



AREALO LED Large-Area Spotlight Series 7850...

Applications:

Large areas such as car parks, stockyards, loading station, container terminals, large opencast mining equipment, port facilities, airport apron lighting, sports facilities etc.

Design:

Housing: 1 - 3 segments of die-cast aluminium, powder coated in DB 702 (mica-iron paint, grey), with LED modules, optics, cover glass and pressure compensation system. Rear-mounted ECG-housing made of aluminium, powder coated in DB 702, with ECG and plug connection.

Segment holder and swivel bracket made

of galvanized steel.

Glass: Flat safety glass pane, resistant to temperature changes, impact resistant IK09, silicone gasket.

Light distribution: Extremely asymmetrical beam.

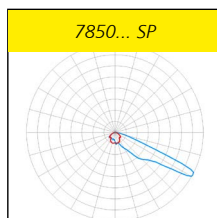
Connection: Quick connector (**Fast-Connect**), plug mounted to the housing, socket included. Wired ready for connection.

Mounting: Mounting bracket, swivel range 90°, adjustable in steps of 5°, with 3 drillings for direct wall mounting or pole mounting in connection with a pole mounting bracket respectively.

Electrical design:

LED module: 4,000 K or 3,000 K, $R_a > 70$, service life $L_{90} > 100,000$ h, Zhaga compliant

ECG: 220-240 V, 50-60 Hz, Surge voltage resistance 10 kV, overload and short circuit protection.



Options:

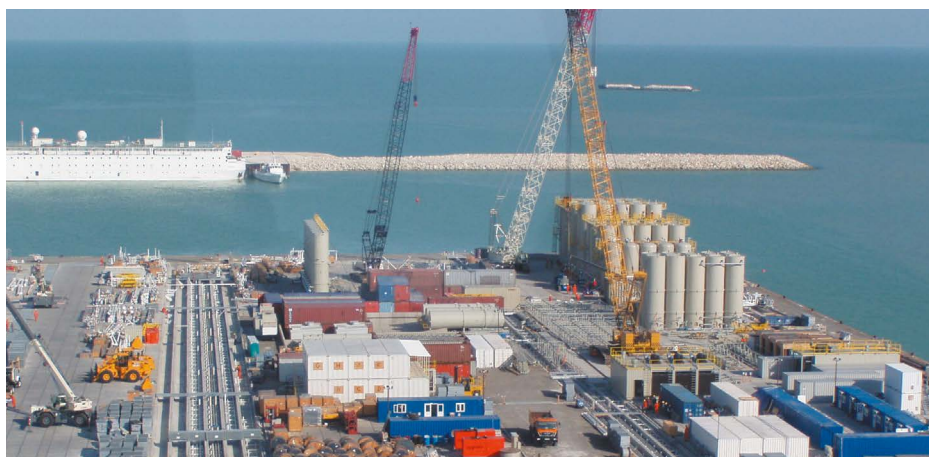
- 2,200 K; light colour (722)
- 1,800 K; light colour (518)
- asymmetrical beam (A), plane surface floodlight-optics
- special painting in RAL colours
- seawater-resistant version
- bird deterrence
- dimming function via DALI2 interface,

compatible with LIMAS Line wired Light Management System (**DIMD**)

- power reduction with control phase (LR)
- power reduction without control phase (LA)
- constant luminous flux function (CL)

Product highlights:

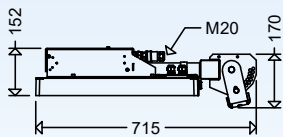
- durable, corrosion-resistant die-cast aluminium housing
- robust, modular design
- excellent thermal management due to segment-surrounding cooling fin structure, excellent heat dissipation, with additional cooling by convection
- luminaire can be rotated using a mounting bracket and swiveled by up to 90° in 5° increments, segments can also be tilted to achieve optimal lighting results
- simple, quick mounting:
Fasten the mounting bracket with the segment holder, attach and fix the segments individually, establish the electrical connection using the **FastConnect** quick connector
- quick ECG exchange with OV-version, no supervisor required
- precise light distribution with highly efficient optics
- homogeneous illumination due to the **Multi-Layer-Technology**
- eco-friendly, no light emission into the upper half-space, **ULOR=0**
- all versions dimmable to 10 % with color temperature up to max. 3,000 K fulfill the **Dark Sky** requirements
- sustainable, control gear and LED-module replaceable by qualified personnel on-site
- future proof by using standardized LED-modules (Zhaga) and long-term availability of spare parts



