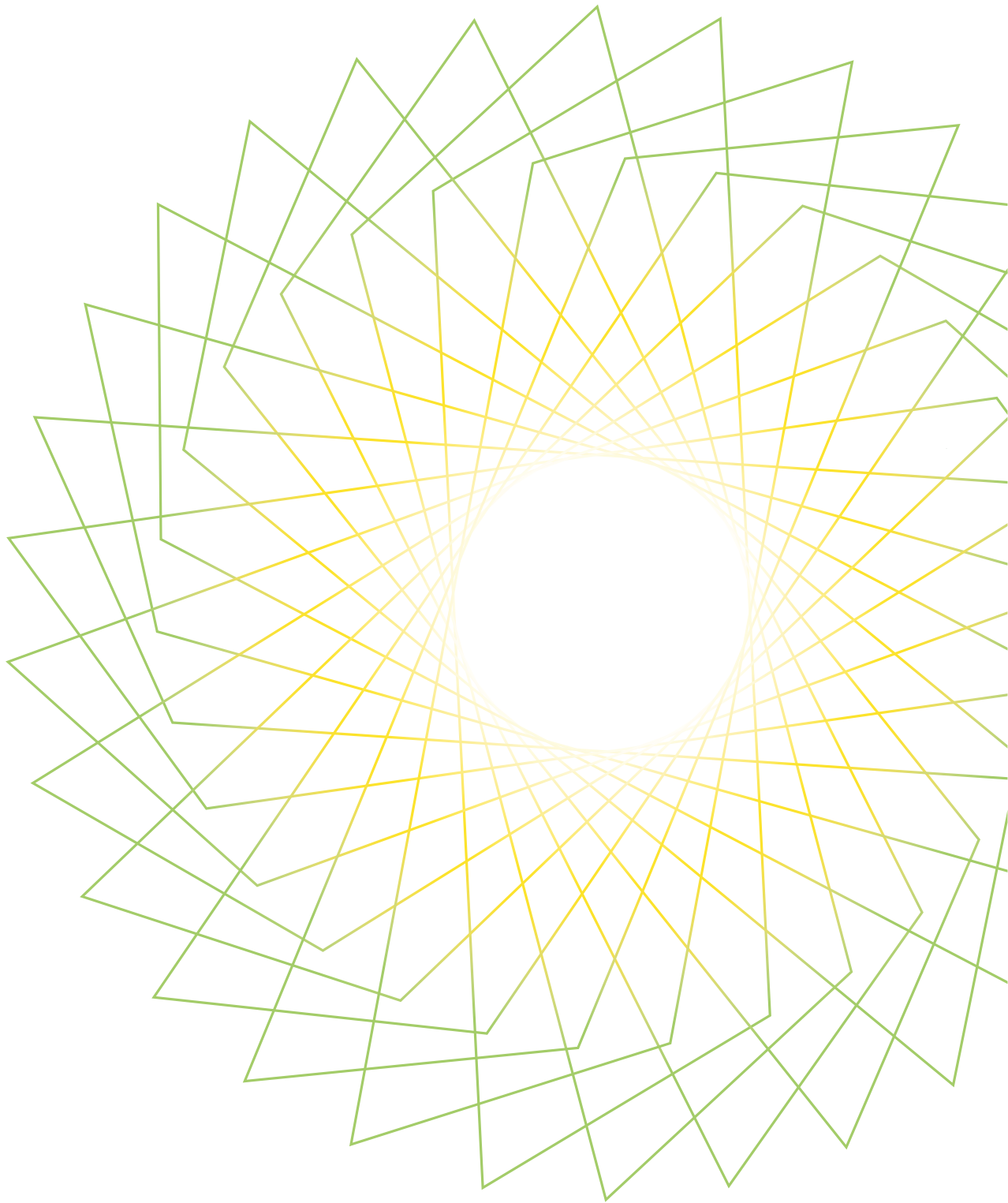
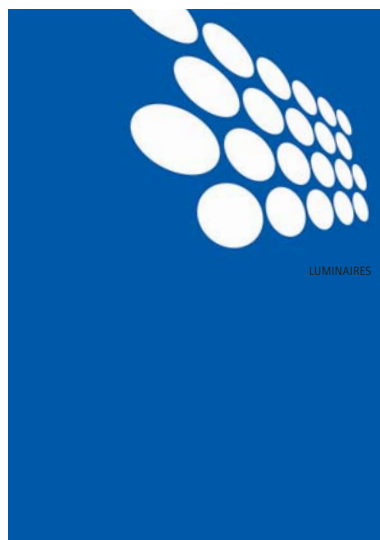




CONTENTS



p 7

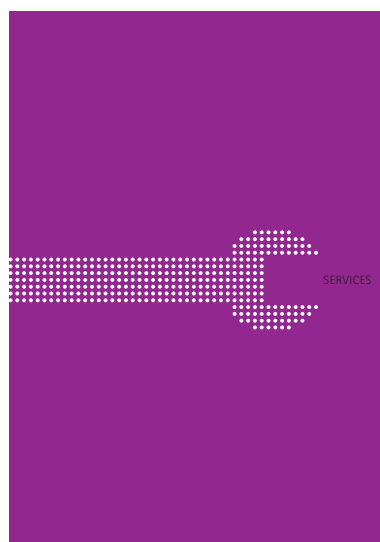
LUMINAIRES

Luminaires for lighting and emergency lighting



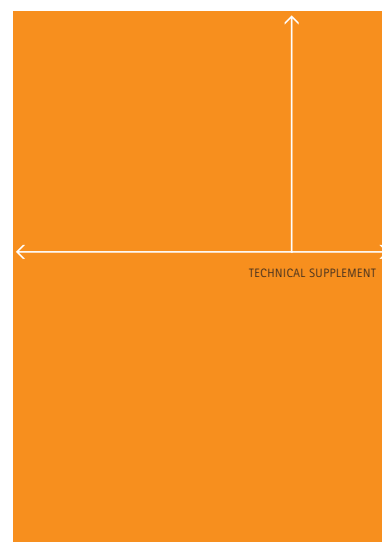
p 273

SYSTEMS FOR LIGHTING AND EMERGENCY LIGHTING



p 319

SERVICES



p 329

TECHNICAL SUPPLEMENT

Technical information: dimensional sketches, standards, accessories,...





webref. SA075H8



webref. SA077G1

ETAP: YOUR RELIABLE LIGHTING PARTNER

ETAP is a European company, founded in Antwerp in 1949. We design energy-efficient, flexible and comfortable lighting solutions for every professional environment, from office buildings to hospitals, educational establishments and industrial workshops. ETAP develops and produces its own luminaires and systems, for both general and emergency lighting. We support our customers from A to Z with a comprehensive set of services.



TOP QUALITY FROM A TO Z

ETAP is actively involved in every step of your lighting project: from illumination study and advice, design and creation through to order processing, production and delivery. This enables us to guarantee superior quality and punctual deliveries in every process stage. Therefore ETAP offers a 5-year warranty on nearly all of its products. Moreover, we always seek to balance the economical, ergonomic and aesthetic aspects of your lighting project.

ETAP'S LIGHTING SOLUTIONS ARE:

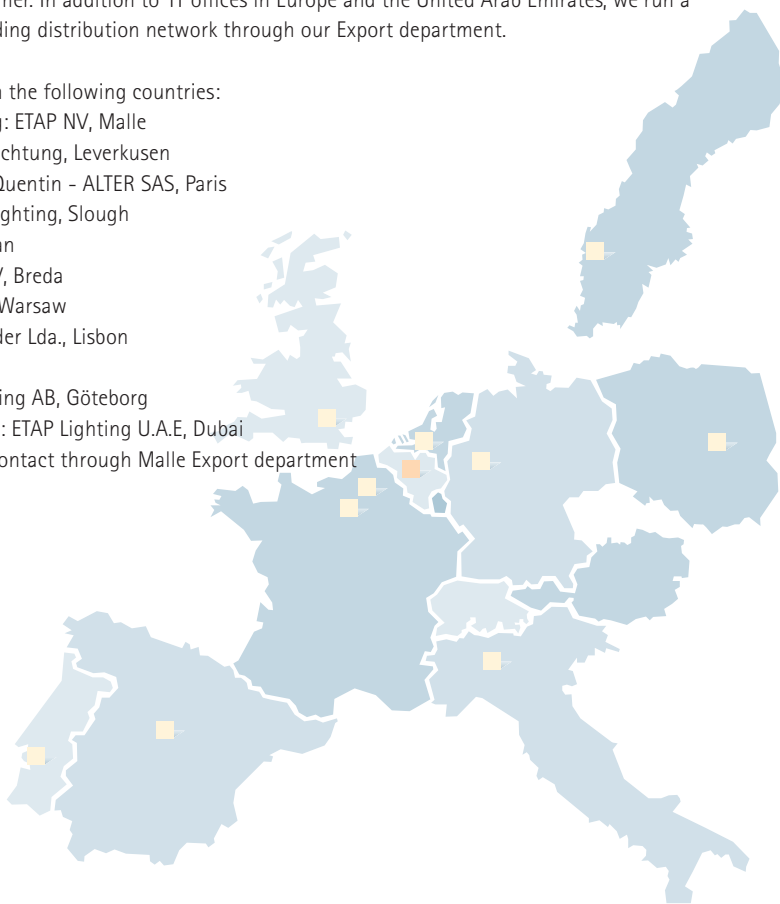
- geared to your specific wishes
- in harmony with the building's architecture
- highly energy-efficient
- perfectly adapted to the people working in the building
- reliable and safe
- the most sustainable on the market

CUSTOMER-ORIENTED LIGHTING SPECIALIST

ETAP employs over 500 staff in more than ten countries. Wherever ETAP is active, we have our own sales team with technically versed advisers, since customer-oriented lighting solutions imply close contact with the customer. In addition to 11 offices in Europe and the United Arab Emirates, we run a global and ever-expanding distribution network through our Export department.

ETAP has local teams in the following countries:

- Belgium - Luxemburg: ETAP NV, Malle
- Germany: ETAP Beleuchtung, Leverkusen
- France: ETAP SA, St. Quentin - ALTER SAS, Paris
- Great Britain: ETAP Lighting, Slough
- Italy: ETAP Italia, Milan
- Netherlands: ETAP BV, Breda
- Poland: ETAP Polska, Warsaw
- Portugal: ETAP.Schröder Lda., Lisbon
- Spain: ETAP, Madrid
- Sweden: ETAP Belysning AB, Göteborg
- United Arab Emirates: ETAP Lighting U.A.E, Dubai
- All other countries: contact through Malle Export department





webref. SK4100B3



webref. SU7001B3

EXCELLENT LIGHTING
SAVING ENERGY



ETAP LIGHTING: ENERGY-EFFICIENT AND COMFORTABLE

ETAP produces a full range of luminaires. With reflectors, diffusers and lenses. With LEDs or fluorescent lamps, from standard luminaires to tailored solutions. The focus is always on energy-efficiency. ETAP lighting solutions are also comfortable. They ensure pleasant room lighting, excellent contrast and colour rendition and prevent disturbing glare.

ETAP EMERGENCY LIGHTING: SAFETY FIRST

At ETAP Emergency Lighting the focus is on dependability, so that your emergency lighting will actually work in the event of an emergency. We have solutions for all environments. Both autonomous luminaires and central battery systems, in addition to systems for the management of emergency lighting installations.

All luminaires are fitted with the most reliable electronics. High-quality components, automatic mounting and extensive tests ensure superior operational reliability and long service life. All ETAP luminaires are also equipped with automatic self-testing. With the ETAP Safety Manager (ESM) the safety of the installed emergency lighting is continuously monitored.

ETAP LIGHT CONTROL: FLEXIBLE AND ENERGY-EFFICIENT

Our lighting solutions are aimed at creating flexibility within your building and minimising power consumption. Our specialists will be happy to develop a tailored solution for you.

ETAP SERVICES

ETAP provides a wide range of services: Installation, implementation, configuration, start-up, maintenance, etc. We make sure your installation always operates optimally – even long after delivery.

THE MOST ENERGY-EFFICIENT SOLUTION

Energy-efficient lighting is our core business. At ETAP we deploy our know-how to achieve the desired light level with the least possible installed power.

That is why we take an active part in the European Commission's GreenLight programme, which encourages companies and authorities to illuminate their buildings in an energy-efficient way. As a Main Greenlight Endorser, ETAP has helped dozens of companies to become GreenLight Partners. Interested? Please contact your ETAP adviser.





webref. SA04951

LED Advanced LED technology

A LONG TRADITION OF INNOVATION

ETAP runs its own Research & Development department and invests approximately 7% of its annual turnover in R&D. We regularly work with universities, colleges of higher education, research centres and other knowledge establishments. Due to close collaboration with our customers we are perfectly aware of what happens in the market. Our specialists closely monitor new developments and standards and integrate them into innovative solutions. To do so, we own sophisticated calculation software, our own laboratories and a flexible production department.

Back in 2003, ETAP was one of the first in the sector to introduce LEDs into its emergency lighting. Since 2010 we also provide more and more LED luminaires for general lighting; in this catalogue you will find a full range of LED solutions, for every type of luminaire. LEDs and LED lighting are still in full development and ETAP closely monitors this growth. Visit our website for the latest progress. In addition, ETAP also regularly breaks with tradition in the area of luminaire design. Our sense of creative design and attention to detail and finish have earned us numerous design awards.

TAILOR-MADE SOLUTIONS

For both new and existing buildings, lighting often has to be adapted to suit specific customer requirements or the building's technical specifications. Its flexible organisation and decades of experience enable ETAP to flexibly respond to this demand.

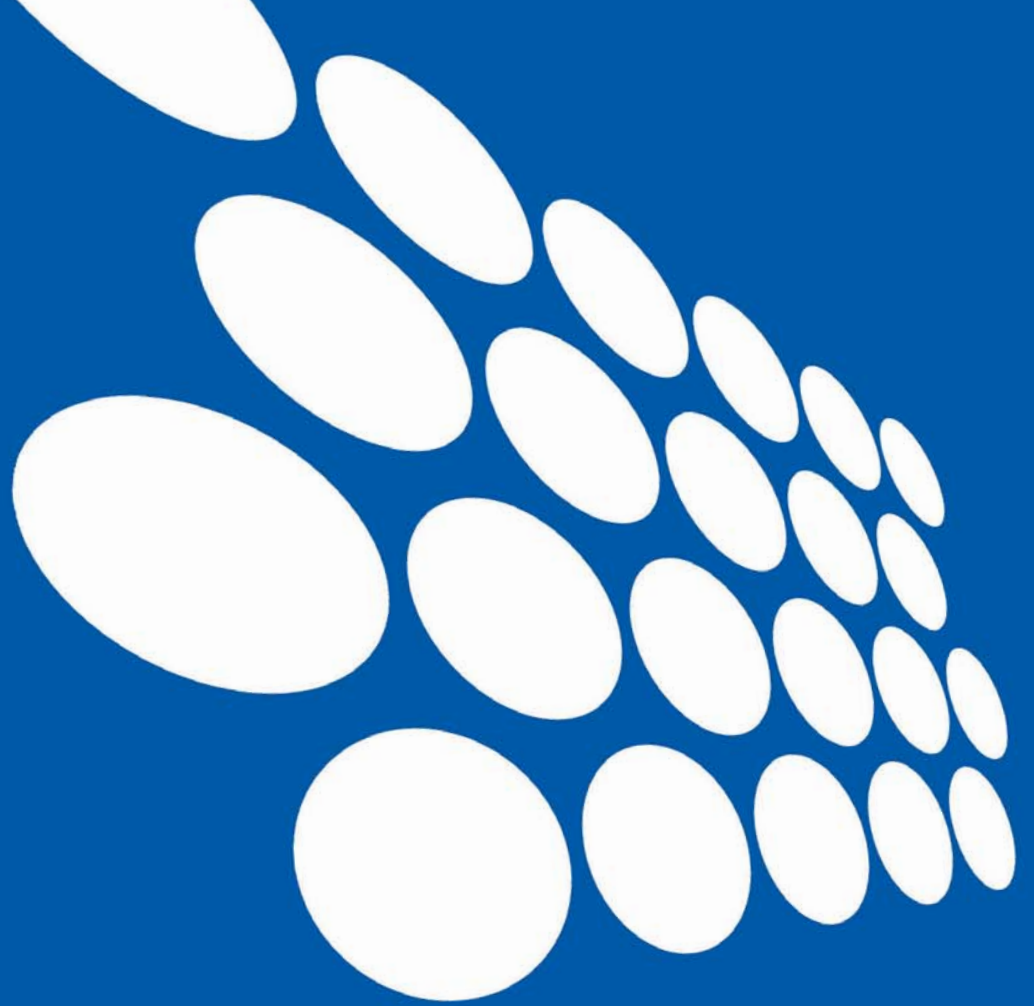
ETAP, LOOKING OUT FOR MAN AND THE ENVIRONMENT

ETAP feels strongly about sustainability. ETAP strives to achieve a sound balance between people (motivated employees, pleasant working environment), planet (sustainable products, care of the environment) and profit (sound financial return). ETAP holds ISO 9001 and ISO 14001 accredited certifications. A guarantee for our customers that we also actually implement sustainable entrepreneurship. All facts and figures involving sustainability in our activities can be found in our sustainability report, drawn up in accordance with the international guidelines of the Global Reporting Initiative (GRI). Download the report from our website or request it from your ETAP adviser.

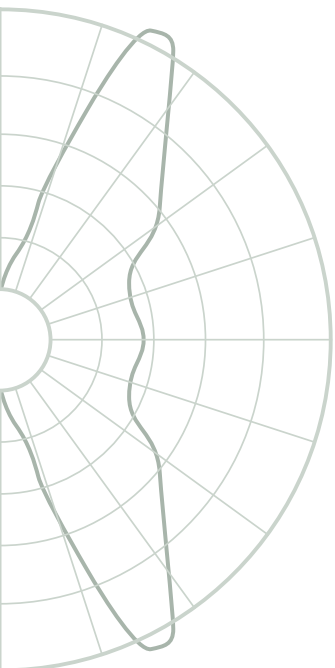


THE LIGHT PAVILION

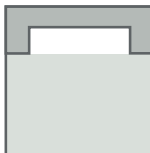
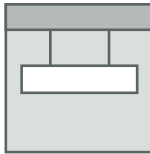
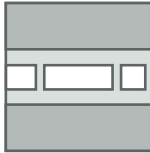
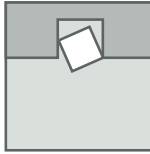
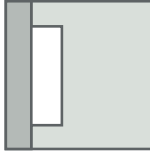
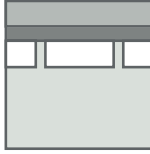
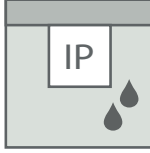
At the ETAP Light Pavilion in Malle, we help our customers to make efficient choices. There you can discover the results of more than half a century of experience. The building is highly environmentally friendly, thanks to energy-efficient lighting (obviously), the Excellum light control system, which results in an additional 52% saving and innovative temperature control technologies (power consumption for cooling is 80% lower than comparable traditional buildings).



LUMINAIRES



CONTENTS LUMINAIRES

			Recessed luminaires	11	
			Surface mounted and suspended luminaires	47	
				Modular light systems	87
				Downlights	111
			Spots	131	
			Wall luminaires	135	
			Light line systems and luminaires for spaces with high ceilings	151	
			High protection factor luminaires	185	
				Emergency lighting	199



RECESSED LUMINAIRES

lens



LED+LENS
TECHNOLOGY

U7 → p 19

reflector



U5 → p 13



UT1 → p 41



UT6 → p 45

diffuser



UM → p 25

softlight



US → p 35



U5

RECESSED LUMINAIRES WITH REFLECTOR



Housing

Lacquered sheet steel housing, with hinged optics
IP44 (from below): polycarbonate cover plate
IP65: glass cover plate

Optic

Reflector - HRSilver™ - high reflection aluminium

Air extraction

Possible - see table: surface air extraction openings

Dimensional sketches → p 378





U5, 4-lamp - webref. SU5021C1

U5

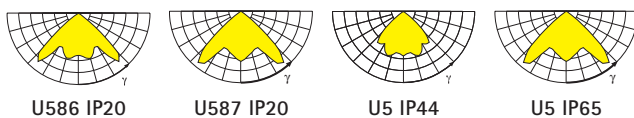
SQUARE

Table explanation p 424

module	UGR	L _{av} - limit cd/m ²	lamp type	lm/W luminaire	η %	L x W x H mm	plan N.	air cm ²	order code	option	
Reflector - satin-anodised aluminium - Equilum® baffles											
IP 20			FLUO								
			T5 ECO - Ø 16 mm								
600	≤ 19	≤ 200 (65°)	3 x 13W	82	97	596 x 596 x 96	30	-	U5871/313HFW	•	
			3 x 13W	82	97	596 x 596 x 96	36	78	U5872/313HFW	•	
		≤ 1000 (65°)	3 x 13W	83	98	596 x 596 x 96	30	-	U5861/313HFW	•	
			3 x 13W	83	98	596 x 596 x 96	36	78	U5862/313HFW	•	
	≤ 22	≤ 200 (65°)	3 x 20W	70	95	596 x 596 x 96	30	-	U5871/320HFW	•	
			3 x 20W	70	95	596 x 596 x 96	36	78	U5872/320HFW	•	
		≤ 1500 (65°)	3 x 20W	71	97	596 x 596 x 96	30	-	U5861/320HFW	•	
			3 x 20W	71	97	596 x 596 x 96	36	78	U5862/320HFW	•	
625	≤ 19	≤ 200 (65°)	3 x 13W	82	97	621 x 621 x 96	30	-	U5877/313HFW	•	
		≤ 1000 (65°)	3 x 13W	83	98	621 x 621 x 96	30	-	U5867/313HFW	•	
	≤ 22	≤ 200 (65°)	3 x 20W	70	95	621 x 621 x 96	30	-	U5877/320HFW	•	
		≤ 1500 (65°)	3 x 20W	71	97	621 x 621 x 96	30	-	U5867/320HFW	•	
	Reflector - satin-anodised aluminium - Equilum® baffles										
	IP 20			FLUO							
			T5 ECO - Ø 16 mm								
600	≤ 19	≤ 200 (65°)	4 x 13W	83	97	596 x 596 x 100	31	-	U5871/413HFW	•	
		≤ 1000 (65°)	4 x 13W	84	98	596 x 596 x 100	31	-	U5861/413HFW	•	
	≤ 22	≤ 200 (65°)	4 x 20W	71	95	596 x 596 x 100	31	-	U5871/420HFW	•	
		≤ 1500 (65°)	4 x 20W	72	97	596 x 596 x 100	31	-	U5861/420HFW	•	
	625	≤ 19	≤ 200 (65°)	4 x 13W	83	97	621 x 621 x 100	31	-	U5877/413HFW	•
			≤ 1000 (65°)	4 x 13W	84	98	621 x 621 x 100	31	-	U5867/413HFW	•
	≤ 22	≤ 200 (65°)	4 x 20W	71	95	621 x 621 x 100	31	-	U5877/420HFW	•	
		≤ 1500 (65°)	4 x 20W	72	97	621 x 621 x 100	31	-	U5867/420HFW	•	

SQUARE - WATER PROOF

module	UGR	L_{av} - limit cd/m ²	lamp type	lm/W luminaire	η %	L x W x H mm	plan N.	air cm ²	order code	option
Reflector - satin-anodised aluminium - Equilum® baffles										
IP 44 ¹			 							
			T5 ECO - Ø 16 mm							
600	≤ 19	≤ 1000 (65°)	3 x 13W	77	92	596 x 596 x 100	38	-	U5861/313HFWT1	•
			3 x 20W	70	95	596 x 596 x 100	38	-	U5861/320HFWT1	•
625	≤ 19	≤ 1000 (65°)	3 x 13W	77	92	621 x 621 x 100	38	-	U5867/313HFWT1	•
			3 x 20W	70	95	621 x 621 x 100	38	-	U5867/320HFWT1	•
Reflector - satin-anodised aluminium - Equilum® baffles										
IP 65			 							
			T5 ECO - Ø 16 mm							
600	≤ 19	≤ 200 (65°)	3 x 13W	80	95	596 x 596 x 100	40	-	U5871/313HFWT0 ²	•
625	≤ 19	≤ 200 (65°)	3 x 13W	80	95	621 x 621 x 100	40	-	U5877/313HFWT0 ²	•

¹ IP44 from below
² Wafer trim




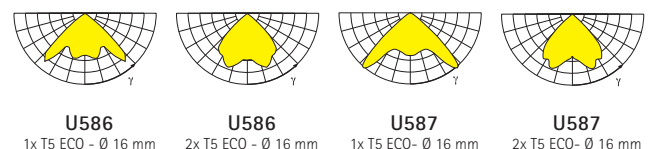
U5 linear - webref. SU5020A4

U5

LINEAR

Table explanation p 424

module	UGR	L _{av} - limit cd/m ²	lamp type	lm/W luminaire	η %	L x W x H mm	plan N.	air cm ²	order code	option
Reflector - satin-anodised aluminium - Equilum® baffles										
IP 20			FLUO T5 ECO - Ø 16 mm							
-	≤ 19	≤ 200 (65°)	1 x 13W	86	97	596 x 175 x 96	37	-	U5870/113HFW	•
			1 x 25W	85	97	1196 x 175 x 96	37	-	U5870/125HFW	•
			1 x 25W	85	97	1196 x 189 x 96	35	125	U5876/125HFW	•
			1 x 32W	86	97	1496 x 175 x 96	37	-	U5870/132HFW	•
			1 x 32W	86	97	1496 x 189 x 96	35	125	U5876/132HFW	•
			1 x 45W	81	97	1496 x 175 x 96	37	-	U5870/145HFW	•
			1 x 45W	81	97	1496 x 189 x 96	35	125	U5876/145HFW	•
		≤ 1000 (65°)	1 x 13W	83	94	596 x 175 x 96	37	-	U5860/113HFW	•
			1 x 25W	82	94	1196 x 175 x 96	37	-	U5860/125HFW	•
			1 x 25W	86	98	1196 x 189 x 96	35	125	U5866/125HFW	•
			1 x 32W	87	98	1496 x 175 x 96	37	-	U5860/132HFW	•
			1 x 32W	87	98	1496 x 189 x 96	35	125	U5866/132HFW	•
			2 x 13W	82	96	596 x 175 x 96	37	-	U5870/213HFW	•
			2 x 25W	87	96	1196 x 175 x 96	37	-	U5870/225HFW	•
			2 x 25W	87	96	1196 x 189 x 96	35	125	U5876/225HFW	•
			2 x 32W	86	96	1496 x 175 x 96	37	-	U5870/232HFW	•
			2 x 32W	86	96	1496 x 189 x 96	35	125	U5876/232HFW	•
		≤ 1500 (65°)	2 x 13W	83	98	596 x 175 x 96	37	-	U5860/213HFW	•
			2 x 25W	89	98	1196 x 175 x 96	37	-	U5860/225HFW	•
			2 x 25W	89	98	1196 x 189 x 96	35	125	U5866/225HFW	•
			2 x 32W	88	98	1496 x 175 x 96	37	-	U5860/232HFW	•
			2 x 32W	88	98	1496 x 189 x 96	35	125	U5866/232HFW	•
	≤ 22	≤ 200 (65°)	1 x 20W	65	95	596 x 175 x 96	37	-	U5870/120HFW	•
			1 x 50W	80	97	1196 x 175 x 96	37	-	U5870/150HFW	•
		≤ 1000 (65°)	1 x 50W	80	97	1196 x 189 x 96	35	125	U5876/150HFW	•
			2 x 20W	60	85	596 x 175 x 96	37	-	U5870/220HFW	•
			2 x 45W	80	96	1496 x 175 x 96	37	-	U5870/245HFW	•
			2 x 45W	80	96	1496 x 189 x 96	35	125	U5876/245HFW	•
			2 x 50W	70	85	1196 x 175 x 96	37	-	U5870/250HFW	•
			2 x 50W	70	85	1196 x 189 x 96	35	125	U5876/250HFW	•
		≤ 1500 (65°)	1 x 20W	67	97	596 x 175 x 96	37	-	U5860/120HFW	•
			1 x 45W	82	98	1496 x 175 x 96	37	-	U5860/145HFW	•
			1 x 45W	82	98	1496 x 189 x 96	35	125	U5866/145HFW	•
			2 x 20W	61	87	596 x 175 x 96	37	-	U5860/220HFW	•
			2 x 45W	82	98	1496 x 175 x 96	37	-	U5860/245HFW	•
			2 x 45W	82	98	1496 x 189 x 96	35	125	U5866/245HFW	•
		≤ 3000 (65°)	1 x 50W	81	98	1196 x 175 x 96	37	-	U5860/150HFW	•
			1 x 50W	81	98	1196 x 189 x 96	35	125	U5866/150HFW	•
			2 x 50W	72	87	1196 x 175 x 96	37	-	U5860/250HFW	•
			2 x 50W	72	87	1196 x 189 x 96	35	125	U5866/250HFW	•





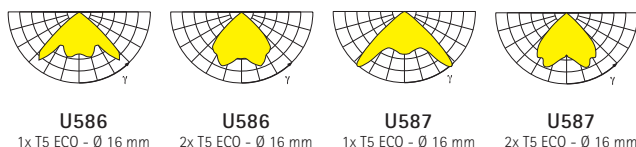
U5 - webref. SU5020C1

U5

LINEAR

Table explanation p 424

module	UGR	L _{av} - limit cd/m ²	lamp type	lm/W luminaire	η %	L x W x H mm	plan N.	air cm ²	order code	option
Reflector - satin-anodised aluminium - Equilum® baffles										
1800 ¹	≤ 19	≤ 200 (65°)	1 x 32W	86	97	1720 x 196 x 96	34	125	U5875/132HFW	•
			1 x 45W	81	97	1720 x 196 x 96	34	125	U5875/145HFW	•
		≤ 1000 (65°)	1 x 32W	87	98	1720 x 196 x 96	34	125	U5865/132HFW	•
			2 x 32W	86	96	1720 x 196 x 96	34	125	U5875/232HFW	•
		≤ 1500 (65°)	2 x 32W	88	98	1720 x 196 x 96	34	125	U5865/232HFW	•
			2 x 45W	80	96	1720 x 196 x 96	34	125	U5875/245HFW	•
	≤ 22	≤ 1000 (65°)	1 x 45W	82	98	1720 x 196 x 96	34	125	U5865/145HFW	•
			2 x 45W	82	98	1720 x 196 x 96	34	125	U5865/245HFW	•
		≤ 1500 (65°)	1 x 25W	85	97	1196 x 296 x 96	32	-	U5871/125HFW	•
			1 x 25W	86	98	1196 x 296 x 96	32	-	U5861/125HFW	•
		≤ 3000 (65°)	2 x 25W	87	96	1196 x 296 x 96	32	-	U5871/225HFW	•
			2 x 25W	89	98	1196 x 296 x 96	32	-	U5861/225HFW	•
300	≤ 19	≤ 200 (65°)	1 x 25W	85	97	1196 x 296 x 96	32	-	U5871/125HFW	•
			1 x 25W	86	98	1196 x 296 x 96	32	-	U5861/125HFW	•
		≤ 1000 (65°)	2 x 25W	87	96	1196 x 296 x 96	32	-	U5871/225HFW	•
			2 x 25W	89	98	1196 x 296 x 96	32	-	U5861/225HFW	•
		≤ 1500 (65°)	1 x 50W	80	97	1196 x 296 x 96	32	-	U5871/150HFW	•
			2 x 50W	70	85	1196 x 296 x 96	32	-	U5871/250HFW	•
	≤ 22	≤ 1000 (65°)	1 x 50W	81	98	1196 x 296 x 96	32	-	U5861/150HFW	•
			2 x 50W	72	87	1196 x 296 x 96	32	-	U5861/250HFW	•
		≤ 3000 (65°)	1 x 50W	81	98	1246 x 308 x 96	33	-	U5877/125HFW	•
			1 x 25W	86	98	1246 x 308 x 96	33	-	U5867/125HFW	•
		≤ 1500 (65°)	2 x 25W	87	96	1246 x 308 x 96	33	-	U5877/225HFW	•
			2 x 25W	89	98	1246 x 308 x 96	33	-	U5867/225HFW	•
625	≤ 19	≤ 200 (65°)	1 x 25W	85	97	1246 x 308 x 96	33	-	U5877/125HFW	•
			1 x 25W	86	98	1246 x 308 x 96	33	-	U5867/125HFW	•
		≤ 1000 (65°)	2 x 25W	87	96	1246 x 308 x 96	33	-	U5877/225HFW	•
			2 x 25W	89	98	1246 x 308 x 96	33	-	U5867/225HFW	•
		≤ 1500 (65°)	1 x 50W	80	97	1246 x 308 x 96	33	-	U5877/150HFW	•
			2 x 50W	70	85	1246 x 308 x 96	33	-	U5877/250HFW	•
	≤ 22	≤ 1000 (65°)	1 x 50W	81	98	1246 x 308 x 96	33	-	U5867/150HFW	•
			2 x 50W	72	87	1246 x 308 x 96	33	-	U5867/250HFW	•
		≤ 3000 (65°)	1 x 50W	81	98	1246 x 308 x 96	33	-	U5867/150HFW	•
			2 x 50W	72	87	1246 x 308 x 96	33	-	U5867/250HFW	•

¹ 'BANDRASTER'




U5 IP65 - webref. SU5030A3



U5 IP65 - webref. SU5030A1

U5

LINEAR - WATER PROOF

Table explanation p 424

module	UGR	L _{av} - limit cd/m ²	lamp type	lm/W luminaire	η %	L x W x H mm	plan N.	air cm ²	order code	option
Reflector - satin-anodised aluminium - Equilum® baffles										
IP 44 ¹			FLUO T5 ECO - Ø 16 mm							
300	≤ 19	≤ 1500 (65°)	2 x 25W	86	95	1196 x 296 x 100	39	-	U5861/225HFWT1	•
	≤ 22	≤ 3000 (65°)	2 x 50W	69	84	1196 x 296 x 100	39	-	U5861/250HFWT1	•
625	≤ 19	≤ 1500 (65°)	2 x 25W	86	95	1246 x 308 x 100	39	-	U5867/225HFWT1	•
	≤ 22	≤ 3000 (65°)	2 x 50W	69	84	1246 x 308 x 100	39	-	U5867/250HFWT1	•
Reflector - satin-anodised aluminium - Equilum® baffles										
IP 65			FLUO T5 ECO - Ø 16 mm							
-	≤ 19	≤ 200 (65°)	1 x 32W	84	95	1508 x 252 x 100	41	-	U5879/132HFWT0 ²	•
300	≤ 19	≤ 1000 (65°)	2 x 25W	83	91	1196 x 296 x 100	41	-	U5871/225HFWT0 ²	•
625	≤ 19	≤ 1000 (65°)	2 x 25W	83	91	1246 x 308 x 100	41	-	U5877/225HFWT0 ²	•

¹ IP44 from below
² Wafer trim

Options and accessories

SQUARE and LINEAR:
mounting brackets with variable height adjustment, set of 4 pieces
(not for IP65 and BANDRASTER luminaires)

U8H1

p 357

mounting brackets for IP65 luminaires

consult ETAP

integration of a LED module for emergency lighting is possible,
not for IP65 luminaires

for more information,
consult your ETAP-adviser

p 266



U5 IP44



U587 IP65
1x T5 ECO - Ø 16 mm



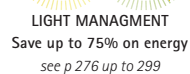
U587 IP65
2x T5 ECO - Ø 16 mm





Design: EER Architectural design, Belgium

Dimensional sketches → p 380





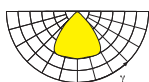
U7 square with air extraction - webref. SU7001D1

U7

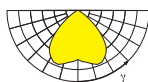
SQUARE

Table explanation p 424

module	UGR	L _{av} - limit cd/m ²	# LEDs	lamp type T _c	lumen luminaire	L x W x H mm	plan N.	air cm ²	order code	 option
LED+LENS™ - medium wide-angle distribution										
				 HIGH POWER						
-	≤ 16	≤ 1000 (65°)	4	3000K	550	180 x 180 x 53	42	-	U719/LEDW0405S	-
				4000K	600	180 x 180 x 53	42	-	U719/LEDN0405S	-
600	≤ 16	≤ 1000 (65°)	24	3000K	2550	596 x 596 x 50	43	-	U712/LEDW2425S	-
				3000K	2550	596 x 596 x 50	44	70	U714/LEDW2425S	-
				3000K	3000	596 x 596 x 50	43	-	U712/LEDW2430S	-
				3000K	3000	596 x 596 x 50	44	70	U714/LEDW2430S	-
				4000K	2550	596 x 596 x 50	43	-	U712/LEDN2425S	-
				4000K	2550	596 x 596 x 50	44	70	U714/LEDN2425S	-
				4000K	3050	596 x 596 x 50	43	-	U712/LEDN2430S	-
				4000K	3050	596 x 596 x 50	44	70	U714/LEDN2430S	-
625	≤ 16	≤ 1000 (65°)	24	3000K	2550	621 x 621 x 50	43	-	U718/LEDW2425S	-
				3000K	3000	621 x 621 x 50	43	-	U718/LEDW2430S	-
				4000K	2550	621 x 621 x 50	43	-	U718/LEDN2425S	-
				4000K	3050	621 x 621 x 50	43	-	U718/LEDN2430S	-
LED+LENS™ - wide-angle distribution										
				 HIGH POWER						
600	≤ 19	≤ 1500 (65°)	24	3000K	2550	596 x 596 x 50	43	-	U722/LEDW2425S	-
				3000K	2550	596 x 596 x 50	44	70	U724/LEDW2425S	-
				3000K	3000	596 x 596 x 50	43	-	U722/LEDW2430S	-
				3000K	3000	596 x 596 x 50	44	70	U724/LEDW2430S	-
				4000K	2550	596 x 596 x 50	43	-	U722/LEDN2425S	-
				4000K	2550	596 x 596 x 50	44	70	U724/LEDN2425S	-
				4000K	3050	596 x 596 x 50	43	-	U722/LEDN2430S	-
				4000K	3050	596 x 596 x 50	44	70	U724/LEDN2430S	-
			36	3000K	3550	596 x 596 x 50	43	-	U722/LEDW3635S	-
				3000K	3550	596 x 596 x 50	44	70	U724/LEDW3635S	-
				3000K	4500	596 x 596 x 50	43	-	U722/LEDW3645S	-
				3000K	4500	596 x 596 x 50	44	70	U724/LEDW3645S	-
				4000K	3600	596 x 596 x 50	43	-	U722/LEDN3635S	-
				4000K	3600	596 x 596 x 50	44	70	U724/LEDN3635S	-
				4000K	4600	596 x 596 x 50	43	-	U722/LEDN3645S	-
				4000K	4600	596 x 596 x 50	44	70	U724/LEDN3645S	-
625	≤ 19	≤ 1500 (65°)	24	3000K	2550	621 x 621 x 50	43	-	U728/LEDW2425S	-
				3000K	3000	621 x 621 x 50	43	-	U728/LEDW2430S	-
				4000K	2550	621 x 621 x 50	43	-	U728/LEDN2425S	-
				4000K	3050	621 x 621 x 50	43	-	U728/LEDN2430S	-
			36	3000K	3550	621 x 621 x 50	43	-	U728/LEDW3635S	-
				3000K	4500	621 x 621 x 50	43	-	U728/LEDW3645S	-
				4000K	3600	621 x 621 x 50	43	-	U728/LEDN3635S	-
				4000K	4600	621 x 621 x 50	43	-	U728/LEDN3645S	-



U71
medium wide-angle



U72
wide-angle



U7 - webref. SU7003A6



U7 linear with air extraction - webref. SU7003A5

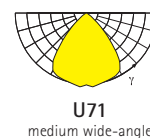
U7

LINEAR

Table explanation p 424

module	UGR	L_{avg} - limit cd/m ²	# LEDs	lamp type T_c	lumen luminaire	L x W x H mm	plan N.	air cm ²	order code	 option
LED+LENS™ - medium wide-angle distribution										
										
1800 ¹	≤ 16	≤ 1000 (65°)	24	3000K	2550	1720 x 296 x 50	45	-	U715/LEDW2425S	-
				3000K	3000	1720 x 296 x 50	45	-	U715/LEDW2430S	-
				4000K	2550	1720 x 296 x 50	45	-	U715/LEDN2425S	-
				4000K	3050	1720 x 296 x 50	45	-	U715/LEDN2430S	-
300	≤ 16	≤ 1000 (65°)	24	3000K	2550	1196 x 296 x 50	46	-	U711/LEDW2425S	-
				3000K	2550	1196 x 296 x 50	47	120	U713/LEDW2425S	-
				3000K	3000	1196 x 296 x 50	46	-	U711/LEDW2430S	-
				3000K	3000	1196 x 296 x 50	47	120	U713/LEDW2430S	-
				4000K	2550	1196 x 296 x 50	46	-	U711/LEDN2425S	-
				4000K	2550	1196 x 296 x 50	47	120	U713/LEDN2425S	-
				4000K	3050	1196 x 296 x 50	46	-	U711/LEDN2430S	-
				4000K	3050	1196 x 296 x 50	47	120	U713/LEDN2430S	-
625	≤ 16	≤ 1000 (65°)	24	3000K	2550	1246 x 308 x 50	48	-	U717/LEDW2425S	-
				3000K	3000	1246 x 308 x 50	48	-	U717/LEDW2430S	-
				4000K	2550	1246 x 308 x 50	48	-	U717/LEDN2425S	-
				4000K	3050	1246 x 308 x 50	48	-	U717/LEDN2430S	-

¹ 'BANDRASTER'





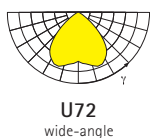
U7 linear with mounting frame - webref. SU7003B3

U7

LINEAR

Table explanation p 424

module	UGR	L_{av} - limit cd/m ²	# LEDs	lamp type T_c	lumen luminaire	L x W x H mm	plan N.	air cm ²	order code	 option
LED+LENS™ - wide-angle distribution										
				 HIGH POWER						
1800 ¹	≤ 19	≤ 1500 (65°)	24	3000K	2550	1720 x 296 x 50	45	-	U725/LEDW2425S	-
				3000K	3000	1720 x 296 x 50	45	-	U725/LEDW2430S	-
				4000K	2550	1720 x 296 x 50	45	-	U725/LEDN2425S	-
				4000K	3050	1720 x 296 x 50	45	-	U725/LEDN2430S	-
			36	3000K	3550	1720 x 296 x 50	45	-	U725/LEDW3635S	-
				3000K	4500	1720 x 296 x 50	45	-	U725/LEDW3645S	-
				4000K	3600	1720 x 296 x 50	45	-	U725/LEDN3635S	-
				4000K	4600	1720 x 296 x 50	45	-	U725/LEDN3645S	-
300	≤ 19	≤ 1500 (65°)	24	3000K	2550	1196 x 296 x 50	46	-	U721/LEDW2425S	-
				3000K	2550	1196 x 296 x 50	47	120	U723/LEDW2425S	-
				3000K	3000	1196 x 296 x 50	46	-	U721/LEDW2430S	-
				3000K	3000	1196 x 296 x 50	47	120	U723/LEDW2430S	-
				4000K	2550	1196 x 296 x 50	46	-	U721/LEDN2425S	-
				4000K	2550	1196 x 296 x 50	47	120	U723/LEDN2425S	-
				4000K	3050	1196 x 296 x 50	46	-	U721/LEDN2430S	-
				4000K	3050	1196 x 296 x 50	47	120	U723/LEDN2430S	-
			36	3000K	3550	1196 x 296 x 50	46	-	U721/LEDW3635S	-
				3000K	3550	1196 x 296 x 50	47	120	U723/LEDW3635S	-
				3000K	4500	1196 x 296 x 50	46	-	U721/LEDW3645S	-
				3000K	4500	1196 x 296 x 50	47	120	U723/LEDW3645S	-
				4000K	3600	1196 x 296 x 50	46	-	U721/LEDN3635S	-
				4000K	3600	1196 x 296 x 50	47	120	U723/LEDN3635S	-
				4000K	4600	1196 x 296 x 50	46	-	U721/LEDN3645S	-
				4000K	4600	1196 x 296 x 50	47	120	U723/LEDN3645S	-
625	≤ 19	≤ 1500 (65°)	24	3000K	2550	1246 x 308 x 50	48	-	U727/LEDW2425S	-
				3000K	3000	1246 x 308 x 50	48	-	U727/LEDW2430S	-
				4000K	2550	1246 x 308 x 50	48	-	U727/LEDN2425S	-
				4000K	3050	1246 x 308 x 50	48	-	U727/LEDN2430S	-
			36	3000K	3550	1246 x 308 x 50	48	-	U727/LEDW3635S	-
				3000K	4500	1246 x 308 x 50	48	-	U727/LEDW3645S	-
				4000K	3600	1246 x 308 x 50	48	-	U727/LEDN3635S	-
				4000K	4600	1246 x 308 x 50	48	-	U727/LEDN3645S	-

¹ 'BANDRASTER'




U7 - webref. SU7001C1



U7 - webref. SU7003B1

U7

LINEAR

Table explanation p 424

module	UGR	L_{avg} - limit cd/m ²	# LEDs	lamp type T_c	lumen luminaire	L x W x H mm	plan N.	air cm ²	order code	 option
LED+LENS™ - asymmetric distribution										
				 HIGH POWER						
1800 ¹	-	-	24	3000K	3000	1720 x 296 x 50	45	-	U755/LEDW2430S	-
				4000K	3050	1720 x 296 x 50	45	-	U755/LEDN2430S	-
			36	3000K	3550	1720 x 296 x 50	45	-	U755/LEDW3635S	-
				3000K	4500	1720 x 296 x 50	45	-	U755/LEDW3645S	-
				4000K	3600	1720 x 296 x 50	45	-	U755/LEDN3635S	-
				4000K	4600	1720 x 296 x 50	45	-	U755/LEDN3645S	-
300	-	-	24	3000K	3000	1196 x 296 x 50	46	-	U751/LEDW2430S	-
				3000K	3000	1196 x 296 x 50	47	120	U753/LEDW2430S	-
				4000K	3050	1196 x 296 x 50	46	-	U751/LEDN2430S	-
				4000K	3050	1196 x 296 x 50	47	120	U753/LEDN2430S	-
			36	3000K	3550	1196 x 296 x 50	46	-	U751/LEDW3635S	-
				3000K	3550	1196 x 296 x 50	47	120	U753/LEDW3635S	-
				3000K	4500	1196 x 296 x 50	46	-	U751/LEDW3645S	-
				3000K	4500	1196 x 296 x 50	47	120	U753/LEDW3645S	-
				4000K	3600	1196 x 296 x 50	46	-	U751/LEDN3635S	-
				4000K	3600	1196 x 296 x 50	47	120	U753/LEDN3635S	-
				4000K	4600	1196 x 296 x 50	46	-	U751/LEDN3645S	-
				4000K	4600	1196 x 296 x 50	47	120	U753/LEDN3645S	-
				3000K	3000	1246 x 308 x 50	48	-	U757/LEDW2430S	-
				4000K	3050	1246 x 308 x 50	48	-	U757/LEDN2430S	-
			36	3000K	3550	1246 x 308 x 50	48	-	U757/LEDW3635S	-
				3000K	4500	1246 x 308 x 50	48	-	U757/LEDW3645S	-
				4000K	3600	1246 x 308 x 50	48	-	U757/LEDN3635S	-
				4000K	4600	1246 x 308 x 50	48	-	U757/LEDN3645S	-

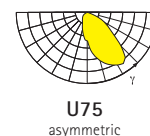
¹ 'BANDRASTER'

Options and accessories

SQUARE and LINEAR:

mounting frame for plaster-board and wooden ceilings

consult ETAP





UM

RECESSED LUMINAIRES
WITH DIFFUSER



UM1

→ p 27



square



linear

UM2

→ p 30

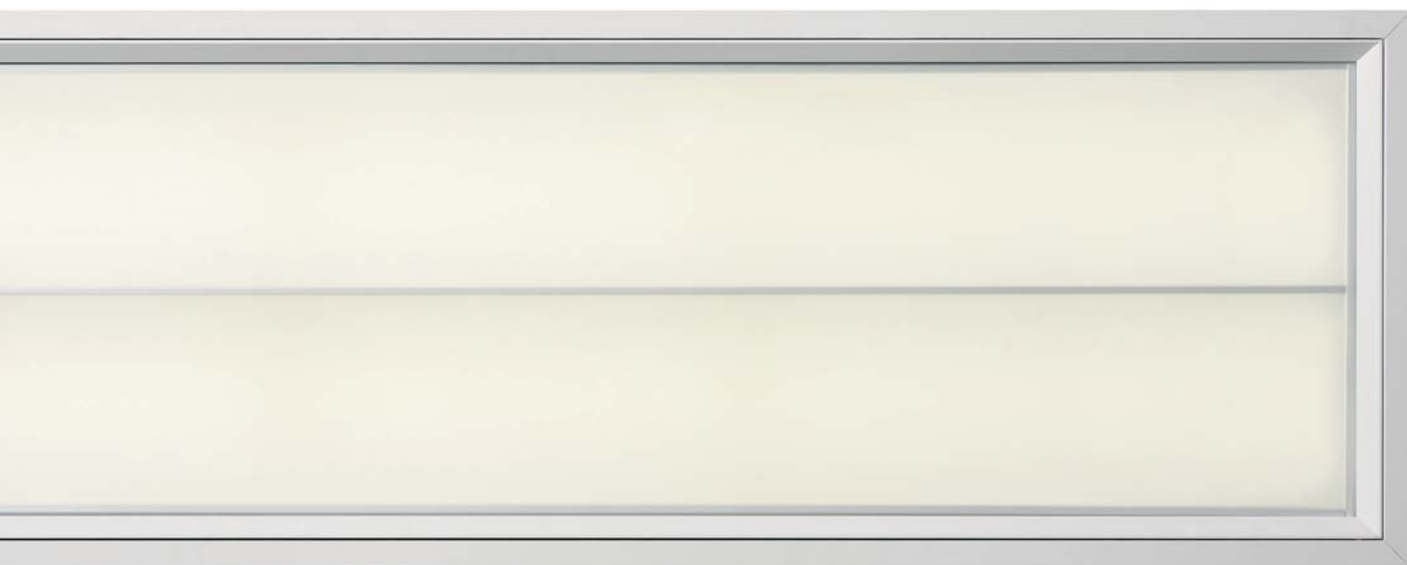


square



linear

UM



	Housing	Lacquered sheet steel housing with hinged optics UM1: flat or wafer trim UM2: 15 mm or 27,5 mm trim Wieland connection
	Optic	Diffuser - MesoOptics™ for high efficiency and light distribution
	Air extraction	Possible - see table: surface air extraction openings

Dimensional sketches → p 381

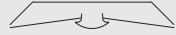
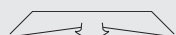


UM1 square - webref. SUM11A11

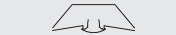
UM1

SQUARE

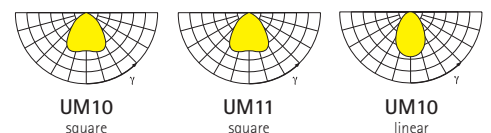
Table explanation p 424

module	UGR	lamp type	L_{av} - limit cd/m ²	lm/W luminaire	η %	L x W x H mm	plan N.	air cm ²	order code	option
Diffuser - acrylic / MesoOptics™ film										
		 T5 ECO - Ø 16 mm								
600	≤ 19	2 x 20	≤ 3000 (65°)	58	82	596 x 596 x 110	60	-	UM101/220HFW	-
	≤ 22	2 x 20	≤ 3000 (65°)	54	77	596 x 596 x 110	62	98	UM102/220HFW	-
600SAS ¹	≤ 19	2 x 20	≤ 3000 (65°)	58	82	584 x 584 x 110	60	-	UM105/220HFW	-
625	≤ 19	2 x 20	≤ 3000 (65°)	58	82	621 x 621 x 110	60	-	UM107/220HFW	-
Diffuser - polycarbonate / MesoOptics™ film										
		 T5 ECO - Ø 16 mm								
600	≤ 19	2 x 20	≤ 3000 (65°)	54	77	596 x 596 x 110	60	-	UM101/220HFWT0	•
	≤ 22	2 x 20	≤ 3000 (65°)	53	75	596 x 596 x 110	62	98	UM102/220HFWT0	•
600SAS ¹	≤ 19	2 x 20	≤ 3000 (65°)	54	77	584 x 584 x 110	60	-	UM105/220HFWT0	•
625	≤ 19	2 x 20	≤ 3000 (65°)	54	77	621 x 621 x 110	60	-	UM107/220HFWT0	•
Diffuser - acrylic / MesoOptics™ film										
		 T5 ECO - Ø 16 mm								
600	≤ 19	2 x 20	≤ 3000 (65°)	56	80	596 x 596 x 110	60	-	UM111/220HFW	-
600SAS ¹	≤ 19	2 x 20	≤ 3000 (65°)	56	80	584 x 584 x 110	60	-	UM115/220HFW	-
625	≤ 19	2 x 20	≤ 3000 (65°)	56	80	621 x 621 x 110	60	-	UM117/220HFW	-
Diffuser - polycarbonate / MesoOptics™ film										
		 T5 ECO - Ø 16 mm								
600	≤ 19	2 x 20	≤ 3000 (65°)	53	75	596 x 596 x 110	60	-	UM111/220HFWT0	•
600SAS ¹	≤ 19	2 x 20	≤ 3000 (65°)	53	75	584 x 584 x 110	60	-	UM115/220HFWT0	•
625	≤ 19	2 x 20	≤ 3000 (65°)	53	75	621 x 621 x 110	60	-	UM117/220HFWT0	•

LINEAR

module	UGR	lamp type	L_{av} - limit cd/m ²	lm/W luminaire	η %	L x W x H mm	plan N.	air cm ²	order code	option
Diffuser - acrylic / MesoOptics™ film										
		 T5 ECO - Ø 16 mm								
-	≤ 22	2 x 25	-	74	81	1202 x 302 x 93	63	-	UM109/225HFW ¹	-
		2 x 50	-	49	59	1202 x 302 x 93	63	-	UM109/250HFW ¹	-
300	≤ 19	1 x 25	≤ 3000 (65°)	72	83	1196 x 296 x 93	61	-	UM101/125HFW	-
	≤ 22	1 x 50	≤ 3000 (65°)	67	81	1196 x 296 x 93	61	-	UM101/150HFW	-
		2 x 25	-	74	81	1196 x 296 x 93	61	-	UM101/225HFW	-
		2 x 50	-	49	59	1196 x 296 x 93	61	-	UM101/250HFW	-
625	≤ 19	1 x 25	≤ 3000 (65°)	72	83	1246 x 308 x 93	61	-	UM107/125HFW	-
	≤ 22	1 x 50	≤ 3000 (65°)	67	81	1246 x 308 x 93	61	-	UM107/150HFW	-
		2 x 25	-	74	81	1246 x 308 x 93	61	-	UM107/225HFW	-
		2 x 50	-	49	59	1246 x 308 x 93	61	-	UM107/250HFW	-

¹ Wafer trim







UM1 linear - webref. SUM12A11

UM1

LINEAR

Table explanation p 424

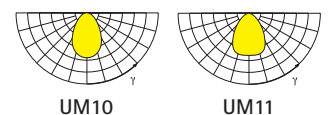
module	UGR	lamp type	L _{av.} - limit cd/m ²	lm/W luminaire	η %	L x W x H mm	plan N.	air cm ²	order code	 option
Diffuser - polycarbonate / MesoOptics™ film										
		 T5 ECO - Ø 16 mm								
300	≤ 19	1 x 25	≤ 1500 (65°)	65	74	1196 x 296 x 93	61	-	UM101/125HFWT0	•
		1 x 50	≤ 3000 (65°)	60	73	1196 x 296 x 93	61	-	UM101/150HFWT0	•
	≤ 22	2 x 25	≤ 3000 (65°)	66	73	1196 x 296 x 93	61	-	UM101/225HFWT0	•
		2 x 50	-	44	53	1196 x 296 x 93	61	-	UM101/250HFWT0	•
625	≤ 19	1 x 25	≤ 1500 (65°)	65	74	1246 x 308 x 93	61	-	UM107/125HFWT0	•
		1 x 50	≤ 3000 (65°)	60	73	1246 x 308 x 93	61	-	UM107/150HFWT0	•
	≤ 22	2 x 25	≤ 3000 (65°)	66	73	1246 x 308 x 93	61	-	UM107/225HFWT0	•
		2 x 50	-	44	53	1246 x 308 x 93	61	-	UM107/250HFWT0	•
Diffuser - acrylic / MesoOptics™ film										
		 T5 ECO - Ø 16 mm								
300	≤ 19	1 x 25	≤ 3000 (65°)	73	83	1196 x 296 x 93	61	-	UM111/125HFW	-
		1 x 50	≤ 3000 (65°)	64	77	1196 x 296 x 93	61	-	UM111/150HFW	-
	≤ 22	2 x 25	-	72	79	1196 x 296 x 93	61	-	UM111/225HFW	-
		2 x 50	-	50	60	1196 x 296 x 93	61	-	UM111/250HFW	-
625	≤ 19	1 x 25	≤ 3000 (65°)	73	83	1246 x 308 x 93	61	-	UM117/125HFW	-
		1 x 50	≤ 3000 (65°)	64	77	1246 x 308 x 93	61	-	UM117/150HFW	-
	≤ 22	2 x 25	-	72	79	1246 x 308 x 93	61	-	UM117/225HFW	-
		2 x 50	-	50	60	1246 x 308 x 93	61	-	UM117/250HFW	-
Diffuser - polycarbonate / MesoOptics™ film										
		 T5 ECO - Ø 16 mm								
300	≤ 19	1 x 25	≤ 1500 (65°)	65	74	1196 x 296 x 93	61	-	UM111/125HFWT0	•
		1 x 50	≤ 3000 (65°)	57	69	1196 x 296 x 93	61	-	UM111/150HFWT0	•
	≤ 22	2 x 25	≤ 3000 (65°)	65	71	1196 x 296 x 93	61	-	UM111/225HFWT0	•
		2 x 50	-	45	55	1196 x 296 x 93	61	-	UM111/250HFWT0	•
625	≤ 19	1 x 25	≤ 1500 (65°)	65	74	1246 x 308 x 93	61	-	UM117/125HFWT0	•
		1 x 50	≤ 3000 (65°)	57	69	1246 x 308 x 93	61	-	UM117/150HFWT0	•
	≤ 22	2 x 25	≤ 3000 (65°)	65	71	1246 x 308 x 93	61	-	UM117/225HFWT0	•
		2 x 50	-	45	55	1246 x 308 x 93	61	-	UM117/250HFWT0	•

Options and accessories

SQUARE and LINEAR:
mounting brackets with variable height adjustment, set of 4 pieces

U8H1

p 357





UM2 square, 4-lamp - webref. SUM21C1

UM2

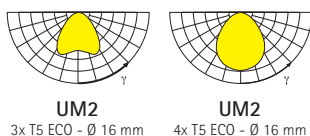
SQUARE

Table explanation p 424

module	UGR	lamp type T _k	L _{av.} - limit cd/m ²	lumen luminaire	L x W x H mm	trim mm	plan N.	air cm ²	order code	option
Diffuser - glass / MesoOptics™ film										
850 °C LED LOW POWER										
600	≤ 19	3000K	≤ 3000 (65°)	3100	596 x 596 x 100	15	66	-	UM222/LEDW45S	-
		3000K	≤ 3000 (65°)	3100	596 x 596 x 100	27,5	66	-	UM222/LEDW45STO	-
		3000K	≤ 3000 (65°)	3100	596 x 596 x 100	27,5	66	90	UM224/LEDW45S	-
		4000K	≤ 3000 (65°)	3300	596 x 596 x 100	15	66	-	UM222/LEDN45S	-
		4000K	≤ 3000 (65°)	3300	596 x 596 x 100	27,5	66	-	UM222/LEDN45STO	-
		4000K	≤ 3000 (65°)	3300	596 x 596 x 100	27,5	66	90	UM224/LEDN45S	-
625	≤ 19	3000K	≤ 3000 (65°)	3100	621 x 621 x 100	27,5	66	-	UM228/LEDW45S	-
		4000K	≤ 3000 (65°)	3300	621 x 621 x 100	27,5	66	-	UM228/LEDN45S	-

SQUARE

module	UGR	lamp type	L _{av.} - limit cd/m ²	lm/W luminaire	η %	L x W x H mm	trim mm	plan N.	air cm ²	order code	option
Diffuser - glass / MesoOptics™ film											
850 °C FLUO T5 ECO - Ø 16 mm											
600	≤ 19	3 x 13W	≤ 3000 (65°)	80	95	596 x 596 x 100	15	64	-	UM221/313HFW	-
		3 x 13W	≤ 3000 (65°)	80	95	596 x 596 x 100	27,5	64	-	UM221/313HFWTO	•
		3 x 13W	≤ 3000 (65°)	80	95	596 x 596 x 100	27,5	64	90	UM222/313HFW	•
	≤ 22	3 x 20W	-	71	96	596 x 596 x 100	15	64	-	UM221/320HFW	-
		3 x 20W	-	71	96	596 x 596 x 100	27,5	64	-	UM221/320HFWTO	•
		3 x 20W	-	71	96	596 x 596 x 100	27,5	64	90	UM222/320HFW	•
625	≤ 19	3 x 13W	≤ 3000 (65°)	80	95	621 x 621 x 100	27,5	64	-	UM227/313HFW	•
	≤ 22	3 x 20W	-	71	96	621 x 621 x 100	27,5	64	-	UM227/320HFW	•
Diffuser - glass / MesoOptics™ film											
850 °C FLUO T5 ECO - Ø 16 mm											
600	≤ 22	4 x 13W	≤ 3000 (65°)	72	84	596 x 596 x 100	27,5	64	-	UM221/413HFW	-
		4 x 13W	-	72	84	596 x 596 x 100	15	64	-	UM221/413HFWTO	•
		4 x 13W	-	72	84	596 x 596 x 100	27,5	64	90	UM222/413HFW	•
		4 x 20W	-	61	81	596 x 596 x 100	27,5	64	-	UM221/420HFW	-
		4 x 20W	-	61	81	596 x 596 x 100	15	64	-	UM221/420HFWTO	•
		4 x 20W	-	61	81	596 x 596 x 100	27,5	64	90	UM222/420HFW	•
625	≤ 22	4 x 13W	≤ 3000 (65°)	72	84	621 x 621 x 100	27,5	64	-	UM227/413HFW	•
		4 x 20W	-	61	81	621 x 621 x 100	27,5	64	-	UM227/420HFW	•





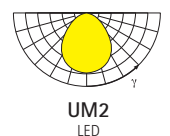
UM2 linear - webref. SUM22B1

UM2

LINEAR

Table explanation p 424

module	UGR	lamp type T_k	L_{av} - limit cd/m^2	lumen luminaire	L x W x H mm	trim mm	plan N.	air cm^2	order code	 option
Diffuser - glass / MesoOptics™ film										
300	≤ 19	4000K	≤ 3000 (65°)	3282	1196 x 296 x 100	15	67	-	UM221/LEDN45S	-
		3000K	≤ 3000 (65°)	3095	1196 x 296 x 100	15	67	-	UM221/LEDW45S	-
		3000K	≤ 3000 (65°)	3095	1196 x 296 x 100	27,5	67	-	UM221/LEDW45STO	-
		3000K	≤ 3000 (65°)	3095	1196 x 296 x 100	27,5	67	98	UM223/LEDW45S	-
	≤ 22	4000K	≤ 3000 (65°)	3282	1196 x 296 x 100	27,5	67	-	UM221/LEDN45STO	-
		4000K	≤ 3000 (65°)	3282	1196 x 296 x 100	15	67	98	UM223/LEDN45S	-
625	≤ 19	4000K	≤ 3000 (65°)	3282	1246 x 308 x 100	27,5	67	-	UM227/LEDN45S	-
		3000K	≤ 3000 (65°)	3095	1246 x 308 x 100	27,5	67	-	UM227/LEDW45S	-







UM2 - webref. SUM23A1



UM2 linear - webref. SUM22C1

UM2

LINEAR

Table explanation p 424

module	UGR	lamp type	$L_{av.}$ - limit cd/m ²	lm/W luminaire	η %	L x W x H mm	trim mm	plan N.	air cm ²	order code	option
Diffuser - glass / MesoOptics™ film											
850 °C FLUO T5 ECO - Ø 16 mm											
-	≤ 19	1 x 25W	≤ 3000 (65°)	82	94	1196 x 254 x 100	27,5	65	-	UM220/125HFW	•
		1 x 25W	≤ 3000 (65°)	82	94	1196 x 254 x 100	27,5	65	98	UM226/125HFW	•
		1 x 32W	≤ 3000 (65°)	85	96	1496 x 254 x 100	27,5	65	-	UM220/132HFW	•
		1 x 32W	≤ 3000 (65°)	85	96	1496 x 254 x 100	27,5	65	127	UM226/132HFW	•
	≤ 22	1 x 45W	-	80	96	1496 x 254 x 100	27,5	65	-	UM220/145HFW	•
		1 x 45W	-	80	96	1496 x 254 x 100	27,5	65	127	UM226/145HFW	•
		1 x 50W	-	79	96	1196 x 254 x 100	27,5	65	-	UM220/150HFW	•
		1 x 50W	-	79	96	1196 x 254 x 100	27,5	65	98	UM226/150HFW	•
Diffuser - glass / MesoOptics™ film											
850 °C FLUO T5 ECO - Ø 16 mm											
300	≤ 22	2 x 25W	-	85	93	1196 x 296 x 100	15	65	-	UM221/225HFW	-
		2 x 25W	-	85	93	1196 x 296 x 100	27,5	65	-	UM221/225HFWT0	•
		2 x 25W	-	85	93	1196 x 296 x 100	27,5	65	98	UM222/225HFW	•
		2 x 50W	-	70	85	1196 x 296 x 100	15	65	-	UM221/250HFW	-
		2 x 50W	-	70	85	1196 x 296 x 100	27,5	65	-	UM221/250HFWT0	•
		2 x 50W	-	70	85	1196 x 296 x 100	27,5	65	98	UM222/250HFW	•
625	≤ 22	2 x 25W	-	85	93	1246 x 308 x 100	27,5	65	-	UM227/225HFW	•
		2 x 50W	-	70	85	1246 x 308 x 100	27,5	65	-	UM227/250HFW	•

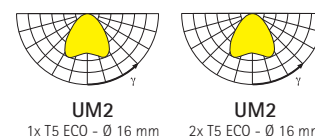
Options and accessories (for luminaires with 27,5 mm trim)

SQUARE

mounting brackets for plaster-board and wooden ceilings, set of 2 pieces	for ceiling modulation 600	UM2H3
	for ceiling modulation 625	UM2H5

LINEAR

mounting brackets for plaster-board and wooden ceilings, set of 2 pieces	no ceiling modulation	UM2H1
	for ceiling modulation 300	UM2H2
	for ceiling modulation 625	UM2H4





US

RECESSED LUMINAIRES WITH SOFTLIGHT



Housing

Lacquered sheet steel housing with closed lamp shielding (LED)
or 2-part lamp shielding which hinges open (TC-L)
Wieland connection

Optic

Softlight - microprism with diffuser film
Softlight - perforated lamp shielding - high reflection lacquer
Softlight - HaloOptics® for high efficiency

Dimensional sketches → p 384



LIGHT MANAGEMENT
Save up to 75% on energy
see p 276 up to 299

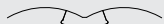
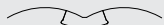


US11 with LED - webref. SUS1002A2

RECESSED HEIGHT = 40 MM **US11**

SQUARE

Table explanation p 424

module	UGR	lampe T _k	L _{av} - limit cd/m ²	lumen luminaire	L x W x H	plan N.	order code	 option
Softlight - prismatic lamp shielding								
		 LOW POWER						
600	≤ 19	3000K	≤ 3000 (65°)	1998	595 x 595 x 40	151	US1111/LEDW25S	-
		4000K	≤ 1500 (65°)	1948	595 x 595 x 40	151	US1111/LEDN25S	-
	≤ 22	3000K	≤ 3000 (65°)	3796	595 x 595 x 40	151	US1111/LEDW40S	-
		4000K	-	3996	595 x 595 x 40	151	US1111/LEDN40S	-
625	≤ 19	3000K	≤ 3000 (65°)	1998	620 x 620 x 40	151	US1118/LEDW25S	-
		4000K	≤ 1500 (65°)	1948	620 x 620 x 40	151	US1118/LEDN25S	-
	≤ 22	3000K	≤ 3000 (65°)	3796	620 x 620 x 40	151	US1118/LEDW40S	-
		4000K	-	3996	620 x 620 x 40	151	US1118/LEDN40S	-
Softlight - prismatic lamp shielding								
		 LOW POWER						
600	≤ 19	3000K	≤ 3000 (65°)	1998	595 x 595 x 40	151	US11K1/LEDW25S	-
		4000K	≤ 3000 (65°)	1998	595 x 595 x 40	151	US11K1/LEDN25S	-
	≤ 22	3000K	≤ 3000 (65°)	3546	595 x 595 x 40	151	US11K1/LEDW40S	-
		4000K	≤ 3000 (65°)	3796	595 x 595 x 40	151	US11K1/LEDN40S	-
625	≤ 19	3000K	≤ 3000 (65°)	1998	620 x 620 x 40	151	US11K8/LEDW25S	-
		4000K	≤ 3000 (65°)	1998	620 x 620 x 40	151	US11K8/LEDN25S	-
	≤ 22	3000K	≤ 3000 (65°)	3546	620 x 620 x 40	151	US11K8/LEDW40S	-
		4000K	≤ 3000 (65°)	3796	620 x 620 x 40	151	US11K8/LEDN40S	-

SQUARE

module	UGR	lamp type	lm/W luminaire	η %	L x W x H mm	plan N.	order code	 option
Softlight - perforated lamp shielding								
		 TC-L						
600	≤ 28	2 x 36W	55	63	595 x 595 x 40	150	US1131/L236HFW	•
		2 x 40W	50	62	595 x 595 x 40	150	US1131/L240HFW	•
		2 x 55W	55	62	595 x 595 x 40	150	US1131/L255HFW	•
Softlight - PMMA / HaloOptics®								
		 T5 ECO - Ø 16 mm						
600	-	2 x 20W	-	89	595 x 595 x 40	150	US11F1/220HFW	•
Softlight - polycarbonate / HaloOptics®								
		 T5 ECO - Ø 16 mm						
600	≤ 28	2 x 20W	59	85	595 x 595 x 40	150	US11J1/220HFW	•



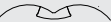
US21 square with HaloOptics® - webref. SAL32E1A

US21

RECESSED HEIGHT = 80 MM

SQUARE

Table explanation p 424

module	UGR	lampe type T _k	L _{av} - limit cd/m ²	lumen luminaire	L x W x H mm	plan N.	order code	option	
Softlight - prismatic lamp shielding									
650 °C		LED LOW POWER							
600	≤ 19	3000K	≤ 3000 (65°)	2747	595 x 595 x 80	192	US2111/LEDW30S	-	
		4000K	≤ 3000 (65°)	2797	595 x 595 x 80	192	US2111/LEDN30S	-	
	≤ 22	3000K	≤ 3000 (65°)	3796	595 x 595 x 80	192	US2111/LEDW40S	-	
		4000K	≤ 3000 (65°)	3996	595 x 595 x 80	192	US2111/LEDN40S	-	
625	≤ 19	3000K	≤ 3000 (65°)	2797	620 x 620 x 80	192	US2118/LEDW30S	-	
		4000K	≤ 3000 (65°)	2797	620 x 620 x 80	192	US2118/LEDN30S	-	
	≤ 22	3000K	≤ 3000 (65°)	3796	620 x 620 x 80	192	US2118/LEDW40S	-	
		4000K	≤ 3000 (65°)	3996	620 x 620 x 80	192	US2118/LEDN40S	-	
	Softlight - prismatic lamp shielding								
	850 °C		LED LOW POWER						-
600	≤ 19	3000K	≤ 3000 (65°)	2797	595 x 595 x 80	192	US21K1/LEDW30S	-	
		4000K	≤ 3000 (65°)	2797	595 x 595 x 80	192	US21K1/LEDN30S	-	
	≤ 22	3000K	≤ 3000 (65°)	3546	595 x 595 x 80	192	US21K1/LEDW40S	-	
		4000K	≤ 3000 (65°)	3796	595 x 595 x 80	192	US21K1/LEDN40S	-	
625	≤ 19	3000K	≤ 3000 (65°)	2797	620 x 620 x 80	192	US21K8/LEDW30S	-	
		4000K	≤ 3000 (65°)	2797	620 x 620 x 80	192	US21K8/LEDN30S	-	
	≤ 22	3000K	≤ 3000 (65°)	3546	620 x 620 x 80	192	US21K8/LEDW40S	-	
		4000K	≤ 3000 (65°)	3796	620 x 620 x 80	192	US21K8/LEDN40S	-	

SQUARE

module	UGR	lamp type	lm/W luminaire	η %	L x W x H mm	plan N.	order code	 option
Softlight - perforated lamp shielding								
		 TC-L						
600	≤ 25	2 x 36	54	62	595 x 595 x 80	191	US2131/L236HFW	•
		2 x 40	49	61	595 x 595 x 80	191	US2131/L240HFW	•
		2 x 55	54	61	595 x 595 x 80	191	US2131/L255HFW	•
Softlight - PMMA / HaloOptics®								
		 T5 ECO - Ø 16 mm						
600	≤ -	2 x 13	-	-	595 x 595 x 80	191	US21F1/213HFW	•
		2 x 20	-	-	595 x 595 x 80	191	US21F1/220HFW	•
		4 x 13	-	-	595 x 595 x 80	191	US21F1/413HFW	•
Softlight - polycarbonate / HaloOptics®								
		 T5 ECO - Ø 16 mm						
600	-	2 x 20	-	-	595 x 595 x 80	191	US21J1/220HFW	•
	≤ 25	2 x 13	73	86	595 x 595 x 80	191	US21J1/213HFW	•
		4 x 13	74	87	595 x 595 x 80	191	US21J1/413HFW	•



US21 linear - webref. SAL32D1A

RECESSED HEIGHT = 80 MM **US21**

LINEAR

Table explanation p 424

module	UGR	lamp type	lm/W luminaire	η %	L x W x H mm	plan N.	order code	 option
Softlight - PMMA / HaloOptics®								
		 T5 ECO - Ø 16 mm 2 x 25		-	-	1195 x 295 x 81	190	US21F0/225HFW •
Softlight - polycarbonate / HaloOptics®								
		 T5 ECO - Ø 16 mm 2 x 25		84	92	1195 x 295 x 81	190	US21J0/225HFW •

Options and accessories

SQUARE

mounting frame for plaster-board, wooden,... ceiling	CADRESTAFF600x600	p 357
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LINEAR

mounting frame for plaster-board, wooden,... ceiling	CADRESTAFF1200x300	p 357
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webref. SUT1005K13

UT1

RECESSED LUMINAIRES WITH REFLECTOR



Housing

Lacquered sheet steel housing, with hinged optics

Optic

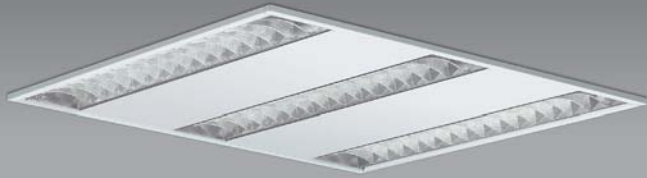
Reflector - HRSilver™ - high reflection aluminium

Air extraction

Possible - see table: surface air extraction openings

Dimensional sketches → p 382



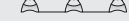
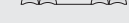


UT1 3-lamp - webref. SUT1013B

UT1

SQUARE

Table explanation p 424

module	UGR	L _{av} - limit cd/m ²	lamp type	lm/W luminaire	η %	L x W x H mm	plan N.	air cm ²	order code	 option
Reflector - satin-anodised aluminium - Equilum® baffles										
  T5 ECO - Ø 16 mm										
600	≤ 19	≤ 200 (65°)	3 x 13W	77	92	596 x 596 x 60	75	-	UT1871/313HFW	-
			3 x 20W	67	90	596 x 596 x 60	75	-	UT1871/320HFW	-
			4 x 13W	76	90	596 x 596 x 60	75	-	UT1871/413HFWT ¹	-
	≤ 22	≤ 1000 (65°)	3 x 13W	79	94	596 x 596 x 60	75	-	UT1861/313HFW	-
			3 x 20W	68	92	596 x 596 x 60	75	-	UT1861/320HFW	-
625	≤ 19	≤ 200 (65°)	3 x 13W	77	92	621 x 621 x 60	75	-	UT1877/313HFW	-
			3 x 20W	67	90	621 x 621 x 60	75	-	UT1877/320HFW	-
			4 x 13W	76	90	621 x 621 x 60	75	-	UT1877/413HFWT ¹	-
	≤ 22	≤ 1000 (65°)	3 x 13W	79	94	621 x 621 x 60	75	-	UT1867/313HFW	-
			3 x 20W	68	92	621 x 621 x 60	75	-	UT1867/320HFW	-
Reflector - satin-anodised aluminium - Equilum® baffles										
  T5 ECO - Ø 16 mm										
600	≤ 19	≤ 200 (65°)	4 x 13W	78	92	596 x 596 x 60	76	-	UT1871/413HFW	-
			4 x 20W	68	90	596 x 596 x 60	76	-	UT1871/420HFW	-
625	≤ 19	≤ 200 (65°)	4 x 13W	78	92	621 x 621 x 60	76	-	UT1877/413HFW	-
			4 x 20W	68	90	621 x 621 x 60	76	-	UT1877/420HFW	-

¹ 2 lamps in the middle lamp compartment

LINEAR

module	UGR	L_{av} - limit cd/m ²	lamp type	lm/W luminaire	η %	L x W x H mm	plan N.	air cm ²	order code	option
Reflector - satin-anodised aluminium - Equilum® baffles										
FLUO T5 ECO - Ø 16 mm										
-	≤ 19	≤ 200 (65°)	1 x 13W	81	92	596 x 117 x 93	70	-	UT1870/113HFW	-
			1 x 20W	62	90	596 x 117 x 93	70	-	UT1870/120HFW	-
			1 x 25W	80	92	1196 x 117 x 93	70	-	UT1870/125HFW	-
			1 x 32W	81	92	1496 x 146 x 93	77	125	UT1876/132HFW	-
			1 x 32W	81	92	1496 x 117 x 93	70	-	UT1870/132HFW	-
			1 x 45W	77	92	1496 x 146 x 93	77	125	UT1876/145HFW	-
			1 x 45W	77	92	1496 x 117 x 93	70	-	UT1870/145HFW	-
			1 x 50W	74	90	1196 x 117 x 93	70	-	UT1870/150HFW	-
	≤ 22	≤ 1000 (65°)	1 x 13W	83	94	596 x 117 x 93	70	-	UT1860/113HFW	-
			1 x 25W	82	94	1196 x 117 x 93	70	-	UT1860/125HFW	-
			1 x 32W	83	94	1496 x 117 x 93	70	-	UT1860/132HFW	-
			1 x 32W	83	94	1496 x 146 x 93	77	125	UT1866/132HFW	-
			1 x 45W	79	94	1496 x 146 x 93	77	125	UT1866/145HFW	-
1800 ¹	≤ 19	≤ 200 (65°)	1 x 32W	81	92	1720 x 146 x 93	74	125	UT1875/132HFW	-
			1 x 45W	77	92	1720 x 146 x 93	74	125	UT1875/145HFW	-
			1 x 32W	83	94	1720 x 146 x 93	74	125	UT1865/132HFW	-
	≤ 22	≤ 1000 (65°)	1 x 32W	83	94	1720 x 146 x 93	74	125	UT1865/132HFW	-
			1 x 45W	79	94	1720 x 146 x 93	74	125	UT1865/145HFW	-
	≤ 22	≤ 1000 (65°)	1 x 45W	79	94	1720 x 146 x 93	74	125	UT1865/145HFW	-
			1 x 45W	79	94	1720 x 146 x 93	74	125	UT1865/145HFW	-

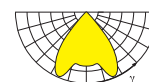
¹ "BANDRASTER"

UT186
3 x T5 ECO - Ø 16 mm

UT186
1 x T5 ECO - Ø 16 mm

UT187...T1
4 x T5 ECO - Ø 16 mm

UT187
1 x T5 ECO - Ø 16 mm

UT187
3 x T5 ECO - Ø 16 mm

UT187
4 x T5 ECO - Ø 16 mm



UT1 with air extraction - webref. SUT1014E



UT1 - webref. SUT1014A

UT1

LINEAR

Table explanation p 424

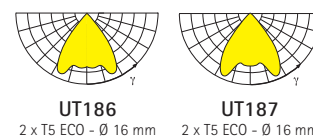
module	UGR	L _{av} - limit cd/m ²	lamp type	lm/W luminaire	η %	L x W x H mm	plan N.	air cm ²	order code	 option
Reflector - satin-anodised aluminium - Equilum® baffles										
 T5 ECO - Ø 16 mm										
-	≤ 19	≤ 200 (65°)	2 x 13W	78	92	596 x 201 x 93	71	-	UT1870/213HFW	-
			2 x 20W	63	90	596 x 201 x 93	71	-	UT1870/220HFW	-
			2 x 25W	83	92	1196 x 201 x 93	71	-	UT1870/225HFW	-
			2 x 32W	83	92	1496 x 201 x 93	71	-	UT1870/232HFW	-
			2 x 45W	77	92	1496 x 201 x 93	71	-	UT1870/245HFW	-
			2 x 50W	74	90	1196 x 201 x 93	71	-	UT1870/250HFW	-
	≤ 1000 (65°)	≤ 1000 (65°)	2 x 13W	80	94	596 x 201 x 93	71	-	UT1860/213HFW	-
			2 x 25W	85	94	1196 x 201 x 93	71	-	UT1860/225HFW	-
			2 x 32W	84	94	1496 x 201 x 93	71	-	UT1860/232HFW	-
	≤ 22	≤ 1000 (65°)	2 x 20W	65	92	596 x 201 x 93	71	-	UT1860/220HFW	-
			2 x 45W	79	94	1496 x 201 x 93	71	-	UT1860/245HFW	-
			2 x 50W	76	92	1196 x 201 x 93	71	-	UT1860/250HFW	-
Reflector - satin-anodised aluminium - Equilum® baffles										
 T5 ECO - Ø 16 mm										
300	≤ 19	≤ 200 (65°)	2 x 25W	83	92	1196 x 296 x 60	72	-	UT1871/225HFW	-
			2 x 50W	74	90	1196 x 296 x 60	72	-	UT1871/250HFW	-
			≤ 1000 (65°)	2 x 25W	85	94	1196 x 296 x 60	72	-	UT1861/225HFW
	≤ 22	≤ 1500 (65°)	2 x 50W	76	92	1196 x 296 x 60	72	-	UT1861/250HFW	-
625	≤ 19	≤ 200 (65°)	2 x 25W	83	92	1246 x 308 x 60	73	-	UT1877/225HFW	-
			2 x 50W	74	90	1246 x 308 x 60	73	-	UT1877/250HFW	-
			≤ 1000 (65°)	2 x 25W	85	94	1246 x 308 x 60	73	-	UT1867/225HFW
	≤ 22	≤ 1500 (65°)	2 x 50W	76	92	1246 x 308 x 60	73	-	UT1867/250HFW	-

Options and accessories

SQUARE and LINEAR:
mounting brackets with variable height adjustment, set of 4 pieces
(not for BANDRASTER luminaires)

U8H1

p 357





UT6

RECESSED LUMINAIRES WITH REFLECTOR



Housing

Lacquered sheet steel housing, with hinged optics

Optic

Reflector - asymmetric distribution

Dimensional sketches → p 383

LINEAR

Table explanation p 424

module	UGR	L_{av} - limit cd/m ²	lamp type	lm/W luminaire	η %	L x W x H mm	plan N.	air cm ²	order code	 option
Reflector - satin-anodised aluminium - asymmetric distribution										
			 T5 ECO - Ø 16 mm							
-	-	-	1 x 25W	88	101	1196 x 196 x 75	90	-	UT6010/125HFW	-
			1 x 32W	89	101	1496 x 196 x 75	90	-	UT6010/132HFW	-
			1 x 45W	84	101	1496 x 196 x 75	90	-	UT6010/145HFW	-
			1 x 50W	82	99	1196 x 196 x 75	90	-	UT6010/150HFW	-
Reflector - satin-anodised aluminium - SLL baffles - asymmetric distribution										
			 T5 ECO - Ø 16 mm							
-	-	-	1 x 25W	81	93	1196 x 196 x 75	90	-	UT6000/125HFW	-
			1 x 32W	82	93	1496 x 196 x 75	90	-	UT6000/132HFW	-
			1 x 45W	78	93	1496 x 196 x 75	90	-	UT6000/145HFW	-
			1 x 50W	75	91	1196 x 196 x 75	90	-	UT6000/150HFW	-

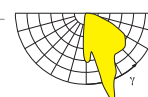
Options and accessories

LINEAR:
mounting brackets with variable height adjustment, set of 4 pieces

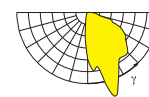
consult ETAP



LIGHT MANAGEMENT
Save up to 75% of energy
see p 276 up to 299



without baffles



with baffles



SURFACE MOUNTED AND SUSPENDED LUMINAIRES

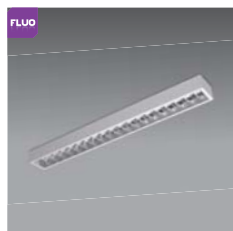
lens



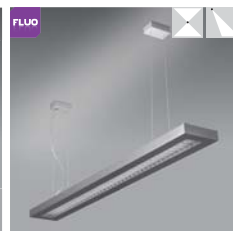
LED+LENS
TECHNOLOGY

R7 → p 71

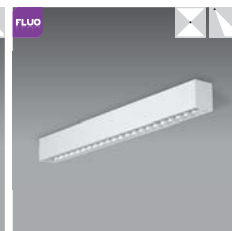
reflector



R1 → p 49



R4 → p 53

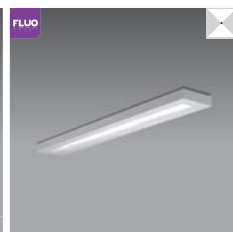


R6 → p 67

diffuser



FA → p 138



R4 → p 53



R8 → p 81

softlight



RS → p 85



webref. SR1006C1

R1

SURFACE MOUNTED LUMINAIRES WITH REFLECTOR



Housing

Lacquered sheet steel housing with hinged optics

Optic

Reflector - HRSilver™ - high reflection aluminium

Dimensional sketches → p 386



SURFACE MOUNTED AND SUSPENDED LUMINAIRES



R1 square - webref. SR1017A1

R1

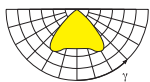
SURFACE MOUNTED LUMINAIRE individual - square

Table explanation p 424

UGR	$L_{av.} - \text{limit}$ cd/m^2	lamp type	lm/W luminaire	η %	L x W x H mm	plan N.	order code	 option
Reflector - satin-anodised aluminium - SLL baffles								
		 T8 - Ø 26 mm						
≤ 16	≤ 1000 (65°)	3 x 18W	75	74	653 x 600 x 103	300	R1400/318HFW	-

SURFACE MOUNTED LUMINAIRE individual - linear

UGR	$L_{av.} - \text{limit}$ cd/m^2	lamp type	lm/W luminaire	η %	L x W x H mm	plan N.	order code	 option
Reflector - satin-anodised aluminium - white baffles								
		 T8 - Ø 26 mm						
≤ 19	≤ 3000 (65°)	1 x 36	69	74	1263 x 173 x 111	301	R1590/136HFW	-
		1 x 58	66	72	1563 x 173 x 111	301	R1590/158HFW	-
≤ 22	-	1 x 36	75	80	1263 x 173 x 111	301	R1580/136HFW	-
		1 x 58	71	78	1563 x 173 x 111	301	R1580/158HFW	-
Reflector - satin-anodised aluminium - white baffles								
		 T8 - Ø 26 mm						
≤ 19	≤ 3000 (65°)	2 x 36	68	74	1263 x 304 x 111	302	R1590/236HFW	-
		2 x 58	68	72	1563 x 304 x 111	302	R1590/258HFW	-
≤ 22	-	2 x 36	74	80	1263 x 304 x 111	302	R1580/236HFW	-



R14
T8 - Ø 26 mm



R158 / R159
T8 - Ø 26 mm



R1 with protective grille - webref. SR1018B4



R1 - webref. SR1018B1

R1

SURFACE MOUNTED LUMINAIRE individual - linear

Table explanation p 424

UGR	L_{avg} - limit cd/m ²	lamp type	lm/W luminaire	η %	L x W x H mm	plan N.	order code	option
Reflector - satin-anodised aluminium - Isolum® baffles								
		 T8 - Ø 26 mm						
≤ 16	≤ 1000 (55°)	1 x 36	69	74	1263 x 173 x 111	301	R1630/136HFW	-
		1 x 58	55	61	1563 x 173 x 111	301	R1630/158HFW	-
≤ 19	≤ 1000 (65°)	1 x 36	74	80	1263 x 173 x 111	301	R1600/136HFW	-
		1 x 58	71	77	1563 x 173 x 111	301	R1600/158HFW	-
Reflector - satin-anodised aluminium - Isolum® baffles								
		 T8 - Ø 26 mm						
≤ 16	≤ 1000 (55°)	2 x 36	58	64	1263 x 304 x 111	302	R1630/236HFW	-
		2 x 58	59	62	1563 x 304 x 111	302	R1630/258HFW	-
≤ 19	≤ 1000 (65°)	2 x 36	73	79	1263 x 304 x 111	302	R1600/236HFW	-
		2 x 58	73	77	1563 x 304 x 111	302	R1600/258HFW	-
Reflector - satin-anodised aluminium - Isolum® baffles								
		 T5 ECO - Ø 16 mm						
≤ 16	≤ 200 (55°)	1 x 25	73	83	1213 x 173 x 111	301	R1630/125HFW	-
		1 x 32	74	83	1513 x 173 x 111	301	R1630/132HFW	-
		1 x 45	72	86	1513 x 173 x 111	301	R1630/145HFW	-
	≤ 1000 (55°)	1 x 50	71	86	1213 x 173 x 111	301	R1630/150HFW	-
≤ 19	≤ 1000 (65°)	2 x 25	84	93	1213 x 173 x 111	301	R1600/225HFW	-
		2 x 32	83	92	1513 x 173 x 111	301	R1600/232HFW	-
≤ 22	≤ 1000 (65°)	1 x 25	80	91	1213 x 173 x 111	301	R1600/125HFW	-
		1 x 32	81	91	1513 x 173 x 111	301	R1600/132HFW	-
		1 x 45	79	94	1513 x 173 x 111	301	R1600/145HFW	-
		1 x 50	78	94	1213 x 173 x 111	301	R1600/150HFW	-
		2 x 45	80	95	1513 x 173 x 111	301	R1600/245HFW	-
		2 x 50	78	95	1213 x 173 x 111	301	R1600/250HFW	-
Reflector - satin-anodised aluminium - SLL baffles - asymmetric reflector								
		 T8 - Ø 26 mm						
-	-	1 x 58	65	71	1563 x 173 x 111	301	R1560/158HFW	-

Options and accessories

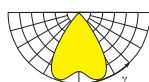
protective grille,
including brackets

for 2-lamp luminaires 58W

code + S1



R160
T8 - Ø 26 mm



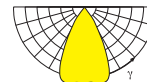
R163
T8 - Ø 26 mm



R160
1x T5 ECO - Ø 16 mm



R160
2x T5 ECO - Ø 16 mm



R163
T5 ECO - Ø 16 mm



R156
T8 - Ø 26 mm



R4

SURFACE MOUNTED AND SUSPENDED LUMINAIRES
WITH REFLECTOR OR DIFFUSER



reflector

→ p 55



*surface mounted
individual*



*surface mounted
straight line*



*surface mounted
angular line*



*suspension
individual*



*suspension
straight line*



*suspension
angular line*

diffuser

→ p 63



*surface mounted
individual*



*surface mounted
straight line*



*suspension
individual*



*suspension
straight line*

R4



Housing

Lacquered sheet steel housing, with hinged optics
RAL9003-white or RAL9006-white aluminium

Optic

Reflector - HRSilver™ - high reflection aluminium

Dimensional sketches → p 386



R4 asymmetric distribution - webref. SR4013F1



R4 surface mounted - webref. SR4013E5

REFLECTOR R4

SURFACE MOUNTED LUMINAIRE individual - linear

Table explanation p 424

UGR	L _{av.} - limit cd/m ²	lamp type	lm/W luminaire	η %	L x W x H mm	plan N.	order code ¹	L x W x H mm	plan N.	order code ¹	 option	
Reflector - satin-anodised aluminium - Equilum® baffles												
		 T5 ECO - Ø 16 mm										
≤ 19	≤ 200 (65°)	1 x 25	80	92	1277 x 190 x 60	350	R4870/125HFW	2457 x 190 x 60	351	R48701/125HFW	•	
		1 x 32	81	92	1577 x 190 x 60	350	R4870/132HFW	3057 x 190 x 60	351	R48701/132HFW	•	
		1 x 45	77	92	1577 x 190 x 60	350	R4870/145HFW	3057 x 190 x 60	351	R48701/145HFW	•	
		1 x 50	74	90	1277 x 190 x 60	350	R4870/150HFW	2457 x 190 x 60	351	R48701/150HFW	•	
	≤ 1000 (65°)	1 x 25	82	94	1277 x 190 x 60	350	R4860/125HFW	2457 x 190 x 60	351	R48601/125HFW	•	
		1 x 32	83	94	1577 x 190 x 60	350	R4860/132HFW	3057 x 190 x 60	351	R48601/132HFW	•	
	≤ 22	≤ 200 (65°)	2 x 25	78	86	1277 x 190 x 60	350	R4870/225HFW	2457 x 190 x 60	351	R48701/225HFW	•
			2 x 32	77	86	1577 x 190 x 60	350	R4870/232HFW	3057 x 190 x 60	351	R48701/232HFW	•
2 x 45			71	84	1577 x 190 x 60	350	R4870/245HFW	3057 x 190 x 60	351	R48701/245HFW	•	
		≤ 1000 (65°)	1 x 45	79	94	1577 x 190 x 60	350	R4860/145HFW	3057 x 190 x 60	351	R48601/145HFW	•
	2 x 50		63	77	1277 x 190 x 60	350	R4870/250HFW	2457 x 190 x 60	351	R48701/250HFW	•	
		≤ 1500 (65°)	1 x 50	76	92	1277 x 190 x 60	350	R4860/150HFW	2457 x 190 x 60	351	R48601/150HFW	•
			2 x 25	79	87	1277 x 190 x 60	350	R4860/225HFW	2457 x 190 x 60	351	R48601/225HFW	•
2 x 32			78	87	1577 x 190 x 60	350	R4860/232HFW	3057 x 190 x 60	351	R48601/232HFW	•	
≤ 3000 (65°)		2 x 45	71	85	1577 x 190 x 60	350	R4860/245HFW	3057 x 190 x 60	351	R48601/245HFW	•	
≤ 25	≤ 3000 (65°)	2 x 50	64	77	1277 x 190 x 60	350	R4860/250HFW	2457 x 190 x 60	351	R48601/250HFW	•	
Reflector - satin-anodised aluminium - Equilum® baffles - clear plastic cover												
		 T5 ECO - Ø 16 mm										
≤ 19	≤ 1000 (65°)	1 x 32	73	83	1577 x 190 x 60	350	R4860/132HFWT1				•	
		1 x 45	69	83	1577 x 190 x 60	350	R4860/145HFWT1				•	
≤ 22	≤ 1000 (65°)	2 x 32	66	74	1577 x 190 x 60	350	R4860/232HFWT1				•	
Reflector - satin-anodised aluminium - SLL baffles - asymmetric distribution												
		 T5 ECO - Ø 16 mm										
-	-	1 x 32	82	93	1577 x 190 x 75	350	R4560/132HFW				•	
		1 x 45	78	93	1577 x 190 x 75	350	R4560/145HFW				•	

¹ code + X1: luminaire in RAL9003-white / code + X2: luminaire in RAL9006-white aluminium



R486
1-lamp



R486
2-lamp



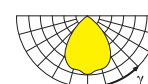
R486...T1
1-lamp



R486...T1
2-lamp



R487
1-lamp



R487
2-lamp



R456

SURFACE MOUNTED AND
SUSPENDED LUMINAIRES





R4 straight line mounting - webref. SR4013B1



R4 - webref. SR4003A1

REFLECTOR R4

SURFACE MOUNTED LUMINAIRE straight line mounting

throughwiring (3 x 1,5 mm²): included as standard

Table explanation p 424

UGR	L _{av} - limit cd/m ²	lamp type	lm/W luminaire	η %	L x W x H mm	plan N.	order code ¹	L x W x H mm	plan N.	order code ¹	option
Reflector - satin-anodised aluminium - Equilum® baffles											
FLUO T5 ECO - Ø 16 mm											
≤ 19	≤ 200 (65°)	1 x 25	80	92	1229 x 190 x 60	352	R4872/125HFW	1180 x 190 x 60	352	R4874/125HFW	-
		1 x 32	81	92	1529 x 190 x 60	352	R4872/132HFW	1480 x 190 x 60	352	R4874/132HFW	-
		1 x 45	77	92	1529 x 190 x 60	352	R4872/145HFW	1480 x 190 x 60	352	R4874/145HFW	-
		1 x 50	74	90	1229 x 190 x 60	352	R4872/150HFW	1180 x 190 x 60	352	R4874/150HFW	-
	≤ 1000 (65°)	1 x 25	82	94	1229 x 190 x 60	352	R4862/125HFW	1180 x 190 x 60	352	R4864/125HFW	-
		1 x 32	83	94	1529 x 190 x 60	352	R4862/132HFW	1480 x 190 x 60	352	R4864/132HFW	-
≤ 22	≤ 200 (65°)	2 x 25	78	86	1229 x 190 x 60	352	R4872/225HFW	1180 x 190 x 60	352	R4874/225HFW	-
		2 x 32	77	86	1529 x 190 x 60	352	R4872/232HFW	1480 x 190 x 60	352	R4874/232HFW	-
		2 x 45	71	84	1529 x 190 x 60	352	R4872/245HFW	1480 x 190 x 60	352	R4874/245HFW	-
	≤ 1000 (65°)	1 x 45	79	94	1529 x 190 x 60	352	R4862/145HFW	1480 x 190 x 60	352	R4864/145HFW	-
		2 x 50	63	77	1229 x 190 x 60	352	R4872/250HFW	1180 x 190 x 60	352	R4874/250HFW	-
	≤ 1500 (65°)	1 x 50	76	92	1229 x 190 x 60	352	R4862/150HFW	1180 x 190 x 60	352	R4864/150HFW	-
		2 x 25	79	87	1229 x 190 x 60	352	R4862/225HFW	1180 x 190 x 60	352	R4864/225HFW	-
		2 x 32	78	87	1529 x 190 x 60	352	R4862/232HFW	1480 x 190 x 60	352	R4864/232HFW	-
	≤ 3000 (65°)	2 x 45	71	85	1529 x 190 x 60	352	R4862/245HFW	1480 x 190 x 60	352	R4864/245HFW	-
≤ 25	≤ 3000 (65°)	2 x 50	64	77	1229 x 190 x 60	352	R4862/250HFW	1180 x 190 x 60	352	R4864/250HFW	-
Reflector - satin-anodised aluminium - Equilum® baffles - clear plastic cover											
FLUO T5 ECO - Ø 16 mm											
≤ 19	≤ 1000 (65°)	1 x 32	73	83	1529 x 190 x 60	352	R4862/132HFWT1	1480 x 190 x 60	352	R4864/132HFWT1	-
		1 x 45	69	83	1529 x 190 x 60	352	R4862/145HFWT1	1480 x 190 x 60	352	R4864/145HFWT1	-
≤ 22	≤ 1000 (65°)	2 x 32	66	74	1529 x 190 x 60	352	R4862/232HFWT1	1480 x 190 x 60	352	R4864/232HFWT1	-

¹ code + X1: luminaire in RAL9003-white / code + X2: luminaire in RAL9006-white aluminium



