





LED retrofit



MODERNISE YOUR LIGHTING WHILE RETAINING ITS IDENTITY

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PRINCIPLE AND INTEREST

Retrofitting involves **adapting or modernising** light fixtures that are still fitted with discharge lamps by **integrating LED modules**.

This provides the opportunity of **benefiting from the advantages of LED technology**, which is **more efficient and longer-lasting**, without having to completely replace the lighting equipment.

Retrofitting offers a number of advantages:

- ▶ It contributes to greater efficiency by **reducing energy consumption**, which is also a major factor in the fight against climate change.
- ▶ Replacing discharge lamps with an LED source **improves the quality of the lighting**, providing a more **uniform and pleasant light**.

- ▶ The technology has a longer lifespan than conventional sources, which means **lower maintenance costs**.

- ▶ **Retaining the luminaires** that are already installed has a favourable **environmental impact** and each site retains its **architectural style**.

✓ Energy saving

✓ Environmental gains

✓ ECO-RESPONSIBLE

✓ Adaptable



FIELDS OF APPLICATION

ECLATEC retrofit modules are suitable for a wide range of applications. They can be integrated into GHM ECLATEC luminaires and many other models on the market:

- ▶ **Historic luminaires:** timeless designs
- ▶ **Specific luminaires:** city heritage
- ▶ **Recent luminaires:** recent, good-quality investments

“ RETROFITTING
HELPS YOU
MAKE ENERGY
SAVINGS
OF UP TO 70% ”



ECLATEC, AN ESSENTIAL REFERENCE WITH OVER 100,000 RETROFITTED LUMINAIRES

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NEEDS AND REQUIREMENTS

A retrofit project cannot be improvised, and requires in-depth studies in order to choose the best solution for the application.

A number of key criteria enable our engineers to **customise your project**:

- ▶ **A photometric study** carried out by our lighting engineers (quality lighting and compliance with the decree)
- ▶ **European directives** (ERP, WEEE, RoHS and REACH)
- ▶ **CE marking** for retrofitted luminaires (electrical safety, thermal safety, waterproofing, etc.)
- ▶ **Eligibility for Energy Saving Certificates**
- ▶ **Compliance of the electrical installation** (electrical class, installation standard C17200, etc.)





INSTALLATION AND ADVICE

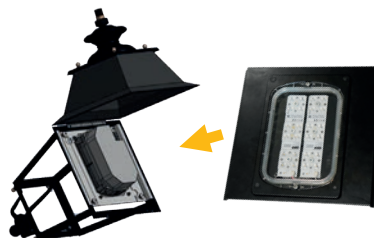
ECLATEC will provide you with personalised guidance through this modernisation process via a **dedicated service**.

Our technical teams study the **mechanical and thermal integration** of our LED modules into your equipment and advise you on **adapting power levels**.

“ MORE THAN 250 LUMINAIRE MODELS DESIGNED AND PRODUCED BY OUR RETROFIT EXPERTS ”

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Examples of source replacement on 4-sided (BEAUREGARD) or round (ELIPT) luminaires:



