

"Dust and damp proof in all conditions"

IMPERVIUS



INDUSTRIAL

GRAH[®]
LED LIGHTING

IMPERVIUS



Dust and damp proof in all conditions

Dust and damp proof luminaire equipped with a LED module, an all-round solution for general applications and where an impact resistance is required. Replacement for standard weatherproof luminaires. IMPERVIUS offers immediate savings of around 70% over traditional lights. Units fitted with an intelligent sensor can easily extend savings up to 90%.

5 year
warranty

up to
80%
energy saving

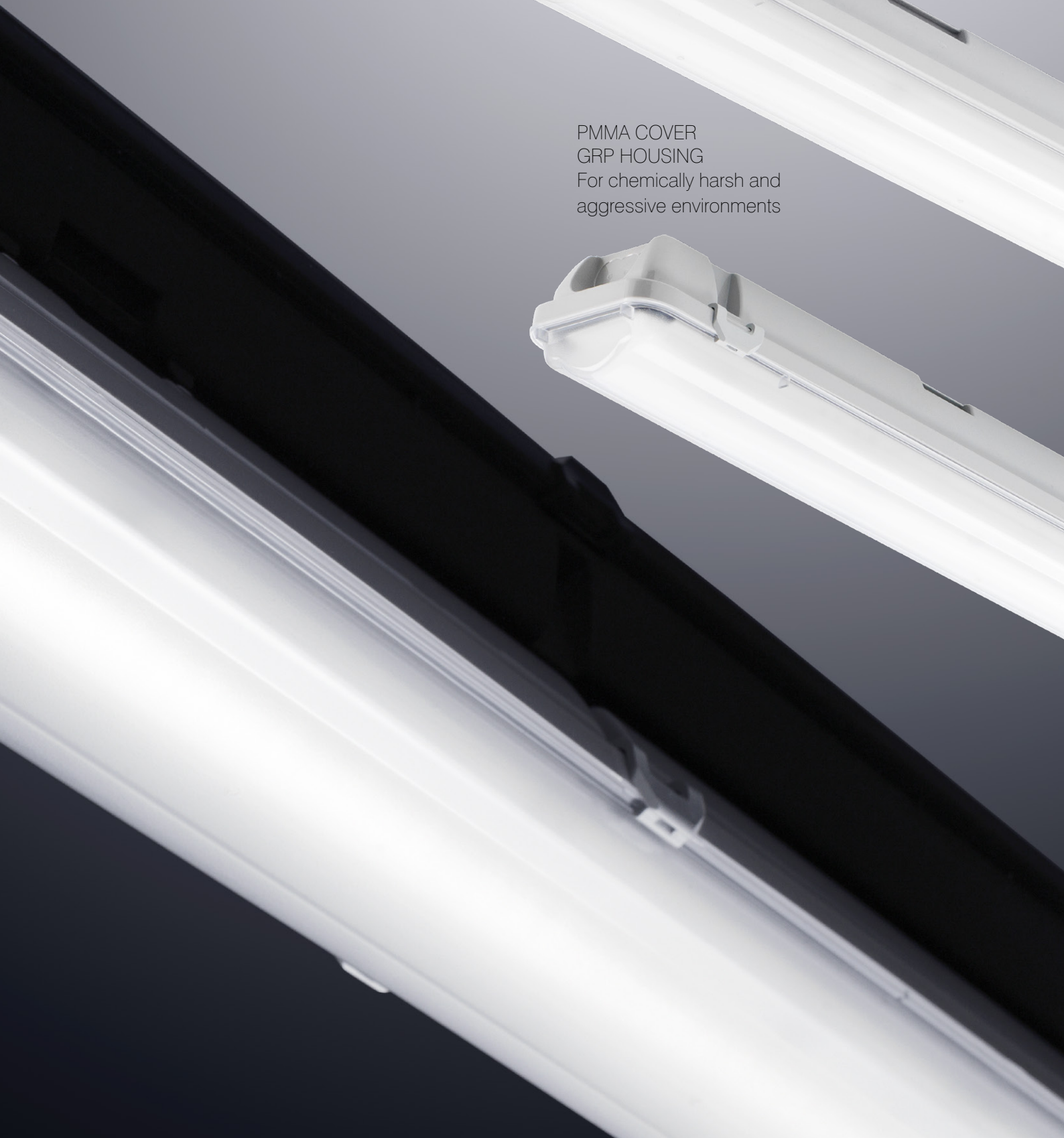
Simple
and
economic

General or
extremely
harsh
conditions?