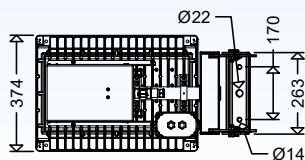
! Properties, limitations and details for controlling LED-light fittings:

■ See "Technical Supplement"

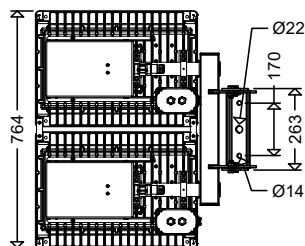
All data are correct at the time of printing. Actual technical data can be found under www.schuch.de.



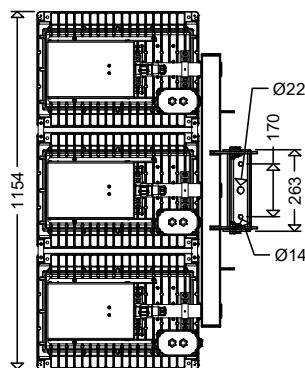
Version: 7850 1280...



Version: 7850 2560...



Version: 7850 3840...



Article no.	Type	Quantity of Segments	Quantity of ECG	Connected load [W]	Luminous flux [lm]	Luminous efficacy [lm/W]	Weight [ca. kg] (without packaging)	Wind load area [m²]
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7850... SP

IP66



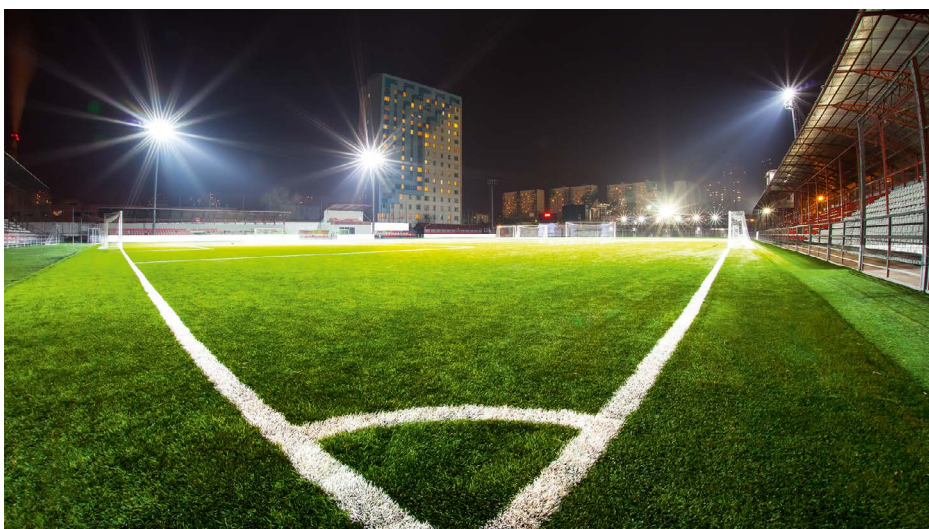
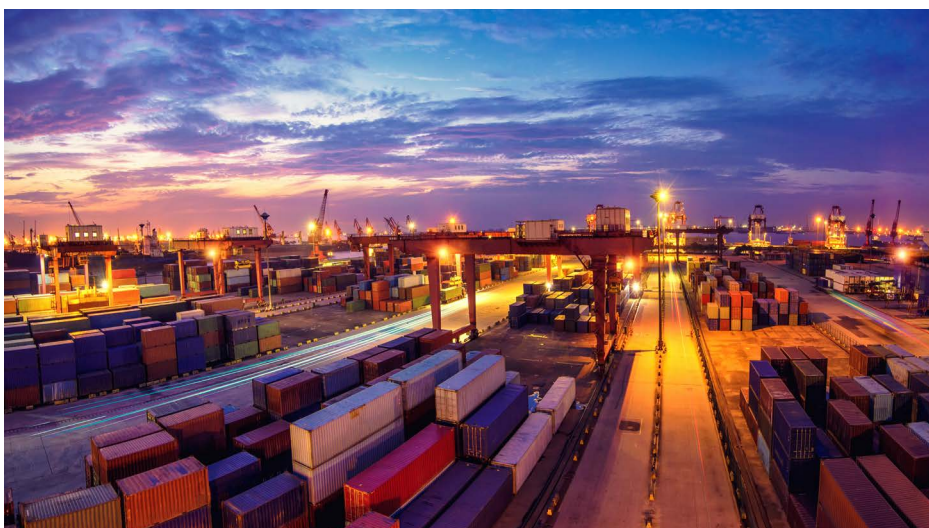
colour temperature 4.000K (light colour 740)

