



TUFFFLITE

Strength, resilience, rigidity - these are all attributes needed to combat arduous and aggressive conditions. Tufflite has them all.

From commercial applications requiring a simple sealed luminaire, right through to industrial installations demanding chemical resistance, Tufflite has them covered.

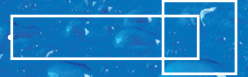
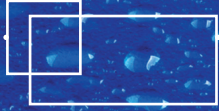
Tufflite TFW

Strong fully enclosed luminaire designed for use in wet or dusty areas such as swimming pools, shower areas, plant rooms, kitchens, under canopies, car parks, loading bays and sign lighting.

Tufflite TFC

Resilient polycarbonate free luminaire for use in areas where corrosive chemicals are present such as industrial plants, workshops, food factories and maintenance areas.

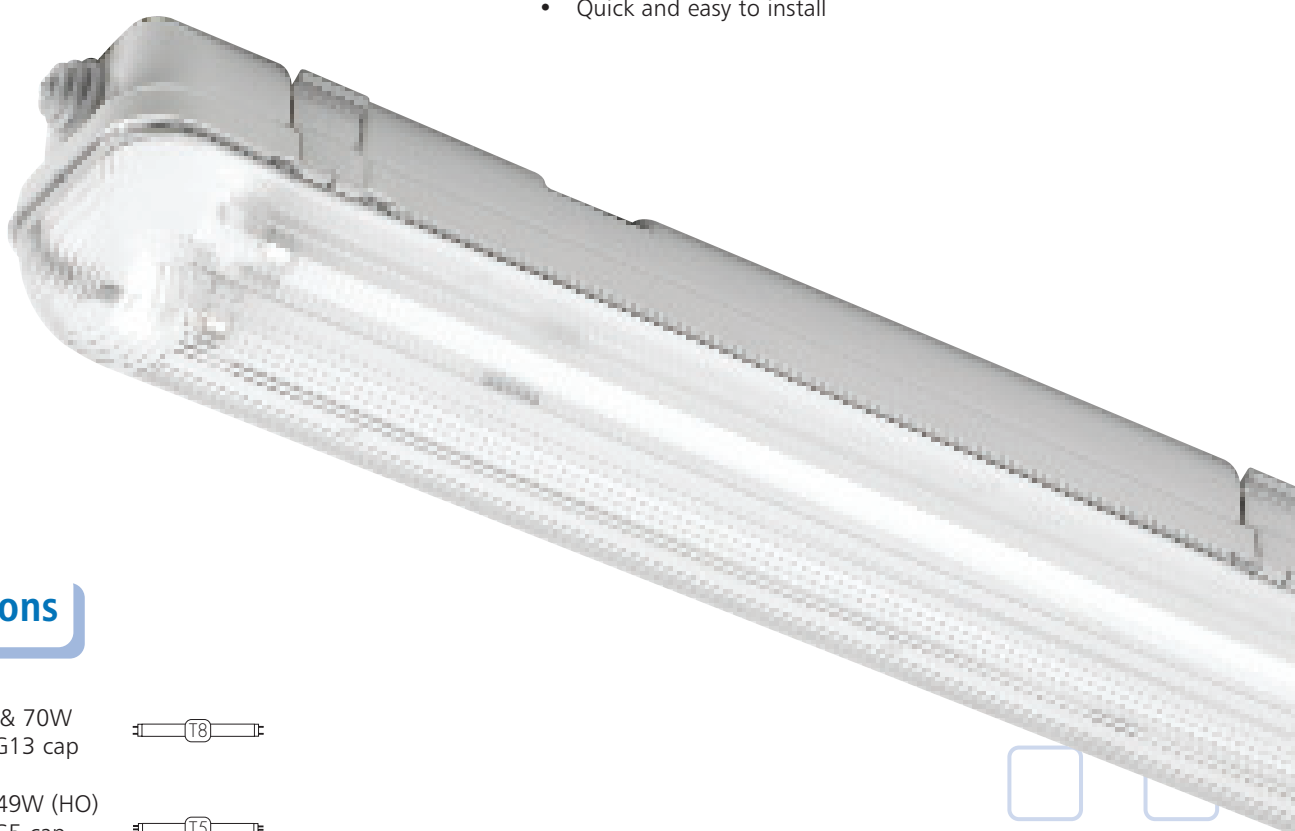




TFW

IP65, weatherproof and general purpose linear fluorescent luminaire

- IP65, dust tight and water jet proof
- Precision injection mouldings
- Vandal and heat resistant polycarbonate body, diffuser and clips
- Deep poured gasket seal for consistent and reliable sealing
- Prismatic diffuser for optimum light distribution and glare reduction
- Available with switchstart or high frequency control gear
- Integral emergency on both gear types
- T8 or T5 fluorescent lamp options
- Quick and easy to install



