SL 88022 CG-S

Safety light for sports facilities and for work areas with special hazards

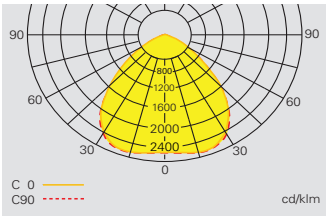




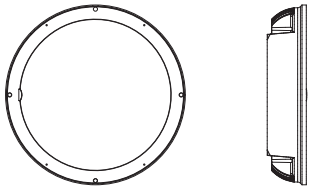
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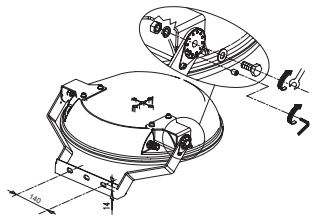


SL 88022 CG-S with adjustable bracket



Light distribution curve
SL 88022





Ceiling/ wall mounting bracket, adjustable

SL 88022 CG-S

- Safety luminaire for lighting in sports facilities according to EN 12193
- The high lumen output makes it also suitable for workplaces with high risk task areas requiring min. 15 lx or 10% of the nominal illuminance as well as for spaces that must comply with NFPA standards requiring 10.8 lx
- Ball impact safety according to DIN 18032-3 proven by an independent testing institute
- Version SE: With control input for a local switching with positive or inverted logic e.g. to integrate the luminaire into the general lighting concept
- Version ST: With integrated sports timer function. In an emergency, the luminaire remains at full power for either 60 or 120 seconds to ensure the necessary illuminance for ending the activity. To save battery capacity, it then dims to a previously selected level sufficient for at least 1 lx according to EN1838
- The integrated pressure equalization membrane reduces the effects of condensation
- For environments with high corrosion demands, such as coastal regions or swimming pools, variants featuring special coatings compliant with C5-M according to EN ISO 12944 can be supplied upon request.
- The CG-S technology delivers reduced inspection effort, automatic monitoring of up to 20 luminaires per circuit, lower installation costs, and fully programmable mixed operation of switching modes per luminaire

Luminous flux Φ_E/Φ_N	5600 lm
Luminous flux Φ_E/Φ_N at end of rated operating time	Version SE: 100% Version ST: adjustable from 5 to 70% or 100%
Housing material	Aluminium die-cast
Housing colour	Grey aluminium RAL 9007
Weight	4.5 kg
Type of mounting	Ceiling mounting
Terminals	5 x 2.5 mm² (IP65 fast connector - no through wiring)
Connection voltage	220 – 240 V AC, 50/60 Hz 176 – 275 V DC
Current consumption - battery operation (220 V)	SE: 179 mA ST: 184 mA at 100%, dimming mode: see table
Power consumption mains operation (apparent power / effective power)	SE: 41 VA / 40.2 W ST: 42 VA / 41.5 W
Inrush current	SE: 0.5 A ST: 2.4 A
Permissible ambient temperature	SE: -20°C bis +35°C ST: -20°C bis +40°C
Light source	LED array 37 W (4000 K / CRI 80)

Ordering details

Type	Scope of supply	Order No.
SL 88022 SE CG-S	Safety luminaire, IP65, with symmetric mid-wide beam light distribution, 5600 lm, 4000 K, including LED-supply and CG-S technology (20 addresses) with switch input, including eyelet for chain suspension*)	40071356868 40071356868CP **)
SL 88022 ST CG-S	Safety luminaire, IP65, with symmetric mid-wide beam light distribution, 5600 lm, 4000 K, including LED-supply with sports timer function and CG-S technology (20 addresses), including eyelet for chain suspension*)	40071356869 40071356869CP **)
Ceiling Mounting bracket, fixed	Mounting set for SL 880x2*)	40071356864 40071356864CP **)
Ceiling Mounting bracket, adjustable	Mounting set for SL 880x2, adjustable mounting angle, for horizontal and non-horizontal mounting surfaces (e.g. sloping roofs), adjustable up to 40°, ball-proof tested in combination with SL 88022	40071356865 40071356865CP **)
Ceiling/ wall mounting bracket, adjustable	Mounting set for SL 880x2, adjustable mounting brackets, suitable for wall or ceiling mounting, adjustable up to 180°*)	40071356866 40071356866CP **)

*) The accessory has not been tested for ball impact resistance
**) Available on request with extra corrosion protection

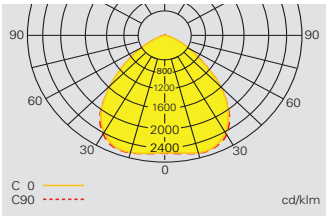
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Current consumption after 60 or 120 s in dimming mode

