











Taking advantage of its wide experience in electronic technology and metal structure manufacturing, Televes offers a complete set of outdoor and indoor solutions in the Televes LED lighting range. Televes' luminaires allow for energy savings of up to 80% as compared to conventional lighting systems. They stand out for their first-class engineering and their excellent thermal management that ensure a long maintenance-free working life.

Tleves' LED lightin solution provides from a **PROGRAMMING AND CONTROL** option

#### to the point to point **CONNECTIVITY**.

This enables the implementation of projects in which the installation's light intensity has to be programmed based on schedules defined by a manager.

#### QUALITY GUARANTEED

Our commitment to quality is one of our core values and ensures all our products meet our clients' most stringent requirements.

We develop the product all the way from design to manufacturing. This is why we are in a position to provide a high degree of versatility and personalisation in the design, and supply products that are fully adapted to meet each client's specific needs.

In the Televes Corporation's post-production laboratory, we carry out rigorous electromagnetic compatibility and electrical safety tests, as well as excessive heat exposure and freezing temperatures tests. We also perform extreme component ageing tests to validate the product correct performance under extreme environmental conditions. As a result, our luminaires exceed the expectations of a market that requires high-efficiency and high-quality products to meet all the established requirements.



LED technology is definitely the lighting technology of the future, given the huge benefits it provides as compared to traditional lighting.



-8	ADVANTAGES
<ul> <li>Up to 80% energy savings as compared to traditional lighting.</li> <li>Low power consumption.</li> <li>Low maintenance.</li> <li>Long service life.</li> <li>High energy efficiency.</li> </ul>	<ul> <li>High light quality.</li> <li>Instant start.</li> <li>The on/off cycles do not reduce product's service life.</li> <li>Low heat emission.</li> <li>Vibration resistant.</li> <li>Adjustable intensity thanks to the lighting control.</li> </ul>
<ul><li>Contraction</li><li>Contraction</li><li>Low voltage.</li></ul>	<ul> <li>Low CO<sub>2</sub> emissions.</li> </ul>
• Free of electromagnetic interference.	O Mercury-free.

O No infrared or UV.

#### O Recyclable.

- O Do not create light pollution.
- O No maintenance costs.



#### **ENERGY SAVINGS**

The energy savings achieved by using our luminaires can be very significant, depending on the luminaire being replaced and the specific type of lighting required.

Our luminaires have a long maintenance-free working life, which increases the cost savings as compared with other technologies.

An assessment must be always carried out prior to replacing conventional luminaires by equivalent ones as per the site lighting requirements.



#### CERTIFICATIN



- The product was evaluated in an independent, impartial laboratory according to the applicable standards.
- The manufacturer passed the audit on manufacturing requirements, quality controls and production facilities.
- A 100% of the products passed a specific electric test in compliance with the electrical safety regulations.
- The manufacturer is ISO 9001 and ISO 14001 certified.
- Annual production revision to assess conformity with the requirements.

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ISO 9001-2015: Quality management system.

ISO 14001:2015: Environmental management system.

#### **GUARANTEE SCHEME**

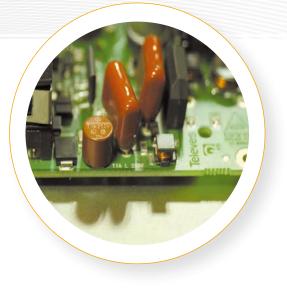
### The luminaires in the Televés range stand out for the first-class engineering and the excellent thermal management.

This is why Televes provides a 5 or 7 year luminaire guarantee (depending on the model) with the possibility of further extension.



#### DRIVERS

- Drivers designed and manufactured by Televes in Spain. New models certificated by AENOR.
- **Class II electric insulation** to secure any contact with active parts. No grounding connection required.
- SELV: Output voltage under 60 V. Does not require any additional safety measures to avoid electric shock hazard.
- Equipped with a **separate output for each LED module**.
- 196 254 VAC Input voltage.
- Up to 700 mA constant output current.
- Short-circuit, open circuit, surge and overheating protection: equipped with a protection system that turns the luminaire off in case a given critical temperature is reached.
- Equipped with up to 10 KV electric discharge protection.
- PFC > 0.95.
- Mounted using an easily removable support for a convenient replacement.
- New options for 40W.





Our drivers and LED modules are designed and manufactured in Televes. 100% European Quality

#### LED MODULE

- 12 LEDs modules designed and manufactured by Televes in Spain.
- The aluminium-based circuit contributes to heat dissipation.
- Equipped with a quick connector for an easy mount and replacement.
- Up to 190 lumen/W module efficiency.
- Protected against electrostatic discharge.
- Wide range of Colour Temperature
   From ultra warm white to cool white
   2,700, 3,000, 4,000 or 5,000K.
  - **2,200K** (Ultra warm white IAC).
- The independent connections increase their working life.
- **The optical system is IP67 certified** against water and dust.
- Minimum CRI: 70. On demand CRI>80.



#### NORMATIVA

- Drivers designed and manufactured by Televes in Spain.
- LED module designed and manufactured by Televes in Spain.



TESTS PERFORMED IN A LABORATORY CERTIFIED BY A ACCREDITED ENTITY IN EUROPE

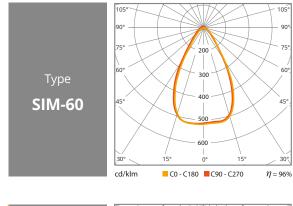


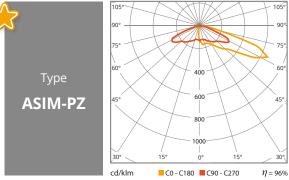
#### LENSES

- Now more options to reach the optimal solution in all scenarios.
- Our luminaires are equipped with european highquality lenses.
- The optical design allows lighting just on the required spot.
- The type of lenses used allow to increase the separation between luminaires, thus raising performance and reducing costs.
- They limit LEDs' direct vision, which enhances convenience in the field of vision.
- Multiple combinations are available depending on the application, the road width and the mounting height.

#### For other lens types, please check with us.

#### LIGHT DISTRIBUTIONS: FLOODLIGHT



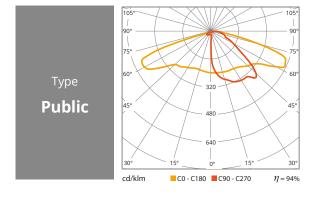


60' Туре **SIM-90** 400 309 cd/klm C0 - C180 C90 - C270  $\eta$  = 96% 105 1000 Туре 1500 **SIM-30** 45 2000 2500 3000 04 cd/klm C0 - C180 C90 - C270  $\eta = 100\%$ 

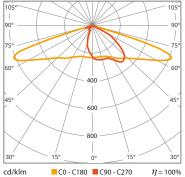
Approximate reference illumination diagrams

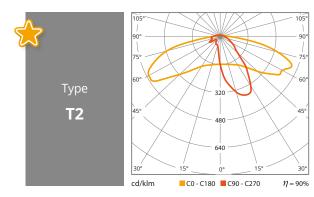


#### LIGHT DISTRIBUTIONS: ROAD

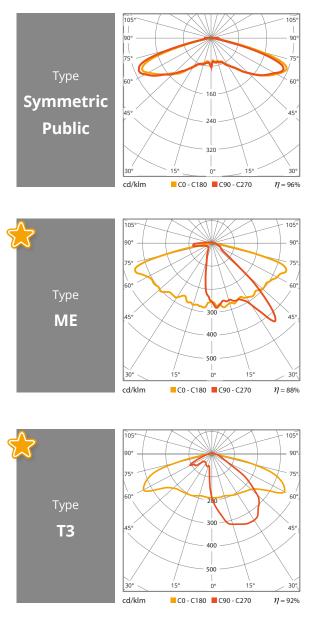








Approximate reference illumination diagrams



# ATMOSLED OUTDOOR LED LIGHTING

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**Televes** 

#### QUALITY AND EFFICIENT

Our highly versatile luminaires adapt to any environment. They are easy to mount and maintain.