PC COVER
PC HOUSING
For standard environments



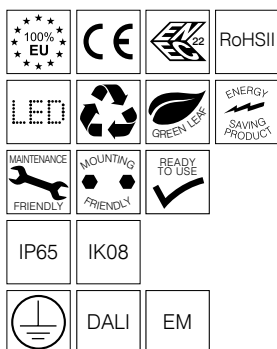
PMMA COVER
GRP HOUSING
For chemically harsh and
aggressive environments



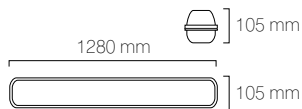
IMPERVIUS



TECHNICAL SPECIFICATIONS

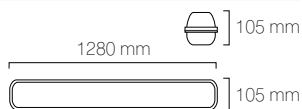
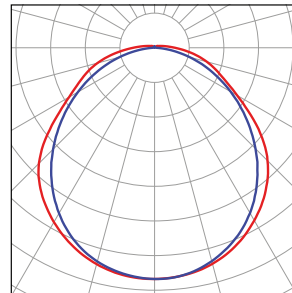


Supply voltage range:	220-240 V, 50 / 60 Hz
Consumption:	19 W / 56 W
Power Factor:	>0,95
Temperature range:	-30°C / +60°C
Working temperature at Ta25:	+55°C
Optics:	Symmetric
Power reduction:	DALI (optional)
Emergency module:	1h, 3h (optional)
Light source:	Mid power LED
Colour temperature:	4000 K
Colour Rendering Index:	CRI>80
LED Lifetime:	Up to 50.000 hours, L70 at Ta25
System efficacy:	Up to 119 lm/W
Lumen flux:	2.200 lm / 6.600 lm
Appliance class:	I
Housing material:	GRP / PC-Polycarbonate
Cover material:	PC-Polycarbonate / PMMA
Housing colour:	Grey
Protection class:	IP65 (not suitable for outdoor installation)
Shock protection:	IK08
Mounting options:	Suspended, ceiling
Suggested mounting height:	Minimal 3 m
Dimension (L x H x W):	1280 x 105 x 105 mm 1580 x 105 x 105 mm
Net weight:	1,8 kg (1280 mm) 2,2 kg (1580 mm)



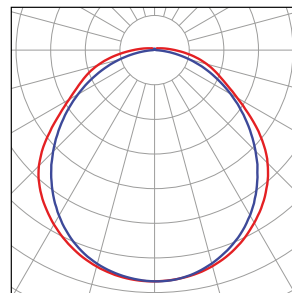
IMPERVIUS 12 PC/PC

ID number	Lum. flux [lm]	Colour Temp.[K]	Power [W]	Efficacy [lm/W]
2052-x022-1004-5011-0000	2200	4000	19	116
2052-x044-1004-5011-0000	4400	4000	37	119



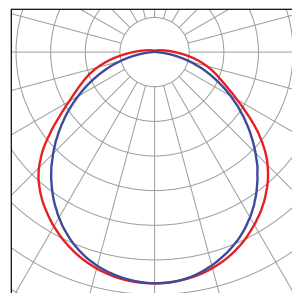
IMPERVIUS 12 PMMA/GRP

ID number	Lum. flux [lm]	Colour Temp.[K]	Power [W]	Efficacy [lm/W]
2052-x022-1004-5011-0012	2200	4000	19	116
2052-x044-1004-5011-0012	4400	4000	37	119



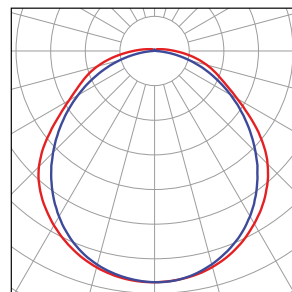
IMPERVIUS 15 PC/PC

ID number	Lum. flux [lm]	Colour Temp.[K]	Power [W]	Efficacy [lm/W]
2052-x033-1004-5012-0000	3300	4000	28	118
2052-x066-1004-5012-0000	6600	4000	56	118