R486
1-lamp



R486
2-lamp



R486...T1
1-lamp



R486...T1
2-lamp



R487
1-lamp



R487
2-lamp

SURFACE MOUNTED AND SUSPENDED LUMINAIRES



R4 straight line mounting, angular - webref. SR4013H4

R4 REFLECTOR

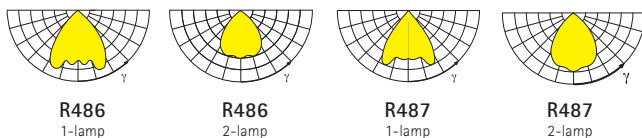
SURFACE MOUNTED LUMINAIRE straight line mounting - angular

throughwiring (3 x 1,5 mm²): included as standard

Table explanation p 424

UGR	L _{av} - limit cd/m ²	lamp type	lm/W luminaire	η %	L x W x H mm	plan N.	order code ¹	L x W x H mm	plan N.	order code ¹	option
Reflector - satin-anodised aluminium - Equilum® baffles											
FLUO T5 ECO - Ø 16 mm    											
≤ 19	≤ 200 (65°)	1 x 25W	80	92	1229 x 190 x 60	353	R4876/125HFW	1180 x 190 x 60	353	R4878/125HFW	R48780/125HFW -
		1 x 32W	81	92	1529 x 190 x 60	353	R4876/132HFW	1480 x 190 x 60	353	R4878/132HFW	R48780/132HFW -
		1 x 45W	77	92	1529 x 190 x 60	353	R4876/145HFW	1480 x 190 x 60	353	R4878/145HFW	R48780/145HFW -
		1 x 50W	74	90	1229 x 190 x 60	353	R4876/150HFW	1180 x 190 x 60	353	R4878/150HFW	R48780/150HFW -
		2 x 25W	78	86	1229 x 190 x 60	353	R4876/225HFW	1180 x 190 x 60	353	R4878/225HFW	R48780/225HFW -
		2 x 32W	77	86	1529 x 190 x 60	353	R4876/232HFW	1480 x 190 x 60	353	R4878/232HFW	R48780/232HFW -
≤ 22	≤ 1000 (65°)	1 x 25W	82	94	1229 x 190 x 60	353	R4866/125HFW	1180 x 190 x 60	353	R4868/125HFW	R48680/125HFW -
		1 x 32W	83	94	1529 x 190 x 60	353	R4866/132HFW	1480 x 190 x 60	353	R4868/132HFW	R48680/132HFW -
	≤ 200 (65°)	2 x 45W	71	84	1529 x 190 x 60	353	R4876/245HFW	1480 x 190 x 60	353	R4878/245HFW	R48780/245HFW -
		1 x 45W	79	94	1529 x 190 x 60	353	R4866/145HFW	1480 x 190 x 60	353	R4868/145HFW	R48680/145HFW -
	≤ 1000 (65°)	2 x 50W	63	77	1229 x 190 x 60	353	R4876/250HFW	1180 x 190 x 60	353	R4878/250HFW	R48780/250HFW -
		1 x 50W	76	92	1229 x 190 x 60	353	R4866/150HFW	1180 x 190 x 60	353	R4868/150HFW	R48680/150HFW -
≤ 25	≤ 1500 (65°)	2 x 25W	79	87	1229 x 190 x 60	353	R4866/225HFW	1180 x 190 x 60	353	R4868/225HFW	R48680/225HFW -
		2 x 32W	78	87	1529 x 190 x 60	353	R4866/232HFW	1480 x 190 x 60	353	R4868/232HFW	R48680/232HFW -
	≤ 3000 (65°)	2 x 45W	71	85	1529 x 190 x 60	353	R4866/245HFW	1480 x 190 x 60	353	R4868/245HFW	R48680/245HFW -
		2 x 50W	64	77	1229 x 190 x 60	353	R4866/250HFW	1180 x 190 x 60	353	R4868/250HFW	R48680/250HFW -

¹ code + X1: luminaire in RAL9003-white / code + X2: luminaire in RAL9006-white aluminium





R4 with uplight - webref. SR4013D8

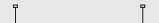


R4 suspension, single and double lamp length - webref. SR4013D5

REFLECTOR R4

SUSPENDED LUMINAIRE individual - linear

Table explanation p 424

UGR	L_{av} - limit cd/m ²	lamp type	lm/W luminaire	η %	L x W x H mm	plan N.	order code ¹	L x W x H mm	plan N.	order code ¹	option
Reflector - satin-anodised aluminium - Equilum® baffles											
		 T5 ECO - Ø 16 mm									
≤ 16	≤ 200 (65°)	1 x 25	80	91	1277 x 190 x 60	354	R4871/125HFW	2457 x 190 x 60	355	R48711/125HFW	•
		1 x 32	81	91	1577 x 190 x 60	354	R4871/132HFW	3057 x 190 x 60	355	R48711/132HFW	•
		1 x 45	77	91	1577 x 190 x 60	354	R4871/145HFW	3057 x 190 x 60	355	R48711/145HFW	•
		2 x 25	79	88	1277 x 190 x 60	354	R4871/225HFW	2457 x 190 x 60	355	R48711/225HFW	•
		2 x 32	79	88	1577 x 190 x 60	354	R4871/232HFW	3057 x 190 x 60	355	R48711/232HFW	•
	≤ 1000 (65°)	1 x 25	80	92	1277 x 190 x 60	354	R4861/125HFW	2457 x 190 x 60	355	R48611/125HFW	•
		1 x 32	81	92	1577 x 190 x 60	354	R4861/132HFW	3057 x 190 x 60	355	R48611/132HFW	•
		1 x 45	77	92	1577 x 190 x 60	354	R4861/145HFW	3057 x 190 x 60	355	R48611/145HFW	•
		1 x 50	74	90	1277 x 190 x 60	354	R4861/150HFW	2457 x 190 x 60	355	R48611/150HFW	•
		1 x 50	74	90	1277 x 190 x 60	354	R4871/150HFW	2457 x 190 x 60	355	R48711/150HFW	•
≤ 19	≤ 1000 (65°)	2 x 25	82	90	1277 x 190 x 60	354	R4861/225HFW	2457 x 190 x 60	355	R48611/225HFW	•
		2 x 32	81	90	1577 x 190 x 60	354	R4861/232HFW	3057 x 190 x 60	355	R48611/232HFW	•
		2 x 50	64	78	1277 x 190 x 60	354	R4871/250HFW	2457 x 190 x 60	355	R48711/250HFW	•
	≤ 1500 (65°)	2 x 45	74	88	1577 x 190 x 60	354	R4861/245HFW	3057 x 190 x 60	355	R48611/245HFW	•
	≤ 3000 (65°)	2 x 50	66	80	1277 x 190 x 60	354	R4861/250HFW	2457 x 190 x 60	355	R48611/250HFW	•
Reflector - satin-anodised aluminium - Equilum® baffles - clear plastic cover											
		 T5 ECO - Ø 16 mm									
≤ 16	≤ 1000 (65°)	1 x 32	82	93	1577 x 190 x 60	354	R4861/132HFWT1				•
		1 x 45	78	93	1577 x 190 x 60	354	R4861/145HFWT1				•
		2 x 32	79	88	1577 x 190 x 60	354	R4861/232HFWT1				•
Reflector - satin-anodised aluminium- Equilum® baffles - individually switchable up- and downlight											
		 T5 ECO - Ø 16 mm									
≤ 16	≤ 1000 (65°)	3 x 25W	104	77	1345 x 250 x 60	357	R4901/325HFW ²				-
Reflector - satin-anodised aluminium- SLL baffles - asymmetric light distribution											
		 T5 ECO- Ø 16 mm									
-	-	1 x 32W	105	73	1577 x 190 x 75	354	R4561/132HFW				•
		1 x 45W	99	72	1577 x 190 x 75	354	R4561/145HFW				•

¹ code + X1: luminaire in RAL9003-white / code + X2: luminaire in RAL9006-white aluminium

² code + X2: armature in RAL9006-white aluminium



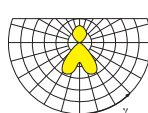
R486
1-lamp



R486
2-lamp



R486...T1
1-lamp



R486...T1
2-lamp



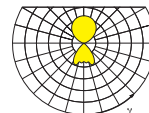
R487
1-lamp



R487
2-lamp



R456



R49





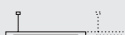
R4 suspension, straight line mounting - webref. SR4013C2

REFLECTOR R4

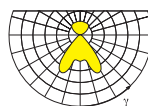
SUSPENDED LUMINAIRE straight line mounting

throughwiring (3 x 1,5 mm²): included as standard

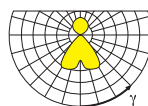
Table explanation p 424

UGR	L _{av} - limit cd/m ²	lamp type	lm/W luminaire	η %	L x W x H mm	plan N.	order code ¹	L x W x H mm	plan N.	order code ¹	option
Reflector - satin-anodised aluminium - Equilum® baffles											
		 T5 ECO - Ø 16 mm									
≤ 16	≤ 200 (65°)	1 x 25W	80	91	1229 x 190 x 60	356	R4873/125HFW	1180 x 190 x 60	356	R4875/125HFW	-
		1 x 32W	81	91	1529 x 190 x 60	356	R4873/132HFW	1480 x 190 x 60	356	R4875/132HFW	-
		1 x 45W	77	91	1529 x 190 x 60	356	R4873/145HFW	1480 x 190 x 60	356	R4875/145HFW	-
		2 x 25W	79	88	1229 x 190 x 60	356	R4873/225HFW	1180 x 190 x 60	356	R4875/225HFW	-
		2 x 32W	79	88	1529 x 190 x 60	356	R4873/232HFW	1480 x 190 x 60	356	R4875/232HFW	-
	≤ 1000 (65°)	1 x 25W	80	92	1229 x 190 x 60	356	R4863/125HFW	1180 x 190 x 60	356	R4865/125HFW	-
		1 x 32W	81	92	1529 x 190 x 60	356	R4863/132HFW	1480 x 190 x 60	356	R4865/132HFW	-
		1 x 45W	77	92	1529 x 190 x 60	356	R4863/145HFW	1480 x 190 x 60	356	R4865/145HFW	-
		1 x 50W	74	90	1229 x 190 x 60	356	R4863/150HFW	1180 x 190 x 60	356	R4865/150HFW	-
		1 x 50W	74	90	1229 x 190 x 60	356	R4873/150HFW	1180 x 190 x 60	356	R4875/150HFW	-
		2 x 45W	74	89	1529 x 190 x 60	356	R4873/245HFW	1480 x 190 x 60	356	R4875/245HFW	-
≤ 19	≤ 1000 (65°)	2 x 25W	82	90	1229 x 190 x 60	356	R4863/225HFW	1180 x 190 x 60	356	R4865/225HFW	-
		2 x 32W	81	90	1529 x 190 x 60	356	R4863/232HFW	1480 x 190 x 60	356	R4865/232HFW	-
		2 x 50W	71	86	1229 x 190 x 60	356	R4873/250HFW	1180 x 190 x 60	356	R4875/250HFW	-
	≤ 1500 (65°)	2 x 45W	76	91	1529 x 190 x 60	356	R4863/245HFW	1480 x 190 x 60	356	R4865/245HFW	-
		2 x 50W	73	88	1229 x 190 x 60	356	R4863/250HFW	1180 x 190 x 60	356	R4865/250HFW	-
Reflector - satin-anodised aluminium - Equilum® baffles - clear plastic cover											
		 T5 ECO - Ø 16 mm									
≤ 16	≤ 1000 (65°)	1 x 32W	82	93	1529 x 190 x 60	356	R4863/132HFWT1	1480 x 190 x 60	356	R4865/132HFWT1	-
		1 x 45W	78	93	1529 x 190 x 60	356	R4863/145HFWT1	1480 x 190 x 60	356	R4865/145HFWT1	-
		2 x 32W	79	88	1529 x 190 x 60	356	R4863/232HFWT1	1480 x 190 x 60	356	R4865/232HFWT1	-

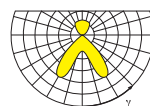
¹ code + X1: luminaire in RAL9003-white / code + X2: luminaire in RAL9006-white aluminium



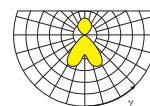
R486
1-lamp



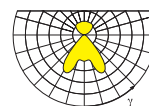
R486
2-lamp



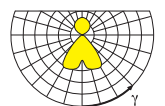
R486...T1
1-lamp



R486...T1
2-lamp

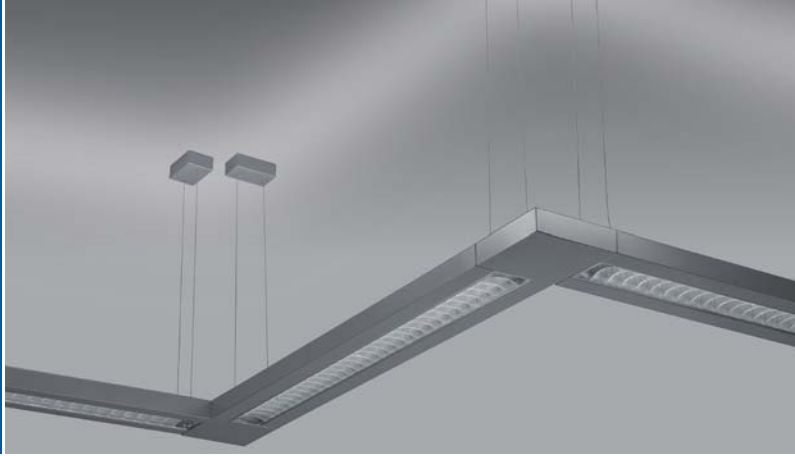


R487
1-lamp



R487
2-lamp

SURFACE MOUNTED AND SUSPENDED LUMINAIRES



R4 suspension, straight line mounting, angular - webref. SR401314

R4 REFLECTOR

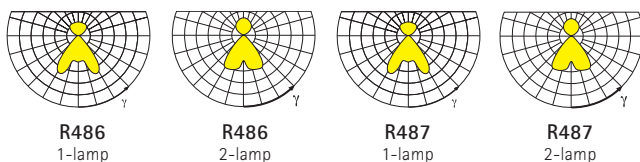
SUSPENDED LUMINAIRE straight line mounting - angular

throughwiring (3 x 1,5 mm²): included as standard

Table explanation p 424

UGR	L _{av} - limit cd/m ²	lamp type	lm/W luminaire	η %	L x W x H mm	plan N.	order code ¹	L x W x H mm	plan N.	order code ¹	 option	
Reflector - satin-anodised aluminium - Equilum® baffles												
 T5 ECO - Ø 16 mm    												
≤ 16	≤ 200 (65°)	1 x 25W	80	80	1229 x 190 x 60	358	R4877/125HFW	1180 x 190 x 60	358	R4879/125HFW	R48790/125HFW	-
		1 x 32W	81	81	1529 x 190 x 60	358	R4877/132HFW	1480 x 190 x 60	358	R4879/132HFW	R48790/132HFW	-
		1 x 45W	77	77	1529 x 190 x 60	358	R4877/145HFW	1480 x 190 x 60	358	R4879/145HFW	R48790/145HFW	-
		2 x 25W	79	79	1229 x 190 x 60	358	R4877/225HFW	1180 x 190 x 60	358	R4879/225HFW	R48790/225HFW	-
		2 x 32W	79	79	1529 x 190 x 60	358	R4877/232HFW	1480 x 190 x 60	358	R4879/232HFW	R48790/232HFW	-
	≤ 1000 (65°)	1 x 25W	80	80	1229 x 190 x 60	358	R4867/125HFW	1180 x 190 x 60	358	R4869/125HFW	R48690/125HFW	-
		1 x 32W	81	81	1529 x 190 x 60	358	R4867/132HFW	1480 x 190 x 60	358	R4869/132HFW	R48690/132HFW	-
		1 x 45W	77	77	1529 x 190 x 60	358	R4867/145HFW	1480 x 190 x 60	358	R4869/145HFW	R48690/145HFW	-
		1 x 50W	74	74	1229 x 190 x 60	358	R4877/150HFW	1180 x 190 x 60	358	R4869/150HFW	R48690/150HFW	-
		1 x 50W	74	74	1229 x 190 x 60	358	R4867/150HFW	1180 x 190 x 60	358	R4879/150HFW	R48790/150HFW	-
2 x 45W	74	74	1529 x 190 x 60	358	R4877/245HFW	1480 x 190 x 60	358	R4879/245HFW	R48790/245HFW	-		
≤ 19	≤ 1000 (65°)	2 x 25W	82	82	1229 x 190 x 60	358	R4867/225HFW	1180 x 190 x 60	358	R4869/225HFW	R48690/225HFW	-
		2 x 32W	81	81	1529 x 190 x 60	358	R4867/232HFW	1480 x 190 x 60	358	R4869/232HFW	R48690/232HFW	-
		2 x 50W	71	71	1229 x 190 x 60	358	R4877/250HFW	1180 x 190 x 60	358	R4879/250HFW	R48790/250HFW	-
	≤ 1500 (65°)	2 x 45W	76	76	1529 x 190 x 60	358	R4867/245HFW	1480 x 190 x 60	358	R4869/245HFW	R48690/245HFW	-
		2 x 50W	73	73	1229 x 190 x 60	358	R4867/250HFW	1180 x 190 x 60	358	R4869/250HFW	R48690/250HFW	-
		2 x 50W	73	73	1229 x 190 x 60	358	R4867/250HFW	1180 x 190 x 60	358	R4869/250HFW	R48690/250HFW	-

¹ code + X1: luminaire in RAL9003-white / code + X2: luminaire in RAL9006-white aluminium





R4, HaloOptics® - webref. SR4019A1

DIFFUSER R4

SURFACE MOUNTED LUMINAIRE individual

Table explanation p 424

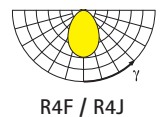
UGR	lamp type	L_{av} - limit cd/m ²	lm/W luminaire	η %	L x W x H mm	plan N.	order code ¹	
Diffuser - acrylic / HaloOptics®								
650 °C	FLUO T5 ECO - Ø 16 mm							
≤ 25	1 x 25W	-	85	97	1277 x 190 x 60	350	R4F00/125HFW	-
	1 x 32W	-	89	101	1577 x 190 x 60	350	R4F00/132HFW	-
	2 x 25W	-	72	79	1277 x 190 x 60	350	R4F00/225HFW	-
	2 x 32W	-	67	78	1577 x 190 x 60	350	R4F00/232HFW	-
Diffuser - polycarbonate / HaloOptics®								
960 °C	FLUO T5 ECO - Ø 16 mm							
≤ 25	1 x 25W	-	80	91	1277 x 190 x 60	350	R4J00/125HFW	•
	1 x 32W	-	83	94	1577 x 190 x 60	350	R4J00/132HFW	•
	2 x 25W	-	70	74	1277 x 190 x 60	350	R4J00/225HFW	•
	2 x 32W	-	66	73	1577 x 190 x 60	350	R4J00/232HFW	•

¹ code + X1: luminaire in RAL9003-white / code + X2: luminaire in RAL9006-white aluminium

SURFACE MOUNTED LUMINAIRE straight line mounting throughwiring (3 x 1,5 mm²): included as standard

UGR	lamp type	L_{av} - limit cd/m ²	lm/W luminaire	η %	L x W x H mm	plan N.	order code ¹	L x W x H mm	plan N.	order code ¹	option
Diffuser - acrylic / HaloOptics®											
650 °C	FLUO T5 ECO - Ø 16 mm										
≤ 25	1 x 25W	-	85	97	1229 x 190 x 60	352	R4F02/125HFW	1180 x 190 x 60	352	R4F04/125HFW	-
	1 x 32W	-	89	101	1529 x 190 x 60	352	R4F02/132HFW	1480 x 190 x 60	352	R4F04/132HFW	-
	2 x 25W	-	72	79	1229 x 190 x 60	352	R4F02/225HFW	1180 x 190 x 60	352	R4F04/225HFW	-
	2 x 32W	-	70	78	1529 x 190 x 60	352	R4F02/232HFW	1480 x 190 x 60	352	R4F04/232HFW	-
Diffuser - polycarbonate / HaloOptics®											
960 °C	FLUO T5 ECO - Ø 16 mm										
-	1 x 25W	-	-	-	1229 x 190 x 60	352	R4J02/125HFW	1180 x 190 x 60	352	R4J04/125HFW	-
	1 x 32W	-	83	94	1529 x 190 x 60	352	R4J02/132HFW	1480 x 190 x 60	352	R4J04/132HFW	-
	2 x 25W	-	67	74	1229 x 190 x 60	352	R4J02/225HFW	1180 x 190 x 60	352	R4J04/225HFW	-
	2 x 32W	-	66	73	1529 x 190 x 60	352	R4J02/232HFW	1480 x 190 x 60	352	R4J04/232HFW	-

¹ code + X1: luminaire in RAL9003-white / code + X2: luminaire in RAL9006-white aluminium



SURFACE MOUNTED AND SUSPENDED LUMINAIRES



R4, HaloOptics® - webref. SR4019B2

R4 DIFFUSER

SUSPENDED LUMINAIRE individual

Table explanation p 424

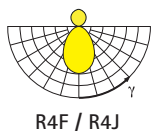
UGR	lamp type	L_{av} - limit cd/m ²	lm/W luminaire	η %	L x W x H mm	plan N.	order code ¹	option
Diffuser - acrylic / HaloOptics®								
650 °C	FLUO T5 ECO - Ø 16 mm							
≤ 19	1 x 25W	-	85	98	1277 x 190 x 60	354	R4F01/125HFW	-
	1 x 32W	-	88	99	1577 x 190 x 60	354	R4F01/132HFW	-
	2 x 25W	-	84	92	1277 x 190 x 60	354	R4F01/225HFW	-
	2 x 32W	-	79	88	1577 x 190 x 60	354	R4F01/232HFW	-
Diffuser - polycarbonate / HaloOptics®								
960 °C	FLUO T5 ECO - Ø 16 mm							
≤ 19	1 x 25W	-	81	93	1277 x 190 x 60	354	R4J01/125HFW	•
	1 x 32W	-	83	94	1577 x 190 x 60	354	R4J01/132HFW	•
	2 x 25W	-	79	87	1277 x 190 x 60	354	R4J01/225HFW	•
	2 x 32W	-	75	84	1577 x 190 x 60	354	R4J01/232HFW	•

¹ code + X1: luminaire in RAL9003-white / code + X2: luminaire in RAL9006-white aluminium

SUSPENSION straight line mounting throughwiring (3 x 1,5 mm²): included as standard

UGR	lamp type	L_{av} - limit cd/m ²	lm/W luminaire	η %	L x W x H mm	plan N.	order code ¹	L x W x H mm	plan N.	order code ¹	option
Diffuser - acrylic / HaloOptics®											
650 °C	FLUO T5 ECO - Ø 16 mm										
≤ 19	1 x 25W	-	85	98	1229 x 190 x 60	356	R4F03/125HFW	1180 x 190 x 60	356	R4F05/125HFW	-
	1 x 32W	-	88	99	1529 x 190 x 60	356	R4F03/132HFW	1480 x 190 x 60	356	R4F05/132HFW	-
	2 x 25W	-	84	92	1229 x 190 x 60	356	R4F03/225HFW	1180 x 190 x 60	356	R4F05/225HFW	-
	2 x 32W	-	79	88	1529 x 190 x 60	356	R4F03/232HFW	1480 x 190 x 60	356	R4F05/232HFW	-
Diffuser - polycarbonate / HaloOptics®											
960 °C	FLUO T5 ECO - Ø 16 mm										
≤ 19	1 x 25W	-	81	93	1229 x 190 x 60	356	R4J03/125HFW	1180 x 190 x 60	356	R4J05/125HFW	-
	1 x 32W	-	83	94	1529 x 190 x 60	356	R4J03/132HFW	1480 x 190 x 60	356	R4J05/132HFW	-
	2 x 25W	-	79	87	1229 x 190 x 60	356	R4J03/225HFW	1180 x 190 x 60	356	R4J05/225HFW	-
	2 x 32W	-	75	84	1529 x 190 x 60	356	R4J03/232HFW	1480 x 190 x 60	356	R4J05/232HFW	-

¹ code + X1: luminaire in RAL9003-white / code + X2: luminaire in RAL9006-white aluminium





webref. SR4013J3

webref. SR4003J1

webref. SR4003J2

webref. SR4003J4

webref. SR4003J6

Options and accessories (not for R49)

Suspension sets: 1 steel wire per mounting point

R4

Individual luminaires 1 set contains all accessories for 2 suspension points		 no power supply	 common power supply	 external dimming or emergency unit	 external dimming and emergency unit
	2x minimalist mounting transparent power cable	-	R4H15/100-3*	R4H15/100-5*	R4H15/100-7
	minimalist mounting + ceiling cap transparent power cable	-	R4H16/100-3X1	R4H16/100-5X1	
		-	R4H16/100-3X2*	R4H16/100-5X2*	
	2x ceiling cap transparent power cable	-	R4H16/100-3X10	R4H16/100-5X10	R4H16/100-7X10
		-	R4H16/100-3X20*	R4H16/100-5X20*	R4H16/100-7X20
	2x loop transparent power cable	R4H13/100	R4H13/100-3	-	-
Luminaires for in-line mounting 1 set Suspend the 1st luminaire from 2 points and each subsequent one from 1 suspension point (number of suspension points/straight line = number of luminaires + 1)		 no power supply	 external dimming or emergency unit	 common power supply	 power supply + external dimming or emergency unit
	minimalist mounting	R4H25/100	R4H25/100-2	R4H25/100-3	R4H25/100-5
	ceiling cap	R4H26/100X1	R4H26/100-2X1	R4H26/100-3X1	R4H26/100-5X1
		R4H26/100X2	R4H26/100-2X2	R4H26/100-3X2	R4H26/100-5X2

Suspension sets: 2 steel wires per mounting point

Individual luminaires 1 set contains all accessories for 2 suspension points						
	2x minimalist bracket transparent power cable	RAL9003-white RAL9006-white aluminium	R4H11/100-3X1 R4H11/100-3X2	R4H11/100-5X1 R4H11/100-5X2	R4H11/100-7X1 R4H11/100-7X2	
	minimalist bracket + ceiling cap transparent power cable	RAL9003-white RAL9006-white aluminium	R4H12/100-3X1 R4H12/100-3X2	R4H12/100-5X1 R4H12/100-5X2	- -	
	2x ceiling cap transparent power cable	RAL9003-white RAL9006-white aluminium	R4H12/100-3X10 R4H12/100-3X20	R4H12/100-5X10 R4H12/100-5X20	R4H12/100-7X10 R4H12/100-7X20	
Luminaires for in-line mounting 1 set Suspend the 1st luminaire from 2 points and each subsequent one from 1 suspension point (number of suspension points/straight line = number of luminaires + 1)						
	minimalist bracket	RAL9003-white RAL9006-white aluminium	R4H21/100X1 R4H21/100X2	R4H21/100-2X1 R4H21/100-2X2	R4H21/100-3X1 R4H21/100-3X2	R4H21/100-5X1 R4H21/100-5X2
	ceiling cap	RAL9003-white RAL9006-white aluminium	R4H22/100X1 R4H22/100X2	R4H22/100-2X1 R4H22/100-2X2	R4H22/100-3X1 R4H22/100-3X2	R4H22/100-5X1 R4H22/100-5X2

Rod suspension sets

Individual luminaires 1 set contains all accessories for 2 suspension points		 no power supply	 common power supply	 external dimming or emergency unit	 power supply + external dimming or emergency unit
 2x rod	RAL9003-white	-	R4H14/050-3X1	R4H14/050-5X1	R4H14/050-7X1
	RAL9006-white aluminium	-	R4H14/050-3X2	R4H14/050-5X2	R4H14/050-7X2
Luminaires for in-line mounting 1 set Suspend the 1st luminaire from 2 points and each subsequent one from 1 suspension point (number of suspension points/straight line = number of luminaires + 1)		 no power supply	 external dimming or emergency unit	 common power supply	 external dimming or emergency unit
 1x rod	RAL9003-white	R4H24/050-0X1	R4H24/050-2X1	R4H24/050-3X1	R4H24/050-5X1
	RAL9006-white aluminium	R4H24/050-0X2	R4H24/050-2X2	R4H24/050-3X2	R4H24/050-5X2
coupling piece 90°	RAL9003-white				R4H4/90X1
	RAL9006-white aluminium				R4H4/90X2
cable channel	for surface mounted luminaires				upon request
integration of a LED module for emergency lighting is possible			for more information, please contact your ETAP-adviser		

*can be combined with R49



R6

SURFACE MOUNTED AND SUSPENDED LUMINAIRES WITH REFLECTOR



Housing

Lacquered sheet steel housing with hinged optics
RAL9003-white or RAL9006-white aluminium

Optic

Reflector - HRSilver™ - high reflection aluminium

Dimensional sketches → p 389



LIGHT MANAGEMENT
Save up to 75% on energy
see p 276 up to 299

SURFACE MOUNTED AND SUSPENDED LUMINAIRES



R6 asymmetric distribution - webref. SR6001C3



R6 - webref. SR6001E2

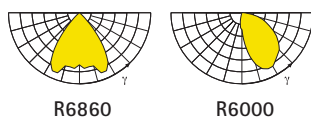
R6

SURFACE MOUNTED LUMINAIRE individual

Table explanation p 424

UGR	L _{av} - limit cd/m ²	lamp type	lm/W luminaire	η %	L x W x H mm	plan N.	order code ¹	 option
Reflector - satin-anodised aluminium - Equilum® baffles								
		 T5 ECO - Ø 16 mm						
≤ 19	≤ 200 (65°)	1 x 45W	77	93	1500 x 98 x 124	410	R6860/145HFW	•
		2 x 25W	74	82	1200 x 98 x 124	410	R6860/225HFW	•
		2 x 32W	74	82	1500 x 98 x 124	410	R6860/232HFW	•
	≤ 1000 (65°)	1 x 25W	82	94	1200 x 98 x 124	410	R6860/125HFW	•
		1 x 32W	83	94	1500 x 98 x 124	410	R6860/132HFW	•
		1 x 50W	76	93	1200 x 98 x 124	410	R6860/150HFW	•
≤ 22	≤ 1000 (65°)	2 x 45W	69	82	1500 x 98 x 124	410	R6860/245HFW	•
		2 x 50W	62	75	1200 x 98 x 124	410	R6860/250HFW	•
Reflector - satin-anodised aluminium - asymmetric distribution								
		 T5 ECO - Ø 16 mm						
-	-	1 x 25W	74	84	1200 x 98 x 124	411	R6000/125HFW	•
		1 x 32W	75	85	1500 x 98 x 124	411	R6000/132HFW	•
		1 x 45W	72	86	1500 x 98 x 124	411	R6000/145HFW	•
		1 x 50W	68	83	1200 x 98 x 124	411	R6000/150HFW	•

¹ code + X1: luminaire in RAL9003-white / code + X2: luminaire in RAL9006-white aluminium





R6 suspension – webref. SR6002B3



R6 suspension with uplight – webref. SR6002D1

R6

SUSPENDED LUMINAIRE individual

Table explanation p 424

UGR	L_{av} – limit cd/m ²	lamp type	lm/W luminaire	η %	L x W x H mm	plan N.	order code ¹	option
Reflector – satin-anodised aluminium – Equilum® baffles								
		T5 ECO – Ø 16 mm						
≤ 16	≤ 1000 (65°)	1 x 25W	81	93	1200 x 98 x 124	420	R6861/125HFW	•
		1 x 32W	82	93	1500 x 98 x 124	420	R6861/132HFW	•
		1 x 45W	78	93	1500 x 98 x 124	420	R6861/145HFW	•
≤ 19	≤ 1000 (65°)	1 x 50W	77	93	1200 x 98 x 124	420	R6861/150HFW	•
	≤ 1500 (65°)	2 x 25W	83	92	1200 x 98 x 124	420	R6861/225HFW	•
		2 x 32W	83	92	1500 x 98 x 124	420	R6861/232HFW	•
		2 x 45W	77	92	1500 x 98 x 124	420	R6861/245HFW	•
	≤ 3000 (65°)	2 x 50W	75	91	1200 x 98 x 124	420	R6861/250HFW	•
Reflector – satin-anodised aluminium – asymmetric distribution								
		T5 ECO – Ø 16 mm						
-	-	1 x 25W	74	84	1200 x 98 x 124	421	R6001/125HFW	•
		1 x 32W	75	85	1500 x 98 x 124	421	R6001/132HFW	•
		1 x 45W	72	86	1500 x 98 x 124	421	R6001/145HFW	•
		1 x 50W	68	83	1200 x 98 x 124	421	R6001/150HFW	•

¹ code + X1: luminaire in RAL9003-white / code + X2: luminaire in RAL9006-white aluminium

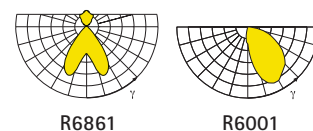
Options and accessories

Suspension sets: 1 steel wire per mounting point

Individual luminaires 1 set contains all accessories for 2 suspension points				
		common power supply	external dimming or emergency unit	external dimming and emergency unit
2x minimalist mounting transparent power cable		R6H15/100-3	R6H15/100-5	R6H15/100-7
minimalist mounting + ceiling cap transparent power cable	RAL9003-white	R6H16/100-3X1	R6H16/100-5X1	R6H16/100-7X1
	RAL9006-white aluminium	R6H16/100-3X2	R6H16/100-5X2	R6H16/100-7X1

Suspension sets: 2 steel wires per mounting point

Individual luminaires 1 set contains all accessories for 2 suspension points				
		common power supply	external dimming or emergency unit	external dimming and emergency unit
4 x minimalist mounting transparent power cable		R6H11/100-3	R6H11/100-5	R6H11/100-7
2 x minimalist mounting + ceiling cap transparent power cable	RAL9003-white	R6H12/100-3X1	R6H12/100-5X1	R6H12/100-7X1
	RAL9006-white aluminium	R6H12/100-3X2	R6H12/100-5X2	R6H12/100-7X2





R7

SURFACE MOUNTED AND SUSPENDED LUMINAIRES
WITH LED+LENS™



square
→ p 73



mini



surface mounted



suspension

linear
→ p 75



*surface mounted
individual*



*surface mounted
straight line mounting*

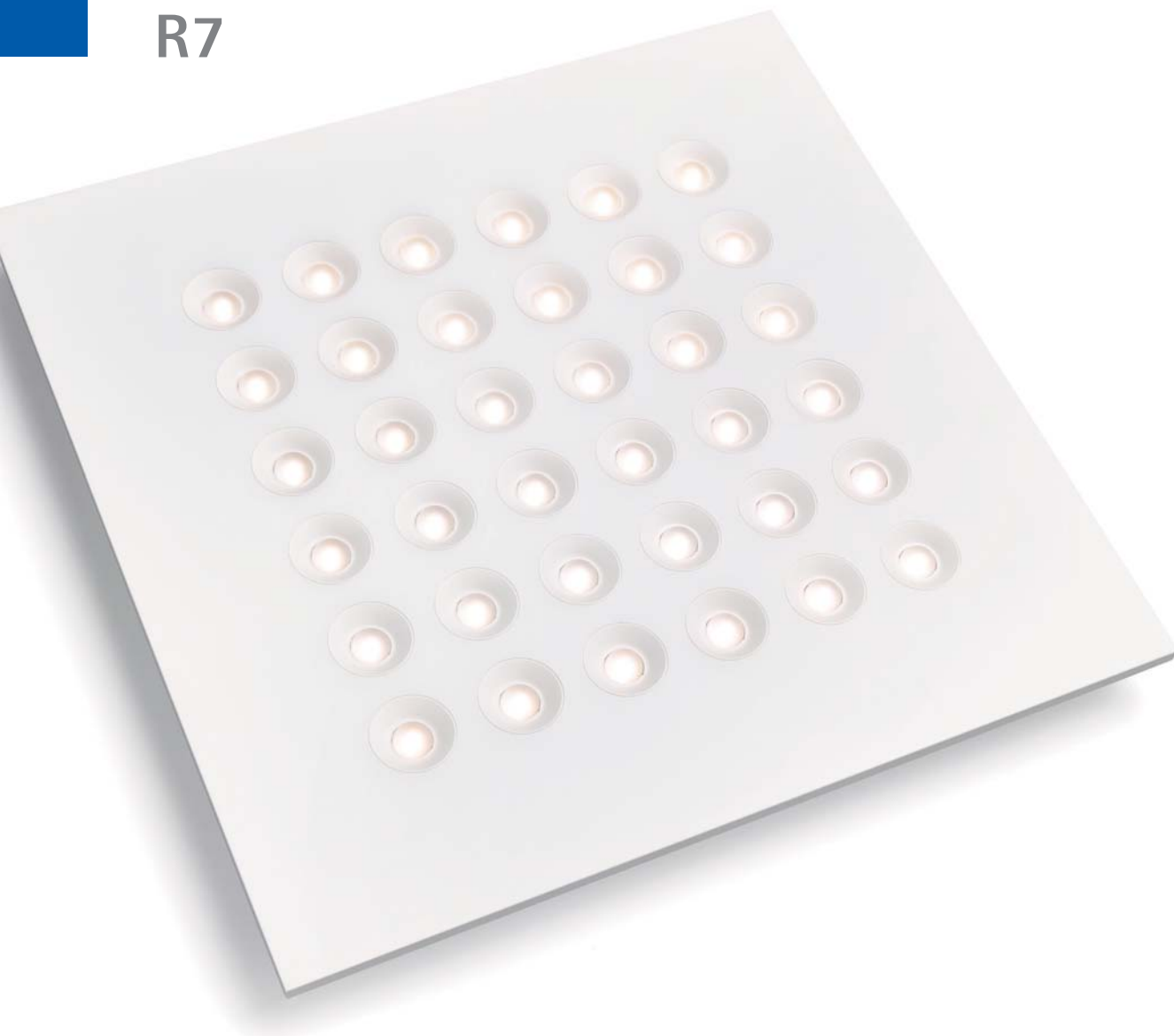


*suspension
individual*



*suspension
straight line mounting*

R7



Housing

Lacquered sheet steel housing
Structured lacquer in RAL9003-white or RAL9006-white aluminium
Other colours upon request

Optic

LED+LENS™

Design: EER Architectural design, Belgium

Dimensional sketches → p 390



R7 mini - webref. SR7005A2



R7 square, surface mounted - webref. SR7001F3

R7

SURFACE MOUNTED LUMINAIRE - MINI individual

Table explanation p 424

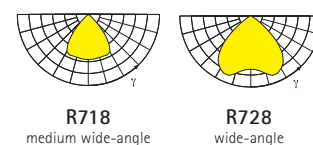
UGR	L_{av} - limit cd/m ²	# LEDs	lamp type T_k	lumen luminaire	L x W x H mm	plan N.	order code ¹	option
LED+LENS™ - medium wide-angle distribution								
≤ 16	≤ 1000 (65°)	4	HIGH POWER	3000K	180 x 180 x 53	430	R718/LEDW0405S	-
				4000K	180 x 180 x 53	430	R718/LEDN0405S	-

¹ code + X1: luminaire in RAL9003-white / code + X2: luminaire in RAL9006-white aluminium

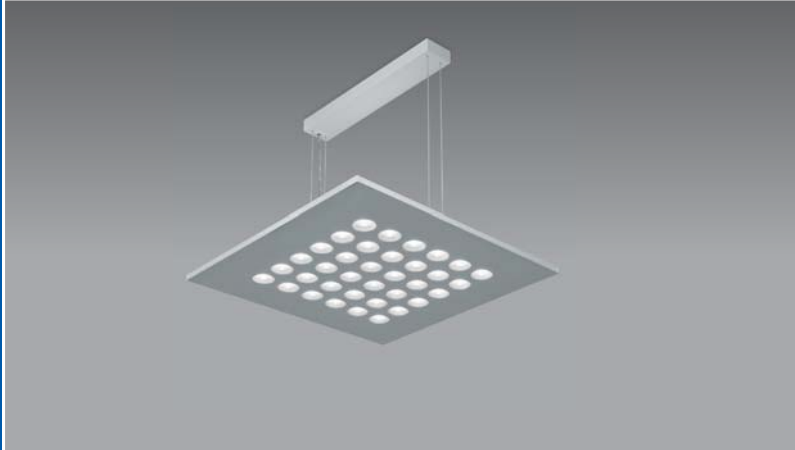
SURFACE MOUNTED LUMINAIRE individual - square

UGR	L_{av} - limit cd/m ²	# LEDs	lamp type T_c	lumen luminaire	L x W x H mm	plan N.	order code ¹	 option	
LED+LENS™ - medium wide-angle distribution									
≤ 16	≤ 1000 (65°)	24	 HIGH POWER	3000K	2600	600 x 600 x 55	431	R718/LEDW2425S	-
			3000K	3050	600 x 600 x 55	431	R718/LEDW2430S	-	
			4000K	2550	600 x 600 x 55	431	R718/LEDN2425S	-	
			4000K	3050	600 x 600 x 55	431	R718/LEDN2430S	-	
LED+LENS™ - wide-angle distribution									
≤ 19	≤ 1500 (65°)	24	 HIGH POWER	3000K	2600	600 x 600 x 55	431	R728/LEDW2425S	-
			3000K	3050	600 x 600 x 50	431	R728/LEDW2430S	-	
			4000K	2550	600 x 600 x 55	431	R728/LEDN2425S	-	
			4000K	3050	600 x 600 x 50	431	R728/LEDN2430S	-	
		36	3000K	3600	600 x 600 x 55	431	R728/LEDW3635S	-	
			3000K	4600	600 x 600 x 50	431	R728/LEDW3645S	-	
			4000K	3550	600 x 600 x 55	431	R728/LEDN3635S	-	
			4000K	4550	600 x 600 x 50	431	R728/LEDN3645S	-	

¹ code + X1: luminaire in RAL9003-white / code + X2: luminaire in RAL9006-white aluminium



SURFACE MOUNTED AND SUSPENDED LUMINAIRES



R7 square, suspension - webref. SR7003D2

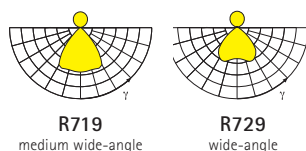
R7

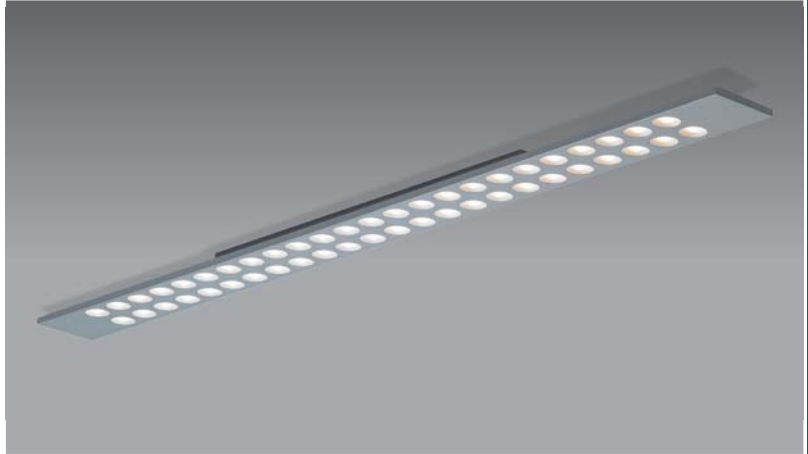
SUSPENDED LUMINAIRE individual - square

Table explanation p 424

Table explanation p. 12								
UGR	$L_{av.}$ - limit cd/m ²	# LEDs	lamp type T_K	lumen luminaire	L x W x H mm	plan N.	order code ¹	 option
LED+LENS™ - medium wide-angle distribution								
 HIGH POWER								
≤ 16	≤ 1000 (65°)	36+20	3000K	4600	600 x 600 x 45	432	R719/LEDW3645S	-
			3000K	3650	600 x 600 x 45	432	R719/LEDW3635S	-
			4000K	4650	600 x 600 x 45	432	R719/LEDN3645S	-
			4000K	3800	600 x 600 x 45	432	R719/LEDN3635S	-
LED+LENS™ - wide-angle distribution								
 HIGH POWER								
≤ 16	≤ 1000 (65°)	36+20	3000K	4600	600 x 600 x 45	432	R729/LEDW3645S	-
			3000K	3650	600 x 600 x 45	432	R729/LEDW3635S	-
			4000K	4650	600 x 600 x 45	432	R729/LEDN3645S	-
			4000K	3800	600 x 600 x 45	432	R729/LEDN3635S	-

¹ code + X1: luminaire in RAL9003-white / code + X2: luminaire in RAL9006-white aluminium





R7 - webref. SR7001A3

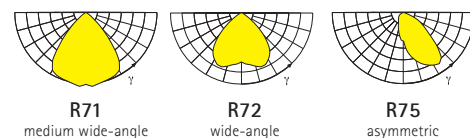
R7

SURFACE MOUNTED LUMINAIRE individual - linear

Table explanation p 424

UGR	L_{av} - limit cd/m ²	# LEDs	lamp type T_k	lumen luminaire	L x W x H mm	plan N.	order code ¹				
LED+LENS™ - medium wide-angle distribution											
			 HIGH POWER								
≤ 16	≤ 1000 (65°)	24	3000K	2600	1500 x 150 x 50	433	R710/LEDW2425S	-			
			3000K	3050	1500 x 150 x 50	433	R710/LEDW2430S	-			
			4000K	2550	1500 x 150 x 50	433	R710/LEDN2425S	-			
			4000K	3050	1500 x 150 x 50	433	R710/LEDN2430S	-			
LED+LENS™ - wide-angle distribution											
			 HIGH POWER								
≤ 19	≤ 1500 (65°)	24	3000K	2600	1500 x 150 x 50	433	R720/LEDW2425S	-			
			3000K	3050	1500 x 150 x 50	433	R720/LEDW2430S	-			
			4000K	2550	1500 x 150 x 50	433	R720/LEDN2425S	-			
			4000K	3050	1500 x 150 x 50	433	R720/LEDN2430S	-			
		36	3000K	3600	1500 x 150 x 50	433	R720/LEDW3635S	-			
			3000K	4600	1500 x 150 x 50	433	R720/LEDW3645S	-			
			4000K	3550	1500 x 150 x 50	433	R720/LEDN3635S	-			
			4000K	4550	1500 x 150 x 50	433	R720/LEDN3645S	-			
			LED+LENS™ - asymmetric distribution								
						 HIGH POWER					
-	-	36	3000K	3600	1500 x 150 x 50	433	R750/LEDW3635S	-			
			3000K	4600	1500 x 150 x 50	433	R750/LEDW3645S	-			
			4000K	3550	1500 x 150 x 50	433	R750/LEDN3635S	-			
			4000K	4550	1500 x 150 x 50	433	R750/LEDN3645S	-			

¹ code + X1: luminaire in RAL9003-white / code + X2: luminaire in RAL9006-white aluminium





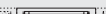


R7 straight line mounting - webref. SR7001C5

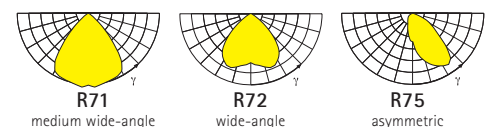
R7

SURFACE MOUNTED LUMINAIRE straight line mounting - linear

Table explanation p 424

UGR	L _{av} - limit cd/m ²	# LEDs	lamp type T _k	lumen luminaire	L x W x H mm	plan N.	order code ¹			 option
LED+LENS™ - medium wide-angle distribution										
										
						HIGH POWER				
≤ 16	≤ 1000 (65°)	24	3000K	2600	1680 x 150 x 50	434	R712/LEDW2425S	R714/LEDW2425S	R716/LEDW2425S	-
			3000K	3050	1680 x 150 x 50	434	R712/LEDW2430S	R714/LEDW2430S	R716/LEDW2430S	-
			4000K	2550	1680 x 150 x 50	434	R712/LEDN2425S	R714/LEDN2425S	R716/LEDN2425S	-
			4000K	3050	1680 x 150 x 50	434	R712/LEDN2430S	R714/LEDN2430S	R716/LEDN2430S	-
LED+LENS™ - wide-angle distribution										
										
						HIGH POWER				
≤ 19	≤ 1500 (65°)	24	3000K	2600	1680 x 150 x 50	434	R722/LEDW2425S	R724/LEDW2425S	R726/LEDW2425S	-
			3000K	3050	1680 x 150 x 50	434	R722/LEDW2430S	R724/LEDW2430S	R726/LEDW2430S	-
			4000K	2550	1680 x 150 x 50	434	R722/LEDN2425S	R724/LEDN2425S	R726/LEDN2425S	-
			4000K	3050	1680 x 150 x 50	434	R722/LEDN2430S	R724/LEDN2430S	R726/LEDN2430S	-
		36	3000K	3600	1680 x 150 x 50	434	R722/LEDW3635S	R724/LEDW3635S	R726/LEDW3635S	-
			3000K	4600	1680 x 150 x 50	434	R722/LEDW3645S	R724/LEDW3645S	R726/LEDW3645S	-
			4000K	3550	1680 x 150 x 50	434	R722/LEDN3635S	R724/LEDN3635S	R726/LEDN3635S	-
			4000K	4550	1680 x 150 x 50	434	R722/LEDN3645S	R724/LEDN3645S	R726/LEDN3645S	-
LED+LENS™ - asymmetric distribution										
										
						HIGH POWER				
-	-	36	3000K	3600	1680 x 150 x 50	434	R752/LEDW3635S	R754/LEDW3635S	R756/LEDW3635S	-
			3000K	4600	1680 x 150 x 50	434	R752/LEDW3645S	R754/LEDW3645S	R756/LEDW3645S	-
			4000K	3550	1680 x 150 x 50	434	R752/LEDN3635S	R754/LEDN3635S	R756/LEDN3635S	-
			4000K	4550	1680 x 150 x 50	434	R752/LEDN3645S	R754/LEDN3645S	R756/LEDN3645S	-

¹ code + X1: luminaire in RAL9003-white / code + X2: luminaire in RAL9006-white aluminium



SURFACE MOUNTED AND SUSPENDED LUMINAIRES



R7 suspension - webref. SR7003A3

R7

SUSPENDED LUMINAIRE individual - linear

Table explanation p 424

UGR	L _{av} - limit cd/m ²	# LEDs	lamp type T _c	lumen luminaire	L x W x H mm	plan N.	order code ¹	 option
LED+LENS™ - medium wide-angle distribution								
 HIGH POWER								
≤ 16	≤ 1000 (65°)	24+10	3000K	3550	1500 x 150 x 50	435	R711/LEDW2435S	-
			3000K	4550	1500 x 150 x 50	435	R711/LEDW2445S	-
			4000K	3600	1500 x 150 x 50	435	R711/LEDN2435S	-
			4000K	4550	1500 x 150 x 50	435	R711/LEDN2445S	-
	36+20	3000K	5050	1500 x 150 x 50	435	R711/LEDW3650S	-	
		4000K	5150	1500 x 150 x 50	435	R711/LEDN3650S	-	
LED+LENS™ - wide-angle distribution								
 HIGH POWER								
≤ 16	≤ 1500 (65°)	24+10	3000K	3550	1500 x 150 x 50	435	R721/LEDW2435S	-
			4000K	3600	1500 x 150 x 50	435	R721/LEDN2435S	-
		36+20	3000K	5050	1500 x 150 x 50	435	R721/LEDW3650S	-
			4000K	5150	1500 x 150 x 50	435	R721/LEDN3650S	-
	≤ 3000 (65°)	24+10	3000K	4550	1500 x 150 x 50	435	R721/LEDW2445S	-
			4000K	4550	1500 x 150 x 50	435	R721/LEDN2445S	-
LED+LENS™ - asymmetric distribution								
 HIGH POWER								
-	-	36	3000K	3600	1500 x 150 x 50	435	R751/LEDW3635S	-
			3000K	4600	1500 x 150 x 50	435	R751/LEDW3645S	-
			4000K	3550	1500 x 150 x 50	435	R751/LEDN3635S	-
			4000K	4550	1500 x 150 x 50	435	R751/LEDN3645S	-

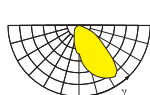
¹ code + X1: luminaire in RAL9003-white / code + X2: luminaire in RAL9006-white aluminium



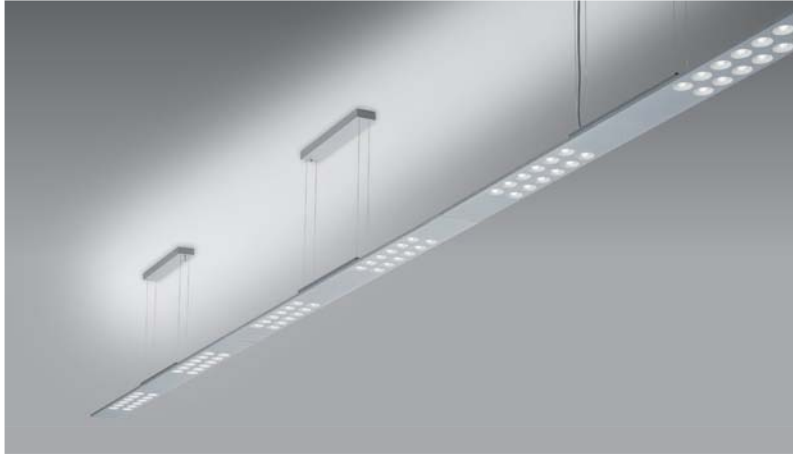
R71
medium wide-angle



R72
wide-angle



R75
asymmetric



R7 suspension, straight line mounting - webref. SR7003A4



R7 upright - webref. SR7003B4

R7

SUSPENDED LUMINAIRE straight line mounting - linear

Table explanation p 424

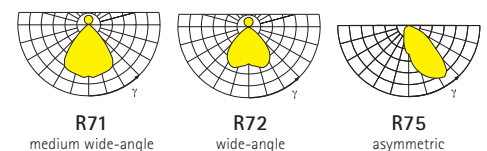
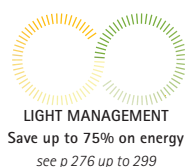
UGR	L _{av} - limit cd/m ²	# LEDs	lamp type T _c	lumen luminaire	L x W x H mm	plan N.	order code ¹			 option
LED+LENS™ - medium wide-angle distribution										
										
							HIGH POWER			
≤ 16	≤ 1000 (65°)	24+10	3000K	3550	1680 x 150 x 50	436	R713/LEDW2435S	R715/LEDW2435S	R717/LEDW2435S	-
			3000K	4550	1680 x 150 x 50	436	R713/LEDW2445S	R715/LEDW2445S	R717/LEDW2445S	-
			4000K	3600	1680 x 150 x 50	436	R713/LEDN2435S	R715/LEDN2435S	R717/LEDN2435S	-
			4000K	4550	1680 x 150 x 50	436	R713/LEDN2445S	R715/LEDN2445S	R717/LEDN2445S	-
		36+20	3000K	5049	1680 x 150 x 50	436	R713/LEDW3650S	R715/LEDW3650S	R717/LEDW3650S	-
			4000K	5149	1680 x 150 x 50	436	R713/LEDN3650S	R715/LEDN3650S	R717/LEDN3650S	-
LED+LENS™ - wide-angle distribution										
										
							HIGH POWER			
≤ 16	≤ 1500 (65°)	24+10	3000K	3550	1680 x 150 x 50	436	R723/LEDW2435S	R725/LEDW2435S	R727/LEDW2435S	-
			4000K	3600	1680 x 150 x 50	436	R723/LEDN2435S	R725/LEDN2435S	R727/LEDN2435S	-
		36+20	3000K	5050	1680 x 150 x 50	436	R723/LEDW3650S	R725/LEDW3650S	R727/LEDW3650S	-
			4000K	5150	1680 x 150 x 50	436	R723/LEDN3650S	R725/LEDN3650S	R727/LEDN3650S	-
	≤ 3000 (65°)	24+10	3000K	4550	1680 x 150 x 50	436	R723/LEDW2445S	R725/LEDW2445S	R727/LEDW2445S	-
			4000K	4550	1680 x 150 x 50	436	R723/LEDN2445S	R725/LEDN2445S	R727/LEDN2445S	-
LED+LENS™ - asymmetric										
										
							HIGH POWER			
-	-	36	3000K	3600	1680 x 150 x 50	436	R753/LEDW3635S	R755/LEDW3635S	R757/LEDW3635S	-
			3000K	4600	1680 x 150 x 50	436	R753/LEDW3645S	R755/LEDW3645S	R757/LEDW3645S	-
			4000K	3550	1680 x 150 x 50	436	R753/LEDN3635S	R755/LEDN3635S	R757/LEDN3635S	-
			4000K	4550	1680 x 150 x 50	436	R753/LEDN3645S	R755/LEDN3645S	R757/LEDN3645S	-

¹ code + X1: luminaire in RAL9003-white / code + X2: luminaire in RAL9006-white aluminium

Options and accessories

Suspension sets: 2 steel wires per mounting point

Individual luminaires 1 set contains all accessories for 2 suspension points		 common power supply		 external dimming
 minimalist mounting		R7H11/100-3	R7H11/100-5	
 ceiling cap	RAL9003-white	R7H12/100-3X1	R7H12/100-5X1	
	RAL9006-white aluminium	R7H12/100-3X2	R7H12/100-5X2	
Luminaires for in-line assembly 1 set contains all accessories for 2 suspension points		 no power supply	 common power supply	 external dimming
 minimalist mounting		R7H21/100	R7H21/100-3	R7H21/100-5
 ceiling cap	RAL9003-white	R7H22/100X1	R7H22/100-3X1	R7H22/100-5X1
	RAL9006-white aluminium	R7H22/100X2	R7H22/100-3X2	R7H22/100-5X2





R8

SURFACE MOUNTED AND SUSPENDED LUMINAIRES
WITH DIFFUSER



Housing

Aluminium profile: RAL9003-white
Diffuse lamp shielding: HaloOptics® for high efficiency

Dimensional sketches → p 392



LIGHT MANAGEMENT
Save up to 75% on energy
see p 276 up to 299

SURFACE MOUNTED AND SUSPENDED LUMINAIRES



R8 surface mounted – webref. SR8011A1

R8

SURFACE MOUNTED LUMINAIRE individual

Table explanation p 424

UGR	lamp type T _e	lumen luminaire	L x Ø x H mm	plan N.	order code white	 option
Diffuser - polycarbonate / HaloOptics®						
	 LOW POWER					
≤ 22	4000K	1350	630 x 90 x 130	454	R8J10/LEDN12S	-
	3000K	1300	630 x 90 x 130	454	R8J10/LEDW12S	-
	4000K	2750	1230 x 90 x 130	454	R8J20/LEDN25S	-
	3000K	2600	1230 x 90 x 130	454	R8J20/LEDW25S	-
	4000K	3450	1530 x 90 x 130	454	R8J30/LEDN31S	-
	3000K	3250	1530 x 90 x 130	454	R8J30/LEDW31S	-

SURFACE MOUNTED LUMINAIRE individual – straight line mounting throughwiring (3 x 1,5 mm²): included as standard

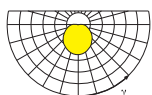
UGR	lamp type	lm/W luminaire	η %	L x Ø x H mm	plan N.	order code white	L x Ø x H mm	plan N.	order code white	 option
Diffuser - acrylic / HaloOptics®										
	 T5 ECO - Ø 16 mm									
≤ 22	1 x 25W	87	100	1192 x 90 x 122	450	R8F00/125HFW	1180 x 90 x 122	451	R8F02/125HFW	-
	1 x 32W	90	102	1492 x 90 x 122	450	R8F00/132HFW	1480 x 90 x 122	451	R8F02/132HFW	-
≤ 25	2 x 25W	88	97	1192 x 90 x 122	450	R8F00/225HFW	1180 x 90 x 122	451	R8F02/225HFW	-
	2 x 32W	88	98	1492 x 90 x 122	450	R8F00/232HFW	1480 x 90 x 122	451	R8F02/232HFW	-
Diffuser - polycarbonate / HaloOptics®										
	 T5 ECO - Ø 16 mm									
≤ 22	1 x 25W	81	93	1192 x 90 x 122	450	R8J00/125HFW	1180 x 90 x 122	451	R8J02/125HFW	● ¹
	1 x 32W	84	95	1492 x 90 x 122	450	R8J00/132HFW	1480 x 90 x 122	451	R8J02/132HFW	● ¹
≤ 25	2 x 25W	82	90	1192 x 90 x 122	450	R8J00/225HFW	1180 x 90 x 122	451	R8J02/225HFW	● ¹
	2 x 32W	81	90	1492 x 90 x 122	450	R8J00/232HFW	1480 x 90 x 122	451	R8J02/232HFW	● ¹

¹ only for individual luminaire

SUSPENDED LUMINAIRE individual

suspension set included as standard (max. 50 cm suspension)

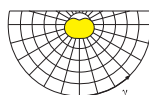
UGR	lamp type T _e	lumen luminaire	L x Ø x H mm	plan N.	order code white	 option
Diffuser - polycarbonate / HaloOptics®						
	 LOW POWER					
≤ 22	4000K	2750	1230 x 90 x 90	455	R8J21/LEDN25S	-
	3000K	2600	1230 x 90 x 90	455	R8J21/LEDW25S	-
	4000K	3450	1530 x 90 x 90	455	R8J31/LEDN31S	-
	3000K	3250	1530 x 90 x 90	455	R8J31/LEDW31S	-



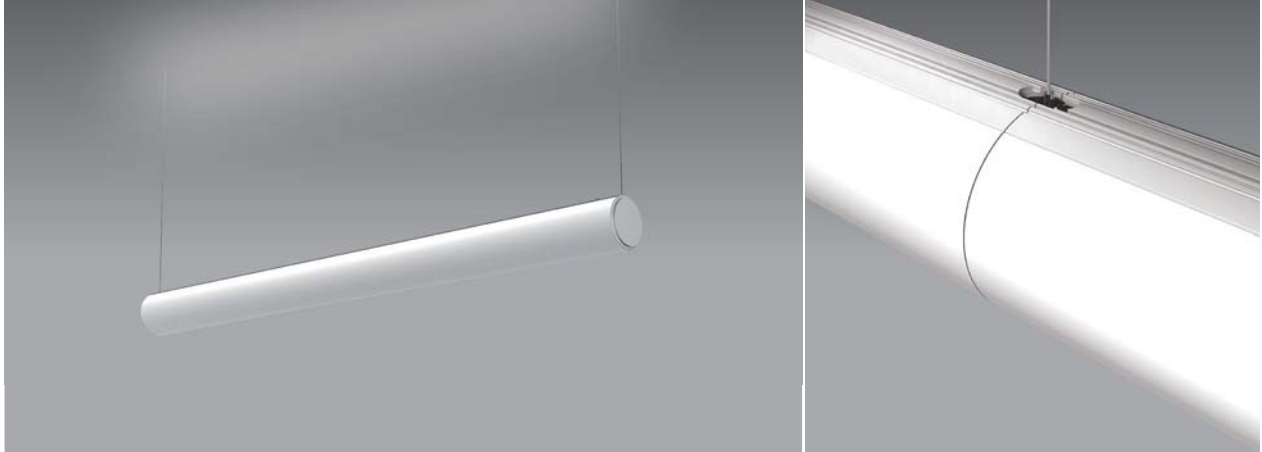
R8F / R8J
LED



R8F / R8J
1x T5 ECO - Ø 16 mm



R8F / R8J
2x T5 ECO - Ø 16 mm



R8 - webref. SR8011C1

R8 - webref. SR8011F2

R8

SUSPENDED LUMINAIRE individual - straight line mounting throughwiring (3 x 1,5 mm²): included as standard

Table explanation p 424

UGR	lamp type	lm/W luminaire	η %	L x Ø x H mm	plan N.	order code	L x Ø x H mm	plan N.	order code	option
Diffuser - acrylic / HaloOptics®										
	T5 ECO - Ø 16 mm									
≤ 22	1 x 25W	87	100	1192 x 90 x 95	452	R8F01/125HFW	1180 x 90 x 95	453	R8F03/125HFW	-
	1 x 32W	90	102	1492 x 90 x 95	452	R8F01/132HFW	1480 x 90 x 95	453	R8F03/132HFW	-
≤ 25	2 x 25W	88	97	1192 x 90 x 95	452	R8F01/225HFW	1180 x 90 x 95	453	R8F03/225HFW	-
	2 x 32W	88	98	1492 x 90 x 95	452	R8F01/232HFW	1480 x 90 x 95	453	R8F03/232HFW	-
Diffuser - polycarbonate / HaloOptics®										
	T5 ECO - Ø 16 mm									
≤ 22	1 x 25W	81	93	1192 x 90 x 95	452	R8J01/125HFW	1180 x 90 x 95	453	R8J03/125HFW	●1
	1 x 32W	84	95	1492 x 90 x 95	452	R8J01/132HFW	1480 x 90 x 95	453	R8J03/132HFW	●1
≤ 25	2 x 25W	82	90	1192 x 90 x 95	452	R8J01/225HFW	1180 x 90 x 95	453	R8J03/225HFW	●1
	2 x 32W	81	90	1492 x 90 x 95	452	R8J01/232HFW	1480 x 90 x 95	453	R8J03/232HFW	●1

¹ enkel voor individual luminaire

Options and accessories for luminaires with T5 lamp

Suspension sets for individual luminaires

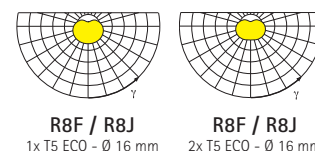
1 set per luminaire
contains all accessories for 2 suspension points

		common power supply	external dimming or emergency unit	external dimming and emergency unit
	2 x minimalist mounting transparent power cable	R8H11/100-3	R8H11/100-5	R8H11/100-7
	minimalist mounting + ceiling ca transparent power cable	R8H12/100-3	R8H12/100-5	
	2 x ceiling cap transparent power cable			R8H12/100-7

Suspension sets for in-line mounting

1 set per suspension point.
Suspend the 1st luminaire from 2 points and each subsequent one from 1 suspension point (number of suspension points per straight line = number of luminaires + 1)

		no power supply	external dimming or emergency unit	common power supply	power supply + external dimming + emergency unit
	minimalist mounting	R8H21/100	R8H21/100-2	R8H21/100-3	R8H21/100-5
	ceiling cap		R8H22/100-2	R8H22/100-3	R8H22/100-5
End piece (2 per line), per piece				surface mounted	R8H3-1
				suspended	R8H3-2





RS

SURFACE MOUNTED LUMINAIRES WITH SOFTLIGHT



Housing

Lacquered sheet steel housing with 2-part lamp shielding which hinges open
Wieland connection

Optic

Softlight - perforated lamp shielding - high reflection lacquer
Diffuser - HaloOptics® for high efficiency

Dimensional sketches → p 393

SURFACE MOUNTED LUMINAIRE individual

Table explanation p 424

UGR	lamp type	lm/W luminaire	η %	L x W x H mm	plan N.	order code RAL9210	option
Softlight - PMMA / HaloOptics®							
650 °C	FLUO T5 ECO - Ø 16 mm 2 x 20	-	97	700 x 700 x 40	740	RS16F8/220HFW	-
Softlight - polycarbonate / HaloOptics®							
960 °C	FLUO T5 ECO - Ø 16 mm 2 x 20	54	76	700 x 700 x 40	740	RS16J8/220HFW	-
Softlight - perforated lamp shielding							
960 °C	FLUO TC-L						
≤ 28	2 x 36	52	61	700 x 700 x 40	740	RS1638/L236HFW	-
	2 x 40	49	61	700 x 700 x 40	740	RS1638/L240HFW	-
	2 x 55	54	61	700 x 700 x 40	740	RS1638/L255HFW	-



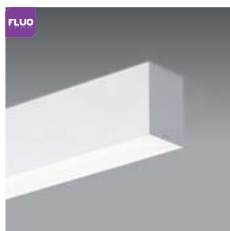
LIGHT MANAGEMENT
Save up to 75% on energy
see p 276 up to 299



MODULAR LIGHT SYSTEMS



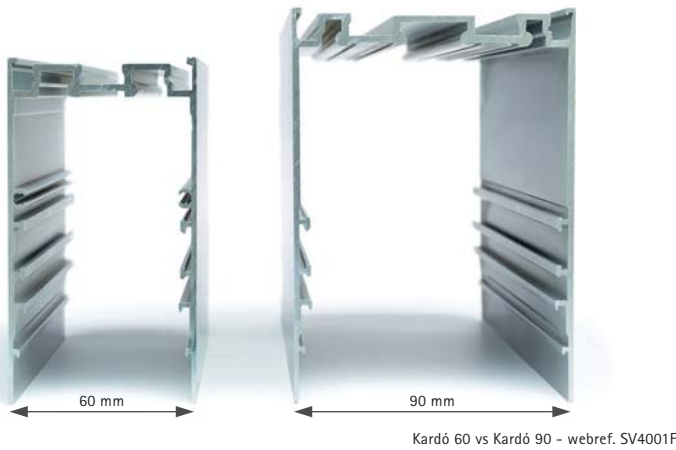
Kardó 60 → p 91



Kardó 90 → p 99



Leda → p 107



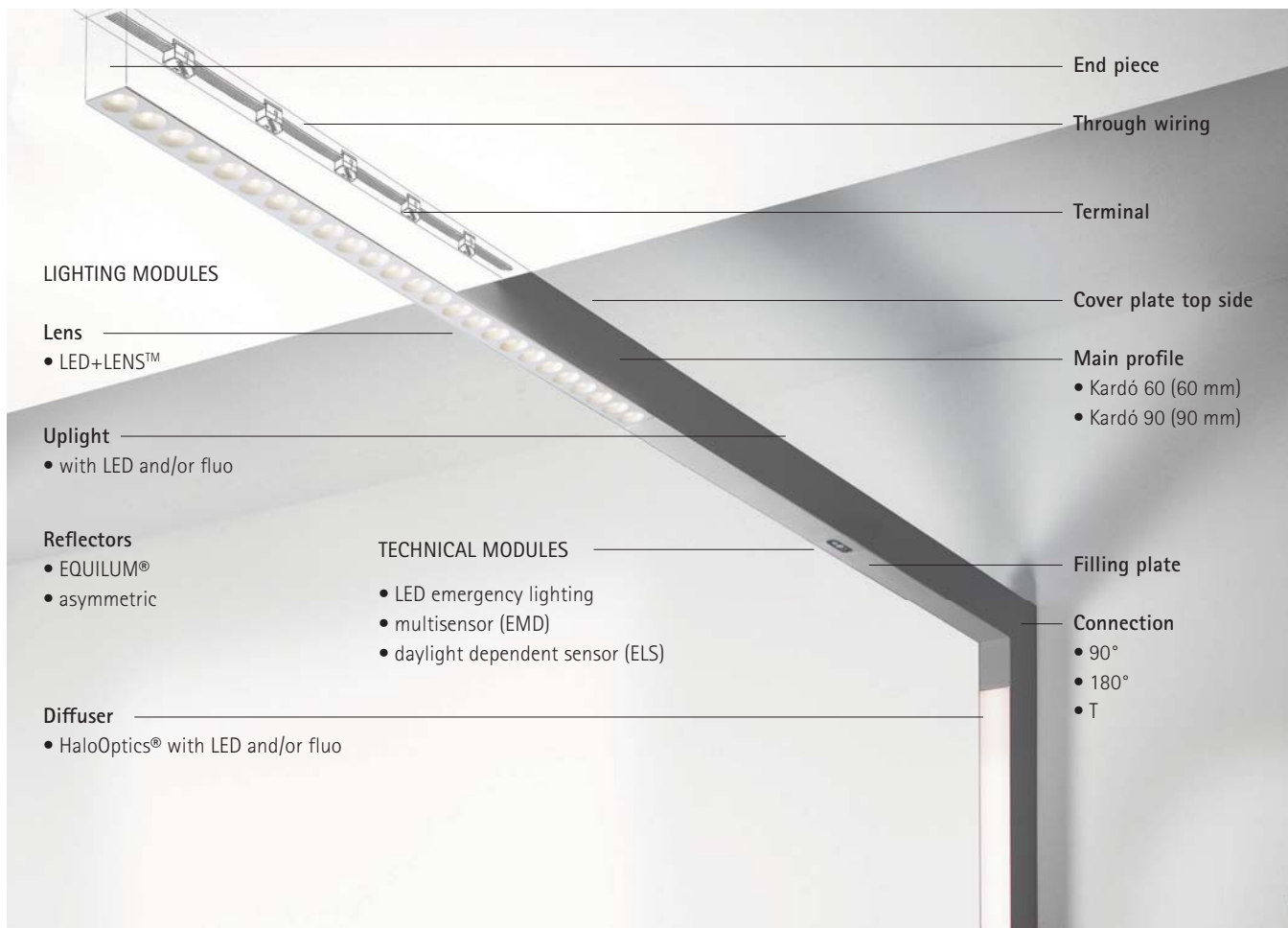
KARDÓ: ENDLESS LIGHT COMBINATIONS

Design: EER Architectural design, Belgium

The Kardó modular light system allows you to use one and the same profile for your lighting throughout the entire building, suspended or recessed, wall or ceiling mounting, individual, in line or at an angle. And like always, ETAP also has a wide range of high-quality light modules for the Kardó system. Kardó is available in two versions: a 90 mm version (Kardó 90) and a 60 mm version (Kardó 60). The profile is available in different colours.

ONE PROFILE FOR EVERYTHING

Kardó's heart is an extruded aluminium profile, which gives Kardó its nice modern shape. Kardó is available as standard in satin-anodised aluminium and in RAL9003-white. Other RAL-colours can be ordered upon request. The profile's flexibility is unique. It's always bespoke, the through wiring can contain up to 14 cores (7 cores for Kardó 60) and the light modules can be mounted anywhere in the profile. The range of low-energy light modules that can be mounted in the profile is huge: both reflectors and diffusers can be used, with LEDs or fluorescent lamps. All kinds of technical modules can be added to your system, such as lighting control systems, emergency lighting or bespoke modules.





Simple instructions make installation easier – webref. SA045A1

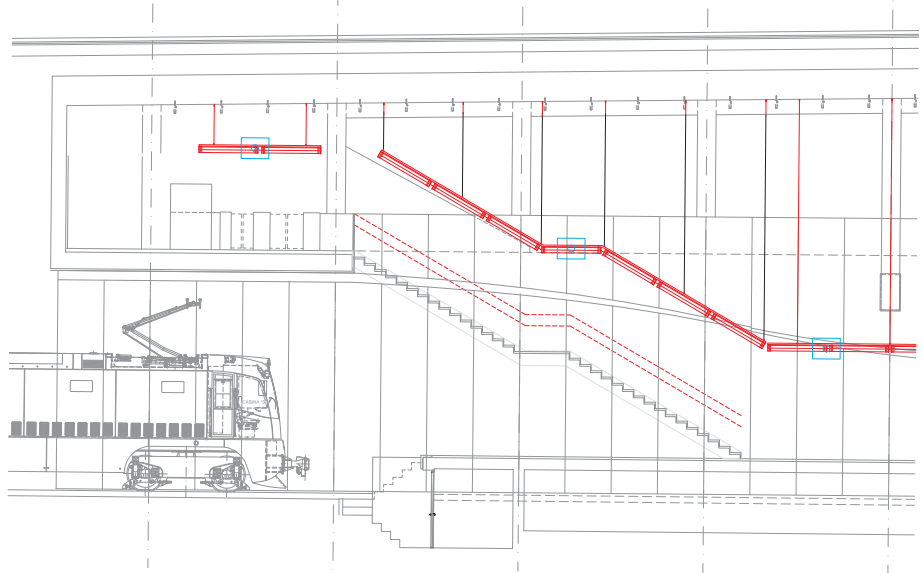


Your ETAP adviser designs together with you – webref. SA024H1

KARDÓ PROJECTS: AN INTERACTION BETWEEN YOURSELF AND ETAP

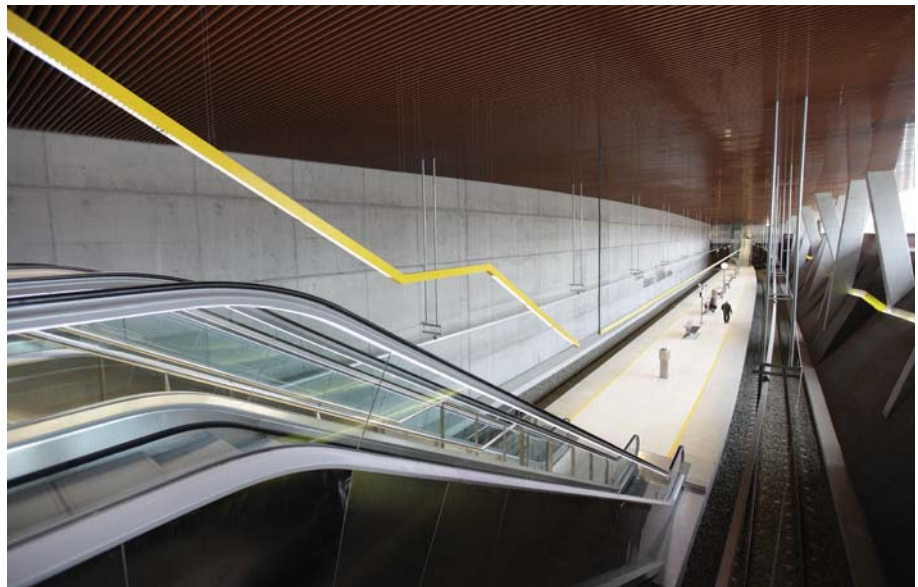
DESIGN

Kardó light lines are always bespoke. You design the line with our consultants. ETAP makes the illuminations study and prepares everything: every detail of the Kardó lines is clearly specified and documented with our Kardó configurator.



DELIVERY AND INSTALLATION

When all the details have been agreed, we start production. We provide clear overviews per line to ensure a smooth installation. Per line we provide an overview of all parts, the composition of the line and the position of each separate part. On every component and the packaging you can find a large label with a clear reference to the installation scheme.





Kardó 60

MODULAR
LIGHT SYSTEM



lighting modules



reflector



diffuser

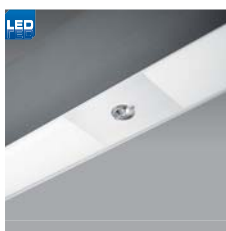


lens



uplight

technical modules



LED module for
emergency lighting

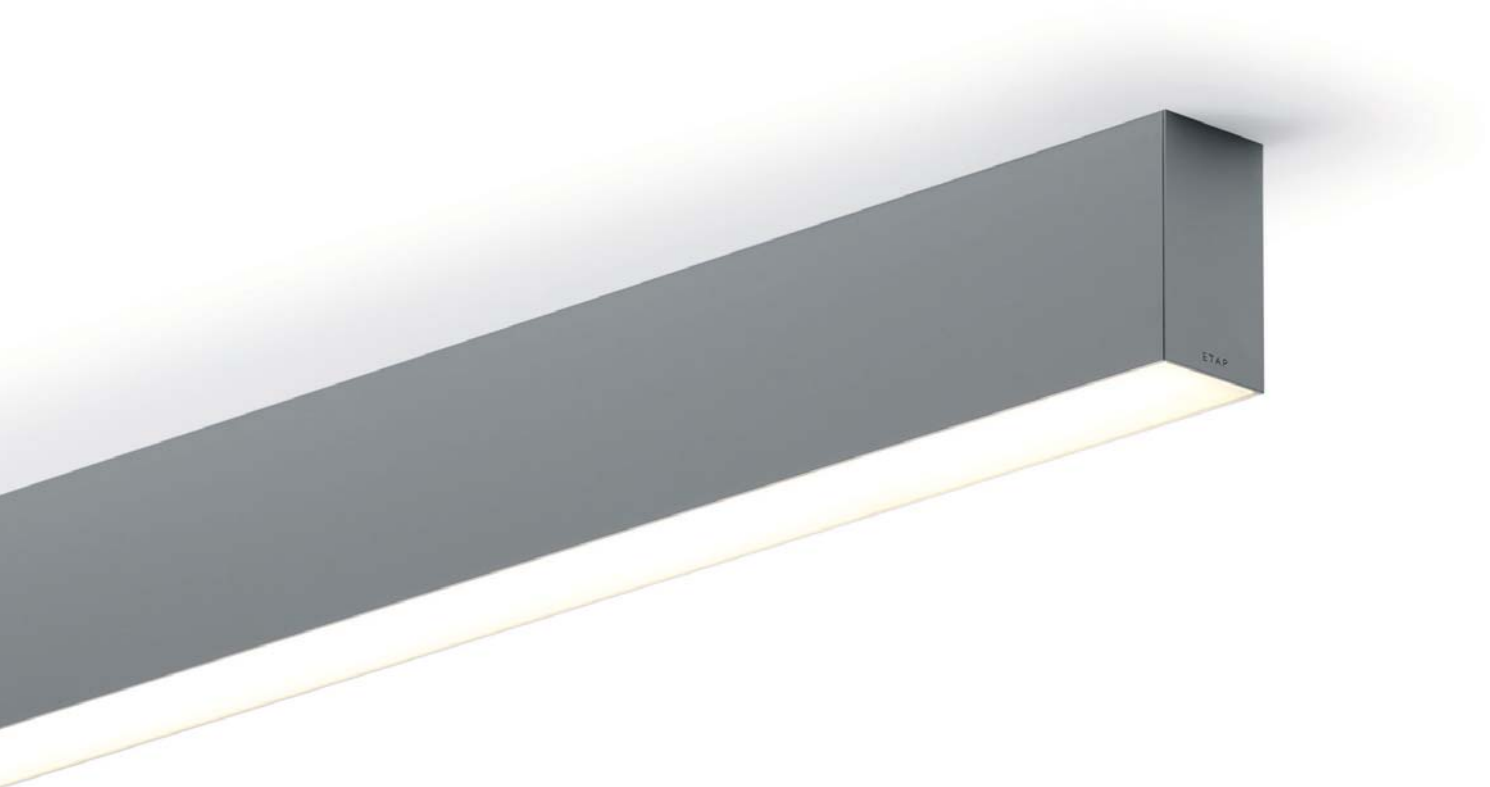


ELS
daylight sensor



EMD
multisensor

Kardó 60



	Housing	Extruded aluminium profile Satin-anodised or RAL9003-white
	Optic	Reflector - HRSilver™ - high reflection aluminium Diffuser - HaloOptics® for high efficiency LED+LENS™
Kardó light lines are made up of various components, which we custom-produce for you and deliver. All light lines are available in recessed, surface-mounted and suspended versions. We work out the details for you using our line configurator. You will receive clear diagrams so that you will know what to expect. In the tables below, we provide an overview of the standard lighting and technical modules. In addition, we also provide tailored solutions. Contact your ETAP adviser for a personalised study.		

Dimensional sketches → p 394



Kardó 60 with LED+LENS™ - webref. SV6002B1

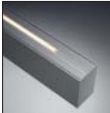
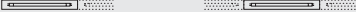


Kardó 60 with diffuser and LED - webref. SV7001B3

Kardó 60

Lighting module - individual mounting in profile

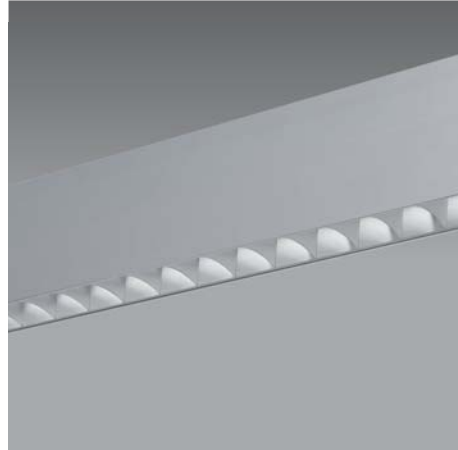
Table explanation p 424

	UGR	lamp type	L _{av} - limit cd/m ²	lumen luminaire	L x W x H mm	order code	option
	LED+LENS™						
		 HIGH POWER					
	≤ 19	4000K 3000K	≤ 1500 (65°) ≤ 1500 (65°)	2900 2700	1250 x 55 x 75 ¹ 1250 x 55 x 75 ¹	V2M110/LEDN2525S ¹ V2M110/LEDW2525S ¹	- -
	Uplight						
		 HIGH POWER					
	-	3000K 4000K	- -	1000 950	1000 x 55 x 10 1000 x 55 x 10	V2M170/LEDW10S ¹ V2M170/LEDN10S ¹	V2M171/LEDW10S ¹ V2M171/LEDN10S ¹
	Diffuser - acrylic / HaloOptics®						
		 LOW POWER					
	≤ 25	3000K 4000K 3000K 4000K 3000K 4000K 3000K 4000K	- - - - - - - -	2300 2400 2500 2650 2700 2850 2900 3050	1200 x 55 x 50 1200 x 55 x 50 1300 x 55 x 50 1300 x 55 x 50 1400 x 55 x 50 1400 x 55 x 50 1500 x 55 x 50 1500 x 55 x 50	V2M1F0/LEDW27S V2M1F0/LEDN27S V2M1F0/LEDW30S V2M1F0/LEDN30S V2M1F0/LEDW32S V2M1F0/LEDN32S V2M1F0/LEDW34S V2M1F0/LEDN34S	- - - - - - - -
	Diffuser - polycarbonate / HaloOptics®						
		 LOW POWER					
	≤ 25	3000K 4000K 3000K 4000K 3000K 4000K 3000K 4000K	- - - - - - - -	2150 2250 2300 2450 2500 2650 2700 2800	1200 x 55 x 50 1200 x 55 x 50 1300 x 55 x 50 1300 x 55 x 50 1400 x 55 x 50 1400 x 55 x 50 1500 x 55 x 50 1500 x 55 x 50	V2M1J0/LEDW27S V2M1J0/LEDN27S V2M1J0/LEDW30S V2M1J0/LEDN30S V2M1J0/LEDW32S V2M1J0/LEDN32S V2M1J0/LEDW34S V2M1J0/LEDN34S	- - - - - - - -

¹ code + X1: luminaire in RAL9003-white / code + X2: luminaire in satin-anodised aluminium







Kardó 60 with reflector - webref. SV21001A



Kardó 60 with diffuser - webref. SV7001A1

Kardó 60

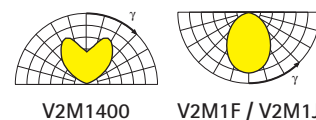
Lighting module - individual mounting in profile

Table explanation p 424

UGR	lamp type	L_{av} - limit cd/m ²	η %	lm/W luminaire	L x W x H mm	order code	option
	Reflector - Equilum® baffles						
	 T5 ECO - Ø 16 mm						
	≤ 19	1 x 25W	≤ 1000 (65°)	92	81	1180 x 60 x 75	V2M1860/125HFW -
		1 x 32W	≤ 1000 (65°)	92	82	1480 x 60 x 75	V2M1860/132HFW -
		1 x 45W	≤ 1000 (65°)	92	77	1480 x 60 x 75	V2M1860/145HFW -
	≤ 22	1 x 50W	≤ 1000 (65°)	79	65	1180 x 60 x 75	V2M1860/150HFW -
	Uplight (cover plate in clear polycarbonate)						
		 T5 ECO - Ø 16 mm					
	-	1 x 13W	-	79	70	1000 x 55 x 35	V2M1400/113HFW -
		1 x 19W	-	89	71	1300 x 55 x 35	V2M1400/119HFW -
		1 x 20W	-	74	51	1000 x 55 x 35	V2M1400/120HFW -
		1 x 25W	-	89	78	1600 x 55 x 35	V2M1400/125HFW -
		1 x 32W	-	91	80	1900 x 55 x 35	V2M1400/132HFW -
		1 x 45W	-	88	74	1900 x 55 x 35	V2M1400/145HFW -
		1 x 50W	-	85	70	1600 x 55 x 35	V2M1400/150HFW -
	Diffuser - acrylic / HaloOptics®						
		 T5 ECO - Ø 16 mm					
	≤ 25	1 x 25W	-	61	53	1180 x 55 x 50	V2M1F00/125HFW -
	Diffuser - polycarbonate / HaloOptics®						
		 T5 ECO - Ø 16 mm					
	≤ 25	1 x 25W	-	55	48	1180 x 55 x 50	V2M1J00/125HFW -
		1 x 32W	-	56	49	1480 x 55 x 50	V2M1J00/132HFW -

Lighting module - in-line mounting in profile - reflector

lamp type	L x W mm	order code	option	L x W mm	order code	option
	Base for reflector					
	 T5 ECO - Ø 16 mm					
	1 x 25W	1180 x 60	V2M1861/125HFW	-	1180 x 60	V2M1862/125HFW -
	1 x 32W	1480 x 60	V2M1861/132HFW	-	1480 x 60	V2M1862/132HFW -
	1 x 45W	1480 x 60	V2M1861/145HFW	-	1480 x 60	V2M1862/145HFW -
	1 x 50W	1180 x 60	V2M1861/150HFW	-	1180 x 60	V2M1862/150HFW -



Kardó 60 with diffuser - webref. SV7001C6

Kardó 60

Lighting module - in-line mounting in profile - diffuser

Table explanation p 424

lamp type	L x W mm	order code	 option	L x W mm	order code	 option
Lighting module for diffuser in-line						
  						
LOW POWER						
4000K	800 x 55	V2M1B1/LEDN18S	-	800 x 55	V2M1B2/LEDN18S	-
3000K	800 x 55	V2M1B1/LEDW18S	-	800 x 55	V2M1B2/LEDW18S	-
4000K	900 x 55	V2M1B1/LEDN21S	-	900 x 55	V2M1B2/LEDN21S	-
3000K	900 x 55	V2M1B1/LEDW21S	-	900 x 55	V2M1B2/LEDW21S	-
4000K	1000 x 55	V2M1B1/LEDN23S	-	1000 x 55	V2M1B2/LEDN23S	-
3000K	1000 x 55	V2M1B1/LEDW23S	-	1000 x 55	V2M1B2/LEDW23S	-
4000K	1100 x 55	V2M1B1/LEDN25S	-	1100 x 55	V2M1B2/LEDN25S	-
3000K	1100 x 55	V2M1B1/LEDW25S	-	1100 x 55	V2M1B2/LEDW25S	-
4000K	1200 x 55	V2M1B1/LEDN27S	-	1200 x 55	V2M1B2/LEDN27S	-
3000K	1200 x 55	V2M1B1/LEDW27S	-	1200 x 55	V2M1B2/LEDW27S	-
4000K	1300 x 55	V2M1B1/LEDN30S	-	1300 x 55	V2M1B2/LEDN30S	-
3000K	1300 x 55	V2M1B1/LEDW30S	-	1300 x 55	V2M1B2/LEDW30S	-
4000K	1400 x 55	V2M1B1/LEDN32S	-	1400 x 55	V2M1B2/LEDN32S	-
3000K	1400 x 55	V2M1B1/LEDW32S	-	1400 x 55	V2M1B2/LEDW32S	-
4000K	1500 x 55	V2M1B1/LEDN34S	-	1500 x 55	V2M1B2/LEDN34S	-
3000K	1500 x 55	V2M1B1/LEDW34S	-	1500 x 55	V2M1B2/LEDW34S	-
Lighting module for diffuser in line						
						
T5 ECO - Ø 16 mm						
1 x 25W	1180 x 55	V2M1B01/125HFW	-	1180 x 55	V2M1B02/125HFW	-
1 x 32W	1480 x 55	V2M1B01/132HFW	-	1480 x 55	V2M1B02/132HFW	-
Diffuser - acrylic / HaloOptics®						
						
bespoke V2MF0/*						
Diffuser - polycarbonate / HaloOptics®						
						
bespoke V2MJ0/*						



Kardó 60 with multisensor EMD - webref. SV7001B6

Kardó 60

Technical modules

Table explanation p 424

order code ¹

	ELS - daylight dependent light control		
	1-10V DALI	V2MC10 V2MC61	
	EMD - multisensor		
	1-10V DALI DALI extension sensor	V2MC70 V2MC71 V2MC81	
	LED module for emergency lighting		
		1h	3h
	self contained - EST+ - anti-panic lighting	V2MK97050/3N	V2MK97250/3NS2
	self contained - EST+ - escape route lighting	V2MK97051/3N	V2MK97251/3NS2
	self contained - ESM - anti-panic lighting	V2MK97650/3N	V2MK97750/3NS2
	self contained - ESM - escape route lighting	V2MK97151/3N	V2MK97351/3NS2
			110-230V
	centrally supplied - anti-panic lighting		V2MK97450/3ADH
centrally supplied - escape route lighting		V2MK97451/3ADH	

¹ code + X1: luminaire in RAL9003-white / code + X2: luminaire in satin-anodised aluminium



LIGHT MANAGEMENT
Save up to 75% on energy
see p 276 up to 299



Kardó 90

MODULAR
LIGHT SYSTEM



lighting modules



reflector



diffuser



asymmetric
reflector



uplight

technical modules



LED module for
emergency lighting



ELS
daylight sensor



EMD
multisensor

Kardó 90



Housing

Extruded aluminium profile
Satin-anodised or RAL9003-white

Optic

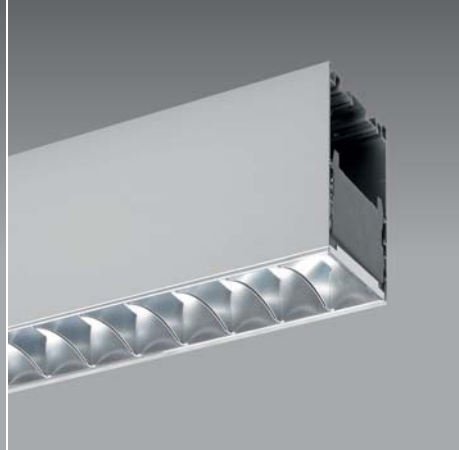
Reflector - HRSilver™ - high reflection aluminium
Diffuser - HaloOptics® for high efficiency

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Dimensional sketches → p 396



Kardó 90 with diffuser - webref SV5004D1



Kardó 90 with reflector - webref. SV5004A

Kardó 90

Lighting module - individual mounting in profile

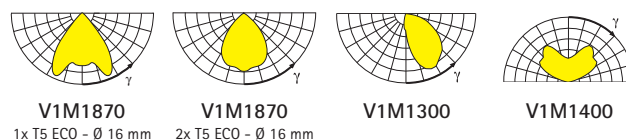
Table explanation p 424

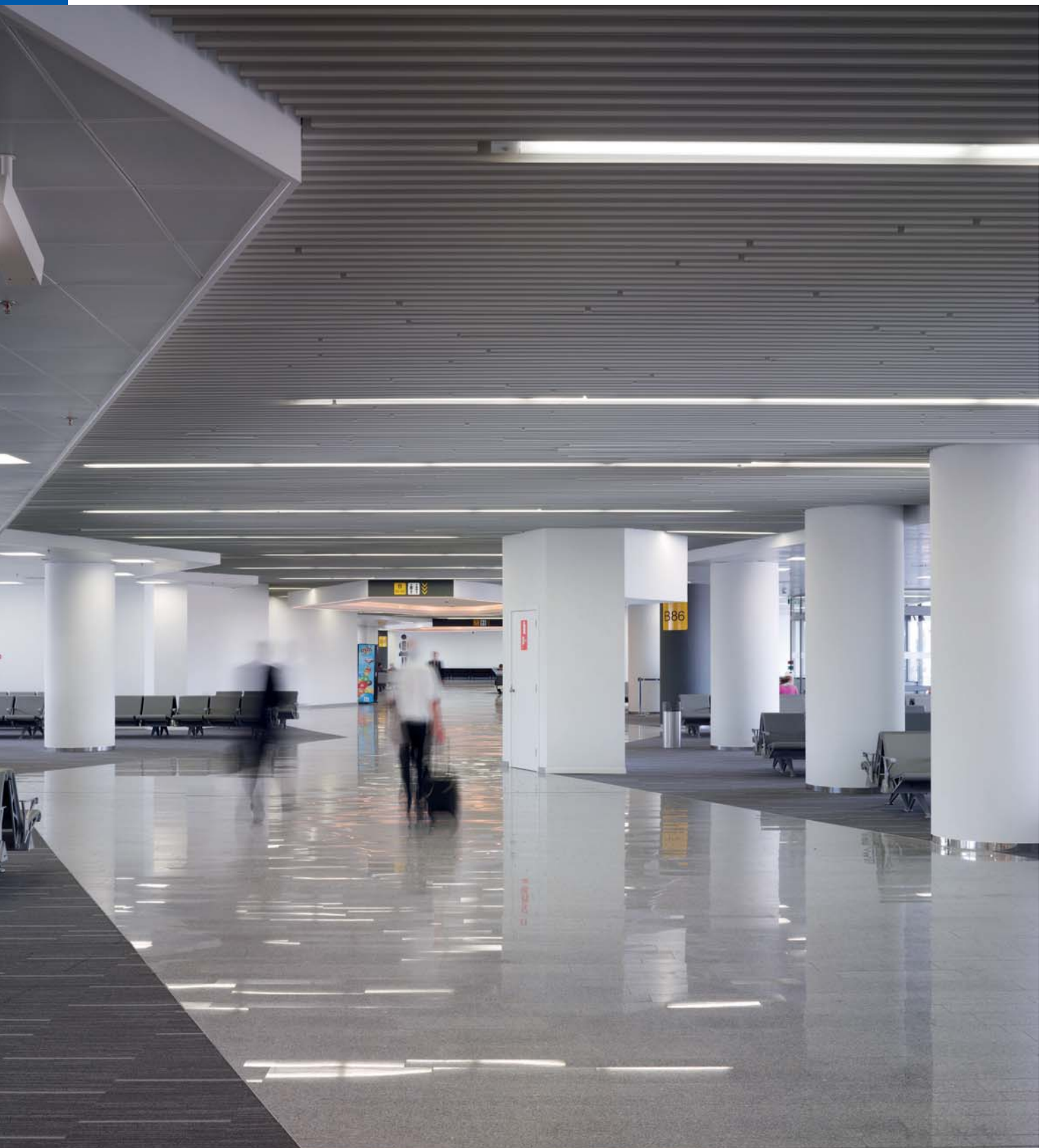
Lighting module

Individual mounting in profile

Table Explanation p. 42

UGR	lamp type	L_{av} - limit cd/m ²	lm/W luminaire	η %	L x W mm	order code	 option	
	Reflector - satin-anodised aluminium - Equilum® baffles							
	 T5 ECO - Ø 16 mm							
	≤ 19	1 x 25W	≤ 200 (65°)	80	92	1180 x 85	V1M1870/125HFW	•
		1 x 32W	≤ 200 (65°)	81	92	1480 x 85	V1M1870/132HFW	•
		1 x 45W	≤ 200 (65°)	74	92	1480 x 85	V1M1870/145HFW	•
		1 x 50W	≤ 200 (65°)	74	86	1180 x 85	V1M1870/150HFW	•
	≤ 22	2 x 25W	≤ 200 (65°)	78	86	1180 x 85	V1M1870/225HFW	•
		2 x 32W	≤ 200 (65°)	77	86	1480 x 85	V1M1870/232HFW	•
		2 x 45W	≤ 200 (65°)	71	84	1480 x 85	V1M1870/245HFW	•
		2 x 50W	≤ 1000 (65°)	63	77	1180 x 85	V1M1870/250HFW	•
	Asymmetric reflector - satin-anodised aluminium							
	 T5 ECO - Ø 16 mm							
	-	1 x 25W	-	74	85	1180 x 85	V1M1300/125HFW	•
		1 x 32W	-	75	85	1480 x 85	V1M1300/132HFW	•
		1 x 45W	-	71	85	1480 x 85	V1M1300/145HFW	•
		1 x 50W	-	68	83	1180 x 85	V1M1300/150HFW	•
	Uplight (cover plate in clear polycarbonate)							
	 960 °C	 T5 ECO - Ø 16 mm						
	-	1 x 25W	-	81	93	1180 x 85	V1M1400/125HFW	-
		1 x 32W	-	82	92	1480 x 85	V1M1400/132HFW	-
		1 x 45W	-	69	83	1480 x 85	V1M1400/145HFW	-
		1 x 50W	-	67	81	1180 x 85	V1M1400/150HFW	-





BRUSSELS AIRPORT, ZAVENTEM - BELGIUM

webref. SV1007E12



Kardó 90 with asymmetric reflector - webref. SV2002H

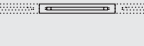
Kardó 90

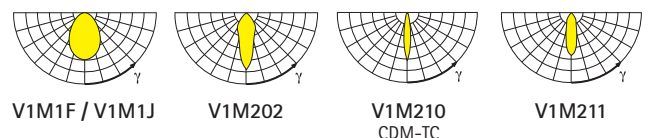
Lighting module - individual mounting in profile