Luminaire opening



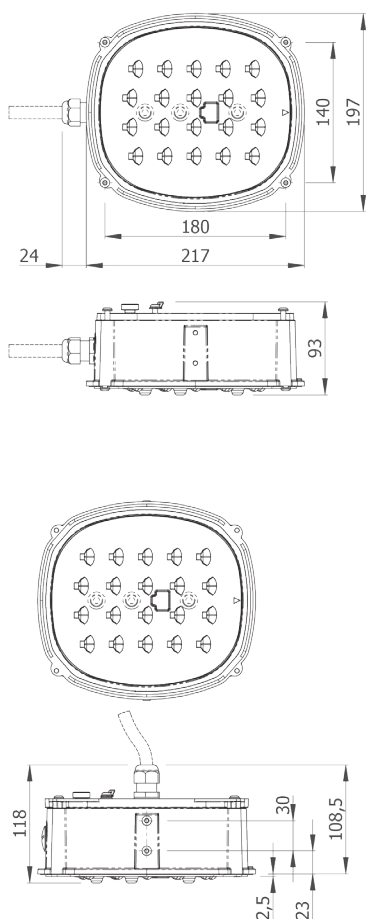
Withdrawal of the conventional source



Replacement with an LED module

TABLED 1

- ✓ IP 66 Independent module
- ✓ CEE ELIGIBLE



TABLED 1



► SMART

- ✓ Night-time lowering
- ✓ Remote detection
- ✓ WIZARD remote management

Module body	Body and cover in die-cast aluminium
Finish	Grey 2150 sanded polyester powder-coating
Waterproofing	IP 66 as per the EN 60529 standard Anchoring cable gland
Weight	1.9 kg
Electrical rating	Class I or II
Source	TABLED 1
Bowl	Optical PMMA single lens
Power supply current	Adjustable power (adjustable current)
Driver protection	Up to 10 kV
Snoot	Optional, adaptable to LED sources

Find out more



TABLED 3

- ✓ IP 66 Independent module
- ✓ CEE ELIGIBLE



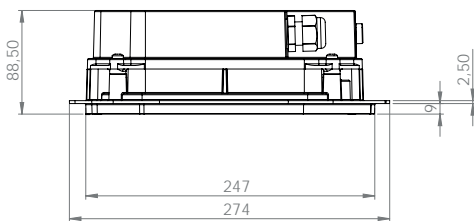
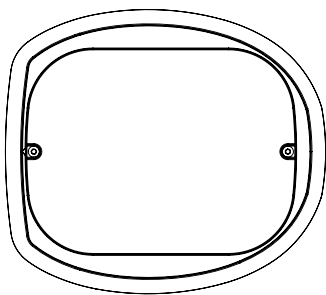
TABLED 3



► SMART

- ✓ Night-time lowering
- ✓ Remote detection
- ✓ Tunable White
- ✓ WIZARD remote management

Module body	Die cast aluminium body, polycarbonate cover
Finish	Polyester powder coating finish, choice of colours
Waterproofing	IP 66 as per the EN 60529 standard Anchoring cable gland
Weight	2.4 kg
Electrical rating	Class I or II
Source	BLS strip with lenses QUADRALENS with PC bowl
Power supply current	Adjustable power (adjustable current)
Driver protection	Up to 10 kV
Snoot	Optional, adaptable to LED sources

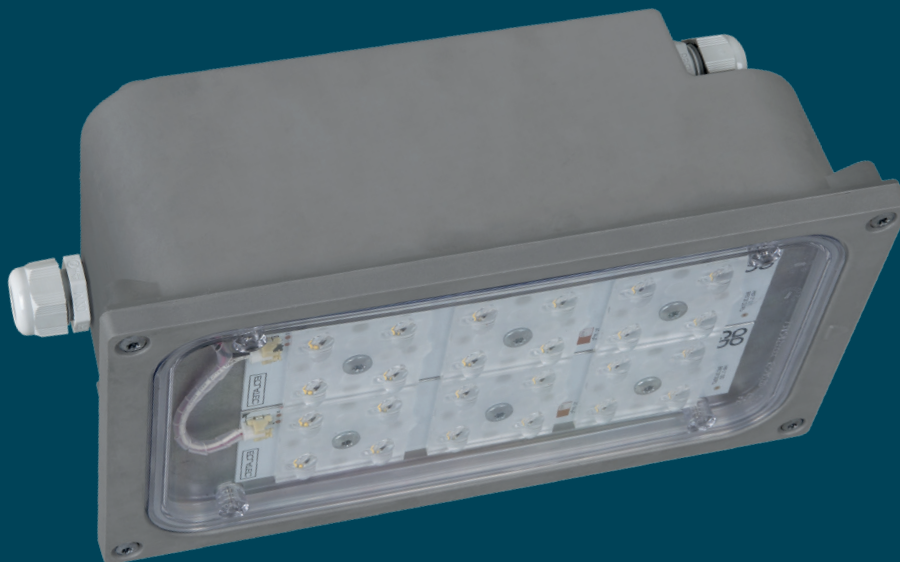


Find out more



NIXEA

- ✓ IP 66 Independent module
- ✓ CEE ELIGIBLE



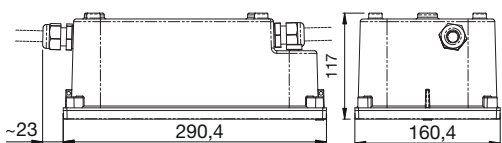
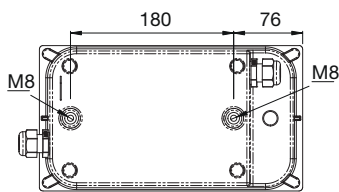
NIXEA