IMPERVIUS 15 PMMA/GRP

ID number	Lum. flux [lm]	Colour Temp.[K]	Power [W]	Efficacy [lm/W]
2052-x033-1004-5012-0012	3300	4000	28	118
2052-x066-1004-5012-0012	6600	4000	56	118



x
0 ON/OFF
3 DALI
5 ON/OFF, EM 1h
6 ON/OFF, EM 3h
7 DALI, EM 1h
8 DALI, EM 3h

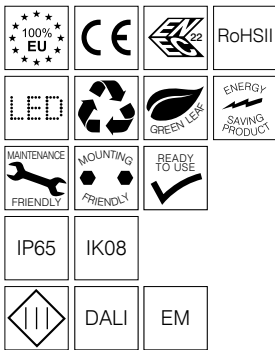
* Intelligent lighting control is available on request.

Accessories
Accessories on page 112.

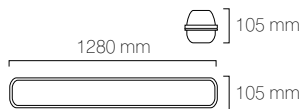
IMPERVIUS DC



TECHNICAL SPECIFICATIONS

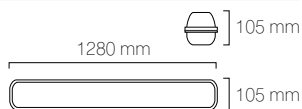
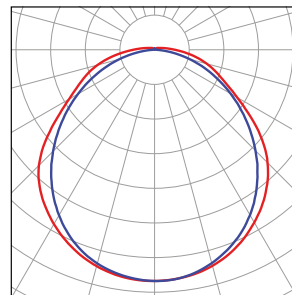


Supply voltage range:	24 V
Consumption:	37 W / 46 W
Power Factor:	>0,95
Temperature range:	-30°C / +60°C
Working temperature at Ta25:	+55°C
Optics:	Symmetric
Power reduction:	DALI (optional)
Emergency module:	1h, 3h (optional)
Light source:	Mid power LED
Colour temperature:	4000 K
Colour Rendering Index:	CRI>80
LED Lifetime:	Up to 50.000 hours, L70 at Ta25
System efficacy:	Up to 122 lm/W
Lumen flux:	4.500 lm / 5.500 lm
Appliance class:	III
Housing material:	GRP / PC-Polycarbonate
Cover material:	PC-Polycarbonate / PMMA
Housing colour:	Grey
Protection class:	IP65 (not suitable for outdoor installation)
Shock protection:	IK08
Mounting options:	Suspended, ceiling
Suggested mounting height:	Minimal 3 m
Dimension (L x H x W):	1280 x 105 x 105 mm 1580 x 105 x 105 mm
Net weight:	1,8 kg (1280 mm) 2,2 kg (1580 mm)



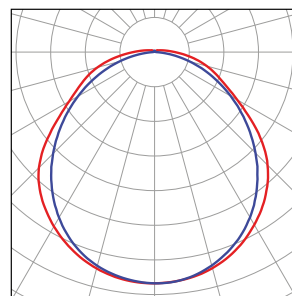
IMPERVIUS DC 12 PC/PC

ID number	Lum. flux [lm]	Colour Temp.[K]	Power [W]	Efficacy [lm/W]
2182-0045-3004-5011-0000	4500	4000	37	122



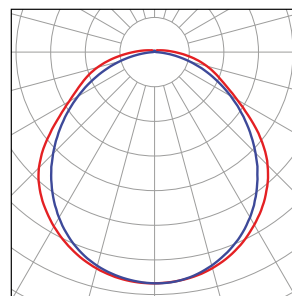
IMPERVIUS DC 12 PMMA/GRP

ID number	Lum. flux [lm]	Colour Temp.[K]	Power [W]	Efficacy [lm/W]
2182-0045-3004-5011-0012	4500	4000	37	122



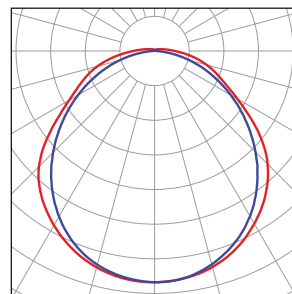
IMPERVIUS DC 15 PC/PC

ID number	Lum. flux [lm]	Colour Temp.[K]	Power [W]	Efficacy [lm/W]
2182-0055-3004-5012-0000	5500	4000	46	120



IMPERVIUS DC 15 PMMA/GRP

ID number	Lum. flux [lm]	Colour Temp.[K]	Power [W]	Efficacy [lm/W]
2182-0055-3004-5012-0000	5500	4000	46	120



- x
- 0 ON/OFF
- 3 DALI
- 5 ON/OFF, EM 1h
- 6 ON/OFF, EM 3h
- 7 DALI, EM 1h
- 8 DALI, EM 3h

* Intelligent lighting control is available on request.

