

LED Tubular range



DATA SHEET



Product information

The high performance IP67/ IP69K weatherproof Tungsram Tubular luminaire range has many advantages. Matching an outstanding design and performance the product offers an impressive efficacy up to 150 lm/W. The LED Tubular range carries high protection ratings (IK10 & IP67/IP69) to make this a durable solution for dusty or damp environments such as car parks, railway stations, airports, warehouses, etc. and due to the thin tubular shape this allows easy architectural integration. With high efficiency and pleasing aesthetics, this product ensures a sustainable investment due to low energy consumption and reduced maintenance costs.

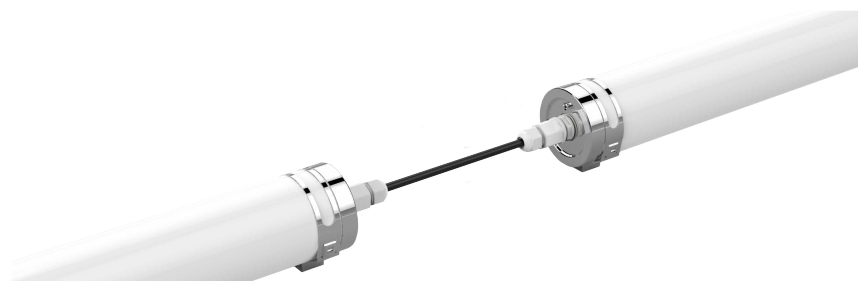
Benefits

- Evenly distributed light
- High energy savings of up to 60% compared to conventional LFL luminaires
- Easy installation as mounting brackets can be positioned freely on the luminaire
- Suitable to use in dusty and damp locations thanks to high IP rating



Features

- Breather valve to control the balance of the air and temperature inside the fixture suitable for changing ambient humidity (up to 95 %) and temperatures
- Different mounting options: stainless steel bracket for surface mounting as a default option, suspension kit and anti-theft clip optional, installation height up to 8m
- Easy installation, fast fit and maintenance-free
- Wire through, linkable
- Lifespan >100k hours at 25 °C (L70B50)
- IP67/IP69K rating, highest dust and water resistance standards even with high pressure and steam cleaning. Capable of withstanding the thermal steam wash test defined in EN 60529 and DIN 40050-9. This provides protection against water pressures of 100 bar (1450 psi) and temperatures of up to 80°C.
- IK07-IK10 impact resistant rating depends on cover type
- 70mm diameter and 1200-1500mm length
- 850C glow-wire tested
- Available with 3 different cover types for different application areas
 - a. Standard (S) version with PC
 - b. Food (F) version with PC - HACCP certified, which guarantees the food safety in the production process, and ideal for food industry.
 - c. Farm (M) version with PMMA – DLG certified (German Agricultural Society) – NH3 (ammonium) resistant. This agricultural lighting can be used in every possible environment. The designed Tubular product is the ideal lighting solution for animals. IP67/69K feature can endure tough conditions, like ammonia, dust and wash-down cleaning.
 - d. Anti-corrosion (G) version with tempered Glass
- PF >0.95, CRI >80
- Energy class A++
- Class I
- Ambient temperature -20°C to +40°C
- Samsung LED chip
- Static and DALI control, Motion sensor optional
- Lumen output up to 150lm/W
- 4000K CCT, optional 3000K for food (F) version



Fixture structure

PC/PMMA/Tempered glass cover with stainless steel lamp base. Silicone seals inside the fixture prevent moisture penetration.

Application areas

PC cover version (S = Standard version):

Industrial and storage facilities / Car parks and underpasses / Garages, Parking lot / Airport & Train stations / Food industry (F = Food version with HACCP certificate)

PMMA cover version:

Animal farms (M = Farm version with DLG certification)

Tempered glass cover version:

Car washes (G = Anti-corrosion version)