#### ADVANTAGES MAKE THE DIFFERENCE

#### NEW DRIVERS

Designed and manufactured in Televes.

- WIDE RANGE OF COLOUR TEMPERATURES From ultra warm white to cool white
   3,000, 4,000 or 5,000K
   2,200K (Ultra warm white)
- CLASS II No need for grounding connection.
- SELV
   Output voltage under 60V.
- INDIVIDUAL OUTPUTS FOR EACH LED CIRCUIT They ensure the same current flows across all LEDs at all times.
- DIMMING OR LIGHTING LEVEL CONTROL Optimizes energy savings.
- WIDE RANGE OF OPERATING TEMPERATURES From -20° to 50 °C \*.

NEW CIRCUIT AND LED MODULE More efficient.

- **IK10** Tamper proof.
- MULTIPLE MOUNTING OPTIONS
   Can be adapted to multiple anchoring systems and positions.
- CORROSION RESISTANT Made of anodised aluminium with IP67 protection degree.
- LIGHT POLLUTION PREVENTION No light is emitted to the upper hemisphere.
- VERSATILE FINISH Multiple anodized or painted finishes in any colour in the RAL range.
- L80 B10 Estimated luminaire life > 100,000 hours for a working environment temperature of 25°C.
- UP TO 10 KV ELECTRIC DISCHARGE PROTECTION.

\* The maximum range depends on the specific model.

#### MULTIPLE APPLICATIONS

STREET (ROAD) LIGHTING:

Streets, avenues, squares, parks, residential areas, industrial areas, roads, highways...

#### MULTIPLE OUTDOOR AREAS:

Outdoors of industrial premises, shopping centres, recreational areas, sports facilities... FLOODLIGHT:

Historic monuments, building fronts, commercial premises...

#### ATMOSLED OUTDOOR LED LIGHTING

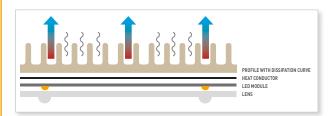
#### CHARACTERISTICS

#### STRUCTURE

- Extruded anodized aluminium ehousing, specifically designed for a perfect thermal management keeping both LED and driver's temperature as low as possible.
- Two independent areas: a eaLED cavity (IP67) where both equipment and electrical connections are housed, and a ventilated cavity that functions as a heat sink.
- Manufactured in Televes. From the LED circuit and the driver to the luminaire blend.

#### THERMAL MANAGEMENT

Heat conduction and convection in the luminaire is favoured by dissipation curves included in the profile itself and located inside a ventilated cavity, separated from the electric area.





#### **OUTSTANDING CORROSION RESISTANCE**

The structure's anodized finish improves both hardness and corrosion resistance.

#### COLOURS

- MATT STEEL lacquered (RAL 9006 aluminium).
- Available in any RAL colour on demand.



#### **SCREWS**

All screws are corrosion resistant stainless steel.

#### **SIDE COVERS**

- Made of injection-moulded lacquered aluminium.
- They have vents to allow the air to flow in the ventilated cavity.

#### TIGHTNESS

The optical system is IP67 certified for water and dust tightness.



The **ATMOS**LED luminaires are equipped with a pressure compensation device to prevent dust and humidity to be absorbed whenever the inside pressure is lower than the outside pressure.

#### **CONNECTIONS**

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- **ATMOS**LED luminaire connections provide permanent tightness and electrical safety.
- The M16 stuffing gland ensures IP67 is met in the equipment's tight cavity.
- External IP68 connector for 6 to 12 mm diameters (Ø 6 -12 mm)

#### ATMOSLED OUTDOOR LED LIGHTING

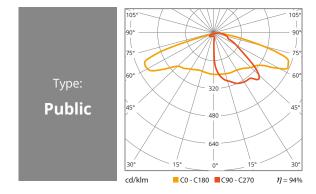


#### ATMOSLED E and N Series

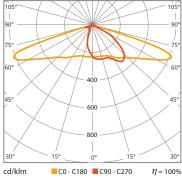
- The E SERIES stands out for efficiency and performance, up to 160 lum/W.
- The N SERIE. Televes has developed the new range aiming at maximum efficiency and robustness. The N series is equipped with an ANSI C136.41 NEMA regulation connector, which allows establishing a plug-and-play connection with the remote control nodes, therefore providing connection capacity to IoT infrastructures.

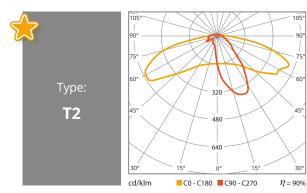


#### LIGHT DISTRIBUTIONS

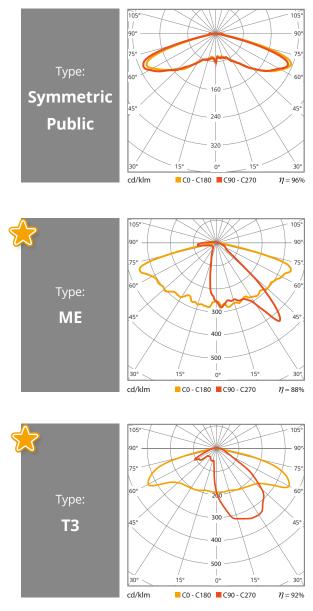








Approximate reference illumination diagrams





#### CRI = 70\* - CTT 2,200 / 2,700 / 3,000 / 4,000 / 5,000K - FHS<0,1% - PF>0,95

	REFERENCES <sup>(1)</sup>	No. LEDs	WEIGTH		OPERATING CURRENT	TOTAL POWER CONSUMPTION [±8%]	TOTAL LUMINOUS FLUX (4.000K)	WORKING LIFE <sup>(2)</sup>
			(kg)	(mm)	(mA)	(W)	(lm)	(h)
	680500xxxxxxx	12	5.9	260	400	29	4,350	. 100 000
		ΙZ	0.9	260	500	39	5,538	- >100,000
	681500xxxxxxx	24	7	340	330	49	7,746	- >100,000
					370	59	8,968	
SERIES	682500xxxxxxx	36		340	310	69	10,626	- >100,000
			7.2		330	78	11,622	
	(00500	22500 (0	0.4	388	300	86	14,040	- >100,000
	683500xxxxxxxx	48	9.4		340	108	15,984	

#### CRI = 70\* - CTT 2,200 / 2,700 / 3,000 / 4,000 / 5,000K - FHS<0,1% - PF>0,95

	REFERENCES <sup>(1)</sup>	No. LEDs	WEIGTH	L	OPERATING CURRENT	TOTAL POWER CONSUMPTION [±8%]	TOTAL LUMINOUS FLUX (4.000K)	WORKING LIFE <sup>(2)</sup>
			(kg)z	(mm)	(mA)	(W)	(lm)	(h)
	(00200	12	FO	260	400	29	4,350	>100,000
	680300xxxxxxxx	ΙZ	5.9		500	39	5,538	
E	681300xxxxxxx	24	7	340	330	49	7,746	>100,000
SERIES					370	59	8,968	
		36		340	310	69	10,626	>100,000
	682300xxxxxxxx		7.2		330	78	11,622	
	683300xxxxxxx	10	9.4	388	300	86	14,040	>100,000
		48			340	108	15,984	

- Working environment temperature should be in the -15 °C to 45 °C range.

