- slewable reflector
- 3 different light distributions
- optional LED orientation lamp integrable



Technical data

Mounting: recessed ceiling mounting

Body: aluminium, powder-coated, white (RAL 9003)

Reflector: polycarbonate, white

Cover: PMMA

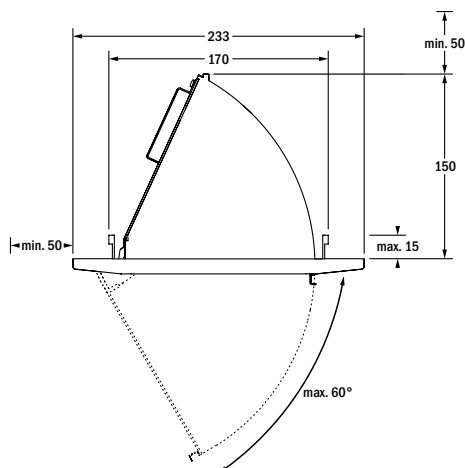
Control gear: electronic ($\cos \varphi \geq 0,97$)

Mains supply: 198 V - 254 V / 50 Hz

Degradation: L80 / mortality: B20

Lifetime: 60000 h (D170LED V) 50000 h (D1150LED V)

Ambient temperature: -20 to +40 °C



Accessories to be ordered separately

Order code

Description



1233

Reflector, beam angle 38 °



1234

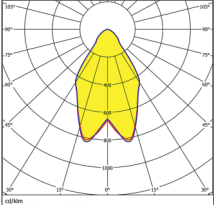
Reflector, beam angle 19 °

14121

LED orientation lamp 1 W (assembly into body frame)

14120

LED control gear for max. 5 LED orientation lamps

Light distribution diagram	Order code	Type	Lamp	Luminous flux	Light color ¹	Color rendering	Power consumption	Weight	PU
	D170LEDV	D 1 x 70 W LED V 3 K	LED 30 W	3000 lm	3000 K	>80	33.0 W	2.3 kg	1
	D1150LEDV	D 1 x 150 W LED V 3 K	LED 59 W	5500 lm	3000 K	>80	66.0 W	2.3 kg	1

¹ Also available in 4000 K on demand.



Version with automatic dimming Logica AutoDimm with integrated light sensor and daylight dependent control of the light flux for implementation of a constant level of lighting as well as optional with centralised monitoring and control through Logica FM Control.

Order code	Type	Lamp	Luminous flux	Light color ¹	Color rendering	Power consumption	Weight	PU
DD170LEDV	D DIM 1 x 70 W LED V 3 K	LED 30 W	3000 lm	3000 K	>80	33.0 W	2.3 kg	1
DD1150LEDV	D DIM 1 x 150 W LED V 3 K	LED 59 W	5500 lm	3000 K	>80	66.0 W	2.3 kg	1

¹ Also available in 4000 K on demand.



With optional self-contained emergency supply module for a nominal duration of 1 h or 3 h with automatic test device Autotest or Logica FM.

Order code	Type	Lamp	Luminous flux	Light color ²	Color rendering	Power consumption	Weight	PU
DD170LEDV__¹	D 1 x 70 W LED V 3 K	LED 30 W	3000 lm	3000 K	>80	33.0 W	2.3 kg	1
DD1150LEDV__¹	D 1 x 150 W LED V 3 K	LED 59 W	5500 lm	3000 K	>80	66.0 W	2.3 kg	1



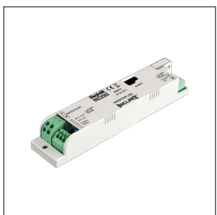
¹ Order code with suffix AT= Autotest/with suffix FM = Logica FM

² Also available in 4000 K on demand.



With integrated SicuroLED inverter for operation on the decentralised supply system SicuroLED.

Order code	Type	Lamp	Luminous flux	Light color ¹	Color rendering	Power consumption	Weight	PU
D170LEDV-S24	D 1 x 70 W LED V 3 K	LED 30 W	3000 lm	3000 K	>80	33.0 W	2.3 kg	1
D1150LEDV-S24	D 1 x 150 W LED V 3 K	LED 59 W	5500 lm	4000 K	>80	66.0 W	2.3 kg	1



¹ Also available in 4000 K on demand.



Surface-mounted / rail spotlight



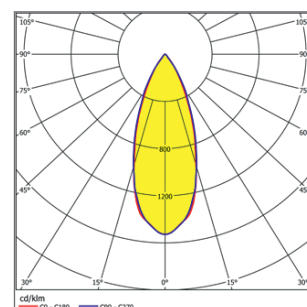
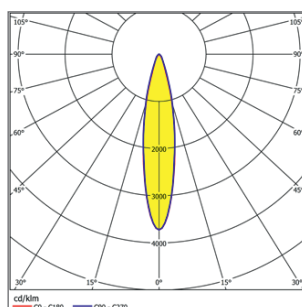
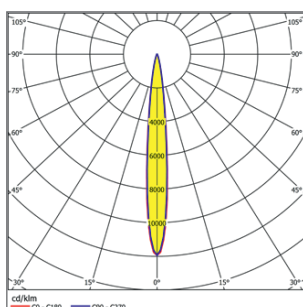
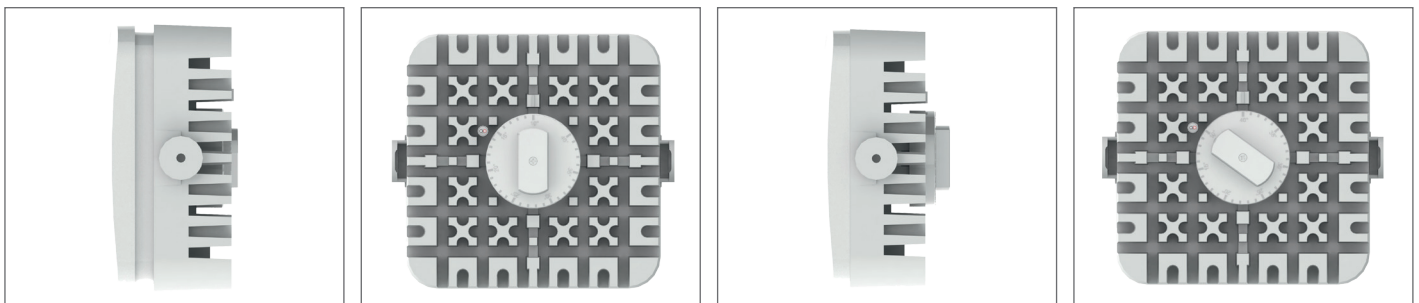
high efficiency (max. 97 lm/W)



variable beam direction through rotatable and slewable lamp module

All-in-one version

Variable beam angle through stepless focusable ZoomLED lenses.



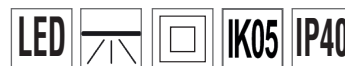


ZoomLED A

Spotlight luminaire for surface wall / ceiling mounting: as 1- or 2-way spotlight luminaire with $\pm 90^\circ$ slewable and $\pm 170^\circ$ rotatable luminaire modules. Luminaire modules each with 9 high-power LED and special ZoomLED lenses with stepless, variable light distribution of spot, narrow beam (10°), spot (20°), flood (30°) and flood, wide-beam (40°). Body made of die-cast aluminium and lenses made of PMMA. Assembly for surface wall or ceiling mounting.