Dimming level	Current consumption of the luminaire at 220V DC	Luminous flux
[%]	[mA]	[lm]
5	18	322
10	28	575
15	37	865
20	44	1115
30	61	1652
40	77	2177
50	97	2791
60	112	3297
70	131	3916
100	184	5600





Light distribution curve
SL 88022

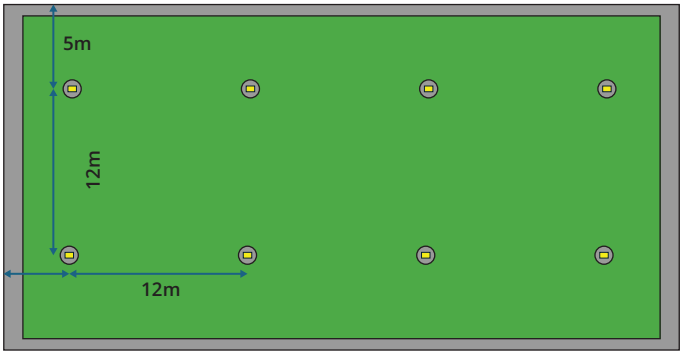
Planning aid for 88022 CG-S for a minimum illuminance E_{min} = 10.8 / 15 / 25 lx
Measuring level 0.02 m, maintenance factor MF = 80 %, battery operation, 5600 lm

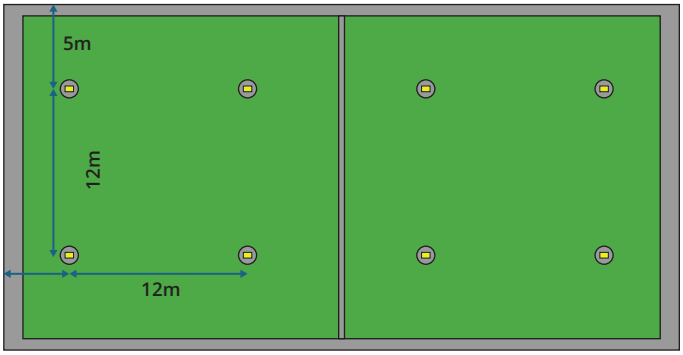
Mounting height in meters	Mounting Type	L_1	L_2	L_3	L_4
5	Ceiling mounting	4.6 / 4.1 / 3.5	11.3 / 10.5 / 9.2	4.6 / 4.1 / 3.5	11.1 / 10.3 / 9.0
5.5	Room illumination	4.7 / 4.3 / 3.6	12.1 / 10.9 / 9.6	4.6 / 4.3 / 3.6	11.9 / 10.7 / 9.4
6	2 x 2 Luminaires	4.9 / 4.4 / 3.6	12.4 / 11.4 / 10.0	4.9 / 4.4 / 3.6	12.2 / 11.2 / 9.8
6.5		5.0 / 4.4 / 3.6	13.1 / 11.9 / 10.3	4.9 / 4.4 / 3.6	12.9 / 11.7 / 10.1
7		5.1 / 4.5/ 3.5	13.4 / 12.3 / 10.7	5.1 / 4.5 / 3.5	13.2 / 12.1 / 10.5
7.5		5.2 / 4.5 / 3.4	13.9 / 12.7 / 11.0	5.2 / 4.5 / 3.4	13.7 / 12.5 / 10.8
8		5.2 / 4.5 / 3.2	14.4 / 13.1 / 11.2	5.2 / 4.5 / 3.2	14.2 / 12.9 / 11.0
8.5		5.3 / 4.5 / 2.9	14.7 / 13.4 / 11.5	5.3 / 4.5 / 2.9	14.5 / 13.2 / 11.2
9		5.3 / 4.4 / 2.4	15.1 / 13.7 / 11.8	5.3 / 4.4 / 2.4	14.9 / 13.5 / 11.5
9.5		5.3 / 4.3 / -	15.5 / 14.0 / -	5.3 / 4.3 / -	15.3 / 13.8 / -
10		5.2 / 4.1 / -	15.9 / 14.3 / -	5.2 / 4.1 / -	15.7 / 14.1 / -
10.5		5.2 / 3.9 / -	16.2 / 14.6 / -	5.2 / 3.9 / -	16 / 14.3 / -
11		5.0 / 3.5 / -	16.6 / 14.9 / -	5 / 3.5 / -	16.4 / 14.7 / -
11.5		4.9 / 3.1 / -	16.8 / 15.0 / -	4.9 / 3.1 / -	16.6 / 14.8 / -
12		4.7 / - / -	17.1 / - / -	4.7 / - / -	16.9 / - / -
12.5		4.5 / - / -	17.4 / - / -	4.5 / - / -	17.1 / - / -
13		4.2 / - / -	17.5 / - / -	4.2 / - / -	17.3 / - / -
13.5		3.7 / - / -	17.9 / - / -	3.7 / - / -	17.7 / - / -

