

# Ledstrip

# LIGHTWAVES

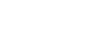


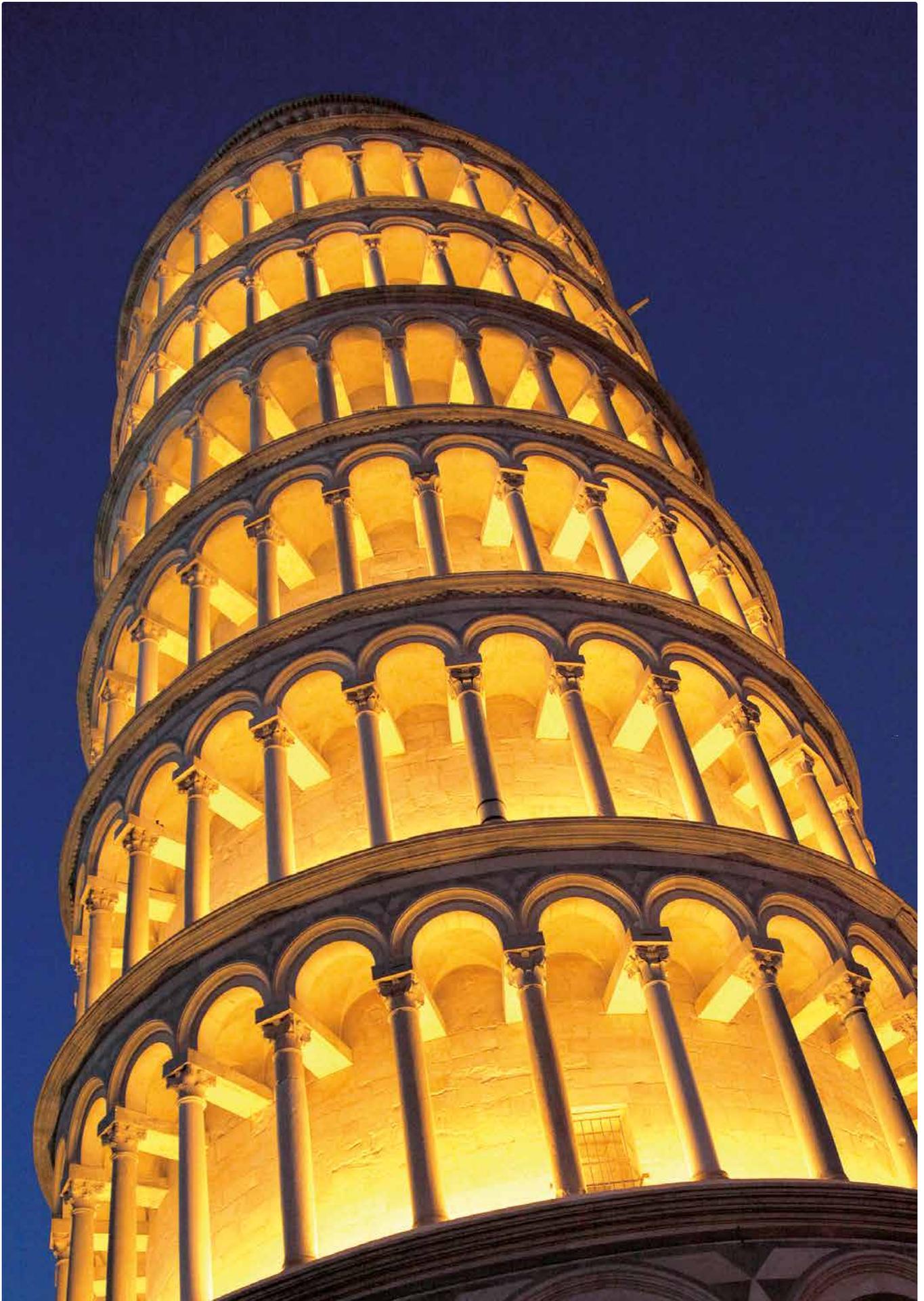
**TARGETTI**

# LIGHTWAVES



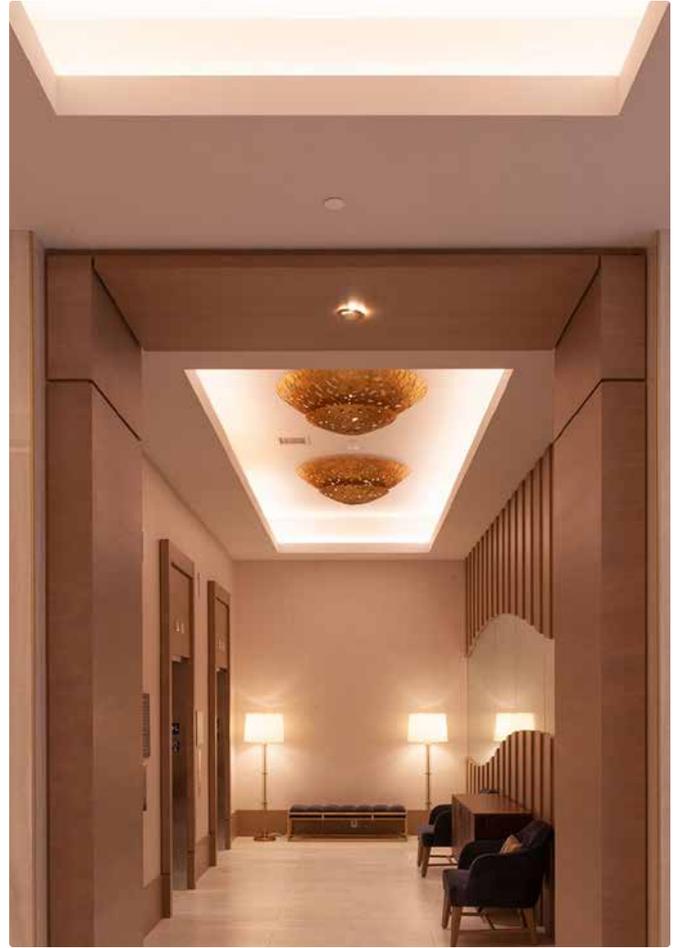
Lightwaves is the new range of striped with high luminous efficiency, high color rendering, made with very high quality materials. They are indicated where real technical lighting is required. They are characterized by a close distance of the individual LEDs, different types of beam opening and different powers. IP20 versions available for indoor spaces and IP65/IP68 for outdoor spaces. To be completed with power supply and a dissipating profile for installation.

								
Recessed	Surface	Diffused	Grazing	Wall Washer	2700K	3000K	3500K	4000K
<b>INSTALLATION</b>		<b>LIGHT</b>			<b>COLOUR TEMPERATURE</b>			
								
On-Off	Casambi	Dali	1-10V Dimming	24V				
<b>CONTROL</b>		<b>POWER SUPPLY</b>						
								
IP20	IP65	IP68	Custom cut					
<b>PROTECTION RATING</b>			<b>ON REQUEST</b>					





**Very high colour rendering**  
An high colour rendering ( $Ra > 90$ ) is indispensable in prestigious projects, environments with particular uses, museum installations...



**Colour precision and colour constancy**  
High quality LED sources with the Bin centred on the Planck curve with a 2 to 5 MacAdam steps tolerance, depending on the model, on all production lots.  
No color shift during service life due to low drive current, excellent thermal management and effective production line control.



**Long life L70 – 50000H**  
Dual track substrate: lower current on each circuit allows for lower temperatures resulting in reduced voltage drop over the length. Improved thermal management ensures longer LED life, maximizing performance and color quality over time.