► SMART

- ✓ Night-time lowering
- ✓ Remote detection
- ✓ Tunable White
- ✓ WIZARD remote management

Module body	Body in die-case aluminium
Finish	Grey 2150 sanded polyester powder-coating
Waterproofing	IP 66 as per the EN 60529 standard Anchoring cable gland
Weight	2.9 kg
Electrical rating	Class I or II
Source	QUADRALENS BLS lens strips with PC bowl
Power supply current	Adjustable power (adjustable current)
Driver protection	Up to 10 kV
Snoot	Optional, adaptable to LED sources



Find out more



NIXEA 2

- ✓ IP 66 Independent module
- ✓ CEE ELIGIBLE



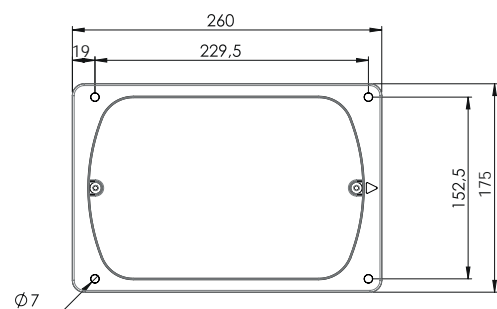
NIXEA 2



▶ SMART

- ✓ Night-time lowering
- ✓ Remote detection
- ✓ Tunable White
- ✓ WIZARD remote management

Module body	Body in die-cast aluminium Polycarbonate cover
Finish	Polyester powder coating, choice of colours
Waterproofing	IP 66 as per the EN 60529 standard Anchoring cable gland
Weight	2 kg
Electrical rating	Class I or II
Source	QUADRALENS BLS strips with PC bowl
Power supply current	Adjustable power (adjustable current)
Driver protection	Up to 10 kV
Snoot	Optional, adaptable to LED sources



Find out more

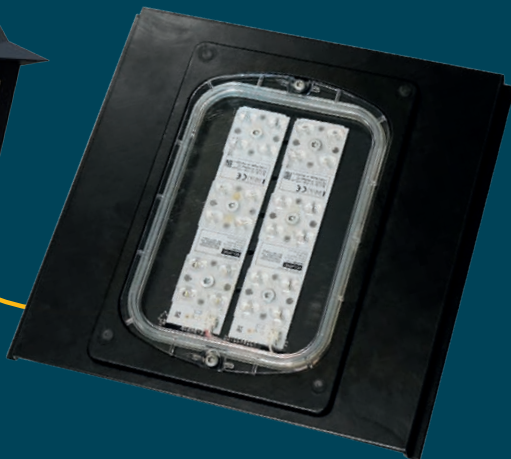


4F-1

- ✓ Universal and adaptable
- ✓ Independent modules, IP 66
- ✓ CEE ELIGIBLE



Configurable and adjustable without tools



4F-1

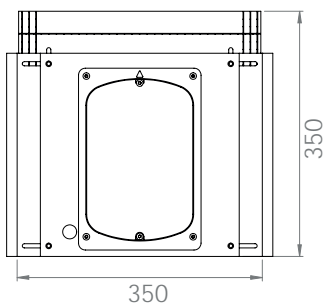
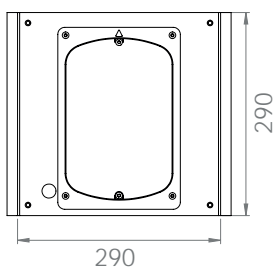


► SMART

- ✓ Night-time lowering
- ✓ Remote detection
- ✓ Tunable White
- ✓ WIZARD remote management

Model	4F-1
Module body	Die cast aluminium body, polycarbonate cover
Finish	Polyester powder coated finish, selection of colours
Waterproofing	IP 66 as per the EN 60529 standard Anchoring cable gland
Weight	2.1 kg
Electrical rating	Class I or II
Wiring	Optional 30 cm pre-wiring with quick connector
Source	NIXEA 2 (BLS Lens Strip) QUADRALENS with PC bowl
Power supply current	Adjustable power (adjustable current)
Driver protection	Up to 10 kV
Snoot	Optional, adaptable to LED sources

