

746-CLEVER

Industrial dust and waterproof luminaires with LED modules

**With an opalised diffuser with unique light transmissivity!
Specially developed for LED applications**



FIELD OF APPLICATION:

Thanks to the construction principles of the gasket, the closing system and the diffuser our LED fixtures ensure a high grade of protection (IP65 or IP66) against dust, contamination and water permeation. In accordance with their IP grade they can be widely used to illuminate spaces with dusty and humid environment.

When using outdoors, the fittings should be protected against direct sunlight and adverse weather conditions. Under 0°C the application of a venting cable gland is necessary, as well as the silicone gasket is recommended.

TECHNICAL DESCRIPTION AND BENEFITS:

- **Housing:** It is made of flame retardant glass fibre reinforced polyester, in light grey (RAL7035) colour. The glass fibre reinforced polyester has a very good temperature resistance and mechanical stability. Furthermore, it is a good electrical insulator resisting the impacts of several chemicals and weather conditions. Its stability of size and shape at changing temperatures is excellent.
- **Diffuser:** Our LED luminaires with **opal** diffuser offer you:
 - **extremely high light efficiency** through high **light permeability, unique on the market**, (up to 93% light transmissivity)
 - an **excellent light uniformity** through **well-balanced light dispersing** (no shadows)
 - **elimination of the dazzling effect** (no glare)
 - **aesthetical appearance (no dots** of the single LEDs)
 - **keeping the usual, well-known features of the diffuser** such as chemical and heat resistance, mechanical features, **UV stabilization** etc.
- **Available in PC** - injection moulded **Polycarbonate** (high mechanical strength and high heat and shock resistance) **or in Acrylic** - injection moulded **PMMA** (unique non-aging properties, high chemical resistance).
- The **gasket** between the diffuser and the housing is available in two versions:
 - **Injected silicone-based endless foam**
 - **Non-aging PU** (polyurethane) **endless foam**
- **Fixing the diffuser to the body:** with highly resistant clips made of **stainless steel** (standard or tamper-proof).
- **Gear tray** (reflector): White powder coated steel sheet according to **Zhaga** standards or customised.
- **Electrical components:** The adequate power supply is ensured with the electronic driver, that is built into the luminaire.

LED

CE

746-CLEVER

IP65



Option:

IP66





Main technical options

Our opal diffuser has an **outstanding light transmissivity** of up to **93%**. With this great light permeability, it is an **excellent choice for luminaires equipped with LED modules.**



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Usual stainless steel clips for **SELV** (Safety Extra Low Voltage) solutions.

The opal diffusers are made of UV stabilized **opalised** material, specially developed for LED applications. This ensures among others a well-balanced light distribution and the **elimination of glare.**

The special tamper-proof stainless steel clips for **non-SELV (HV)** solutions can not be released with bare hands.



With 746-Clever - depending on customer requirements - we can reach different levels of luminous flux (lumen) as well as luminous efficacy (lm/Watt). For more details please see technical data.

In order to optimise the thermal management of the luminaire we avoid the direct contact of the gear tray and driver, thus increasing the lifetime of the modules and driver.