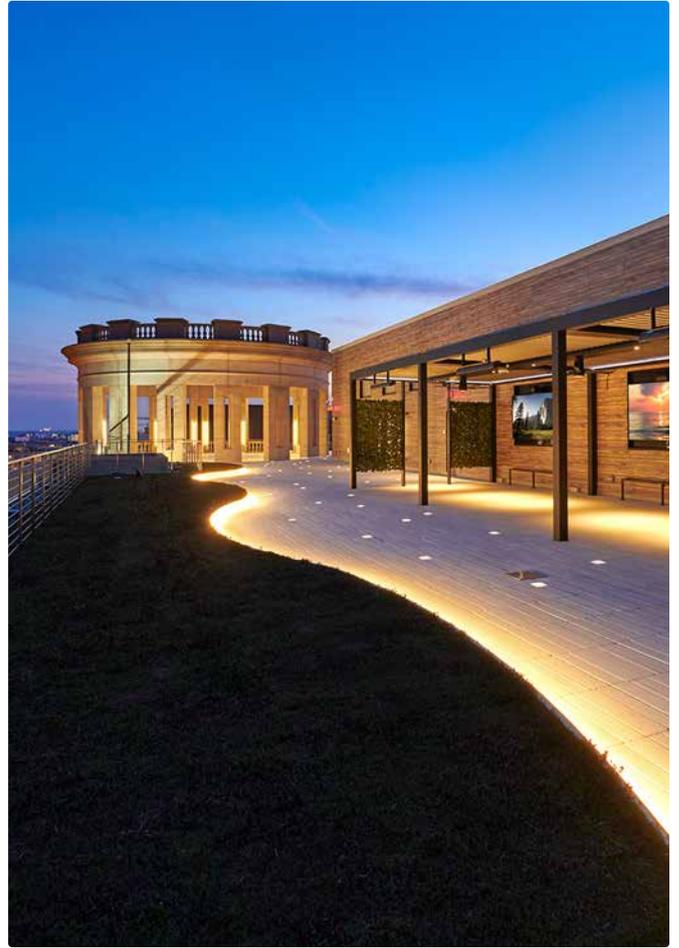
**High quality of light for IP65 and IP68 versions**

Lightwaves IP68 are produced with extrusion technology: the high quality materials used make it possible to maintain the same light colour between IP20, IP65 and IP68.



**Dimmable from 0 to 100%**  
Easy to control light with the most common dimming systems

- DALI
- DMX
- Domotics control
- Push DALI with control ZKCAFF
- CASAMBI compatible



**Aluminium profiles for any lighting installation**

Dissipating metal profiles with different geometries based on the type of installation required: surface, recessed, corner.

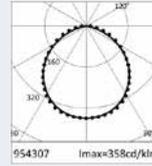
TYPE	DESCRIPTION	CHARACTERISTICS
PRO240	 <p>Striped suitable for installation at great heights without the effect of dots thanks to the very narrow pitch of the LEDs. It guarantees high performance and extreme uniformity and reliability of the color.</p>	<p>Ra&gt;95 ANSI/SDCM: 3 step L70B20 Duration 50.000h Dimmable 0-100% DALI - DMX - 1-10V</p>
PRO EVO	 <p>Version characterized by the very high efficiency equal to 140lm/W. Usable in any project, it guarantees excellent energy savings in residential or commercial contexts.</p>	<p>140lm/W ANSI/SDCM: 3 step L70B20 Ra&gt;92 Duration 60.000h Dimmable 0-100% DALI - DMX - 1-10V</p>
HIGH EFFICIENCY	 <p>The High Efficiency line is characterized by excellent quality, reliability, high color rendering, excellent white uniformity, resistance, long life and great energy savings! A high efficiency range to meet the needs of large professional projects. They are suitable for general lighting applications.</p>	<p>180lm/W Ra&gt;92 ANSI/SDCM: 3 step L70B20 Duration 50.000h Dimmable 0-100% DALI - DMX - 1-10V</p>
GRAZING	 <p>Striped with grazing light effect thanks to the optics positioned on each individual LED. Suitable where you want to emphasize the texture of a wall. To be installed a few centimeters from the wall, it allows you to obtain a slight three-dimensionality that totally changes the reading of the illuminated surface. The product is sealed to guarantee a high degree of Ingress Protection (IP67).</p>	<p>Ra&gt;90 ANSI/SDCM: 3 step L70B20 Duration 30.000h Dimmable 0-100% DALI - DMX</p>
WALL WASHER	 <p>By utilising an asymmetric reflector, the light is directed across the vertical surface, the efficiency of the LED's power is maximised to provide a uniform wall washer effect of light. The product is sealed to guarantee a high degree of Ingress Protection (IP67).</p>	<p>Ra&gt;90 ANSI/SDCM: 3 step L70B20 Duration 30.000h Dimmable 0-100% DALI - DMX</p>