\* On demand: CRI > 80.

(1) Reference breakdown example: page 50.

Estimated working life of the luminaire: L: Luminous flux maintenance.

B: Probability of luminous flux loss.

LxBy for a given number of hours and a given ambient temperature, usually 25°C. Indicates the time when the flux level of y%

of the LED population used for a given type of luminaire is likely to be below x%.

(2) L80 B10 A 25°C for a working environment temperature of 25°C.

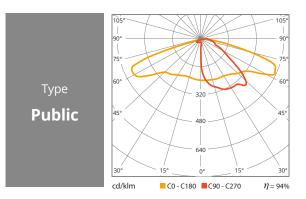


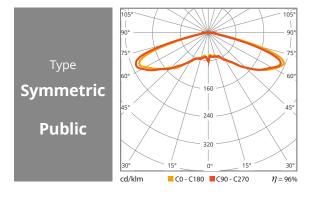
#### ATMOSLED 5 and 7 Series

- SERIES 5 stands out for longevity and performance, and is guaranteed for 7 years.
- SERIES 7 has a higher working power, and provides a higher light intensity for the same amount of LEDs (guaranteed for 5 years).



#### LIGHT DISTRIBUTIONS





Approximate reference illumination diagrams

REFERENCES <sup>(1)</sup>	No. LEDs	WEIGTH	L	OPERATING CURRENT	TOTAL POWER CONSUMPTION [±8%]	TOTAL LUMINOUS FLUX (4.000K)	WORKING LIFE <sup>(2)</sup>
		(kg)	(mm)	(mA)	(W)	(lm)	(h)
601500xxxxxxx	24 [3]	7	340	500	39	4,800	>100,000
602500xxxxxxx	36 <sup>[3]</sup>	7.2	340	500	60	7,200	>100,000
603500xxxxxxx	48 <sup>[3]</sup>	9.4	440	500	80	9,607	>100,000
604500xxxxxxx	60	9.6	520	500	95	11,335	>100,000
605500xxxxxxx	72	9,8	520	500	120	14,300	>100,000

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#### CRI = 70\* - CCT=2,200 / 2,700 / 3,000 / 4,000 / 5,000K - FHS<0,1% - PF>0,95

CRI = 70\* - CTT 2.200 / 2.700 / 3.000 / 4.000 / 5.000K - FHS<0,1% - PF>0,95

	REFERENCES <sup>(1)</sup>	No. LEDs	WEIGTH	L	OPERATING CURRENT	TOTAL POWER CONSUMPTION [±8%]	TOTAL LUMINOUS FLUX (4.000K)	WORKING LIFE <sup>(2)</sup>
			(kg)	(mm)	(mA)	(W)	(lm)	(h)
	610500xxxxxxx	12	5.9	260 -	720	29	3,280	- >100,000
	0 I U U U U U U U U U U U U U U U U U U	12	5.7		650	26	3,042	>100,000
7	611500xxxxxx 24		7	340	720	58	6,313	>100,000
SERIES	612500xxxxxxx 36		7.2	340	720	85	8,965	>100,000
	613500xxxxxx 48 9.4		440	630	100	1,1016	>100,000	

Working environment temperature should be in the -15 °C to 45 °C range.  $\:$  Estimated working life of the luminaire: -

\* On demand: CRI > 80.

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(1) Reference breakdown example: page 50.

L: Luminous flux maintenance. B: Probability of luminous flux loss.

(2) L80 B10 A 25°C for a working environment temperature of 25°C.

(3) -15 to 50°C for Atmosled5 of 24, 36 and 48 LEDs

 $\mathsf{LxBy}\xspace$  for a given number of hours and a given ambient temperature, usually 25°C.

Indicates the time when the flux level of y% of the LED population used for a given type of luminaire is likely to be below x% .



Point-to-point connectivity of LED lighting systems has become a must in Smart City management due to the extension, complexity, and undeniable benefits it brings to the citizens.

The main advantages are:

- System efficiency increase, as sensorization allows the modification of intensity based on the population needs in each location, in a much more flexible way than pre-set timing schedules.
- Capacity to control, and therefore to adapt to instant lighting changes required in the city (level increase due to unscheduled causes such as events, patron saints' feasts, or emergency situations).
- Capacity to monitor the network, and therefore to early detect incidents, which opens the door to planning and efficiency in network operation and maintenance.

Televes has equipped the new luminaire series with **ATMOS**LED **N** the **ANSI C136.41 NEMA**, regulation connector that allows establishing a plug-and-play connection with the remote control nodes, therefore providing connection capacity to IoT infrastructures.

This **open interface** allows our **ATMOS**LED **N** series to connect to any remote control system, irrespective of the technology used in each Smart City project, based both on the terrain and on the presence or not of other IoT networks in the city, or in the use cases and control to be implemented, which may be based on an electric line connection (PLC, wideband PLC) or on wireless networks (3G, NB-IoT, LoraWan, LoraMesh, Zigbee...).

- PLC: Traditional electric power line transmission technology for communication signal transmission purposes. PLC takes advantage of the electricity grid to convert it into a high-speed digital line for data transmission.
- **3G**: The third generation of mobile telephony voice and data transmission using UMTS (*Universal Mobile Telecommunications System*).
- NBIOT: (NarrowBand IoT). First open, standard communication technology to connect the small objects of our everyday life to the Internet. This technology uses the mobile network (3G/4G/5G) to connect any object of our everyday life in an easy, safe and reliable way. Since it uses the communications network of a mobile operator, it provides better coverage levels both indoors and outdoors.
- LoRa: Wireless technology that uses one type of radio frequency modulation.

#### DIMMING OR AUTONOMOUS LIGHTING CONTROL

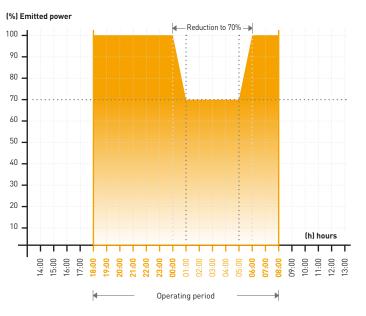
El *dimming* or lighting control allows the regulation of each light point to the level supported by the lamp; in this case, 10 light levels.

This **STANDALONE SOLUTION** consists in a controller installed on each luminaire with a pre-programmed timing for each lamppost that specifies the light level required for each hour of the night.

This system increases components' operating life, thus reducing maintenance costs and helping to increase the energy savings associated with LED lighting.

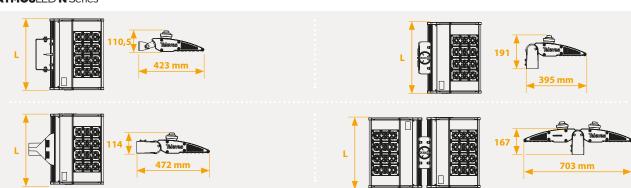
By default, the dimming's lighting plan consists in two time slots with maximum lighting and an intermediate slot with lower lighting. The system adjusts to the on/off schedule specified on the control panel, so that maximum lighting level (100%) is provided during the busy hours (early in the morning and late at night), and is progressively reduced during quieter times (dawn), reaching a lighting level of 70%. Furthermore, dimming is readjusted to adapt to schedule changes according to the time of year.

ATMOSLED 5.7 and E Series



Other programming options are available on demand (check with us). Dimming is only available for the references specified in the annex.