Advantages:

- high efficiency (max. 97 lm/W)
- variable light direction through rotatable and slewable luminaire modules
- variable light distribution through focusable ZoomLED lenses
- also available as spotlight luminaire for universal rail



Technical data

Mounting: surface wall or ceiling mounting

Body: aluminium, powder-coated, white (RAL 9003)

Lenses: PMMA

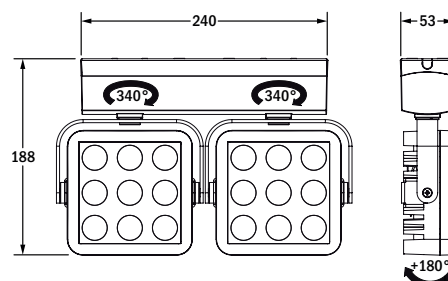
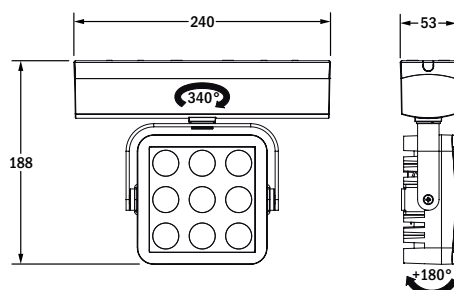
Control gear: electronic ($\cos \varphi \geq 0,95$)

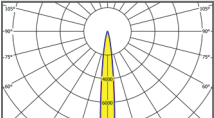
Mains supply: 198 V - 254 V / 50 Hz

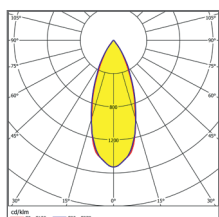
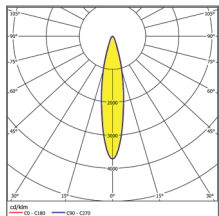
Degradation: L80 / mortality: B20

Lifetime: 60000 h

Ambient temperature: -20 to $+40^\circ\text{C}$



Light distribution diagram	Order code	Type	Lamp	Luminous flux	Light color ¹	Color rendering	Power consumption	Weight	PU
	Z135LEDA	ZoomLED A 1 x 35 W 3 K	LED 13 W	1400 lm	3000 K	>80	14.5 W	1.4 kg	1
	Z170LEDA	ZoomLED A 1 x 70 W 3 K	LED 26 W	2500 lm	3000 K	>80	29.0 W	1.4 kg	1
	Z235LEDA	ZoomLED A 2 x 35 W 3 K	LED 26 W	2800 lm	3000 K	>80	29.0 W	3.0 kg	1
	Z270LEDA	ZoomLED A 2 x 70 W 3 K	LED 52 W	5000 lm	3000 K	>80	58.0 W	3.0 kg	1



¹ Also available in 4000 K on demand.



Version with automatic dimming Logica AutoDimm with integrated light sensor and daylight dependent control of the light flux for implementation of a constant level of lighting as well as optional with centralised monitoring and control through Logica FM Control.

Order code	Type	Lamp	Luminous flux	Light color ¹	Color rendering	Power consumption	Weight	PU
ZD135LEDA	ZoomLED A DIM 1 x 35 W 3 K	LED 13 W	1400 lm	3000 K	>80	14.5 W	1.4 kg	1
ZD170LEDA	ZoomLED A DIM 1 x 70 W 3 K	LED 26 W	2500 lm	3000 K	>80	29.0 W	1.4 kg	1
ZD235LEDA	ZoomLED A DIM 2 x 35 W 3 K	LED 26 W	2800 lm	3000 K	>80	29.0 W	3.0 kg	1
ZD270LEDA	ZoomLED A DIM 2 x 70 W 3 K	LED 52 W	5000 lm	3000 K	>80	58.0 W	3.0 kg	1

¹ Also available in 4000 K on demand.

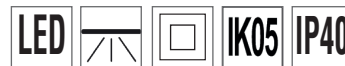


ZoomLED S

Spotlight luminaire for universal rail: as 1- or 2-way spotlight luminaire with +/- 90 ° slewable and +/- 170 ° rotatable luminaire modules. Luminaire modules each with 9 high-power LED and special ZoomLED lenses with stepless, variable light distribution of spot, narrow beam (10 °), spot (20 °), flood (30 °) and flood, wide-beam (40 °). Body made of die-cast aluminium and lenses made of PMMA. Assembly for universal rail.

Advantages:

- high efficiency (max. 97 lm/W)
- variable light direction through rotatable and slewable luminaire modules
- variable light distribution through focusable ZoomLED lenses
- also available as spotlight luminaire for surface wall or ceiling mounting



Technical data

Mounting: universal rail

Body: aluminium, powder-coated, white (RAL 9003)

Lenses: PMMA

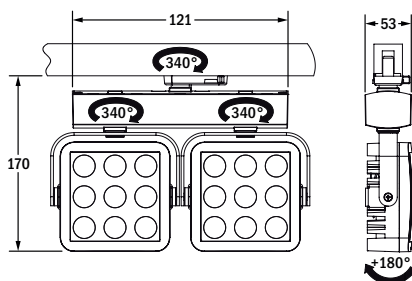
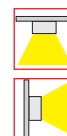
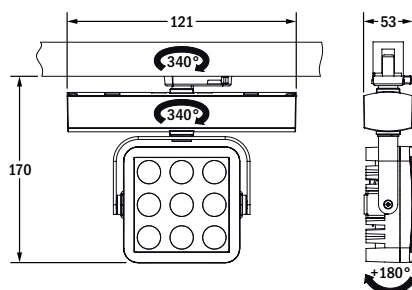
Control gear: electronic ($\cos \varphi \geq 0,95$)

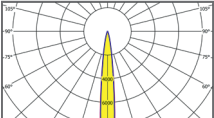
Mains supply: 198 V - 254 V / 50 Hz

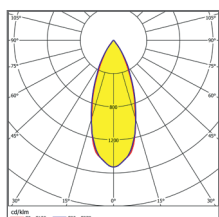
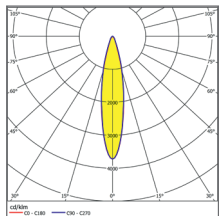
Degradation: L80 / mortality: B20

Lifetime: 60000 h

Ambient temperature: -20 to +40 °C



Light distribution diagram	Order code	Type	Lamp	Luminous flux	Light color ¹	Color rendering	Power consumption	Weight	PU
	Z135LEDS	ZoomLED S 1 x 35 W 3 K	LED 13 W	1400 lm	3000 K	>80	14.5 W	1.4 kg	1
	Z170LEDS	ZoomLED S 1 x 70 W 3 K	LED 26 W	2500 lm	3000 K	>80	29.0 W	1.4 kg	1
	Z235LEDS	ZoomLED S 2 x 35 W 3 K	LED 26 W	2800 lm	3000 K	>80	29.0 W	3.0 kg	1
	Z270LEDS	ZoomLED S 2 x 70 W 3 K	LED 52 W	5000 lm	3000 K	>80	58.0 W	3.0 kg	1



¹ Also available in 4000 K on demand.



Version with automatic dimming Logica AutoDimm with integrated light sensor and daylight dependent control of the light flux for implementation of a constant level of lighting as well as optional with centralised monitoring and control through Logica FM Control.

Order code	Type	Lamp	Luminous flux	Light color ¹	Color rendering	Power consumption	Weight	PU
ZD135LEDS	ZoomLED S DIM 1 x 35 W 3 K	LED 13 W	1400 lm	3000 K	>80	14.5 W	1.4 kg	1
ZD170LEDS	ZoomLED S DIM 1 x 70 W 3 K	LED 26 W	2500 lm	3000 K	>80	29.0 W	1.4 kg	1
ZD235LEDS	ZoomLED S DIM 2 x 35 W 3 K	LED 26 W	2800 lm	3000 K	>80	29.0 W	3.0 kg	1
ZD270LEDS	ZoomLED S DIM 2 x 70 W 3 K	LED 52 W	5000 lm	3000 K	>80	58.0 W	3.0 kg	1

¹ Also available in 4000 K on demand.

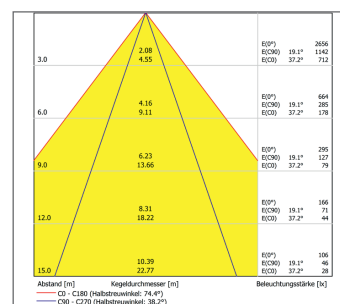
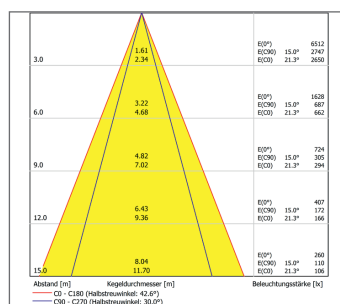
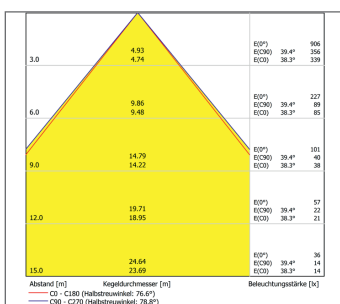
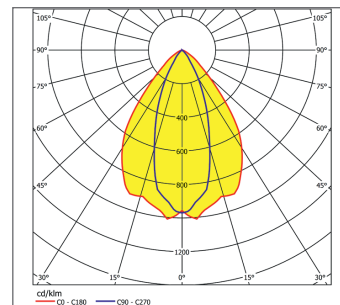
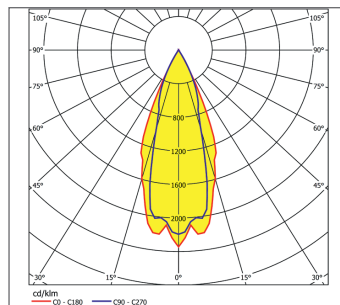
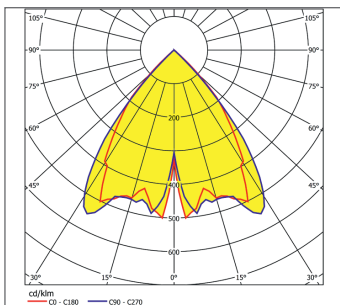