**PERFORMANCE**

**IP INSULATION**

240LED/m - 14W/m - 1330lm/m\*  
 240LED/m - 19W/m - 1710lm/m\*  
 240LED/m - 24W/m - 2090lm/m\*

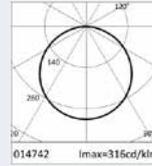
IP20 - IP65



240LED/m - 24W/m - 3260lm/m\*  
 240LED/m - 22W/m - 2835lm/m\*

IP20

IP68

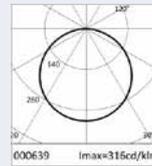


128LED/m - 11,5W/m - 2060lm/m\*  
 160LED/m - 14,4W/m - 2580lm/m\*  
 240LED/m - 21,6W/m - 3875lm/m\*

IP20

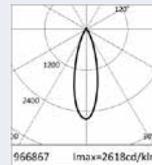
128LED/m - 11,5W/m - 1955lm/m\*  
 160LED/m - 14,4W/m - 2450lm/m\*  
 240LED/m - 21,6W/m - 3685lm/m\*

IP68



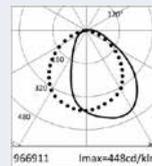
42LED/m - 19,2W/m - 1800lm/m\*

IP67



30LED/m - 19,2W/m - 1450lm/m\*

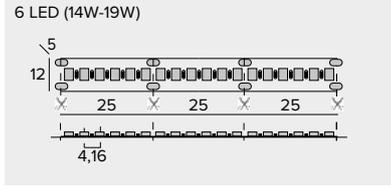
IP67



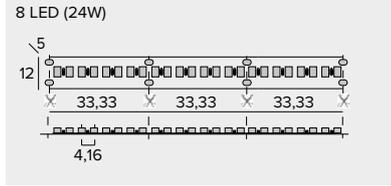
\* Flux values refer to 3000K color temperature.

## LIGHTWAVES PRO240 IP20

24Vdc | Ra>95 | Fixture flux 3000K from 1330lm/m to 2090lm/m | 5000mm reel



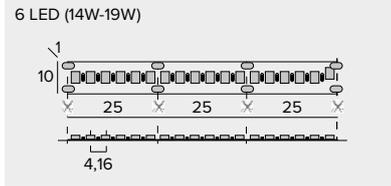
Product	Ra+K	Power	IP
L001	<b>927</b> Ra>95 2700K	<b>14</b> 14W/m - 1330lm/m	<b>20</b> IP20
	<b>930</b> Ra>95 3000K	<b>19</b> 19W/m - 1710lm/m	
	<b>935</b> Ra>95 3500K	<b>24</b> 24W/m - 2090lm/m	
	<b>940</b> Ra>95 4000K		



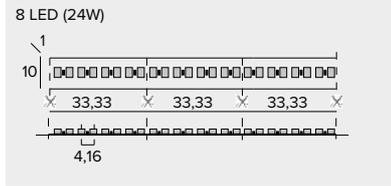
**Note** IP20: terminals with free wires.  
 Maximum connection length 5 m.  
 For longer connections, connect in series or parallel.  
 Strips can be cut to size by following the cutting instructions printed on the strips.  
 Related codes and accessory codes on page 13, 15.