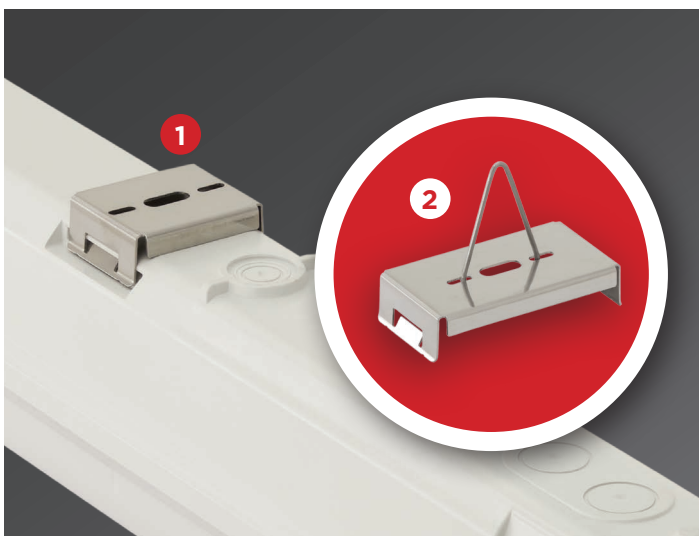
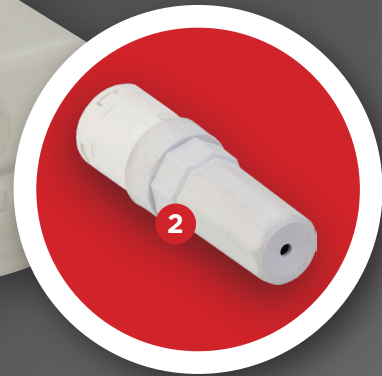
In order to ensure **maximum heat**, chemical and weather **resistance** even under tough conditions, the **gasket** between the diffuser and housing is made of **silicone-based** foam with enhanced resistance.



The gear tray is made of white powder coated steel sheet according to **Zhaga** standards. On request customisation possible.

Further accessories:

1. cable gland
- Different connectors enabling the electrical connection **without disassembling** the luminaire, thus **avoiding** a potential damage of the LED's inside the luminaire through **electrostatic discharge (ESD)**.
2. rapid connector
3. circular connector system



Ways of installing:

1. With stainless steel suspension brackets (easy-to-install) onto the ceiling.
2. Suspension on chains with stainless steel suspension brackets mounted with hooks.



LED Version with motion sensor

Technical data (extract)

The *EPREL database is available at <https://eprel.ec.europa.eu/screen/product/lightsources/xxxxxxx> (where the xxxxxx has to be substituted by the reference number given in the last column)

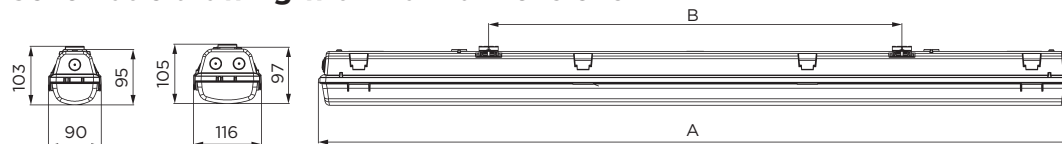
Products with a 5-year warranty	Power (W)	Lum. total luminous flux emitted (lm)		Lum. efficacy (lm/W)		CCT (Kelvin)	CRI	Lifetime L80B10 (Ta=35°C)	Lifetime L90B10 (Ta=35°C)	A (mm)	B (mm)	Weight (kg)	EEI	Light source* (reference)
		PMMA	PC	PMMA	PC									
Lumnium EU 130 with Osram driver														
746 2ft (600mm)	24	3400	3400	141	141	4000	>80	>72 000 h	>34 000 h	669	415	0,9	D	1059419
746 4ft (1200mm)	25	3500	3500	140	140	4000	>80	>72 000 h	>34 000 h	1277	800	2,2	D	802364
746 5ft (1500mm)	30	4300	4300	143	143	4000	>80	>72 000 h	>34 000 h	1577	1100	2,5	D	734821
746 4ft (1200mm)	36	5100	5100	134	134	4000	>80	>72 000 h	>34 000 h	1277	800	2,2	D	734862
746 5ft (1500mm)	50	7000	7000	137	137	4000	>80	>72 000 h	>34 000 h	1577	1100	2,5	D	734813
Lumnium EU PRO 160 with Osram driver														
746 4ft (1200mm)	22	3300	3300	150	150	4000	>80	>102 000 h	>72 000 h	1277	800	2,2	C	803878
746 5ft (1500mm)	27	4200	4200	155	155	4000	>80	>102 000 h	>72 000 h	1577	1100	2,5	C	734800
746 4ft (1200mm)	31	4800	4800	155	155	4000	>80	>102 000 h	>72 000 h	1277	800	2,2	C	803933
746 5ft (1500mm)	41	6500	6500	158	158	4000	>80	>102 000 h	>72 000 h	1577	1100	2,5	C	734760
Lumnium EU PRO 140 HF with Philips driver														
746 4ft (2x1200mm)**	58	8000	7500	138	129	4000	>80	>72 000 h	>34 000 h	1277	800	2,65	D	734708
746 5ft (2x1500mm)**	73	10200	9600	140	131	4000	>80	>72 000 h	>34 000 h	1577	1100	3	D	734742
Philips Fortimo LED Strip LV6														
746 2ft (600 mm)	12	1900	1800	158	150	4000	>80	>72 000 h	>41 000 h	669	415	1,7	C	778312
746 4ft (1200mm)	25	4000	3800	160	152	4000	>80	>72 000 h	>41 000 h	1277	800	2,2	C	778351
746 5ft (1500mm)	31	5000	4800	161	154	4000	>80	>72 000 h	>41 000 h	1577	1100	2,5	C	778365
746 5ft (2x1500mm)**	40	6400	6100	160	152	4000	>80	>72 000 h	>41 000 h	1577	1100	2,7	C	778365
Philips Fortimo LED Strip HV6														
746 4ft (2x1200mm)**	56	8300	7800	150	141	4000	>80	>64 000 h	>50 000 h	1277	800	2,65	C	893529
746 5ft (2x1500mm)**	70	10500	9900	150	141	4000	>80	>64 000 h	>50 000 h	1577	1100	3	C	893525 893529
746 4ft (2x1200mm)**	66	10000	9400	153	144	4000	>80	>64 000 h	>50 000 h	1277	800	2,65	C	893537
746 5ft (2x1500mm)**	83	12700	12000	153	145	4000	>80	>64 000 h	>50 000 h	1577	1100	3	C	893533 893537