Damp and waterproof luminaire as compact high-bay reflector luminaire



- high efficiency (max. 109 lm/W)
- up to 45.2 % lower energy consumption
- optimised light distribution through 16 reflector segments
- compact design
- Options:
Logica FM emergency supply module
SicuroLED inverter

Wide-beaming, narrow beaming and elliptic beaming light distribution





Technical data

Mounting: surface ceiling mounting, chain / wire suspension

Body: aluminium, powder-coated, grey (RAL 7040)

Diffuser: tempered glass

Louvre: pure aluminium (99.99 %), specular

Fasteners: stainless steel

Control gear: electronic ($\cos \phi > 0,97$)

Mains supply: 230 V / 50 Hz

Degradation: L80 / mortality: B20

Lifetime: 50000 h

Ambient temperature: -20 to +40 °C

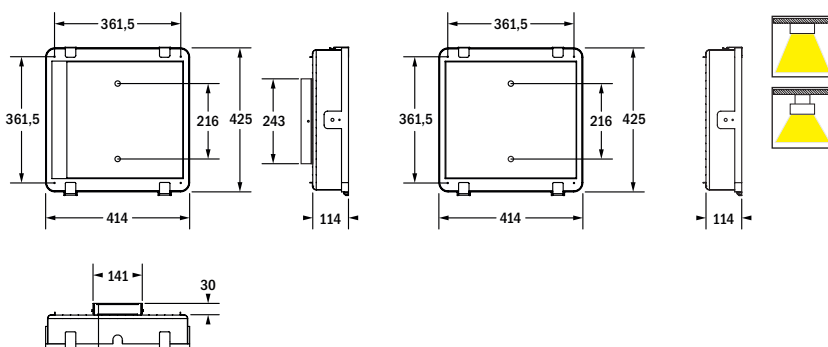
MF736LED

Damp and waterproof luminaire as compact hall reflector luminaire: body made of die-cast aluminium, powder-coated, and pane made of tempered glass. Fixing of the pane through stainless steel fasteners. Light direction through segmented, parabolic shaped louvre made of specular pure aluminium (99.95 %), wide-beam, narrow-wide beam or asymmetric narrow-wide beam.

Advantages:

- high efficiency (max. 109 lm/W)
- up to 45.2 % less connected load¹
- extremely resistant against mechanical and chemical stress
- 3 different light distributions
- compact construction
- optional version with integrated self-contained emergency supply module as combined general lighting and emergency luminaire
- optional version with SicuroLED inverter as combined general lighting and emergency luminaire
- exchangeable LED module and LED control gear

¹ In comparison to standard luminaires with HIE lamp 400 W



Accessories to be ordered separately

Order code	Description
12659	Adapter for ceiling mounting
12658	Protective grid

Light distribution diagram

Order code Type

Lamp

Luminous flux

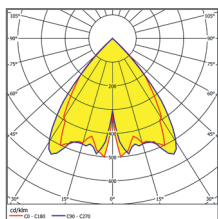
Light color

Color rendering

Power consumption

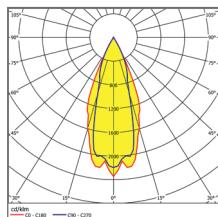
Weight

PU



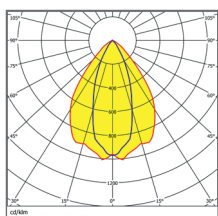
wide-beam

H250LED	MF736 LED 250 W DIFF 4 K	LED 123 W	15000 lm	4000 K	>80	137 W	8.8 kg	1
H400LED	MF736 LED 400 W DIFF 4 K	LED 194 W	23000 lm	4000 K	>80	215 W	8.8 kg	1



narrow beam

H250CLED	MF736 LED 250 W CONC 4K	LED 123 W	15000 lm	4000 K	>80	137 W	8.8 kg	1
H400CLED	MF736 LED 400 W CONC 4K	LED 194 W	23000 lm	4000 K	>80	215 W	8.8 kg	1



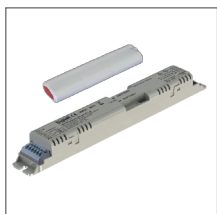
asymmetric narrow-wide beam

H250ELED	MF736 LED 250 W ELLIP 4K	LED 123 W	15000 lm	4000 K	>80	137 W	8.8 kg	1
H400ELED	MF736 LED 400 W ELLIP 4K	LED 194 W	23000 lm	4000 K	>80	215 W	8.8 kg	1

Version with automatic dimming Logica AutoDimm with integrated light sensor and daylight dependent control of the light flux for implementation of a constant level of lighting as well as optional with centralised monitoring and control through Logica FM Control.

Order code	Type	Lamp	Luminous flux	Light color	Color rendering	Power consumption	Weight	PU
wide-beam								
HD250LED	MF736 LED DIM 400 W DIFF 4 K	LED 123 W	15000 lm	4000 K	>80	137 W	8.8 kg	1
HD400LED	MF736 LED DIM 250 W DIFF 4 K	LED 194 W	23000 lm	4000 K	>80	215 W	8.8 kg	1
narrow beam								
HD250CLEED	MF736 LED DIM 250 W CONC 4K	LED 123 W	15000 lm	4000 K	>80	137 W	8.8 kg	1
HD400CLEED	MF736 LED DIM 400 W CONC 4K	LED 194 W	23000 lm	4000 K	>80	215 W	8.8 kg	1
asymmetric narrow-wide beam								
HD250ELED	MF736 LED DIM 250 W ELLIP 4K	LED 123 W	15000 lm	4000 K	>80	137 W	8.8 kg	1
HD400ELED	MF736 LED DIM 400 W ELLIP 4K	LED 194 W	23000 lm	4000 K	>80	215 W	8.8 kg	1

With optional self-contained emergency supply module for a nominal duration of 1 h or 3 h with automatic test device Autotest or Logica FM.



Order code	Type	Lamp	Luminous flux	Light color	Color rendering	Power consumption	Weight	PU
wide-beam								
HD250LED-__¹	MF736 LED 250 W DIFF 4 K	LED 123 W	15000 lm	4000 K	>80	137 W	8.8 kg	1
HD400LED-__¹	MF736 LED 400 W DIFF 4 K	LED 194 W	23000 lm	4000 K	>80	215 W	8.8 kg	1
asymmetric narrow-wide beam								
HD250ELED-__¹	MF736 LED 250 W ELLIP 4 K	LED 123 W	15000 lm	4000 K	>80	137 W	8.8 kg	1
HD400ELED-__¹	MF736 LED 400 W ELLIP 4 K	LED 194 W	23000 lm	4000 K	>80	215 W	8.8 kg	1

¹ Order code with suffix AT= Autotest/with suffix FM = Logica FM

With integrated SicuroLED inverter for operation on the decentralised supply system SicuroLED.