Lamp options

18W, 36W, 58W & 70W
T8 fluorescent – G13 cap



28W, 35W (HE), 49W (HO)
T5 fluorescent – G5 cap



Materials

Body - fire retardant polycarbonate, self coloured grey

Gasket - polyurethane

Diffuser - UV stabilised, fire retardant prismatic polycarbonate

Clips - fire retardant polycarbonate, stainless steel accessory kits available

Geartray - sheet steel, white enamel finish

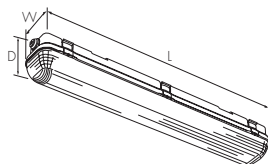


Installation

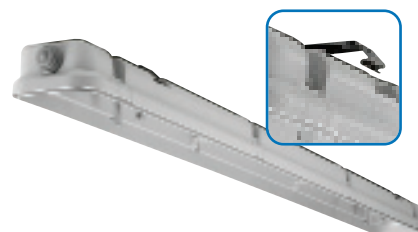
- Quick fix ceiling brackets supplied, removing the need to seal fixing holes
- 20mm cable entry hole at each end, supplied complete with sealing plugs
- 3 way push connect terminal block
- Through wiring kits available
- Geartray hangs on body for ease of install, locates in position with tool free clips
- Simple to use one piece diffuser clips
- End clips provide hinging facility for safe and quick install and maintenance
- Supplied excluding lamps

Dimensions

Lamp	L (mm)	W (mm)	D (mm)	Fixing Centres
1x18W	660	100	101	365
1x28/36W	1270	100	101	918
1x35/49/58W	1570	100	101	1220
1x70W	1839	100	101	1540
2x18W	660	160	101	365
2x28/36W	1270	160	101	918
2x35/49/58W	1570	160	101	1220
2x70W	1839	160	101	1540



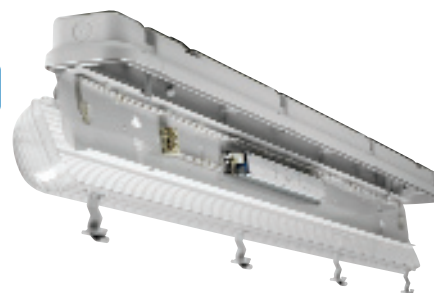
Step 1



Step 2



Step 3



Step 4



Catalogue Numbers

Lamp Rating	Gear Option	Cat. No.	Weight (kg)	Emergency Cat. No.	Weight (kg)
-------------	-------------	----------	-------------	--------------------	-------------

TFW - Polycarbonate body and diffuser, for T8 lamps (not supplied)

1 x 18W	Switch start	TFW118S	1.7	-	-
2 x 18W	Switch start	TFW218S	2.6	-	-
1 x 36W	Switch start	TFW136S	2.7	EBTFW136S	4.1
2 x 36W	Switch start	TFW236S	3.8	EBTFW236S	5.2
1 x 58W	Switch start	TFW158S	3.4	EBTFW158S	4.8
2 x 58W	Switch start	TFW258S	4.7	EBTFW258S	6.1
1 x 70W	Switch start	TFW170S	4.2	EBTFW170S	5.6
2 x 70W	Switch start	TFW270S	5.7	EBTFW270S	7.1



