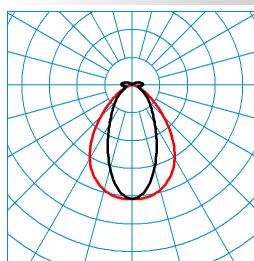

**Product features and key data**

<b>Luminaire type</b>	Multi-variable and modern tube luminaire with 75 mm profile diameter.
<b>Mounting method</b>	Surface-mounting Suspension
<b>Luminaire optic</b>	Cylindrical profile with photometrically effective prismatic structure as secondary optic.
<b>Connected load</b>	48 W
<b>Power factor</b>	0,95
<b>Colour temperature</b>	4.000 K
<b>Rated luminous flux</b>	8.000 lm
<b>Luminous efficacy</b>	166 lm/W
<b>Interchangeability lightsource</b>	No - Protection against intrus
<b>Service life</b>	L80 (25 °C) = 70.000 h
<b>Colour rendering index</b>	80
<b>Colour tolerance</b>	3 SDCM
<b>Photobiological class</b>	Group 0 - no risk
<b>Luminaire colour</b>	RAL7035 Light grey
<b>Electrical version</b>	With electronic transformer, switchable.
<b>Connection method</b>	Connection cable
<b>Mains frequency</b>	0/50/60 Hz
<b>Mains voltage</b>	220 - 240 V
<b>Ingress Protection (IP) rating</b>	IP69K
<b>Protection rating on room side</b>	IP69K
<b>Protection class</b>	I
<b>Impact resistance (IK)</b>	IK03
<b>Hot wire resistance</b>	650 °C
<b>Ambient temperature</b>	-30 - 35 °C
<b>Max. Luminaires B10</b>	16
<b>Max. Luminaires B16</b>	26
<b>Max. Luminaires C10</b>	27
<b>Max. Luminaires C16</b>	43
<b>Net length</b>	1.225 mm
<b>Net width</b>	81 mm
<b>Net height</b>	81 mm
<b>Outside diameter</b>	81 mm
<b>Weight</b>	2,3 kg

**light distribution curve**

**TugraHE 12 PN 80-840 ET IP69K 23**  
**TX425051**
■ C0 - C180  
■ C90 - C270

 UGR I = 22,1  
 UGR g = 20,0  
 DIN 5040: B50  
 UTE: 0,89 C + 0,11 T  
 CEN Flux Code: 64 87 95 89 100 6 21 56 11

**Available accessories**

Material	Description
	Tugra KS 58 23 Set 8089100 PMMA end caps. For replacement or exchange. Colour light grey.
	Tugra LME HFS ET 130 23 8089900 Smart module for single luminaire applications. Colour light grey.
	Tugra LME HFS ETDD 130 23 8090700 Smart module for single luminaire applications. Colour light grey.
	Tugra LME LLWS 130 23 8091100 Smart module for single luminaire applications. Colour light grey.
	Tugra LME DMR 130 23 8091900 Smart module for single luminaire applications. Colour light grey.
	Tugra LME DMM 130 23 8092700 Smart module for single luminaire applications. Colour light grey.
	Tugra LME Beacon 130 23 8093500 Smart module beacon for single luminaire application and continuous line ends. Colour light grey.
	Tugra LMB 165 23 8094500 PMMA coupler long. Colour light grey (RAL 7035).
	Tugra LMB HFS ET 165 23 8095300 Smart module for continuous row applications. Colour light grey.
	Tugra LMB HFS ETDD 165 23 8096100 Smart module for continuous row applications. Colour light grey.
	Tugra LMB DMR 165 23 8096900 Smart module for continuous row applications Colour light grey.
	Tugra LMB DMM 165 23 8097700 Smart module for continuous row applications Colour light grey.
	Tugra LMB Beacon 165 23 8098500 Smart module beacon for continuous line applications. Colour light grey.
	Tugra BLP 322 PXX 8099200 Blank module for continuous line applications. With prismatic (underside) and opal (top) cover made of impact-resistant PC. Length 322 mm, Width 75 mm, height 75 mm.
	Tugra BLP 603 PXX 8099600 Blank module for continuous line applications. With prismatic (underside) and opal (top) cover made of impact-resistant PC. Length 603 mm, Width 75 mm, height 75 mm.



**Tugra BLP 884 PXX**  
8100000

Blank module for continuous line applications. With prismatic (underside) and opal (top) cover made of impact-resistant PC. Length 884 mm, Width 75 mm, height 75 mm.



**Tugra BLP 1165 PXX**  
8100400

Blank module for continuous line applications. With prismatic (underside) and opal (top) cover made of impact-resistant PC. Length 1165 mm, Width 75 mm, height 75 mm.



**Tugra BLP 1446 PXX**  
8100800

Blank module for continuous line applications. With prismatic (underside) and opal (top) cover made of impact-resistant PC. Length 1446 mm, Width 75 mm, height 75 mm.



**Tugra BLP 1727 PXX**  
8101200

Blank module for continuous line applications. With prismatic (underside) and opal (top) cover made of impact-resistant PC. Length 1727 mm, Width 75 mm, height 75 mm.



**Tugra BLP 2008 PXX**  
8101600

Blank module for continuous line applications. With prismatic (underside) and opal (top) cover made of impact-resistant PC. Length 2008 mm, Width 75 mm, height 75 mm.



**Tugra ZLK 23**  
8102100

PMMA coupler short. Colour light grey (RAL 7035).

#### Offer text

Multi-variable and modern tube luminaire with 75 mm profile diameter. Suitable for use in HACCP, IFS and/or BRC Global Standard Food certified companies (DIN 10500). With limited surface temperature, suitable for use in fire hazardous areas according to DIN EN 60598-2-24. 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 symmetric narrow light distribution. With mainly direct light distribution. With slight indirect component for surface illumination. Luminaire luminous flux 8000 lm - , connected load 48,00 W - 0,00 W, luminous efficiency of luminaire 166 lm/W - . Light colour neutral white, correlated colour temperature (CCT) 4000 K, general colour rendering index (CRI) R<sub>a</sub> > 80. Mean rated service life L80(t<sub>0</sub> 25 °C) = 70,000 h. End cap colour light grey, (RAL 7035). Standard end caps included. Luminaire length 1225 mm, Luminaire height 81 mm, Ø Luminaire body 81 mm. The gear tray is fixed to the luminaire profile with transparent devices to avoid shadowing. Permissible ambient temperature (ta) -30 °C - 35 °C. Safety class (EN 61140): I, protection rating (DIN EN 60529): IP69K, 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 2,3 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 electronic transformer, switchable. 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.