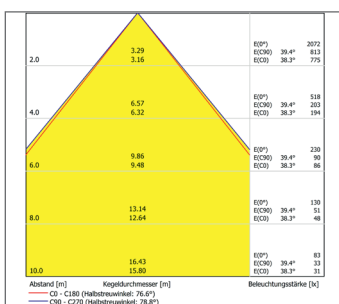
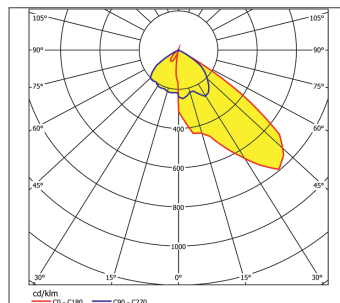
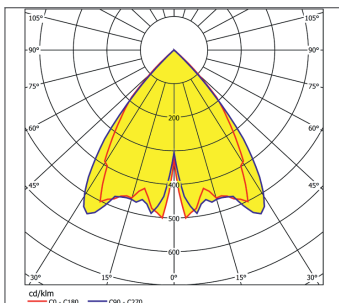
Order code	Type	Lamp	Luminous flux	Light color	Color rendering	Power consumption	Weight	PU
wide-beam								
H250LED-S24	MF736 LED 250 W DIFF 4 K	LED 123 W	15000 lm	4000 K	>80	137 W	8.8 kg	1
H400LED-S24	MF736 LED 400 W DIFF 4 K	LED 194 W	23000 lm	4000 K	>80	215 W	8.8 kg	1
asymmetric narrow-wide beam								
H250ELED-S24	MF736 LED 250 W ELLIP 4 K	LED 123 W	15000 lm	4000 K	>80	137 W	8.8 kg	1
H400ELED-S24	MF736 LED 400 W ELLIP 4 K	LED 194 W	23000 lm	4000 K	>80	215 W	8.8 kg	1



Damp and waterproof luminaire as flood-spotlight luminaire

- ✦ high efficiency (max. 109 lm/W)
- ✦ up to 45.2 % lower energy consumption
- ✦ optimised light distribution through 16 reflector elements
- ✦ compact design

Symmetric or asymmetric light distribution





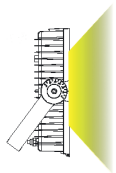
MF827LED

Damp and waterproof luminaire as flood-spotlight luminaire: body made of die-cast aluminium, powder-coated, and pane made of tempered glass. Fixing of the pane through stainless steel fasteners. Light direction through segmented, parabolic shaped louvre made of specular pure aluminium (99.95 %), symmetric or asymmetric beaming. Slewable bracket (+/- 90 °), adjustable.

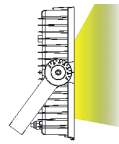
Advantages:

- high efficiency (max. 109 lm/W)
- up to 45.2 % less connected load¹
- extremely resistant against mechanical and chemical stress
- 2 different light distributions
- compact construction
- exchangeable LED module and LED control gear

¹ In comparison to standard luminaires with HIE-Lp 400 W



symmetric-beaming



asymmetric-beaming

Technical data

Mounting: surface wall mounting, surface ground mounting

Body: die-cast aluminium, grey (RAL 7040)

Diffuser: tempered glass

Reflector: aluminium, specular

Fasteners: stainless steel

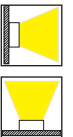
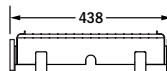
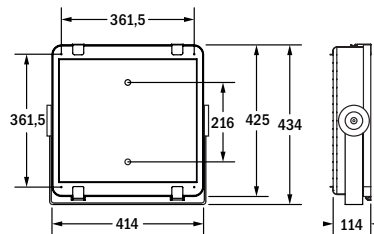
Control gear: electronic

Degradation: L80 / mortality: B20

Lifetime: 50000 h

Mains supply: 230 V / 50 Hz

Ambient temperature: -20 to +40 °C



Accessories to be ordered separately

Order code

Description

12658

Protective grid

Light distribution diagram

Order code

Type

Lamp

Luminous flux

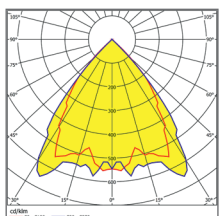
Light color

Color rendering

Power consumption

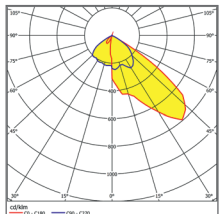
Weight

PU



symmetric

F250SLED	MF827 LED 250 W SM 4 K	LED 123 W	15000 lm	4000 K	>80	137 W	8.8 kg	1
F400SLED	MF827 LED 400 W SM 4 K	LED 194 W	23000 lm	4000 K	>80	215 W	8.8 kg	1



asymmetric

F250ALED	MF827 LED 250 W AS 4 K	LED 123 W	15000 lm	4000 K	>80	137 W	8.8 kg	1
F400ALED	MF827 LED 400 W AS 4 K	LED 194 W	23000 lm	4000 K	>80	215 W	8.8 kg	1



Version with automatic dimming Logica AutoDimm with integrated light sensor and daylight dependent control of the light flux for implementation of a constant level of lighting as well as optional with centralised monitoring and control through Logica FM Control.

Order code

Type

Lamp

Luminous flux

Light color

Color rendering

Power consumption

Weight

PU

symmetric

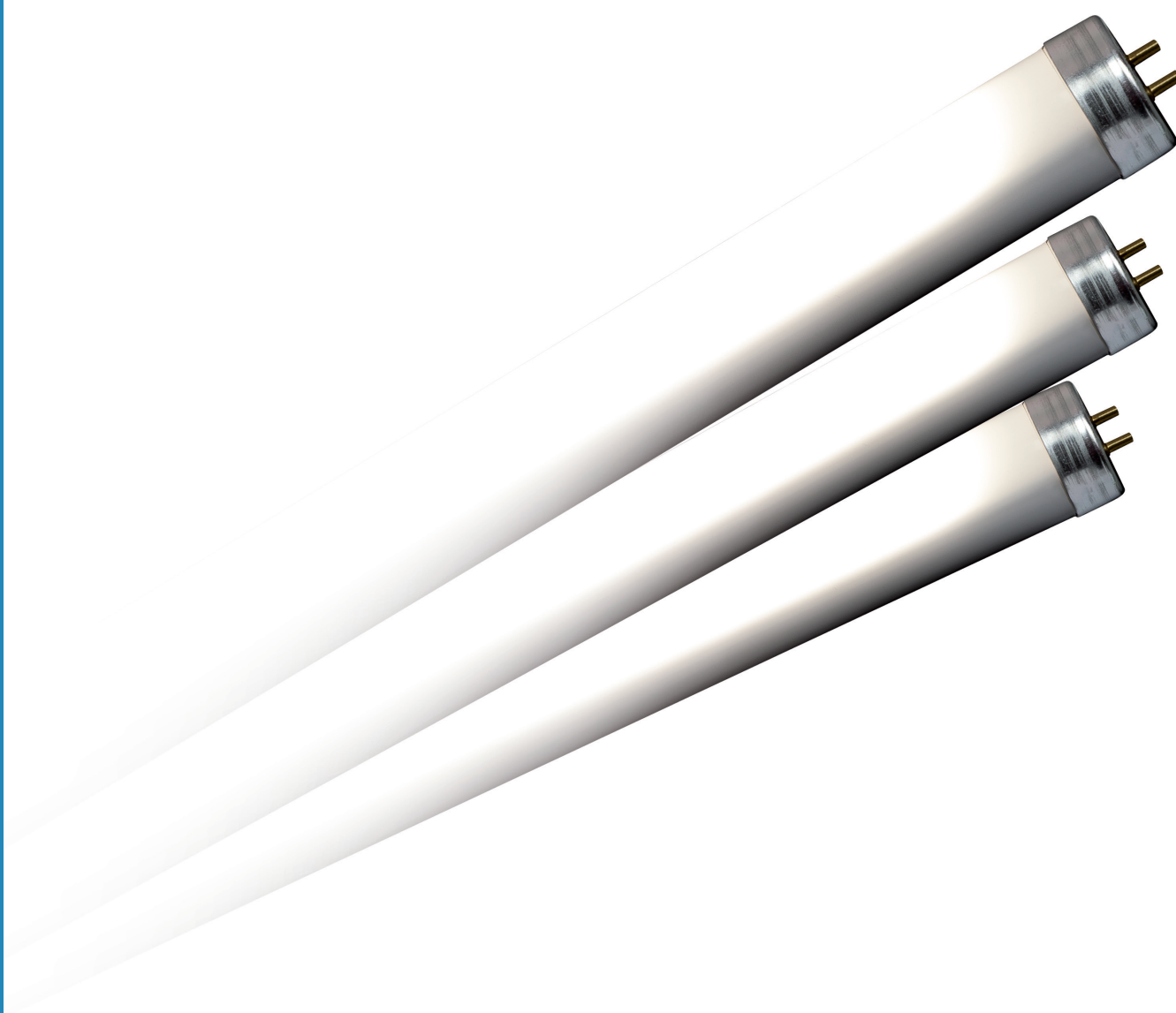
FD250SLED	MF827 LED DIM 250 W SM 4 K	LED 123 W	15000 lm	4000 K	>80	137 W	8.8 kg	1
FD400SLED	MF827 LED DIM 400 W SM 4 K	LED 194 W	23000 lm	4000 K	>80	215 W	8.8 kg	1

asymmetric

FD250ALED	MF827 LED DIM 250 W AS 4 K	LED 123 W	15000 lm	4000 K	>80	137 W	8.8 kg	1
FD400ALED	MF827 LED DIM 400 W AS 4 K	LED 194 W	23000 lm	4000 K	>80	215 W	8.8 kg	1

T8 LED lamp

- ✦ high efficiency (max. 110 lm/W)
- ✦ automatic dimming Logica AutoDimm
- ✦ with centralised monitoring and control through Logica FM Control



NEU

T8LED

T8 LED lamp as substitution for standard T8 lamps in luminaires with magnetic control gear. Optional with automatic dimming through attachable light sensor (accessories) and daylight depending regulation of the luminous flux for implementation of a constant lighting level, optional with centralised monitoring and control through Logica FM Control.