78501 0005	7850 12804SP	1	2	394	56.650	144	18,3	0,16
78502 0002	7850 25604SP	2	4	788	113.300	144	34,0	0,32
78503 0003	7850 38404SP	3	6	1.182	169.950	144	50,0	0,48
78501 0006	7850 12804SP DIMD	1	2	394	56.650	144	18,3	0,16
78502 0003	7850 25604SP DIMD	2	4	788	113.300	144	34,0	0,32
78503 0004	7850 38404SP DIMD	3	6	1.182	169.950	144	50,0	0,48

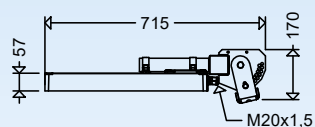
colour temperature 3.000K (light colour 730)

78501 0008	7850 12804SP 730	1	2	394	53.820	137	18,3	0,16
78502 0005	7850 25604SP 730	2	4	788	107.640	137	34,0	0,32
78503 0005	7850 38404SP 730	3	6	1.182	161.450	137	50,0	0,48
78501 0009	7850 12804SP DIMD 730	1	2	394	53.820	137	18,3	0,16
78502 0006	7850 25604SP DIMD 730	2	4	788	107.640	137	34,0	0,32
78503 0006	7850 38404SP DIMD 730	3	6	1.182	161.450	137	50,0	0,48

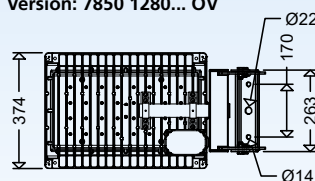
! All light fittings also available with connected cable (H07RN-F or NYM) in the required length.



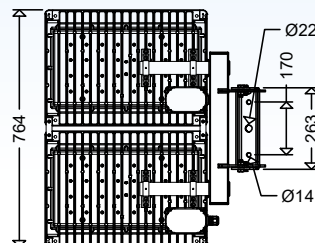
Outdoor
Light Fittings



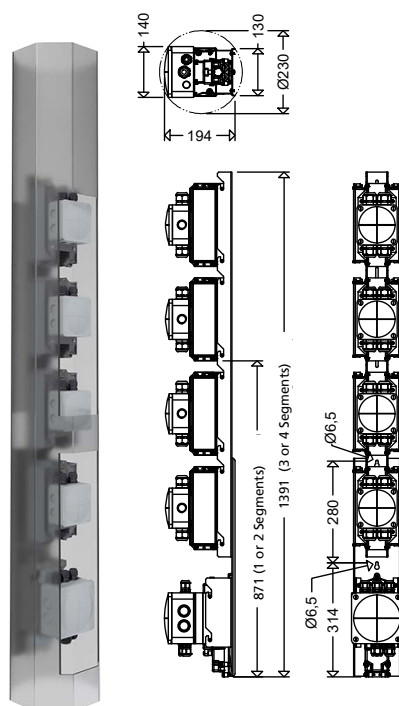
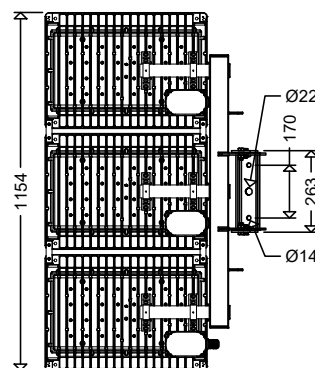
Version: 7850 1280... OV



Version: 7850 2560... OV



Version: 7850 3840... OV



Article no.	Type	Quantity of Segments	Quantity of ECG	Connected load [W]	Luminous flux [lm]	Luminous efficacy [lm/W]	Weight [ca. kg] (without packaging)	Wind load area [m²]
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7850... SP OV



Version:

Like 7850 ... but without ballast housing (OV), internal pole mounting or external mounting unit require (see below), please order separately.