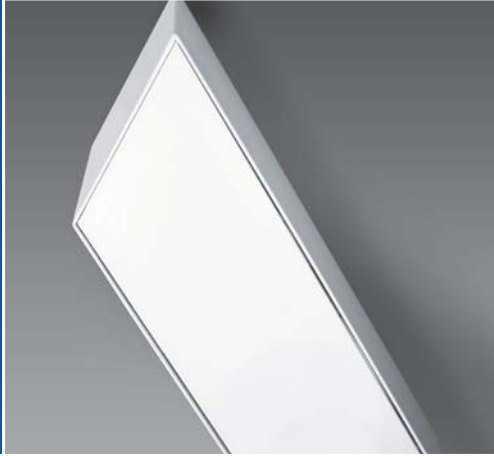
Table explanation p 424

UGR	lamp type	L_{av} - limit cd/m ²	lm/W luminaire	η %	L x W mm	order code	option
	Diffuser - acrylic / HaloOptics®						
			T5 ECO - Ø 16 mm				
	≤ 22	1 x 25W	-	72	83	1180 x 85	V1M1F00/125HFW -
		1 x 32W	-	71	80	1480 x 85	V1M1F00/132HFW -
	≤ 25	2 x 25W	-	65	72	1180 x 85	V1M1F00/225HFW -
		2 x 32W	-	58	65	1480 x 85	V1M1F00/232HFW -
	Diffuser - polycarbonate / HaloOptics®						
				T5 ECO - Ø 16 mm			
	≤ 22	1 x 25W	-	65	74	1180 x 85	V1M1J00/125HFW •
		1 x 32W	-	64	72	1480 x 85	V1M1J00/132HFW •
	≤ 25	2 x 25W	-	58	64	1180 x 85	V1M1J00/225HFW •
		2 x 32W	-	52	58	1480 x 85	V1M1J00/232HFW •

Lighting module - in-line mounting in profile

lamp type	L x W mm	order code	 option	L x W mm	order code	 option	
	Base for reflector						
							
	T5 ECO- Ø 16 mm						
	1 x 25W	1180 x 85	V1M1871/125HFW	•	1180 x 85	V1M1872/125HFW	•
	1 x 32W	1480 x 85	V1M1871/132HFW	•	1480 x 85	V1M1872/132HFW	•
	1 x 45W	1480 x 85	V1M1871/145HFW	•	1480 x 85	V1M1872/145HFW	•
	1 x 50W	1180 x 85	V1M1871/150HFW	•	1180 x 85	V1M1872/150HFW	•
	2 x 25W	1310 x 85	V1M1871/225HFW	•	1310 x 85	V1M1872/225HFW	•
	2 x 32W	1610 x 85	V1M1871/232HFW	•	1610 x 85	V1M1872/232HFW	•
	2 x 45W	1610 x 85	V1M1871/245HFW	•	1610 x 85	V1M1872/245HFW	•
	2 x 50W	1310 x 85	V1M1871/250HFW	•	1310 x 85	V1M1872/250HFW	•



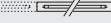


Kardó 90 with diffuser (special) - webref. SV2001E

Kardó 90

Lighting module - in-line mounting in profile

Table explanation p 424

lamp type	L x W mm	order code	 option	L x W mm	order code	 option	order code	 option
Lighting module for diffuser in line								
								
T5 ECO - Ø 16 mm								
1 x 19W							V1M1B03/119HFW ¹	-
1 x 25W	1180 x 85	V1M1B01/125HFW	•	1180 x 85	V1M1B02/125HFW	•	V1M1B03/125HFW ¹	-
1 x 32W	1480 x 85	V1M1B01/132HFW	•	1480 x 85	V1M1B02/132HFW	•	V1M1B03/132HFW ¹	-
2 x 25W	1310 x 85	V1M1B01/225HFW	•	1310 x 85	V1M1B02/225HFW	•	¹	-
2 x 32W	1610 x 85	V1M1B01/232HFW	•	1610 x 85	V1M1B02/232HFW	•	¹	-
Diffuser - acrylic / HaloOptics®								
								
	bespoke	V1MF0/*						
Diffuser - polycarbonate / HaloOptics®								
								
	bespoke	V1MJ0/*						

¹ variable end module



Kardó 90 recessed – webref. SV1003A



Kardó 90 with ELS – webref. SV2003C

Kardó 90

Technical modules

Table explanation p xxx

order code ¹



ELS – daylight dependent control

1-10V

V1MC10



EMD – multisensor

1-10V

V1MC70

DALI

V1MC71

DALI extension sensor

V1MC81



LED module for emergency lighting

1h

3h

self contained – EST+ – anti-panic lighting
self contained – EST+ – escape route lighting
self contained – ESM – anti-panic lighting
self contained – ESM – escape route lighting

V1MK97050/3N
V1MK97051/3N
V1MK97650/3N
V1MK97151/3N

V1MK97250/3NS2
V1MK97251/3NS2
V1MK97750/3NS2
V1MK973+51/3NS2

110-230V

centrally supplied – anti-panic lighting

V1MK97450/3ADH

centrally supplied – escape route lighting

V1MK97451/3ADH

¹ code + X1: luminaire in RAL9003-white / code + X2: luminaire in satin-anodised aluminium

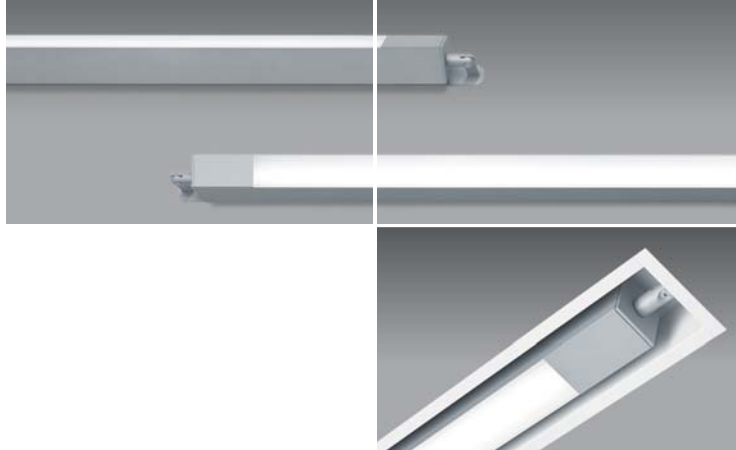


LIGHT MANAGEMENT
Save up to 75% on energy
see p 276 up to 299



LEDA

MODULAR LIGHT SYSTEM
WITH DIFFUSER



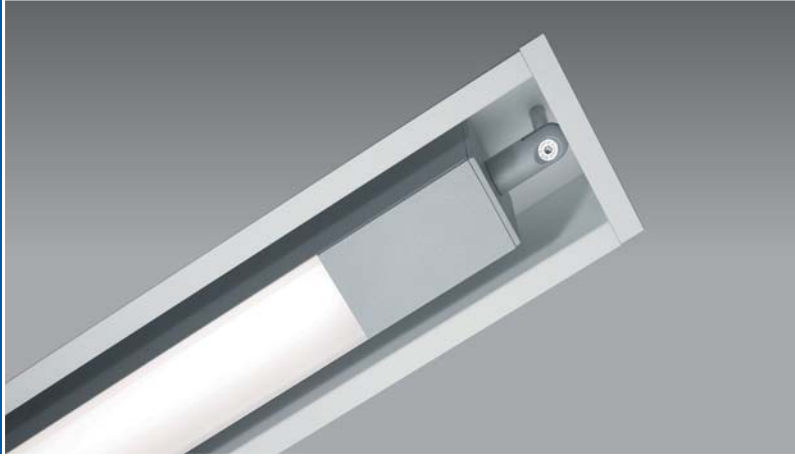
Housing

Housing in extruded aluminium
Lacquered in RAL9006-white aluminium
Other colours upon request

Optic

Diffuser - HaloOptics®

Dimensional sketches → p 399



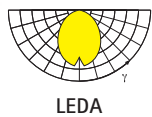
Leda recessed, individual - webref. SAL74A6

LEDA

Lighting module - individual

Table explanation p 424

UGR	L_{av} - limit cd/m ²	lamp type T_k	lumen luminaire	L x W x H mm	plan N.	order code	 option
Diffuser - HaloOptics®							
		 LED					
≤ 22	-	4000K	600	850 x 55 x 60	900 - 902	RD16J19/LEDN10S	-
		4000K	1200	1450 x 55 x 60	900 - 902	RD16J39/LEDN21S	-
		4000K	1700	1750 x 55 x 60	900 - 902	RD16J49/LEDN30S	-





LED A in line with Y-connection - webref. SAL74D3



LED A suspension, tilted - webref. SAL74C5

LED A

Lighting module - suspended - straight and angular in-line mounting

Table explanation p 424

UGR	L _{avg} - limit cd/m²	lamp type T _c	lumen luminaire	L x W x H mm	plan N.	order code			 option
Diffuser - HaloOptics®									
		 LED							
≤ 22	-	4000K	600	850 x 55 x 60	903	RD16J13/LEDN10S	RD16J15/LEDN10S	RD16J17/LEDN10S	-
		4000K	1200	1450 x 55 x 60	903	RD16J33/LEDN21S	RD16J35/LEDN21S	RD16J37/LEDN21S	-
		4000K	1700	1750 x 55 x 60	903	RD16J43/LEDN30S	RD16J45/LEDN30S	RD16J47/LEDN30S	-

Lighting module - suspended - in-line mounting with Y-connection

UGR	L _{av} - limit cd/m ²	lamp type T _c	lumen luminaire	L x W x H mm	plan N.	order code		 option
Diffuser - HaloOptics®								
		 LED						
≤ 22	-	4000K	600	850 x 55 x 60	903	RD16J14/LEDN10S	RD16J16/LEDN10S	-
		4000K	1200	1450 x 55 x 60	903	RD16J34/LEDN21S	RD16J36/LEDN21S	-
		4000K	1700	1750 x 55 x 60	903	RD16J44/LEDN30S	RD16J46/LEDN30S	-

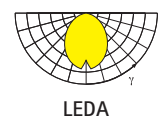
Options and accessories

Mounting set for individual luminaires
1 set contains all accessories for 1 luminaire

surface mounting set (wall/ceiling) (module adjustable in 5 positions)	RD16H05
suspension set (module adjustable in 8 positions)	minimalist mounting RD16H06
	ceiling cap RD16H10
recessed mounting set (RAL9003-white) (module adjustable in 3 positions)	for lighting module 850 mm RD16H08/1
	for lighting module 1450 mm RD16H08/3
	for lighting module 1750 mm RD16H08/4
Mounting sets for in-line assembly (module adjustable in 8 positions)	
suspension set individual	minimalist mounting RD16H06
	ceiling cap RD16H10
coupling piece	RD16H07

Composition of a line:
1 x suspension set individual + coupling piece(s)
(number of coupling pieces = number of modules - 1)

Composition of a line with Y-connection
1 x suspension set individual + coupling piece(s)
(number of coupling pieces = (number of modules - 1) - number of Y-modules)





DOWNLIGHTS

lens



LED+LENS
TECHNOLOGY

D4 → p 129

reflector



D1 → p 113



D2 → p 119



D3 → p 123



D1

DOWNLIGHTS WITH REFLECTOR



Housing

D1 with TC-T: housing of polycarbonate and galvanised sheet steel
D1 with LED: housing of injection moulded aluminium
Flat or wafer trim of lacquered sheet steel
RAL9003-white or RAL9006-white aluminium
Wieland connection (not for D14, D15)

Optic

D1 with TC-T: reflector with diamond facets - wide-angle
D1 with LED: specular reflector with diamond facets - wide-angle
satin-anodised reflector - wide-angle

Air extraction

Possible through option T9 for wafer trim versions (not for D11, D13, D14)

Dimensional sketches → p 401





D1 LED with glass ring - webref. SDL015B4

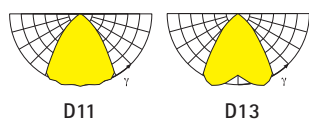
D1

Mounting bracket 1 - 35 mm is included as standard

Table explanation p 424

material	UGR	lamp type T _k	lumen luminaire	L _{av} - limit cd/m ²	Ø x H mm	plan N.	RAL9003-white	order code RAL9006-white aluminium	 option			
Luxial®												
Wafer trim - reflector												
												
sat ¹	≤ 22	Ø 205	MODULE									
			4000K	1123	≤ 200 (65°)	220 x 120	1006	D11/LEDN10SX1	D11/LEDN10SX2	-		
			3000K	1033	≤ 200 (65°)	220 x 120	1006	D11/LEDW10SX1	D11/LEDW10SX2	-		
	≤ 25	Ø 205	4000K	1842	≤ 200 (65°)	220 x 120	1006	D11/LEDN20SX1	D11/LEDN20SX2	-		
			3000K	1698	≤ 200 (65°)	220 x 120	1006	D11/LEDW20SX1	D11/LEDW20SX2	-		
			4000K	2758	≤ 1000 (65°)	220 x 120	1006	D11/LEDN30SX1	D11/LEDN30SX2	-		
spec ²	≤ 19	Ø 205	3000K	2542	≤ 1000 (65°)	220 x 120	1006	D11/LEDW30SX1	D11/LEDW30SX2	-		
			4000K	1171	≤ 200 (65°)	220 x 120	1006	D13/LEDN10SX1	D13/LEDN10SX2	-		
			3000K	1077	≤ 200 (65°)	220 x 120	1006	D13/LEDW10SX1	D13/LEDW10SX2	-		
			4000K	1921	≤ 200 (65°)	220 x 120	1006	D13/LEDN20SX1	D13/LEDN20SX2	-		
			3000K	1771	≤ 200 (65°)	220 x 120	1006	D13/LEDW20SX1	D13/LEDW20SX2	-		
	≤ 22	Ø 205	4000K	2812	≤ 200 (65°)	220 x 120	1006	D13/LEDN30SX1	D13/LEDN30SX2	-		
			3000K	2652	≤ 200 (65°)	220 x 120	1006	D13/LEDW30SX1	D13/LEDW30SX2	-		
			Flat trim - reflector									
												
			sat ¹	≤ 22	Ø 205	MODULE						
	4000K	1123				≤ 200 (65°)	220 x 120	1006	D11/LEDN10SX3	D11/LEDN10SX4	-	
	3000K	1033				≤ 200 (65°)	220 x 120	1006	D11/LEDW10SX3	D11/LEDW10SX4	-	
≤ 25	Ø 205	4000K		1842	≤ 200 (65°)	220 x 120	1006	D11/LEDN20SX3	D11/LEDN20SX4	-		
		3000K		1698	≤ 200 (65°)	220 x 120	1006	D11/LEDW20SX3	D11/LEDW20SX4	-		
		4000K		2758	≤ 1000 (65°)	220 x 120	1006	D11/LEDN30SX3	D11/LEDN30SX4	-		
spec ²	≤ 19	Ø 205	3000K	2542	≤ 1000 (65°)	220 x 120	1006	D11/LEDW30SX3	D11/LEDW30SX4	-		
			4000K	1171	≤ 200 (65°)	220 x 120	1006	D13/LEDN10SX3	D13/LEDN10SX4	-		
			3000K	1077	≤ 200 (65°)	220 x 120	1006	D13/LEDW10SX3	D13/LEDW10SX4	-		
			4000K	1921	≤ 200 (65°)	220 x 120	1006	D13/LEDN20SX3	D13/LEDN20SX4	-		
			3000K	1771	≤ 200 (65°)	220 x 120	1006	D13/LEDW20SX3	D13/LEDW20SX4	-		
	≤ 22	Ø 205	4000K	2877	≤ 200 (65°)	220 x 120	1006	D13/LEDN30SX3	D13/LEDN30SX4	-		
			3000K	2652	≤ 200 (65°)	220 x 120	1006	D13/LEDW30SX3	D13/LEDW30SX4	-		

¹ sat: satin-anodised aluminium
² spec: specular aluminium





D1 with air extraction - webref. SDL011A8



D1 - webref. SDL011A1



D1 - webref. SDL011A0

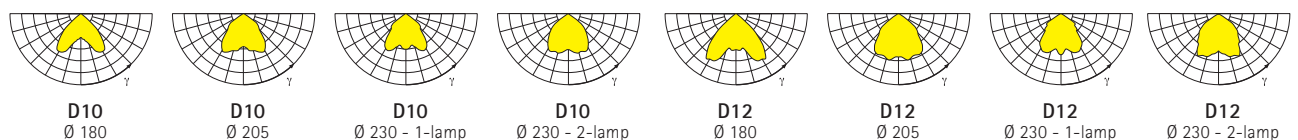
D1

Mounting bracket 1 - 35 mm is included as standard

Table explanation p 424

material	UGR		lamp type	L_{av} - limit cd/m ²	lm/W luminaire	η %	Ø x H mm	plan N.	order code RAL9003-white RAL9006-white aluminium	 option	
Luxial®											
Wafer trim - reflector - involute - gear housing is detachable											
											
sat ¹	≤ 19	cutout Ø 180	1 x 13W	≤ 200 (65°)	36	64	195 x 151	1000	D10/T113HFWX1	D10/T113HFWX2	-
	≤ 22	Ø 180	1 x 18W	≤ 200 (65°)	46	72	195 x 151	1000	D10/T118HFWX1	D10/T118HFWX2	•
		Ø 205	1 x 26W	≤ 1000 (65°)	46	72	220 x 160	1000	D10/T126HFWX1	D10/T126HFWX2	•
	≤ 25	Ø 205	1 x 32W	≤ 1000 (65°)	52	76	220 x 160	1000	D10/T132HFWX1	D10/T132HFWX2	•
		Ø 230	1 x 42W	≤ 1000 (65°)	46	70	245 x 171	1000	D10/T142HFWX1	D10/T142HFWX2	-
			2 x 26W	≤ 1000 (65°)	43	66	245 x 171	1000	D10/T226HFWX1	D10/T226HFWX2	•
			2 x 32W	≤ 1000 (65°)	47	67	245 x 171	1000	D10/T232HFWX1	D10/T232HFWX2	•
spec ²	≤ 19	Ø 180	1 x 13W	≤ 1000 (65°)	39	70	195 x 151	1000	D12/T113HFWX1	D12/T113HFWX2	-
	≤ 22	Ø 180	1 x 18W	≤ 200 (65°)	50	80	195 x 151	1000	D12/T118HFWX1	D12/T118HFWX2	•
		Ø 205	1 x 26W	≤ 200 (65°)	50	79	220 x 160	1000	D12/T126HFWX1	D12/T126HFWX2	•
	≤ 25	Ø 205	1 x 32W	≤ 200 (65°)	57	83	220 x 160	1000	D12/T132HFWX1	D12/T132HFWX2	•
		Ø 230	1 x 42W	≤ 1500 (65°)	51	77	245 x 171	1000	D12/T142HFWX1	D12/T142HFWX2	-
			2 x 26W	≤ 1000 (65°)	47	73	245 x 171	1000	D12/T226HFWX1	D12/T226HFWX2	•
			2 x 32W	≤ 1500 (65°)	52	73	245 x 171	1000	D12/T232HFWX1	D12/T232HFWX2	•
Flat trim - reflector - involute - gear housing is detachable											
											
sat ¹	≤ 19	cutout Ø 180	1 x 13W	≤ 200 (65°)	36	64	199 x 148	1000	D10/T113HFWX3	D10/T113HFWX4	-
	≤ 22	Ø 180	1 x 18W	≤ 200 (65°)	46	72	199 x 148	1000	D10/T118HFWX3	D10/T118HFWX4	•
		Ø 205	1 x 26W	≤ 1000 (65°)	46	72	224 x 157	1000	D10/T126HFWX3	D10/T126HFWX4	•
	≤ 25	Ø 205	1 x 32W	≤ 1000 (65°)	52	76	224 x 157	1000	D10/T132HFWX3	D10/T132HFWX4	•
		Ø 230	1 x 42W	≤ 1000 (65°)	46	70	249 x 168	1000	D10/T142HFWX3	D10/T142HFWX4	-
			2 x 26W	≤ 1000 (65°)	43	66	249 x 168	1000	D10/T226HFWX3	D10/T226HFWX4	•
			2 x 32W	≤ 1000 (65°)	47	67	249 x 168	1000	D10/T232HFWX3	D10/T232HFWX4	•
spec ²	≤ 19	Ø 180	1 x 13W	≤ 1000 (65°)	39	70	199 x 148	1000	D12/T113HFWX3	D12/T113HFWX4	-
	≤ 22	Ø 180	1 x 18W	≤ 200 (65°)	50	80	199 x 148	1000	D12/T118HFWX3	D12/T118HFWX4	•
		Ø 205	1 x 26W	≤ 200 (65°)	50	79	224 x 157	1000	D12/T126HFWX3	D12/T126HFWX4	•
	≤ 25	Ø 205	1 x 32W	≤ 200 (65°)	57	83	224 x 157	1000	D12/T132HFWX3	D12/T132HFWX4	•
		Ø 230	1 x 42W	≤ 1500 (65°)	51	77	249 x 168	1000	D12/T142HFWX3	D12/T142HFWX4	-
			2 x 26W	≤ 1000 (65°)	47	73	249 x 168	1000	D12/T226HFWX3	D12/T226HFWX4	•
			2 x 32W	≤ 1500 (65°)	52	73	249 x 168	1000	D12/T232HFWX3	D12/T232HFWX4	•

¹ sat: satin-anodised aluminium
² spec: specular aluminium





D1 asymmetric distribution - webref. SDL011K1

D1

Mounting bracket 1 - 35 mm is included as standard

Table explanation p 424

material	UGR		lamp type	L _{av} - limit cd/m ²	lm/W luminaire	η %	Ø x H mm	plan N.	order code RAL9003-white	order code RAL9006-white aluminium	 option
Luxial®											
Wafer trim - reflector											
		cutout									
sat ¹	≤ 25	Ø 205	1 x 18	-	46	73	220 x 100	1002	D15/T118HFWX1	D15/T118HFWX2	•
			1 x 26	-	49	77	220 x 100	1002	D15/T126HFWX1	D15/T126HFWX2	•
	≤ 28	Ø 205	1 x 32	-	51	75	220 x 100	1002	D15/T132HFWX1	D15/T132HFWX2	•
			2 x 26	-	46	70	220 x 100	1002	D15/T226HFWX1	D15/T226HFWX2	•
spec ²	≤ 25	Ø 205	1 x 18	-	50	79	220 x 100	1002	D14/T118HFWX1	D14/T118HFWX2	•
			1 x 26	-	54	85	220 x 100	1002	D14/T126HFWX1	D14/T126HFWX2	•
	≤ 28	Ø 205	1 x 32	-	56	82	220 x 100	1002	D14/T132HFWX1	D14/T132HFWX2	•
			2 x 26	-	50	77	220 x 100	1002	D14/T226HFWX1	D14/T226HFWX2	•
Flat trim - reflector											
		cutout									
sat ¹	≤ 25	Ø 205	1 x 18	-	46	73	224 x 97	1002	D15/T118HFWX3	D15/T118HFWX4	•
			1 x 26	-	49	77	224 x 97	1002	D15/T126HFWX3	D15/T126HFWX4	•
	≤ 28	Ø 205	1 x 32	-	51	75	224 x 97	1002	D15/T132HFWX3	D15/T132HFWX4	•
			2 x 26	-	46	70	224 x 97	1002	D15/T226HFWX3	D15/T226HFWX4	•
spec ²	≤ 25	Ø 205	1 x 18	-	50	79	224 x 97	1002	D14/T118HFWX3	D14/T118HFWX4	•
			1 x 26	-	54	85	224 x 97	1002	D14/T126HFWX3	D14/T126HFWX4	•
	≤ 28	Ø 205	1 x 32	-	56	82	224 x 97	1002	D14/T132HFWX3	D14/T132HFWX4	•
			2 x 26	-	50	77	224 x 97	1002	D14/T226HFWX3	D14/T226HFWX4	•
Wafer trim - reflector - involute - asymmetric distribution - gear housing is detachable											
		cutout									
sat ¹	-	Ø 205	1 x 26	-	42	66	220 x 160	1000	D16/T126HFWX1	D16/T126HFWX2	•
			1 x 32	-	45	66	220 x 160	1000	D16/T132HFWX1	D16/T132HFWX2	•
		Ø 230	1 x 42	-	49	74	245 x 171	1000	D16/T142HFWX1	D16/T142HFWX2	-
spec ²	-	Ø 205	1 x 26	-	44	69	220 x 160	1000	D18/T126HFWX1	D18/T126HFWX2	•
			1 x 32	-	47	69	220 x 160	1000	D18/T132HFWX1	D18/T132HFWX2	•
		Ø 230	1 x 42	-	49	74	245 x 171	1000	D18/T142HFWX1	D18/T142HFWX2	-
Flat trim - reflector - involute - asymmetric distribution - gear housing is detachable											
		cutout									
sat ¹	-	Ø 205	1 x 26	-	42	66	224 x 157	1000	D16/T126HFWX3	D16/T126HFWX4	•
			1 x 32	-	45	66	224 x 157	1000	D16/T132HFWX3	D16/T132HFWX4	•
		Ø 230	1 x 42	-	49	74	249 x 168	1000	D16/T142HFWX3	D16/T142HFWX4	-
spec ²	-	Ø 205	1 x 26	-	44	69	224 x 157	1000	D18/T126HFWX3	D18/T126HFWX4	•
			1 x 32	-	47	69	224 x 157	1000	D18/T132HFWX3	D18/T132HFWX4	•
		Ø 230	1 x 42	-	49	74	249 x 168	1000	D18/T142HFWX3	D18/T142HFWX4	-

¹ sat: satin-anodised aluminium
² spec: specular aluminium



D14
1-lamp



D14
2-lamp



D15
1-lamp



D15
2-lamp



D16/D18
Ø 205



D16/D18
Ø 230



D1 with design cone - webref. SDL011J2



D1 with radial louvre - webref. SDL011A6

D1

Options and accessories Luxial®

wafer trim

	version with air extraction (not for 13W and 18W)	for D10 and D12 ø 205 mm - 29 cm ² ø 230 mm - 32 cm ²	code + T9	plan N. 1001
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flat trim

	glass ring	for D10, D11, D12, D13, D14	code + 2	plan N. 1003
	frosted disc	for D10, D11, D12, D13, D14	code + 3	plan N. 1003
	design disc	for D10, D12, D14	code + 4	plan N. 1004
	design cone	for D10, D12, D14	code + 5	plan N. 1004
	design cylinder	for D10, D12, D14	code + 6	plan N. 1004
	IP44-version (compliant from below)	for D10, D11, D12, D13, D14 (not for 2 x 32W)	code + T1	plan N. 1008 (LED)

wafer and flat trim

	radial louvre 55°	for D10, D12, D14 ø 205 mm ø 230 mm	code + 1	
	integration of a LED module for emergency lighting is possible	for D10, D12, D14		see p 357



D2

SURFACE MOUNTED DOWNLIGHTS WITH REFLECTOR



Housing

Lacquered aluminium housing
TC-T: RAL9003-white or RAL9006-white aluminium
LED: structured lacquer in RAL9003-white or RAL9006-white aluminium

Optic

D2 with TC-T: reflector with diamond facets - wide-angle
D2 with LED: specular reflector with diamond facets - wide-angle
satin-anodised reflector - wide-angle

Dimensional sketches → p 402



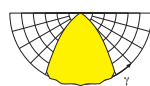


D2 with LED - webref. SDL016A2

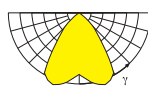
D2

Table explanation p 424

material	UGR	lamp type T _k	lumen luminaire	L _{av} - limit cd/m ²	Ø x H mm	plan N.	order code ¹	option
Luxial®								
Reflector - involute								
								
sat ²	≤ 22	3000K	1033	≤ 200 (65°)	200 x 212	1101	D21/LEDW10S	-
		4000K	1123	≤ 200 (65°)	200 x 212	1101	D21/LEDN10S	-
	≤ 25	3000K	1698	≤ 200 (65°)	200 x 212	1101	D21/LEDW20S	-
		3000K	2542	≤ 1000 (65°)	200 x 212	1101	D21/LEDW30S	-
		4000K	1842	≤ 200 (65°)	200 x 212	1101	D21/LEDN20S	-
		4000K	2758	≤ 1000 (65°)	200 x 212	1101	D21/LEDN30S	-
spec ²	≤ 19	3000K	1077	≤ 200 (65°)	200 x 212	1101	D23/LEDW10S	-
		3000K	1771	≤ 200 (65°)	200 x 212	1101	D23/LEDW20S	-
		4000K	1171	≤ 200 (65°)	200 x 212	1101	D23/LEDN10S	-
		4000K	1921	≤ 200 (65°)	200 x 212	1101	D23/LEDN20S	-
	≤ 22	3000K	2652	≤ 200 (65°)	200 x 212	1101	D23/LEDW30S	-
		4000K	2877	≤ 200 (65°)	200 x 212	1101	D23/LEDN30S	-

¹ code + X1: luminaire in RAL9003-white / code + X2: luminaire in RAL9006-white aluminium² sat: satin-anodised aluminium³ spec: specular aluminium

D21



D23



D2 - webref. SDL013A1

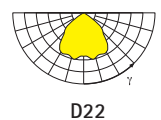
D2

Table explanation p 424

material	UGR	$L_{av.} - \text{limit}$ cd/m ²	lamp type	lm/W luminaire	η %	Ø x H mm	plan N.	order code ¹	 option
Luxial®									
Reflector - involute									
									
spec ²	≤ 22	≤ 200 (65°)	1 x 18W	53	83	230 x 212	1100	D22/T118HFW	-
		≤ 200 (65°)	1 x 26W	50	79	230 x 212	1100	D22/T126HFW	-
	≤ 25	≤ 200 (65°)	1 x 32W	57	83	230 x 212	1100	D22/T132HFW	-

¹ code + X1: luminaire in RAL9016-white / code + X2: luminaire in RAL9006-white aluminium

² spec: specular aluminium





webref. SK9024D1

D3

SQUARE DOWNLIGHTS WITH REFLECTOR



Housing

Housing of polycarbonate and galvanised sheet steel (TC-T) or extruded aluminium (LED)
Flat or wafer trim in lacquered sheet steel
RAL9003-white or RAL9006-white aluminium
Wieland connection

Optic

Reflector - wide-angle

Air extraction

Possible through option T9 for wafer trim versions (not for $\varnothing 175$)

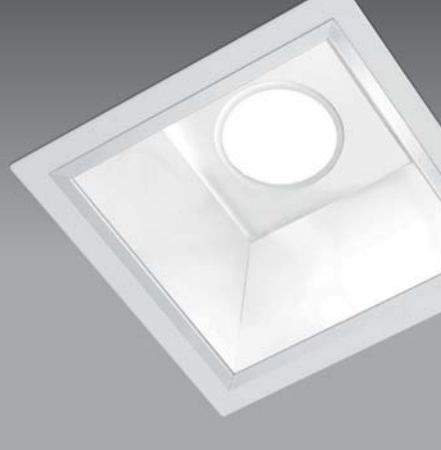
Dimensional sketches → p 402



LIGHT MANAGEMENT
Save up to 75% on energy
see p 276 up to 299



D3 LED - webref. SDV003A1



D3 LED- webref. SDV003A5

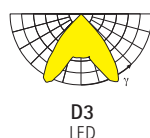
D3

Mounting bracket 1 - 35 mm is included as standard

Table explanation p 424

material	UGR	lamp type T _e	lumen luminaire	L _{av} - limit cd/m ²	L x W x H mm	plan N.	RAL9003-white	order code RAL9006-white aluminium	option
Luxial®									
Wafer trim - reflector									
sat ¹	≤ 22	cutout Ø 175	LED MODULE						
			4000K	1225	≤ 200 (65°)	188 x 188 x 125	1203	D31/LEDN10SX1	D31/LEDN10SX2 -
			3000K	1127	≤ 200 (65°)	188 x 188 x 125	1203	D31/LEDW10SX1	D31/LEDW10SX2 -
			4000K	2009	≤ 200 (65°)	188 x 188 x 125	1203	D31/LEDN20SX1	D31/LEDN20SX2 -
			3000K	1852	≤ 200 (65°)	188 x 188 x 125	1203	D31/LEDW20SX1	D31/LEDW20SX2 -
	≤ 25	Ø 175	4000K	3009	≤ 200 (65°)	188 x 188 x 125	1203	D31/LEDN30SX1	D31/LEDN30SX2 -
			3000K	2773	≤ 200 (65°)	188 x 188 x 125	1203	D31/LEDW30SX1	D31/LEDW30SX2 -
Flat trim - reflector									
sat ¹	≤ 22	cutout Ø 175	LED MODULE						
			4000K	1225	≤ 200 (65°)	192 x 192 x 125	1204	D31/LEDN10SX3	D31/LEDN10SX4 -
			3000K	1127	≤ 200 (65°)	192 x 192 x 125	1204	D31/LEDW10SX3	D31/LEDW10SX4 -
			4000K	2009	≤ 200 (65°)	192 x 192 x 125	1204	D31/LEDN20SX3	D31/LEDN20SX4 -
			3000K	1852	≤ 200 (65°)	192 x 192 x 125	1204	D31/LEDW20SX3	D31/LEDW20SX4 -
	≤ 25	Ø 175	4000K	3009	≤ 200 (65°)	192 x 192 x 125	1204	D31/LEDN30SX3	D31/LEDN30SX4 -
			3000K	2773	≤ 200 (65°)	192 x 192 x 125	1204	D31/LEDW30SX3	D31/LEDW30SX4 -

¹ sat: satin-anodised aluminium


D3
LED



D3 IP44 - webref. SDV011B3



D3 with air extraction - webref. SDV011A3

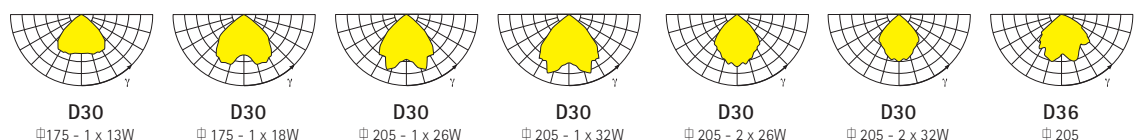
D3

Mounting bracket 1 - 35 mm is included as standard

Table explanation p 424

material	UGR	L _{av.} - limit cd/m ²	lamp type	lm/W luminaire	η %	L x W x H mm	plan N.	RAL9003-white	order code RAL9006-white aluminium	option	
Luxial®											
Wafer trim - reflector - involute - gear housing is detachable											
sat ¹	≤ 22	≤ 1000 (65°)	cutout								
			⌀ 175	1 x 13	43	76	188 x 188 x 128	1200	D30/T113HFWX1	D30/T113HFWX2	-
				1 x 18	57	90	188 x 188 x 128	1200	D30/T118HFWX1	D30/T118HFWX2	•
	≤ 25	≤ 1000 (65°)	⌀ 205	1 x 26	54	85	218 x 218 x 142	1200	D30/T126HFWX1	D30/T126HFWX2	•
				1 x 32	62	91	218 x 218 x 142	1200	D30/T132HFWX1	D30/T132HFWX2	•
			⌀ 205	2 x 26	54	84	218 x 218 x 142	1200	D30/T226HFWX1	D30/T226HFWX2	•
			2 x 32	53	75	218 x 218 x 142	1200	D30/T232HFWX1	D30/T232HFWX2	•	
Flat trim - reflector - involute - gear housing is detachable											
sat ¹	≤ 22	≤ 1000 (65°)	cutout								
			⌀ 175	1 x 13	43	76	192 x 192 x 125	1200	D30/T113HFWX3	D30/T113HFWX4	-
				1 x 18	57	90	192 x 192 x 125	1200	D30/T118HFWX3	D30/T118HFWX4	•
	≤ 25	≤ 1000 (65°)	⌀ 205	1 x 26	54	85	222 x 222 x 139	1200	D30/T126HFWX3	D30/T126HFWX4	•
				1 x 32	62	91	222 x 222 x 139	1200	D30/T132HFWX3	D30/T132HFWX4	•
			⌀ 205	2 x 26	54	84	222 x 222 x 139	1200	D30/T226HFWX3	D30/T226HFWX4	•
			2 x 32	53	75	222 x 222 x 139	1200	D30/T232HFWX3	D30/T232HFWX4	•	
Wafer trim - reflector - involute - asymmetric distribution - gear housing is detachable											
sat ¹	-	-	cutout								
			⌀ 205	1 x 26	52	82	218 x 218 x 142	1200	D36/T126HFWX1	D36/T126HFWX2	•
				1 x 32	60	88	218 x 218 x 142	1200	D36/T132HFWX1	D36/T132HFWX2	•
Flat trim - reflector - involute - asymmetric distribution - gear housing is detachable											
sat ¹	-	-	cutout								
			⌀ 205	1 x 26	52	82	222 x 222 x 139	1200	D36/T126HFWX3	D36/T126HFWX4	•
				1 x 32	60	88	222 x 222 x 139	1200	D36/T132HFWX3	D36/T132HFWX4	•

¹ sat: satin-anodised aluminium







D3 with frosted glass - webref. SDV011J1



D3 asymmetric distribution - webref. SDV011K1

D3

Options and accessories Luxial®

wafer trim

	version with air extraction	for D30, D36 with ø 205 mm - 54 cm ²	code + T9	plan N. 1201
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flat trim

	glass border	for D30 with ø 205 mm	code + 2	plan N. 1202
	frosted glass plate	for D30 with ø 205 mm	code + 3	plan N. 1202
	IP44 version (compliant from below)	(not for 2 x 32W)	code + T1	plan N. 1202

wafer and flat trim

	crossed baffles, 60°	for D30	code + 0	
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webref. SD4004A3

D4

DOWNLIGHTS

WITH LED+LENS™



Housing

Housing of injection moulded aluminium
Housing in RAL9003-white, LED module in RAL9005-black
Wieland connection

Optic

LED+LENS™ - wide-angle

Design: mun* product design, België

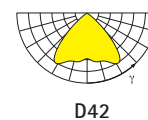
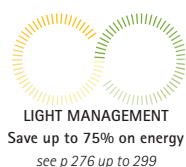
Dimensional sketches → p 403

Table explanation p 424

UGR	L _{av} - limit cd/m ²	lamp type T _k	lumen luminaire	Ø x H mm	plan N.	order code	option
Downlight - LED+LENS™ - flat trim							
≤ 22	≤ 3000 (65°)	 HIGH POWER					
		3000K	1750	200 x 74	1300	D42/LEDW20S	-
		4000K	1850	200 x 74	1300	D42/LEDN20S	-
		3000K	3550	250 x 74	1301	D42/LEDW39S	-
		4000K	3900	250 x 74	1301	D42/LEDN39S	-

Options and accessories

reinforcing ring for soft ceilings (for Ø 200 mm)	D4H1010-180
reinforcing ring for soft ceilings (for Ø 250 mm)	D4H1010-230
IP44 version (compliant from below)	consult ETAP
housing and LED module in RAL9005-black, RAL9003-white, RAL9006-white aluminium	consult ETAP



D42



FLARE

RECESSED SPOTS
WITH LED+LENS™



Housing

Housing in injection moulded aluminium
Housing in RAL9003-white, LED module in RAL9005-black

Optic

Lens

Design: mun* product design, Belgium

Dimensional sketches → p 404



LIGHTMANAGEMENT
Save up to 75% on energy
see p 276 up to 299





FLARE - webref. SFL001F3



FLARE directional - webref. SFL001D5

FLARE

Table explanation p 424

	lamp type T _c	lumen luminaire	Ø x H mm	plan N.	order code
Spot - fixed - driver included					
	 HIGH POWER				
24°	3000K	390	98 x 63	2045	FLARE-11/LEDW5S
	4000K	410	98 x 63	2045	FLARE-11/LEDN5S
	3000K	520	98 x 63	2045	FLARE-11/LEDW6S
	4000K	550	98 x 63	2045	FLARE-11/LEDN6S
	3000K	880	98 x 63	2045	FLARE-11/LEDW10S
	4000K	940	98 x 63	2045	FLARE-11/LEDN10S
36°	3000K	390	98 x 63	2045	FLARE-12/LEDW5S
	4000K	410	98 x 63	2045	FLARE-12/LEDN5S
	3000K	520	98 x 63	2045	FLARE-12/LEDW6S
	4000K	550	98 x 63	2045	FLARE-12/LEDN6S
	3000K	880	98 x 63	2045	FLARE-12/LEDW10S
	4000K	940	98 x 63	2045	FLARE-12/LEDN10S
Spot - directional - driver included					
	 HIGH POWER				
24°	3000K	380	98 x 93	2046	FLARE-21/LEDW5S
	4000K	410	98 x 93	2046	FLARE-21/LEDN5S
	3000K	500	98 x 93	2046	FLARE-21/LEDW6S
	4000K	540	98 x 93	2046	FLARE-21/LEDN6S
	3000K	630	98 x 93	2046	FLARE-21/LEDW10S
	4000K	680	98 x 93	2046	FLARE-21/LEDN10S
36°	3000K	380	98 x 93	2046	FLARE-22/LEDW5S
	4000K	410	98 x 93	2046	FLARE-22/LEDN5S
	3000K	500	98 x 93	2046	FLARE-22/LEDW6S
	4000K	540	98 x 93	2046	FLARE-22/LEDN6S
	3000K	630	98 x 93	2046	FLARE-22/LEDW10S
	4000K	680	98 x 93	2046	FLARE-22/LEDN10S

Colour options

housing and LED module	in RAL9005-black	consult ETAP
	in RAL9003-white	
	in RAL9006-white aluminium	

Option

springs for mounting in concrete ceilings	consult ETAP
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webref. SR8010R1

WALL LUMINAIRES

diffuser



FA → p 137



R8 → p 81



UW → p 145



WD → p 147

softlight



WS → p 149



FA

WALL LUMINAIRES
WITH DIFFUSER



FA4 → p 139



FA5 → p 141



FA6 → p 142



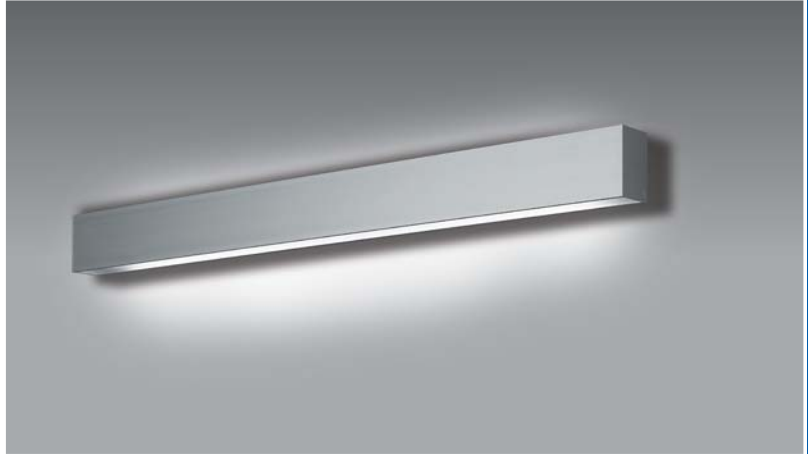
FA7 → p 143

FA



	Housing	FA4	Housing in satin-anodised aluminium
		FA5/6/7	Lacquered sheet steel housing Trim in satin-anodised aluminium
	Optic		Diffuser - opal acrylic

Dimensional sketches → p 405



FA4 - webref. SF024C1

FA4

Table explanation p 424

UGR	lamp type	lm/W luminaire	η %	L x W x H mm	plan N.	order code	 option
Diffuser - acrylic							
							
-	1 x 18W	35	53	300 x 92 x 80	2230	FA4/L118HFW	-
Diffuser - acrylic							
							
	T5 ECO - Ø 16 mm						
-	1 x 14/24W	47	60	600 x 92 x 80	2230	FA4/114HFW	-
	1 x 21/39W	49	59	900 x 92 x 80	2230	FA4/121HFW	-
	1 x 28/54W	50	59	1200 x 92 x 80	2230	FA4/128HFW	-

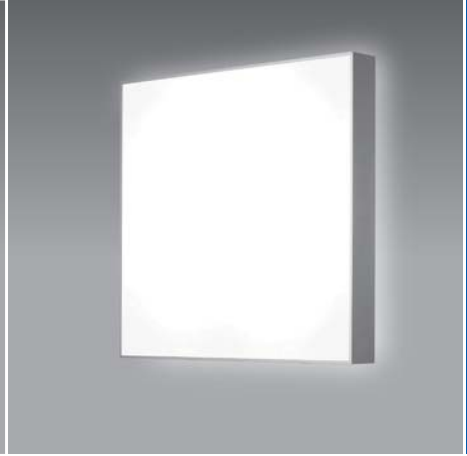


ROSE BARRACKS, BAD KREUZNACH, GERMANY

webref. SF027D1



FA5 suspension - webref. SF027E1

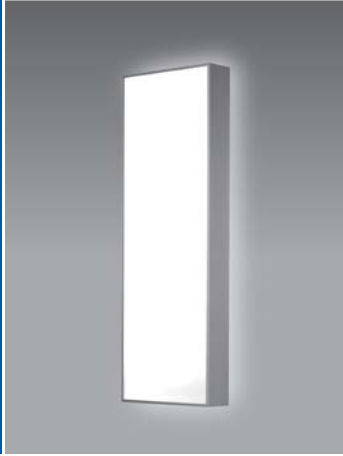


FA5 - webref. SF027B1

FA5

Table explanation p 424

UGR	lamp type	lm/W luminaire	η %	L x W x H mm	plan N.	order code	 option
surface mounted luminaire							
Diffuser - acrylic							
							
≤ 19	1 x 22W + 1 x 40W	42	56	600 x 600 x 85	2241	FA5/E2240HFW	-
	1 x 40W	43	56	450 x 450 x 85	2241	FA5/E140HFW	-
Diffuser - acrylic							
							
≤ 19	1 x 18/24W	37	56	300 x 300 x 85	2241	FA5/F124HFW	-
suspended luminaire							
Diffuser - acrylic							
							
≤ 22	1 x 22W + 1 x 40W	36	47	600 x 600 x 85	2240	FA5P/E2240HFW	-
	1 x 40W	36	47	450 x 450 x 85	2240	FA5P/E140HFW	-
Diffuser - acrylic							
							
≤ 19	1 x 18/24W	29	47	300 x 300 x 85	2240	FA5P/F118HFW	-



FA6 - webref. SF028C1



FA6 - webref. SF028C2

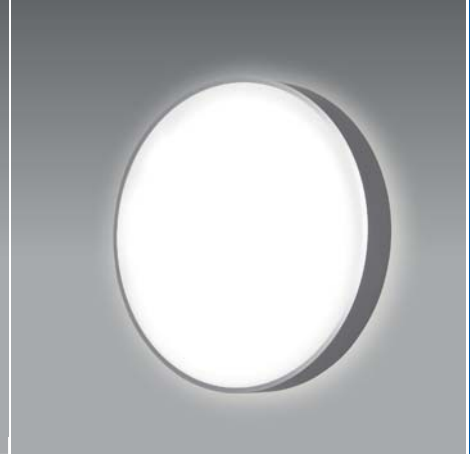
FA6

Table explanation p 424

UGR	lamp type	lm/W luminaire	η %	L x W x H mm	plan N.	order code	 option
surface mounted luminaire							
Diffuser - acrylic							
	 T5 ECO - Ø 16 mm						
≤ 19	2 x 28/54W	42	56	1300 x 360 x 85	2251	FA6/254HFW	-
Diffuser - acrylic							
	 TC-D						
≤ 22	1 x 18W	34	56	300 x 150 x 85	2251	FA6/D118HFW	-
Diffuser - acrylic							
	 TC-L						
≤ 22	1 x 24W	39	56	450 x 150 x 85	2251	FA6/L124HFW	
	1 x 36W	46	56	600 x 200 x 85	2251	FA6/L136HFW	
suspended luminaire							
Diffuser - acrylic							
	 T-R						
≤ 22	2 x 28/54W	35	47	1300 x 360 x 85	2250	FA6P/254HFW	-



FA7 suspension - webref. SF031E1



FA7 - webref. SK031B1

FA7

Table explanation p 424

UGR	lamp type	lm/W luminaire	η %	L x W x H mm	plan N.	order code	 option
surface mounted luminaire							
Diffuser - acrylic							
							
≤ 19	1 x 22W	40	56	350 x 90	2261	FA7/E122HFW	-
≤ 22	1 x 22W + 1 x 40W	42	56	450 x 90	2261	FA7/E2240HFW	-
Diffuser - acrylic							
							
≤ 22	6 x 18W	37	56	650 x 125	2261	FA7/L618HFW	-
suspended luminaire							
Diffuser - acrylic							
							
≤ 22	1 x 22W	34	47	350 x 90	2260	FA7P/E122HFW	-
	1 x 22W + 1 x 40W	36	47	450 x 90	2260	FA7P/E2240HFW	-
Diffuser - acrylic							
							
≤ 22	6 x 18W	32	47	650 x 125	2260	FA7P/L618HFW	-



UW

RECESSED WALL LUMINAIRES WITH DIFFUSER



	Housing	Lacquered sheet steel housing with aluminium front plate in structure lacquer
	Optic	Light guide - wide-angle

Dimensional sketches → p 406

Table explanation p 424

	lamp type T _k	lumen luminaire	L x W x H mm	plan N.	order code ¹	 option
Diffuser - acrylic - hollow wall						
						
	HIGH POWER					
	4000K	116	200 x 80 x 43	2301	UW1/LEDN3S	-
	3000K	116	200 x 80 x 43	2301	UW1/LEDW3S	-
Diffuser - acrylic - solid wall						
						
	HIGH POWER					
	4000K	116	200 x 80 x 43	2302	UW1/LEDN3ST0	-
	3000K	116	200 x 80 x 43	2302	UW1/LEDW3ST0	-
Diffuser - acrylic - retrofit for UNVA (only available in the Benelux)						
						
	HIGH POWER					
	4000K	112	205 x 115 x 51		UW1/LEDN3ST9	-
	3000K	112	205 x 115 x 51		UW1/LEDW3ST9	-

¹ code + X1: luminaire in RAL9003-white /
code + X2: luminaire in RAL9006-white aluminium

Options and accessories

electrical recessed box	plan N. 2303	UW1H1
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WD

WALL LUMINAIRES WITH DIFFUSER



Housing Lacquered sheet steel housing with closed lamp shielding

Optic Diffuser - HaloOptics® for high efficiency

Dimensional sketches → p 406

Table explanation p 424

UGR	lamp type	lm/W luminaire	η %	L x W x H mm	plan N.	order code	 option
Diffuser - polycarbonate / HaloOptics®							
≤ 25	T5 ECO - Ø 16 mm						
	1 x 13W	64	72	582 x 120 x 70	2347	WD21J0/113HFW	-
	1 x 19W	64	73	882 x 120 x 70	2347	WD21J0/119HFW	-
	1 x 25W	64	73	1182 x 120 x 70	2347	WD21J0/125HFW	-
	1 x 32W	65	73	1482 x 120 x 70	2347	WD21J0/132HFW	-



WS

WALL LUMINAIRES WITH SOFTLIGHT

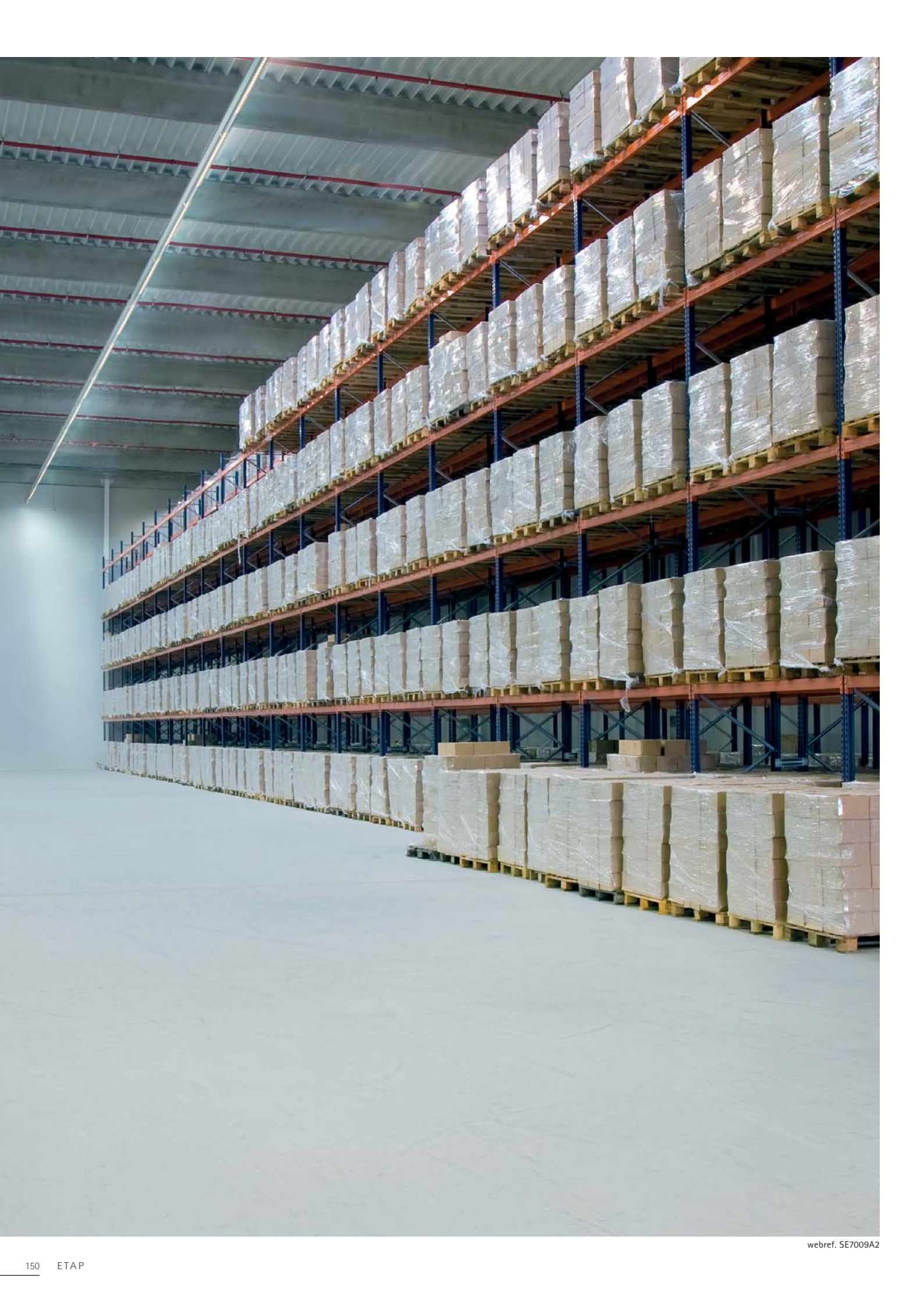


	Housing	Lacquered sheet steel housing with 2-part lamp shielding which hinges open
	Optic	Softlight - perforated lamp shielding - high reflection lacquer

Dimensional sketches → p 406

Table explanation p 424

UGR	lamp type	lm/W luminaire	L x W x H mm	plan N.	order code	 option
Softlight - perforated lamp shielding						
	 TC-L					
-	2 x 18W	-	310 x 230 x 110	2380	WS5630/L218HFW	-
	2 x 36W	-	500 x 230 x 110	2380	WS5630/L236HFW	-
Softlight - perforated lamp shielding						
	 T8 - Ø 26 mm					
-	2 x 36W	13	1255 x 230 x 110	2380	WS5630/236HFW	-



LIGHT LINE SYSTEMS AND LUMINAIRES FOR SPACES WITH HIGH CEILINGS

light line system
with LED+LENS™



E7 → p 167

light line system
with reflector



E5 → p 153

luminaires for
spaces with
high ceilings



E8 → p 181



E5

LIGHT LINE SYSTEM
WITH REFLECTOR



E52 → p 157
wide-angle



E53 → p 159
narrow-angle



E54 → p 161
medium wide-angle



E56 → p 162
asymmetric



E58 → p 163
visual comfort



webref. SE5001D1



webref. SE3026G

E5

LIGHT LINE SYSTEM WITH REFLECTOR

INDUSTRIAL LUMINAIRES FOR INDIVIDUAL AND IN-LINE ASSEMBLY

E5 luminaires are available with a wide range of reflectors for the most diverse visual tasks. The luminaires can be suspended by steel wires or ceiling mounted.

E5 luminaires are installation-friendly. The basic housing contains the complete electrical equipment. After mounting the housing, only the reflector and the lamp remain to be mounted, for which no tools are required.

E5 luminaires are available as individual or as versions for in-line assembly.

The individual luminaires are identical in appearance to the line sections. Both types can therefore be used together within one room.

The in-line system consist of completely finished, prewired sections. They are connected by means of coupling pieces. The sections are fitted with through wiring (5 x 2.5 mm²) and plugs.

A phase selector switch in the section allows balanced loading of the three mains phases or switching of the lighting in groups. The line can also be equipped with emergency lighting.

IN-LINE SYSTEM

Line sections with complete electrical equipment for lighting

Double lamp length

ballast left

ballast left and right

ballast right

Single lamp length

Line sections with through wiring only

Double lamp length

3 m E5007/035-5

E5007/035-7

4 m E50070/035-5

E50070/035-7

Following standard options are possible

2 pole extra through wiring for emergency unit and non-maintained emergency lighting

3 pole extra through wiring for emergency lighting



webref. SE5015A1



webref. SE3044A1

E5

Flexibility for future additions

Unused positions in the line can later be equipped with a plug-in add-on element (p 165) and a reflector.

Combination with emergency lighting

- Specific line sections for emergency lighting
- Rapid mounting: emergency lighting with pre-mounted profile and flex with plug
- Emergency lighting luminaires: see chapter emergency lighting and dimensional sketch N. 4300, p 409

Additional through wiring for emergency lighting in line sections with lighting

Consult your ETAP-adviser

Wiring diagrams on in-line systems, see p 374

E5



Housing

Lacquered sheet steel housing with rapid mounting of reflectors
E56: adjustable in 5 positions: -16°, -8°, 0°, 8° 16°

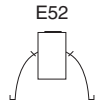
Optic

E52: Reflector - wide-angle
E53: Reflector - narrow-angle
E54: Reflector - medium wide-angle
E56: Reflector - asymmetric
E58: Reflector - wide-angle for visual comfort

Dimensional sketches → p 407



E520 - webref. SE5011A1



WIDE-ANGLE E52

*individual
straight line mounting: through wiring (5 x 2,5 mm²) included as standard*

Table explanation p 424

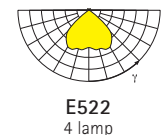
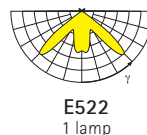
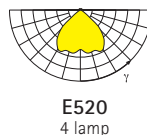
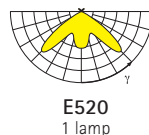
UGR	L _{av} - limit cd/m ²	lamp type	lm/W luminaire	η %	plan N.	order code	plan N.	order code						
Reflector - hammered aluminium - parabolic														
	2	 T5 ECO - Ø 16 mm						3m 	1	3m 	1	3m 	1	
-	-	4 x 73W	73	90	4001	E5200/473HFW	4300	E5206 . /473HFW	E5207 . /473HFW	E5208 . /473HFW	E5209/473HFW			
≤ 25	-	1 x 32W	89	101	4001	E5200/132HFW	4300	E5206 . /132HFW	E5207 . /132HFW	E5208 . /132HFW	E5209/132HFW			
		1 x 45W	85	102	4001	E5200/145HFW	4300	E5206 . /145HFW	E5207 . /145HFW	E5208 . /145HFW	E5209/145HFW			
		1 x 73W	87	105	4001	E5200/173HFW	4300	E5206 . /173HFW	E5207 . /173HFW	E5208 . /173HFW	E5209/173HFW			
		2 x 32W	92	103	4001	E5200/232HFW	4300	E5206 . /232HFW	E5207 . /232HFW	E5208 . /232HFW	E5209/232HFW			
		2 x 45W	89	106	4001	E5200/245HFW	4300	E5206 . /245HFW	E5207 . /245HFW	E5208 . /245HFW	E5209/245HFW			
≤ 28	-	4 x 32W	89	89	4001	E5200/432HFW	4300	E5206 . /432HFW	E5207 . /432HFW	E5208 . /432HFW	E5209/432HFW			
		4 x 45W	84	100	4001	E5200/445HFW	4300	E5206 . /445HFW	E5207 . /445HFW	E5208 . /445HFW	E5209/445HFW			
		2 x 73W	79	98	4001	E5200/273HFW	4300	E5206 . /273HFW	E5207 . /273HFW	E5208 . /273HFW	E5209/273HFW			
Reflector - hammered aluminium - white baffles - parabolic														
		 T5 ECO - Ø 16 mm						3m 	1	3m 	1	3m 	1	
≤ 22	-	1 x 45W	77	92	4001	E5220/145HFW	4300	E5226 . /145HFW	E5227 . /145HFW	E5228 . /145HFW	E5229/145HFW			
		1 x 73W	78	94	4001	E5220/173HFW	4300	E5226 . /173HFW	E5227 . /173HFW	E5228 . /173HFW	E5229/173HFW			
		2 x 32W	83	92	4001	E5220/232HFW	4300	E5226 . /232HFW	E5227 . /232HFW	E5228 . /232HFW	E5229/232HFW			
		2 x 45W	80	96	4001	E5220/245HFW	4300	E5226 . /245HFW	E5227 . /245HFW	E5228 . /245HFW	E5229/245HFW			
	≤ 3000 (65°)	1 x 32W	81	91	4001	E5220/132HFW	4300	E5226 . /132HFW	E5227 . /132HFW	E5228 . /132HFW	E5229/132HFW			
≤ 25	-	4 x 32W	77	77	4001	E5220/432HFW	4300	E5226 . /432HFW	E5227 . /432HFW	E5228 . /432HFW	E5229/432HFW			
		4 x 45W	73	73	4001	E5220/445HFW	4300	E5226 . /445HFW	E5227 . /445HFW	E5228 . /445HFW	E5229/445HFW			
		2 x 73W	71	88	4001	E5220/273HFW	4300	E5226 . /273HFW	E5227 . /273HFW	E5228 . /273HFW	E5229/273HFW			
		4 x 73W	63	78	4001	E5220/473HFW	4300	E5226 . /473HFW	E5227 . /473HFW	E5228 . /473HFW	E5229/473HFW			

¹ for 3m-segment, code without . / for 4m-segment, replace . with '0'
² see options p 164

Options and accessories

air extraction openings for luminaires in dusty environments

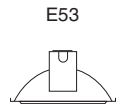
code + T1







E539 - webref. SE5002B1



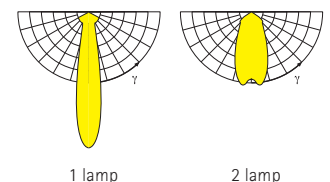
NARROW-ANGLE E53

*individual
straight line mounting: through wiring (5 x 2,5 mm²) included as standard*

Table explanation p 424

UGR	L _{av} - limit cd/m ²	lamp type	lm/W luminaire	η %	plan N.	order code	plan N.	order code			
Reflector - hammered aluminium - parabolic											
		 T5 ECO - Ø 16 mm									
≤ 22	-	1 x 32W	90	101	4101	E5300/132HFW	4300	E5306 . /132HFW	E5307 . /132HFW	E5308 . /132HFW	E5309/132HFW
		1 x 45W	85	102	4101	E5300/145HFW	4300	E5306 . /145HFW	E5307 . /145HFW	E5308 . /145HFW	E5309/145HFW
		2 x 32W	91	101	4101	E5300/232HFW	4300	E5306 . /232HFW	E5307 . /232HFW	E5308 . /232HFW	E5309/232HFW
≤ 25	-	1 x 73W	82	99	4101	E5300/173HFW	4300	E5306 . /173HFW	E5307 . /173HFW	E5308 . /173HFW	E5309/173HFW
		2 x 45W	88	105	4101	E5300/245HFW	4300	E5306 . /245HFW	E5307 . /245HFW	E5308 . /245HFW	E5309/245HFW
		2 x 73W	82	101	4101	E5300/273HFW	4300	E5306 . /273HFW	E5307 . /273HFW	E5308 . /273HFW	E5309/273HFW
Reflector - satin-anodised aluminium - parabolic											
		 T5 ECO - Ø 16 mm									
≤ 22	-	2 x 32W	91	101	4101	E5340/232HFW	4300	E5346 . /232HFW	E5347 . /232HFW	E5348 . /232HFW	E5349/232HFW
≤ 25	-	1 x 32W	90	101	4101	E5340/132HFW	4300	E5346 . /132HFW	E5347 . /132HFW	E5348 . /132HFW	E5349/132HFW
		2 x 45W	88	105	4101	E5340/245HFW	4300	E5346 . /245HFW	E5347 . /245HFW	E5348 . /245HFW	E5349/245HFW
≤ 28	-	1 x 45W	85	102	4101	E5340/145HFW	4300	E5346 . /145HFW	E5347 . /145HFW	E5348 . /145HFW	E5349/145HFW
		1 x 73W	82	99	4101	E5340/173HFW	4300	E5346 . /173HFW	E5347 . /173HFW	E5348 . /173HFW	E5349/173HFW
		2 x 73W	82	101	4101	E5340/273HFW	4300	E5346 . /273HFW	E5347 . /273HFW	E5348 . /273HFW	E5349/273HFW
Reflector - hammered aluminium - parabolic											
		 T5 ECO - Ø 16 mm									
≤ 25	-	2 x 73W	80	99	4102	E5390/273HFW	4300	E5397./273HFW			E5399/273HFW

¹ for 3m-segment, code without . / for 4m-segment, replace . with '0'







E54 - webref. SE5016A3



E54 straight line mounting - webref. SE5016A2



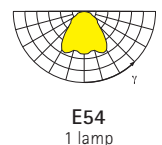
MEDIUM WIDE-ANGLE E54

*individual
straight line mounting: through wiring (5 x 2,5 mm²) included as standard*

Table explanation p 424

UGR	L _{av} - limit cd/m ²	lamp type	lm/W luminaire	η %	plan N.	order code	plan N.	order code		
Reflector - hammered aluminium										
		 T5 ECO - Ø 16 mm								
-	-	1 x 73W	-	-	4103	E5400/173HFW	4300	E5406 . /173HFW	E5407 . /173HFW	E5408 . /173HFW
≤ 25	-	1 x 32W	89	100	4103	E5400/132HFW	4300	E5406 . /132HFW	E5407 . /132HFW	E5408 . /132HFW
		1 x 45W	85	101	4103	E5400/145HFW	4300	E5406 . /145HFW	E5407 . /145HFW	E5408 . /145HFW

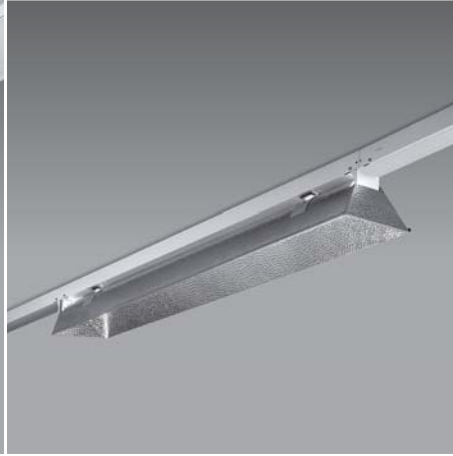
¹ for 3m-segment, code without . / for 4m-segment, replace . with '0'



E54
1 lamp

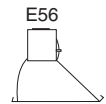


E56 with white baffles - webref. SE5013E2



E56 - webref. SE5013A1

E56 ASYMMETRIC

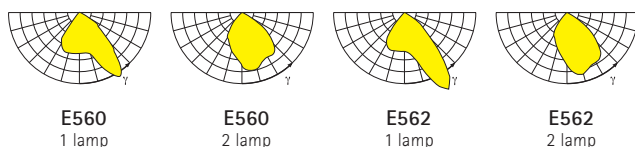


individual
straight line mounting: through wiring (5 x 2,5 mm²) included as standard

Table explanation p. 424

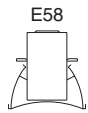
UGR	L _{av} - limit cd/m ²	lamp type	lm/W luminaire	η %	plan N.	order code	plan N.	order code			
Reflector - hammered aluminium - asymmetric distribution											
		 T5 ECO - Ø 16 mm						3m  1	3m  1	3m  1	
-	-	1 x 32W	92	104	4201	E5600/132HFW	4300	E5606 . /132HFW	E5607./132HFW	E5608 . /132HFW	E5609/132HFW
		1 x 45W	88	105	4201	E5600/145HFW	4300	E5606 . /145HFW	E5607./145HFW	E5608 . /145HFW	E5609/145HFW
		1 x 73W	86	104	4201	E5600/173HFW	4300	E5606 . /173HFW	E5607./173HFW	E5608 . /173HFW	E5609/173HFW
		2 x 32W	92	103	4201	E5600/232HFW	4300	E5606 . /232HFW	E5607./232HFW	E5608 . /232HFW	E5609/232HFW
		2 x 45W	86	103	4201	E5600/245HFW	4300	E5606 . /245HFW	E5607./245HFW	E5608 . /245HFW	E5609/245HFW
		2 x 73W	87	107	4201	E5600/273HFW	4300	E5606 . /273HFW	E5607./273HFW	E5608 . /273HFW	E5609/273HFW
Reflector - hammered aluminium - white baffles - asymmetric distribution											
		 T5 ECO - Ø 16 mm						3m  1	3m  1	3m  1	
-	-	1 x 32W	83	94	4201	E5620/132HFW	4300	E5626 . /132HFW	E5627 . /132HFW	E5628 . /132HFW	E5629/132HFW
		1 x 45W	79	94	4201	E5620/145HFW	4300	E5626 . /145HFW	E5627 . /145HFW	E5628 . /145HFW	E5629/145HFW
		1 x 73W	78	94	4201	E5620/173HFW	4300	E5626 . /173HFW	E5627 . /173HFW	E5628 . /173HFW	E5629/173HFW
		2 x 32W	79	87	4201	E5620/232HFW	4300	E5626 . /232HFW	E5627 . /232HFW	E5628 . /232HFW	E5629/232HFW
		2 x 45W	74	88	4201	E5620/245HFW	4300	E5626 . /245HFW	E5627 . /245HFW	E5628 . /245HFW	E5629/245HFW
		2 x 73W	74	91	4201	E5620/273HFW	4300	E5626 . /273HFW	E5627 . /273HFW	E5628 . /273HFW	E5629/273HFW

¹ for 3m-segment, code without . / for 4m-segment, replace . with '0'





E58 - webref. SE5014B1



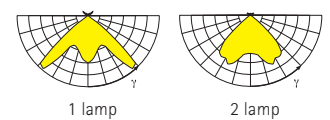
WIDE-ANGLE - VISUAL COMFORT E58

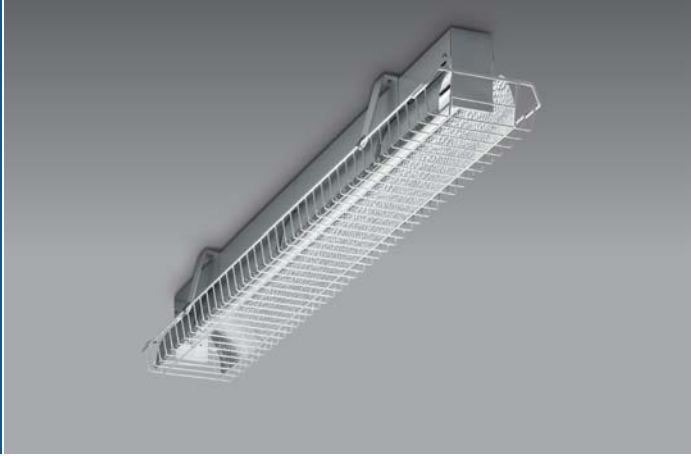
*individual
straight line mounting: through wiring (5 x 2,5 mm²) included as standard*

Table explanation p 424

UGR	L _{av} - limit cd/m ²	lamp type	lm/W luminaire	η %	plan N.	order code	plan N.	order code			
Reflector - satin-anodised aluminium - parabolic											
FLUO T5 ECO - Ø 16 mm   3m  1 3m  1 3m  1 4m  1 4m  1 4m  1											
≤ 19	≤ 1000 (65°)	1 x 32W	87	99	4250	E5860/132HFW	4300	E5866 . /132HFW	E5867 . /132HFW	E5868 . /132HFW	E5869/132HFW
	≤ 1500 (65°)	2 x 32W	90	100	4250	E5860/232HFW	4300	E5866 . /232HFW	E5867 . /232HFW	E5868 . /232HFW	E5869/232HFW
≤ 22	≤ 1500 (65°)	1 x 45W	83	99	4250	E5860/145HFW	4300	E5866 . /145HFW	E5867 . /145HFW	E5868 . /145HFW	E5869/145HFW
		2 x 45W	84	101	4250	E5860/245HFW	4300	E5866 . /245HFW	E5867 . /245HFW	E5868 . /245HFW	E5869/245HFW
	≤ 3000 (65°)	1 x 73W	85	102	4250	E5860/173HFW	4300	E5866 . /173HFW	E5867 . /173HFW	E5868 . /173HFW	E5869/173HFW
			2 x 73W	82	101	4250	E5860/273HFW	4300	E5866 . /273HFW	E5867 . /273HFW	E5868 . /273HFW

¹ for 3m-segment, code without . / for 4m-segment, replace . with '0'



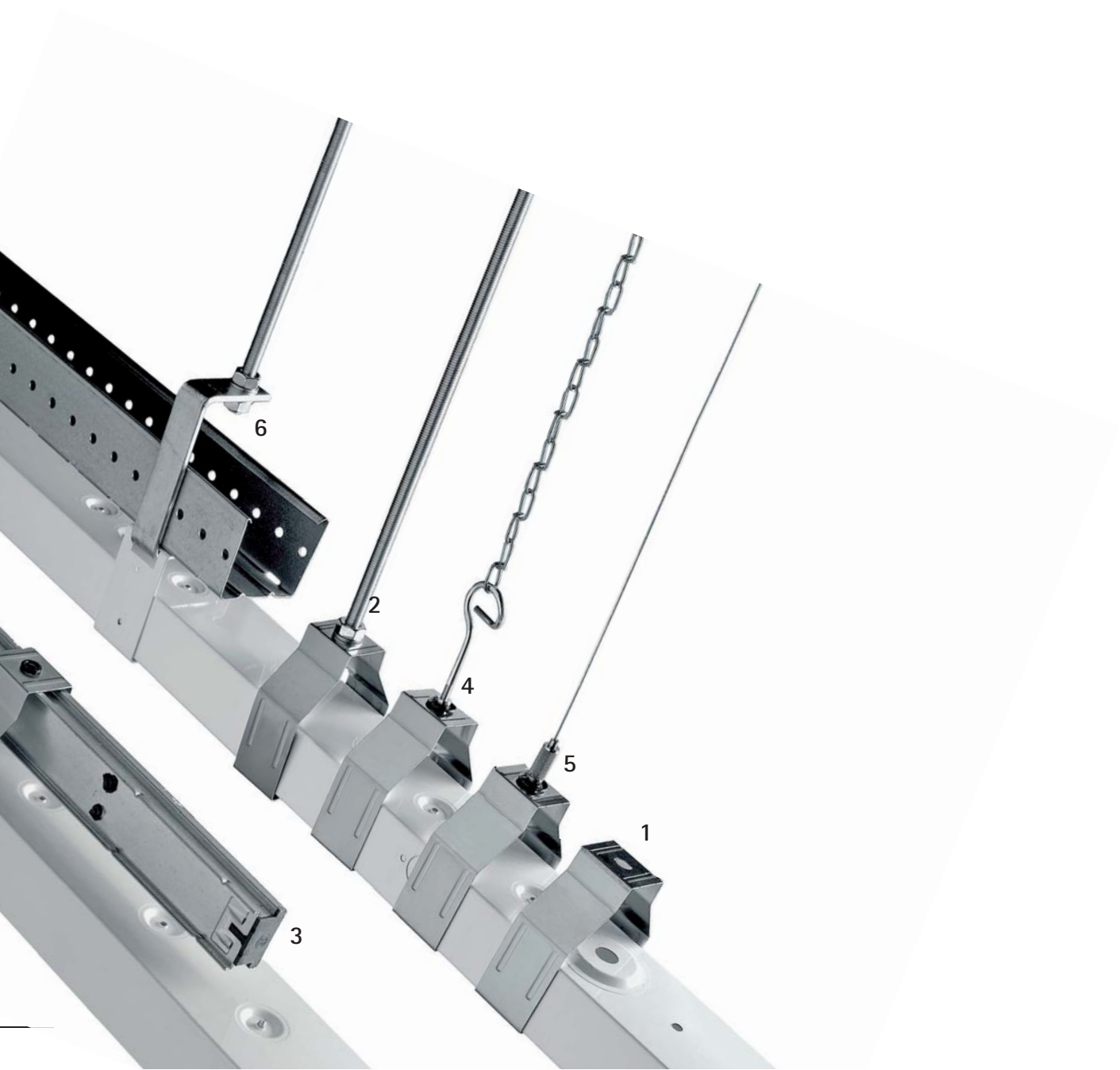


webref. SE5001A6

Suspension and accessories E5

Mounting brackets (2 per individual luminaire or number of line sections + 1)

For ceiling mounting, per piece	see photo 1	E3H120
For threaded rod (also Telemecanique Canalis KBA), per piece	see photo 2	E3H121
For Telemecanique Canalis KLE, per piece	see photo 3	E3H122
For chain, per piece	see photo 4	E3H123
Roll of chain, per roll of 30 m		E3H124
For steel wire, bracket with quick adjustment system, ceiling attachment an 3 m steel wire, per set	see photo 5	E3H125
For ELS with protective grille		E3H127
For cable channel on top, mounting bracket with accessories, per set	see photo 6	E3H103





Integrated daylight sensor, ELS – webref. SE5001E

Suspension and accessories E5

Protective grille

with longitudinal shielding

	For E52 ¹	individual	E5H50/035	E5H55/035
		in-line intermediate luminaire	E5H51/035	E5H56/035
		in-line end luminaire (end grille with 1 flange)	E5H52/035	E5H57/035
	For E53	individual	E5H30/035	-
	For E58	individual	E5H50/035	-
		in-line intermediate luminaire	E5H51/035	-
		in-line end luminaire (end grille with 1 flange)	E5H52/035	-

Conversion sets

From E520 to E522	E5R22/035-1
From E560 to E562	E5R62/035-1

Other line accessories

Coupling piece (number of sections per line - 1), per piece	E3H115
Line end piece (2 per line), per piece	E3H116
Connector (1 per line), 5-pin, per piece	E3H117
Connector (1 per line), 7 pole with dimming (analog or DALI), per piece	
Connector for 9 pole through wiring with dimming and emergency unit or non-maintained emergency lighting, per piece	E3H118
Connector for 7 pole through wiring with emergency unit or non-maintained emergency lighting, per piece	E3H119
Connector for 8 pole through wiring with emergency lighting, per piece	E3H128
Connector for 10 pole through wiring with dimming (analog or DALI) and emergency lighting, per piece	

Line section for emergency lighting with through wiring (emergency lighting luminaires not included)

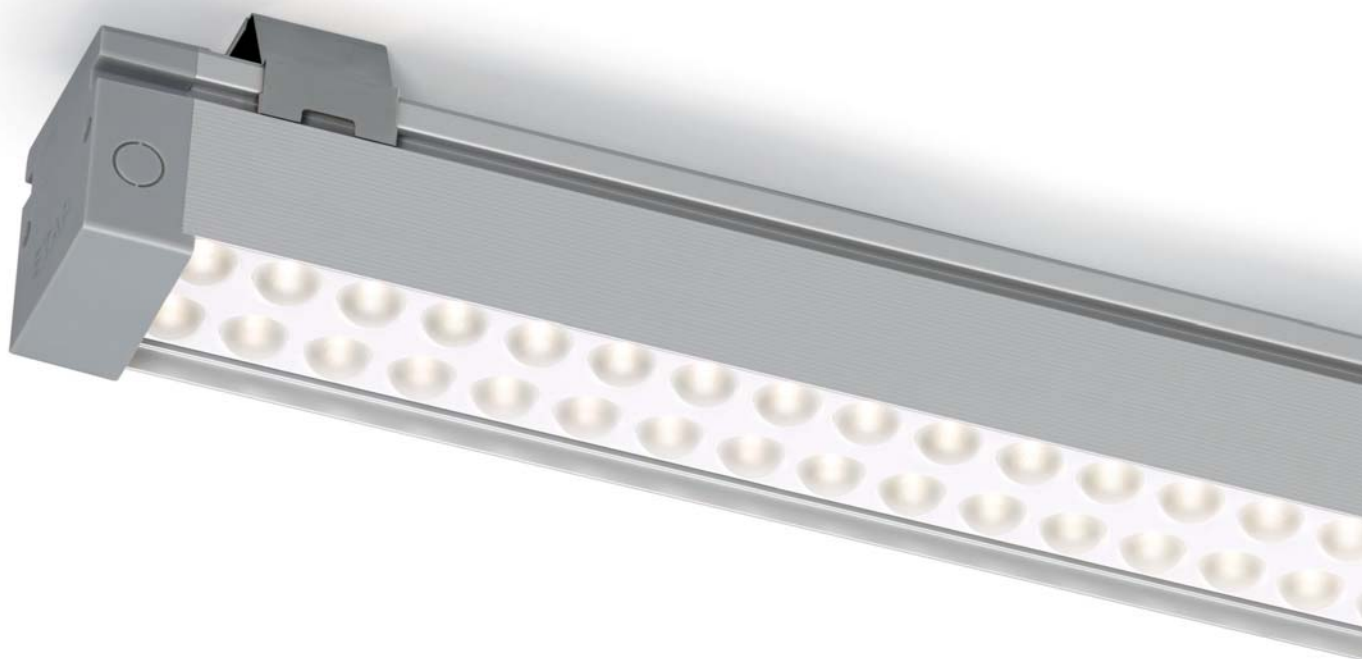
Single lamp length	
32W, 45W or 73W – half section for non-maintained emergency lighting with 7 pole through wiring	E5009/035S1
32W, 45W or 73W – half section for emergency lighting with 10 pole through wiring	E5009/035S2

¹ E522. does not comply to the ball impact test, please choose E520. with lamp shielding and protective grille



E7

LIGHT LINE SYSTEM
WITH LED+LENS™



Housing

Housing in satin-anodised aluminium

Optic

LED+LENS™

Dimensional sketches → p 409



LIGHT MANAGEMENT
Save up to 75% on energy
see p 276 up to 299



E7 - webref. SE7005A4

E7

LIGHT LINE SYSTEM WITH LED

INDUSTRIAL LUMINAIRES FOR INDIVIDUAL AND IN-LINE MOUNTING

In the E7, the LED+LENS™ technology is fully geared to large spaces, which require considerable light-quantities. The combination of high-power LEDs and advanced lenses results in sophisticated light distribution and optimal efficiency.

Driver, wiring and optics form a single integrated unit. The housing is made from anodised aluminium, which contributes to optimal heat dissipation.

E7 luminaires are easy to install. After installing the bracket, the E7 can be mounted in one step: hook the luminaire into the bracket and snap into place. Only two suspension points are needed per luminaire, even for the longest 4-metre version. For in-line systems one suspension point per luminaire is sufficient, plus another one at the beginning of each line.

FLEXIBLE

The E7 series is highly flexible. The luminaires are available in several lengths: 1, 2 or 4 metres. They can be mounted individually or in-line and are available in surface-mounted or suspended version. In terms of appearance, individual luminaires are identical to in-line segments. Therefore they can be used together in a single space.

Due to the use of LEDs, the length of the luminaire does not depend on the lamp. The amount of light can be perfectly geared to your lighting needs. You can choose from one or two rows of LEDs, continuous or at intervals. Intervals may vary from 1 to 5 25-cm segments.

The E7 can be fitted with sensors for light management and emergency lighting.



E7, easy installation - webref. SE7005A6

E7

Individual



1 row LEDs, continuous - 1 or 2 m (E7*10/LED*)



2 rows LEDs, continuous - 1 or 2 m (E7*20/LED*)

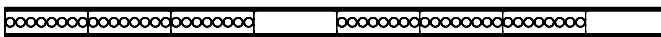
Straight line mounting



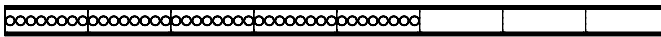
1 row LEDs, continuous - 1, 2 or 4 m (E7*11/LED*)



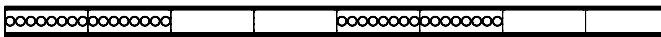
1 row LEDs, with 1 empty segment/2 m - 2 or 4 m (E7*12/LED*)



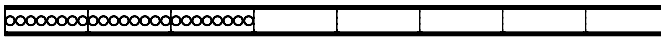
1 row LEDs, with 2 empty segments/2 m - 2 or 4 m (E7*13/LED*)



1 row LEDs, with 3 empty segments/2m - 2 or 4 m (E7*14/LED*)



1 row LEDs, with 4 empty segments/2m - 2 or 4 m (E7*15/LED*)



1 row LEDs, with 5 empty segments/2m - 2 or 4 m (E7*16/LED*)



2 rows LEDs, continuous - 1, 2 or 4 m (E7*21/LED*)



2 rows LEDs, with 1 empty segment/2m - 2 or 4 m (E7*22/LED*)



2 rows LEDs, with 2 empty segments/2m - 2 or 4 m (E7*23/LED*)



2 rows LEDs, with 3 empty segments/2m - 2 or 4 m (E7*24/LED*)



2 rows LEDs, with 4 empty segments/2m - 2 or 4 m (E7*25/LED*)



E7 - webref. SE7005E2A

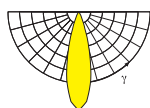
E70

NARROW-ANGLE

INDIVIDUAL

Table explanation p 424

UGR	L _{av.} - limit cd/m ²	# LEDs	lamp type T _k	lumen luminaire	lm/W luminaire	L x W x H mm	plan N.	order code	 option
LED+LENS™ - narrow-angle distribution									
LED HIGH POWER 									
≤ 16	≤ 1500 (65°)	32	3000K	4699	93	1070 x 90 x 88	4351	E7010/LED1W032050S	-
			4000K	5099	101	1070 x 90 x 88	4351	E7010/LED1N032050S	-
	≤ 3000 (65°)	64	3000K	9299	89	1070 x 90 x 88	4351	E7020/LED1W064100S	-
			4000K	10099	96	1070 x 90 x 88	4351	E7020/LED1N064100S	-
		128	3000K	18549	89	2070 x 90 x 88	4351	E7020/LED2W128200S	-
			4000K	20199	96	2070 x 90 x 88	4351	E7020/LED2N128200S	-



E7
narrow-angle



E7 - webref. SE7005A2



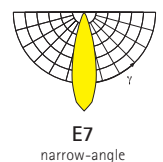
E7 straight line mounting - webref. SE7008A3

NARROW-ANGLE E70

STRAIGHT LINE MOUNTING

Table explanation p 424

UGR	L _{av} - limit cd/m ²	# LEDs	lamp type T _c	lumen luminaire	lm/W luminaire	L x W x H mm	plan N.	order code	option
LED+LENS™ - narrow-angle distribution									
HIGH POWER									
≤ 16	≤ 1500 (65°)	32	3000K	4699	93	1000 x 90 x 88	4352	E7011/LED1W032050S	-
			3000K	4699	93	2000 x 90 x 88	4352	E7015/LED2W032050S	-
			4000K	5099	101	1000 x 90 x 88	4352	E7011/LED1N032050S	-
			4000K	5099	101	2000 x 90 x 88	4352	E7015/LED2N032050S	-
		40	3000K	5899	94	2000 x 90 x 88	4352	E7014/LED2W040065S	-
			4000K	6399	102	2000 x 90 x 88	4352	E7014/LED2N040065S	-
		48	3000K	7049	94	2000 x 90 x 88	4352	E7013/LED2W048075S	-
			4000K	7699	102	2000 x 90 x 88	4352	E7013/LED2N048075S	-
		56	3000K	8249	94	2000 x 90 x 88	4352	E7012/LED2W056085S	-
			4000K	8949	101	2000 x 90 x 88	4352	E7012/LED2N056085S	-
		64	3000K	9399	93	2000 x 90 x 88	4352	E7011/LED2W064100S	-
			3000K	9399	93	4000 x 90 x 88	4352	E7015/LED4W064100S	-
			4000K	10249	102	2000 x 90 x 88	4352	E7011/LED2N064100S	-
			4000K	10249	102	4000 x 90 x 88	4352	E7015/LED4N064100S	-
		80	3000K	11749	94	4000 x 90 x 88	4352	E7014/LED4W080125S	-
			4000K	12799	102	4000 x 90 x 88	4352	E7014/LED4N080125S	-
		96	3000K	14099	94	4000 x 90 x 88	4352	E7013/LED4W096150S	-
			4000K	15349	102	4000 x 90 x 88	4352	E7013/LED4N096150S	-
		112	3000K	16449	94	4000 x 90 x 88	4352	E7012/LED4W112175S	-
			4000K	17899	102	4000 x 90 x 88	4352	E7012/LED4N112175S	-
		128	3000K	18799	94	4000 x 90 x 88	4352	E7011/LED4W128200S	-
			4000K	20449	102	4000 x 90 x 88	4352	E7011/LED4N128200S	-
	≤ 3000 (65°)	64	3000K	9299	89	1000 x 90 x 88	4352	E7021/LED1W064100S	-
			3000K	9299	89	2000 x 90 x 88	4352	E7025/LED2W064100S	-
			4000K	10099	96	1000 x 90 x 88	4352	E7021/LED1N064100S	-
			4000K	10099	96	2000 x 90 x 88	4352	E7025/LED2N064100S	-
		80	3000K	11599	90	2000 x 90 x 88	4352	E7024/LED2W080125S	-
			4000K	12649	98	2000 x 90 x 88	4352	E7024/LED2N080125S	-
		96	3000K	13899	91	2000 x 90 x 88	4352	E7023/LED2W096150S	-
			4000K	15149	98	2000 x 90 x 88	4352	E7023/LED2N096150S	-
		112	3000K	16249	90	2000 x 90 x 88	4352	E7022/LED2W112175S	-
			4000K	17699	97	2000 x 90 x 88	4352	E7022/LED2N112175S	-
		128	3000K	18549	89	2000 x 90 x 88	4352	E7021/LED2W128200S	-
			3000K	18549	89	4000 x 90 x 88	4352	E7025/LED4W128200S	-
			4000K	20199	96	2000 x 90 x 88	4352	E7021/LED2N128200S	-
			4000K	20199	96	4000 x 90 x 88	4352	E7025/LED4N128200S	-
		160	3000K	23199	90	4000 x 90 x 88	4352	E7024/LED4W160250S	-
			4000K	25299	98	4000 x 90 x 88	4352	E7024/LED4N160250S	-
		192	3000K	27849	89	4000 x 90 x 88	4352	E7023/LED4W192300S	-
			4000K	30349	97	4000 x 90 x 88	4352	E7023/LED4N192300S	-
		224	3000K	32449	90	4000 x 90 x 88	4352	E7022/LED4W224350S	-
			4000K	35399	97	4000 x 90 x 88	4352	E7022/LED4N224350S	-
		256	3000K	37099	89	4000 x 90 x 88	4352	E7021/LED4W256400S	-
			4000K	40449	97	4000 x 90 x 88	4352	E7021/LED4N256400S	-





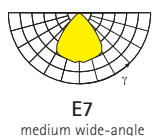
E7 - webref. SE7005A5

E71 MEDIUM WIDE-ANGLE

INDIVIDUAL

Table explanation p 424

UGR	$L_{av.}$ - limit cd/m ²	# LEDs	lamp type T_c	lumen luminaire	lm/W luminaire	L x W x H mm	plan N.	order code	 option
LED+LENS™ - medium wide-angle distribution									
 HIGH POWER									
≤ 19	≤ 3000 (65°)	32	3000K	4700	93	1070 x 90 x 88	4351	E7110/LED1W032050S	-
			4000K	5100	101	1070 x 90 x 88	4351	E7110/LED1N032050S	-
≤ 22	-	64	3000K	9300	89	1070 x 90 x 88	4351	E7120/LED1W064100S	-
			4000K	10100	96	1070 x 90 x 88	4351	E7120/LED1N064100S	-
		128	3000K	18550	89	2070 x 90 x 88	4351	E7120/LED2W128200S	-
			4000K	20200	96	2070 x 90 x 88	4351	E7120/LED2N128200S	-





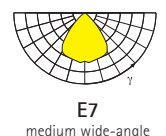
E7 - webref. SE7007D1

MEDIUM WIDE-ANGLE E71

STRAIGHT LINE MOUNTING

Table explanation p 424

UGR	L _{av} - limit cd/m ²	# LEDs	lamp type T _c	lumen luminaire	lm/W luminaire	L x W x H mm	plan N.	order code	option
LED+LENS™ - medium wide-angle distribution									
LED HIGH POWER									
≤ 19	≤ 3000 (65°)	32	3000K	4700	93	1000 x 90 x 88	23	E7111/LED1W032050S	-
			3000K	4700	93	2000 x 90 x 88	23	E7115/LED2W032050S	-
			4000K	5100	101	1000 x 90 x 88	23	E7111/LED1N032050S	-
			4000K	5100	101	2000 x 90 x 88	23	E7115/LED2N032050S	-
		40	3000K	5900	94	2000 x 90 x 88	23	E7114/LED2W040065S	-
			4000K	6400	102	2000 x 90 x 88	23	E7114/LED2N040065S	-
		48	3000K	7050	94	2000 x 90 x 88	23	E7113/LED2W048075S	-
			4000K	7700	102	2000 x 90 x 88	23	E7113/LED2N048075S	-
		56	3000K	8250	94	2000 x 90 x 88	23	E7112/LED2W056085S	-
			4000K	8950	101	2000 x 90 x 88	23	E7112/LED2N056085S	-
		64	3000K	9400	93	2000 x 90 x 88	23	E7111/LED2W064100S	-
			3000K	9400	93	4000 x 90 x 88	23	E7115/LED4W064100S	-
			4000K	10250	102	2000 x 90 x 88	23	E7111/LED2N064100S	-
			4000K	10250	102	4000 x 90 x 88	23	E7115/LED4N064100S	-
		80	3000K	11750	94	4000 x 90 x 88	23	E7114/LED4W080125S	-
			4000K	12800	102	4000 x 90 x 88	23	E7114/LED4N080125S	-
		96	3000K	14100	94	4000 x 90 x 88	23	E7113/LED4W096150S	-
			4000K	15350	102	4000 x 90 x 88	23	E7113/LED4N096150S	-
		112	3000K	16450	94	4000 x 90 x 88	23	E7112/LED4W112175S	-
			4000K	17900	102	4000 x 90 x 88	23	E7112/LED4N112175S	-
		128	3000K	18800	94	4000 x 90 x 88	23	E7111/LED4W128200S	-
			4000K	20450	102	4000 x 90 x 88	23	E7111/LED4N128200S	-
≤ 22	-	64	3000K	9300	89	1000 x 90 x 88	23	E7121/LED1W064100S	-
			3000K	9300	89	2000 x 90 x 88	23	E7125/LED2W064100S	-
			4000K	10100	96	1000 x 90 x 88	23	E7121/LED1N064100S	-
			4000K	10100	96	2000 x 90 x 88	23	E7125/LED2N064100S	-
		80	3000K	11600	90	2000 x 90 x 88	23	E7124/LED2W080125S	-
			4000K	12650	98	2000 x 90 x 88	23	E7124/LED2N080125S	-
		96	3000K	13900	91	2000 x 90 x 88	23	E7123/LED2W096150S	-
			4000K	15150	99	2000 x 90 x 88	23	E7123/LED2N096150S	-
		112	3000K	16250	90	2000 x 90 x 88	23	E7122/LED2W112175S	-
			4000K	17700	97	2000 x 90 x 88	23	E7122/LED2N112175S	-
		128	3000K	18550	89	2000 x 90 x 88	23	E7121/LED2W128200S	-
			3000K	18550	89	4000 x 90 x 88	23	E7125/LED4W128200S	-
			4000K	20200	96	2000 x 90 x 88	23	E7121/LED2N128200S	-
			4000K	20200	96	4000 x 90 x 88	23	E7125/LED4N128200S	-
		160	3000K	23200	90	4000 x 90 x 88	23	E7124/LED4W160250S	-
			4000K	25300	98	4000 x 90 x 88	23	E7124/LED4N160250S	-
		192	3000K	27850	89	4000 x 90 x 88	23	E7123/LED4W192300S	-
			4000K	30350	97	4000 x 90 x 88	23	E7123/LED4N192300S	-
		224	3000K	32450	90	4000 x 90 x 88	23	E7122/LED4W224350S	-
			4000K	35400	97	4000 x 90 x 88	23	E7122/LED4N224350S	-
		256	3000K	37100	89	4000 x 90 x 88	23	E7121/LED4W256400S	-
			4000K	40450	97	4000 x 90 x 88	23	E7121/LED4N256400S	-







E7 - webref. SE7005B6



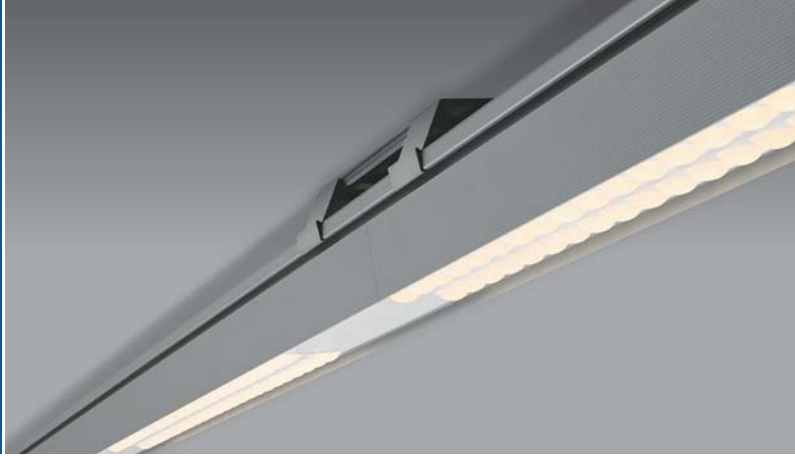
E7 suspension - webref. SE7006A5

WIDE-ANGLE E72

INDIVIDUAL

Table explanation p 424

UGR	L_{av} - limit cd/m ²	# LEDs	lamp type T_c	lumen luminaire	L x W x H mm	plan N.	order code	 option
LED+LENS™ - wide-angle distribution								
 HIGH POWER 								
≤ 22	≤ 1500 (65°)	32	3000K	4699	1070 x 90 x 88	4351	E7210/LED1W032050S	-
	≤ 3000 (65°)	32	4000K	5099	1070 x 90 x 88	4351	E7210/LED1N032050S	-
≤ 25	-	64	4000K	10098	1070 x 90 x 88	4351	E7220/LED1N064100S	-
		128	4000K	20197	2070 x 90 x 88	4351	E7220/LED2N128200S	-
	≤ 3000 (65°)	64	3000K	9298	1070 x 90 x 88	4351	E7220/LED1W064100S	-
		128	3000K	18547	2070 x 90 x 88	4351	E7220/LED2W128200S	-