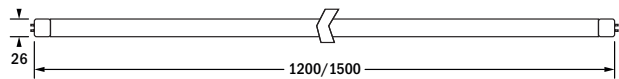
Advantages:

- high efficiency (max. 110 lm/W)
- optional automatic dimming Logica AutoDimm

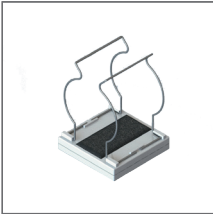
Technical data

Mains supply: 230 V / 50 Hz

Lifetime: > 50000 h



Accessories to be ordered separately



Order code	Description
SDLED	Light sensor with integrated battery, charging device and solar element.
	Communication between the light sensor and Logica AutoDimm in the lamps
	via radio. Only 1 light sensor is required for 2-, 3- and 4-flame luminaires.

Order code	Type	Lamp	Luminous flux	Light color	Color rendering	Power consumption	PU
TLED36830	T8 LED 36 W 3 K	LED	2200 lm	3000 K	>84	20 W	1/6
TLED36840	T8 LED 36 W 4 K	LED	2200 lm	4000 K	>84	20 W	1/6
TLED58830	T8 LED 58 W 3 K	LED	3300 lm	3000 K	>84	20 W	1/6
TLED58840	T8 LED 58 W 4 K	LED	3300 lm	4000 K	>84	20 W	1/6



Exit sign luminaire

- high efficiency technology
- high luminance
- 2 viewing distances

7 mounting types

1- or 2-sided escape route lighting with viewing distances of 20 or 30 meter.



Surface wall mounting



Surface ceiling mounting



Recessed wall mounting



Recessed ceiling mounting



Wire suspension mounting



Pendulum mounting



Bracket mounting



IndicaLED

Exit sign luminaire in flat design as frame display with integrated LED and light-guide panel for implementation of a high luminance density ($> 500 \text{ cd/m}^2$) and an optimised ratio of the luminance density. 1- or 2-sided escape route lighting through exchangeable films, may be changed without tools. Quick system for easy mounting and installation.

Available versions: surface / recessed wall mounting (1-sided marking), surface / recessed ceiling mounting, pendulum mounting and bracket mounting (2-sided marking)

Advantages:

- high-efficiency technology for optimisation of the luminance efficiency and the luminaire efficiency factor
- minimal maintenance costs through long lamp lifetime
- 2 viewing distances



Technical data

Mounting:

Surface / recessed wall mounting, surface / recessed ceiling mounting, pendulum mounting, bracket mounting

Body:

sheet steel, grey (RAL 7035) (wall mounting)
polycarbonate, grey (RAL 7035) (ceiling mounting, pendulum mounting, bracket mounting)

Frame:

aluminium, eloxed

Film:

PMMA, printed

Degree of protection:

IP40 (wall mounting)

IP41 (ceiling mounting, pendulum mounting, bracket mounting)

Terminals:

push-wire terminals, 2.5 mm², 2-times

Mains supply:

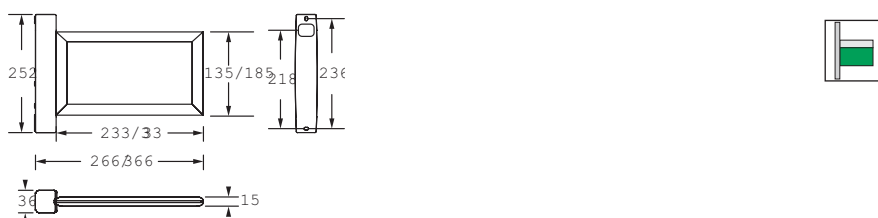
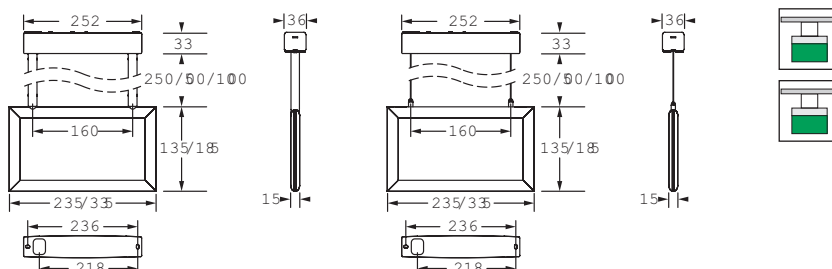
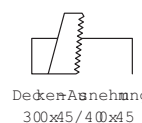
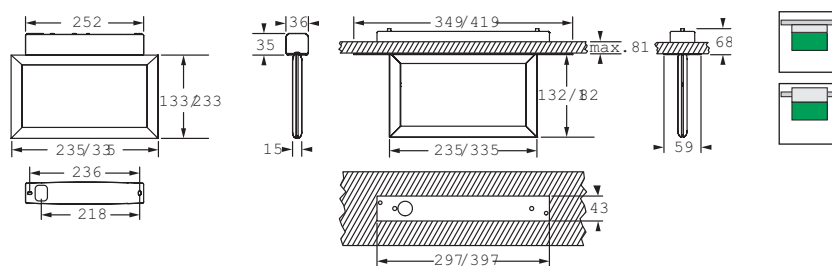
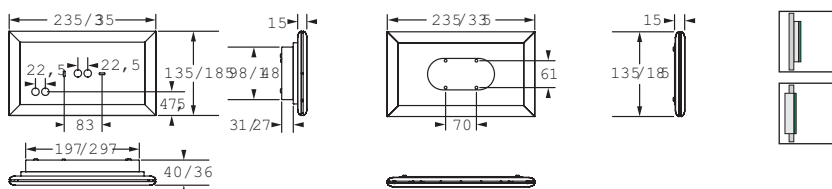
198 V - 254 V / 50 Hz

Ambient temperature:

0 to +40 °C

Operating mode:

maintained or non-maintained mode





Order code	VD	Lamp	Duration	Battery type	Battery voltage	Battery capacity	Auto-test	Logica FM
Surface / recessed wall mounting (1-sided escape route marking) ¹								
19313	20 m	LED 1.0 W (16)	1 h / 3 h	NiCd	7.2 V	0.75 Ah	x	
19317	20 m	LED 1.0 W (16)	1 h / 3 h	NiMH	7.2 V	1.20 Ah		x
19312	30 m	LED 1.6 W (24)	1 h / 3 h	NiCd	7.2 V	0.75 Ah	x	
19316	30 m	LED 1.6 W (24)	1 h / 3 h	NiMH	7.2 V	1.20 Ah		x
Surface / recessed ceiling mounting, pendulum mounting, bracket mounting (2-sided escape route marking) ²								
19303	20m	LED 2,1W (32)	1h/3h	NiMH	7,2V	0.60 Ah	x	
19307	20m	LED 2,1W (32)	1h/3h	NiMH	7,2V	0.60 Ah		x
19302	30m	LED 3,2W (48)	1h/3h	NiMH	7,2V	0.60 Ah	x	
19306	30m	LED 3,2W (48)	1h/3h	NiMH	7,2V	0.60 Ah		x

¹ Für recessed wall mounting the additional required installation box bauseitig beistellen.

² For recessed ceiling mounting and pendulum mounting please order additional required accessories separately.

Fitting supplied complete with

Order code	Description
	Kit of exit sign films (1-sided marking) 
	Kit of exit sign films (2-sided marking) 

Accessories to be ordered separately

Order code		Description
VD 20 m	VD 30 m	
19384	19386	Kit for recessed ceiling mounting
19380	19380	Pendulum rod 250 mm
19381	19381	Pendulum rod 500 mm
19382	19382	Pendulum rod 1000 mm
19383	19383	Wire suspension 2000 mm
19385	19387	Concrete ceiling box (recessed ceiling mounting)



LungalargaluceLED

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Emergency luminaire



✦ high efficiency technology

✦ high luminance

✦ 2 viewing distances

2 mounting types

Escape route and area lighting with mounting heights from 2.5 meter to 30.0 meter.