Connection: Via external junction box on the housing segment.

Cable entry: 1 cable entry M20 x 1.5, per housing segment; cable gland(s) included in the delivery.

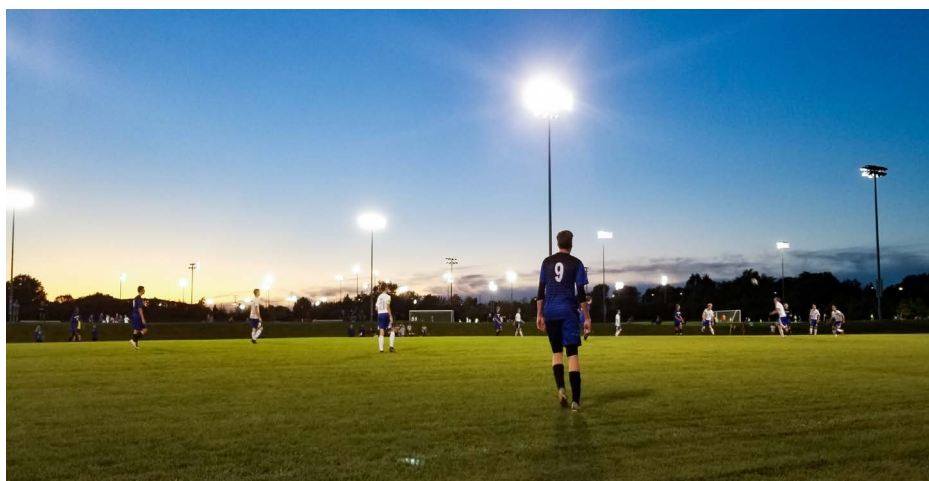
colour temperature 4.000K (light colour 740)

78501 0101	7850 12804SP OV	1	2	394	56.650	144	14,3	0,16
78502 0102	7850 25604SP OV	2	4	788	113.300	144	26,0	0,32
78503 0103	7850 38404SP OV	3	6	1.182	169.950	144	38,0	0,48

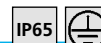
colour temperature 3.000K (light colour 730)

78501 0103	7850 12804SP 730 OV	1	2	394	53.820	137	14,3	0,16
78502 0104	7850 25604SP 730 OV	2	4	788	107.640	137	26,0	0,32
78503 0105	7850 38404SP 730 OV	3	6	1.182	161.450	137	38,0	0,48

! All light fittings also available with connected cable (H07RN-F or NYM) in the required length.



Internal pole mounting unit 7850 ME 1000



Design:

Gear rail with electronic ballast and cable junction box, wired ready for connection.

Connection:

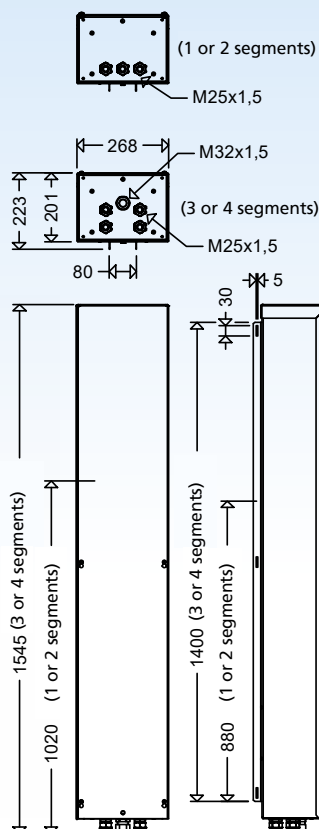
On the secondary side via FastConnect quick connector, plug included in delivery.

For connecting the housing segments to the pole installation unit, one 5-core cable is required for each housing segment.

Pole mounting:

M6 screws for suspension profile with all electrical components.