Accessories
Accessories on page 112.

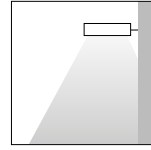
Accessories

IMPERVIUS & IMPERVIUS DC



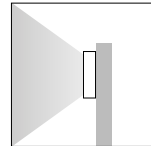
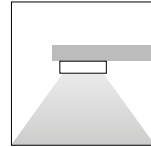
ID number

3059-0001-0000-0000 Mounting KIT Impervius Wall



ID number

3059-0001-0000-0000 Mounting KIT Impervius Magnet



Resistance to chemical agents

CHEMICAL AGENTS	POLYESTER	POLYCARBONATE	ACRYLIC	PMMA
Acetic acid 10%	✓	✓	✓	✓
Acetone	o	x	x	x
Alcoholic beverages	✓	✓	✓	o
Aluminium sulphate	✓	✓	✓	✓
Ammonia 5%	o	x	✓	✓
Aniline	o	x	o	x
Arsenic acid 20%	o	✓	✓	✓
Benzene	x	x	x	x
Bencylic alcohol	x	x	x	x
Bromine	x	x	x	x
Calcium Chloride	✓	✓	✓	✓
Calcium nitrate	✓	✓	✓	✓
Carbon tetrachloride	x	x	x	x
Carbonic acid	✓	x	x	x
Caustic potash 5%	x	x	✓	✓
Cement	✓	✓	✓	✓
Hydrochloric acid 1-5%	o	✓	✓	✓
Chlorine liquids (vapours)	x	x	x	x

CHEMICAL AGENTS	POLYESTER	POLYCARBONATE	ACRYLIC	PMMA
Chloroform	x	x	x	x
Chromic acid	x	o	o	o
Citric acid 20%	✓	✓	✓	✓
Copper sulphate	✓	✓	✓	✓
Diesel-naphta oil	✓	o	✓	✓
Ethyl alcohol 30%	✓	✓	✓	o
Ethyl chloride	x	x	x	x
Ethyl ether	✓	x	x	x
Food oils and fats	✓	x	✓	✓
Formic acid 10%	o	✓	✓	✓
Glycerine	✓	✓	✓	✓
Hexane	o	✓	✓	✓
Iodine	✓	x	x	✓
Iron chloride	✓	✓	✓	✓
Isopropyl alcohol	✓	o	o	o
Lubricating oil	✓	✓	✓	✓
Magnesium sulphate	✓	✓	✓	✓
Methanol	✓	x	x	o
Mineral oils	✓	✓	✓	✓
Nitric acid 20%	x	o	o	✓
Oxygen	✓	✓	✓	✓
Ozone	✓	✓	✓	✓
Perchloric acid 10%	x	✓	✓	✓
Petrol	✓	x	✓	✓
Phenol	o	x	x	x
Potassium bromide	✓	✓	✓	✓
Potassium nitrate	✓	✓	✓	✓
Potassium permanganate	✓	✓	✓	✓
Sea climate	✓	✓	✓	✓
Silicon oils	✓	✓	o	o
Soda bleach 15%	✓	x	✓	✓
Sodium chloride	✓	✓	✓	✓
Sodium hydroxide 5%	✓	x	✓	✓
Sodium sulphate	✓	✓	✓	✓
Sugar	✓	✓	✓	✓
Sulphur	✓	✓	✓	✓
Sulphuric acid 30%	x	✓	✓	✓
Toluene	x	x	x	x
Trichloroethylene	x	x	x	x
Zinc sulphate	✓	✓	✓	✓

LEGEND

- ✓ Resistant
- o Relatively resistant
- x Non-resistant



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