Surface wall/ceiling
mounting



Recessed wall/ceiling
mounting



LungalargaluceLED

Emergency luminaire in flat design with high-power LED, integrated reflector and special lens as double-lens for asymmetric light distribution (escape route lighting) or single-lens for symmetric light distribution (area lighting), exchangeable for small or large mounting heights. Quick system for easy mounting and installation. Available versions: surface / recessed wall mounting and surface / recessed ceiling mounting.

Advantages:

- high-efficiency technology for optimisation of the luminance efficiency and the luminaire efficiency factor
- reduced luminaire quantity through extremely large luminaire distances
- minimal maintenance costs through long lamp lifetime



Technical data

Mounting:

surface / recessed wall mounting, surface / recessed ceiling mounting

Body:

sheet steel (surface wall / ceiling mounting)
sheet steel / aluminium (recessed wall / ceiling mounting)

Cover:

polycarbonate, white (RAL 9010)¹

Degree of protection:

IP40 (surface wall mounting)
IP41 (surface ceiling mounting)
IP42 (recessed ceiling mounting)

Terminals:

push-wire terminals, 2.5 mm², 2-times

Mains supply:

198 V - 254 V / 50 Hz

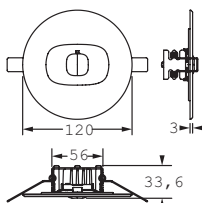
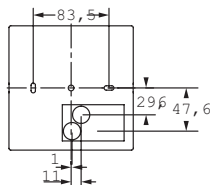
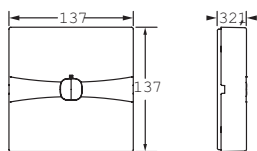
Ambient temperature:

0 to +40 °C

Operating mode:

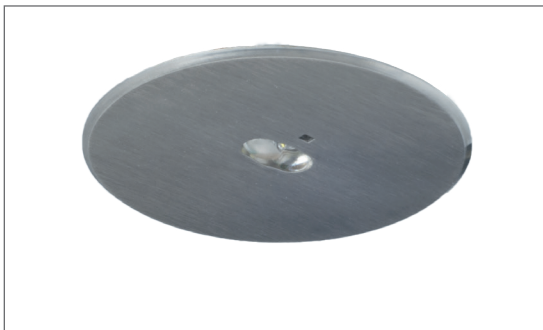
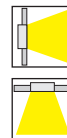
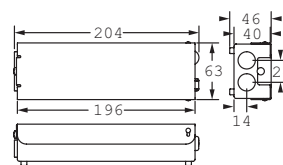
maintained or non-maintained mode

¹ Cover available in other colors on demand



Decken-Annehmung
Ø 80

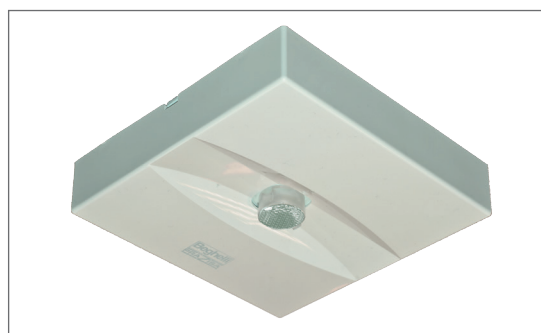
Terminal range: 2 mm - 15 mm



Order code	Lamp	Duration	Battery type	Battery voltage	Battery capacity	Luminous flux (batt. operation)	Auto- test	Logica FM
Surface ceiling mounting for escape route lighting								
19331	LED 2.5 W	1 h / 3 h	NiMH	7.2 V	1.2 Ah	165 lm / 113 lm	x	
Surface ceiling mounting for area lighting with 2 exchangeable lenses								
19321	LED 2.5 W	1 h / 3 h	NiMH	7.2 V	1.2 Ah	181 lm / 124 lm	x	
Deckeneinbau for escape route lighting ¹								
19332	LED 2.5 W	1 h / 3 h	NiMH	7.2 V	1.2 Ah	165 lm / 113 lm	x	
Recessed ceiling mounting for area lighting with 2 exchangeable lenses ¹								
19323	LED 2.5 W	1 h / 3 h	NiMH	7.2 V	1.2 Ah	181 lm / 124 lm	x	

¹ For recessed mounting into concrete ceilings an additional recessed box must be used.

Accessories to be ordered separately	
Order code	Description
F95807	Narrow beaming lens for surface ceiling mounted luminaire (area lighting), for escape route lighting with mounting heights > 7.5 m
F95808	Narrow beaming lens for surface ceiling mounted luminaire (area lighting), for area lighting with mounting heights > 7.5 m
F95804	Stainless steel cover for recessed ceiling mounted luminaire (escape route lighting)
F95803	Stainless steel cover for recessed ceiling mounted luminaire (area lighting)
F95802	Diffuser lens for surface / recessed ceiling mounted luminaires (area lighting), for surface / recessed wall mounting
19389	IP42 set for surface ceiling mounting

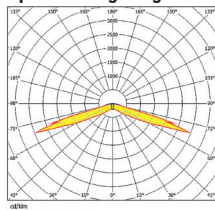


Luminaire type Light distribution diagram

Versions for escape route lighting

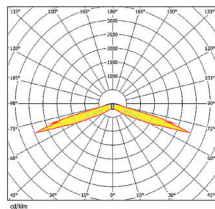
19331-1h

19332-1h



19331-3h

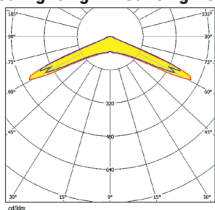
19332-3h



Versions for area lighting - mounting height < 3.5 m

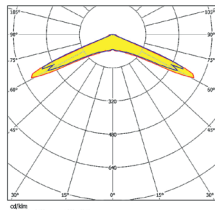
19321-1h

19323-1h



19321-3h

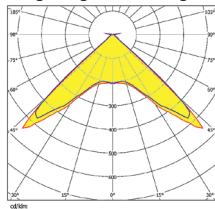
19323-3h



Versions for area lighting - mounting height > 3.5 m and < 7.5 m

19321-1h

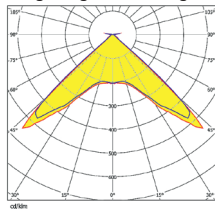
19323-1h



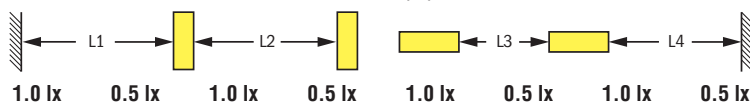
Versions for area lighting - mounting height > 3.5 m and < 7.5 m

19321-3h

19323-3h

Mounting height (m)
ceiling mounting

Spacing (m)



2.5	7.7	-	16.7	-	3.6	-	1.2	-
3.0	9.2	-	19.7	-	3.6	-	1.2	-
3.5	9.6	-	22.1	-	3.6	-	1.2	-
4.0	10.4	-	24.6	-	7.5	-	1.1	-
4.5	8.8	-	25.8	-	7.5	-	0.9	-
5.0	2.3	-	20.8	-	3.4	-	0.6	-

2.5	7.2	-	16.4	-	3.0	-	1.0	-
3.0	8.2	-	17.7	-	2.9	-	1.0	-
3.5	9.1	-	21.2	-	2.9	-	0.8	-
4.0	4.6	-	19.7	-	2.8	-	0.6	-
4.5	0.2	-	15.7	-	2.7	-	0.3	-
5.0	-	-	-	-	-	-	-	-

2.5	-	5.6	-	12.0	-	11.6	-	5.3
3.0	-	5.6	-	14.0	-	13.7	-	6.1
3.5	-	5.0	-	15.2	-	15.6	-	5.0
4.0	-	3.6	-	13.5	-	13.7	-	3.0
4.5	-	1.5	-	17.6	-	12.9	-	1.5
5.0	-	-	-	-	-	-	-	-

2.5	-	4.7	-	11.6	-	11.4	-	5.1
3.0	-	3.1	-	11.5	-	12.7	-	5.6
3.5	-	2.1	-	11.3	-	11.3	-	1.9
4.0	-	-	-	-	-	-	-	-
4.5	-	-	-	-	-	-	-	-
5.0	-	-	-	-	-	-	-	-

