

Serenga Sun-Lite surface mounted LED downlighters



Surface mounted LED downlighters

Introducing the exciting new range of compact, low profile, surface mounted LED downlighters which complement and enhance the Serenga family of products.

Serenga LED surface mounted downlighters are available in either escape route or open area versions and provide an effective alternative for emergency lighting where recessed downlighters are unfeasible. The high power LED provides excellent illumination levels in areas lacking natural light, including corridors with solid ceilings, car parks, warehouses and storage facilities.

The luminaire unit houses a sophisticated control module which manages power to the lamp and battery (for self-contained versions) to ensure optimum performance.

Through use of LED technology, the unit combines high energy-efficiency with minimum maintenance, as the LED has life expectancy in excess of 5 years.

Automatic self-test functionality is included as standard, where the power LED, battery & charger (self-contained), and supply are monitored, with visual fault reporting from two LED indicators on the luminaire face. A press-to-test button is also incorporated for ongoing manual testing.

For ultimate flexibility, Serenga LED surface mounted downlighters are available as either self-contained, or slave 230V for use with our EMEX Central Power Supply range.

Enhanced testing options (Central addressable and IR2 infra-red resting) variants are available to order.



Open area downlighter with IR2 test facility in grey

Self-contained escape route downlighter in white

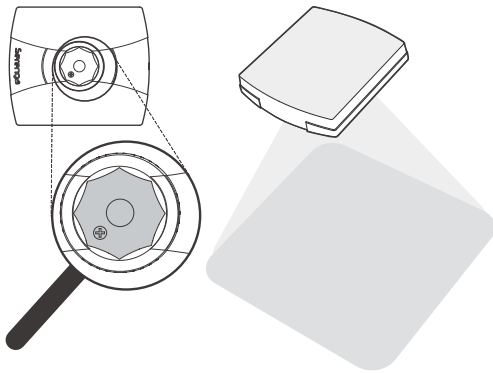
Two reflector options for precise, effective downlight provision

Surface mounted Serenga LED downlighters are available in two variants, either for open area or exit route specific use.

Utilising state-of-the-art design techniques and a thorough technical understanding of light distribution, Emergi-Lite has developed two specific lens and reflector arrangements to optimise light dispersal for each application. These purpose designed downlighters therefore provide excellent illumination in emergency conditions, in line with the requirements of the latest BS EN and international standards.

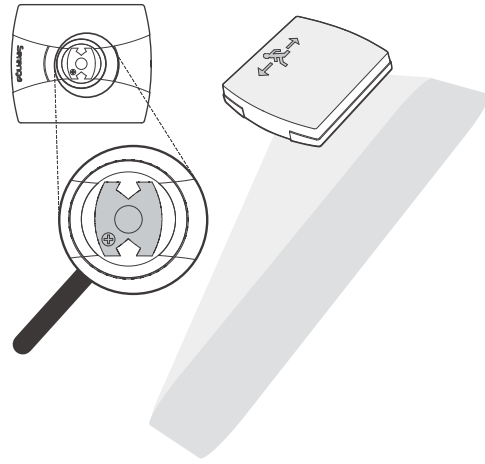
Open area

The open area downlighter incorporates a specially designed, octagonally shaped lens housing and reflector which drives light distribution equally in all directions, as shown below:



Escape route

Serenga LED escape route downlighters include a specially designed lens and reflector arrangement providing a long channel of light, ideal for use in corridors, as shown below.



For more information on downlighter spacing or to discuss specific scheme requirements, please contact Emergi-Lite. Spacing data and design examples continue overleaf.

Modular first-fix installation

By exploiting LED technology, Serenga surface mounted downlighters provide a high power, high efficiency emergency lighting solution, whilst minimising impact on design and aesthetics. The low profile unit delivers outstanding levels of light dispersal, even though its casing is considerably smaller than comparable fluorescent emergency luminaires.

Serenga LED surface mounted downlighters are designed to a modular format, with the wiring connected to a base plate, and the electronics, LED and battery (self-contained units) mounted to a separate luminaire housing.

This modular approach provides installers with the opportunity to first-fix the base early in the construction process, when wiring is easily accessible, followed by connection of the electronics and LED housing at a later point. This protects the key components from risk of damage or loss during construction. Cable glands and sheaths are provided to achieve ingress protection to IP42.

The LED housing and electronics are connected simply by locating the pins in the housing to the base, clicking to fit, and securing with retaining screw.