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Project planning example : Double sports hall
Dimensions 22 m x 45 m, clear height min. 7 m, can be divided by means of a dividing curtain





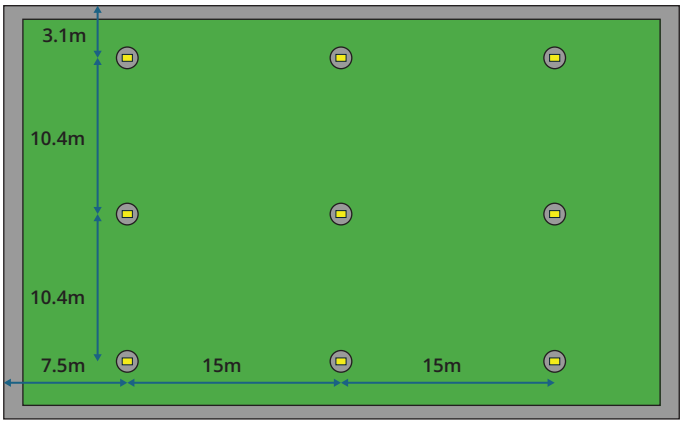
Calculation parameters:

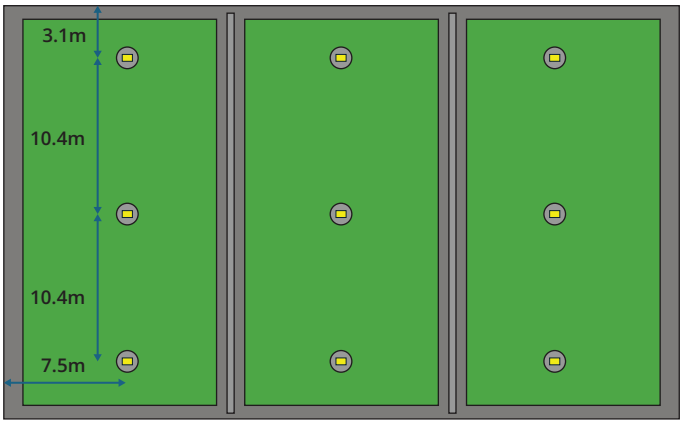
- Measuring level 0.02 m
- Maintenance factor MF = 80 %
- Illuminance target E_{avg} >= 25 lx
- Luminaire height 7.3 m
- Surrounding border 0.5/1 m

Results:

		Entire room (without gym divider)				Half room (deployed gym divider)			
Period	Dimmlevel	E_{min}	E_{max}	E_{avg}	E_{min}/E_{avg}	E_{min}	E_{max}	E_{avg}	E_{min}/E_{avg}
for 60 or 120s	100%	18 lx	37 lx	28 lx	0.65	16 lx	35 lx	27 lx	0.6
after 60 or 120s	10%	1.8 lx	3.7 lx	2.8 lx	0.65	1.6 lx	3.5 lx	2.7 lx	0.6

Project planning example : Triple sports hall
Dimensions 27 m x 45 m, clear height min. 7 m, can be divided by means of a dividing curtains





Calculation parameters:

- Measuring level 0.02 m
- Maintenance factor MF = 80 %
- Illuminance target E_{avg} >= 25 lx
- Luminaire height 7.3 m
- Surrounding border 0.5/1 m

Results:

		Entire room (without gym dividers)				One-third of the room (deployed gym dividers)			
Period	Dimmlevel	E_{min}	E_{max}	E_{avg}	E_{min}/E_{avg}	E_{min}	E_{max}	E_{avg}	E_{min}/E_{avg}
for 60 or 120s	100%	11.6 lx	44.1 lx	27.7 lx	0.42	9.3 lx	42 lx	26.4 lx	0.35
after 60 or 120s	15%	1.7 lx	6.6 lx	4.2 lx	0.42	1.4 lx	6.3 lx	4 lx	0.35



Uniform Illumination in Emergency Operation

The adjustable dim level of the SL 88022 ST CG-S after 60 or 120 seconds enables precise brightness control to match operational requirements, reducing the necessary battery capacity.

Unlike systems that switch off individual luminaires after the time defined in EN 12193, this approach applies uniform dimming across all luminaires. This ensures consistent light distribution, minimizes shadow formation, and improves visual conditions for occupants. Additionally, maintaining a higher number of active luminaires enhances system reliability and operational safety.