2.5	-	-	-	-	-	-	-	-
3.0	-	-	-	-	-	-	-	-
3.5	-	-	-	-	-	-	-	-
4.0	-	4.4	-	9.4	-	9.1	-	4.4
4.5	-	5.0	-	10.5	-	10.2	-	4.8
5.0	-	5.4	-	11.5	-	11.3	-	5.4
6.0	-	6.2	-	13.5	-	13.3	-	6.2
7.0	-	6.8	-	15.4	-	15.2	-	7.0
7.5	-	1.1	-	11.6	-	12.3	-	1.1

2.5	-	-	-	-	-	-	-	-
3.0	-	-	-	-	-	-	-	-
3.5	-	3.9	-	8.2	-	8.0	-	3.7
4.0	-	4.4	-	9.3	-	9.0	-	4.3
4.5	-	4.8	-	10.3	-	10.0	-	4.6
5.0	-	5.2	-	11.3	-	11.6	-	5.2
6.0	-	5.6	-	13.2	-	12.9	-	5.8

Lighting data

Luminaire type Light distribution diagram

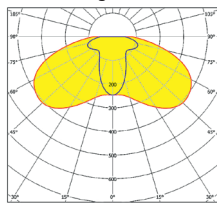
Versions for wall mounting

F95802

+

19321-1h

19323-1h



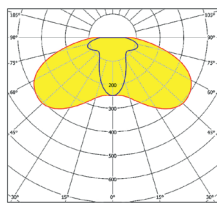
NB16752-1h

F95802

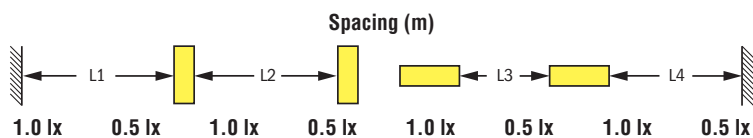
+

19321-3h

19323-3h



Mounting height (m)
ceiling mounting



1.5	-	-	-	-	6.1	-	2.1	-
2.0	-	-	-	-	6.4	-	2.1	-
2.5	-	-	-	-	6.1	-	2.1	-
3.0	-	-	-	-	-	-	-	-
3.5	-	-	-	-	-	-	-	-

1.5	-	-	-	-	3.9	-	1.4	-
2.0	-	-	-	-	4.2	-	1.5	-
2.5	-	-	-	-	2.9	-	1.4	-
3.0	-	-	-	-	-	-	-	-
3.5	-	-	-	-	-	-	-	-

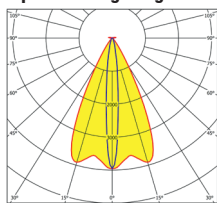
Versions for escape route lighting - mounting height > 7.5 m

F95807

+

19321-1h

19323-1h



7.5	4.7	-	10.9	-	5.3	-	1.9	-
10.0	5.8	-	13.1	-	5.3	-	2.0	-
12.5	6.4	-	15.1	-	5.5	-	1.8	-
15.0	7.3	-	17.0	-	5.6	-	1.6	-
17.5	7.8	-	18.6	-	5.5	-	1.5	-
20.0	8.1	-	20.1	-	5.2	-	1.1	-
25.0	0.9	-	19.6	-	4.7	-	-	-
30.0	-	-	14.2	-	3.3	-	-	-

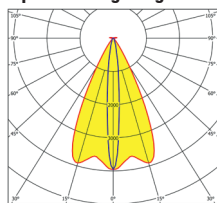
Versions for escape route lighting - mounting height > 7.5 m

F95807

+

19321-3h

19323-3h



7.5	4.3	-	10.2	-	4.4	-	1.6	-
10.0	5.3	-	12.2	-	4.5	-	1.6	-
12.5	6.1	-	14.1	-	4.7	-	1.3	-
15.0	6.4	-	15.8	-	4.5	-	1.3	-
17.5	6.7	-	17.2	-	4.2	-	0.9	-
20.0	2.1	-	18.3	-	3.9	-	0.4	-
25.0	-	-	-	-	-	-	-	-
30.0	-	-	-	-	-	-	-	-

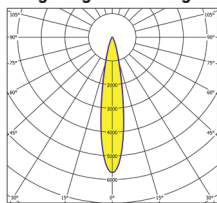
Versions for area lighting - mounting height > 7.5 m

F95808

+

19321-1h

19323-1h



7.5	-	2.8	-	7.3	-	7.3	-	2.8
10.0	-	3.3	-	8.1	-	8.1	-	3.3
12.5	-	3.5	-	8.9	-	8.9	-	3.5
15.0	-	3.7	-	9.6	-	9.6	-	3.7
17.5	-	3.7	-	10.0	-	10.0	-	3.7
20.0	-	3.9	-	10.4	-	10.4	-	3.9
25.0	-	3.8	-	11.0	-	11.0	-	3.8
30.0	-	3.6	-	11.3	-	11.3	-	3.6

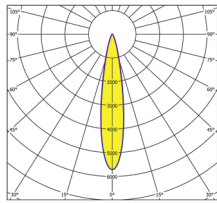
Versions for area lighting - mounting height > 7.5 m

F95808

+

19321-3h

19323-3h



7.5	-	2.1	-	5.3	-	5.3	-	2.1
10.0	-	2.1	-	5.8	-	5.8	-	2.1
12.5	-	2.3	-	6.2	-	6.2	-	2.3
15.0	-	2.3	-	6.4	-	6.4	-	2.3
17.5	-	2.1	-	6.6	-	6.6	-	2.1
20.0	-	1.8	-	6.7	-	6.7	-	1.8
25.0	-	-	-	-	-	-	-	-
30.0	-	-	-	-	-	-	-	-



Formula65LED

63



Exit sign or emergency luminaire

- ✦ compact design
- ✦ high degree of protection
- ✦ easy handling through quick system

Universal mounting types

5 mounting types for 1- or 2-sided escape route lighting and viewing distances of 25 or 30 meter.



4 mounting types for escape route or area lighting



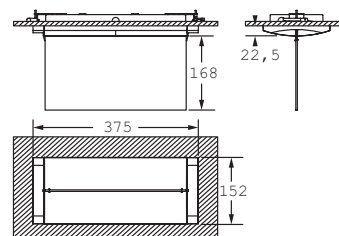
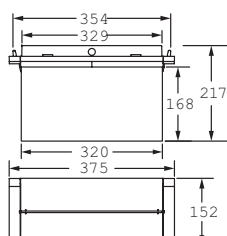
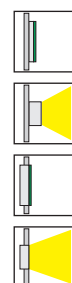
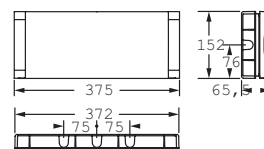
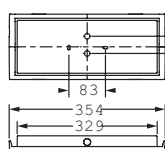
Formula65LED

Exit sign or emergency luminaire with high protection grade in universal version. Flat body and clear convex shaped cover, with click fasteners. Light direction through complex shaped reflector.

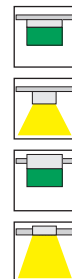
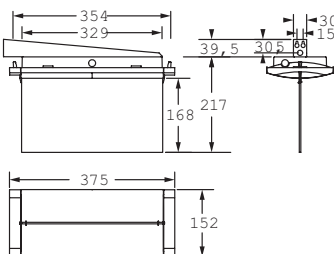
Available versions: surface / recessed wall mounting (lighting or 1-sided marking through adhesive films), surface / recessed ceiling mounting and bracket mounting (lighting or 2-sided marking through exchangeable display pane)

Advantages:

- universal type for different purposes
- compact design plus high degree of protection
- minimal maintenance costs through long lamp lifetime
- easy handling through quick system with integrated bubble level
- Recessed box included in scope of supply



Decken-Annahme:
370x130



Technical data

Mounting:
surface / recessed wall mounting, surface / recessed ceiling mounting, bracket mounting

Body:
polycarbonate, white (RAL 9003)

Cover:
polycarbonate, clear

Reflector:
polycarbonate, white

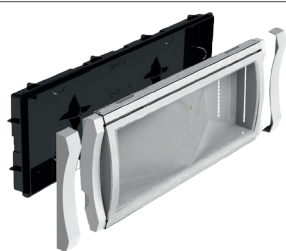
Display pane:
PMMA, printed

Terminals:
push-wire terminals, 2.5 mm², 2-times

Mains supply:
198 V - 254 V / 50 Hz

Ambient temperature:
0 to +40 °C

Operating mode:
maintained or non-maintained mode



Recessed box for massive ceilings / walls
(included in scope of supply)