Cote chaussée



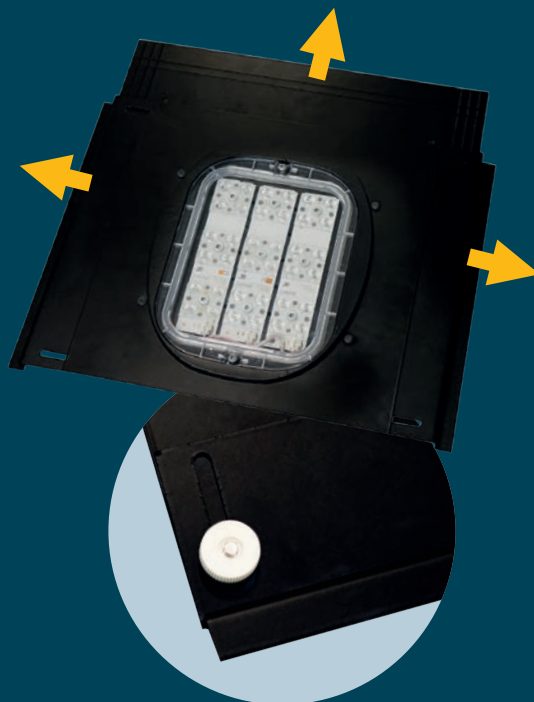
Dimensions adjustable from 290 mm to 350 mm

Find out more



4F-2

- ✓ Universal and adaptable
- ✓ Independent modules, IP 66
- ✓ CEE ELIGIBLE



**Configurable
and adjustable
without tools**

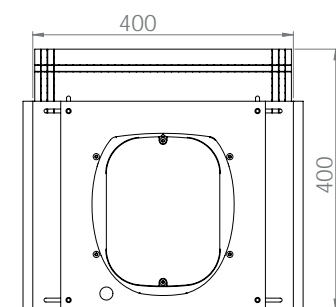
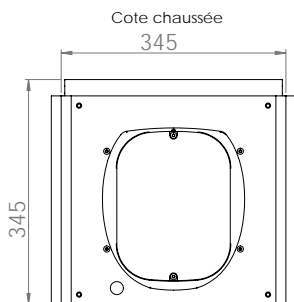
4F-2



► SMART

- ✓ Night-time lowering
- ✓ Remote detection
- ✓ Tunable White
- ✓ WIZARD remote management

Model	4F-2
Module body	Die cast aluminium body, polycarbonate cover
Finish	Polyester powder coated finish, selection of colours
Waterproofing	IP 66 as per the EN 60529 standard Anchoring cable gland
Weight	2.5 kg
Electrical rating	Class I or II
Wiring	Optional 30 cm pre-wiring with quick connector
Source	TABLED 3 (BLS Lens Strip) QUADRALENS with PC bowl
Power supply current	Adjustable power (adjustable current)
Driver protection	Up to 10 kV
Snoot	Optional, adaptable to LED sources



Dimensions adjustable from 345 mm to 400 mm

Find out more



ZEDLED 1

- ✓ IP 66 Independent module
- ✓ CEE eligible



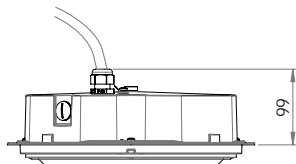
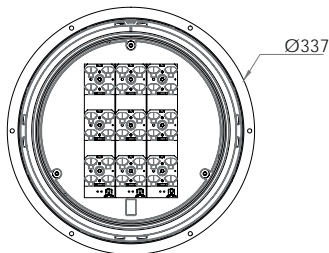
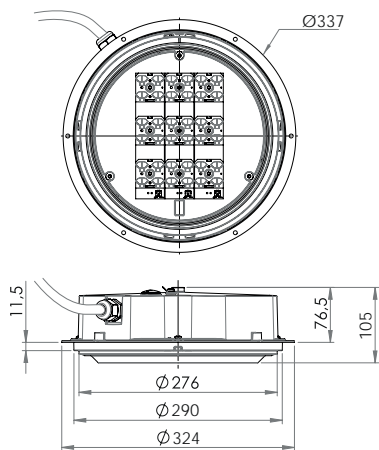
ZEDLED 1