## LIGHTWAVES PRO240 IP65

24Vdc | Ra>95 | Fixture flux 3000K from 1330lm/m to 2090lm/m | 5000mm reel



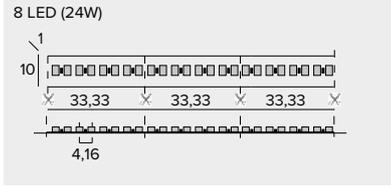
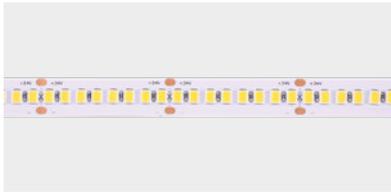
Product	Ra+K	Power	IP
L001	<b>927</b> Ra>95 2700K	<b>14</b> 14W/m - 1330lm/m	<b>65</b> IP65
	<b>930</b> Ra>95 3000K	<b>19</b> 19W/m - 1710lm/m	
	<b>935</b> Ra>95 3500K	<b>24</b> 24W/m - 2090lm/m	
	<b>940</b> Ra>95 4000K		



**Note** IP65: complete with a 15 cm long IP65/68 M/F cable on 2 sides.  
 Maximum connection length 5 m.  
 For longer connections, connect in series or parallel.  
 Strips can be cut to size by following the cutting instructions printed on the strips.  
 For IP65/IP68 strips restore the IP protection after cutting.  
 Related codes and accessory codes on page 13, 15.

### LIGHTWAVES PRO EVO IP20

24Vdc | Ra92 | Fixture flux 3000K 3260lm/m | 5000mm reel



Product	Ra+K	Power	IP
L004	<b>927</b> Ra92 2700K	<b>24</b> 24W/m - 3260lm/m	<b>20</b> IP20
	<b>930</b> Ra92 3000K		
	<b>935</b> Ra92 3500K		
	<b>940</b> Ra92 4000K		

**Note** See the installation instructions to connect the LED strips in series or parallel. Related codes and accessory codes on page 13, 15.

### LIGHTWAVES PRO EVO IP68

24Vdc | Ra92 | Fixture flux 3000K 2835lm/m | 5000mm reel



Product	Ra+K	Power	IP
L005	<b>927</b> Ra92 2700K	<b>22</b> 22W/m - 2835lm/m	<b>68</b> IP68
	<b>930</b> Ra92 3000K		
	<b>935</b> Ra92 3500K		
	<b>940</b> Ra92 4000K		

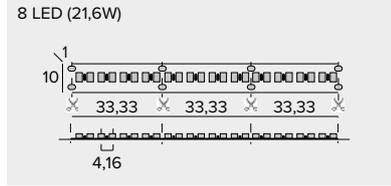
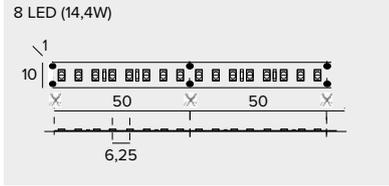
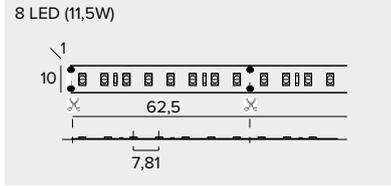
**Note** See the installation instructions to connect the LED strips in series or parallel. Related codes and accessory codes on page 13, 15.

## LIGHTWAVES HIGH EFFICIENCY IP20

24Vdc | Ra92 | Fixture flux 3000K from 2060lm/m to 3875lm/m | 5000mm reel



Product	Ra+K	Power	IP
L006	<b>927</b> Ra92 2700K	<b>11</b> 11,5W/m - 2060lm/m	<b>20</b> IP20
	<b>930</b> Ra92 3000K	<b>14</b> 14,4W/m - 2580lm/m	
	<b>935</b> Ra92 3500K	<b>21</b> 21,6W/m - 3875lm/m	
	<b>940</b> Ra92 4000K		



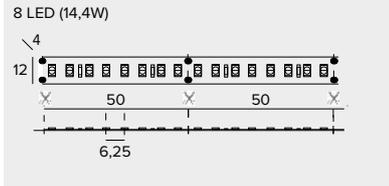
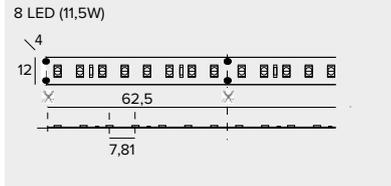
**Note** See the installation instructions to connect the LED strips in series or parallel. Related codes and accessory codes on page 13, 15.