# ATMOSLED N Series

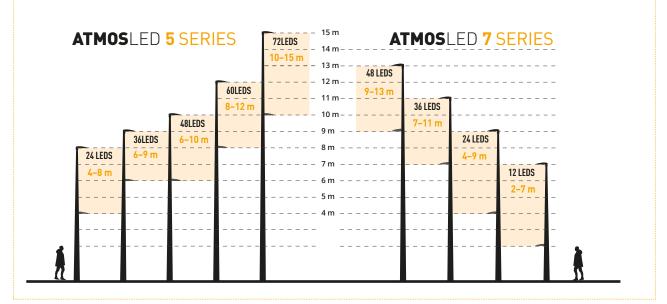


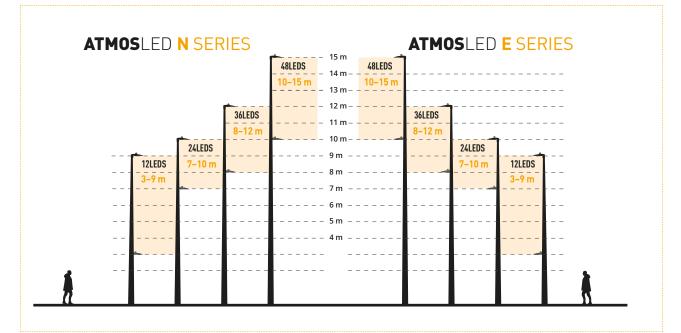
#### ATMOSLED OUTDOOR LED LIGHTING

#### LOCATION

#### **MOUNTING HEIGHTS**

The charts below show the approximate heights that are appropriate for each of the series types.





#### REGULATION

EN 60598-1:2015 + A1:2018 EN 60598-2-3:2003 + A1:2011 EN 62471:2008 EN 62031:2008 + A1:2013 + A2:2015 EN 62493:2015 EN 55015:2013 + A1:2015 EN 61547:2009 EN 61000-3-2:2014 EN 61000-3-3:2013

TESTS PERFORMED IN A LABORATORY CERTIFIED BY A ACCREDITED ENTITY IN EUROPE

RoHS

**IP67** 

IK10

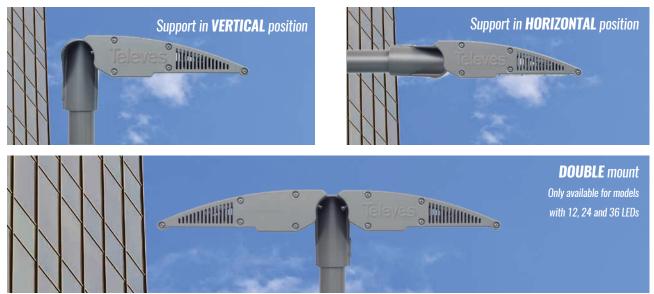
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#### MOUNTING

Our luminaires can be mounted in different positions which allows them to adapt to any environment conditions.



#### ACCESSORIES

#### ARM

Made of injection aluminium and lacquered in RAL 9006 aluminium colour.

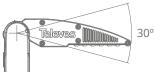
Available in other RAL range colours on demand.

- Adaptable or mounting on commercial columns with diameters ranging from 40 to 60 mm (Ø: 40 - 60 mm). Adapters are available for other tube diameters.
- Allows a luminaire rotation up to 30°.









#### WALL MOUNT SUPPORT

- Support designed for luminaire anchoring.
- Made of corrosion-resistant galvanized and lacquered steel. Available in any of the RAL range colours on demand.
- Allows a luminaire rotation up to 60°.



#### SPD MODULE

- Complementary accessory that provides additional surge protection in case of thunderstorms.
- Two models are available: **10,000 or 20,000 A** maximum current.
- Compliant with UL1449 and IEC61643-11 standards for Class II.
- They allow for maintenance costs reduction and ensure an even longer product service life.
- **10 KV surge protection**.

# INDOOR LED LIGHTING

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## **QUALITY AND EFFICIENCY**

#### ADVANTAGES MAKE THE DIFFERENCE

- UNPARALLELED SAVINGS Up to 80% energy savings.
- WIDE RANGE OF COLOUR TEMPERATURES
   From warm white to cool white
   4.000 or 5.000K
- MINIMIZES MAINTENANCE COSTS Long working life.
- WIDE RANGE OF OPERATING TEMPERATURES From -30° to 40 °C.
- MULTIPLE MOUNTING OPTIONS
   Can be adapted to multiple anchoring systems and positions. Available accessories.
- CAN BE CUSTOM RECESSED
- QUICK RETURN ON INVESTMENT
- VERSATILE FINISH Multiple anodized or painted finishes in any colour in the RAL range.
- LONG WORKING LIFE
   L80 B10 ≥ 70,000 hours.
- EASY CONNECTION
- No need open the luminaire for its installation.
- IMPROVED EFFICIENCY

#### **MULTIPLE APPLICATIONS**

Factories, industrial premises, warehouses, shops , fairs, high work areas, logistics platforms, sports centres...

#### **INNERLED INDOOR** LED LIGHTING

#### CHARACTERISTICS

#### **STRUCTURE**

Anodized aluminium specifically designed for a perfect thermal management that keeps both LED and driver's temperature as low as possible.

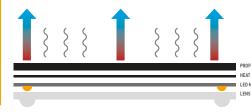
#### MAINTENANCE

- Easy component replacement.
- Information included in the product's manual.

#### **EFFICIENCY**

Final efficiency up to 150 lumen/W, including drivers' losses.

#### THERMAL MANAGEMENT



PROFILE WITH DISSIPATION CURVE HEAT CONDUCTOR LED MODULE



#### MOUNTING

Direct mains connection. Easy replacement of existing light points.

Furthermore, the luminaire can be installed in two ways:

- **Suspended** from the ceiling.
- Recessed in the ceiling or wall (support)



(INNERLED support not included)

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#### COLOURS

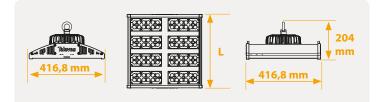
Lacquered in RAL 9006 grey or RAL 9005 black.

Available on demand in any colour in the RAL range.



#### **INNER**LED SERIES





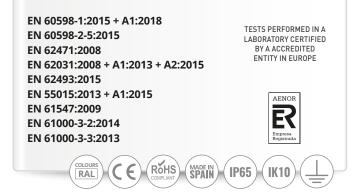
#### CRI = 70 (On demand CRI>80) - CTT 4.000 / 5.000K - FHS < 0,1% - PF > 0,95

	REFERENCES <sup>(1)</sup>	No. LEDs	WEIGTH	L	OPERATING CURRENT	TOTAL POWER CONSUMPTION [±8%]	TOTAL LUMINOUS FLUX (4.000K )	WORKING LIFE <sup>(2)</sup>
			(kg)	(mm)	(mA)	(W)	(lm)	(h)
<b>INNER</b> LED	623500xxxxxxx	48	5.1	214	400	80	12,000	100,000
	625500xxxxxxx	72	6.8	311	400	130	19,500	100,000
	627500xxxxxxx	96	9.0	405	400	200	30,000	100,000

(1) Reference breakdown example: page 50.

(2) L80 B10 A 25°C for a working environment temperature of 25°C.