Article no.	Type		Weight [ca. kg] (without packaging)
78509 0006	7850 1ME 1000	Internal pole mounting unit for 7850 12804SP OV	7,7
78509 0010	7850 1ME 1000 DIMD	Internal pole mounting unit for 7850 12804SP OV DIMD	7,7
78509 0007	7850 2ME 1000	Internal pole mounting unit for 7850 25604SP OV	10,9
78509 0011	7850 2ME 1000 DIMD	Internal pole mounting unit for 7850 25604SP OV DIMD	10,9
78509 0008	7850 3ME 1000	Internal pole mounting unit for 7850 38404SP OV	14,9
78509 0012	7850 3ME 1000 DIMD	Internal pole mounting unit for 7850 38404SP OV DIMD	14,9
78509 0009	7850 4ME 1000	Internal pole mounting unit for 2 x 7850 25604SP OV mounted in a mast	18,1
78509 0013	7850 4ME 1000 DIMD	Internal pole mounting unit for 2 x 7850 25604SP OV DIMD mounted in a mast	18,1



External pole mounting unit 7850 MA 1000



Design:

Housing and gear rail with electronic ballast wired ready for connection.

Connection:

On the secondary side via FastConnect quick connector, plug included in delivery.

For connecting the housing segments to the

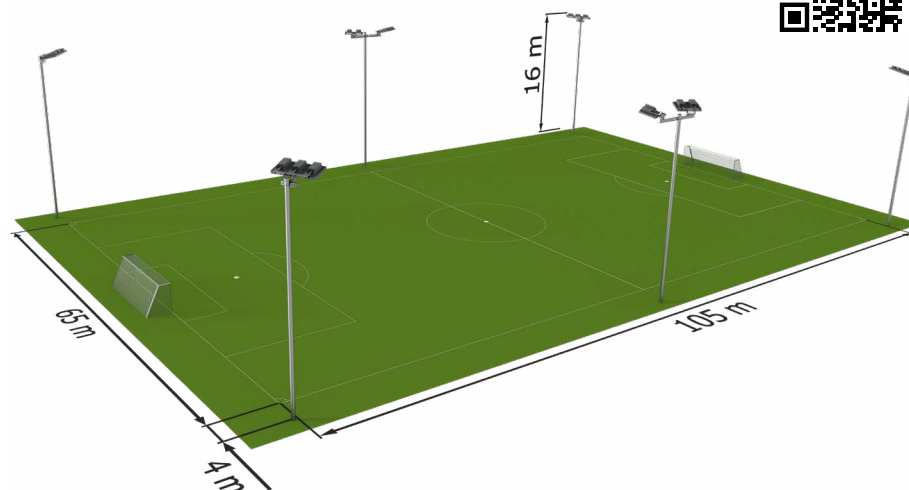
pole installation unit, one 5-core cable is required for each housing segment.

Pole mounting:

With corrosion-resistant fixing strap.

Article no.	Type		Weight [ca. kg] (without packaging)
78508 0005	7850 1MA 1000	External pole mounting unit for 7850 12804SP OV	16,7
78508 0009	7850 1MA 1000 DIMD	External pole mounting unit for 7850 12804SP OV DIMD	16,7
78508 0006	7850 2MA 1000	External pole mounting unit for 7850 25604SP OV	19,9
78508 0010	7850 2MA 1000 DIMD	External pole mounting unit for 7850 25604SP OV DIMD	19,9
78508 0007	7850 3MA 1000	External pole mounting unit for 7850 38404SP OV	28,9
78508 0011	7850 3MA 1000 DIMD	External pole mounting unit for 7850 38404SP OV DIMD	28,9
78508 0008	7850 4MA 1000	External pole mounting unit for 2 x 7850 25604SP OV mounted on a mast	30,1
78508 0012	7850 4MA 1000 DIMD	External pole mounting unit for 2 x 7850 25604SP OV DIMD mounted on a mast	30,1

You can find planning examples for sports field lighting in our outdoor luminaires catalogue.



Accessories / Spare Parts

Article no.	Type	
78510 9000	ABD 7850	cover, pane safety class clear (1 segment), clear, for 7850...
78511 9000	TR 400	crossbar 400 mm with cover cap and bracket
78511 9001	TR 1550	crossbar 1550 mm with cover cap and bracket
78511 9002	TR 1800	crossbar 1800 mm with cover cap and bracket
78510 9001	MA KBS	cable protection add-on element for 7850 .MA
78510 9002	BFB V2A 19/1000	tensioning band 1 m, SS-CRNI, 19mm
78510 9003	BFS V2A 19	buckle, SS-CrNi, 19mm
90120 9011	2530	plastic cable gland M20 x 1,5 black



PLANNING EXAMPLES FOR SPORTS FIELD LIGHTING

The basis for planning is the DIN EN 12193 regulation. It defines clear standards for illuminance, uniformity, glare limitation and color rendering for different lighting classes.