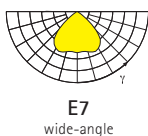
E7 - webref. SE7007A4

E72 WIDE-ANGLE

STRAIGHT LINE MOUNTING

Table explanation p 424

UGR	L _{av} - limit cd/m ²	# LEDs	lamp type T _e	lumen luminaire	L x W x H mm	plan N.	order code	option
LED+LENS™ - wide-angle distribution								
LED HIGH POWER								
≤ 22	≤ 1500 (65°)	32	3000K	4700	1000 x 90 x 88	4352	E7211/LED1W032050S	-
			3000K	4700	2000 x 90 x 88	4352	E7215/LED2W032050S	-
		40	3000K	5900	2000 x 90 x 88	4352	E7214/LED2W040065S	-
		48	3000K	7050	2000 x 90 x 88	4352	E7213/LED2W048075S	-
		56	3000K	8250	2000 x 90 x 88	4352	E7212/LED2W056085S	-
		64	3000K	9400	2000 x 90 x 88	4352	E7211/LED2W064100S	-
			3000K	9400	4000 x 90 x 88	4352	E7215/LED4W064100S	-
		80	3000K	11750	4000 x 90 x 88	4352	E7214/LED4W080125S	-
		96	3000K	14100	4000 x 90 x 88	4352	E7213/LED4W096150S	-
		112	3000K	16450	4000 x 90 x 88	4352	E7212/LED4W112175S	-
		128	3000K	18800	4000 x 90 x 88	4352	E7211/LED4W128200S	-
	≤ 3000 (65°)	32	4000K	5100	1000 x 90 x 88	4352	E7211/LED1N032050S	-
			4000K	5100	2000 x 90 x 88	4352	E7215/LED2N032050S	-
		40	4000K	6400	2000 x 90 x 88	4352	E7214/LED2N040065S	-
		48	4000K	7700	2000 x 90 x 88	4352	E7213/LED2N048075S	-
		56	4000K	8950	2000 x 90 x 88	4352	E7212/LED2N056085S	-
		64	4000K	10250	2000 x 90 x 88	4352	E7211/LED2N064100S	-
			4000K	10250	4000 x 90 x 88	4352	E7215/LED4N064100S	-
		80	4000K	12800	4000 x 90 x 88	4352	E7214/LED4N080125S	-
		96	4000K	15350	4000 x 90 x 88	4352	E7213/LED4N096150S	-
		112	4000K	17900	4000 x 90 x 88	4352	E7212/LED4N112175S	-
		128	4000K	20450	4000 x 90 x 88	4352	E7211/LED4N128200S	-
≤ 25	-	64	4000K	10100	1000 x 90 x 88	4352	E7221/LED1N064100S	-
			4000K	10100	2000 x 90 x 88	4352	E7225/LED2N064100S	-
		80	4000K	12650	2000 x 90 x 88	4352	E7224/LED2N080125S	-
		96	4000K	15150	2000 x 90 x 88	4352	E7223/LED2N096150S	-
		112	4000K	17700	2000 x 90 x 88	4352	E7222/LED2N112175S	-
		128	4000K	20200	2000 x 90 x 88	4352	E7221/LED2N128200S	-
			4000K	20200	4000 x 90 x 88	4352	E7225/LED4N128200S	-
		160	4000K	25300	4000 x 90 x 88	4352	E7224/LED4N160250S	-
		192	4000K	30350	4000 x 90 x 88	4352	E7223/LED4N192300S	-
		224	4000K	35400	4000 x 90 x 88	4352	E7222/LED4N224350S	-
		256	4000K	40450	4000 x 90 x 88	4352	E7221/LED4N256400S	-
	≤ 3000 (65°)	64	3000K	9300	1000 x 90 x 88	4352	E7221/LED1W064100S	-
			3000K	9300	2000 x 90 x 88	4352	E7225/LED2W064100S	-
		80	3000K	11600	2000 x 90 x 88	4352	E7224/LED2W080125S	-
		96	3000K	13900	2000 x 90 x 88	4352	E7223/LED2W096150S	-
		112	3000K	16250	2000 x 90 x 88	4352	E7222/LED2W112175S	-
		128	3000K	18550	2000 x 90 x 88	4352	E7221/LED2W128200S	-
			3000K	18550	4000 x 90 x 88	4352	E7225/LED4W128200S	-
		160	3000K	23200	4000 x 90 x 88	4352	E7224/LED4W160250S	-
		192	3000K	27850	4000 x 90 x 88	4352	E7223/LED4W192300S	-
		224	3000K	32450	4000 x 90 x 88	4352	E7222/LED4W224350S	-
		256	3000K	37100	4000 x 90 x 88	4352	E7221/LED4W256400S	-





E7 asymmetric - webref. SE7005C2



E7 straight line mounting, asymmetric - webref. SE7005C4

ASYMMETRIC E74

INDIVIDUAL

Table explanation p 424

UGR	L _{av} - limit cd/m ²	# LEDs	lamp type T _c	lumen luminaire	L x W x H mm	plan N.	order code	 option
LED+LENS™ - asymmetric distribution								
LED HIGH POWER 								
-	-	32	3000K	4699	1070 x 90 x 127	4351	E7410/LED1W032050S	-
			4000K	5099	1070 x 90 x 127	4351	E7410/LED1N032050S	-
		64	3000K	9201	1070 x 90 x 127	4351	E7420/LED1W064100S	-
			4000K	10051	1070 x 90 x 127	4351	E7420/LED1N064100S	-
		128	3000K	18453	2070 x 90 x 127	4351	E7420/LED2W128200S	-
			4000K	20103	2070 x 90 x 127	4351	E7420/LED2N128200S	-



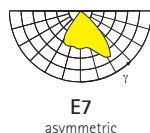
E7 - webref. SE7007C3

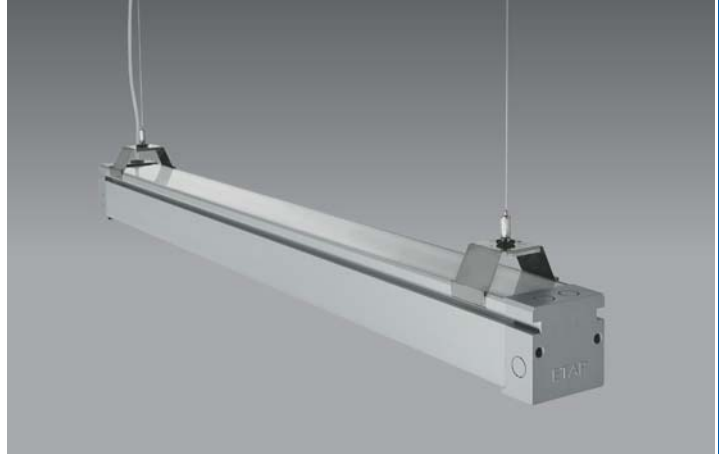
E74 ASYMMETRIC

STRAIGHT LINE MOUNTING

Table explanation p 424

UGR	L _{av} - limit cd/m ²	# LEDs	lamp type T _e	lumen luminaire	L x W x H mm	plan N.	order code	option
LED+LENS™ - asymmetric distribution								
LED HIGH POWER								
-	-	32	3000K	4699	1000 x 90 x 127	4352	E7411/LED1W032050S	-
			3000K	4699	2000 x 90 x 127	4352	E7415/LED2W032050S	-
			4000K	5099	1000 x 90 x 127	4352	E7411/LED1N032050S	-
			4000K	5099	2000 x 90 x 127	4352	E7415/LED2N032050S	-
		40	3000K	5848	2000 x 90 x 127	4352	E7414/LED2W040065S	-
			4000K	6348	2000 x 90 x 127	4352	E7414/LED2N040065S	-
		48	3000K	6998	2000 x 90 x 127	4352	E7413/LED2W048075S	-
			4000K	7648	2000 x 90 x 127	4352	E7413/LED2N048075S	-
		56	3000K	8198	2000 x 90 x 127	4352	E7412/LED2W056085S	-
			4000K	8898	2000 x 90 x 127	4352	E7412/LED2N056085S	-
		64	3000K	9348	2000 x 90 x 127	4352	E7411/LED2W064100S	-
			3000K	9348	4000 x 90 x 127	4352	E7415/LED4W064100S	-
			3000K	9201	1000 x 90 x 127	4352	E7421/LED1W064100S	-
			3000K	9201	2000 x 90 x 127	4352	E7425/LED2W064100S	-
			4000K	10198	2000 x 90 x 127	4352	E7411/LED2N064100S	-
			4000K	10198	4000 x 90 x 127	4352	E7415/LED4N064100S	-
			4000K	10051	1000 x 90 x 127	4352	E7421/LED1N064100S	-
			4000K	10051	2000 x 90 x 127	4352	E7425/LED2N064100S	-
		80	3000K	11697	4000 x 90 x 127	4352	E7414/LED4W080125S	-
			3000K	11551	2000 x 90 x 127	4352	E7424/LED2W080125S	-
			4000K	12747	4000 x 90 x 127	4352	E7414/LED4N080125S	-
			4000K	12552	2000 x 90 x 127	4352	E7424/LED2N080125S	-
		96	3000K	13997	4000 x 90 x 127	4352	E7413/LED4W096150S	-
			3000K	13852	2000 x 90 x 127	4352	E7423/LED2W096150S	-
			4000K	15247	4000 x 90 x 127	4352	E7413/LED4N096150S	-
			4000K	15102	2000 x 90 x 127	4352	E7423/LED2N096150S	-
		112	3000K	16347	4000 x 90 x 127	4352	E7412/LED4W112175S	-
			3000K	16152	2000 x 90 x 127	4352	E7422/LED2W112175S	-
			4000K	17796	4000 x 90 x 127	4352	E7412/LED4N112175S	-
			4000K	17603	2000 x 90 x 127	4352	E7422/LED2N112175S	-
		128	3000K	18696	4000 x 90 x 127	4352	E7411/LED4W128200S	-
			3000K	18453	2000 x 90 x 127	4352	E7421/LED2W128200S	-
			3000K	18453	4000 x 90 x 127	4352	E7425/LED4W128200S	-
			4000K	20346	4000 x 90 x 127	4352	E7411/LED4N128200S	-
			4000K	20103	2000 x 90 x 127	4352	E7421/LED2N128200S	-
			4000K	20103	4000 x 90 x 127	4352	E7425/LED4N128200S	-
		160	3000K	23053	4000 x 90 x 127	4352	E7424/LED4W160250S	-
			4000K	25154	4000 x 90 x 127	4352	E7424/LED4N160250S	-
		192	3000K	27654	4000 x 90 x 127	4352	E7423/LED4W192300S	-
			4000K	30155	4000 x 90 x 127	4352	E7423/LED4N192300S	-
		224	3000K	32305	4000 x 90 x 127	4352	E7422/LED4W224350S	-
			4000K	35206	4000 x 90 x 127	4352	E7422/LED4N224350S	-
		256	3000K	36906	4000 x 90 x 127	4352	E7421/LED4W256400S	-
			4000K	40206	4000 x 90 x 127	4352	E7421/LED4N256400S	-





E7 - webref. SE7006A4

E7

In-line accessories

Line end piece (2 per line), per piece	E7H300
Line end piece IK08 (2 per line), per piece	E7H302
Connector (1 per line), 5 of 7 pole, per piece	E7H301

Options and accessories

Clear cover plate in polycarbonate	not for E74	code + T1
------------------------------------	-------------	-----------

Suspension and accessories

Mounting brackets

individual mounting: 2 brackets / luminaire

in-line assembly: 2 single brackets (start and end of line) + (number of line segments - 1) double brackets

For ceiling mounting	single bracket	E7H111
	double bracket	E7H112
For threaded rod	single bracket	E7H121
	double bracket	E7H122
For chain	single bracket	E7H131
	double bracket	E7H132
For steelwire	single bracket	E7H141
	double bracket	E7H142
 For ceiling mounting, ball impact proof	single bracket	E7H151
	double bracket	E7H152



webref. SE8001D7

E8

LUMINAIRES FOR
SPACES WITH HIGH CEILINGS



Housing

White lacquered sheet steel housing

Optic

Reflector - HRSilver™ - satin-anodised aluminium

Dimensional sketches → p 410



LIGHT MANAGEMENT
Save up to 75% on energy
see p 276 up to 299

LUMINAIRES FOR SPACES WITH HIGH CEILINGS



E82 - webref. SE8001A2

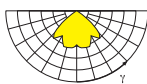
E8

Table explanation p 424

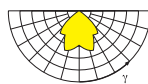
UGR	L _{av.} - limit cd/m ²	lamp type	lm/W luminaire	η %	L x W x H mm	plan N.	order code	option
Reflector - satin-anodised aluminium								
FLUO								
T5 ECO - Ø 16 mm								
≤ 25	-	4 x 35W	85	96	1522 x 614 x 130	4400	E8200/435HFW	•
		6 x 35W	85	95	1522 x 614 x 130	4400	E8200/635HFW	•
		8 x 35W	84	95	1522 x 614 x 130	4400	E8200/835HFW	•
Reflector - satin-anodised aluminium								
FLUO								
T5 ECO - Ø 16mm AMA								
≤ 25	-	4 x 49W	84	96	1522 x 614 x 130	4400	E8200/449HFW	•
		6 x 49W	84	96	1522 x 614 x 130	4400	E8200/649HFW	•
		8 x 49W	84	96	1522 x 614 x 130	4400	E8200/849HFW	•
		6 x 80W	75	96	1522 x 614 x 130	4400	E8200/680HFW	•
≤ 28	-	4 x 80W	77	99	1522 x 614 x 130	4400	E8200/480HFW	•
		8 x 80W	74	95	1522 x 614 x 130	4400	E8200/880HFW	•
Reflector - satin-anodised aluminium - clear polycarbonate cover								
FLUO								
T5 ECO - Ø 16 mm								
≤ 25	-	4 x 35W	80	90	1526 x 618 x 135	4400	E8200/435HFWT0	-
		6 x 35W	76	86	1526 x 618 x 135	4400	E8200/635HFWT0	-
		8 x 35W	74	83	1526 x 618 x 135	4400	E8200/835HFWT0	-
Reflector - satin-anodised aluminium - clear polycarbonate cover								
FLUO								
T5 ECO - Ø 16mm AMA								
≤ 25	-	4 x 49W	82	95	1526 x 618 x 135	4400	E8200/449HFWT0	-
		6 x 49W	80	92	1526 x 618 x 135	4400	E8200/649HFWT0	-
		8 x 49W	79	91	1526 x 618 x 135	4400	E8200/849HFWT0	-
		4 x 80W	72	92	1526 x 618 x 135	4400	E8200/480HFWT0	-
		6 x 80W	68	87	1526 x 618 x 135	4400	E8200/680HFWT0	-
		8 x 80W	63	81	1526 x 618 x 135	4400	E8200/880HFWT0	-



E820
4 lamp



E820
6 lamp



E820
8 lamp



E86 - webref. SE8001B1

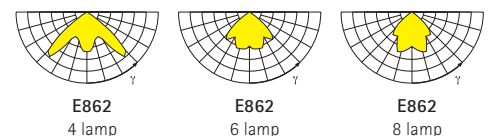
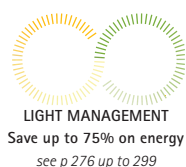
E8

Table explanation p 424

UGR	L _{av.} - limit cd/m ²	lamp type	lm/W luminaire	η %	L x W x H mm	plan N.	order code	option
Reflector - satin-anodised aluminium - Isolum® baffles								
FLUO								
T5 ECO - Ø 16 mm								
≤ 22	≤ 1000 (65°)	4 x 35W	81	92	1522 x 614 x 130	4400	E8620/435HFW	•
		6 x 35W	81	91	1522 x 614 x 130	4400	E8620/635HFW	•
		8 x 35W	81	91	1522 x 614 x 130	4400	E8620/835HFW	•
Reflector - satin-anodised aluminium - Isolum® baffles								
FLUO								
T5 ECO - Ø 16mm AMA								
≤ 22	≤ 1000 (65°)	4 x 49W	81	93	1522 x 614 x 130	4400	E8620/449HFW	•
		6 x 49W	80	92	1522 x 614 x 130	4400	E8620/649HFW	•
		8 x 49W	78	89	1522 x 614 x 130	4400	E8620/849HFW	•
		4 x 80W	75	95	1522 x 614 x 130	4400	E8620/480HFW	•
		6 x 80W	72	92	1522 x 614 x 130	4400	E8620/680HFW	•
		8 x 80W	71	90	1522 x 614 x 130	4400	E8620/880HFW	•
Reflector - satin-anodised aluminium - Isolum® baffles - clear polycarbonate cover								
FLUO								
T5 ECO - Ø 16 mm								
≤ 22	≤ 1000 (65°)	4 x 35W	77	86	1526 x 618 x 135	4400	E8620/435HFWT0	-
		6 x 35W	73	82	1526 x 618 x 135	4400	E8620/635HFWT0	-
		8 x 35W	70	79	1526 x 618 x 135	4400	E8620/835HFWT0	-
Reflector - satin-anodised aluminium - Isolum® baffles - clear polycarbonate cover								
FLUO								
T5 ECO - Ø 16mm AMA								
≤ 22	≤ 1000 (65°)	4 x 49W	79	91	1526 x 618 x 135	4400	E8620/449HFWT0	-
		6 x 49W	78	89	1526 x 618 x 135	4400	E8620/649HFWT0	-
		8 x 49W	77	88	1526 x 618 x 135	4400	E8620/849HFWT0	-
		4 x 80W	70	89	1526 x 618 x 135	4400	E8620/480HFWT0	-
		6 x 80W	64	82	1526 x 618 x 135	4400	E8620/680HFWT0	-
		8 x 80W	61	78	1526 x 618 x 135	4400	E8620/880HFWT0	-

Options and accessories

Mounting brackets for mounting with chain	E8H1
Roll of chain, per roll of 30 m	E3H124
Mounting brackets for mounting with chain, chain included for max. 1 m suspension	E8H1/100





webref. SE1005E1

HIGH PROTECTION FACTOR LUMINAIRES



E1 → p 187

E6 → p 195



E1

WATER PROOF, SURFACE MOUNTED LUMINAIRES
FOR AGGRESSIVE ENVIRONMENTS



Housing

Housing of fibreglass-reinforced polyester
Acrylate or polycarbonate cover
Polyurethane seal
Quick release latches and mounting brackets of stainless steel

Optic

LED+LENS™
Reflector - gull-wing or parabolic

Application

In aggressive environments
In gas environments (ATEX)

Dimensional sketches → p 410



LIGHT MANAGEMENT
Save up to 75% on energy
see p 276 up to 299

HIGH PROTECTION FACTOR LUMINAIRES



E1 with LED - webref. SE1018B7

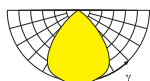


E1 with LED - webref. SE1018D1

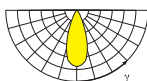
E1 LED+LENS™

Table explanation p 424

UGR	L _{av.} - limit cd/m ²	# LEDs	lamp type T _k	lumen luminaire	L x W x H mm	plan N.	order code	 option
LED+LENS™ - acrylic - medium wide-angle distribution								
  								
			HIGH POWER					
≤ 19	≤ 3000 (65°)	48	4000K	5650	1292 x 148 x 117	5103	E111/LEDN4850S	-
		64	4000K	7550	1592 x 148 x 117	5103	E111/LEDN6470S	-
LED+LENS™ - polycarbonate - medium wide-angle distribution								
  								
			HIGH POWER					
≤ 19	≤ 1500 (65°)	48	4000K	5500	1292 x 148 x 117	5103	E112/LEDN4850S	-
	≤ 3000 (65°)	64	4000K	7350	1592 x 148 x 117	5103	E112/LEDN6470S	-
LED+LENS™ - acrylic - narrow-angle distribution								
  								
			HIGH POWER					
≤ 16	≤ 3000 (65°)	48	4000K	5550	1292 x 148 x 117	5103	E101/LEDN4850S	-
		64	4000K	7400	1592 x 148 x 117	5103	E101/LEDN6470S	-
LED+LENS™ - polycarbonate - narrow-angle distribution								
  								
			HIGH POWER					
≤ 16	≤ 3000 (65°)	48	4000K	5400	1292 x 148 x 117	5103	E102/LEDN4850S	-
		64	4000K	7200	1592 x 148 x 117	5103	E102/LEDN6470S	-
LED+LENS™ - acrylic - wide-angle distribution								
  								
			HIGH POWER					
≤ 22	≤ 1500 (65°)	48	4000K	5649	1292 x 148 x 117	5103	E121/LEDN4850S	-
		64	4000K	7548	1592 x 148 x 117	5103	E121/LEDN6470S	-
LED+LENS™ - polycarbonate - wide-angle distribution								
  								
			HIGH POWER					
≤ 22	≤ 1500 (65°)	48	4000K	5499	1292 x 148 x 117	5103	E122/LEDN4850S	-
		64	4000K	7348	1592 x 148 x 117	5103	E122/LEDN6470S	-



E11



E10



E12



E1 - webref. SE1008B1

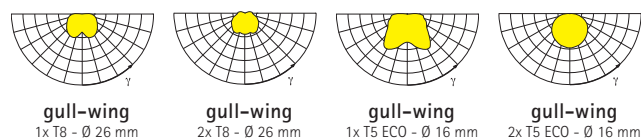


E1 - webref. SE1014B1



Table explanation p 424

UGR	L _{av} - limit cd/m ²	lamp type	lm/W luminaire	η %	L x W x H mm	plan N.	order code	option
Reflector - satin-anodised aluminium - acrylic - gull-wing								
IK 03 650 °C IP 65		FLUO T8 - Ø 26 mm						
≤ 25	-	1 x 36W	77	83	1292 x 148 x 117	5100	E11/136HFW	-
≤ 28	-	1 x 58W	75	83	1592 x 148 x 117	5100	E11/158HFW	-
		2 x 36W	64	69	1292 x 148 x 117	5100	E11/236HFW	-
		2 x 58W	55	67	1592 x 148 x 117	5100	E11/258H	-
Reflector - satin-anodised aluminium - acrylic - gull-wing								
IK 03 650 °C IP 65		FLUO T5 ECO - Ø 16 mm						
≤ 25	-	1 x 32W	99	112	1592 x 148 x 117	5100	E11/132HFW	-
		1 x 45W	95	114	1592 x 148 x 117	5100	E11/145HFW	-
		1 x 73W	83	100	1592 x 148 x 117	5100	E11/173HFW	-
		2 x 32W	89	99	1592 x 148 x 117	5100	E11/232HFW	-
Reflector - satin-anodised aluminium - polycarbonate - gull-wing								
IK 08 850 °C IP 65		FLUO T8 - Ø 26 mm						
≤ 25	-	1 x 18W	56	79	682 x 148 x 117	5100	E12/118HFW	-
		1 x 36W	73	79	1292 x 148 x 117	5100	E12/136HFW	-
		2 x 18W	47	66	682 x 148 x 117	5100	E12/218HFW	-
		2 x 36W	61	66	1292 x 148 x 117	5100	E12/236HFW	-
≤ 28	-	1 x 58W	72	79	1592 x 148 x 117	5100	E12/158HFW	-
		2 x 58W	52	64	1592 x 148 x 117	5100	E12/258H	-
Reflector - satin-anodised aluminium - polycarbonate - gull-wing								
IK 08 850 °C IP 65		FLUO T5 ECO - Ø 16 mm						
≤ 25	-	1 x 32W	95	107	1592 x 148 x 117	5100	E12/132HFW	-
		1 x 45W	91	109	1592 x 148 x 117	5100	E12/145HFW	-
≤ 28	-	1 x 73W	79	96	1592 x 148 x 117	5100	E12/173HFW	-
		2 x 32W	87	97	1592 x 148 x 117	5100	E12/232HFW	-



HIGH PROTECTION FACTOR
LUMINAIRES



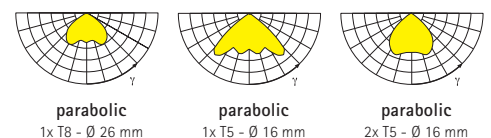
webref. SE1005B



E1 - webref. SE1014C1

Table explanation p 424

UGR	L _{av.} - limit cd/m ²	lamp type	lm/W luminaire	η %	L x W x H mm	plan N.	orde code	option
Reflector - satin-anodised aluminium - acrylic - parabolic								
IK 03	650 °C	IP 65	FLUO		T8 - Ø 26 mm			
					1 x 36W			
					1 x 58W			
≤ 25	-		70	75	1292 x 148 x 117	5100	E13/136HFW	-
			65	71	1592 x 148 x 117	5100	E13/158HFW	-
Reflector - satin-anodised aluminium - acrylic - parabolic								
IK 03	650 °C	IP 65	FLUO		T5 ECO - Ø 16 mm			
					1 x 32W			
					1 x 45W			
≤ 25	-		90	102	1592 x 148 x 117	5100	E13/132HFW	-
			91	109	1592 x 148 x 117	5100	E13/145HFW	-
			78	94	1592 x 148 x 117	5100	E13/173HFW	-
			80	89	1592 x 148 x 117	5100	E13/232HFW	-
Reflector - satin-anodised aluminium - polycarbonate - parabolic								
IK 08	850 °C	IP 65	FLUO		T8 - Ø 26 mm			
					1 x 36W			
					1 x 58W			
≤ 22	-		66	71	1292 x 148 x 117	5100	E14/136HFW	-
≤ 25	-		61	67	1592 x 148 x 117	5100	E14/158HFW	-
Reflector - satin-anodised aluminium - polycarbonate - parabolic								
IK 08	850 °C	IP 65	FLUO		T5 ECO - Ø 16 mm			
					1 x 32W			
					1 x 45W			
≤ 25	-		87	98	1592 x 148 x 117	5100	E14/132HFW	-
			84	101	1592 x 148 x 117	5100	E14/145HFW	-
			72	87	1592 x 148 x 117	5100	E14/173HFW	-
			75	83	1592 x 148 x 117	5100	E14/232HFW	-



HIGH PROTECTION FACTOR LUMINAIRES

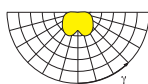


E1 ATEX - webref. SE1006B3

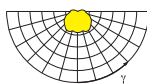
E1 ATEX

Table explanation p 424

UGR	L _{av.} - limit cd/m ²	lamp type	lm/W luminaire	η %	L x W x H mm	plan N.	order code	option
Reflector - satin-anodised aluminium - polycarbonate - gull-wing								
IK 08 850 °C IP 65		FLUO T8 - Ø 26 mm						
Ex II 2 D: Ex tD A21 IP65 T125°C (dustzone 21) ≤ 25	-	1 x 36W	73	79	1292 x 148 x 117	5100	E12/136HFWV200	-
		1 x 36W	73	79	1292 x 148 x 117	5100	E12/136HFW3V200 ¹	-
		1 x 36W	73	79	1292 x 148 x 117	5100	E12/136HFW5V200 ²	-
		1 x 36W	63	79	1292 x 148 x 117	5100	E12/136HV200	-
		1 x 36W	63	79	1292 x 148 x 117	5100	E12/136H3V200 ¹	-
		1 x 36W	63	79	1292 x 148 x 117	5100	E12/136H5V200 ²	-
		1 x 54W	94	105	1292 x 148 x 117	5100	E12/154HFWV200	-
		1 x 54W	94	105	1292 x 148 x 117	5100	E12/154HFW3V200 ¹	-
		1 x 54W	94	105	1292 x 148 x 117	5100	E12/154HFW5V200 ²	-
		2 x 28W	84	94	1292 x 148 x 117	5100	E12/228HFWV200	-
		2 x 28W	84	94	1292 x 148 x 117	5100	E12/228HFW3V200 ¹	-
		2 x 28W	84	94	1292 x 148 x 117	5100	E12/228HFW5V200 ²	-
	≤ 28	1 x 58W	72	79	1592 x 148 x 117	5100	E12/158HFWV200	-
		1 x 58W	72	79	1592 x 148 x 117	5100	E12/158HFW3V200 ¹	-
		1 x 58W	72	79	1592 x 148 x 117	5100	E12/158HFW5V200 ²	-
		1 x 58W	64	79	1592 x 148 x 117	5100	E12/158HV200	-
		1 x 58W	64	79	1592 x 148 x 117	5100	E12/158H3V200 ¹	-
		1 x 58W	64	79	1592 x 148 x 117	5100	E12/158H5V200 ²	-
		2 x 58W	52	64	1592 x 148 x 117	5100	E12/258HV200	-
		2 x 58W	52	64	1592 x 148 x 117	5100	E12/258H3V200 ¹	-
		2 x 58W	52	64	1592 x 148 x 117	5100	E12/258H5V200 ²	-
		2 x 58W	52	64	1592 x 148 x 117	5100	E12/258HV280	-
Ex II 3 G Ex nA II T4 Gc IP65 (gas zone 2) ≤ 25	-	1 x 36W	63	79	1292 x 148 x 117	5101	E12/136H3V280	-
		1 x 36W	63	79	1292 x 148 x 117	5101	E12/136H5V280	-
		1 x 36W	73	79	1292 x 148 x 117	5101	E12/136HFW3V280 ¹	-
		1 x 36W	73	79	1292 x 148 x 117	5101	E12/136HFW5V280 ²	-
		1 x 36W	73	79	1292 x 148 x 117	5101	E12/136HFWV280	-
		1 x 36W	63	79	1292 x 148 x 117	5101	E12/136HV280	-
		2 x 36W	53	66	1292 x 148 x 117	5101	E12/236H3V280 ¹	-
		2 x 36W	53	66	1292 x 148 x 117	5101	E12/236H5V280 ²	-
		2 x 36W	61	66	1292 x 148 x 117	5101	E12/236HFW3V280 ¹	-
		2 x 36W	61	66	1292 x 148 x 117	5101	E12/236HFW5V280 ²	-
		2 x 36W	61	66	1292 x 148 x 117	5101	E12/236HFWV280	-
		2 x 36W	53	66	1292 x 148 x 117	5101	E12/236HV280	-
	≤ 28	1 x 58W	64	79	1592 x 148 x 117	5101	E12/158H3V280 ¹	-
		1 x 58W	64	79	1592 x 148 x 117	5101	E12/158H5V280 ²	-
		1 x 58W	72	79	1592 x 148 x 117	5101	E12/158HFW3V280 ¹	-
		1 x 58W	72	79	1592 x 148 x 117	5101	E12/158HFW5V280 ²	-
		1 x 58W	72	79	1592 x 148 x 117	5101	E12/158HFWV280	-
		1 x 58W	64	79	1592 x 148 x 117	5101	E12/158HV280	-
		2 x 58W	52	64	1592 x 148 x 117	5101	E12/258H3V280 ¹	-
		2 x 58W	52	64	1592 x 148 x 117	5101	E12/258H5V280 ²	-
		2 x 58W	52	64	1592 x 148 x 117	5101	E12/258HV280	-
		2 x 58W	52	64	1592 x 148 x 117	5101	E12/258HV280	-



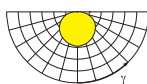
gull-wing
1x T8 - Ø 26 mm



gull-wing
2x T8 - Ø 26 mm



gull-wing
1x T5 ECO - Ø 16 mm



gull-wing
2x T5 ECO - Ø 16 mm



E1 ATEX - webref. SE1016B1

ATEX E1

Table explanation p 424

UGR	L _{av.} - limit cd/m ²	lamp type	lm/W luminaire	η %	L x W x H mm	plan N.	order code	 option			
Reflector - satin-anodised aluminium - polycarbonate - gull-wing											
											
		T8 - Ø 26 mm									
	II 2 G: Ex e mb IIC T4 Gb IP65 (gaszone 1)	≤ 25	-	1 x 36W	93	79	1292 x 148 x 117	5101	E12/136HF3V281 ¹	-	
				1 x 36W	93	79	1292 x 148 x 117	5101	E12/136HF5V281 ²	-	
				1 x 36W	93	79	1292 x 148 x 117	5101	E12/136HFV281	-	
				2 x 36W	93	66	1292 x 148 x 117	5101	E12/236HF3V281 ¹	-	
				2 x 36W	93	66	1292 x 148 x 117	5101	E12/236HF5V281 ²	-	
				2 x 36W	93	66	1292 x 148 x 117	5101	E12/236HFV281	-	
	≤ 28	-	1 x 58W	90	79	1592 x 148 x 117	5101	E12/158HF3V281 ¹	-		
			1 x 58W	90	79	1592 x 148 x 117	5101	E12/158HF5V281 ²	-		
			1 x 58W	90	79	1592 x 148 x 117	5101	E12/158HFV281	-		
	Reflector - satin-anodised aluminium - polycarbonate - gull-wing										
											
			T5 - Ø 16 mm								
	II 2 D: Ex tD A21 IP65 T125°C	≤ 25	-	1 x 35W	90	105	1592 x 148 x 117	5100	E12/135HFWV200	-	
				1 x 35W	90	105	1592 x 148 x 117	5100	E12/135HFW3V200 ¹	-	
				1 x 35W	90	105	1592 x 148 x 117	5100	E12/135HFW5V200 ²	-	
				1 x 49W	87	107	1592 x 148 x 117	5100	E12/149HFWV200	-	
				1 x 49W	87	107	1592 x 148 x 117	5100	E12/149HFW3V200 ¹	-	
				1 x 49W	87	107	1592 x 148 x 117	5100	E12/149HFW5V200 ²	-	
	≤ 28	-	1 x 28W	89	105	1292 x 148 x 117	5100	E12/128HFWV200	-		
			1 x 28W	89	105	1292 x 148 x 117	5100	E12/128HFW3V200 ¹	-		
			1 x 28W	89	105	1292 x 148 x 117	5100	E12/128HFW5V200 ²	-		
			2 x 35W	83	94	1592 x 148 x 117	5100	E12/235HFWV200	-		
			2 x 35W	83	94	1592 x 148 x 117	5100	E12/235HFW3V200 ¹	-		
			2 x 35W	83	94	1592 x 148 x 117	5100	E12/235HFW5V200 ²	-		
		II 3 G Ex nA II T4 (gas zone 2)	≤ 25	-	1 x 35W	90	105	1592 x 148 x 117	5101	E12/135HFW3V280 ¹	-
					1 x 35W	90	105	1592 x 148 x 117	5101	E12/135HFW5V280	-
					1 x 35W	90	105	1592 x 148 x 117	5101	E12/135HFWV280	-
					1 x 49W	87	107	1592 x 148 x 117	5101	E12/149HFW3V280	-
					1 x 49W	87	107	1592 x 148 x 117	5101	E12/149HFW5V280	-
					1 x 49W	87	107	1592 x 148 x 117	5101	E12/149HFWV280	-
		≤ 28	-	2 x 28W	84	94	1292 x 148 x 117	5101	E12/228HFW3V280 ¹	-	
				1 x 28W	89	105	1292 x 148 x 117	5101	E12/128HFW3V280 ¹	-	
				1 x 28W	89	105	1292 x 148 x 117	5101	E12/128HFW5V280 ²	-	
				1 x 28W	89	105	1292 x 148 x 117	5101	E12/128HFWV280	-	
				2 x 28W	84	94	1292 x 148 x 117	5101	E12/228HFW5V280	-	
				2 x 28W	84	94	1292 x 148 x 117	5101	E12/228HFWV280	-	
2 x 35W				83	94	1592 x 148 x 117	5101	E12/235HFW3V280 ¹	-		
2 x 35W				83	94	1592 x 148 x 117	5101	E12/235HFW5V280 ²	-		
2 x 35W				83	94	1592 x 148 x 117	5101	E12/235HFWV280	-		

¹ with 3-core throughwiring
² with 5-core throughwiring

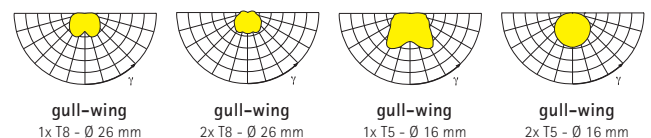
Options and accessories

single female Wieland plug

p 357

female Wieland plug for looping through

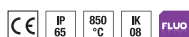
p 357





E6

WATERPROOF SURFACE MOUNTED LUMINAIRES



Housing	Polycarbonate housing and protective cover Silicone seal Quick release latches and mounting brackets of stainless steel
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Optic	Reflector - high reflection aluminium
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Application	In car parks, basements, technical or storage rooms
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Dimensional sketches → p 410



LIGHT MANAGEMENT
Save up to 75% on energy
see p 276 up to 299

HIGH PROTECTION FACTOR
LUMINAIRES



webref. SE6002E1



E6 - webref. SE6001A1

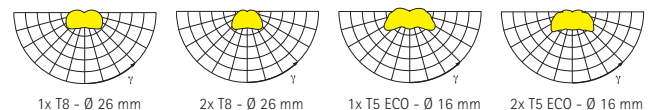
E6

Table explanation p 424

UGR	L _{av.} - limit cd/m ²	lamp type	lm/W luminaire	η %	L x W x H mm	plan N.	order code	option
Reflector - satin-anodised aluminium								
		 T8 - Ø 26 mm						
≤ 28	-	1 x 36W	80	86	1270 x 86 x 90	5400	E62/136HFW	•
		1 x 58W	78	86	1570 x 86 x 90	5400	E62/158HFW	•
		2 x 36W	68	74	1270 x 136 x 90	5400	E62/236HFW	•
		2 x 58W	71	74	1570 x 136 x 90	5400	E62/258HFW	•
Reflector - satin-anodised aluminium								
		 T5 ECO - Ø 16 mm						
-	-	1 x 45W	88	105	1570 x 86 x 90	5400	E62/145HFW	•
		1 x 50W	84	102	1270 x 86 x 90	5400	E62/150HFW	•
		1 x 73W	74	90	1570 x 86 x 90	5400	E62/173HFW	•
≤ 28	-	1 x 25W	91	104	1270 x 86 x 90	5400	E62/125HFW	•
		1 x 32W	92	104	1570 x 86 x 90	5400	E62/132HFW	•
		2 x 25W	90	99	1270 x 136 x 90	5400	E62/225HFW	•
		2 x 32W	89	99	1570 x 136 x 90	5400	E62/232HFW	•
		2 x 45W	81	97	1570 x 136 x 90	5400	E62/245HFW	•



LIGHT MANAGEMENT
Save up to 75% on energy
see p 276 up to 299





EMERGENCY LIGHTING



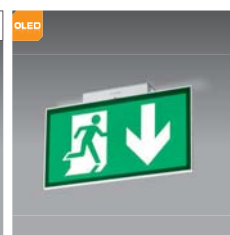
K1 → p 201



K2 → p 209



K3 → p 217



K4 → p 221



K5 → p 225



K6 → p 231



K7 → p 239



K9 → p 249



KL → p 263



MODULE → p 266



K1

SURFACE MOUNTED AND RECESSED LUMINAIRES
FOR EMERGENCY LIGHTING AND SIGNAGE



lighting

→ p 203



single sided signage

→ p 205



single and double sided signage

→ p 206



K1



Application	Anti-panic and escape route lighting Single sided illuminated safety signs (wall) Single and double sided illuminated safety signs (ceiling)
Material	Base: impact-resistant polycarbonate Diffuser: impact-resistant polycarbonate Sign plate: polymethyl metacrylate (PMMA)
Optics	K11: wide-angle distribution Fresnel lens K13 lighting: diffuser with or without opal foil K13 single sided sigage: diffuser with pictogram foil K14: narrow-beam Fresnel lens, reduced glare when viewed directly
Dimensions	L x W x H in mm: 304 x 155 x 73 (without sign plate) Plan N.: 7000 - 7001
Safety sign	Perfect evenly distributed illumination, conforms to EN 1838, viewing distance 26 m K13: Foil, diffuser to assist with escape route lighting and 1 lux zones (not for LED luminaires) K14: Screenprint, diffuser to assist with escape rout lighting and 5 lux zones

Systems → p 301 | Options and accessories → p 358 | Spacing tables → p 362 | Wiring diagrams → p 376 | Dimensional sketches → p 411 | Pictograms → p 269



K1 suspension – webref. SK1017E1



K1 with decorative end pieces – webref. SK1010A7



LIGHTING K1

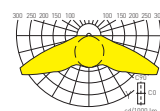
LIGHTING self-contained luminaires

Table explanation p 424

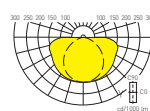
optics	special application	mounting	NM/M	lamp type	lumen emergency	order code	
self test							
Fresnel lens	-	surface/recessed	NM	T5 6W	200	K111/6N	K112/6N
	-	surface/recessed	NM	TC-S 11W	450	K111/11N2	K112/11N2
	-	surface/recessed	M	T5 6W	200	K111/6P	K112/6P
	inhibiting mode	surface/recessed	NM	T5 6W	200	-	K172/6N
	inhibiting mode	surface/recessed	M	T5 6W	200	-	K172/6P
diffuser	-	surface/recessed	NM	T5 6W	200	K131/6N	K132/6N
	-	surface/recessed	M	T5 6W	200	K131/6P	K132/6P
ETAP Safety Manager: self test EST+							
Fresnel lens	-	surface/recessed	NM	T5 6W	200	K113/6N	K114/6N
	-	surface/recessed	NM	TC-S 11W	450	K113/11N2	K114/11N2
	-	surface/recessed	M	T5 6W	200	K113/6P	K114/6P
diffuser	-	surface/recessed	NM	T5 6W	200	K133/6N	K134/6N
	-	surface/recessed	M	T5 6W	200	K133/6P	K134/6P

LIGHTING centrally supplied luminaires

optics	special application	mounting	emergency supply voltage	lamp type	lumen		order code
central battery systems (excl. EBS Compact)					AC	DC	
Fresnellens	-	surface/recessed	230V AC/DC	T5 6W	250	190	K11/6-230
	-	surface/recessed	230V AC/DC	TC-S 11W	520	430	K11/11-230
diffuser	-	surface/recessed	230V AC/DC	T5 6W	80	60	K13/6-230



K11
Fresnel lens



K13
diffuser





K1 right angle wall mounting - webref. SK1011B2



K1 - webref. SK1011F2

SIGNAGE K1

SINGLE SIDED SIGNAGE (WALL) self-contained luminaires

Table explanation p 424

function	mounting	NM/M	lamp type	order code	
self test					
single sided signage	surface/recessed	NM	T5 6W	K131/6N	K132/6N
	surface/recessed	M	T5 6W	K131/6P	K132/6P
	surface/recessed	M	LED 2W	K131/2P	K132/2P
ETAP Safety Manager: self test EST+					
single sided signage	surface/recessed	NM	T5 6W	K133/6N	K134/6N
	surface/recessed	M	T5 6W	K133/6P	K134/6P
	surface/recessed	M	LED 2W	K133/2P	K134/2P

SINGLE SIDED SIGNAGE (WALL) centrally supplied luminaires

function	mounting	emergency supply voltage	lamp type	order code
central battery systems (excl. EBS Compact)				
single sided signage	surface/recessed	230V AC/DC	T5 6W	K13/6-230
	surface/recessed	230V AC/DC	LED 2W	K13/2-230



K1 recessed – webref. SK1012B1



K1 right angle wall mounting – webref. SK1012C1

K1 SIGNAGE

SINGLE AND DOUBLE SIDED SIGNAGE self-contained luminaires

Table explanation p 424

function	mounting	NM/M	lamp type	order code	
self test					
single and double sided signage	surface/recessed surface/recessed	NM M	T5 6W T5 6W	K141/6N K141/6P	K142/6N K142/6P
ETAP Safety Manager: self test EST+					
single and double sided signage	surface/recessed surface/recessed	NM M	T5 6W T5 6W	K143/6N K143/6P	K144/6N K144/6P

SINGLE AND DOUBLE SIDED SIGNAGE centrally supplied luminaires

function	mounting	emergency supply voltage	lamp type	order code
central battery systems (excl. EBS Compact)				
single and double sided signage	surface/recessed	230V AC/DC	T5 6W	K14/6-230





K1 double sided signage – webref. SK1012H1



K1 – webref. SK1010A4



K1

Options and accessories

Mounting accessories

recessed mounting set	for lighting and double sided signage (not for use with decorative end pieces)	K1H1
optional template for recessed mounting set		K1H8
parallel wall bracket		K1H3
right angle wall bracket	(not for use with decorative end pieces or tamper-proof device)	K1H2
suspension set	for lighting and double sided signage	K1H4-50
	for single sided signage	K1H5-50
mounting plate for mounting on rough surfaces		K1H10
accessory for through wiring and/or surface mounted cabling		K1H11

Options

decorative end pieces	white aluminium (RAL9006)	K1H6-1
	white (RAL9003)	K1H6-2
opal foil for diffuser		K1ED0
protective grille		K1H7

Electronic options for self-contained luminaires

3h duration		code + S2
version for combination with E5-in-line system	only surface mounted luminaires (not for single sided signage)	code + S9
conform to DALI IEC62386-202 Ed. 2009	only for ESM luminaires	code + S11
LON® version		consult ETAP

Electronic options for centrally supplied luminaires

KCADB01, EBS-module		code + C1
KCFLEX1, EBS-module		code + C2
KCFLEX2, EBS-module		consult ETAP
KCFLEX3, EBS-module		consult ETAP
KCLU1, EBS-module		consult ETAP

Mechanical options

tamper-proof device		code + M1
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Pictogram

pictogram choice: see overview p 269		
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K2

IMPACT-RESISTANT, DUST AND WATERTIGHT LUMINAIRES
FOR INTERIOR AND EXTERIOR LIGHTING AND SIGNAGE



lighting

→ p 211



single sided signage

→ p 213



double sided signage

→ p 214



K2



Application	Anti-panic and escape route lighting for exterior ($t \geq -15^{\circ}\text{C}$) and interior Exterior lighting of final emergency exit ($t \geq -15^{\circ}\text{C}$) with daylight sensor Single sided illuminated safety signs (wall) for exterior ($t \geq -15^{\circ}\text{C}$) and interior Single and double sided illuminated safety signs (ceiling) for exterior ($t \geq -15^{\circ}\text{C}$) and interior
Material	Base: impact-resistant polycarbonate Diffuser: impact-resistant polycarbonate
Optics	K21: wide-angle Fresnel lens K21: lens K28: exterior lighting of final emergency exit ($t \geq -15^{\circ}\text{C}$): narrow-beam lens K24: aluminium specular reflector for an even illumination of the pictogram
Dimensions	L x W x H in mm: 359 x 180 x 100 K24: L x W x H in mm: 359 x 180 x 225 Plan N.: 7100 - 7101
Signage	Foil, viewing distance: 26 m Perfect evenly distributed illumination, conforms to EN 1838 K23: Diffuser to assist with escape route lighting and 1 lux on the floor next to each exit and emergency exit (not for LED luminaires) K24: Diffuser to assist with escape route lighting and 1 and 5 lux on the floor next to crossings, fire extinguishers and other important places (not for LED luminaires) LED luminaire standby mode: 80 cd/m² in the white section of the pictogram

Systems → p 301 | Options and accessories → p 358 | Spacing tables → p 362 | Wiring diagrams → p 376 | Dimensional sketches → p 411 | Pictograms → p 269



K2 suspension - webref. SK2015A1



K2 exterior lighting of final emergency exit - webref. SK2032A1



K2 - webref. SK2100A1



LIGHTING K2

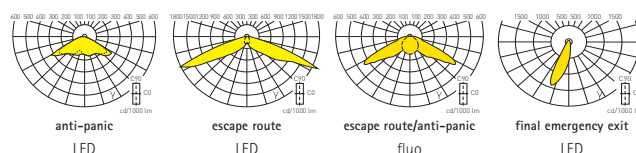
LIGHTING self-contained luminaires

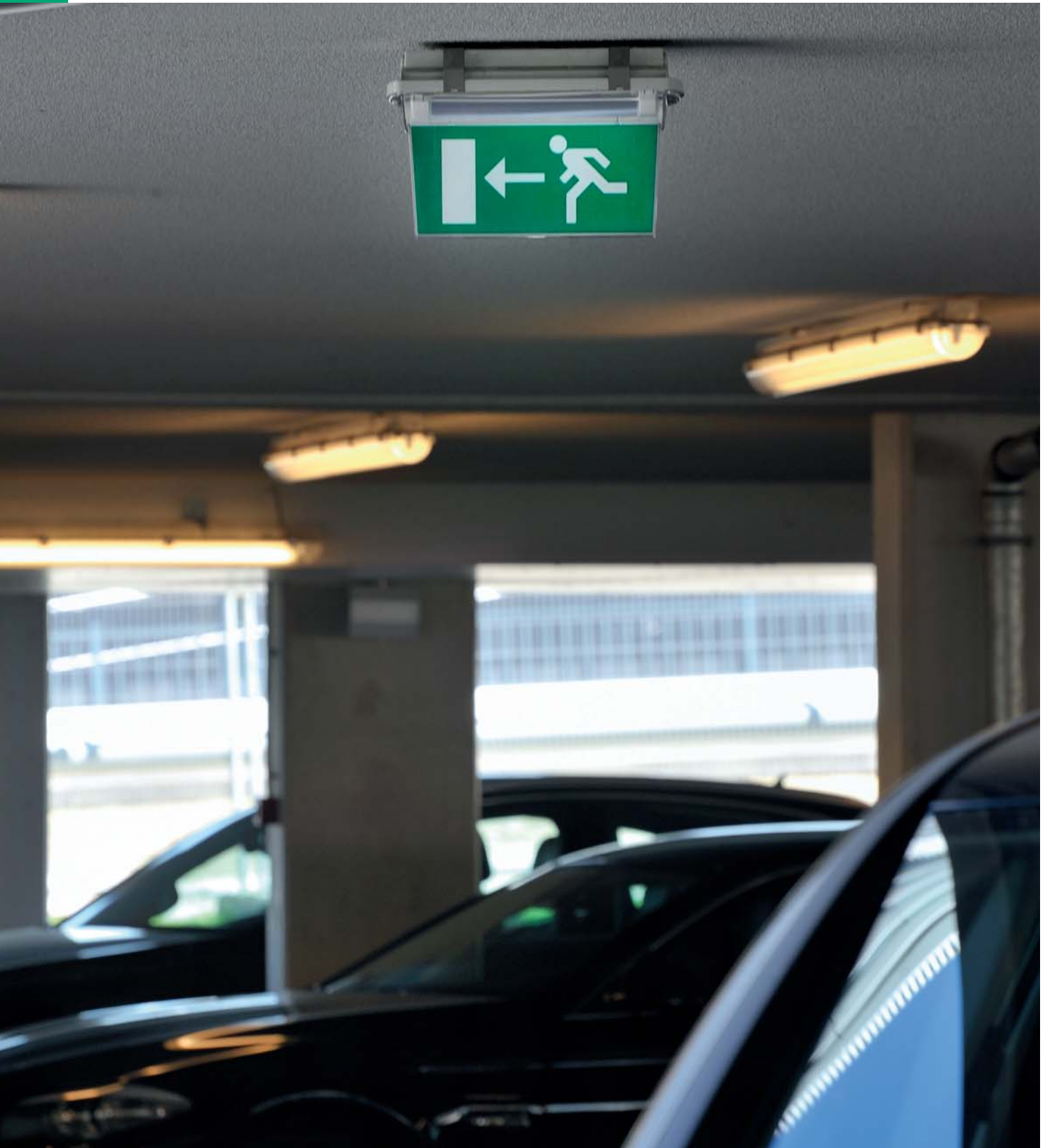
Table explanation p 424

self contained luminaires								order code		
optics	application	special application	temperature	mounting	NM/M	lamp type	lumen emergency			
self test										
lens	escape route	-	-	surface/recessed	NM	LED 3W	168	K211/3N	K212/3N	
		-	-	surface/recessed	M	LED 3W	168	K211/3P	K212/3P	
		exterior use	≥ -15°C	surface/recessed	NM	LED 3W	168	K211/3NO	K212/3NO	
		exterior use	≥ -15°C	surface/recessed	M	LED 3W	168	K211/3PO	K212/3PO	
	anti-panic	-	-	surface/recessed	NM	LED 3W	168	K221/3N	K222/3N	
		-	-	surface/recessed	M	LED 3W	168	K221/3P	K222/3P	
	escape route/anti-panic	exterior lighting of final emergency exit	≥ -15°C	surface/recessed	NM	LED 2W	90	K281/2N	K282/2N	
		exterior lighting of final emergency exit	≥ -15°C	surface/recessed	M	LED 2W	90	K281/2P	K282/2P	
	Fresnel lens	escape route/anti-panic	-	-	surface/recessed	NM	T5 6W	200	K211/6N	K212/6N
			-	-	surface/recessed	NM	TC-S 11W	500	K211/11N2	K212/11N2
-			-	surface/recessed	M	TC-S 11W	500	K211/11P2	K212/11P2	
-			-	surface/recessed	M	T5 6W	200	K211/6P	K212/6P	
inhibiting mode			-	surface/recessed	NM	T5 6W	200	-	K272/6N	
inhibiting mode			-	surface/recessed	M	T5 6W	200	-	K272/6P	
exterior use			≥ -15°C	surface/recessed	NM	T5 6W	200	K211/6NO	K212/6NO	
ETAP Safety Manager: self test EST+										
lens	escape route	-	-	surface/recessed	NM	LED 3W	168	K213/3N	K214/3N	
		-	-	surface/recessed	M	LED 3W	168	K213/3P	K214/3P	
		exterior use	≥ -15°C	surface/recessed	NM	LED 3W	168	K213/3NO	K214/3NO	
		exterior use	≥ -15°C	surface/recessed	M	LED 3W	168	K213/3PO	K214/3PO	
	anti-panic	-	-	surface/recessed	NM	LED 3W	168	K223/3N	K224/3N	
		-	-	surface/recessed	M	LED 3W	168	K223/3P	K224/3P	
	escape route/anti-panic	exterior lighting of final emergency exit	≥ -15°C	surface/recessed	NM	LED 2W	90	K283/2N	K284/2N	
		exterior lighting of final emergency exit	≥ -15°C	surface/recessed	M	LED 2W	90	K283/2P	K284/2P	
	Fresnel lens	escape route/anti-panic	-	-	surface/recessed	NM	T5 6W	200	K213/6N	K214/6N
			-	-	surface/recessed	NM	TC-S 11W	500	K213/11N2	K214/11N2
-			-	surface/recessed	M	TC-S 11W	500	K213/11P2	K214/11P2	
-			-	surface/recessed	M	T5 6W	200	K213/6P	K214/6P	
exterior use			≥ -15°C	surface/recessed	NM	T5 6W	200	K213/6NO	K214/6NO	

LIGHTING centrally supplied luminaires

optics	application	special application	temperature	mounting	emergency supply voltage	lamp type	lumen		order code
EBS Compact							emergency		
lens	escape route/anti-panic	exterior lighting of final emergency exit	≥ -15°C	surface/recessed	24V	LED 2W	90		K28/2-24C6
other central battery systems							AC	DC	
lens	escape route	-	-	surface/recessed	230V AC/DC	LED 3W	165	165	K21/3N-230
	anti-panic	-	-	surface/recessed	230V AC/DC	LED 3W	172	172	K22/3N-230
	escape route/anti-panic	exterior lighting of final emergency exit	≥ -15°C	surface/recessed	230V AC/DC	LED 2W	50	50	K28/2-230
	escape route/anti-panic	-	-	surface/recessed	230V AC/DC	T5 6W	250	190	K21/6-230
Fresnel lens	escape route/anti-panic	-	-	surface/recessed	230V AC/DC	TC-S 11W	570	470	K21/11-230
	escape route/anti-panic	-	-	surface/recessed	230V AC/DC	TC-S 11W	570	470	K21/11-230







K2 - webref. SK2017A1



K2 right angle wall mounting - webref. SK2028A1



K2 - webref. SK2026C1

SIGNAGE K2

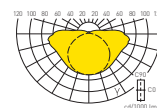
SINGLE SIDED SIGNAGE self-contained luminaires

Table explanation p 424

function	temperature	mounting	NM/M	lamp type	order code	
self test						
single sided signage	-	surface/recessed	NM	T5 6W	K231/6N	K232/6N
	-	surface/recessed	M	T5 6W	K231/6P	K232/6P
	-	surface/recessed	M	LED 2W	K231/2P	K232/2P
	-	surface/recessed	M	LED 3W	-	K232/3P
single sided signage for exterior use	≥ -15°C	surface/recessed	M	LED 3W	K231/2PO	K232/2PO
ETAP Safety Manager: self test EST+						
single sided signage	-	surface/recessed	NM	T5 6W	K233/6N	K234/6N
	-	surface/recessed	M	T5 6W	K233/6P	K234/6P
	-	surface/recessed	M	LED 2W	K233/2P	K234/2P
	-	surface/recessed	M	LED 3W	K233/3P	K234/3P
single sided signage for exterior use	≥ -15°C	surface/recessed	M	LED 2W	K233/2PO	K234/2PO

SINGLE SIDED SIGNAGE centrally supplied luminaires

function	mounting	emergency supply voltage	lamp type	order code
central battery systems (excl. EBS Compact)				
single sided signage	surface/recessed	230V AC/DC	T5 6W	K23/6-230
	surface/recessed	230V AC/DC	LED 2W	K23/2-230
	surface/recessed	230V AC/DC	LED 3W	K23/3-230



K23



K2 suspension – webref. SK2023A1



K2 ceiling mounting – webref. SK2030B2

K2 SIGNAGE

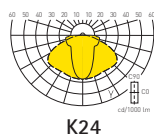
SINGLE AND DOUBLE SIDED SIGNAGE self-contained luminaires

Table explanation p 424

function	temperature	mounting	NM/M	lamp type	order code	
self test						
single and double sided signage	-	surface/recessed	NM	T5 6W	K241/6N	K242/6N
	-	surface/recessed	M	T5 6W	K241/6P	K242/6P
	-	surface/recessed	M	LED 2W	K241/2P	K242/2P
single and double sided signage for exterior use	≥ -15°C	surface/recessed	M	LED 2W	K241/2PO	K242/2PO
ETAP Safety Manager: self test EST+						
single and double sided signage	-	surface/recessed	NM	T5 6W	K243/6N	K244/6N
	-	surface/recessed	M	T5 6W	K243/6P	K244/6P
	-	surface/recessed	M	LED 2W	K243/2P	K244/2P
single and double sided signage for exterior use	≥ -15°C	surface/recessed	M	LED 2W	K243/2PO	K244/2PO

SINGLE AND DOUBLE SIDED SIGNAGE centrally supplied luminaires

function	mounting	emergency supply voltage	lamp type	order code
central battery systems (excl. EBS Compact)				
single and double sided signage	surface/recessed	230V AC/DC	T5 6W	K24/6-230
	surface/recessed	230V AC/DC	LED 2W	K24/2-230



K24



K2 – webref. SK2031A3



K2

Options and accessories

Mounting accessories

recessed mounting set	for lighting and double sided signage	K2H21
right angle wall bracket		K2H22
parallel wall bracket	for double sided signage	K2H23
ceiling bracket	for lighting and single sided signage	K2H23
suspension (the code does not include threaded rods)	for lighting and double sided signage	K2H24
	for single sided signage	K2H25
mounting plate for mounting on rough surfaces		K1H10
accessory for through wiring and/or surface mounted cabling		K1H11

Options

protective grille	for lighting and single sided signage	K2H27
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Electronic options for self-contained luminaires

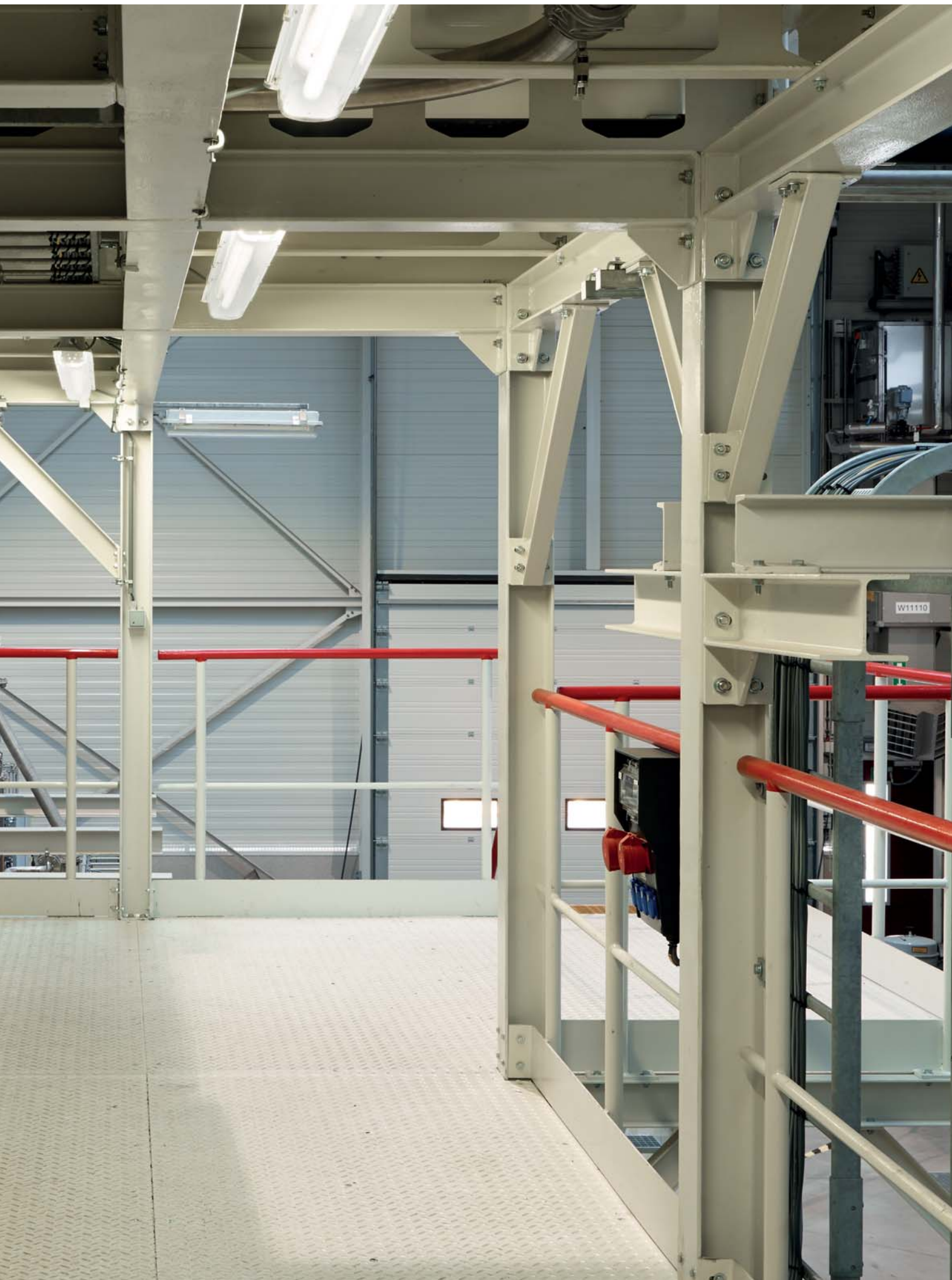
through wiring		code + S1
3h duration		code + S2
version for combination with E5-in-line system	only surface mounted luminaires (not for single sided signage)	code + S9
conform to DALI IEC62386-202 Ed. 2009	only for ESM luminaires	code + S11
LON® version		consult ETAP

Electronic options for centrally supplied luminaires

KCADB01, EBS-module		code + C1
KCFLEX1, EBS-module		code + C2
KCFLEX2, EBS-module		consult ETAP
KCFLEX3, EBS-module		consult ETAP
KCLU1, EBS-module		consult ETAP

Pictogram

pictogram choice: see overview p 269



K3

DUST AND WATERTIGHT LUMINAIRES FOR AGGRESSIVE ENVIRONMENTS



Application	Anti-panic lighting Escape route lighting High risk task area lighting Explosive dust atmospheres, zones 21 and 22, Atex II D (t = 80°C) Exterior lighting of final emergency exit (t ≥ -10°C) Single sided illuminated safety signs (wall)
Material	Base: fibreglass-reinforced polyester (GRP) Diffuser: impact-resistant polycarbonate / quick release: stainless steel Seal between base and cover: polyurethane
Optics	Wide- or narrow-angle reflector: HRSilver™-high reflection aluminium
Dimensions	L x W x H in mm: 682 x 148 x 117 Plan N.: 7200
Signage	Sticker, perfect evenly distributed illuminations, conforms to EN 1838 Diffuser to assist with escape route lighting and 5 lux zones Viewing distance: 20 m

Systems → p 301 | Options and accessories → p 358 | Spacing tables → p 362 | Wiring diagrams → p 376 | Dimensional sketches → p 412 | Pictograms → p 269



K3 lighting - webref. SK3003A5

K3 LIGHTING

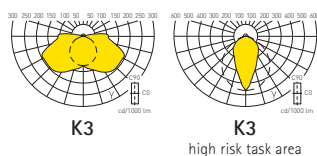
LIGHTING self-contained luminaires

Table explanation p 424

optics	special application	temperature	mounting	NM/M	lamp type	lumen emergency	order code	
self test								
reflector	-	-	surface mounted	NM	T5 14W	470	K312/14N	
	-	-	surface mounted	NM	T5 14W	840	K312/14N2	
	-	-	surface mounted	M	T5 14W	470	K312/14P	
	-	-	surface mounted	M	T5 14W	840	K312/14P2	
	inhibiting mode	-	surface mounted	NM	T5 14W	470	K372/14N	
	inhibiting mode	-	surface mounted	M	T5 14W	470	K372/14P	
	exterior use	≥ -10°C	surface mounted	M	T5 14W	220	K382/14P	
	high risk task area	-	surface mounted	M	T5 14W	790	K392/14P2	
ETAP Safety Manager: self test EST+						 wired	 wireless	
reflector	-	-	surface mounted	NM	T5 14W	470	K313/14N	K314/14N
	-	-	surface mounted	NM	T5 14W	840	K313/14N2	K314/14N2
	-	-	surface mounted	M	T5 14W	470	K313/14P	K314/14P
	-	-	surface mounted	M	T5 14W	840	K313/14P2	K314/14P2
	inhibiting mode	-	surface mounted	NM	T5 14W	470	K373/14N	-
	inhibiting mode	-	surface mounted	M	T5 14W	470	K373/14P	-
	exterior use	≥ -10°C	surface mounted	M	T5 14W	220	K383/14P	K384/14P
	high risk task area	-	surface mounted	M	T5 14W	790	K393/14P2	K394/14P2

LIGHTING centrally supplied luminaires

optics	special application	mounting	emergency supply voltage	lamp type	lumen AC DC	order code
central battery systems (excl. EBS Compact)					AC DC	
reflector	-	surface mounted	230V AC/DC	T5 14W	840 840	K31/14-230





K3 signage, ATEX – webref. SK3008A2



SIGNAGE K3

SINGLE SIDED SIGNAGE self-contained luminaires

Table explanation p 424

function	mounting	NM/M	lamp type	order code	
self test				EST+	
single sided signage	surface mounted	NM	T5 14W	K312/14N	
	surface mounted	M	T5 14W	K312/14P	
ETAP Safety Manager: self test EST+				ESM wired	ESM wireless
single sided signage	surface mounted	NM	T5 14W	K313/14N	K314/14N
	surface mounted	M	T5 14W	K313/14P	K314/14P

SINGLE SIDED SIGNAGE centrally supplied luminaires

function	mounting	emergency supply voltage	lamp type	order code
central battery systems (excl. EBS Compact)				
single sided signage	surface mounted	230V AC/DC	T5 14W	K31/14-230

Options and accessories

Options

protective grille	K2H2
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Electronic options for self-contained luminaires

3h duration	code + S2
version for combination with E5-in-line system	(not for single sided signage) code + S9
conform to DALI IEC62386-202 Ed. 2009	only for ESM luminaires code + S11
LON® version	consult ETAP

Electronic options for centrally supplied luminaires

KCADB01, EBS-module	code + C1
KCFLEX1, EBS-module	code + C2
KCFLEX2, EBS-module	consult ETAP
KCFLEX3, EBS-module	consult ETAP
KCLU1, EBS-module	consult ETAP

Mechanical options

ATEX II 2 D (t = 80°C), zones 21 and 22	code + M4
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Pictogram

pictogram choice: see overview p 269



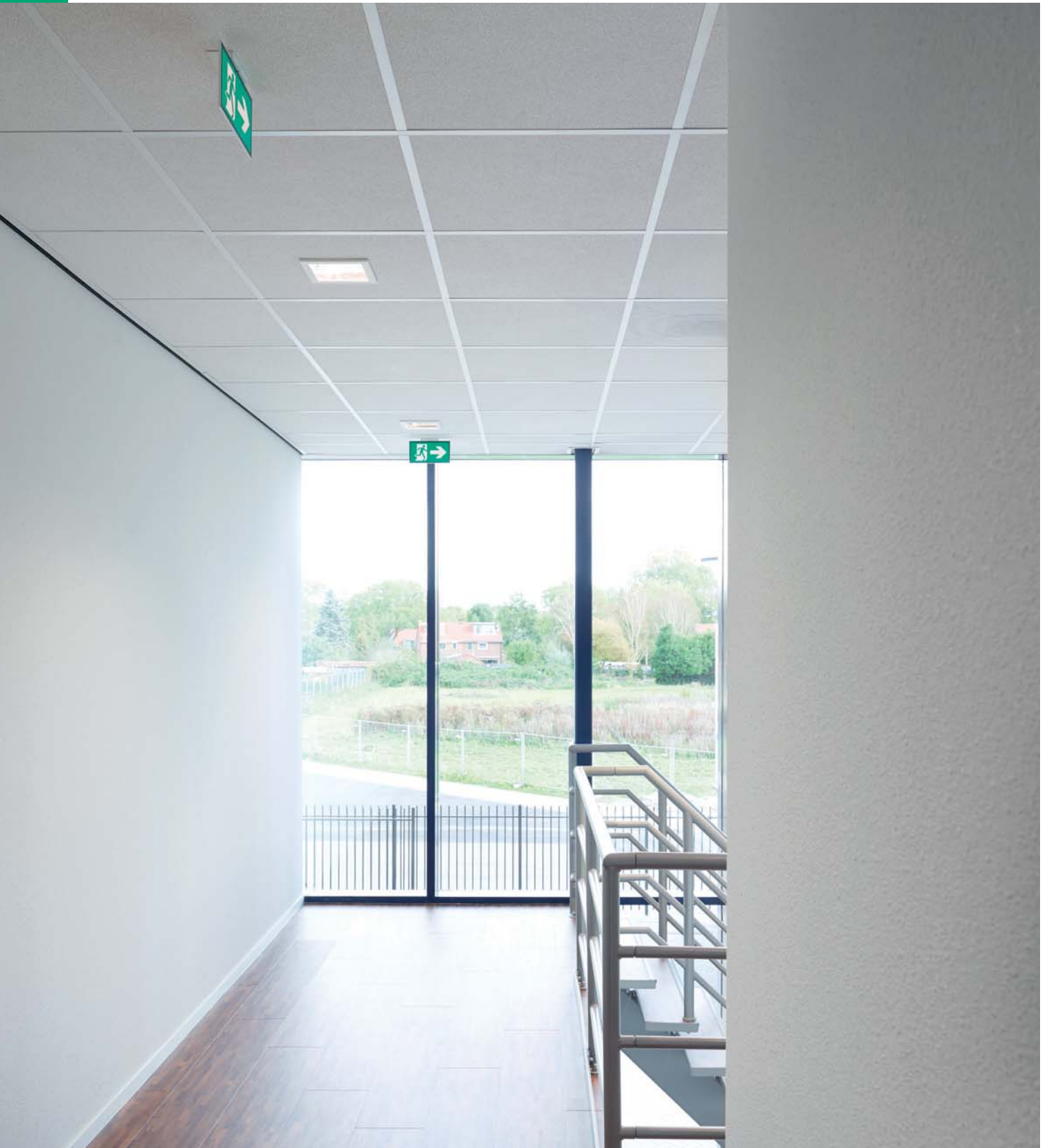
K4

SURFACE MOUNTED LUMINAIRES
FOR SINGLE SIDED SIGNAGE WITH OLED



Application	Single sided illuminated safety signs
Material	Base in aluminium and frame in polycarbonate Lacquered in white
Dimensions	L x W x H in mm: 227 x 120 x 234 mm (ceiling) / 227 x 57 x 134 mm (wall) Plan N.: 7250 - 7251
Self test	Indicates a lamp error if the clarity drops below 2 cd/m ² (conforms to EN1838)
Signage	Pictogram with OLED technology Perfect evenly distributed illumination, conforms to EN 1838 OLED standby mode: 80 cd/m ² in the white section of the pictogram Viewing distance: 21 m

Systems → p 301 | Options and accessories → p 359 | Spacing tables → p 362 | Wiring diagrams → p 376 | Dimensional sketches → p 412 | Pictograms → p 269

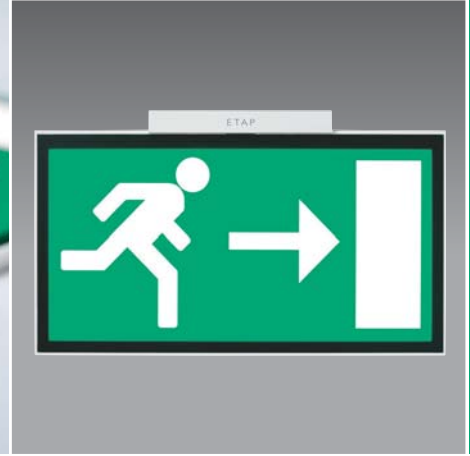




K4 - webref. SK4100B7



K4 - webref. SK4102A1



K4 wall mounting - webref. SK4101B2

K4

SINGLE SIDED SIGNAGE centrally supplied luminaires

Table explanation p 424

application	mounting	emergency supply voltage	lamp type	order code
EBS Compact				
single sided signage	recessed ceiling	24V	OLED	K424/1-24C6
	recessed wall	24V	OLED	K423/1-24C6

Options and accessories

Mounting accessories

recessed mounting template ceiling	K4H20
recessed mounting template wall	K4H21

Pictogram

pictogram choice: see overview p 269





K5

RECESSED LUMINAIRES
FOR LIGHTING AND SIGNAGE



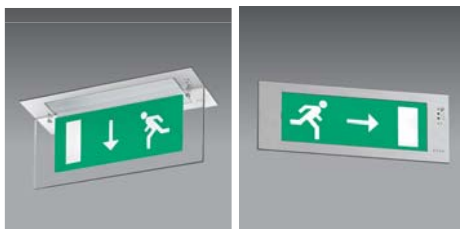
lighting

→ p 227



single and double sided signage

→ p 228



K5



Application	Anti-panic and escape route lighting Single sided illuminated safety signs (wall) Single and double sided illuminated safety signs (ceiling)
Material	Housing: white lacquered sheet steel Ceiling plate: sheet steel with structured lacquer in RAL9006-white aluminium or RAL9003-white Diffuser: polycarbonate Sign plate: polymethyl metacrylate (PMMA)
Optics	Reflector: satin-anodised aluminium, white baffles Diffuser: polycarbonate diffuser K5R4: internal reflector, diffuse light panels
Dimensions	L x W x H in mm: 398 x 140 x 96 (excl. pictogram) Plan N.: 7300 - 7302
Signage	Viewing distance: 26 m Screenprint on clear plate Perfect evenly distributed illumination, conforms to EN1838 Diffuser to assist with escape route lighting and 5 lux zones

Systems → p 301 | Options and accessories → p 359 | Distance tables → p 362 | Wiring diagrams → p 376 | Dimensional sketches → p 412 | Pictograms → p 270



K5 - webref. SK5021A5



K5 diffuser - webref. SK5021A4



LIGHTING K5

LIGHTING self contained luminaires

Table explanation p 424

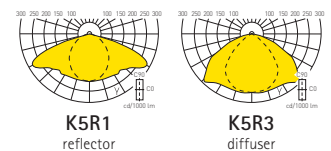
optics	mounting	NM/M	lamp type	lumen emergency	order code ¹	
self test						
reflector	recessed ceiling	NM	T5 8W	260	K5R11/8N	K5R12/8N
	recessed ceiling	NM	T5 8W	380	K5R11/8N2	K5R12/8N2
	recessed ceiling	M	T5 8W	260	K5R11/8P	K5R12/8P
	recessed ceiling	M	T5 8W	380	K5R11/8P2	K5R12/8P2
diffuser	recessed ceiling/wall	NM	T5 8W	200	K5R31/8N	K5R32/8N
	recessed ceiling/wall	NM	T5 8W	290	K5R31/8N2	K5R32/8N2
	recessed ceiling/wall	M	T5 8W	200	K5R31/8P	K5R32/8P
	recessed ceiling/wall	M	T5 8W	290	K5R31/8P2	K5R32/8P2
ETAP Safety Manager: self test EST+						wired
reflector	recessed ceiling	NM	T5 8W	260	K5R13/8N	
	recessed ceiling	NM	T5 8W	380	K5R13/8N2	
	recessed ceiling	M	T5 8W	260	K5R13/8P	
	recessed ceiling	M	T5 8W	380	K5R13/8P2	
diffuser	recessed ceiling/wall	NM	T5 8W	200	K5R33/8N	
	recessed ceiling/wall	NM	T5 8W	290	K5R33/8N2	
	recessed ceiling/wall	M	T5 8W	200	K5R33/8P	
	recessed ceiling/wall	M	T5 8W	290	K5R33/8P2	

¹ code + X1: luminaire in RAL9003-white / code + X2: luminaire in RAL9006-white aluminium

LIGHTING centrally supplied luminaires

optics	mounting	emergency supply voltage	lamp type	lumen		order code ¹
central battery systems (excl. EBS Compact)				AC	DC	
reflector	recessed ceiling	230V AC/DC	T5 8W	400	330	K5R1/8-230
diffuser	recessed ceiling/wall	230V AC/DC	T5 8W	330	275	K5R3/8-230

¹ code + X1: luminaire in RAL9003-white / code + X2: luminaire in RAL9006-white aluminium





K5 - webref. SK5022B2

K5 SIGNAGE

SINGLE SIDED SIGNAGE self contained luminaires

Table explanation p 424

function	mounting	NM/M	lamp type	order code ¹	
self test					
single sided signage	recessed	NM	T5 8W	K5R31/8N	K5R32/8N
	recessed	M	T5 8W	K5R31/8P	K5R32/8P
ETAP Safety Manager: self test EST+					wired
single sided signage	recessed	NM	T5 8W	K5R33/8N	
	recessed	M	T5 8W	K5R33/8P	

¹ code + X1: luminaire in RAL9003-white / code + X2: luminaire in RAL9006-white aluminium

SINGLE SIDED SIGNAGE centrally supplied luminaires

function	mounting	emergency supply voltage	lamp type	order code ¹
central battery systems (excl. EBS Compact)				
single sided signage	recessed	230V AC/DC	T5 8W	K5R3/8-230

¹ code + X1: luminaire in RAL9003-white / code + X2: luminaire in RAL9006-white aluminium



K5 - webref. SK5021B9



K5 - webref. SK5022B1

SIGNAGE K5

SINGLE AND DOUBLE SIDED SIGNAGE self contained luminaires

Table explanation p 424

function	mounting	NM/M	lamp type	order code ¹	
self test					
single and double sided signage	recessed	NM	T5 8W	K5R41/8N	K5R42/8N
	recessed	M	T5 8W	K5R41/8P	K5R42/8P
ETAP Safety Manager: self test EST+					
single and double sided signage	recessed	NM	T5 8W	K5R43/8N	
	recessed	M	T5 8W	K5R43/8P	

¹ code + X1: luminaire in RAL9003-white / code + X2: luminaire in RAL9006-white aluminium

SINGLE AND DOUBLE SIDED SIGNAGE centrally supplied luminaires

function	mounting	emergency supply voltage	lamp type	order code ¹
central battery systems (excl. EBS Compact)				
single and double sided signage	recessed	230V AC/DC	T5 8W	K5R4/8-230

¹ code + X1: luminaire in RAL9003-white / code + X2: luminaire in RAL9006-white aluminium

Options and accessories

Mounting accessories

recessed mounting template	K5RH8
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Electronic options for self contained luminaires

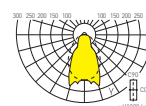
3h duration	code + S2
conform to DALI IEC62386-202 Ed. 2009	only for ESM luminaires code + S11
LON® version	consult ETAP

Electronical options for centrally supplied luminaires

KCADB01, EBS-module	code + C1
KCFLEX1, EBS-module	code + C2
KCFLEX2, EBS-module	consult ETAP
KCFLEX3, EBS-module	consult ETAP
KCLU1, EBS-module	consult ETAP

Pictogram

pictogram choice: see overview p 270





K6

SURFACE MOUNTED LUMINAIRES
FOR LIGHTING AND SIGNAGE



lighting

→ p 233



single sided signage

→ p 235



single and double sided signage

→ p 236



K6



Application	Anti-panic and escape route lighting Single sided illuminated safety signs (wall) Single and double sided illuminated safety signs (wall/ceiling)
Material	Housing: aluminium, lacquered in RAL9006-white aluminium; RAL9003-white as option Sign plate: polycarbonate
Optics	Ceiling mounting: satin-anodised aluminium reflector, clear diffuser (850°C) Wall mounting: opal diffuser (850°C)
Dimensions	L x W x H in mm: 340 x 225 x 55 Plan N.: 7400 - 7402
Signage	Screenprint on clear diffuser Perfect evenly distributed illumination, conforms to EN 1838 Viewing distance: 26 m

Systems → p 301 | Options and accessories → p 359 | Distance tables → p 362 | Wiring diagrams → p 376 | Dimensional sketches → p 413 | Pictograms → p 270



K6 - webref. SK6002B1



K6, easy installation - webref. SK6003A4



K6 diffuser - webref. SK6004E2



LIGHTING K6

LIGHTING self contained luminaires

Table explanation p 424

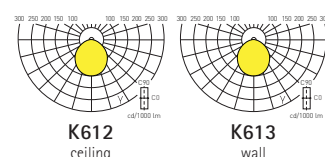
ETAP Safety Manager: self test EST+						order code ¹
optics		mounting	NM/M	lamp type	lumen emergency	
self test						
reflector	clear diffuser	surface mounted ceiling	NM	T5 8W	200	K612/8N
	clear diffuser	surface mounted ceiling	NM	T5 8W	340	K612/8N2
	clear diffuser	surface mounted ceiling	M	T5 8W	200	K612/8P
	clear diffuser	surface mounted ceiling	M	T5 8W	340	K612/8P2
diffuser	opal diffuser	surface mounted wall	NM	T5 8W	120	K632/8N
	opal diffuser	surface mounted wall	M	T5 8W	120	K632/8P
ETAP Safety Manager: self test EST+						
reflector	clear diffuser	surface mounted ceiling	NM	T5 8W	200	K613/8N
	clear diffuser	surface mounted ceiling	NM	T5 8W	340	K613/8N2
	clear diffuser	surface mounted ceiling	M	T5 8W	200	K613/8P
	clear diffuser	surface mounted ceiling	M	T5 8W	340	K613/8P2
diffuser	opal diffuser	surface mounted wall	NM	T5 8W	120	K633/8N
	opal diffuser	surface mounted wall	M	T5 8W	120	K633/8P

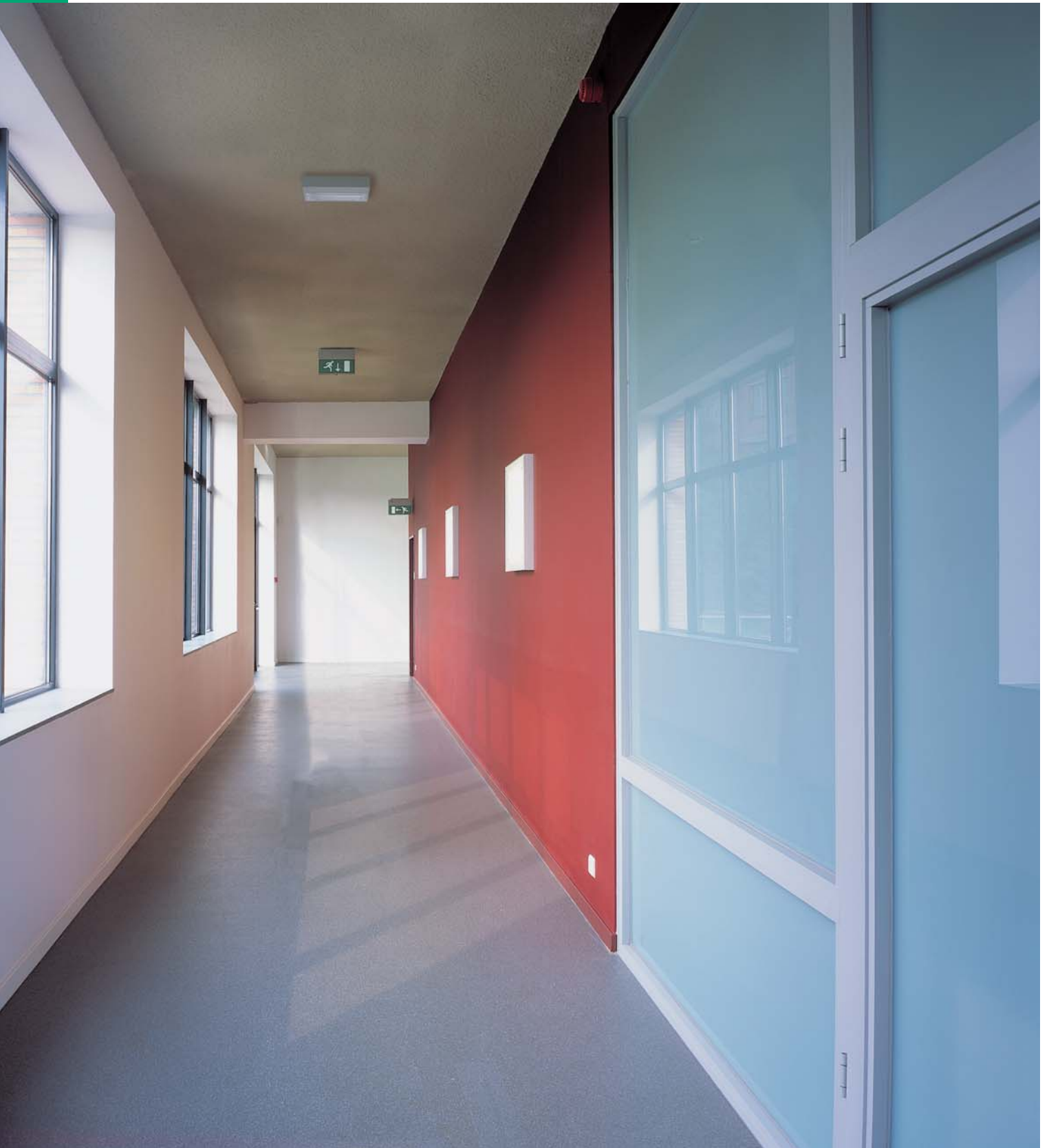
¹ standard colour: RAL9006-white aluminium / code + X1: luminaire in RAL9003-white

LIGHTING centrally supplied luminaires

optics	mounting	emergency supply voltage	lamp type	lumen AC DC	order code ¹
central battery systems (excl. EBS Compact)				AC DC	
reflector	clear diffuser	surface mounted ceiling	T5 8W	140 110	K61/8-230
diffuser	opal diffuser	surface mounted wall	T5 8W	80 70	K63/8-230

¹ standard colour: RAL9006-white aluminium / code + X1: luminaire in RAL9003-white







K6 - webref. SK6006A1



K6 - webref. SK6004A1

SIGNAGE K6

SINGLE SIDED SIGNAGE self contained luminaires

Table explanation p 424

function	mounting	NM/M	lamp type	order code ¹
self test				
single sided signage	surface mounted wall	NM	T5 8W	K642/8N + picto
	surface mounted wall	M	T5 8W	K642/8P + picto
ETAP Safety Manager: self test EST+				 wired
single sided signage	surface mounted wall	NM	T5 8W	K643/8N + picto
	surface mounted wall	M	T5 8W	K643/8P + picto

¹ standard colour: RAL9006-white aluminium / code + X1: luminaire in RAL9003-white

SINGLE SIDED SIGNAGE centrally supplied luminaires

function	mounting	emergency supply voltage	lamp type	order code ¹
central battery systems (excl. EBS Compact)				
single sided signage	surface mounted wall	230V AC/DC	T5 8W	K64/8-230 + picto

¹ standard colour: RAL9006-white aluminium / code + X1: luminaire in RAL9003-white



K6 suspension - webref. SK6003B1

K6 SIGNAGE

SINGLE AND DOUBLE SIDED SIGNAGE self contained luminaires

Table explanation p 424

function	mounting	NM/M	lamp type	order code ¹
self test				
single sided signage	surface mounted	NM	T5 8W	K652/8N + picto
	surface mounted	M	T5 8W	K652/8P + picto
double sided signage	surface mounted	NM	T5 8W	K622/8N + picto
	surface mounted	M	T5 8W	K622/8P + picto
ETAP Safety Manager: self test EST+				 wired
single sided signage	surface mounted	NM	T5 8W	K653/8N + picto
	surface mounted	M	T5 8W	K653/8P + picto
dubbelzijdig signage	surface mounted	NM	T5 8W	K623/8N + picto
	surface mounted	M	T5 8W	K623/8P + picto

¹ standard colour: RAL9006-white aluminium / code + X1: luminaire in RAL9003-white

SINGLE AND DOUBLE SIDED SIGNAGE centrally supplied luminaires

function	mounting	emergency supply voltage	lamp type	order code ¹
central battery systems (excl. EBS Compact)				
single sided signage	surface mounted	230V AC/DC	T5 8W	K65/8-230 + picto
double sided signage	surface mounted	230V AC/DC	T5 8W	K62/8-230 + picto

¹ standard colour: RAL9006-white aluminium / code + X1: luminaire in RAL9003-white

Order example



K6 self contained wall luminaire, with 3h duration, maintained function of the lamp, self test EST+ and tamper-proof device

order code = luminaire code + pictogram code
+ (selected) mechanical option + (selected) electronic option code

- code of the self contained luminaire = K642/8P
- code of the pictogram: + G0 = K642/8PG0
- code of the mechanical option tamper-proof device + M1 = K642/8PG0M1
- code of electronic option 3h duration + S2 = K642/8PG0M1S2



K6 ceiling mounting - webref. SK6004B1



K6 right angle wall mounting - webref. SK6004C1

K6

Options and accessories

Mounting accessories

right angle wall bracket	suffix M2
right angle wall bracket + tamper-proof device	suffix M21
steel wire suspension set	suffix M3
steel wire suspension set + tamper-proof device	suffix M31

Electronic options for self contained luminaires

3h duration	code + S2
conform to DALI IEC62386-202 Ed. 2009	only for ESM luminaires code + S11
LON® version	consult ETAP

Electronic options for centrally supplied luminaires

KCADB01, EBS-module	code + C1
KCFLEX1, EBS-module	code + C2
KCFLEX2, EBS-module	consult ETAP
KCFLEX3, EBS-module	consult ETAP
KCLU1, EBS-module	consult ETAP

Mechanical options

tamper-proof device	code + M1
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Pictogram

pictogram choice: see overview p 270



K7

LUMINAIRES FOR
LIGHTING AND SIGNAGE



lighting

→ p 241



single sided signage

→ p 245



single and double sided signage

→ p 245







Material	Base: impact-resistant polycarbonate		
Application	Maintained lighting is fitted with a daylight sensor that switches off the light source during the day. Under insufficient lighting conditions, the luminaire burns at 20%.		
Anti-panic lighting (44x150x70mm) Plan N.: 7500a		Optics: wide-angle lens	
Escape route lighting (≤ 3,5 m) (44x150x70mm) Plan N.: 7500a		Optics: plastic, specular reflector, wide-angle distribution along the centre line of the escape route	
Escape route- (> 3,5 m) or stairway lighting (≤ 3,5m) (44x150x70mm) Plan N.: 7500a		Optics: narrow-angle Fresnel lens	
Comfort lighting for escape route and anti-panic lighting (52x182x85 mm) Plan N.: 7500b		Optics: diffuser	



K7 - webref. SK7010B1

K7 escape route and stairway lighting - webref. SK7009B1

K7 LIGHTING

LIGHTING self contained luminaires

Table explanation p 424

optics	application	mounting	NM/M	lamp type	lumen emergency	order code		
self test								
reflector and lens	escape route	ceiling ≤ 3,5 m	NM	LED 3W	88	K711/3N	K712/3N	K719/3N
			M	LED 3W	88	K711/3P	K712/3P	K719/3P
Fresnel lens	escape route ¹	ceiling > 3,5 m	NM	LED 3W	85	K711/3N2 ¹	K712/3N2 ¹	K719/3N2 ¹
			M	LED 3W	85	K711/3P2 ¹	K712/3P2 ¹	K719/3P2 ¹
lens	anti-panic	ceiling	NM	LED 3W	100	K721/3N2	K722/3N2	K729/3N2
			M	LED 3W	100	K721/3P2	K722/3P2	K729/3P2
diffuser	comfort	ceiling ≤ 3,5 m	M	LED 3W	76	K761/3P	K762/3P	K769/3P
ETAP Safety Manager: self test EST+								
reflector and lens	escape route	ceiling ≤ 3,5 m	NM	LED 3W	88	K713/3N	K714/3N	
			M	LED 3W	88	K713/3P	K714/3P	
Fresnel lens	escape route ¹	ceiling > 3,5 m	NM	LED 3W	85	K713/3N2 ¹	K714/3N2 ¹	
			M	LED 3W	85	K713/3P2 ¹	K714/3P2 ¹	
lens	anti-panic	ceiling	NM	LED 3W	100	K723/3N2	K724/3N2	
			M	LED 3W	100	K723/3P2	K724/3P2	
diffuser	comfort	ceiling ≤ 3,5 m	M	LED 3W	76	K763/3P	K764/3P	

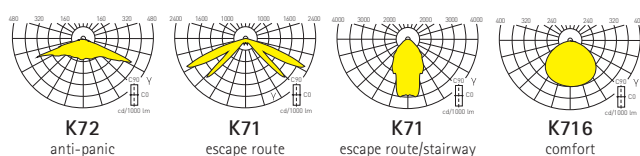
¹ also for stairway lighting ≤ 3,5 m

LIGHTING centrally supplied luminaires

optics	application	mounting	emergency supply voltage	lamp type	lumen	order code	
EBS Compact					emergency		
reflector and lens	escape route	ceiling ≤ 3,5 m	24V	LED 3W	88	K71/3-24C6	
Fresnel lens	escape route ¹	ceiling > 3,5 m	24V	LED 3W	85	K71/3-24C6 ¹	
lens	anti-panic	ceiling	24V	LED 3W	100	K72/3-24C6	
other central battery systems					AC	DC	
reflector and lens	escape route	ceiling ≤ 3,5 m	230V AC/DC	LED 3W	88	88	K71/3N-230 ²
Fresnel lens	escape route ¹	ceiling > 3,5 m	230V AC/DC	LED 3W	85	85	K71/3N2-230 ^{1 2}
lens	anti-panic	ceiling	230V AC/DC	LED 3W	100	100	K72/3N2-230 ²

¹ also for stairway lighting ≤ 3,5 m

² to be used only on non-maintained circuits





K7 wall mounting - webref. SK7006A4



K7 with through wiring - webref. SK7005A3A



LIGHTING K7

Options and accessories

Communication upgrades (only for)

to ESM wired	K7H40
to ESM wireless	K7H41

Mounting accessories

for K71 and K72

recessed mounting set	K7H21
parallel wall bracket	K7H23-1
accessory for through wiring and/or surface mounted cabling	K7H29

for K76

recessed mounting set	K7H31
right angle wall bracket	K7H33
accessory for through wiring and/or surface mounted cabling	K7H39

Electronic options for self-contained luminaires

3h duration		code + S2
conform to DALI IEC62386-202 Ed. 2009	only for ESM luminaires	code + S11
LON® version		consult ETAP

Electronic options for centrally supplied luminaires

KCADB01, EBS-module	consult ETAP
KCFLEX1, EBS-module	consult ETAP
KCFLEX2, EBS-module	consult ETAP
KCFLEX3, EBS-module	consult ETAP
KCLU1, EBS-module	consult ETAP





Application	Single sided illuminated safety signs (wall) Single and double sided illuminated safety signs (ceiling)
Material	Base: impact-resistant polycarbonate Diffuser: impact-resistant polycarbonate Mounting bracket: galvanised sheet steel
Optics	Non-reflective cover Light conductor and dot matrix film
Dimensions	L x W x H in mm: 314 x 180 x 58 Plan N.: 7501
Signage	Foil, viewing distance: 26 m Perfect evenly distributed illumination, conforms to EN 1838
Self test	Indicates a lamp error if clarity drops below 2 cd/m ²
Optional	Escape route module: 12,2 m intermediate distance with emergency lighting luminaire (1 lux, mounting height 2,8m) Lightspot module: 5 lux on 1 m ² up to 4 m mounting height, for crossings of escape routes, fire extinguishers and other important places

Systems → p 301 | Options and accessories → p 360 | Distance tables → p 363 | Wiring diagrams → p 376 | Dimensional sketches → p 414 | Pictograms → p 270



K7 with through wiring - webref. SK7003G1



The pictogram is easy to replace and change- webref. SK7003C2

K7 SIGNAGE

SINGLE SIDED SIGNAGE self contained luminaires

Table explanation p 424

function	mounting	NM/M	lamp type	order code		
self test						
single sided signage	surface mounted	NM/M*	LED 3W	K731/3P	K732/3P	K739/3P
ETAP Safety Manager: self test EST+						
single sided signage	surface mounted	NM/M*	LED 3W	K733/3P	K734/3P	

* NM/M adjustable at installation, see wiring diagrams p 376

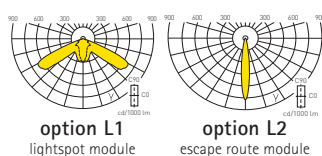
SINGLE SIDED SIGNAGE centrally supplied luminaires

function	mounting	emergency supply voltage	lamp type	order code
EBS Compact				
single sided signage	surface mounted	24V	LED 3W	K73/3-24C6
other central battery systems				
single sided signage	surface mounted	230V AC/DC	LED 3W	K73/3-230

SINGLE AND DOUBLE SIDED SIGNAGE self contained luminaires

function	mounting	NM/M	lamp type	order code		
self test						
single and double sided signage	surface mounted/recessed	NM/M*	LED 3W	K741/3P	K742/3P	K749/3P
ETAP Safety Manager: self test EST+						
single and double sided signage	surface mounted/recessed	NM/M*	LED 3W	K743/3P	K744/3P	

* NM/M adjustable at installation, see wiring diagrams p 376





K7 suspension – webref. SK7004A1 K7 is available with an escape route or light spot module for lighting – webref. SK7010F1



K7 right angle wall mounting – webref. SK7003A1



SIGNAGE K7

SINGLE AND DOUBLE SIDED SIGNAGE centrally supplied luminaires

Table explanation p 424

function	mounting	emergency supply voltage	lamp type	order code
EBS Compact				
single and double sided signage	surface mounted/recessed	24V	LED 3W	K74/3-24C6
other central battery systems				
single and double sided signage	surface mounted/recessed	230V AC/DC	LED 3W	K74/3-230

Options and accessories

Lighttechnical options

escape route module	code + L1
lightspot module	code + L2

Communication upgrades (only for)

to ESM wired	K7H40
to ESM wireless	K7H41

Mounting accessories

recessed mounting set	for K74	K7H11
right angle wall bracket	for K74	K7H12
suspension set	for K74	K7H14-50
accessory for through wiring and/or surface mounted cabling	for K73	K7H19-1
	for K74	K7H19-2

Accessories

protective grille	K7H17
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Electronic options for self contained luminaires

3h duration	code + S2
conform to DALI IEC62386-202 Ed. 2009	only for ESM luminaires code + S11
LON® version	consult ETAP

Electronics options for centrally supplied luminaires

KCADB01, EBS-module	consult ETAP
KCFLEX1, EBS-module	consult ETAP
KCFLEX2, EBS-module	consult ETAP
KCFLEX3, EBS-module	consult ETAP
KCLU1, EBS-module	consult ETAP

Pictogram

pictogram choice: see overview p 270



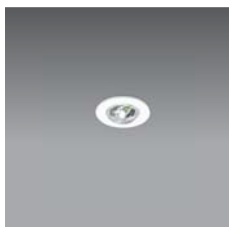
K9

SURFACE MOUNTED AND RECESSED LUMINAIRES
FOR LIGHTING AND SIGNAGE



lighting

→ p 250



lighting and signage
(viewing distance 15m)

→ p 252



single and double sided signage
(viewing distance 26m)

→ p 258



K9_{MINI}



Application	Anti-panic lighting Escape route lighting
Material	Base: injection moulded plastic, transparent Heat sink: extruded aluminium
Optics	Escape route lighting: lens for light distribution along the centre line of the escape route Anti-panic lighting: lens for nearly square light distribution
Dimensions	Ø x H in mm: 20 x 32 (without trim) Plan N.: 7700 - 7701
Integration	For mounting in suspended ceilings

Systems → p 301 | Distance tables → p 363 | Wiring diagrams → p 376 | Dimensional sketches → p 414



K9mini - webref. SK9501A9

K9mini, escape route lighting - webref. SK9501A3

K9mini, anti-panic lighting, with trim - webref. SK9501A2



MINI K9

LIGHTING self-contained luminaires

Table explanation p 424

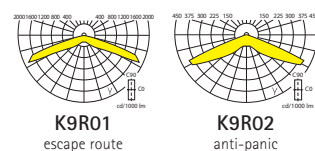
application	mounting	NM/M	lamp type	lumen emergency	order code ¹
self test					EST+
escape route	recessed	NM	LED 3W	125	K9R012/3N
anti-panic	recessed	NM	LED 3W	150	K9R022/3N
ETAP Safety Manager: self test EST+					ESM wired
escape route	recessed	NM	LED 3W	125	K9R013/3N
anti-panic	recessed	NM	LED 3W	150	K9R023/3N

¹ available with or without trim. For more information, consult your ETAP-adviser.