#### LOCATION



#### DIMMING OR LIGHTING CONTROL

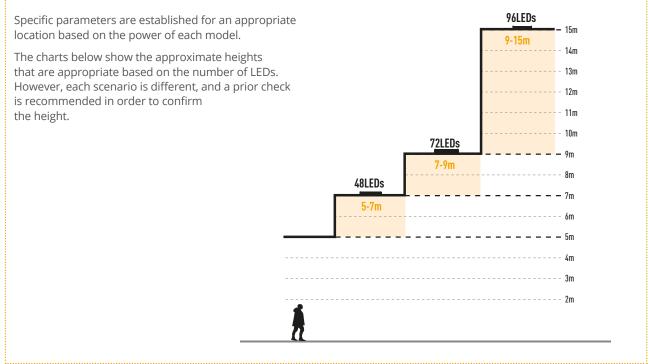
Dimable 1-10V and DALI models availables, fully compatible with solutions of presence detection and wich allows adjusting the light level to the installation needs according to eh natural light and the presence.

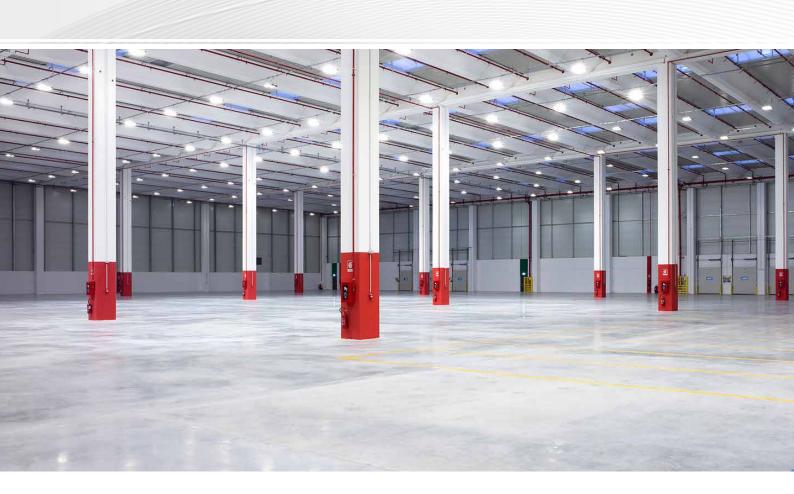
#### **INNERLED INDOOR** LED LIGHTING



#### LOCATION

#### **MOUNTING HEIGHTS**

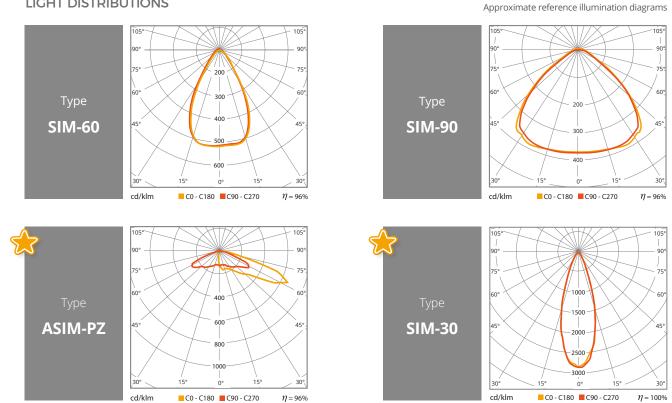




PROFESSIONAL LED LIGHTING

CATALOGUE

#### LIGHT DISTRIBUTIONS



# LAMPS NEW ORNAMENTAL LUMINAIRES

appression of

uhha

Ser.

**Televes** 

New models of **LAMPS** with lighting technologies newer and more efficient.

With an easy mount and replacement their use is not limited to specific areas, they can light streets, avenues, parks, residential areas, squares, recreational areas...

#### **ADVANTAGES**

- WIDE RANGE OF COLOUR TEMPERATURES From ultra warm white to cool white
- 3,000, 4,000 or 5,000K
- 2,200K (Ultra warm white)
- QUICK MAINTENANCE AND WITHOUT NEEDING TO TOOLS.

Design optimised to perform whatever maintenance quickly and without needing to use tools.

- DIMMING OR LIGHTING LEVEL CONTROL Optimizes energy savings.
- CLASS II No need for grounding connection.
- SELV Output voltage under 60V.
- L80 B10 Estimated luminaire life >100,000 hours for a working environment temperature of 25 °C.
- POLYCARBONATE DIFFUSERS
   Possibility of incorporating opal or clear polycarbonate diffusers for a better visual comfort.

- IP68 CONNECTOR PLUG & PLAY They are delivered with tubular connector IP68 for the quick and secure installation of the luminaire.
- DRIVER, OPTIC GROUP AND IP67
   CONNECTIONS
   They offer integral protection to all optic and electronic elements against water and dust .
- POWDER POLYESTER ELECTROSTATIC PAINTING Average thickness 90µV ±10µ.
- MANUFACTURED IN ALUMINIUM ALLOY DIE CASTING
- Light in weight. Making them easier to assemble.

  COLLAPSIBLE TOP
  - For access to the driver and to the module LED.
- ALUMINIUM 6063 T5 ANODIZED HEAT SINK It guarantees excellent thermal management of the modules LED.

#### CHARACTERISTICS

- **DRIVERS TELEVES.**
- Constant output current to each module LED 650mA.
- OPEN CIRCUIT, SURGE AND OVERHEATING PROTECTION.
- ELECTRIC DISCHARGE PROTECTION.
- TOTAL LUMINAIRE EFFICIENCY TO 120 LUMEN/W.
- Power factor **PF>0.95**.
- 220-240VAC 50Hz Input voltage.
- HIGH EFFICIENCY.
- Operating temperature -15 a +40 °C.

#### LAMPS NEW ORNAMENTAL LUMINAIRES

#### LAMPS VILLA





#### DIMMING OR AUTONOMOUS LIGHTING CONTROL

We have a standalone dimming solution, consisting of a pre-programmed controller on each lamppost.

More information on page19 (ATMOSLED Series).

					011 - 70	- 001-2,2007 2,7007 3,000	., .,	
LAMPS <b>VILLA</b>	REFERENCES (1)	Nº LEDs	WEIGTH	L	OPERATING CURRENT	TOTAL POWER CONSUMPTION [±8%]	LUMINOUS FLUX (4.000K )	WORKING LIFE <sup>(2)</sup>
			(kg)	(mm)	(mA)	(W)	(lm)	(h)
31W	630701xxxxxxxx	12	9.5	410x815	700	31	3,720 without diffuser	>100,000
39W	630711xxxxxxx	12	9.5	410x815	500	39	4,956 without diffuser	>100,000
57W	631701xxxxxxxx	24	10.3	410x815	700	57	6,930 without diffuser	>100,000

#### CRI = 70\* - CCT=2.200 / 2.700 / 3.000 / 4.000 / 5.000K - FHS<0.1% - PF>0.95

Working environment temperature should be in the -15 to 40°C range.

\*

On demand: CRI>80.

(1) Reference breakdown example: page 50.

(2) L80 B10 A  $25^{\circ}$ C for a working environment temperature of 25°C.

Estimated working life of the luminaire:

L: Luminous flux maintenance.

B: Probability of luminous flux loss

LxBy for a given number of hours and a given ambient temperature  $\ 25^{o}\text{C}.$ 

Indicates the time when the flux level of y% of the  $\mathsf{LED}$ population used for a given type of luminaire is likely to be below x%.

#### LAMPS FERNANDINA





#### DIMMING OR AUTONOMOUS LIGHTING CONTROL

We have a standalone dimming solution, consisting of a pre-programmed controller on each lamppost.

More information on page19 (ATMOSLED Series)..