Lighting classes

Class I	High-performance competitions, international and national competitions with high visual requirements, high-performance training
Class II	Intermediate level competitions, regional competitions with medium visual requirements, performance training
Class III	Simple competitions, local competitions, school sports, general leisure sports, general training

Requirements

Lighting class	average horizontal illuminance (Em)	Uniformity (Uo)
I	$\geq 500 \text{ lx}$	≥ 0.7
II	$\geq 200 \text{ lx}$	≥ 0.6
III	$\geq 75 \text{ lx}$	≥ 0.5

INTELLIGENT LIGHT CONTROL

Simply switching the floodlights of a sports facility on and off is neither efficient nor cost-saving and environmentally friendly. When converting to LED technology, the question of intelligent lighting control therefore arises.

If one then takes into account the subsidies from the federal government within the framework of the municipal guidelines as well as the state sports associations and possibly the respective federal state, which can currently

amount to up to 80 % cumulatively at peak times, the decision should not be difficult.

Dimming

The introduction to light control

The simplest solution is to dim the floodlights via DALI. Since the maximum illuminance is usually only required for matches and competitions, energy can be saved to a considerable extent by continuously dimming or switching on preset

lighting levels during training. All that is required for this is an AREALO in DIMD version.



Smart lighting control with LIMAS Air

With the LIMAS Air Light Management System, you can conveniently control your floodlighting system via radio, without additional wiring, and save a maximum of energy costs at the same time.

The system is configured and controlled via a free app (Android or iOS) using a smartphone or tablet. Neither an internet connection nor a gateway is required for this.

The luminous flux of each individual luminaire/mast unit can be controlled separately. In conjunction with push-buttons, the pre-programmed scenes can be called up easily and conveniently, for example match and competition mode, training, half-field lighting or goalkeeper training, etc.

Please contact us. We will be happy to show you the possibilities LIMAS Air offers and support you in planning, projecting and configuring your system.



Control components

Art.-Nr.	Type	
78512 0001	7850 1VBOX RFL Lite TRA	Distribution box 1-fold for RFL LIMAS Air HUB TRI for AREALO 7850 12804SP DIMD as truss structure. Additionally RFL LIMAS Air HUB (90546 9013) is required (not included in delivery).
78512 0002	7850 2VBOX RFL Lite TRA	Distributor box 2-fold for RFL LIMAS Air HUB TRI for AREALO 7850 25604SP DIMD as truss structure. Additionally RFL LIMAS Air HUB (90546 9013) is required (not included in delivery).
78512 0003	7850 3VBOX RFL Lite TRA	Distribution box 3-fold for RFL LIMAS Air HUB TRI for AREALO 7850 38404SP DIMD as truss structure. Additionally RFL LIMAS Air HUB (90546 9013) is required (not included in delivery).
78512 0010	7850 VBOX RFL Lite TRA	Distributor box for RFL LIMAS Air HUB TRI for AREALO 7850 12804SP OV, 7850 25604SP OV, 7850 38404SP OV as truss structure. Additionally RFL LIMAS Air HUB (90546 9013) is required (not included in delivery).
10183 0002	LIMAS Air SENSBOX	Repeater/amplifier box for LIMAS Air light management systems. An RFL LIMAS Air HUB radio control unit (90546 9013) is also required (not included).
90546 9013	RFL LIMAS Air HUB TRI	Light management controller (2.4 GHz mesh network) with radio antenna and RFL base.
90547 9009	LIMAS Air TAST INTER UP max 4 KONT	Push-button interface for connecting up to 4 analogue push-button contacts, mounting in flush-mounted box/branch box.
90547 9011	LIMAS Air TAST UP max 4 KONT	Battery-free quadruple wireless pushbutton, pressing the pushbutton generates energy to supply the pushbutton electronics.