LIGHTING centrally supplied luminaires

application	mounting	emergency supply voltage	lamp type	lumen		order code ¹
EBS Compact				emergency		
escape route	recessed	24V	LED 3W	125		K9R01/3N-24C6
anti-panic	recessed	24V	LED 3W	150		K9R02/3N-24C6
other central battery systems				AC	DC	
escape route	recessed	230V AC/DC	LED 3W	125	125	K9R01/3N-230 ²
anti-panic	recessed	230V AC/DC	LED 3W	150	150	K9R02/3N-230 ²

¹ available with or without trim. For more information, consult your ETAP-adviser.
² to be used on non-maintained circuits only



K9 LIGHTING AND SIGNAGE (VIEWING DISTANCE: 15M)



Application	Anti-panic lighting Escape route lighting Single and double sided illuminated safety signs (ceiling)
Material	Base: injection moulded aluminium, with structured lacquer in RAL9003-white or RAL9006-white aluminium, or unpainted
Optics	Lighting - anti-panic lighting: lens for nearly square light distribution - escape route and stairway lighting: lens for distribution along the centre line of the escape route Signage - lens for perfect evenly distributed illumination of the pictogram
Dimensions	L x W x H in mm - square: 152 x 152 x 32 (excl. pictogram) round: Ø 230 x 70 mm Plan N.: 7704 - 7708
Signage	Screenprint on foil, clear sign plate Illumination, conforms to EN 1838 Viewing distance: 15 m

Systems → p 301 | Options and accessories → p 360 | Distance tables → p 364 | Wiring diagrams → p 376 | Dimensional sketches → p 415 | Pictograms → p 271



K9 recessed, escape route - webref. SK9103A2



K9 surface, anti-panic, unpainted - webref. SK9100A1



K9 - webref. SK9102B1



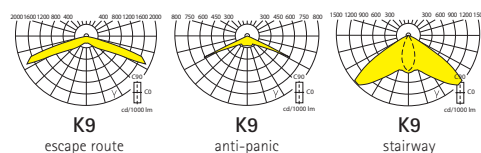
LIGHTING K9

LIGHTING - SQUARE self-contained luminaires

Table explanation p 424

application	mounting	NM/M	lamp type	lumen emergency	order code ¹	
self test						
escape route lighting	surface	NM	LED 3W	201	K9R112/3N	
		M	LED 3W	201	K9R112/3P	
	recessed	NM	LED 3W	201	K9R312/3N	
		M	LED 3W	201	K9R312/3P	
anti-panic lighting	surface	NM	LED 3W	209	K9R122/3N	
		M	LED 3W	209	K9R122/3P	
	recessed	NM	LED 3W	209	K9R322/3N	
		M	LED 3W	209	K9R322/3P	
stairway lighting	surface	NM	LED 3W	209	K9R162/3N	
		M	LED 3W	209	K9R162/3P	
	recessed	NM	LED 3W	209	K9R362/3N	
		M	LED 3W	209	K9R362/3P	
ETAP Safety Manager: self test EST+					 wired	 wireless
escape route lighting	surface	NM	LED 3W	201	K9R113/3N	K9R114/3N
		M	LED 3W	201	K9R113/3P	K9R114/3P
	recessed	NM	LED 3W	201	K9R313/3N	-
		M	LED 3W	201	K9R313/3P	-
anti-panic lighting	surface	NM	LED 3W	209	K9R123/3N	K9R124/3N
		M	LED 3W	209	K9R123/3P	K9R124/3P
	recessed	NM	LED 3W	209	K9R323/3N	-
		M	LED 3W	209	K9R323/3P	-
stairway lighting	surface	NM	LED 3W	209	K9R163/3N	K9R164/3N
		M	LED 3W	209	K9R163/3P	K9R164/3P
	recessed	NM	LED 3W	209	K9R363/3N	-
		M	LED 3W	209	K9R363/3P	-

¹ code + X1: luminaire in RAL9003-white / code + X2: luminaire in RAL9006-white aluminium/
code + X5: unpainted luminaire, only for surface mounted luminaires





K9 stairway lighting - webref. SK9106A4

K9 LIGHTING

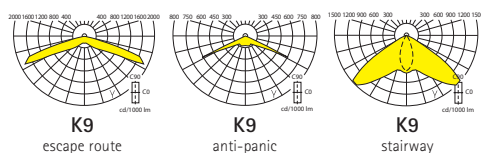
LIGHTING - SQUARE centrally supplied luminaires

Table explanation p 424

application	mounting	emergency supply voltage	lamp type	lumen		order code ¹
EBS Compact				emergency		
escape route lighting	surface	24V	LED 3W	201		K9R11/3-24XyC6 ¹
	recessed	24V	LED 3W	201		K9R31/3-24XyC6 ¹
anti-panic lighting	surface	24V	LED 3W	209		K9R12/3-24XyC6 ¹
	recessed	24V	LED 3W	209		K9R32/3-24XyC6 ¹
stairway lighting	surface	24V	LED 3W	209		K9R16/3-24XyC6 ¹
	recessed	24V	LED 3W	209		K9R36/3-24XyC6 ¹
other central battery systems				AC	DC	
escape route lighting	surface	230V AC/DC	LED 3W	201	201	K9R11/3N-230 ²
	recessed	230V AC/DC	LED 3W	201	201	K9R31/3N-230 ²
anti-panic lighting	surface	230V AC/DC	LED 3W	209	209	K9R12/3N-230 ²
	recessed	230V AC/DC	LED 3W	209	209	K9R32/3N-230 ²
stairway lighting	surface	230V AC/DC	LED 3W	209	209	K9R16/3N-230 ²
	recessed	230V AC/DC	LED 3W	209	209	K9R36/3N-230 ²

¹ replace 'y' in code by '1': luminaire in RAL9003-white / by '2': luminaire in RAL9006-white aluminium / by '5': unpainted luminaire, only for surface mounted luminaires

² code + X1: luminaire in RAL9003-white / code + X2: luminaire in RAL9006-white aluminium / code + X5: unpainted luminaire, only for surface mounted luminaires





K9 recessed, escape route - webref. SK91015A1



LIGHTING K9

LIGHTING - ROUND self-contained luminaires

Table explanation p 424

application	mounting	NM/M	lamp type	lumen emergency	order code ¹
self test					
escape route lighting	recessed	NM	LED 3W	201	K9R212/3N
		M	LED 3W	201	K9R212/3P
anti-panic lighting	recessed	NM	LED 3W	209	K9R222/3N
		M	LED 3W	209	K9R222/3P
stairway lighting	recessed	NM	LED 3W	209	K9R262/3N
		M	LED 3W	209	K9R262/3P
ETAP Safety Manager: self test EST+					
escape route lighting	recessed	NM	LED 3W	201	K9R213/3N
		M	LED 3W	201	K9R213/3P
anti-panic lighting	recessed	NM	LED 3W	209	K9R223/3N
		M	LED 3W	209	K9R223/3P
stairway lighting	recessed	NM	LED 3W	209	K9R263/3N
		M	LED 3W	209	K9R263/3P

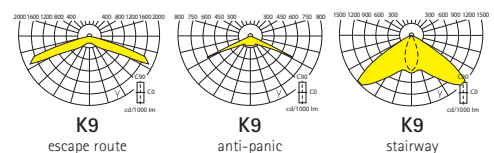
¹ code + X1: luminaire in RAL9003-white / code + X2: luminaire in RAL9006-white aluminium

LIGHTING - ROUND centrally supplied luminaires

application	mounting	emergency supply voltage	lamp type	lumen	order code
EBS Compact				emergency	
escape route lighting	recessed	24V DC	LED 3W	201	K9R21/3-24XyC6 ¹
anti-panic lighting	recessed	24V DC	LED 3W	209	K9R22/3-24XyC6 ¹
stairway lighting	recessed	24V DC	LED 3W	209	K9R26/3-24XyC6 ¹
other central battery systems				AC DC	
escape route lighting	recessed	230V AC/DC	LED 3W	201 201	K9R21/3N-230 ²
anti-panic lighting	recessed	230V AC/DC	LED 3W	209 209	K9R22/3N-230 ²
stairway lighting	recessed	230V AC/DC	LED 3W	209 209	K9R26/3N-230 ²

¹ replace 'y' in code by '1': luminaire in RAL9003-white / by '2': luminaire in RAL9006-white aluminium

² code + X1: luminaire in RAL9003-white / code + X2: luminaire in RAL9006-white aluminium







K9 - webref. SK9302A6



K9 recessed - webref. SK9303A3



SIGNAGE K9

SINGLE AND DOUBLE SIDED SIGNAGE self-contained luminaires

Table explanation p 424

function	mounting	NM/M	lamp type	order code ¹	
self test					
single and double sided signage	surface	M	LED 3W	K9R152/3P	
	recessed	M	LED 3W	K9R352/3P	
ETAP Safety Manager: self test EST+					
single and double sided signage	surface	M	LED 3W	K9R153/3P	K9R154/3P
	recessed	M	LED 3W	K9R353/3P	-

¹ code + X1: luminaire in RAL9003-white / code + X2: luminaire in RAL9006-white aluminium / code + X5: unpainted luminaire, only for surface mounted luminaires

SINGLE AND DOUBLE SIDED SIGNAGE centrally supplied luminaires

function	mounting	emergency supply voltage	lamp type	order code
EBS Compact				
single and double sided signage	surface	24V	LED 3W	K9R15/3-XyC6 ¹
	recessed	24V	LED 3W	K9R35/3-XyC6 ¹
other central battery systems				
single and double sided signage	surface	230V AC/DC	LED 3W	K9R15/3-230 ²
	recessed	230V AC/DC	LED 3W	K9R35/3-230 ²

¹ replace 'y' in code by '1': luminaire in RAL9003-white / by '2': luminaire in RAL9006-white aluminium / by '5': unpainted luminaire, only for surface mounted luminaires

² code + X1: luminaire in RAL9003-white / code + X2: luminaire in RAL9006-white aluminium / code + X5: unpainted luminaire, only for surface mounted luminaires

Options and accessories

Mounting accessories

recessed mounting set	K9RH82
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Electronic options for self-contained luminaires

3h duration	code + S2
conform to DALI IEC62386-202 Ed. 2009	only for ESM luminaires code + S11

Electronic options for centrally supplied luminaires

KCADB01, EBS-module	code + C1
KCFLEX1, EBS-module	code + C2
KCFLEX2, EBS-module	consult ETAP
KCFLEX3, EBS-module	consult ETAP
KCLU1, EBS-module	consult ETAP

Pictogram

pictogram choice: see overview p 271

K9 SIGNAGE (VIEWING DISTANCE: 26M)



Application	Single sided illuminated safety signs (wall) Single and double sided illuminated safety signs (wall right angle / ceiling)
Material	Base: pressure die cast zinc alloy, lacquered in RAL9006-white aluminium, RAL9003-white or unpainted Base recessed: zinc alloy and polycarbonate, RAL9006-white aluminium or RAL9003-white Sign plate: polymethyl metacrylate (PMMA)
Dimensions	L x W x H in mm: wall: 325 x 186 x 58 / ceiling: 325 x 224 x 27 / recessed: 325 x 220 x 46 Plan N.: 7709
Self test	Indicates a lamp error if clarity drops below 2 cd/m ²
Signage	Clear sign plate with screenprinted dot-matrix Perfect evenly distributed illumination, conforms to EN 1838 Viewing distance: 26 m

Systems → p 301 | Options and accessories → p 361 | Distance tables → p 362 | Wiring diagrams → p 376 | Dimensional sketches → p 416 | Pictograms → p 271



K9 surface mounted - webref. SK9402A13



K9 wall mounted - webref. SK9401A11



K9 - webref. SK9401A2

SIGNAGE K9

SINGLE SIDED SIGNAGE self-contained luminaires

Table explanation p 424

function	mounting	NM/M ²	lamp type	order code ¹	
self test					
single sided signage	surface wall	NM/M	LED 1W	K9R432/1	
ETAP Safety Manager: self test EST+					
single sided signage	surface wall	NM/M	LED 1W	K9R433/1	K9R434/1

¹ code + X1: luminaire in RAL9003-white / code + X2: luminaire in RAL9006-white aluminium / code + X5: unpainted luminaire
² NM/M adjustable at installation, see wiring diagrams p 376

SINGLE SIDED SIGNAGE centrally supplied luminaires

function	mounting	emergency supply voltage	lamp type	order code
EBS Compact				
single sided signage	surface wall	24V	LED 1W	K9R43/1-24XyC6 ¹
other central battery systems				
single sided signage	surface wall	230V AC/DC	LED 1W	K9R43/1-230 ²

¹ replace 'y' in code by '1': luminaire in RAL9003-white / by '2': luminaire in RAL9006-white aluminium / by '5': unpainted luminaire, only for surface mounted luminaires
² code + X1: luminaire in RAL9003-white / code + X2: luminaire in RAL9006-white aluminium / code + X5: unpainted luminaire, only for surface mounted luminaires

SINGLE AND DOUBLE SIDED SIGNAGE self-contained luminaires

function	mounting	NM/M ²	lamp type	order code ¹	
self test					
single and double sided signage	surface	NM/M	LED 1W	K9R142/1	
	recessed	NM/M	LED 1W	K9R242/1	
	surface wall right angle	NM/M	LED 1W	K9R542/1	
ETAP Safety Manager: self test EST+					
single and double sided signage	surface	NM/M	LED 1W	K9R143/1	K9R144/1
	recessed	NM/M	LED 1W	K9R243/1	-
	surface wall right angle	NM/M	LED 1W	K9R543/1	K9R544/1

¹ code + X1: luminaire in RAL9003-white / code + X2: luminaire in RAL9006-white aluminium / code + X5: unpainted luminaire, only for surface mounted luminaires
² NM/M adjustable at installation, see wiring diagrams p 376





K9 right angle wall mounting - webref. SK9404A4



K9 recessed - webref. SK9403A4

SIGNAGE K9

SINGLE AND DOUBLE SIDED SIGNAGE centrally supplied luminaires

optics	mounting	emergency supply voltage	lamp type	order code
EBS Compact				
single and double sided signage	surface	24V	LED 1W	K9R14/1-24XyC6 ¹
	recessed	24V	LED 1W	K9R24/1-24XyC6 ¹
	surface wall right angle	24V	LED 1W	K9R54/1-24XyC6 ¹
other central battery systems				
single and double sided signage	surface	230V AC/DC	LED 1W	K9R14/1-230 ²
	recessed	230V AC/DC	LED 1W	K9R24/1-230 ²
	surface wall right angle	230V AC/DC	LED 1W	K9R54/1-230 ²

¹ replace 'y' in code by '1': luminaire in RAL9003-white / by '2': luminaire in RAL9006-white aluminium / by '5': unpainted luminaire, only for surface mounted luminaires
² code + X1: luminaire in RAL9003-white / code + X2: luminaire in RAL9006-white aluminium / code + X5: unpainted luminaire, only for surface mounted luminaires

Options and accessories

Mounting accessories

recessed mounting set	K9R81
suspensions set	K9RH4-50 ¹
suspension set for EBS Compact luminaires	K9RH41-50 ¹

Electronic options for self-contained luminaires

3h duration	code + S2
conforms to DALI IEC62386-202 Ed. 2009	only for ESM luminaires code + S11

Electronic options for centrally supplied luminaires

KCADB01, EBS-module	code + C1
KCFLEX1, EBS-module	code + C2
KCFLEX2, EBS-module	consult ETAP
KCFLEX3, EBS-module	consult ETAP
KCLU1, EBS-module	consult ETAP

Pictogram

pictogram choice: see overview p 271

¹ code + X1: suspension set in RAL9003-white / code + X2: suspension set in RAL9006-white aluminium



KL

SURFACE MOUNTED LUMINAIRES FOR INCREASED VIEWING DISTANCE



Application	Single and double sided illuminated safety signs for wall and ceiling (KL7, plan N. 7900, and KL8, plan N. 7901) Quadruple sided illuminated safety signs for ceiling (KL9, plan N. 7902)
Material	Base: satin-anodised aluminium Sign plate KL7 - KL8 - KL9 : polymethyl metacrylate (PMMA) Mounting bracket: sheet steel, powder painted in RAL9003-white
Optics	Diffuser
Self test	Indicates a lamp error if clarity drops below 2 cd/m²
Signage	KL7: screenprint, perfect evenly distributed illumination, conforms to EN 1838 pictogram height: 190 mm, viewing distance: 38 m KL8: screenprint, perfect evenly distributed illumination, conforms to EN 1838 pictogram height: 310 mm, viewing distance: 62 m KL9: screenprint, perfect evenly distributed illumination, conforms to EN 1838 pictogram height: 245 mm, viewing distance: 49 m

Systems → p 301 | Options and accessories → p 361 | Distance tables → p 362 | Wiring diagrams → p 376 | Dimensional sketches → p 417 | Pictograms → p 271



KL right angle wall mounting - webref. SKL010A1



KL parallel wall mounting - webref. SKL7002A3

KL

SINGLE AND DOUBLE SIDED SIGNAGE self-contained luminaires

Table explanation p 424

function	mounting	NM/M	lamp type	L x W x H mm	order code	
self test					EST+	
single and double sided signage	surface	M	LED 6W	420 x 94 x 210	KL742/6P	
	surface	M	LED 12W	640 x 94 x 330	KL842/12P	
ETAP Safety Manager: self test EST+					ESM wired	ESM wireless
single and double sided signage	surface	M	LED 6W	420 x 94 x 210	KL743/6P	KL744/6P
	surface	M	LED 12W	640 x 94 x 330	KL843/12P	KL844/12P

SINGLE AND DOUBLE SIDED SIGNAGE centrally supplied luminaires

function	mounting	emergency supply voltage	lamp type	L x W x H mm	order code
single and double sided signage	surface	230V AC/DC	LED 6W	420 x 94 x 210	KL74/6-230
	surface	230V AC/DC	LED 12W	640 x 94 x 330	KL84/12-230



KL suspension – webref. SKL9002A1



KL – webref. SKL9001A2

KL

QUADRUPLÉ SIGNAGE self-contained luminaires

Table explanation p 424

function	mounting	NM/M	lamp type	L x W x H mm	order code	
self test					EST+	
quadruple signage	surface	M	LED 6W	250 x 250 x 280	KL942/6P	
ETAP Safety Manager: self test EST+					ESM wired	ESM wireless
quadruple signage	surface	M	LED 6W	250 x 250 x 280	KL943/6P	KL944/6P

QUADRUPLÉ SIGNAGE centrally supplied luminaires

function	mounting	emergency supply voltage	lamp type	L x W x H mm	order code
quadruple signage	surface	230V AC/DC	LED 6W	250 x 250 x 280	KL94/6-230

Options and accessories

Mounting accessories

parallel wall bracket (not for quadruple signage 250 x 250 cm)	code + M5
right angle wall bracket (not for quadruple signage 250 x 250 cm)	code + M2
suspension set	code + M3

Electronic options for self-contained luminaires

3h duration	code + S2
version for combination with E5-in-line system	code + S9
conform to DALI IEC62386-202 Ed. 2009	only for ESM luminaires code + S11
LON® version	consult ETAP

Pictogram

pictogram choice, see overview p 271

LED MODULE

FOR INTEGRATED EMERGENCY LIGHTING



Application	Anti-panic lighting Escape route lighting
Material	Base: injection moulded plastic, transparent Heat sink: extruded aluminium
Optics	Escape route lighting: lens for light distribution along the centre line of the escape route Anti-panic lighting: lens for nearly square light distribution
Dimensions	Ø x H in mm: 20 x 32
Integration	Available integrated in ETAP luminaires or for integration in luminaires of other suppliers
Order	Consult your ETAP adviser for more information

Systems → p 301 | Distance tables → p 364 | Wiring diagrams → p 376 | Dimensional sketches → p 415



Integrated emergency lighting in R7 – webref. SKI001A3



LED MODULE

LIGHTING

Integration in ETAP luminaires for general lighting

Table explanation p 424

The LED module for integrated emergency lighting is available in combination with ETAP luminaires

• U5	(see p 13)
• R4	(see p 53)
• D1 (D10-D12-D14)	(see p 113)

Other combinations are possible. For more information, please contact your ETAP adviser.

LIGHTING

Integration in luminaires for general lighting of other suppliers with T5 or T8 fluorescent lamps self-contained luminaires

application	mounting	NM/M	lamp type	lumen emergency	order code ¹
self test					
escape route	recessed	NM	LED 3W	125	K9R012/3N
anti-panic	recessed	NM	LED 3W	150	K9R022/3N
ETAP Safety Manager: self test EST+					
escape route	recessed	NM	LED 3W	125	K9R013/3N
anti-panic	recessed	NM	LED 3W	150	K9R023/3N

¹ available with or without bracket for mounting on T5 or T8 fluorescent lamp. For more information, please contact your ETAP-adviser.

LIGHTING

Integration in luminaires for general lighting of other suppliers with T5 or T8 fluorescent lamps centrally supplied luminaires

application	mounting	emergency supply voltage	lamp type	lumen		order code ¹
EBS Compact				emergency		
escape route	recessed	24V	LED 3W	125		K9R01/3N-24C6
anti-panic	recessed	24V	LED 3W	150		K9R02/3N-24C6
other central battery systems				AC	DC	
escape route	recessed	230V AC/DC	LED 3W	125	125	K9R01/3N-230
anti-panic	recessed	230V AC/DC	LED 3W	150	150	K9R02/3N-230

¹ available with or without bracket for mounting on T5 or T8 fluorescent lamp. For more information, please contact your ETAP-adviser.



PICTOGRAMS EMERGENCY LIGHTING

K1			K2			K3	K4
wall	ceiling		wall	ceiling		wall	wall - ceiling
foil	plate		foil	foil		sticker	OLED
single sided	single sided	double sided	single sided	single sided	double sided	single sided	single sided

PICTOGRAMS FOR SAFETY SIGNAGE

	K1EL0	K1HL0E	K1HL0	K2EL0	K2HL0E	K2HL0	K3EL0	K4HL0E
	K1EL1	K1HL1E	K1HL1	K2EL1	K2HL1E	K2HL1	K3EL1	K4HL1E
	K1EL2	K1HL2E	K1HL1	K2EL2	K2HL2E	K2HL1	K3EL2	K4HL2E
								K4HL3E
	K1EG0	K1HG0E	K1HG0	K2EG0	K2HG0E	K2HG0	K3E202	K4HG0E
	K1EG1	K1HG1E	K1HG1	K2EG1	K2HG1E	K2HG1	K3E201	K4HG1E
	K1EG2	K1HG2E	K1HG1	K2EG2	K2HG2E	K2HG1	K3E200	K4HG2E
	K1EJ0	K1HJ0E	K1HJ0	K2EJ0	K2HJ0E	K2HJ0	K3E206	
	K1EJ1	K1HJ1E	K1HJ1	K2EJ1	K2HJ1E	K2HJ1	K3E207	
	K1EJ2	K1HJ2E	K1HJ1	K2EJ2	K2HJ2E	K2HJ1	K3E208	
	K1EQ0		K1HQ0	K2EQ0		K2HQ0		K4HQ0E
	K1ET0		K1HT0	K2ET0		K2HT0		K4HT0E
** 	K1EZ0	K1HZ0E	K1HZ0	K2EZ0	K2HZ0E	K2HZ0	K3EZ0	
** 	K1EZ1	K1HZ1E	K1HZ1	K2EZ1	K2HZ1E	K2HZ1	K3EZ1	
** 	K1EZ2	K1HZ2E	K1HZ1	K2EZ2	K2HZ2E	K2HZ1	K3EZ2	

** Only available in Sweden

PICTOGRAMS EMERGENCY LIGHTING

K5			K6	K7		
wall	ceiling		wall - ceiling	wall	ceiling	
sticker	plate		plate	foil	foil	
single sided	single sided	double sided	both	single sided	single sided	double sided

PICTOGRAMS FOR SAFETY SIGNAGE

		K5HL0E	K5HL0	.. L0 *	K7EL0	K7HL0E	K7HL0
		K5HL1E	K5HL1	.. L1 *	K7EL1	K7HL1E	K7HL1
		K5HL2E	K5HL1	.. L2 *	K7EL2	K7HL2E	K7HL1
							
	K5EG0	K5HG0E	K5HG0	.. G0 *	K7EG0	K7HG0E	K7HG0
	K5EG1	K5HG1E	K5HG1	.. G1 *	K7EG1	K7HG1E	K7HG1
	K5EG2	K5HG2E	K5HG1	.. G2 *	K7EG2	K7HG2E	K7HG1
		K5HJ0E	K5HJ0	.. J0 *	K7EJ0	K7HJ0E	K7HJ0
		K5HJ1E	K5HJ1	.. J1 *	K7EJ1	K7HJ1E	K7HJ1
		K5HJ2E	K5HJ1	.. J2 *	K7EJ2	K7HJ2E	K7HJ1
			K5HQ0	.. Q0 *	K7EQ0		K7HQ0
			K5HT0	.. T0 *	K7ET0		K7HT0
** 	K5EZ0	K5HZ0E	K5HZ0	.. Z0*	K7EZ0	K7HZ0E	K7HZ0
** 	K5EZ1	K5HZ1E	K5HZ1	.. Z1*	K7EZ1	K7HZ1E	K7HZ1
** 	K5EZ2	K5HZ2E	K5HZ1	.. Z2*	K7EZ2	K7HZ2E	K7HZ1

* Add this pictogram code to the K6 luminaire code

** Only available in Sweden

K9				KL				
ceiling		wall - ceiling		wall - ceiling 420 x 210 mm		wall - ceiling 640 x 330 mm		ceiling 250 x 250 mm
viewing distance = 15 m		viewing distance = 26 m		plate	plate	plate	plate	screenprint
single sided	double sided	single sided	double sided	single sided	double sided	single sided	double sided	quadr. sided

K9RHL0ES	K9RHL0S	K9RHL0E	K9RHL0	KL7HL0E	KL7HL0	KL8HL0E	KL8HL0	KL9HL0E
K9RHL1ES	K9RHL1S	K9RHL1E	K9RHL1	KL7HL1E	KL7HL1	KL8HL1E	KL8HL1	
K9RHL2ES	K9RHL1S	K9RHL2E	K9RHL1	KL7HL2E	KL7HL1	KL8HL2E	KL8HL1	
		K9RHL3E	K9RHL3					
K9RHG0ES	K9RHG0S	K9RHG0E	K9RHG0	KL7HG0E	KL7HG0	KL8HG0E	KL8HG0	KL9HG0E
K9RHG1ES	K9RHG1S	K9RHG1E	K9RHG1	KL7HG1E	KL7HG1	KL8HG1E	KL8HG1	
K9RHG2ES	K9RHG1S	K9RHG2E	K9RHG1	KL7HG2E	KL7HG1	KL8HG2E	KL8HG1	
		K9RHJ0E	K9RHJ0					
		K9RHJ1E	K9RHJ1					
		K9RHJ2E	K9RHJ1					
			K9RHQ0					
			K9RHT0					
K9RHZG0ES	K9RHZG0S	K9RHZG0E	K9RHZG0	KL7HZ0E	KL7HZ0	KL8HZ0E	KL8HZ0	KL9HZ0E
K9RHZG1ES	K9RHZG1S	K9RHZG1E	K9RHZG1	KL7HZ1E	KL7HZ1	KL8HZ1E	KL8HZ1	
K9RHZG2ES	K9RHZG1S	K9RHZG2E	K9RHZG1	KL7HZ2E	KL7HZ1	KL8HZ2E	KL8HZ1	

INFORMATIVE PICTOGRAMS



In addition to the standard range, ETAP can produce pictograms to your specification.
Contact your ETAP-adviser for more information.



SYSTEMS
FOR LIGHTING AND
EMERGENCY LIGHTING



STATION BASURTO, BILBAO - SPAIN

webref. _MG_8269



SYSTEMS FOR LIGHTING AND EMERGENCY LIGHTING

lighting



ELS → p. 279
daylight dependent
light control



EMD → p. 281
multidetector



EasyDim → p. 285
local light control



Excellum → p. 293
light controls for
buildings

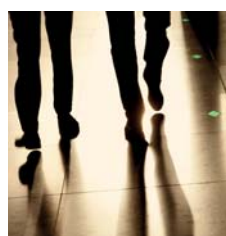
emergency lighting



ESM → p. 301
ETAP Safety Manager



EBS → p. 309
ETAP Battery System



**Smart
Guidance** → p. 315

TEN STRATEGIES FOR SUSTAINABLE LIGHTING

Light control is the ideal solution to make your lighting work for you in the best possible way. Light control systems make sure that you save energy and guarantee optimal flexibility. ETAP defines ten strategies that can be used as a guideline to choose the light control system that best meets your needs. If applied correctly these strategies result in maximum energy savings and flexibility. ETAP applies these strategies to all its light control systems for lighting, whether integrated, at the room or at the building level.



FLEXIBILITY

A light control system enables you to easily adjust the lighting in a building (or a section of it) without cost: an undeniable asset to be able to flexibly capitalise on internal and external changes.



1. *Evolving with the building*

Lighting can be adjusted quickly and easily when buildings or workstations are given a new purpose, e.g., converting an open-plan office into individual offices.



2. *Personal control*

Every employee can adjust the illuminance within their workstation to their own needs and preferences at any time, e.g., more light for detailed graphic work.



3. *Scenario setting*

By defining scenarios, the lighting easily adjusts to various functions within the same space, e.g., auditorium with adjusted lighting for video presentations, group discussions, maintenance, etc.



4. *Integration with other technologies*

By opting for a light control system that can be easily integrated into other systems (building management systems, alarm systems, etc.), for example, heating, ventilation and air-conditioning can also be controlled using the lighting system's motion sensors. Furthermore you ensure that your light control is future-proof and is able to adjust to technological developments.



5. *Ease of use and management*

A light control system that is easy to operate and is user-friendly, ensures that the flexibility of the light control is also used efficiently.

ENERGY SAVING

Energy saving is often still the most important argument for using light control. Energy savings are therefore very high, especially when several strategies are combined.



6. *Smart time control*

Lighting adjusts automatically on the basis of set calendar schedules, e.g., switching on lights automatically in a school in the morning and switching them off in the evening.



7. *Daylight-dependent control*

With daylight sensors the intensity of artificial light changes depending on incident daylight.



8. *Adjustment to the task*

Setting standard lighting levels, in function of specific tasks or applications, so that no energy is lost due to overillumination, e.g., a lot of light on drawing tables, less light in photocopy rooms.



9. *Occupancy detection*

Sensors only switch on the lights once someone has entered the space and switch them off automatically after a long absence, e.g., corridors or sanitary facilities.



10. *Limitation of peak capacity*

Depending on the power consumption in a building or on a floor, lighting can be dimmed in specific locations in order to limit total peak loads, e.g., lowering lighting level by 30% whenever machines are started up.



ELS provides the correct light level for every user, even under widely varying conditions. (example situation) - webref. SC022D5

ELS

DAYLIGHT DEPENDENT LIGHT CONTROL



The compact ELS sensor, integrated into the luminaire, constantly measures the light quantity on the worktop under the luminaire. Depending on the total amount of light the sensor will dim the lamp: should more daylight come in, the luminaire will produce less artificial light and use less power. ELS comes with either analogue (1-10V or LED driver) or digital sensor and ETAP stocks ELS sensors for LED and fluorescent luminaires. For higher ceilings (up to 20 m) a specific ELS sensor is available with DALI and analogue connection in one housing. This sensor can be controlled by infrared remote control.

ENERGY FRIENDLY

With daylight control, a saving of up to 25% of the lighting installation's total consumption is possible within a building. The sensors' consumption is negligible.

COMFORTABLE

The unique ELS control strategy combines high energy savings with excellent user acceptance. ELS reacts immediately to changing light incidence, both for increasing and decreasing lighting levels. In this way dimming goes nearly unnoticed. The light sensor's sensitivity is adjustable.

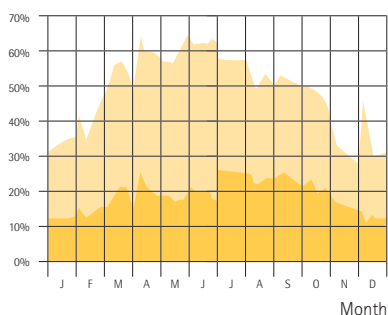
EASY INSTALLATION

The installation time for luminaires with or without ELS is the same, because no additional connections have to be made. The ELS sensor is configured in the factory. Should you wish to adjust the lighting levels later, just change the settings in situ.

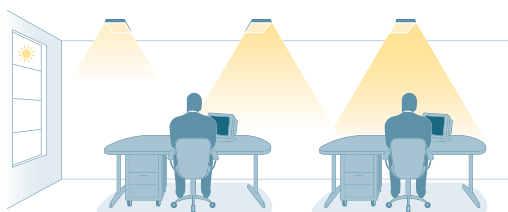
ORDER

Consult your ETAP advisor for other factory settings. The sensor can be built into the housing on request.

■ window zone saving
■ interior zone saving



Percentage energy saving of a luminaire with ELS with respect to a luminaire with a non-dimmable electronic ballast.



How much energy you save depends, among other things, on daylight entry and the orientation of the building.





COLLEGE RHEIN-MAIN, WIESBADEN - GERMANY

webref. SV2007CD12

EMD

MULTIDETECTION



ETAP's EMD sensors combine several sensors in a single compact housing.

The analogue version features a motion detector and light sensor and dims the lighting by 25% when no one is present. Daylight-dependent dimming can be switched on or off. By adding the Switchbox to the analogue sensor, the EMD is able to dim the lighting even more and subsequently also switch it off to maximise energy-efficiency.

The DALI version of the EMD also features an IR receiver in addition to the motion detector and light sensor, which allows you to remotely control your lighting.

	Movement Detection	Daylight dependent detection	Push-button control	IR remote control	Switching	Dimming	Scenes
EMD analogue	X	X				25%	
EMD analogue + Switchbox	X	X	X		230V	1%	
EMD DALI + Controller	X	X	X	X	DALI	1%	4

ENERGY FRIENDLY

EMD minimises the luminaire's power consumption. Thanks to the automatic control depending on daylight and presence, unnecessary energy consumption is prevented. Parasitic energy consumption, which is the consumption of the sensor itself, is minimised: the analogue sensor can be directly supplied by the 1-10V interface of the luminaire's ballast, with the Switchbox the analogue version only consumes 0.35W. The EMD DALI uses 0.8W.

FLEXIBLE AND COMFORTABLE

With EMD in your luminaires you will be prepared for changes in the future. On analogue versions the sensor can be configured to react to the application needed at that particular time. For example, you can switch on the motion detector by itself or both motion detector and light sensor. The sensitivity of the light sensor and the delayed switch-off of the motion sensor can also be infinitely adjusted to suit your needs.

For the EMD DALI it is even easier: by means of a specific remote control you can choose several preset operating modes. For example, with the press of a button you can switch from "individual office" mode to "open-plan office" mode. Obviously here too you can configure your daylight control to suit your needs. In addition, the EMD DALI version allows to control several groups of luminaires with a single sensor and to dim the window side and inside of a room differently depending on daylight.





UM1 with EMD sensor – webref. SC022E4

EASY INSTALLATION

Just as for the ELS, the EMD is pre-configured by ETAP, so that light control immediately works correctly after installation of the luminaires. Extra wiring is not necessary.

ORDER

Ask your ETAP adviser to develop the best solution for your specific needs.
The sensor can be built into the luminaire housing on request.

Options and accessories

REMOTE CONTROL FOR USER

IR transmitter, wall mounting, 2 remotes	C1TU00
Manual IR remote control, 2 remotes, including wall bracket	C1TU02
Manual IR remote control, 5 remotes, including wall bracket	C1TU03

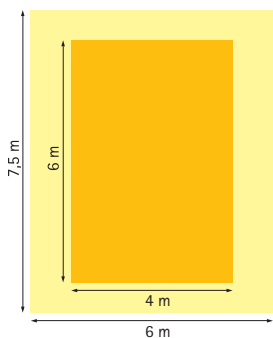
REMOTE CONTROL FOR INSTALLERS

Basic remote control for installers	C1TC02
Advanced remote control for installers	C1TC01

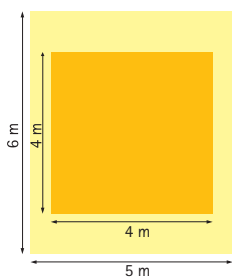
EXPANSION SENSORS

Expansion sensor for mounting within luminaire	consult ETAP
Expansion sensor for motion detection, surface-mounted	C1RM0/00

- detection area minor movements
- detection area major movements



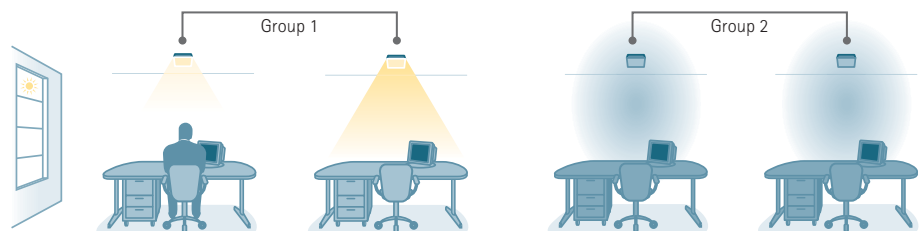
detection area analogue EMD sensor



detection area EMD sensor with DALI



The light is controlled as a function of the incident daylight and movement.



The luminaires are grouped. As long as one luminaire detects any movement within the group, the whole group of luminaires remains active.



webref. SC038A4

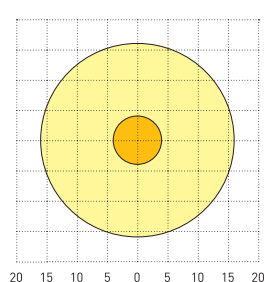
EMD FOR CORRIDORS AND OPEN SPACES

Open spaces and corridors require special motion sensors. In corridors motion must be detected across the entire length, so that sensors with elongated detection zones are required. Large, open spaces call for sensors that can also detect the slightest motion at great distances. ETAP also offers a full range of EMD sensors for this application.

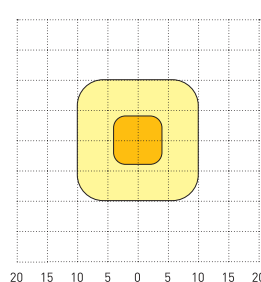
OPEN SPACES



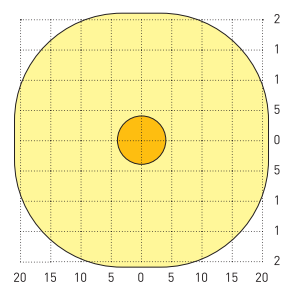
Height < 4 m



4 m < Height < 8 m



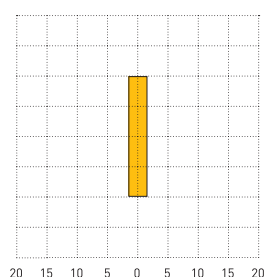
Height > 8 m



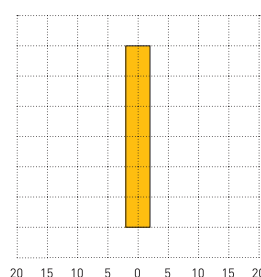
CORRIDORS



Height < 4 m



Height > 4 m



to the sensor
along the sensor



EASYDIM

LOCAL LIGHT CONTROL



EasyDim is a local light control system that makes it easy for you to save energy. It is the perfect solution for:

- Classrooms
- Offices
- Conference rooms
- Corridors
- Sanitary spaces
- ...

EasyDim automatically adjusts the light level as a function of entering daylight and human activity. It helps you save energy via movement detection and daylight-dependent control. You can manually adjust the light level via push-buttons or an infrared remote control.



EasyDim Pure – webref. SC037A2

EASYDIM PURE

CHARACTERISTICS

- For simple, autonomous applications with DALI luminaires, such as an individual office or sanitary space
- Up to 15 components can be connected per installation (e.g., 15 luminaires or 13 luminaires, push-button and one extra sensor)
- Preconfigured by ETAP as a function of the application. Parameter sets are available for different applications (see p. 290)
- Extendable with 2 additional movement sensors for increased detection range
- Expandable with max. 2 push-buttons for manual control

COMPONENTS

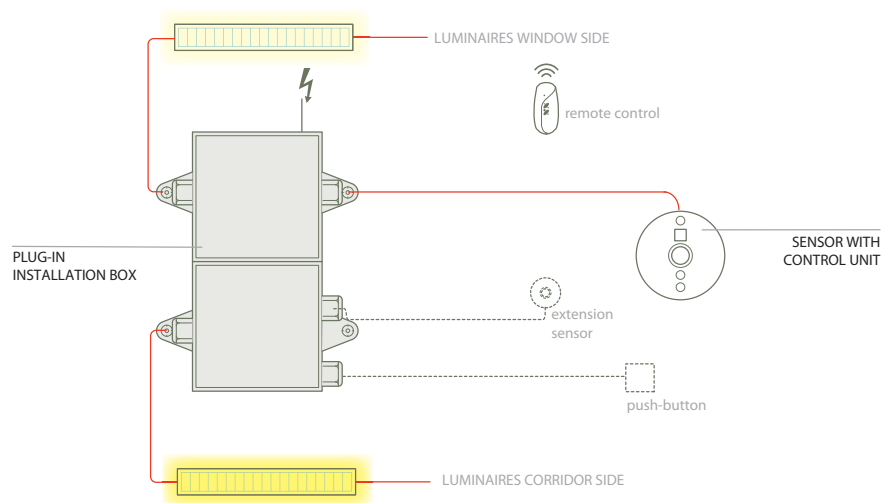
INTELLIGENT SENSOR WITH INTEGRATED CONTROL UNIT

- three functions: daylight-dependent control, movement detection, IR reception for remote control
- sensor range up to 20 m² for smaller movements (e.g. office) and 48 m² for larger movements (e.g. classroom)
- extendable and rotatable shield to avoid the lighting being switched on unnecessarily
- LED indicator which indicates how much energy you are saving

PLUG-IN INSTALLATION BOX (FOR RECESSED MOUNTING ONLY)

- Wieland connectors, provided with clear labels
- Two connections for luminaires (window and corridor side)
- Two connections for expansion sensors and/or push-buttons
- Power in and out

SURFACE-MOUNTED HOUSING (FOR SURFACE MOUNTING ONLY)



Schematic diagram of EasyDim Pure recessed mounting



EasyDim Advanced – webref. SC037A6

EASYDIM ADVANCED

CHARACTERISTICS

- For applications with DALI luminaires where it is meaningful to interconnect movement sensors of different EasyDim systems, e.g. to prevent the lighting from being switched off when there is still activity in another zone
- Up to 22 EasyDim systems can be interconnected
- Up to 15 components can be connected per installation (e.g., 15 luminaires or 13 luminaires, push-button and extra sensor)
- Preconfigured by ETAP as a function of the application. Standard parameter sets are available for different applications (see p. 290)
- Extendable with 2 additional movement sensors for increased detection range
- Expandable with max. 2 push-buttons for manual control

COMPONENTS

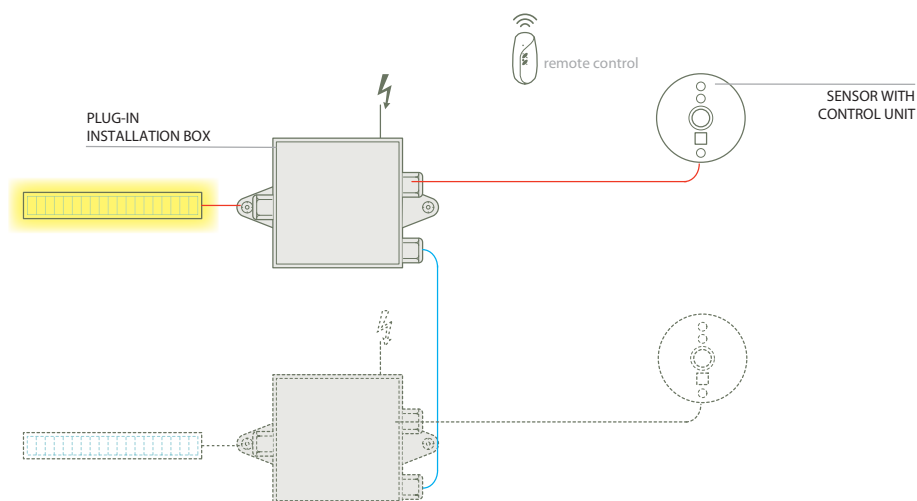
INTELLIGENT SENSOR WITH INTEGRATED CONTROL UNIT

- see EasyDim Pure

PLUG-IN INSTALLATION BOX (FOR RECESSED MOUNTING ONLY)

- One Wieland plug (split into groups by remote control for installers)
- One connection for luminaires (window and corridor side) (split in software)
- One connection for parallel link
- Power in and out

SURFACE-MOUNTED HOUSING (FOR SURFACE MOUNTING ONLY)



Schematic diagram of EasyDim Advanced
recessed mounting



EasyDim Pure, recessed mounting – webref. SC037A1

EASYDIM COMPONENTS

EasyDim Pure

RECESSED MOUNTING

The base of this EasyDim system consists of an intelligent sensor with integrated control unit that receives and processes local signals, and a plug-in installation box.



EasyDim Pure – recessed (sensor / installation box / cable)

C1C00/01–200Mx*

SURFACE MOUNTING

The base of this EasyDim system consists of an intelligent sensor with integrated control unit that receives and processes local signals. The sensor is provided with a rigid surface mounted housing.

EasyDim Pure – surface mounted (sensor and surface mounted housing)

C1C00/00Mx*

**replace 'x' with reference number of desired application method, see overview p. 290*

EasyDim Advanced

RECESSED MOUNTING

The base of this EasyDim system consists of an intelligent sensor with integrated control unit that receives and processes local signals, and a plug-in installation box.



EasyDim Advanced – recessed (sensor / installation box / cable)

C1C10/01–200Mx*

SURFACE MOUNTING

The base of this EasyDim system consists of an intelligent sensor with integrated control unit that receives and processes local signals. The sensor is provided with a rigid surface mounted housing.

EasyDim Advanced – surface mounted (sensor and surface mounted housing)

C1C10/00Mx*

**replace 'x' with reference number of desired application method, see overview p. 290*

Inputs

ADDITIONAL SENSORS

An EasyDim system can be extended with maximum 2 additional movement sensors for an increased detection range.



Movement extension sensor – recessed mounting, incl. lead (4m) and Wieland connector BST 14

C1RM0/00–400

Movement extension sensor – surface mounting

C1RM0/00



Sensor with integrated control unit and surface-mounted housing - webref. SC037A11



PUSH-BUTTON CONTROL

EasyDim operates fully automatically and autonomously, but also lets you control the lighting manually, e.g. by means of push-buttons. These push-buttons can be connected via a push-button interface to the EasyDim system.

Push-button interface	C1N10
Push-button panel, 2 commands and text field	C2RP0
Push-button panel, 4 commands and text field	C2RP1

IR REMOTE CONTROL

EasyDim operates fully automatically and autonomously, but also lets you control the lighting manually. The IR receiver in the sensor allows EasyDim to be controlled via an IR remote control.

IR transmitter, wall mounting, 2 commands (ON+DIM/OFF+DIM)	C1TU00
Manual IR remote control, 2 commands (ON+DIM/OFF+DIM) including wall bracket	C1TU02
Manual IR remote control, 5 commands (AUTO/100%/50%/10%/OFF) including wall bracket	C1TU03

Accessories



REMOTE CONTROL FOR INSTALLERS

Should you want to deviate from the manufacturer's configuration, the remote control will help you with the EasyDim start-up.

Basic remote control for installers	C1TC00
Advanced remote control for installers	C1TC03

CONNECTION ACCESSORIES

The connection accessories make your EasyDim 'plug & play' and facilitate installation. Leads and extension leads click into each other via T-pieces and distribution blocks.

230V connection	
2 metre flex 3 x 1.5 mm ² with CEE7 mains plug and GST18 bus	C1A00/3-200
3 metre extension cable, 3 x 1.5 mm ² with GST18 plug and GST18 bus (black)	C1A01/3-300
T-piece GST18, 3-pin, 1 x IN, 2 x OUT (black)	C1A20/3-3
Distribution block GST18, 3-pin, 1 x IN, 3 x OUT (white)	C1A21/3-4
Distribution block GST18, 3-pin, 1 x IN, 5 x OUT (white)	C1A21/3-6
Connector GST18	C1A30/3-1
Luminaire connection	
3 metre extension cable, 5 x 1.5 mm ² with GST18 plug and GST18 bus (blue)	C1A02/5-300
T-piece GST18, 5-pin, 1 x IN, 2 x OUT (blue)	C1A22/5-3
Sensors and push-button units and parallel link	
Connection cable BST14 4 metre, 2 x 0.5 mm ² with plug and free end (blue)	C1A42/2-400
Extension cable BST14, 6 metre, 2 x 0.5 mm ² with plug and socket (blue)	C1A41/2-600
T-piece GST14, 1 x IN, 2 x OUT (blue)	C1A50/3
Link cable BST14, 4 metre, 2 x 0.5 mm ² with socket (blue)	C1A40/2-400



webref. SC037B3

APPLICATIONS & SETTINGS

APPLICATION MODES

EasyDim can be used for various applications. Each of these applications has specific requirements in terms of light control. EasyDim can be supplied with one of the standard application modes. These modes use different parameters, which are set according to the application requirements. ETAP uses the following parameters:

OCCUPANCY

How does your lighting react when movement is detected? Do you wish to switch manually or automatically?

SMART TIMER

Time by which movement detection is extended when movement is detected during the dimming period.

BACKGROUND LEVEL TIMER

Number of minutes during which EasyDim keeps the luminaires at dimmed level before switching them off.

DAYLIGHT OVERRIDE

In case of daylight-dependent control: if sufficient daylight is present, EasyDim will not switch on the luminaires upon detection of movement.

DAYLIGHT-DEPENDENT CONTROL

Determines whether luminaires may be dimmed upon detection of sufficient daylight.

DAYLIGHT-DEPENDENT SWITCHING

Determines which luminaires are to be switched off when sufficient daylight is present.

PARALLEL LINK (EASYDIM ADVANCED ONLY)

Determines how the linked EasyDim systems work together, on the basis of the exchange of motion detection.

Mode	Application	Occupancy	Smart timer (min)	Background level timer (min)	Daylight override	Daylight-dependent control	Daylight-dependent switching	Parallel link (advanced only)
1	Individual desk standard	Auto ON/OFF	10	0	Window side	Window & corridor side	Window side	Local occupancy
2	Landscape office standard	Auto ON/OFF	10	120	Window side	Window & corridor side	Window side	Local occupancy
3	Classroom	Manual ON/ auto OFF	10	0	NA	Window & corridor side	Window & corridor side	Local occupancy
4	Individual desk*	OFF	10	0	NA	Window & corridor	Window side	NA
5	Landscape office*	OFF	10	0	NA	Window & corridor	Window side	NA
6	Corridor	Auto ON/OFF	10	60	Window & corridor	Window & corridor	Window & corridor	Local occupancy
7	Sanitary facility	Auto ON/OFF	0	15 (portal only)	OFF	OFF	OFF	Local occupancy
8	Conference room	Manual ON/ auto OFF	10	0	OFF	Window & corridor side	Window side	Local occupancy
9	Landscape office +	Auto ON/OFF	10	infinite	Window side	Window & corridor side	Window side	Background lighting
10	Custome made							

* occupancy detection disabled



webref. SC037B2

APPLICATION-INDEPENDENT SETTINGS

In addition to the application-specific settings of EasyDim, you can define a series of application-independent settings. These settings depend on your personal and technical project requirements. You can modify these parameters yourself with the specific installer manual.

POWER UP STATE

What action should EasyDim take when the device is energised e.g. after a power failure?

Possible settings:

OFF: EasyDim keeps the luminaires switched off for the first 20 seconds. Then EasyDim switches to normal operation.

Movement and insufficient daylight? The luminaires are switched on.

No movement? The luminaires remain switched off.

ON¹: EasyDim switches on the luminaires when the power comes on.

No movement? The luminaires are switched off after five minutes.

BACKGROUND LEVEL

Depending on the application, the luminaires are dimmed to background level after a preset period.

Possible settings: 10% - **20%¹** - 30% - 40% - 50% - 60% - 70%

INFRARED GROUP

Each EasyDim can be assigned its own infrared group address, allowing you to control a specific group with the desired remote control.

Possible settings: **A¹** - B - C - D - E - F - G

BURN-IN MODE

EasyDim can make sure that lamps are not dimmed during the first 100 burning hours, as often specified by the supplier.

Possible settings: ON - **OFF¹**

CUSTOM MADE

Ask your adviser for our custom made EasyDim solutions. If the above parameter sets cannot be used for your application, we will develop a custom application mode just for you.

¹ default setting



EXCELLUM

LIGHT CONTROLS FOR BUILDINGS

Excellum is a comprehensive design for integrated light control and energy management system. The instant energy savings result in a short cost recovery time and improvement of your personal comfort. The addressable dimming and switching function, combined with the user-friendly software allows Excellum to react dynamically to the constantly changing light situation in a building. Irrespective of time and location, Excellum always provides the right amount of light. By integrating six different energy control strategies in one system, applying them simultaneously, Excellum eliminates practically all energy waste caused by lighting.

EASY TO IMPLEMENT

Excellum communicates with every luminaire individually. The configuration in areas is software based and therefore independent from the lighting circuits. It makes the design simple, fast, future-based and flexible. All network components are looped with ready-made wiring with a plug connection. Because no addressing or paper work is required during the installation, the connection of a luminaire or sensor is a matter of 'plug & play'.

EASY TO MANAGE

The central control software allows the building manager to control every luminaire in a building from his PC or via the internet. The user-friendly ground plan software allows simple navigation or system configuration.

EASY TO ADJUST

Luminaires and sensors are individually controlled. Reconfigurations after changes in a work space or refurbishing of the building are done entirely via Excellum software. The lighting luminaires in the ground plan are dragged to another space by a 'mouse click'. Changing the wiring or moving hardware has become a thing of the past.





Lyceum Het Vlier, Deventer - the Netherlands - webref. SA021AU2

Excellum means no more nasty surprises. Most features are already provided in the software's basic licence. No upgrades need to be paid or dormant features activated if you want to use them in the future. Thanks to the intuitive graphics, changes can be implemented by the software and no installation activities are necessary which results in extra cost cuts.

	STANDARD FEATURES	
	Included in base license	Optional
Completely integrated and simultaneous control strategies giving maximum energy savings and optimal comfort		
- Intelligent time control	x	
- Daylight-linking system	x	
- Task tuning	x	
- Occupancy control	x	
- Individual control	x	
- Restriction of peak capacity	x	
Choice from a wealth of user control possibilities:		
- Pushbuttons (free choice of design by PB-interfaces)	x	
- Wireless (RF) battery free pushbuttons/transmitters	x	
- Personal Control Software (PCS) with scenesetting (web version available)	x	
- Control via IP-phones	x	
Easy installation and validation:		
- DALI offering single cable 'mains + control' wiring	x	
- No pre-addressing needed, no on-site registration of ID's allowing easy logistics and fast install	x	
Professional project management and services:		
- Fast budget quote	x	
- Direct sales contact, following your project from A-Z	x	
- Every project is managed by a project manager	x	
- Detailed documentation, administrator training	x	
- Customized training		x
Flexible system configuration and maintenance:		
- Central monitoring and configuration, with no additional license costs, regardless the number of clients	x	
- State-of-the-art graphical user-interface	x	
- Floorplan based as well as logical tree structure	x	
Integration with other systems:		
- Fire alarm interface (lights on at alarm)	x	
- AV-interface	x	
- supporting BACnet protocol		x
- Tridium Niagara ^{AX} -integration		x
Modular maintenance contracts to satisfy your specific needs		
- Hotline and remote support		x
- System adjustment in situ		x
- Software maintenance and support		x
- Comprehensive hardware support		x
Extensive functionalities for facility manager:		
- Detailed energy analysis	x	
- Open system, which supports luminaires, sensors and push-buttons of various brands	x	
- Easy integration with Building Management Systems and exchange of information		x



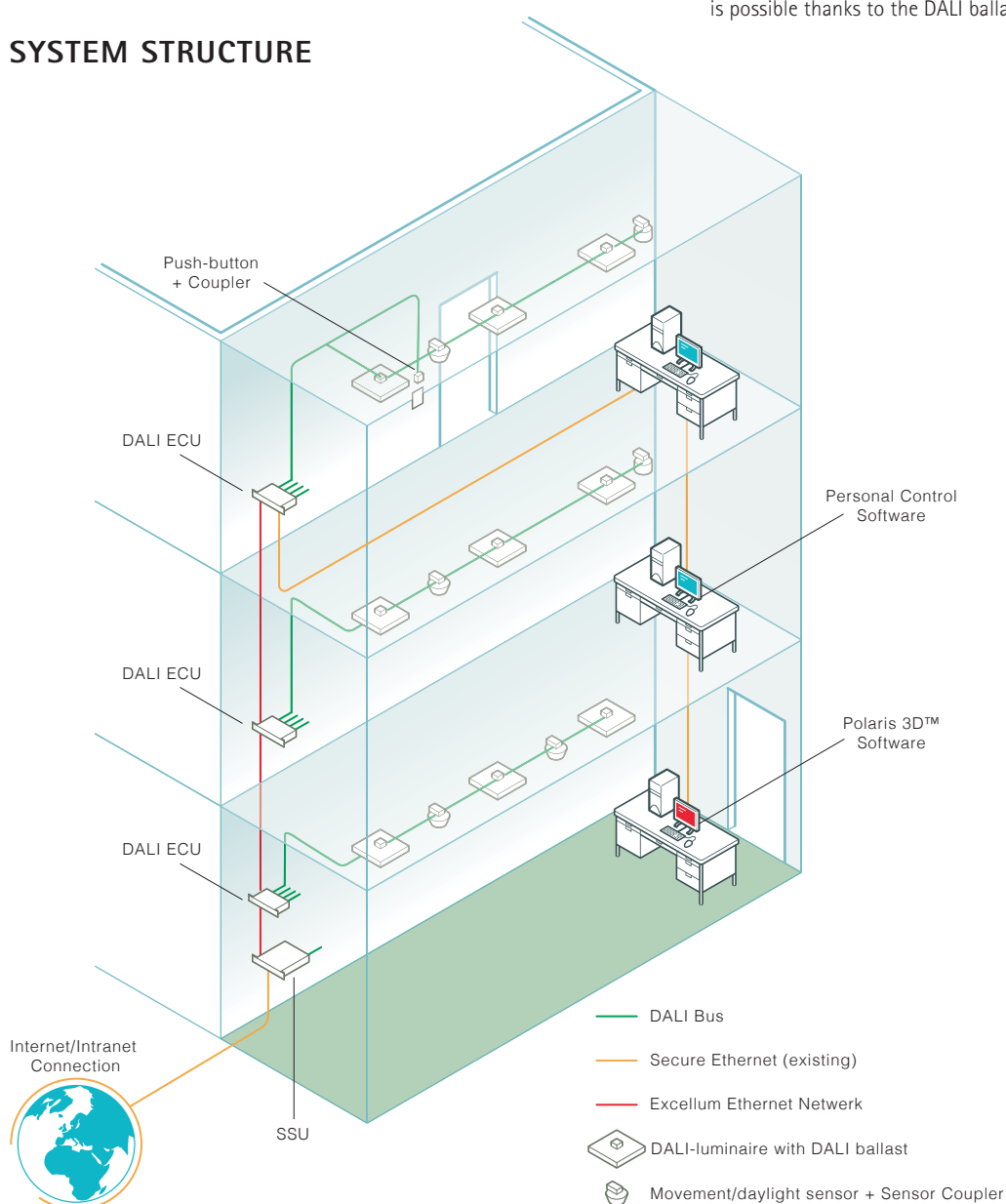
webref. SV300706

DALI

DALI (Digital Addressable Lighting Interface) is a standard protocol for the lighting industry. DALI provides simplified communication and installation.

Each DALI line can control up to 64 luminaires, which all remain addressable individually and in addition also sensors and push-buttons. Correct communication with the network is possible thanks to the DALI ballast.

SYSTEM STRUCTURE





webref. SC034A2

Central control components

SSU

The System Server Unit (SSU) contains the system's central database. The SSU also logs all data regarding the realised energy savings. The SSU is also necessary for the web server and other interfaces. One SSU per site is necessary.

SSU (System Server Unit)

C2C01



ECU

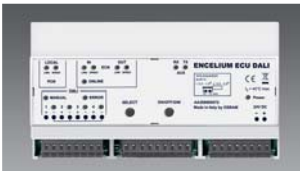
The Energy Control Unit (ECU) is the Excellum system's exchange. All nodes (sensors, actors, DALI devices, ...) are connected to this. Per building component (e.g. per storey) an ECU is installed which typically manages 450 nodes.

ECU DALI (Energy Control Unit DALI) incl. SW-bundle

C3C00

Power supply ECU DALI 30W

C3S01



ETHERNET SWITCH

The Excellum network uses the standard Ethernet protocol. Excellum selected a high-quality switch with the ideal configurability.

Ethernet Switch with 24 RJ45 gateways

C2C04-26

Inputs

INPUT COMPONENTS

Input modules allow sensors and operational elements to be integrated in Excellum such as push-buttons, movement detectors, light sensors, etc.

Multisensor Coupler - for light sensors and motions detectors

C3N10

CI Input Adapter - assembly accessory for Multi Sensor Coupler, for installation in or on wall

C3N10-1

Multisensor Coupler + CI Input Adapter

C3N11

Advanced Sensor Coupler - for light sensors and motion detectors up to 13 m

C2N12

Push-button Coupler

C3N13





RVT, Mol - Belgium - webref. SC035A1



PUSH-BUTTONS

Thanks to the flexible software you can use push-buttons for manual switching or dimming but also to select scenes. Versions with 2, 4 or 6 keys, some with transparent text field and optionally with LED feedback offer a push-button for every application. Push-buttons are connected to an input module.

Push-button panel 2 buttons	C3RP2
Push-button panel 4 buttons	C3RP4



SENSORS

DALI sensors that detect light and motion are available for recessed and surface mounting as well as for luminaire integration. They are connected directly to the DALI line.

Multisensor luminaire - motion/light sensor - DALI	C3RM0
Multisensor luminaire - motion/light sensor - DALI	C3RM1
Multisensor luminaire - motion/light sensor - DALI	C3RM2
Multisensor luminaire - motion/light sensor - DALI	C3RM3
Multisensor recessed - motion/light sensor - DALI	C3RM4
Multisensor surface mounted - motion/light sensor - DALI	C3RM5
Wide view Sensor - motion sensor 360° PIR - surface mounted - for high suspension height and wide detection zones	C3RM6
Wide view Sensor - motion sensor 360° PIR - surface mounted - for high suspension height and wide detection zones	C3RM7
Adaptor for surface mounting for Multisensor	C3AC0



Outputs

OUTPUT COMPONENTS

Output components are connected to the DALI network and switch and/or dim lighting that does not have a DALI ballast or driver. These components are recommended for renovations, to connect existing luminaires to the Excellum DALI network.

DALI Repeater luminaire - to 64 DALI ECG per repeater	C3N00
DALI Repeater ceiling integration - to 64 DALI ECG per repeater	C3N01
DALI Repeater DIN rail - to 64 DALI ECG per repeater	C3N02
DALI Converter luminaire - 1-10V - to 8 ballasts per converter	C3N03
DALI Converter ceiling integration - 1-10V - to 8 ballasts per converter	C3N04
DALI Converter DIN rail - 1-10V - to 8 ballasts per converter	C3N05
Triple Switch	C3N06
Adaptor ceiling mounting for DALI Converter	C3AC2
Adaptor ceiling mounting for DALI Repeater	C3AC1



Configuration software

POLARIS™

Polaris™ software allows the lighting to be configured and managed based on a modern, floor plan-based graphic user interface. The software also features extensive reporting and analysis functionalities. The Polaris™ software licence is included in the ECU price and there is no limit on the number of clients you want to install.



Personal control software

PCS / PCW

The Personal Control Software (PCS) allows users to operate the assigned lighting on their own PC. Depending on the settings the luminaires can be switched individually or in group or dimmed and scenes can be selected and changed. A web version (PCW) is also available that does not require any installation on the user PC and allows suitable smartphones or PDAs to operate the lighting.





webref. SC033A10



Integration BMS systems

AV-INTERFACE / BACnet / NIAGARA^{AX}

Excellum can be easily integrated in building management systems (BMS). An AV interface is standard for simple integration with e.g. Crestron or AMX. A BACnet server is also available and Excellum can be integrated in Niagara^{AX} (Tridium) based systems.



ENERGY READER

The energy reader allows real-time data of the energy use (of the lighting or the entire building) to be monitored and peak use to be restricted by the ECU's intelligent priority peak demand management.

Energy reader with Modbus over TCP/IP

C2C03



OBSERVATOIRE DE PARIS, PARIS - FRANCE

webref. SK006P6

ESM

CENTRAL MANAGING AND CONTROL SYSTEM FOR EMERGENCY LIGHTING



APPLICATION

Application Program for monitoring, control, reporting and maintenance of self-contained emergency lighting systems with:

- ETAP self-contained emergency lighting luminaires
- Luminaires with LED module
- Luminaires with emergency unit*
- ETAP centrally supplied luminaires connected to EBS (ETAP Battery System)

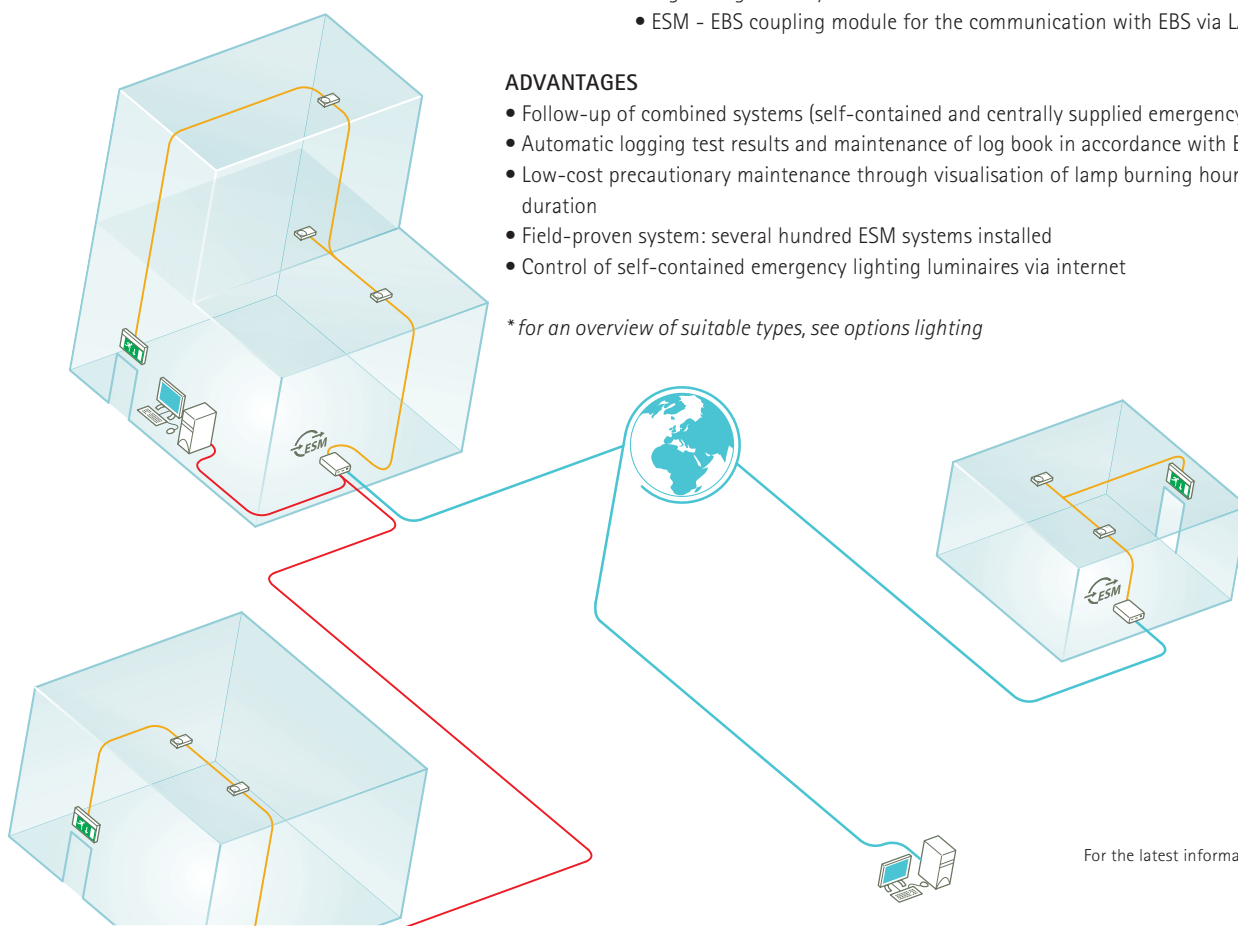
COMPONENTS

- Emergency lighting with wired or wireless ESM communication
- EBS systems and luminaires
- ESMweb controller
- Wired network
- Optional:
 - Emergency Unit Gateway (EUG) for communication with lighting luminaires fitted with an emergency unit
 - coordinator for communication with emergency lighting luminaires equipped for wireless communication
 - COM server for multi-building systems connected to the local network (LAN)
 - ESM Remote Access for access to the ESM software of each PC connected to the company network
 - possibility of connecting an RS 232 driver (line driver) with cable for multibuilding systems not connected to a local network
 - volt-free contact module for transmission of errors to central control panel or building management system
 - ESM - EBS coupling module for the communication with EBS via LAN or USB

ADVANTAGES

- Follow-up of combined systems (self-contained and centrally supplied emergency lighting systems)
- Automatic logging test results and maintenance of log book in accordance with EN 50172
- Low-cost precautionary maintenance through visualisation of lamp burning hours and battery duration
- Field-proven system: several hundred ESM systems installed
- Control of self-contained emergency lighting luminaires via internet

**for an overview of suitable types, see options lighting*





Regie der gebouwen (Victor Horta building), Brussels – Belgium – webref. SA021AA2

ESM SYSTEM FEATURES

LUMINAIRE – MESSAGES

- Luminaire errors: lamp, battery, electronics
- Network problem: BUS communication or radio communication problem
- Luminaire: identification data of self-contained luminaires

SOFTWARE – COMMANDS (INDIVIDUAL / GROUP / INSTALLATION)

- Remote switching of the maintained lamp (manual/periodic automatic)
- Adjustable test moment
- Search function
- Activate/deactivate rest mode (only for wired)
- Manual test function

SOFTWARE – OVERVIEW

- System status:
 - current operating mode (standby/test/rest/emergency)
 - lamp status, test settings (moment/cycle)
 - lamp burning hours (only self-contained luminaires)
 - battery duration (luminaires via Emergency Unit Gateway and EBS systems only indicate whether the specified duration has been met)
- Error messages: lamp, battery, electronics, network communication error
- Maintenance: maintenance orders and information on luminaire, lamp and battery
- Statistics: status report, history
- System reports: installation report, test settings, status report, maintenance report (in accordance with EN 50172)

SYSTEM – EXTERNAL CONNECTIONS

- Automatic export of status information (ASCII)
- Alarm signalling via potential free contact module
- Automatic fault signalling via e-mail
- Access via a PC with an internet or network connection



ESMweb controller – webref. SKX029A1

ESMweb SYSTEM

1. ESM EMERGENCY LUMINAIRES

K1, K2, K3, K5*, K6, K7, K9*, KL self-contained luminaires	see productpages
K1, K2, K3, K4, K6, K7, K9, KL centrally supplied luminaires with EBS, EBS Compact, Dynamic, Dynamic Light, Group	see productpages
ETAP luminaires with LED module* ETAP luminaires with emergency unit*	consult ETAP

*recessed luminaires not wireless

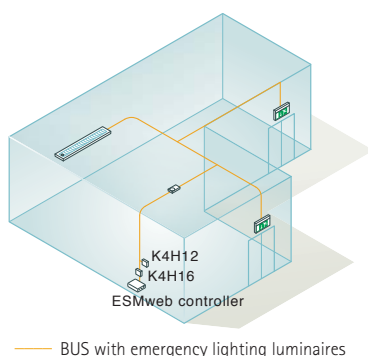
2. ESMweb CONTROLLER (maximum 24 COM ports)

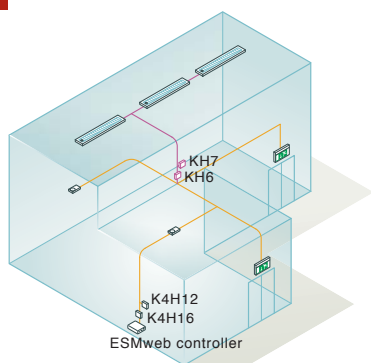
ESMweb controller	Material	aluminium
	Dimensions W x D x H	160 x 120 x 30 mm
	Assembled connected dimensions W x D x H	350 x 120 x 30 mm
	Mounting	DIN rail
	Hardware	'solid state' memory / power supply: 230V, 0,7A max / Possible connections: Ethernet connector 10/100 LAN (RJ45), BUS-adaptor connection (COM port)
	Amount of luminaires:	
	up to 100	KH16-100
	up to 200	KH16-200
	up to 300	KH16-300
	up to 400	KH16-400
	up to 500	KH16-500
	up to 1000	KH16-1000
	up to 2000	KH16-2000
	up to 4000	KH16-4000
	up to 8000	KH16-8000
	Licence extra luminaires	consult ETAP

3. ESM NETWORK (maximum 16 BUSES per COM port)

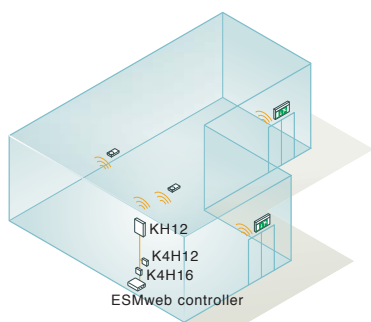
a. WIRED ESM NETWORK WITH EMERGENCY LIGHTING LUMINAIRES (maximum 500 luminaires per BUS)

BUS-power supply	dimensions (w x h x d in mm): 90 x 60 x 75 / DIN-rail mounting reach: maximum distance between furthest points: 0.66 km with 0.5 mm ² wire; 1.8 km with 1.5 mm ² wire; 2.7 km with 2.5 mm ² wire / resistance BUS power supply to utmost terminals: ≤ 50 Ohm / power: 3 W	K4H12
BUS-adaptor	dimensions (w x h x d in mm): 90 x 60 x 75 / DIN-rail mounting / reach: in accordance with RS232 specifications / PC connection: RS232 COM port / power: 1 W	K4H16
BUS network	type: 2-core twisted pair (0.5 – 2.5 mm ²) / total length: maximum 6 km (maximum capacity: 1 µF) / topology: free	not included

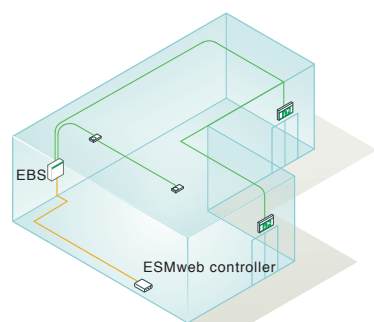




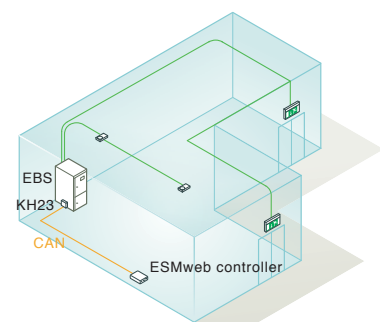
— BUS with emergency lighting luminaires
— BUS-segment with interior lighting with emergency unit



•)) Wireless network with emergency lighting luminaires



— EBS output circuits
— EBS BUS connection



— EBS output circuits
— EBS BUS connection

b. WIRED ESM NETWORK FOR LIGHTING LUMINAIRES WITH EMERGENCY UNITS (maximum 64 luminaires per segment)

EUG-power supply	dimensions (w x h x d in mm): 90 x 60 x 75 / DIN-rail mounting / maximum reach: 200 m / power: 6 W	KH7
Emergency Unit Gateway (EUG)	dimensions (w x h x d in mm): 90 x 60 x 75 / DIN-rail mounting / power: 3 W	KH6
Wiring	type: 2-core (0.5 - 1.5 mm ²) / total length: maximum 300 m with 1.5 mm ² ; maximum resistance 8 Ohm	not included
Emergency unit	luminaires with emergency unit	consult ETAP

c. WIRELESS ESM NETWORK WITH EMERGENCY LIGHTING LUMINAIRES

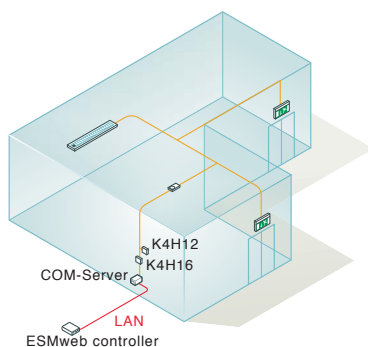
Coordinator	dimensions (w x h x d in mm): 160 x 130 x 60 / 2.4 GHz / 16 channels / communication based on IEEE 802.15.4 / transmission power: 1 mW / to connect to the ESM BUS	KH12
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d. CENTRAL BATTERY SYSTEM (EBS)

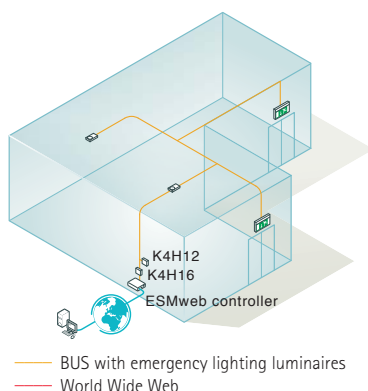
EBS Compact	coupling module via ESM-BUS	ESM-BUS-coupling included as standard in EBS Compact
EBS Dynamic (Light) & Group	ESM-EBS KHXX coupling module via ESM-BUS	KH23



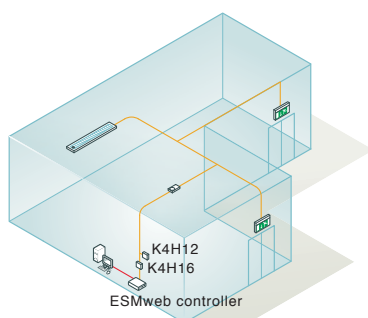
webref. SKX029A3

**BUS-network**

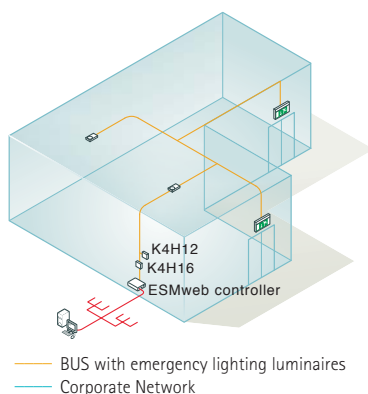
- BUS with emergency lighting luminaires
- Local network (LAN)



- BUS with emergency lighting luminaires
- World Wide Web



- BUS with emergency lighting luminaires
- Network cable



- BUS with emergency lighting luminaires
- Corporate Network

4. CONNECTION TO ESM NETWORK IN OTHER BUILDINGS THROUGH A LOCAL NETWORK (LAN) (maximum 24 COM ports / web controller)

EXTRA COMPONENTS PER ANNEX BUILDING (maximum 16 BUSES per COM-server)

COM-server	ESMweb controller and COM server driver to be configured by the local network (LAN) administrator / dimensions (w x h x d in mm): 75 x 80 x 25 / DIN-rail mounting / ethernet connection: RJ45; 10/100 Mbps / serial connection: RS-232 / male DB9 / power: 2 W	KH11
Local Area Network (LAN)	ethernet	not included

5. CONNECTION WITH ESMweb CONTROLLER

PC	with network connection and web browser	not included
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a. VIA INTERNET

World Wide Web	connection to ESMweb controller via network cable	not included
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b. DIRECTLY ON THE PC

Network cable	crossed network cable	not included
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c. VIA CORPORATE NETWORK

Corporate Network	connection to ESMweb controller via network cable	not included
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Hempelmann Kassel, Kassel/Waldau – Germany (ESM system) – webref. SKX030A1



NETWORKS FOR BUILDING MANAGEMENT

Also ETAP emergency lighting can, in addition to other applications, be connected to such networks. Experience has taught us that this invariably involves customised solutions. For these projects we will be happy to work out the best possible solution. Consult your ETAP adviser.

CONNECTION TO ESMweb CONTROLLER

1) VOLT-FREE CONTACT FOR ESM

This solution allows the status of the ESM installation to be displayed using 4 open/closed contacts

The following error situations are displayed:

- 1 or more luminaires have an error message;
- the communication between ESM and 1 or more luminaires has been broken;
- 1 or more luminaires is in emergency mode;
- the communication with ESM is broken.

PVC power supply	dimensions (w x h x d in mm): 27 x 75 x 100 / DIN-rail mounting / power: < 5W	KH20
PVC output module	dimensions (w x h x d in mm): 72 x 122 x 42 / DIN-rail mounting	
ESM PVC module	dimensions (w x h x d in mm): 72 x 122 x 42 / DIN-rail mounting / connection with web controller: USB	

2) ASCII EXPORT FILE

Every day, the ESMweb controller writes a detailed file that serves as input for processing in the building management system.

LON®

Local Operating Network (LON®) is a universal protocol for BUS networks. In an LON® network, the building management system communicates with the connected equipment through LON®.

Also ETAP emergency lighting can, in addition to other applications, be connected to a LON® network. These self contained ETAP emergency lighting luminaires have EST+ test functionality and an integrated LON® communication module. LON® allows you to give commands to and retrieve information from the luminaires.

1) ETAP LUMINAIRES WITH LON® COMMUNICATION MODULE

K1, K2, K3, K5, K6, K7, K9, KL

consult ETAP

2) SOFTWARE

integration of the emergency lighting luminaires in the building management system is done by the LON® system integrator

3) BUS NETWORK

uses the BUS network of the LON® building management system



Central Station, Antwerp – Belgium (LON® system) – webref. SKX030C1

SYSTEM FUNCTION COMPARISON

		ESM	LON®	DALI
Luminaire – messages	Errors: lamp, battery, electronics, network problems	x	●	●
	Identification data	x	●	
	Display of correct communication with communication LEDs	x		●
Software – commands	Switching of maintained lamp	x	●	●
	Adjustable test moment	x	●	●
	Activate/deactivate rest mode	x	●○	●
	Manual test function, search function	x	●	●
Software – overview	Error messages: lamp, battery, electronics, network communication error	x	●	●
	Statistics: status report, history	x	●	●
	System status: operating mode (standby / test / rest / emergency), lamp status, test settings (moment / cycle), lamp burning hours, battery duration	x	●	●
	System reports: installation report, test settings, status report, maintenance report	x	●	●
	Maintenance: maintenance orders and information on luminaire, lamp and battery	x		●

x standard

● to be implemented by system integrator

○ additional power supply and 4-wire bus required



EBS

CENTRAL BATTERY SYSTEMS



In a number of situations a central supply is recommended for emergency lighting. Just think of environments where the central maintenance of emergency lighting is necessary or environments where high lighting levels are required. But also in buildings in which the escape route and antipanic lighting is fully integrated into the general lighting, buildings whose evacuation requires a lot of time and a long autonomy is desirable, or in environments with a highly changeable ambient temperature. Lastly, there is also the renovation of existing installations.

COMPONENTS

Control
Control panel
Charger
Batteries
Circuits

LUMINAIRES

for EBS Compact

K2, K4, K7, K9 (versions EBS Compact)
Comes with individual luminaire control and FLEX technology as standard

*for EBS Static, EBS Dynamic (Light),
EBS Group, EBS Superior*

K1, K2, K3, K5, K6, K7, K9 and KL (versions central battery)
optional: individual luminaire control and FLEX technology. See options and luminaire accessories.

BASIC CONCEPTS

Circuit

Fused electrical output of the central battery system for connection of emergency lighting. Each circuit can be switched separately by the central battery system (examples see p. 312).

Substation

Subdivision panel of central battery system, from which the circuits leave for a portion of the installation. The substation includes no batteries and is supplied from the main station.

FLEX technology

FLEX technology allows to connect maintained and non-maintained luminaires to the same circuit. Each luminaire can be separately adjusted as maintained or non-maintained. The luminaires must be fitted with a FLEX module.



webref. SKX040A1

EBS COMPACT

(sketch ref.: 8000)

Advantages:

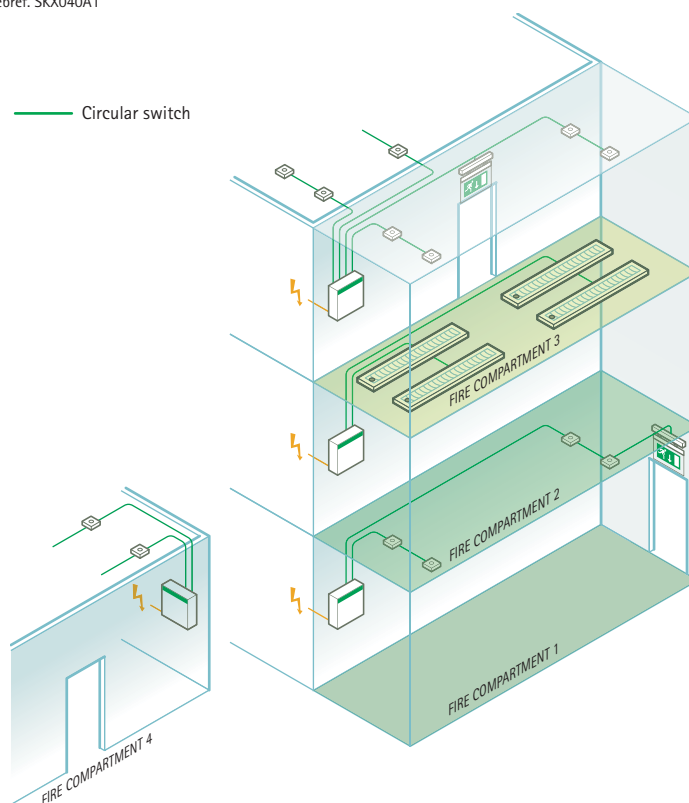
- Simple structure

Application:

- Minor to major projects with LED emergency lighting
- Projects with phased structure



— Circular switch



EBS

STATIC, GROUP, DYNAMIC LIGHT

Advantages:

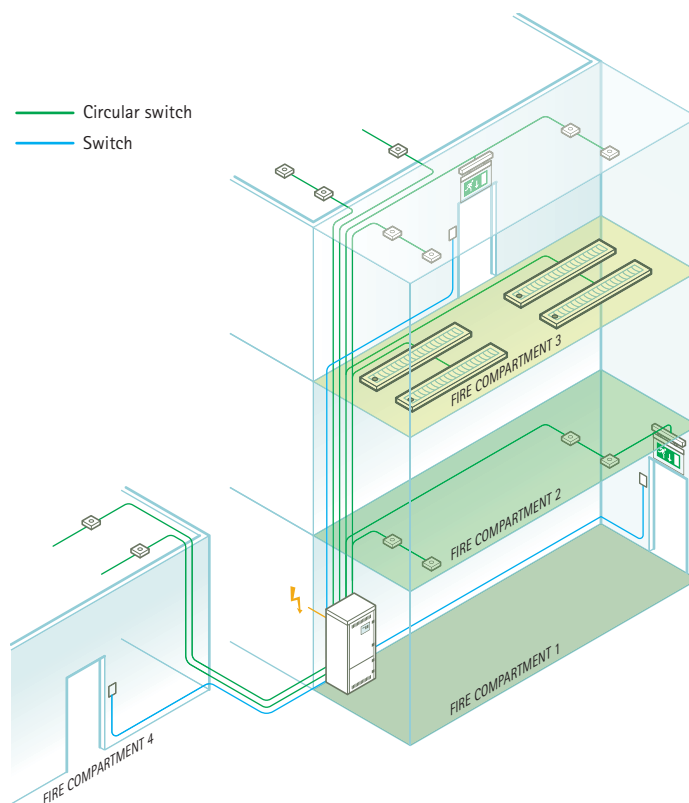
- Central monitoring
- Central maintenance

Application:

- Medium projects



— Circular switch
— Switch



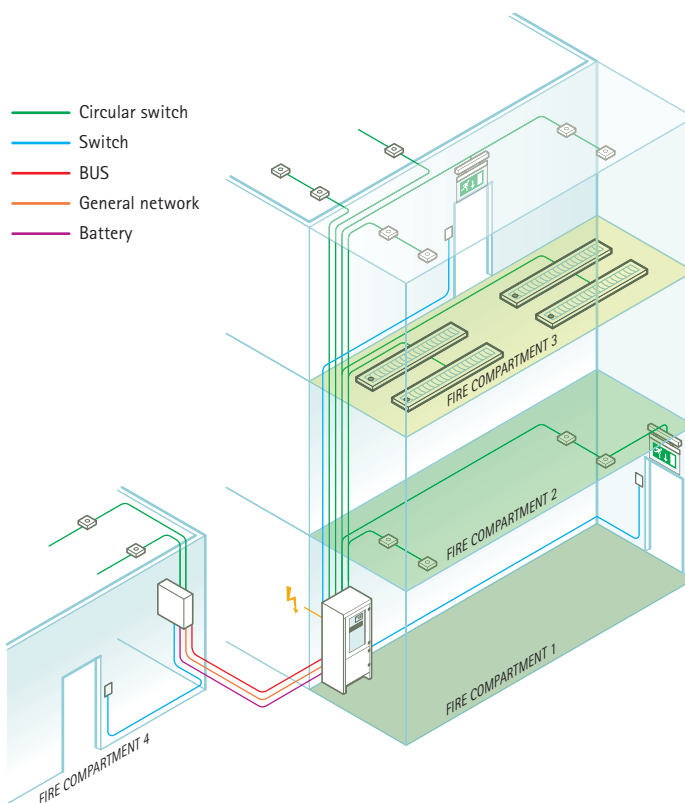
EBS DYNAMIC

Advantages:

- Central monitoring
- Central maintenance
- Less wiring thanks to substations

Application:

- Large buildings



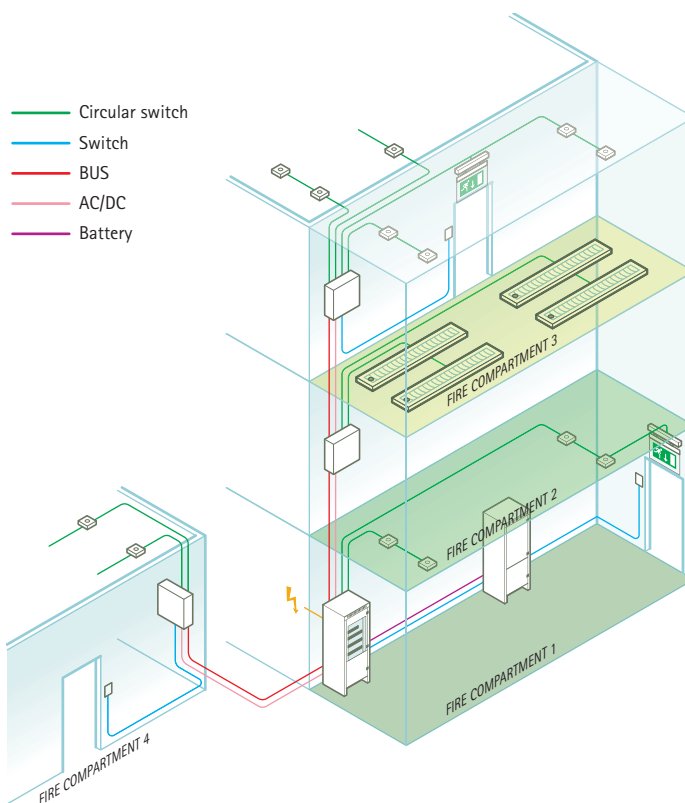
EBS SUPERIOR

Advantages:

- Central monitoring
- Central maintenance
- Local intelligence
- Less wiring thanks to substations
- Modular structure

Application:

- Very large or complex buildings





EBS Compact – webref. SKX040B6



EBS Static – webref. SKC001C1

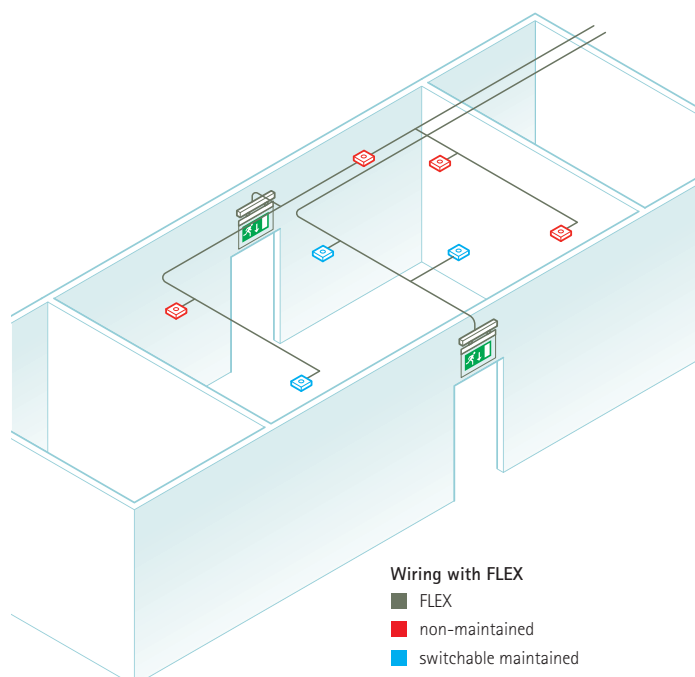
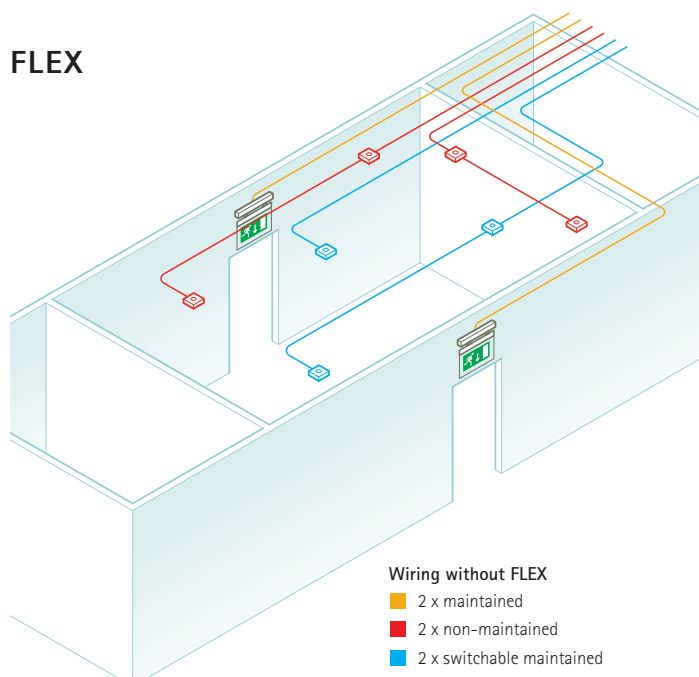


EBS Group – webref. SKC002B6

PRODUCT OVERVIEW CENTRAL BATTERY SYSTEMS

Selection table	EBS Compact	EBS Static	EBS Group
Ordering	KCC01-EN	on demand	on demand
Availability	standard	on demand	from stock
Maximum power	150W / 1h ; 80W / 3h	unlimited	1500W / 1h ; 500W / 3h
Switching circuits	4	unlimited	maximum 20
DC voltage	24V	24V / 216V	216V
Control	per fire zone	central	central
Subdistributor	-	possible	-
Placement batteries	in cabinet	near the control unit	in cabinet
Circuit monitoring	standard	standard	standard
Individual luminaire monitoring	standard	optional	optional
Switching of power circuits	-	fixed wired	programmable
FLEX technology	standard	-	optional
Connection to ESM	standard	-	optional
Replacement power source	batteries	batteries	batteries
Battery set	2 x 12V	18 x 12V	18 x 12V
IP	IP22	IP20	IP20
Dimensions (in mm)	400 x 400 x 110	project-dependent	1200 x 600 x 430
Housing material	lacquered aluminium	lacquered steel plate	lacquered steel plate

FLEX





EBS Dynamic Light – webref. SKC004B1



EBS Dynamic – webref. SKC003D1



EBS Superior – webref. SKC005C1

Selection table	EBS Dynamic Light	EBS Dynamic	EBS Superior
Ordering	on demand	on demand	on demand
Availability	from stock	on demand	on demand
Maximum power	21 kW / 1h ; 7kW / 3h	unlimited	unlimited
Switching circuits	maximum 44	unlimited	unlimited
DC voltage	216V	216V	216V
Control	central	central	decentralised
Subdistributor	-	possible	possible
Placement batteries	near the control unit	near the control unit	independent of control unit
Circuit monitoring	standard	standard	standard
Individual luminaire monitoring	optional	optional	optional
Switching of power circuits	programmable	programmable	programmable
FLEX technology	optional	optional	optional
Connection to ESM	optional	optional	optional
Replacement power source	batteries	batteries	batteries/emergency generating set/ 2 nd mains supply
Battery set	18 x 12V	18 x 12V	18 x 12V
IP	IP20	IP20	IP20
Dimensions (in mm)	project-dependent	project-dependent	project-dependent
Housing material	lacquered steel plate	lacquered steel plate	lacquered steel plate

EBS MODULES FOR CONTROL OF STAND-ALONE LUMINAIRES

EBS Static, EBS Group, EBS Dynamic (Light)		EBS Superior		
<i>KCADB01</i>	<i>KCFLEX1</i>	<i>KCLU1</i>	<i>KCFLEX2</i>	<i>KCFLEX3</i>
Individual luminaire monitoring	Individual luminaire monitoring and FLEX technology	Individual luminaire monitoring	Individual luminaire monitoring and FLEX technology	Individual luminaire monitoring and FLEX technology
Address setting via rotary coding switch (max. 16 addresses)	Address setting via rotary coding switch (max. 16 addresses)	Address setting via rotary coding switch (max. 20 addresses)	Address setting via rotary coding switch (max. 20 addresses)	Automatic addressing (max. 20 addresses)
Voltage 230V / 24V	Voltage 230V	Voltage 230V	Voltage 230V	Voltage 230V
Luminaire code + C1	Luminaire code + C2	On demand	On demand	On demand
2 - 120W	2 - 120W	2 - 120W	2 - 120W	2 - 120W

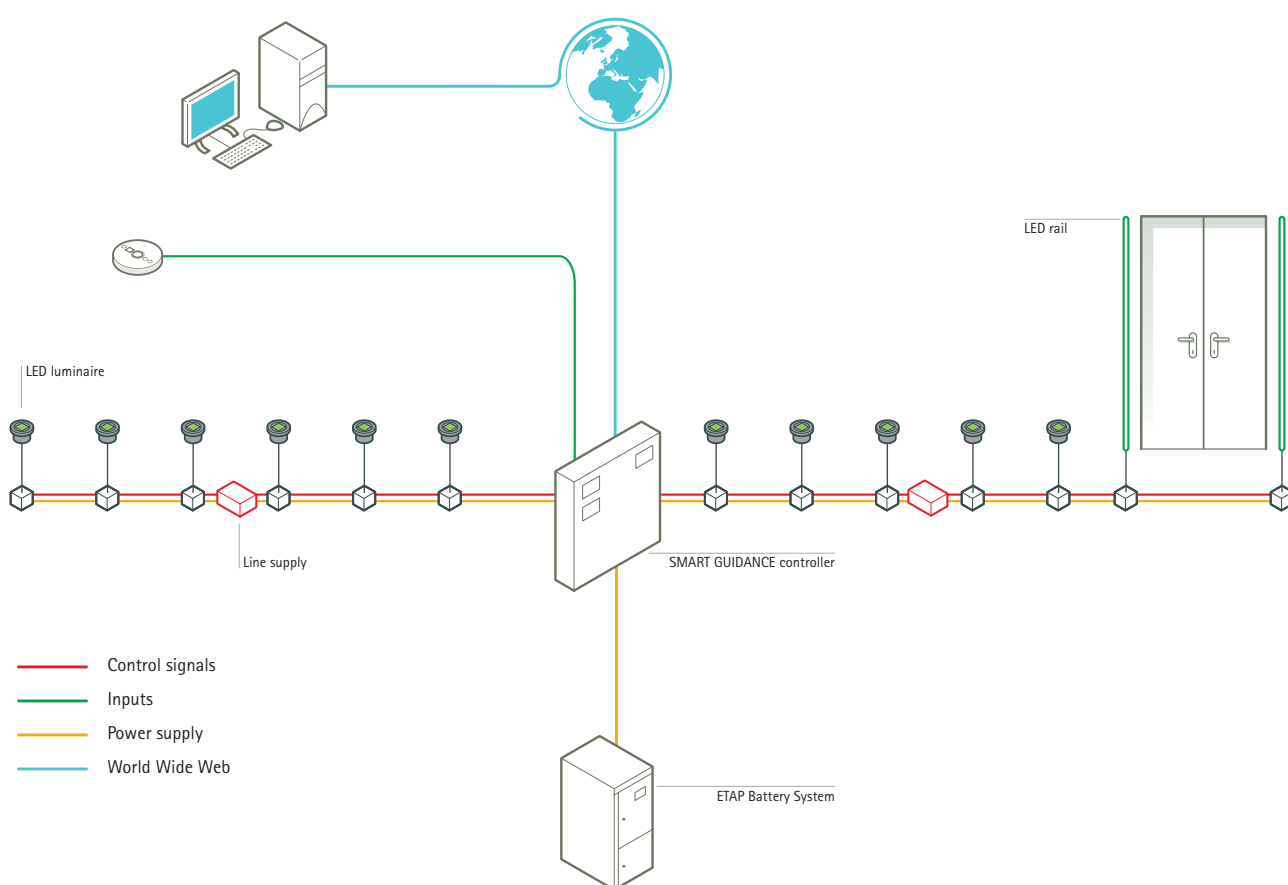


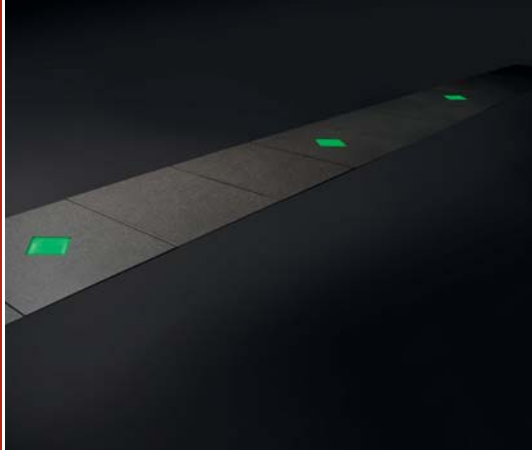
SMART GUIDANCE

Smart Guidance is a system that guides large groups of people to their destination in an intelligent and intuitive manner. In emergencies, the system allows for faster evacuation, thanks to the dynamic lighting which indicates the route to be followed. In normal conditions, Smart Guidance guides people to their destination in a more orderly fashion.