Specification summary

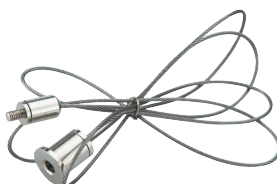
Product code	Description	Cover material	Lumen (lm)	Wattage (W)	Efficacy (lm/W)	Beam angle (°)	CCT (K)	Control	IP rating	IK rating	Cover	Ambient Temp	EEC
Food													
93113208	LED Tubular TU-F-LS36-1200F40-120°	PC	5220	36	145	120	4000	Static	IP67& IP69K	IK10	Frosted	-20 to +35	A++
93113209	LED Tubular TU-F-LS48-1500F40-120°	PC	6950	48	145	120	4000			IK10	Frosted		A++
93113210	LED Tubular TU-F-LS36-1200F30-120°	PC	4800	36	133	120	3000			IK10	Frosted		A++
93113211	LED Tubular TU-F-LS48-1500F30-120°	PC	6400	48	133	120	3000			IK10	Frosted		A++
Standard													
93113213	LED Tubular TU-S-LS36-1200C40-80°	PC	4800	36	133	80	4000	Static		IK10	Clear		A++
93113214	LED Tubular TU-S-LS36-1200F40-120°	PC	5220	36	145	120	4000			IK10	Frosted		A++
93113216	LED Tubular TU-S-LS48-1500C40-80°	PC	6400	48	133	80	4000			IK10	Clear		A++
93113217	LED Tubular TU-S-LS48-1500F40-120°	PC	6960	48	145	120	4000			IK10	Frosted		A++
93113219	LED Tubular TU-S-LD36-1200C40-80°	PC	4350	36	121	80	4000	DALI	IP67& IP69K	IK10	Clear	-20°C to +40°C	A++
93113220	LED Tubular TU-S-LD36-1200F40-120°	PC	4680	36	130	120	4000			IK10	Frosted		A++
93113222	LED Tubular TU-S-LD45-1500C40-80°	PC	5850	45	130	80	4000			IK10	Clear		A++
93113223	LED Tubular TU-S-LD45-1500F40-120°	PC	6300	45	140	120	4000			IK10	Frosted		A++
93115396	LED Tubular TU-S-LD45-1500F30-120°	PC	5850	45	130	120	3000	Static +sensor		IK10	Frosted		A++
93113224	LED Tubular TU-S-SM36-1200F40-120°	PC	5040	36	140	120	4000			IK10	Frosted		A++
93113225	LED Tubular TU-S-SM48-1500F40-120°	PC	6720	48	140	120	4000			IK10	Frosted		A++
Farms													
93113226	LED Tubular TU-M-LS36-1200F40-120°	PMMA	5400	36	150	120	4000	Static	IP67& IP69K	IK09	Frosted	-20°C to +35°C	A++
93113227	LED Tubular TU-M-LS48-1500F40-120°	PMMA	7200	48	150	120	4000	Static		IK09	Frosted		A++
Anti-Corrosion													
93113228	LED Tubular TU-G-LS36-1200C40-120°	Glass	5040	36	140	120	4000	Static	IP67& IP69K	IK07	Clear	-20°C to +40°C	A++
93113229	LED Tubular TU-G-LS48-1500C40-120°	Glass	6720	48	140	120	4000	Static		IK07	Clear		A++
Adjustable accessories*													
TBD	LED Tubular Suspension Cable 2pcs 1.5M												
TBD	LED Tubular Anti theft Clip 2pcs												
TBD	Remote Control												

Mounting option

Metal bracket for ceiling / surface mounting (included in pack)



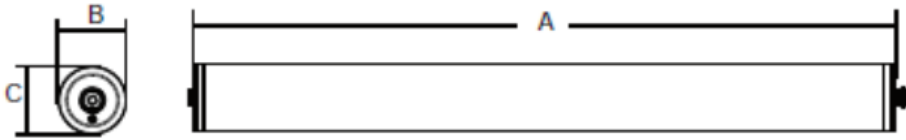
Suspension cable - need to be ordered as an accessory



Anti-theft bracket - need to be ordered as an accessory



Dimensions (mm)



Description	Wattage	A (mm)	B (mm)	C (mm)	Weight (kg) - PC/PMMA	Weight (kg) - Glass
LED Tubular TU-x-LS36-xxxx	36W	1200	70	70	1.70	3.62
LED Tubular TU-x-LS48-xxxx	48W	1500	70	70	2.00	4.32