Single lamp

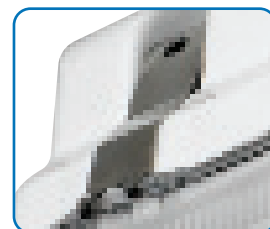
1 x 18W	High Frequency	TFW118Z	1.4	-	-
2 x 18W	High Frequency	TFW218Z	1.7	-	-
1 x 36W	High Frequency	TFW136Z	2.4	EBTFW136Z	3.8
2 x 36W	High Frequency	TFW236Z	2.9	EBTFW236Z	4.3
1 x 58W	High Frequency	TFW158Z	3.1	EBTFW158Z	4.5
2 x 58W	High Frequency	TFW258Z	3.8	EBTFW258Z	5.2
1 x 70W	High Frequency	TFW170Z	3.9	EBTFW170Z	5.3
2 x 70W	High Frequency	TFW270Z	4.8	EBTFW270Z	6.2



Twin lamp

TFW - Polycarbonate body and diffuser, for T5 lamps (not supplied)

1 x 28W	High Frequency	TFW128Z	2.4	EBTFW128Z	3.8
2 x 28W	High Frequency	TFW228Z	2.9	EBTFW228Z	4.3
1 x 35W	High Frequency	TFW135Z	3.1	EBTFW135Z	4.5
2 x 35W	High Frequency	TFW235Z	3.8	EBTFW235Z	5.2
1 x 49W	High Frequency	TFW149Z	3.1	EBTFW149Z	4.5
2 x 49W	High Frequency	TFW249Z	3.8	EBTFW249Z	5.2

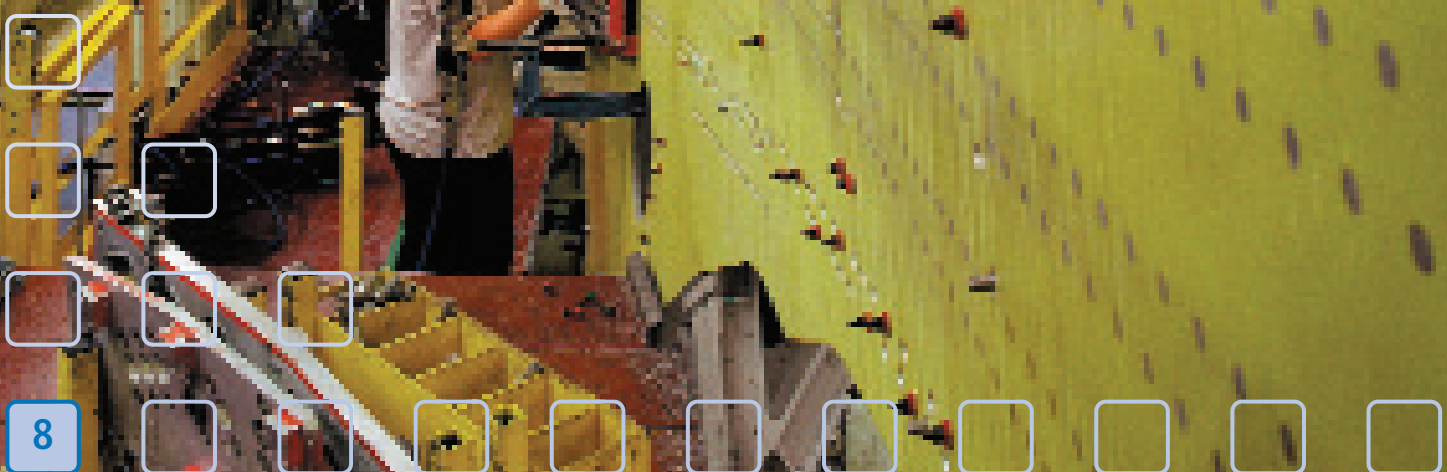
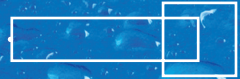
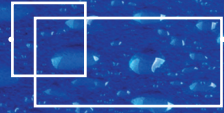


Optional stainless steel clip

Description	Cat. No.	Weight (kg)
-------------	----------	-------------

Accessories

Stainless steel clip kit for 600mm, 18W	TFWST06	0.1
Stainless steel clip kit for 1200mm, 28/36W	TFWST12	0.1
Stainless steel clip kit for 1500mm, 35/49/58W	TFWST15	0.2
Stainless steel clip kit for 1800mm, 70W	TFWST18	0.2
Through wire kit for 600mm, 18W	TFWTW06	0.2
Through wire kit for 1200mm, 28/36W	TFWTW12	0.4
Through wire kit for 1500mm, 35/49/58W	TFWTW15	0.5
Through wire kit for 1800mm, 70W	TFWTW18	0.6