Set for recessed mounting in hollow walls / ceilings





Body with integrated
bubble level

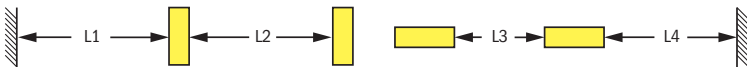
Order code	VD	Lamp	Duration	Battery type	Battery voltage	Battery capacity	Luminous flux (batt. operation)	Autotest	Logica FM	Mode
Surface / recessed wall mounting ¹ (lighting / 1-sided marking), surface / recessed ceiling mounting ¹ (lighting / 2-sided marking), bracket mounting ¹ (2-sided marking)										
19232	25/30	2 x 6 LED	1 h	NiMH	3.6 V	1.2 Ah	510 / 217 lm	x		SA
19233	25/30	2 x 6 LED	3 h	NiMH	3.6 V	1.2 Ah	510 / 217 lm	x		SA
19245	25/30	2 x 6 LED	1 h / 3 h	NiMH	3.6 V	1.2 Ah	510 / 217 lm		x	SA

¹ For recessed wall / ceiling mounting and bracket mounting additional accessories are required.

Fitting supplied complete with		
Order code	Description	
VD 25 m	VD 28 m	
19044M	-	Kit of exit sign films 
19040	19040	Recessed box for massive ceilings / walls

Accessories to be ordered separately		
Order code	Description	
VD 25 m	VD 28 m	
19044	19043	Exit sign display-pane 
19044	19042	Exit sign display-pane 
19045	-	Bracket
19041	19041	Kit for recessed mounting in hollow ceilings walls
12194	-	Protective grid (surface wall mounting)

Lighting data

Luminaire type Light distribution diagram		Mounting height (m)		Spacing (m)							
											
				1.0 lx	0.5 lx	1.0 lx	0.5 lx	1.0 lx	0.5 lx	1.0 lx	0.5 lx
19232 19245-1h		2.5		4.6	-	12.0	-	9.0	-	3.5	-
		3.0		4.7	-	12.9	-	9.6	-	3.6	-
		3.5		4.8	-	13.3	-	10.0	-	3.7	-
		4.0		4.9	-	13.4	-	10.3	-	3.6	-
		4.5		4.8	-	1.7	-	10.4	-	3.5	-
		5.0		4.6	-	13.9	-	10.5	-	3.3	-
		6.0		4.0	-	13.8	-	10.3	-	2.7	-
		7.0		0.3	-	13.2	-	9.6	-	0.3	-
		7.5		-	-	12.2	-	9.1	-	-	-
		8.0		-	-	10.2	-	7.7	-	-	-
		9.0		-	-	6.8	-	4.7	-	-	-
		10.0		-	-	-	-	-	-	-	-
19233 19245-3h		2.5		3.9		10.7		8.0		3.0	
		3.0		4.1		11.2		8.4		3.1	
		3.5		4.0		11.3		8.7		3.0	
		4.0		4.0		11.5		8.8		2.9	
		4.5		3.7		11.7		8.8		2.6	
		5.0		3.3		11.5		8.0		2.2	
		6.0		-		10.9		7.9		-	
		7.0		-		7.4		5.4		-	
		7.5		-		5.8		4.0		-	
		8.0		-		4.3		2.4		-	
		9.0		-		-		-		-	
		10.0		-		-		-		-	







































Order codes

1233	34
1234	34
10403	18
12135	11
12194	65
12658	44,48
12659	44
14120	34
14121	34
16306	10
16319	11
19040	65
19041	65
19042	65
19043	65
19044	65
19045	65
19232	65
19233	65
19245	65
19302	55
19303	55
19306	55
19307	55
19312	55
19313	55
19316	55
19317	55
19321	59
19323	59
19331	59
19332	59
19380	55
19381	55
19382	55
19383	55
19384	55
19385	55
19386	55
19387	55
19389	59
20080	22
20081	22
20082	14
20086	14
20087	22
20088	22
20090	26,30
20091	26,30
20093	18
20098	26,30
20103	11
20104	11
20202	10
19044M	65
A136E	15
A136EP	15
A136E-S24	15
A158E	15
A158EP	15

A158E-S24	15
A236E	15
A236EP	15
A236E-S24	15
A258E	15
A258EP	15
A258E-S24	15
AD136E	15
AD136EP	15
AD158E	15
AD158EP	15
AD236E	15
AD236EP	15
AD258E	15
AD258EP	15
D1150LED	31
D1150LED__	31
D1150LED4	31
D1150LED4__	31
D1150LED4-S24	31
D1150LED-S24	31
D1150LEDV	35
D1150LEDV-S24	35
D170LED	31
D170LED__	31
D170LED4	31
D170LED4__	31
D170LED4-S24	31
D170LED-S24	31
D170LEDV	35
D170LEDV-S24	35
D226LED	27
D226LED__	27
D226LED4	27
D226LED4__	27
D226LED4-S24	27
D226LED-S24	27
DD1150LED	31
DD1150LED4	31
DD1150LEDV	35
DD1150LEDV__	35
DD170LED	31
DD170LED4	31
DD170LEDV	35
DD170LEDV__	35
DD226LED	27
DD226LED4	27
F250ALED	49
F250SLED	49
F400ALED	49
F400SLED	49
F95802	59
F95803	59
F95804	59
F95807	59
F95808	59
FD250ALED	49
FD250SLED	49
FD400ALED	49
FD400SLED	49

H250CLED	44
H250ELED	44
H250ELED-S24	45
H250LED	44
H250LED-S24	45
H400CLED	44
H400ELED	44
H400ELED-S24	45
H400LED	44
H400LED-S24	45
HD250CLED	45
HD250ELED	45
HD250ELED-__	45
HD250LED	45
HD250LED-__	45
HD400CLED	45
HD400ELED	45
HD400ELED-__	45
HD400LED	45
HD400LED-__	45
I418LED600	19
I418LED600-__	19
I418LED600-S24	19
I418LED625	19
I418LED625-__	19
I418LED625-S24	19
ID418LED600	19
ID418LED625	19
P236LED	23
P236LED-__	23
P236LED-S24	23
P258LED	23
P258LED-__	23
P258LED-S24	23
PD236LED	23
PD258LED	23
SDLED	51
TLED36830	51
TLED36840	51
TLED58830	51
TLED58840	51
Z135LEDA	39
Z135LEDS	41
Z170LEDA	39
Z170LEDS	41
Z235LEDA	39
Z235LEDS	41
Z270LEDA	39
Z270LEDS	41
ZD135LEDA	39
ZD135LEDS	41
ZD170LEDA	39
ZD170LEDS	41
ZD235LEDA	39
ZD235LEDS	41
ZD270LEDA	39
ZD270LEDS	41

Symbols

	Luminaire/emergency luminaire for surface wall mounting				Degree of protection			
	Luminaire/emergency luminaire for recessed wall mounting				Impact resistance			
	Luminaire/emergency luminaire for surface ceiling mounting				Protection class I resp. protection class II			
	Luminaire/emergency luminaire for recessed ceiling mounting				Luminaire can be installed on normally inflammable surface			
	Luminaire/emergency luminaire for chain/wire mounting				Luminaire can be installed on hardly inflammable surface			
	Luminaire for surface ground mounting				Resistant against UV rays and oil			
	Exit sign luminaire for surface wall mounting				European certification mark			
	Exit sign luminaire for recessed wall mounting				Explosionproof			
	Exit sign luminaire for surface ceiling mounting				Suitable for rough operation			
	Exit sign luminaire for recessed ceiling mounting				Vibration resistant			
	Exit sign luminaire for bracket mounting				Temperature range			
	Exit sign luminaire for chain/wire mounting							illuminant
						LED illuminant		
			3 years guarantee					
			Viewing distance					
			Suitable for food sectors					

Lined writing area with horizontal ruling lines.

disclaimer

Beghelli PRÄZISA GmbH is constantly developing and improving the product range. All descriptions, illustrations, drawings and specifications present only general particulars and shall not form part of any contract. The right is reserved to change specifications without prior notification or public announcement.

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BEGHELLI Spa
Via Mozzeghine 13/15
40050 Monteveglio (BO)
Italy
Tel. +39 051 9660411
Fax +39 051 9660444
www.beghelli.com