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Downlighter spacing – open area and exit route downlighters

Spacing data is calculated to achieve the requirements of BS 5266, with minimums of 0.5 lux in core open areas, and 1 lux along the centre line of escape routes.

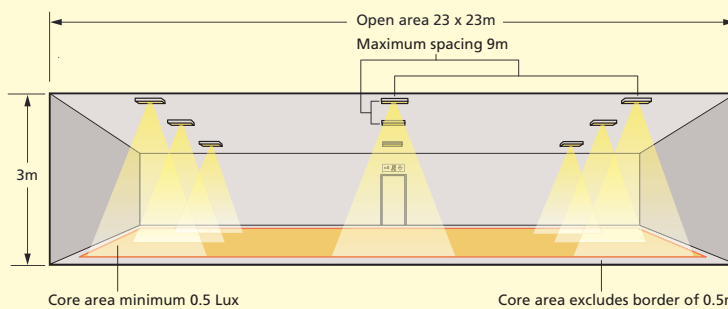
SER-SA Open area			SER-SE Escape route		
Mount height (m)	Lgt Lev (lux)	Spacing (m x m)	Mount height (m)	Lgt Lev (lux)	Spacing (m x m)
3.0	0.5	9 x 9	3.0	1.0	11.9 x 3.3
3.5	0.5	10.1 x 10.1	3.5	1.0	13.6 x 3.7
4.0	0.5	10.8 x 10.8	4.0	1.0	15.3 x 4

Design examples

The following illustrations provide examples of the anticipated lux levels from Serenga surface mounted downlighters at ceiling heights of 3, 3.5 and 4 metres for both open area and escape route applications.

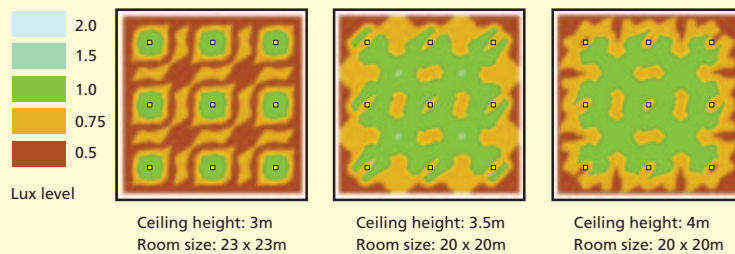
Open area installations

The illustration right depicts how, at 3m ceiling height, using a grid of 3 x 3 surface mounted downlighters can effectively illuminate an open area of up to 529m² to 0.5 lux.



Lux levels at 3m, 3.5m & 4m

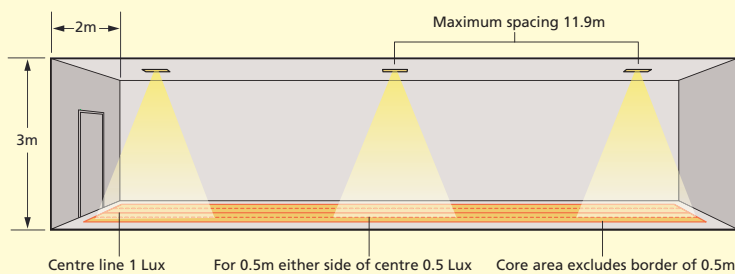
Examples are provided to give a fair representation of the expected lux levels at the three ceiling heights, within the anticipated achievable open areas.



Escape route installations

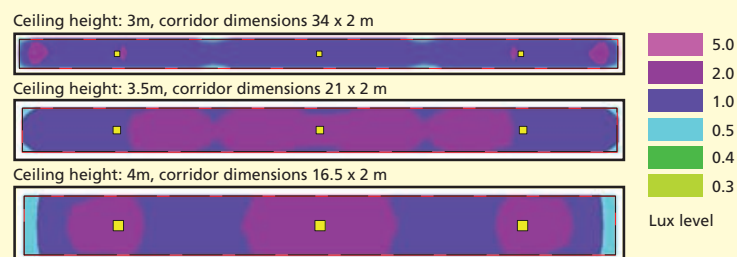
The diagram right illustrates the effective light dispersal achieved through use of Serenga LED surface mounted downlighters.

At 3m ceiling height, and with a maximum spacing of 11.9m, a series of 3 downlighters can illuminate a corridor length up to 34m.



Lux levels at 3m, 3.5m & 4m

Examples are provided at various ceiling heights to give a fair representation of the expected lux levels to achieve the required illumination (in line with BS 5266) within the corridor lengths cited.