► SMART

- ✓ Night-time lowering
- ✓ Remote detection
- ✓ Tunable White
- ✓ WIZARD remote management

Module body	Body and cover in die-cast aluminium Driver built into the module
Finish	Grey 2900 sanded polyester powder-coating
Waterproofing	IP 66 as per the EN 60529 standard Anchoring cable gland
Weight	2.6 kg
Electrical rating	Class I or II
Source	QUADRALENS BLS lens strips with PC bowl
Power supply current	Adjustable power (adjustable current)
Driver protection	Up to 10 kV
Snoot	Optional, adaptable to LED sources

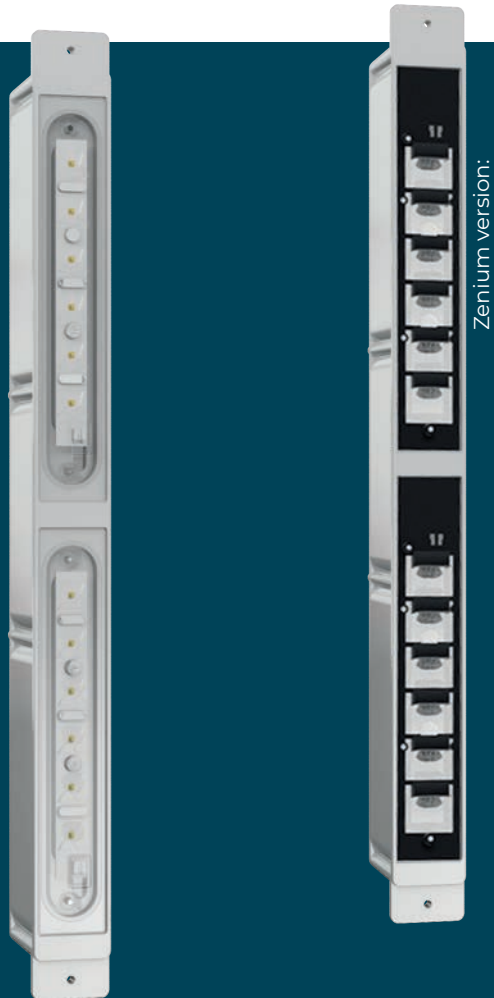


Find out more



IXEA

- ✓ Independent module, IP 66
- ✓ CEE eligible



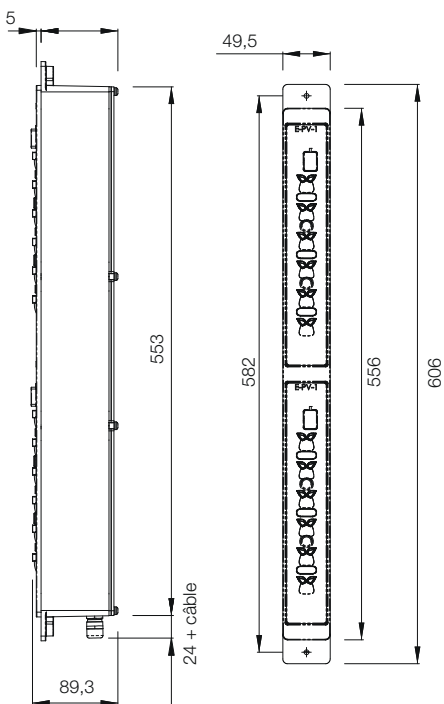
IXEA



▶ SMART

- ✓ Night-time lowering
- ✓ Remote detection
- ✓ WIZARD remote management

Module body	Body in die-case aluminium
Finish	Polyester powder coating, grey 2900 sanded or 2150 sanded
Waterproofing	IP 66 as per the EN 60529 standard Anchoring cable gland
Weight	3.3 kg
Electrical rating	Class I or II
Source	IXEA with specific PMMA lenses
Power supply current	Adjustable power (adjustable current)
Driver	Integrated: fixed currents of 700mA or 350mA Remote: maximum distance between case and IXEA module: 2 m Can be integrated into an AQUAPAK type case (H 290 x W 88 x D 101 mm). Programmable intensity from 100 to 700 mA, Protocols: DALI, 1-10 V
Driver protection	Up to 10 kV
Zenium version:	With ULR limiter
Snoot	Optional, adaptable to LED sources