TFC

IP65, corrosion proof linear fluorescent luminaire

- IP65, dust tight and water jet proof
- Polycarbonate free corrosion proof construction
- GRP body with stippled acrylic diffuser
- Stainless steel clips as standard
- Deep poured gasket seal for consistent and reliable sealing
- Available with switchstart or high frequency control gear
- Integral emergency on both gear types
- T8 or T5 fluorescent lamp options
- Quick and easy to install



Lamp options

18W, 36W, 58W & 70W
T8 fluorescent – G13 cap



28W, 35W (HE), 49W (HO)
T5 fluorescent – G5 cap



Materials

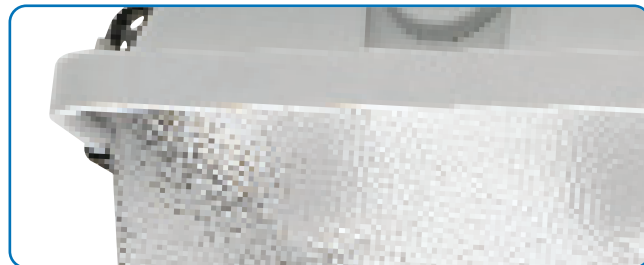
Body - glass reinforced polyester (GRP), self coloured grey

Gasket - polyurethane

Diffuser - UV stabilised stippled acrylic, vacuum formed

Clips - stainless steel

Geartray - sheet steel, white enamel finish

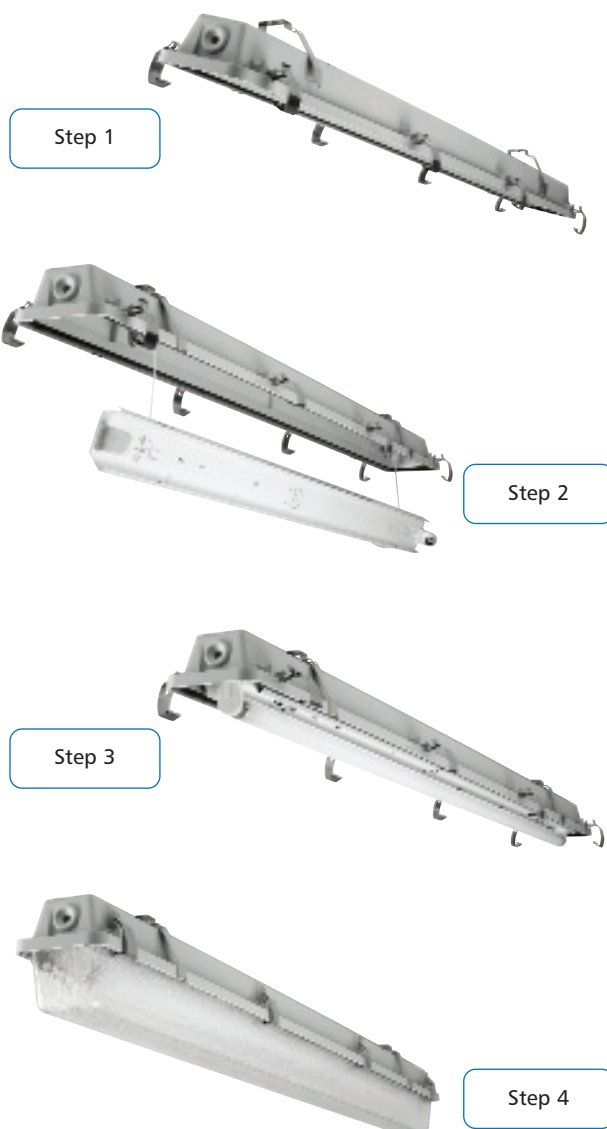
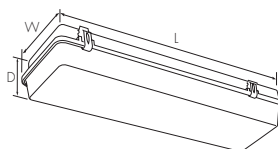