								,	170 117 0170
LAMPS <b>FER-</b> NANDINA	REFERENCES <sup>(1)</sup>	N° LEDs	WEIGTH	L	OPERATING CURRENT	TOTAL POWER CONSUMPTION [±8%]	LUMINOUS FLUX (4.000K)	WORKING LIFE <sup>(2)</sup>	
				(kg)	(mm)	(mA)	(W)	(lm)	(h)
31	w	630702xxxxxxx	12	13.7	850x520	700	31	3,600 without diffuser	>100, 000
<b>4</b> 39		630712xxxxxxx	12	13.7	850x520	500	39	4,820 without diffuser	>100,000
57	w	631702xxxxxxx	24	14.5	850x520	700	57	6,720 without diffuser	>100,000

#### CRI = 70\* - CCT=2.200 / 2.700 / 3.000 / 4.000 / 5.000K - FHS<0,1% - PF>0,95

 Working environment temperature should be in the -15 to 40°C range.

\* On demand: CRI>80.

- (1) Reference breakdown example: page 50.
- (2) L80 B10 A 25°C for a working environment temperature of 25°C.

Estimated working life of the luminaire:

L: Luminous flux maintenance.

B: Probability of luminous flux loss

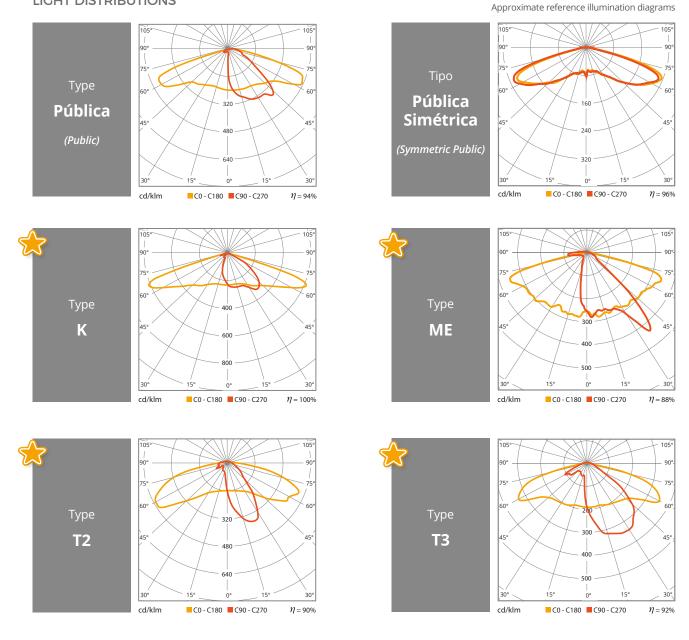
LxBy for a given number of hours and a given ambient temperature  $\,25^{\rm o}{\rm C}.$ 

Indicates the time when the flux level of y% of the LED population used for a given type of luminaire is likely to be below x%.



#### **LAMPS** NEW **ORNAMENTAL** LUMINAIRES

#### LIGHT DISTRIBUTIONS



#### REGULATION

EN 60598-1:2015 + A1:2018 EN 60598-2-3:2003 + A1:2011 EN 62471:2008 EN 62031:2008 + A1:2013 + A2:2015 EN 62493:2015 EN 55015:2013 + A1:2015 EN 61547:2009 EN 61000-3-2:2014 EN 61000-3-3:2013 TESTS PERFORMED IN A LABORATORY CERTIFIED BY A ACCREDITED ENTITY IN EUROPE





 **RETROFIT** is the direct replacement of old lighting technologies with newer, more efficient ones, using previous installations.

This lighting system is appropriate in cases where a balance is required between taking advantage of the new lighting technologies and making the most out of existing resources, thus achieving significant implementation savings.

#### ADVANTAGES

- WIDE RANGE OF COLOUR TEMPERATURES
   From ultra warm white to cool white
- 3,000, 4,000 or 5,000K
- + 2,200K (Ultra warm white)
- INDIVIDUAL OUTPUTS FOR EACH LED CIRCUIT They ensure the same current flows across all

LEDs at all times.

 DIMMING OR LIGHTING LEVEL CONTROL Optimizes energy savings.

- LIGHT POLLUTION PREVENTION No light is emitted to the upper hemisphere.
- MULTIPLE MOUNTING OPTIONS It can be installed in virtually any existing luminaire, thanks to the four adaptable frames.
- VERSATILE FINISH Multiple finishes, optionally in anodized aluminium or lacquered in any colour in the RAL range.

#### CHARACTERISTICS

- Adaptable to any classical shape luminaire.
- LED, an efficiency up to 190 lumen/W.
- Sealed **IP67** optical part.
- LED module protection up to IK10
- Multiple photometric distributions
- **6063 T5 aluminium anodized sink**, to ensure an appropriate system thermal management.
- SELV output voltage. Ensures safety regardless of the quality of the installations.

- Class II electric insulation.
- Total module efficiency, taking into account the losses in the drivers, reaches 140 lumen/W.
- Optionally, they can be manufactured in anodized aluminium or lacquered in any colour in the RAL range..
- Power factor PF > 0.95.
- Optionally, the base plate can be custom adjusted.
- Equipped with overheating protection.



On demand: CRI>80.

(1) Reference breakdown example: page 50.

[2] L80 B10 A 25°C for a working environment

temperature of 25°C.

L: Luminous flux maintenance.

B: Probability of luminous flux loss

RAL

temperature 25°C.

**IP67** 

IK10

RoHS

SELV

MADE IN

Indicates the time when the flux level of y% of the LED population used for a given type of luminaire is likely to be below x%.

# DIMMING OR AUTONOMOUS LIGHTING CONTROL

We have a standalone dimming solution, consisting of a pre-programmed controller on each lamppost.

More information on page19 (ATMOSLED Series).

# REMOTE CONTROL OPTION

Range with flexibility to be installed with point-to-point connectivity nodes

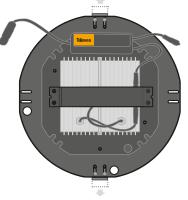
More information on page 18 (Serie **ATMOS**LED N).

# **RETRO**FIT ACCESSORIES

For the **RETROFIT** to be carried out, a frame appropriate for the specific lamppost type is required.

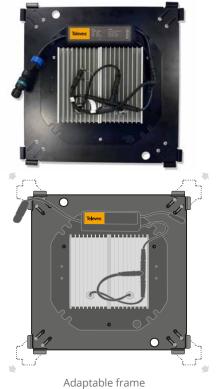
Frame for "Fernandina" lamppost





Adaptable frame

6902020010 (290 x 326mm) 6902020020 (326 x 353mm) 6902020030 (353 x 395mm) 6902020040 (371 x 412mm) 6902020050 (412 x 454mm) Televes' frames are adaptable in size, thus serving a wide range of lamppost sizes.