COMPONENTS

- Luminaires:
 - ground or wall luminaires alongside route
 - LED rail next to (emergency) exit
- Power supply for the luminaires
- Smart Guidance controller: central control of the luminaires, dynamic adjustment of light signals as a function of the conditions
- Emergency supply for the system





Ground spot integrated in tile as accent lighting - webref. SKG001B2



Ground spot - webref. SKG001A3

REMOTE CONTROL AND MANAGEMENT

Smart Guidance can be controlled and managed by remote control, from anywhere in the world, via a central server.

Features:

- Control of all components
- Automatic fault and alarm messages via e-mail or SMS
- All system documentation, manuals and technical data
- Historical event and status logs
- Remote configuration

1. LUMINAIRES



a. GROUND SPOTLIGHT¹

Luminaire dimensions (ø x d in mm): 116 x 80 / RGB LED; 24V DC; 3W / fixed cable (1 m) with connection to driver

KCG110/3-24

Material: tempered glass, stainless steel

Driver: dimensions (w x h x d in mm): 130 x 130 x 50 / IP67 housing / fixed cable (2 m) with connection for combined data and power wiring

¹ Can be integrated into floor tiles, contact your ETAP adviser



b. LED RAIL FOR EXITS

Luminaire dimensions (w x h x d in mm): 1850 x 44 x 38 / Green LED; 24V DC; 4.5W / fixed cable (1 m) with connection to driver

KCG120/5-24

Material: stainless steel, PA (polyamide)

Driver: dimensions (w x h x d in mm): 130 x 130 x 50 / IP67 housing / fixed cable (2 m) with connection for combined data and power wiring



c. WALL LUMINAIRE

Luminaire dimensions (w x h x d in mm): 200 x 80 x 43 / RGB LED; 24V DC; 3W

Material: acrylic diffuser, lacquered aluminium cover plate with lacquered sheet steel housing

Driver: integrated in luminaire housing

Mounting - hollow wall

KCG130/3-24

Mounting - solid wall

KCG131/3-24



BVG, Berlin – Germany – webref. SKG002C1

2. LINE POWER SUPPLY

40 LUMINAIRES (10 A)

Power supply for line with max. 40 luminaires

KCG31

Input: 230 VAC – 2.2A (50-60Hz) / **Output:** 24 VDC – 10A

Housing: dimensions (w x h x d in mm): 300 x 200 x 155 / IP66 / 2 x cable gland / fixed cable (2m) with connection for combined data and power wiring

10 LUMINAIRES (2.5 A)

Power supply for line with max. 10 luminaires

KCG32

Input: 230 VAC – 0.6A (50-60Hz) / **Output:** 24 VDC – 2.5A

Housing: dimensions (w x h x d in mm): 300 x 200 x 155 / IP66 / 2 x cable gland / fixed cable (2m) with connection for combined data and power wiring

3. CONTROLLER

1 x 128 LUMINAIRES

Controller for 1 x 128 luminaire drivers

KCG21

Power supply: 230 VAC (50-60Hz) / **Inputs:** 15 x 24V; 1 x 230V / **Output:** 6 x 24V relays

Housing: dimensions (w x h x d in mm): 600 x 600 x 200 / IP54 / gland plate (30 cable entries)

2 x 128 LUMINAIRES

Controller for 2 x 128 luminaire drivers

KCG22

Power supply: 230 VAC (50-60Hz) / **Inputs:** 30 x 24V; 2 x 230V / **Output:** 12 x 24V relays

Housing: dimensions (w x h x d in mm): 600 x 600 x 200 / IP54 / gland plate (30 cable entries)

4. REMOTE CONTROL AND MANAGEMENT

a. VIA LOCAL NETWORK

local network	connection of smart guidance controller via network cable	not included
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b. VIA MODEM

modem	integrated in controller	KCG4
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5. EMERGENCY SUPPLY

EBS	Central Battery System	see product pages
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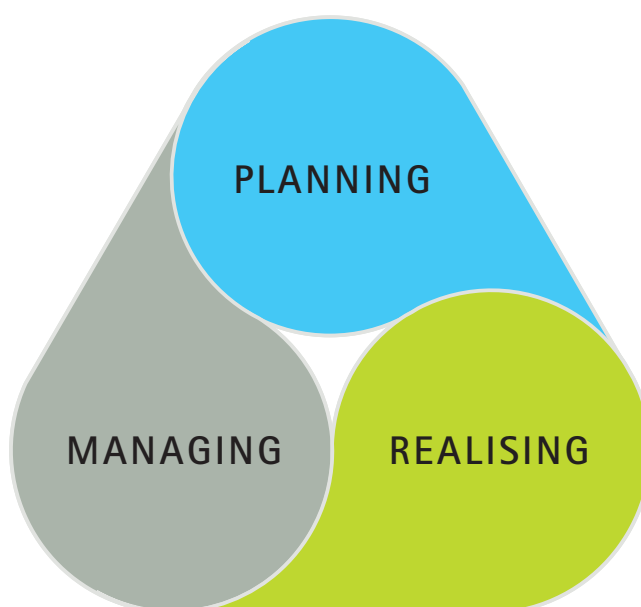


SERVICES



webref. SA049R1

SERVICES



ETAP provides a wide range of services: implementation, configuration, start-up, maintenance, etc. We make sure your installation always operates optimally – even after delivery.



ETAP's Services department is VCA-certified. VCA stands for "Health, Safety and Environment Contractors' Checklist" and proves that all works carried out by ETAP for you, are completed safely. The VCA certificate is valid for a period of 10 years. Our staff keeps their knowledge up-to-date through regular refresher courses.

All our service tasks are also carried out in accordance with valid standards and legislation. In this way, customers are sure that they comply with regulations.



LUMINAIRES

PLANNING



Type		Description
Advice	<i>Lighting</i>	ETAP sales reps are first and foremost advisers and perfectly trained lighting specialists. They will discuss your wishes and needs with you and will work with our Research and Development Department to develop a lighting plan that meets all your expectations as well as standard EN126464-1.
	<i>Emergency lighting</i>	A dependable safety plan, compliant with standard EN1838, is of vital importance for every building. Together with you, ETAP specialists can draw up such an emergency lighting plan for your building, in compliance with valid standards and fire regulations. Your plan will include: escape routes, calculation of numbers needed, all drawn in AutoCAD on your blueprints.

MANAGING



Type		Description
Stock-taking	<i>Lighting and emergency lighting</i>	ETAP can take stock of the current status of your lighting installation. Several features are recorded for each luminaire (location, status, etc.). Subsequently the data is indicated on the plans and ETAP draws up a report with the status of the installation and comprehensive recommendations, based on valid regulations.
Maintenance and cleaning	<i>Lighting and emergency lighting</i>	On request and if desired in consultation with your home installer, ETAP can provide tailored periodic maintenance for your installation. All functional system parts are then inspected and maintained in accordance with the relevant standards.
Repair	<i>Lighting and emergency lighting</i>	If, despite all the proper care, something goes wrong with the luminaires, ETAP will correct the problem as soon as possible. We have our own specialised repair service at your disposal.



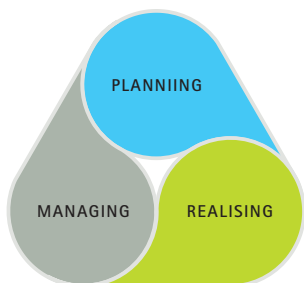
webref. SK7010A1



Type		Description
Fast additional delivery	<i>Emergency lighting</i>	In the event of a shortage of a few luminaires during installation, up to 10% of the original order can be delivered quickly delivered. This service is only available for standard luminaire types.
Fast replacement	<i>Emergency lighting</i>	Luminaire replacement can be requested from ETAP by means of an RMA procedure (Return of Material Authorisation). ETAP delivers an electronic mechanism that is functionally equivalent to the defective part. Upon receipt of the internal part, you can install it in the luminaire and return the defective part to ETAP. In this context normal warranty conditions apply. <i>This service is exclusively available for the electronic parts of standard luminaires with a production date after 01/10/08. ETAP guarantees this service until the type of luminaire or product is no longer produced. The defective internal parts must be returned within 1 month of receipt of the replacement part.</i>

For the 2 services above, you have following delivery options:

Collection	You can collect the luminaires in Malle, Belgium, lead-time 1-4 days after RMA or order confirmation.
Express	Within 5 working days, at the most, after the RMA or order confirmation, the material is delivered to your site. Any courier costs are to be borne by you.
Speed	Within 10 working days, at the most, after the RMA or order confirmation, the material is delivered to your site.



SYSTEMS

PLANNING



Type	Description
Needs analysis	The installation of light control starts with an in-depth needs analysis, on the basis of conversations with the customer, studying the plans or examining the building. ETAP tests the various flexibility and energy-saving strategies against the building's features and the customer's needs. ETAP advises the customer expertly at the beginning of the project and discusses all light control options. Only in this way will the result continue to meet all expectations.
Concept	On the basis of the needs analysis, a concept study will define light control in the various sections of the building. This analysis forms the basis for a budget assessment and further development of the plan.
Elaboration	The concept is tweaked into a detailed proposal, consisting of a detailed plan with the exact location of luminaires, sensors and other components. In addition, the customer will receive a technical overview of the system and more descriptive information on the concept behind the light control system and the applied strategies. Lastly, a bill of materials is added with exact numbers and types of material and a detailed cost estimate.

REALISING



Type	Description
Execution	ETAP's support is also possible during the installation of light control. The installer is thoroughly briefed and will receive training, where necessary. In the majority of cases it is recommended to carry out the necessary tests before start-up in order to detect and correct faults or irregularities in a timely manner. After execution the installer will provide the exact plans and a detailed spec sheet to the customer, since they may deviate from the original plans and bill of materials.



Type	Description
Start-up	Depending on the project's complexity, ETAP also supports the start-up of the light control system. Some settings are not pre-preconfigured and have to be configured in situ.
<i>ESM</i> <i>ETAP Safety Manager</i> 	In order to ensure an efficient and smooth installation, the installer is provided with the necessary information before the installation. Subsequently, an on-site ETAP technician ensures the startup of the ESM system and provides training for the end-user. <i>This excludes ESM software en hardware, installation and cabling for the ESM installation.</i>
<i>EBS</i> <i>ETAP Battery System</i> 	The start-up includes the configuration of the full EBS system (switching units, test scenarios, etc.), configuration of the EBS control software and/or connection to the ESM system. <i>This service does not include the installation and connection of the EBS system itself.</i>

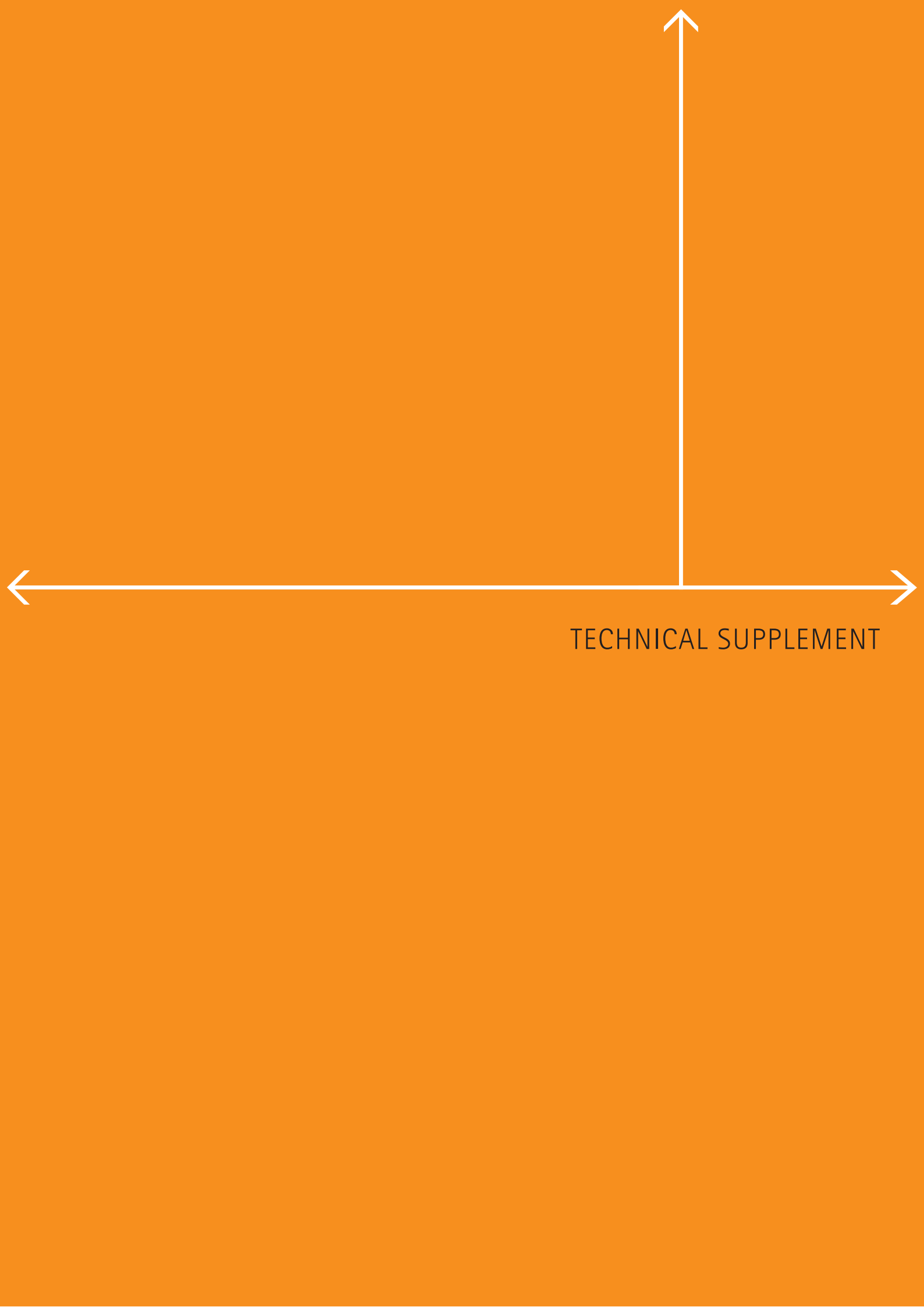


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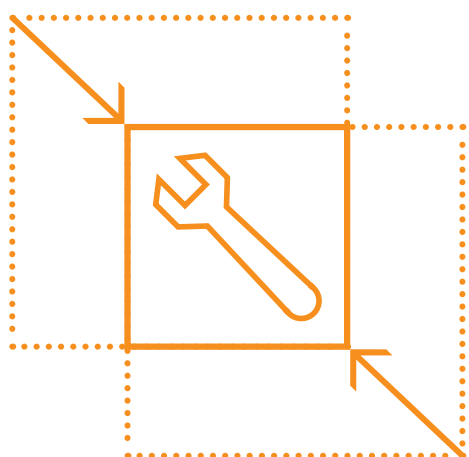
MANAGEMENT



Type	Description	
Training	ETAP familiarises facility manager, building manager or technicians responsible for lighting with the operation of the light control system. If requested by the customer, the building manager can be trained to carry out adjustments to the light control system.	
Services	Building managers or facility managers do not always have the time or technical knowledge to manage and maintain the light control system. which is why ETAP offers a service contract. In this case customers will be certain that they will be assisted immediately upon any failure or irregularity, in order for the system to continue to run optimally. An extensive service contract can also consist of a regular audit of the system and reporting and analysis of its operation and of the achieved savings.	
Maintenance	<i>EBS</i> <i>ETAP Battery System</i> 	Annual maintenance in accordance with the requirements of standard EN50172. This includes, among other things, check of the batteries, switching and discharge current, complete or partial simulations of the emergency operation, and check of the ventilation system.
Support and back-up	<i>ESM</i> <i>ETAP Safety Manager</i> 	During office hours telephone support is provided for ESM. Queries or problems can be resolved quickly because ETAP has a copy of the customer's ESM database. If a problem occurs with the hardware or software, it can be reloaded.



TECHNICAL SUPPLEMENT



CONTENT TECHNICAL SUPPLEMENT

Basic terms	332
Technical classifications	338
Standards	341
Bespoke luminaires	348
Options and accessories	352
Spacing tables	362
Wiring diagrams	374
Dimensional sketches	378
ETAP News	419
etaplighting.com	420
Warranty policy	422
Register	424
Index	427



webref. SK1010G5



webref. SK9108A1

BASIC TERMS OF PHOTOMETRICS



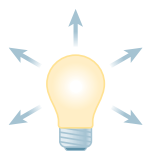
light source

LIGHT SOURCE

ETAP is always looking for efficient, economical and compact light sources. That is why we mainly use fluorescent lamps and LEDs.

Fluorescent lamps are energy-efficient and have good colour rendering properties. They are widely available and moderately priced.

An LED (light emitting diode) is a highly compact point light source, which radiates light in a single hemisphere.



luminous

LUMINOUS FLUX F (lumen – lm)

Luminous flux is the energy of light emitted by a light source or luminaire per unit time.

Thermal management within the luminaire is a major consideration in our luminaire design, because it influences the luminous flux.



efficiency

EFFICIENCY (%) AND SPECIFIC LUMINOUS FLUX (lm/W)

Efficiency is the ratio of the luminous flux emitted by a luminaire to the lamp luminous flux.

The higher the luminaire efficiency at a given shielding, the lower the energy consumption.

Light output is currently not yet easy to publish for quite a few luminaires – especially LED luminaires. Often the specific luminous flux is published in lm/W, which is not the luminous flux of the LED light source itself, but of the full luminaire: how much light (lm) that luminaire radiates for the total power used (W).



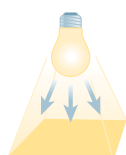
luminous intensity

LUMINOUS INTENSITY L (candela – cd)

Luminous intensity is the luminous flux emitted in a given direction, per solid angle unit.

The luminous intensity therefore describes how the emitted light is distributed through the room.

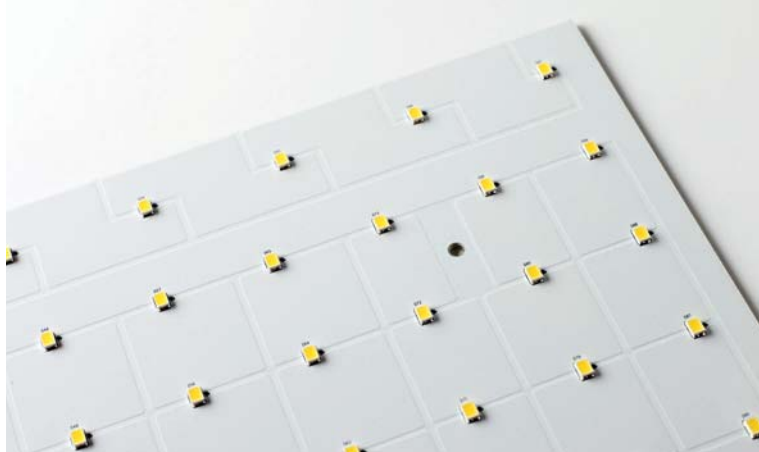
For luminaires, luminous intensity is represented in the form of a polar diagram.



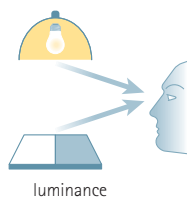
illuminance

ILLUMINANCE E (lux– lx)

Illuminance is the luminous flux incident on a surface, per unit area. It is a measure for the amount of light, but tells us little about the quality of the lighting.



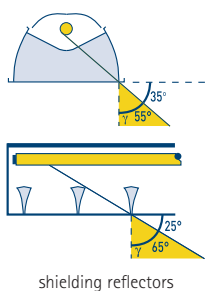
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**LUMINANCE L (cd/m²)**

Luminance is a measure for the clarity of the source in a specific direction and is closely related to the subjective brightness perception.

Control of the luminances of luminaires is essential for comfortable lighting.

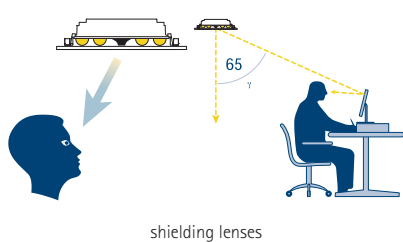
Standard EN12464-1 imposes restrictions on average luminances, but ETAP also invariably pays attention to limiting peak luminances.

SHIELDING**REFLECTORS**

ETAP reflectors ensure that, for certain viewing directions, no direct light from the lamp can fall into the eyes. This is referred to as physical shielding. However, it is equally important that no mirror images of the lamp are visible in the reflector. This is known as optical shielding.

In ETAP products, the optical shielding is at least equal to the physical shielding. For reflector shielding, the following terms are used:

- cut-off angle g
- shielding angle (complement of g)

**LENSES**

Optical shielding can also be achieved with lenses. A sophisticated lens definition ensures that bright luminance of the light source cannot be seen in normal direction of view, thus satisfying the requirements for luminance perception and UGR.



LED+LENS
TECHNOLOGY



webref. SUS1003A5



LED+LENS™



ISOLUM®



EQUILUM®



MesoOptics™



HaloOptics®



SOFTLIGHT

BASIC TERMS OPTICS

LENSES

LED+LENS™

LED+LENS™ is a combination of efficient high-power LEDs and sophisticated lenses, used to optimise light distribution.

LED+LENS™ provides high specific luminous flux and high visual comfort.

REFLECTORS

HRSilver™ - ALUMINIUM

ETAP uses HRSilver™ aluminium for the large majority of its reflectors.

This aluminium has an extremely high reflection factor (98%). As a result, HRSilver™ reflector luminaires have a considerably higher efficiency, allowing you to save more energy.



SYMMETRICAL LOW LUMINANCE (SLL) BAFFLES

Parabolically shaped with a flat top cover. They provide good luminance control longitudinally and transversely.



ISOLUM® BAFFLES

Parabolically shaped, with continuously formed top cover. They result in low average luminances in all directions and eliminate peak luminances.



EQUILUM® BAFFLES

Parabolically shaped on top and bottom sides. They prevent peak luminances and ensure perfectly uniform shielding in all directions.

DIFFUSERS

MesoOptics™

MesoOptics™ diffusers contain a precise microstructure that distributes the light in a controlled fashion. The efficiency is about 30 % higher than that of luminaires using conventional diffuser techniques. The result is rigidly and evenly illuminated optics without lamp silhouette and without any disturbing luminances or colour interference.

HaloOptics®

HaloOptics® is a diffuser with a high transmission factor. Conventional diffusers create their diffusing effect by including impurities in the material, whereby much of the light is lost. HaloOptics® uses transparent inclusions, so that less light is lost and luminaire efficiency remains higher.

SOFTLIGHT

Softlight luminaires clearly show where the light comes from. They use the entire surface of the luminaire to evenly spread the light. They increase the brightness impression of the entire room.



K9 - webref. SK9102C1



K7 - webref. SK7003E1

BASIC CONCEPTS EMERGENCY LIGHTING

Emergency lighting luminaires break down into two large categories. First, there are signage luminaires, which are luminaires with pictograms. Second, there are luminaires for lighting in emergency situations, where a distinction is made between escape route lighting (e.g. in corridors) and anti-panic lighting (e.g. in offices). For more information, refer to the chapter "Emergency lighting standards" on page 344.

TYPES OF EMERGENCY LIGHTING

Signage applications always require specific luminaires.

For escape route and anti-panic lighting a number of different solutions are possible:

EMERGENCY LIGHTING	
Lighting	Signage
specific luminaires	specific luminaires
interior lighting with LED module	-
interior lighting - self-contained with emergency unit - connected to centralised emergency unit	-

SPECIFIC LUMINAIRES FOR EMERGENCY LIGHTING

These luminaires are specially designed for escape route and/or anti-panic lighting, and are planned accordingly.

Photometric optimisation allows the luminaires to be installed at large spacings, so that only a limited number are needed to ensure compliance with the standard. The luminaires are fitted with specific electronics for optimal starting (and therefore long life) of the lamp and low energy consumption.

LED MODULES INTEGRATED INTO INTERIOR LIGHTING LUMINAIRES

A LED module consists of a light source with a LED indicator, an electronic control and a battery set (in self-contained systems). It is unobtrusively integrated into a luminaire. In emergency mode, the LED provides the necessary light. If the light of the LED is distributed with a special optical system, only a limited number of LED modules are needed to ensure compliance with the safety standards. The LED in the module is insensitive to switching; in addition, it has a very long life, so that, in principle, it never needs replacing.

EMERGENCY UNTIGS INTEGRATED INTO INTERIOR LIGHTING LUMINAIRES

In this case the lamps of the interior lighting are also used to provide light in emergency situations. This is possible by connecting them to an external emergency power unit or by integrating an emergency unit. Such an emergency unit consists of electronics and a battery set.

With this solution no separate emergency lighting is visible, as the same light source is used for both regular lighting and emergency lighting.

The light distribution is that of the interior lighting luminaire and is therefore not ideal for emergency lighting. To comply with the standard, you will probably have to install a comparatively large number of emergency units, in part because of the light distribution.

MAINTAINED (M) OR NON-MAINTAINED (NM)

The lamp of a maintained luminaire is on continuously, also when there is no power failure. Maintained luminaires are ideal for illuminated safety signs to indicate escape routes, emergency exits and rescue stations.

The lamp of a non-maintained emergency lighting luminaire is only switched on in case of a power failure. When the power comes back, the lamp switches off again.

DURATION

When the power fails, an emergency lighting luminaire will switch on for a certain period of time. The duration of a luminaire is determined by the power of the built-in battery. ETAP luminaires are available with the options of both 3 hour and 1 hour duration. The 3 hour version can be very useful in circumstances where the evacuation takes more time.



Vigilance - webref. SK8015C1



Emergency - webref. SK8015C2



EBS Compact - webref. SKX040A4

CENTRALISED OR SELF-CONTAINED SYSTEM

Emergency lighting takes over from normal lighting in case of a power failure. Emergency lighting can be powered in two ways. Depending on where the energy source is located, we speak of a centralised or self-contained system.

CENTRALISED SYSTEM – CENTRALISED POWER

In a centralised system, the power comes from a centralised unit.

Luminaires for a centralised system are available in different voltages depending on the area of application: 230V alternate current and direct current, or for the 24V-system EBS Compact.

SELF-CONTAINED SYSTEM

In a self-contained system, each luminaire has its own rechargeable battery. Each luminaire operates autonomously, i.e. independently of all others. Self-contained luminaires react independently to voltage drops. Expansion of the system is limitless and the chances of failure of the whole installation are nil. All ETAP self-contained luminaires have an automatic self-test system. Self-contained emergency lighting has been designed for a nominal alternate mains voltage of 230V. Luminaires can handle fluctuations between 207 and 245V in the mains voltage.

BATTERIES

Batteries are an essential part in any self-contained emergency lighting luminaire. ETAP uses Nickel Metal Hydride (NiMH) batteries. These battery are subject to reversal of polarity which has a negative effect on the life cycle of the battery. Polarity reversal protection, provided in all self-contained ETAP luminaires, avoids the polarity of a battery from being reversed by a chemical reaction following strong depletion.

All used batteries are recovered and recycled.

INHIBITING MODE

A switch sequence for special areas such as high-voltage switch rooms. The luminaires are connected in such a way that they only begin to function after a technician activates them on the spot (using a switch fitted specially for that purpose).

AUTOMATIC SELF-TEST



Well functioning emergency lighting requires regular monitoring. All ETAP self contained luminaires have an European Safety Test (EST) that carries out extensive and frequent tests.

Luminaires with an automatic self-test guarantee increased safety and offer significant time and money savings during functional testing. Without a self-test you are required under the standard to regularly switch off the voltage and to check whether the luminaires still lit after the specified battery duration has elapsed.

TEST BUTTON

All self-contained luminaires have a test button. The button allows you to simulate a voltage cut-off to test the luminaire's reaction.

RESPONSE TIME

The response time is the time that the emergency lighting needs to switch on after a power failure. In case of self-contained systems, the response time is less than 2 seconds. The response time needs to be as short as possible to prevent people panicking in the dark.



webref. SA049P8



webref. SA049P7

TECHNICAL CLASSIFICATIONS

IP
20

IP PROTECTION

The IP classification specifies the level of protection against solid objects and dust (1st digit) and water (2nd digit)

IP

Protection class	Resistance to solid objects and dust	Resistance to water
IP20	test finger > 12 mm	not protected
IP22	test finger > 12 mm	falling water drips (15° slope)
IP40	solid objects > 1 mm	not protected
IP42	solid objects > 1 mm	falling water drips (15° slope)
IP44	solid objects > 1 mm	splash proof
IP50	dust protected	not protected
IP54	dust protected	splash proof
IP55	dust protected	jet proof
IP65	dust-tight	jet proof
IP66	dust-tight	heavy jet proof
IP68	dust-tight	sustained submersion

IK
06

IK PROTECTION

The IK classification specifies the degree of protection against mechanical impact:

IK

Protection class	Shock energy
IK03	0,35 J
IK04	0,50 J
IK05	0,70 J
IK06	1 J
IK07	2 J
IK08	5 J
IK09	10 J
IK10	20 J



webref. SK2027B1



webref. SA049P1

F-MARKING

The F marking on luminaires indicates whether they can be mounted in or on flammable materials. Luminaires only bear special markings, if applications are limited. For example: a recessed luminaire may not be covered with insulation material for thermal reasons.

No symbol: The appliance may be mounted in or on normally flammable materials and the appliance may be covered with thermal or acoustic insulation.



Recessed – shall not be mounted in normally combustible ceilings or materials



Recessed – shall not be covered with thermal or acoustic insulation



Surface mounted – shall not be mounted on normally combustible ceilings or materials



850 °C FIRE RESISTANCE CLASS

Resistance to fire is assessed by means of the filament test (as per standard IEC 60695-2-10). All luminaires belong to flammability class 850°, unless otherwise indicated on the product pages.



IMPACT TEST

Some luminaires have been subjected to a ball impact test (as per DIN VDE 0710 Teil 13). This test assesses the safety of the luminaire after a number of dosed ball impacts. In this catalogue these luminaires are indicated by the ball impact test icon.



ATEX

Some luminaires are ATEX certified. They can be used in dusty and/or gas environments.



STANDARDS IN GENERAL

CONSTRUCTION STANDARDS AND DIRECTIVES

EUROPEAN STANDARDS

The luminaires' internal wiring is halogen-free and with diminished smoke production in accordance with harmonised document HD22.9 S3. All ETAP luminaires are constructed in accordance with electrical safety standards EN 60598-1 and EN 60598-2.

The ENEC approval mark, which can be awarded by independent certification authorities (KEMA, VDE, CEBEC, etc.), guarantees conformity with the above standards and applies to most countries of the European Union. This catalogue indicates for each series whether the ENEC approval mark applies.

EUROPEAN DIRECTIVES

The CE marking certifies that ETAP luminaires conform to

- the low-voltage directive (2006/95/EC)
- the electromagnetic compatibility directive (2004/108/EC)
- the requirements for waste electrical and electronic equipment (AEEA, 2002/96/EEG)
- the requirements for the use of certain hazardous substances in electrical and electronic equipment (ROHS, 2002/95/EC)
- the requirements for energy related products (ERP - EC 245/2009 and EC 347/2010)

Also, there are products available that conform to the requirements of

- the ATEX directive (94/9/EC) for application in explosive surroundings



webref. SA049L1

STANDARDS LIGHTING

EUROPEAN APPLICATION STANDARD EN12464-1

The major application standard is European standard EN12464-1. This standard deals with the various quality aspects of a lighting installation for workstations and their immediate environment:

DEFINITION OF WORKSTATION AND PERIPHERAL ZONES

The standard distinguishes between the work plane (the task) and the environment. It describes a number of methods for defining your workstation. The standard defines the minimum illuminance, E_m , on the work plane for a variety of visual tasks and for the complete application time of the lighting installation.

LUMINANCE CONTROL ON COMPUTER SCREENS

Also on modern computer screens lighting can be a source of disturbance. The standard therefore contains requirements for the control of average luminances. For standard workstations, a limit of 1000 cd/m^2 until 3000 cd/m^2 applies, depending on the situation and the screen. This limit applies for angles from 65° all round. For critical VDU work or variable screen inclination, limits on corners are made smaller than 65° (e.g., 55°) are to be considered.

DIRECT GLARE

The standard prescribes two measures to reduce direct glare. First, a minimum shielding angle in all directions, depending on the lamp luminance, is prescribed. In addition, a maximum Unified Glare Rating (UGR) is specified for each visual task. The UGR is an approximative model that expresses the probability of glare; the standard values range from UGR 16 to UGR 28. The catalogue indicates the reference UGR category for each luminaire.

COLOUR RENDERING

For the colour rendering index, R_a , the standard imposes minimum requirements as a function of the task. The higher the number, the better the colour rendering. The choice of lamp is the determining factor here. In rooms where people stay for a long time, lamps with an R_a of at least 80 are required.

SUPPORTED MAINTENANCE FACTOR

When the lighting system is new, luminaires are clean, lamps emit their full luminous flux and luminaires and planes in the room have optimal reflection properties. After the system has been in service for some time, light efficiency will decrease due to reduced lamp luminance, possible failure of electronics or lamps, contamination of the luminaire and the room. The lighting design must make allowance for this by incorporating a well-founded maintenance factor. For fluorescent lamps, such substantiated maintenance factors can be easily included in tables.

Unified Glare Rating (UGR) classes	
UGR ≤ 16	very high visual demands e.g. quality control, precision task
UGR ≤ 19	high visual demands e.g. Display Screen Equipment, office, conference, classroom
UGR ≤ 22	moderate visual and concentration demands e.g. assembly, information desk, canteen
UGR ≤ 25	low visual and concentration demands, frequent mobility e.g. rough industry, archives, stairways
UGR ≤ 28	very low visual and concentration demands e.g. (not continuously used) obstacle-free circulation area



E1 ATEX gas - webref. SE1008B2

¹ A dust and smoke free room that is thoroughly cleaned every day. e.g. cleanrooms, operating rooms,...

² A room where hardly any dust or smoke is produced e.g. offices, hospital rooms,...

³ A room near an environment where dust or smoke is produced, where a limited amount of dust and smoke is produced e.g. restaurants, bakeries,...

⁴ A room where more dust and smoke is produced e.g. industry,...

Maintenance factor (MF) for fluorescent lamps		Dust pollution levels			
	minimum ¹	low ²	medium ³	high ⁴	
Open luminaires for direct lighting (T5 - ø16 mm of T8 - ø26 mm: Ra > 85)					
group replacement	0,85	0,80	0,75	0,70	
replace broken lamp + group replacement	0,90	0,85	0,80	0,70	
correction factor for					
luminaires with cover for direct lighting	BF x 0,95				
luminaires with painted reflector	BF x 0,90				
Uplights (T5 - ø16 mm of T8 - ø26 mm: Ra > 85)					
group replacement	0,85	0,70	0,65	0,65	
replace broken lamp + group replacement	0,90	0,75	0,70	0,65	
correction factor for					
luminaires with painted reflector	BF x 0,90				
Luminaires with up and downlight (T5 - ø16 mm of T8 - ø26 mm: Ra > 85)					
group replacement	0,85	0,75	0,70	0,65	
replace broken lamp + group replacement	0,90	0,80	0,75	0,70	
correction factor for					
luminaires with painted reflector	BF x 0,90				

For LED luminaires, the maintenance factor is largely determined by the aging of the LEDs, which in turn strongly depends on the LED itself, the electrical design (electrical current) and the thermal design (degree in which the LEDs can efficiently release heat). Due to the great dependency of the construction of the luminaire, the maintenance factor for LED luminaires is calculated separately for each luminaire and documented for a defined number of burning hours. The maintenance factor for our LED luminaires can be found in the table below. For the latest data, please visit our website.

Maintenance factor for LED light sources % (Maintenance Factor, MF)				
Type of luminaire	Application	25.000h	35.000h	50.000h
D42	Office	88	87	86
E10 / E11 / E12	Industry	84	83	83
E7	Industry	84	83	83
FLARE	Office	87	86	84
R7	Office	88	87	87
U7	Office	88	87	87
V2M11	Office	88	87	87
V2M17	Office	83	80	77
R8	Office	80	72	TBD
UM2	Office	84	80	TBD
V2M1F / J	Office	83	78	TBD
D1 / D2 / D3	Office	-	-	63*
LEDA	Office	-	-	63*

*Source: Philips

September 2014



webref. SK9402B1



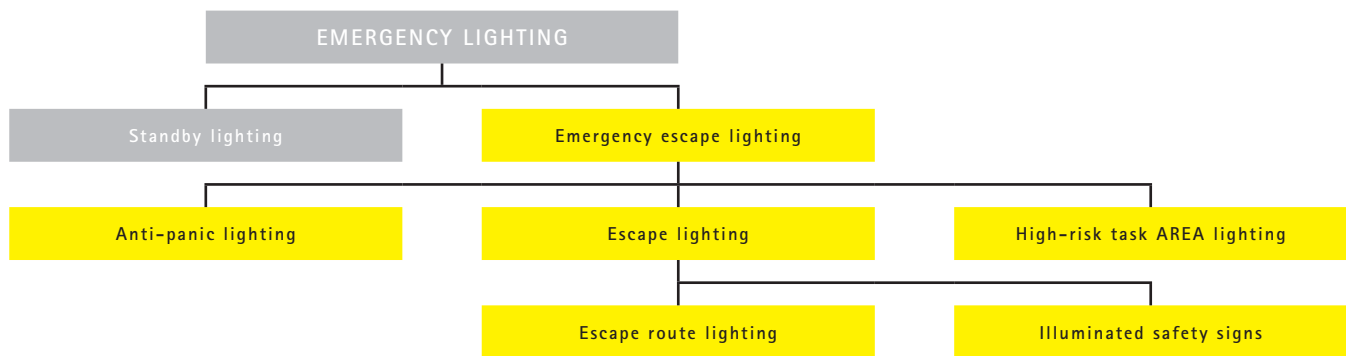
webref. SKX023A1

STANDARDS EMERGENCY LIGHTING

When and how emergency lighting needs to be applied has been laid down by law. The technical aspects of emergency lighting are governed by numerous rules and regulations.

EUROPEAN STANDARD EN 1838 (BS5266 part 7)

European standard EN 1838 (Lighting applications – Emergency lighting) specifies the minimum requirements that emergency installations should meet. Below is a summary of these properties.



EMERGENCY LIGHTING

This is the lighting that comes on when the supply to the normal lighting fails. It allows people to safely evacuate the building without panic.

ANTI-PANIC LIGHTING

Sometimes known as open area lighting provides illumination for people to safely reach a place where an escape route can be identified.

ESCAPE LIGHTING

- *Escape route lighting*

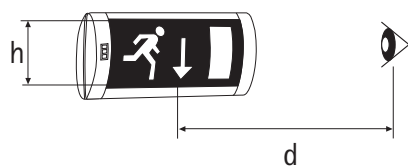
Is a defined route which allows people to safely make their way out of a building.

- *Illuminated safety signs*

Illuminated safety signs indicate the closest escape route. Good visibility and rapid recognition of the safety signs can be a matter of life-and-death in emergency situations. ISO 7010 sets out the requirements in terms of size and viewing distance, whilst the colour must be in accordance with ISO 3864.



webref. SKX020C1



Internally lit safety signs are easier to recognise from a distance than externally lit safety signs. EN 1838 contains a formula that determines the viewing distance (d) depending on the height of the sign (h) and a constant value (z), whereby:

$z = 100$ for an externally lit safety sign

$z = 200$ for an internally lit safety sign

$d = z \times h$

All ETAP emergency signage comply with European directives. We also have a wide range of uniform images for customised signs to indicate where telephones, lifts, etc. can be found. In addition personalised signs can be produced in your house style to indicate areas or specific items.

HIGH-RISK TASK AREA LIGHTING

The aim of the emergency lighting here is to provide illumination for the safety of people involved in a potentially dangerous process or situation such as moving machinery or where noxious vapours are released. To enable proper shut down procedures for the safety of the operator and other occupants of the premises.

EN 1838 also specifies the minimum uniformity of emergency lighting: anti-panic lighting (1/40), escape route lighting (1/40), high-risk task lighting (1/10) and illuminated safety signs (1/10) (see p. 332 for photometry concepts).

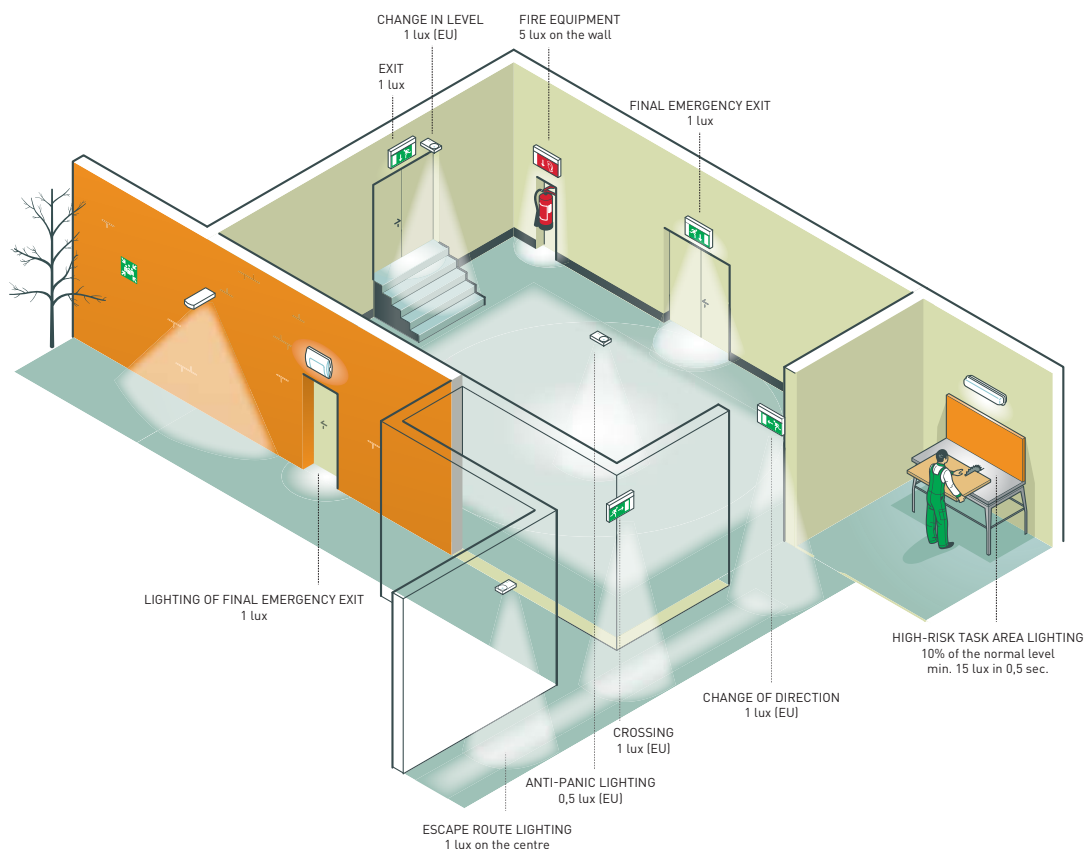
STANDARDS EMERGENCY LIGHTING

EUROPEAN STANDARD EN 1838

This drawing shows the required EN1838 minimum horizontal illuminance on the floor according to location and function in a building. In addition to escape routes and (emergency) exits, NBN-EN1838 highlights the following places:

- every exit to be used in case of an emergency
- stairs in order to make sure that every step is directly lit
- other differences in level
- prescribed emergency exits and signs
- any change of direction
- any crossroads of corridors
- on the outside and in the proximity of the final exits
- every first aid station
- fire fighting equipment and fire alarms

An emergency lighting luminaire is required in these locations.



EUROPEAN STANDARD: EN50172

European standard EN 50172 calls for a monthly function test and an annual duration test of the emergency lighting as well as registration of the monitoring and maintenance in a logbook. ETAP Safety Manager (ESM), our self-testing luminaires and intelligent monitoring and management system for self-contained emergency lighting, meets this European standard.

RELATED EUROPEAN AND NATIONAL STANDARDS AND REGULATIONS

ETAP luminaires meet all relevant European and national safety standards and regulations. More so: ETAP is an emergency lighting specialist and contributes actively to the study groups that discuss these standards and regulations. Below is a summary of these properties.

LEGAL FRAMEWORK IN EUROPE

Product Standards

EN60598-2.22 Luminaires – Particular requirements:
Luminaires for emergency lighting

Safety colours

ISO 3864 Signage
IEC 60073 Indicating devices
EN 61000-6-3 Electromagnetic compatibility
Generic emission standard: Part 1: Residential commercial and industrial environments
EN 61000-6-1 Electromagnetic compatibility
Generic immunity standard. Part 1: Residential, commercial and light industry
EN 62034 Automatic test systems for battery powered
Emergency lighting
EN 50171 Central power supply systems
EN 50272-2 Safety requirements for batteries

Legal Requirements

73/23/EEC Low voltage directive
89/336/EEC Electromagnetic compatibility

EU directives

89/654/EEC Minimum requirements regarding safety and health at work
92/58/EEC Minimum requirements for safety and/or health signs at work

Application Standards

EN1838 Lighting applications: emergency lighting
EN 50172 Emergency escape lighting systems

ADDITIONAL UK REQUIREMENTS

BS EN 60598-2.22

EN 61000-6-3 Electromagnetic compatibility
Generic emission standard: Part 1: Residential, commercial and industrial environments
EN 61000-6-1 Electromagnetic compatibility
Generic immunity standard. Part 1: Residential, commercial and light industry
BS EN 50171 Central power supply systems: 2001
BS EN 50272-2 Safety requirements for secondary batteries and battery installations

Electrical Equipment (Safety) Regulations 1994
The Electromagnetic Compatibility Regulations 1992
Health & Safety at Work Act 1992
Workplace (Health Safety and Welfare) Regulations 1992
Fire Protection (Workplace) regulations 1997: Building Regulation
Health and Safety (Safety Signs and Signals) Regulations 1996
Building Act 1984
Building Regulations 2000
Building (Scotland) Act 2003

Application Standards

BS5266 Pt. 7 1999/ EN1838 Emergency Lighting Applications
BS5266 Pt. 1 1999 Code of practice for Emergency Lighting
BS7671 IEE wiring Regulations
CP1007:1955 Code of practice for Emergency Lighting of cinemas, theatres and other specified places of entertainment. 1955
Hospital Technical Memorandum 65 Signs Guide 2

Local Authority regulations may vary and be more stringent than those laid down in national or international standards



DUBAI CHAMBER - webref. SRX003A2



L & M - GERMANY - custom-made suspended LED luminaires - webref. SRX002A23

BESPOKE LUMINAIRES

With our experienced development team and our flexible production, we can swiftly respond to your custom needs, with both LEDs and fluorescent lamps. Form, colour, photometrics, air handling, dimensions, mounting or electrical connection can be specified according to your requirements. We have already supplied bespoke luminaires for countless projects.

MATERIAL, FORM AND COLOUR

Sometimes luminaires have to be integrated into a special ceiling. ETAP welcomes your suggestions and guides the design of the desired solution.

ADMINISTRATIEF CENTRUM,
HOUTHALEN-HELCHTEREN - BELGIUM
custom-made suspended LED luminaires
webref. SDL003E3



Design: Holistic Architecture 5015, realisation: THV Mandala

SPECIFIC PHOTOMETRICS

Some applications call for special photometrics. Examples include the maintenance of trains, a painting line in the automotive industry, etc. ETAP analyses the problem and offers ready solutions.

ELECTRICAL OR ELECTRONIC MODIFICATIONS

Do you have a different voltage or mains frequency, or other specific requirements for your emergency or normal lighting system? Together we examine the options and look for a proper solution.

SCHIP ROYAL NAVY, AMSTERDAM - THE NETHERLANDS
K4 with 127V - webref. marine





BISHOPS SQUARE, UK - webref. SUX007F2



BISHOPS SQUARE, UK - webref. SUX007F3

AIRHANDLING FOR LIGHTING

ETAP considers lighting, air handling and noise control as one integrated whole. Air supply or air extraction via the luminaire means fewer cut-outs in the ceiling and possibly also lower installation costs. ETAP offers various standard systems and accessories. Specific situations can be tested and demonstrated in the ETAP simulation laboratories.

AIR SUPPLY

Fresh air in the rooms is required at all times. Draught-free comfort in a room is important. This is ensured by the linear air vent which can be efficiently adjusted. The standard air vent consists of 4 individually adjustable sections. Both the air flow direction and the induction can be set by means of turbulators. Codes and further information are available upon request.

AIR EXTRACTION

The heat load from the lamps can be discharged directly together with the used air. Cooling can then be reduced, and comfort is enhanced because less air flow is needed. Air extraction openings are standard in some ETAP luminaires. This is indicated in the catalogue. Ducted air extraction via an extraction plenum is also possible.

Air movement around the lamp causes a strong reduction in the luminous flux. That is why we have devised a patented solution for extraction without light loss, apart from the lamp. Further information can be obtained upon request.

U7 with air extraction
webref. SU7001D2





BLOOD AND TISSUE BANK OF CATALONIA - SPAIN - integration of emergency lighting into lighting luminaires - webref. SUX007G1



HAVENHUIS, ANTWERP - BELGIUM - webref. SV2006B

BESPOKE LUMINAIRES

INTEGRATED SOLUTIONS

Lighting and emergency lighting are often considered separately, but there is no need to do so. ETAP offers various solutions in which lighting and emergency lighting are integrated with each other. The emergency lighting becomes, as it were, invisible.

EMERGENCY UNITS INTEGRATED INTO LIGHTING LUMINAIRES

In this case, the light source for general lighting is also used to provide light in emergency situations.

LED MODULES INTEGRATED INTO LIGHTING LUMINAIRES

A LED module is unobtrusively integrated into a luminaire. In emergency mode, this LED provides the necessary light.

STIB-MIVB, BRUSSELS - BELGIUM
integration of emergency lighting
webref. SK9014D4





BANCO SANTANDER - SPAIN - webref. SUX007C3



BANCO SANTANDER - SPAIN - webref. SUX007C2

SYMBIOSIS BETWEEN CEILING AND LIGHTING

If you are looking for a lighting system that optimally preserves your linear plank ceiling, ETAP can provide you with customised luminaires. We can design the luminaires so as to allow their perfect integration with the metal ceiling planks of your choice. For this, ETAP punches the necessary holes into the ceiling planks, so that the luminaires perfectly fit into the holes. The reflector floats in the ceiling and there is no roughly finished trim edge. Ceiling and lighting form one harmonious whole.

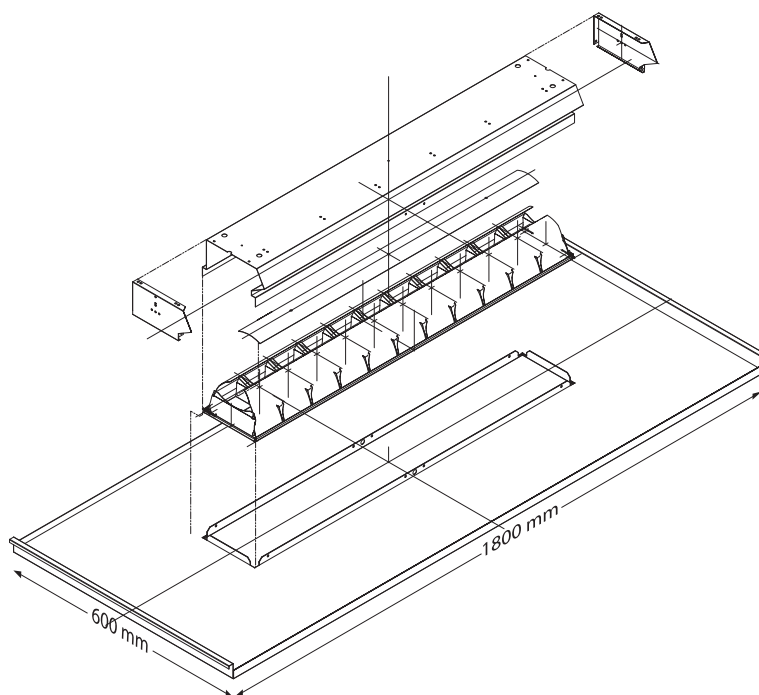
We can also satisfy your specific requirements in the areas of photometry, air handling, light control, or emergency lighting.

SOD: "SIZE ON DEMAND"

Lighting luminaires often need to be recessed. It would be ideal, when the dimensions of the luminaire match those of the ceiling cut outs. However, that isn't always the case: renovations, different ceiling sizes,.... That's why you can personally define the dimensions of your luminaire: a maximum length of 1800 mm and a maximum width of 600 mm. The minimal dimensions are 596 x 117 mm.

A frame based on the dimension changes by the client is the starting point of a 'Size On Demand'-luminaire. The entire housing is mounted onto this frame. Next, only the reflector needs to be mounted. The frame is one solid piece, to ensure complete visual integration into the ceiling.

'Size On Demand' luminaires are as easy to install as a ceiling tile



OR YOU CHOOSE...

You can certainly think of many other situations that require a specific solution. Do not hesitate to contact us for professional advice.



webref. SA016E3



webref. SK9011C1

LAMPS

Below we provide an overview of fluorescent lamps routinely used in ETAP luminaires, which shows power, luminous flux and lamp efficiency.

LED lamps were not included in this overview since they are currently not as standardised as fluorescent lamps. You will find the relevant properties of our luminaires with LEDs in the tables with the product series. ETAP only uses efficient LEDs that have proven their reliability.

For linear T5-16mm fluorescent lamps at the end of 2012 ETAP has switched to so-called ECO lamps, which achieve a further 10% saving compared to these lamps' high-efficiency versions. You will re-cognise ECO lamps by their green lamp end.



Fluorescent lamp

T5 – ø16 mm lamp: socket G5

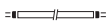
Ra 85 – colour 830 / 840

Wattage W	Length mm	Lumen lm (25°C)	Efficiency lm/W (35°C)
<i>High efficiency versions</i>			
14	549	1250	99
21	849	1920	101
28	1149	2625	104
35	1449	3325	105

High output versions

24	549	1750	89
39	849	3100	92
49	1449	4375	99
54	1149	4450	93
80	1449	6550	88

Lamp life: 19000 hours (HF)¹



Fluorescent lamp

T5 ECO – ø16 mm eco lamp: socket G5

Ra 85 – colour 830 / 840

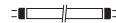
Wattage W	Length mm	Lumen lm (25°C)	Efficiency lm/W (35°C)
<i>High efficiency versions</i>			
13	549	1150	108
25	1149	2450	114
32	1449	3100	114

High output versions

20	549	1650	98
50	1149	4400	102
45	1449	4100	109
73	1449	6550	95

Lamp data for current-controlled ballasts

Lamp life: 21000 hours (HF)¹



Fluorescent lamp

T8 – ø26 mm lamp: socket G13

Ra 85 – colour 830 / 840

Wattage W	Length mm	Lumen lm (25°C)	Efficiency lm/W (25°C)
18	590	1350	75
36	1200	3350	93
58	1500	5240	90

Lamp life: 17000 hours (HF)¹

12000 hours (EM)¹



Circular fluorescent lamp

T16-R – ø16 mm lamp: socket 2xG13

Ra 85 – colour 860 / 840

Wattage W	Dimensions mm	Lumen lm (25°C)	Efficiency lm/W (25°C)
22	ø225	1800	82
40	ø300	3300	83
55	ø300	4200	76
60	ø375	5000	83

Lamp life: 8000 hours (HF)¹



Compact fluorescent lamp

TC-SE lamp: socket 2G7

Ra 82 – colour 830 / 840

Wattage W	Dimensions mm	Lumen lm (25°C)	Efficiency lm/W (25°C)
7	28 x 13 x 113	400	62
9	28 x 13 x 145	600	73
11	28 x 13 x 215	900	82

Lamp life: 8000 hours (HF)¹

(¹) 3h cycle - 10% drop



Compact fluorescent lamp
TC-T lamp

Ra 82 – colour 830 / 840

Wattage W	Dimensions mm	Socket	Lumen lm (25°C)	Efficiency lm/W (25°C)
13	45 x 49 x 106	GX24q-1	900	72
18	41 x 49 x 112	GX24q-2	1200	67
26	41 x 49 x 127	GX24q-3	1800	66
32	41 x 49 x 139	GX24q-3	2400	75
42	41 x 49 x 161	GX24q-4	3200	80

Lamp life: 8000 hours (HF)¹



Compact fluorescent lamp
TC-L lamp: socket 2G11

Ra 82 – colour 830 / 840

Wattage W	Dimensions mm	Lumen lm (25°C)	Efficiency lm/W (25°C)
18	24 x 38 x 220	1200	67
24	24 x 38 x 315	1800	75
34	24 x 44 x 535	2800	~2
36	24 x 38 x 410	2900	81
40	24 x 38 x 535	3500	88
55	24 x 38 x 535	4800	87
80	24 x 38 x 565	6000	75

Lamp life: 14000 hours (HF)¹
10000 hours²



Compact fluorescent lamp
TC-F lamp: socket 2G10

Ra >80 – colour 830 / 840

Wattage W	Dimensions mm	Lumen lm (25°C)	Efficiency lm/W (25°C)
18	78 x 18 x 122	1100	61
24	79 x 18 x 165	1700	71
36	79 x 18 x 217	2800	78

Lamp life: 20000 hours (HF)²



Metal Halide lamp
CDM-T lamp: socket G12

Ra >81 – colour 3000K

Ra >92 – colour 4200K (except 35W: Ra 88)

Wattage W	Dimensions mm	Socket	Lumen lm (25°C)	Efficiency lm/W (25°C)
20	ø20 x 103	G12	1800	90
35	ø20 x 103	G12	3150 (830)	81
35	ø20 x 103	G12	3300 (942)	84
70	ø20 x 103	G12	6600	93
150	ø20 x 110	G12	14000 (830)	95
150	ø20 x 110	G12	12700 (942)	88

Lamp life: 9000 hours (HF)⁴
Start-up time: 3,5 minutes

(¹) 3h cycle – 10% drop
(²) 3h cycle – 50% drop
(³) 12h cycle – 10% drop
(⁴) 10% drop



D1 LED - webref. SDL015A2

OPTIONS AND ACCESSORIES FOR LIGHTING

DRIVERS FOR LED LUMINAIRES

Our LED luminaires are delivered with matching drivers. An overview of the various options that can be integrated into our luminaires is shown below.

S	not dimmable
D	dimmable, with digital DALI control
A	dimmable, with analogue 1-10V control
DE	dimmable, digital (DALI) with ELS daylight-dependent light control
AE	dimmable, analogue with ELS daylight-dependent light control

DALI (Digital Addressable Lighting Interface) is the latest industry standard for comfort and flexibility in luminaire control. Luminaires with DALI ballasts are digitally addressable, adjustable and dimmable. This results in a highly flexible lighting system. DALI networks can be connected via special components to a PC or to building management systems, e.g. via EIB® or LON®.

CHOICE OF ELECTRONIC BALLASTS WITH FLUORESCENT LAMPS

Where technically possible, all our luminaires are fitted with electronic ballasts (EB). The most important advantages as compared to magnetic ballasts are the higher lamp efficiency (energy savings between 20% and 30%), the improved comfort owing to stable operation without stroboscopic effects or electrode flicker, and the automatic switch-off of defective lamps.

An overview of the various ballasts that can be integrated into our luminaires is given below. Ask ETAP for advice.

HFW	non-dimmable electronic ballast, warm start
HFD	dimmable electronic ballast with analog 1-10V control
HFE	electronic ballast with daylight-dependent light control ELS
D	dimmable electronic ballast with DALI control
DE	dimmable electronic DALI ballast with daylight-dependent light control ELS
H	low loss electronic ballast with parallel compensation
DD	two circuits with dimmable electronic DALI ballast, for dynamic light applications

Electronic ballasts contain a multitude of electronic components, so that defects cannot be ruled out. For electronic ballasts from Philips and Osram the guarantee period is five years after the delivery date. Please contact ETAP for the exact terms and conditions.

EEI CLASSIFICATION FOR BALLASTS FOR FLUORESCENT AND HID LAMPS

'Energy efficiency index' (EEI) is a classification system for ballasts depending on energy-efficiency.

For non-dimmable ballasts, the following classifications apply (in descending order of efficiency): A2 BAT, A2, A3, B1 and B2. For dimmable ballasts, they are A1 BAT and A1. The 'BAT' classifications here stands for 'Best available technology' (a type of benchmark classification).



webref. SKI001A1



webref. SA016K

The ErP guideline requires that the EEL classification for the applied ballasts is documented. Below (and also on our website) you will find the classifications for the ballasts used by ETAP.

EEL-classification

<i>Lamp type</i>	<i>Ballast</i>	<i>Ballast classification</i>
T8	HFW	A2
	HFD, HFE	A1
	D, DD, DE, DF, DG	A1
	HAF	B1
T5	HFW	A2
	HFD, HFE	A1
	D, DD, DE, DF, DG	A1BAT
T-R, TC-D, TC-DD, TC-F, TC-H, TC-L, TC-T, TC-S	HFW	A2
	HFD, HFE	A1
	D, DD, DE, DF, DG	A1
	HAF	B1

FLEX / PLUG / LAMP

Luminaires with power cable and plug, cable clamps and mounted lamp. Or luminaires equipped with a modular plug system, e.g. Wieland, Wago, etc. This allows for very fast installation.

THROUGH WIRING

This option is useful for the electrical through-connection of luminaires.

LIGHT CONTROL SYSTEMS

ETAP offers various light control systems: for dimming artificial light in relation to the amount of daylight, or depending on the presence in the room, etc. – see pages 276 to 299. Also for building management systems such as EIB®, LON® and Batibus, you can have the appropriate modules integrated into the luminaires.



INTEGRATION OF EMERGENCY LIGHTING

A self-contained emergency lighting module can be integrated into the luminaires. Such a module has rechargeable batteries and ignites the lamp of a luminaire in the event of a power failure. A clearly visible LED indicates the presence of charge current. For various luminaire series you can see in the detailed tables whether emergency units can be integrated as standard. For all other luminaires you can contact your ETAP representative.

Another option is to integrate a special LED module that will serve as emergency lighting in the event of a power failure. For individual monitoring in EBS, the ETAP central battery system, an addressing module can be integrated. For this solution, too, you can contact your ETAP representative.

SHATTERPROOF LAMPS

These lamps are surrounded by a flexible protective cover in plastic, which keeps all glass fragments inside if the lamp breaks.

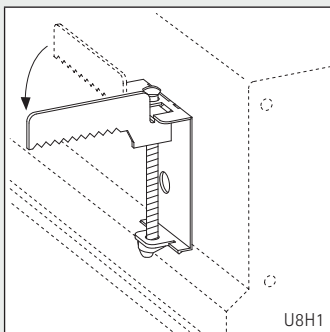
STACKED ON PALLETS

Luminaires are not individually packed in cardboard, but they are neatly stacked on pallets. This may be relevant for larger projects, as you do not need to remove large quantities of cardboard from the site and you thus save installation time.

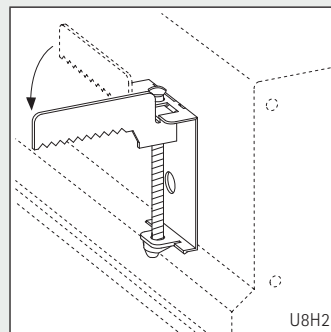


MOUNTING ACCESSORIES FOR LUMINAIRES

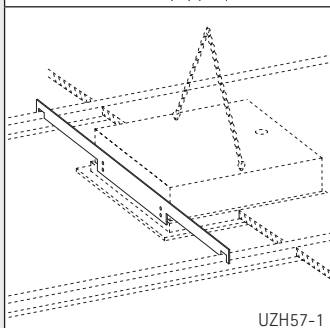
mounting brackets with
variable height adjustment,
mounting reach 31-54 mm,
set of 4 pieces



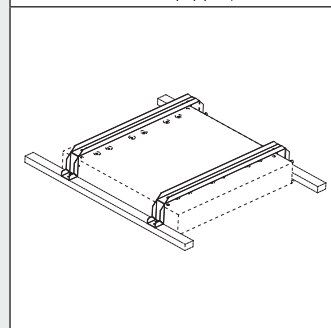
mounting brackets with
variable height adjustment,
for spring 'T' fix,
mounting reach 24-47 mm,
set of 4 pieces



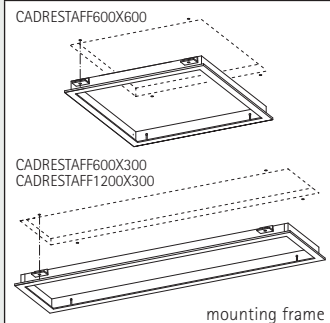
mounting profiles,
mounting reach 46-54 mm,
set of 2 pieces



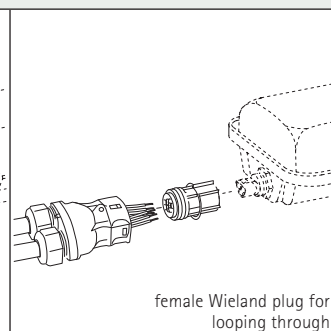
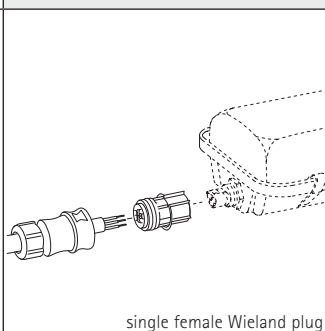
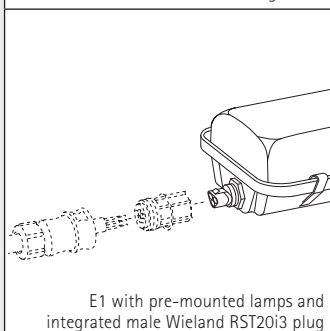
mounting brackets,
mounting reach 18-45 mm,
set of 2 pieces



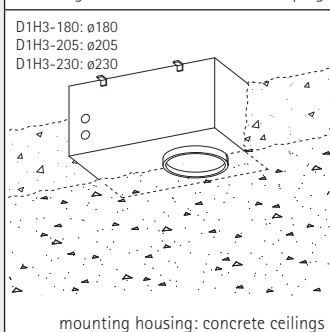
mounting accessories for
ALTER Softlight luminaires



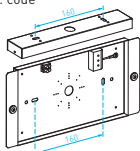
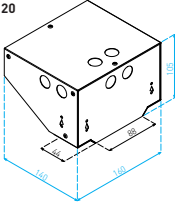
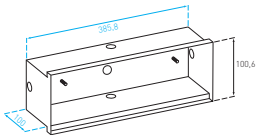
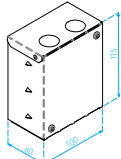
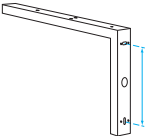
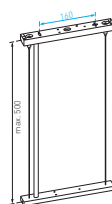
E1 quick mounting system
with pre-mounted lamps and
a male Wieland RST20i3 plug



recessed downlights

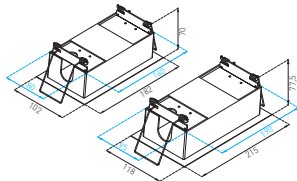
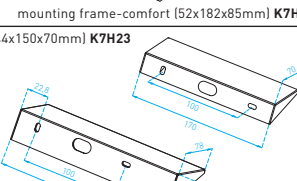
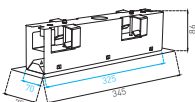
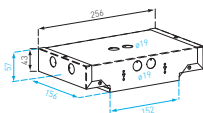
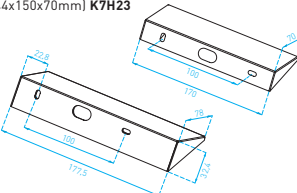
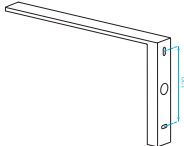
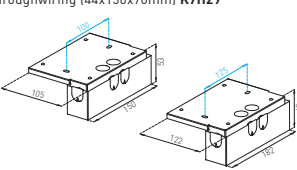
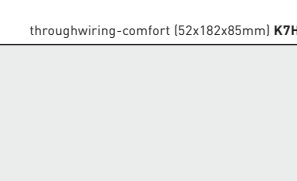
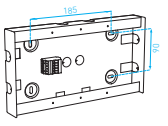
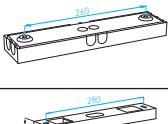
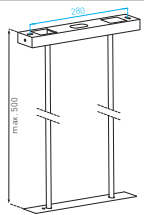
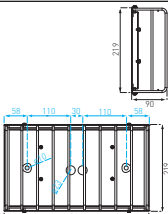


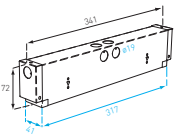
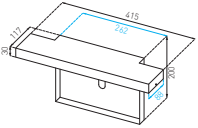
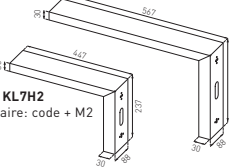
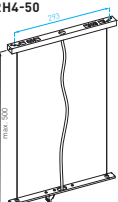
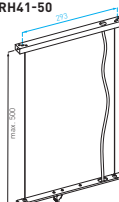
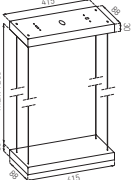
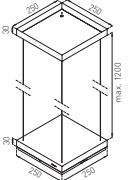
	K1	K2	K3
CEILING MOUNTING	K1H3 	K2H23 	
RECESSED	mounting frame: K1H1 mounting reach: 1-20 mm mounting template: K1H8	mounting frame: K2H21 mounting reach: 1-20 mm 	
LONGITUDINAL WALL MOUNTING	K1H3 	K2H23 	
RIGHT ANGLED WALL MOUNTING	K1H2 	K2H22 	
THROUGHWIRING			
PENDANT	K1H5-50 vertical luminaire mounting K1H4-50 horizontal luminaire mounting 	K2H24 horizontal luminaire mounting K2H25 vertical luminaire mounting the code does not include threaded rods (max. M8)	
PROTECTIVE GRILLE	K1H7 	K2H27 	K2H2

K4	K5	K6	
		individual ceiling: K6H8 with luminaire: code  individual wall/ceiling: K6H7 with luminaire: code	CEILING MOUNTING
wall recessed mounting template: K4H20 	wall recessed mounting template: K5RH8 		RECESSED
wall recessed mounting template: K4H21 			LONGITUDINAL WALL MOUNTING
		individual: K6H3 with luminaire: code + M2 	RIGHT ANGLED WALL MOUNTING
			THROUGHWIRING
		individual: K6H4-50 with luminaire: code + M3 	PENDANT
			PROTECTIVE GRILLE

OPTIONS AND ACCESSORIES

MOUNTING ACCESSORIES EMERGENCY LIGHTING

	K7 lighting	K7 signage	K9 lighting and signage with viewing distance = 15 m
CEILING MOUNTING			
RECESSED	mounting frame (44x150x70mm) K7H21  mounting frame-comfort (52x182x85mm) K7H31 	mounting frame: K7H11 	wall recessed mounting template: K9RH82 
LONGITUDINAL WALL MOUNTING	(44x150x70mm) K7H23  comfort (52x182x85mm) K7H33 		
RIGHT ANGLED WALL MOUNTING		K7H12 	
THROUGHWIRING	throughwiring (44x150x70mm) K7H29  throughwiring-comfort (52x182x85mm) K7H39 	K7H19-1 wall  K7H19-2 ceiling 	
PENDANT		K7H14-50 	
PROTECTIVE GRILLE		K7H17 	

K9 signage with viewing distance = 26 m	KL	
		CEILING MOUNTING
wall recessed mounting template: K9RH81 		RECESSED
	individual: KLH3 with luminaire: code + M5 	LONGITUDINAL WALL MOUNTING
	individual: KL8H2 with luminaire: code + M2  individual: KL7H2 with luminaire: code + M2	RIGHT ANGLED WALL MOUNTING
		THROUGHWIRING
K9RH4-50  K9RH41-50 	individual: KLH4-125 with luminaire: code + M3 	PENDANT
	individual: KL9H4-125 with luminaire: code + M3 	PROTECTIVE GRILLE

SPACING TABLES

CEILING MOUNTED

K1 Fresnel lens



h	a	b	c	d
1 lux	K11 – 200 lm			
2,8 m	5,6	13,6	2,8	7,4
3,0 m	5,8	14,0	2,8	7,5
3,5 m	5,5	15,0	2,8	7,8
4,0 m	5,2	15,8	2,6	7,9
5,0 m	3,7	15,4	2,1	7,8

h	a	b	c	d
0,5 lux	K11 – 200 lm			
2,8 m	6,8	15,5	3,7	9,3
3,0 m	7,0	16,2	3,8	9,6
3,5 m	7,5	17,9	3,9	10,1
4,0 m	7,9	19,3	4,0	10,5
5,0 m	7,8	21,4	3,9	11,1

h	a	b	c	d
1 lux	K11 – 450 lm			
2,8 m	6,7	15,1	4,0	9,9
3,5 m	7,1	17,5	4,2	10,8
5,0 m	7,4	20,3	4,4	12,0
6,0 m	7,1	21,2	4,2	12,4
7,0 m	6,6	21,1	3,8	12,4

h	a	b	c	d
0,5 lux	K11 – 450 lm			
2,8 m	7,6	17,6	5,0	12,0
3,5 m	8,8	20,1	5,4	13,4
5,0 m	10,2	25,0	6,0	15,4
6,0 m	10,6	27,3	6,2	16,3
7,0 m	10,5	28,6	6,2	17,0

K1 diffuser



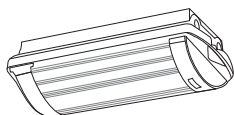
h	a	b	c	d
1 lux	K13 – 200 lm			
2,8 m	4,1	10,9	3,2	8,1
3,0 m	4,1	11,0	3,3	8,3
3,5 m	4,1	11,3	3,3	8,8
4,0 m	4,0	11,5	3,3	9,1
5,0 m	3,7	11,5	3,1	9,4

h	a	b	c	d
0,5 lux	K13 – 200 lm			
2,8 m	5,5	14,3	4,1	9,9
3,0 m	5,5	14,5	4,2	10,2
3,5 m	5,7	15,1	4,4	10,9
4,0 m	5,7	15,5	4,5	11,5
5,0 m	5,8	16,0	4,7	12,4

h	a	b	c	d
1 lux	K13+K1ED0 – 170 lm			
2,8 m	3,8	10,2	3,0	7,7
3,0 m	3,8	10,3	3,1	7,9
3,5 m	3,7	10,5	3,1	8,3
4,0 m	3,6	10,6	3,0	8,5
5,0 m	3,2	10,6	2,7	8,7

h	a	b	c	d
0,5 lux	K13+K1ED0 – 170 lm			
2,8 m	5,1	13,5	3,9	9,5
3,0 m	5,2	13,7	4,0	9,8
3,5 m	5,3	14,1	4,1	10,4
4,0 m	5,3	14,4	4,3	10,9
5,0 m	5,3	14,9	4,4	11,7

K2 Fresnel lens



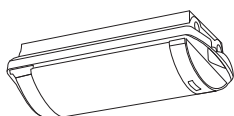
h	a	b	c	d
1 lux	K2 – 200 lm			
2,8 m	5,5	12,5	2,9	7,6
3,0 m	5,7	12,9	2,9	7,7
3,5 m	6,0	14,2	2,8	8,0
4,0 m	6,0	15,5	2,6	8,1
5,0 m	1,7	14,1	1,9	7,9

h	a	b	c	d
0,5 lux	K2 – 200 lm			
2,8 m	6,2	14,4	3,8	9,4
3,0 m	6,5	15,1	3,9	9,7
3,5 m	7,1	16,6	4,0	10,4
4,0 m	7,8	17,8	4,1	10,0
5,0 m	8,5	20,3	3,9	11,3

h	a	b	c	d
1 lux	K2 – 500 lm			
2,8 m	6,2	14,5	4,1	10,1
3,5 m	7,1	16,6	4,4	11,1
5,0 m	8,6	20,0	4,5	12,4
6,0 m	8,9	22,4	4,3	12,8
7,0 m	7,9	24,2	3,8	12,8

h	a	b	c	d
0,5 lux	K2 – 500 lm			
2,8 m	7,3	16,8	5,1	12,3
3,5 m	8,3	18,9	5,6	13,6
5,0 m	10,1	23,7	6,2	15,8
6,0 m	11,2	25,8	6,4	16,8
7,0 m	12,1	28,2	6,4	17,6

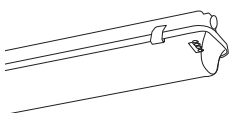
K2 with LED



h	a	b	c	d
1 lux	K2 escape route – 165 lm			
2,8 m	8,3	18,9	2,1	5,4
3,0 m	8,6	19,8	2,2	5,2
3,5 m	9,5	21,9	2,3	5,6
4,0 m	8,9	23,7	2,5	6,0
4,5 m	7,2	25,1	2,4	6,4

h	a	b	c	d
0,5 lux	K2 anti-panic – 165 lm			
2,8 m	4,0	12,3	4,2	12,3
3,0 m	4,0	12,9	4,2	12,9
3,5 m	-	14,2	4,4	14,2
4,0 m	0,7	15,0	4,8	15,0
4,5 m	0,9	15,6	4,4	15,6

K3 reflector



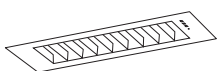
h	a	b	c	d
1 lux	K3 – 470 lm			
2,8 m	6,1	15,3	3,7	9,2
3,5 m	6,4	16,6	3,9	10,1
5,0 m	6,6	18,2	4,0	11,2
6,0 m	6,5	18,5	3,8	11,4
7,0 m	6,1	18,6	3,2	11,4

h	a	b	c	d
0,5 lux	K3 – 470 lm			
2,8 m	7,7	18,9	4,6	11,3
3,5 m	8,3	20,7	5,1	12,5
5,0 m	9,1	23,7	5,6	14,4
6,0 m	9,3	25,1	5,7	15,3
7,0 m	9,3	25,7	5,7	15,8

h	a	b	c	d
1 lux	K3 – 840 lm			
2,8 m	7,4	18,2	4,5	10,9
4,0 m	8,4	21,0	5,1	12,8
6,0 m	8,8	24,0	5,4	14,6
8,0 m	8,6	24,7	5,1	15,3
10,0 m	7,7	24,7	3,8	15,1

h	a	b	c	d
0,5 lux	K3 – 840 lm			
2,8 m	9,1	22,5	5,5	13,1
4,0 m	10,5	26,0	6,4	15,7
6,0 m	12,0	30,5	7,3	18,6
8,0 m	12,4	33,5	7,6	20,4
10,0 m	12,4	34,6	7,6	21,3

K5 reflector



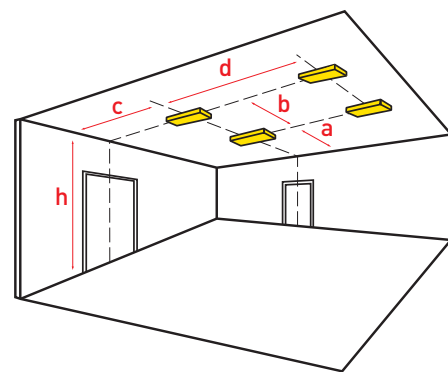
h	a	b	c	d
1 lux	K5 – 260 lm			
2,8 m	5,6	13,5	3,3	8,7
3,0 m	5,8	13,9	3,3	8,9
3,5 m	6,0	14,9	3,5	9,0
4,0 m	5,1	16,0	3,5	9,2
5,0 m	5,6	16,1	2,8	9,9

h	a	b	c	d
0,5 lux	K5 – 260 lm			
2,8 m	6,7	15,2	4,3	10,7
3,0 m	7,0	16,0	4,4	11,0
3,5 m	7,5	17,7	4,5	11,7
4,0 m	8,0	19,1	4,7	12,3
5,0 m	8,5	21,3	5,0	12,8

h	a	b	c	d
1 lux	K5 – 380 lm			
2,8 m	6,2	14,5	3,9	9,8
3,5 m	6,9	16,5	4,0	10,6
5,0 m	6,2	19,6	4,2	11,3
6,0 m	6,8	19,5	3,4	12,0
7,0 m	7,4	17,5	3,0	11,5

h	a	b	c	d
0,5 lux	K5 – 380 lm			
2,8 m	7,3	16,1	4,9	11,9
3,5 m	8,3	18,9	5,3	13,1
5,0 m	9,9	23,5	5,7	15,1
6,0 m	10,3	25,6	6,0	15,5
7,0 m	8,7	27,7	6,0	15,9

Lumen output and interdistances: data under reservation. The ETAP interdistances are guaranteed until the end of the lifetime of the light source. The reduction in light output of the light source according to standard EN 50698-2.22 is taken into account in the published values.



CEILING MOUNTED

h	a	b	c	d
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h	a	b	c	d
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h	a	b	c	d
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h	a	b	c	d
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K5 diffuser



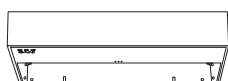
1 lux	K5 - 200 lm			
2,8 m	4,1	9,9	3,5	8,9
3,0 m	4,2	10,2	3,6	9,1
3,5 m	4,4	10,9	3,7	9,6
4,0 m	4,5	11,5	3,7	10,0
5,0 m	4,7	12,4	3,6	10,5

0,5 lux	K5 - 200 lm			
2,8 m	5,0	11,9	4,5	10,9
3,0 m	5,1	12,3	4,6	11,2
3,5 m	5,5	13,3	4,8	12,0
4,0 m	5,8	14,1	5,0	12,7
5,0 m	6,2	15,5	5,3	13,7

1 lux	K5 - 290 lm			
2,8 m	4,6	10,9	4,0	9,9
3,5 m	5,0	12,1	4,3	10,9
5,0 m	5,5	14,0	4,5	12,2
6,0 m	5,6	14,9	4,3	12,6
7,0 m	5,5	15,5	3,9	12,7

0,5 lux	K5 - 290 lm			
2,8 m	5,5	13,0	5,0	12,0
3,5 m	6,1	14,6	5,5	13,3
5,0 m	7,0	17,3	6,1	15,5
6,0 m	7,5	18,7	6,3	16,5
7,0 m	7,8	19,8	6,4	17,2

K6 clear diffuser



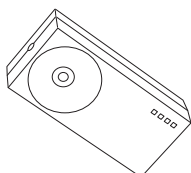
1 lux	K6 - 200 lm			
2,8 m	4,4	12,9	2,8	7,5
3,0 m	4,5	13,0	2,8	7,6
3,5 m	5,0	13,1	2,7	7,8
4,0	5,4	12,5	2,6	7,9
5,0	5,7	14,2	1,8	7,7

0,5 lux	K6 - 200 lm			
2,8 m	6,4	15,2	3,7	9,5
3,0 m	6,6	15,8	3,8	9,7
3,5 m	6,8	17,2	3,9	10,2
4,0 m	6,3	18,3	4,0	10,6
5,0 m	7,1	18,5	3,8	11,1

1 lux	K6 - 340 lm			
2,8 m	6,1	14,7	3,5	9,0
3,0 m	5,7	16,5	3,6	9,6
5,0 m	6,9	16,1	3,4	10,3
6,0 m	7,5	17,6	2,9	10,2
7,0 m	5,4	19,3	1,5	9,7

0,5 lux	K6 - 340 lm			
2,8 m	7,4	17,0	4,5	11,1
3,0 m	8,3	19,5	4,8	12,2
5,0 m	8,1	23,5	5,2	13,7
6,0 m	8,8	24,0	5,1	14,3
7,0 m	9,7	22,7	4,9	14,6

K7



1 lux K7 escape route < 3,5 m - 88 lm				
2,6 m	6,2	14,1	2,4	6,9
2,8 m	6,5	14,8	2,3	7,1
3,0 m	6,8	15,5	1,8	7,1
3,2 m	7,1	16,2	1,4	7,0
3,5 m	1,2	13,0	0,6	6,8

1 lux K7 escape route > 3,5 m - 88 lm					
4,0 m	4,9	11,5	1,0	2,6	
4,5 m	5,2	12,2	0,9	2,7	
5,0 m	5,3	13,0	0,9	2,7	
6,0 m	5,6	14,3	1,0	2,5	
7,0 m	5,9	15,1	0,9	2,6	

0,5 lux	K7 anti-panic - 100 lm				
2,6 m	3,7	10,0	3,7	10,0	
2,8 m	3,8	10,6	3,8	10,6	
3,1 m	3,6	11,1	3,6	11,1	
3,5 m	2,9	12,2	2,9	14,2	
4,0 m	1,1	13,0	1,1	13,0	

0,5 lux anti-panic K7 comfort - 112 lm				
2,8 m	2,5	8,0	2,6	8,0
3,0 m	2,6	8,4	2,6	8,4
3,2 m	2,6	8,5	2,7	8,5
3,5 m	2,7	9,0	2,7	9,0
4,0 m	2,8	9,5	2,8	9,5

1 lux escape route K7 comfort - 112 lm				
2,8 m	3,0	7,7	3,0	7,7
3,0 m	3,0	7,9	3,1	8,0
3,2 m	3,1	8,0	3,1	8,1
3,5 m	3,1	8,3	3,1	8,4
4,0 m	3,1	8,6	3,1	8,7

K9 mini

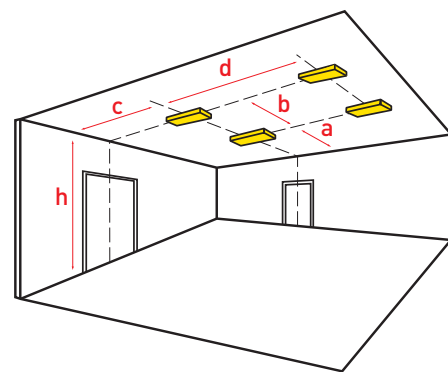


1 lux	K9 escape route - 149 lm				
2,8 m	7,9	17,8	1,7	3,9	
3,0 m	8,3	18,8	1,7	4,1	
3,5 m	8,9	20,7	1,5	4,5	
4,0 m	9,4	22,8	1,1	4,4	
4,5 m	6,3	22,8	1,0	4,4	

0,5 lux	K9 anti-panic - 150 lm				
2,8 m	5,4	13,3	5,4	13,3	
3,0 m	5,7	14,0	5,7	14,0	
3,5 m	2,9	14,5	3,3	14,5	
4,0 m	1,0	12,3	1,1	12,3	
4,5 m	0,9	12,8	0,8	12,8	

Lumen output and interdistances: data under reservation. The ETAP interdistances are guaranteed until the end of the lifetime of the light source. The reduction in light output of the light source according to standard EN 50698-2.22 is taken into account in the published values.

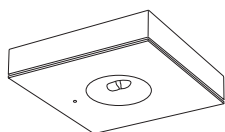
SPACING TABLES



CEILING MOUNTED

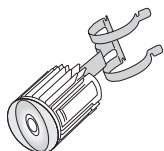
h	a	b	c	d	h	a	b	c	d
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K9 luminaire



1 lux	K9 escape route – 201 lm					0,5 lux	K9 anti-panic – 209 lm				
2,8 m	9,4	20,1	1,9	4,3		2,8 m	5,7	12,4	5,7	12,4	
3,0 m	9,9	21,2	2,0	4,5		3,0 m	6,0	13,1	6,0	13,1	
3,5 m	11,2	24,1	2,2	5,0		3,5 m	6,6	14,8	6,6	14,8	
4,0 m	12,4	26,8	2,4	5,5		4,0 m	6,1	16,1	5,6	16,1	
4,5 m	13,5	29,4	2,4	6,0		4,5 m	4,6	16,2	4,5	16,2	

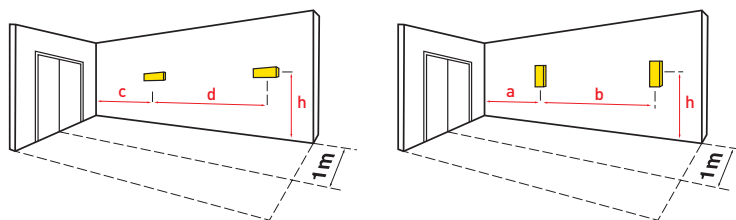
LED module



1 lux	K9 escape route – 149 lm					0,5 lux	K9 anti-panic – 150 lm				
2,8 m	7,9	17,8	1,7	3,9		2,8 m	5,4	13,3	5,4	13,3	
3,0 m	8,3	18,8	1,7	4,1		3,0 m	5,7	14,0	5,7	14,0	
3,5 m	8,9	20,7	1,5	4,5		3,5 m	2,9	14,5	3,3	14,5	
4,0 m	9,4	22,8	1,1	4,4		4,0 m	1,0	12,3	1,1	12,3	
4,5 m	6,3	22,8	1,0	4,4		4,5 m	0,9	12,8	0,8	12,8	

Lumen output and interdistances: data under reservation. The ETAP interdistances are guaranteed until the end of the lifetime of the light source. The reduction in light output of the light source according to standard EN 50698-2.22 is taken into account in the published values.

WALL MOUNTED



K1 Fresnel lens



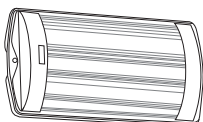
h	a	b	c	d	h	a	b	c	d	h	a	b	c	d	h	a	b	c	d
1 lux K11 – 200 lm					0,5 lux K11 – 200 lm					1 lux K11 – 450 lm					0,5 lux K11 – 450 lm				
1,5 m	3,0	7,6	2,6	6,0	1,5 m	3,8	9,7	3,0	7,0	1,5 m	3,9	9,7	3,1	7,2	1,5 m	4,9	12,2	3,6	8,4
2,0 m	3,0	7,9	2,7	6,3	2,0 m	3,9	10,1	3,2	7,4	2,0 m	3,9	10,2	3,2	7,7	2,0 m	5,1	13,0	3,9	9,0
2,5 m	2,8	7,8	2,7	6,6	2,5 m	3,9	10,3	3,3	7,8	2,5 m	3,9	10,4	3,4	8,1	2,5 m	5,2	13,5	4,1	9,6

K1 diffuser



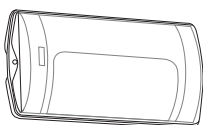
1 lux	K13 – 200 lm				0,5 lux	K13 – 200 lm				1 lux	K13+K1EDO – 170 lm				0,5 lux	K13+K1EDO – 170 lm			
1,5 m	3,3	8,8	2,4	5,8	1,5 m	4,4	11,4	2,9	7,0	1,5 m	3,0	8,3	2,3	5,6	1,5 m	4,1	10,8	2,8	6,7
2,0 m	3,3	9,2	2,6	6,4	2,0 m	4,6	12,2	3,2	7,7	2,0 m	3,0	8,6	2,4	6,1	2,0 m	4,3	11,5	3,1	7,4
2,5 m	3,1	9,3	2,7	6,8	2,5 m	4,7	12,7	3,4	8,3	2,5 m	2,6	8,6	2,5	6,5	2,5 m	4,3	11,8	3,3	8,0

K2 Fresnel lens



1 lux	K2 – 200 lm				0,5 lux	K2 – 200 lm				1 lux	K2 – 500 lm				0,5 lux	K2 – 500 lm			
1,5 m	2,9	7,4	2,4	5,7	1,5 m	3,7	9,2	2,9	6,7	1,5 m	3,9	9,8	3,0	7,2	1,5 m	4,9	12,2	3,6	8,4
2,0 m	2,9	7,6	2,6	6,1	2,0 m	3,8	9,8	3,1	7,1	2,0 m	4,1	10,4	3,3	7,8	2,0 m	5,2	13,1	3,9	9,2
2,5 m	2,7	7,7	2,6	6,5	2,5 m	3,9	10,1	3,2	7,7	2,5 m	4,1	10,8	3,4	8,2	2,5 m	5,4	13,8	4,1	10,0

K2 diffuser



1 lux	K2 – 165 lm				0,5 lux	K2 – 165 lm			
1,5 m	0,7	3,0	1,2	3,0	1,5 m	1,5	4,6	1,5	3,9
2,0 m	-	1,2	1,1	2,8	2,0 m	0,8	3,7	1,4	3,8
2,5 m	-	-	1,0	2,6	2,5 m	-	1,8	1,4	3,5

K3 reflector



1 lux	K3 – 470 lm				0,5 lux	K3 – 470 lm				1 lux	K3 – 840 lm				0,5 lux	K3 – 840 lm			
2,0 m	4,7	12,1	3,7	8,8	2,0 m	6,1	15,5	4,4	10,4	2,0 m	5,8	14,9	4,3	10,2	2,0 m	7,5	19,0	5,1	12,0
3,0 m	4,7	12,8	4,1	10,2	3,0 m	6,4	17,0	5,1	12,3	3,0 m	6,1	16,3	5,0	12,0	3,0 m	8,2	21,1	6,0	14,3
4,0 m	-	-	4,2	11,0	4,0 m	-	11,2	5,5	13,6	4,0 m	-	9,7	5,3	13,1	4,0 m	8,5	22,5	6,6	16,0

K5 diffuser

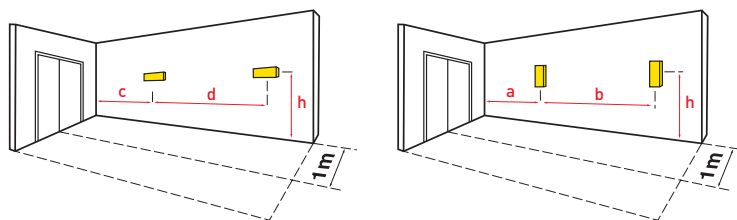


1 lux	K5 – 200 lm				0,5 lux	K5 – 200 lm				1 lux	K5 – 290 lm				0,5 lux	K5 – 290 lm			
1,5 m	2,3	5,6	2,2	5,4	1,5 m	2,8	6,8	2,7	6,5	1,5 m	2,6	6,2	2,5	6,0	1,5 m	3,1	7,5	3,0	7,2
2,0 m	2,2	5,5	2,1	5,4	2,0 m	2,8	6,7	2,7	6,6	2,0 m	2,5	6,1	2,5	6,0	2,0 m	3,1	7,5	3,0	7,3
2,5 m	1,7	5,1	1,8	5,1	2,5 m	2,6	6,6	2,6	6,5	2,5 m	2,2	5,9	2,2	5,9	2,5 m	3,0	7,3	3,0	7,2

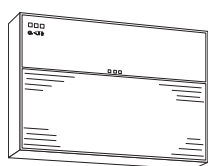
Lumen output and interdistances: data under reservation. The ETAP interdistances are guaranteed until the end of the lifetime of the light source. The reduction in light output of the light source according to standard EN 50698-2.22 is taken into account in the published values.

SPACING TABLES

WALL MOUNTED



K6 opal diffuser



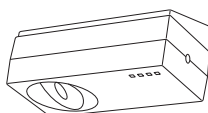
h	a	b	c	d
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1 lux	K6 - 120 lm				
1,5 m	1,9	4,9	1,9	4,9	
2,0 m	1,7	4,8	1,7	4,8	
2,5 m	1,2	4,4	1,2	4,4	

h	a	b	c	d
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0,5 lux	K6 - 120 lm				
1,5 m	2,5	6,2	2,5	6,2	
2,0 m	2,4	6,2	2,4	6,2	
2,5 m	2,2	6,0	2,2	6,0	

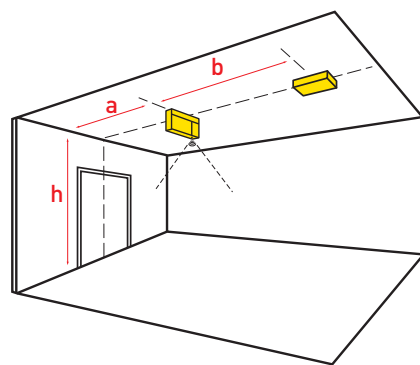
K7



1 lux	K7 escape route < 3,5 m - 88 lm				
2,8 m	-	-	6,5	14,8	

1 lux	escape route K7 comfort - 112 lm				
2,8 m	-	-	3,0	7,7	

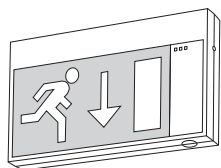
Lumen output and interdistances: data under reservation. The ETAP interdistances are guaranteed until the end of the lifetime of the light source. The reduction in light output of the light source according to standard EN 50698-2.22 is taken into account in the published values.