## LIGHTWAVES HIGH EFFICIENCY IP68

24Vdc | Ra92 | Fixture flux 3000K from 1955lm/m to 3685lm/m | 5000mm reel



Product	Ra+K	Power	IP
L006	<b>927</b> Ra92 2700K	<b>11</b> 11,5W/m - 1955lm/m	<b>68</b> IP68
	<b>930</b> Ra92 3000K	<b>14</b> 14,4W/m - 2450lm/m	
	<b>935</b> Ra92 3500K	<b>21</b> 21,6W/m - 3685lm/m	
	<b>940</b> Ra92 4000K		



**Note** See the installation instructions to connect the LED strips in series or parallel. Related codes and accessory codes on page 13, 15.

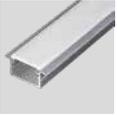
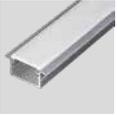
**Related codes and accessories**

**LIGHTWAVES PRO240 - PRO EVO - HIGH EFFICIENCY**

**Accessory codes**

**Profiles**

Dimensions LxHxP mm	Version	Code	Code	
	2000x12x16	PRAP20	<b>PRAP20-2MK</b>	<b>KTPRAP20</b>
	2000x13x21	PRAP68	<b>PRAP68-2MK</b>	<b>KTPRAP68</b>
		<p>6063 extruded aluminium profile complete with a white PC diffuser screen for surface installation. Can be used with LED strips with a maximum width of: 12 mm (PRAP20) and 15 mm (PRAP68). Maximum recommended power: 20W/m (PRAP20) and 25W/m (PRAP68). To house IP65 or IP68 strips the connectors remain outside the profile. Every 2 metre bar is complete with 1 set of end caps (with or without holes).</p>		 <p>Accessory kit for PRAP. Includes 10 supports, 5 end caps without holes and 5 end caps with holes.</p>

Dimensions LxHxP mm	Version	Code	Code	
	2000x12x24	PRIN20	<b>PRIN20-2MK</b>	<b>KTPRIN20</b>
	2000x13x29	PRIN68	<b>PRIN68-2MK</b>	<b>KTPRIN68</b>
		<p>6063 aluminium profile with a white PC screen for recessed installation. Can be used with LED strips with a maximum width of: 13 mm (PRIN20) and 17 mm (PRIN68). Maximum recommended power: 20W/m (PRIN20) and 25W/m (PRIN68). To house IP65 or IP68 strips the connectors remain outside the profile. Every 2 metre bar is complete with 1 set of end caps (with or without holes).</p>		 <p>Accessory kit for PRIN. Includes 10 supports, 5 end caps without holes and 5 end caps with holes.</p>

Dimensions LxHxP mm	Version	Code	Code	
	2000x19x19	PRAN20	<b>PRAN20-2MK</b>	<b>KTPRAN20</b>
	2000x24x24	PRAN68	<b>PRAN68-2MK</b>	<b>KTPRAN68</b>
		<p>6063 extruded aluminium profile complete with a white PC diffuser screen for corner surface installation. Can be used with LED strips with a maximum width of: 10 mm (PRAN20) and 14 mm (PRAN68). Maximum recommended power: 20W/m (PRAN20) and 25W/m (PRAN68). Every 2 metre bar is complete with 1 set of end caps (with or without holes).</p>		 <p>Accessory kit for PRAN. Includes 10 supports, 5 end caps without holes and 5 end caps with holes.</p>

**Mounting System**

Code
<b>A066</b>
 <p>Cutting and assembly kit for PRO240 - IP65. Includes 4 M/F connectors - a 15 cm cable and 10 silicone jumpers.</p>