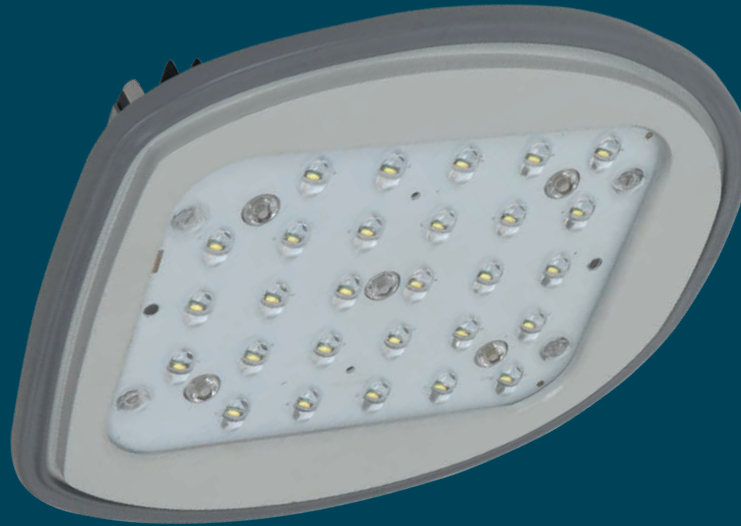


Find out more



TABLED 2

✓ Suitable for MOANA luminaire



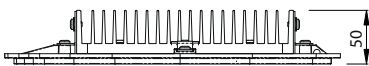
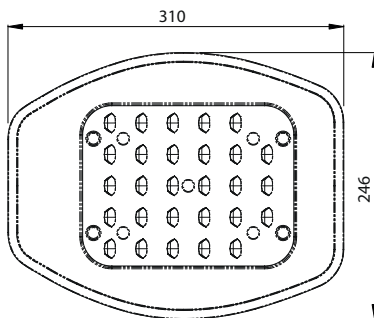
TABLED 2



▶ SMART

- ✓ Night-time lowering
- ✓ Remote detection
- ✓ WIZARD remote management

Module body	Body and cover in die-cast aluminium Driver built into the module
Finish	Grey 2150 sanded polyester powder-coating
Waterproofing	IP 66 (lens) Anchoring cable gland
Weight	1.9 kg
Electrical rating	Class I or II
Source	TABLED 2
Power supply current	Adjustable power (adjustable current)
Driver protection	Up to 10 kV
Snoot	Optional, adaptable to LED sources



Dimensions with ogee specific to the Murena luminaire

Find out more



ORALED, SEOLED, REOLED

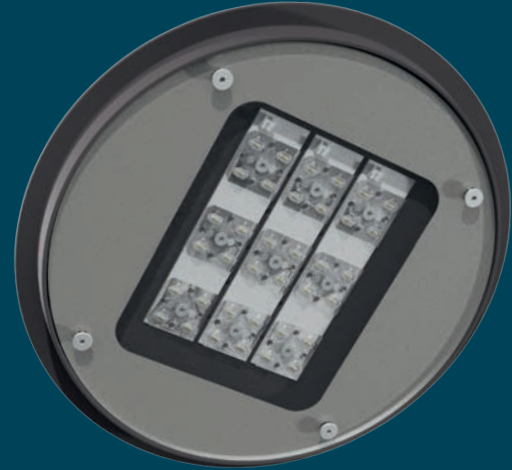
- ✓ Available in two sizes
- ✓ Suitable for a large number of GHM ECLATEC luminaires, particularly round ones



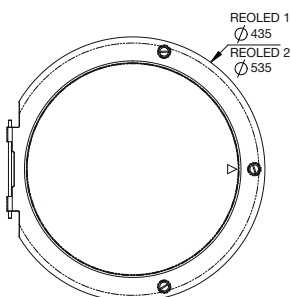
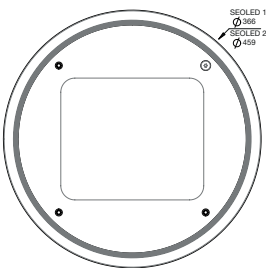
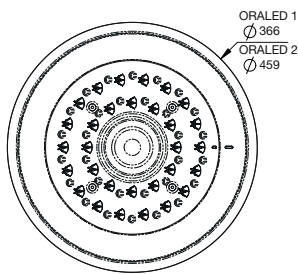
REOLED