** The LED strips are placed in one line in a twin (wider) housing.

Further options:



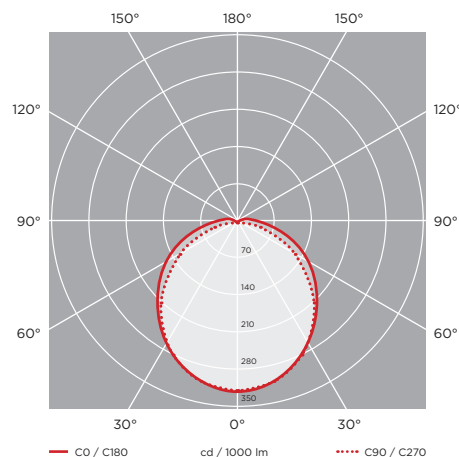
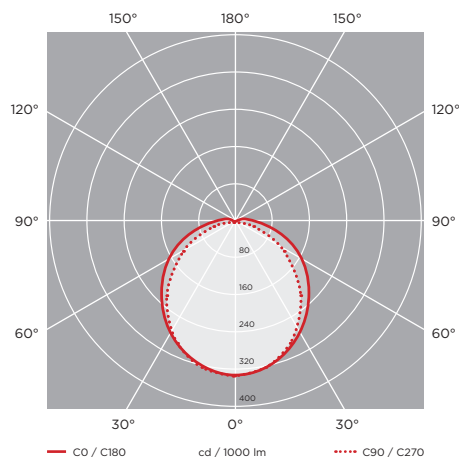
Schematic drawing with main dimensions



Photometric curves:

746-Clever, 4ft (2x1200mm), Philips Fortimo LED Strip HV6, 56W, 7800lm, PC

746-Clever, 5ft (2x1500mm), Philips Fortimo LED Strip HV6, 70W, 10500lm, PMMA



Luminaire customisation and the options of advanced controls are presented on page 5