Installation

- Suitable for direct fix to ceiling, fixing centres marked for drilling on site
- Fast fit/suspension clips available, removing the need to seal fixing holes
- 20mm cable entry hole at each end, supplied complete with sealing plugs
- 3 way push connect terminal block
- Geartray locates in position with tool free clips
- Diffuser retained by hinging clips for safe and quick install and maintenance
- Supplied excluding lamps

Dimensions

Lamp	L (mm)	W (mm)	D (mm)	Fixing Centres
1x18W	702	102	115	500
1x28/36W	1312	102	115	800
1x35/49/58W	1612	102	115	1100
1x70W	1812	102	115	1100
2x18W	702	172	115	500
2x28/36W	1312	172	115	800
2x35/49/58W	1612	172	115	1100
2x70W	1812	172	115	1100



Catalogue Numbers

Lamp Rating	Gear Option	Cat. No.	Weight (kg)	Emergency Cat. No.	Weight (kg)
-------------	-------------	----------	-------------	--------------------	-------------

TFC - GRP body and Acrylic diffuser, for T8 lamps (not supplied)

1 x 18W	Switch start	TFC118S	1.9	-	-
2 x 18W	Switch start	TFC218S	2.2	-	-
1 x 36W	Switch start	TFC136S	2.8	EBTFC136S	4.2
2 x 36W	Switch start	TFC236S	4.6	EBTFC236S	6.0
1 x 58W	Switch start	TFC158S	3.7	EBTFC158S	5.1
2 x 58W	Switch start	TFC258S	6.3	EBTFC258S	7.7
1 x 70W	Switch start	TFC170S	4.4	EBTFC170S	5.8
2 x 70W	Switch start	TFC270S	8.0	EBTFC270S	9.4



Single lamp

1 x 18W	High Frequency	TFC118Z	1.8	-	-
2 x 18W	High Frequency	TFC218Z	2.1	-	-
1 x 36W	High Frequency	TFC136Z	2.7	EBTFC136Z	4.1
2 x 36W	High Frequency	TFC236Z	4.5	EBTFC236Z	5.9
1 x 58W	High Frequency	TFC158Z	3.6	EBTFC158Z	5.0
2 x 58W	High Frequency	TFC258Z	6.2	EBTFC258Z	7.6
1 x 70W	High Frequency	TFC170Z	4.3	EBTFC170Z	5.7
2 x 70W	High Frequency	TFC270Z	7.9	EBTFC270Z	9.3



Twin lamp

TFC - GRP body and Acrylic diffuser, for T5 lamps (not supplied)

1 x 28W	High Frequency	TFC128Z	2.7	EBTFC128Z	4.1
2 x 28W	High Frequency	TFC228Z	4.5	EBTFC228Z	5.9
1 x 35W	High Frequency	TFC135Z	3.6	EBTFC135Z	5.0
2 x 35W	High Frequency	TFC235Z	6.2	EBTFC235Z	7.6
1 x 49W	High Frequency	TFC149Z	3.6	EBTFC149Z	5.0
2 x 49W	High Frequency	TFC249Z	6.2	EBTFC249Z	7.6

Description	Cat. No.	Weight (kg)
-------------	----------	-------------

Accessories

Fast fit/suspension brackets single lamp housing	TFCFBS	0.1
Fast fit/suspension brackets twin lamp housing	TFCFBT	0.1



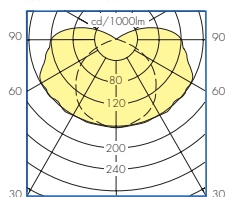
Chemical Resistance Guide

The chemical resistance of a luminaire varies according to the synthetic materials used in its construction. Tufflite is purposely designed to help cater for applications where a wide range of chemicals or aggressive atmospheres may be present.

This guide shows the resistance of each Tufflite range when exposed to common chemicals. Please consult this list when selecting your Tufflite luminaire. Note the concentration or combination of chemicals may cause more severe effects. If in doubt, please contact us with details of your application and the chemicals present.