ORALED



SEOLED



ORALED, SEOLED, REOLED



▶ SMART

- ✓ Night-time lowering
- ✓ Remote detection
- ✓ WIZARD remote management

Model	ORALED / SEOLED / REOLED
Module body	Ogee/radiator in injected cast aluminium body. Driver built into the module
Finish	Polyester powder coating, grey 2900 sanded or 2150 sanded
Waterproofing	IP 66 (lens)
Electrical rating	Class I or II
Source	ORALED with PMMA ORALENS single lens SEOLED QUADRALENS BLS lens strips with glass bowl REOLED QUADRALENS BLS lens strips with PC bowl
Power supply current	Adjustable power (adjustable current)
Driver protection	Up to 10 kV
Snoot	Optional, adaptable to LED sources

ORALED
Find out more



SEOLED
Find out more



REOLED
Find out more





TABLE OF RETROFITS

The following table is a non-exhaustive list of the combinations of BLS strips and MODULES per luminaire that have already been studied and implemented:

PCB modules	Number of LEDs (layout)	IP	Lenses	ECLATEC Luminaires	GHM luminaires	Other brands
IXEA	12 (2x6)	66	Specific single lens	-	IXEA	
NIXEA (BLS)	8 to 24	66	QUADRALENS lenses + bowl	TAÏGA	LUDEC LEAF	3E/INDAL : AMERICA PM AND GM / LEFEBVRE : BEAUUGENCY CL17 / LUDEC : GM SHEET
NIXEA 2 (BLS)	8 to 24	66		LUNA		3E/INDAL : ALLIANCE 2, FUSION 2 / ABEL : ECLISSE / COMATELEC : HESTIA 2 GM, INOA / HELLUX : 131 / HESS : CANTO 550 WAND, SIRIUS GM, SIRIUS PM / LENZI : ALPAX CHENONCEAU 1, RAFALE ALPAX, TRINITE NT COPPER / MAZDA : JIHEM PM / PHILIPS : CIVIC GM, IRRIDIUM 10, SELENIUM, TUNNEL CRX204 / RAGNI : ROGNAC C50 PM, VENUS 665 / ROHL : CELSO 706 BP / SELUX : HISTO GM 780 / THORN : ORACLE 1C / TREDO : ROSEMARY, ROMANE S
TABLED 1	20	66	Single lens	PIXEL 2	BEAUREGARD II, CHEVERNY, CHENONCEAUX	3E/INDAL : AIRTRACE 2, ALLIANCE 1, ELYSEE 500, FUSION 1, HARMONY, MICENAS IJM PM, ORPHEE, VISUAL IVF / BEGA : BEGA 77910, BEGA 8071 / COMATELEC : ALBANY MIDI, SAPHIR 2 / FORTE PARIS : WALBERG 38, WALBERG 42 / GHISAMESTIERI : LNT OSLO / HELLUX : NAS 060, NRS 050 / HESS : BIBERACH 510 / IGUZZINI : MAXIWOODY / LEFEBVRE : CHARLESTON 206, CL142, HOTEL DE VILLE CL44, JARGEAU CL113, JARGEAU CL114, JARGEAU CL52, PETITE France CL3 / LENZI : CHENONCEAU II ALPAX, LAVOISIER 1, MONTMARTRE 2000, NAPOLEON 2000, PERISTYLE BRONZE, PETITE France / LUDEC : SHEET PM, STILIC 400 / LUMIERE DE FRANCE : RIVOLI / MAZDA : JIHEM PM / NERI : LIGHT 804 / NORAL : NORAL 100W / PHILIPS : METRONOMIS, URBAN SCENE GM / RAGNI : LANTANA 6780, LETO 6680 CUIVRE, ROGNAC, STYLE 250/250, URBANE 150, VENCE 634, VENCE 638, VENCE 642, VENUS 65 SERIE 250/250, VENUS 665, VENUS C665 / ROHL : FUTURA, RETRO, ROCHESTER / SBP : KYRO 1 / SCENE : URBAN / SELUX : HISTO, HISTO PM 525 / THORN : EPI45, LB60, LEGEND, ORACLE PM / TREDO : QUINPOIX / VHM : AIRLIE, MISTRAL, MONTPARNASSE, MONTPARNASSE I, MONTPARNASSE II, ST GERMAIN II, TRIANON II / VULKANLUX : LLM 730 / WE-EF : BSP 704, PFL240