All diagrams are for general illustration purposes only, and are not to scale. To discuss specific emergency lighting installations, please contact Emergi-Lite for information and preparation of emergency lighting schemes.

Serenga Sun-Lite surface mounted downlighters – technical specification and order codes

The following tables provide the key technical information on Serenga LED surface mounted downlighters and the product codes for ordering.

Technical specification

Input voltage	230V 50Hz
Input voltage (slave)	85 – 230V AC/DC
Duration	3 hours
Battery	High temperature nickel metal hydride (NiMH)
Indicators	Charge: green LED, Fault: amber LED
Operation	Maintained, switch maintained or non-maintained
Recharge period	24 hours
BLF	100% on mains failure
Lamp	3w, 1 high power LED
Lamp o/p (lumens)	65 lumens
Lamp life	50k hours, 70% light output
Power consumption	4.1w/8.9VA
Power consumption (slave)	5.3w/11.0VA

Construction & installation

Construction	Polycarbonate, white or grey
Insulation class	II
Environment	5 – 35°C
Ingress class	IP42 (with cable glands)
Dimensions	192 x 162 x 40mm
Weight (kg)	2.0kg (max)
Product standard/Approvals	Designed & manufactured to meet the requirements of BS EN 60598.2.22

Order Codes Description

Self-contained

SER-SAM3-11	Open area LED Downlighter, Self-Test, white
SER-SAM3-33	Open area LED Downlighter, Self-Test, silver
SER-SEM3-11	Escape route LED Downlighter, Self-Test, white
SER-SEM3-33	Escape route LED Downlighter, Self-Test, silver

Self-contained with Centrel automated testing feature

CTSER-SAM3-11	Open area LED Downlighter, white, Centrel testing
CTSER-SAM3-33	Open area LED Downlighter, silver, Centrel testing
CTSER-SEM3-11	Escape route LED Downlighter, white, Centrel testing
CTSER-SEM3-33	Escape route LED Downlighter, silver, Centrel testing

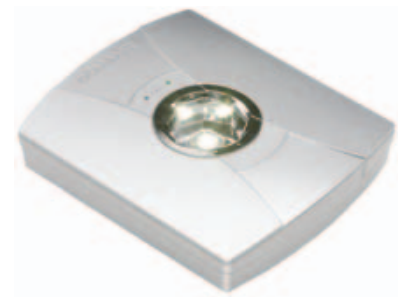
Self-contained with IR2 infra-red testing feature

IR2SER-SAM3-11	Open area LED Downlighter, white, IR2 infra-red testing
IR2SER-SAM3-33	Open area LED Downlighter, silver, IR2 infra-red testing
IR2SER-SEM3-11	Escape route LED Downlighter, white, IR2 infra-red testing
IR2SER-SEM3-33	Escape route LED Downlighter, silver, IR2 infra-red testing

Slave

SER-SA230-11	Open area LED Downlighter, white
SER-SA230-33	Open area LED Downlighter, silver
SER-SE230-11	Escape route LED Downlighter, white
SER-SE230-33	Escape route LED Downlighter, silver
SER-SA230LTC-11	Open area LED Downlighter, white, with integral LTC
SER-SA230LTC-33	Open area LED Downlighter, silver, with integral LTC
SER-SE230LTC-11	Escape route LED Downlighter, white, with integral LTC
SER-SE230LTC-33	Escape route LED Downlighter, silver, with integral LTC

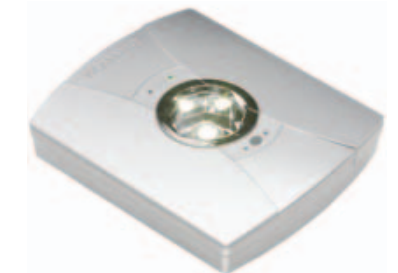
For further information on the Serenga range, please contact Emergi-Lite Safety Systems.



Open area downlighter (self-contained)



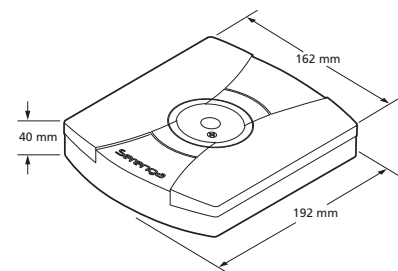
Escape route downlighter (self-contained)



Open area downlighter (IR2)



LED housing



Downlighter dimensions