BETWEEN SIGNAGE AND ESCAPE ROUTE LIGHTING

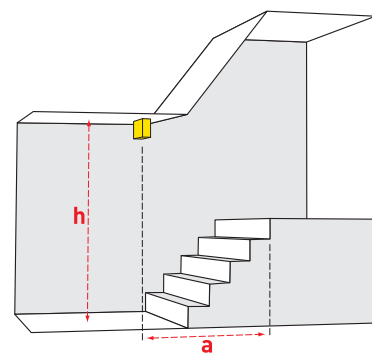
h	a	b	c	d
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K7 signage with
escape route
module L1¹



1 lux	K7 ceiling			
2,6 m	4,8	12,2	-	-
2,8 m	5,1	12,9	-	-
3,0 m	5,3	13,6	-	-
3,2 m	5,5	14,2	-	-
3,5 m	5,7	15,1	-	-

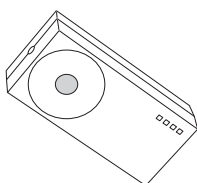
¹ interdistances up to 10 years with maintained usage



STAIRWAY LIGHTING²

h	a	b	c	d	h	a	b	c	d
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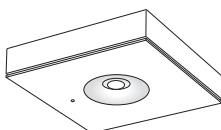
K7



1 lux	K7 stairway - 85 lm				5 lux	K7 stairway - 85 lm			
2,6 m	2,25	-	-	-	2,6 m	1,75	-	-	-
2,8 m	2,25	-	-	-	2,8 m	2,0	-	-	-
3,0 m	2,25	-	-	-	3,0 m	2,0	-	-	-
3,2 m	2,5	-	-	-	3,2 m	2,25	-	-	-
3,5 m	2,75	-	-	-	3,5 m	2,25	-	-	-

² height step: 18,5 cm / depth step: 25 cm

K9



1 lux	K9 stairway - 209 lm				5 lux	K9 stairway - 209 lm			
2,8 m	11,2	-	-	-	2,8 m	8,8	-	-	-
3,0 m	11,7	-	-	-	3,0 m	9,3	-	-	-
4,0 m	14,0	-	-	-	3,5 m	10,4	-	-	-
6,0 m	19,1	-	-	-	4,0 m	11,4	-	-	-
8,0 m	23,7	-	-	-	5,0 m	12,9	-	-	-

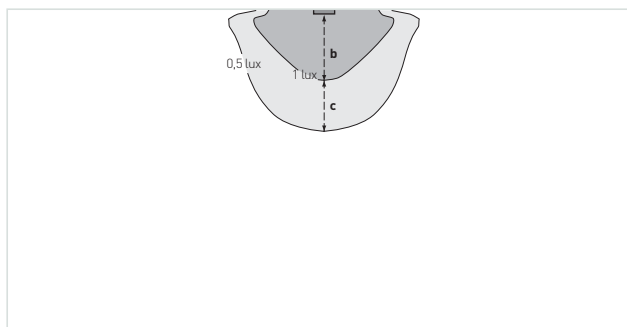
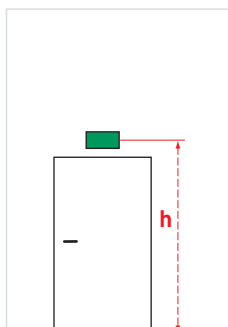
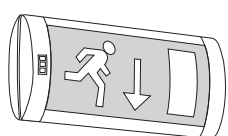
² height step: 18,5 cm / depth step: 25 cm

Lumen output and interdistances: data under reservation. The ETAP interdistances are guaranteed until the end of the lifetime of the light source. The reduction in light output of the light source according to standard EN 50698-2.22 is taken into account in the published values.

SPACING TABLES

MOUNTING WITH SIGNAGE: ILLUMINATION ON THE FLOOR

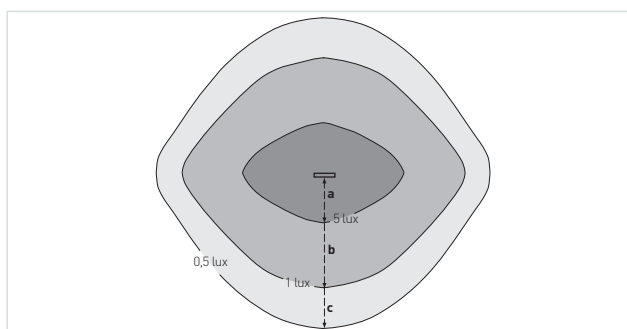
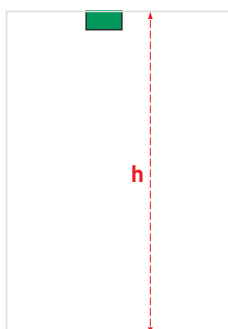
K1 T5 6W lamp type
wall mounted



h	a	b	c
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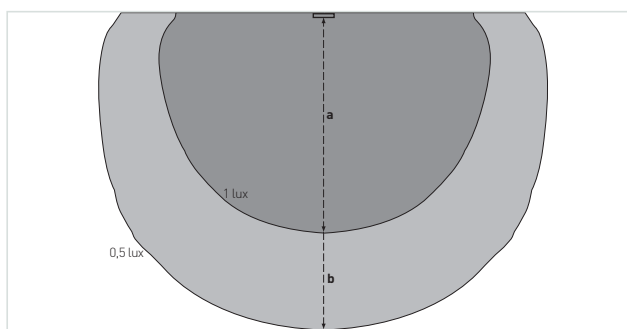
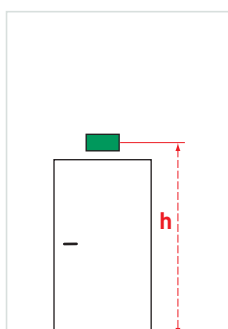
65 lm			
h	5 lx (a)	1 lx (b)	0,5 lx (c)
2,25 m	-	1,7	3,1
2,70 m	-	-	2,9

K1 ceiling mounted



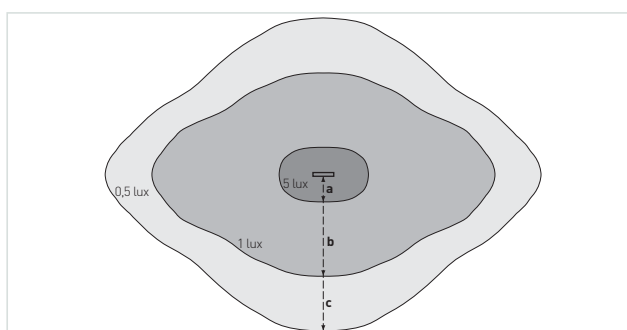
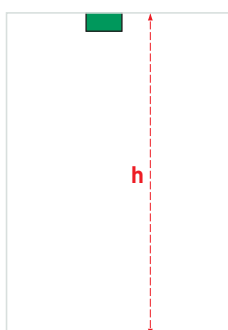
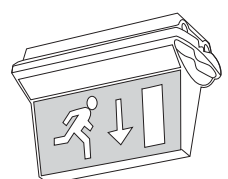
160 lm			
h	5 lx (a)	1 lx (b)	0,5 lx (c)
2,25 m	1,3	3,0	4,0
2,70 m	1,1	3,0	4,2

K2 T5 6W lamp type
wall mounted



100 lm			
h	5 lx (a)	1 lx (b)	0,5 lx (c)
2,25 m	-	2,7	3,9
2,70 m	-	2,5	3,8

K2 T5 6W lamp type
ceiling mounted

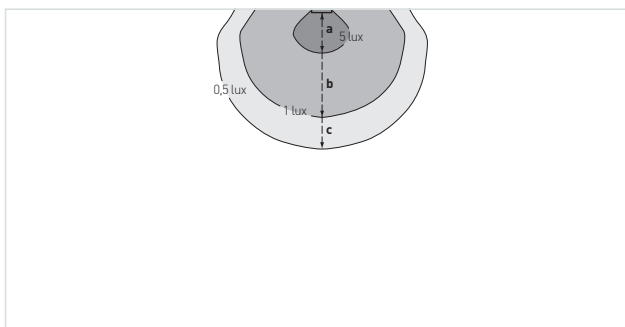
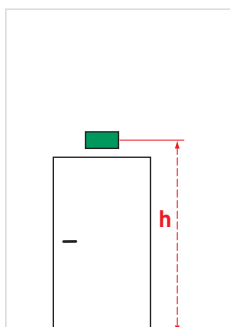
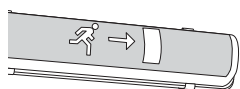


88 lm			
h	5 lx (a)	1 lx (b)	0,5 lx (c)
2,25 m	0,5	1,9	3,0
2,70 m	-	1,9	2,8

Lumen output and interdistances: data under reservation. The ETAP interdistances are guaranteed until the end of the lifetime of the light source. The reduction in light output of the light source according to standard EN 50698-2.22 is taken into account in the published values.

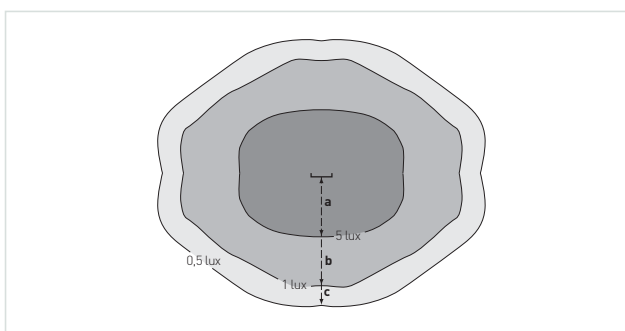
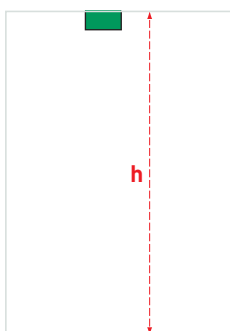
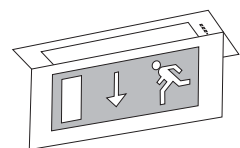
MOUNTING WITH SIGNAGE: ILLUMINATION ON THE FLOOR

K3 wall mounted



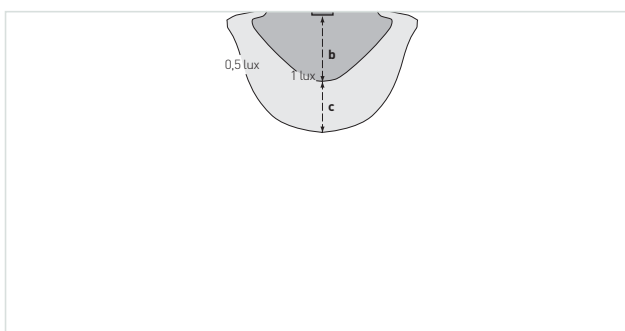
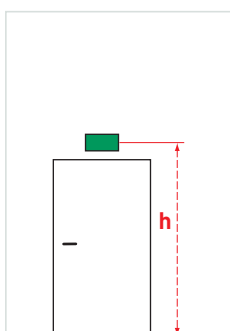
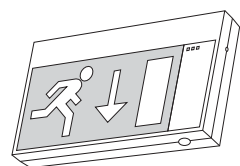
h	a	b	c
120 lm			
h	5 lx (a)	1 lx (b)	0,5 lx (c)
2,25 m	1,4	2,4	-
2,70 m	1,5	2,3	-

K5 ceiling mounted



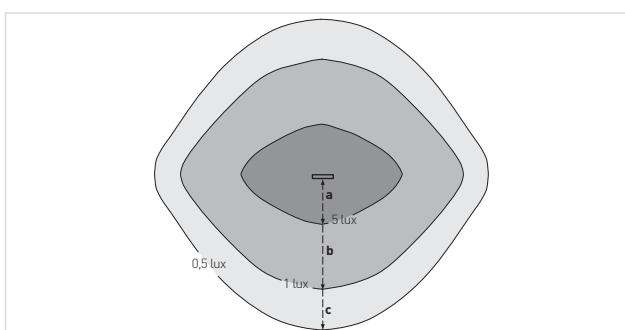
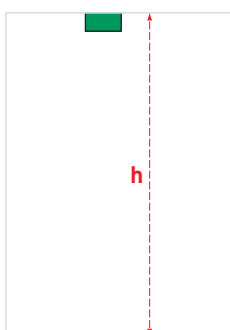
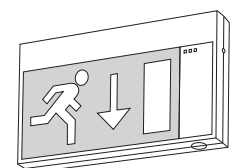
120 lm			
h	5 lx (a)	1 lx (b)	0,5 lx (c)
2,25 m	1,2	2,2	2,6
2,70 m	1,3	2,4	2,9

K7 with spotlight module L2 wall mounted



120 lm			
h	5 lx (a)	1 lx (b)	0,5 lx (c)
2,25 m	0,8	1,5	1,8
2,70 m	0,8	1,5	1,9
3,00 m	0,8	1,6	2,0
4,00 m	0,9	1,6	2,2

K7 with spotlight module L2 ceiling mounted



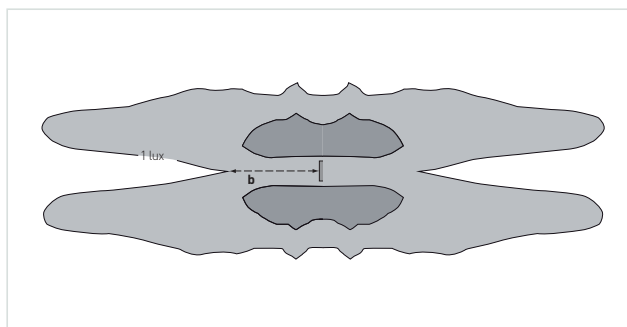
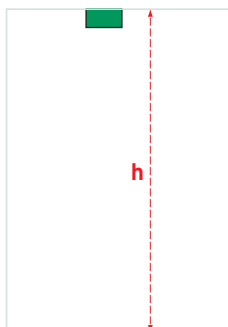
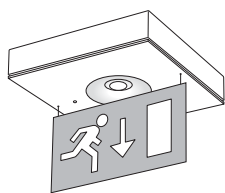
120 lm			
h	5 lx (a)	1 lx (b)	0,5 lx (c)
2,25 m	0,7	1,4	1,7
2,70 m	0,7	1,5	1,8
3,00 m	0,8	1,5	1,9
4,00 m	0,8	1,5	2,1

Lumen output and interdistances: data under reservation. The ETAP interdistances are guaranteed until the end of the lifetime of the light source. The reduction in light output of the light source according to standard EN 50698-2.22 is taken into account in the published values.

SPACING TABLES

MOUNTING WITH SIGNAGE: ILLUMINATION ON THE FLOOR

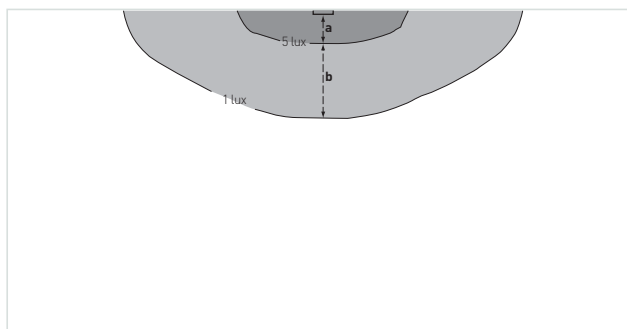
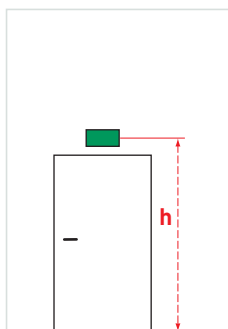
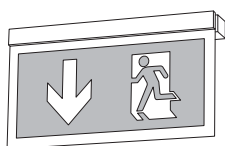
K9 ceiling mounted



h	a	b	c
---	---	---	---

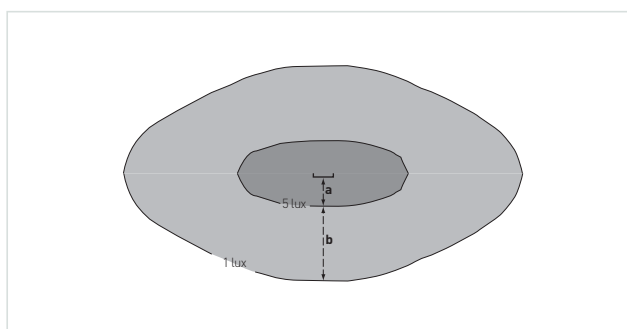
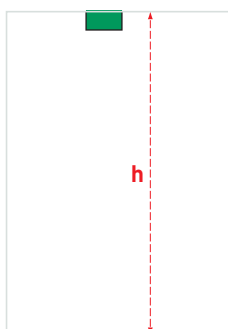
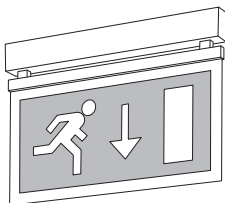
160 lm			
h	5 lx (a)	1 lx (b)	0,5 lx (c)
2,25 m	-	2,3	3,2
2,70 m	-	2,1	3,4

K9 wall mounted



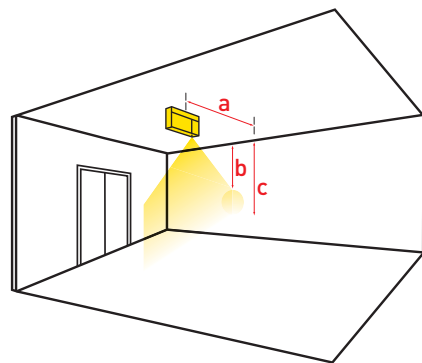
72 lm			
h	5 lx (a)	1 lx (b)	0,5 lx (c)
2,25 m	0,4	1,3	2,1
2,70 m	0,2	1,2	2,0

K9 ceiling mounted



72 lm			
h	5 lx (a)	1 lx (b)	0,5 lx (c)
2,25 m	0,4	1,3	2,1
2,70 m	0,2	1,2	2,0

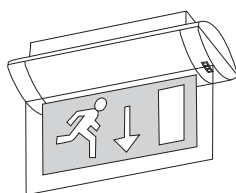
Lumen output and interdistances: data under reservation. The ETAP interdistances are guaranteed until the end of the lifetime of the light source. The reduction in light output of the light source according to standard EN 50698-2.22 is taken into account in the published values.



MOUNTING WITH SIGNAGE: VERTICAL ILLUMINATION ON THE WALL

a	b	c
---	---	---

K1 fluo



5 lux		K1
0,4 m	0,0	1,9
0,6 m	0,1	2,1
0,8 m	0,2	2,3
1,0 m	0,3	2,4
1,2 m	0,5	2,4

K2 fluo



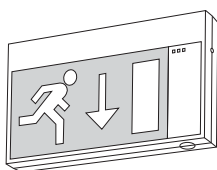
5 lux		K2
0,4 m	0,0	1,6
0,6 m	0,2	1,8
0,8 m	0,2	1,9
1,0 m	0,4	1,9
1,2 m	0,4	1,9

K2 LED



5 lux		K2
0,4 m	0,0	1,4
0,6 m	0,1	1,7
0,8 m	0,1	1,6
1,0 m	0,3	1,8
1,2 m	0,3	1,7

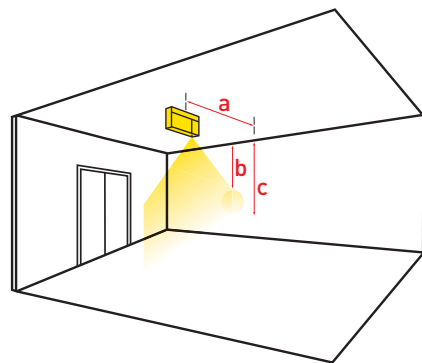
K7 with spotlight module L2



5 lux		K7L2
0,4 m	0,2	1,8
0,6 m	0,3	1,5
0,8 m	-	-
1,0 m	-	-
1,2 m	-	-

Lumen output and interdistances: data under reservation. The ETAP interdistances are guaranteed until the end of the lifetime of the light source. The reduction in light output of the light source according to standard EN 50698-2.22 is taken into account in the published values.

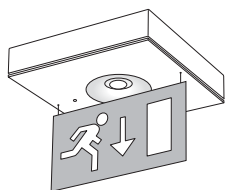
SPACING TABLES



MOUNTING WITH SIGNAGE: VERTICAL ILLUMINATION ON THE WALL

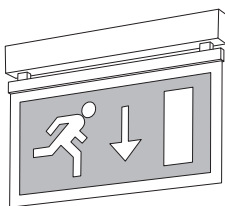
a	b	c
---	---	---

K9 signage, viewing
distance: 15 m



5 lux		K9
0,4 m	0,0	1,4
0,6 m	0,1	1,5
0,8 m	0,3	1,5
1,0 m	0,5	1,4
1,2 m	-	-

K9 signage, viewing
distance: 26 m

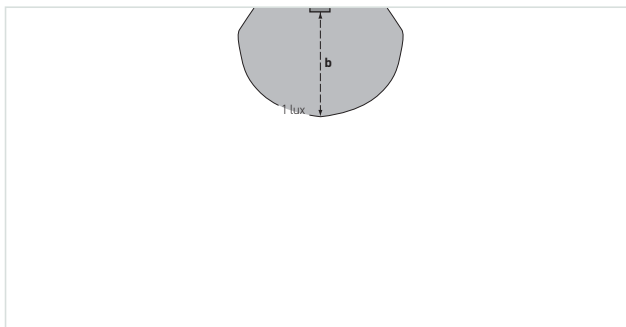
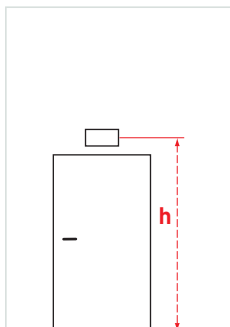
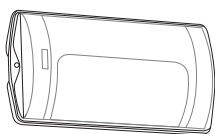


5 lux		K9
0,4 m	0,3	1,5
0,6 m	0,5	1,6
0,8 m	1,0	1,7
1,0 m	1,3	1,8
1,2 m	-	-

Lumen output and interdistances: data under reservation. The ETAP interdistances are guaranteed until the end of the lifetime of the light source. The reduction in light output of the light source according to standard EN 50698-2.22 is taken into account in the published values.

EXTERIOR LIGHTING OF FINAL EMERGENCY EXIT

K2 wall mounted



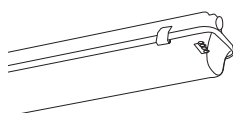
h	a	b	c
---	---	---	---

22 lm ¹			
h	5 lx (a)	1 lx (b)	0,5 lx (c)
2,25 m	-	1,6	-
2,75 m	-	1,8	-
3,00 m	-	1,8	-
4,00 m	-	2,0	-
5,00 m	-	1,1-2,1	-

¹ lumen output end service period (50 %)

MOUNTED OVER A HIGH RISK TASK AREA

K39



mounting height (m)	E _{min} ¹ (lux)
1,0	150
1,5	110
2,0	70
3,0	45
4,0	20

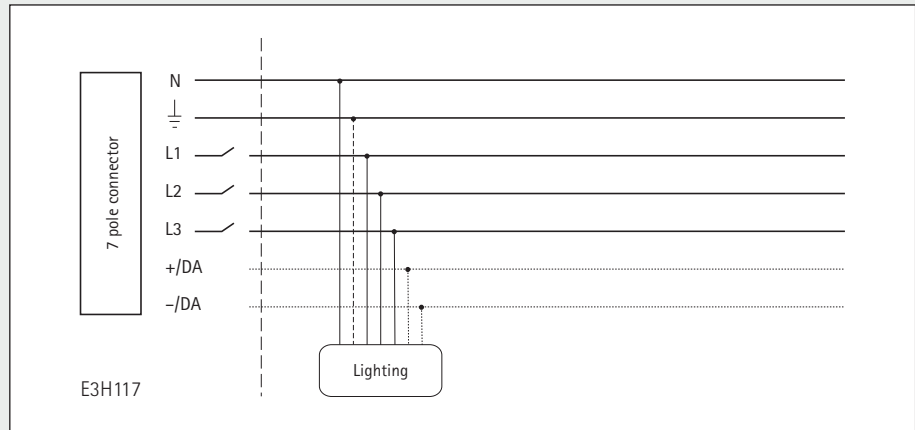
¹ minimum horizontal illuminance on a work plane 1,5 x 1 m

Lumen output and interdistances: data under reservation. The ETAP interdistances are guaranteed until the end of the lifetime of the light source. The reduction in light output of the light source according to standard EN 50698-2.22 is taken into account in the published values.

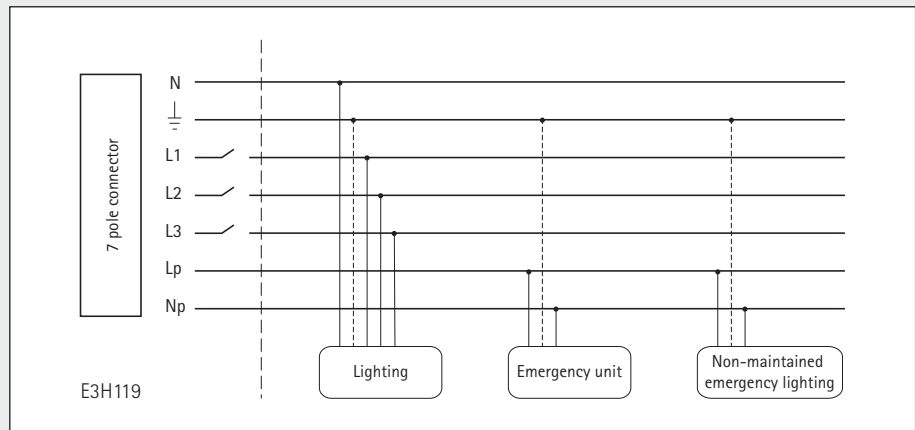
WIRING DIAGRAMS

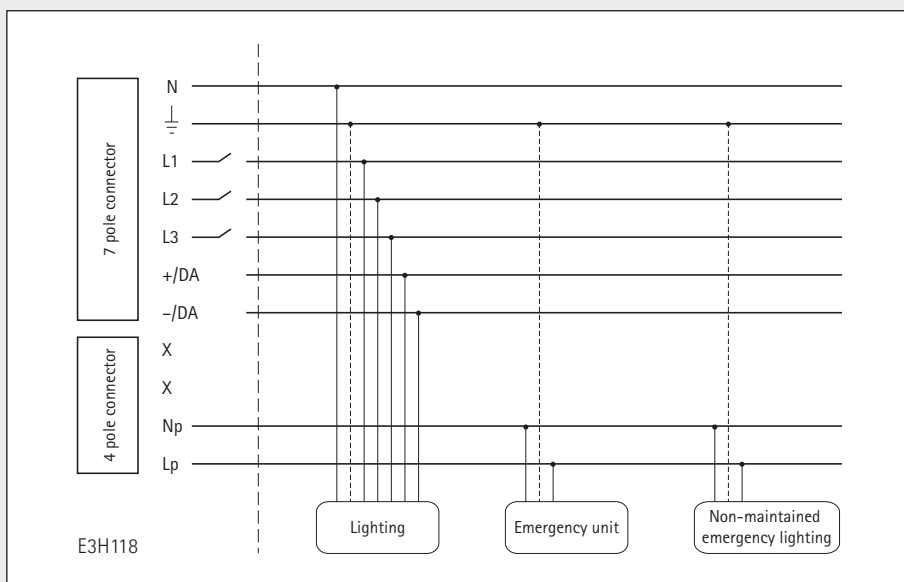
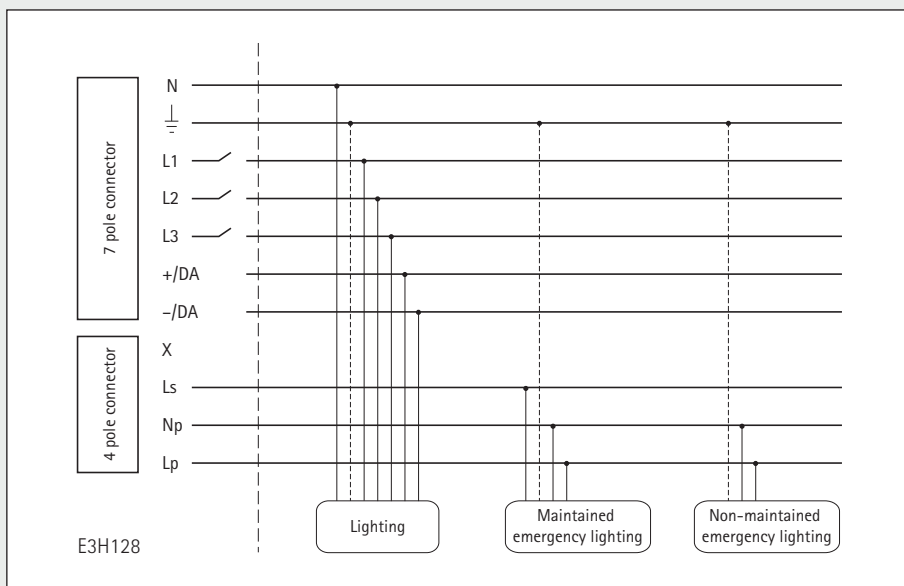
LIGHT LINE SYSTEMS (E5)

5 or 7 pole throughwiring
without emergency lighting



7 pole throughwiring with
emergency unit or non-maintained
emergency lighting



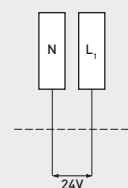
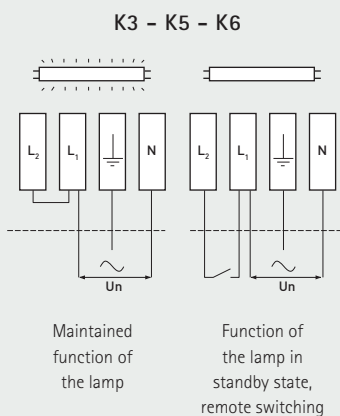
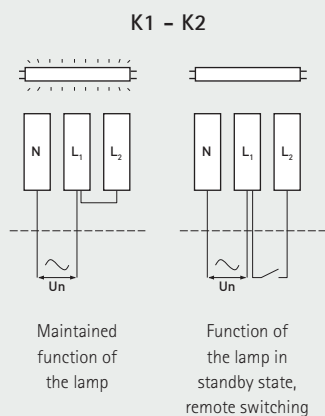


WIRING DIAGRAMS

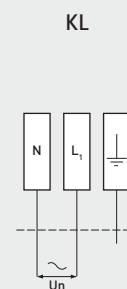
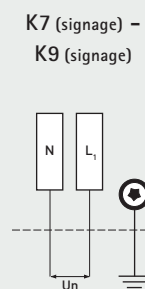
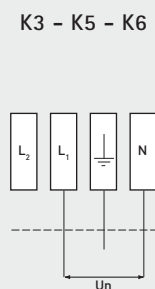
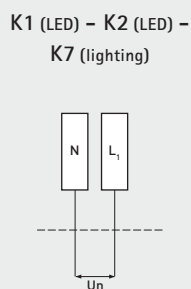
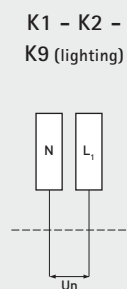
EMERGENCY LIGHTING

SELF CONTAINED LUMINAIRES OF THE MAINTAINED TYPE WITH FLUORESCENT LAMPS

LUMINAIRES FOR EBS Compact



CONNECTION OF SELF CONTAINED AND CENTRALLY SUPPLIED LUMINAIRES

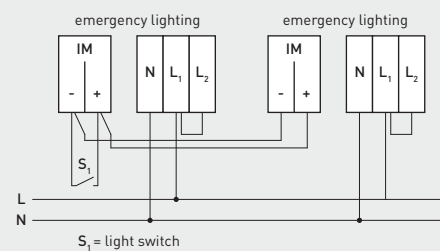


SET UP OF NON-MAINTAINED OR MAINTAINED OPERATION

K1 - K2 - K3 - K7 INHIBITING MODE

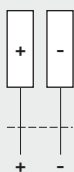
K7 SIGNAGE	signage	module
standard configuration		maintained
removal of 1 st jumper		non-maintained
removal of 2 nd jumper		maintained

K9 SIGNAGE

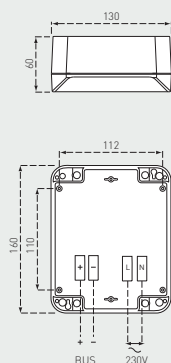


ETAP SAFETY MANAGER (ESM): WIRED / WIRELESS

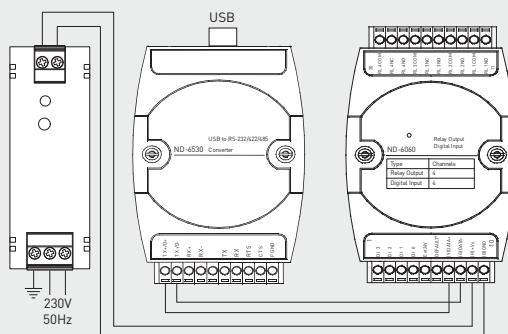
BUS connection
luminaires



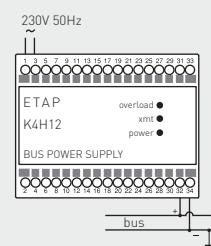
Coordinator wireless
communication



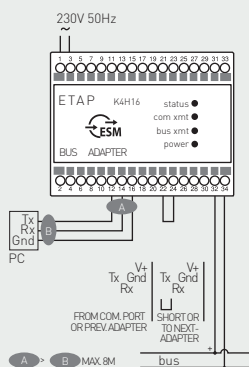
Volt-free contact



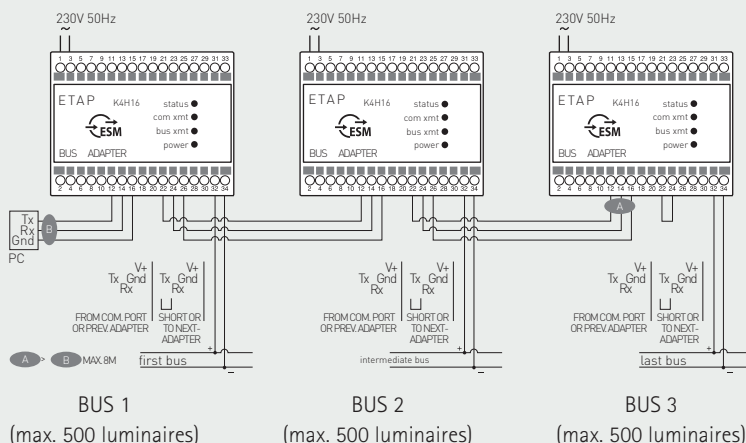
BUS power supply K4H12



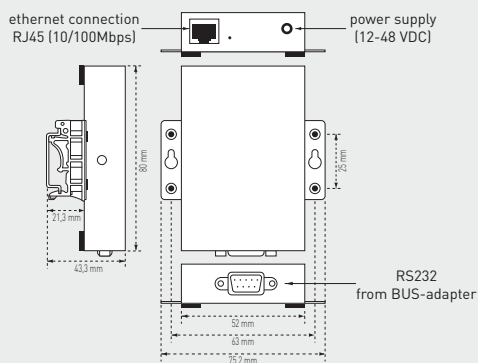
BUS adapter K4H16



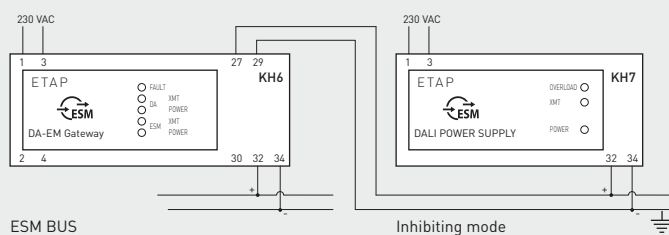
Connecting multiple BUS adapters



Com - Server



EUG

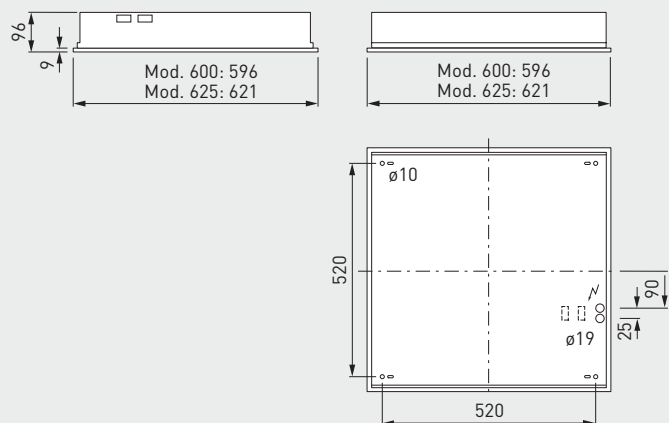


DIMENSIONAL SKETCHES

recessed luminaires

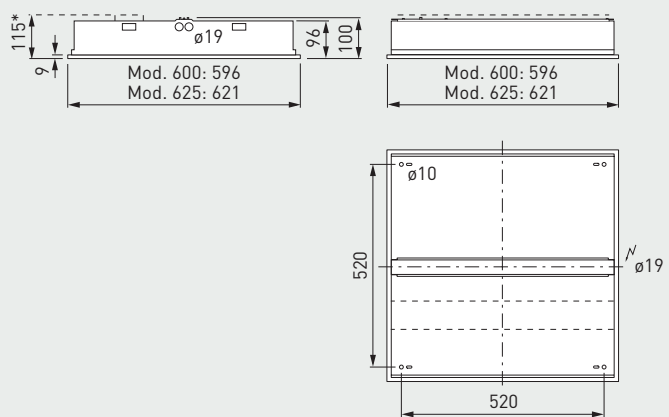
30. U5 - square - 3 lamp without air extraction

Ceiling cutout: Mod. 600 and Mod. 625: 580 x 580 mm



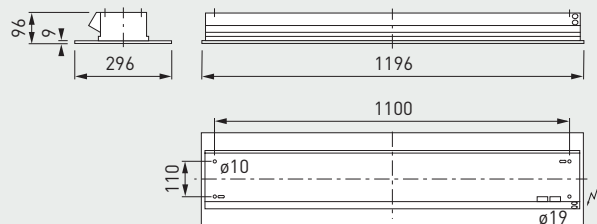
31. U5 - square - 4-lamps / ...* version with emergency unit

Ceiling cutout: Mod. 600 and Mod. 625: 580 x 580 mm



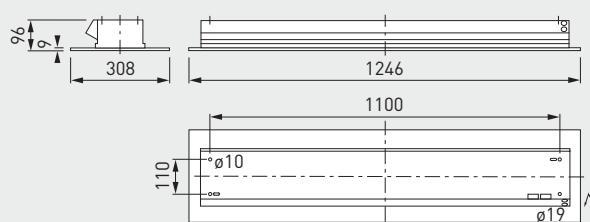
32. U5 - linear - module 300

Ceiling cutout: 1184 x 165 mm



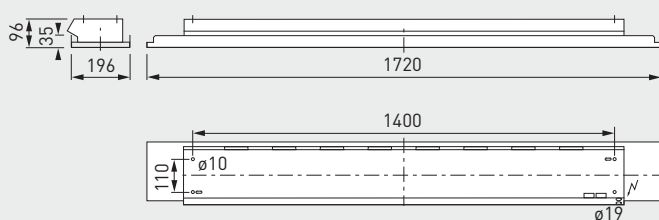
33. U5 - linear - module 625

Ceiling cutout: 1180 x 235 mm



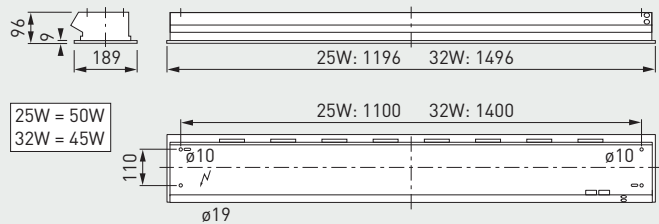
34. U5 - linear - 'BANDRASTER'

Ceiling cutout: 1720 x 196 mm



35. U5 - linear - non-modular with air extraction

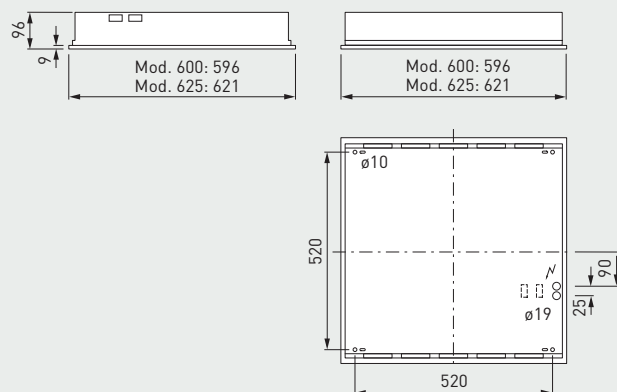
Ceiling cutout: -



recessed luminaires

36. U5 - square - 3 lamp with air extraction

Ceiling cutout: Mod. 600: 596 and Mod. 625: 621



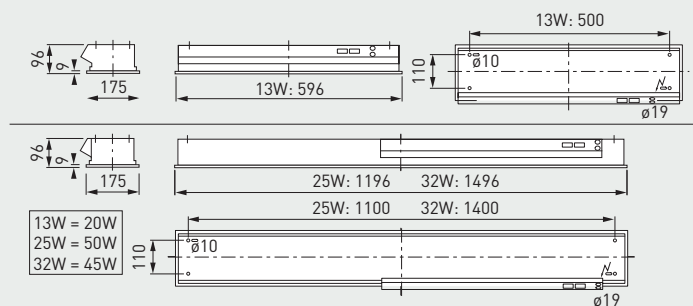
37. U5 - linear - non-modular

Ceiling cutout:

13W: 584 x 165 mm

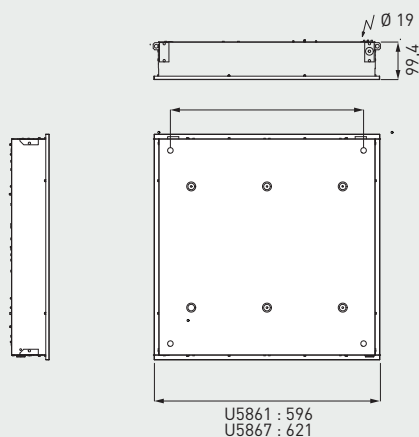
25W: 1184 x 165 mm

32W: 1484 x 165 mm



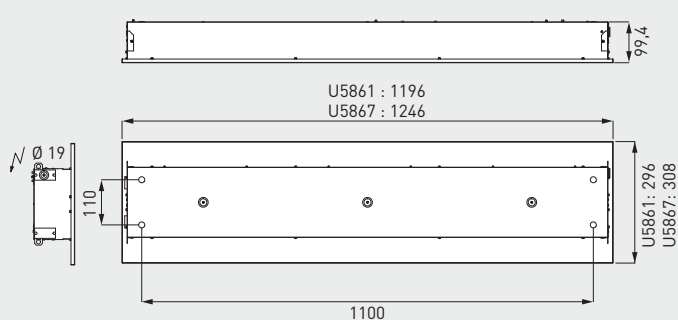
38. U5 - square - IP44

Ceiling cutout: Mod. 600 and Mod. 625: 580 x 580 mm



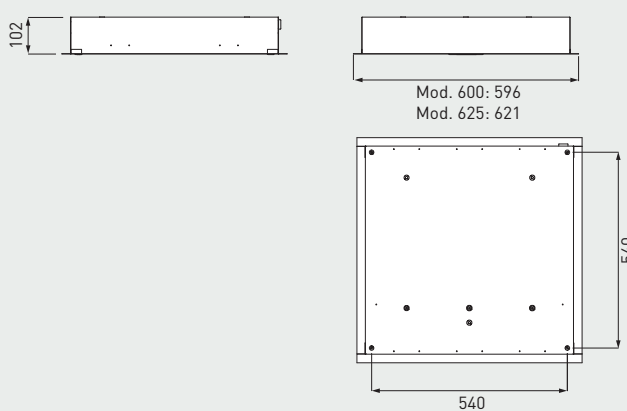
39. U5 - linear - IP44

Ceiling cutout: Mod. 300 and Mod. 625: 1180 x 235 mm



40. U5 - square - IP 65

Ceiling cutout: Mod. 600 and Mod. 625: 580 x 580 mm

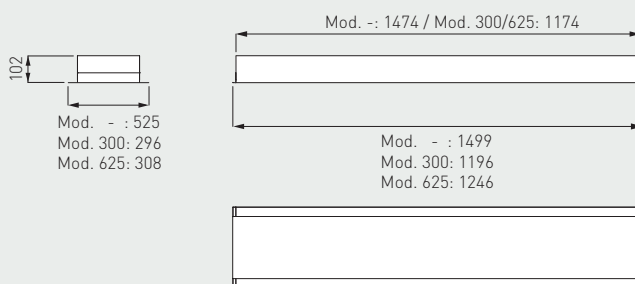


41. U5 - linear - IP 65

Ceiling cutout:

non-modular: 1480 x 235 mm

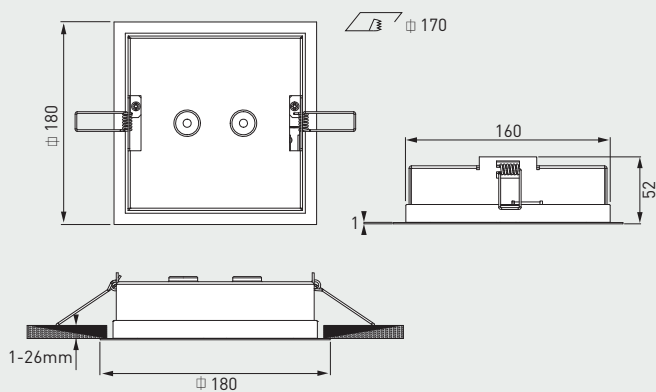
Mod. 300 and Mod. 625: 1180 x 235 mm



DIMENSIONAL SKETCHES

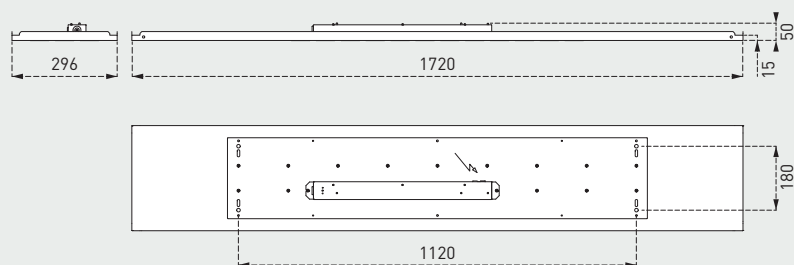
recessed luminaires

42. **U7 - mini**



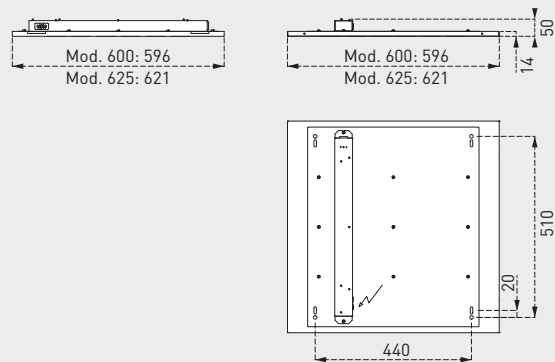
45. **U7 - linear - 'BANDRASTER' (module 1800)**

Ceiling cutout: 1720 x 196 mm



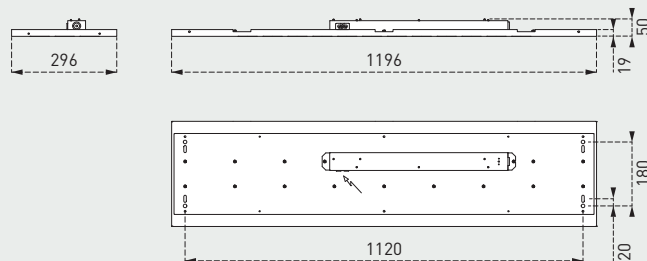
43. **U7 - square**

Ceiling cutout:
module 600: 580 x 580 mm
module 625: 580 x 580 mm



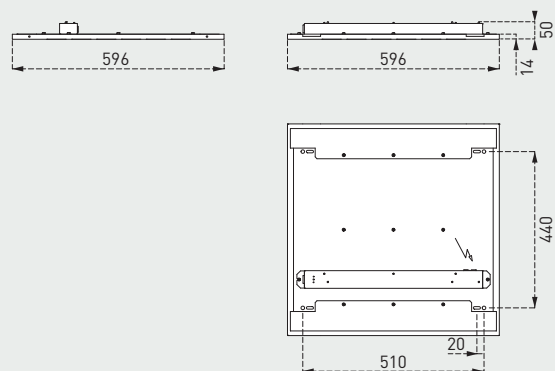
46. **U7 - linear - module 300**

Ceiling cutout: 180 x 235 mm



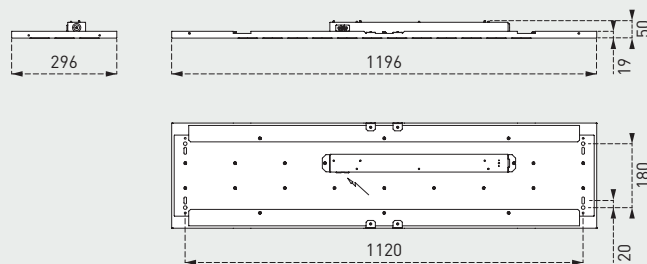
44. **U7 - square - module 600 with air extraction**

Ceiling cutout: 580 x 580 mm



47. **U7 - linear - module 300 with air extraction**

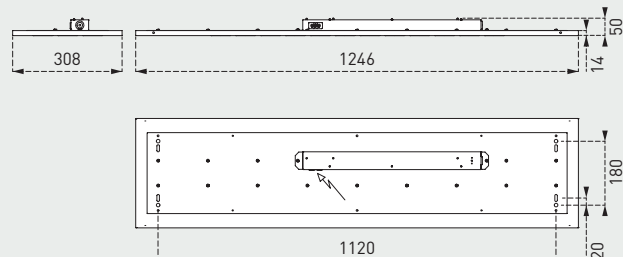
Ceiling cutout: 1180 x 235 mm



recessed luminaires

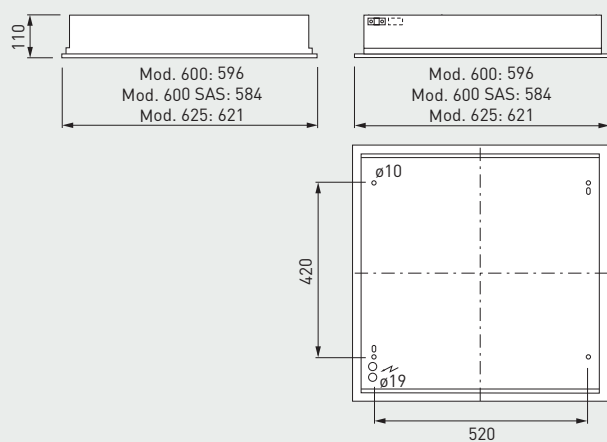
48. U7 - linear - module 625

Ceiling cutout: 1180 x 235 mm



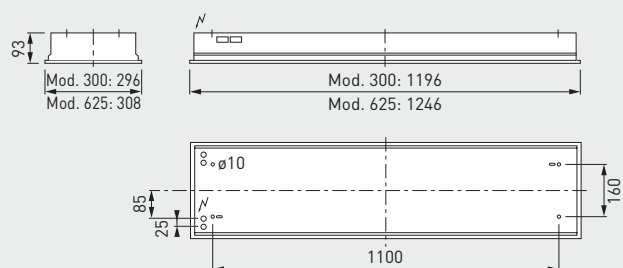
60. UM1 - square

Ceiling cutout: Mod. 600, 600 SAS and 625: 580 x 580 mm



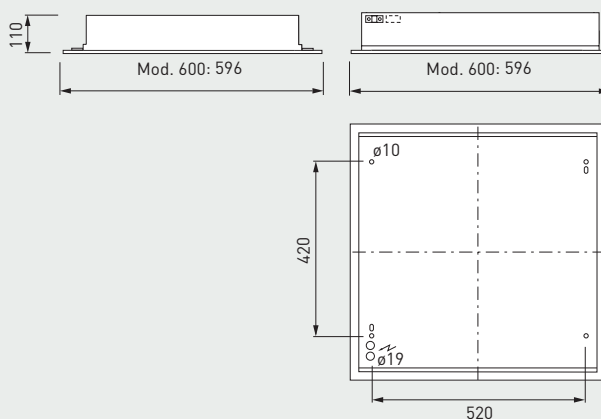
61. UM1 - linear

Ceiling cutout: 1178 x 280 mm



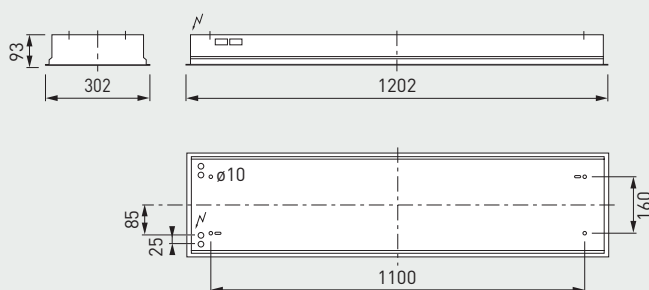
62. UM1 - square - with air extraction

Ceiling cutout: Mod. 600 and Mod. 625: 580 x 580 mm



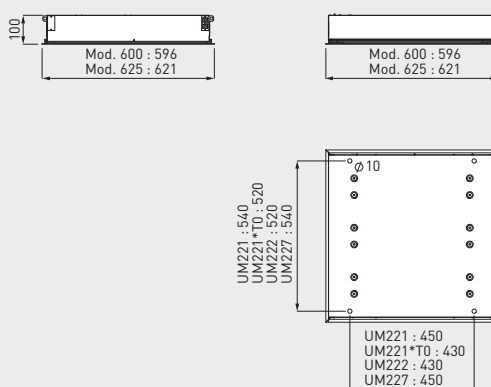
63. UM1 - linear - with wafer trim

Ceiling cutout: 1185 x 285 mm



64. UM2 - square

Ceiling cutout: Mod. 600 and Mod. 625: 580 x 580 mm



DIMENSIONAL SKETCHES

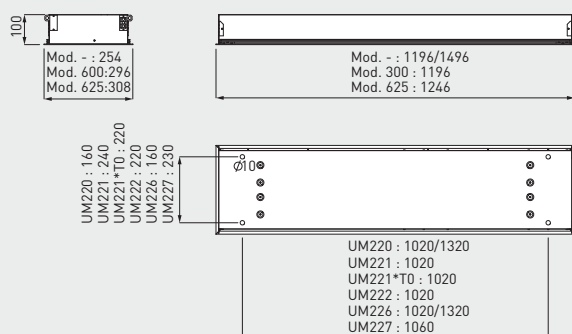
recessed luminaires

65. UM2 - linear

Ceiling cutout:

non-modular: 1480 x 238 mm

Mod. 300 and Mod. 625: 1180 x 280 mm



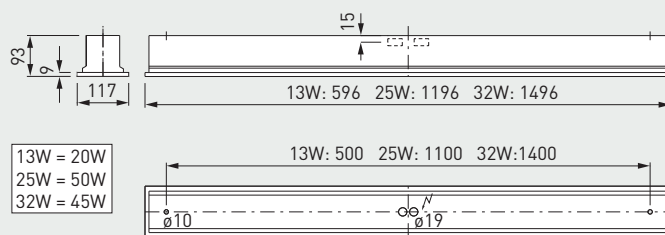
70. UT1 - linear - non-modular, 1 lamp

Ceiling cutout:

13/20W: 578 x 99 mm

25/50W: 1178 x 99 mm

32/45W: 1478 x 99 mm

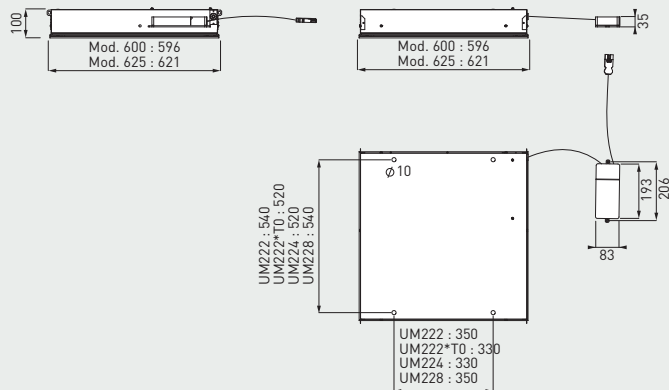


66. UM2 - with LED - square

Ceiling cutout:

Mod. 600: 580 x 580 mm

Mod. 625: 605 x 605 mm



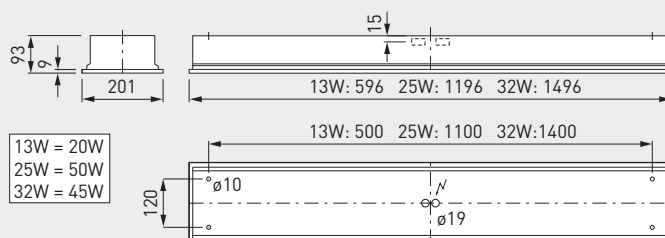
71. UT1 - linear - non-modular, 2-lamp

Ceiling cutout:

13/20W: 578 x 183 mm

25/50W: 1178 x 183 mm

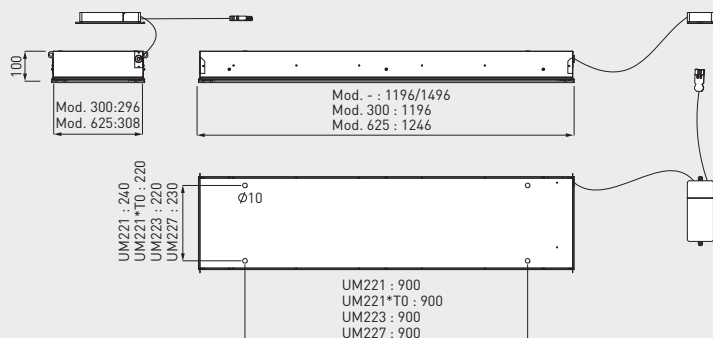
32/45W: 1478 x 183 mm



67. UM2 - with LED - linear

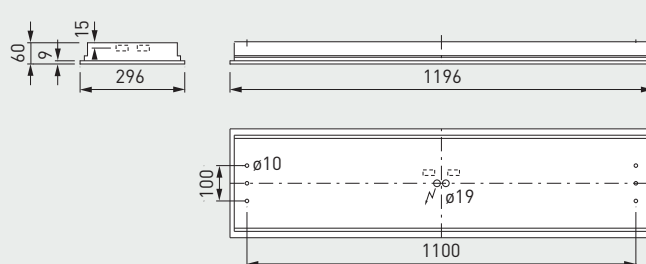
Ceiling cutout:

Mod. 300 and Mod. 625: 1230 x 292 mm



72. UT1 - linear - module 300

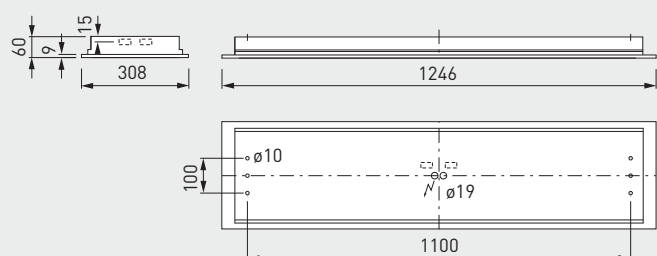
Ceiling cutout: 1178 x 278 mm



recessed luminaires

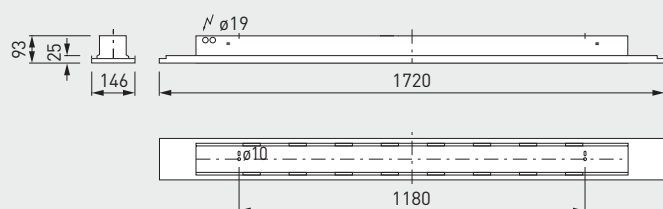
73. UT1 - linear - module 625

Ceiling cutout: 1178 x 178 mm



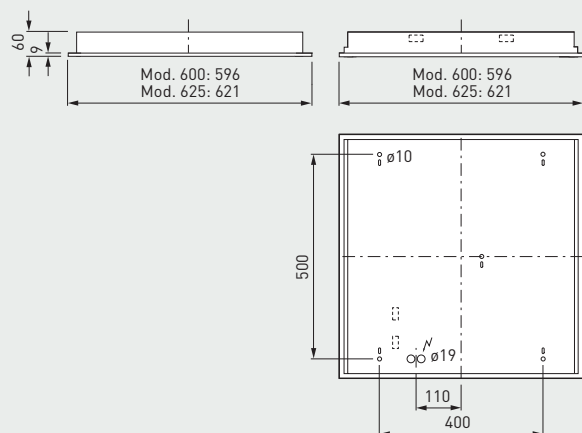
74. UT1 - linear - 'BANDRASTER'

Ceiling cutout: 1720 x 196 mm



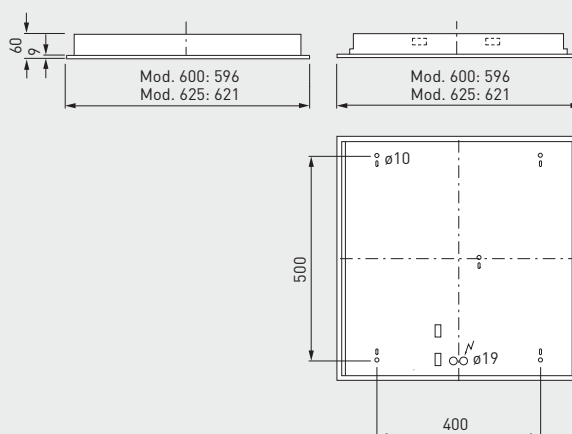
75. UT1 - square - 3 x 13W / 4 x 13WT1 / 3 x 20W

Ceiling cutout: Mod. 600 and Mod. 625: 580 x 580 mm



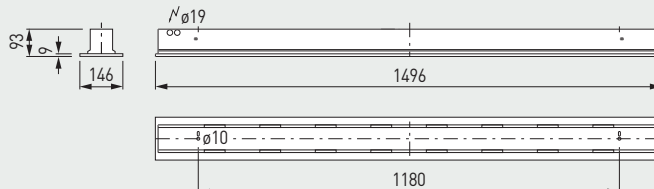
76. UT1 - square - 4 x 13W/20W

Ceiling cutout: Mod. 600 and Mod. 625: 580 x 580 mm



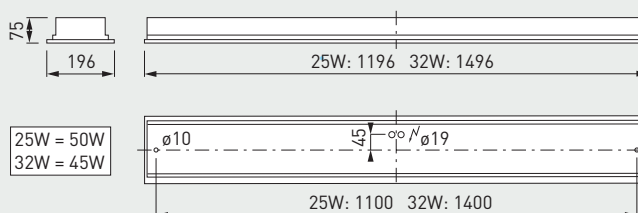
77. UT1 - linear - non-modular - with air extraction

Ceiling cutout: -



90. UT6

Ceiling cutout:
25W: 1184 x 165 mm
32W: 1484 x 165 mm

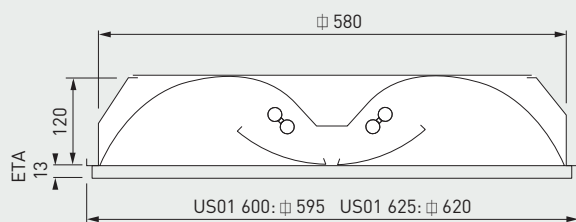


DIMENSIONAL SKETCHES

recessed luminaires

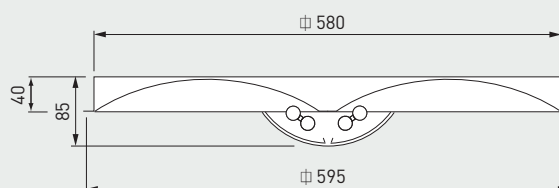
110. US01

Ceiling cutout: 580 x 580 mm



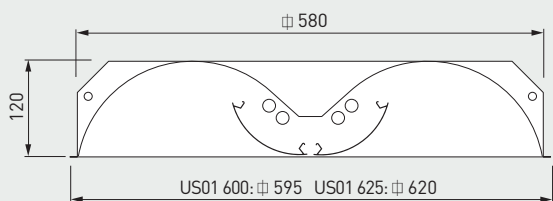
150. US11 - square

Ceiling cutout: 580 x 580 mm



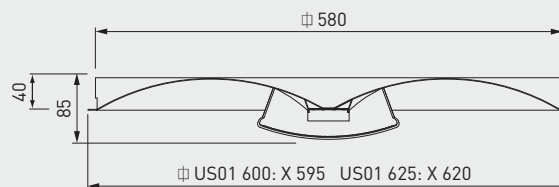
111. US01 - HaloOptics®

Ceiling cutout: 580 x 580 mm



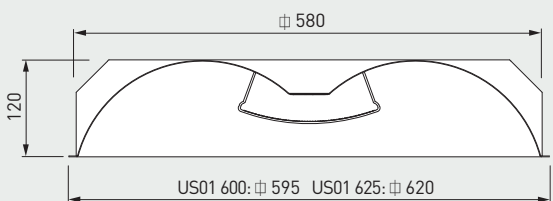
151. US11 - with LED - square

Ceiling cutout: 580 x 580 mm



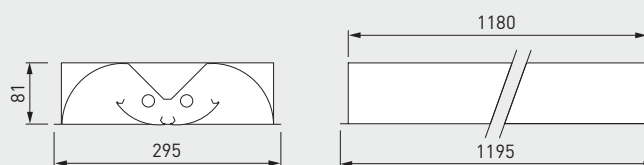
112. US01 - with LED

Ceiling cutout: 580 x 580 mm



190. US21 - linear

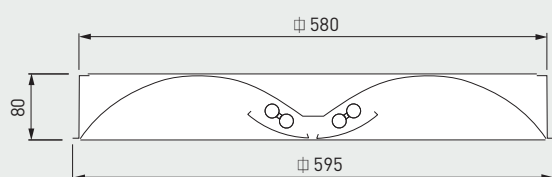
Ceiling cutout: 1185 x 285 mm



recessed luminaires

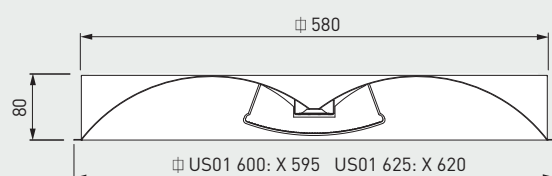
191. **US21** - square

Ceiling cutout: 580 x 580 mm



192. **US21** - with LED - square

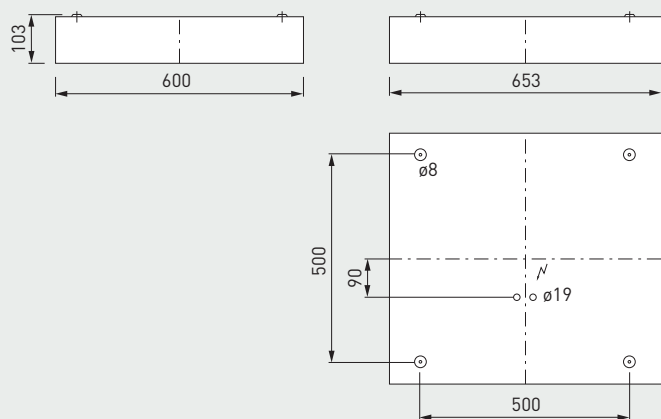
Ceiling cutout: 580 x 580 mm



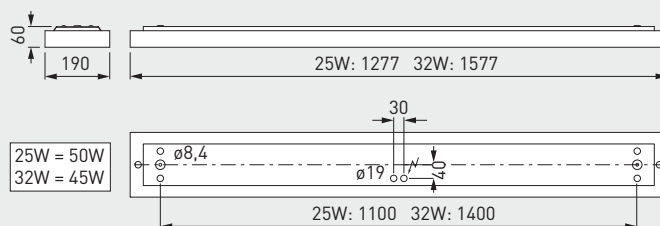
DIMENSIONAL SKETCHES

surface and suspended luminaires

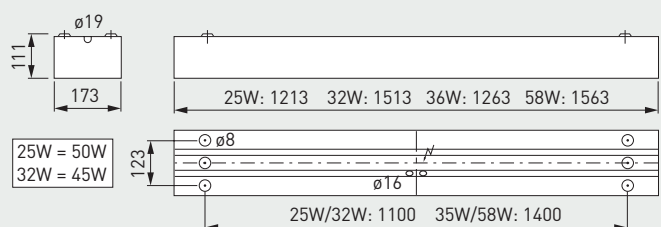
300. **R1** - square



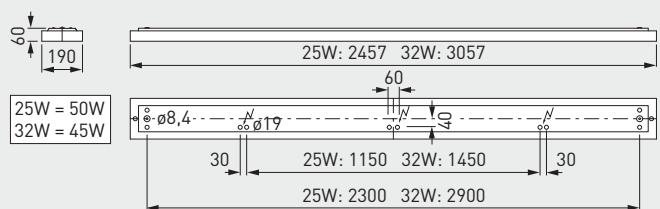
350. **R4** - surface - linear - individual, single lamp length



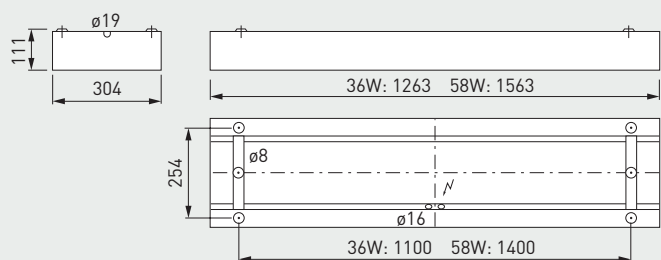
301. **R1** - linear - 1 compartment reflector



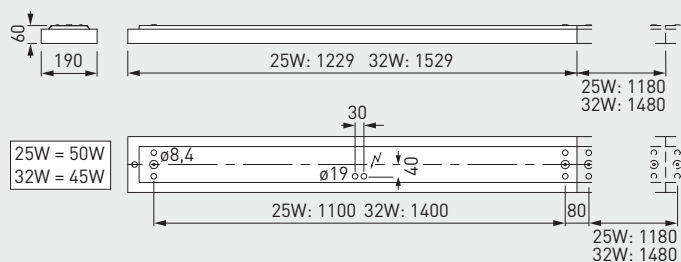
351. **R4** - surface - linear - individual, double lamp length



302. **R1** - linear - 2 compartment reflector

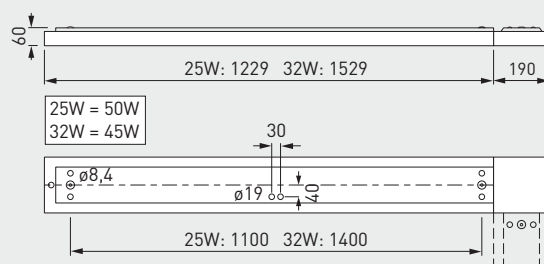


352. **R4** - surface - linear - in line

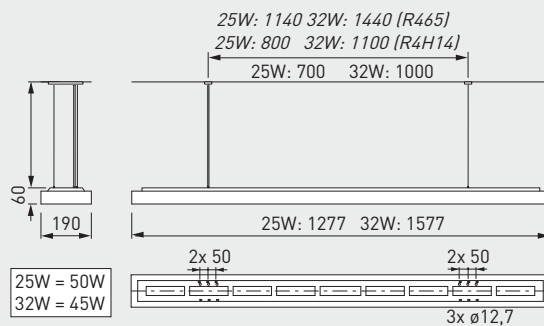


surface and suspended luminaires

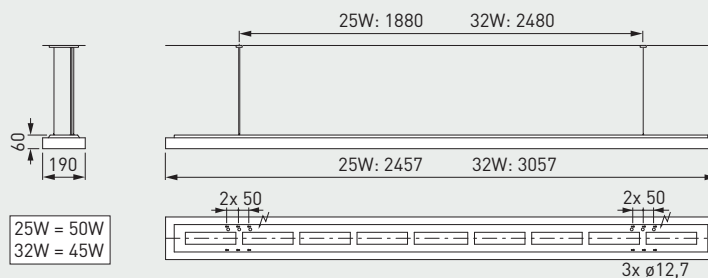
353. **R4** - surface - linear - in line angular 90°



354. **R4** - suspension - linear - individual, single lamp length



355. **R4** - suspension - linear - individual, double lamp length



surface and suspended luminaires

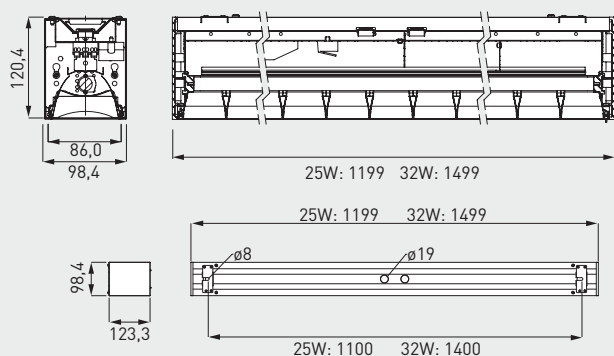
[illegible]

Technical drawing of a mechanical assembly. The main view shows a horizontal beam of length 1345. A vertical rod is attached to the left end of the beam, with a height of 200 and a diameter of 60. A vertical rod is also attached to the right end of the beam, with a height of 300. The distance between the vertical rods is 1200. A detail view on the right shows a cross-section of the vertical rod and the beam, with a force N applied to the rod.

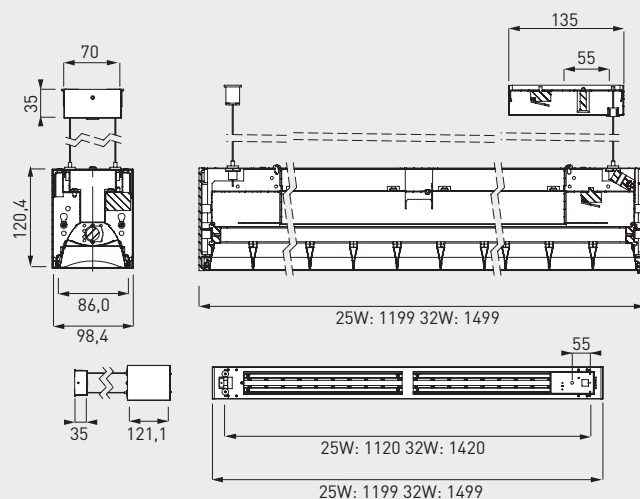
The technical drawing illustrates a double-skin facade system with two variants: 25W and 32W. The elevation view (top) shows a horizontal section with a total width of 120 units. The 25W variant has a width of 915 units, while the 32W variant has a width of 1215 units. The distance between the two glass panes is 800 units for 25W and 1100 units for 32W, both using R4H24 glass. The distance from the glass to the outer frame is 120 units. The section view (bottom) shows a cross-section of the facade with a total width of 190 units. The 25W variant has a width of 1228,5 units, and the 32W variant has a width of 1528,5 units. The distance between the two glass panes is 700 units for 25W and 1000 units for 32W. The section view also shows the thickness of the glass panes (2x50) and the distance between the panes (800 units for 25W and 1100 units for 32W).

surface and suspended luminaires

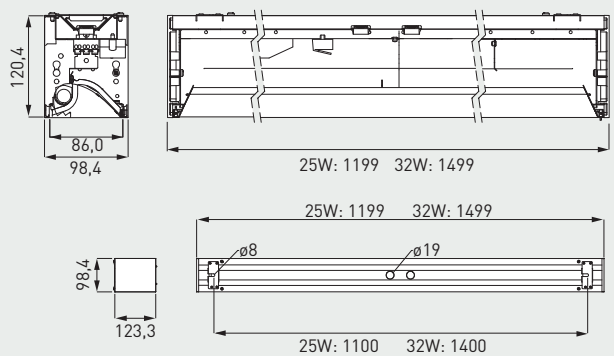
410. R6 - surface



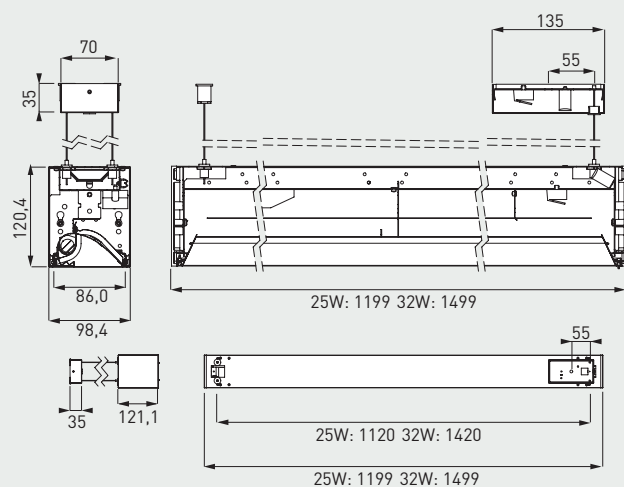
420. R6 - suspension



411. R6 - surface - wallwasher



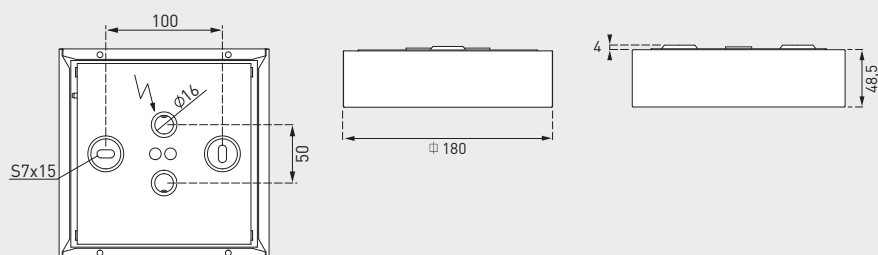
421. R6 - suspension - wallwasher



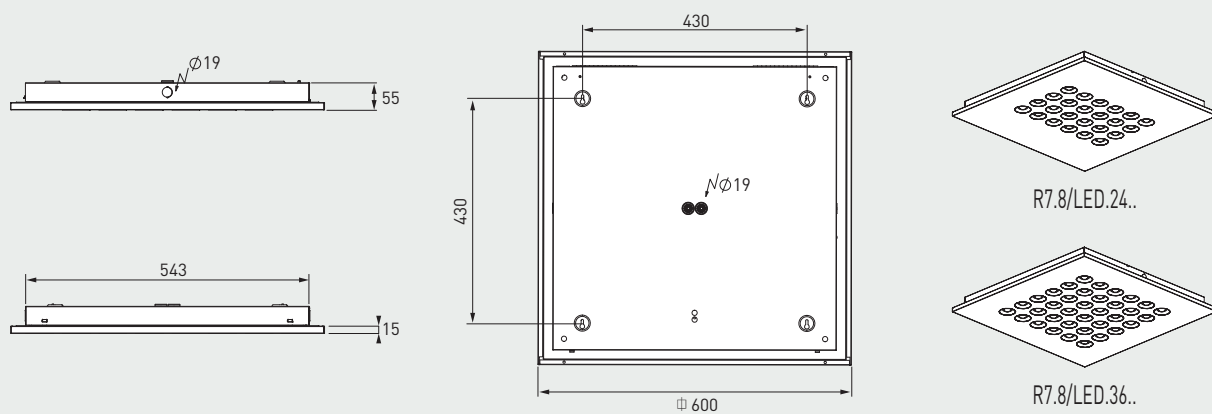
DIMENSIONAL SKETCHES

surface and suspended luminaires

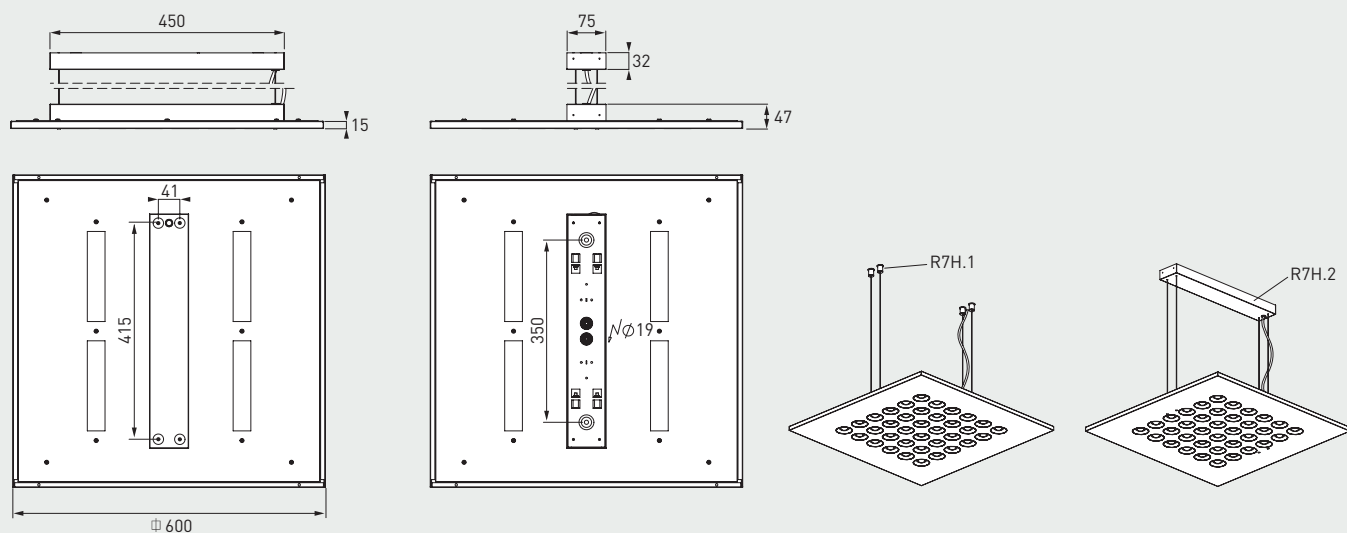
430. **R7** - mini



431. **R7** - square - surface mounting

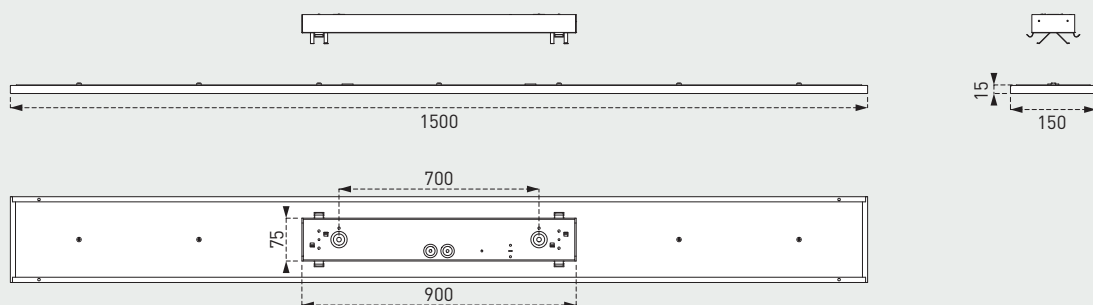


432. **R7** - square - suspension mounting

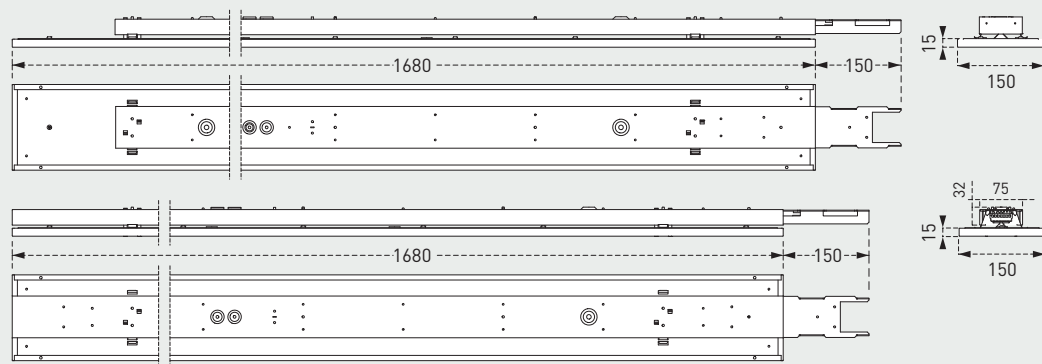


surface and suspended luminaires

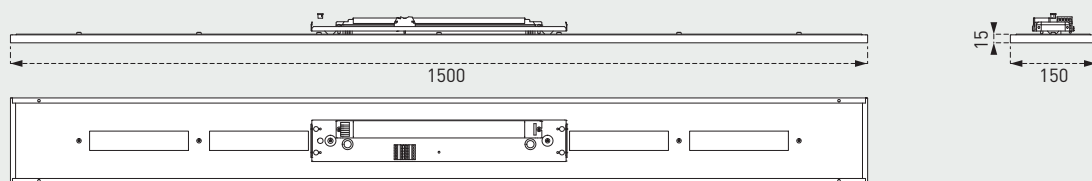
433. **R7** - surface - individual - 24 or 36 LEDs/luminaire



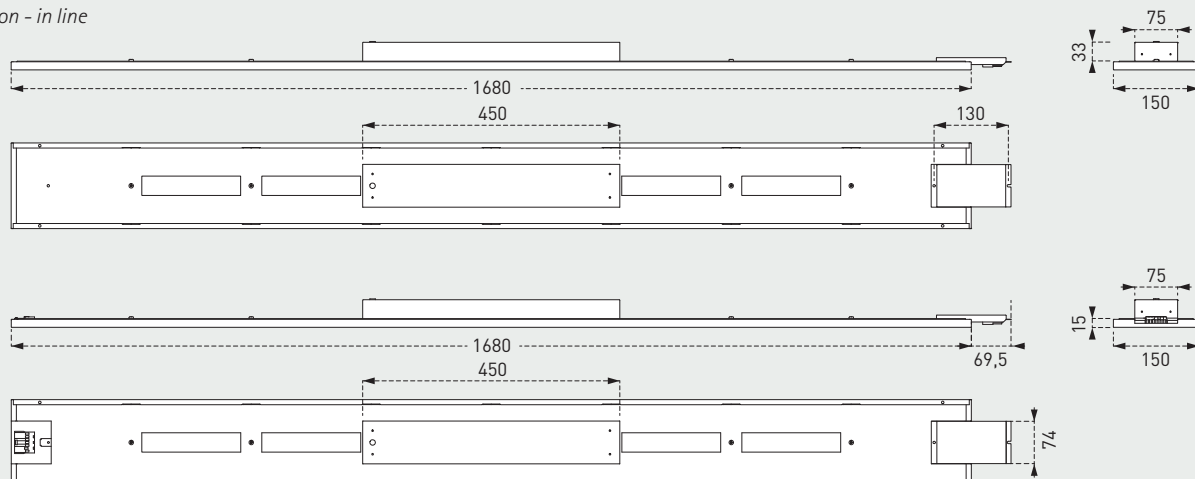
434. **R7** - surface - in line - 24 or 36 LEDs/luminaire



435. **R7** - suspension - individual - 24 or 36 LEDs



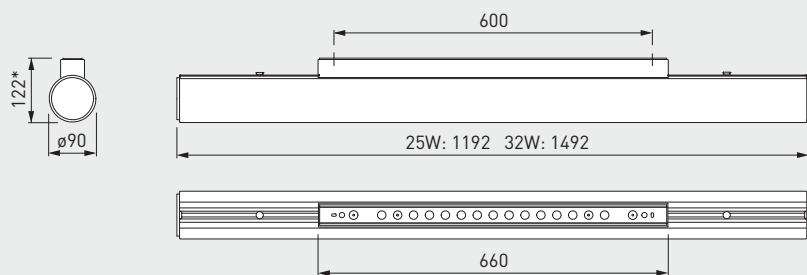
436. **R7** - suspension - in line



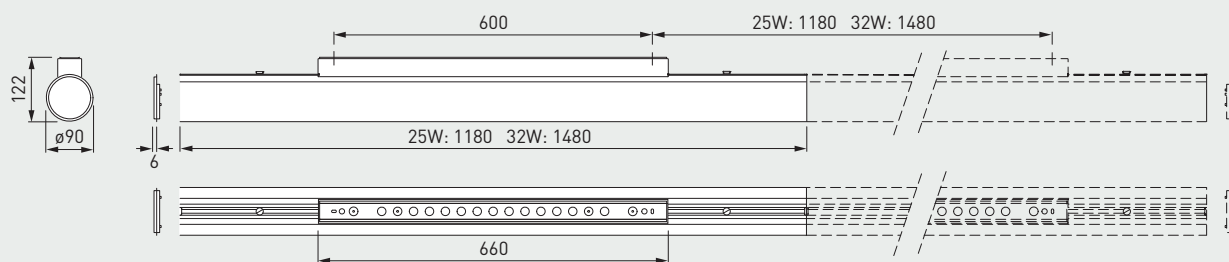
DIMENSIONAL SKETCHES

surface and suspended luminaires

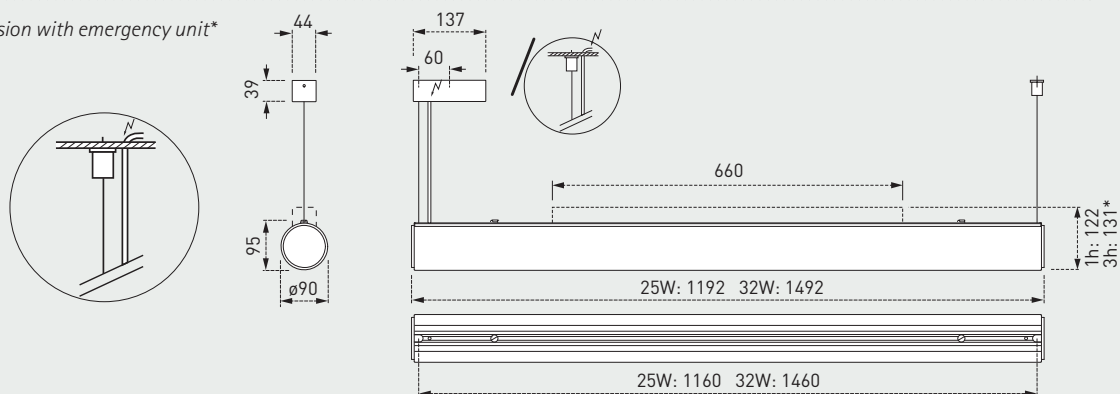
450. **R8** - surface - individual / *version with 3h emergency unit: 130



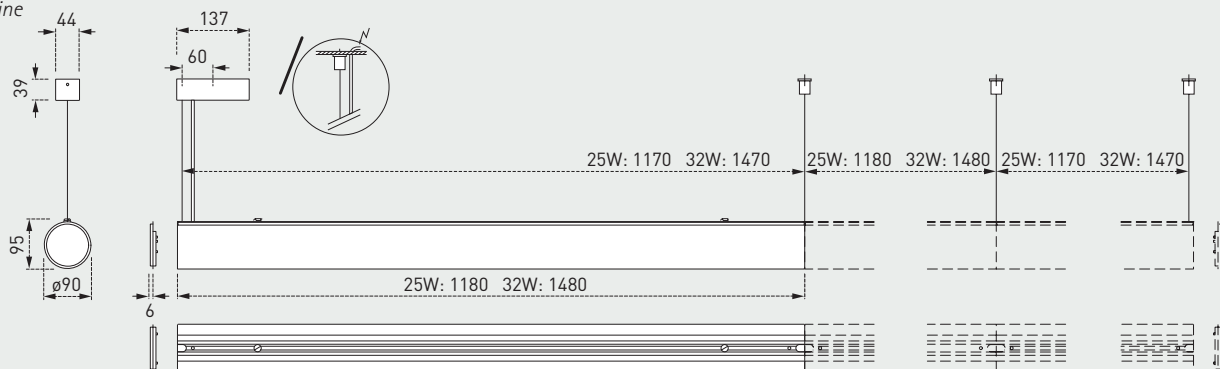
451. **R8** - surface - in line



452. **R8** - suspension - individual / version with emergency unit*

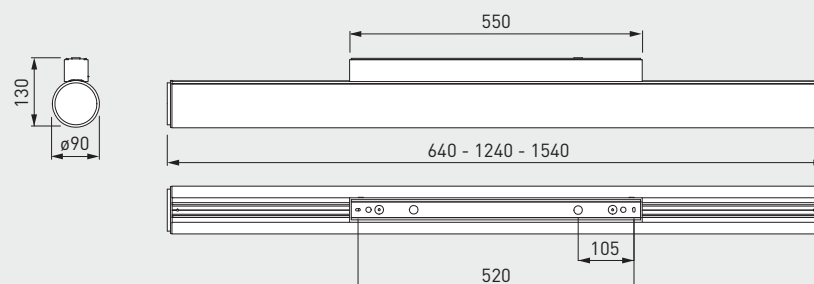


453. **R8** - suspension - in line

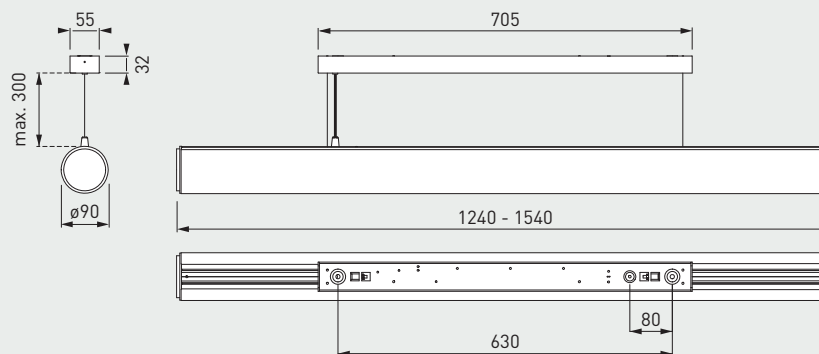


surface and suspended luminaires

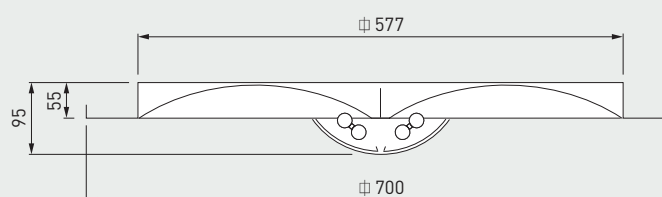
454. **R8** - LED - surface - individual



455. **R8** - LED - suspension - individual



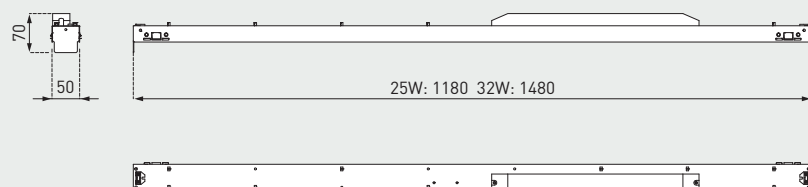
740. **RS16**



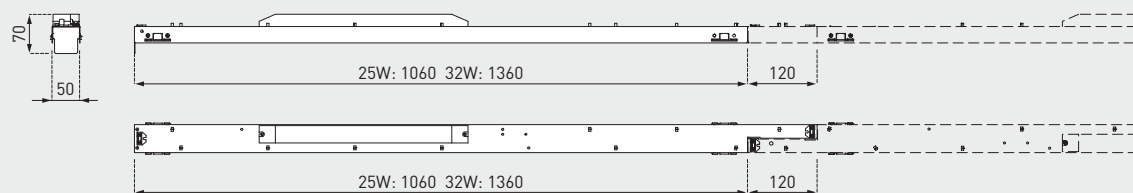
DIMENSIONAL SKETCHES

modular systems

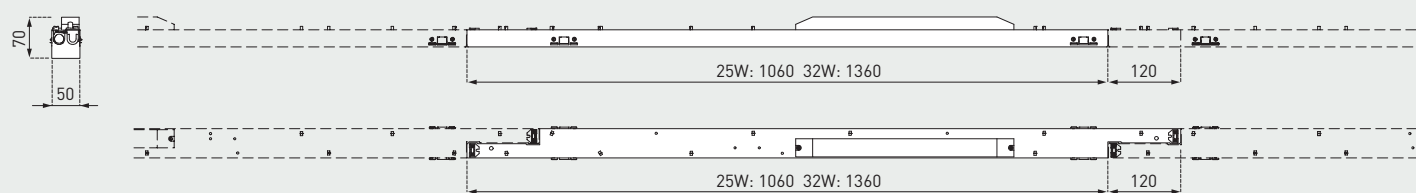
850. KARDÓ 60 - diffuser - individual



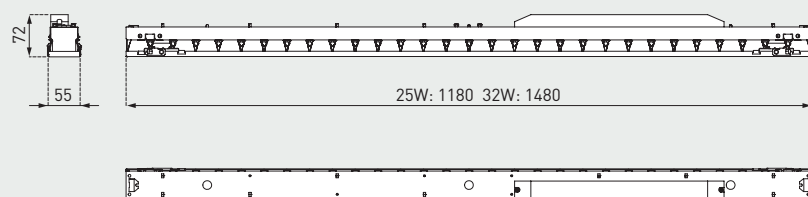
851. KARDÓ 60 - diffuser - in line - end piece



852. KARDÓ 60 - diffuser - in line - middle

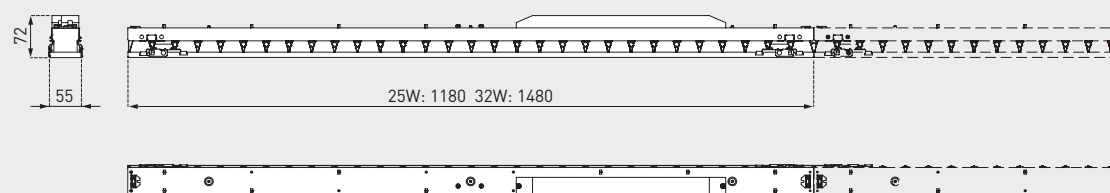


853. KARDÓ 60 - Equilum®-reflector - individual

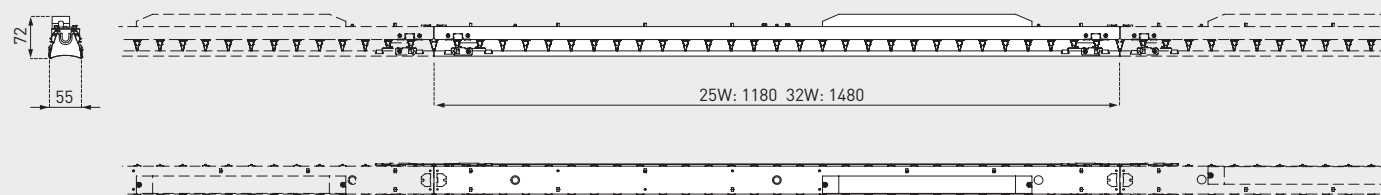


modular systems

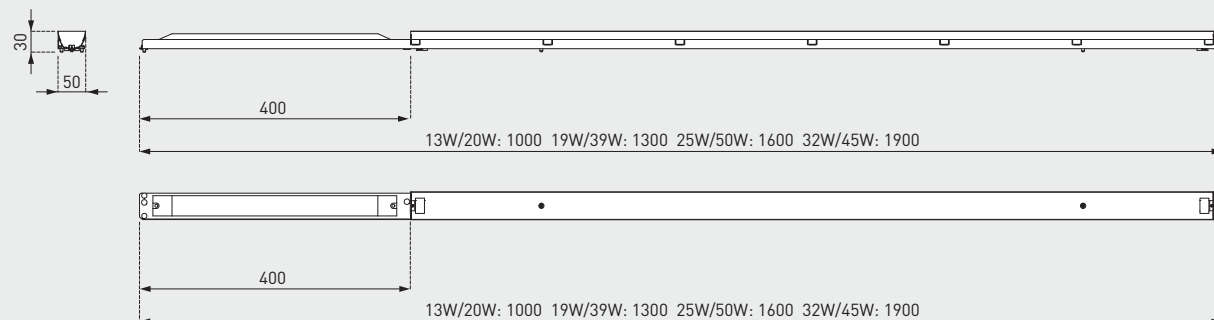
854. KARDÓ 60 - Equilum®-reflector - in line - end piece



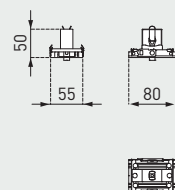
855. KARDÓ 60 - Equilum®-reflector - in line - middle