Photometric Data

Cat. No. TFW158Z

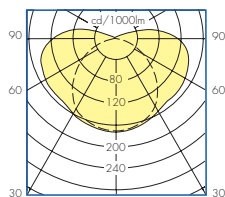


LOR: 0.81
ULOR: 0.12
DLOR: 0.69
SHR nom: 1.75
SHR max: 1.80

Utilisation factors / TMS

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	-	46	51	55	61	65	68	72	75	
30	-	39	45	49	55	60	63	68	71			
10	-	34	39	44	50	55	59	64	68			
50	50	20	-	43	48	51	57	60	63	67	69	
30	-	37	42	46	52	56	59	63	66			
10	-	32	37	42	47	52	55	60	63			
30	50	20	-	40	44	48	53	56	58	62	64	
30	-	35	40	43	48	52	55	59	61			
10	-	31	36	39	45	49	52	56	59			
0	0	0	-	28	32	35	40	43	46	50	53	
BZ-class			1	6	6	6	6	6	6	6	6	6

Cat. No. TFC158Z



LOR: 0.78
ULOR: 0.11
DLOR: 0.67
SHR nom: 1.50
SHR max: 1.715

Utilisation factors / TMS

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	38	44	50	54	60	64	67	71	74	
30	-	32	37	43	47	54	58	62	67	70		
10	-	27	32	38	42	49	54	57	63	66		
50	50	20	36	41	47	50	56	59	62	66	68	
30	-	30	35	41	45	50	55	58	62	65		
10	-	26	31	36	40	46	51	54	59	62		
30	50	20	34	39	43	47	52	55	57	61	63	
30	-	29	34	39	42	47	51	54	58	61		
10	-	25	30	35	38	44	48	51	55	58		
0	0	0	22	26	31	34	39	43	45	49	52	
BZ-class			6	6	6	6	6	6	6	6	6	6

+ resistant
+/- limited resistance
- not resistant

Chemical	TFW	TFC
Acetic acid, 10%	+	+/-
Acetone	-	-
Ammonia, max 50%	-	+/-
Ammonium nitrate, 10%	-	-
Benzene	-	-
Butyl acetate	-	-
Carbon tetrachloride	-	-
Chloroform	-	-
Citric acid, 10%	+	-v
Copper sulphate	+	+
Dibutylphthalate	-	-
Diethyl ether	-	-
Dimethylformamide	-	-
Dioctyl phthalate	-	-
Dioxane	-	-
Ethanol (pure)	+	-
Ethyl acetate	-	-
Ethylamine	-	-
Ethylene chloride	-	+
Ethylene glycol	-	-
Glycerin	-	-
Hexane	+	-
Hydrochloric acid, 10%	+	+
Hydrogen Peroxide	+	+/-
Iron(III) chloride	+	-
Isooctane (2,2,4-trimethyl pentane)	+	-
Isopropanol (pure)	+	-
Methanol	-	-
Methyl ethyl ketone	-	-
Methylamine	-	-
Methylene chloride	-	-
Mineral oil	+	-
Nitric acid, 10%	+	+/-
N-propanol	-	-
Ozone, 1% in air	-	-
Paraffin, paraffin oil, (Vaseline), pure	+	+
Perchloroethylene	-	-
Perhydrol (hydrogen dioxide), 30%	+	-
Petrol	-	+/-
Phosphoric acid, 1%	+	-
Potassium hydroxide, 1% in water	-	-
Propane	+	-
Silicone oil	+	+/-
Salt (common)	+	+
Sodium carbonate (soda), 10%	+	-
Sodium chloride	+	+
Sodium hydroxide (caustic soda)	-	+
Sodium nitrate, 10%	+	-
Styrene	-	-
Sulphuric acid, 10%	+	+/-
Tetrachloroethane	-	-
Trichloroethylene	-	-
Tricresyl phosphate	-	-
Triethylene glycol	-	-
Vegetable oil	+	+
Xylene	-	-

Head Office

Cooper Lighting and Security Ltd, Wheatley Hall Road, Doncaster, South Yorkshire, DN2 4NB

Sales

T: +44 (0)1302 303303
F: +44 (0)1302 367155
E: sales@cooperls.com

General

+44 (0)1302 321541
+44 (0)1302 303220
technical@cooperls.com

Major Projects London

+44 (0)1992 787999
+44 (0)1992 787222
london@cooperls.com

Export

+44 (0)1302 303250
+44 (0)1302 303251
export@cooperls.com

COOPER
Cooper Lighting and Security



www.cooperls.com CC1267/03_07/10K