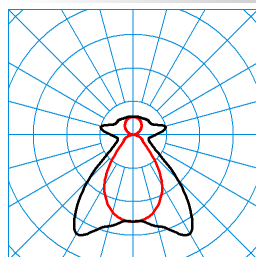


Product features and key data

Luminaire type	Multi-variable and modern tube luminaire with 75 mm profile diameter.		
Mounting method	Surface-mounting Suspension		
Luminaire optic	Cylindrical profile with photometrically effective prismatic structure as secondary optic.		
LED-System	Multi-component 1	Multi-component 2	Comp. total
Connected load	23 W	4 W	27 W
Power factor	0,95		
Colour temperature	4.000 K	4.000 K	4.000 K
Rated luminous flux	3.150 lm	1.350 lm	4.500 lm
Luminous efficacy	136 lm/W	337 lm/W	166 lm/W
Interchangeability lightsource	Yes - interchangeable		
Service life	L80 (25 °C) = 100.000 h		
Colour rendering index	80		
Colour tolerance	3 SDCM		
Photobiological class	Group 0 - no risk		
Luminaire colour	RAL9016 Traffic white		
Luminaire body	PMMA luminaire profile.		
Electrical version	With 2 electronic ballasts, switchable.		
Connection method	Plug-in terminal		
Mains frequency	0/50/60 Hz		
Mains voltage	220 - 240 V		
Ingress Protection (IP) rating	IP66		
Protection rating on room side	IP66		
Protection class	I		
Impact resistance (IK)	IK03		
Hot wire resistance	650 °C		
Ambient temperature	25 °C		
Max. Luminaires B10	18		
Max. Luminaires B16	30		
Max. Luminaires C10	32		
Max. Luminaires C16	50		
Net length	1.287 mm		
Net width	75 mm		
Net height	75 mm		
Outside diameter	75 mm		
Weight	3,1 kg		

light distribution curve

TugraHE+ 12 PW19-IL 45-840 ET 01
TX303469
C0 - C180
C90 - C270

UGR I = 15,7
UGR q = 18,3
DIN 5040: B42
UTE: 0,69 D + 0,31 T
CEN Flux Code: 57 84 93 69 100 26 51 78 31

Available accessories

Material	Description
Tugra ZLV/315/12 8116600	Through-wiring, 3-core. For luminaires from seriesTugra 12...
Tugra ZLV/515/12 8116700	Through-wiring, 5-core. For luminaires from seriesTugra 12...
Tugra ZLV/715/12 8116800	Through-wiring, 7-core. For luminaires from seriesTugra 12...
Tugra ZSDT/2000 8117800	Wire suspension for luminaires of series Tugra. With loop for ceiling suspension. With metal clamp for use of triangle.
Tugra ZSDD/2000 8117900	Wire suspension for luminaires of series Tugra. With decorative ceiling connection. With threaded sleeve for attachment to mounting clip.
Tugra ZSSD/2000 8118000	Wire suspension for luminaires of series Tugra. With loop for ceiling suspension. With threaded sleeve for attachment to mounting clip.
Tugra ZBRS 8118100	Tube clip for wall and ceiling mounting and also suitable for suspended mounting by means of separate accessories. Packaging unit has 1 piece.
Tugra ZBWM 8118200	Pivotable mounting brackets for wall mounting. Packaging unit 2 pieces.
Tugra ZB V2A 8118300	Standard stainless steel mounting clips (2 pieces, V2A) for wall and ceiling fixing with triangle for holding components for suspended mounting.
Tugra ZB V4A 8118400	Stainless steel mounting clips (2 pieces, V4A) for wall and ceiling fixing with triangle for holding components for suspended mounting. Design is particularly suitable for use in environments with chlorine and saline atmospheres.
Tugra ZBATL 8118500	Disassembly protection for horizontal wall mounting. 1 set= 2 pieces.
Tugra ZSST/2000 8118900	Wire suspension for luminaires of series Tugra. With decorative ceiling connection. With metal clamp for use of triangle.

Offer text

Multi-variable and modern tube luminaire with 75 mm profile diameter. Suitable for use in HACCP, IFS version 6 and/or BRC Global Standard Food version 7 certified companies (DIN 10500). Luminaire with limited surface temperature in accordance with DIN EN 60598-2-24, suitable for use in work locations exposed to fire hazards. For wall and ceiling mounting. Standard stainless steel mounting clips (2 pieces, V2A) with triangle included in the scope of supply. Optional accessories enable further mounting concepts. As single luminaire or for continuous line use. The continuous mounting channel of the luminaire body enables very high flexibility in positioning the fixing points. The packaging is made of recyclable cardboard, plastic-free. Multiple packaging with 28 luminaires as well as project packaging with 108 luminaires per packaging unit further reduce the general consumption of resources in the overall process. Cylindrical profile with photometrically effective prismatic structure as secondary optic. With opal profile area above and translucent profile area below the mounting channel. With wide light distribution. Direct-indirect distribution, Division of total light distribution (direct/indirect): 70 / 30. Glare evaluation according to UGR rating (EN 12464-1) < 19. Luminaire luminous flux 4500 lm, connected load 27,00 W, luminous efficiency of luminaire 166 lm/W. Light colour neutral white, correlated colour temperature (CCT) 4000 K, general colour rendering index (CRI) $R_a > 80$. Colour locus tolerance (initial MacAdam) ≤ 3 SDCM, Mean rated service life L80(t_q 25 °C) = 100,000 h. The light source is replaceable according to the ecodesign requirements (VO (EU) 2019/2020). PMMA luminaire profile. End cap colour white, (RAL 9016). End cap made of thermoplastically fused PMMA / TPE with high-quality, matt surface structure and surface finish according to VDI24. The end cap is equipped with 3 self-sealing membranes for cable cross-sections 7 mm - 13 mm as well as 3 pre-stamped feed points for PG cable glands (M20/M25) for protection rating-compliant infeed (IP66). The end cap is connected to the profile cylinder via a bayonet lock. Standard end caps included. Luminaire length 1287 mm, Luminaire height 75 mm, Ø

Luminaire body 75 mm. The gear tray is fixed to the luminaire profile with transparent devices to avoid shadowing. Permissible ambient temperature (ta) -40 °C - 45 °C. Safety class (EN 61140): I, protection rating (DIN EN 60529): IP66, impact resistance level in accordance with IEC 62262: IK03, testing temperature of wire glow test in accordance with IEC 60695-2-11: 650 °C. Weight: 3,1 kg. The connection is made by means of a plug-in terminal with mains forwarding equipment. The barrier free cable duct inside the luminaire profile facilitates the insertion of optional through-wiring or alternative uses, e.g. installing network cables. With 2 electronic ballasts, switchable. The luminaire is suitable for operation on a 230V direct voltage supply grid (DC). The ENEC certification by an independent testing laboratory is in preparation. The luminaire complies with the fundamental requirements of applicable EU regulations and product safety legislation and bears the CE symbol.

EPREL ID

D: 85400884