Ordering information

Internal Code	Brand	Application Area / Material	Trough Wiring	Controller	System Wattage	Length	Diffuser	CCT	Beam Angle
LED Tubular	TU - Tungsram	F - Food Processing PC	L - Linkable S - Standalone	S - Static	36 - 36W	1200 - 1200mm 1500 - 1500mm	F - Frosted C - Clear	30 - 3000K 40 - 4000K	80° 120°
		S - Standard / conventional tubular PC		D - DALI	45 - 45W				
		M - PMMA for Farms		M - Sensor	48 - 48W				
		G - Severe Anti-corrosion Glass							

Example: LED Tubular TU-F-LS48-1500F30-120° - 48W 1500mm long 3000K CCT LED Tubular with 120° beam angle optic and static driver and frosted diffuser for food applications

Regulatory and standards

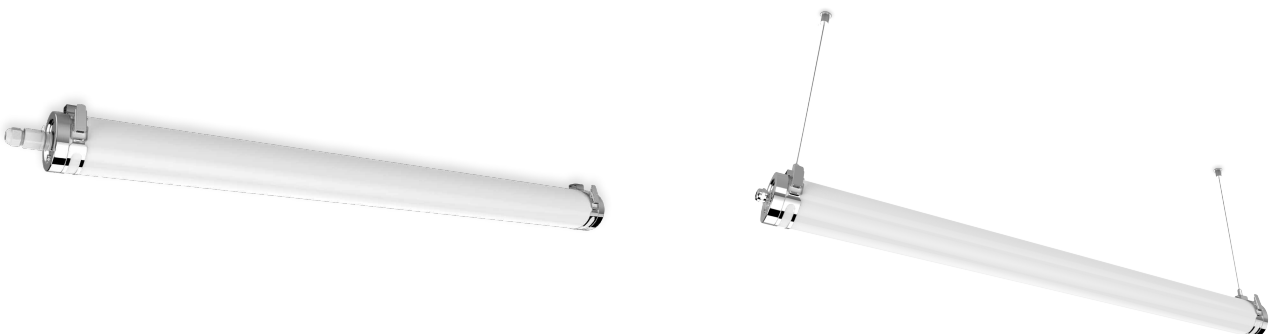
Regulatory mark: CE

Regulations: 2014/35/EU, 2014/30/EU, 2011/65/EU, (framework 2009/125/EC) EU/1194/2012 amended by EU 2015/1428, (framework 2010/30/EC) 874/2012 and 518/2014*, 2012/19/EU*

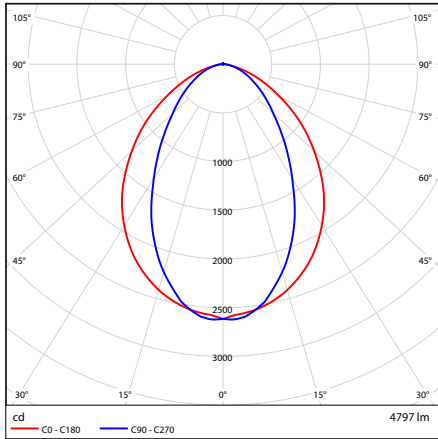
Harmonised standards: EN 60598, EN 62493, EN 61547, EN55015, EN 61000, refer to CE Declaration of Conformity and Technical File for details

Photobiological risk assessment group 0. The product is considered safe, does not pose any photobiological hazard

