Tufflite LED

Tufflite LED is a versatile general purpose, IP66 rated, luminaire. It is supplied with fast fit mounting clips for ease of installation, avoiding the need to drill the housing. Options include; 3 hour combined non-maintained emergency functionality, dimmable control gear and integrated lighting controls options to maximise energy savings, user comfort and control.

Linear LED light engines and efficient control gear provide class leading performance; they are protected by a GRP (glass reinforced polymer) base and polycarbonate diffuser with a high impact resistance rating of IK08.

With a comprehensive range of lumen outputs across 3 luminaire lengths, Tufflite LED delivers choice and flexibility to suit a wide range of applications such as warehousing, plant rooms, car parks, loading/storage spaces and assembly areas where high ingress protection and robust construction are required.

- Nominal 4', 5' and 6' formats, in narrow and wide housings, ideal for both new and retro fit applications
- Impact and heat resistant opal polycarbonate diffuser and GRP base housing construction, IK08 rated, and secured with anti-tamper diffuser clips
- Deep poured continuous polyurethane gasket to maintain IP66 rating
- Class leading LED luminaire performance and efficacy with lumen packages to match and exceed traditional fluorescent technology with reduced energy consumption
- Integrated lighting control options to maximise energy saving, user comfort and control
- Integral 3 hour combined non-maintained functionality option
- Fast fix stainless steel mounting clips for rapid installation. (No need to drill the housing avoiding a potential ingress path)

LED and Control Gear

- High efficacy linear LED light engines
- >80CRI, 4000K
- Energy efficient fixed output control gear as standard
- DALI dimmable control gear option

Materials

- Body – polyester GRP in RAL7035 grey with integrated gear tray supports and deep poured polyurethane gasket
- Diffuser – UV stabilised fire retardant polycarbonate
- Diffuser clips – polyamide - offering strength and integral locking screw function
- Gear tray – sheet steel, white finish
- Mounting brackets – stainless steel (grade 501)

Installation Notes

- Surface/suspension mount rear brackets supplied, removing the need to drill the housing base
- 20mm cable entry knockouts at each end, supplied complete with sealing plugs
- Terminal block with 2 x 2.5mm² cable capacity per termination
- Through wiring kits available
- Geartray hangs on the body for ease of install, locates in final position with tool free clips
- Simple to use diffuser clips, 4 of which have security screws to lock them in the closed position as an anti-tamper feature and ensures access only through tooled entry to the luminaire.
- This luminaire is IP66 rated, this rating only applies when the luminaire is installed observing the correct orientation and must not be positioned in direct sunlight.
- This luminaire has an ambient temperature of -25˚C to +25˚C for the non-emergency version.
- For Emergency variants, this luminaire has an ambient temperature range of -5˚C to +25˚C to ensure the batteries work correctly.

In exterior applications, it is recommended the luminaires are protected under a canopy or cover. The housing is not suitable for mounting with the base directly on a vertical surface in the horizontal orientation.

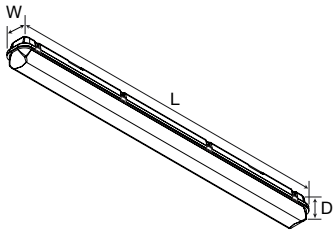
Options

- DALI dimming option
- Intelligent light and energy management options:
  - End mounted IP65 rated sensor with switching or dimming function, with/without photocell
- 'Corridor Function' control available with the 'CO' suffix
- Fully integral combined non-maintained emergency, 3 hour duration. Suitable for use on defined escape routes.
- We offer a range of product support contracts to aid commissioning, reduce your maintenance costs, comply with legislative test requirements and maximise the lifespan of your lighting equipment.

Specification

To specify state: General purpose IP66 rated luminaire with GRP base and reeded opal polycarbonate light controller, secured by tamper resistant hinged latches and removable geartray retained by tool free clips, as Eaton's Tufflite LED range, part no. _____

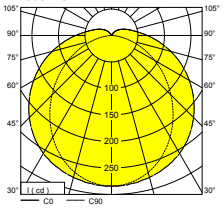
Dimensions



Cat No	W (mm)	D (mm)	L (mm)
TXL4N254KZ	101	101	1282
TXL4N344KZ	101	101	1282
TXL4N474KZ	101	101	1282
TXL4W644KZ	145	101	1282
TXL5N274KZ	101	101	1578
TXL5N364KZ	101	101	1578
TXL5N514KZ	101	101	1578
TXL5W554KZ	145	101	1578
TXL5W754KZ	145	101	1578
TXL5W904KZ	145	101	1578
TXL6N534KZ	101	101	1840
TXL6W954KZ	145	101	1840
TXL6W1124KZ	145	101	1840