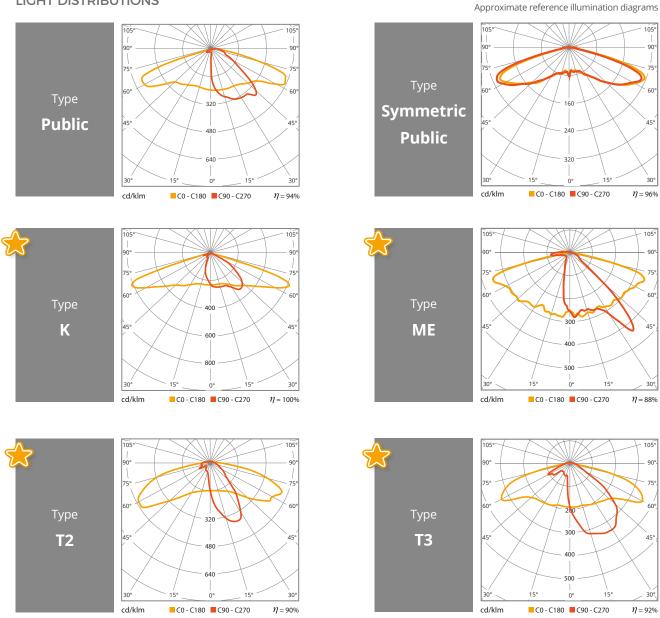
Frame for "Villa" lamppost

▲ 6902010010 (290 x 326mm) 6902010020 (326 x 353mm) 6902010030 (353 x 395mm) 6902010040 (371 x 412mm) 6902010050 (412 x 454mm)



# **RETROFIT** CHANGE TO LED LIGHTING

#### LIGHT DISTRIBUTIONS



# REGULATION

EN 62471:2008 EN 62031:2008 + A1:2013 + A2:2015 EN 62493:2015 EN 55015:2013 + A1:2015 EN 61547:2009 EN 61000-3-2:2014 EN 61000-3-3:2013

TESTS PERFORMED IN A LABORATORY CERTIFIED BY A ACCREDITED ENTITY IN EUROPE



# \*LEDFLOODLIGHTS

00

OUTDOOR AND INDOOR LED LIGHTING

**Televes** 

**FLOODLIGHTS**. The ideal range for areas where the light management and addressing accurately is important.

This lighting system offer a perfect eficiency for any types of sports areas and large areas, from stadiums and big areas to small enclosures.

# **ADVANTAGES**

- WIDE RANGE OF COLOUR TEMPERATURES
  - From ultra warm white to cool white
  - 3,000, 4,000 or 5,000K
     (On demand 2,200 8,000K).
- MINIMIZES MAINTENANCE COSTS Long workin life.
- WIDE RANTE OF OPERATING TEMPERATURES Floodlights: from -20°C to 40°C. MAXI Floodlights: from -30°C to 40°C.
- MULTIPLE MOUNTING OPTION Can be adapted to multiple anchoring systems and positions. Available accesories
- QUICK RETURN ON INVESTMENT
- LONG WORKING LIFE L80B10 ≥ 100,000h.
- EASY CONNECTION No need open the luminaire for its installation

# CHARACTERISTICS

- LED efficiency up to 190 lumen/W.
- ∎ **IP67**.
- IK10 protection.
- Multiple photometric distributions.
- **6063 T5 aluminium anodized**, to ensure an appropriate system thermal management.
- Total module efficiency, taking into account the losses in the drivers reaches 150 lumen/W.

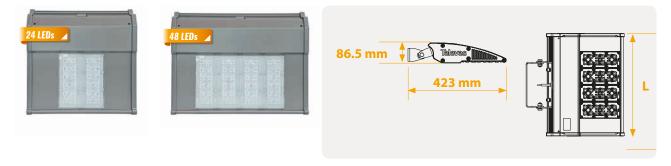
- Class I electric insulation (MAXI Floodlights).
- Class II electric insulation (Floodlights).
- Optionally, lacquered in any colour in the RAL range.
- Power factor PF>0.95.
- Equipped with overheating protection



# **Televes**

# FLOODLIGHTS OUTDOOR AND INDOOR LED LIGHTING





#### CRI = 70\* - CCT=2,200 / 2,700 / 3,000 / 4,000 / 5,000K - FHS<0.1% - PF>0.95

FLOODLIGHTS	REFERENCES <sup>(1)</sup>	No. LEDs	WEIGTH (kg)	L (mm)	OPERATING CURRENT (mA)	TOTAL POWER CONSUMPTION [±8%] (W)	LUMINOUS FLUX (4,000K) (lm)	WORKING LIFE <sup>(2)</sup> (h)
58W	671000xxxxxxx	24	7	340	700	58	8,968	>100,000
100W	673000xxxxxxxx	48	9,4	388	700	100	15,984	>100,000

- Working environment temperature should be in the -20° to 40°C range.

Estimated working life of the luminaire: L: Luminous flux maintenance.

B: Probability of luminou

Reference breakdown example: page 50.
 I oo P10 A 0500 f

On demand : CRI > 80.

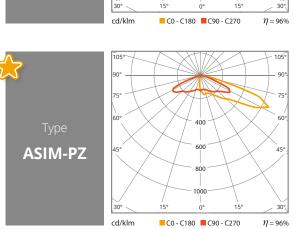
(2) L80 B10 A 25°C for a working environment temperature of 25°C.

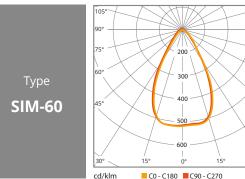
 
 uminaire:
 LxBy for a given number of hours and a given ambient temperature, usually 25°C.

Probability of luminous flux loss.

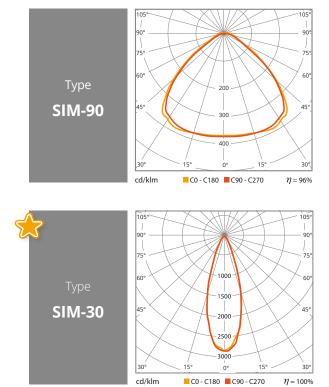
Indicates the time when the flux level of y% of the LED population used for a given type of luminaire is likely to be below x% .

\*





LIGHT DISTRIBUTIONS



Approximate reference illumination diagrams



# FLOODLIGHTS OUTDOOR AND INDOOR LED LIGHTING







#### CRI = 70\* - CCT=2,200 / 2,700 / 3,000 / 4,000 / 5,000K - FHS<0.1% - PF>0.95

<b>MAXI</b> FLOODLIGHTS	REFERENCES <sup>(1)</sup>	No. LEDs	WEIGTH (kg)	L (mm)	OPERATING CURRENT (mA)	TOTAL POWER CONSUMPTION [±8%] (W)	LUMINOUS FLUX (4,000K) (lm)	WORKING LIFE <sup>(2)</sup> (h)
150W	673100xxxxxxx	48	6,9	330	500	150	22,500	>100,000
196W	675100xxxxxxx	72	8,5	405	450	196	29,400	>100,000

- Working environment temperature should be in the -20° to 40°C range.

\* On demand : CRI > 80.

(1) Reference breakdown example: page 50.

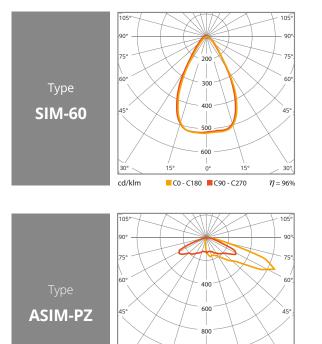
(2) L80 B10 A 25°C for a working environment temperature of 25°C.

Estimated working life of the luminaire: L: Luminous flux maintenance.

B: Probability of luminous flux loss.

LxBy for a given number of hours and a given ambient temperature, usually 25°C.

Indicates the time when the flux level of y% of the LED population used for a given type of luminaire is likely to be below x%.



cd/klm

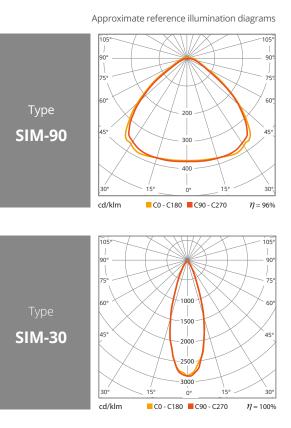
1000

0

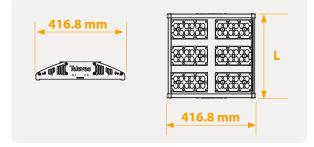
C0 - C180 C90 - C270

 $\eta$  = 96%

LIGHT DISTRIBUTIONS







# MOUNTING OPTIONS

EMBEDDED SUPPORT

# WALL SUPPORT CI

CROSS SUPPORT

# FLOODLIGHTS OUTDOOR AND INDOOR LED LIGHTING

# **APPLICATION EXAMPLES**

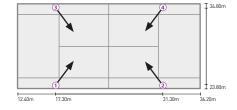
The Televes Maxi Floodlights are a large investment in order to optimise sport facilities powerfully.