## LIGHTWAVES WALL WASHER

24Vdc | Ra>90 | Fixture flux 3000K 1450lm/m | 5000mm reel

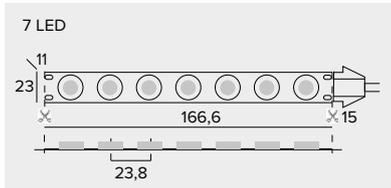


Product	Ra+K	Power	IP
L002	<b>927</b> Ra>90 2700K	<b>19</b> 19,2W/m - 1450lm/m	<b>67</b> IP67
	<b>930</b> Ra>90 3000K		
	<b>935</b> Ra>90 3500K		
	<b>940</b> Ra>90 4000K		

**Note** Complete with a 15 cm long M/F cable on 2 sides.  
 Maximum connection length 5 m. Max 4A.  
 Strips can be cut to size by following the cutting instructions printed on the strips.  
 Use the 2 PIN connectors included in the kit code A069 to connect strip lengths up to a maximum of 5 metres.  
 Related codes and accessory codes on page 14, 15.

## LIGHTWAVES GRAZING

24Vdc | Ra>90 | Fixture flux 3000K 1800lm/m | 5000mm reel



Product	Ra+K	Power	IP
L003	<b>927</b> Ra>90 2700K	<b>19</b> 19,2W/m - 1800lm/m	<b>67</b> IP67
	<b>930</b> Ra>90 3000K		
	<b>935</b> Ra>90 3500K		
	<b>940</b> Ra>90 4000K		

**Note** Complete with a 15 cm long M/F cable on 2 sides.  
 Maximum connection length 5 m. Max 4A.  
 Strips can be cut to size by following the cutting instructions printed on the strips.  
 Use the 2 PIN connectors included in the kit code A069 to connect strip lengths up to a maximum of 5 metres.  
 Related codes and accessory codes on page 14, 15.

### Related codes and accessories

#### LIGHTWAVES WALL WASHER - GRAZING

#### Accessory codes

#### Mounting System

	Code		Code
	<b>A069</b>		<b>A068</b>
Cutting and assembly kit for IP67 Strips. Includes 4 2 PIN connectors, 2 2 PIN male connector cables and 2 2 PIN female connector cables.		UV light for fast glue fixing.	

	Code
	<b>A067</b>
Kit of metal clips - 10 pcs.	

## Related codes and accessories

Lightwaves | Codes compatible with the whole range

### Related codes

#### Power Supply

	Dimensions LxHxP mm	Power	Power supply	Output voltage	IP	Code
	280x17x30	50W	110-260Vac	24 Vdc	IP20	SLD-50-24
	320x17x30	80W	110-260Vac	24 Vdc	IP20	SLD-80-24
Electronic power supply.						

	Dimensions LxHxP mm	Power	Power supply	Output voltage	IP	Code
	140x32x63	100W	100-240Vac	24 Vdc	IP67	XLG-100-24-A
	180x36x63	150W	100-240Vac	24 Vdc	IP67	XLG-150-24-A
	199x36x63	200W	100-240Vac	24 Vdc	IP67	XLG-200-24-A
	244x38x71	240W	100-240Vac	24 Vdc	IP65	ELG-240-24A-3Y
	252x44x90	320W	100-240Vac	24 Vdc	IP67	HLG-320H-24
	280x49x144	600W	100-240Vac	24 Vdc	IP67	HLG-600H-24A
Electronic power supply.						

	Dimensions LxHxP mm	Power	Power supply	Output voltage	IP	Code
	199x36x63	96W	200-260Vac	24 Vdc	IP67	ELG-100-24DA-3Y
	219x36x63	150W	200-260Vac	24 Vdc	IP67	ELG-150-24DA-3Y
	244x38x71	200W	200-260Vac	24 Vdc	IP67	ELG-200-24DA-3Y
	244x38x71	240W	200-260Vac	24 Vdc	IP67	ELG-240-24DA-3Y
DALI power supply.						

	Dimensions LxHxP mm	Power	Power supply	Output voltage	IP	Code
	200x42x70	80W	220-240Vac	24 Vdc	IP67	ZK7380-D
TRIAC dimmable power supply.						