Photometric Data

Cat. No. TXL4N474KZ



Luminaire Output = 4738 lumens
SHR nom: 1.50
SHR max: 1.667

Utilisation factors / TM5

Reflectances			Room Index								
C	W	F	0.75	1.0	1.25	1.5	2.0	2.5	3.0	4.0	5.0
70	50	20	54	62	69	74	81	86	90	94	98
70	30	20	46	54	62	67	75	80	84	90	93
70	10	20	41	48	56	61	69	75	79	85	90
50	50	20	52	59	66	70	77	81	84	89	92
50	30	20	45	52	59	64	71	76	80	85	88
50	10	20	40	47	54	59	66	72	76	81	85
30	50	20	49	56	62	67	73	77	80	83	86
30	30	20	43	50	57	61	68	72	76	80	83
30	10	20	39	46	52	57	64	69	72	77	81
0	0	0	36	42	48	53	59	63	67	71	74
BZ-class			5	5	5	5	5	5	5	5	5

See page 468 for design guide

Chemical Resistance

Chemical Agent	Body (Polyester)	Diffuser (Poly-carbonate)
Acetic acid 10%	●	●
Acetone	○	X
Alcoholic beverages	●	●
Aluminium sulphate	●	●
Ammonia 5%	○	X
Aniline	○	X
Arsenic acid 20%	○	●
Benzene	X	X
Bencylic alcohol	X	X
Bromine	X	X
Calcium chloride	●	●
Calcium nitrate	●	●
Carbon tetrachloride	X	X
Carbonic acid	●	X
Caustic potash 5%	X	X
Cement	●	●
Hydrochloric acid 1-5%	○	●
Chlorine liquids (vapours)	X	X
Chloroform	X	X
Chromic acid	X	○
Citric acid 20%	●	●
Copper sulphate	●	●
Diesel-naphta oil	●	○
Ethyl alcohol 30%	●	●
Ethyl chloride	X	X
Ethyl ether	●	X
Food oils and fats	●	X
Formic acid 10%	○	●
Glycerine	●	●

Chemical Agent	Body (Polyester)	Diffuser (Poly-carbonate)
Hexane	○	●
Iodine	●	X
Iron chloride	●	●
Isopropylic alcohol	●	○
Lubricating oil	●	●
Magnesium sulphate	●	●
Methanol	●	X
Mineral oils	●	●
Nitric acid 20%	X	○
Oxygen	●	●
Ozone	●	●
Perchloric acid 10%	X	●
Petrol	●	X
Phenol	○	X
Pothassium bromide	●	●
Pothassium nitrate	●	●
Pothassium permanganate	●	●
Sea climate	●	●
Silicon oils	●	●
Soda bleach 15%	●	X
Sodium chloride	●	●
Sodium hydroxide 5%	●	X
Sodium sulphate	●	●
Sugar	●	●
Sulphur	●	●
Sulphuric acid 30%	X	●
Toluene	X	X
Trichloroethylene	X	X
Zinc sulphate	●	●

● Resistant ○ Relatively Resistant X Non-Resistant

Type	L(mm)	W(mm)	D(mm)	Fixing Centres (mm)	Weight (kg) LED	LED Emerg	DALI	DALI Emerg
4' single	1282	101	101	800	3.05	3.40	3.15	3.50
4' twin	1282	145	101	800	4.27	4.62	4.35	4.70
5' single	1578	101	101	1100	3.75	4.10	3.95	4.30
5' twin	1578	145	101	1100	5.35	5.70	5.30	5.60
6' single	1840	101	101	1540	4.85	5.20	5.10	5.40
6' twin	1840	145	101	515/1545	6.45	6.80	6.70	7.10

Catalogue Numbers

Emergency[1]
EL =
3hr Combined
Non-maintained

Controls[2,3]
P = IP65 PIR only end mounted
D = IP65 PIR with Photocell end mounted

Range
TXL = Tufflite LED

Housing Length[4]
4 = 4' (1285mm)
5 = 5' (1578mm)
6 = 6' (1840mm)

Housing width[4]
N = narrow (101mm)
W = wide (145mm)

Lumen Output[5]

25 = 2500	**55** = 5500
27 = 2700	**64** = 6400
34 = 3400	**65** = 6500
36 = 3600	**75** = 7500
38 = 3800	**78** = 7800
46 = 4600	**90** = 9000
48 = 4800	**95** = 9500
51 = 5100	**112** = 11200
53 = 5300	