Their high performance and range of lenses allow us to meet the regulatory requirements of this type of installations with the lowest energy consumption.



## **CLASS III**

- Local competitions, training, amateur and academic use
- Average efficiency: 200 lux
- Average uniformity: 0.5
- No. of floodlights: 4 (200W)

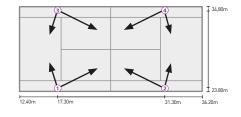


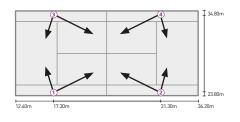
#### **CLASS II**

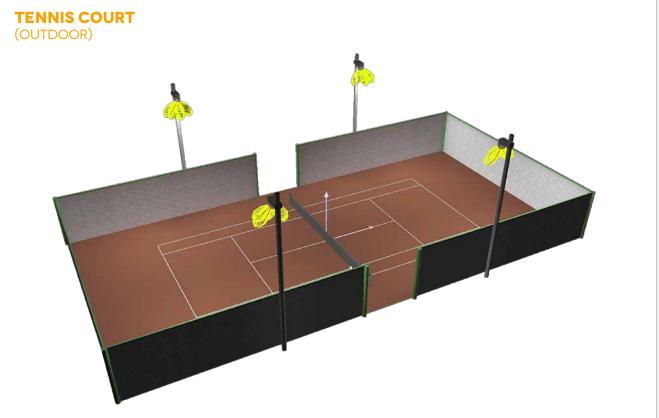
- Regional competitions, high level training
- Average efficiency: 300 lux
- Average uniformity: 0.7
- No. of floodlights: 8 (150W)

#### **CLASS I**

- National and international competitions
- Average efficiency: 500 lux
- Average uniformity: 0.7
- No. of floodlights: 8 (200W)







## **CLASS III**

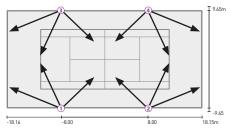
- Local competitions, training, amateur and academic use
- Average efficiency: 200 lux
- Average uniformity: 0.6
- No. of floodlights: 12 (200W)

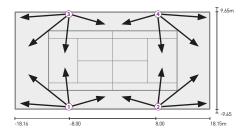
#### **CLASS II**

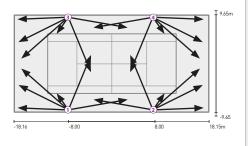
- Regional competitions, high level training
- Average efficiency: 300 lux
- Average uniformity: 0.7
- No. of floodlights: 16 (200W)

#### **CLASS I**

- National and international competitions
- Average efficiency: 500 lux
- Average uniformity: 0.7
- No. of floodlights: 28 (200W)









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EEWERD | NEOWERDER

# CHARACTERISTICS

- 12 LEDs beacon for path and pedestrian areas' lighting.
- Made of an extruded lacquered aluminium profile, RAL 7011 grey colour.
- Two heights available: 300 and 500 mm.
- Tightness of the optical block: IP65.
- Nominal voltage: 220 240 VAC.
- Working temperature: -20 35 °C.
- Upper hemispherical flux < 0.1%.
- Power factor > 0.95.
- Colour temperature: 3,000 or 4,000 K.





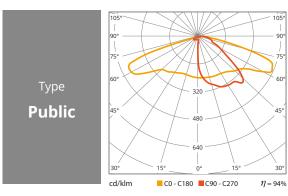
## CRI = 70\* - CCT=2,200 / 2,700 / 3,000 / 4,000 / 5,000K

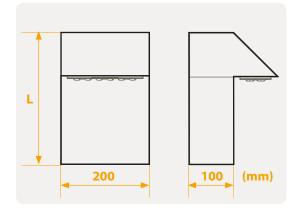
PATHLED	No. of LEDs	WEIGTH	L	OPERATING CURRENT	VOLTAGE	POWER [±8%]	LUMINOUS FLUX
		(kg)	(mm)	(mA)	(V)	(W)	(lm)
	12	4.32	300 / 500	300	36	12.5	1,555.2

\* On demand : CRI > 80.

# LIGHT DISTRIBUTIONS

Approximate reference illumination diagrams





#### **REFERENCE BREAKDOWN EXAMPLE**

# **680500 01 30 01 01**

# Series

# 680500

ATMOSLED 5	
601500	ATMOSLED 5 24 LED 39W
602500	ATMOSLED 5 36 LED 58W
603500	ATMOSLED 5 48 LED 80W
604500	ATMOSLED 5 60 LED 95W
605500	ATMOSLED 5 72 LED 120W
ATMOSLED 7	
610500	ATMOSLED 7 12 LED 26W
611500	ATMOSLED 7 12 LED 28W
612500	ATMOSLED 7 36 LED 85W
613500	ATMOSLED 7 48 LED 100W
ATMOSLED N	
680500	ATMOSLED N 12 LED 39W
681500	ATMOSLED N 24 LED 58W
682500	ATMOSLED N 36 LED 78W
683500	ATMOSLED N 48 LED 108W
ATMOSLED E	
680300	ATMOSLED E 12 LED 39W
681300	ATMOSLED E 24 LED 58W
682300	ATMOSLED E 36 LED 78W
683300	ATMOSLED E 48 LED 108W
INNERLED	
623500	INNERLED 48 LED 80W
625500	INNERLED 72 LED 130W
627500	INNERLED 96 LED 210W
LAMPS	• • • • • • • • • • • • • • • • • • • •
630701	LAMP VILLA 12 LED 31W
630711	LAMP VILLA 12 LED 39W
630702	LAMP FERNANDINA 12 LED 31W
630712	LAMP FERNANDINA 12 LED 39W
631701	LAMP VILLA 24 LED 57W
631702	LAMP FERNANDINA 24 LED 57W
RETROFIT	
630500	RETROFIT 12 LED 31W
630511	RETROFIT 12 LED 39W
631500	RETROFIT 24 LED 57W
FLOODLIGHTS	
671000	FLOODLIGHT 24 LED 58W
673000	FLOODLIGHT 48 LED 100W
673100	FLOODLIGHT MAXI 48 LED 150W
675100	FLOODLIGHT MAXI 72 LED 196W
-/0100	



# **680500** 01 30 01 01

The last 8 digits of each reference will depend on the requested configuration for the luminaire.

Taking accout of the Dimming, the colour temperature, the optic and the chassis where the luminaire is mounted as well as the chassis colour.

# **REDCOMERCIAL**

# **Televes**<sup>®</sup>



# PASSION for QUALITY

#### SPAIN (HEAD OFFICE)

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LAS PALMAS Gral. Mas de Gaminde, 26 35006 Las Palmas 28° 7' 55.884" N, 15° 26' 1.356" W +34 902686407 Τ. +34 928231366 F laspalmas@televes.com

MADRID Paseo los Pontones, 11 28005 Madrid 40° 24' 22.5576" N, 3° 42' 46.35" W +34 902686416 Τ. +34 914745421 F. madrid@televes.com

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