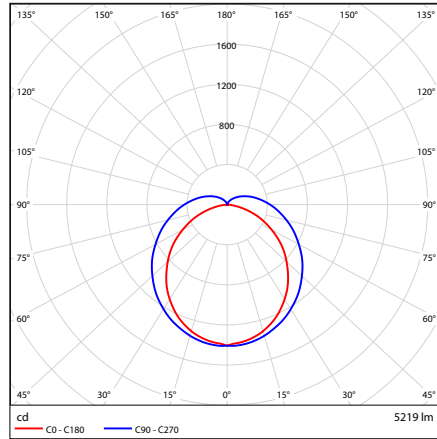
*not on DOC



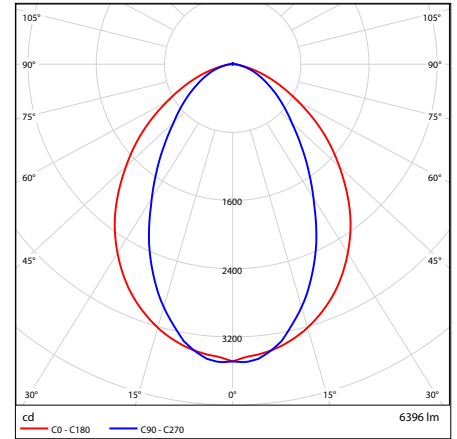
Photometric data



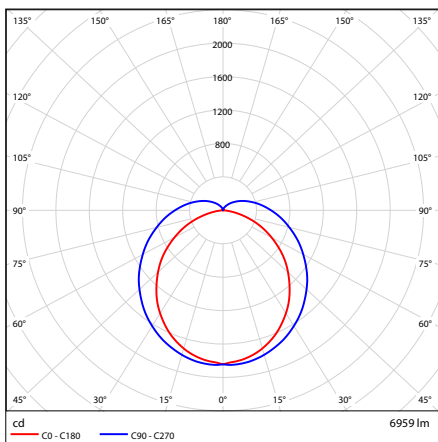
36W 80° 1200mm



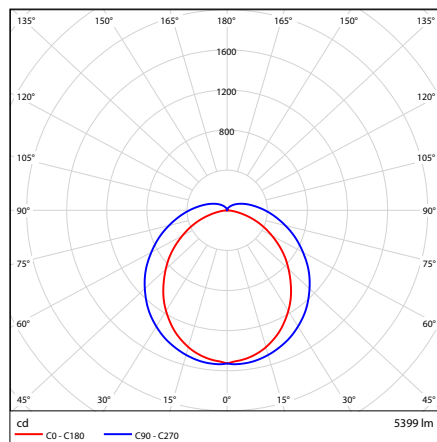
36W 120° 1200mm



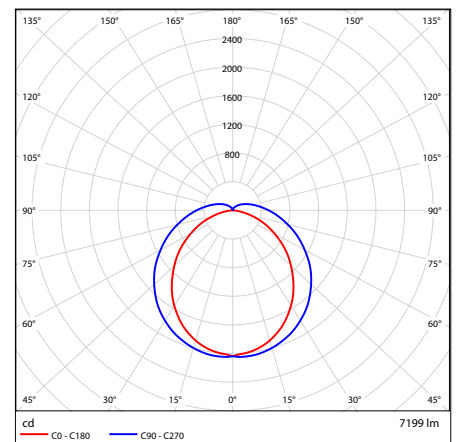
48W 80° 1500mm



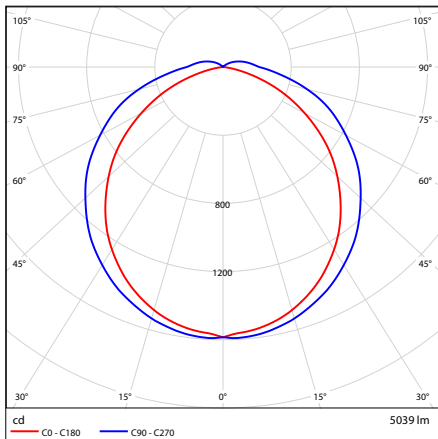
48W 120° 1500mm



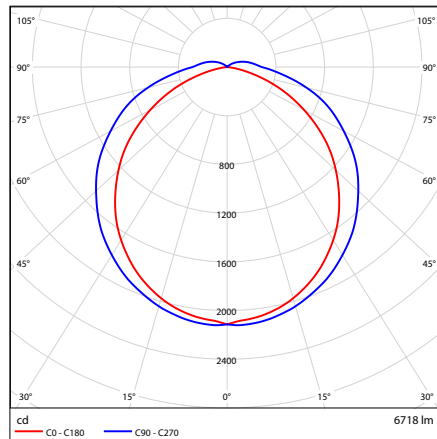
36W 120° 1200mm



48W 120° 1500mm



36W 120° 1200mm



48W 120° 1500mm

Photometry is based on LM79