Colour Temperature
4K = 4000°K

Control Gear
Z = Fixed Output
DD = DALI Dimming

Option[6]
CO =
Corridor
Function

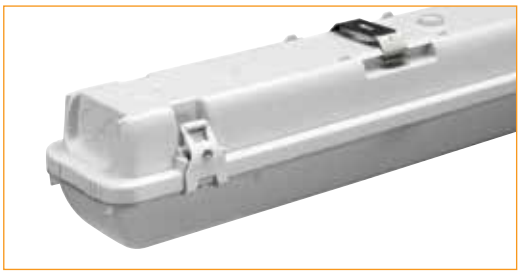
1 Emergency versions use a dedicated LED which operates only when in emergency mode
2 The 'P' prefix sensor is a switching PIR only for use on fixed output control gear (unless in-conjunction with DD and CO for Corridor Function) The 'D' prefix sensor is a PIR with photocell, the control gear option dictates the sensor type i.e: Switching with a threshold sensor for FO gear, DALI digital dimming gear uses a regulating photocell version
3 'P' and 'D' prefix sensors are mounted in the end of the luminaire, they are IP65 rated and suitable for up to 5m mounting heights - note. The type 'P' and 'D' sensors are only suitable for temperature ranges of 0°C to 25°C
4 Please refer to the dimension table and diagram for exact dimensions
5 The lumen output values are not all available in all lengths, please refer to HF catalogue listing
6 'Corridor Function' is a Tridonic specific option available with their dimmable control gear, this 'CO' suffix must be added to ensure the correct driver is used. Add the 'CO' after the DD suffix.

Luminaire Example

Cat No	Description
ELDTXL5W754KDD	Tufflite LED 5' 4000K, DALI, with integral combined non-maintained emergency functionality and fitted with end mounted IP65 PIR/photocell DALI sensor

Twin width housing

Narrow width housing



Narrow width rear quick fit bracket and tamper proof clip

Twin width rear quick fit bracket and tamper proof clip

Catalogue Numbers

Cat No	Description	Lumen Output (lm)	Circuit Watts (W)	Efficacy (Llm/cW)
Standard Fixed Output				
TXL4N254KZ	Tufflite LED 2500 4000K FO 1.2m single	2540	21.4	118.8
TXL4N344KZ	Tufflite LED 3400 4000K FO 1.2m single	3433	29.9	115.0
TXL4N474KZ	Tufflite LED 4700 4000K FO 1.2m single	4707	42.0	112.0
TXL4W644KZ	Tufflite LED 6400 4000K FO 1.2m twin	6400	57.5	111.5
TXL5N274KZ	Tufflite LED 2700 4000K FO 1.5m single	2792	22.6	123.6
TXL5N364KZ	Tufflite LED 3600 4000K FO 1.5m single	3618	29.8	121.4
TXL5N514KZ	Tufflite LED 5100 4000K FO 1.5m single	5154	45.0	114.7
TXL5W554KZ	Tufflite LED 5500 4000K FO 1.5m twin	5514	44.6	123.6
TXL5W754KZ	Tufflite LED 7500 4000K FO 1.5m twin	7518	63.3	118.8
TXL5W904KZ	Tufflite LED 9000 4000K FO 1.5m twin	9033	79.2	114.1
TXL6N534KZ	Tufflite LED 5300 4000K FO 1.8m single	5304	42.9	123.5
TXL6W954KZ	Tufflite LED 9500 4000K FO 1.8m twin	9571	82.9	115.4
TXL6W1124KZ	Tufflite LED 11200 4000K FO 1.8m twin	11200	100.7	111.2

For emergency versions please add the **EL** prefix, e.g. TXL5N554KZ becomes **EL**TXL5N554KZ
For emergency versions the circuit watts will increase by 1.5W to account for the charging circuit
For DALI dimmable options please replace the **Z** suffix with **DD** e.g. TXL5N554K**Z** becomes TXL5N554K**DD**
Refer to the catalogue number matrix for other options
For further information contact our technical support and application department on 01302 303240 or email LightingTechnicalUK@Eaton.com
For more information on the installation requirements and product specifications, please visit our website: https://uk.eaton.com/content/gb/en/products/product-catalog/tufflite-led-ip66-impact-resistant-led-industrial-lighting.html

Batten fit sensors (IP20 rated), 0°C - 25°C ambient