PCB modules	Number of LEDs (layout)	IP	Lenses	ECLATEC Luminares	GHM luminaires	Other brands
TABLED 3 (BLS)	8 to 36	66		CYTISE, LUNA, METRO 55, SILEO, ECLAT, MURENA, CLIP, PALEO, ELIPT, TSANA, CHORUS, CLIMAT 65, ROCHELONGUE		3E/INDAL: ARC80, ELYXEE 650, HARMONY / COMATELEC: CITEA / MAYA MAXI, CITEA / MAYA MIDI, CITEA/MAYA MINI, SCALA MAXI, SCALA MIDI / NORAL: ULTIMO 4 / PHILIPS: BELLEVUE / RAGNI: JUPITER PM 6540 / ROHL: RETRO 827 / SITECO: SN246 / THORN: DECOSTREET 2 LB60, EUROPA, FRESIA
ZEDLED 1 (BLS)	8 to 36	66	QUADRALENS lenses + bowl	ORATEC, FORVIL	CHEVERNY	3E/INDAL: MICENAS IJM PM, THEMA, QUEBEC IQS, LUXOR, HARMONY, HARMONY HA1, HARMONY HA2, ELYSEE 500, ELYXEE 650 / ABEL: ECLISSE GM / BENITO: VIALIA EVO / BERGMEISTER: JARNY 1 / COMATELEC: LUNA 675, ISLA, IMAGE, ALBANY MAXI / EAEC: ECOLO / GHISAMESTIERI: JUN6011D, LA T60OGASNV / HELLUX: SIN 025 / LEFEBVRE: CL170 BUSSIERE, CHARLESTON 206, BEAUGENCY CL17 / LUDEC: COMETA 700, JAZZY 560 / MAZDA: JIHEM GM / NORAL: WALKING / PHILIPS: CITYSOUL 1 AND 2, BEATRIX ALPAX CHENONCEAU 1 / RAGNI: JOYAU 6550 250/250, VENUS 665, VENUS 65 SERIE 250/250, ROGNAC C65 GM, ATTINIA N6600 / ROHL: L664, RETRO, CELSO 706 BP / SELUX: DISCERA 320 / TECHNILUM: SAXO / THORN: LEMNIS, LB60, DECOSTREET 2 / VHM: TORNADO, MISTRAL / VULKANLUX: LUCAS 1
BLS 8	8 (2x4)	-	Quadralens lenses	PIXEL1, IXIS 1, ENZA, LINK, ZEN TWEET 1, ZELDA 1, STELIUM 1, TEO 45, NOA 1, ZEN	-	HESS: CITY ELEMENT 180 COLUMN
BLS 12	12 (3x4)	-	Quadralens lenses	SONATA, IXIS 2, ZESTO, PIXEL 2, LEXIK, LINK, MOANA, MURENA ZELDA 1, TWEET 2 AND 3, ZELDA 2 AND 3, STELIUM 1 AND 2, KERIS, ZESTO, TEO 45 AND 55, NOA 1 AND 2	METROPOLE BEAUREGARD II, STANZA	COMATELEC: FURYO 1, FURYO 2
ORALED	12 to 36	-	ORALENS single lens	ELIPT 45/55, CHORUS 45/55, METRO 45/55, INDICE 500/620, TSANA 45/55	INDICE CONIC, ODELIA 670, INDICE 620, YSALIS	COMATELEC: KALI GM DIRECT
REOLED (BLS)	8 to 72	-	QUADRALENS lenses + bowl	ELIPT 45/55, CHORUS 45/55, TSANA 45/55		
SEOLED (BLS)	8 to 72	-	QUADRALENS lenses + bowl	METRO 45/55, INDICE 500/620, ELYXE 45/55 REFLEX INDIRECT 45/55, SAGA 45/55	ODELIA, YSALIS, ALDUS, INDICE CONIC	COMATELEC: KALI GM DIRECT / DECAUX: PORSHE GM, PORSHE PM / THORN: DYANA2 GM, DYANA 1 PM
TABLED 2	28	-	TABLENS single lens	MOANA	-	COMATELEC: NEOS 2, NEOS 3