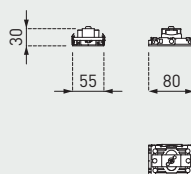
856. KARDÓ 60 - uplight



857. KARDÓ 60 - with ELS



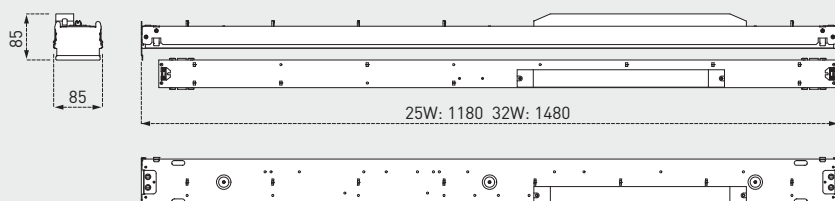
858. KARDÓ 60 - with EMD



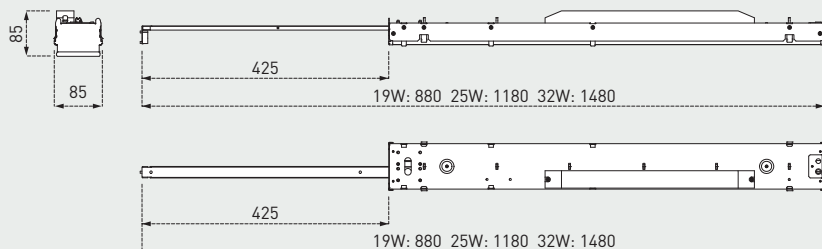
DIMENSIONAL SKETCHES

modular systems

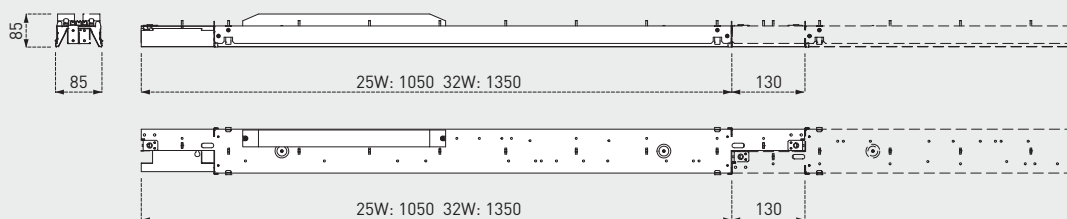
859. KARDÓ 90 - diffuser - individual



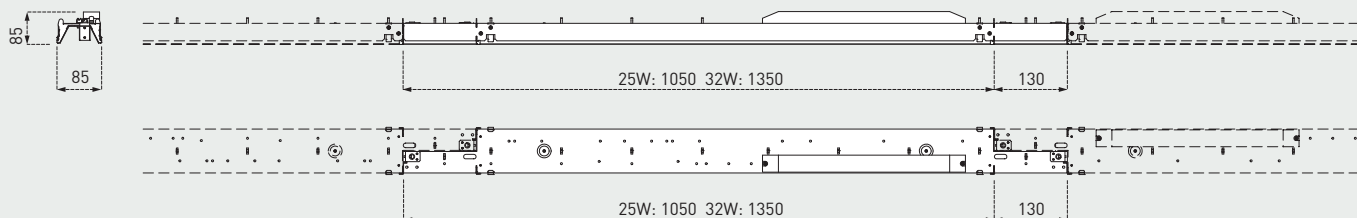
860. KARDÓ 90 - diffuser - filling plate



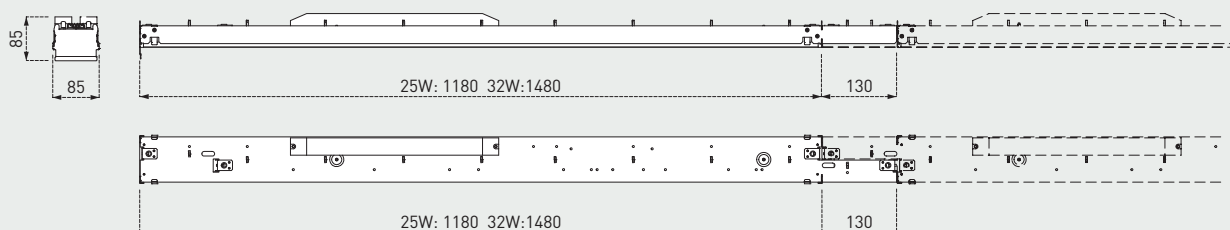
861. KARDÓ 90 - diffuser - in line - 1 lamp - end piece



862. KARDÓ 90 - diffuser - in line - 1 lamp - middle

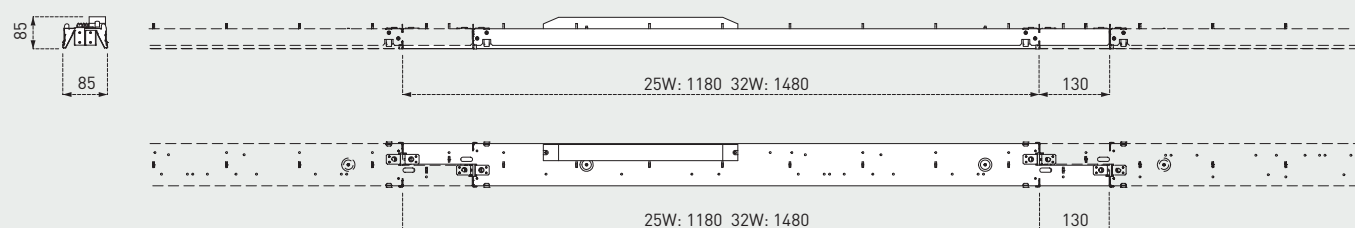


863. KARDÓ 90 - diffuser - in line - 2 lamp - end piece

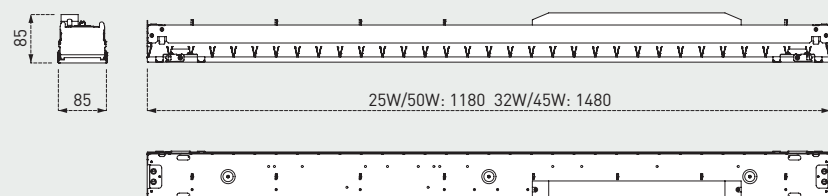


modular systems

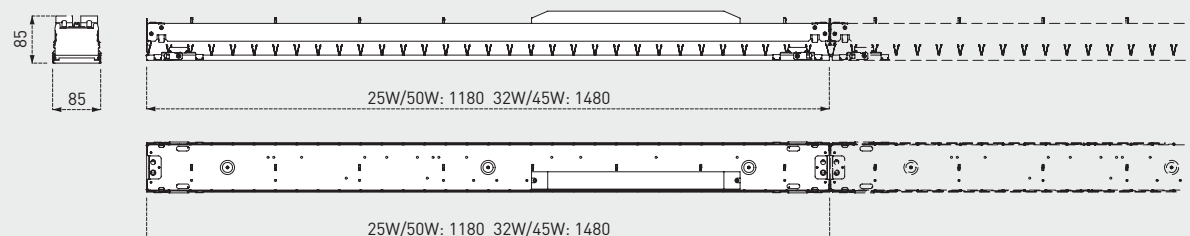
864. KARDÓ 90 - diffuser - in line - 2 lamp - middle



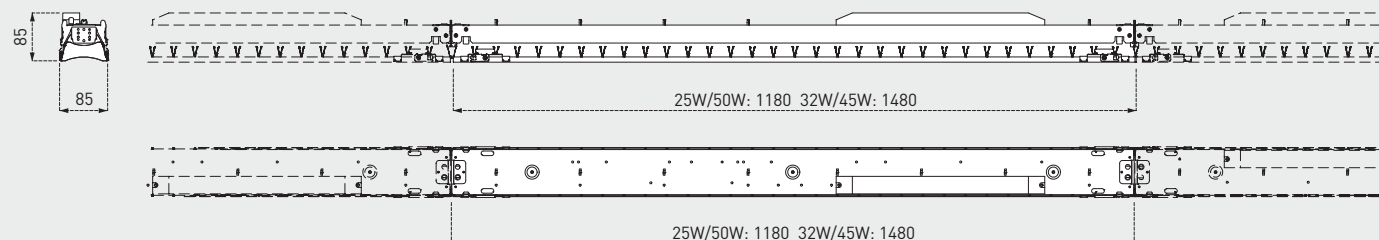
865. KARDÓ 90 - Equilum®-reflector - individual



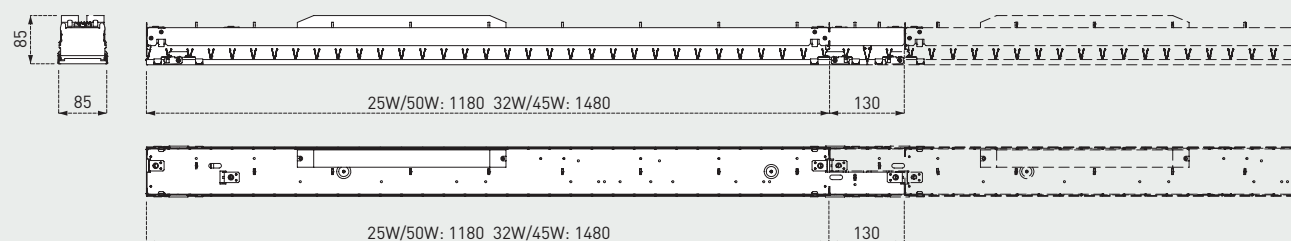
866. KARDÓ 90 - Equilum®-reflector - in line - 1 lamp - end piece



867. KARDÓ 90 - Equilum®-reflector - in line - 1 lamp - middle



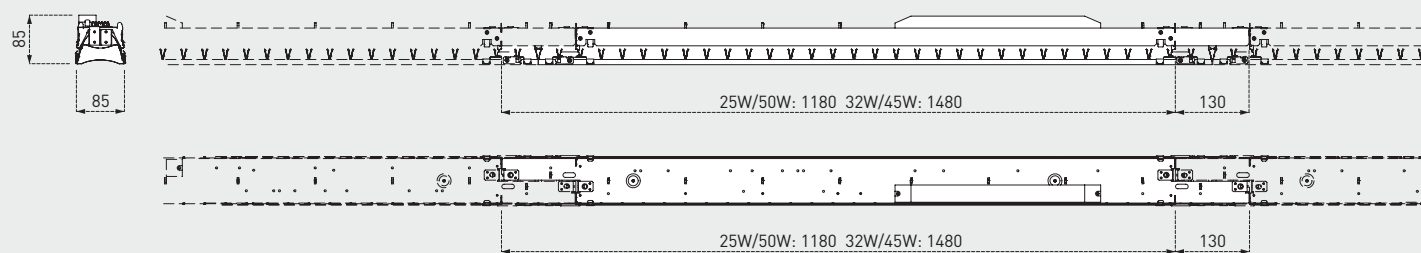
868. KARDÓ 90 - Equilum®-reflector - in line - 2 lamp - end piece



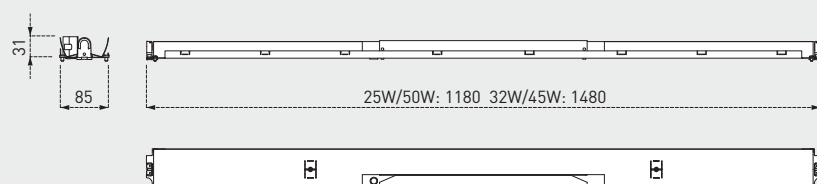
DIMENSIONAL SKETCHES

modular systems

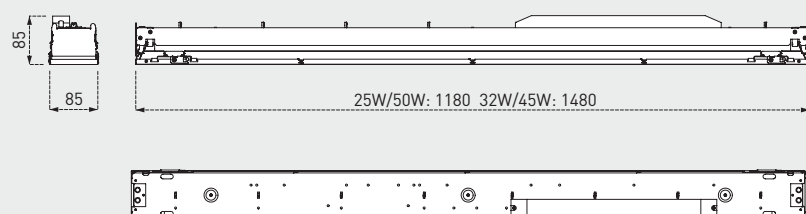
869. **KARDÓ 90** - *Equilum®-reflector - in line - 2 lamp - middle*



870. **KARDÓ 90** - *uplight*

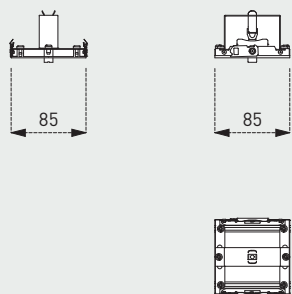


871. **KARDÓ 90** - *wallwasher*

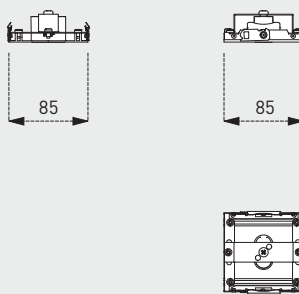


modular systems

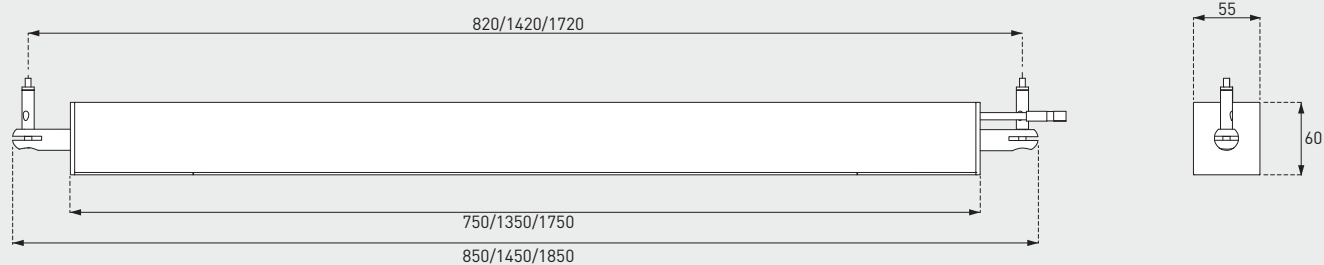
872. KARDÓ 90 - with ELS



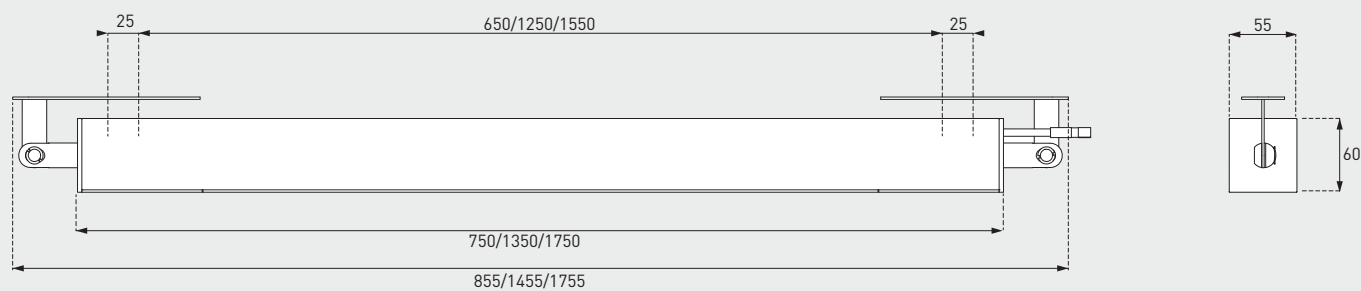
873. KARDÓ 90 - with EMD



900. LEDA - individual - surface mounting



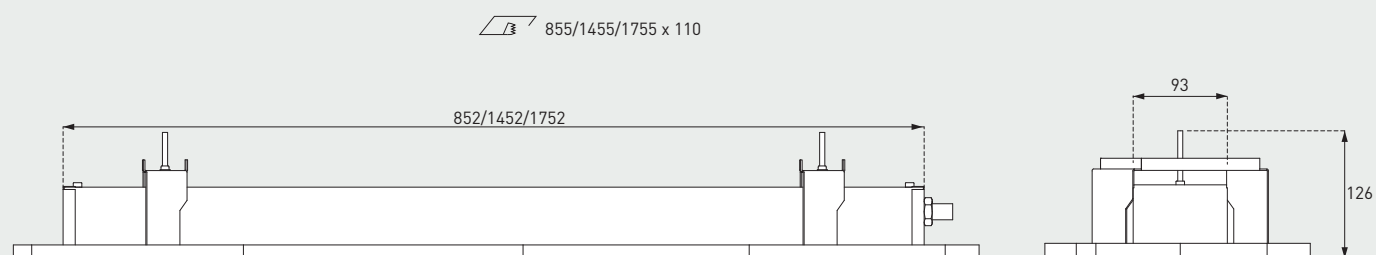
901. LEDA - individual - suspension mounting



DIMENSIONAL SKETCHES

modular systems

902. LEDA - individual - recessed mounting

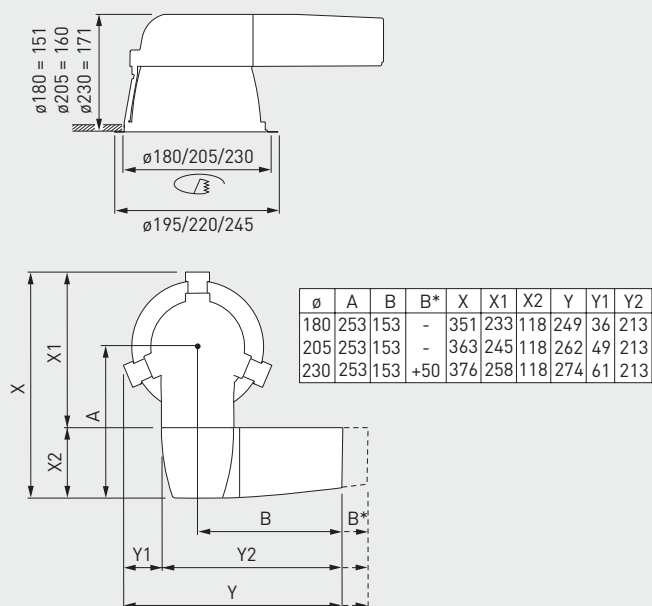


903. LEDA - suspension - in line

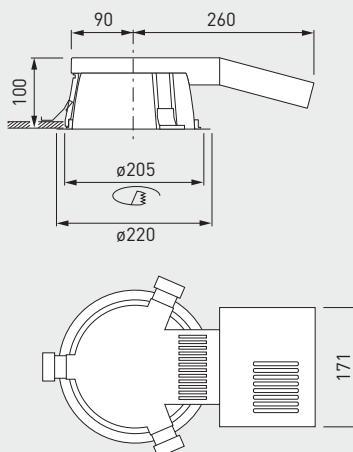


downlights

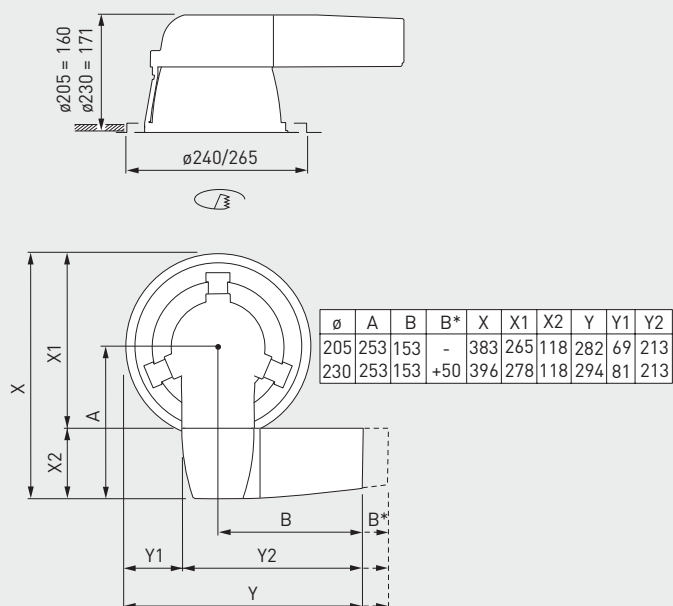
1000. **D10/D12/D16/D18** - / B* = 2x 26/32W - luminaires with dimmable VSA



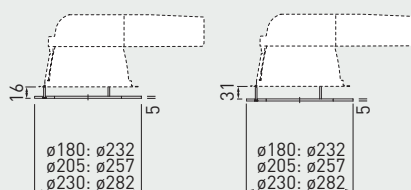
1002. **D14/D15**



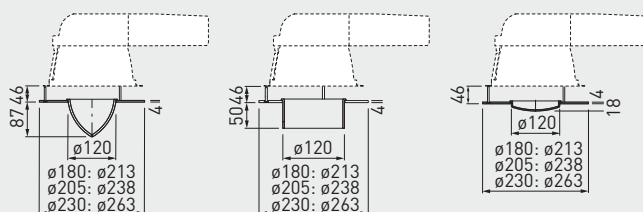
1001. **D10/D12/D16/D18** - with air extraction / B* = 2x 24/32W - luminaires with dimmable VSA



1003. **D1** - with option frosted disk and glass ring



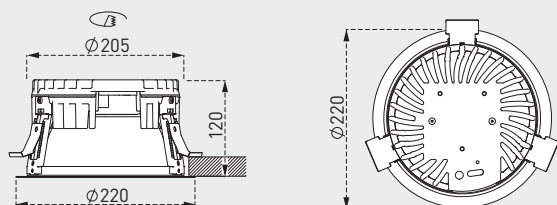
1004. **D1** - with option cone / cylinder / disc



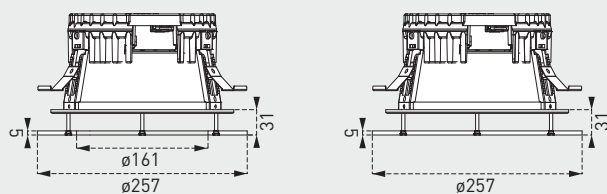
DIMENSIONAL SKETCHES

downlights

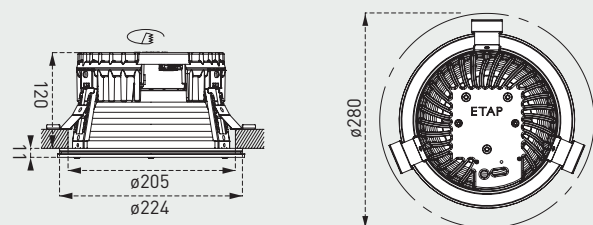
1006. D1 - with LED



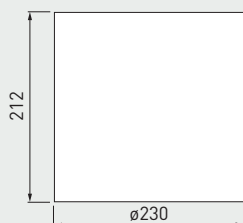
1007. D1 - with LED - with option frosted disk and glass ring



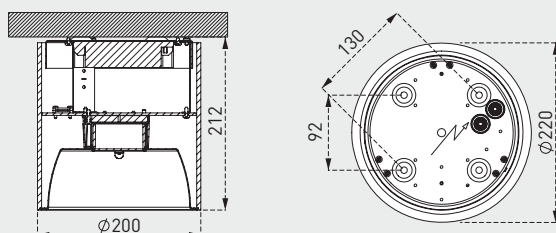
1008. D1 - with LED - IP44



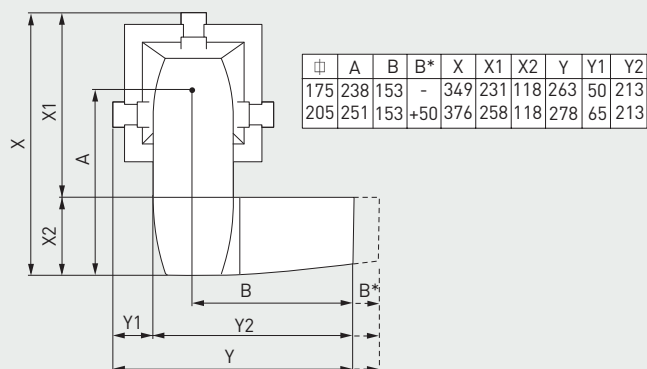
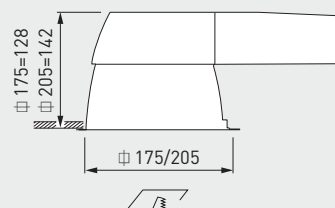
1100. D2



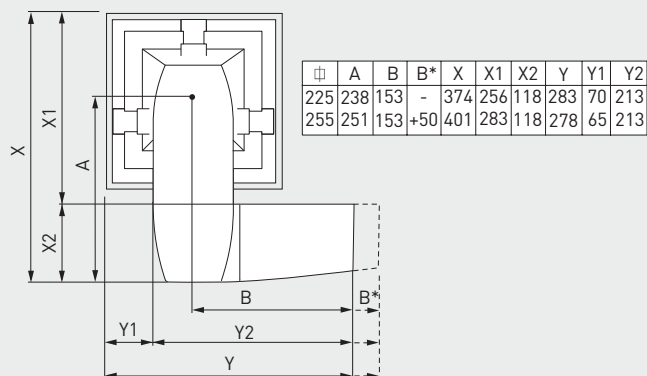
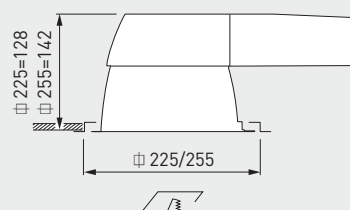
1101. D2 - with LED



1200. D3 - / B* = 2x 24/32W-luminaires with dimmable VSA

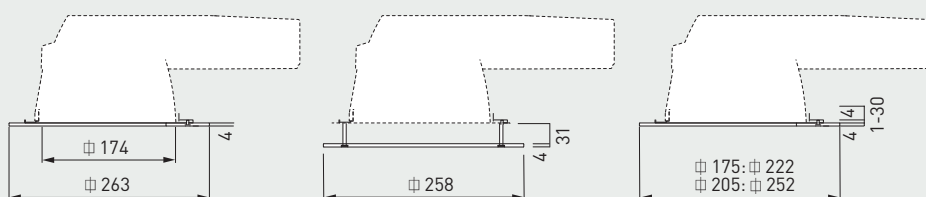


1201. D3 - with air extraction / B* = 2x 26/32W-luminaires with dimmable VSA

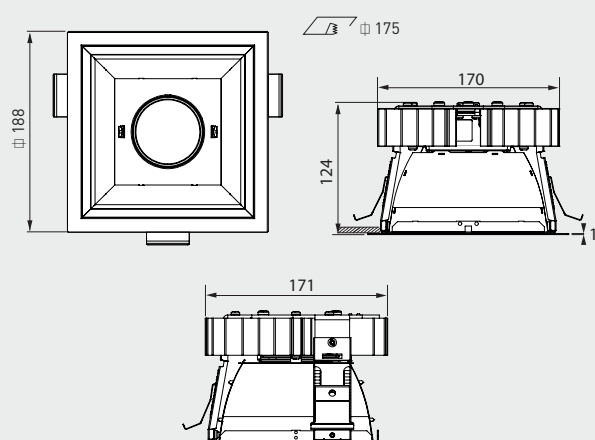


downlights

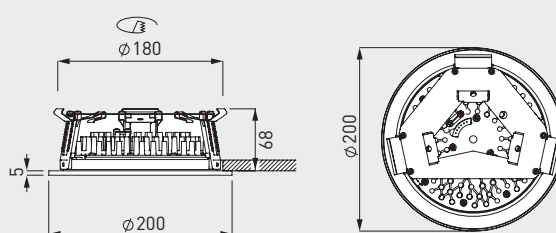
1202. D3 - with option glass border / glass plate / IP44



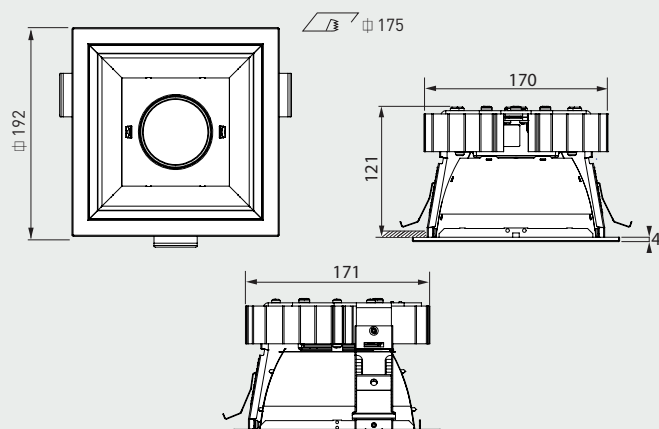
1203. D3 - with LED - wafer trim



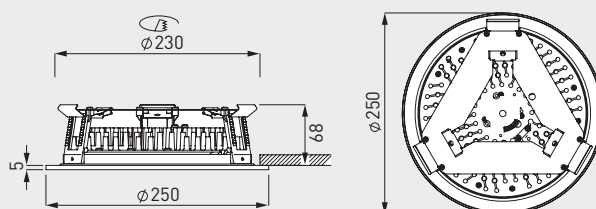
1300. D4 - 20W



1204. D3 - with LED - flat trim



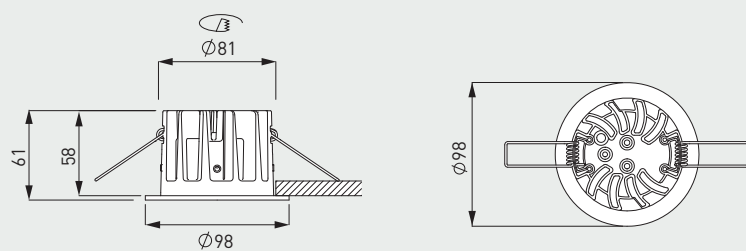
1301. D4 - 39W



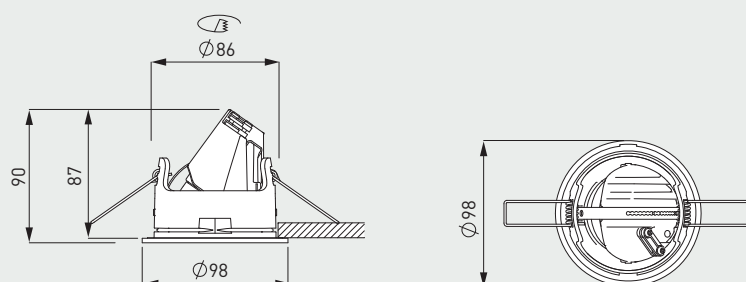
DIMENSIONAL SKETCHES

spots

2045. FLARE - fixed

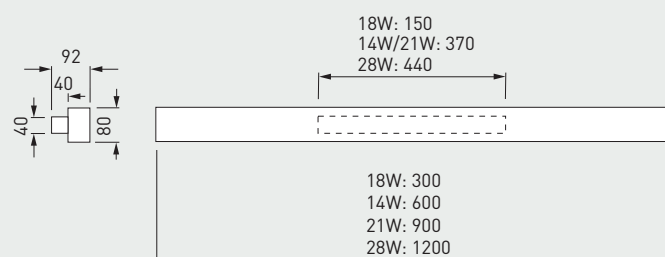


2046. FLARE - directional

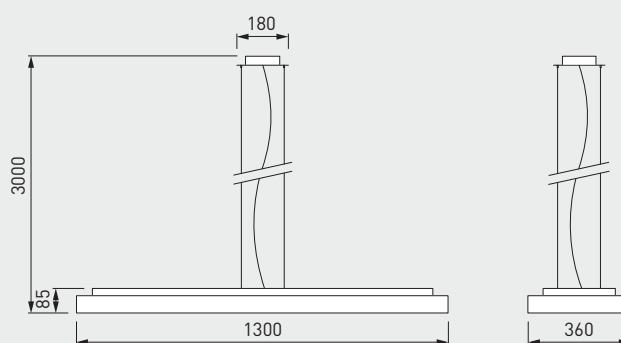


wall luminaires

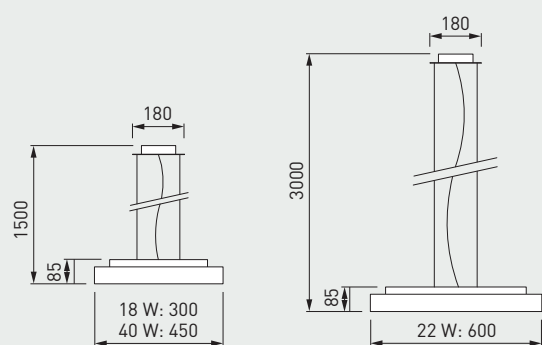
2230. **FA4**



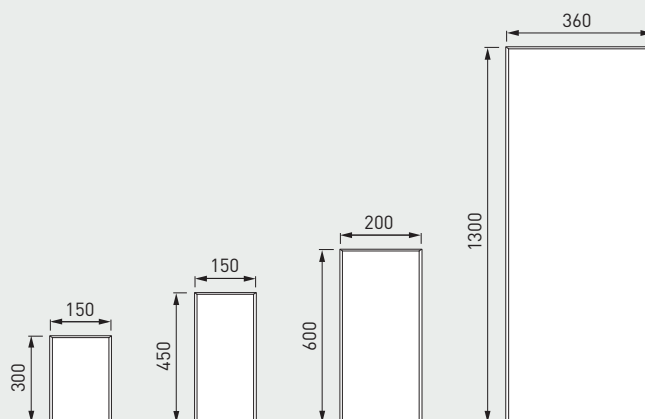
2250. **FA6** - suspension



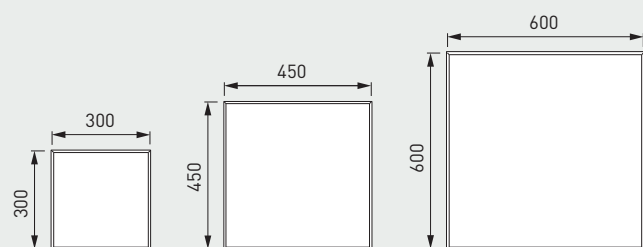
2240. **FA5** - suspension



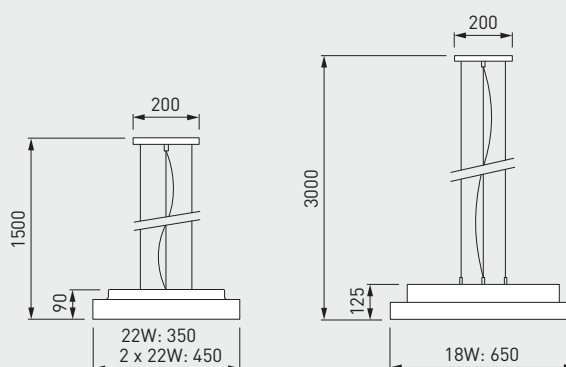
2251. **FA6** - surface



2241. **FA5** - surface



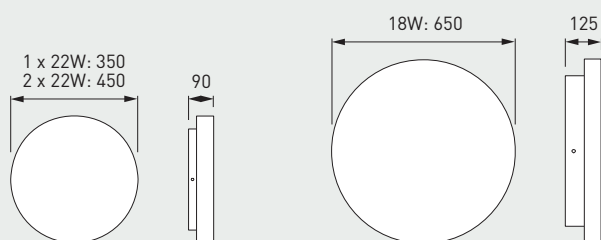
2260. **FA7** - suspension



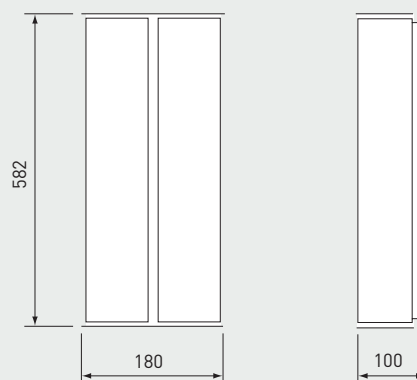
DIMENSIONAL SKETCHES

wall luminaires

2261. **FA7** - surface

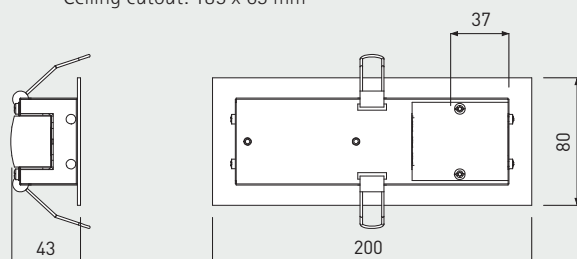


2347. **WD21**

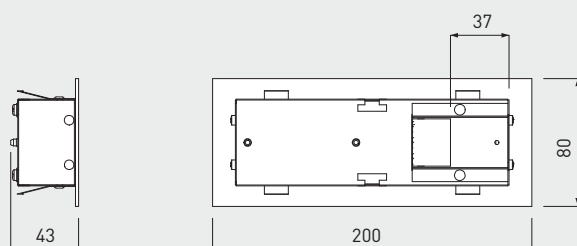


2301. **UW** - hollow wall

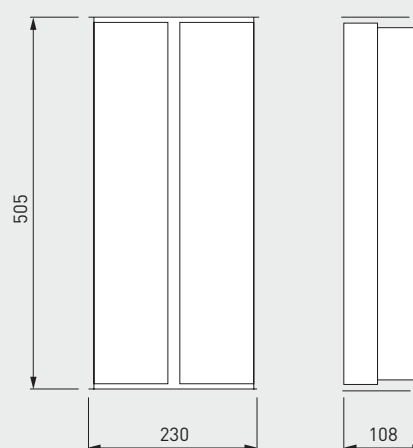
Ceiling cutout: 185 x 65 mm



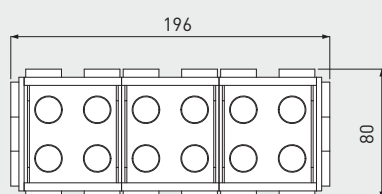
2302. **UW** - solid wall



2380. **WS56**

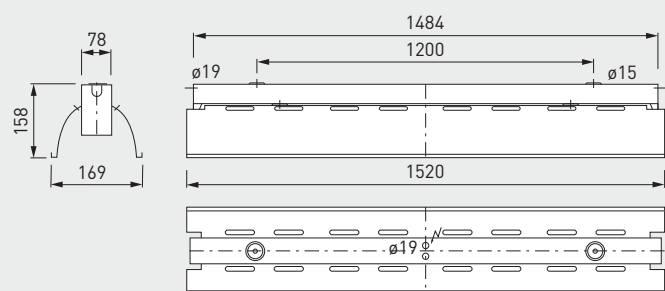


2303. **UW1H1** - recessed mounting box

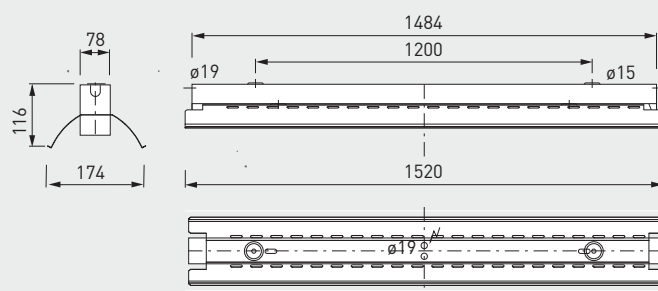


light line systems and luminaires for spaces with high ceilings

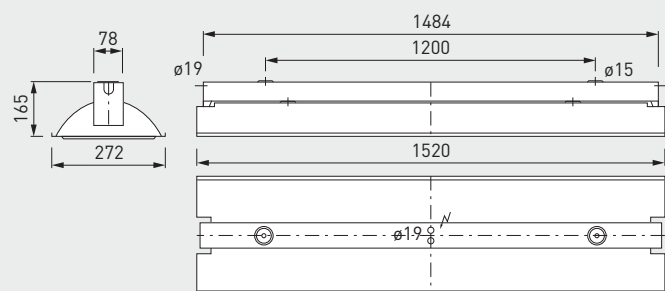
4001. **E52** - individual



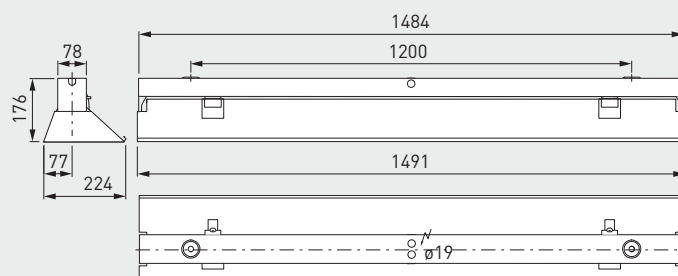
4103. **E54** - individual



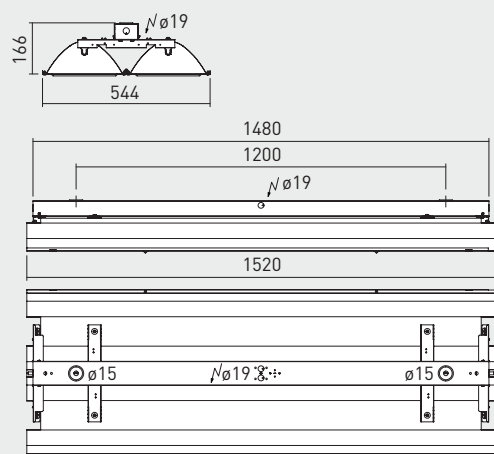
4101. **E53** - individual



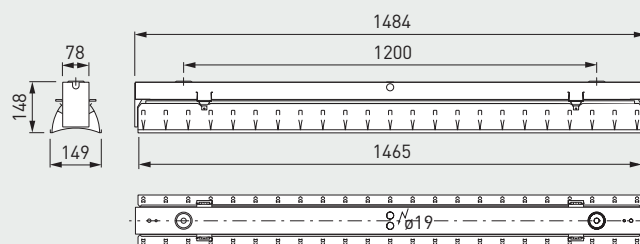
4201. **E56** - individual - asymmetrischer Reflektor



4102. **E539** - individual



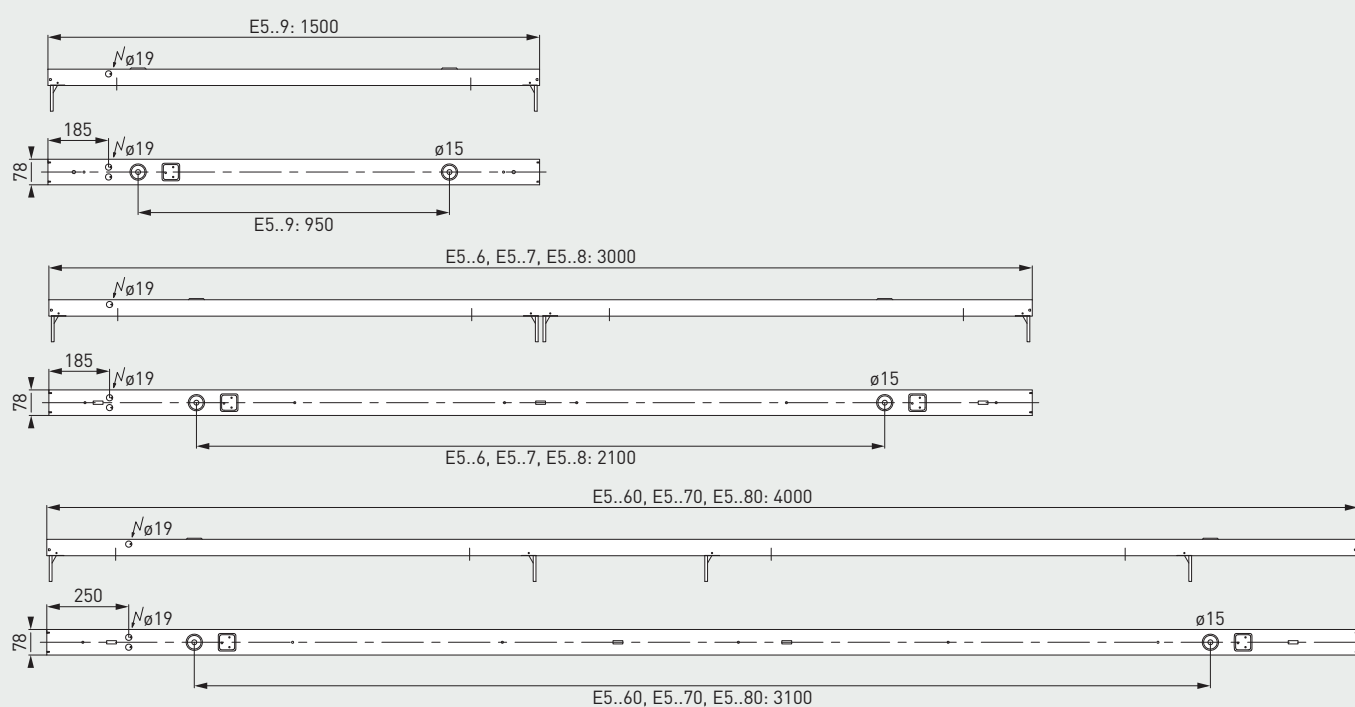
4250. **E58** - individual



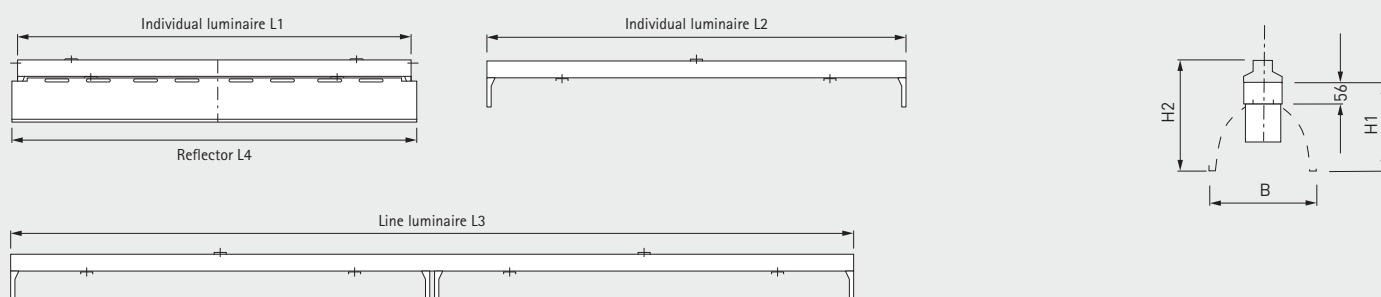
DIMENSIONAL SKETCHES

light line systems and luminaires for spaces with high ceilings

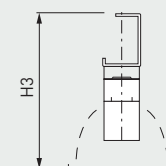
4300. E5 - in line



4301. E5 - in line

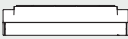
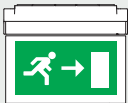
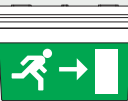


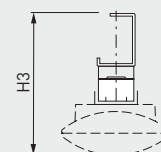
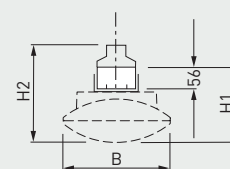
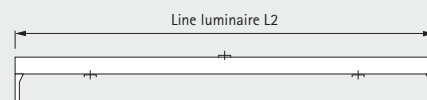
Type		Execution	L1	L2	L3	L4	B	H1	H2	H3
E52		1 x 32 W	1484	1500	3000	1520	169	158	210	295
		2 x 32 W	1484	1500	3000	1520	169	158	210	295
E53		1 x 32 W	1484	1500	3000	1520	272	165	217	302
		2 x 32 W	1484	1500	3000	1520	272	165	217	302
E54		1 x 32 W	1484	1500	3000	1520	174	116	168	253
E56		1 x 32 W	1484	1500	3000	1500	224	176	228	313
		2 x 32 W	1484	1500	3000	1500	224	176	228	313
E58		1 x 32 W	1484	1500	3000	1500	149	148	200	285
		2 x 32 W	1484	1500	3000	1500	149	148	200	285



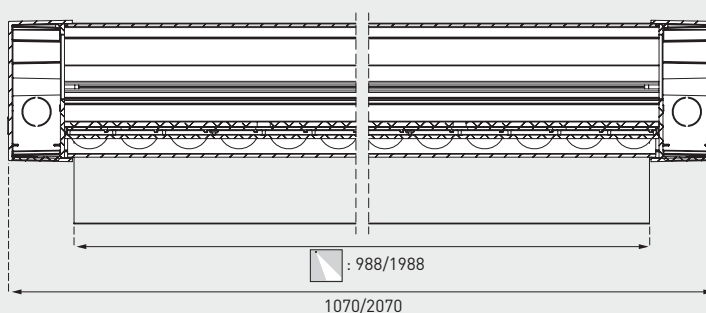
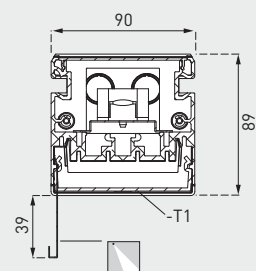
light line systems and luminaires for spaces with high ceilings

4300. E5 - in line - integration of emergency lighting

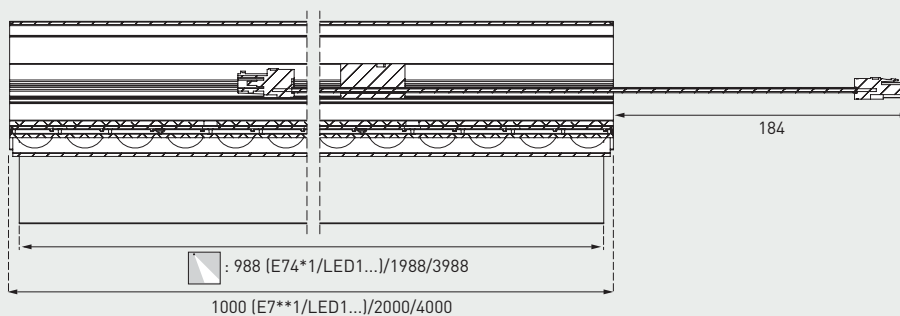
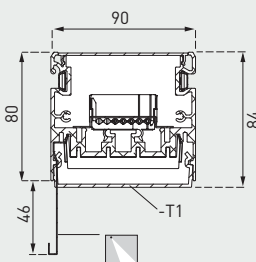
Type	Code	Lamp	L2	B	H1	H2	H3
 K1	E5009/035S.	longitudinal	1500	155	144	196	281
		transversal	1500	304	144	196	281
 K2	E5009/035S.	longitudinal	1500	155	314	366	451
		transversal	1500	304	314	366	451
 K2	E5009/035S.	longitudinal	1500	180	171	223	308
		transversal	1500	359	171	223	308
 K3	E5009/035S.	longitudinal	1500	180	296	348	433
		transversal	1500	359	296	348	433
 K3	E5009/035S.	longitudinal	1500	148	194	246	331



4351. E7 - individual



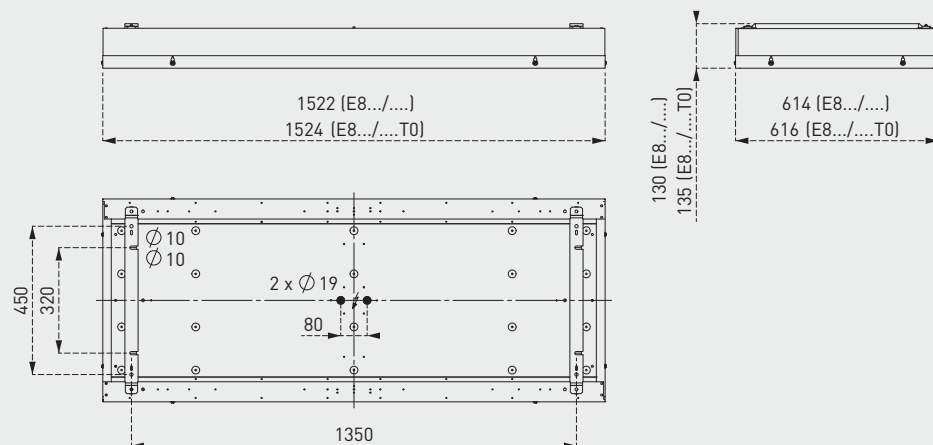
4352. E7 - in line



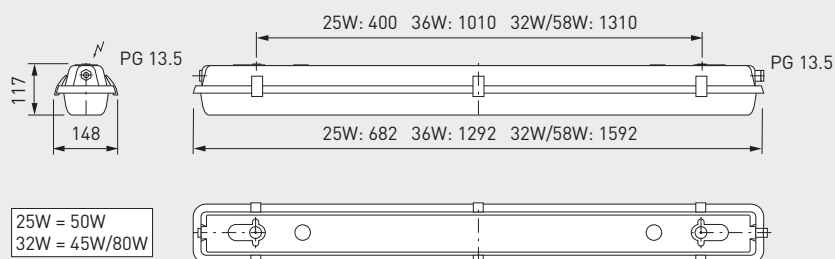
DIMENSIONAL SKETCHES

high protection factor luminaires

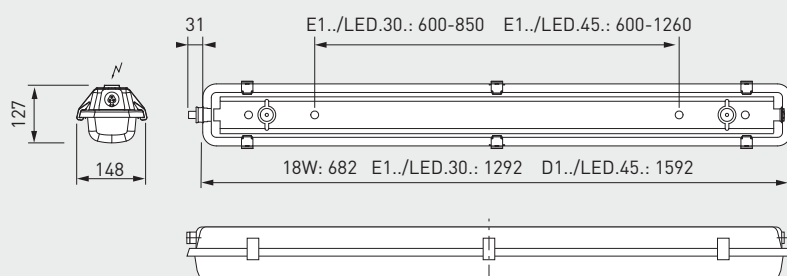
4400. E8



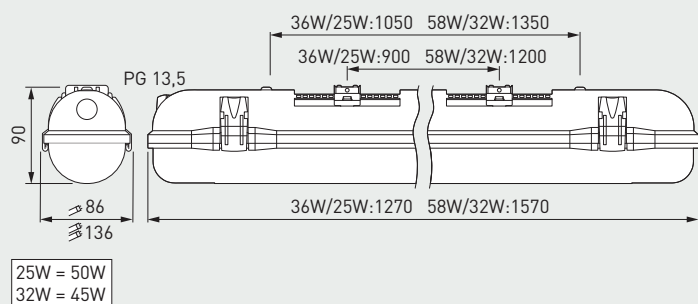
5100-5101. E1 - inox brackets are standard: variable mounting distance



5103. E1 - LED - inox brackets are standard: variable mounting distance

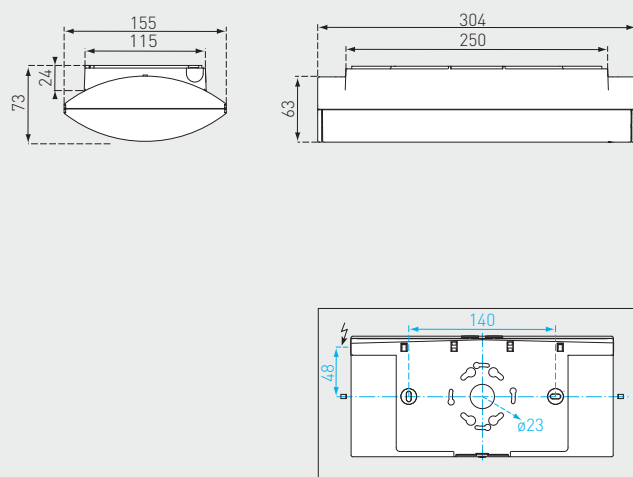


5400. E6

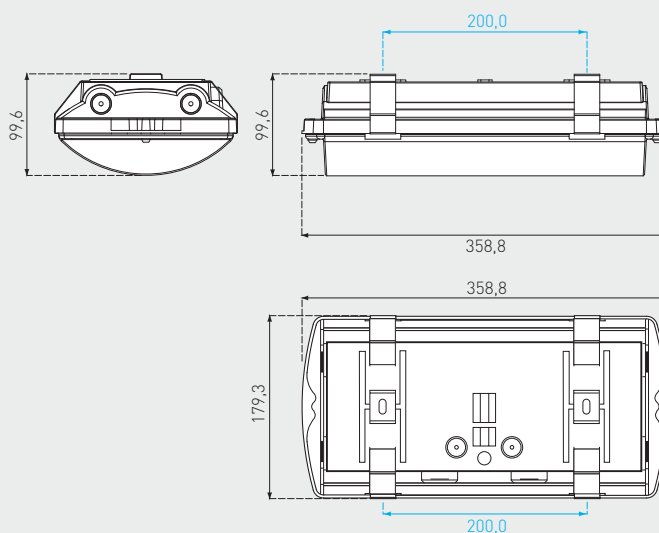


emergency lighting

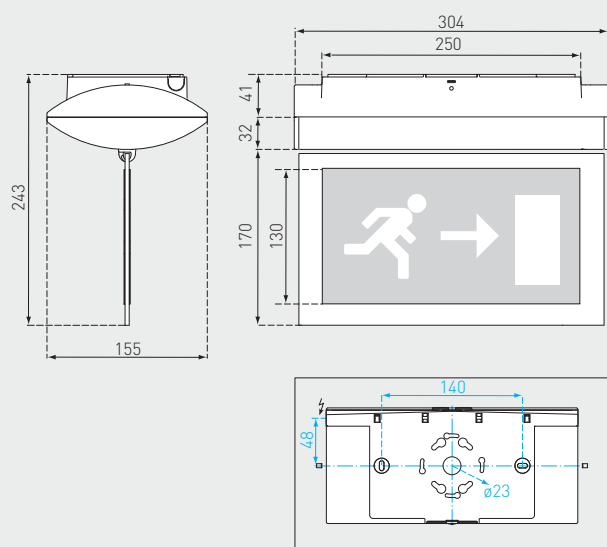
7000. K1 - lighting and single sided signage



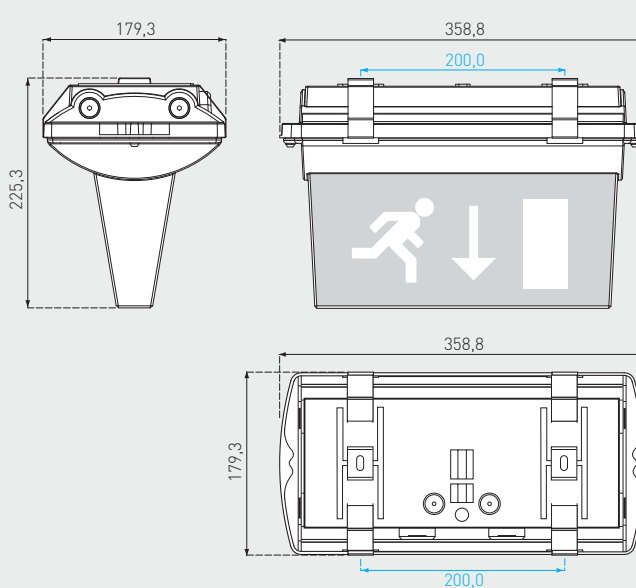
7100. K2 - lighting



7001. K1 - single and double sided signage



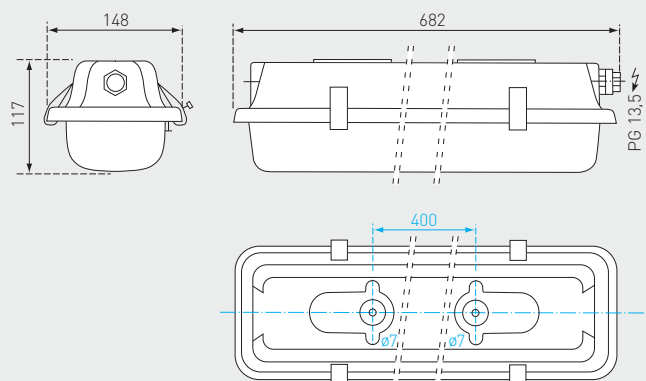
7101. K2 - single and double sided signage



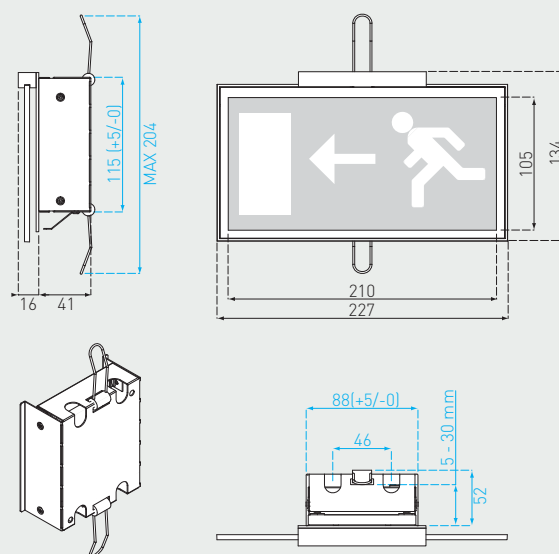
DIMENSIONAL SKETCHES

emergency lighting

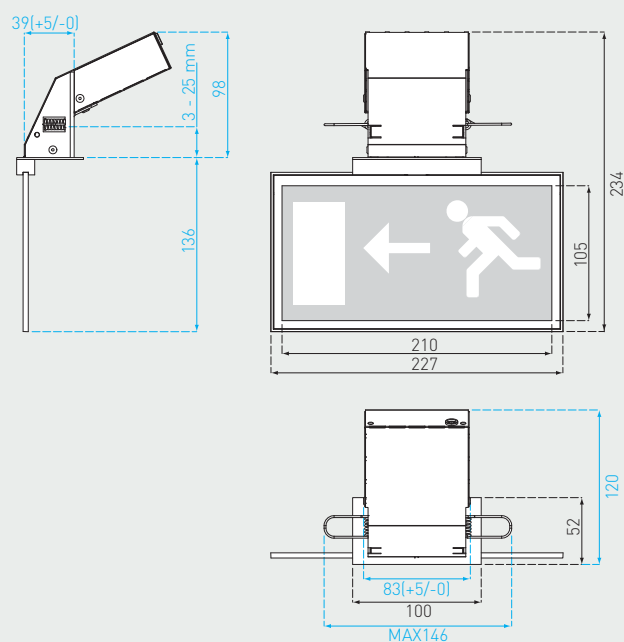
7200. **K3** - lighting and single sided signage



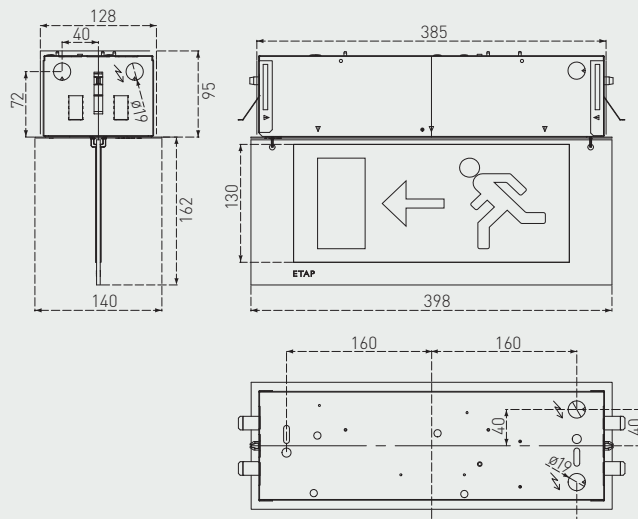
7251. **K4** - single sided signage, wall mounting



7250. **K4** - single sided signage, ceiling mounting

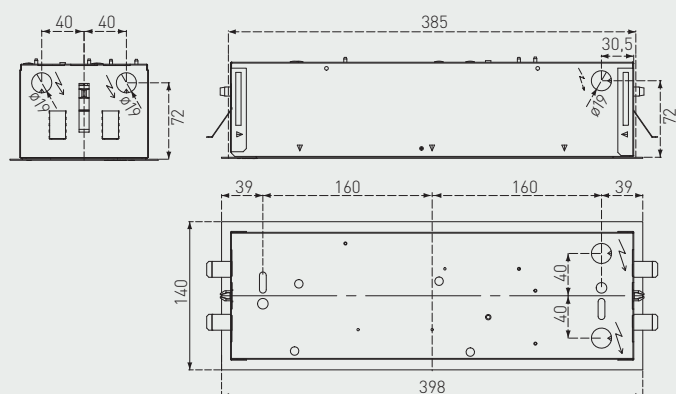


7300. **K5** - single and double sided signage

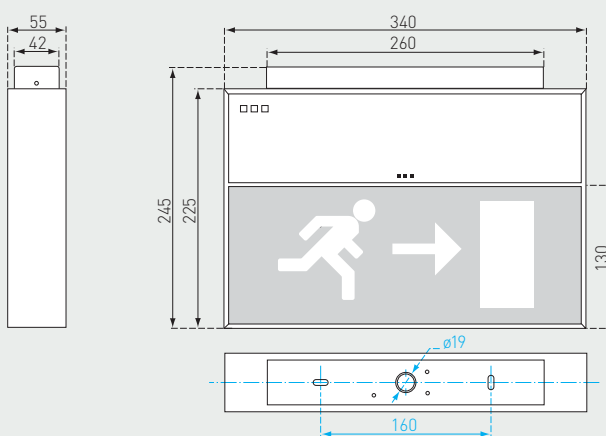


emergency lighting

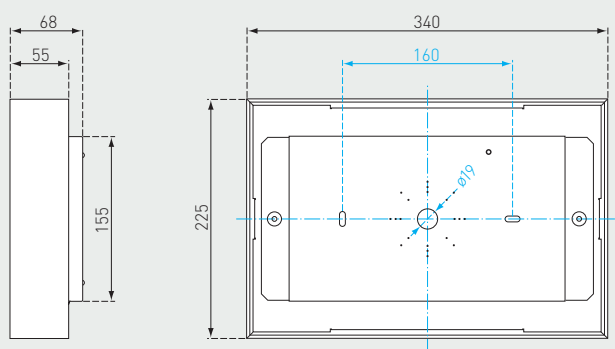
7302. **K5** - lighting and single sided signage



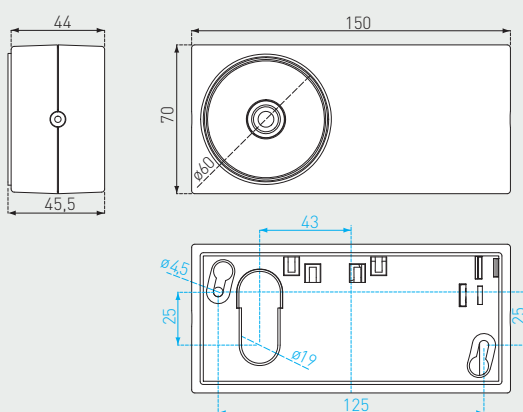
7402. **K6** - single and double sided signage



7400. **K6** - lighting and single sided signage



7500a. **K7** - lighting



emergency lighting

Technical drawing of the ETAP 182x85x52mm safe, showing three views with dimensions in mm:

- Front View (Top):** Shows the safe's width (182 mm) and height (85 mm). It features a circular handle with a diameter of $\varnothing 70$ mm and the ETAP logo in the bottom right corner.
- Side View (Left):** Shows the safe's depth (52 mm) and a vertical dimension of 53.5 mm.
- Top View (Bottom):** Shows the safe's width (182 mm) and depth (52 mm). It includes a handle with a diameter of $\varnothing 45$ mm and a lock mechanism. Dimensions for the handle area are 67 mm and 78.5 mm. A 25 mm dimension is shown for the handle's offset.

Technical drawing of the 'Kapsel' door system, showing three views with dimensions:

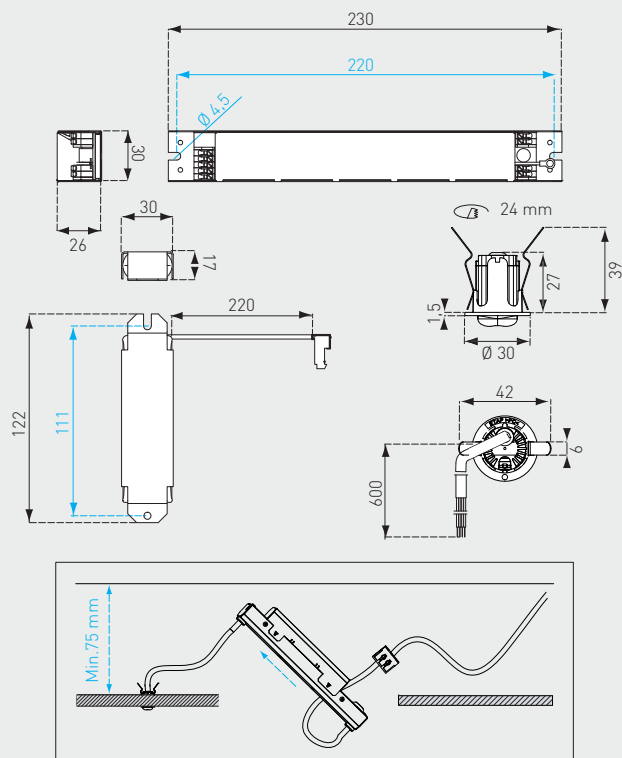
- Front View (Top):** Shows a door with a width of 314,0 and a height of 180,0. It features a large white arrow pointing down on a grey background, a white rectangular panel, and a white handle.
- Top View (Bottom):** Shows the door's footprint with a width of 205,0 and a depth of 95,0. It includes four circular handles (two on the left, two on the right) and a central circular lock mechanism. Dimensions 31 and 43,0 are also indicated for the handle area.
- Side View (Right):** Shows the door's profile with a depth of 58,0 and a handle height of 43,0.

Technical drawing of the 1000 Series LED strip light showing top, side, and detail views with dimensions:

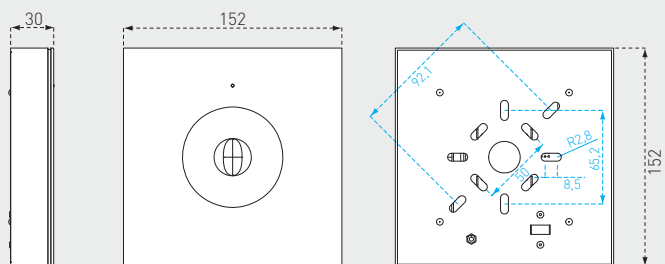
- Top View:** Overall length 230 mm, mounting hole spacing 220 mm. Mounting holes are $\varnothing 4.5$ mm.
- Side View:** Total height 30 mm, mounting tab height 26 mm, and mounting hole offset 17 mm.
- End View:** Mounting hole diameter 220 mm, mounting tab height 111 mm, and total height 122 mm.
- Detail View:** Mounting hole diameter 30 mm, mounting tab height 40 mm, and mounting hole offset 20 mm.
- Detail View:** Mounting hole diameter 30 mm, mounting tab height 600 mm, and mounting hole offset 30 mm.
- Installation View:** Minimum mounting height 75 mm.

emergency lighting

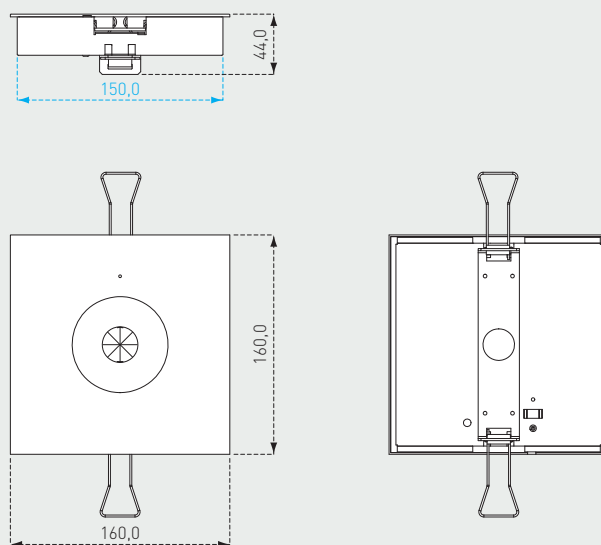
7701. **K9** - mini - with trim



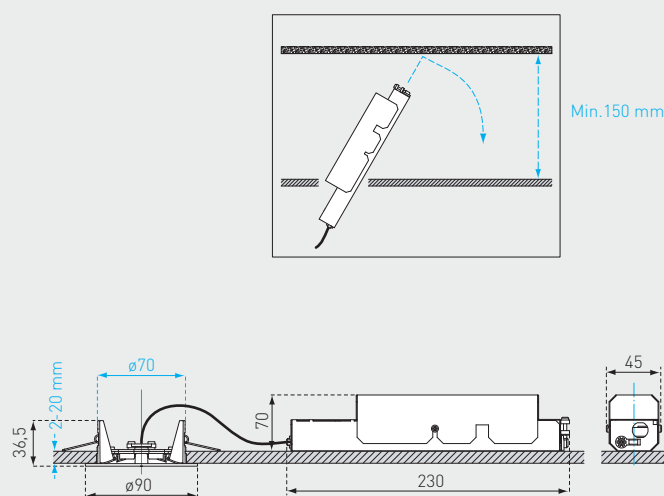
7704a. **K9** - lighting - square - surface



7704b. **K9** - lighting - square - recessed



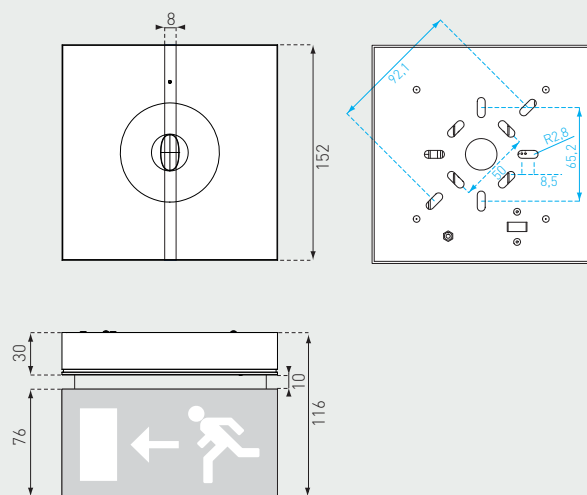
7704c. **K9** - lighting - round



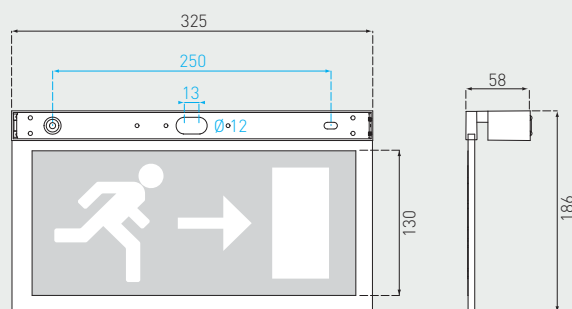
DIMENSIONAL SKETCHES

emergency lighting

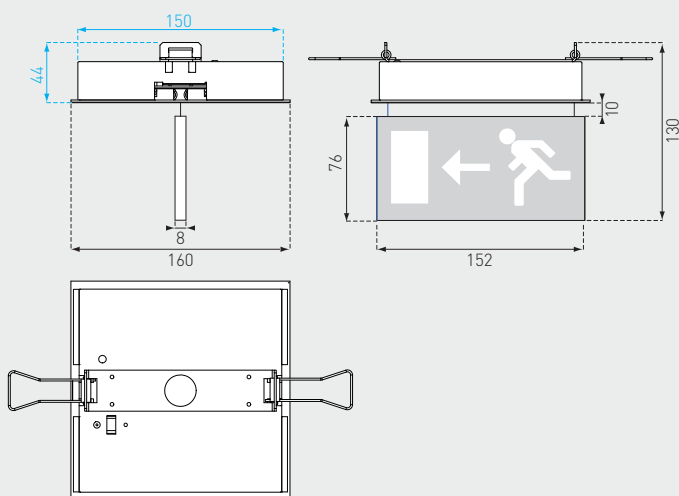
7708a. **K9** - signage with viewing distance = 15 m, surface mounting



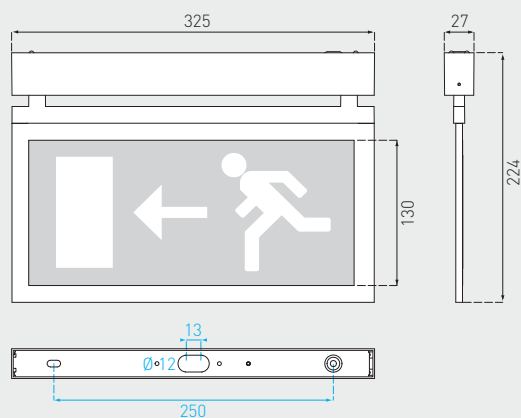
7709a. **K9** - signage with viewing distance = 26 m, wall mounting



7708b. **K9** - signage with viewing distance = 15 m, recessed

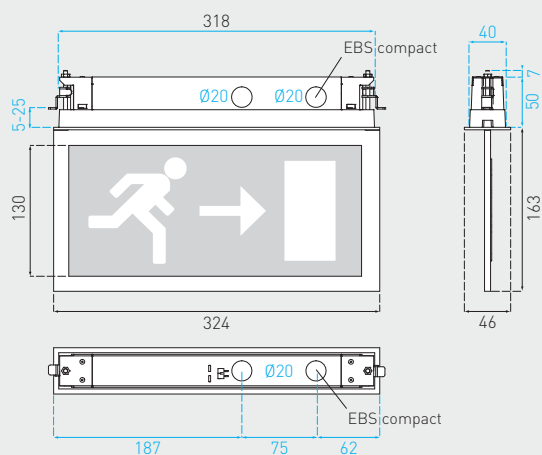


7709b. **K9** - signage with viewing distance = 26 m, ceiling mounting

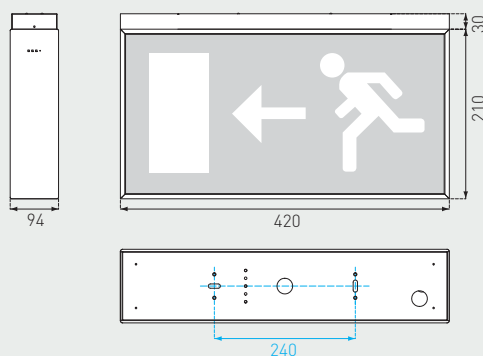


emergency lighting

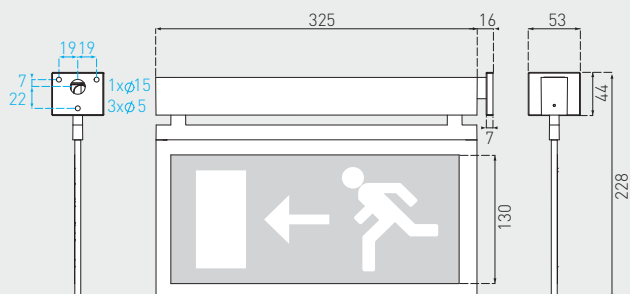
7709c. **K9** - signage with viewing distance = 26 m,
recessed



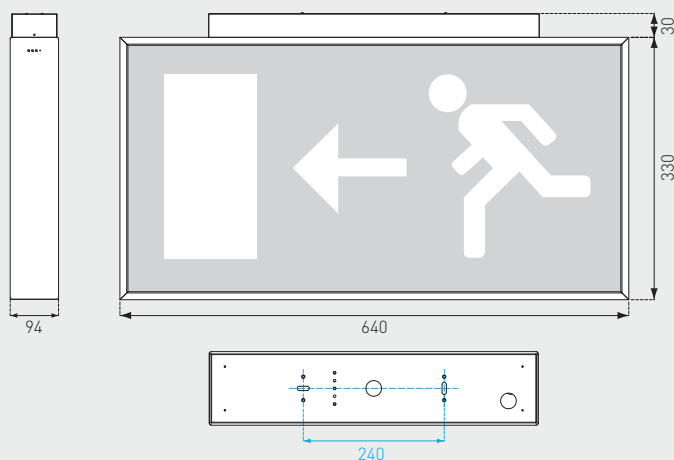
7900. **KL7**



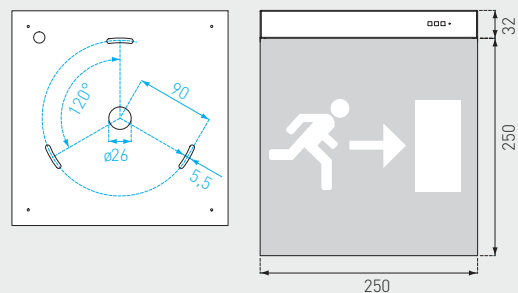
7709d. **K9** - signage with viewing distance = 26 m,
right angle wall mounting



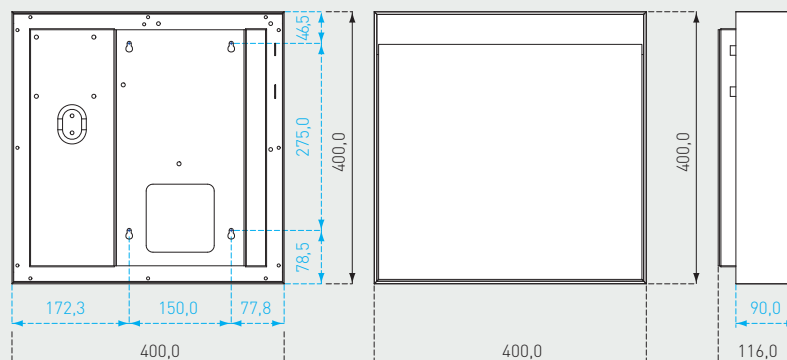
7901. **KL8**



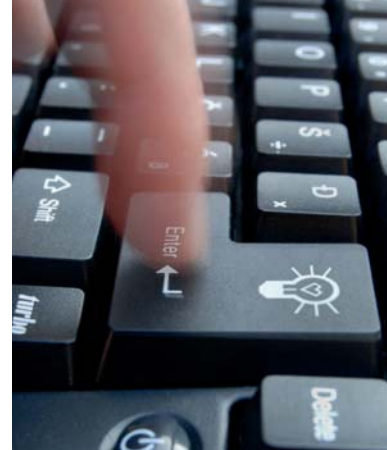
7902. **KL9**



8000. **EBS Compact**







webref. SA045A3

ETAP NEWS

Would you like to be kept abreast of the latest developments in energy efficient lighting? Make sure to regularly check out the news section on our website. Or subscribe to our monthly electronic newsletter "ETAP News and Views".

In "ETAP News and Views" we give brief information and tips regarding:

- the application of LEDS in lighting and emergency lighting
- energy efficient lighting installations, including interesting cases
- the integration of light and architecture
- new ETAP luminaires and light control systems
- changes in legislation and regulation concerning (emergency) lighting
- ...and a lot more

Interested? Go to www.etaplighting.com - more news - newsletter and subscribe online. You will receive the newsletter in your mailbox every month. We treat your data with the greatest of care. you will only receive news from us if we truly have something to tell you. Your data will not be passed on to third parties.

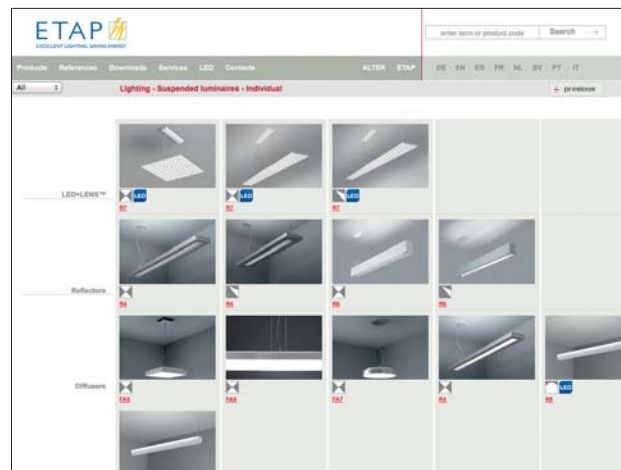


ETAPLIGHTING.COM

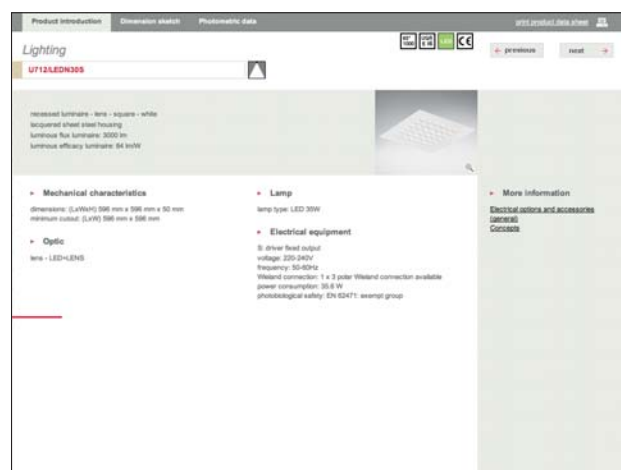
On our website you can find much more information about ETAP and ETAP products and services.

ABOUT OUR LUMINAIRES

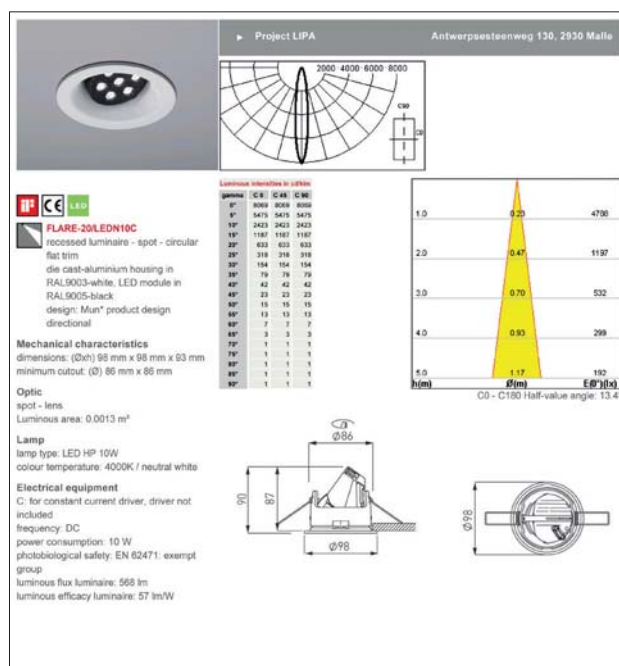
In our interactive, up-to-date product database you will quickly and easily find the luminaire you are looking for.



Simple navigation thanks to a clear picture overview.



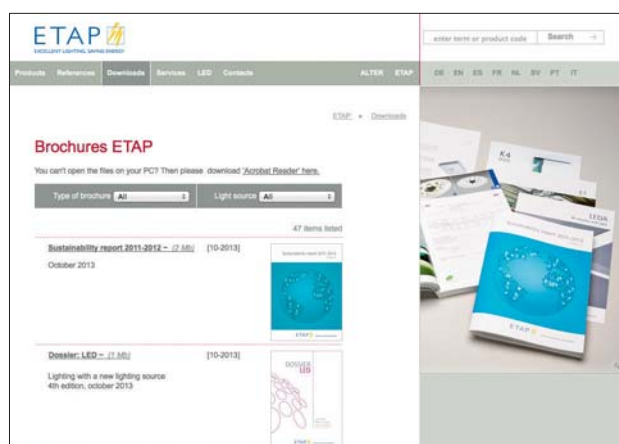
All luminaires are presented with detailed technical information, photometric data, dimensions, protection levels, mounting instructions, etc..



All this information can be printed out neatly on a single page. You can also personalise the print-outs by inserting your own project and address data.

DOCUMENTATION

You can also download and view other useful information such as brochures, technical documents, our Dialux plug-in, etc. All our project and product photographs that appear in this catalogue with a web reference number (webref.) can also be found at our website.



DIALUX

DIALux is a popular, commonly used and extensive light calculation program with powerful features for creating 3D renderings of lighting projects. To use DIALux with our luminaires, you need to download our plugin from www.etaplighting.com - downloads - photometric data. Or you can use the online plugin or our electronic product catalogue.

The DIALux program can be downloaded at www.DIAL.de



ETAP WARRANTY POLICY

1. SCOPE

The ETAP warranty policy applies to all products and systems supplied by ETAP delivered and invoiced after March 1st 2011:

- Luminaires with traditional light sources: fluorescent, HID
- Luminaires with LEDs
- Emergency lighting luminaires
- Systems for light management
- Systems for emergency lighting management

2. WARRANTY PERIOD

ETAP guarantees that its products are free from manufacturing defects and/or defect material for the guarantee period of 5 years after installation (t.i. 30 days after the goods have been made available in the plant in Malle), with the exception of the products mentioned hereunder:

- Fluorescent lamps and HID lamps: 1 year warranty
- Batteries of emergency lighting units integrated in fluorescent fittings to drive the fluorescent lamp in emergency mode: 2 years warranty
- Systems for light management (Excellum) without maintenance contract: 1 year warranty
- Systems for emergency lighting management (EBS-ESM) without maintenance contract: 2 years warranty

3. WARRANTY CONDITIONS

The warranty only applies if:

- the products have been properly installed and put into service in a workmanlike manner, according to the installation instructions accompanying the product¹
- the products have not undergone any changes or repair works without written consent of ETAP
- the products have been operated within the electrical values, operating range and environmental conditions provided in the specifications, application guidelines, IEC standards or any other document accompanying the products; the guarantee is not applicable in case of abnormal electrical supply conditions, including supply spikes, overvoltage and undervoltage that are beyond the specified limits of the products or those defined by relevant supply standards
- the defects are not the result of force majeure

¹ See www.etaplighting.com for installation instructions of our products



webref. SA047E1

4. NOTICE OF DEFECTS

- Defects during the guarantee period should be advised to ETAP within 30 days of discovery, specifying at least the following information:
 - Identification and quantities of the products failed
 - Invoice date and installation date
 - Detailed problem description
 - The application, the number of hours burned and the switching cycles
- If a defect during the guarantee period is advised to ETAP, an ETAP representative shall be entitled to have access to the failed product or system for verification of non-compliance.
- Defect materials have to be returned to ETAP and will –after replacement by ETAP– become the property of ETAP.

5. WHAT IS GUARANTEED

If ETAP determines that the notified product defect satisfies the warranty conditions, ETAP will, at its options:

- Repair the product or the defective part
- Replace the product or the defective part
 - Either by a product or a part of the same type as the defective one
 - Either by a comparable product or part that can show small deviations in design and product specification, in case the defective product or part has been discontinued or is not available
- Reimburse the purchaser for the purchase price, in case the product or part has been discontinued or is not available, and ETAP has no possibility to supply a comparable product or part

6. WHAT IS NOT GUARANTEED

The guarantee does not apply to damages that are not explicitly mentioned under point 5, among which:

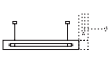
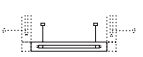
- Any ancillary costs incurred in connection with remedying the defects, such as the costs of installation and dismantling, transport of the defective and of the repaired or new product, disposal, mileage, travel time and of providing access to the defect products (scaffolding, lifts etc.)
- In case of repair or replacement of a defective part, the cost for dismantling the defective part and mounting the repaired part or the replacement part.
- Any services that may be necessary, such as renewed commissioning, software updates etc. and that are not covered by a maintenance contract.
- Any damage to other goods than the products supplied by ETAP or losses associated with the professional activity of the purchaser or the persons for whom he is held liable.

REGISTER

HEADING

module	luminaire suitable for the indicated ceiling module
lamp type	number of lamps and lamp power (see also p. 352)
$L_{av-limit}$	limit value of the average luminance expressed in cd/m^2 for the indicated cut-off angle. This value all round the luminaire for the standard lamp position (see also p. 332)
UGR	glare limit for standard lamp position (see also p. 333)
η	total efficiency expressed as a %
L x W x H	dimensions of the luminaire expressed in mm (length x width x height)
plan N.	number of the detailed dimension sketch as can be found as of p. 378
air	surface of air extraction openings expressed in cm^2
	• integration of an emergency unit is a standard option - no standard option; contact ETAP if necessary
lm/W	luminaire's specific luminous flux
lumen luminaire	luminaire's total luminous flux

ORDER CODE SYMBOLS

Ceiling mounted	Suspended	
		Individual luminaire, single lamp length
		Individual luminaire, double lamp length
		End luminaire
		End luminaire with angular coupling piece 90° on one side
		Intermediate luminaire (of end luminaire for R8)
		Intermediate luminaire with angular coupling piece 90° on one side
		Intermediate luminaire with angular coupling piece 90° on both sides
		Line section with double lamp length and lamp left
		Line section with double lamp length and lamp right
		Line section with double lamp length and lamps left and right
		Line section with single lamp length and ballast

ICONS

	ATEX certified
	battery - NiMH NickelMetalHydride
	fire safety (see technical classifications on page 339 for more information)
	CE mark
	IF-award
	wireless network
	ENEC mark
	ETAP Battery System (EBS)
	ETAP Safety Manager (ESM)
	European Safety Test, autom. selftest (EST)
	European Safety Test, autom. selftest (EST+)
	European Safety Test, autom. selftest (EST ^{UPG})
	IP protection level (see technical classifications on page 338 for more information)
	light source, compact fluorescent lamp
	light source, linear fluorescent lamp
	light source, LEDs
	impact resistance (see technical classifications on page 338 for more information)
	impact test
	fire resistance class, filament test (see technical classifications on page 339 for more information)
	
	light distribution
	class I
	class II or double insulated
	class III or SELV



D10	115	R16	51	U712	20
D11	114	R45	55	U713	21
D12	115	R4860	55	U714	20
D13	114	R4861	59	U715	21
D14	116	R4862	57	U717	21
D15	116	R4863	61	U718	20
D16	116	R4864	57	U721	22
D18	116	R4865	61	U722	20
D21	120	R4866	58	U723	22
D22	121	R4867	62	U724	20
D23	120	R4868	58	U725	22
D30	125	R4869	62	U727	22
D31	124	R4870	55	U728	20
D36	125	R4871	59	U751	23
D4	129	R4872	57	U753	23
E1	188	R4873	61	U755	23
E52	157	R4874	57	U757	23
E53	159	R4875	61	UM10	27
E54	161	R4876	58	UM11	27
E56	162	R4877	62	UM2	30
E58	163	R4878	58	US01	36
E6	197	R4879	62	US11	37
E70	170	R4901	59	US21	38
E71	172	R4F00	63	UT186	42
E72	175	R4F01	64	UT187	42
E74	177	R4F02	63	UT6	45
E82	182	R4F03	64	UW	145
E86	183	R4F04	63	V1M13	101
EASYDIM	285	R4F05	64	V1M14	101
EBS	309	R4J00	63	V1M18	101
ELS	279	R4J01	64	V1M1B	104
EMD	281	R4J02	63	V1M1F0	103
ESM	301	R4J03	64	V1M1J	103
EXCELLUM	293	R4J04	63	V1MC1	105
FA4	139	R4J05	64	V1MC7	105
FA5	141	R6000	68	V1MK9	105
FA6	142	R6860	68	V2M11	93
FA7	143	R6861	69	V2M14	95
FLARE-1	133	R6001	69	V2M17	93
FLARE-2	133	R710	75	V2M18	95
K11	203	R711	78	V2M1B	96
K13	205	R712	77	V2M1F0	93
K14	206	R713	79	V2M1F00	95
K17	203	R714	77	V2M1J0	93
K21	211	R715	79	V2M1J00	95
K22	221	R720	75	V2MC1	97
K23	213	R721	78	V2MC7	97
K24	214	R722	77	V2MK9	97
K27	211	R723	79	WD	147
K28	211	R724	77	WS	149
K3	218	R725	79		
K4	223	R750	75		
K5R1	227	R751	78		
K5R3	227	R752	77		
K5R4	229	R753	79		
K61	233	R754	77		
K62	236	R755	79		
K63	233	R8F00	82		
K64	235	R8F01	83		
K65	236	R8F02	82		
K71	242	R8F03	83		
K72	242	R8J00	82		
K76	242	R8J01	83		
K73	246	R8J02	82		
K74	246	R8J03	83		
K9R0	251	R8J10	82		
K9R1	253	R8J20	82		
K9R2	255	R8J21	82		
K9R3	253	R8J30	82		
K9R4	259	R8J31	82		
K9R5	259	RS	85		
KL7	264	SMART GUIDANCE	315		
KL8	264	U586	14		
KL9	265	U587	14		
R14	50	U587...TO	14		
R15	50	U711	21		

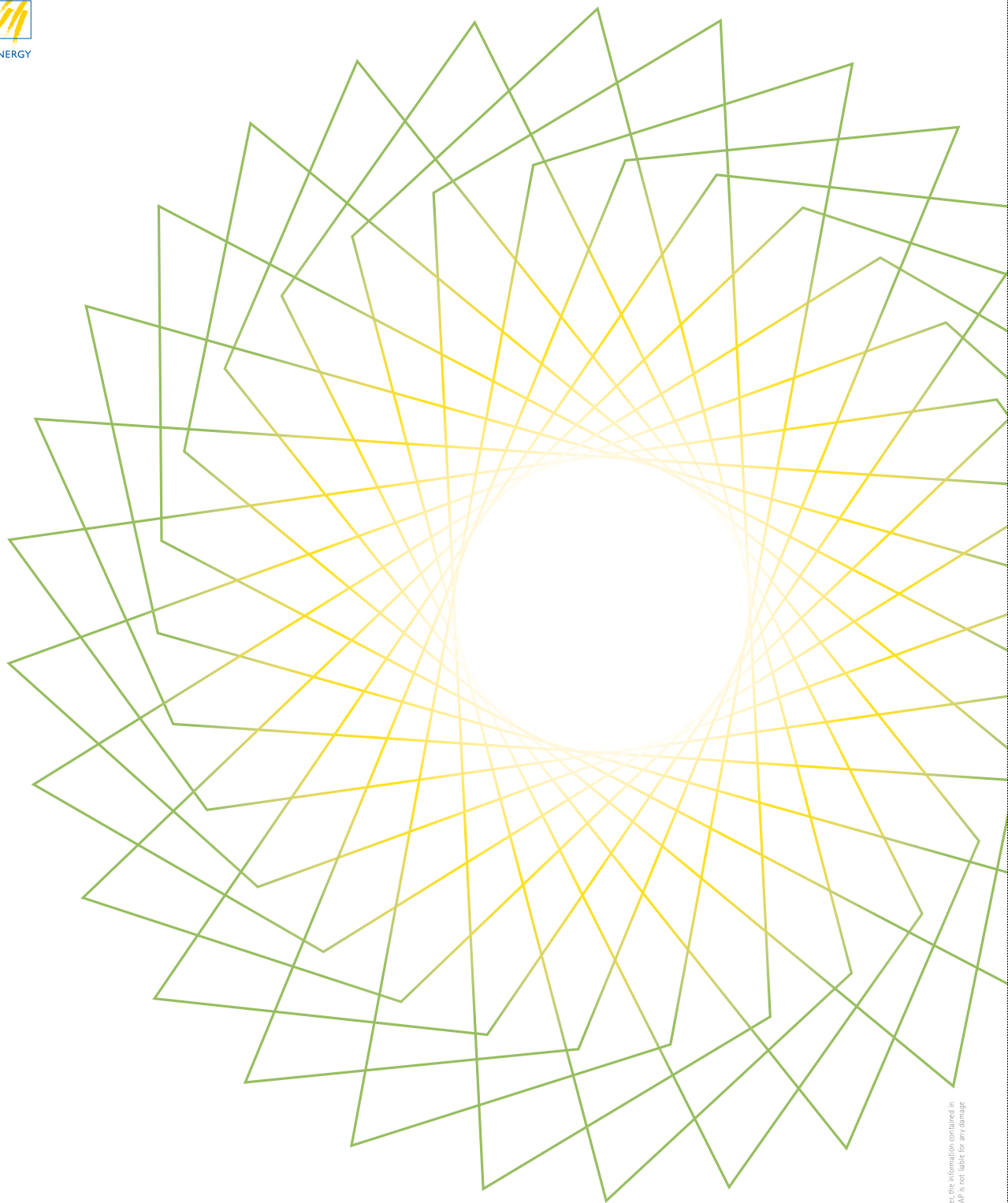


Mixed Sources

Product group from well-managed
forests and other controlled sources

www.fsc.org Cert no. SGS-COC-003332

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www.etaplighting.com

UK

ETAP NV

Progress Business Centre
7 Whittle Park Way
Slough
Berkshire SL1 6DQ
Tel. +44 (0)16 28 55 96 50
Fax +44 (0)16 28 55 90 12
enquiries@etaplighting.com

Export

ETAP Export Department

Antwerpsesteenweg 130
B-2390 Malle – Belgium
Tel. +32 (0)3 310 02 11
Fax +32 (0)3 311 61 42
export@etaplighting.com

Poland

ETAP NV

Spółka Akcyjna Oddział w Polsce
ul. Leopolda Okulickiego 12A
05-500 Piaseczno
Tel. +48 22 701 8125
info.pl@etaplighting.com

Dubai

ETAP U.A.E.

Energy & Environment Park
Nucleotide Lab Complex, 2nd floor, Office EO 01
PO BOX 345014, Al Barsha
Dubai, UAE
Tel. +971 (0)4 434 73 64
Fax +971 (0)4 437 03 78
export@etaplighting.com