### Accessory codes

#### Control systems

	Code		Code
	ZKCDAFF		ZKC1-10FF
	Two channel DALI controller.		Single channel 1-10V controller. Maximum current 8A.



**TARGETTI SANKEY Srl**  
Certificated ISO 9001 n° 9130. TAR1  
Certificated ISO 14001 n° IT319206

The Enec mark, ISO9001 and ISO14001 certifications and the CE marking all guarantee that the activities carried out internally in the company are governed and controlled by procedures which assure constant level of quality.

Accredited laboratory in accordance with ISO 17025.

### Requisites and information

All fixtures of the Targetti collection have been designed and produced to comply with European Standard EN60598-1 relative to the safety requisite of light fixtures.

#### DIRECTIVES EUROPEAN COUNCIL

All fixtures comply with the following directives:

- EMC Directive 2014/30/EU
- LV Directive 2014/35/EU
- RoHS Directive 2011/65/EU

### Unless specified otherwise

- all fixtures are supplied without lamps;
- all fixtures are sold separately;
- all measurements are expressed in millimeters;
- all fixtures at low voltage are supplied without transformer;
- For products in Class III performance is only guaranteed using the electronic power supplies and drivers indicated in the catalogue.



Targetti offers a five years warranty on the products that use LED light sources included in the Catalogues (unless otherwise specified).

The extension of guarantee does not apply to products with traditional light bulbs, to all the products for light management and control systems, both by Targetti and those by third parties, or to Targetti products fitted with 230V LED modules. For products fitted with traditional bulbs / LED bulbs, the warranty extension is valid only for the lighting product. The five years warranty is valid from the invoice date and covers any manufacturing and/or material defect found in products, if they are used in accordance with their intended use. The warranty terms are available on the Extension of guarantee.

### Consorzio ecolight

Targetti Sankey Srl is a member of the Ecolight consortium that was set up in 2004 (D.Lgs. 49/2014) to comply with the provisions of the European Directive that was adopted in Italy as the European Directive 2012/19/EU for WEEE on managing, recovering and treating waste electrical and electronic equipment, used batteries and accumulators in compliance with all applicable legislation.

The colors of the products illustrated are reproduced as faithfully as possible compatibly with the technical limitations of the printed medium.

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## Icons legend

	Class I luminaire in which the protection against electrical shock is guaranteed by the connections of the conductive elements accessible to a protective conductor (earth connection).
	Luminaire in which the connection to a protective conductor (earth connection) guarantees the immunity to radio noises.
	Class II luminaire (double insulation), protected against the accidental contact with parts under tension from the user.
	Class III luminaire, suitable for connection to very low voltage circuits.
	Solid particle and liquid ingress protection degree.
	Protection degree - Recessed part . Protection degree - Exposed part.
	Impact protection degree.
	ENEC European Norms Electrical Certification.

## Particular symbols

	Weight of the single fixture
	Cable length
	Walk-over
	Driver-over safe
	Fixtures that have parameters below the minimum visibility threshold $PstLM \leq 1$ and $SVM \leq 0.4$ (IEC TR 61547-1 and IEC TR 63158).
	Casambi with accessories
	Casambi ready
	DMX on board
	DBS (Dynamic Beam Shaping) optic system

## Light beam apertures

Optics	Optic description	from	to
NSP	Narrow Spot	5°	10°
SP	Spot	11°	21°
FL	Flood	22°	40°
MWFL	Medium Wide Flood	41°	50°
WFL	Wide Flood	51°	70°
VWFL	Very Wide Flood	71°	120°
WW	Wall Washer		
ASY	Asymmetric		
FW	Floor Washer		
ELL	Elliptical		
ELT	Elliptical Transversal		
AMB	Ambient		
OPL	Opal		
GRZ	Grazing		
UGR	UGR		
ZOOM	Zoom		
DBS	Dynamic Beam Shaping		

## Note

- Please contact us for on demand treatments and versions.
- The performances reported on the products refer to the use of the recommended drivers.
- The drivers selected by Targetti make the fixtures "Safe Flicker".

